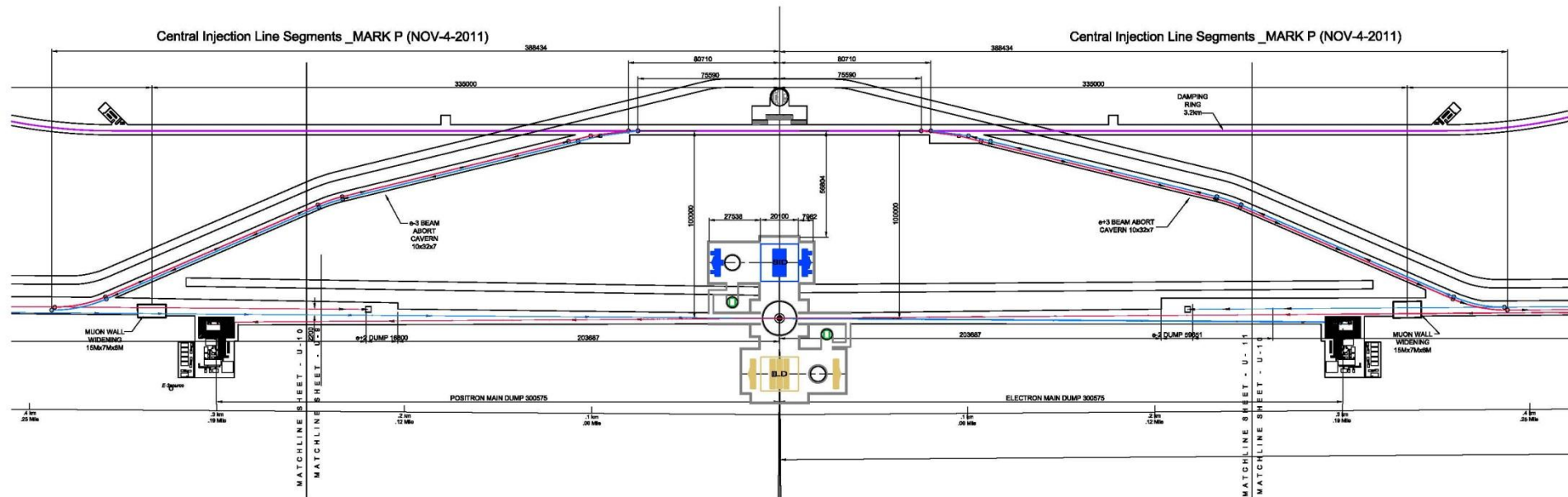




Americas Region Detector Hall

CONVENTIONAL FACILITIES AND SITING

