

**(E) 1 CESR-c 7-POLE 40cm WIGGLER BEAMPIPE SHIELD, ASSEMBLY**

D-6070-011-01 & D-6070-011-02

SCALE: 1:2

QTY: 1 PER WIGGLER

NOTE:

1. SEE D-6070-011-02 FOR MORE DETAILS
2. PARTS ARE BOLTED TOGETHER WITH GOOD THERMAL CONTACT.

ITEM	DWG. NO.	DESCRIPTION	QUANTITY	REV.
8	D-6070-011-06	POST FOOT	8	
7		SST SOCKET HEAD SET SCREW 1/4-20 x 5/8	8	PURCHASED
6		SST FLAT HEAD SCREW #4-40x3/8	84	PURCHASED
5	D-6070-011-06	FIBERGLASS POST	8	SUPPLIED
4	D-6070-011-06	RADIATION SHIELD CONNECTION DISK (HALF)	4	
3	D-6070-011-05	BEAMPIPE SHIELD BAR	2	A
2	D-6070-011-04	BEAMPIPE SHIELD SHEET UNFOLDED	2	A
	D-6070-011-03	BEAMPIPE SHIELD SHEET		
1	D-6070-011-02	BEAMPIPE RADIATION SHIELD, ASSEMBLY	X	A
	D-6070-011-01			

SYN.	ZONE	DESCRIPTION	DATE	APP.
A		CORRECTED HOLE PATTERN AND BOM	4/19/02	KWS
B		ADDED INSPECTION 0.25 HOLES	4/19/02	KWS
C		ADDED ITEMS #9 & #10. SHIFTED HOLE LOCATION. ITEM 6 WAS SLOTTED FLAT COUNTED SCREW. DELETED NOTE OF MATERIAL.	4/17/02	YH

PRINT DISTR. CR-1  
 D 6070-011  
 SHEET NO. 1 CONT. ON 2  
 REV. C

UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES ON FRACTIONS ±1/64  
 ON DECIMALS ±0.005  
 ANGLES ±0.5°  
 ALL SURFACES

CHECKED BY Yun He  
 APPROVED BY Yun He

DRAWN BY YH / TMK E. Nordberg  
 DATE 01/11/02  
 SCALE 1:2

D 6070-011  
 SHEET NO. 1 CONT. ON 2  
 REV. C

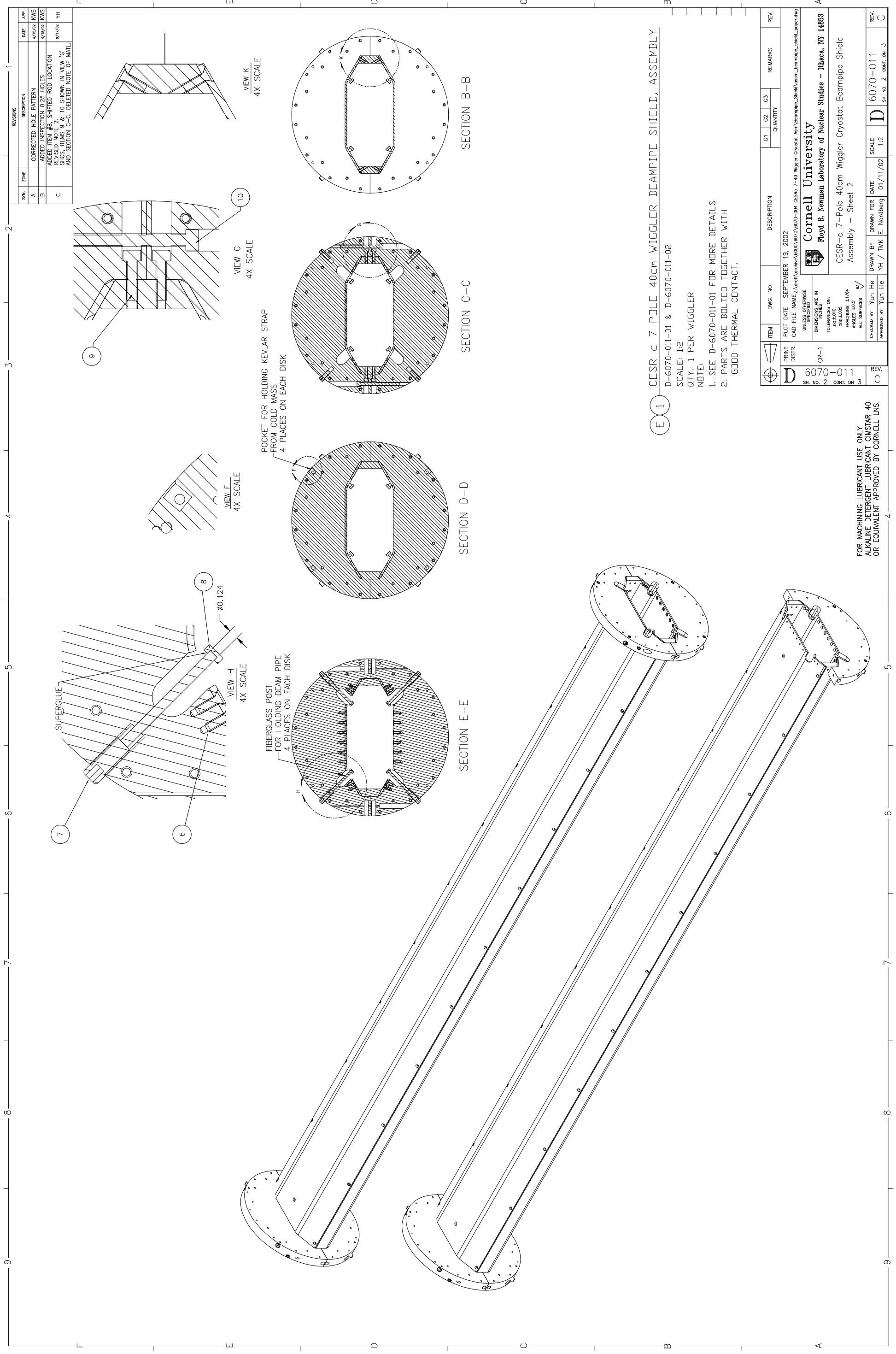
FOR MACHINING LUBRICANT USE ONLY  
 ALKALINE DETERGENT LUBRICANT CIMSTAR 40  
 OR EQUIVALENT APPROVED BY CORNELL LNS.

