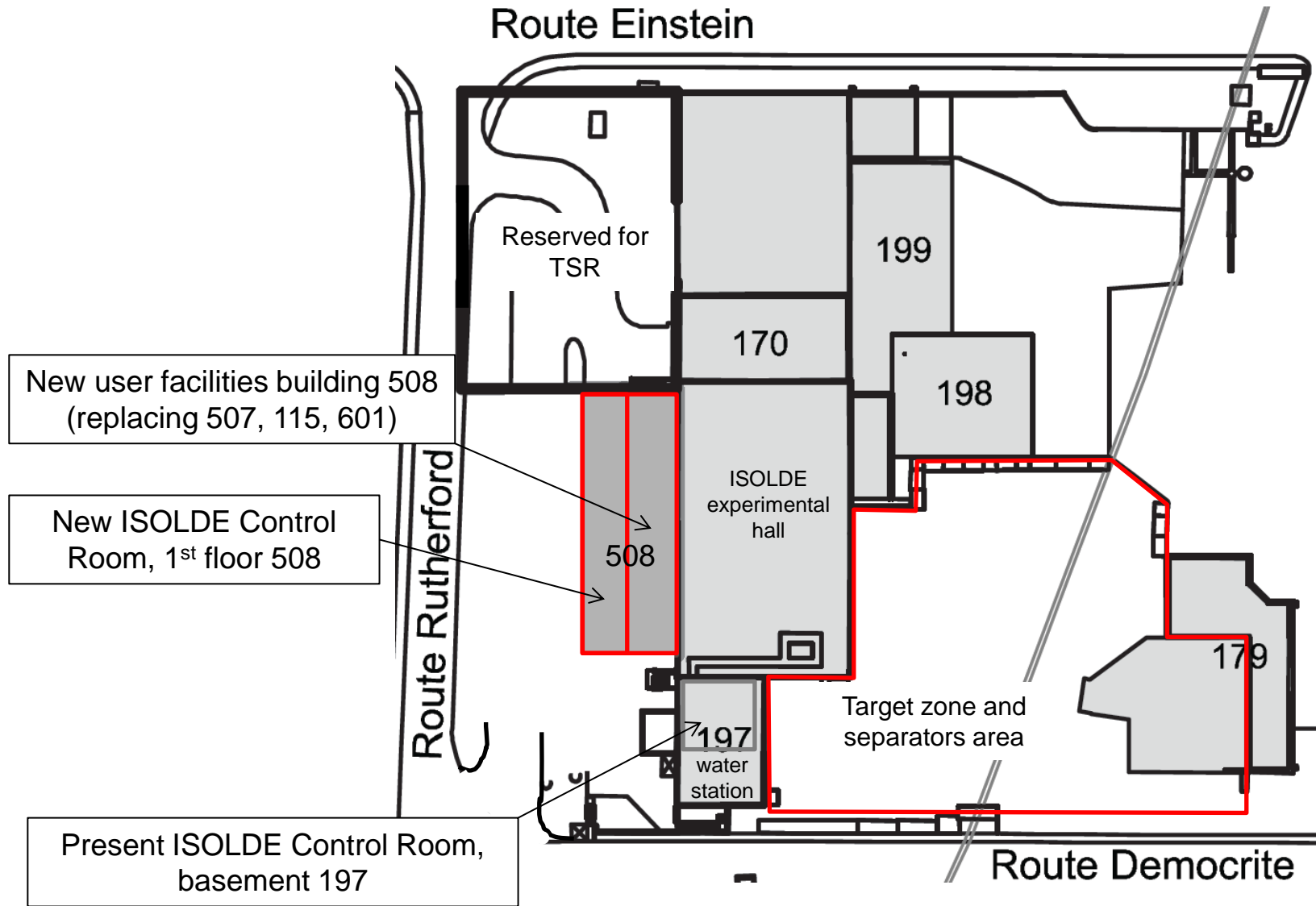


ISOLDE: Status report building 508

70th ISCC meeting
CERN, 24 June 2014

Erwin Siesling, Magda Kowalska

- **Status new building 508:**
 - Progress on the construction
 - Building layout
 - Progress on infrastructure
 - Costs and timeline



