

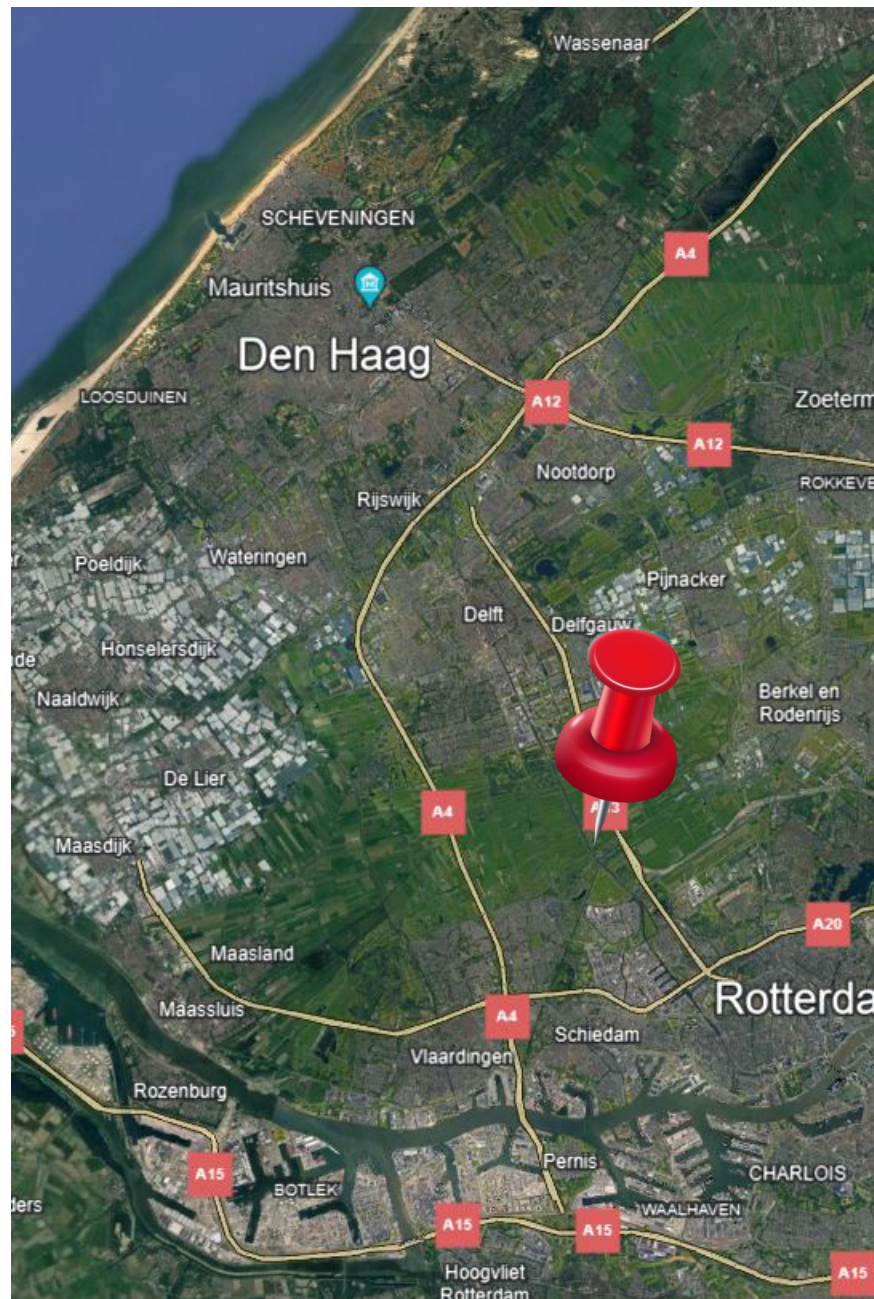
PERMANENTLY IN THE POLDER

DAVID DE VRIES

DEFINITIVE DRAWINGS BOOKLET

MSC 3-4 DWELLING





187

New dwellings



85%

Affordable, <50m2 houses



8

Shared functions



6

Unique dwelling types



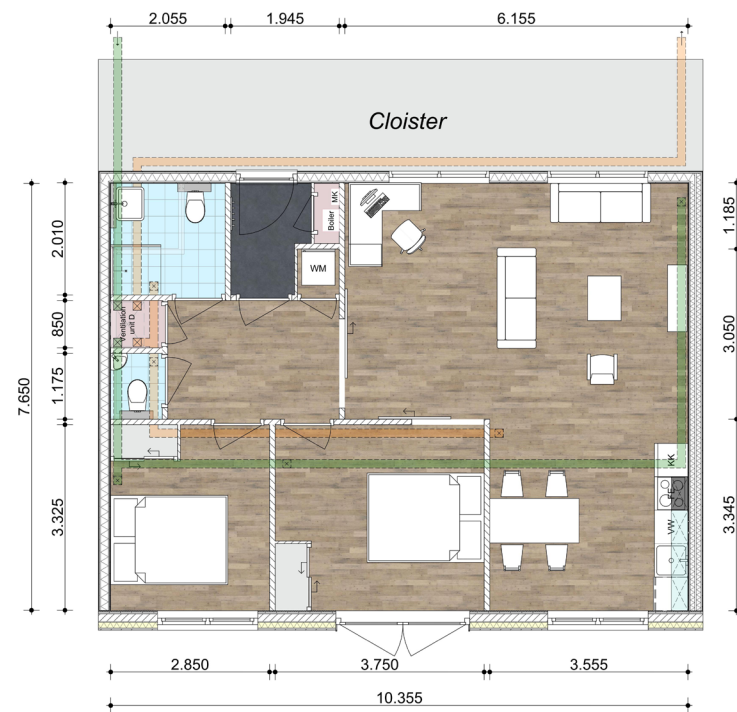
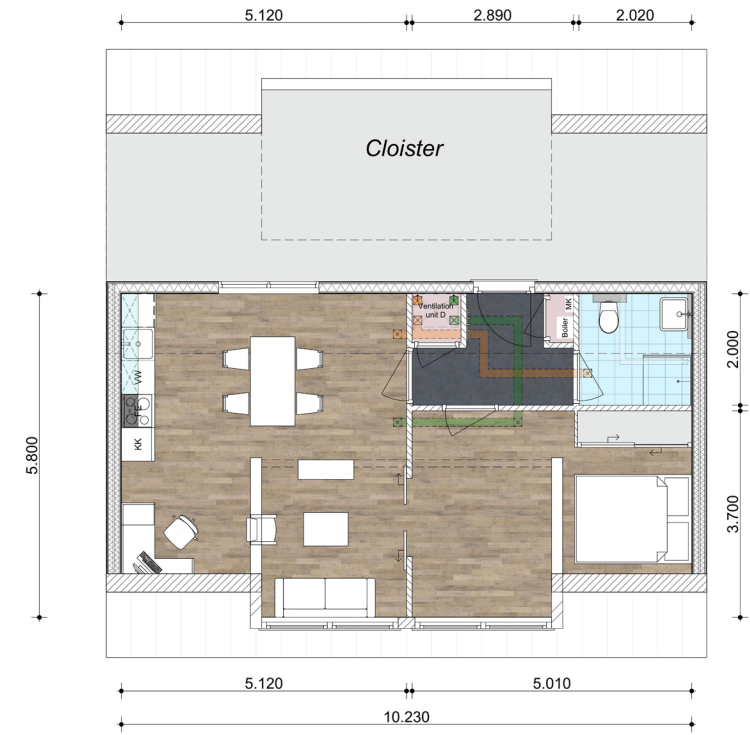
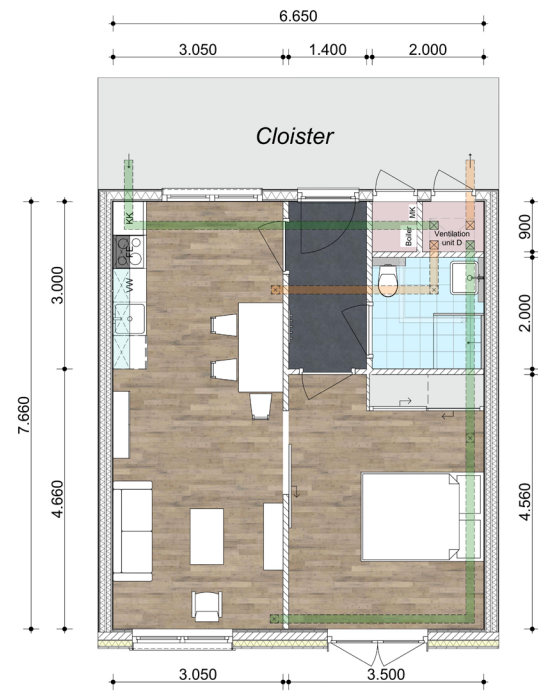
5

Like minded clusters



1

Unique bath house



DE POLDER OF MIDDEN DELFLAND

Located in the picturesque Dutch town De Zweth



-**Great accessibility** by bike, bus and car to Delft & Rotterdam -**Big but gentle addition** paying respect to local architecture

-**Affordable and rural** building in the Randstad -**Forest & green polders** surrounding the building