Cornell University  
 Floyd B. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853

CESR-c 7-Pole 40cm Wiggler Cryostat Beampipe Shield  
 Assembly - Sheet 1

DRAWN BY YH / TMK E. Nordberg  
 DATE 01/11/02  
 SCALE 1:2

D 6070-011  
 SHEET NO. 1 CONT. ON 2  
 REV. C



SYN.	ZONE	DESCRIPTION	DATE	APP.
A		CORRECTED HOLE PATTERN	4/15/02	KWS
B		ADDED INSPECTION 0.25 HOLES	4/15/02	KWS
C		ADDED ITEM #8, SHIFTED ROD LOCATION	4/15/02	KWS
		REVISED NOTE 7, 8, 10 SHOWN IN VIEW 'C'	4/15/02	YH
		REVISED NOTE 9, 10 SHOWN IN VIEW 'C'	4/15/02	YH
		AND SECTION C-C, DELETED NOTE OF MAIL	4/15/02	YH

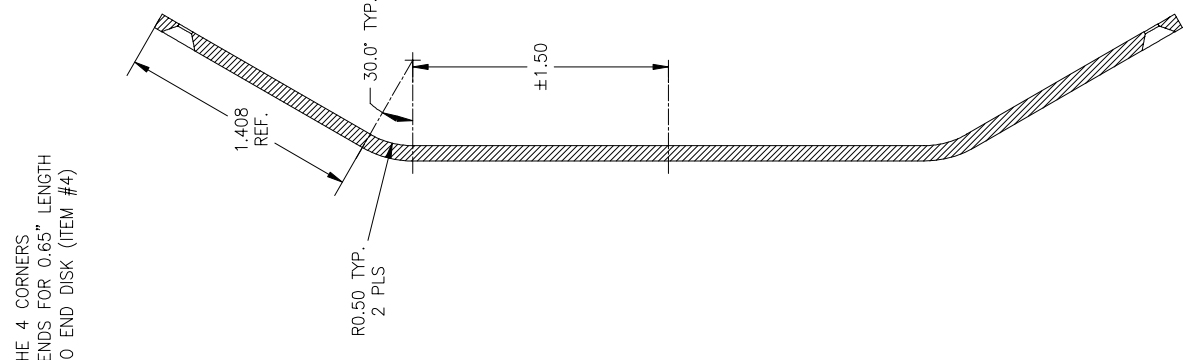
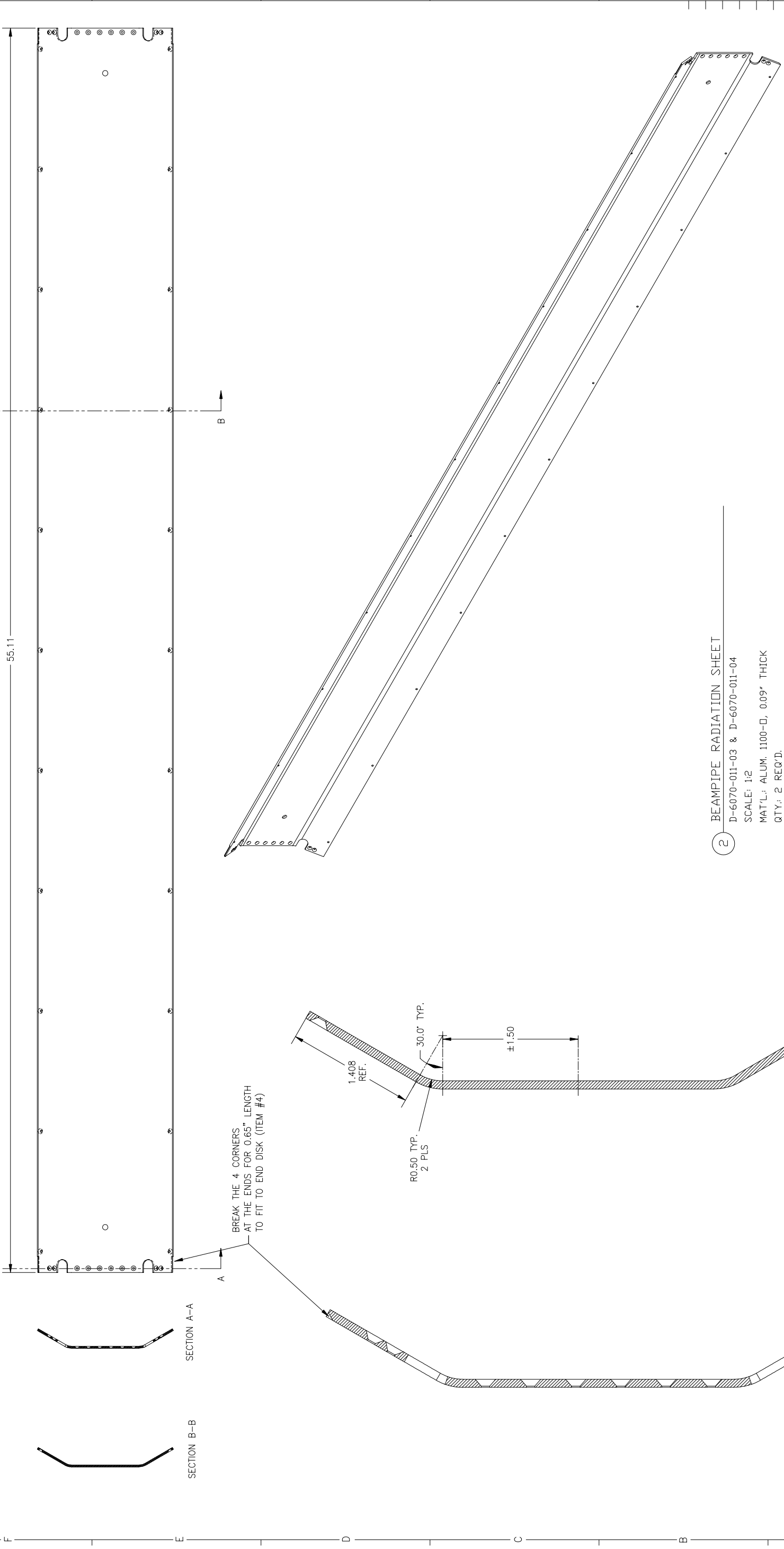
**E 1** CESR-c 7-POLE 40cm WIGGLER BEAMPIPE SHIELD, ASSEMBLY  
 D-6070-011-01 & D-6070-011-02  
 SCALE: 1:2  
 QTY: 1 PER WIGGLER  
 NOTE:  
 1. SEE D-6070-011-01 FOR MORE DETAILS  
 2. PARTS ARE BOLTED TOGETHER WITH GOOD THERMAL CONTACT.

