

**SPECIFICATIONS**

**SHIELDING REQUIREMENTS:**

ENTRY PANEL 1"THK LEAD  
BACK WALL 3/8"THK LEAD  
SIDE WALLS 3/8"THK LEAD  
ROOF 1/4"THK LEAD

**CONSTRUCTION: MODULAR**

**STRUCTURE: SELF-SUPPORTED**

COMMERCIAL RATED: 40 LBS LIVE WEIGHT/SQ FT  
100 LBS DEAD WEIGHT/SQ FT

**OVERALL DIMS:**

5.0M WIDTH X 6.8M LONG X 3.3M HIGH [16.4' X 22.3' X 11']  
CLEAR HEIGHT INSIDE: 3M [10']  
DOOR OPENING: 2.4M HIGH X 1M WIDE [8'X 3.3']

**SLIDING DOORS:**

ONE MANUAL, FIXED BY LATCH  
ONE PNEUMATIC WITH MANUAL OVERRIDE

**STANDARD SIDE PANEL: 1M WIDE X 3.3M HIGH [3.3'X11']**

SANDWICH CONSTRUCTION:  
STEEL 3mm [1/8" (11Ga)] - LEAD 10mm [3/8"] - STEEL 6mm[1/4"]  
STRUCTURE: 3" X 3" X 1/4" STEEL ANGLE, ALL AROUND  
WEIGHT: 1500LB

**STANDARD BACK PANEL: 1M WIDE X 3.3M HIGH [3.3'X11']**

SANDWICH CONSTRUCTION:  
STEEL 3mm [1/8" (11Ga)] - LEAD 10mm [3/8"] - STEEL 6mm[1/4"]  
STRUCTURE: 3" X 3" X 1/4" STEEL ANGLE, ALL AROUND  
WEIGHT: 1500LB

**STANDARD ROOF PANEL: 1M WIDE X 5.0M LONG [3.3'X16.4']**

SANDWICH CONSTRUCTION:  
STEEL 3mm [1/8" (11Ga)] - LEAD 6mm [1/4"] - STEEL 6mm[1/4"]  
STRUCTURE: MC 6 X 16.3 STEEL CHANNEL, ALL AROUND  
WEIGHT: 2250LB

