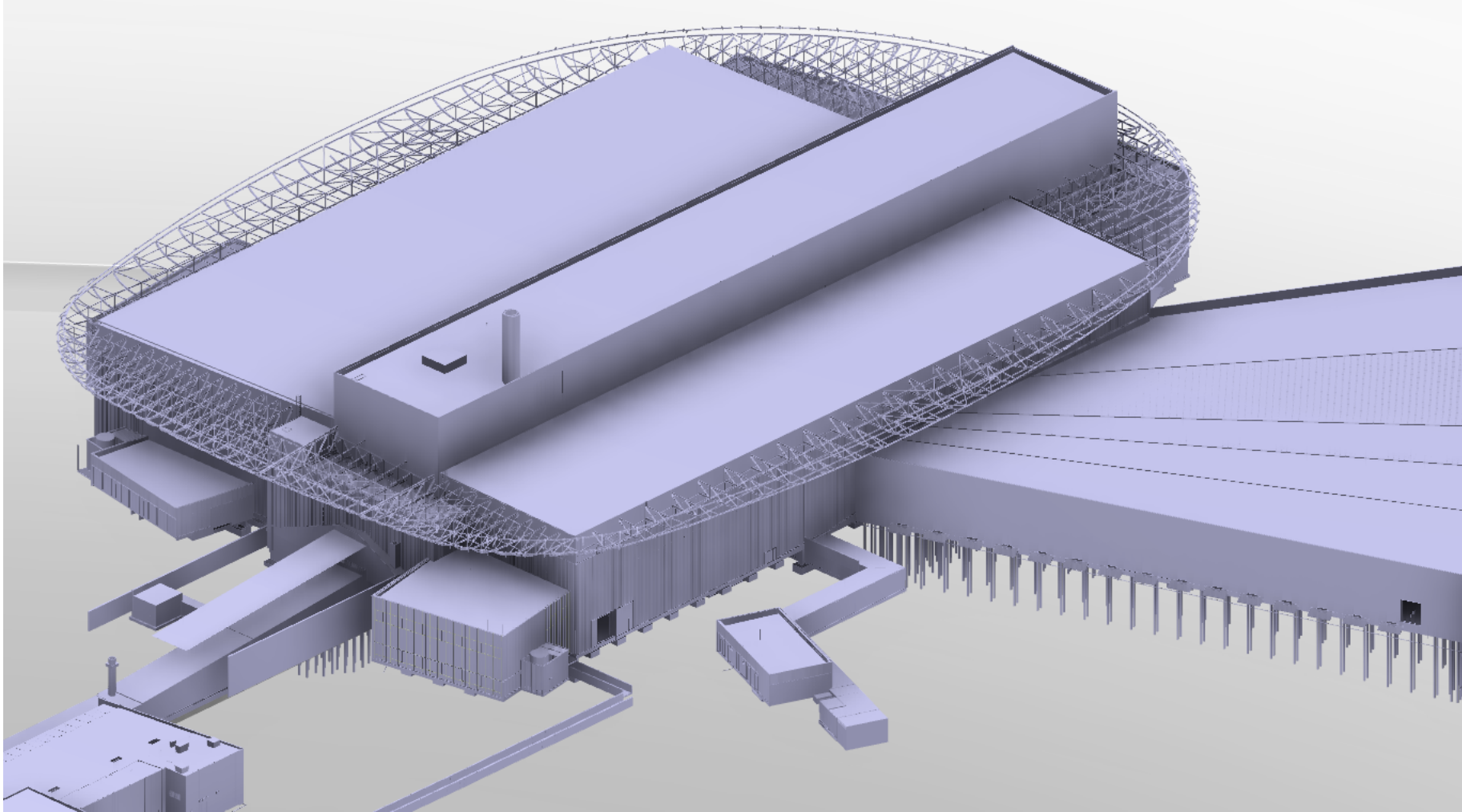