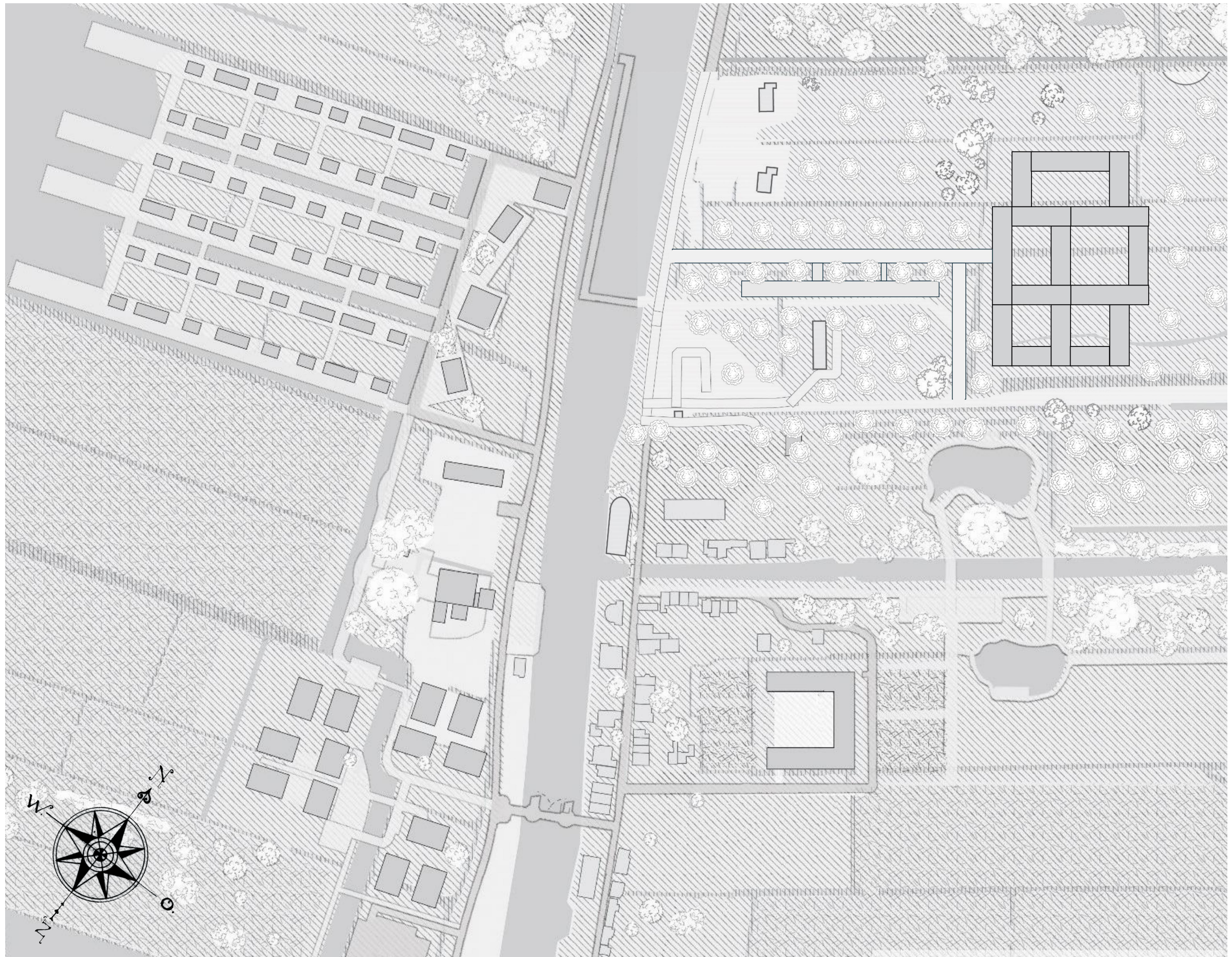
Affordable one person households

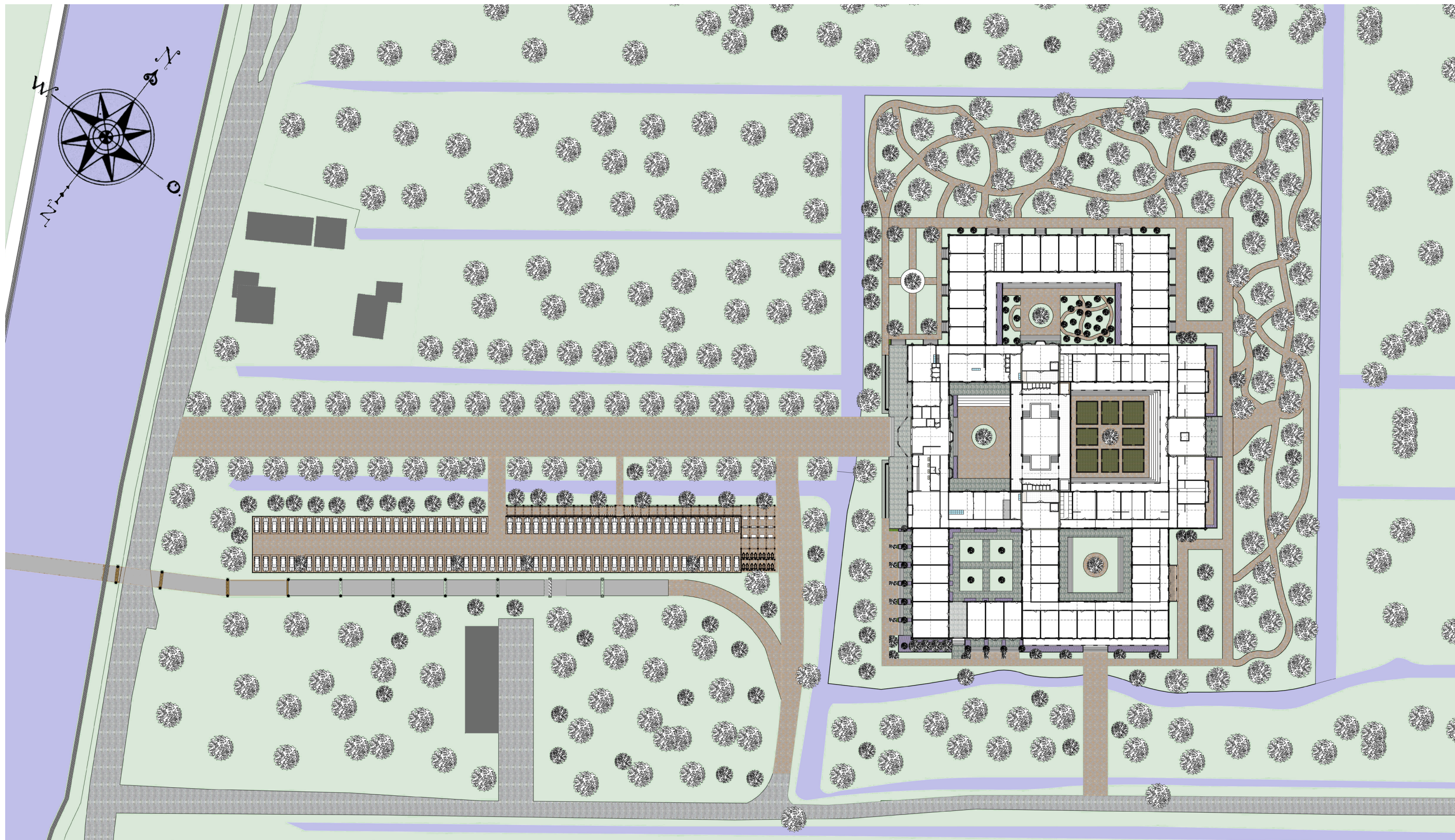


Inclusive built environment

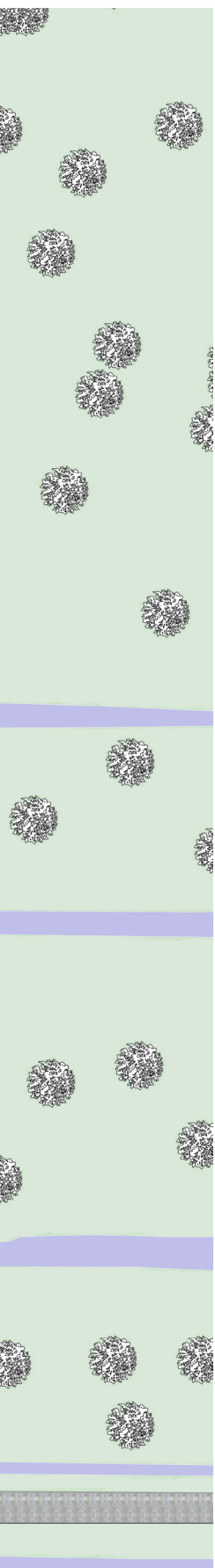


Sustainable construction





Situation scale 1:500



-**Centralised parking spots** for cars, bikes and mopeds

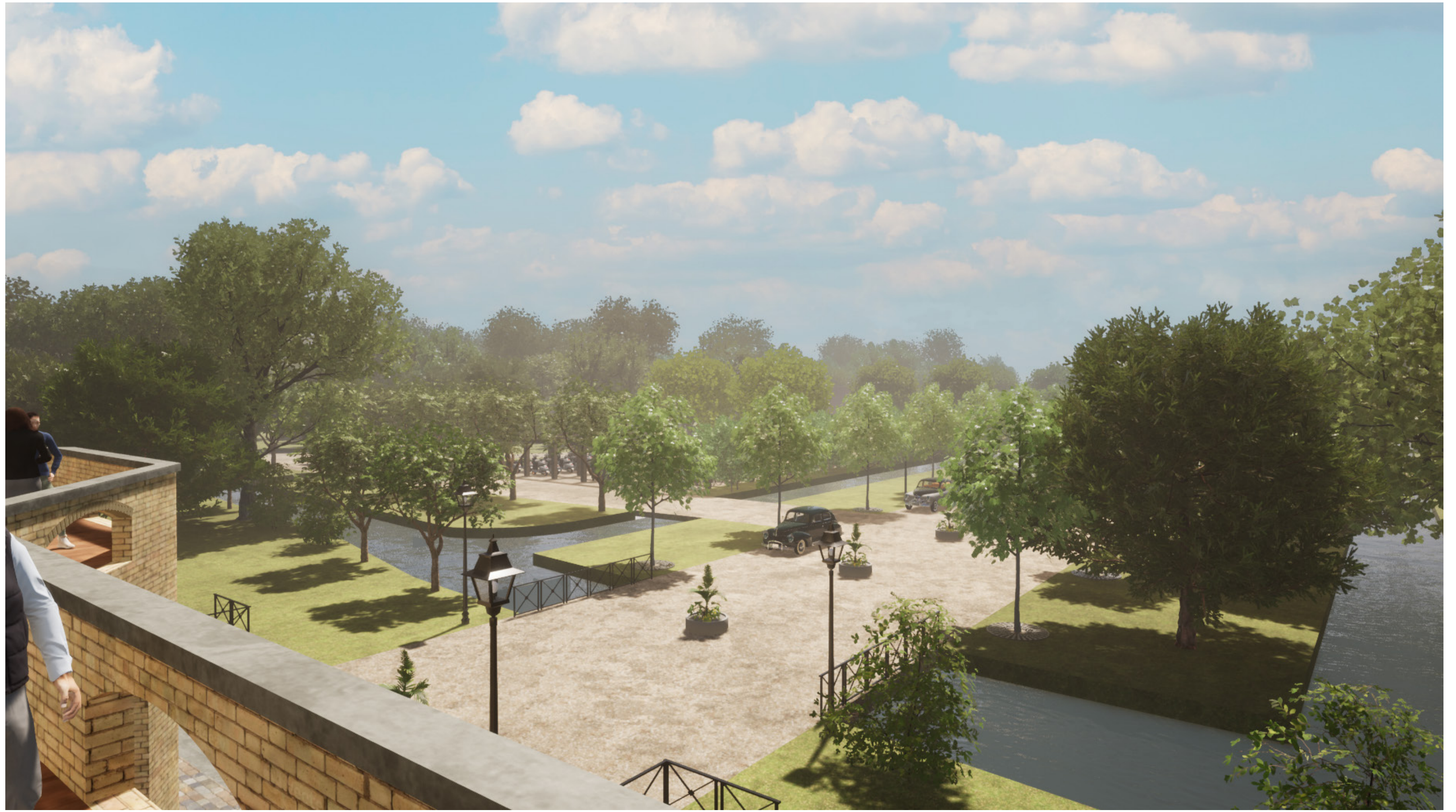
-**Shared mobility** with community cars and e-mopeds



