

A_n^1/d_2^n Reference Cell and Cooling Jet Systems

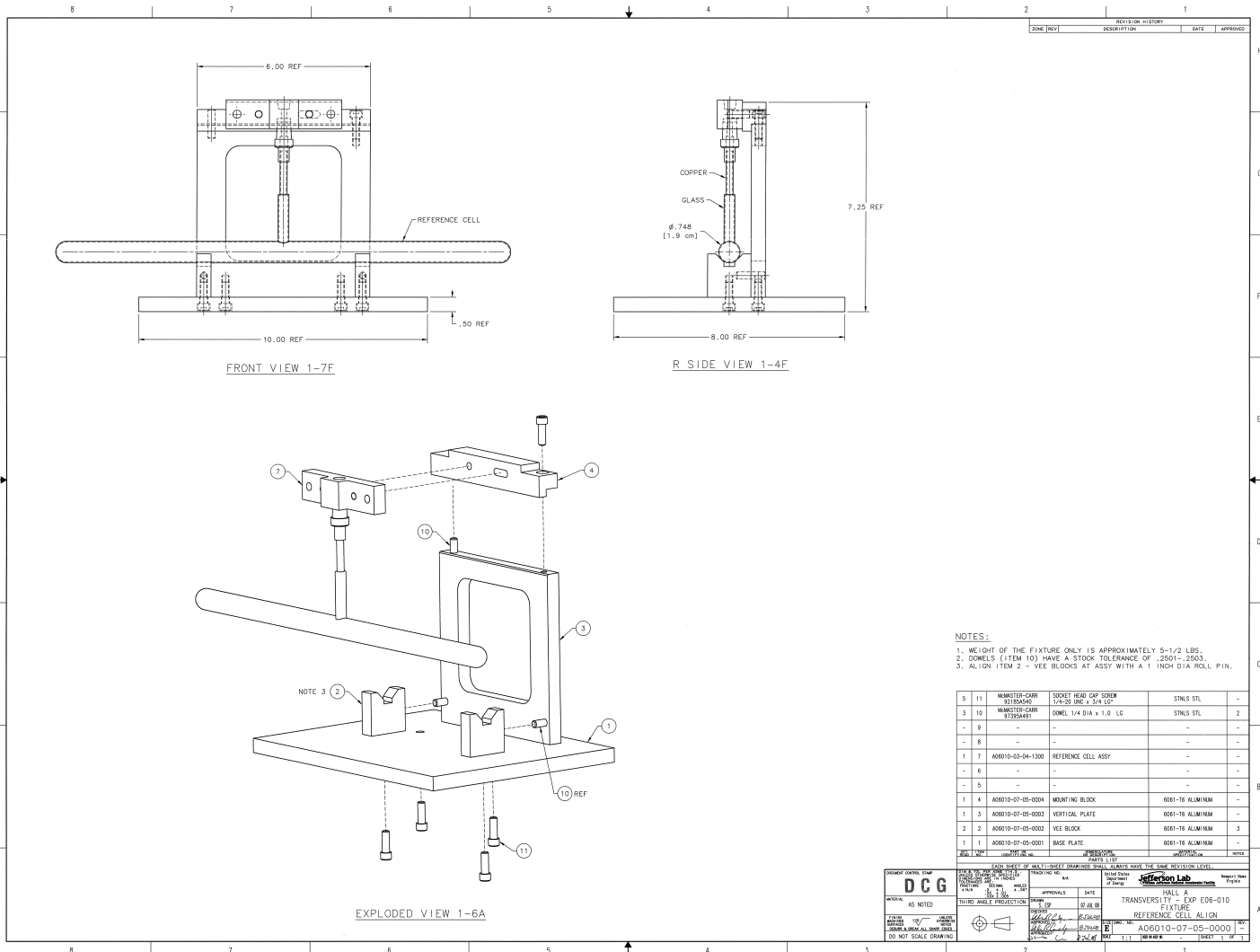
T. Averett

William and Mary

10-Dec-2018

Status

- All chasses for Hall C are in original rack. Remote control panels and short patch cables located. All items are in Physics Storage Building.
- Two old reference cells located in JLab target lab, upstairs
- Inventory of gases: 4 bottles: 20, 20, 50, 50 standard liters



REVISION HISTORY			
ZONE (REV)	DESCRIPTION	DATE	APPROVED

- NOTES:
1. WEIGHT OF THE FIXTURE ONLY IS APPROXIMATELY 5-1/2 LBS.
 2. DOWELS (ITEM 10) HAVE A STOCK TOLERANCE OF .2501-.2503.
 3. ALIGN ITEM 2 - VEE BLOCKS AT ASSY WITH A 1 INCH DIA. ROLL PIN.

