

# MICE - INFRASTRUCTURE

MICO meeting 7<sup>th</sup> February 2008

Tim Hayler

# Infrastructure list

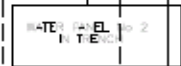
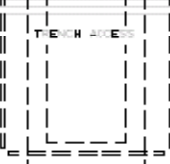
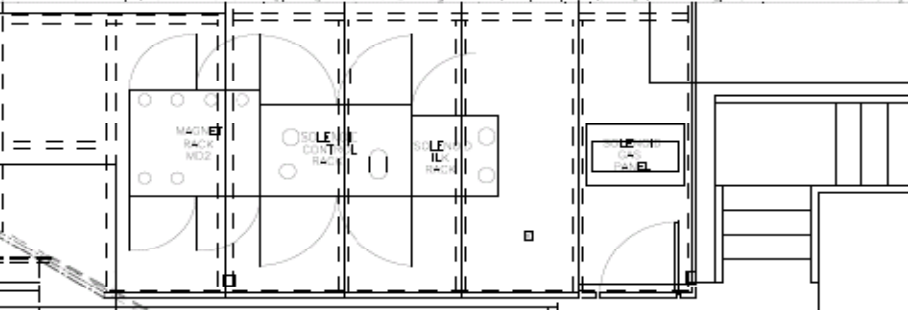
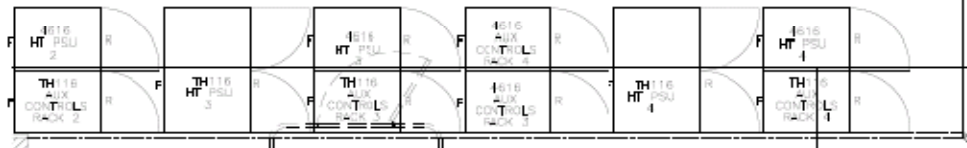
- PPS – fence, roof and fire escape in the DSA
- RF project – False floor
- Removing Concrete Ramp
- South magnetic shield wall
- North magnetic shield wall
- Air conditioning
- Rolling platforms
- Hydrogen system
- Mice hall roof
- Vacuum
- Compressed air
- New hall door

# PPS in the DSA

- Provisional design review for the fence, roof and fire escape held on 15<sup>th</sup> February.
- Work carried out in the May shutdown.

Basic layout drawing shown at <http://hep04.phys.iit.edu/cooldemo/tb/MICE-Drawings/2.1-MICE-Hall-and-infrastructure/PPS-personal-protection-system/>

NORTH WALL

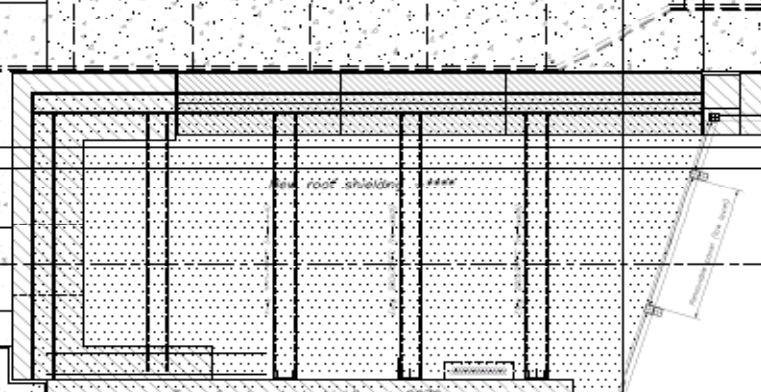


15 TON LIMIT 8 TON LIMIT

Extg. Mezzanine + 3490

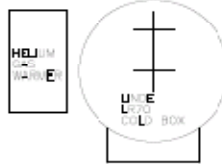
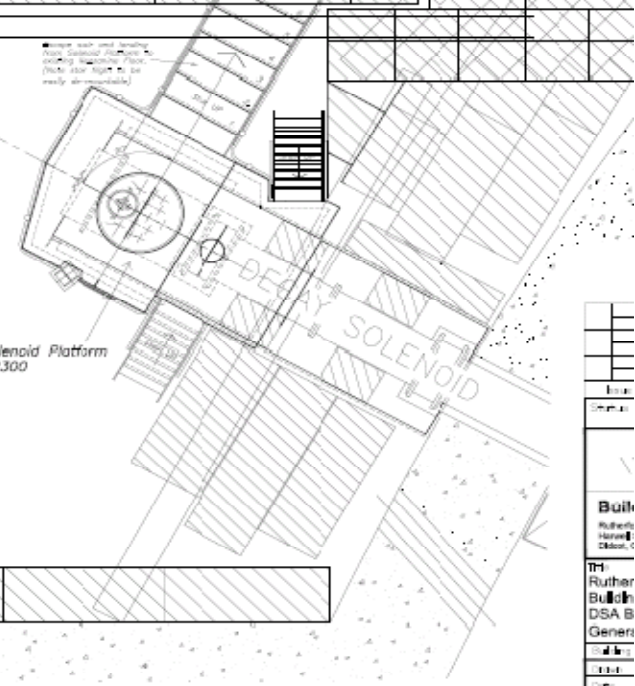
Top of extg. concrete shielding +3910

