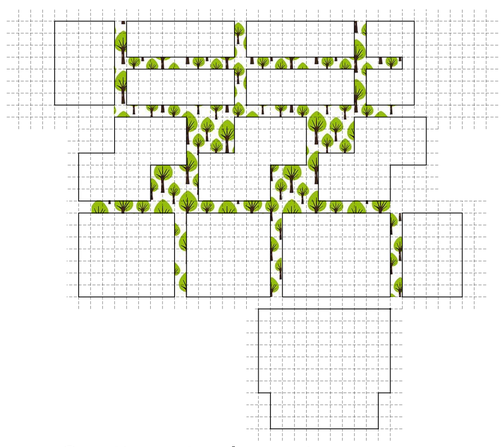
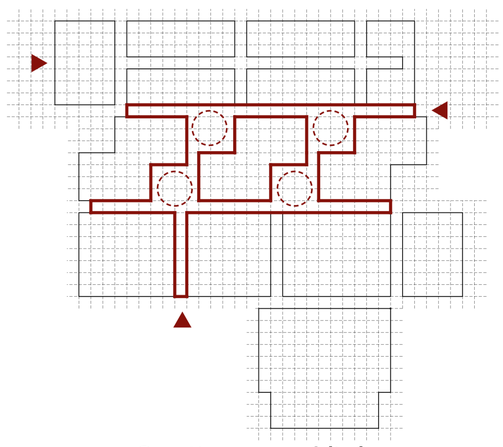
ARCHI - NATURE

