

Pre-injector Upgrade Updates (11 May 2011 – 01 Jun 2011)

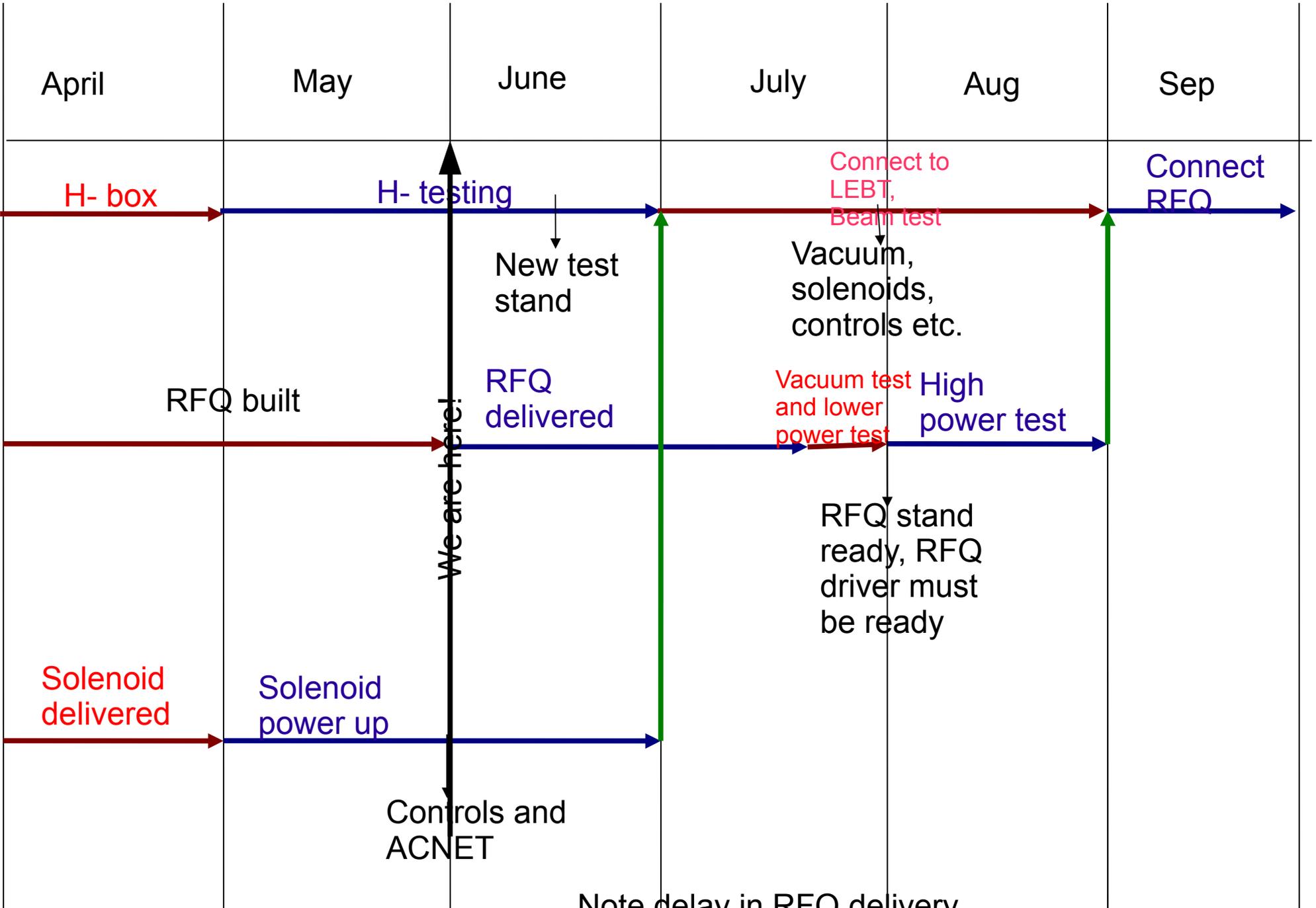
C.Y. Tan
01 Jun 2011

News

- Vacuum meeting held on 24 May.

