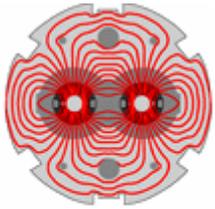


LHC@FNAL

E. Harms
18 September 2006

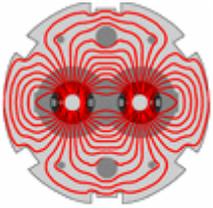


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LHC@FNAL - Introduction



- **What is LHC@FNAL?**
 - **A Place**
 - That provides access to information in a manner that is similar to what is available in control rooms at CERN
 - Where members of the LHC community can participate remotely in CMS and LHC activities
 - **A Communications Conduit**
 - Between CERN and members of the LHC community located in North America
 - **An Outreach tool**
 - Visitors will be able to see current LHC activities
 - Visitors will be able to see how future international projects in particle physics can benefit from active participation in projects at remote locations.

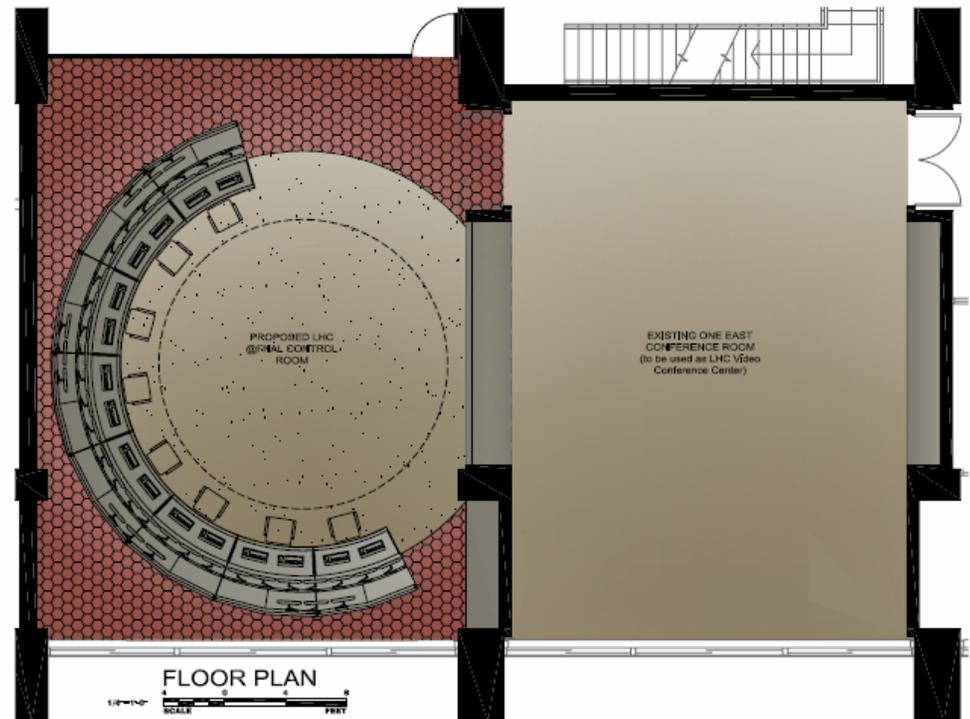


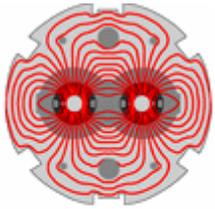
LHC@FNAL - Overview



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- **Remote Operations Center**
 - 'state of the art'
 - largely based on new CCC at CERN
 - 8 workstations
 - secure area
 - outreach a priority in design
 - design input also came from visits to modern control rooms around the world
 - final design group comprised of stakeholders at FNAL, FESS, and outside design group
- **1-East**
 - to be reconfigured for video conferencing
 - can be intimately linked to Operations center as needed – privacy glass window to be added between two rooms
 - furniture layout modified, but can be restored as needed



