REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
ALL	A	REVISED AS INSTALLED (SEE SHT 1) MRZ 10/31/06	11/3/06	

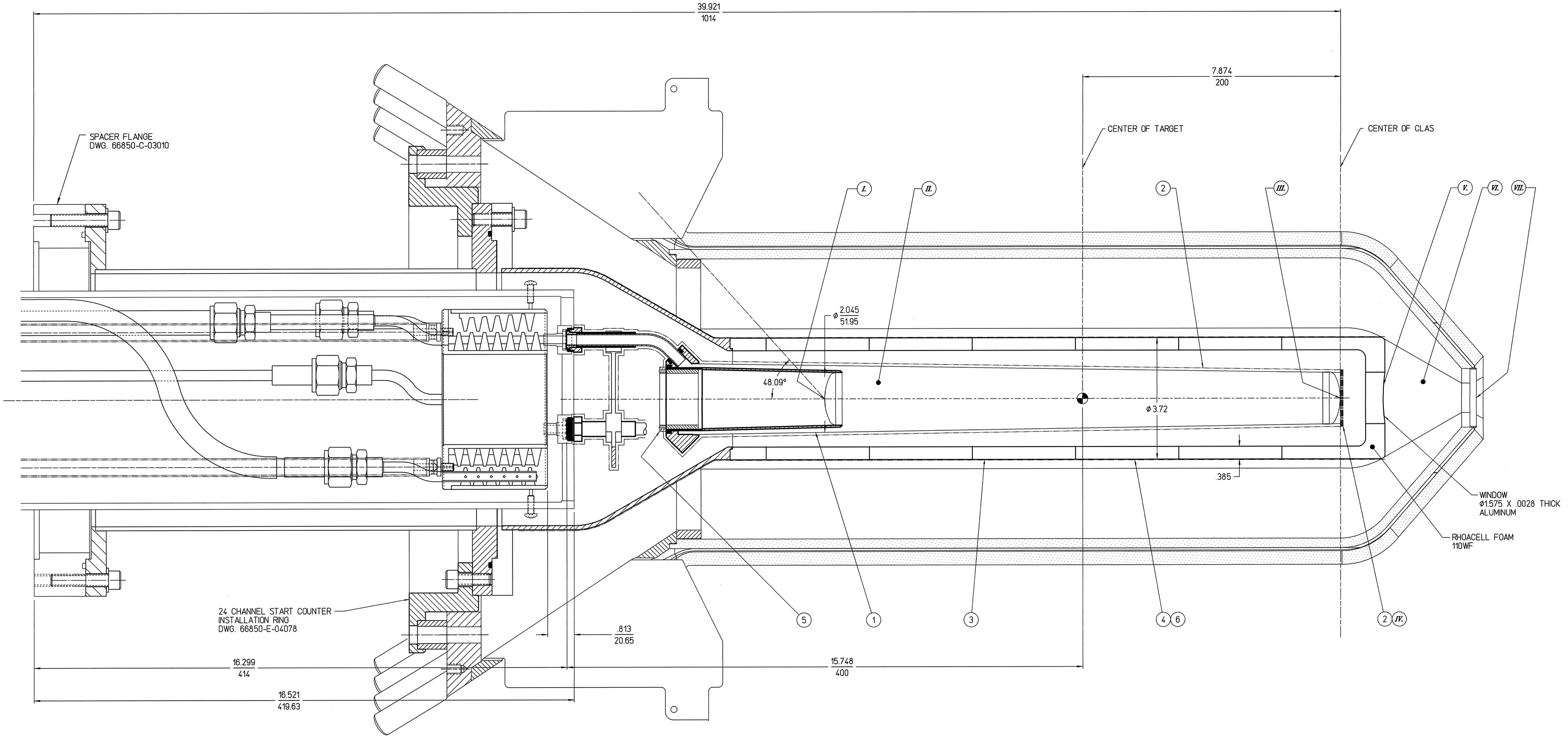

TABLE –A–
MISCELLANEOUS CELL MATERIALS & THERMAL INSULATION

ITEM	MATERIAL
1	CELL DWG 66850-C-04070
2	5 LAYERS OF SUPERINSULATION EACH w/ 1 PLY CEREX
3	SCATTERING CHAMBER - JLAB DWG 66850-E-04074
4	SAFETY SOCK (LEGGS J504X ~ SIZE 1X)
5	BEAM OFFSET MONITOR (IOH2H01) ID = 40.9 mm DWG 66850-C-03988 Z = -42.8 cm TO -39.8 cm
6	TEDLAR .001" THICK

