



RDR HLRF in a single tunnel ML configuration

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RDR HLRF in a single tunnel

- SB2009 effort has *been directed by PM* toward Availability and 2 new HLRF designs, KCS and DRFS
- Decision basis →
 - Availability / HLRF are key components that link technical systems and CFS



RDR HLRF is a viable backup

- DESY 'FLASH' 9 mA test underway; to be completed within TDP2
 - Key components at or near ILC – RDR specification
- 3 CM RF unit to be completed at Fermilab – NML within TDP2
 - Nominal source and distribution system
 - Full power Toshiba MBK
- XFEL ~30 full power sources to be delivered within TDP2
 - Testing in 2013



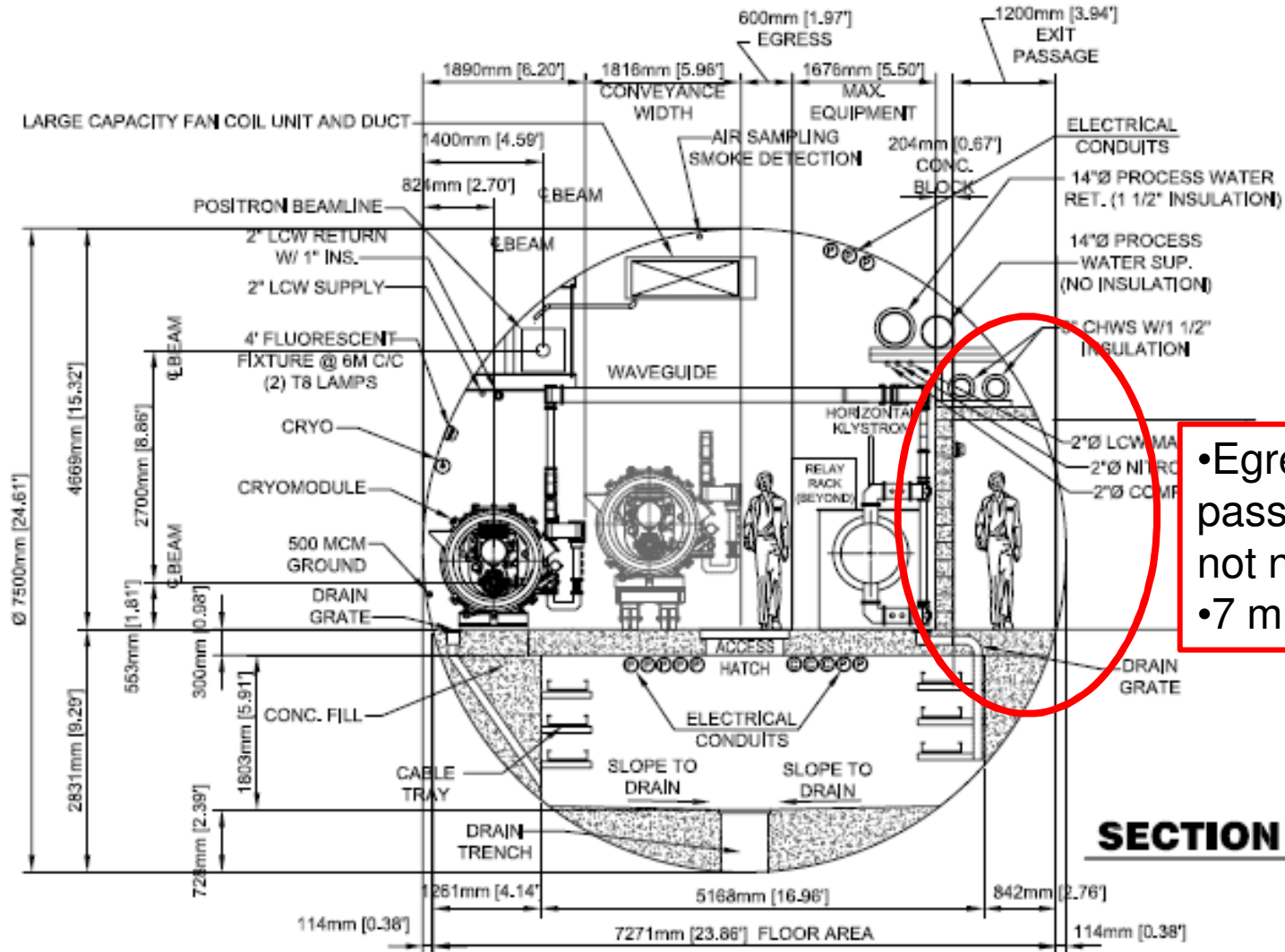
RDR HLRF scheme in single tunnel

Adapting the Reference Design baseline to a single tunnel ML configuration:

1. (cross-section drafted by S. Fukuda 06.09 → $\text{Ø} \leq 7.5 \text{ m}$)
2. Availability studied – see J. Carwardine talk (also Decision 6); **performance is poor** without subsystem improvements
 - TBD
3. **120KV** modulators a concern
 - DRFS MA klystrons at 65KV
4. XFEL work underway (not exactly the same – but partly addresses 1 and 2) → expect design & performance results ~ TDP2.



7.5 m Diameter Single Tunnel*



•Egress passageway not needed;
•7 m Ø ok