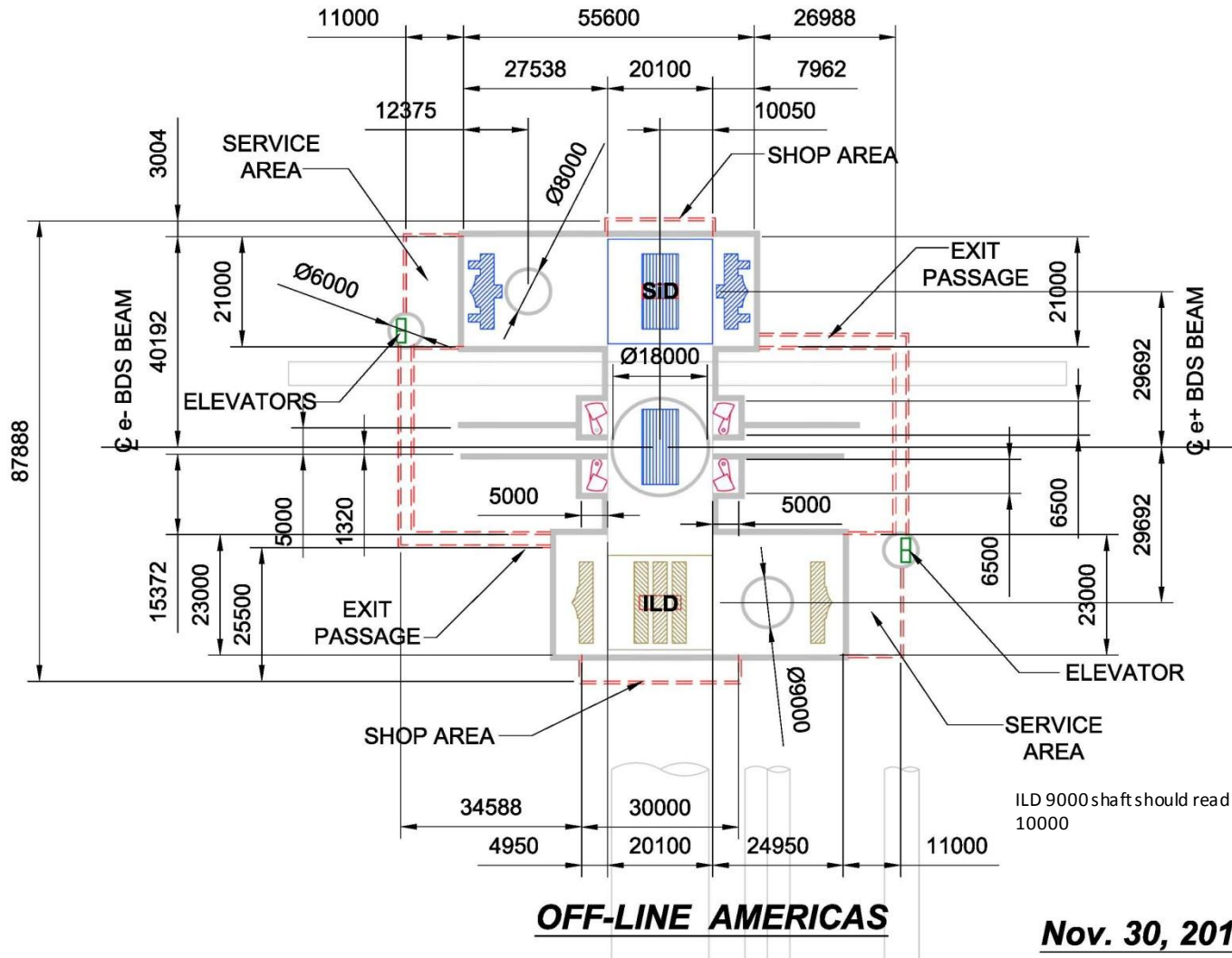
T. Lackowski



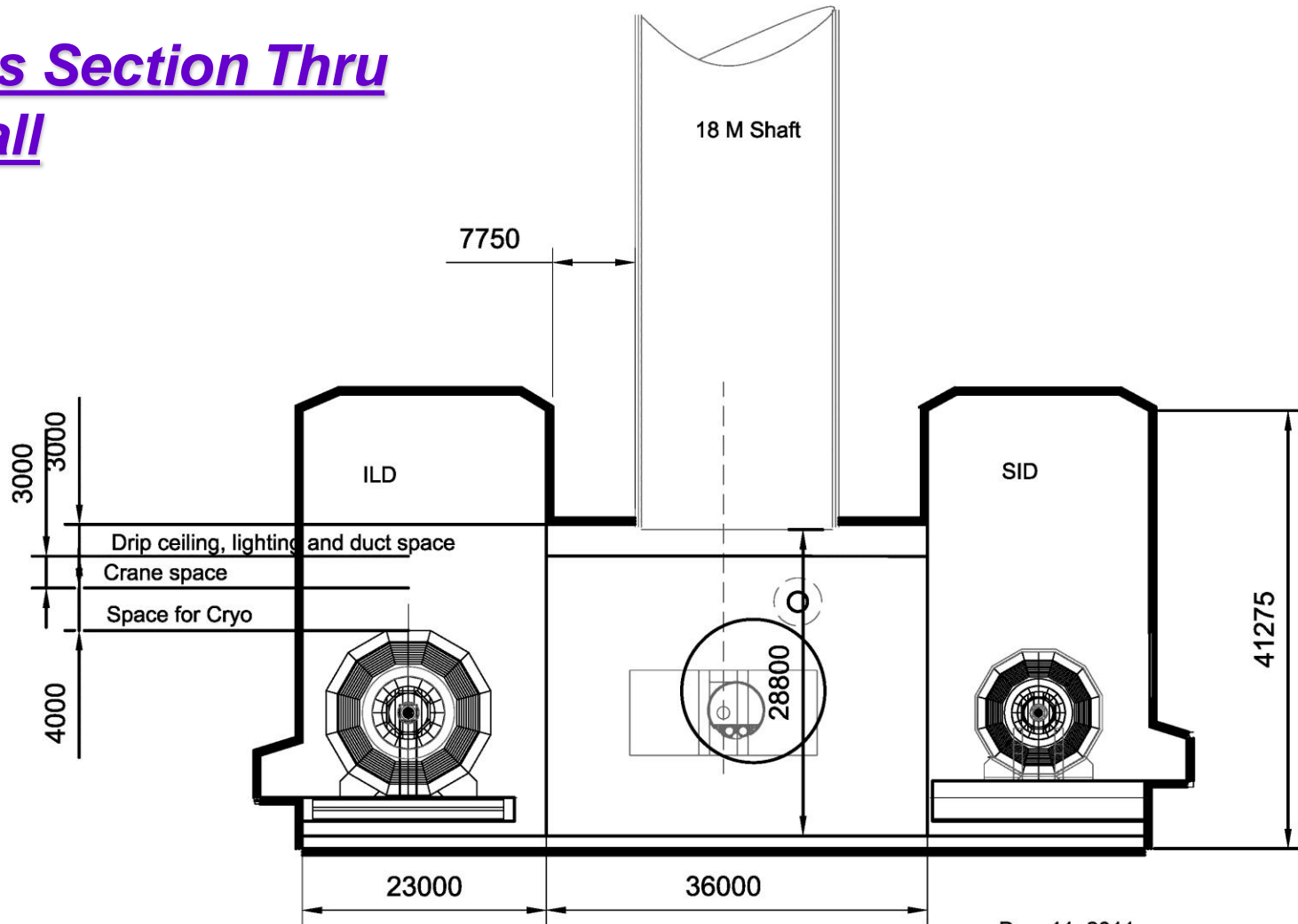