ITEM	DWG. NO.	DESCRIPTION	QTY	G1	G2	G3	REMARKS	REV.
D	6070-011	CR-1						
E	6070-011							
F								
G								
H								
I								
J								
K								
L								
M								
N								
O								
P								
Q								
R								
S								
T								
U								
V								
W								
X								
Y								
Z								

PRINT DATE: SEPTEMBER 19, 2002	DESCRIPTION: CESR-c 7-Pole 40cm Wiggler Cryostat Beam Pipe Shield Assembly
CAD FILE NAME: Z:\work\cvs\6070\6070-004 CESR-c 7-40 Wiggler Cryostat Beam Pipe Shield (beam pipe shield).piper.dwg	
UNLESS OTHERWISE SPECIFIED:	
DIMENSIONS ARE IN INCHES	
TOLERANCES ARE:	
0.005 ± 0.005	
FRACTIONS: 1/4	
ANGLES: ±0.5	
ALL SURFACES	<input checked="" type="checkbox"/> R
CHECKED BY: Yun He	DRAWN BY: Yun He
APPROVED BY: Tim E. Nordberg	DATE: 01/11/02
SCALE: 1:2	REV: D
6070-011	6070-011
CONT. ON 3	CONT. ON 3

FOR MACHINING LUBRICANT USE ONLY  
 ALKALINE DETERGENT LUBRICANT CIMSTAR 40  
 OR EQUIVALENT APPROVED BY CORNELL LNS.

SYN.	ZONE	DESCRIPTION	DATE	APP.
A		ADDED INSPECTION 0.25 HOLES	4/18/02	KMS
B		SHIFTED C'SINK HOLES LOCATION, ZONE D9 ADDED OVERBALL LENGTH DIM. & REF. DIM. TO SECTION B-B DETAIL. MATL. WAS ALUM. 1100.	9/7/02	YH



(2) BEAMPIPE RADIATION SHEET  
 D-6070-011-03 & D-6070-011-04  
 SCALE: 1:2  
 MAT'L: ALUM. 1100-D, 0.09" THICK  
 QTY: 2 REQ'D.  
 NOTE:  
 1. HOLES AND SLOTS ARE MADE BEFORE THE SHEET IS BENT  
 2. SEE D-6070-011-04 FOR SHEET SIZE AND HOLES PATTERN BEFORE BENDING

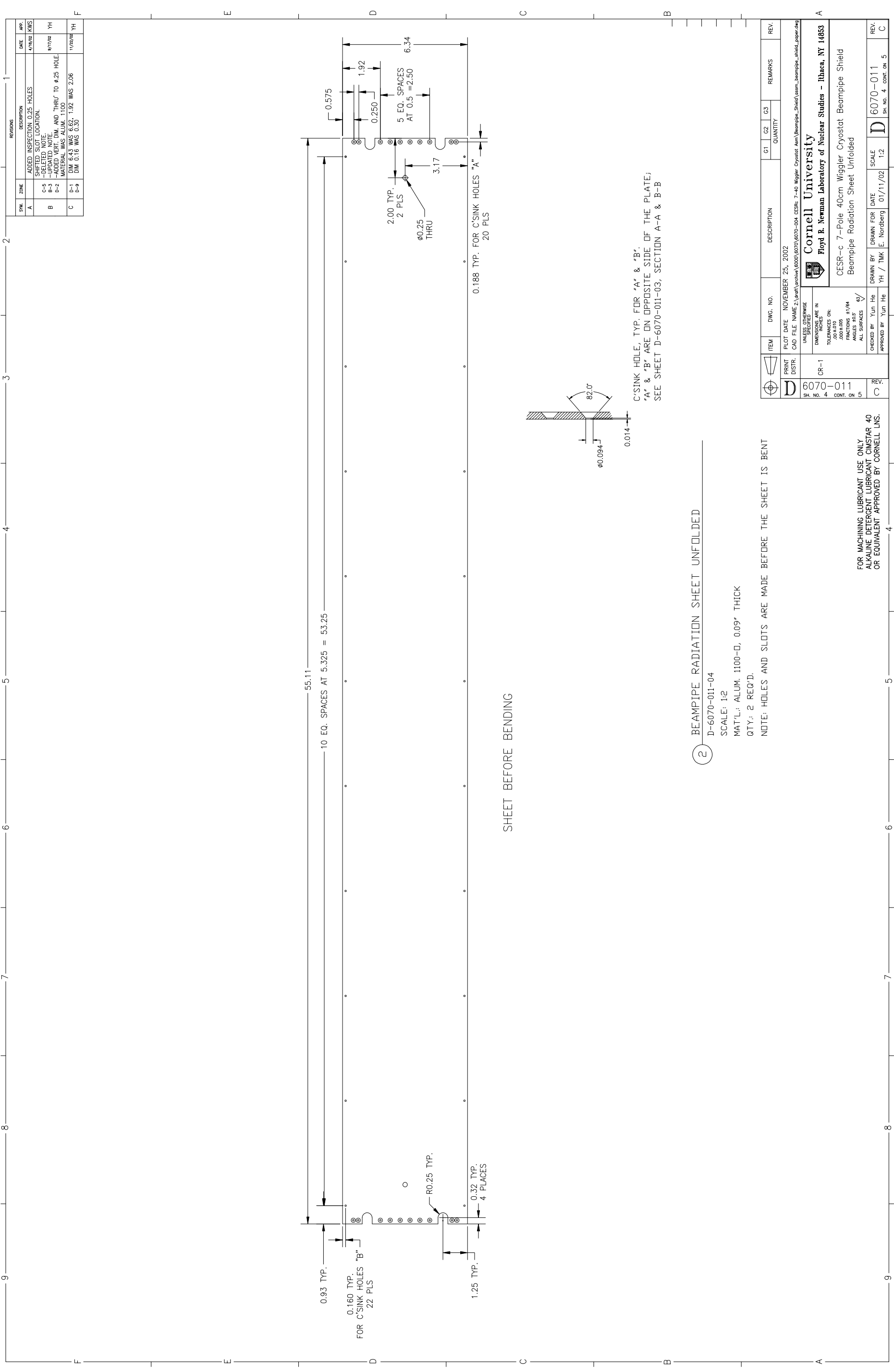
ITEM	DWG. NO.	DESCRIPTION	QUANTITY	REMARKS	REV.
PRINT DISTR.	6070-011	CR-1			
SH. NO.	4				
CONT. ON	4				
UNLESS OTHERWISE SPECIFIED					
DIMENSIONS ARE IN INCHES					
TOLERANCES ARE:					
FRACTIONS ±1/64					
DECIMALS ±0.005					
ANGLES ±0.5					
ALL SURFACES					
CHECKED BY Yuh He					
APPROVED BY Yuh He					
DATE	01/11/02				
SCALE	1:2				
REV.	D				
SH. NO.	3				
CONT. ON	4				