Top of extg. steel shielding +2745



Solenoid Platform +2300

Extg. Helium Buffer Tank Platform +3125



SOUTH WALL

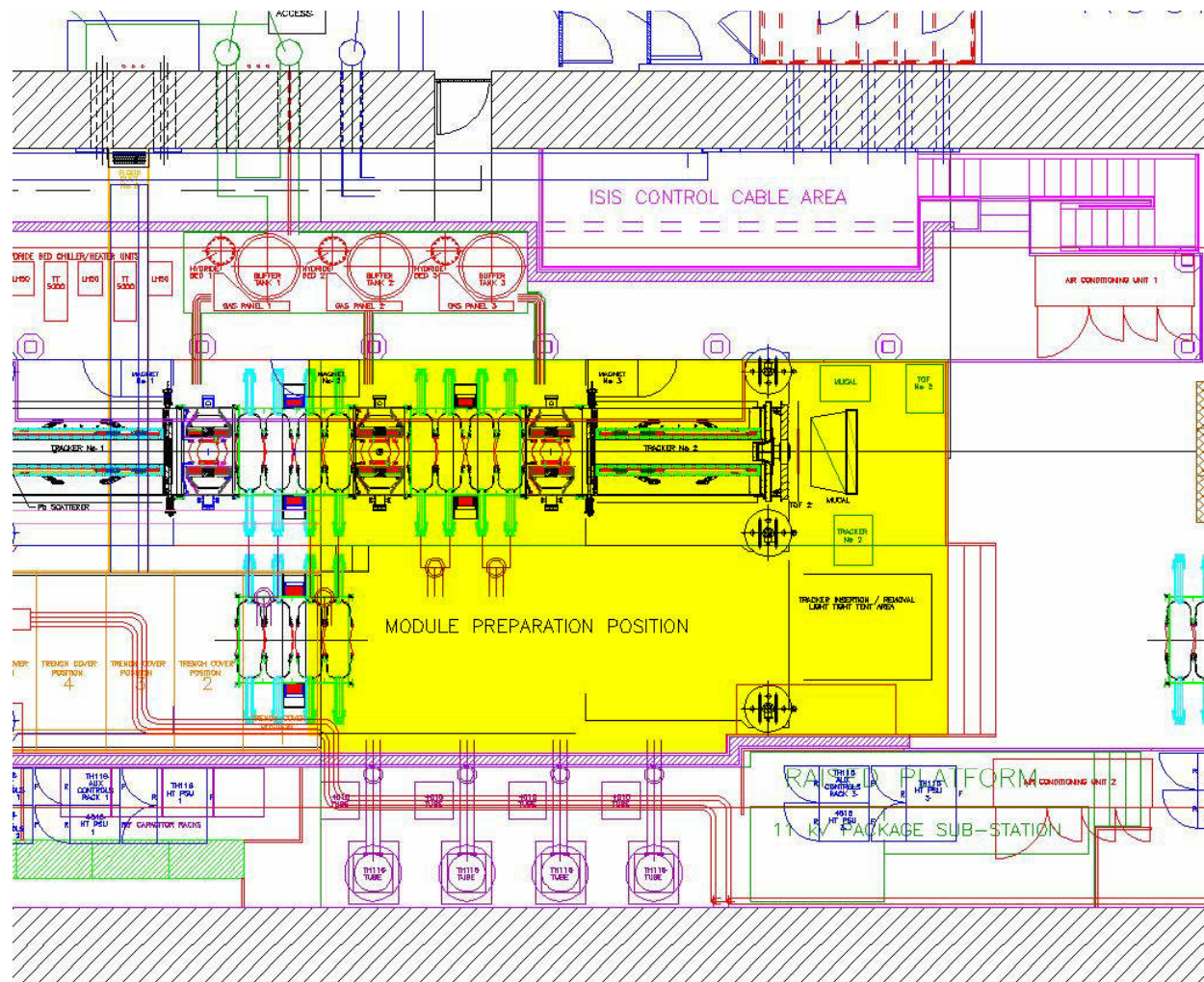
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Build  
Rutherford  
DSA B  
General