**STANDARD DOOR PANEL: 1M WIDE X 2.5M HIGH [3.3'X8']**

SANDWICH CONSTRUCTION:  
STEEL 3mm [1/8" (11Ga)] - LEAD 10mm [3/8"] - STEEL 6mm[1/4"]  
WEIGHT: 900LB

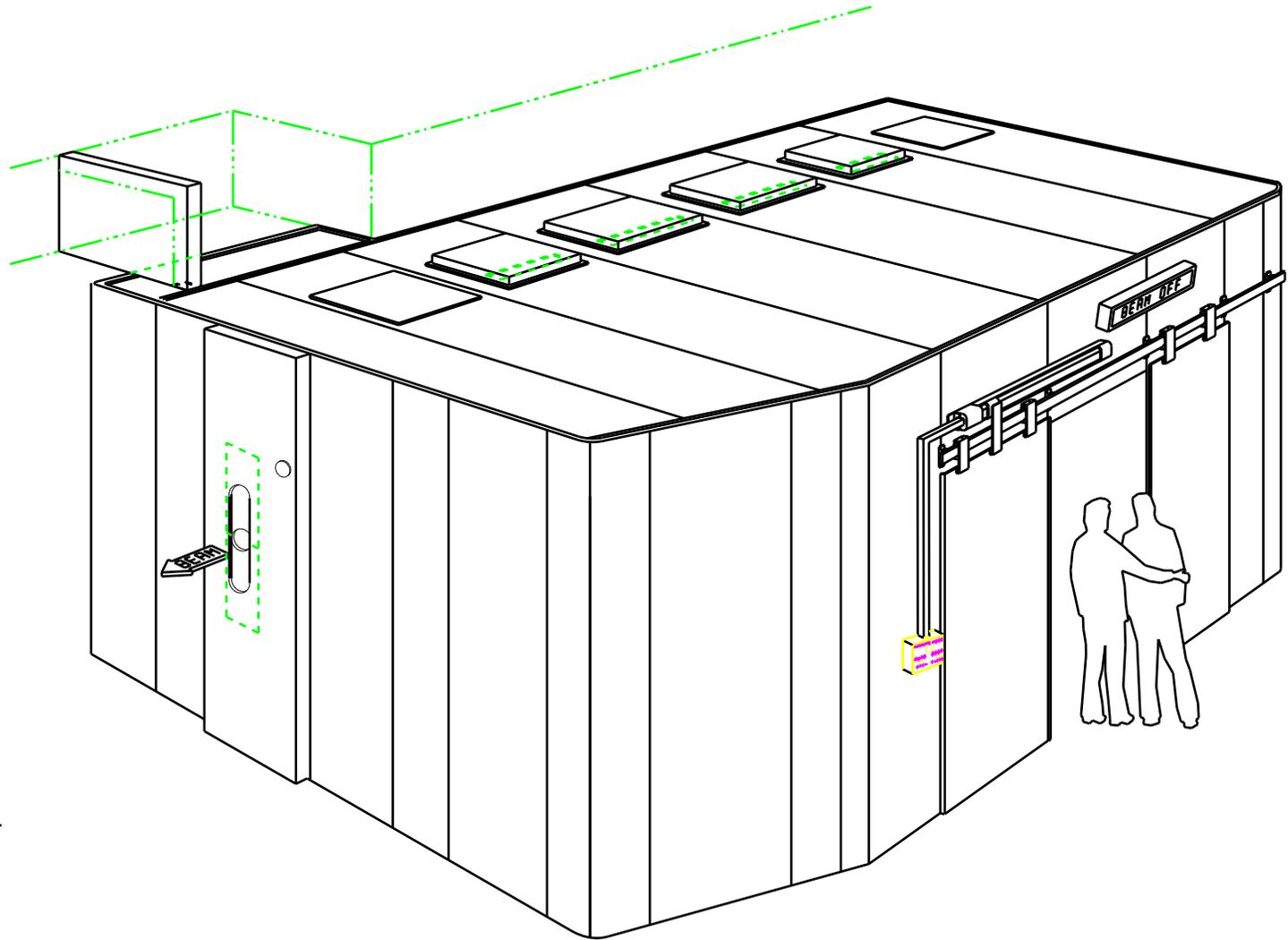
**LABYRINTH PANELS: UTILITIES, CABLES, VENTILATION, OZONE**

UTILITIES: CHILLED WATER 5°-0.8°C [41°-1.5°F]  
DI WATER  
COMPRESSED AIR 90psi  
ELECTRICAL POWER 30kVA 120/208V

**WORK STATION CRANE WITH MANUAL HOIST:**

SPAN 2.44M [8.00']  
RUNWAY LENGTH 6.70M [22.00']  
CLEAR HEIGHT 3M [10']  
CAPACITY: 1000Kg [1 TON]

**ILLUMINATION: FLUORESCENT- OFFICE RATED: 100 FOOT CANDLE.**



**NOTES:**

1- THE HUTCH MANUFACTURER SHALL BE RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE HUTCH, AND SHALL CERTIFY THAT THE STRUCTURE WAS REVIEWED BY A LICENSED STRUCTURAL ENGINEER.

STRUCTURES AND THEIR ELEMENTS SHALL BE BUILT FOLLOWING DOE 6430 AS REFERRED TO IN TECHNICAL SPECS. DESIGN LOADS SHALL INCLUDE LOADS THAT CAN OCCUR DURING CONSTRUCTION. DEAD LOADS SHALL INCLUDE THE USE OF THE INTERIOR UNISTRUT FOR SHELVES ONE FOOT WIDE SUPPORTING LOADS OF 200 LBS.

2- LEAD THICKNESS IS SPECIFIED BY ARGONNE. THE MANUFACTURER SHALL BE RESPONSIBLE FOR PROVIDING A RADIATION LEAK PROOF HUTCH.

LEAD LINED PANELS SHALL BE CONSTRUCTED FROM SINGLE UNPIERCED SHEET, FREE OF OXIDE INCLUSIONS, FISSURES, VOIDS AND ALL OTHER DETRIMENTAL DEFECTS. MATERIAL SHALL BE LEAD GRADE 'C' TO COMPLY WITH FEDERAL SPECIFICATION QQ-L-201. HUTCH SHALL MEET ALL APPLICABLE RADIATION GUIDE LINES REFERRED TO IN TECHNICAL SPECS.

02 TO COMPLETE ASSY DRAWINGS AC  
01 UPDATED EG TS  
01

A1843202		ARGONNE NATIONAL LABORATORY	
ADVANCED PHOTON SOURCE		H1 APS WBES 1-BM-B	
WHITE BEAM EXPERIMENTAL STATION ASSEMBLY (PERSPECTIVE & SPEC.)		P41050903-320000-02	
DATE	BY	DATE	BY
4/20/09	D. SHU	4/21/04	
4/20/09	T. KUZYA	4/21/04	
4/20/09	D. MILLS	4/21/04	
4/20/09	T. SANCHEZ		