Cornell University  
 Floyd B. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853  
 CESR-c 7-Pole 40cm Wiggler Cryostat Beampipe Shield  
 Beampipe Radiation Sheet

DETAIL OF SECTION A-A  
 4 x SCALE

DETAIL OF SECTION B-B  
 4 x SCALE

FOR MACHINING LUBRICANT USE ONLY  
 ALKALINE DETERGENT LUBRICANT CIMSTAR 40  
 OR EQUIVALENT APPROVED BY CORNELL LNS.



SHEET BEFORE BENDING

2 BEAMPIPE RADIATION SHEET UNFOLDED

D-6070-011-04

SCALE: 1:2

MAT'L: ALUM. 1100-D, 0.09" THICK

QTY: 2 REQ'D.

NOTE: HOLES AND SLOTS ARE MADE BEFORE THE SHEET IS BENT

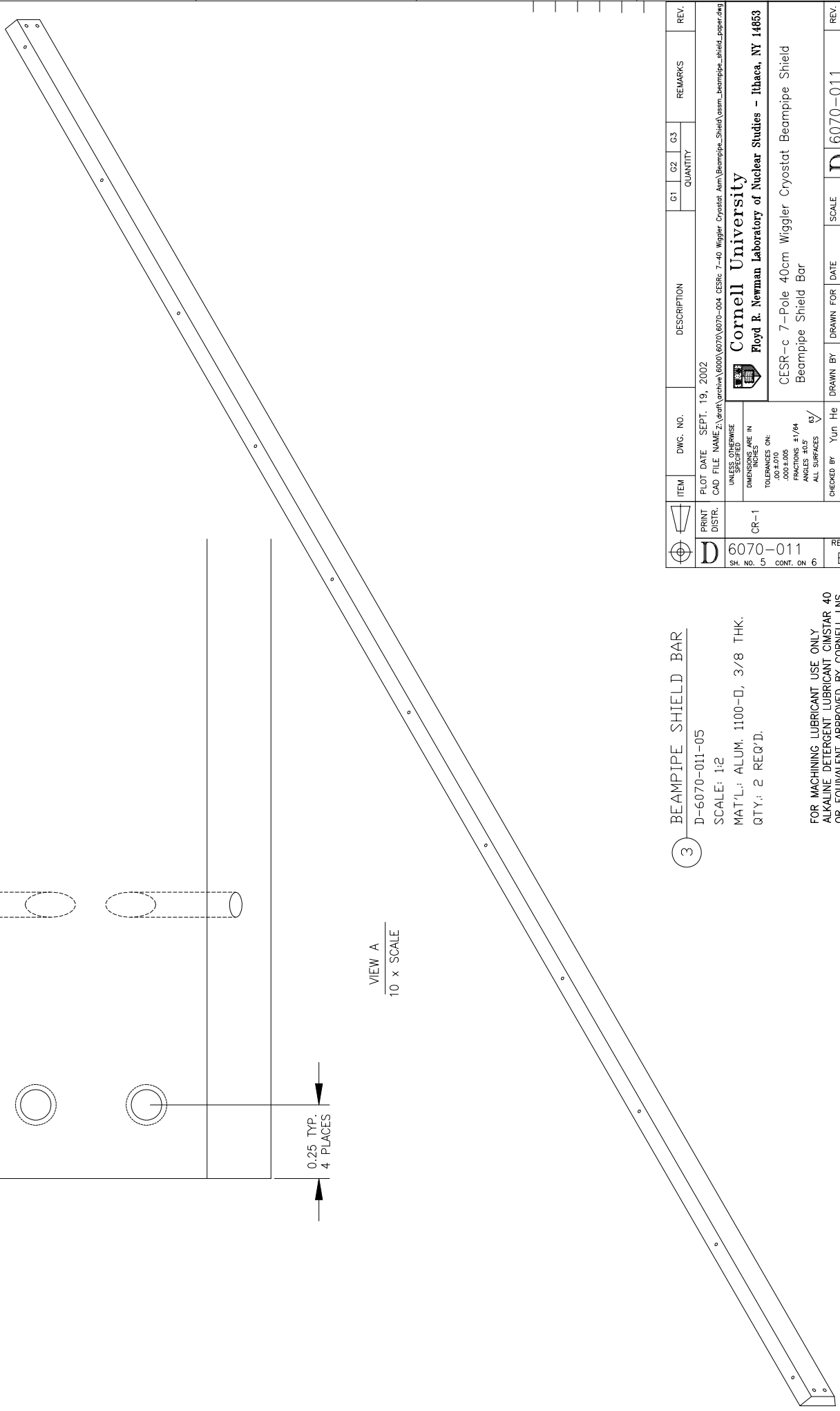
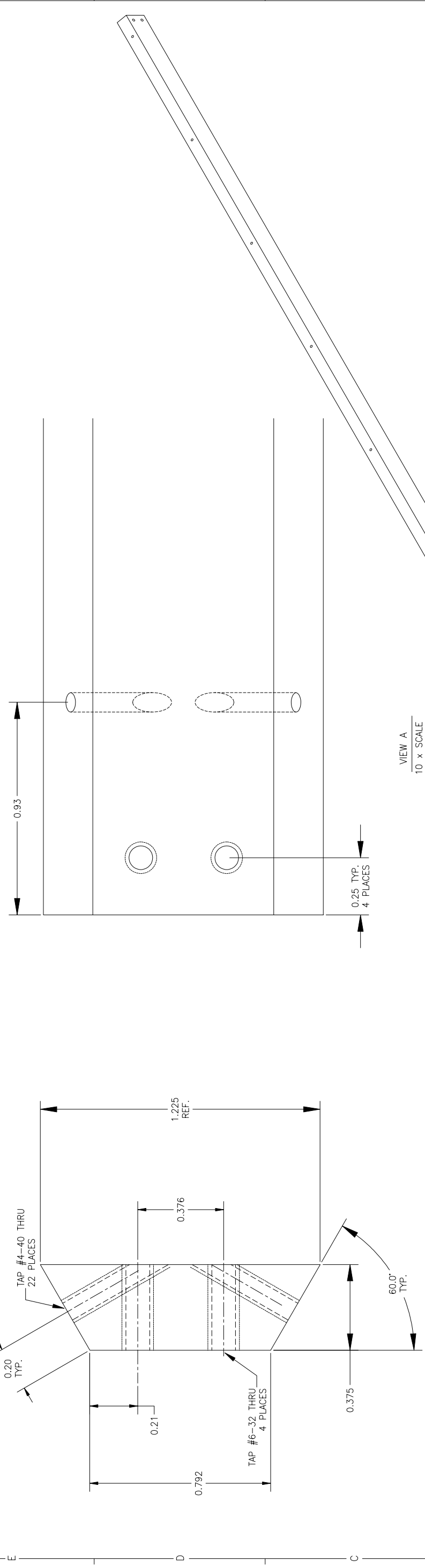
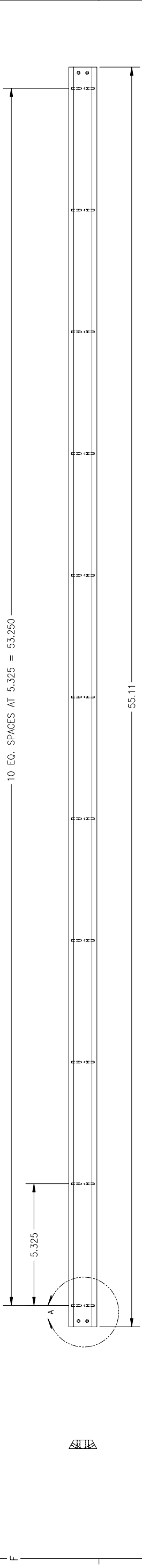
FOR MACHINING LUBRICANT USE ONLY  
ALKALINE DETERGENT LUBRICANT CIMSTAR 40  
OR EQUIVALENT APPROVED BY CORNELL LNS.

REV.	ZONE	DESCRIPTION	DATE	APP.
A		ADDED INSPECTION 0.25 HOLES TO BEAMPIPE LOCATION.	4/19/02	KMS
B	C-5 B-3 D-2	-DELETED NOTE -UPDATED NOTE -ADDED VERT. DIM. AND THRU TO #.25 HOLE.	9/17/02	YH
C	D-1 D-9	MATERIAL WAS ALUM. 1100 DIM 6.43 WAS 6.52. 1.92 WAS 2.06 DIM 0.18 WAS 0.30	1/22/02	YH

