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Siting/Conventional Facilities Status

Steve Dixon

PIP-II Machine Advisory Committee Meeting

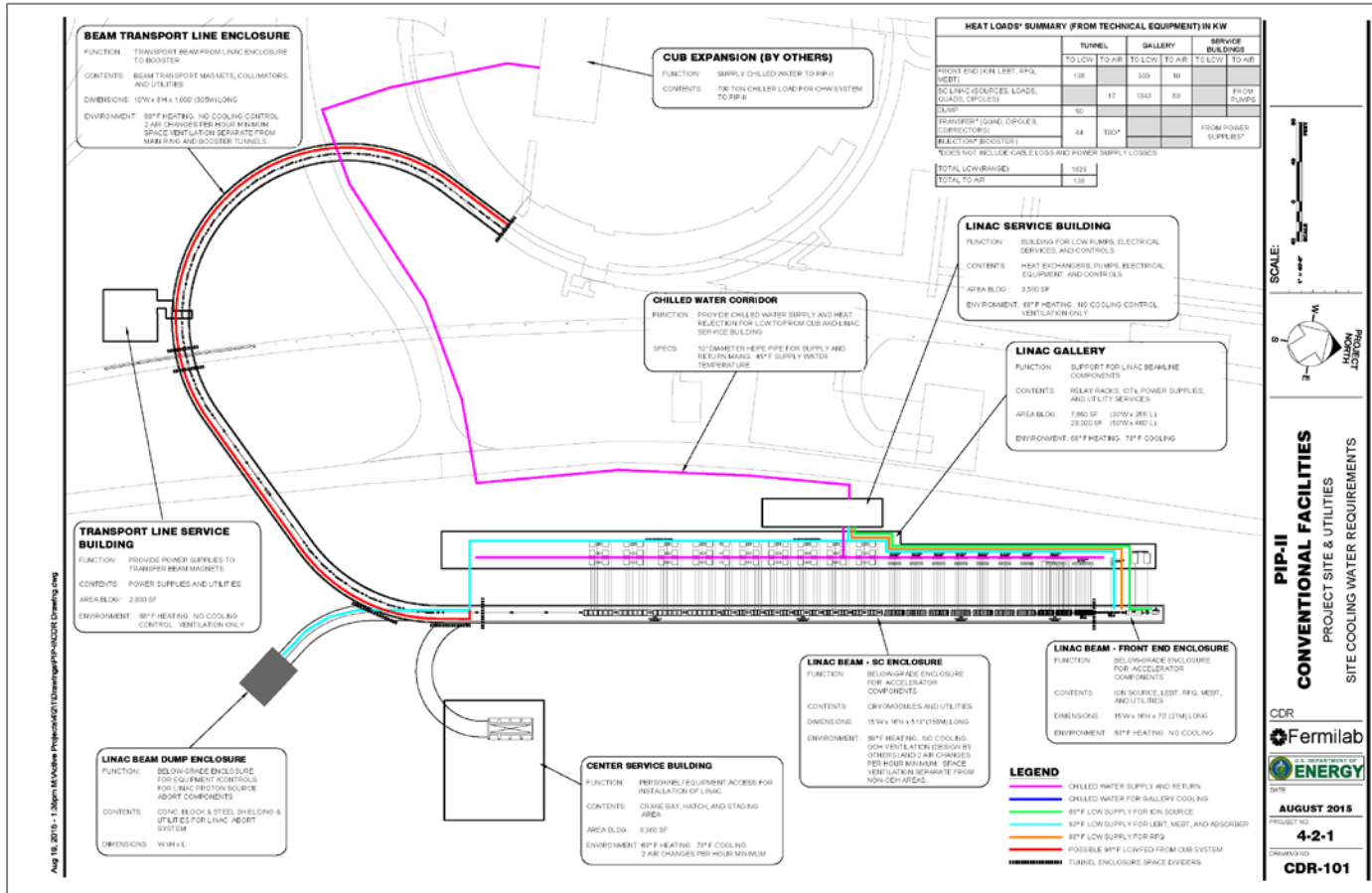
15-17 March 2016

Agenda

- Progress over the last year
- Current Activities
- Plans for CD-1

Progress Over the Past Year

- Developed a cooling strategy for Linac and Transfer Line based on equipment loads