-**Part of the gardens** and integrated in the urban plan

-**Flexible capacity** for changing future demands





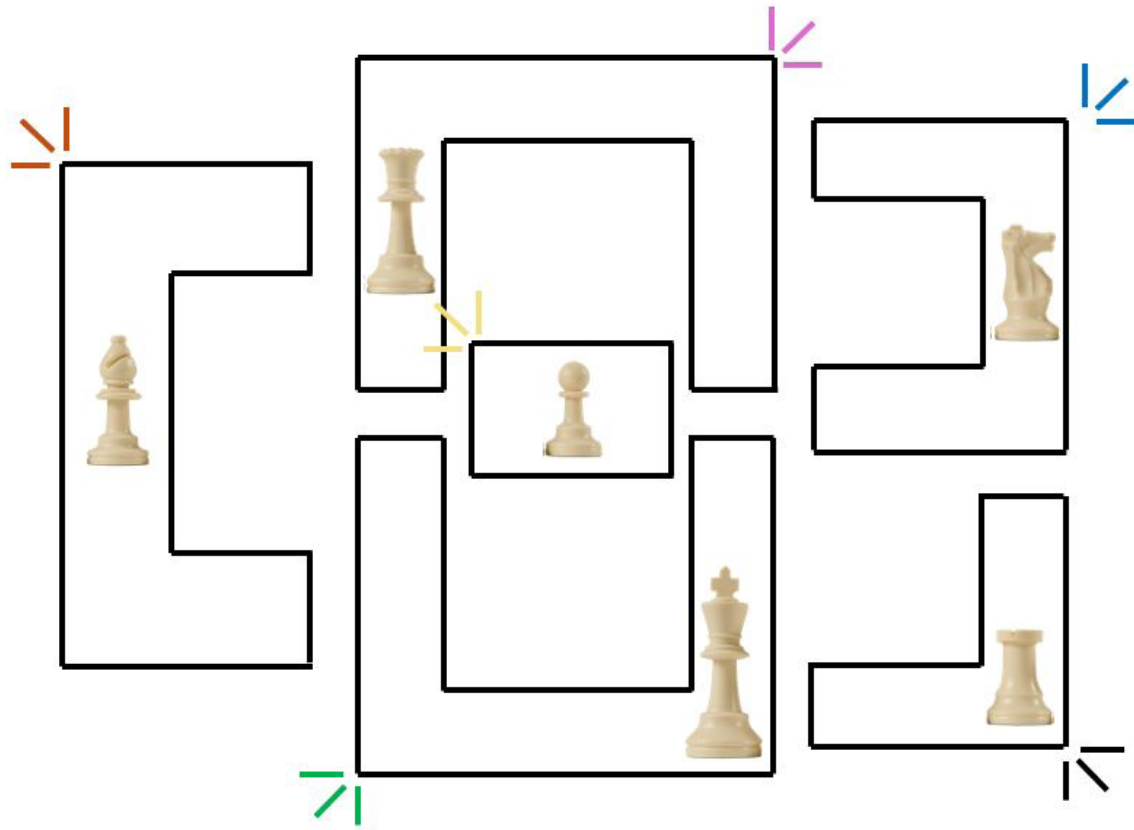
Driveway as seen from the front balcony



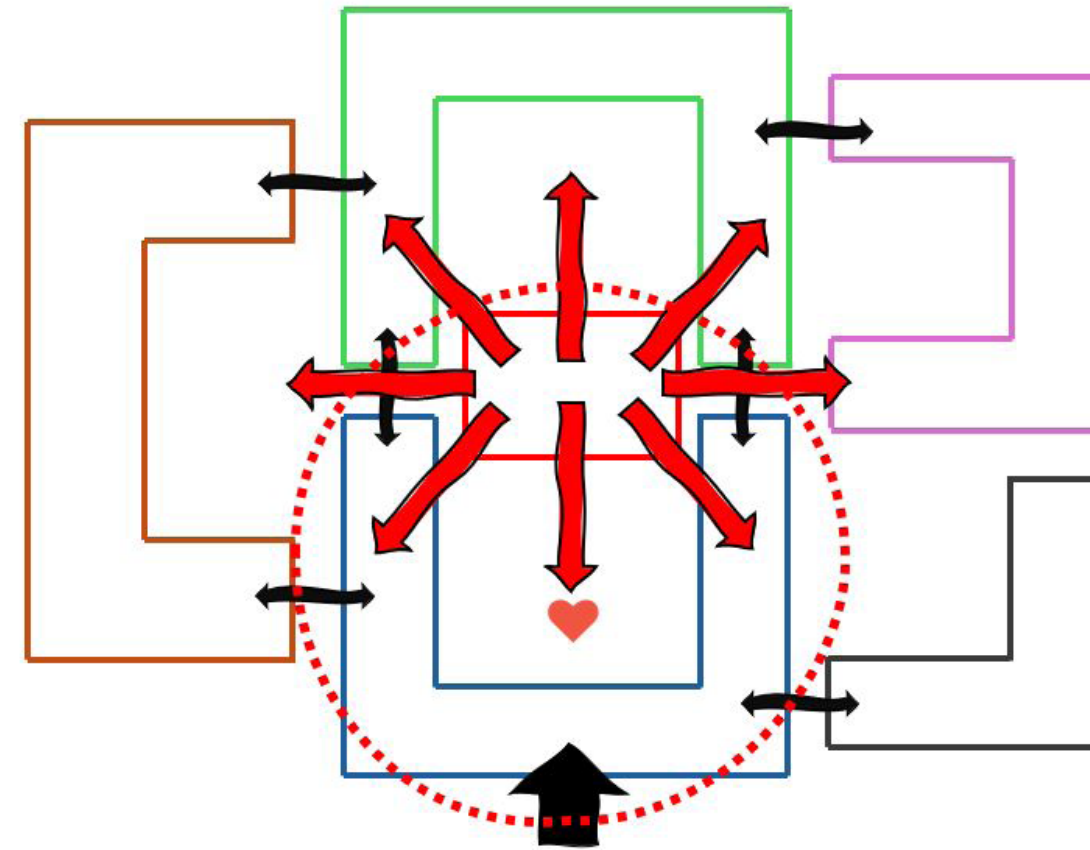
Driveway to the complex as seen from the dike

PRINCIPLES

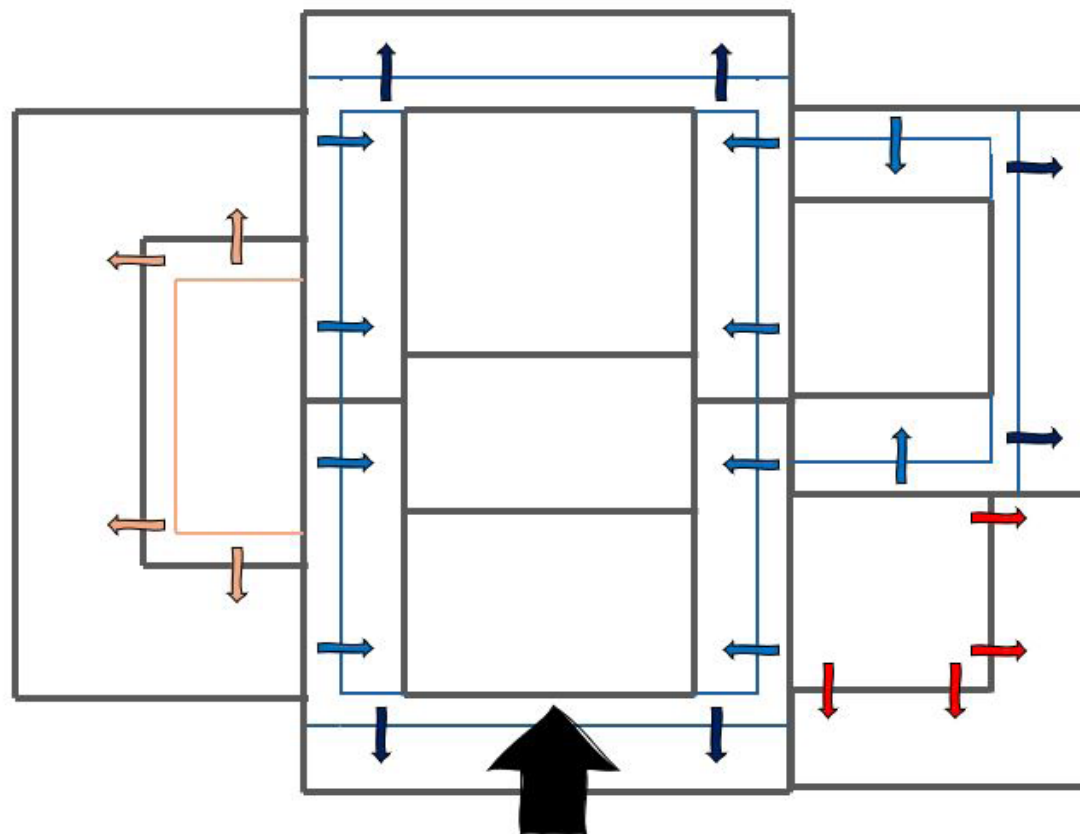
6 unique sub zones following the chessboard design philosophy



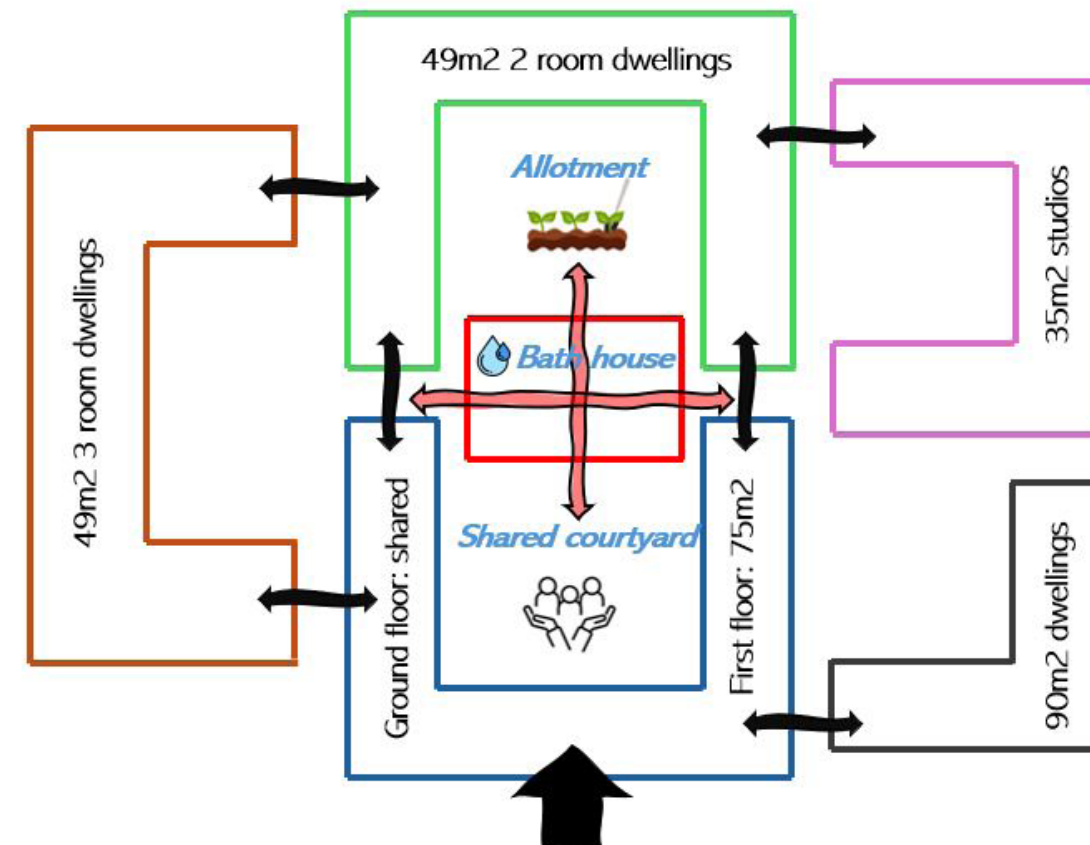
Inclusive micro city with a chapel of a medieval town