Renovate in-between space - convert AMC into a natural healing community

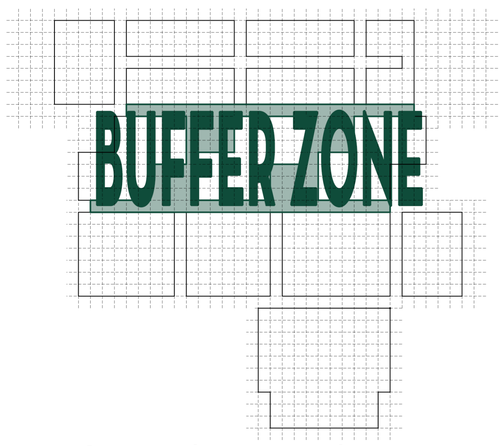
NEW INTERVENTION



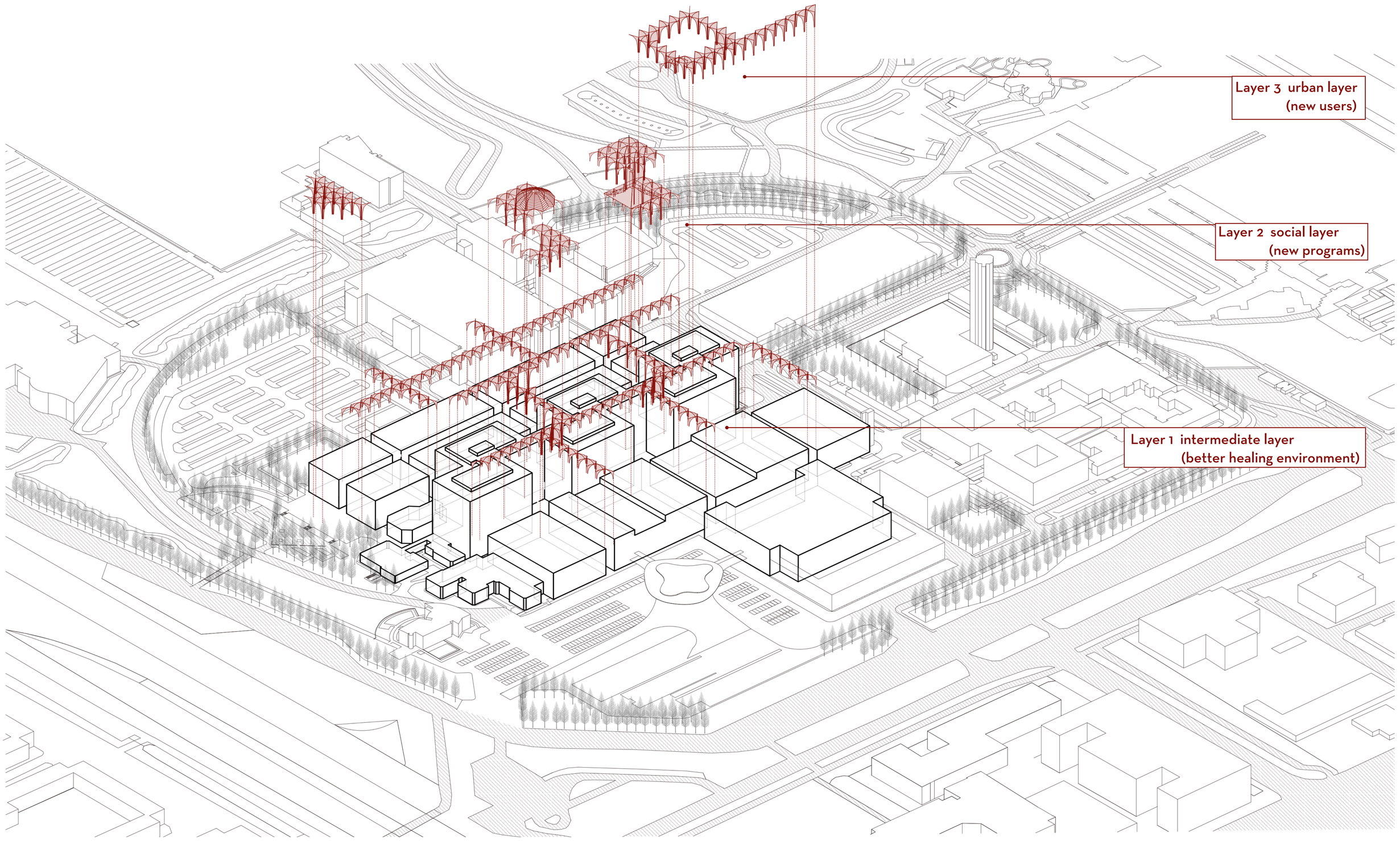
