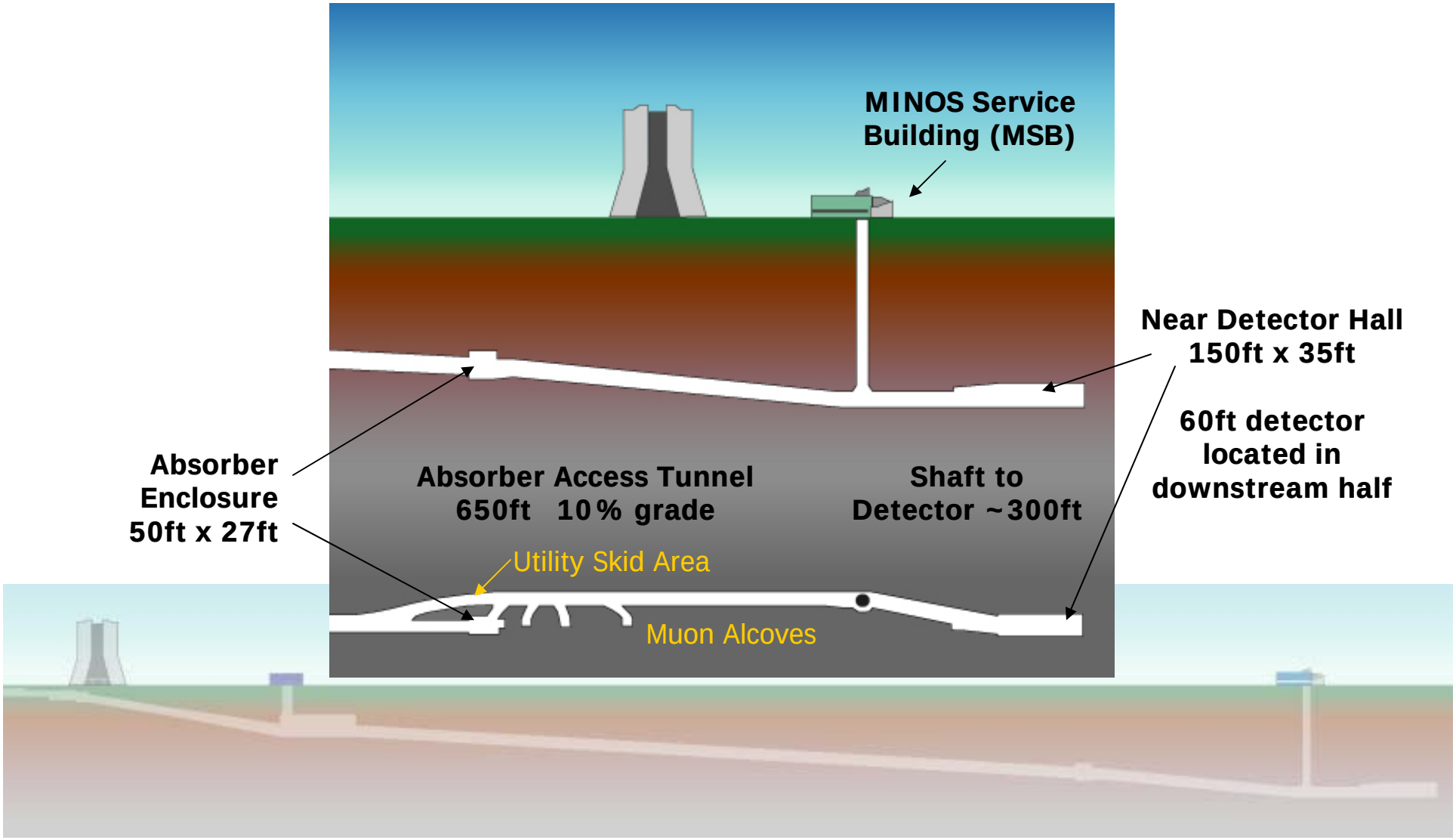
NuMI-MINOS
Downstream Areas Installation