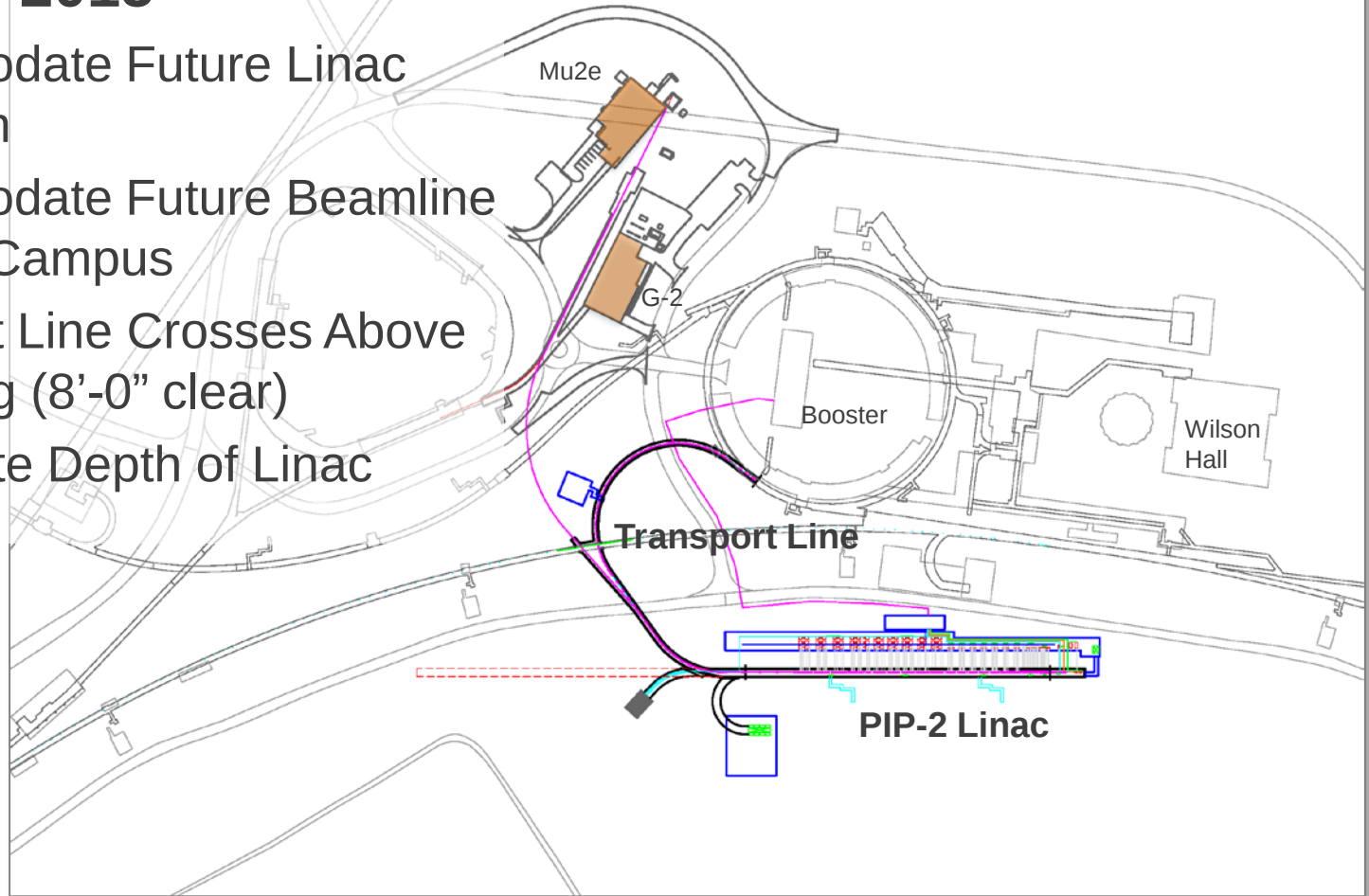


Participants: M. Ball, C. Cameron, E. Huedem, J. Hunt, V. Lebedev, A. Vivoli

Progress Over the Past Year

- **Technical Board Meeting – December 2015**

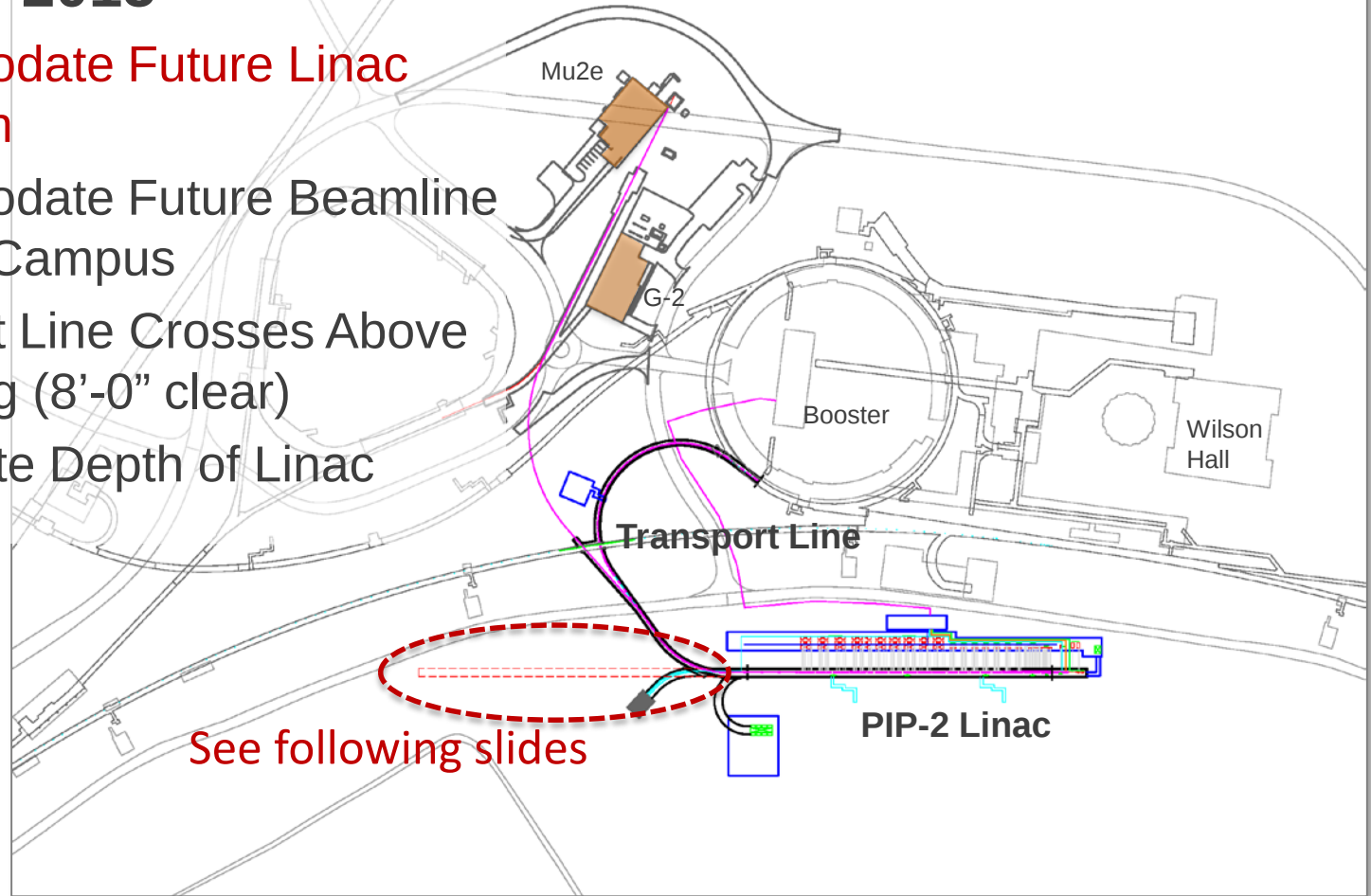
- Accommodate Future Linac Extension
- Accommodate Future Beamline to Muon Campus
- Transport Line Crosses Above Main Ring (8'-0" clear)
- Investigate Depth of Linac