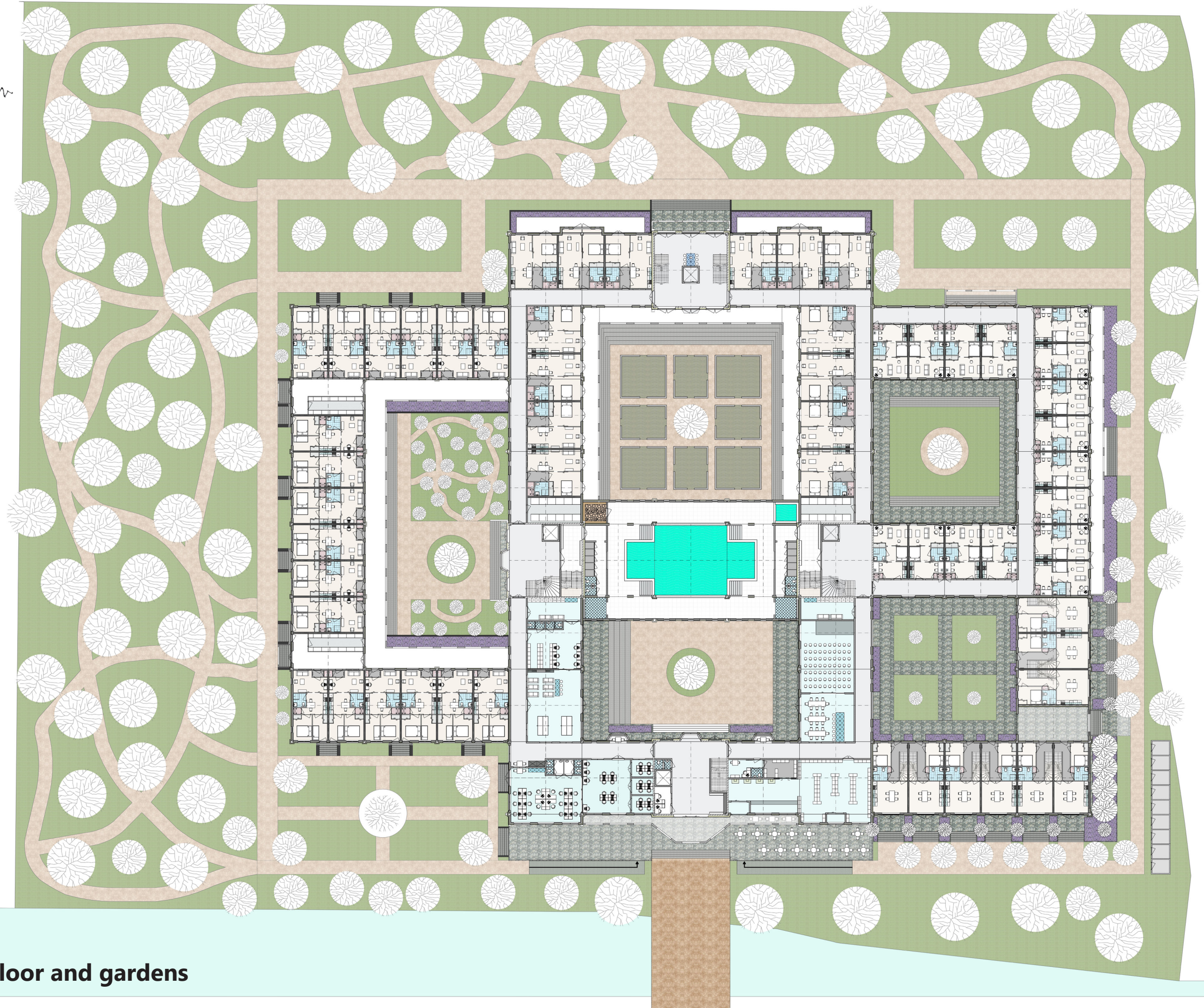
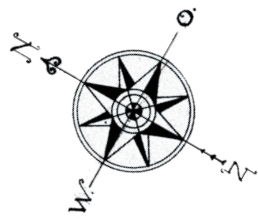