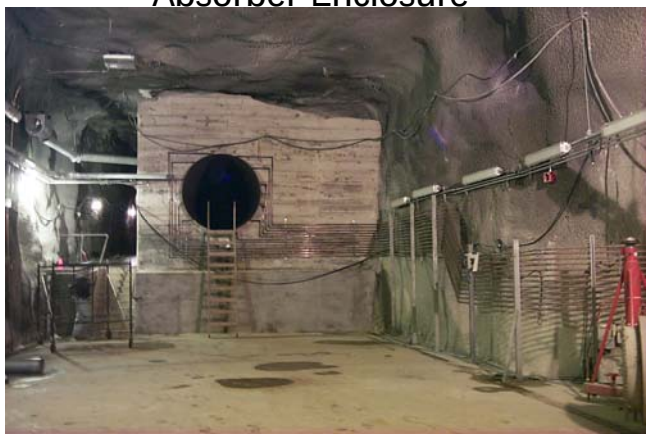


What the place really looks like

Looking down the hill

Looking up the hill

Absorber Enclosure



Base of Shaft
Looking upstream

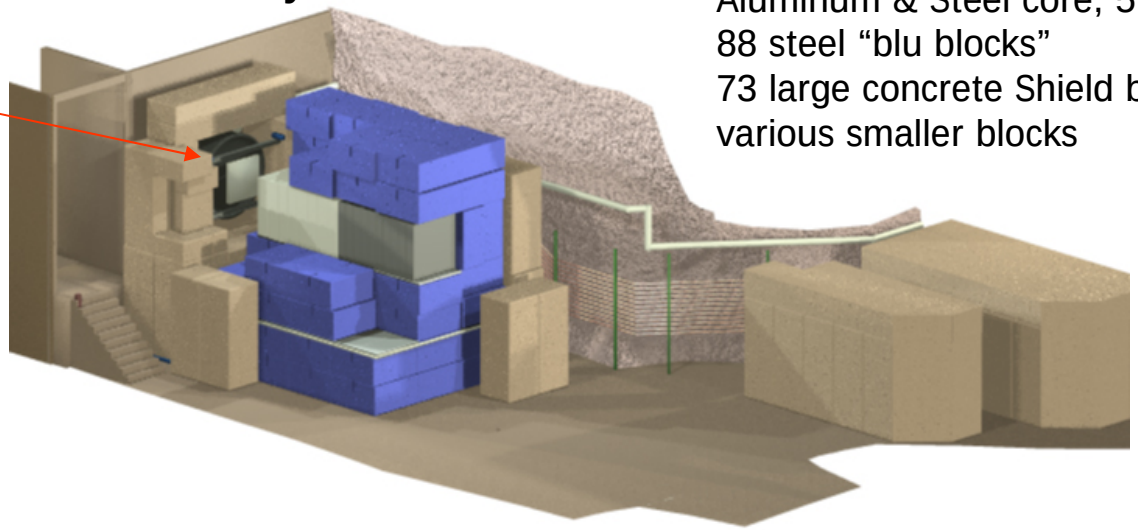
Near Detector Hall

On Detector Platform
Looking upstream

Absorber Enclosure Installation Work

Cut-away View

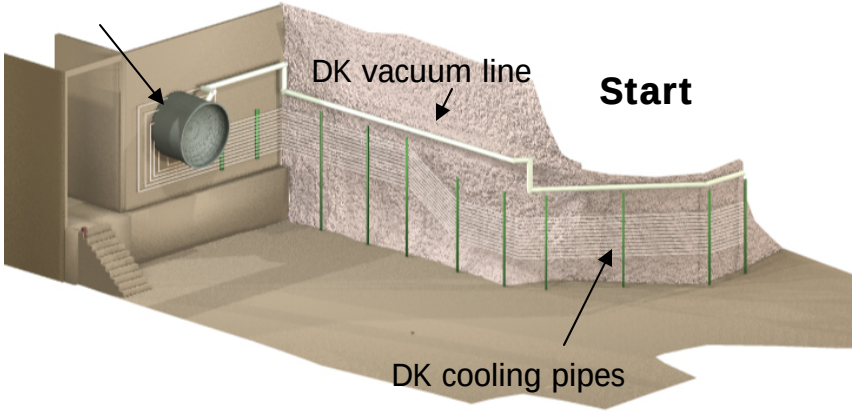
Hadron Monitor



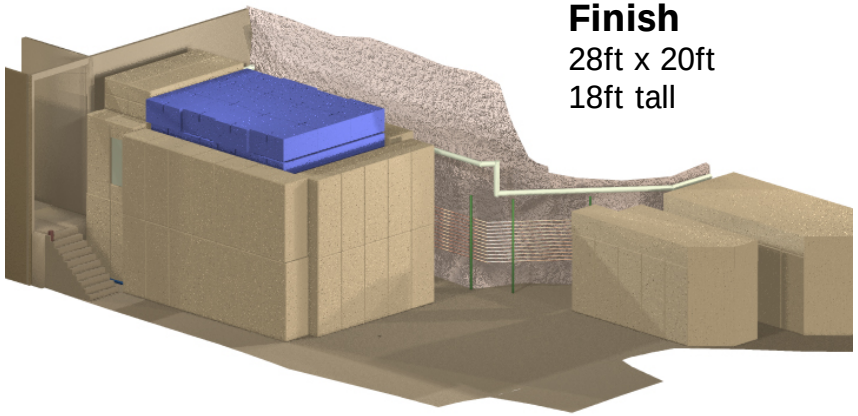
Aluminum & Steel core, 51” sq, ~16ft deep
88 steel “blu blocks”
73 large concrete Shield blocks (A,B,C,J)
various smaller blocks

