

## SuperBIND Detector

6 m diameter plates, 1.5 cm thick  
400 plates  
1 kilo-ton of iron  
X and Y scintillator readout 1 cm thick

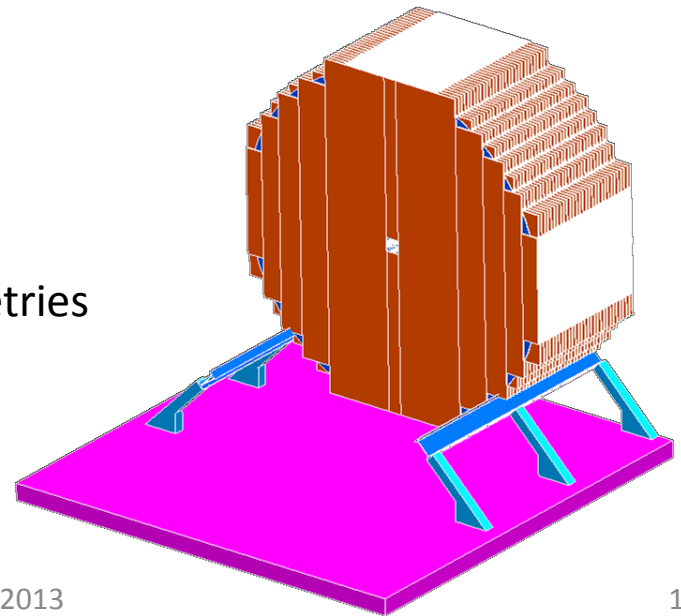
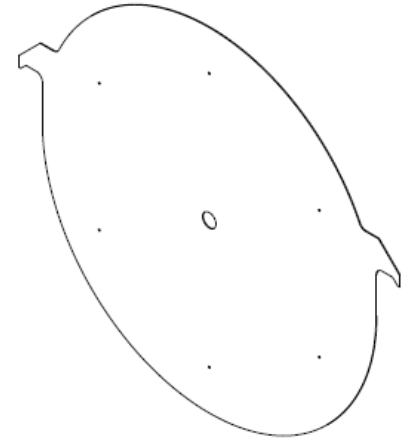
Detector length ~16 meters  
Total length with supports utilities ~ 20 meters

### Baseline plan:

Similar configuration as Minerva

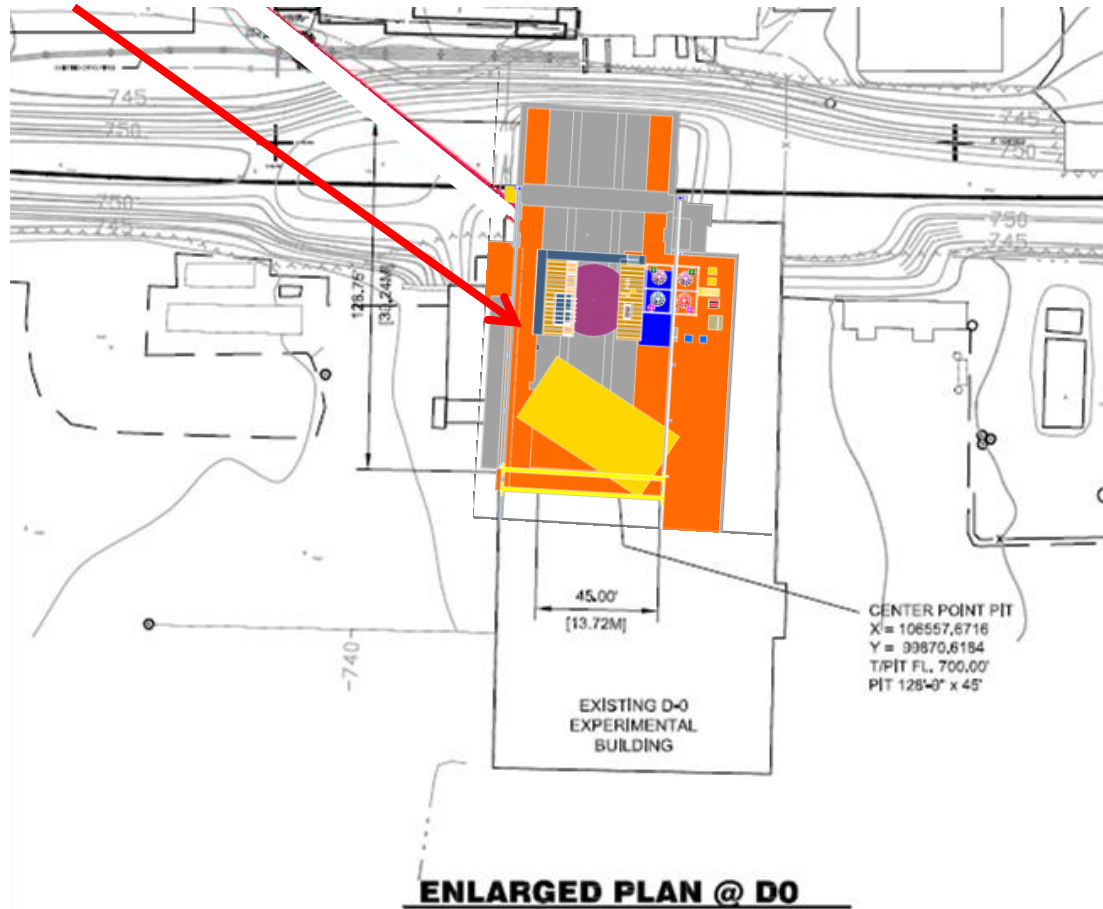
### Other considerations:

Investigating other support options and plate geometries  
Optimization of the magnetic field uniformity



# SuperBIND Detector Site

Shared site in D0 pit with LAr





# D0 Pit Updates

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Equalizing the pit floor to the Sidewalk elevation

Pit floor is 7.5 feet deep,

This can be filled with standard A or B size blocks 7.5 x 3 x 3 feet

Levels the pit floor with the sidewalk

Pit width is 45 feet wide (15 blocks wide, using 3 foot blocks)

Overburden for SuperBind Detector

Sidewalk elevation to crane rail = 15.5 meters, add 1 meter hook allowance

SuperBind Height ~ 6 meters, ~ same as lower clean room roof

allows plenty of space for overburden

Concrete overburden,

roof beam PPA-I

20 x 3 x 2.5 feet ( 6 x 0.9 x 0.8 meter) block size, 22,500 lbs each

25 needed, total weight = 562,500 lbs

Block G

24 x 3 x 1.5 feet ( 7.3 x 0.9 x 0.45) meter block size

Overburden can be supported off a super structure or the plate column supports

## Potential Need for Clean Room Removal

Removable ceiling, remove internal crane, fire protection, remove walls

## Potential Need for Moveable Counting House Removal

Clean out counting house racks, Disconnect utilities, Remove Structure

Once cleared, estimated time for removal using over head crane

1 month for clean room, Contract crew

2 months for the counting house, Contract crew

# D0 Counting House



6<sup>th</sup> floor counting house utility connections

Counting house on (South) East sidewalk



# D0 Clean Room



Clean room on (West) South Sidewalk  
Roll up door on right is 22 feet (6.7 meters)