Updates since Vancouver on BDS and MDI

LCD Study Group meeting at SLAC

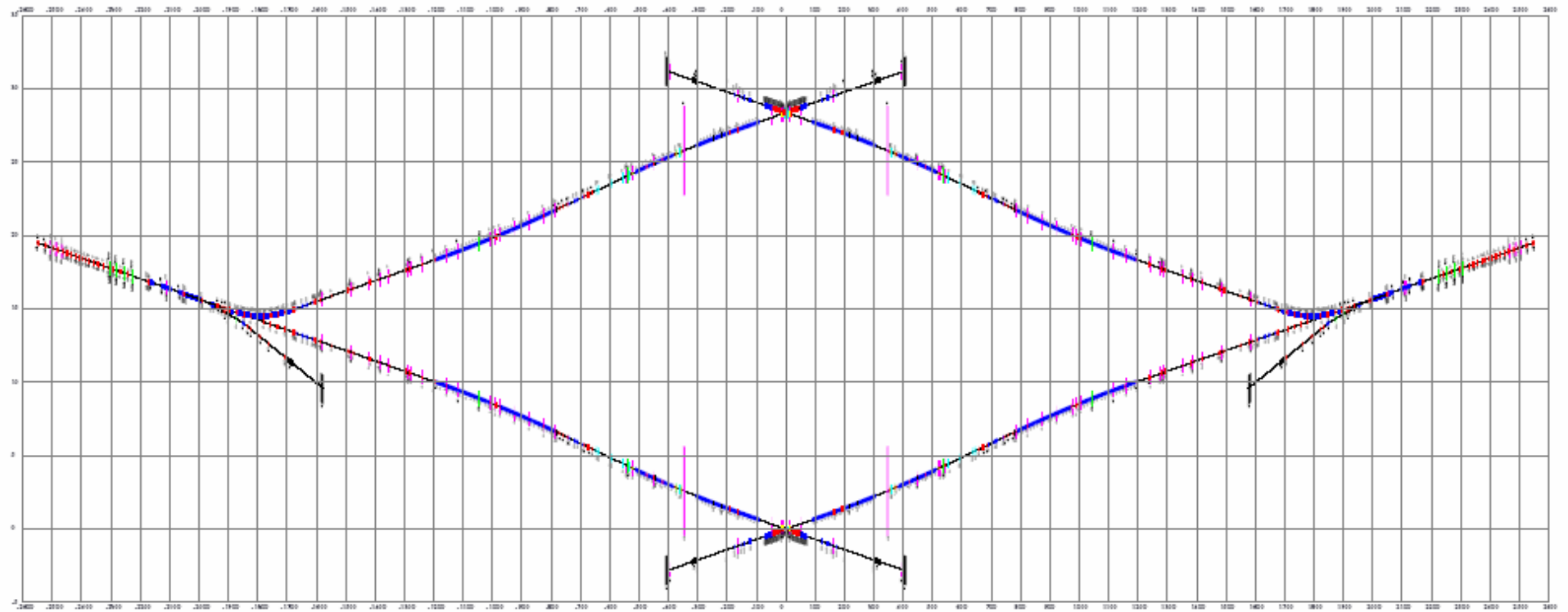
August 17

Andrei Seryi

Updates

- CCR (configuration change request) submitted for 14/14 configuration with single collider hall at z=0
  - **under review now by CCB (Change Control Board)**
- Under discussion: CCR for on surface detector assembly
- Under discussion: CCR for changing two muon walls (9m+18m) to single 5m muon wall

New tentative layout



- About 5.1km from end to end
- 28.4m transverse separation of IPs
- Shortening the extraction lines is being implemented

