



# ***DAMPING RING BASELINE TECHNICAL REVIEW***

## ***CONVENTIONAL FACILITIES AND SITING GROUP***

***CFS Damping Ring Mechanical and  
Electrical Tunnel Specifications***

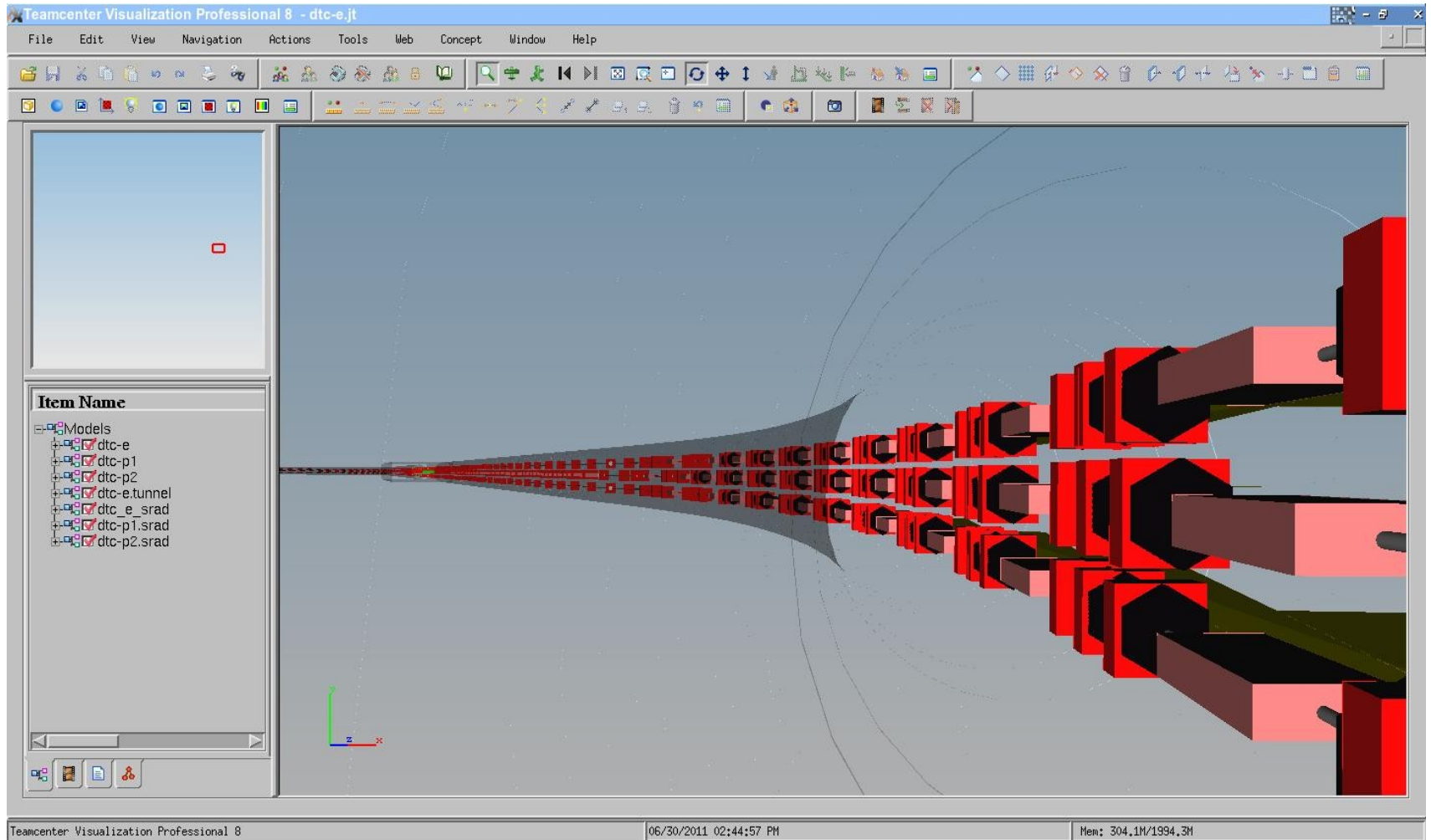
***V. Kuchler***



## Preparation for the DR BTR

- **Several Aspects of the Damping Ring Design Were Discussed**
  - **Personnel will not Occupy the RF Cavern During Beam On Conditions**
  - **Final Configuration of the RF Cavities, Klystrons and Related Equipment**
  - **A Thermal/Radiation Barrier will be Required Between the RF Equipment Cavern and the Damping Ring Tunnel**
  - **Beamline Spacing was Established**
  - **Tunnel Temperature Requirements were Established Including the Need for Temperature Isolation of Wiggler Areas**
  - **Magnet Power Supply Spacing and Configuration**
  - **Requirements for Equipment Alcoves for Injection/Extraction Straight Section**