Creating natural experience



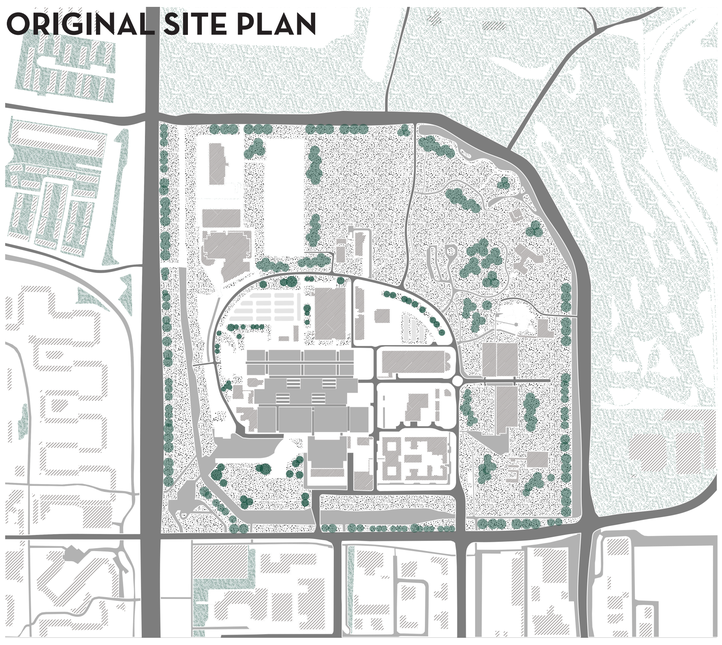
Creating new public layers



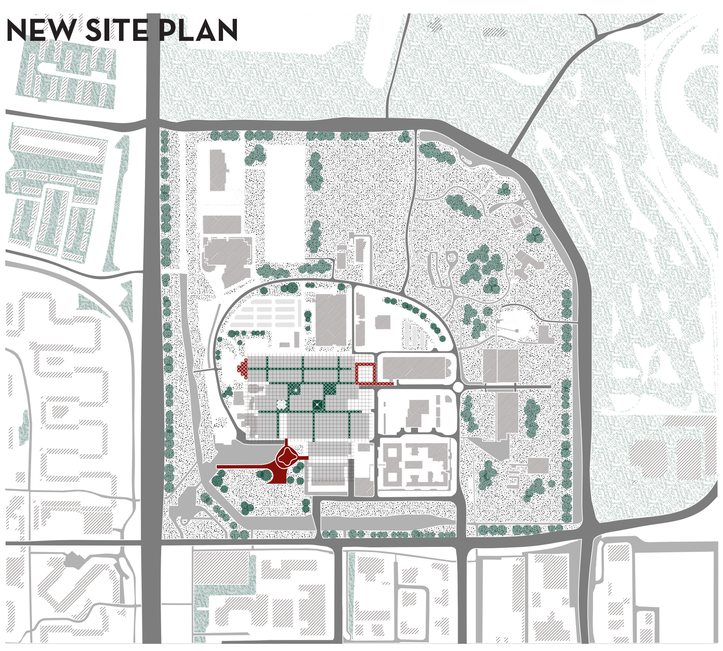
Creating climate control system

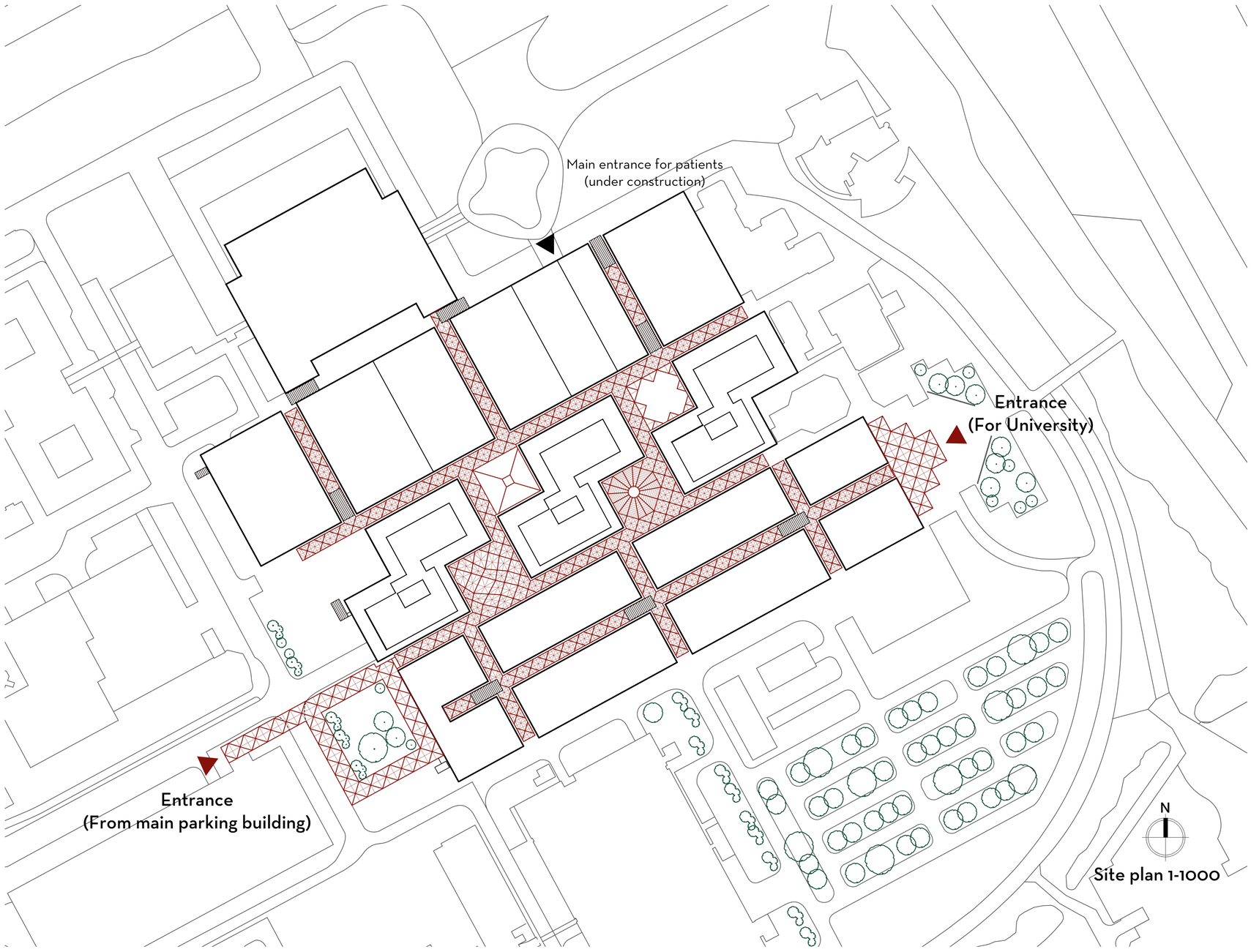