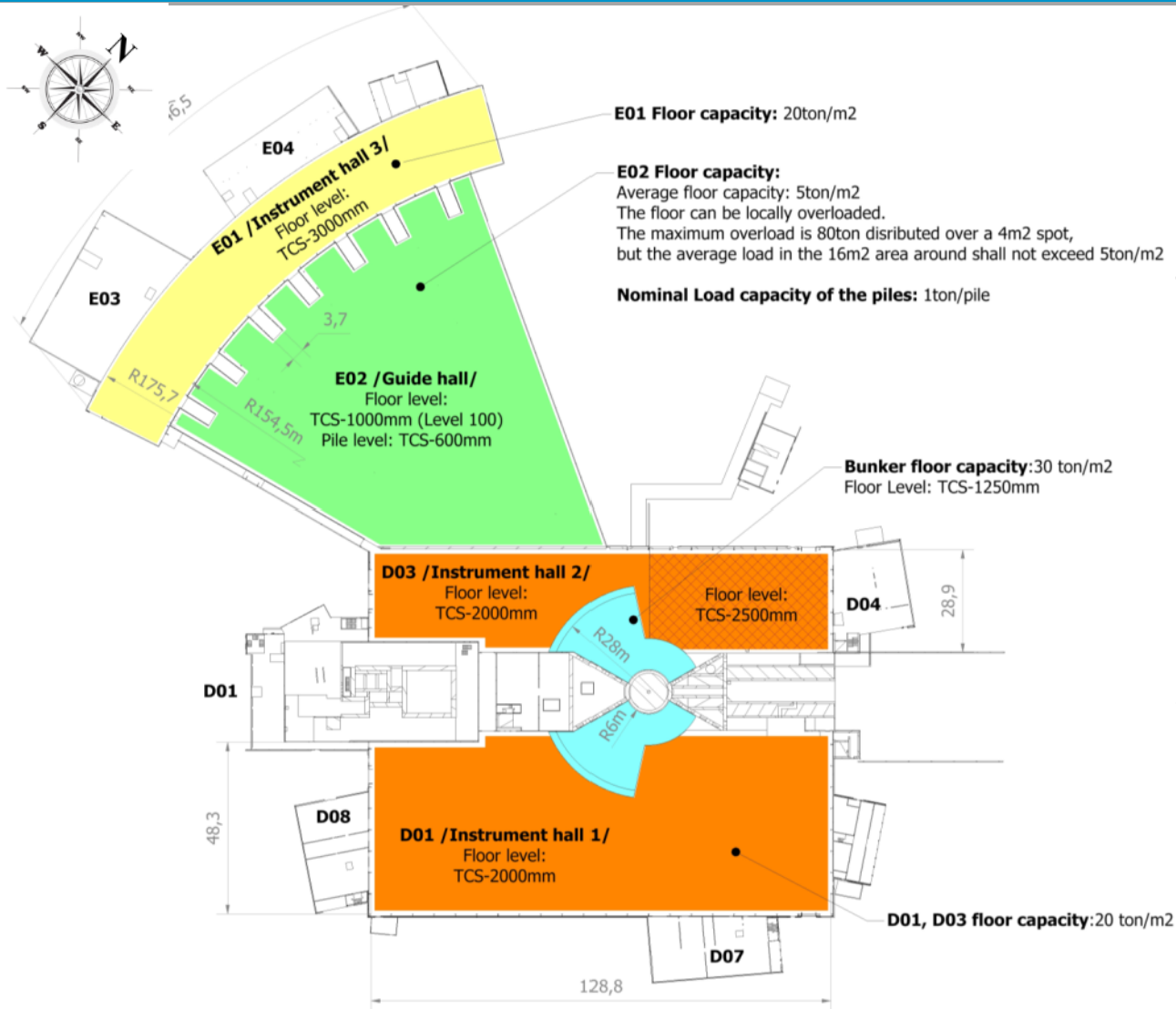


