Conventional Facilities Status

Steve Dixon
PIP-II Technical Meeting
22 September 2015
Agenda

• Latest Beamline Arrangement
• In Progress Activities
• Plans for FY16
Latest Beamline Arrangement

Accommodate Future Plans
• Beamline to Mu2e
• Linac Extension

Thanks to Alessandro Vivoli for the Beam Scripts
Plan at Main Ring/Transport Line Crossing

Baseline Configuration

Proposed Configuration
In Progress

• Main Ring/Transport Line Crossing
  – Looking at three options (above MR, at MR, below MR)
  – More input from installation folks
• Cooling Loads
• Cryo Plant
  – Power/cooling and spatial requirements
• Absorber Location
Main Ring/Transport Line Crossing
Main Ring/Transport Line Crossing – Option 1

Baseline Design for RDR

Shielding

7' min
Main Ring/Transport Line Crossing – Option 2 (Reality)

Shielding

~8 degree slope

Alessandro Transfer Line - 09-02-2015

Station

170’ vs. 50’
Main Ring/Transport Line Crossing – Still To Do

• Access Issues;
  – During Beam-On Conditions
  – Equipment Installation
  – Exiting
• Further discussions with Installation crew;
• Develop Pro/Cons of Each Option;
• Cost Impact of Each Option
• Present to Technical Board – Early October
Plan for FY16 - Schedule

- Bring an A/E on board – January 2016
- Develop Preliminary Drawings – Jan-Sep 2016 + FY17
- Develop Preliminary Cost Estimate – July-Sep 2016 + FY17
Plans for FY16 – Specific Items

• Booster Connection
  – Constructability
  – Combine the Service Building Functions
• Depth of Linac Enclosure
  – Driven by the Soil Conditions
• A-0 Pond Impact
  – Still Needed for Cryo Cooling for Mu2e and MR Load
• Hatch Building Location
  – Move upstream
• Cryo Building
  – Size, location, power/cooling requirements
• Location Adjustments
Questions