Reminders

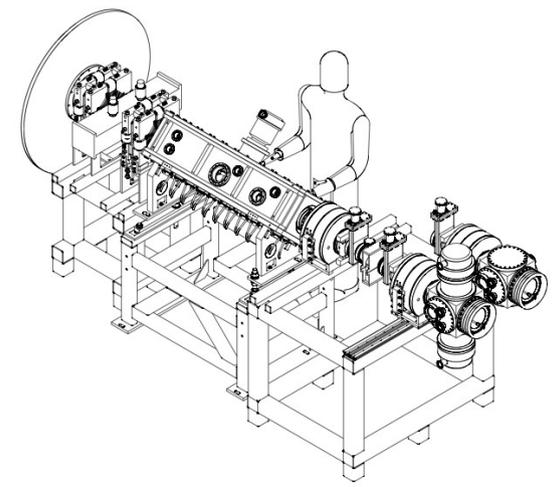
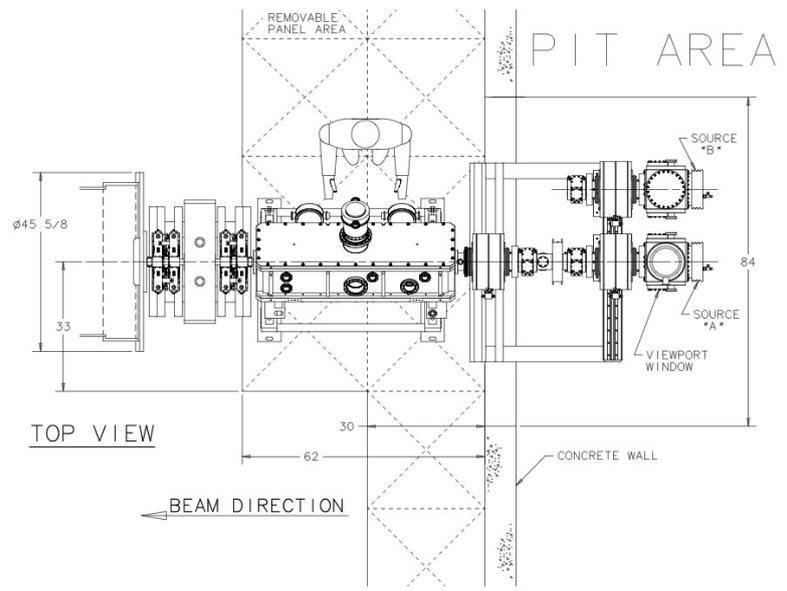
- Fill in the MS Project time lines. See Elmie.
 - Steve Hays
 - Jim Lackey
 - Mike Kucera
 - Dan Bollinger
 - Brian Schupbach
- Fill in paper sections for the review.