# Utilities and Infrastructure Session Summary

# Geometry and Explanation of Locations



# Hall Area Specifics

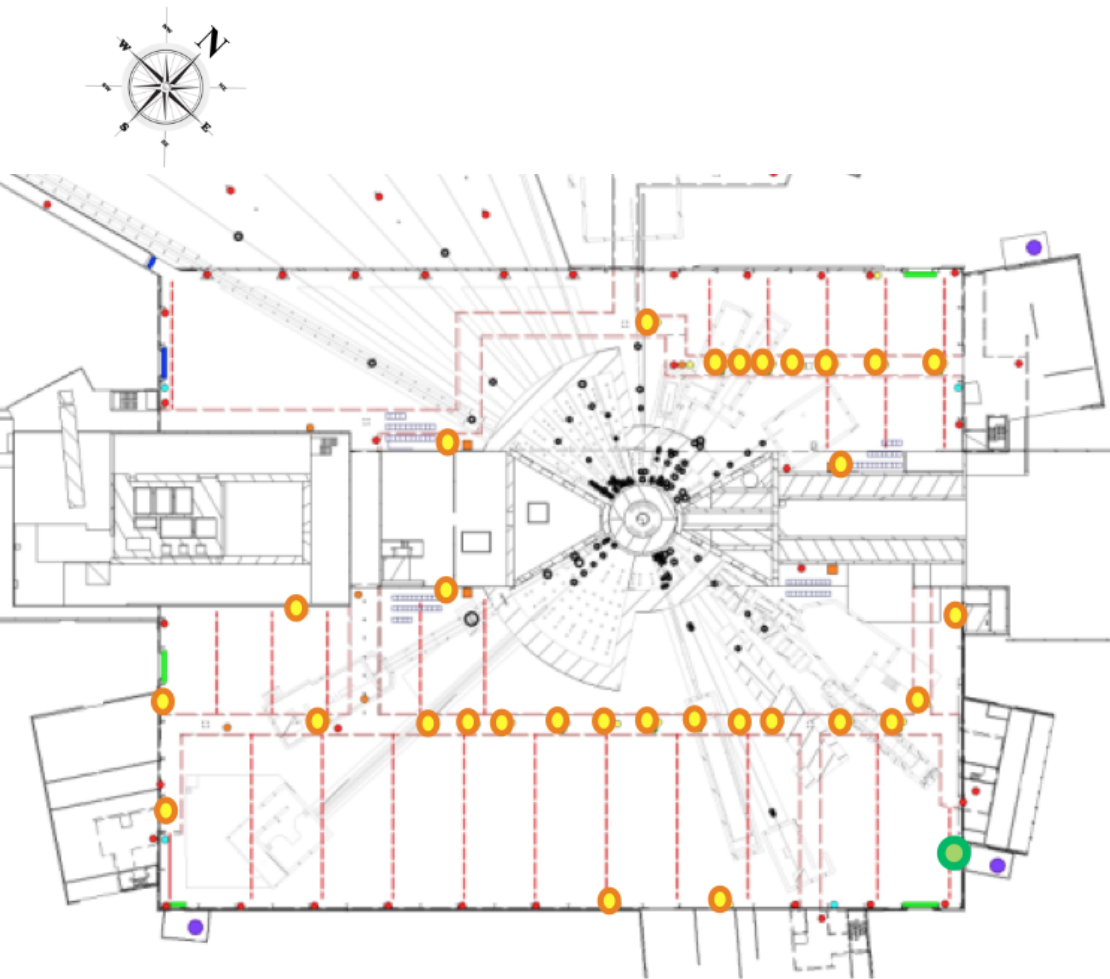


## Floor settlement requirement under the instruments

The floor in the experimental halls and bunker area will due to dynamics loading have a stability for elastic movement.: **3mm**