C'SINK HOLE, TYP. FOR 'A' & 'B'.  
'A' & 'B' ARE ON OPPOSITE SIDE OF THE PLATE;  
SEE SHEET D-6070-011-03, SECTION A-A & B-B

PRINT	ITEM	PLT DATE	DMG. NO.	DESCRIPTION	Q1	Q2	Q3	REMARKS	REV.
D	CR-1	NOVEMBER 25, 2002							
<small>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES</small> <small>TOLERANCES ON:</small> <small>FRACCTIONS: 1/4</small> <small>ANGLES: 30.5</small> <small>ALL SURFACES</small>									
<small>CHECKED BY: Yun He</small> <small>APPROVED BY: Yun He</small>									
<b>Cornell University</b> <b>Floyd R. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853</b>									
CESR-c 7-Pole 40cm Wiggler Cryostat Beampipe Shield Beampipe Radiation Sheet Unfolded									
<small>DRAWN FOR: YH / T/M</small> <small>DATE: 01/11/02</small> <small>SCALE: 1:2</small> <small>REV. C</small>									
<b>6070-011</b> <small>CONT. ON 5</small>									
<b>D 6070-011</b> <small>SH. NO. 4 CONT. ON 5</small>									

REVISIONS			
SYN.	ZONE	DESCRIPTION	DATE
A		CORRECTED HOLE PATTERN	4/15/02
B	E-8	ALUM. MATL. WAS 1100-D	9/17/02
		4-40 TAPPED HOLE QTY. WAS 12.	