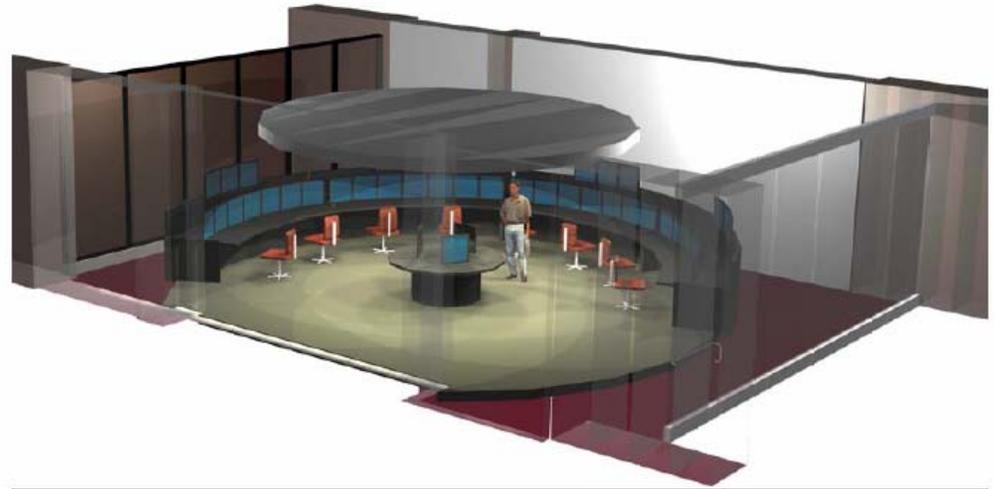


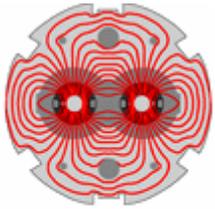
LHC@FNAL - History



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- **Idea of a joint remote center to CERN percolating in minds of CMS and LARP participants for some time**
 - first meetings ~2 years ago
- **LHC@FNAL task force formed to investigate joint use of such a center – organized in spring '05**
 - Alvin Tollestrup
 - Erik Gottschalk chair of group
- **Requirements document developed and reviewed**
 - last summer
- **Design work begun**
- **CDR/PEP issued**
 - April '06
- **DOE authorization/GPP funds allocated**
 - May '06
- **Contractor selected**
 - August '06





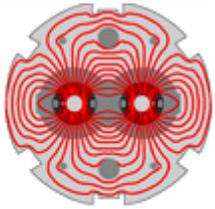
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LHC@FNAL Construction Update



- **Contractor selected – Wegman Construction**
- **GPP Project**
- **Cost - \$500,000**
- **Notice to Proceed given 13 September**





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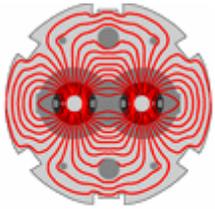
LHC@FNAL Construction Update



- **Construction initiated 15 September**
- **1-East closed 16 October – 17 November**
- **Construction expected to be complete in December**



- For everyone's safety:**
- **Secured area – please respect barriers**
 - **Updates/photos to be posted on construction wall**
 - **Tom Prosapio is Construction Coordinator**



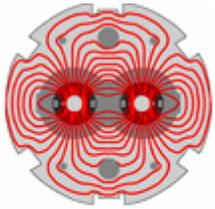
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LHC@FNAL Construction Update



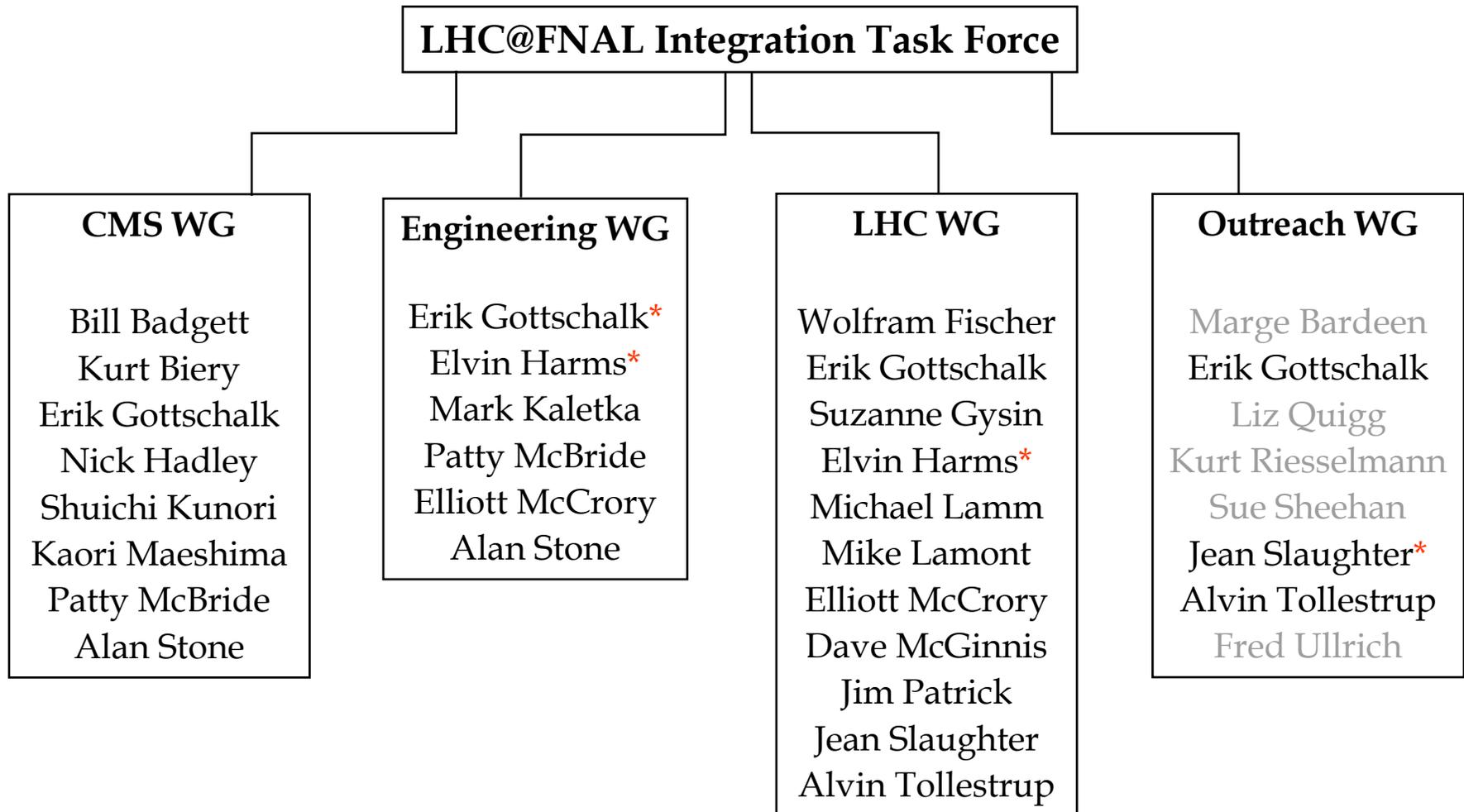
- Consoles due to arrive in November
- Room functional in Spring 2007
- LHC@FNAL Integration Task Force formed to address use issues



