Two shafts avoid having ducts through the hallways or along the atriums. At the same time, this separation allows for each shaft to have its own purpose.

1
This shaft serves all patient and staff rooms around the perimeter. As there is no physical activity in these rooms, ventilation requirements are limited, so that many rooms can be served through ducts of quite small sizes.

There are two routes for the ducts so that the distances are kept limited.

These ducts only provide supply air, as exhaust air is drawn from the rooms into the atriums and passed through a heat exchanger at the top of each atrium.

2
This shaft covers all physical activity rooms, where ventilation requirements are high. Ducts are big, and distances are very short. As the exhaust air can not be re-used to ventilate other spaces, exhaust air ducts pass back to the shaft.
faux flagstone roof on stands max 500mm apart
EPDM roof covering
variable thickness rigid insulation, fall 15mm/m with waterproofing layer
120mm rigid insulation
corrugated steel/concrete composite floor
1.5mm aluminium partial faux ceiling panel
operable aluminium sandwich panel installed in curtain wall frame, h = 900mm
winter garden curtain wall
roof trim detail
vertical section
scale 1/5
winter garden roof connection
thermally disconnected
vertical section
scale 1/5
curtain wall system:
Schüco AWS 50 window frame w/ 8mm single-glazing panes
450mm extruded aluminium sun louvres

65mm screed
210mm in-situ concrete floor slab
75mm rigid insulation cast mould

winter garden curtain wall
foundation detail
vertical section
scale 1/5
winter garden curtain wall
side joint detail
horizontal section
scale 1/5

roof drain pipe hidden behind final aluminium 'faux louvre'
outpatients department curtain wall
roof terrace detail
vertical section
scale 1/5

20mm laminated glass handrail, h = 1100mm
raised floor deck:
- linoleum layer
- 20mm insulation
- 20mm oriented strand board (OSB)
- stands max. 500mm apart
- 275mm in-situ concrete floor slab
- gypsum faux ceiling (500mm depth)

window sill
- 1.5mm folded aluminium with 4mm hard plastic backing layer
- 75mm insulation
- 110mm prefabricated concrete sill element
- 9mm painted MDF panel
- convector Emcotherm KXS

Schüco AWS75 aluminium window frame
- w/ double glazing

general window details: top and bottom
vertical section
scale 1/5
roof trim detail
vertical section
scale 1/5

wall
- 9mm painted MDF on battens
- 250mm in-situ concrete
- 75mm insulation with waterproofing layer
- 60mm porolone blocks, glued joints
- 20mm ceramic tiles

general window detail: side
horizontal section
scale 1/5
photovoltaic panel on 30x30x3 aluminium support frame
1.5mm aluminium covering
180mm rigid insulation
50mm corrugated steel flooring
1.5mm aluminium ceiling panel, grey powdercoat