Note delay in RFQ delivery

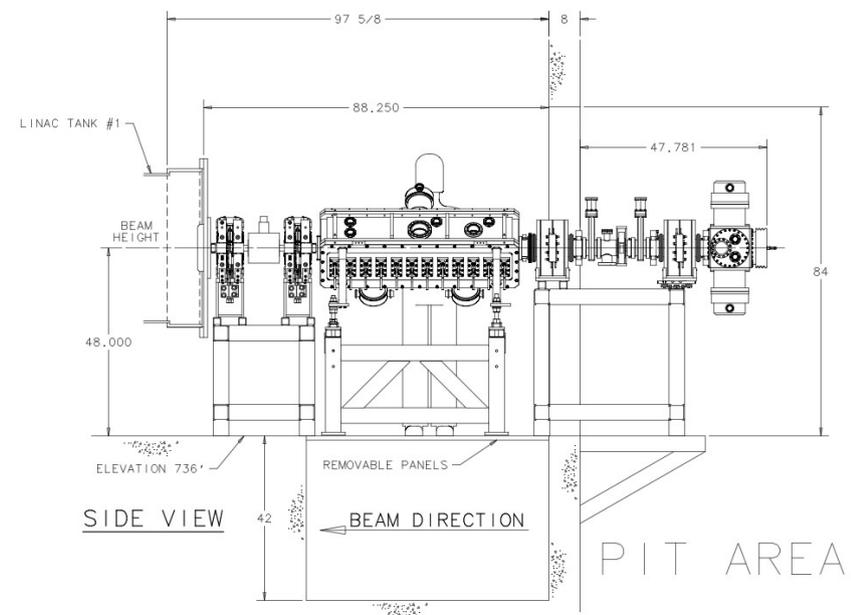
8 7 6 5 4 3 2 1

REV	DESCRIPTION	DRAWN APPROVED	DATE



PREACCELERATOR PRELIMINARY LAYOUT

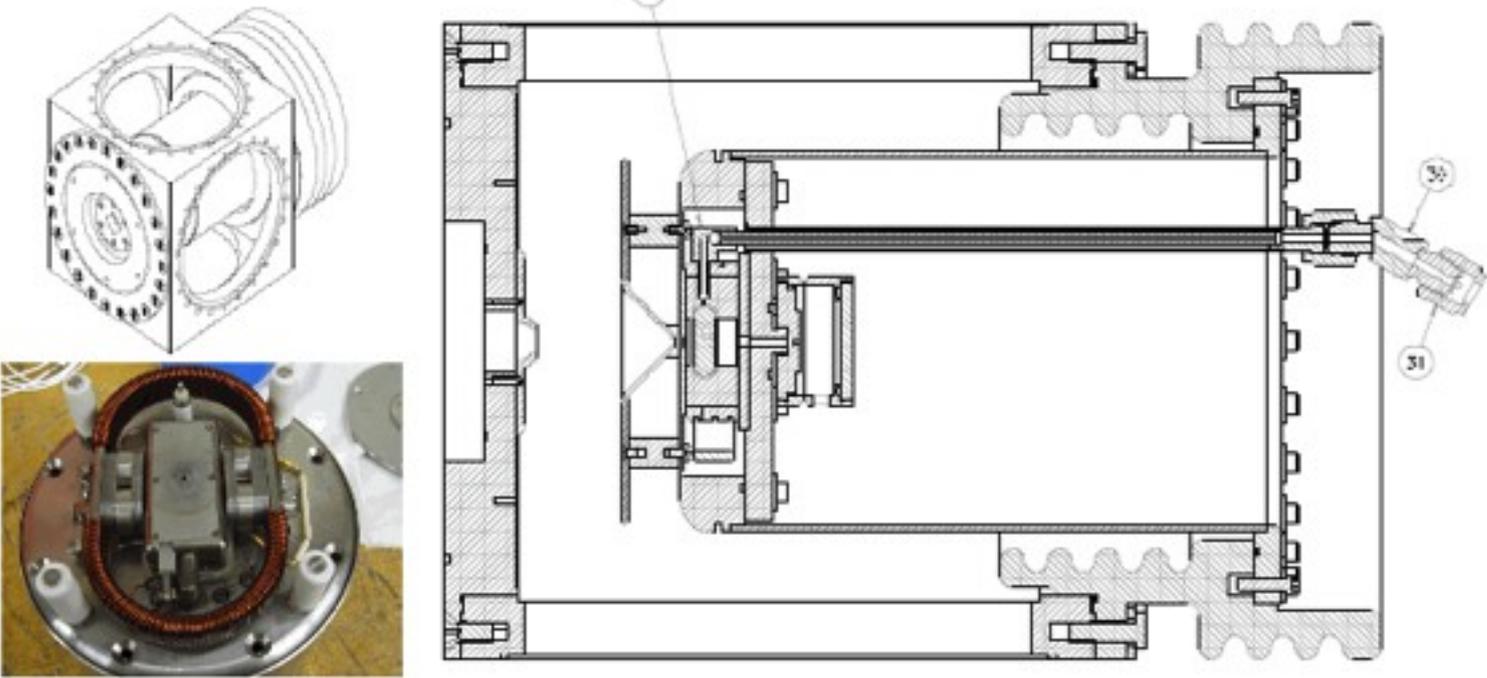
APRIL 27, 2011



UNLESS OTHERWISE SPECIFIED			ORIGINATOR
±	±	±	DRAWN
1. BREAK ALL SHARP EDGES MAX			CHECKED
2. DO NOT SCALE DRAWING.			APPROVED
3. DIMENSIONS BASED UPON ASME Y14.5M-1994			USED ON
4. MAX. ALL MACH. SURFACES			MATERIAL
5. DRAWING UNITS: U.S. INCH			
 FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY			
SCALE	DRAWING NUMBER	SHEET	REV
		1 OF 1	
CREATED WITH :		GROUP :	