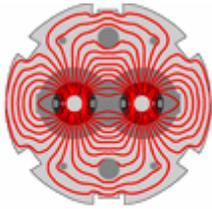


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LHC@FNAL Integration Task Force



* Group Leaders

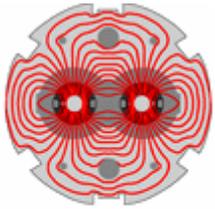


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New (Draft) Charge

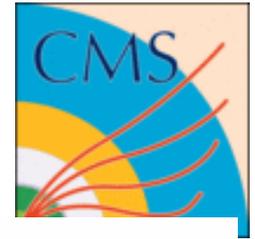


- Coordinate activities to complete construction of Phase 1
 - Develop a plan for hardware and software tool development
 - Develop requirements and cost estimates for Phase 2
 - Develop requirements for outreach
 - Develop a plan to support CMS and LHC/LARP commissioning activities
 - Describe capabilities that LHC@FNAL will provide for CMS and LHC/LARP, and describe how these capabilities have been, or will be, achieved
 - Develop an operations model for CMS and LHC/LARP that integrates the three functions of LHC@FNAL
 - Develop a support model for LHC@FNAL infrastructure
 - Develop an organizational structure that identifies roles and responsibilities
- 1) Write a project status report by May 1, 2007
 - 2) Requirements and cost estimates by July 1, 2007
 - 3) A review of LHC@FNAL readiness for CMS & LHC operations by August 2007



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LHC@FNAL Construction Update



View of Operations Center / looking east from Atrium

COMING SOON

LHC @ FNAL OPERATIONS CENTER

ATRIUM LEVEL PROPOSAL
August 21, 2006
FESS / Engineering

SCHEDULE / STATUS

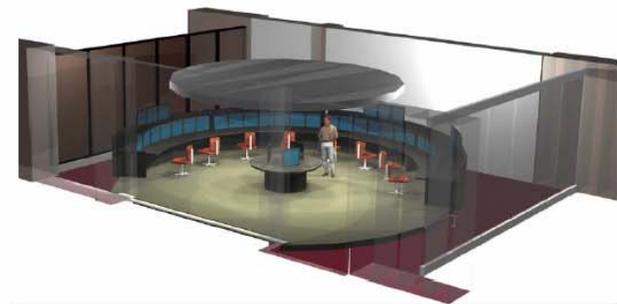
- A contractor has been selected
- Construction beginning late August 2006
- Projected completion date is Winter 2006
- Commissioning and operation - Spring 2007
- Construction questions can be directed to:

Project Manager / Elvin Harms
extension 4387 / harms@fnal.gov

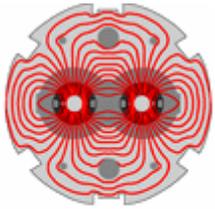
Project Manager for Consoles / Erik Gottschalk
extension 6416 / erik@fnal.gov

Project Engineer / Steve Dixon
extension 8501 / steveo@fnal.gov

Construction Coordinator / Tom Prosapio
extension 6442 / prosapio@fnal.gov



Isometric view Operations Center



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Summary



- Idea of remote access to LHC is becoming reality
- LHC@FNAL remote access/operations center construction has begun
- Expected completion December of this year
- LHC@FNAL Task Force retooled to LHC@FNAL Integration Task Force