Three types of entrances along a cloister for unique houses

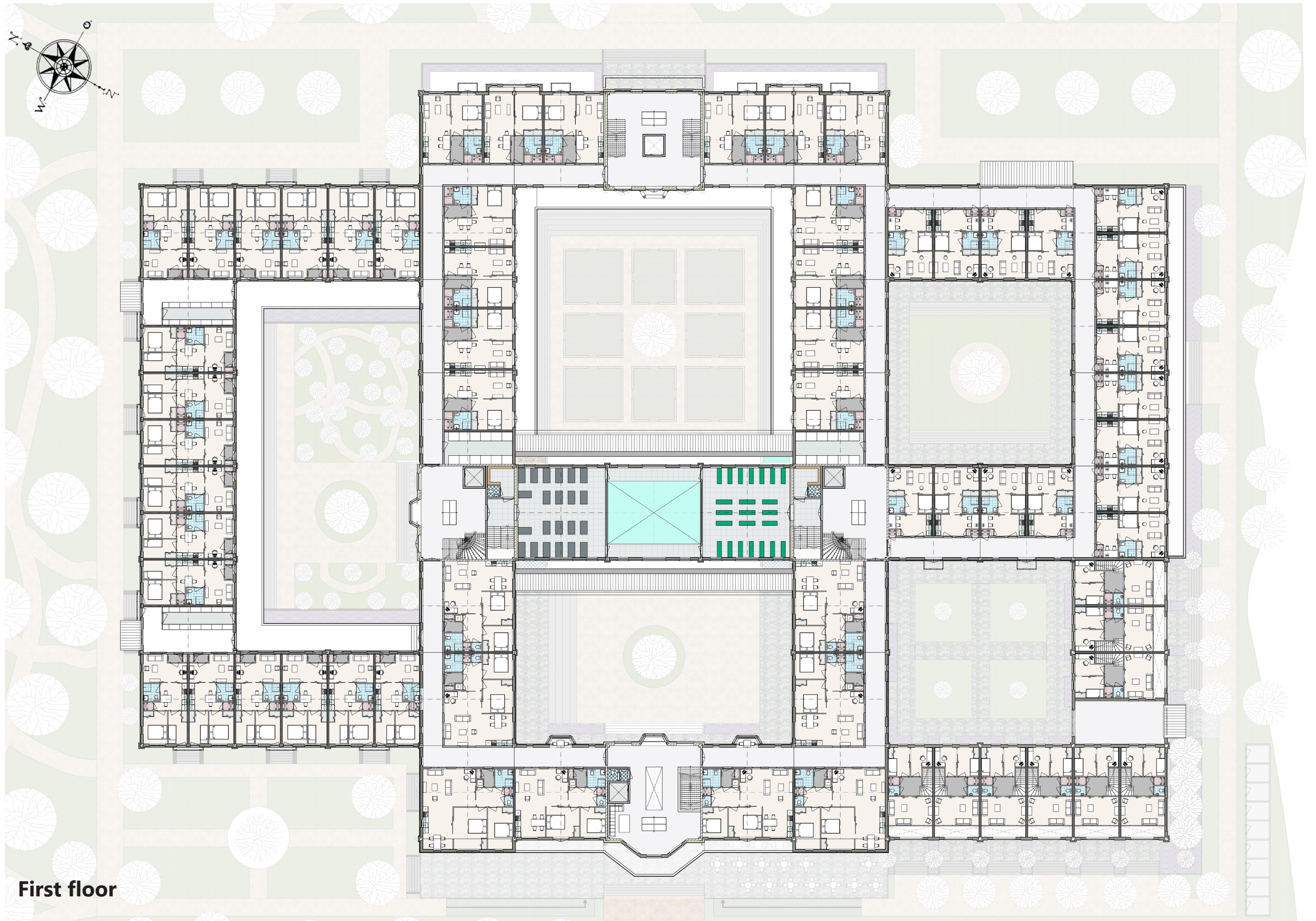


Different dwellings in one building

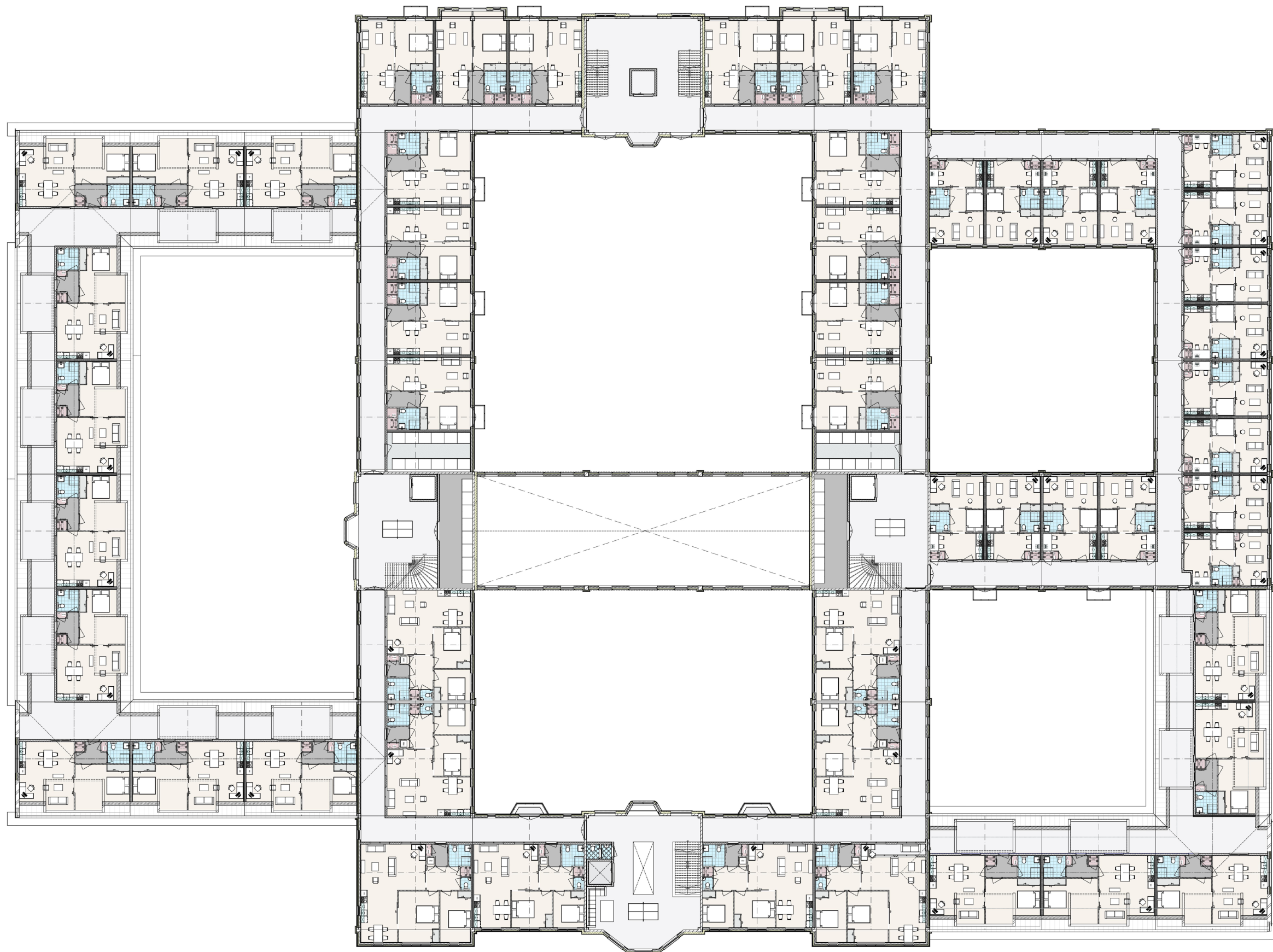
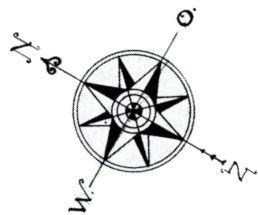




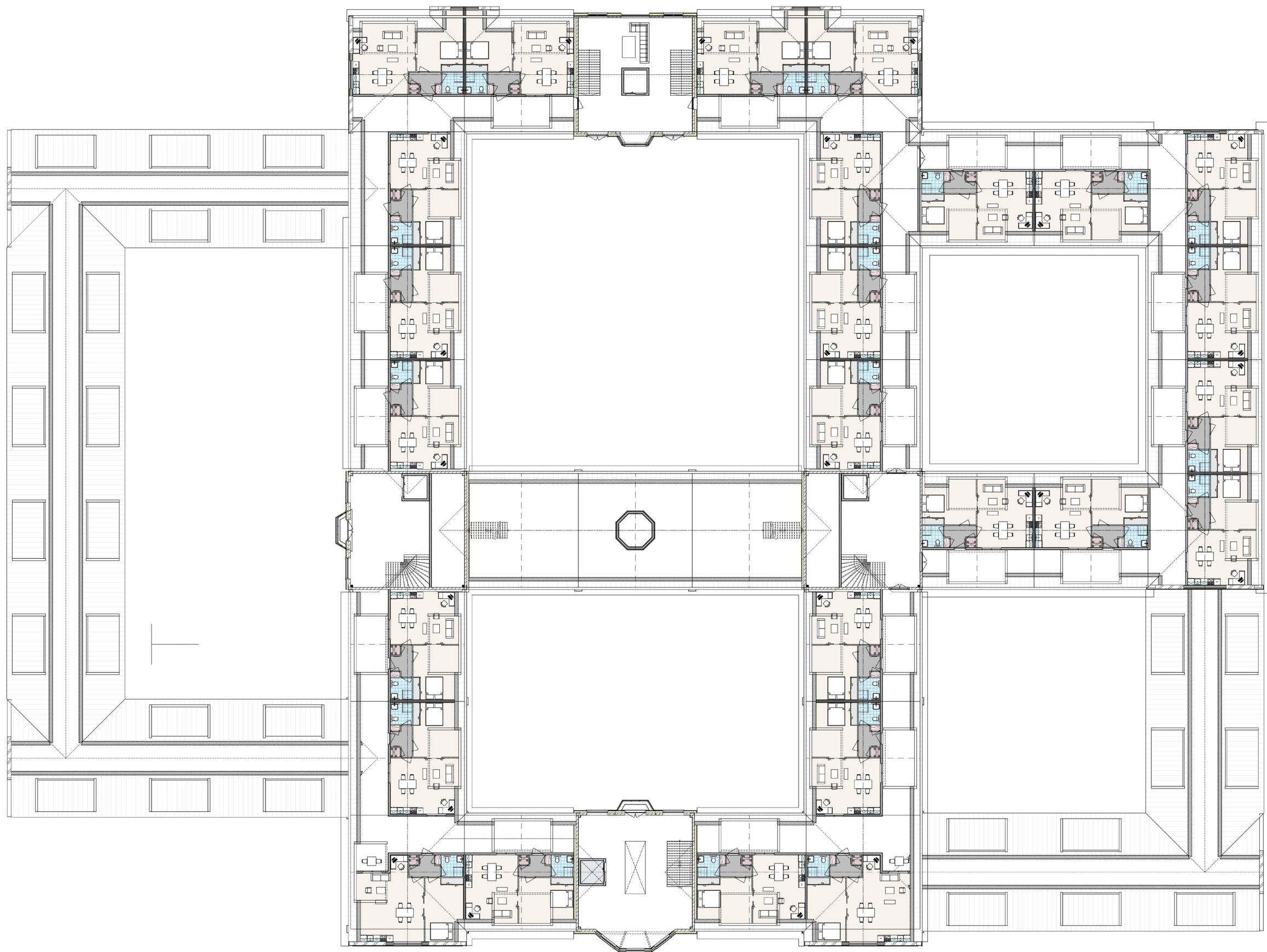
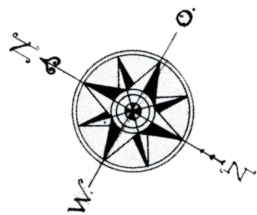
Ground floor and gardens



First floor



Second floor



Third floor



INTERIOR IM

35m2 alcove studio

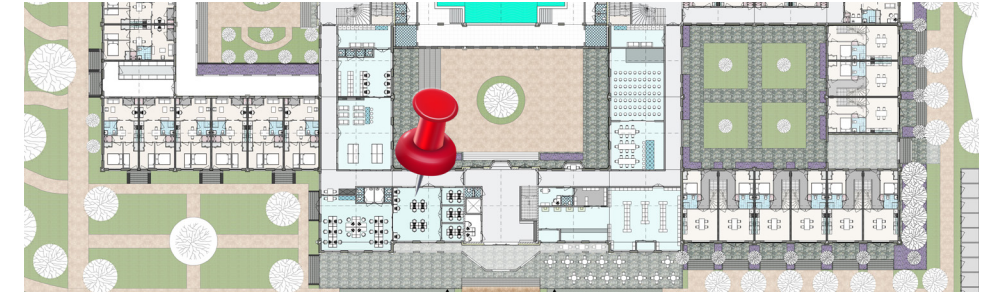


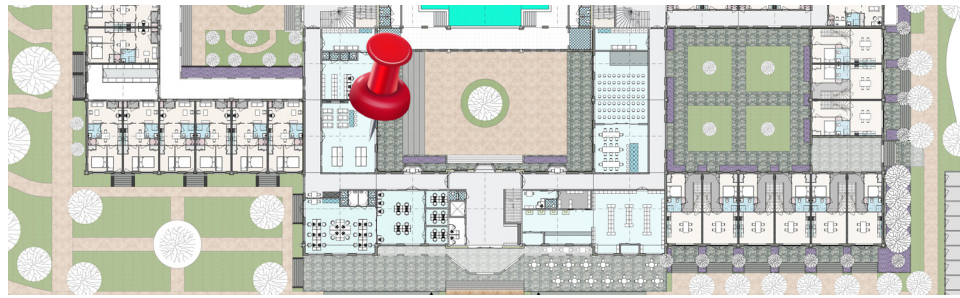
IMPRESSIONS

49m2 two room apartment



COLLECTIVE WORKSPACE

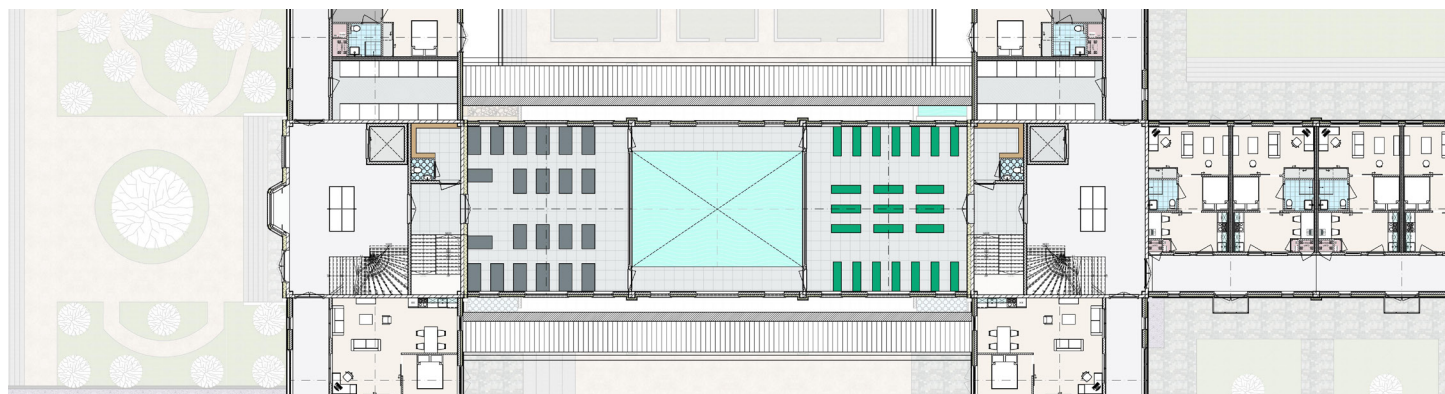
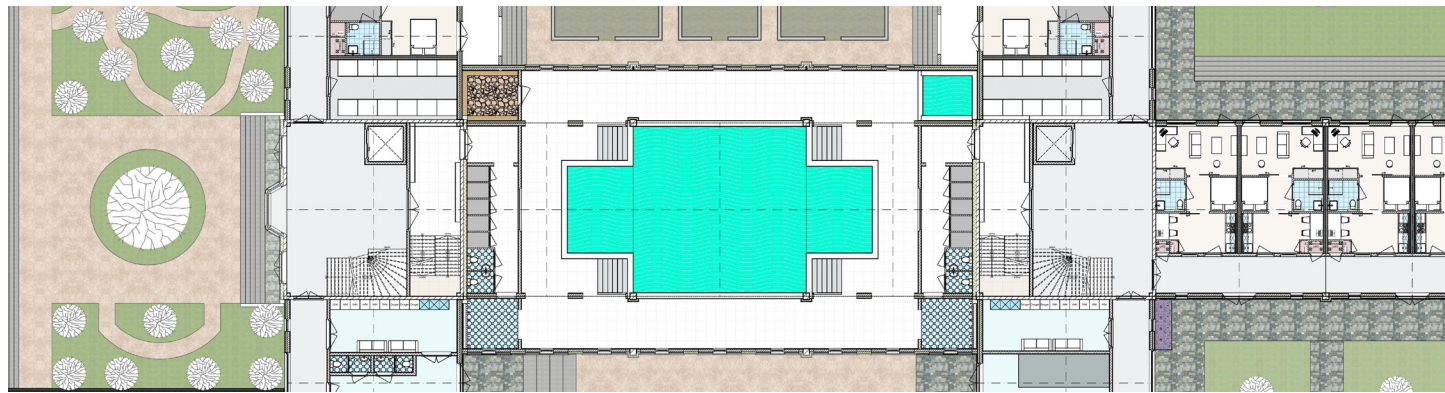