ORIGINAL SITE PLAN

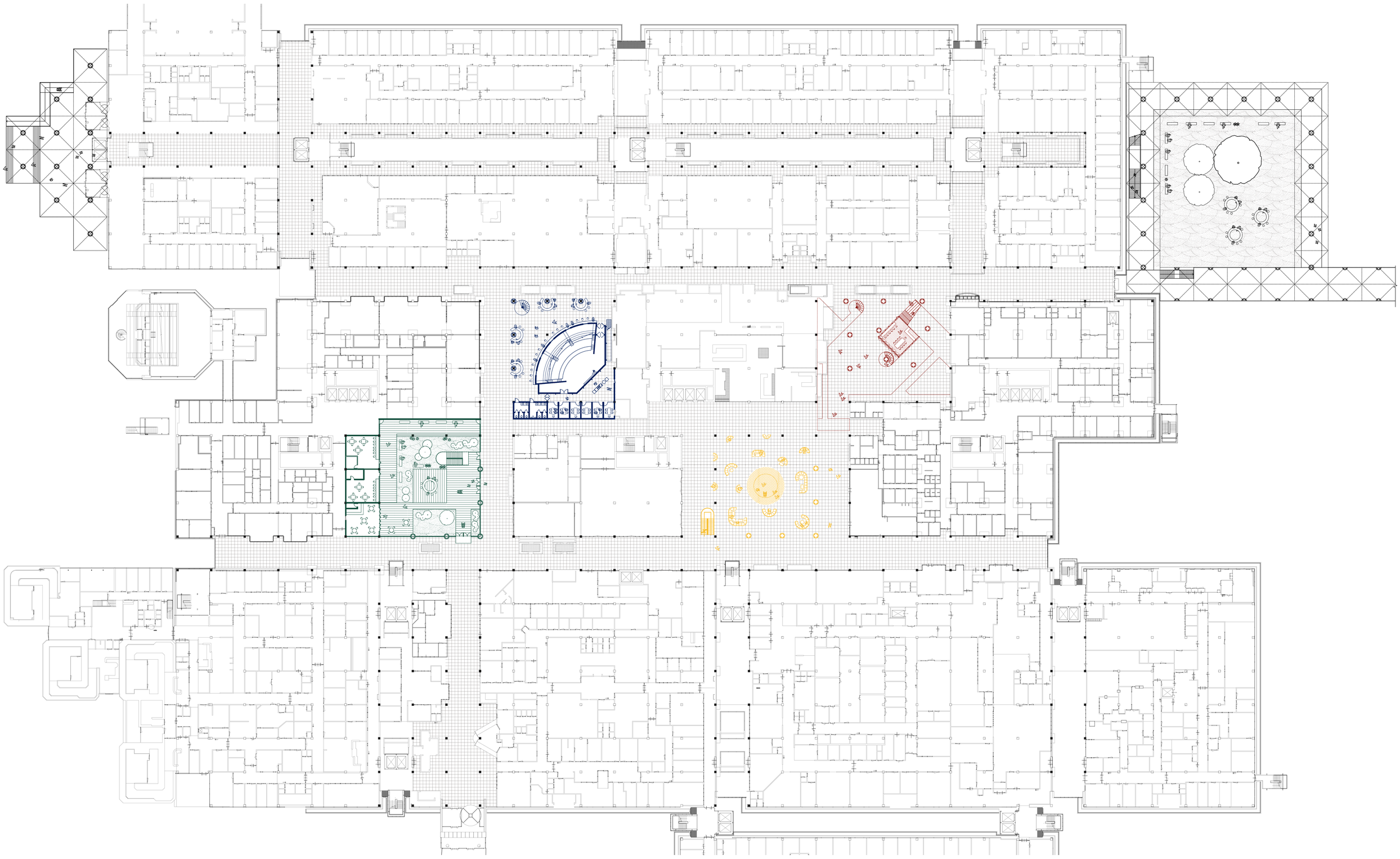


NEW SITE PLAN

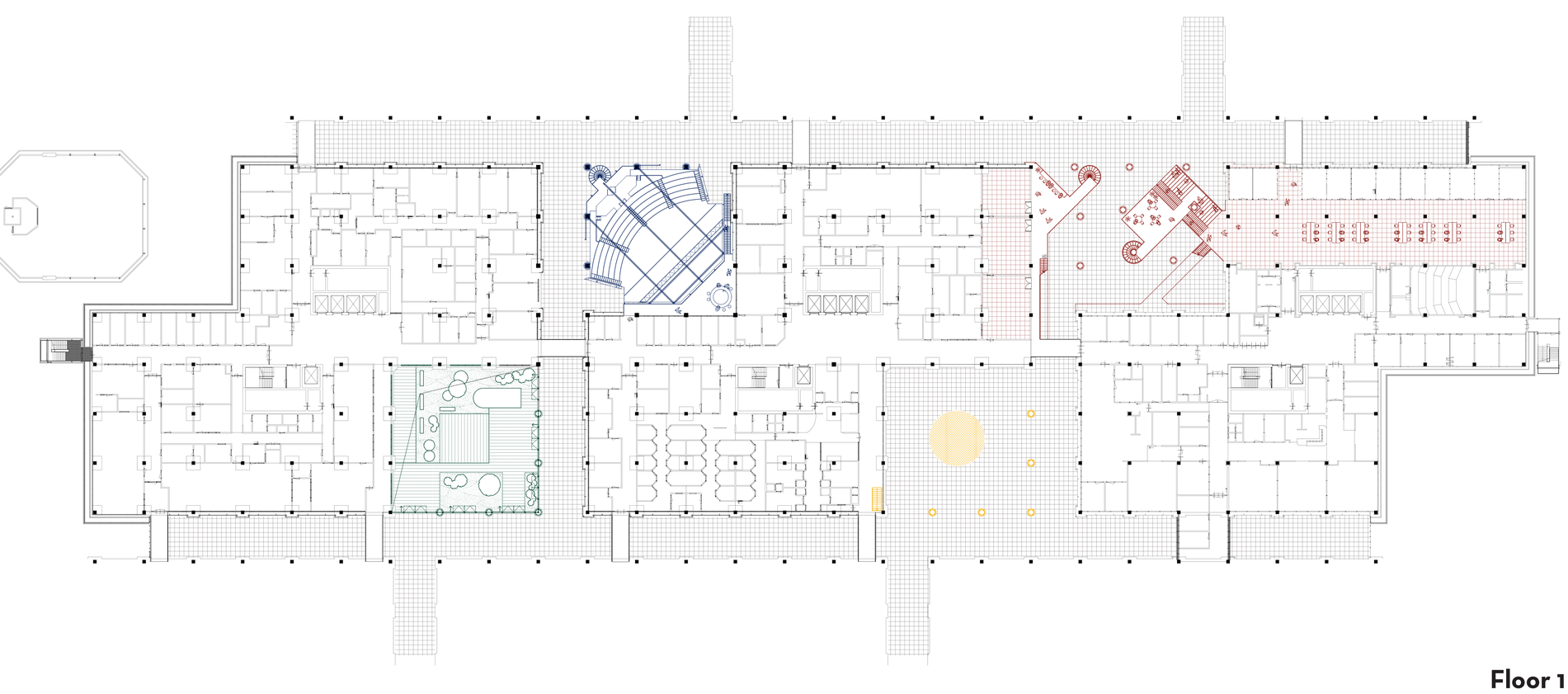




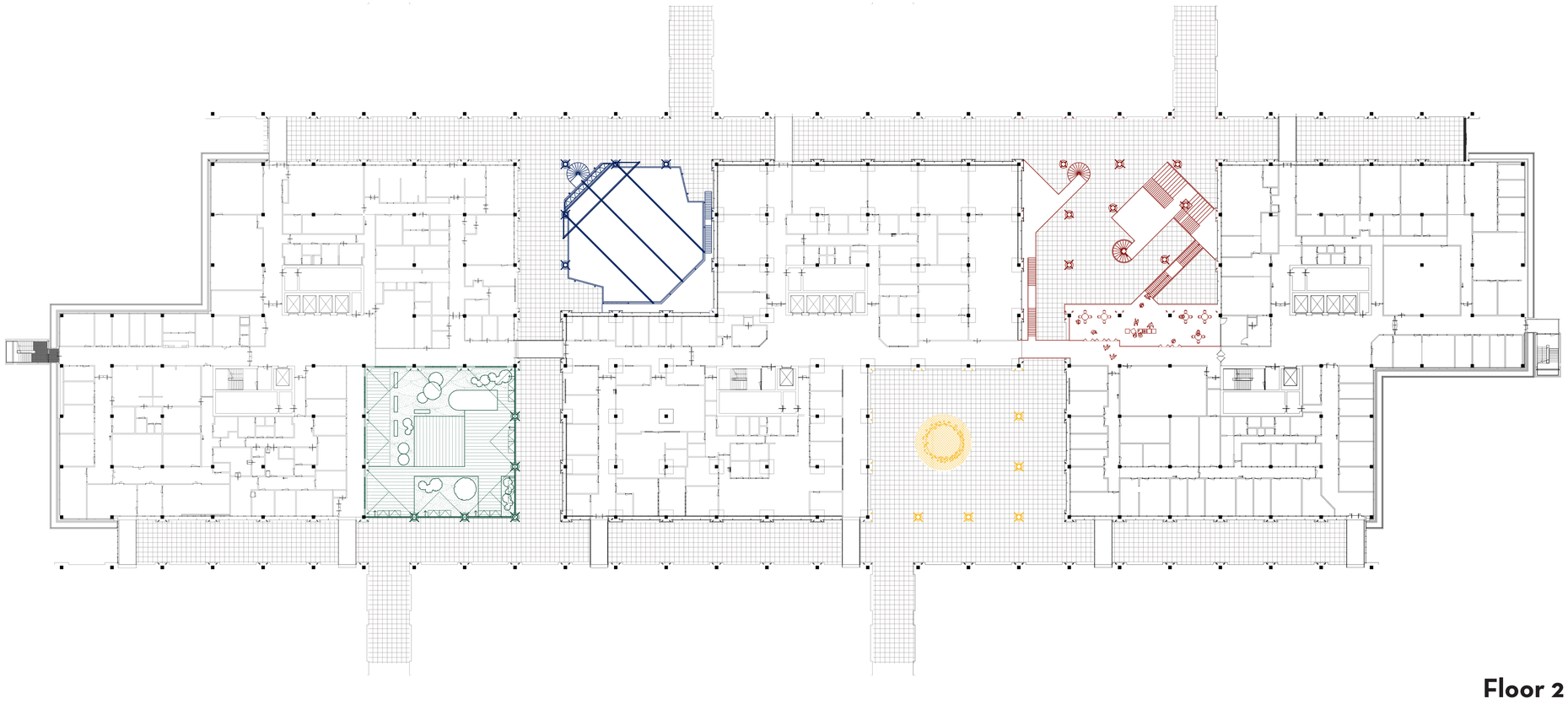
Site plan 1-1000