On-surface (a la CMS) assembly

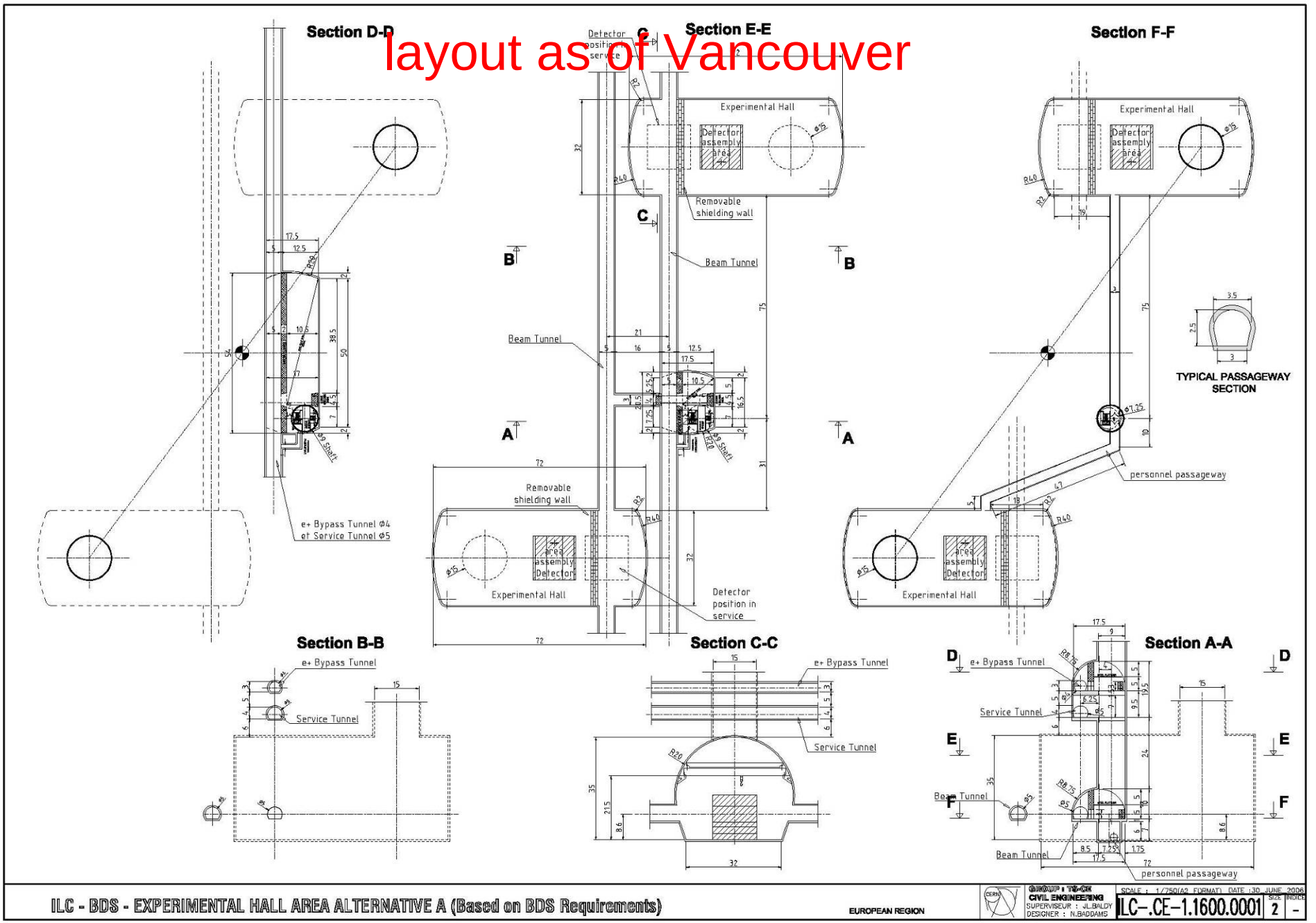
- According to tentative CF&S schedule, the detector hall is ready for detector assembly after 4y11m after project start
- If so, cannot fit into the goal of “7years until first beam” and “8years until physics run”
- Surface assembly allows to save 2-2.5 years and allows to fit into this goal