SHARED LIVING ROOM & LIBRARY



THE BATH HOUSE & C



GYMNASIUM CHAPEL



OTHER SPACES



The bright cloisters



The collective allotment garden

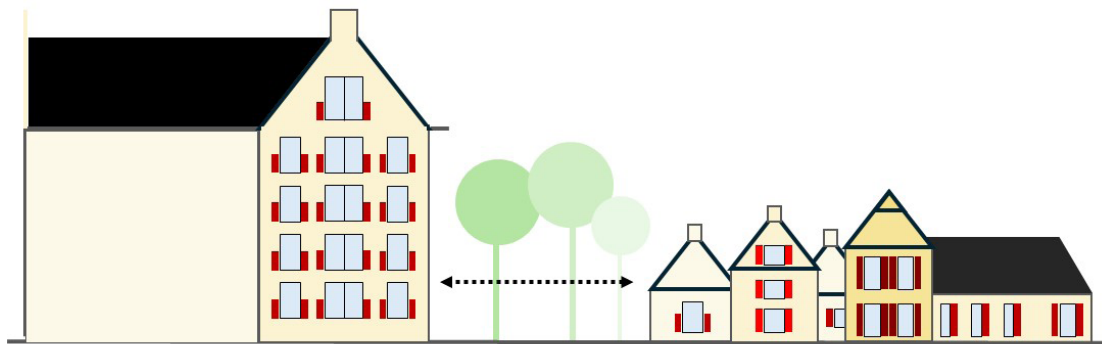


The café terrace

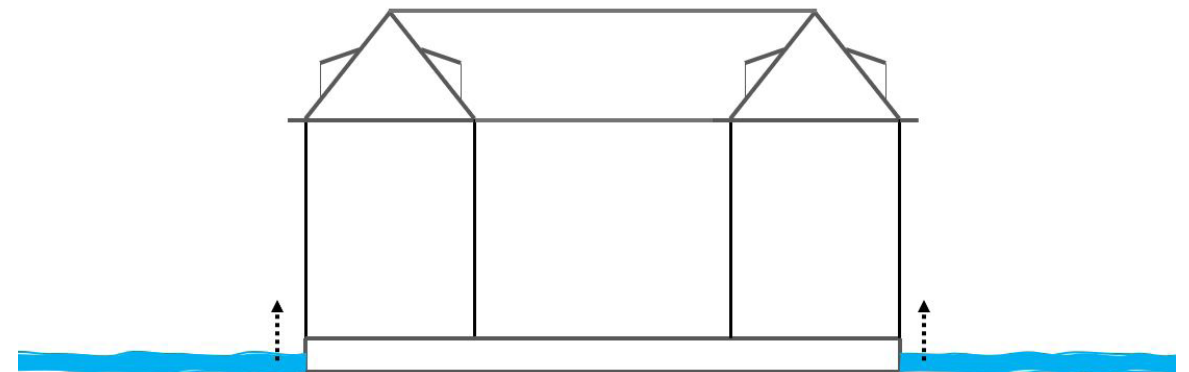


The courtyard gardens

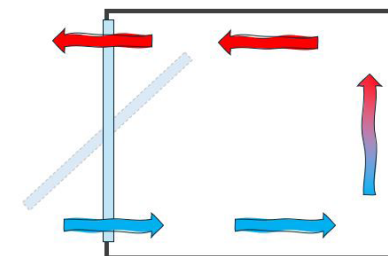
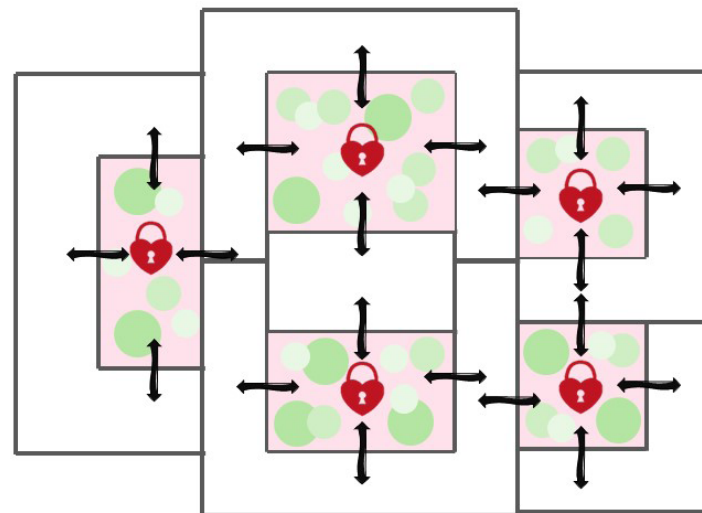
Coherent with the town like a castle



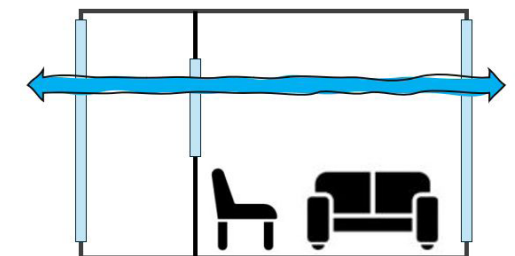
Elevated above the ground with no basement for protection against high water



Enclosed courtyard organisation like a monastery

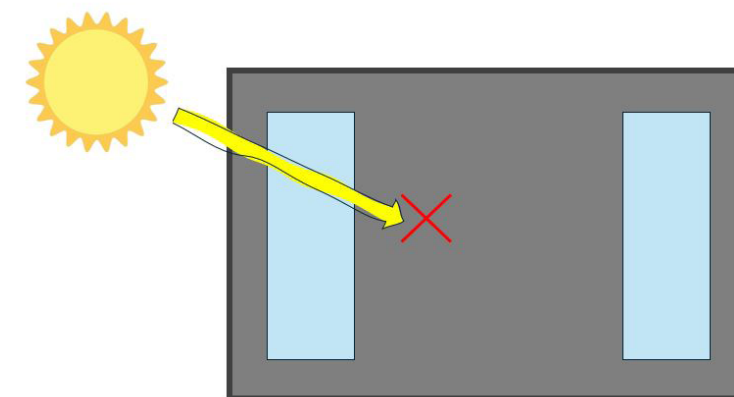
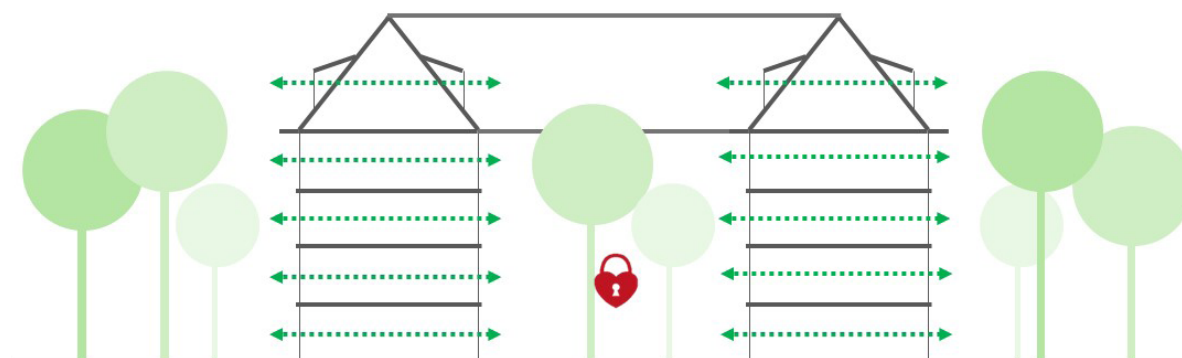