3 BEAMPIPE SHIELD BAR  
 D-6070-011-05  
 SCALE: 1:2  
 MAT'L: ALUM. 1100-D, 3/8 THK.  
 QTY: 2 REQ'D.

FOR MACHINING LUBRICANT USE ONLY  
 ALKALINE DETERGENT LUBRICANT CIMSTAR 40  
 OR EQUIVALENT APPROVED BY CORNELL LNS.

ITEM	DWG. NO.	DESCRIPTION	Q1	Q2	Q3	REMARKS	REV.
PRINT DISTR.	PLOT DATE: SEPT. 19, 2002	DESCRIPTION					
6070-011	CAD FILE NAME: Z:\unit\work\6000\6070\6070-004_CESrc_7-40_Wiggler_Cryostat_Acc\BeamPipe_Shield\beam_pipe_shield_paper.dwg	QUANTITY					
6	UNLESS OTHERWISE SPECIFIED						
CONT. ON 6	DIMENSIONS ARE IN INCHES						
	TOLERANCES ON:						
	FRACTIONS: 1/4						
	DECIMALS: 0.005						
	ANGLES: 0.5						
	ALL SURFACES						
	CHECKED BY: Yun He						
	APPROVED BY: Yun He						
	DRAWN FOR: DATE						
	YH / TMK E. Nordberg	01/11/02	1:2				
	SCALE						
	6070-011						
	CONT. ON 6						
	REV.						
	D						
	SH. NO. 5						
	CONT. ON 6						

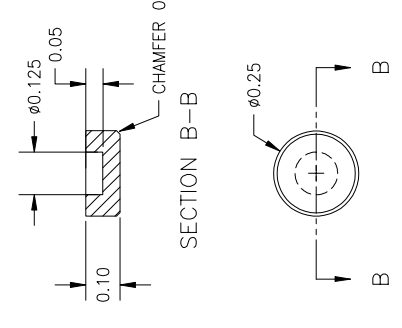
**Cornell University**  
 Floyd B. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853

CESR-c 7-Pole 40cm Wiggler Cryostat Beampipe Shield  
 Beampipe Shield Bar

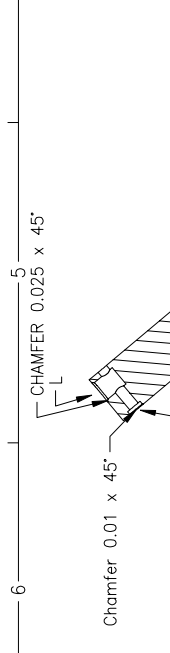
REVISIONS			
SYL. ZONE	DESCRIPTION	DATE	APP.
A	HOLE PATTERN CORRECTION / END DISC	4/15/02	KWS
B	ADDED ITEM #8. CHANGED HOLES J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z FOR HOLES 10-14. ADDED HOLE #18 DIMS. WERE 19 ADDED HOLE #19 DIMS. WERE 19 ADDED HOLE #20 DIMS. WERE 19 ADDED HOLE #21 DIMS. WERE 19 ADDED HOLE #22 DIMS. WERE 19 ADDED HOLE #23 DIMS. WERE 19 ADDED HOLE #24 DIMS. WERE 19 ADDED HOLE #25 DIMS. WERE 19 ADDED HOLE #26 DIMS. WERE 19 ADDED HOLE #27 DIMS. WERE 19 ADDED HOLE #28 DIMS. WERE 19 ADDED HOLE #29 DIMS. WERE 19 ADDED HOLE #30 DIMS. WERE 19 ADDED HOLE #31 DIMS. WERE 19 ADDED HOLE #32 DIMS. WERE 19 ADDED HOLE #33 DIMS. WERE 19 ADDED HOLE #34 DIMS. WERE 19 ADDED HOLE #35 DIMS. WERE 19 ADDED HOLE #36 DIMS. WERE 19 ADDED HOLE #37 DIMS. WERE 19 ADDED HOLE #38 DIMS. WERE 19 ADDED HOLE #39 DIMS. WERE 19 ADDED HOLE #40 DIMS. WERE 19 ADDED HOLE #41 DIMS. WERE 19 ADDED HOLE #42 DIMS. WERE 19 ADDED HOLE #43 DIMS. WERE 19 ADDED HOLE #44 DIMS. WERE 19 ADDED HOLE #45 DIMS. WERE 19 ADDED HOLE #46 DIMS. WERE 19 ADDED HOLE #47 DIMS. WERE 19 ADDED HOLE #48 DIMS. WERE 19 ADDED HOLE #49 DIMS. WERE 19 ADDED HOLE #50 DIMS. WERE 19 ADDED HOLE #51 DIMS. WERE 19 ADDED HOLE #52 DIMS. WERE 19 ADDED HOLE #53 DIMS. WERE 19 ADDED HOLE #54 DIMS. WERE 19 ADDED HOLE #55 DIMS. WERE 19 ADDED HOLE #56 DIMS. WERE 19 ADDED HOLE #57 DIMS. WERE 19 ADDED HOLE #58 DIMS. WERE 19 ADDED HOLE #59 DIMS. WERE 19 ADDED HOLE #60 DIMS. WERE 19 ADDED HOLE #61 DIMS. WERE 19 ADDED HOLE #62 DIMS. WERE 19 ADDED HOLE #63 DIMS. WERE 19 ADDED HOLE #64 DIMS. WERE 19 ADDED HOLE #65 DIMS. WERE 19 ADDED HOLE #66 DIMS. WERE 19 ADDED HOLE #67 DIMS. WERE 19 ADDED HOLE #68 DIMS. WERE 19 ADDED HOLE #69 DIMS. WERE 19 ADDED HOLE #70 DIMS. WERE 19 ADDED HOLE #71 DIMS. WERE 19 ADDED HOLE #72 DIMS. WERE 19 ADDED HOLE #73 DIMS. WERE 19 ADDED HOLE #74 DIMS. WERE 19 ADDED HOLE #75 DIMS. WERE 19 ADDED HOLE #76 DIMS. WERE 19 ADDED HOLE #77 DIMS. WERE 19 ADDED HOLE #78 DIMS. WERE 19 ADDED HOLE #79 DIMS. WERE 19 ADDED HOLE #80 DIMS. WERE 19 ADDED HOLE #81 DIMS. WERE 19 ADDED HOLE #82 DIMS. WERE 19 ADDED HOLE #83 DIMS. WERE 19 ADDED HOLE #84 DIMS. WERE 19 ADDED HOLE #85 DIMS. WERE 19 ADDED HOLE #86 DIMS. WERE 19 ADDED HOLE #87 DIMS. WERE 19 ADDED HOLE #88 DIMS. WERE 19 ADDED HOLE #89 DIMS. WERE 19 ADDED HOLE #90 DIMS. WERE 19 ADDED HOLE #91 DIMS. WERE 19 ADDED HOLE #92 DIMS. WERE 19 ADDED HOLE #93 DIMS. WERE 19 ADDED HOLE #94 DIMS. WERE 19 ADDED HOLE #95 DIMS. WERE 19 ADDED HOLE #96 DIMS. WERE 19 ADDED HOLE #97 DIMS. WERE 19 ADDED HOLE #98 DIMS. WERE 19 ADDED HOLE #99 DIMS. WERE 19 ADDED HOLE #100 DIMS. WERE 19	9/17/02	TH