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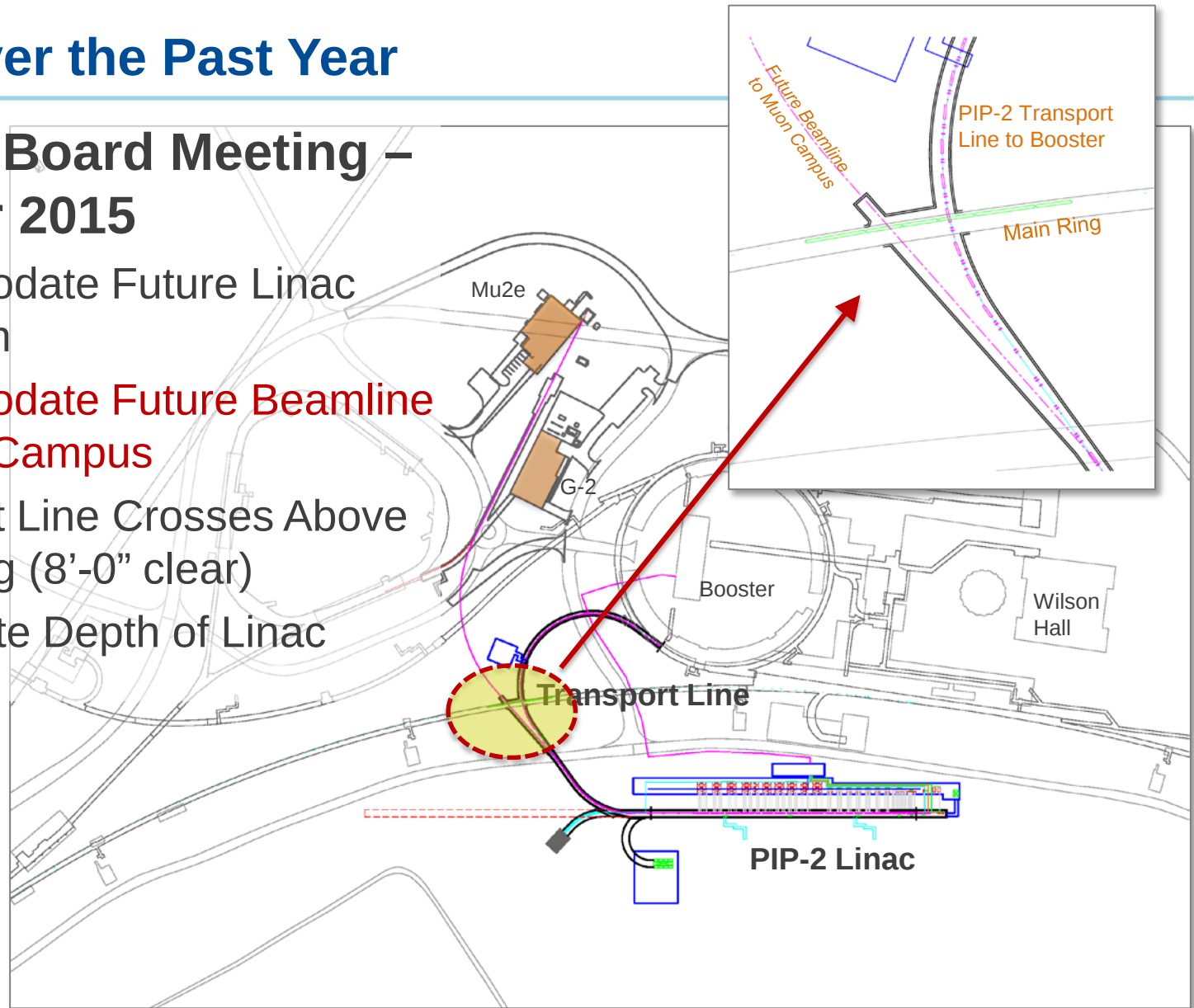
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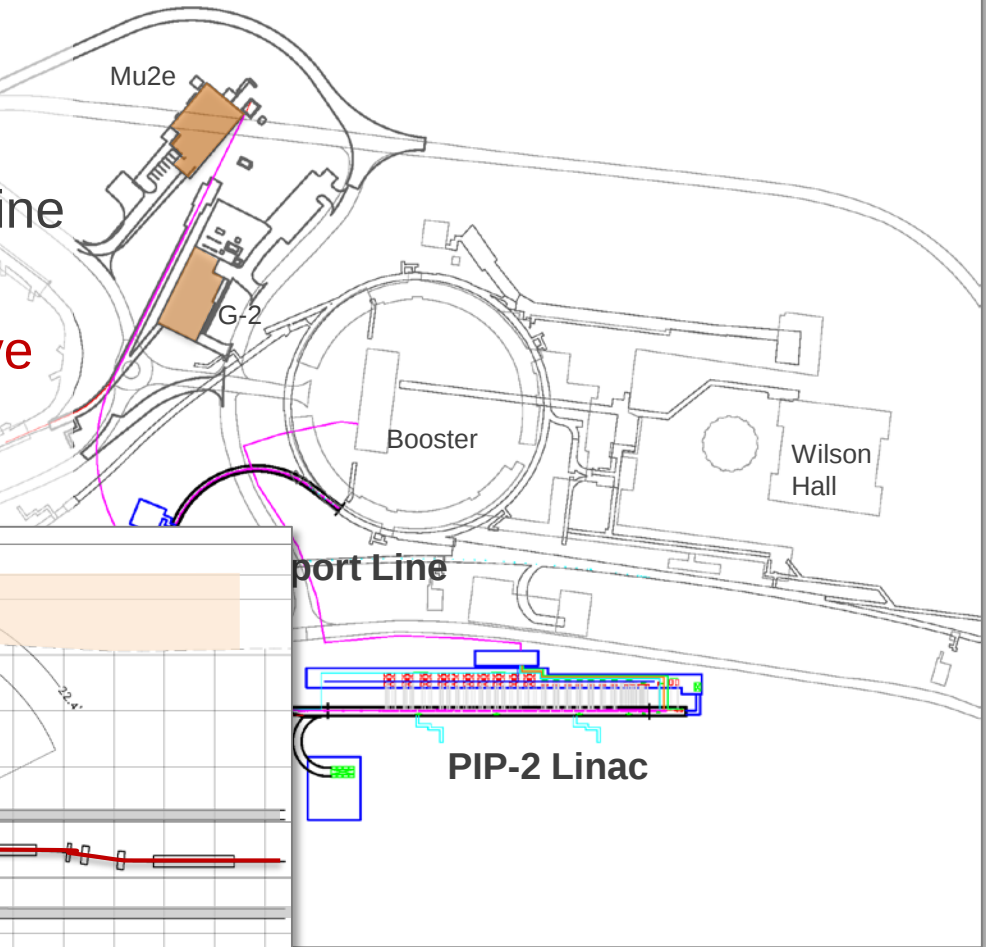
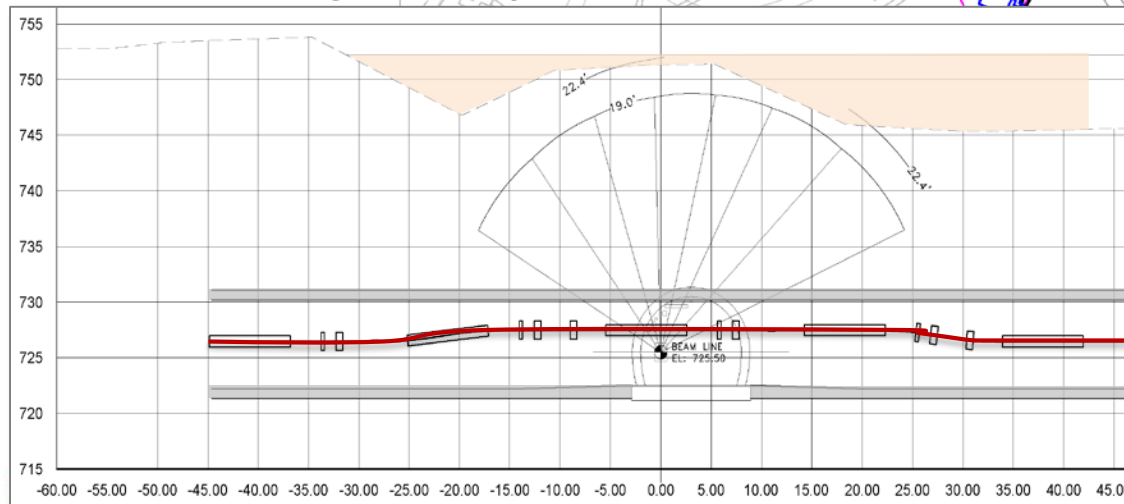