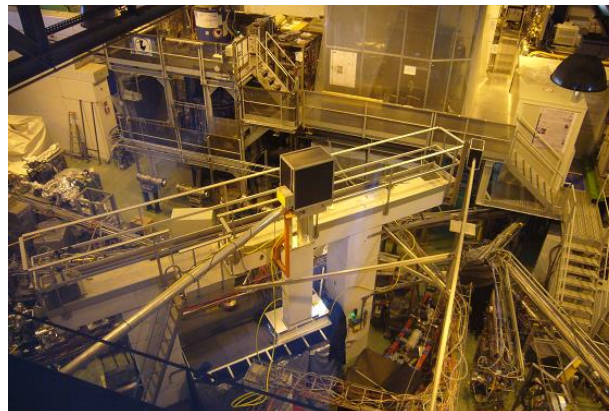
Progress since the 69th ISCC (31 March '14):

- Roof finished and tight
- All windows, outer doors, stairs and inner walls installed
- Openings and windows towards the Isolde hall in place
- Outdoor concrete ramp and stairs done
- Drainage and piping sanitaria ongoing



MARCH 2014

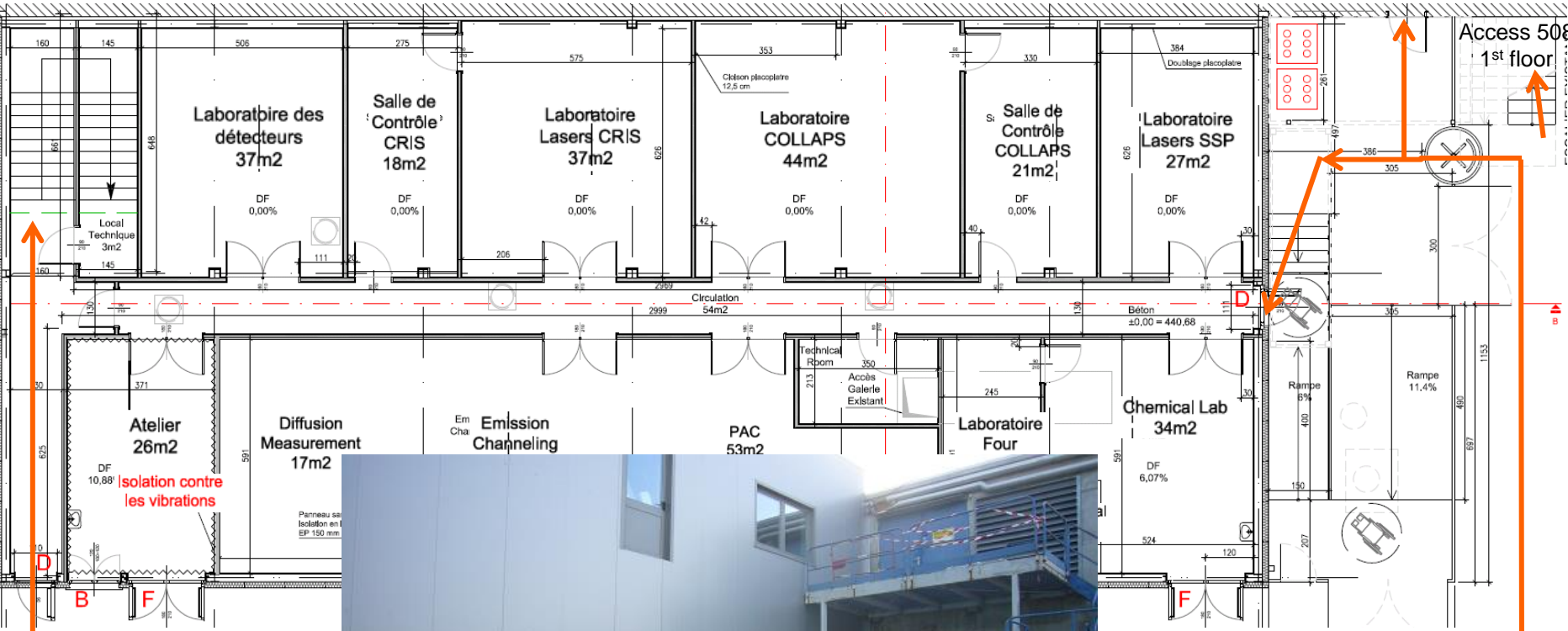




Ground floor B508:

Access hall

Access 508
1st floor



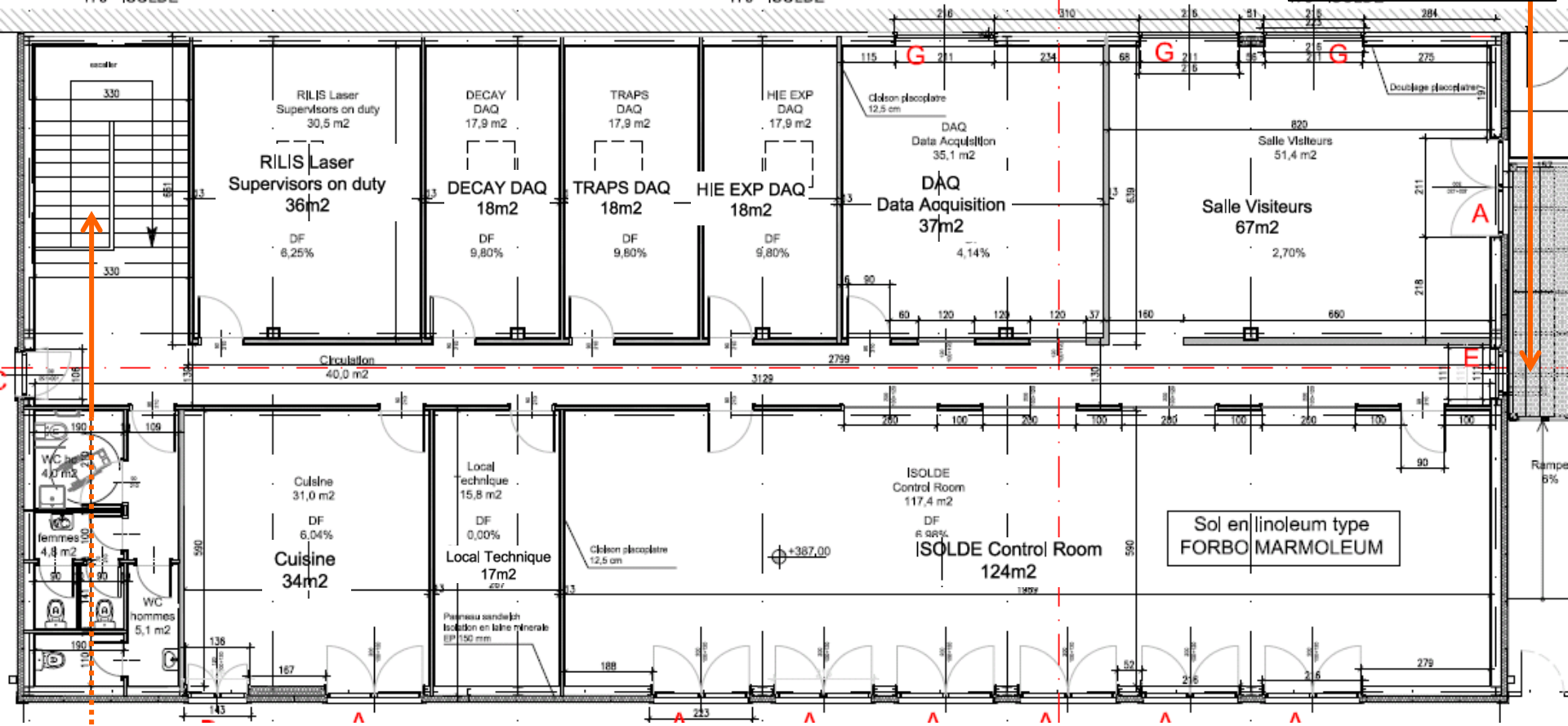
Controlled Access
508 ground floor and Isolde hall

Access 508 1st floor

Surface nette 1er étage	: 432m ²
Surface nette rez de chaussée	: 432m ²
Surface nette totale	: 864m ²

1st floor B508:

Access 1st floor

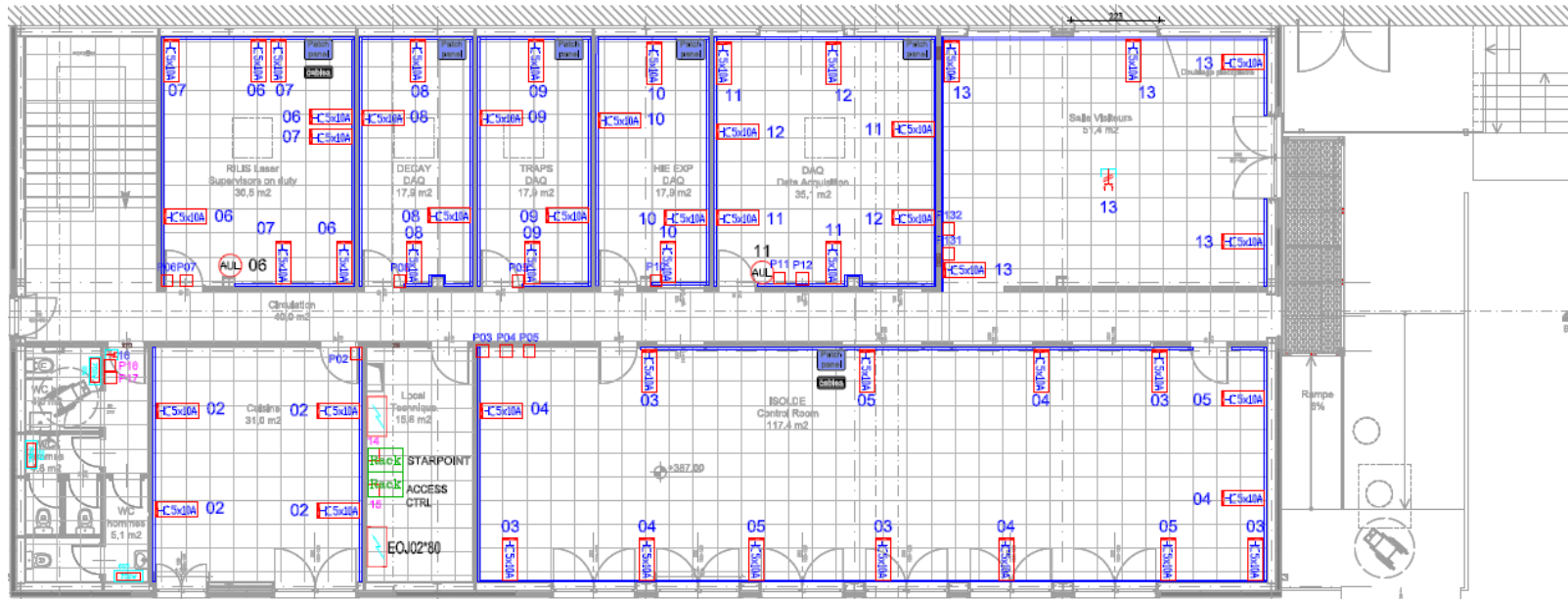


Access 1st floor

Surface nette 1er étage	: 432m ²
Surface nette rez de chaussée	: 432m ²
Surface nette totale	: 864m ²

Electricity:

- User needs: 200kW
- Cooling & Ventilation needs (re-designed): ~~130, 170, or 220kW~~ - 40kW