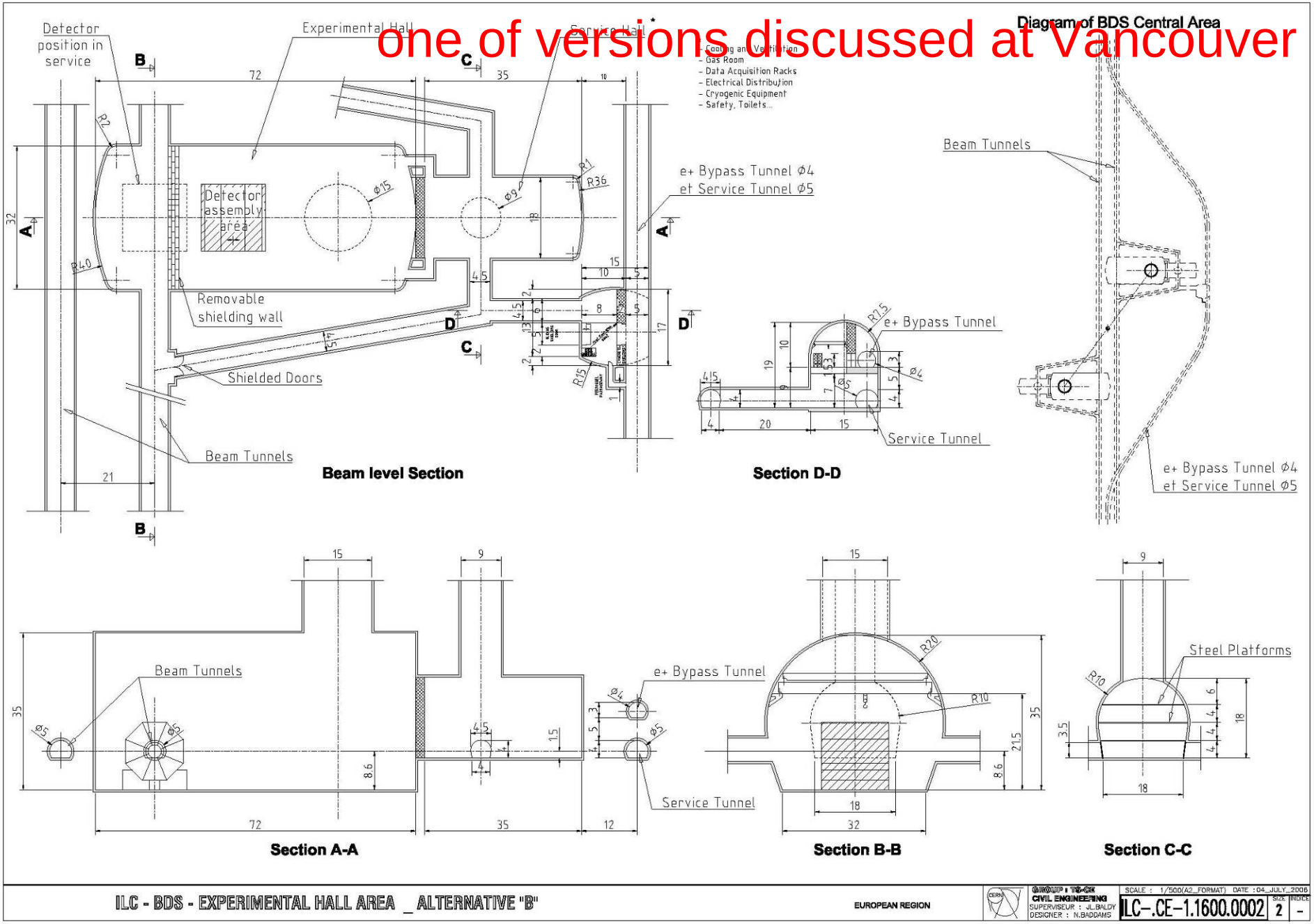
MDI panel meeting

- Meeting of MDI panel on August 15
  http://ilcagenda.cern.ch/conferenceDisplay.py?confId=1060
- Questions discussed
  - **14/14 configuration**
  - **single collider hall**
  - **on-surface assembly**
  - **5m muon spoilers**
- The MDI panel accepted those changes. The conclusions will be sent to WWS and CCB