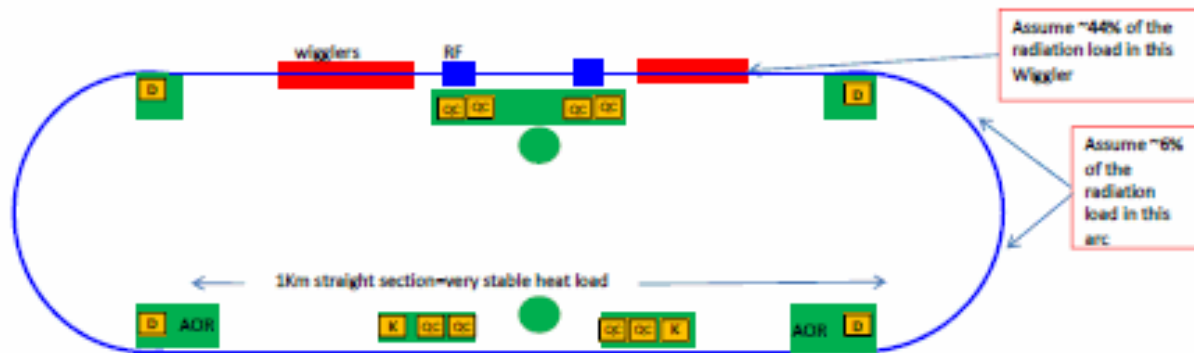


Courtesy Benno List

## DR ( DAMPING RING ) DESIGN CRITERIA FOR CFS

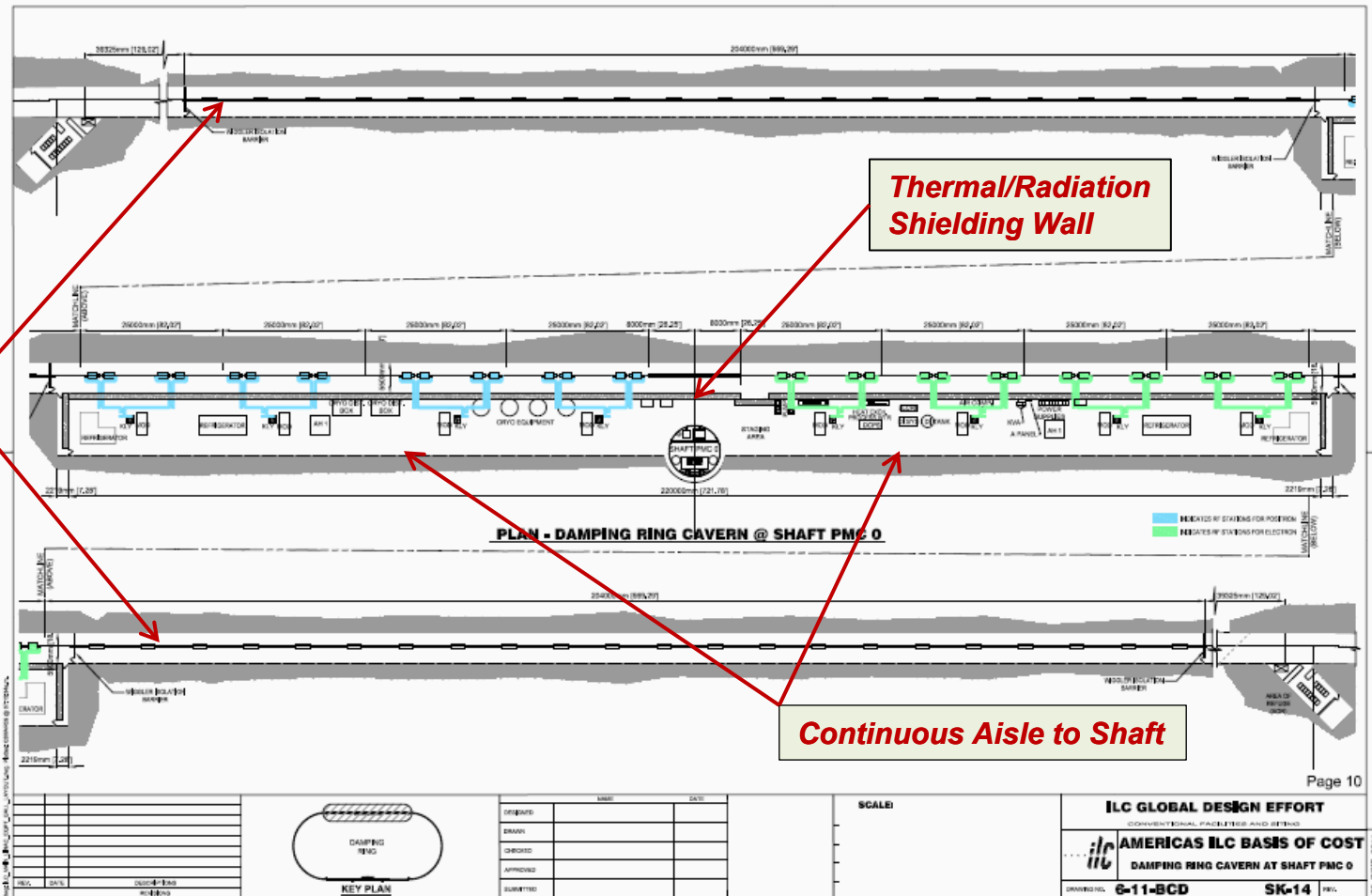
ROUGH LOCATIONS OF POWER SUPPLIES

DRAFT JUN 17 2011



- D Bulk Power Supplies for Dipoles (2 per ring/ 1 per arc=total 4)
  - K Kicker Power Supplies = QTY=2?
  - OC Bulk Power Supplies for Quad & Correctors (4 per ring = total 8)
- AOR Area of Refuge

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Wiggler Enclosures

Thermal/Radiation Shielding Wall

Continuous Aisle to Shaft

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Plan at Damping Ring RF Straight Section