Ground floor plan

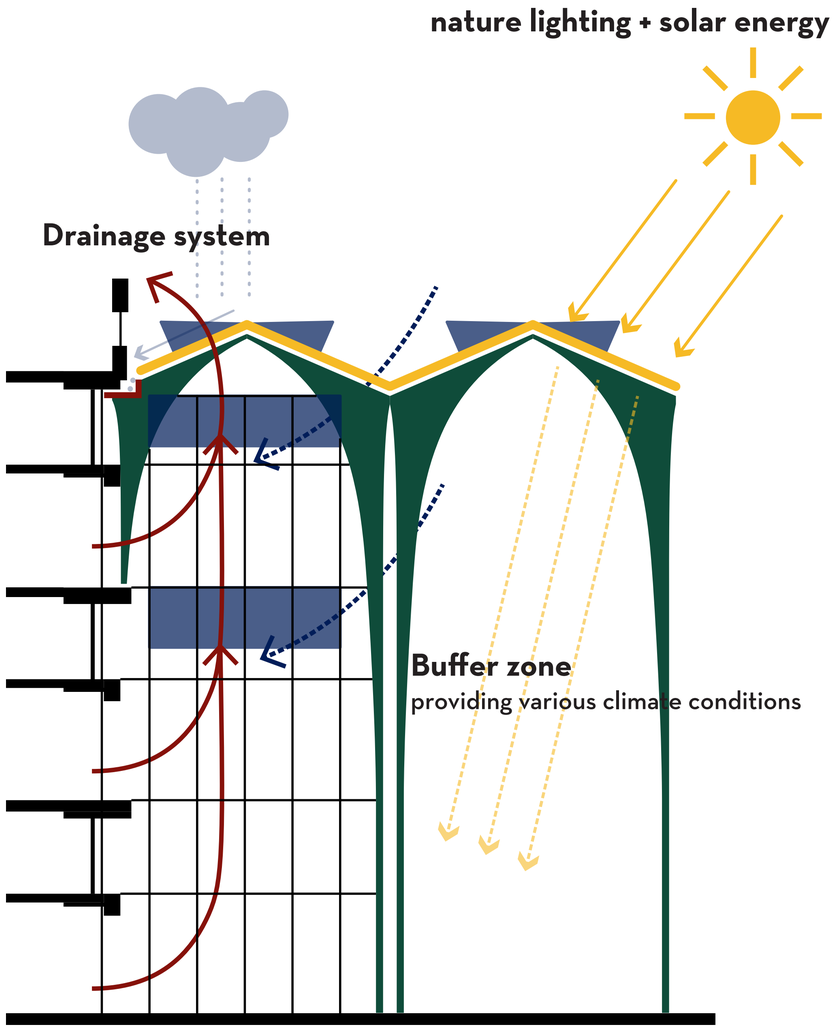


Floor 1 plan



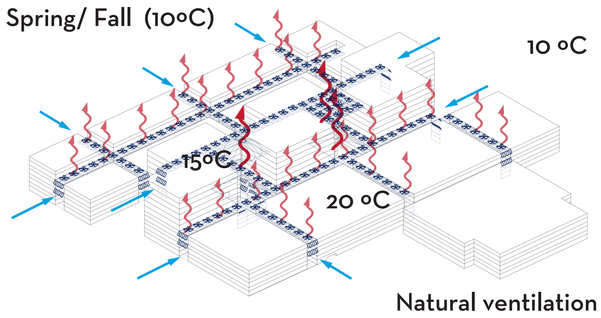
Floor 2 plan

CLIMATE



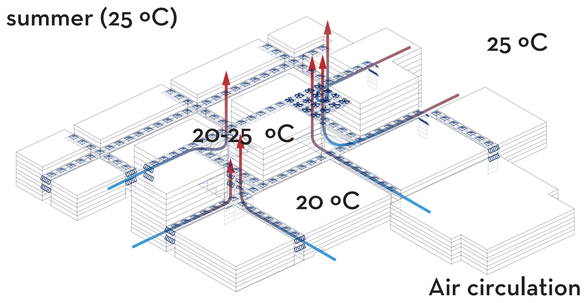
Buffer zone

Spring/ Fall (10oC)



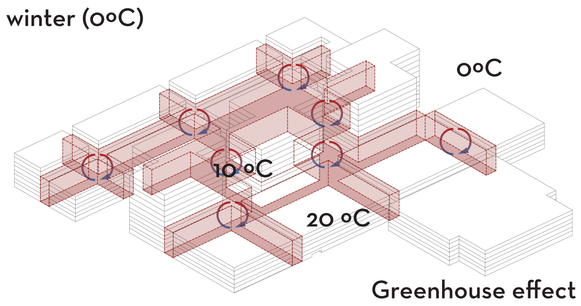
Natural ventilation

summer (25 oC)



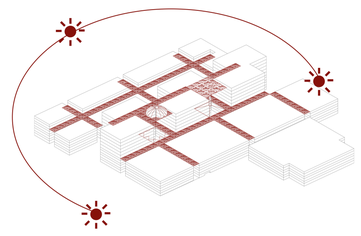
Air circulation

winter (0oC)