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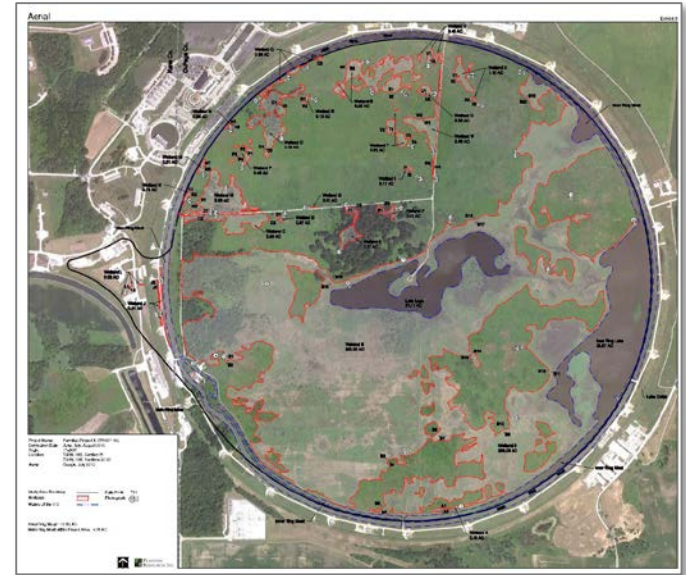
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Current Activities – Through August 2016