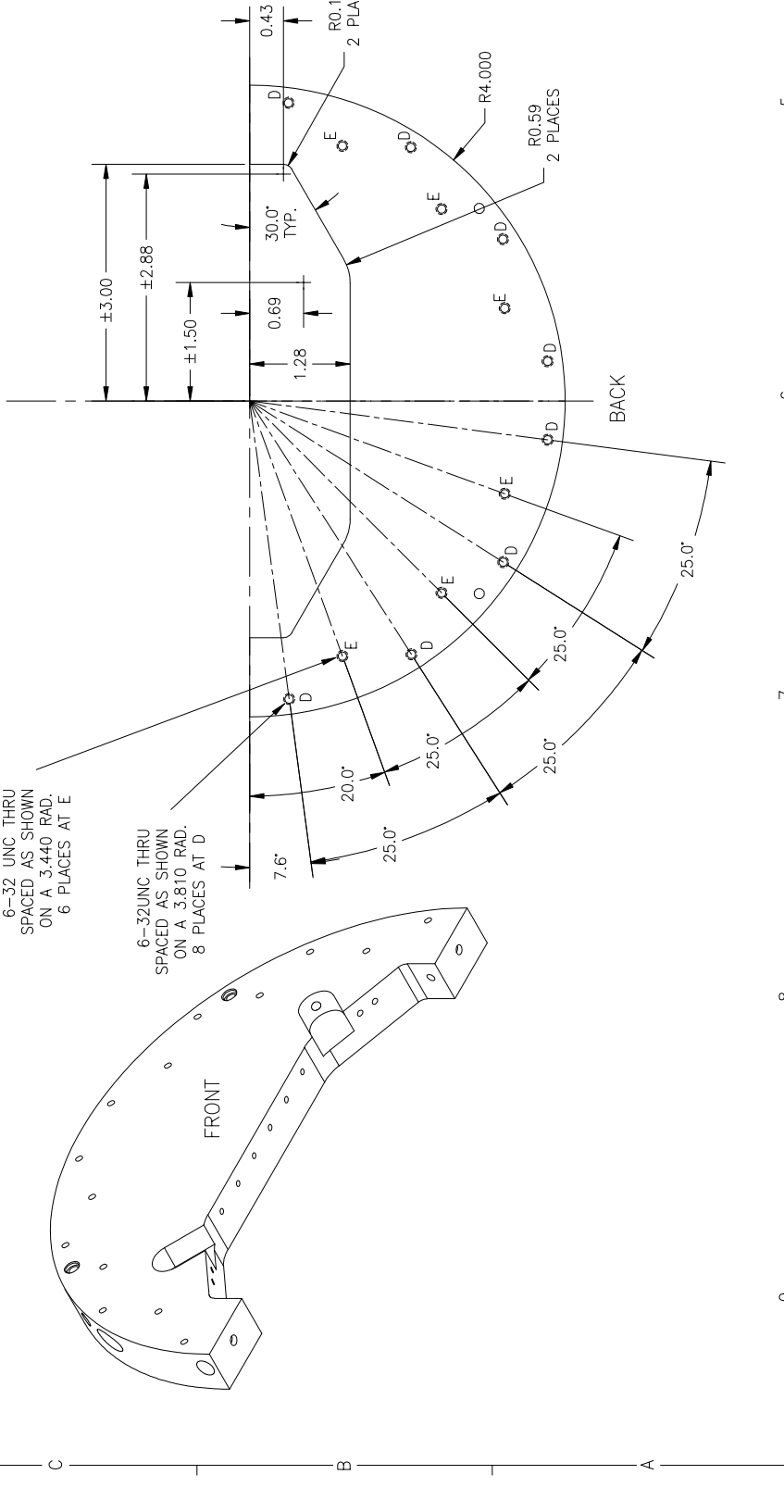
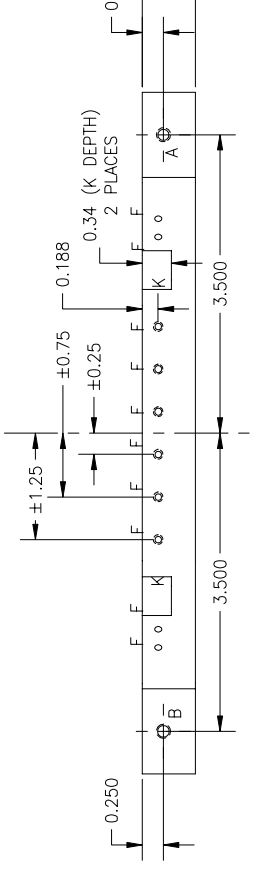
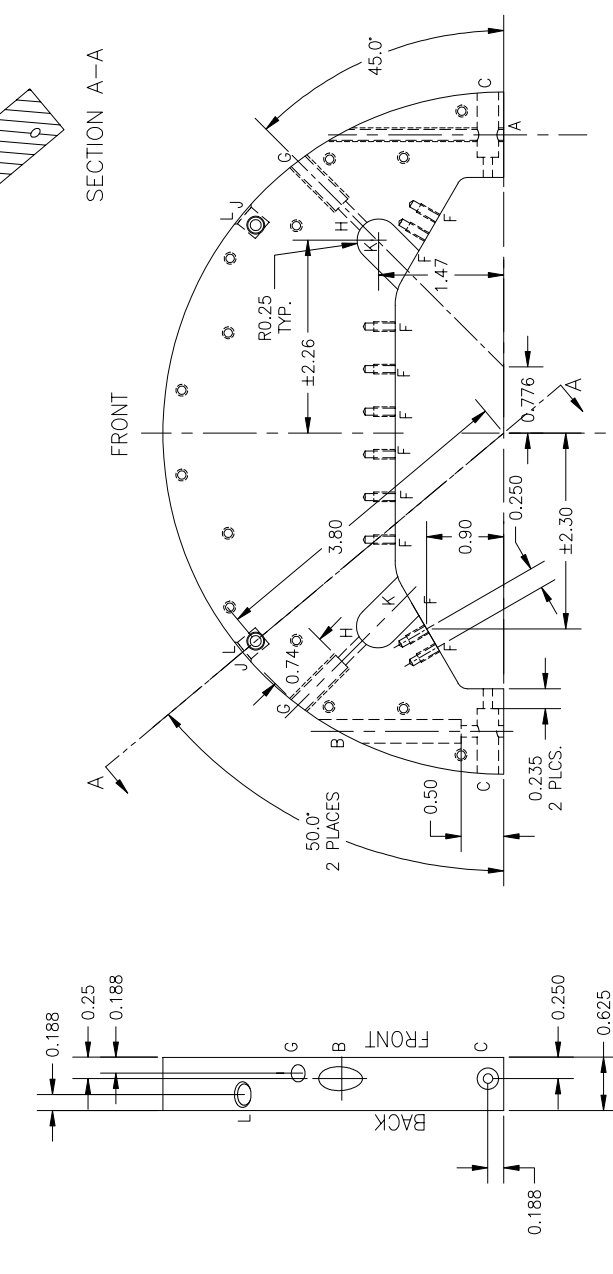
5 FIBERGLASS POST  
D-6070-011-06  
SCALE: 2:1  
MAT'L: FIBERGLASS  
QTY: 8 PER WIGGLER, SUPPLIED