Please excuse use of this Old Drawing



Global Design Effort - CFS



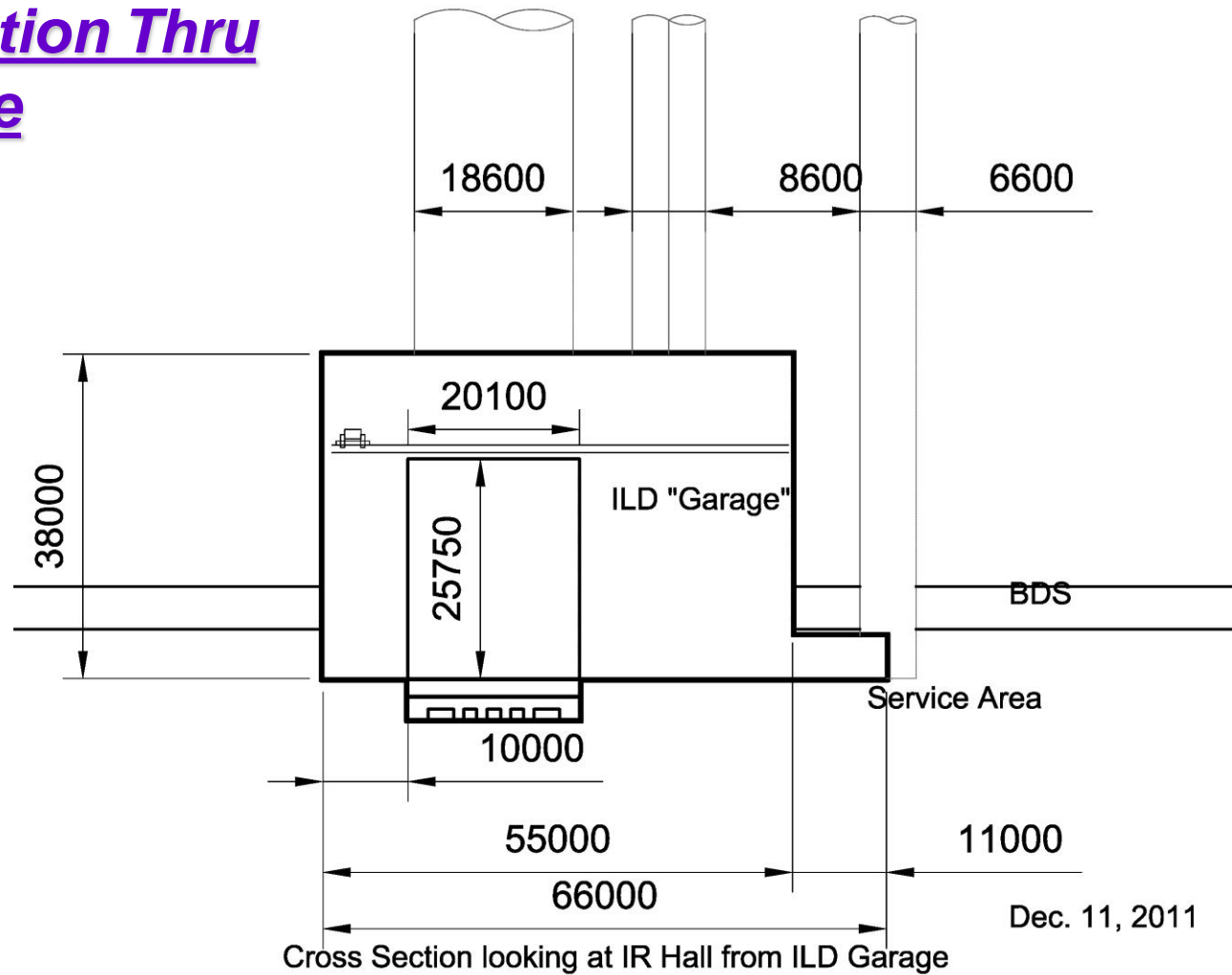