Stability for creep/deformation over the lifespan of the facility: **3mm**

# Utilities Connection



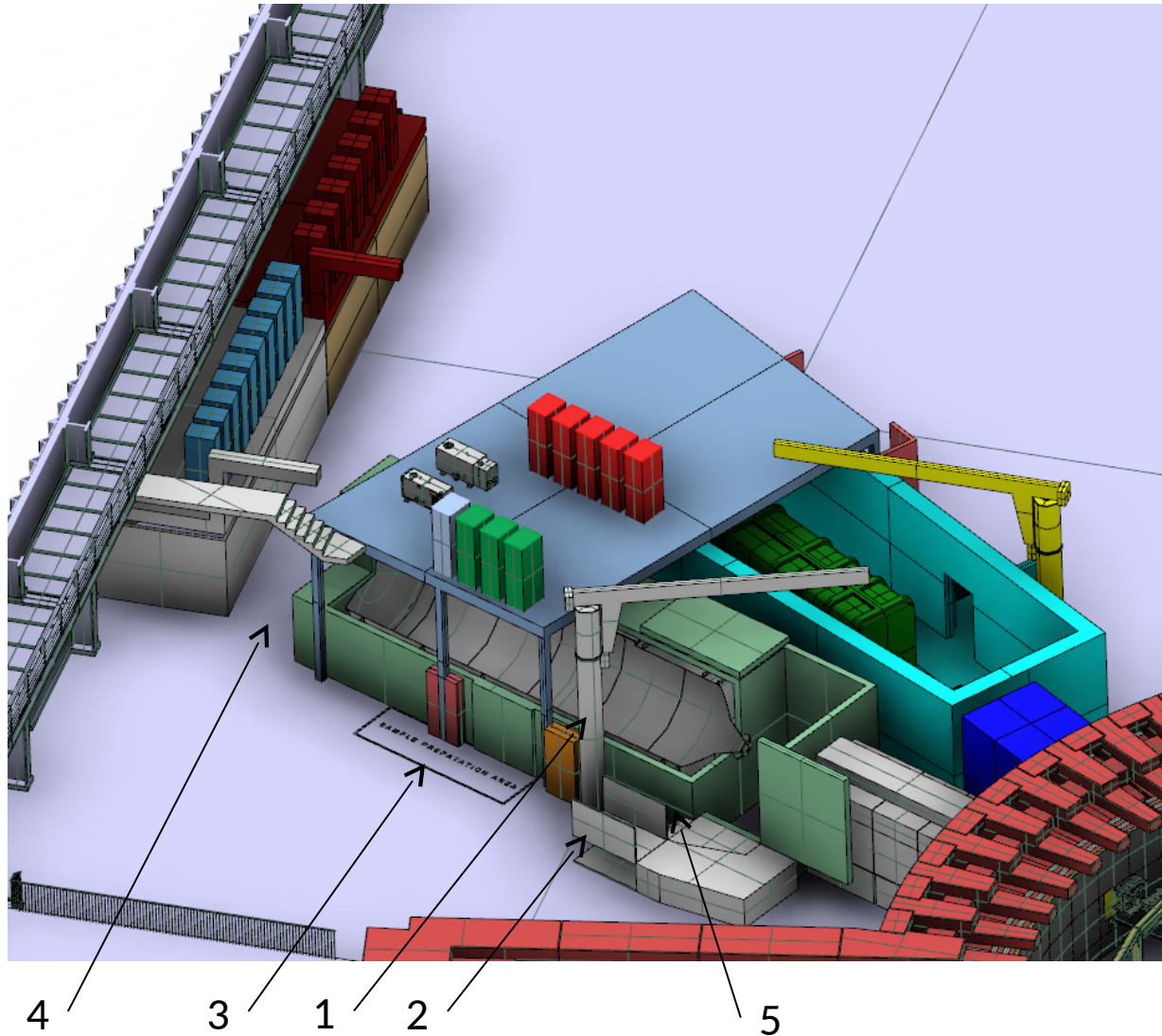
- Nitrogen gas (10bar)
- Deionized water (8 Bar)
- Compressed air (6Bar)
- LAN: 2 outlets/connections
- Liquid nitrogen
  - 1 filling point / sector

## North Sector

9 connections from the gallery and 2 on the wall.