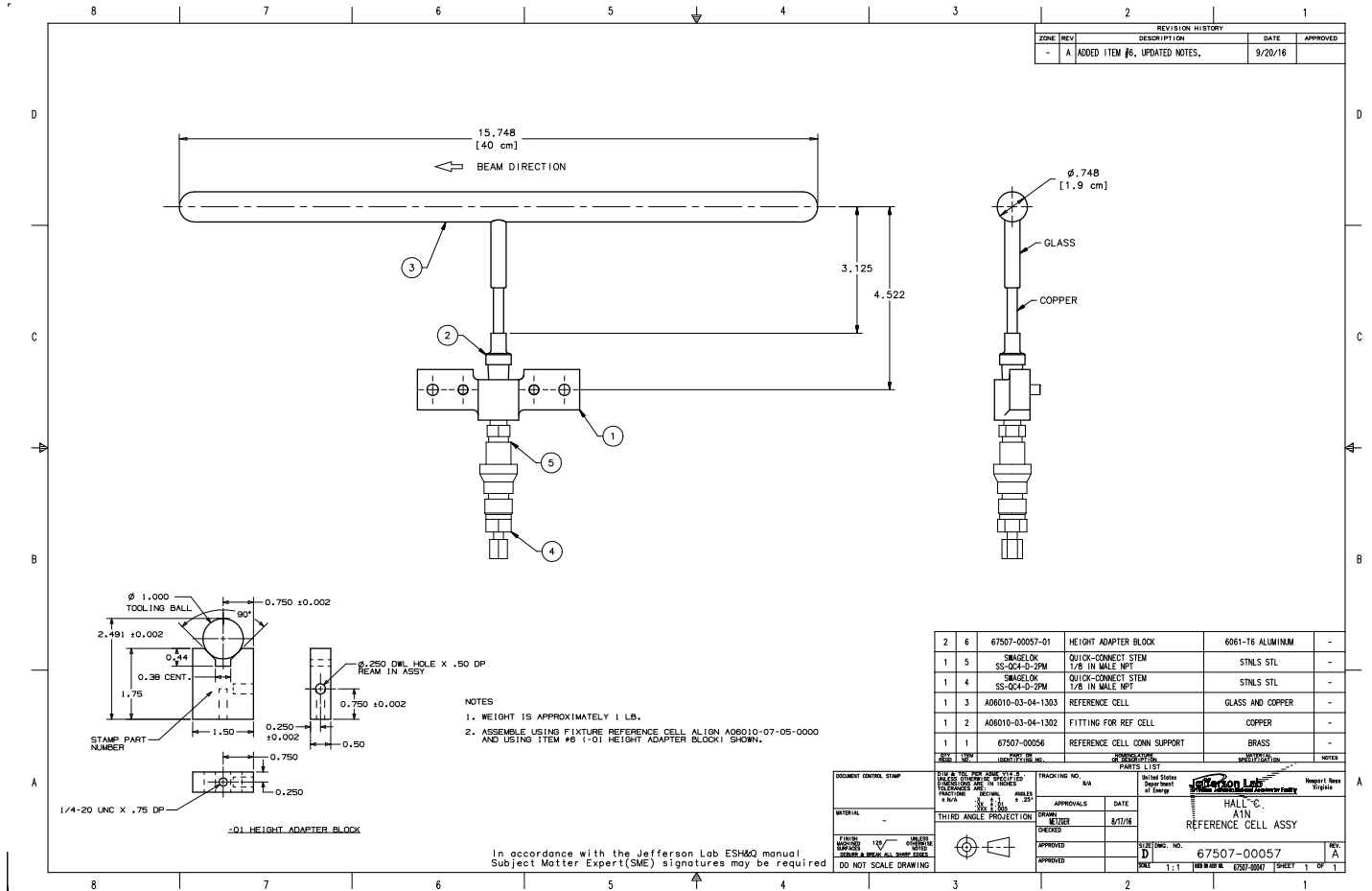
QTY	ITEM	DESCRIPTION	MATERIAL	UNIT
5	11	MASTER-CARR SOCKET HEAD CAP SCREW	STNLS STL	-
3	10	MASTER-CARR DOWEL 1/4 DIA x 3/4 LG	STNLS STL	2
-	9	-	-	-
-	8	-	-	-
1	7	ASSEMBLY REFERENCE CELL	-	-
-	6	-	-	-
-	5	-	-	-
1	4	ALUMINUM MOUNTING BLOCK	6061-T6 ALUMINUM	-
1	3	ALUMINUM VERTICAL PLATE	6061-T6 ALUMINUM	-
2	2	ALUMINUM VEE BLOCK	6061-T6 ALUMINUM	3
1	1	ALUMINUM BASE PLATE	6061-T6 ALUMINUM	-