Cross Section Thru IR Hall

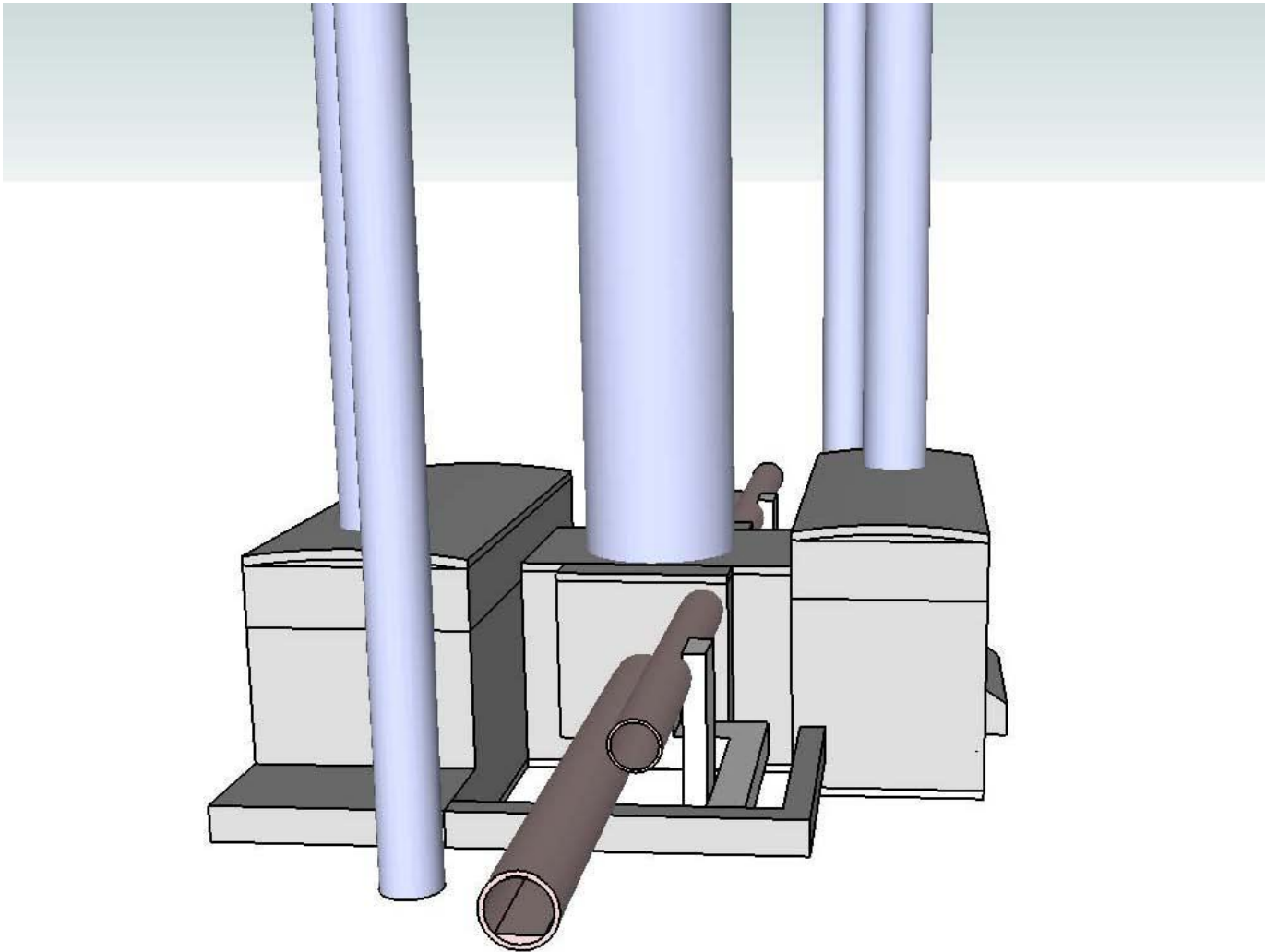


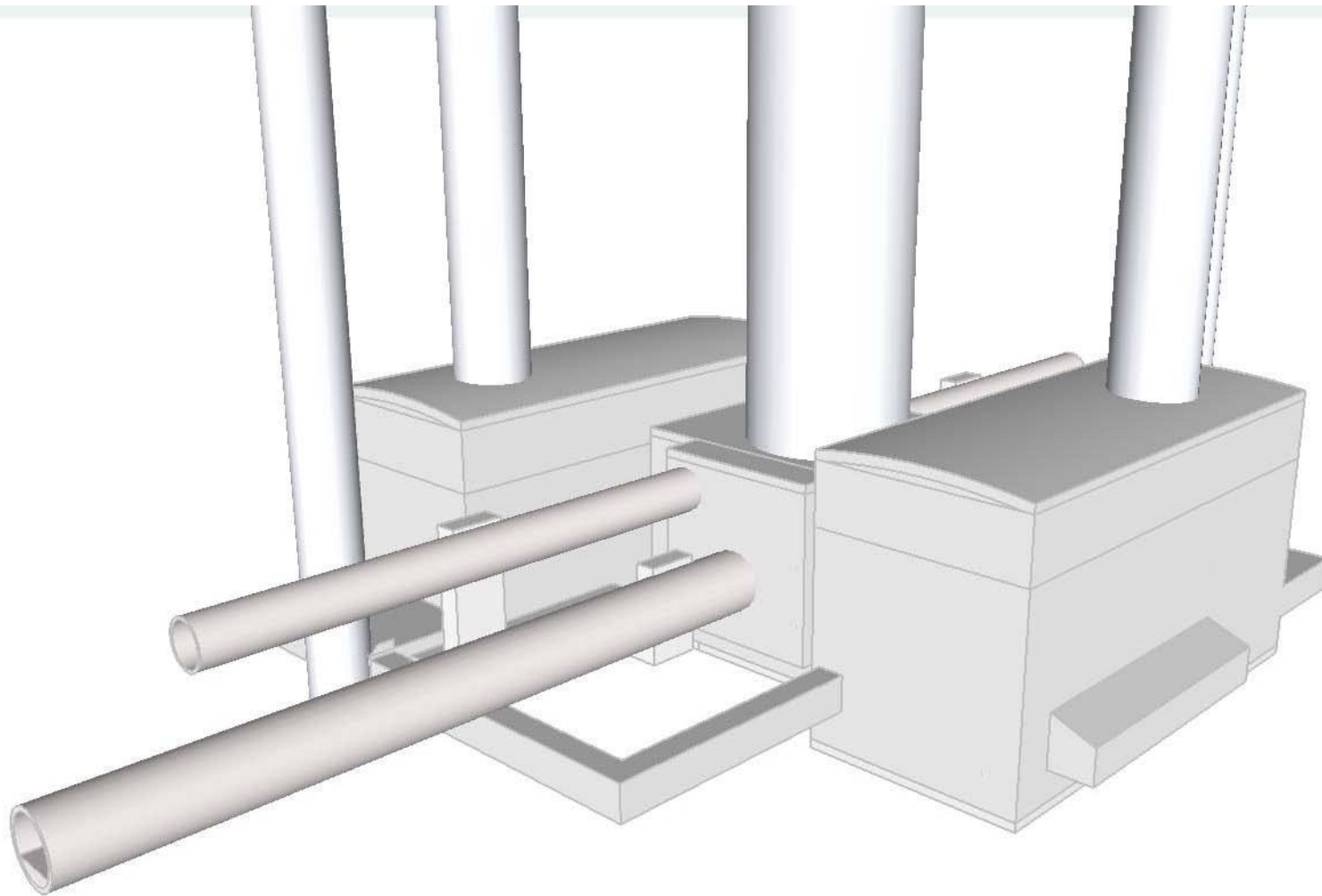