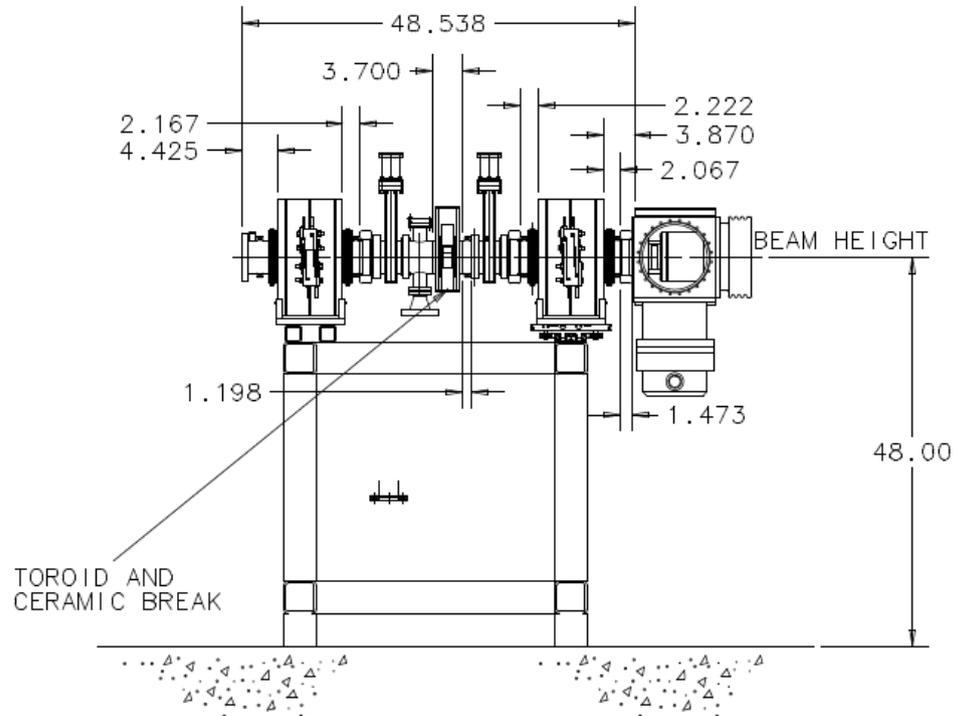
8 7 6 5 4 3 2 1

Source Status



Device	Status	Comments
Source	60mA output.	Bad extractor pulser (transformer?) (31 May)

LEBT Status



Device	Status	Comments
Solenoid PS	Steve Hays has 2	Should be ready in 2 weeks (19 May)
Solenoids	Only #4 is incomplete.	See next slide.
LEBT drawings	Being drawn	Complete?
Correctors	final design (07 Mar 2011)	Milhouse is nearly done with drawings. Added 4 fiducials.
Vacuum pumps		Order pending
Einzel lens	Complete!	4 high voltage cables with connectors to be ordered from Ceramtech

Solenoid status

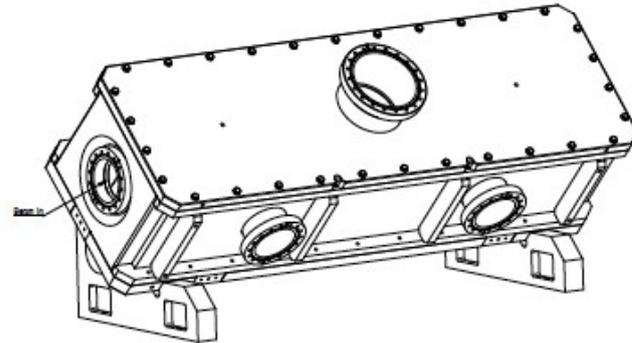
- #1 Measurements are complete. Now in test area.
- #2 Measurements complete. Results are similar to #1.
- #3 will be aligned this week.
- #4 waiting for parts.