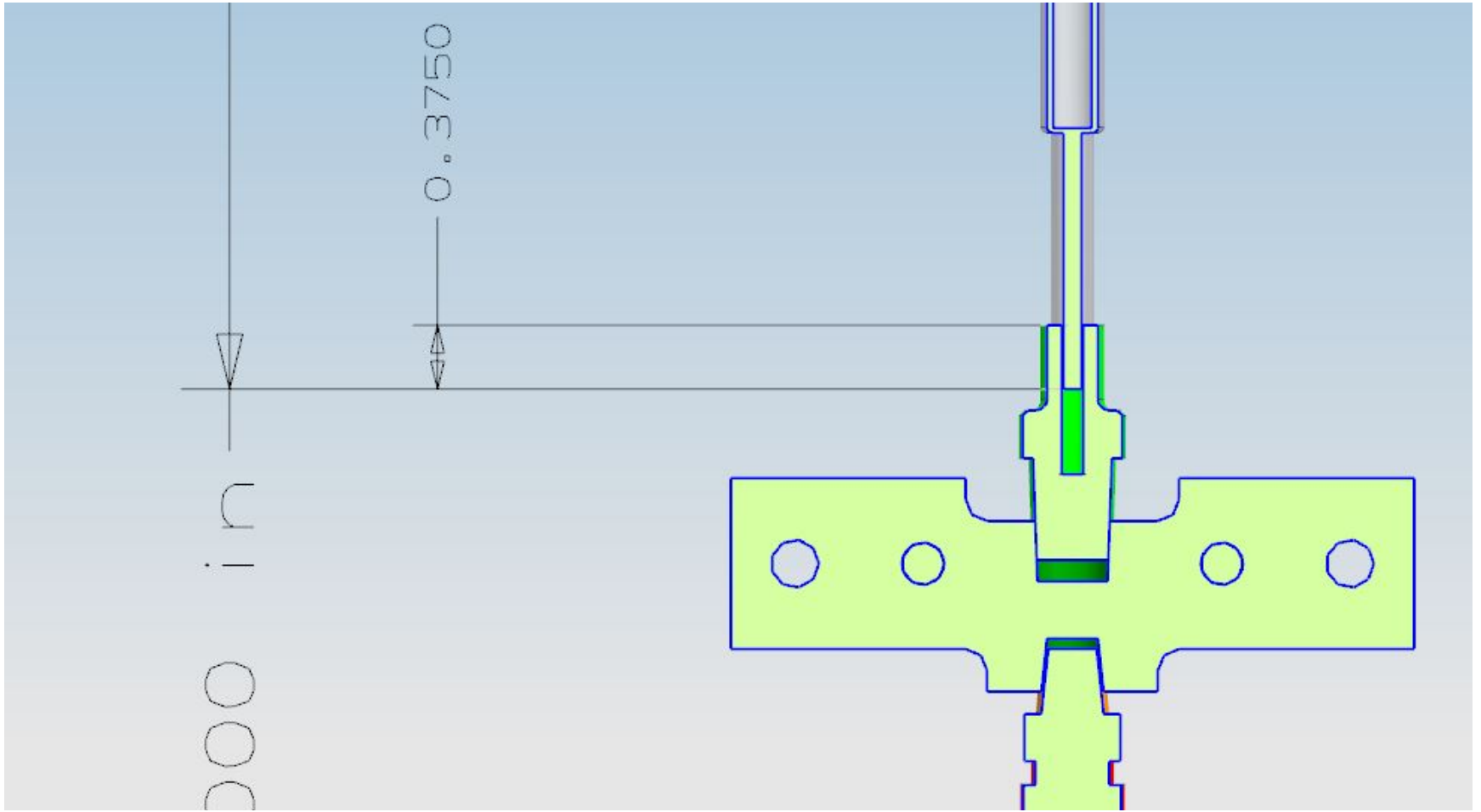
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PROJECT: TRANSVERSITY - EXP E06-010
 DRAWING: REFERENCE CELL ALLOU
 SHEET NO: A06010-07-05-0000
 SHEET 11 OF 11

DATE: 07-26-07
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]

Dimensions are slightly different that previous cells, 4.522"





Questions

Reference Cell System:

- Gases: ^3He , N_2 and H_2 ?
- Typically use 1 lecture bottle of ^3He
- Previously had large bottles of H_2 and N_2 located at gas panel rack.
- Re-use old cells?
 - Recommend constructing 2-3 new cells with hardware attached to 2
 - Need window and wall thickness of new target cells
- Soldering jig needed-Gavalya?

Cooling Jet System:

- Previously used air for cooling jets? Kellner talk has ^4He ?
 - Need to exhaust ^4He gas out of area to prevent PMT damage.
- Air compressor/compressed air in Hall C for cooling jets and oven heaters?

To Do:

- Reserve space in counting house racks for remote panels.
- Make new cables from Hall C to counting house-Beufait
- Testing/setup:
 - Need to move electronics rack to Hall C to begin testing (or somewhere else earlier)?
- Kellner Talk shows “gas panel”. Not sure what this is but need to have floor-level access to reference cell and cooling jet gas systems to fill/pump.
- Safety and operation documentation needed--Averett.