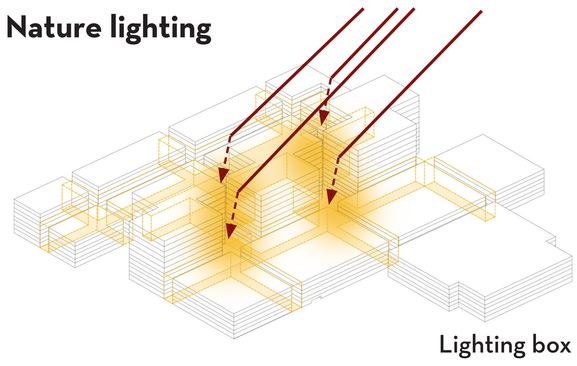
Greenhouse effect

Solar energy



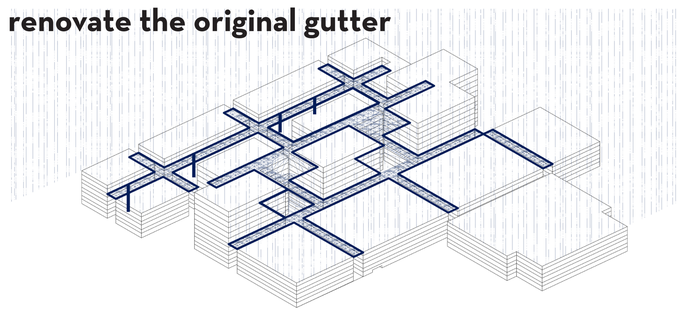
Source: Rotterdam Central Station

Nature lighting

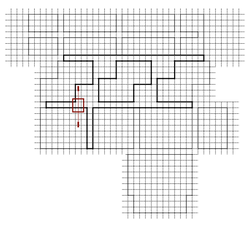


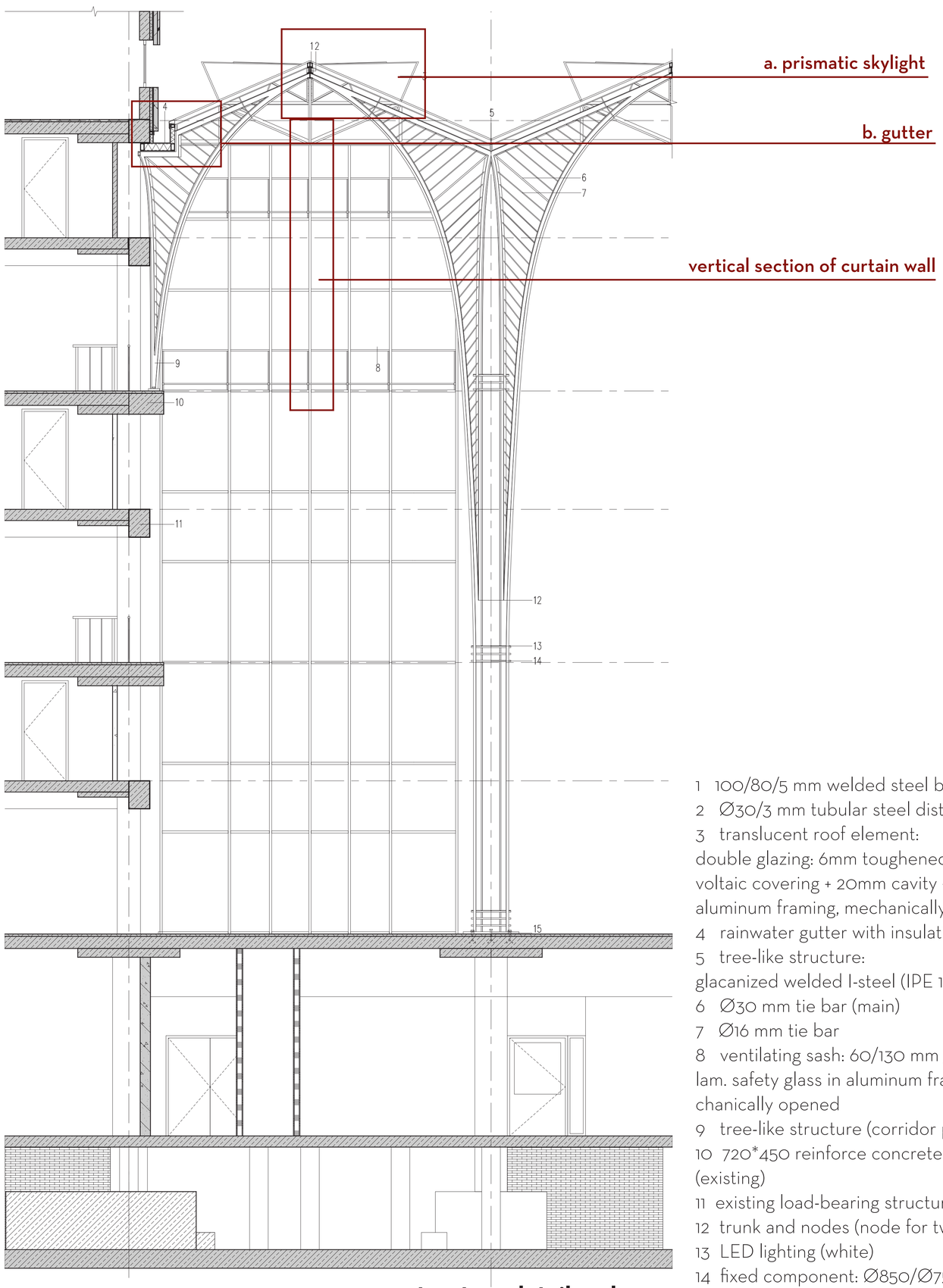
Lighting box

renovate the original gutter



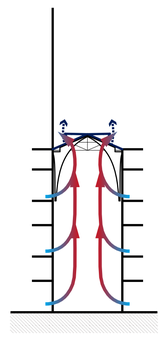
DETAIL

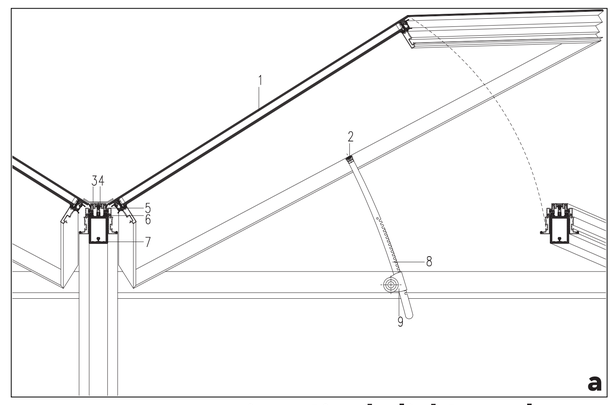




structure detail scale 1:50

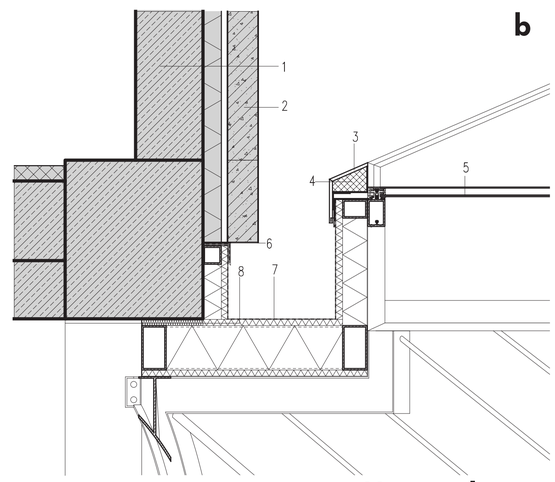
1 100/80/5 mm welded steel box beam
2 Ø30/3 mm tubular steel distance piece
3 translucent roof element:
double glazing: 6mm toughened glass with integral photovoltaic covering + 20mm cavity + 8mm lam. safety glass on aluminum framing, mechanically opened
4 rainwater gutter with insulation
5 tree-like structure:
glacanized welded I-steel (IPE 140), painted
6 Ø30 mm tie bar (main)
7 Ø16 mm tie bar
8 ventilating sash: 60/130 mm galvanized-steel SHS frame lam. safety glass in aluminum frames in existing facade, mechanically opened
9 tree-like structure (corridor part)
10 720*450 reinforce concrete bearer for new structure (existing)
11 existing load-bearing structure (reinforce concrete)
12 trunk and nodes (node for two parts)
13 LED lighting (white)
14 fixed component: Ø850/Ø750/30mm steel circle ring
15 Base: Ø1200/50mm steel plate





prismatic skylight scale 1:10

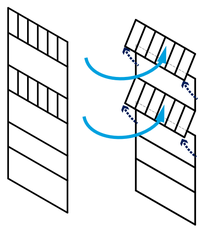
1 6mm toughened glass with integral photovoltaic covering + 20mm cavity + 8mm lam. safety glass on aluminum framing, mechanically opened
