



About LArTF

(Liquid Argon Test Facility)

Poster Presentation for the LArTF Tour

Dixon Bogert

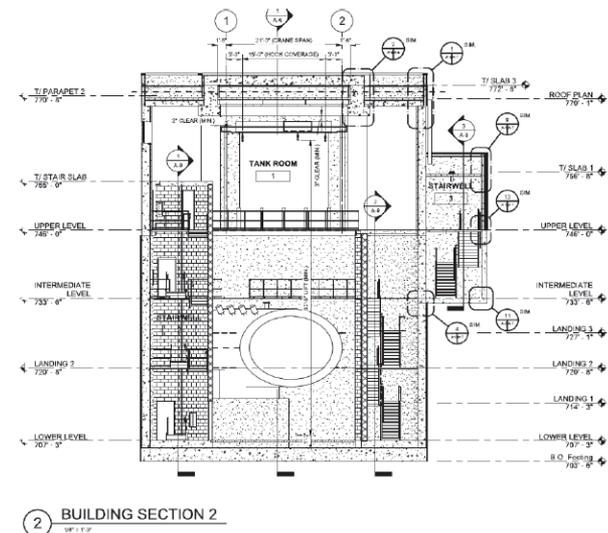
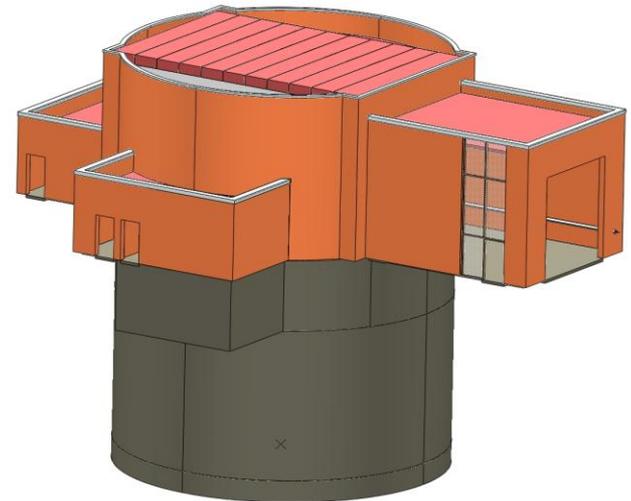
September 19, 2013

Welcome to LArTF



The LArTF was built as a GPP Project with MicroBooNE as the First Tenant.

- The basic structure is an underground cylinder with a service building at grade.
- The structure includes provision for ODH emergency egress in the form of two over-pressurized stairwells.
- There is also a raised grating floor that provides an emergency liquid argon containment area.
- A 7500 cu/ft/min emergency exhaust fan pulls gas from that volume.
- It is 67 steps down (and up) to the lower level. Hardhats must be worn below grade.

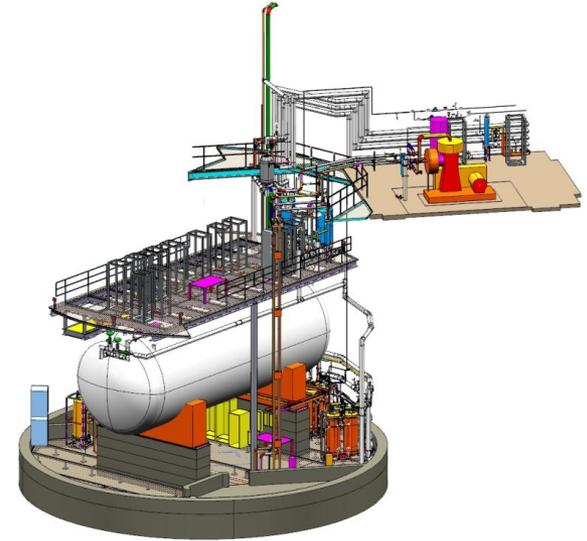


For MicroBooNE the LArTF supports a Cryogenic System and a Location for Electronic Readout



A (Removable) Intermediate Platform is provided

- The Drawing at right shows the intermediate platform over the cryostat.
- The platform was installed during construction (below.)
- The platform may be removed in two pieces for cryostat installation (lower right.)