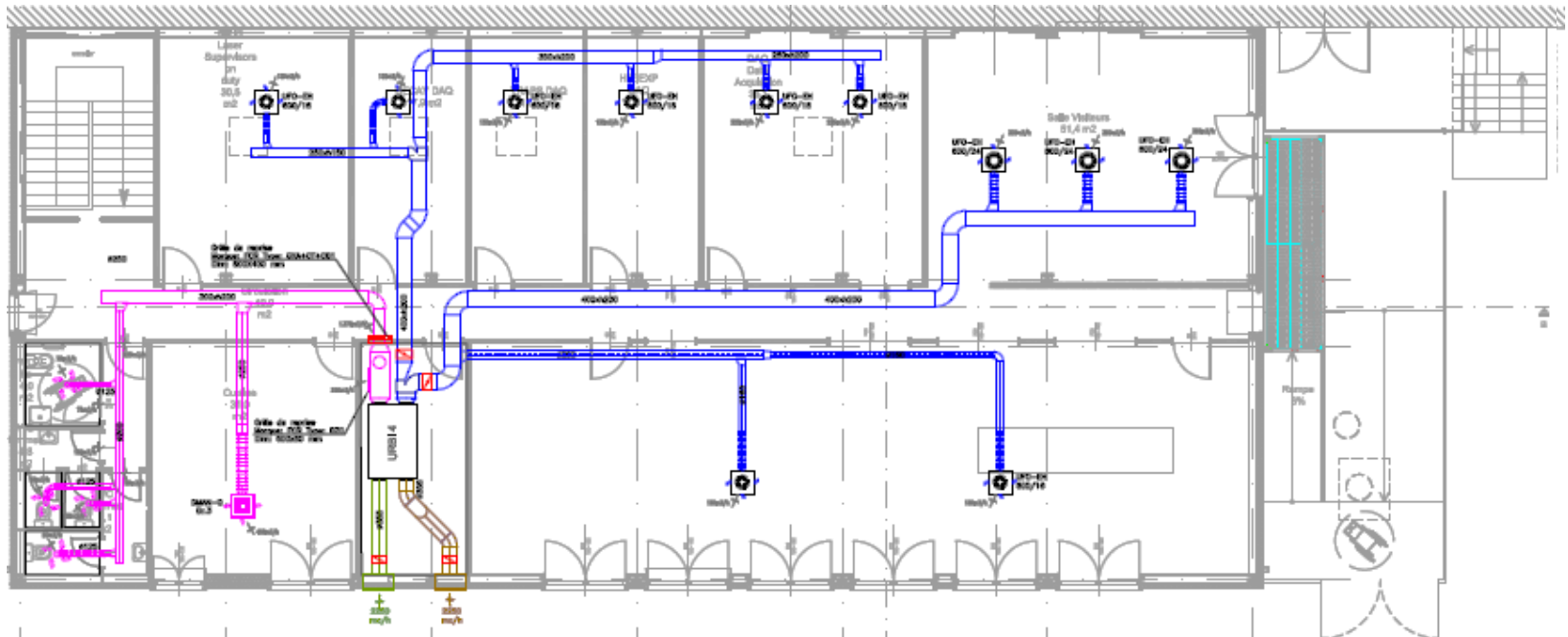
Equipment cooling:

- New building, new rules.. Negotiating with HSE to use eau brut as before (with future change to a closed, chilled water, system)
- User needs: COLLAPS, CRIS each: 50kW -> 20l/min, 3 wks/yr running
(Total 2 x 1.2m³/hr x 24hrs x 7days x 3wks = 1209.6m³ (about 1500chf))

Cooling and ventilation:

The proposed solution by the contractor was two HVAC (Heating Ventilation and Air Conditioning) systems based on a refrigerant liquid => too expensive and a new design was required:

- General ventilation: fresh air to all rooms
- Heating: through electrical radiators
- Labs air-conditioning:
 - For the laser labs SSP, COLLAPS and CRIS labs fan-coils (4x7kW using existing ISOLDE chilled water)
 - For the SSP lab a separate refrigerant airco system (27kW)



Total costs building 508 (incl. services):
estimate **2MCHF** (staying within with adapted CV systems)

Timeline:

- Building ready April 2014 -> May
 - ready since May
 - to do inside: doors, sanitarium, false ceiling & walls (waiting for CV/EL)
- Infrastructure ready ~~June~~ 2014 -> September
 - Re-design caused substantial delay (3 mnts)
 - EL and CV to start asap
 - Asphalt & metal passage structure this month
- Installation controlled access ~~June~~ 2014 -> July
 - Tourniquet and fences installation
- Installations users as of ~~July~~ 2014 -> As soon as possible
 - Emphasis on COLLAPS (SSP & CRIS workaround)
 - Move of the ICR during shutdown 2014/15
- ISOLDE Milestones: Protons to Isolde 10 July 2014;
 physics ISOLDE start 21 July
 physics from 508 start ..