Labyrinth
30 B blocks
Various smaller blocks

Decay Pipe
6ft diam

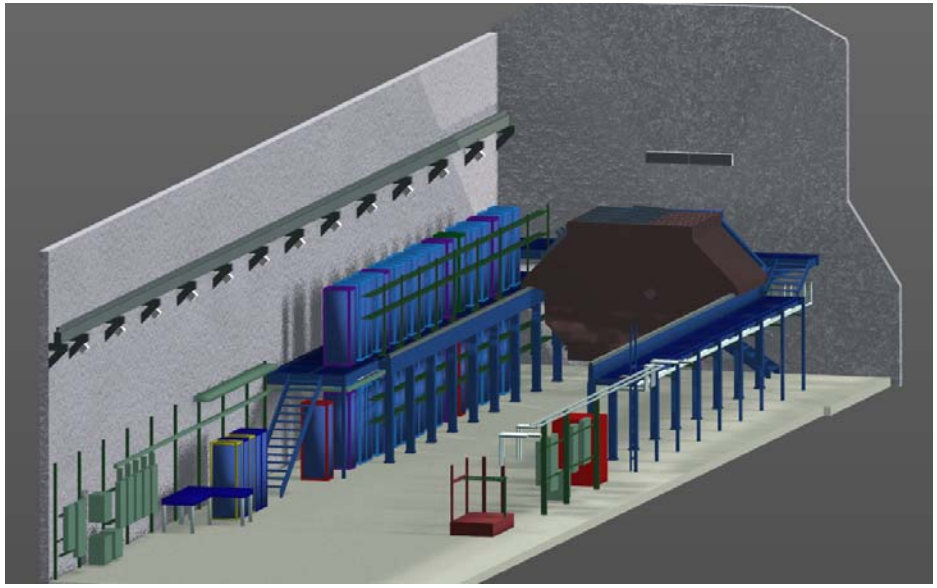


Start



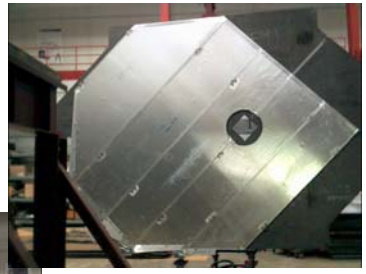
Finish
28ft x 20ft
18ft tall

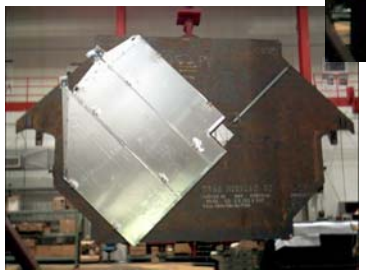
Detector Hall Installation Work

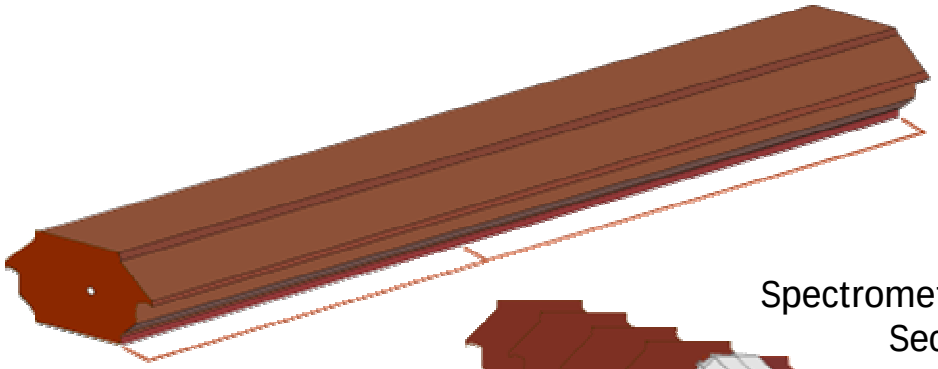


282 steel plates
~20ft x ~12ft x 1in
Final Length (with gaps) 55ft

Start Installation at
the downstream end







Spectrometer
Section
161 planes

Calorimeter
Section
121 planes

153 Instrumented Planes
Every 5th plane is a Full
through the length of the
detector

Load up at New Muon
Truck holds all the planes
required for a single day

Deliver a Plane Underground
Crane trip takes 9 minutes

Drive to MSB
Eola to C0 to back of HR
to Giese to MSB
1 trip per day, generally
Between 8 and 9am

Transfer Plane
from crane fixture
to delivery cart fixture
Tow cart into Hall.