TABLE –B–
MATERIALS IN THE BEAM LINE

ITEM	*DESCRIPTION*	*"Z" LOCATION (cm)*	*MATERIAL*	*THICKNESS (cm)*	*INSIDE DIA (cm)*
I.	*TARGET CELL INLET WINDOW*	*-40.00*	*KAPTON ALUM.*	*127 microns 15 microns*	*4.0 IR HEMI. 5mm ø*
II.	*TARGET LIQUID*	*N/A*	*D_2*	*40.00*	*4.00 CONICAL*
III.	*TARGET CELL EXIT WINDOW*	*0.0*	*KAPTON ALUM.*	*127 microns 15 microns*	*4.0 IR HEMI. 5mm ø*
IV.	*TARGET CELL SUPER-INSULATION*	*0.2*	*5 LAYERS SI. 1 PLY CEREX*	*2.5 mm*	*4.00 IR. HEMISPHERICAL*
V.	*SCATTERING CHAMBER EXIT WINDOW*	*3.3*	*ALUM.*	*71 microns*	*4.00*
VI.	*AIR GAP*	*N/A*	*AIR*	*68.2*	*VARIOUS*
VII.	*START COUNTER DS OPENING*	*10.6*	*N/A*	*N/A*	*4.00*
VIII.	*HELIUM BAG ENTRANCE WINDOW SEE SHEET 1*	*80.8*	*KAPTON*	*51 microns*	*8.93*
IX.	*HELIUM BAG EXIT WINDOW*	*N/A*	*KAPTON*	*51 microns*	*8.93*

TABLE –C–

MATERIAL	DENSITY
SUPER-INSULATION (ALUMINIZED MYLAR)	*0.88 mg/cm^2 /Layer*
SUPER-INSULATION (CEREX)	*1.0 mg/cm^2 /Layer/Ply*
SCATTERING CHAMBER FOAM WALLS	*107 mg/cm^2*
SCATTERING CHAMBER SAFETY SOCK	*NYLON 4.0 mg/cm^2*
CELL WALL	*KAPTON 18 mg/cm^2*
TEDLAR FILM	*1.4 - 1.7 g/cc*

EACH SHEET OF A MULTI-SHEET DRAWING SHALL ALWAYS CARRY THE SAME REVISION LEVEL

DOCUMENT CONTROL STAMP

MATERIAL: N/A

FINISH MACHINED SURFACES: N/A UNLESS OTHERWISE NOTED
DEBURR & BREAK ALL SHARP EDGES

DO NOT SCALE DRAWING

DIM & TOL PER ASME Y14.5
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± N/A DECIMAL X. ± N/A XX. ± N/A XXX ± N/A ANGLES ± N/A

THIRD ANGLE PROJECTION

TRACKING NO.
wbs/6/zarecky/66000
4600/66840e04661_02.revA

APPROVALS	DATE
DRAWN M. ZARECKY	9/6/06
CHECKED D. KASHY	10/18/06
APPROVED D. KASHY	10/18/06
APPROVED D. KASHY	10/18/06

Thomas Jefferson National Accelerator Facility
NEWPORT NEWS, VIRGINIA
UNITED STATES DEPARTMENT OF ENERGY

HALL B
CLAS BEAM LINE ASSEMBLY
FROM TAGGER MAGNET THRU FWD CARRIAGE
FOR g13a RUN (FALL 2006)

SIZE E | DWG. NO. 66840-E-04661 | REV. A
SCALE 7/8 | USED ON ASSY NO. – | SHEET 2 OF 3

Me10