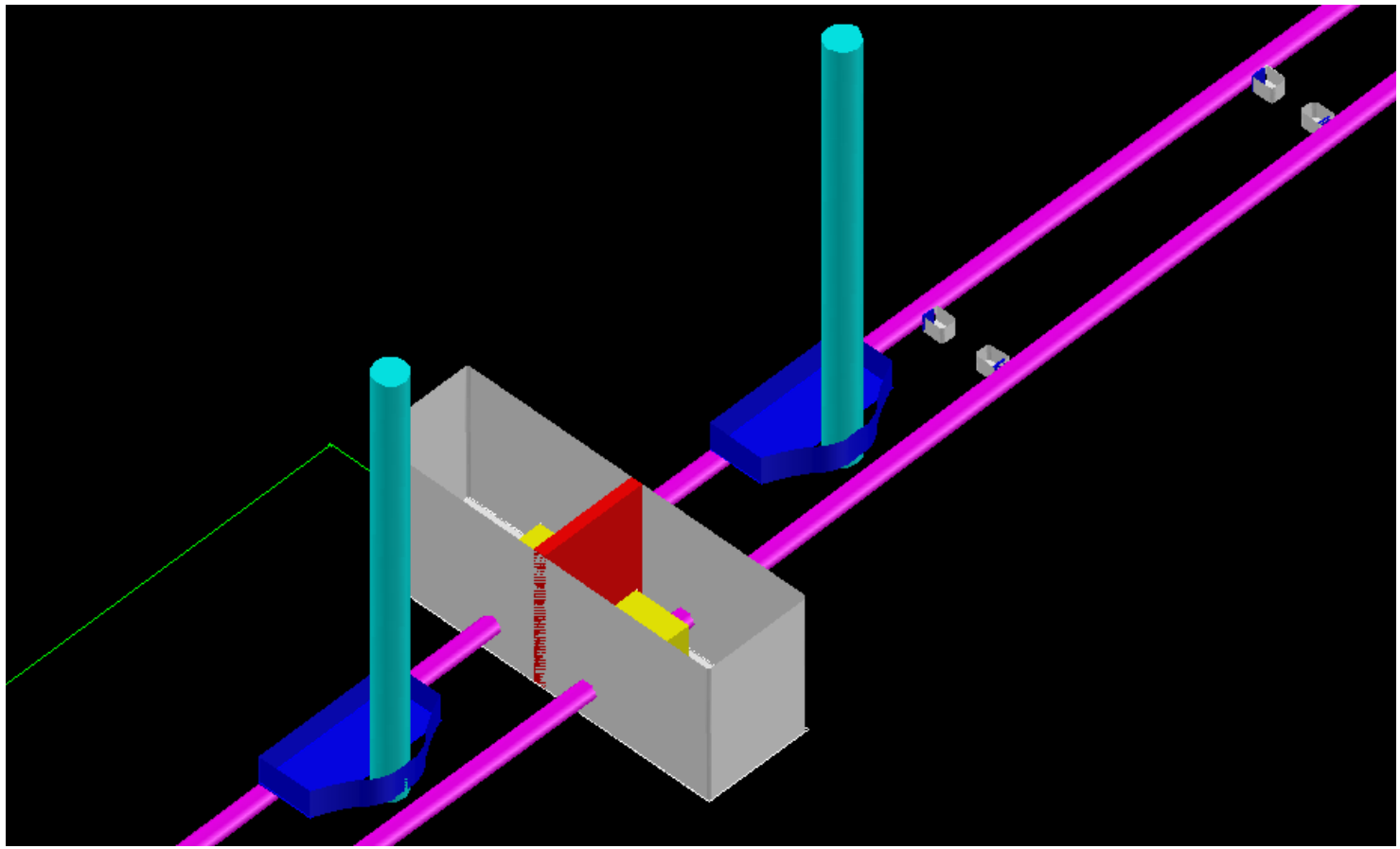
Cost savings under discussion

- Re-evaluating the cost of service tunnel (in BDS as well as in linac)
- Considering 4m tunnel in BDS and alcoves
- Tentatively, assumed 30W*100L*35H single collider hall
  - **reducing the size and number of access shafts can give savings**
  - **next pages shows layout discussed at Vancouver**


layout as of Vancouver
Section D-D
Section E-E
Section F-F
Experimental Hall
Detector assembly area
Removable shielding wall
Beam Tunnel
Detector position in service
e+ Bypass Tunnel Ø4
et Service Tunnel Ø5
personnel passageway
TYPICAL PASSAGEWAY SECTION
Section B-B
Section C-C
Section A-A
e+ Bypass Tunnel
Service Tunnel
ILC - BDS - EXPERIMENTAL HALL AREA ALTERNATIVE A (Based on BDS Requirements)
EUROPEAN REGION
CIVIL ENGINEERING
ILC-.CE-1.1600.0001

