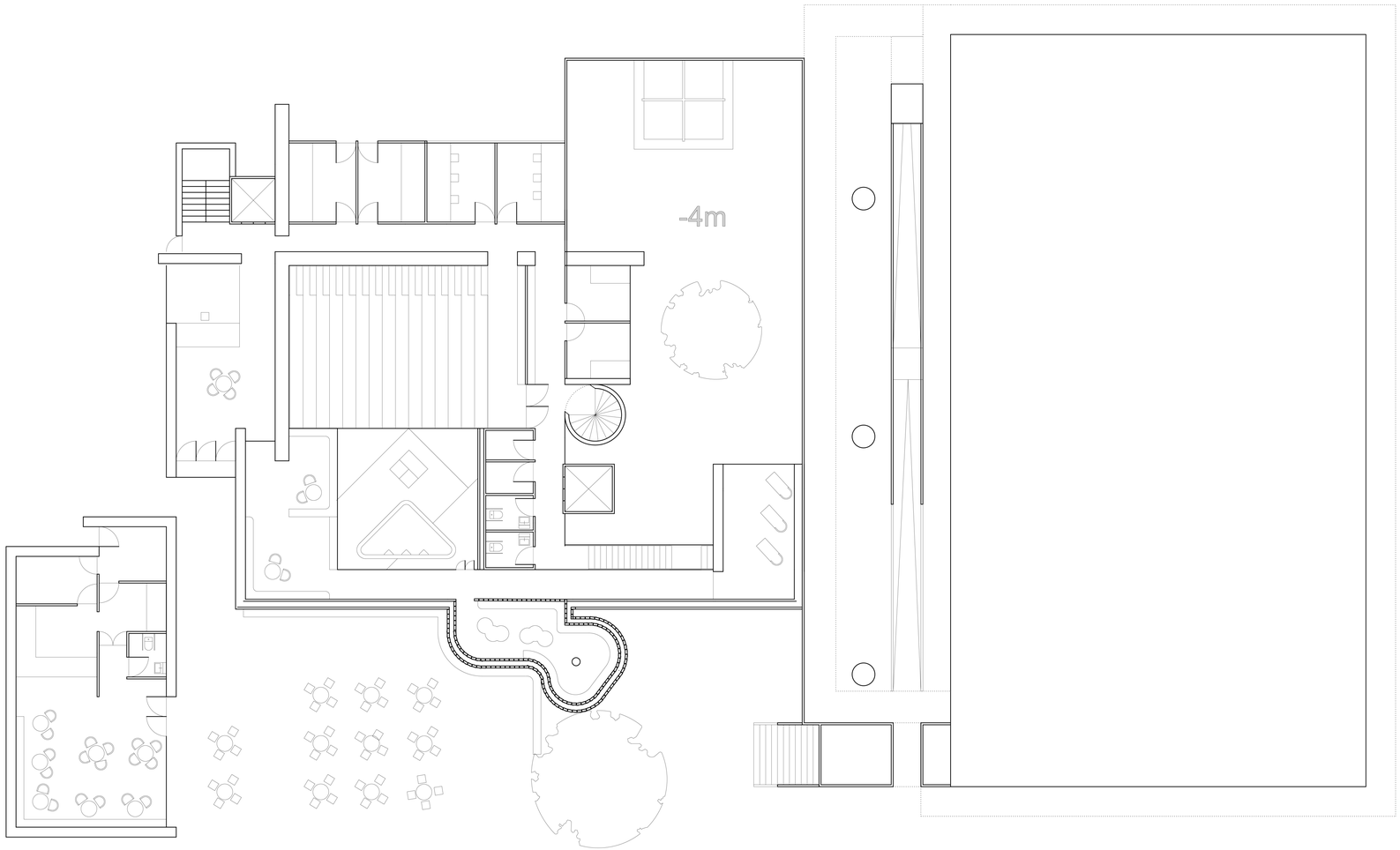
150
168
4
Ullevål
Universitetssykehus
HF
Toftes gate
Grensevei
Tøyenparken
Bygdøy alle
OSLO
Dyvekes vei
Valhallveien
Oslo - Kiel
Ekebergsletta

Mot Rikshospitalet
Mot Majorstua
Sognsveien
Mot sentrum
Apotek
Matbutikk
Vestre gate
Taxi
Hovedinnkjøring
P-HUS LANGTID
Kirkeveien
RING 2
RV161
Mot Carl Berners plass
Gangveien "Alléen"