Quick Checks

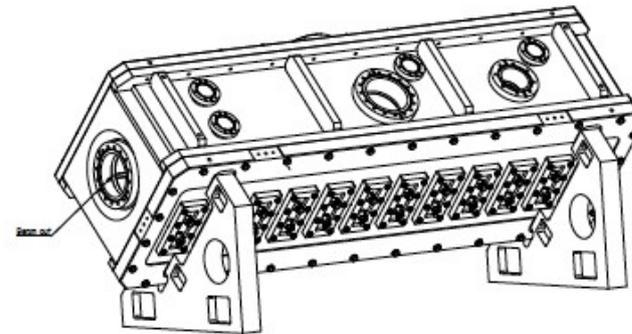
- Correctors have a x-position change $\sim 0.0175\text{mm}$ going from 500A to 600A.
 - Change in position is $< 3\%$ of beam sigma at the entrance of the RFQ if there is an x-position change at the upstream solenoid. Not significant.

RFQ Status

- See next talk

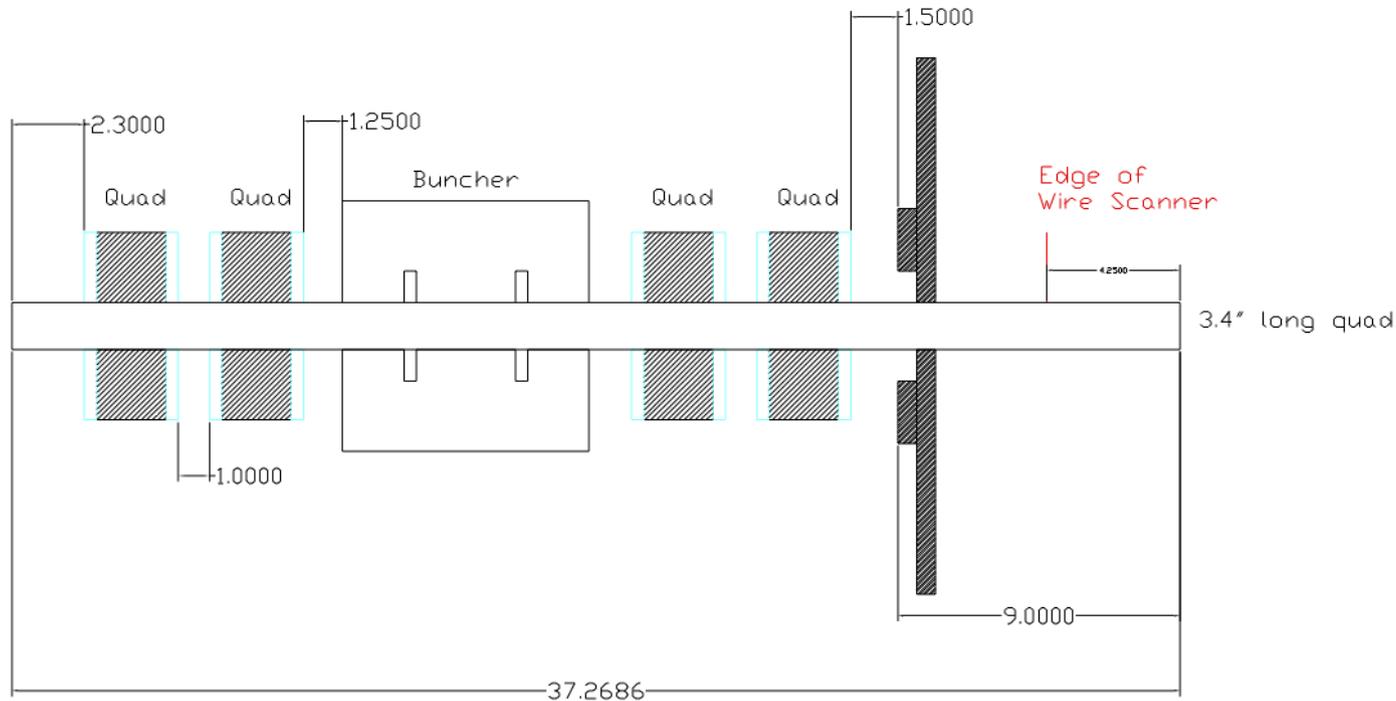


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Device	Status	Comments
4816 PA	Waiting for water connections	