- Conceptual Design (phase 1)
 - Document the spatial and infrastructure requirements;
 - Develop conceptual design drawings;
 - Weekly meetings with stakeholders;
Meeting Minutes (PIP-II-doc-70)
- Wetland Delineation Update 
 - Spring of 2016
- Siting Alternatives
- One-for-One Replacement (space bank) Strategy



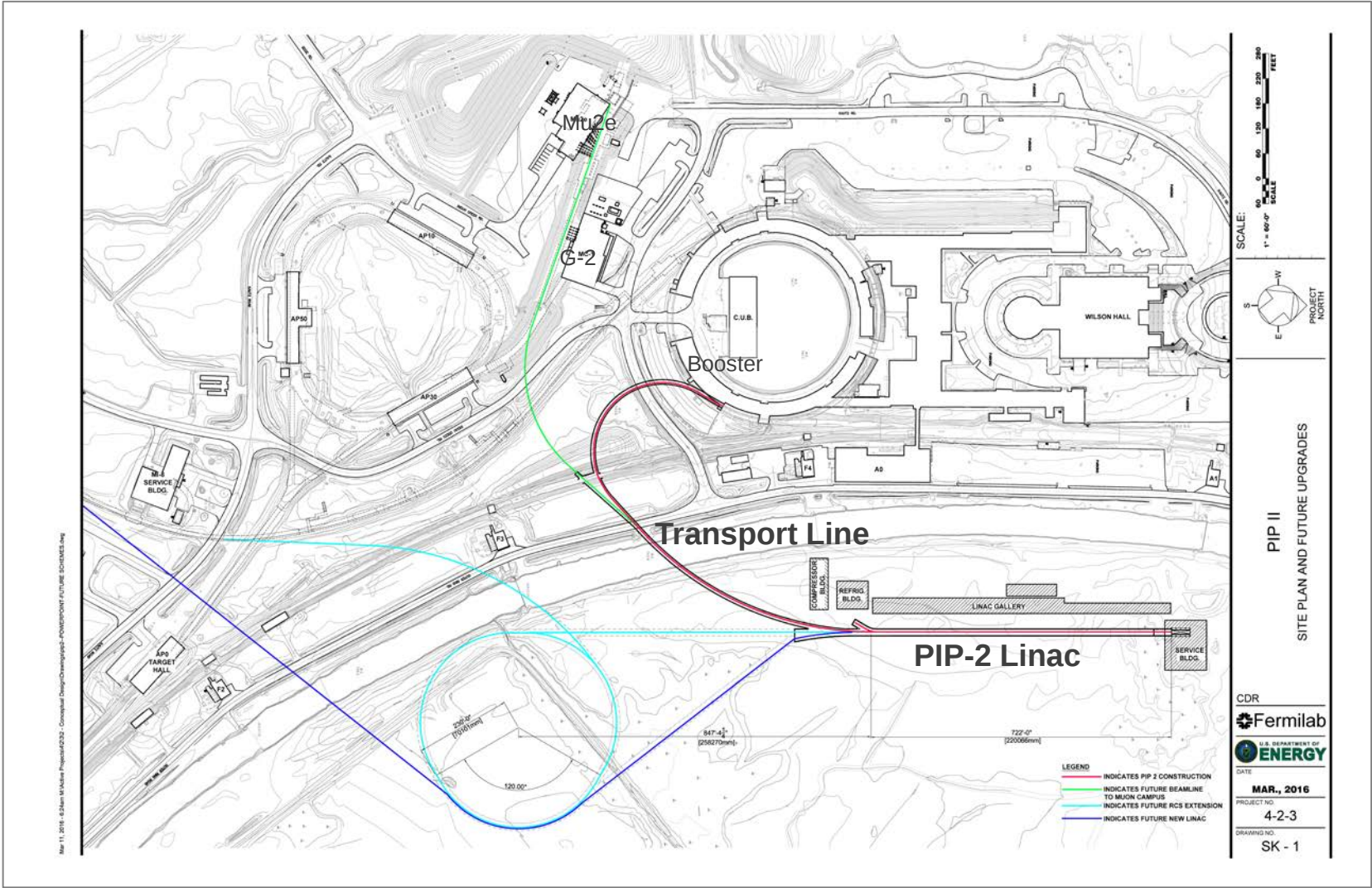
Planned Activities for CD-1

- Architect/Engineer Selection (*September/October 2016*)
 - Work Scope based on Phase 1 drawings