Østre gate
Første tverrvei
Andre tverrvei
Tåsenveien
Innkjøring
Sognsbergveien
Julianveien
01 Administrasjonen/ sykehusledelsen
02 Søsterhjemmet
03 Medisinsk bygning
04 Sentralblokken
05 Kontorer KAM
06 Midtblokken
07 Kirurgisk bygning
08 Kvinnesenteret
09 Barnesenteret
10 Pasienthotellet
11 Kreftsenteret
12 Sentral kjk. / lgr.
13 IT-avdelingen
14 Kundesenteret
15 Behandlingshjelpe-middelsentralen
17 Akuttbygget
18 Tekstilforsyningen
19 Forebyggende medisin
20 Hukommelsespoliklinikk
21 Ruspoliklinikken Ullevål Rus- og avhengighets-behandling voksne
22 Seksjon for personlighets-psykiatri
24 Museet
25 Laboratoriebygget/ Biobank
29 Nevrohabilitering voksne
30 Barnehabilitering
31 Dagkirurgisk avdeling
32 Akuttpsykiatrisk seksjon
35 Akuttpsykiatrisk seksjon
36 Øyeavdelingen
37 Rasp og smertepoliklinikken
41 Ambulansestasjon
45 Seksjon for ruspoliklinikker
Oslo universitetssykehus
Ullevål
Kirkeveien 166, 0450 Oslo
GPS hovedinngang bygg 06: 59.9369, 10.7368
12.11.2014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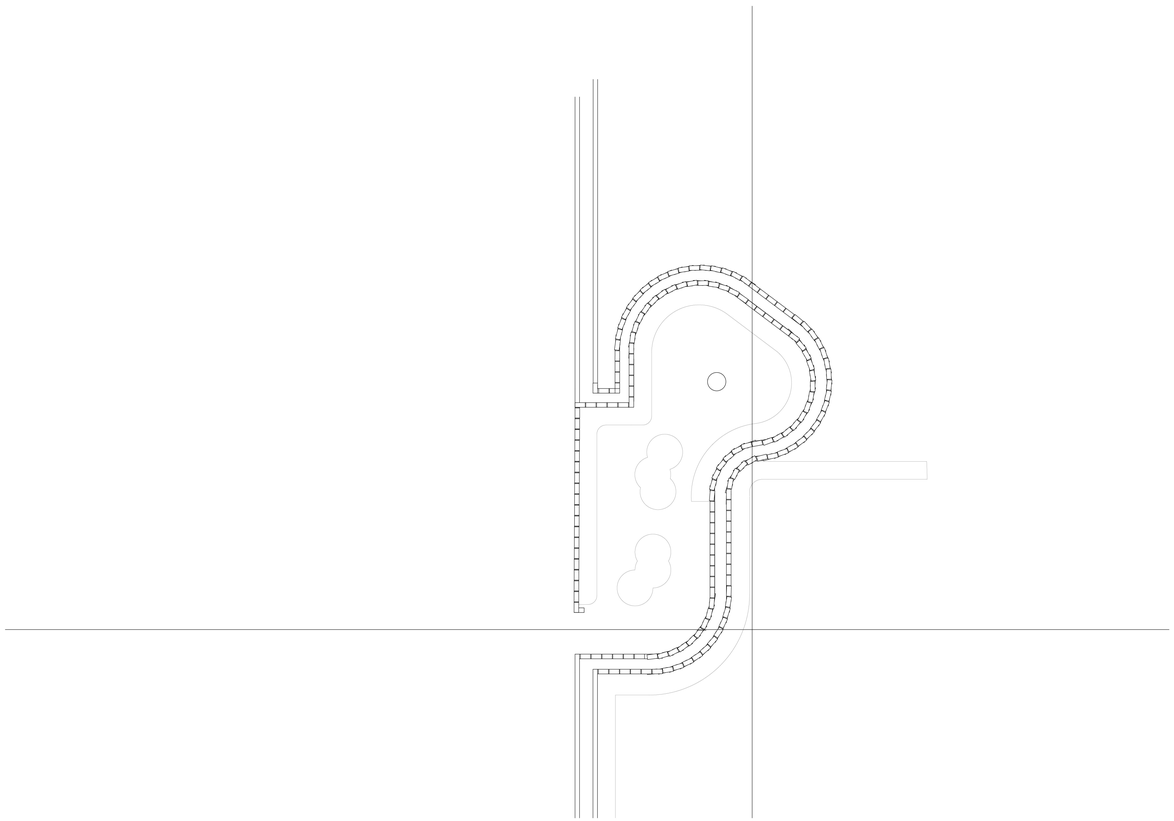