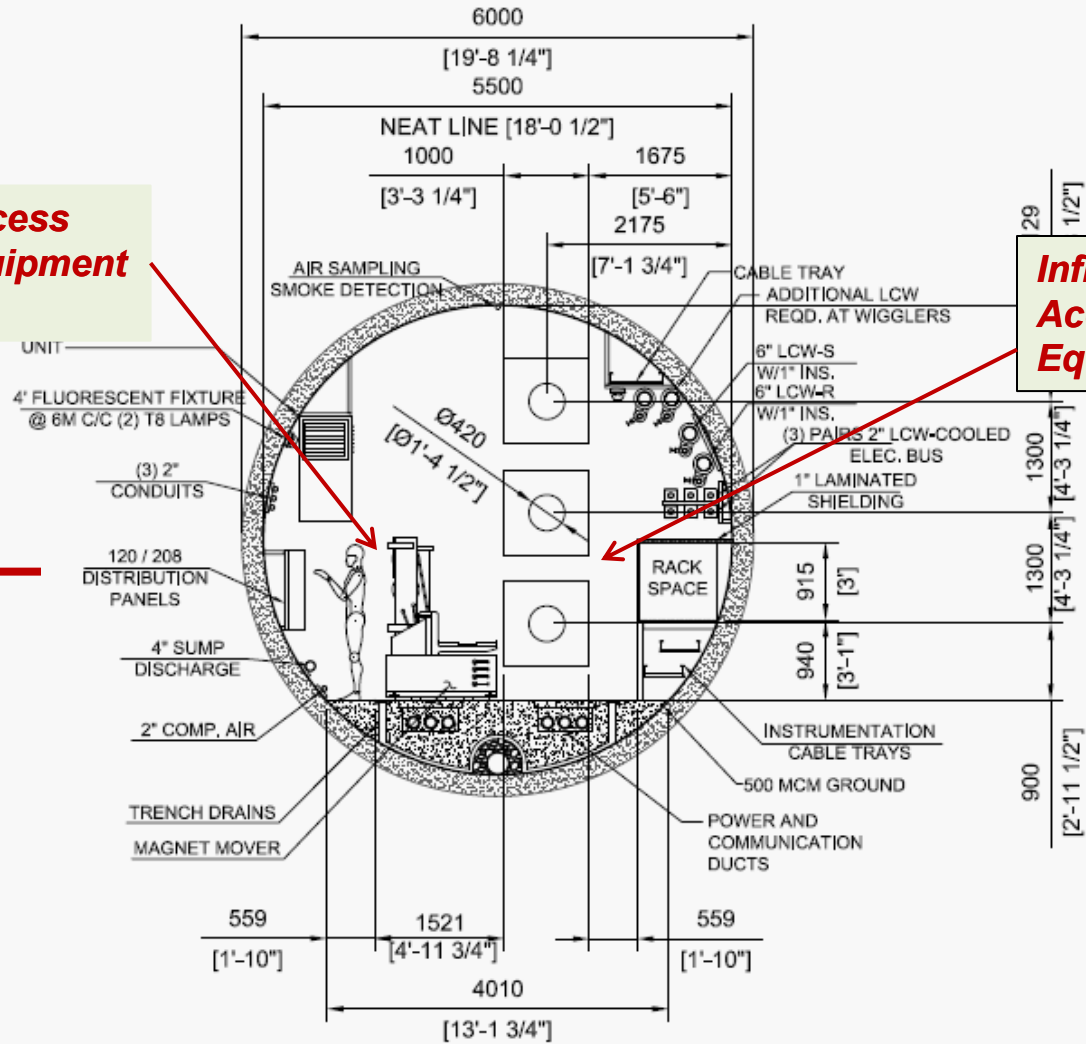




**Major Personnel Access  
And Egress and Equipment  
Transport**

**Infrequent Personnel  
Access and Passive  
Equipment**

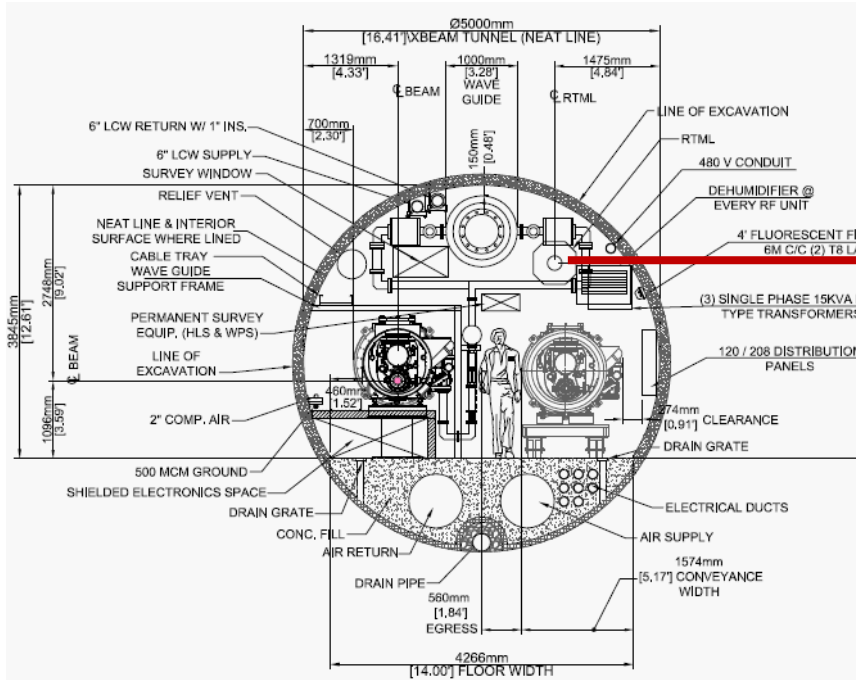
**Center of DR**



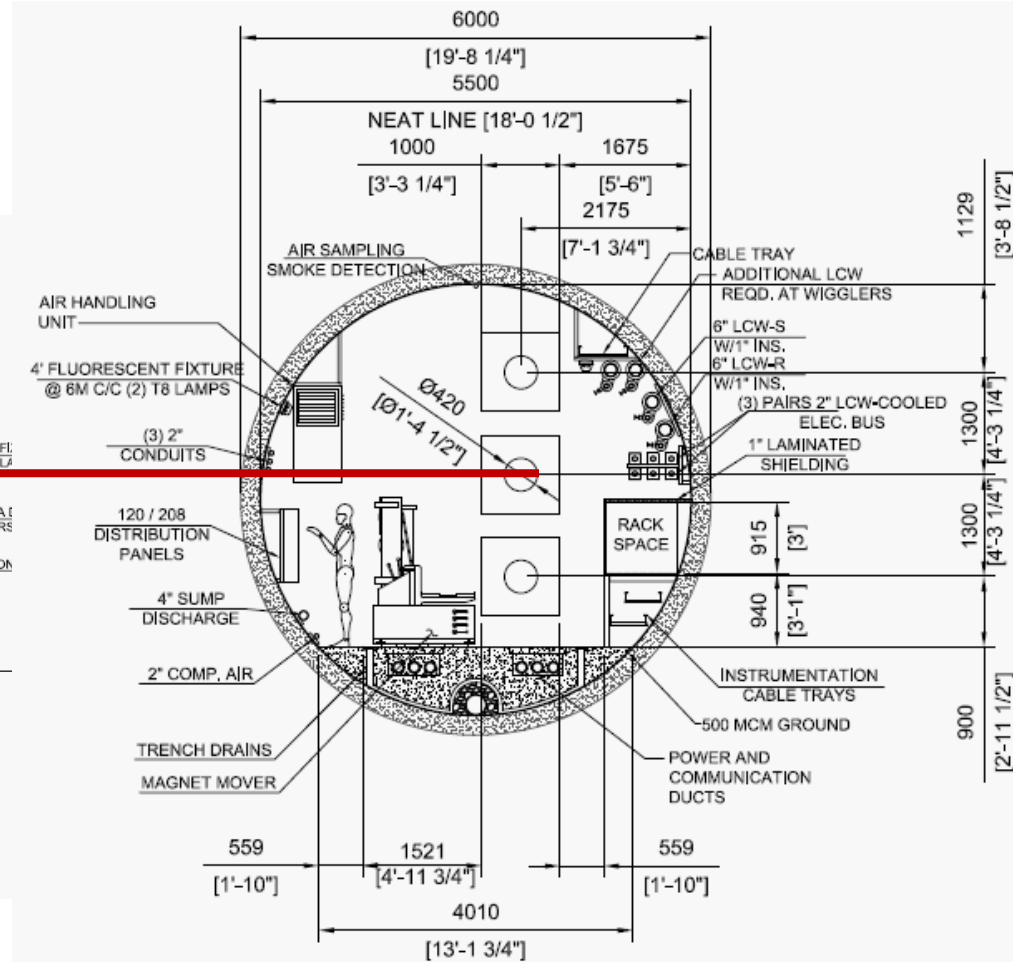




**ML RTML Ht is 2748 mm**  
**DR e- Ht is 2200 mm**



**Main Linac**



**Damping Ring**





## Summary

- *Some Refinement of the Civil Drawings is Still Required to Support the New Cost Estimate*
- *Mechanical and Electrical Drawings are Being Produced by the Americas Region Consultant*
- *Civil Cost Numbers Should be Available in 3-4 weeks*
- *Mechanical and Electrical Costs will not be Available Until September*
- *The CFS Damping Ring Criteria Format will Be Used for the Remaining Area Systems*
- *We Hope the Level of Detail Provided will Remain Consistent*