Double openable floor to ceiling windows for passive cooling in summer



Cross ventilation for passive ventilation in summer

Connected to nature like a country house



Glass percentage below 60% to prevent overheating in sunny months

RE & FACADES



Front



Left



Right



Rear



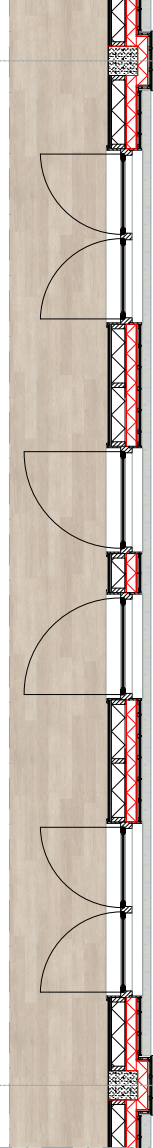
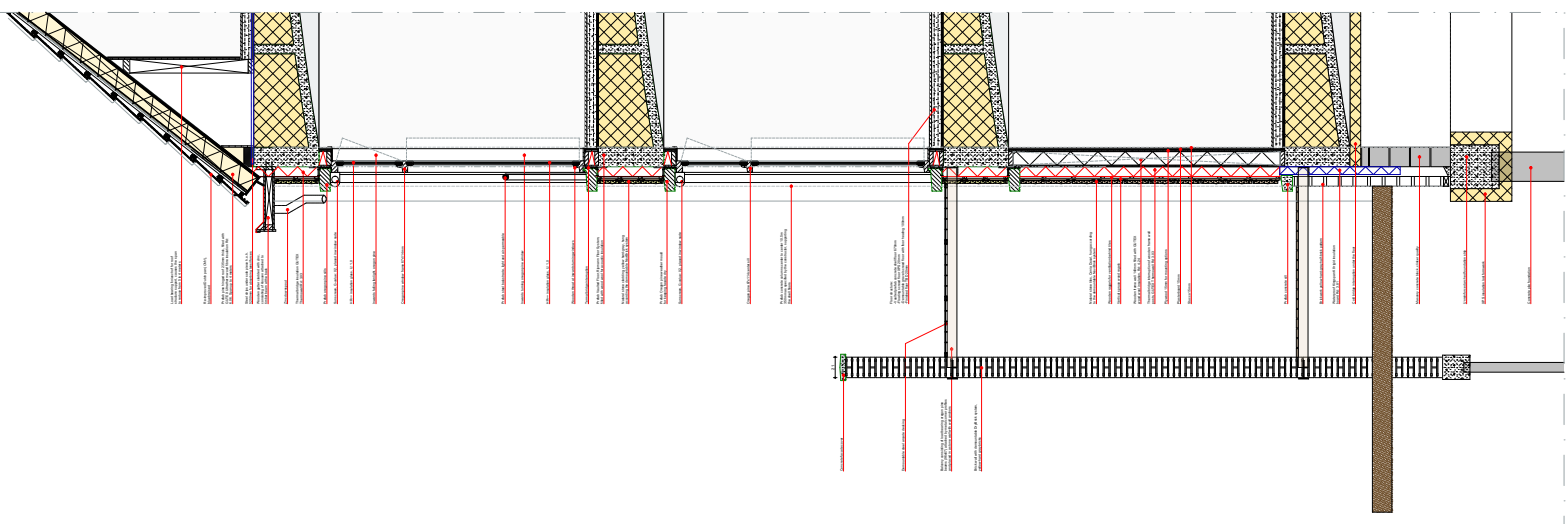
Cross section A-A