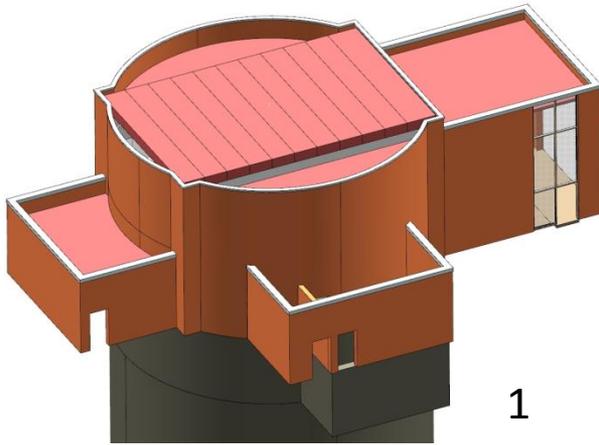
The Cryostat is Inserted through a Removable Roof using an External Crane.



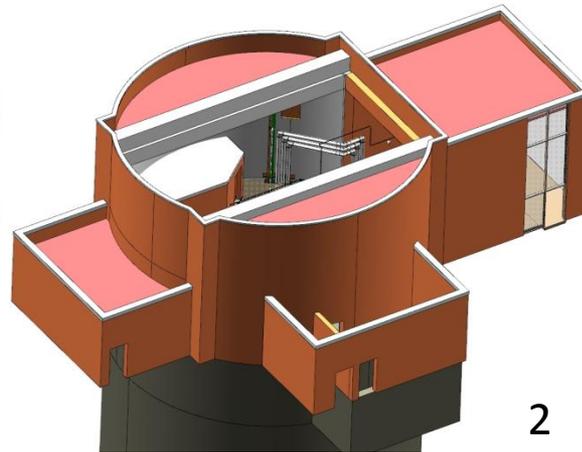
A (Removable) Two Piece Roof is provided

- The picture at left shows the uncovered opening.
- The center picture shows one roof piece being moved into place with an external crane.
- The picture at right shows the two roof pieces in place.
- Flange covers are bolted into place on the roof.

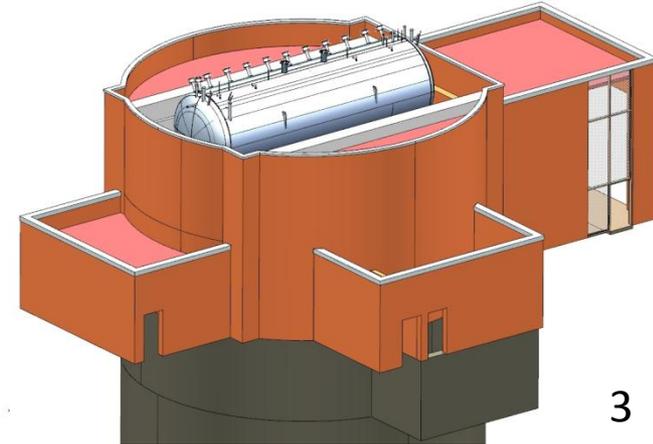
Plan for the Installation of the Cryostat (part 1)