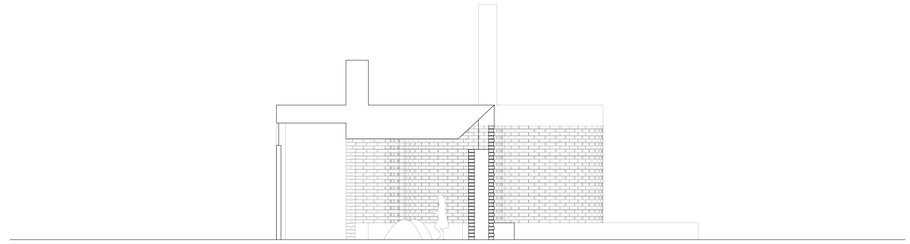
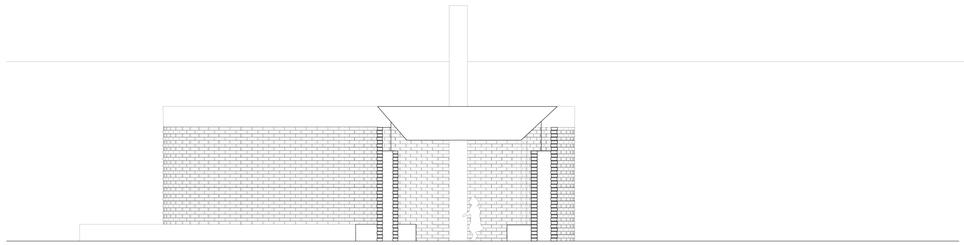
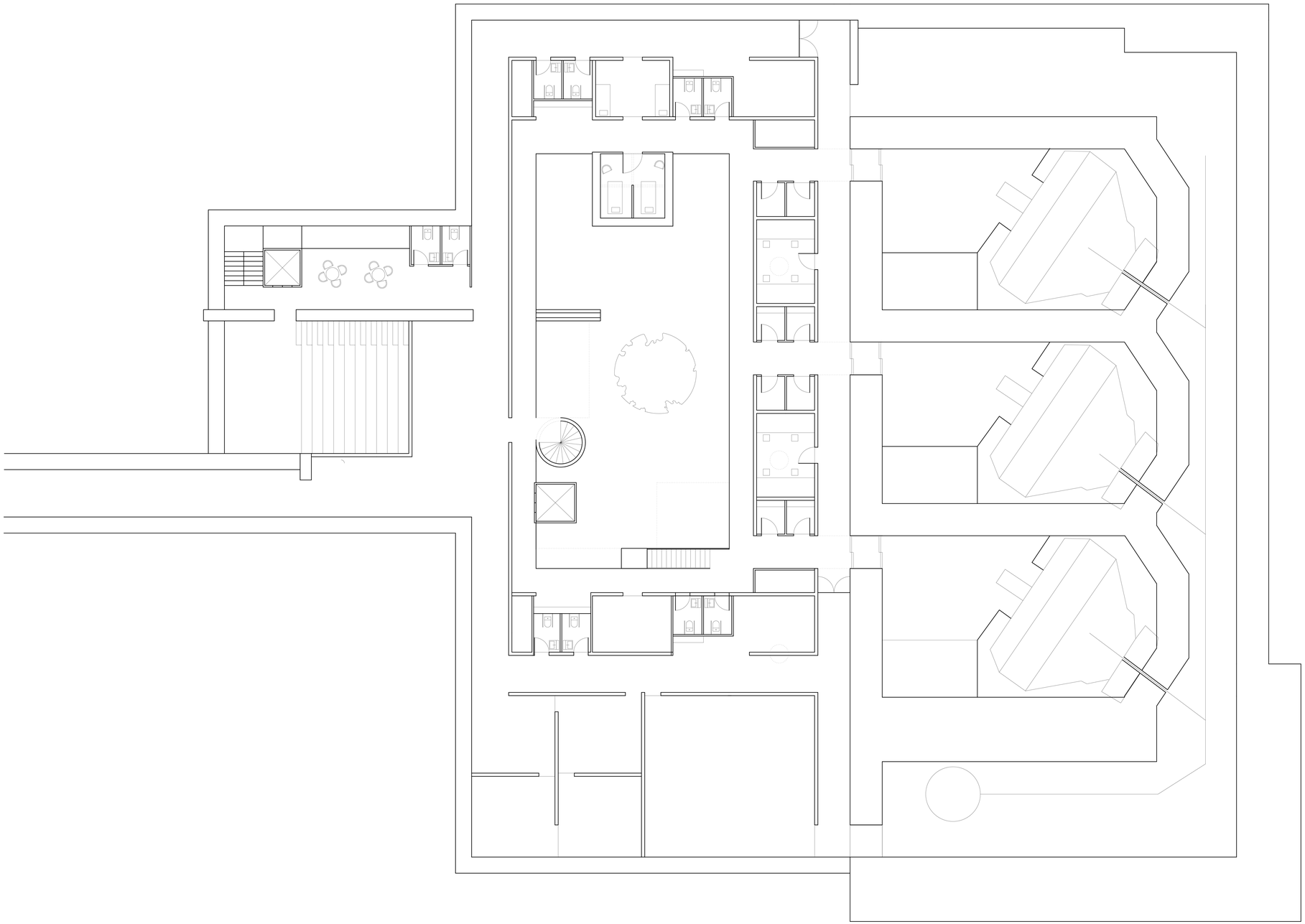
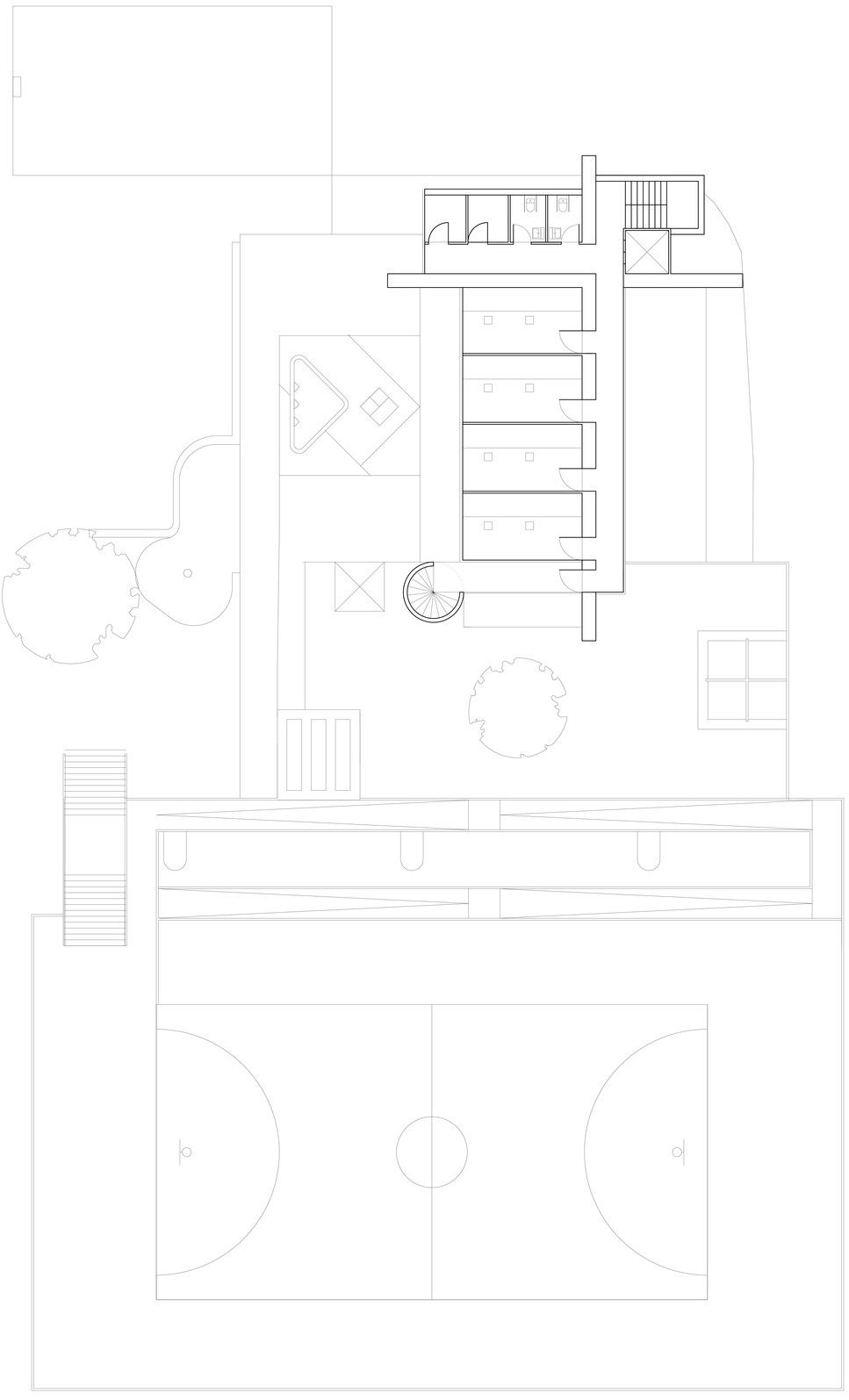
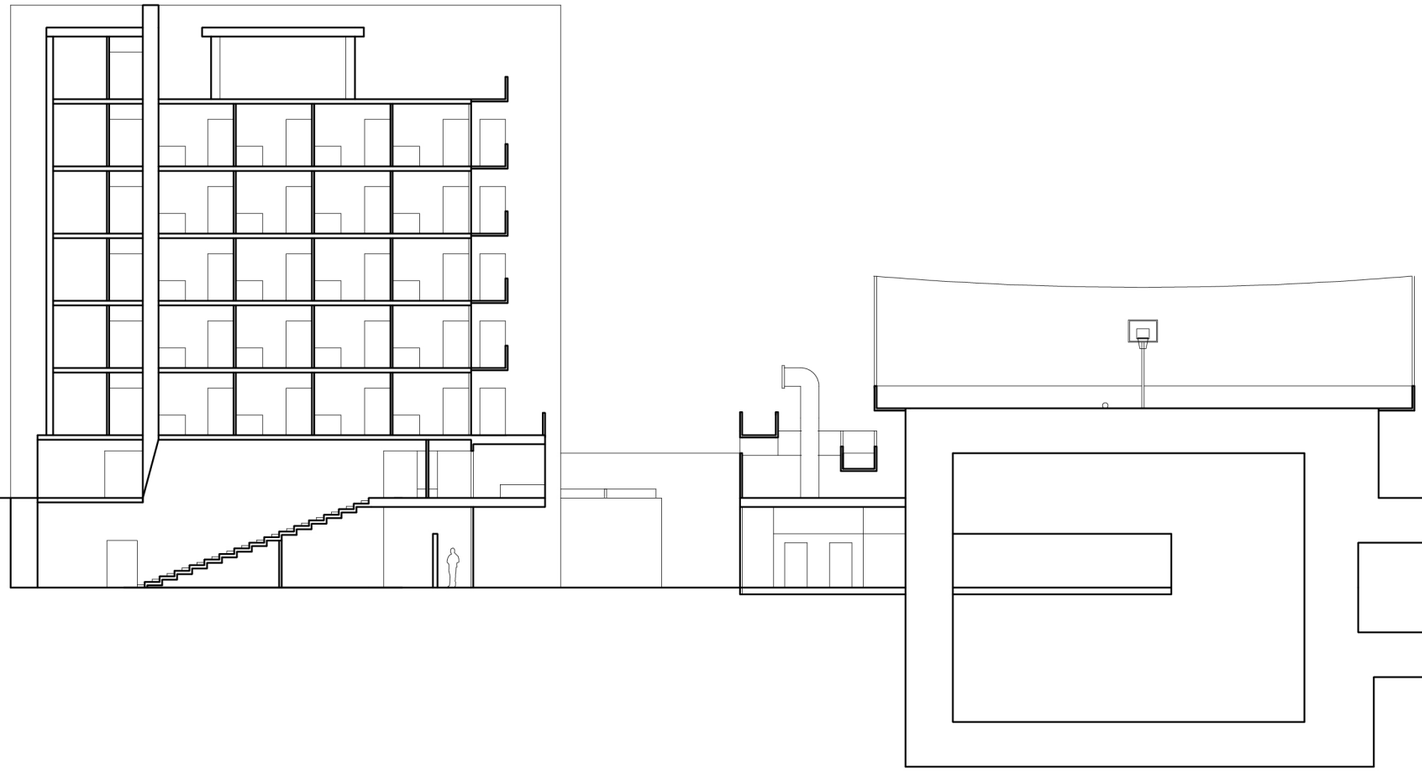


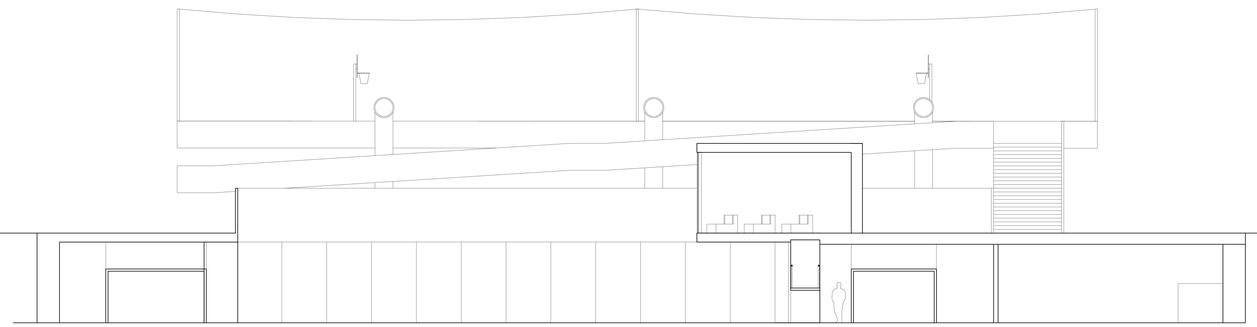


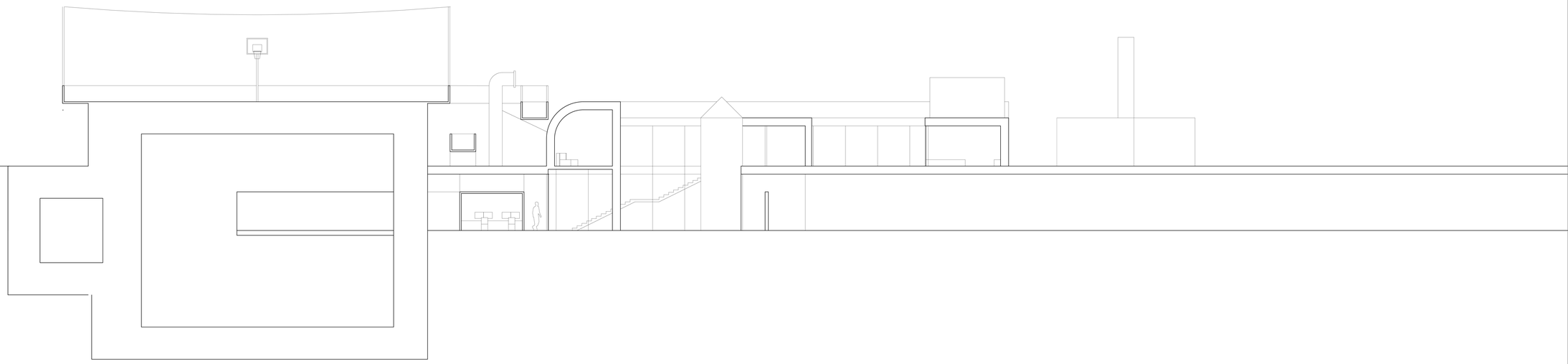