Dec. 11, 2011

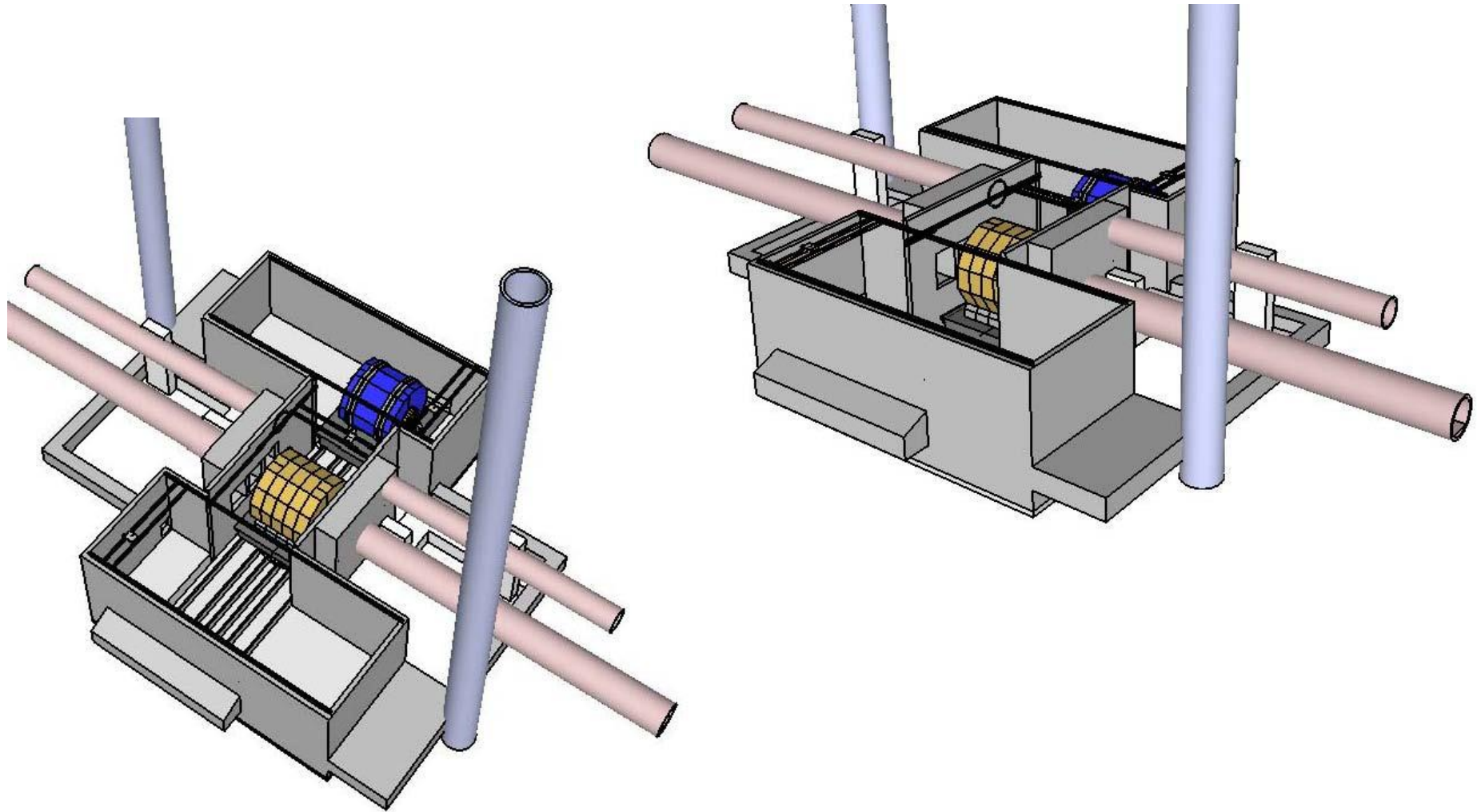
Cross Section Thru IR Hall

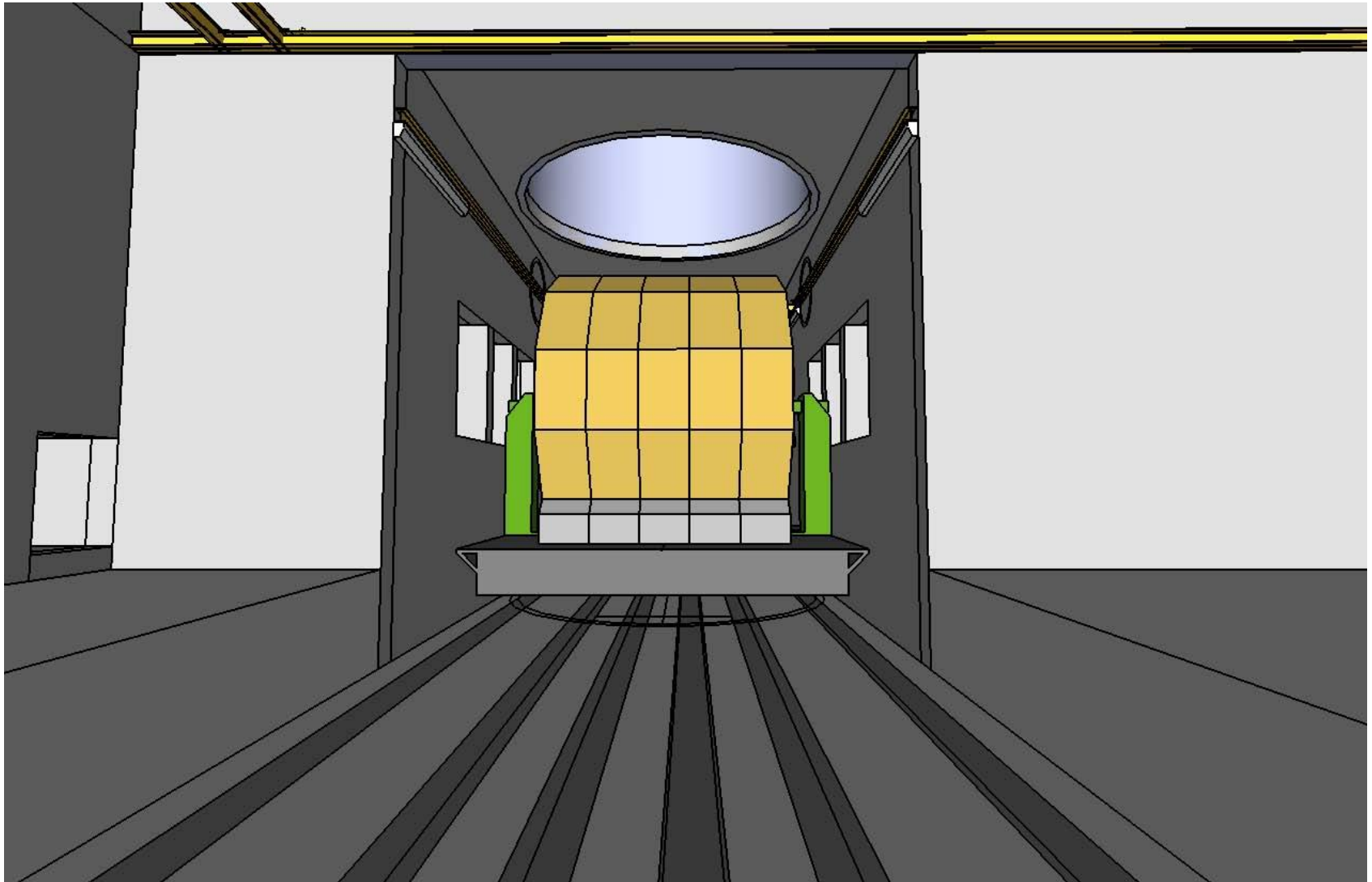