Unload at MSB
Planes sit on floor
Until needed below

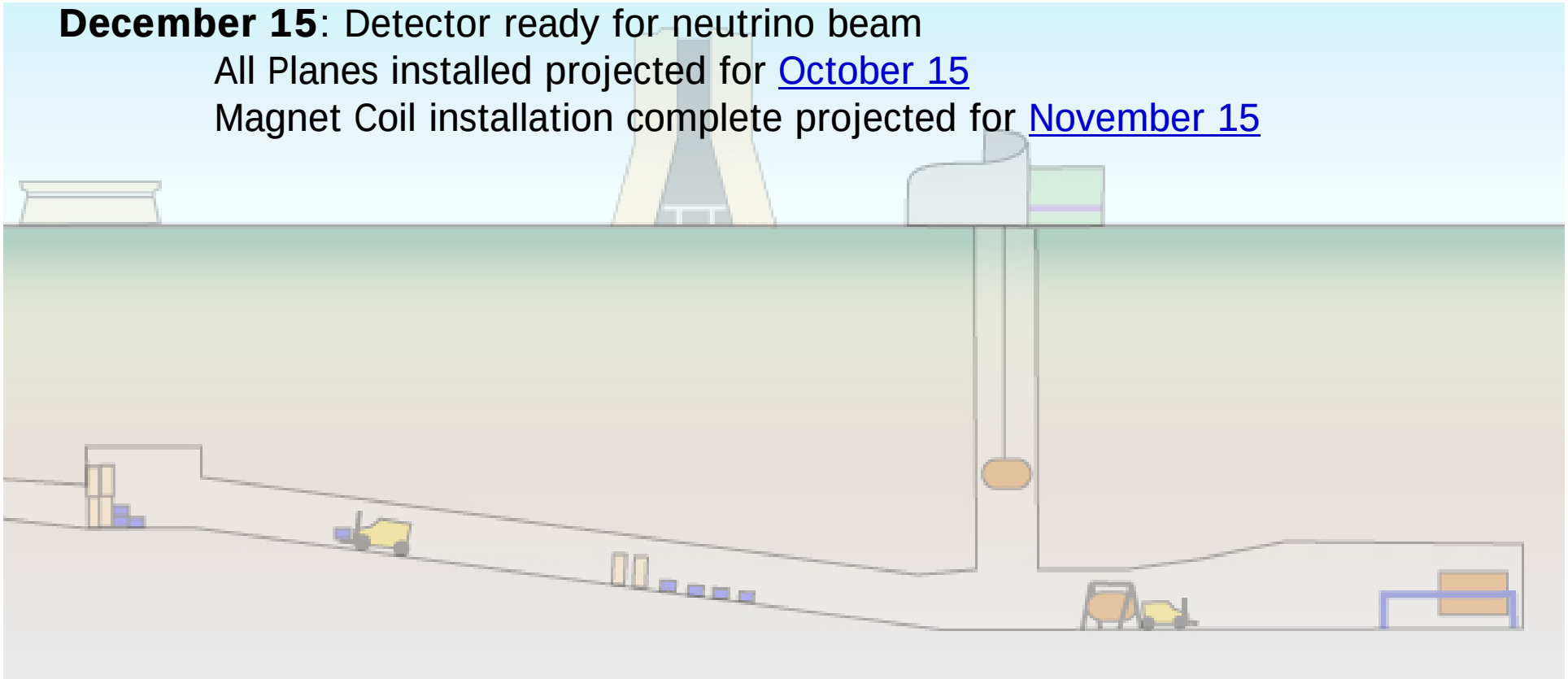
Install Plane
onto the support structure.
Physicist evening shift
connects the readout

Project Milestones driving our planning

And projected completion dates for these based on the working schedule

March 4 : Beneficial Occupancy of MINOS areas
Will be March 10. Some contractor work allowed to start March 5.

July 15 : vacuum integrity test of DK pipe complete
Projected for April 19

November 19: Checkout of Beam Absorber completed
Projected for August 16

December 15: Detector ready for neutrino beam
All Planes installed projected for October 15
Magnet Coil installation complete projected for November 15