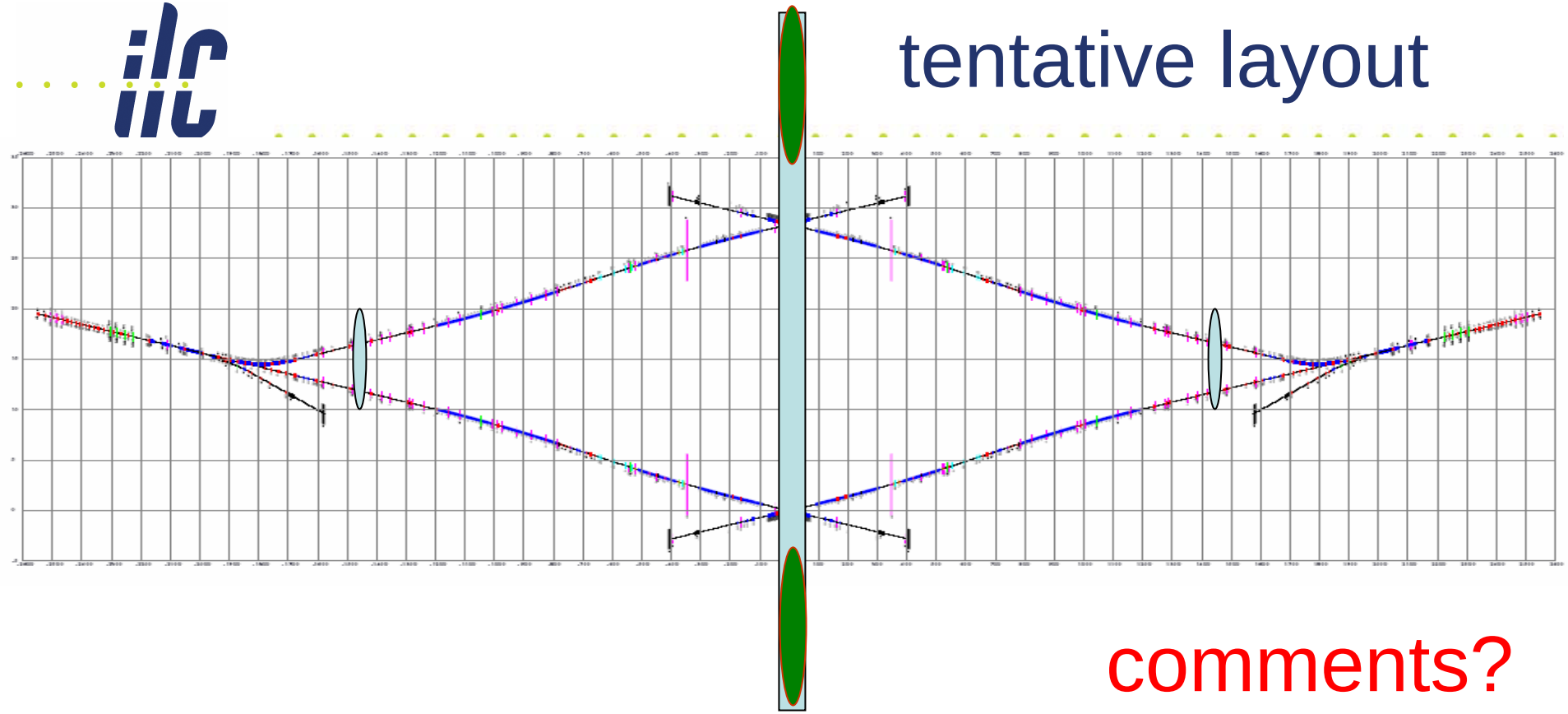

one of versions discussed at Vancouver
Diagram of BDS Central Area
Detector position in service
Experimental Hall
Service Hall
- Cooling and Ventilation
- Gas Room
- Data Acquisition Racks
- Electrical Distribution
- Cryogenic Equipment
- Safety, Toilets...
Detector assembly area
Removable shielding wall
Shielded Doors
Beam Tunnels
e+ Bypass Tunnel ϕ4
et Service Tunnel ϕ5
Beam level Section
e+ Bypass Tunnel
Service Tunnel
Section D-D
Beam Tunnels
e+ Bypass Tunnel ϕ4
et Service Tunnel ϕ5
Steel Platforms
Section A-A
Section B-B
Section C-C
ILC - BDS - EXPERIMENTAL HALL AREA _ ALTERNATIVE "B"
EUROPEAN REGION
GROUP : TB-CE
CIVIL ENGINEERING
SUPERVISEUR : JL.BALDY
DESIGNER : N.BADDAMS
SCALE : 1/500(A2_FORMAT) DATE : 04_JULY_2006
ILC-.CE-1.1600.0002
SIZE INDICE
2
-

One of versions for 14/14



- Discussing moving out the 9m shafts to BSY
- Equipping the 15m detector hall shafts with elevators for personnel

tentative layout



comments?

- 4m tunnels in BDS with alcoves, no service tunnel
- tentatively, 30W*100L*35H single hall
- e+ bypass ignored
- 9m shafts in BSY for accelerator
- 15m shafts in detector hall with elevators & stairs
- no cover on top of 15m shafts
- no additional detector caverns for equipment