2 node
3 plastic cap
4 EPDM glass-fixing profile
5 aluminum profile with adhesive strip
6 PVC profile
7 skylight frame: 80/60/5 mm steel RHS
8 toothed rack

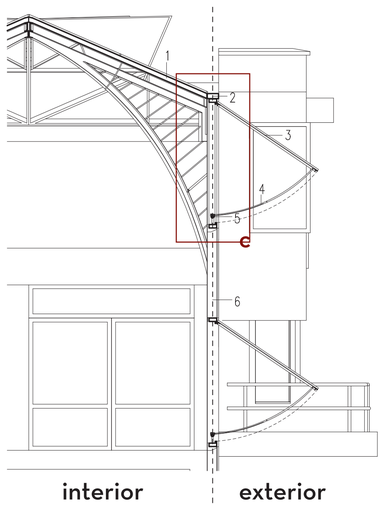


gutter scale 1:10

1 existing load-bearing structure (reinforce concrete)
2 existing exterior facade
3 2mm aluminum flashing to tree-like structure
4 heel block, porosint
5 translucent roof element: 6 mm+ 8mm lam. safety glass with integral photovoltaic covering on steel framing
6 roof profile
7 gutter insulation layers
20mm EPS insulation
compression resistant 145mm mineral-wool insulation between 80/145/5 mm steel RHS supporting structure
20mm EPS insulation
2mm perforated sheet alum. cladding
8 20mm thermal insulation (fit the gap)

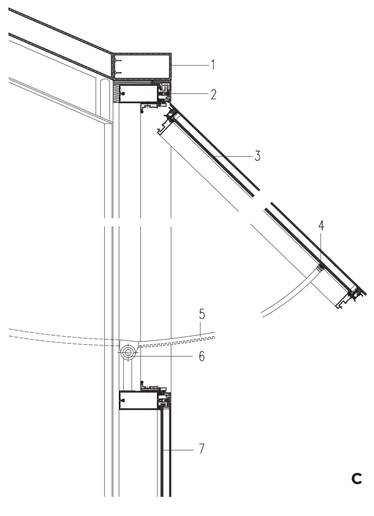
side ventilating sash (curtain wall)





1 80/60/5 mm steel RHS beam
2 200/90/5 mm steel RHS beam
3 ventilating sash: 60/130 mm galvanized-steel RHS frame
lam.safety glass in aluminum frames in existing facade, mechanically opened
4 toothed rack
5 sprocket with Ø 20 mm drive pipe
6 curtain wall frame:180/100 mm galvanized-steel RHS

curtain wall scale 1:50



1 200/90/5 mm steel RHS beam
2 60/130 mm galvanized-steel RHS frame
3 double glazing: 6mm toughened glass + 20mm cavity + 8mm lam. safety glass
4 node
5 toothed rack
6 sprocket with Ø 20 mm drive pipe
7 fixed glazing in aluminum frame
double glazing: 6mm toughened glass + 20mm cavity + 8mm lam. safety glass

side ventilating sash scale 1:10