 - Establish Source Evaluation Board
 - Send RFI to Candidate Firms
- Conceptual Design (phase 2) (*November 2016 – CD-1 Review*)
 - Site Characterization – Soil Borings;
 - Further develop conceptual design drawings;
 - Detailed Cost Estimate
 - Detailed Schedule
- Develop Resource Loaded Schedule

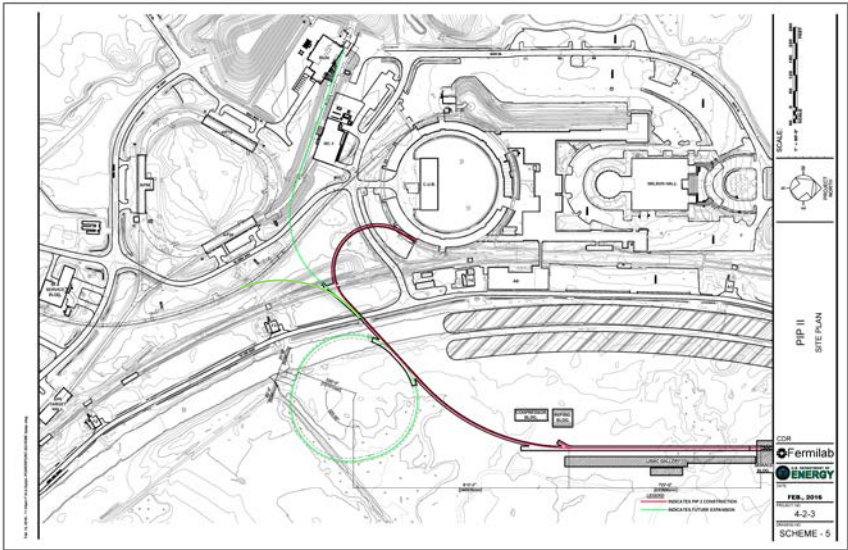
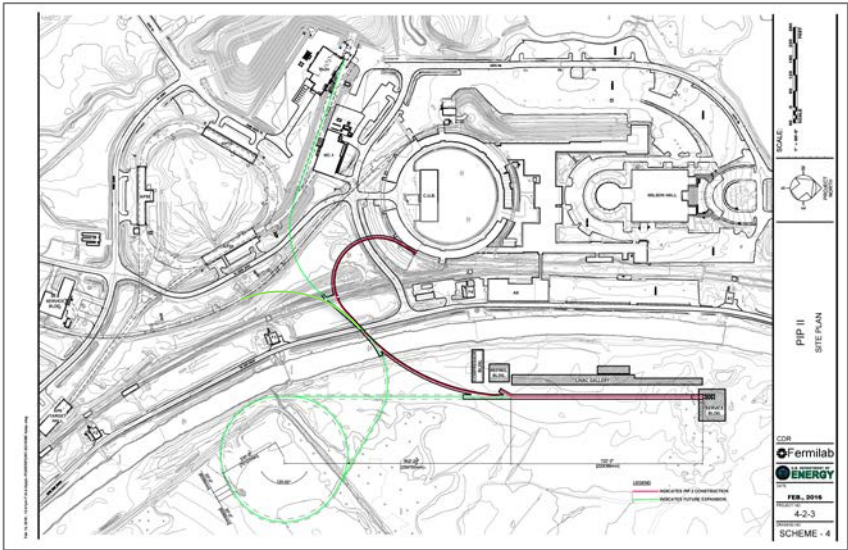
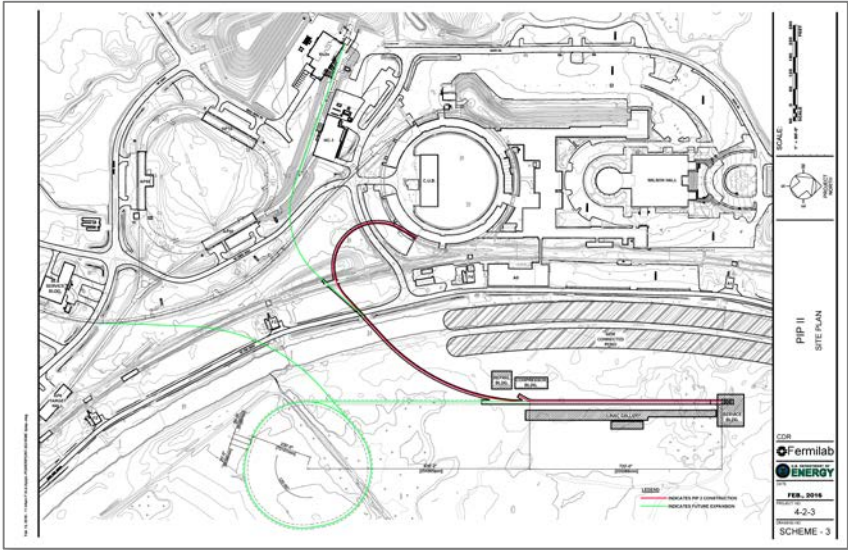
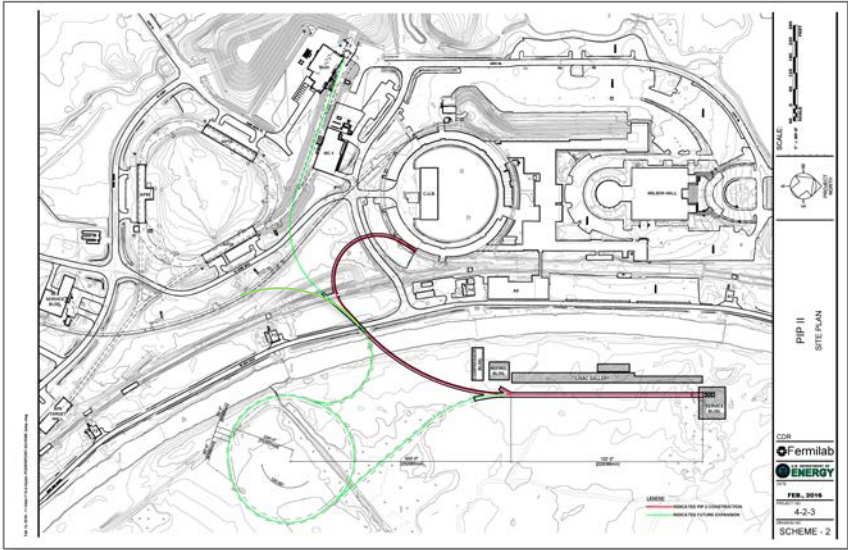
Planned Activities for CD-1