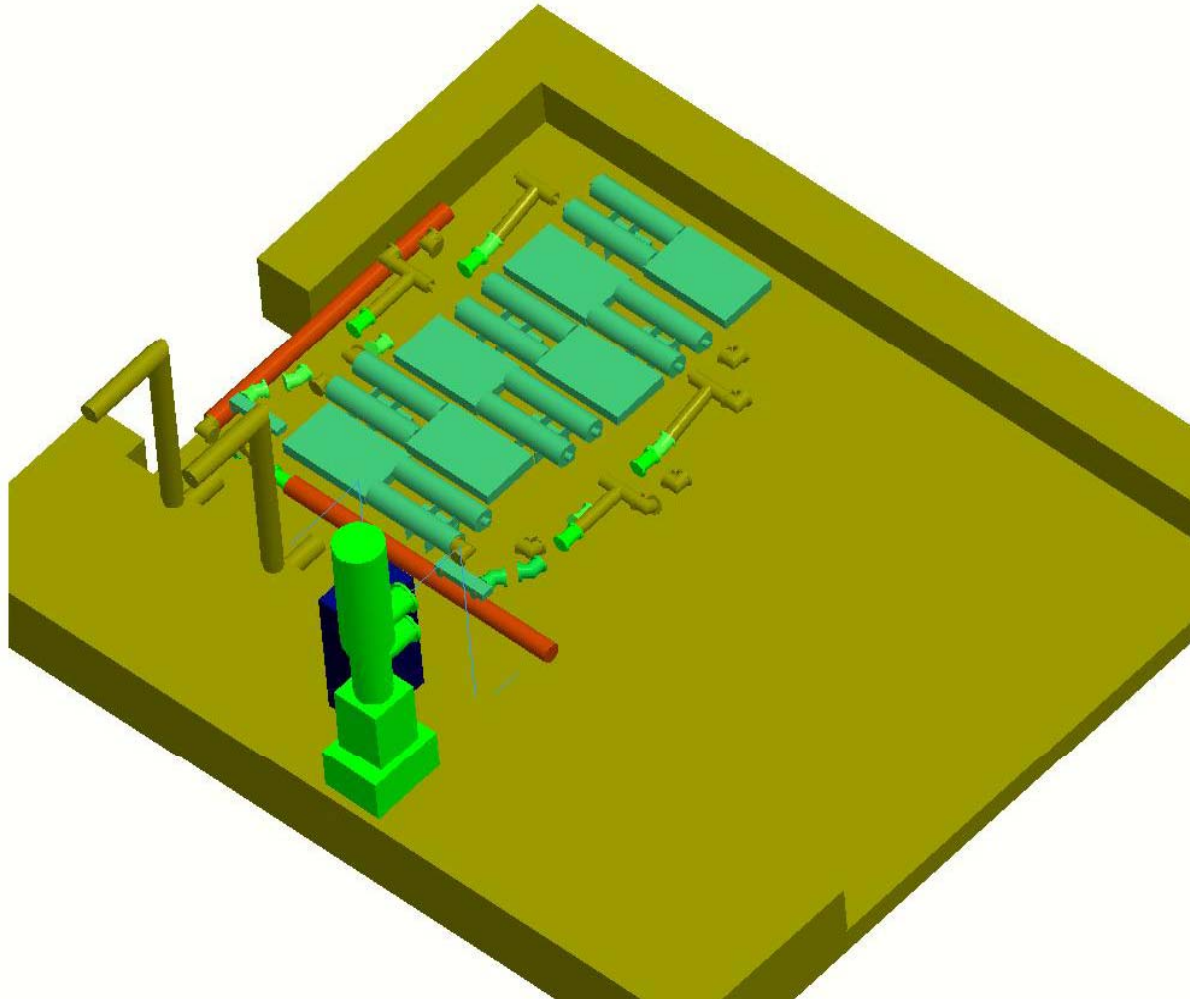
# RF Project and the false floor

- Need to decouple the RF project from the false floor.
- A layout of the RF components under the false floor, from the amplifiers to the cavities, shows there is enough space but with little head room.
- False floor provisional design 15<sup>th</sup> Feb.