**East and south sector**  
14 connections from the gallery and 7 on the wall

# Example Integration

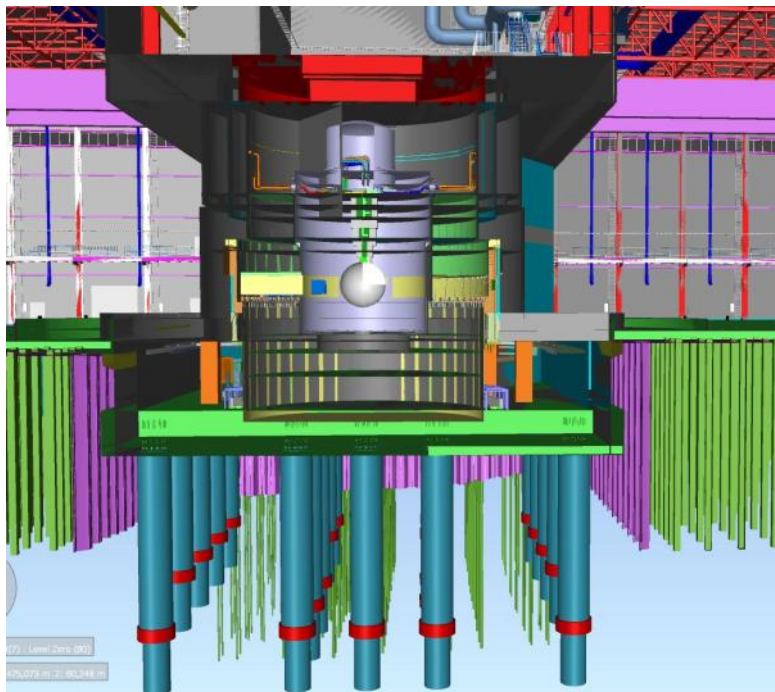


1. Local crane
2. Lifting cage (equipment)
3. Sample area preparation
4. Pathways
5. Personnel access

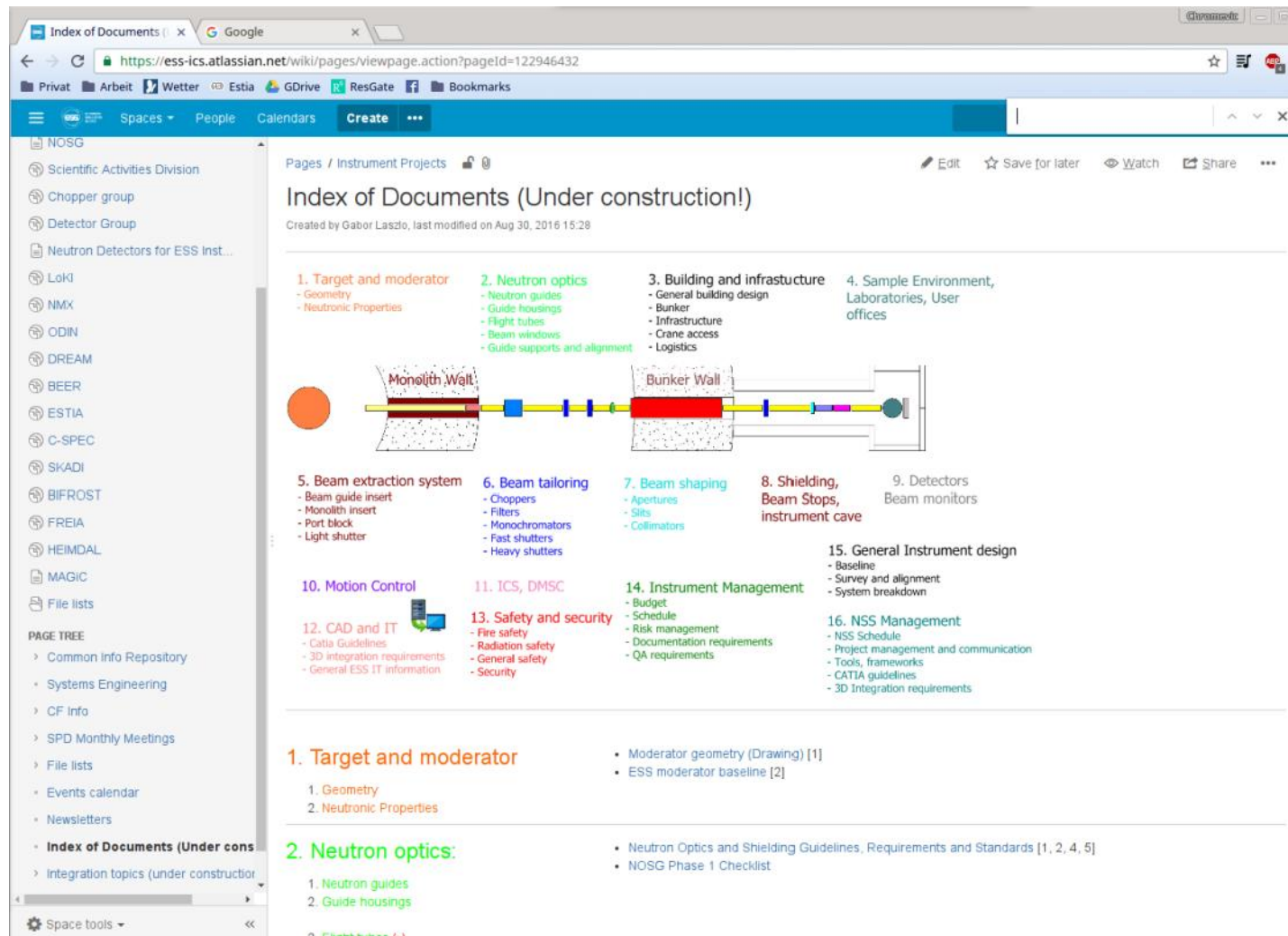
Required information about recommendations for:

- Mounting and Location for local cranes
- Grounding practical details
- Instrument height limitations
- Anchoring system

# Foundation Considerations



# Document Index



Index of Documents (Under construction!)

Created by Gabor Laszlo, last modified on Aug 30, 2016 15:28

1. Target and moderator

- Geometry
- Neutronic Properties

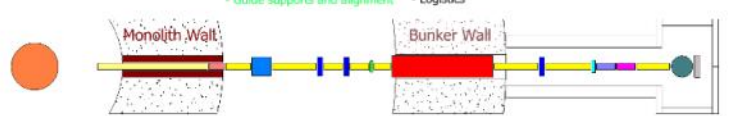
2. Neutron optics

- Neutron guides
- Guide housings
- Flight tubes
- Beam windows
- Guide supports and alignment

3. Building and infrastructure

- General building design
- Bunker
- Infrastructure
- Crane access
- Logistics

4. Sample Environment, Laboratories, User offices



5. Beam extraction system

- Beam guide insert
- Monolith insert
- Port block
- Light shutter

6. Beam tailoring

- Choppers
- Filters
- Monochromators
- Fast shutters
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7. Beam shaping

- Apertures
- Slits
- Collimators

8. Shielding, Beam Stops, instrument cave

9. Detectors

- Beam monitors

10. Motion Control

11. ICS, DMSC

12. CAD and IT

- Catia Guidelines
- 3D integration requirements
- General ESS IT information

13. Safety and security

- Fire safety
- Radiation safety
- General safety
- Security

14. Instrument Management

- Budget
- Schedule
- Risk management
- Documentation requirements
- QA requirements

15. General Instrument design

- Baseline
- Survey and alignment
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16. NSS Management

- NSS Schedule
- Project management and communication
- Tools, frameworks
- CATIA guidelines
- 3D Integration requirements

1. Target and moderator

- Moderator geometry (Drawing) [1]
- ESS moderator baseline [2]

2. Neutron optics:

1. Neutron guides
2. Guide housings
3. Flight tubes (1)