Cross Section Thru ILD Garage

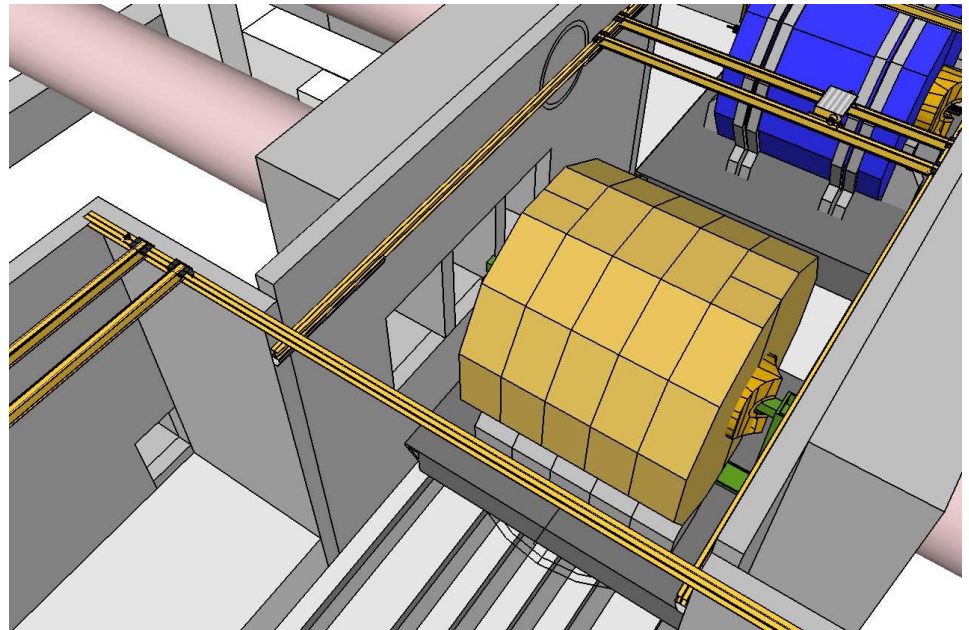
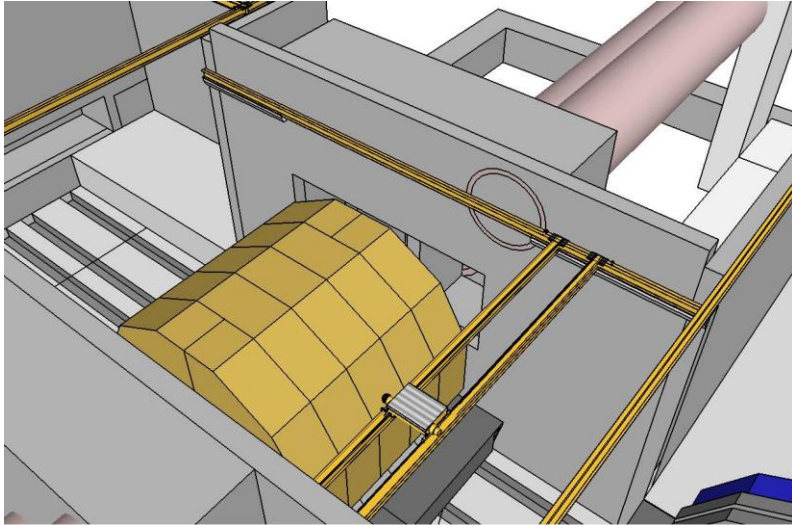