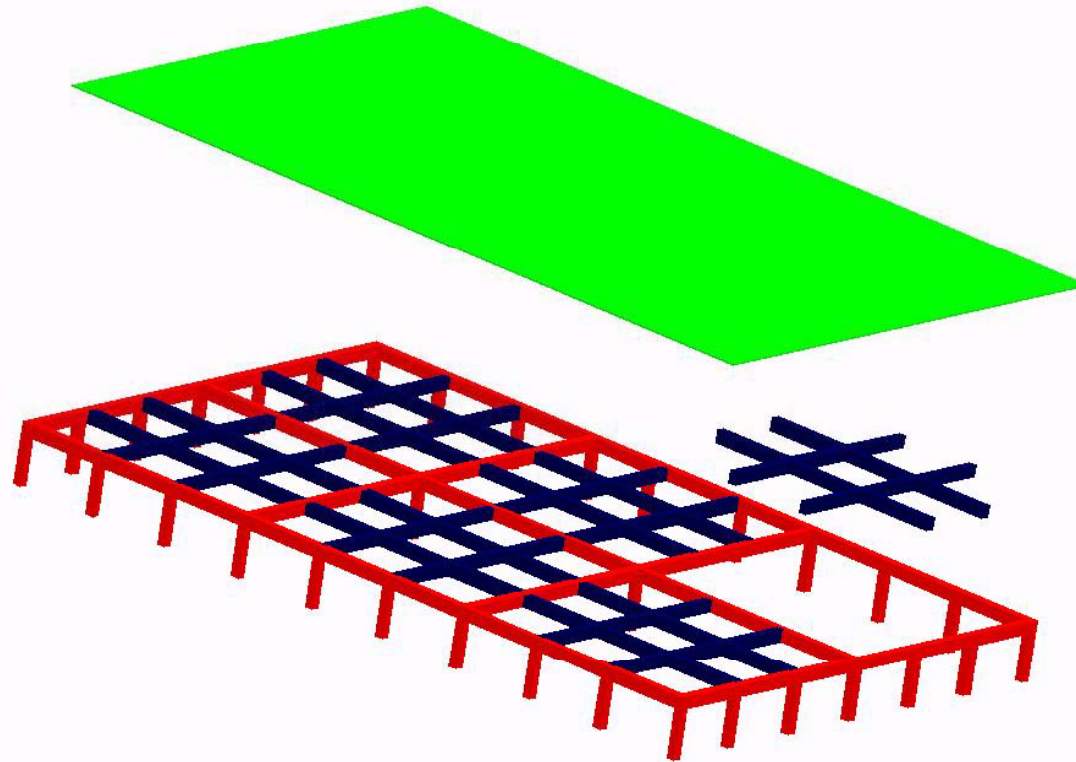
# Area taken by false floor



RF components under the false floor, feeds four cavities.