MEBT Status



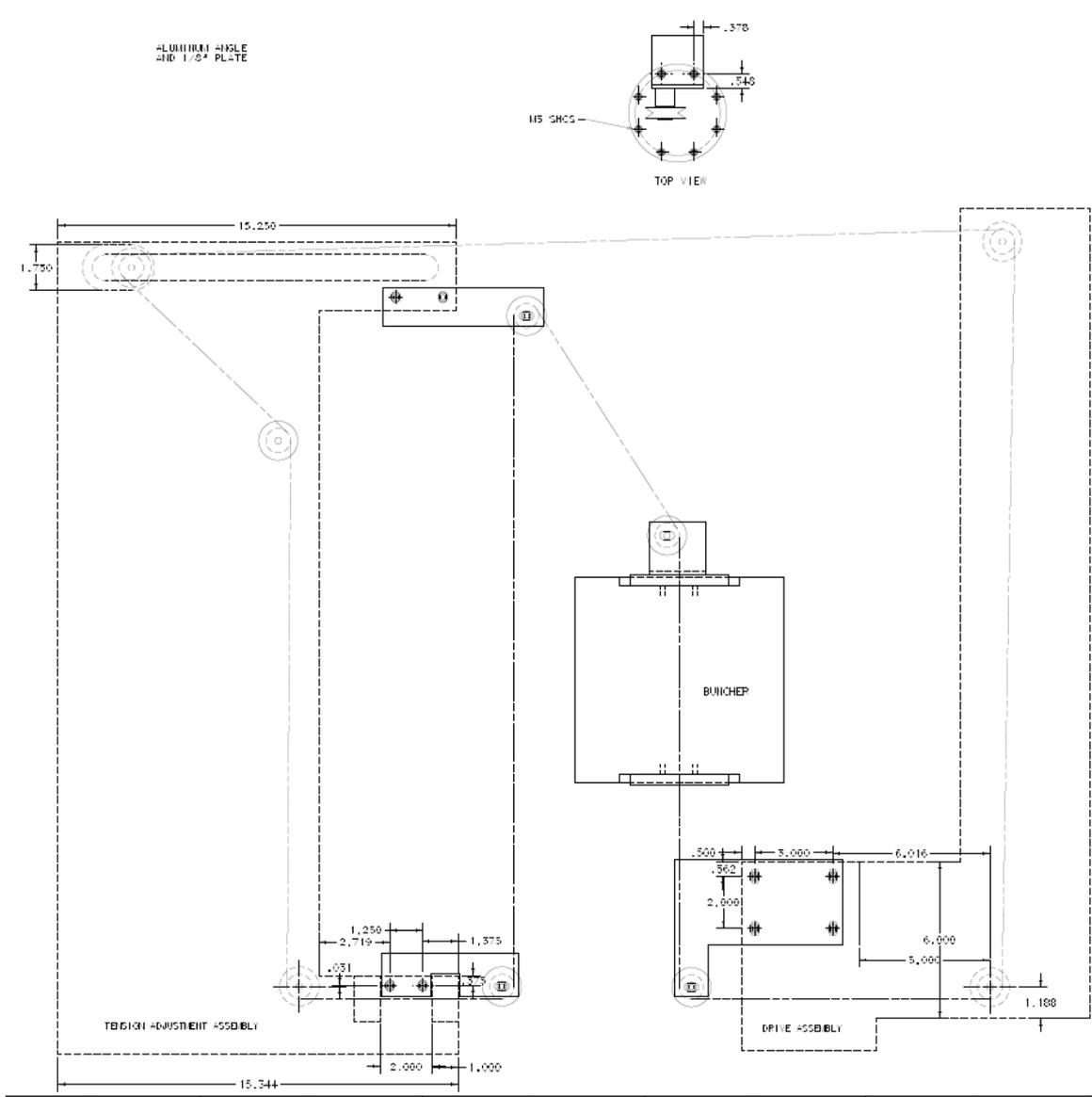
Device	Status	Comments
Quads	Coil winding has started (17 May)	2 coils have been wound. Dipole coils started (31 May). Cores will be made by High Tech \$21k each.

Buncher
 Power for quads
 Power for buncher

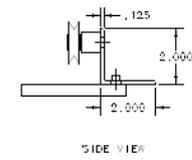
Bead pull station preliminary design done.
 Specs to follow

Will have all parts by end of May.
 Quads being redone.
 Use present buncher supply in the line.