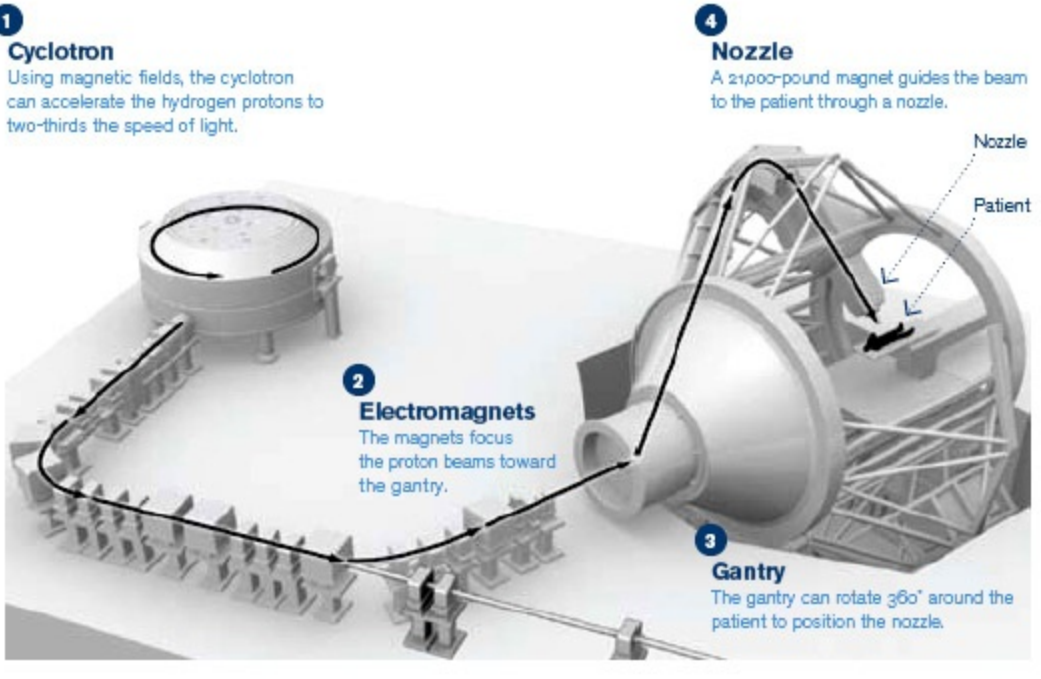


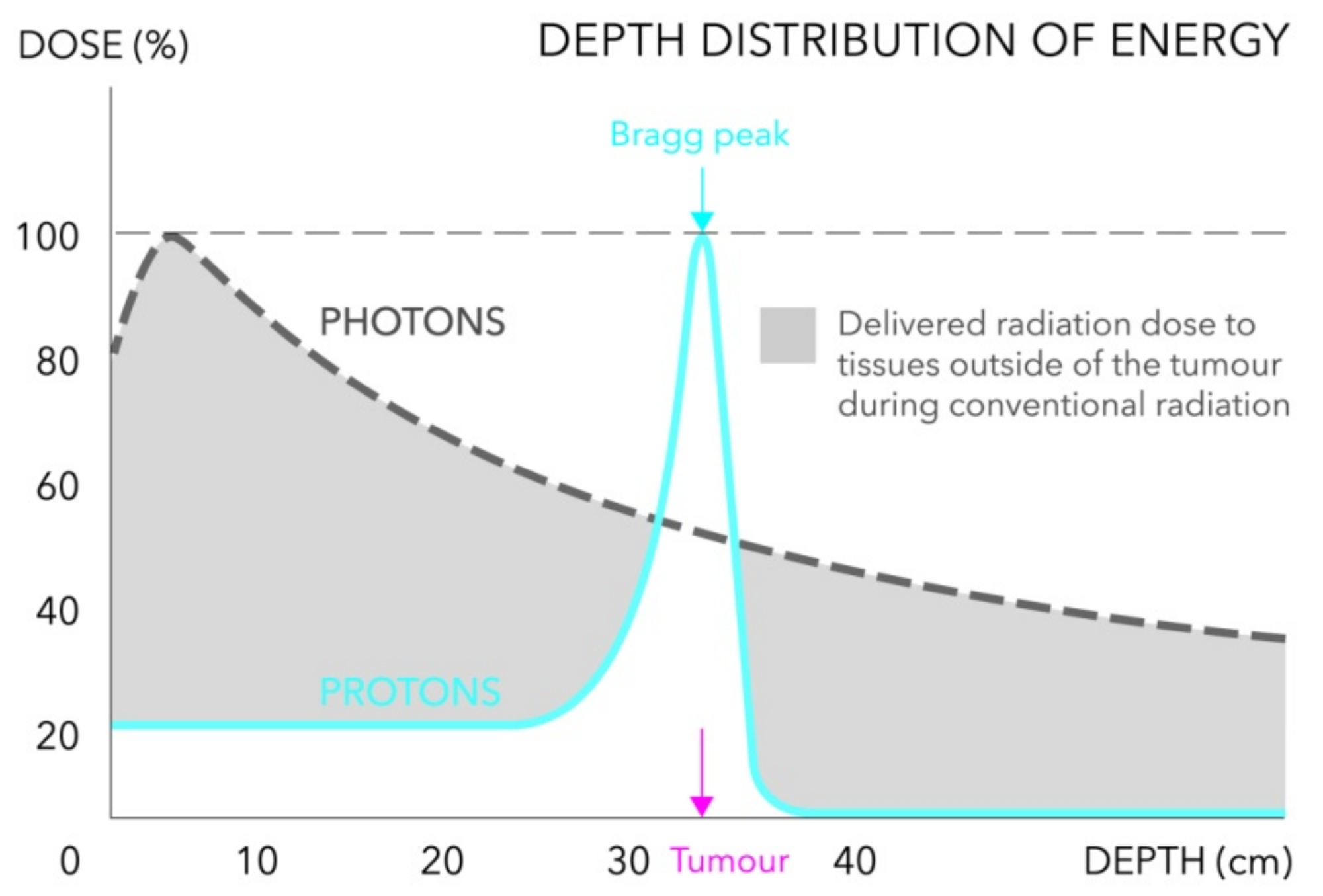




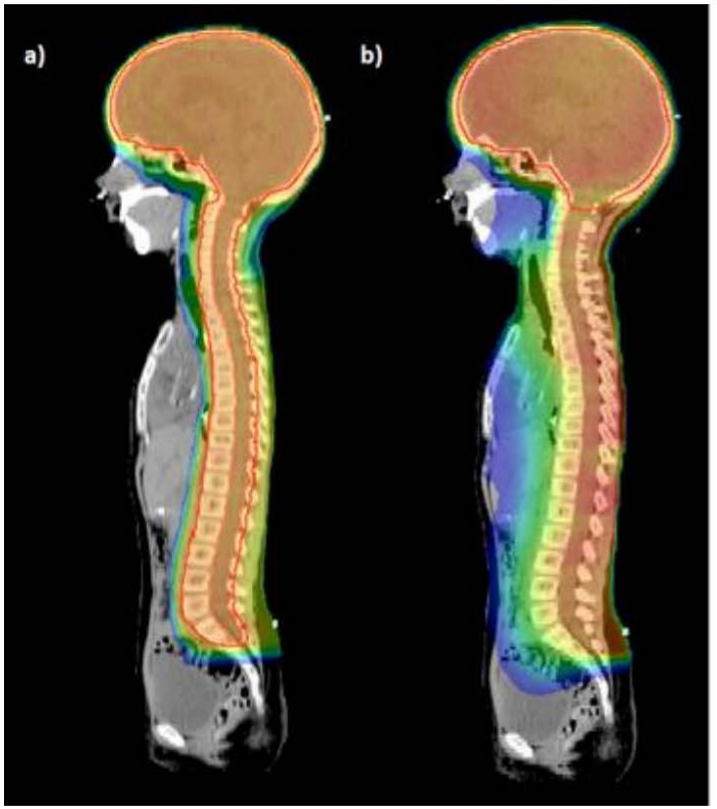
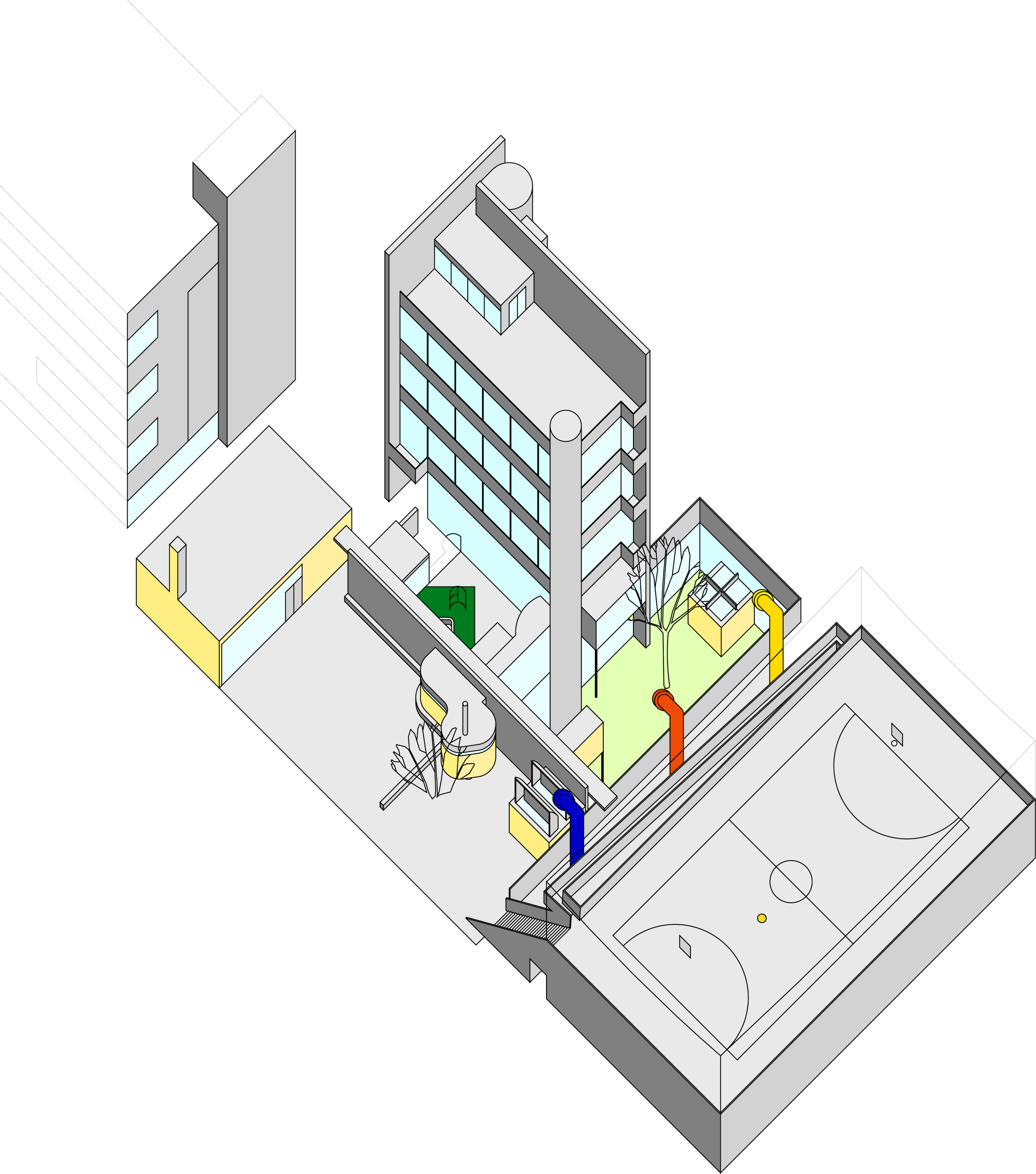





1
Cyclotron
Using magnetic fields, the cyclotron can accelerate the hydrogen protons to two-thirds the speed of light.
4
Nozzle
A 21,000-pound magnet guides the beam to the patient through a nozzle.
Nozzle
Patient
2
Electromagnets
The magnets focus the proton beams toward the gantry.
3
Gantry
The gantry can rotate 360° around the patient to position the nozzle.


DOSE (%)
DEPTH DISTRIBUTION OF ENERGY
Bragg peak
100
80
60
40
20
PHOTONS
PROTONS
Delivered radiation dose to tissues outside of the tumour during conventional radiation
0
10
20
30
Tumour
40
DEPTH (cm)

Figur 2.6. Viser total dosedistribusjon for proton a), foton b) hos et barn på 7 år hvor hele sentralnervesystemet blir strålebehandlet.



Figuren viser det raske stråledosefallet på protoner (a), hvor hjerte, lunger og tarm får svært liten stråledose i forhold til fotonbehandling (b)[11].