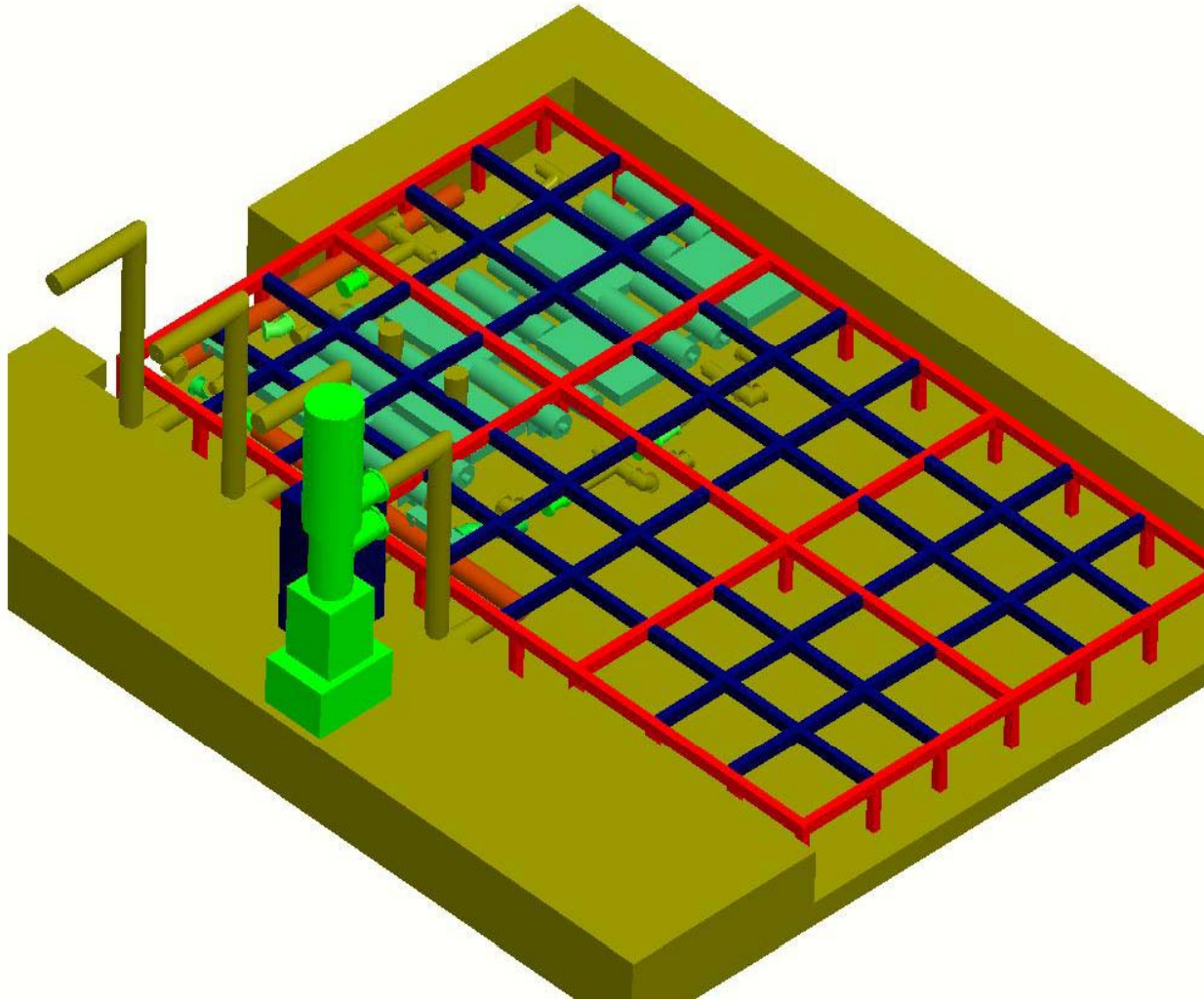


# Simple false floor design





## RF and false floor



## Removal of the concrete ramp, more room for the RF components

- Representation of MICE beam line and the concrete area to be removed laid out in the hall (10<sup>th</sup> Feb).
- Contractors need 4 weeks to excavate, start work on the 18<sup>th</sup> Feb.
- Area tented to prevent dust.
- Need water supply and 32 amp 3 phase supply.
- Need to move test cap, under review.

# South magnetic shield wall and mezzanine

- Design agreed.
- Andy producing installation drawings for the steel plate.
- Tenders back in for steel plates 6<sup>th</sup> Feb
- Work starts 10<sup>th</sup> March.
  - Alter existing stairway
  - Install support structure for magnetic shield wall
  - Install steel plates on support structure
  - Construct new south wall mezzanine
  - Painting and fire proofing

# North magnetic shield wall and mezzanine

- Provisional design review 22<sup>nd</sup> Feb
- Depending on the capacity of the company, installation will be in parallel or series with the south wall.

# Air conditioning

- Agreed AC layout  
<http://hep04.phys.iit.edu/cooldemo/tb/MICE-Drawings/2.1-MICE-Hall-and-infrastructure/2.1.2.5-Air-conditioning/>
- Tender process started for the AC units, delivery expected before April.
- Install AC units and ducting.
- Install 10 fans on the roof to remove heat from units.
- Install pipe runs from units to fans on the roof.
- Electrical installation.
- Commission and test AC units.

# Rolling platforms

- 1 and 7 tracker platforms out for manufacture, delivery 1<sup>st</sup> March.
- Design 2,3,4,5,6, ready 12<sup>th</sup> April
- Possible case for single tender
- Delivery 2,3,4,5,6 11<sup>th</sup> July

# MICE hall roof

- Need a layout drawing of the roof
- Check the roofs structural rating, (more equipment on the roof)
- Fence between MICE roof and ISIS roof (1 or 1.8m)
- Fence around the entire perimeter or hand rails
- Permanent stairway access to roof, temporary scaffold or grass bank not good enough.