Bead Pull Station

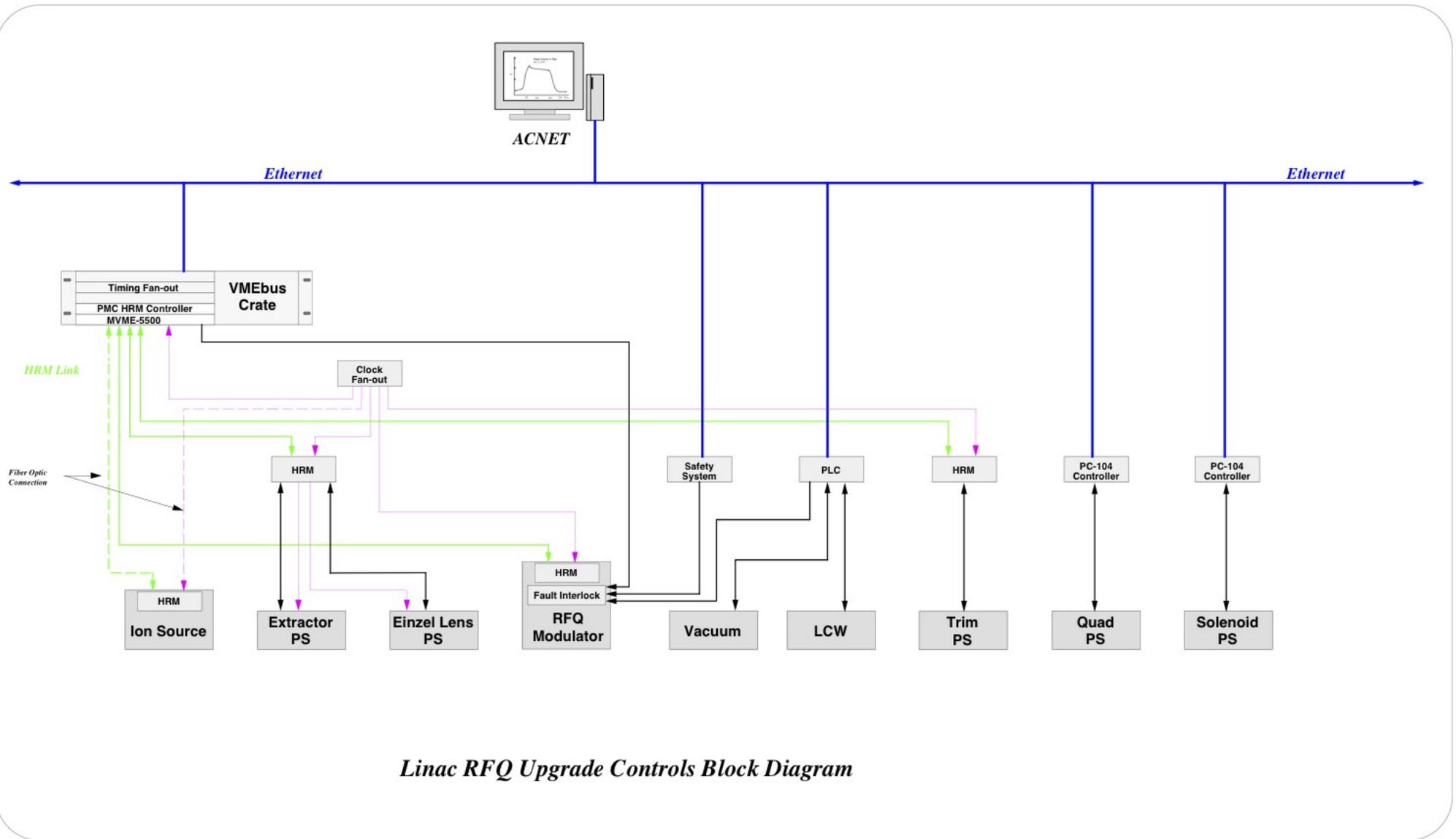


REV	DESCRIPTION	DATE	DATE
		APPROVED	DATE



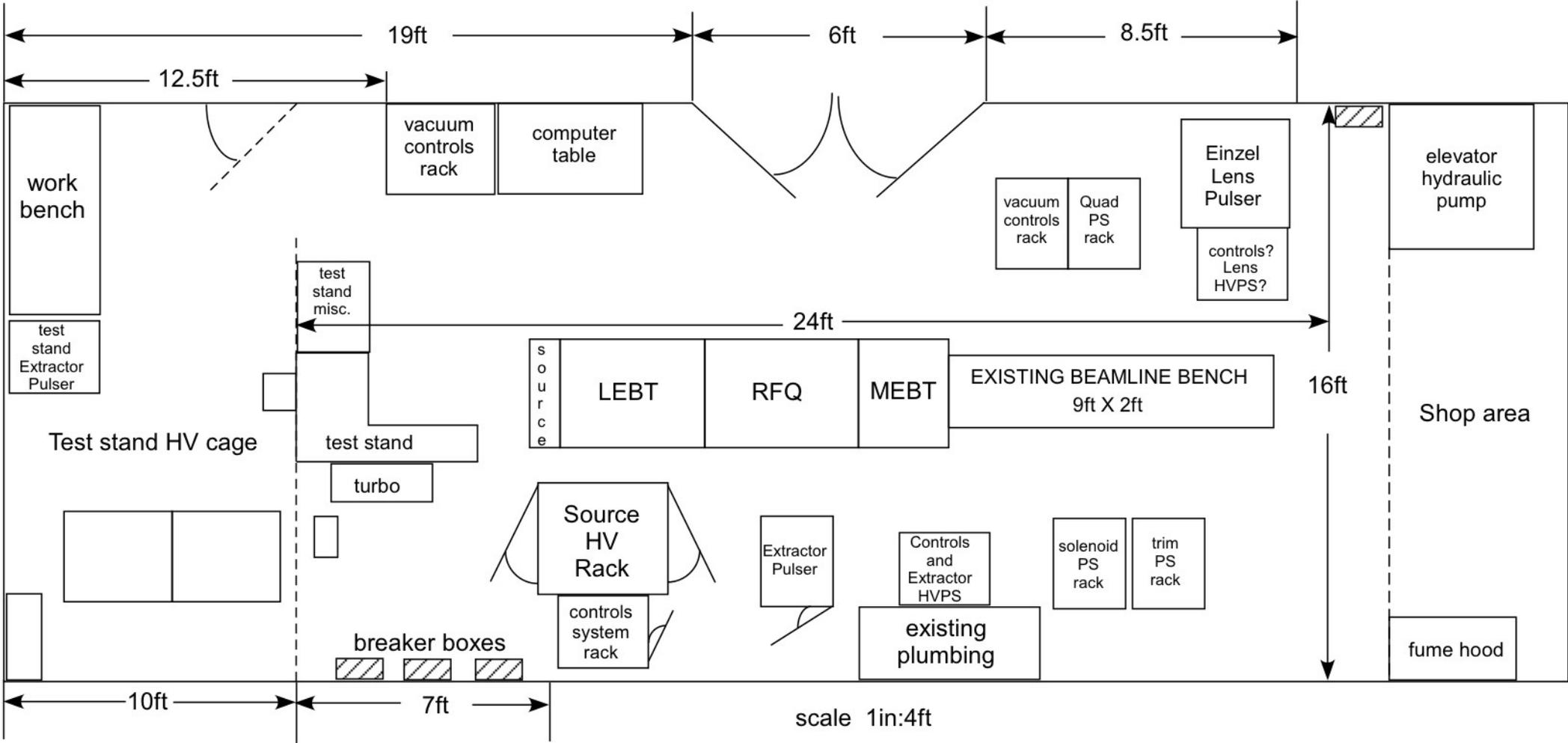
UNLESS OTHERWISE SPECIFIED	DP-III	J. DIEHL	5/3/2011
1. DIMS - ALL DIMS IN INCHES	DP-III		
2. DIMS - ALL DIMS IN MILLIMETERS	CHECKED		
3. DIMS - ALL DIMS IN MILLIMETERS	APPROVED		
4. DIMS - ALL DIMS IN MILLIMETERS	TESTED ON		
5. DIMS - ALL DIMS IN MILLIMETERS	DATE		
	BY		
	DATE		
FERMILAB NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY			
BEAD PULL TEST FIXTURE MODIFICATIONS			
SCALE	DP-III NUMBER	SHEET	REV
1/2		1 OF 1	
CREATED WITH	GROUP		

Controls



Linac RFQ Upgrade Controls Block Diagram

Test Area



Safety

- When can the beam line layout in test area be done?