- CD-1 Requirements *(from 413.3B, 11-29-2010)*
 - Acquisition Strategy
 - Project Execution Plan
 - Risk Management Plan
 - Independent Cost Estimate Review
 - One-for-One Replacement
 - High Performance and Sustainable Building
 - Preliminary Hazard Analysis Report
 - Integrated Safety Management Plan
 - Quality Assurance Program
 - Safeguards and Security Requirements
 - NEPA Strategy
 - Environmental Compliance Strategy

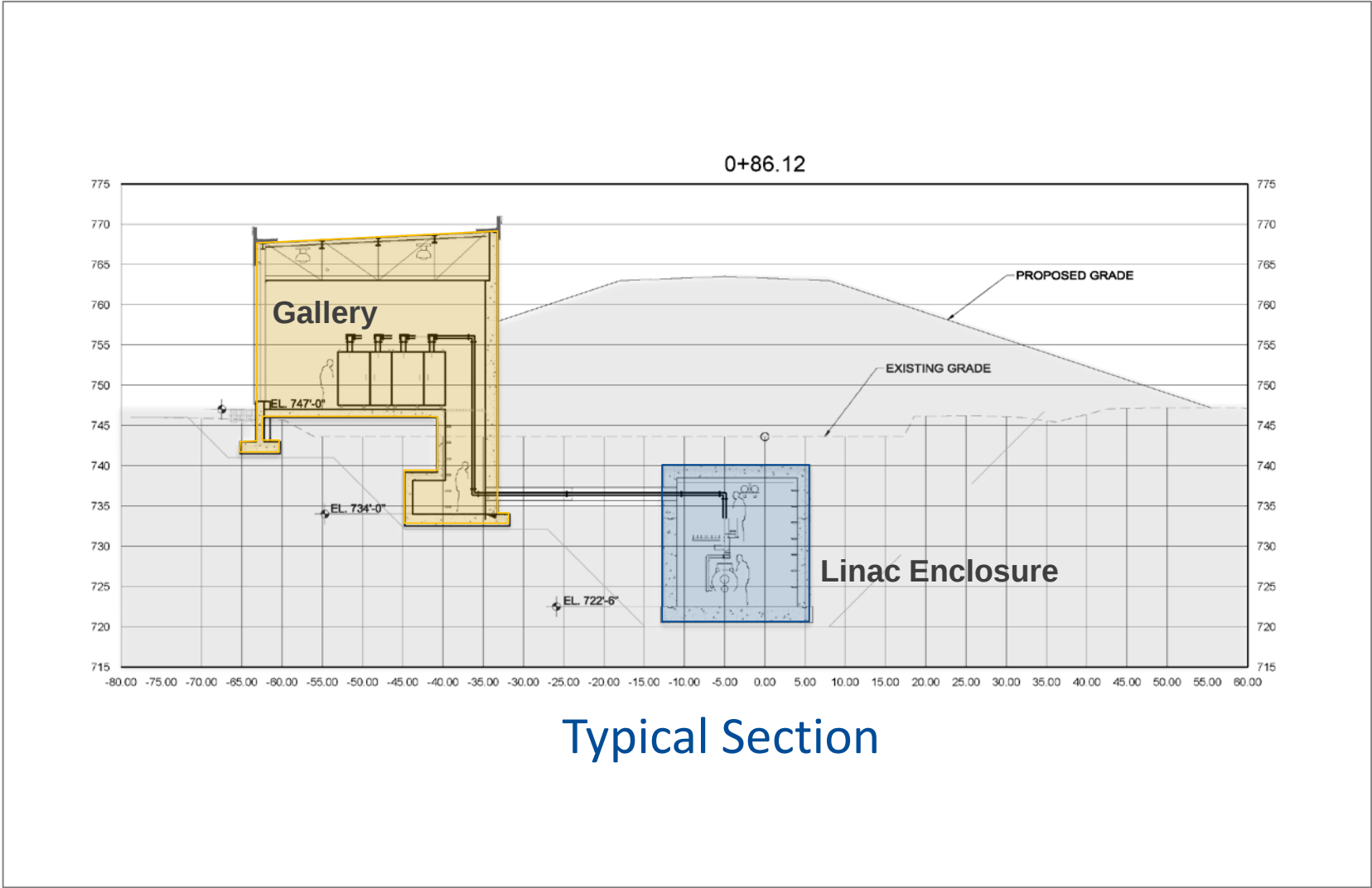
Siting Strategies



Siting Strategies