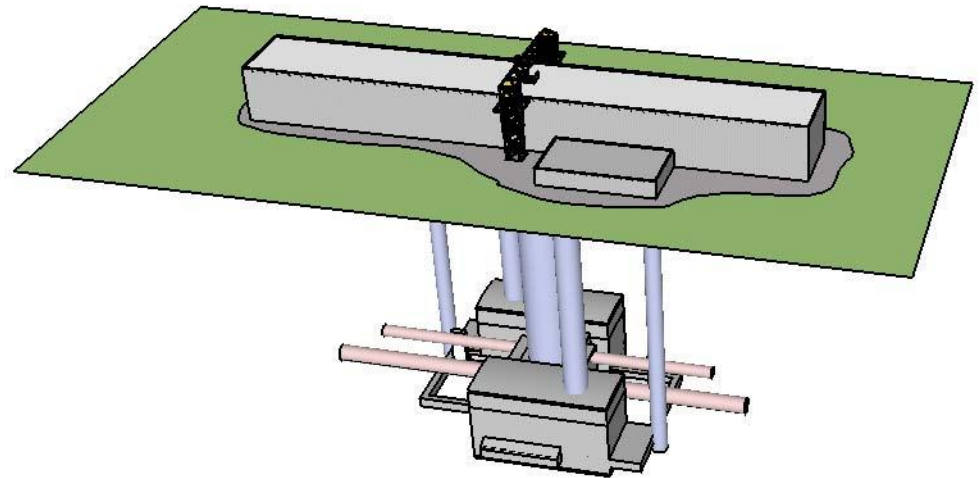
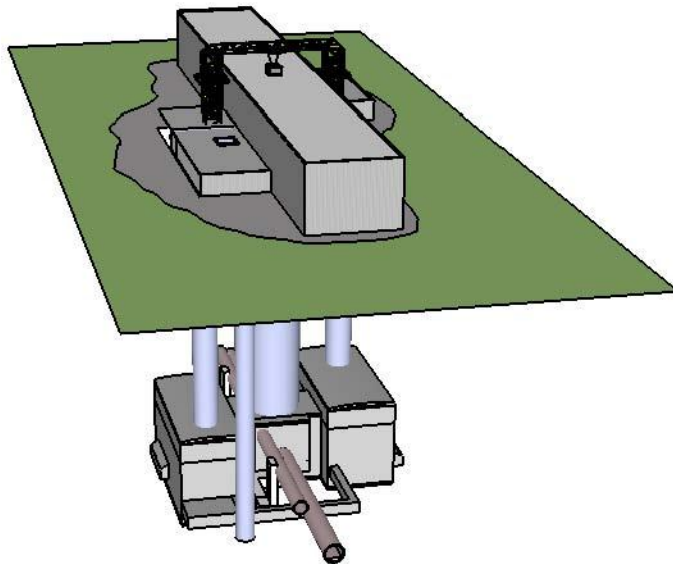