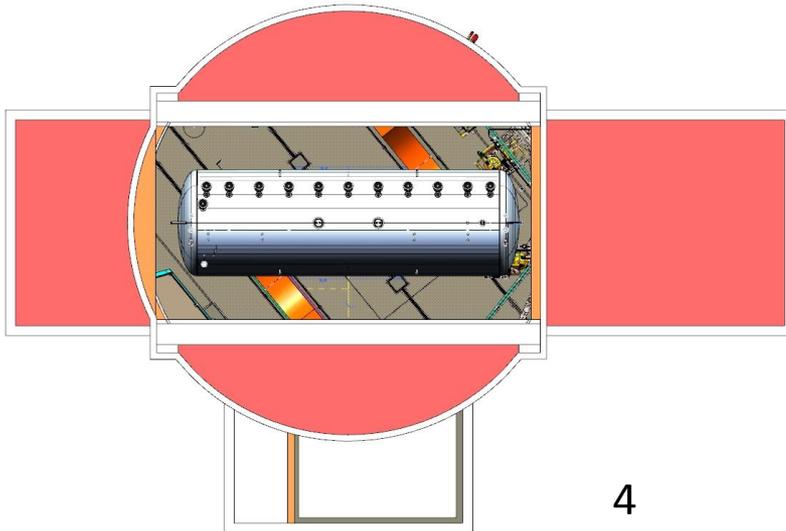
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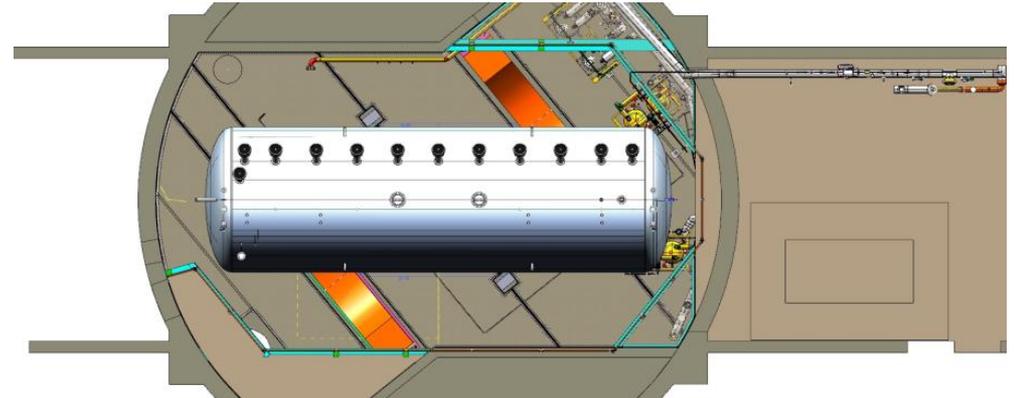
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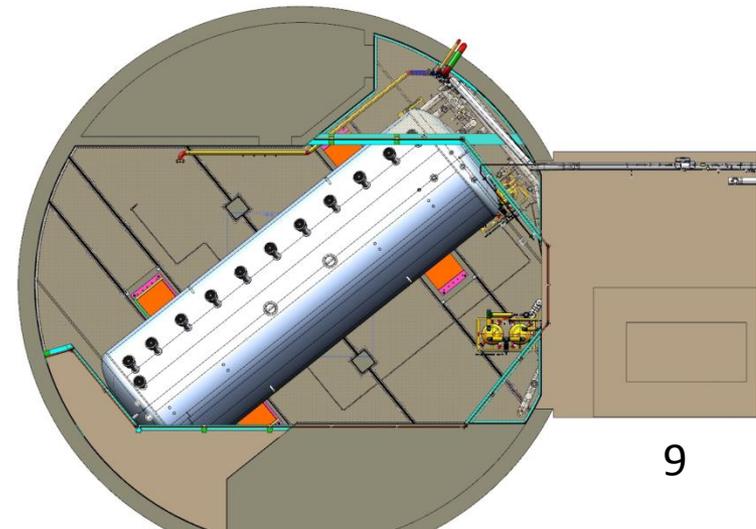
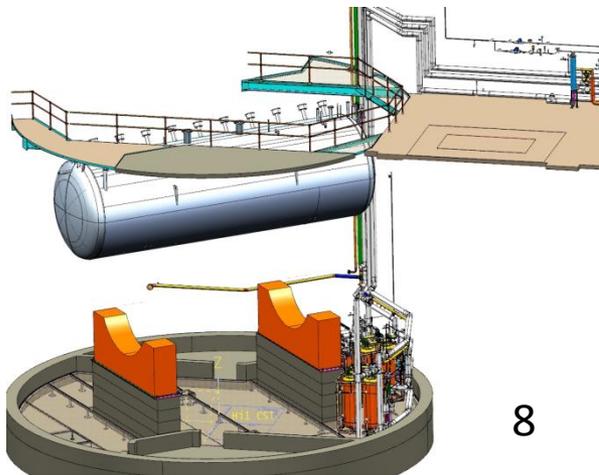
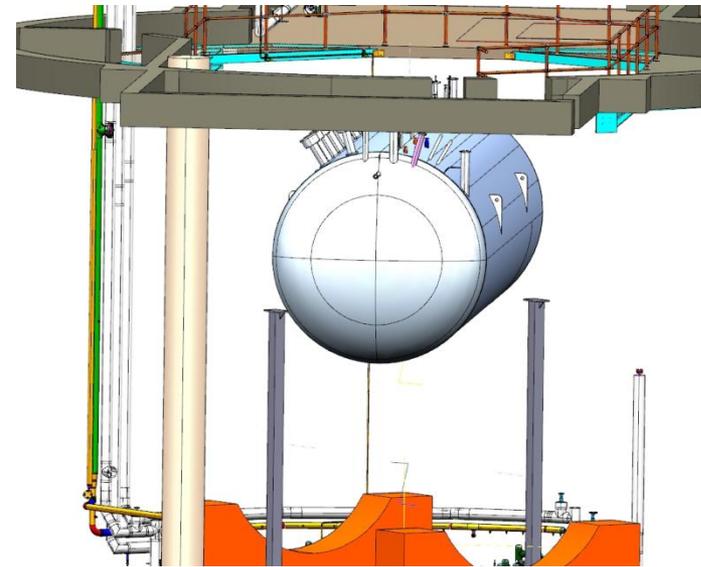
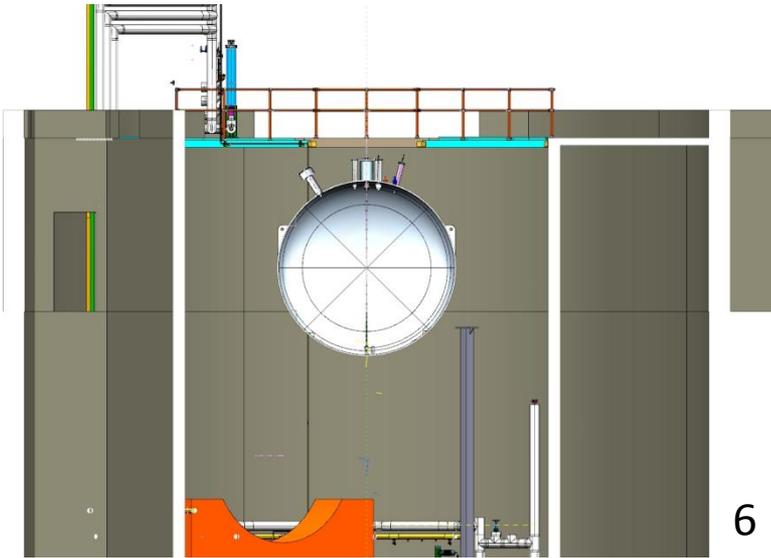


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Plan for the Installation of the Cryostat (Part 2)



Steps in the Installation of the Cryostat



Step 1 - Remove the eleven “Span-crete” roof protection planks.

Step 2 - Remove the two removable roof pieces.

Step 3,4 – Orient the cryostat correctly and lower through the roof.

Step 5 – Lower the cryostat through the “balconies” at grade.

Step 6, 7, 8 – Lower the cryostat below grade to the “rotation” elevation as shown, and rotate the cryostat to the saddle alignment.

Step 9 – Lower the cryostat into the saddles.