8 ROD FOOT  
D-6070-011-06  
SCALE: 4:1  
MAT'L: G10  
QTY: 8



4 CONNECTION DISK (HALF)  
D-6070-011-06  
SCALE: 1:1  
MAT'L: AL 6061, 0.625" THICK  
QTY: 4 PER WIGGLER



- Notes:
- Hole A: #8-32 tapped through. (1 Plc.)
  - Hole B: #8-32 clear and counterbore for Socket Hd. Cap Scr. (1 Plc.)
  - Hole C: #6-32 clear and counterbore for Socket Hd. Cap Scr. (2 Plcs.)
  - Hole D: #6-32 tapped through, 3.81 radius bolt circle. (8 Plcs.)
  - Hole E: #6-32 tapped through, 3.44 radius bolt circle. (6 Plcs.)
  - Hole F: #4-40 tapped 1/4 deep. (10 Plcs.)
  - Hole G: 1/4-20 tapped 0.74 deep. (2 Plcs.)
  - Hole H: 0.125 Dia. (2 Plcs.)
  - Hole J: 0.128 Dia Through, C'BoRe 0.191 Dia. x 0.05 deep. on disk face. (2 Plcs.)
  - Hole K: Width 0.5 x 0.344 deep. (2 Plcs.)
  - Hole L: 0.250 Dia x 0.3 deep, radial hole on disk. (2 Plcs.)

ITEM	DWG. NO.	DESCRIPTION	QUANTITY	REMARKS	REV.
D	6070-011	CONNECTION DISK (HALF)			B
<p>FOR MACHINING LUBRICANT USE ONLY ALKALINE DETERGENT LUBRICANT CIMSTAR 40 OR EQUIVALENT APPROVED BY CORNELL LNS.</p>					
<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ±1/64 DECIMALS ±0.005 ANGLES ±0.5 ALL SURFACES</p>					
<p>PRINT DATE: SEPTEMBER 19, 2002 CAD FILE NAME: Z:\work\univ\6000\6070\6070-004_CESR-7-40_Wiggler_Cryostat_Arm(Beampipe_Shield)beam_beampipe_shield_paper.dwg</p>					
<p>Cornell University Floyd B. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853</p>					
<p>CESR-c 7-Pole 40cm Wiggler Cryostat Beampipe Shield CONNECTION DISK (HALF), PARTS FOR END SUSPENSION</p>					
<p>CHECKED BY: Yun He APPROVED BY: Yun He</p>					
<p>DRAWN BY: Tmk E. Nordberg DATE: 01/11/02</p>					
<p>SCALE: 1:1</p>					
<p>REV. D 6070-011 SH. NO. 6 CONT. ON FIN</p>					