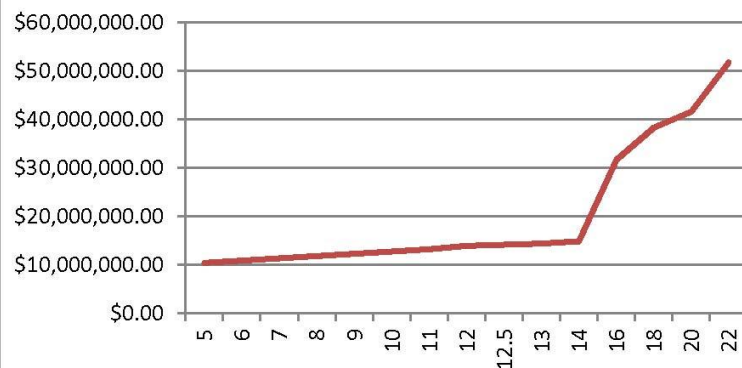




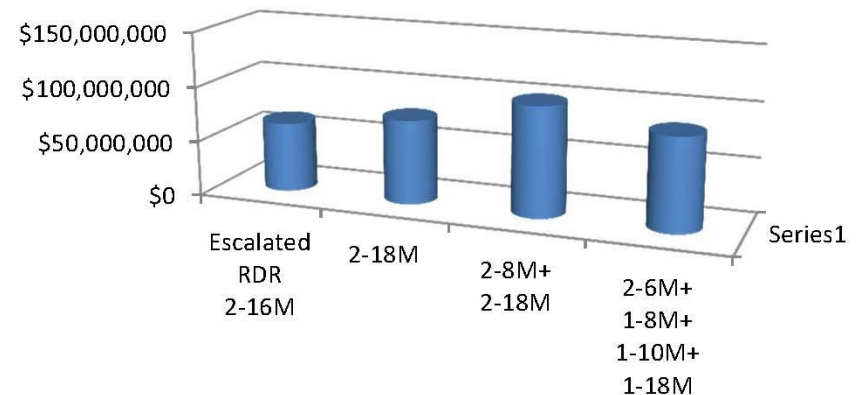
Cost of Shaft Excavation

- **Includes excavation, lining, pre-grouting**
 - ❑ **Costs are for projected depth**
 - ❑ **FY 12 dollars**
- ❑ **Cost of impact on crown not included**
 - ❑ **Crown support cost may increase due to stress concentration**

Shaft Cost For various Diameters
(Meters)



Shaft Diameter in Meters





Detector Hall Excavation

- *RDR volume = 116,167 CM*
- *Hall as shown = 121, 940 CM*

Cranes and Platforms

- *ILD and SID Platforms in Hall*
- *Additional Crane in Hall*
 - ❑ *Two 40 Tons, one in each Garage areas*
 - ❑ *Plus one 40 Tons in IR Region*
- ❑ *Additional Cranes in Building*
 - ❑ *4000 Ton Main Hoist*
 - ❑ *Two 400 Ton. One in each Assembly Building*
 - ❑ *Plus 40 Ton over Cryostat Shaft*



Catwalks and Access

- *All platforms and stairs/ladders for the Detector are provided by each detector group*
- *CFS will provide catwalk in IR Hall and access to cranes*

Finishes (unless needed for structural support)

- **Floors**
 - **Cast in Place Concrete, Steel Troweled Finish**
- **Walls**
 - **Formed Cast in Place Concrete in IR Hall**
 - **Shotcrete in Garage Spaces**
- **Roofs**
 - **Shotcrete, Rolling Drip Ceilings at shafts**
- **Platforms**
 - *Four platforms, two in IR Hall and two at surface to be in CFS costs, including moving system.*