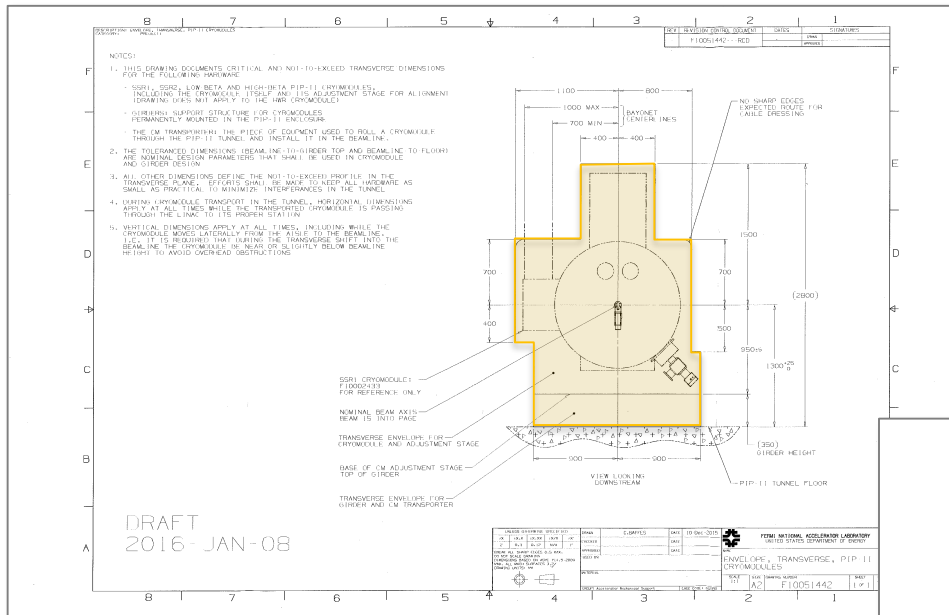


Cross Section

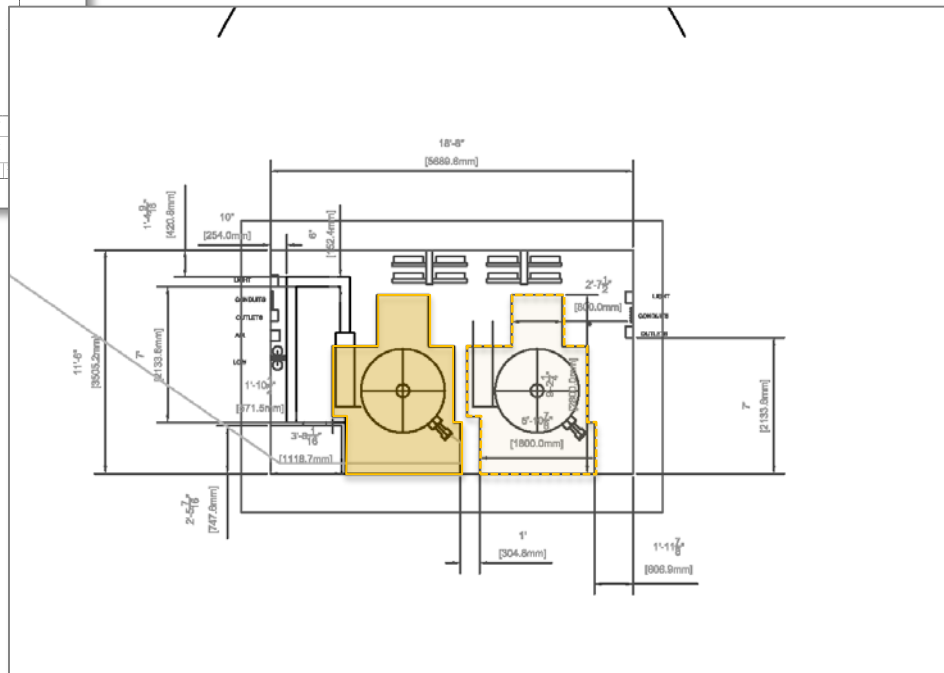


Typical Section

Cross Section



Equipment Envelope



Preliminary Linac Enclosure Section

Site Context



- Introduction
- Research Community
- Integrated Engineering Research Center
- Wilson Hall 2.0
- Scientific Hostel
- Global Accelerator Center
- Next Gen Computing Facility
- Welcome and Outreach Center
- The Boulevard
- Tools for Science



From Fermilab Campus Master Plan

Questions