Cross section B-B

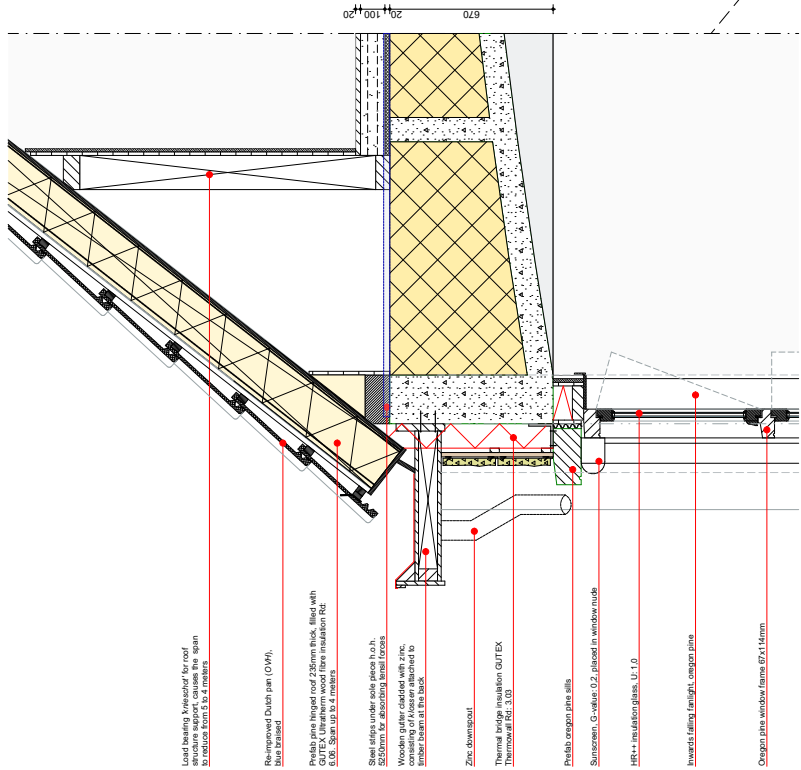


1:20 facade detail



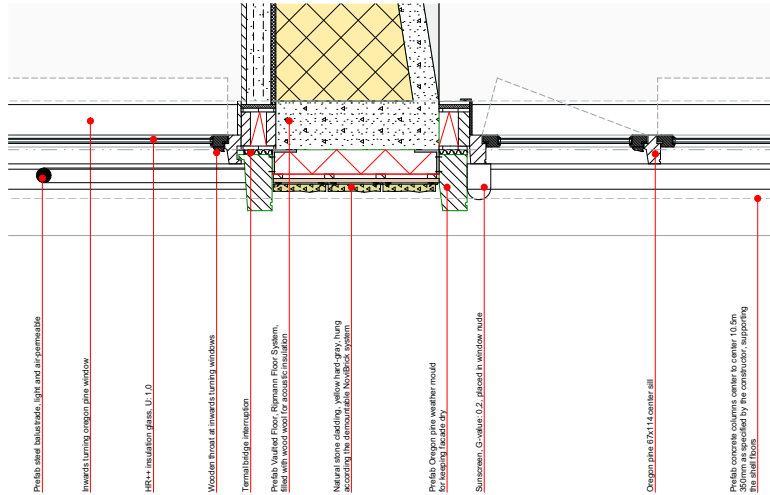
10.500

1:5 detail drawings

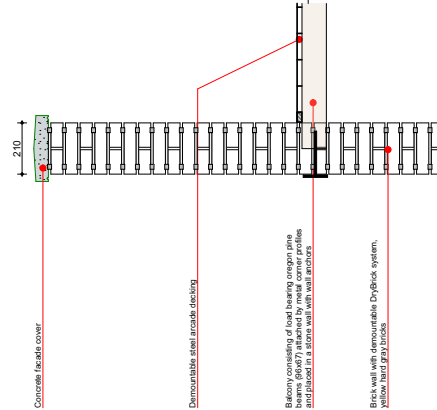


Gutter & roof

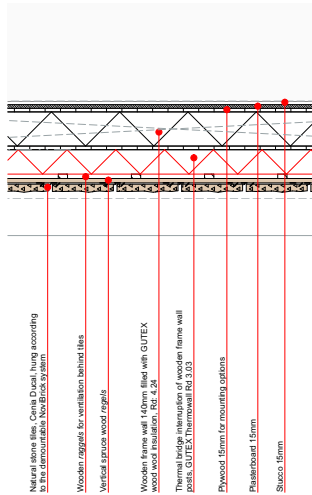
Window



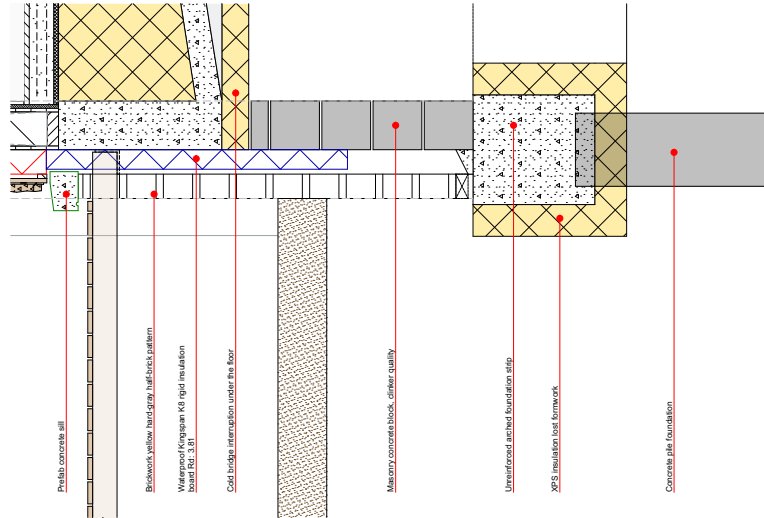
Balcony



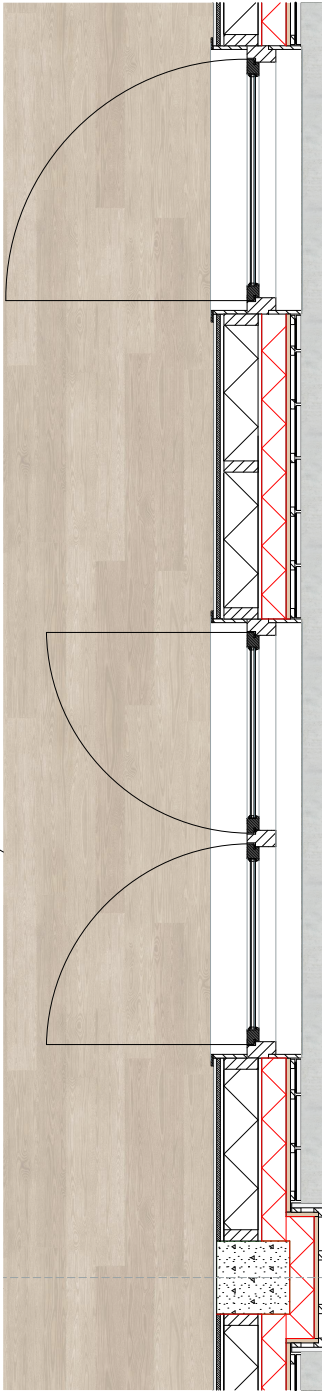
Wall construction



Foundation



Horizontal window and wall detail

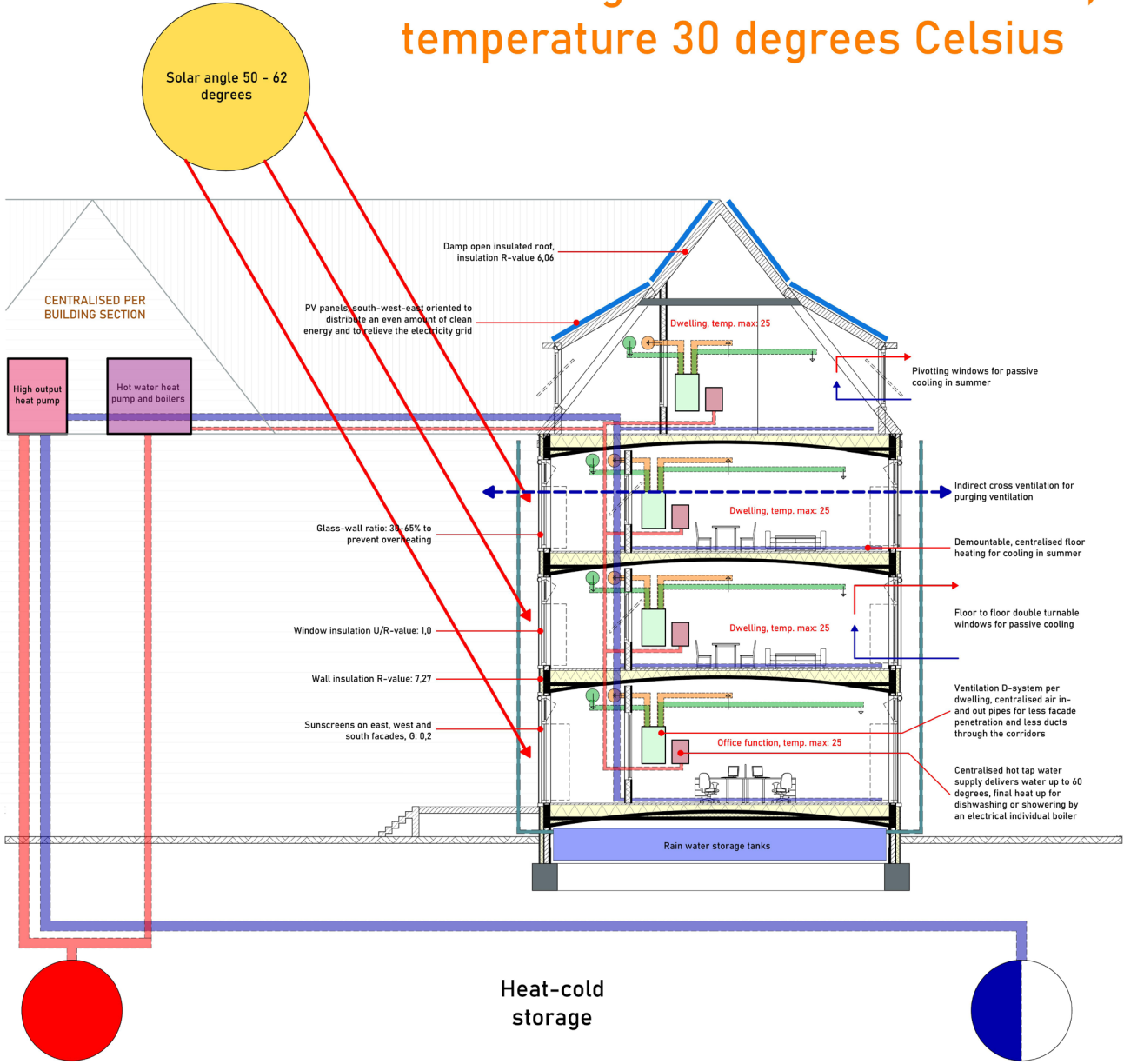




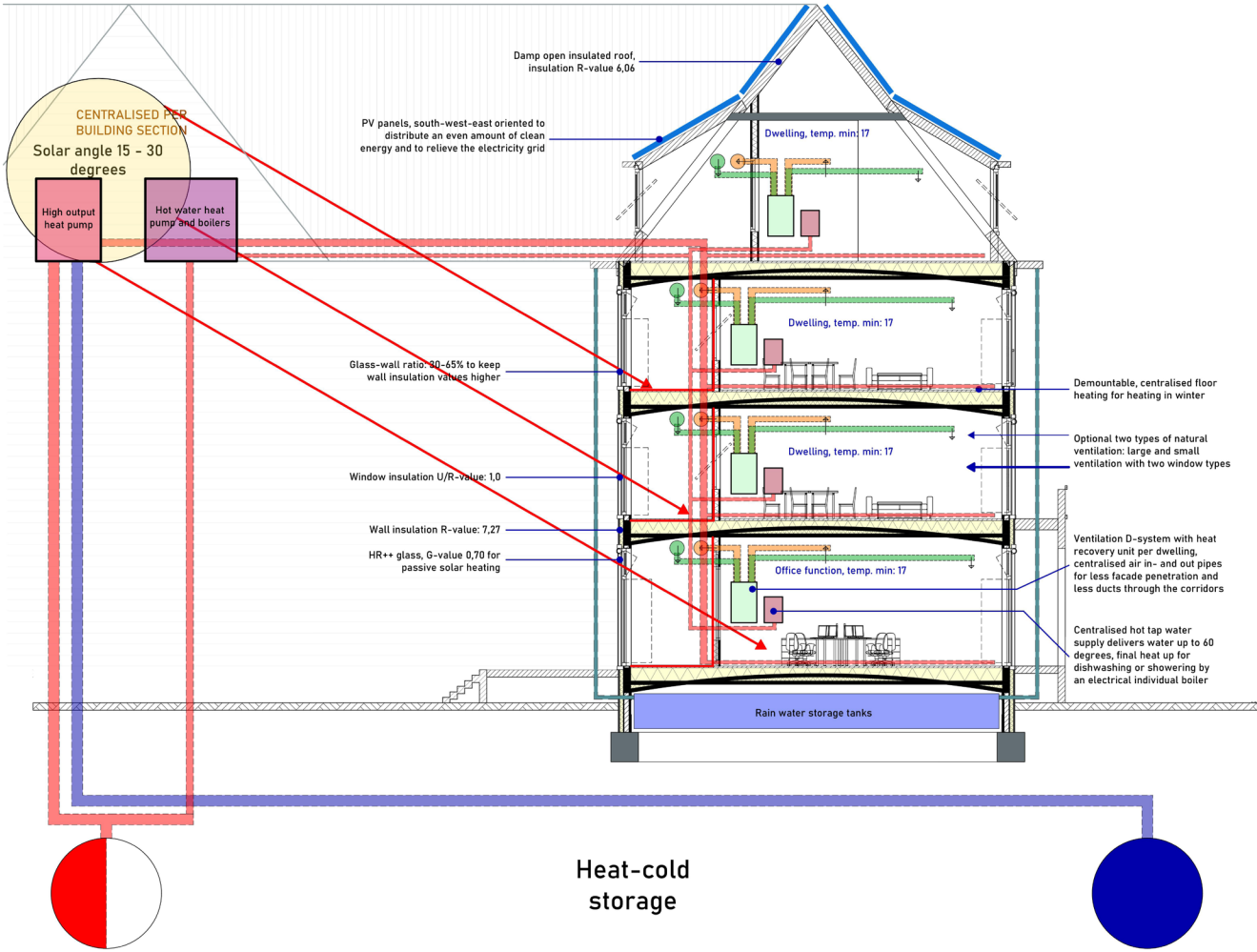


STRUCTURE & I

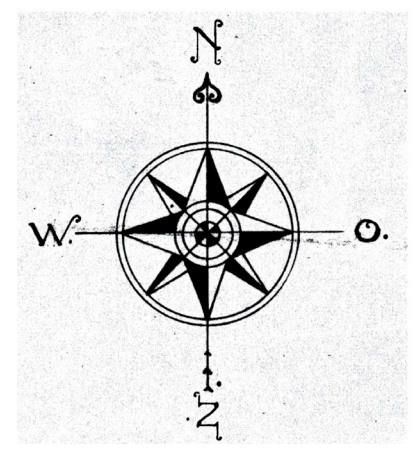
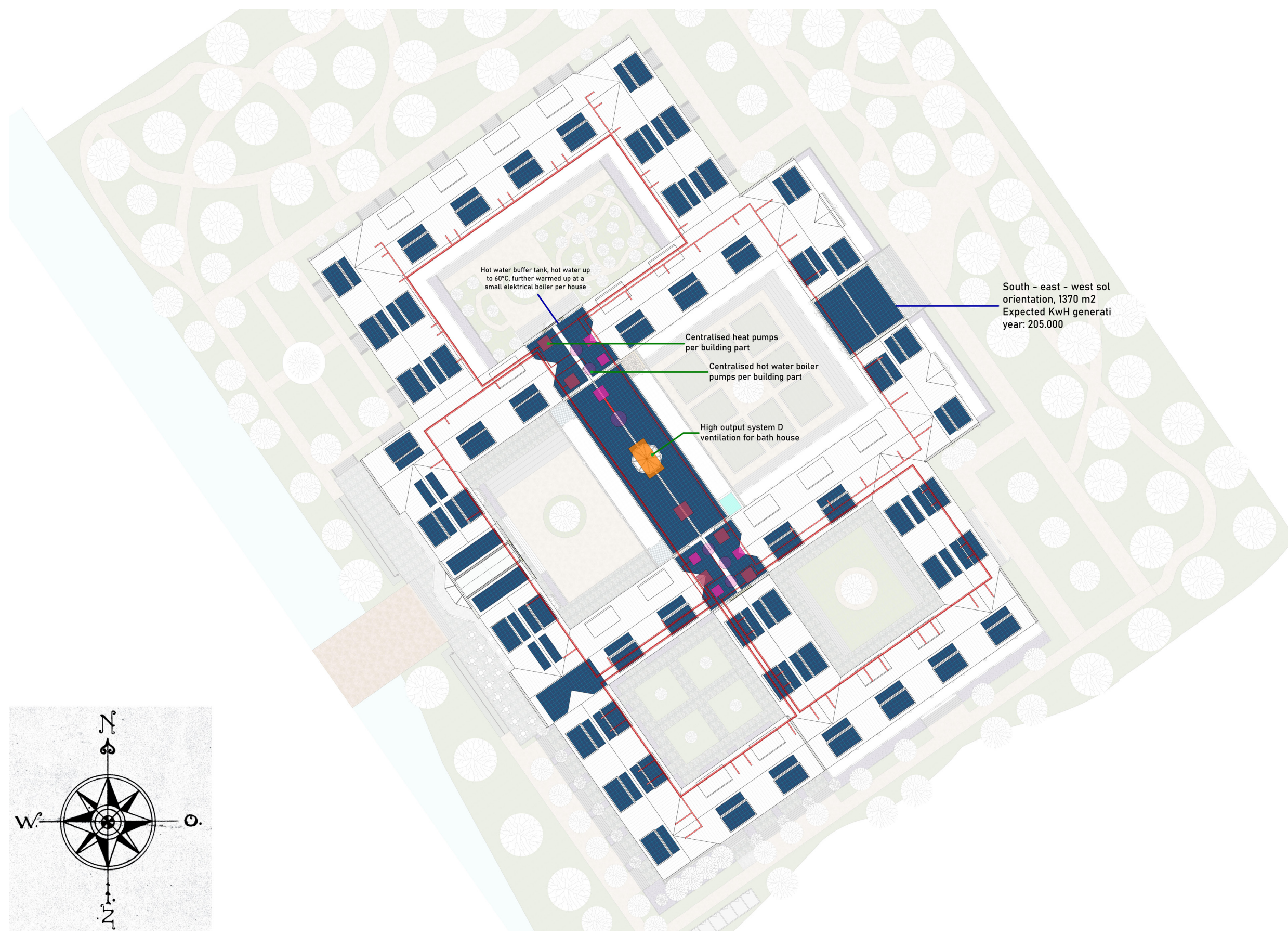
Climate diagram summer situation,
temperature 30 degrees Celsius

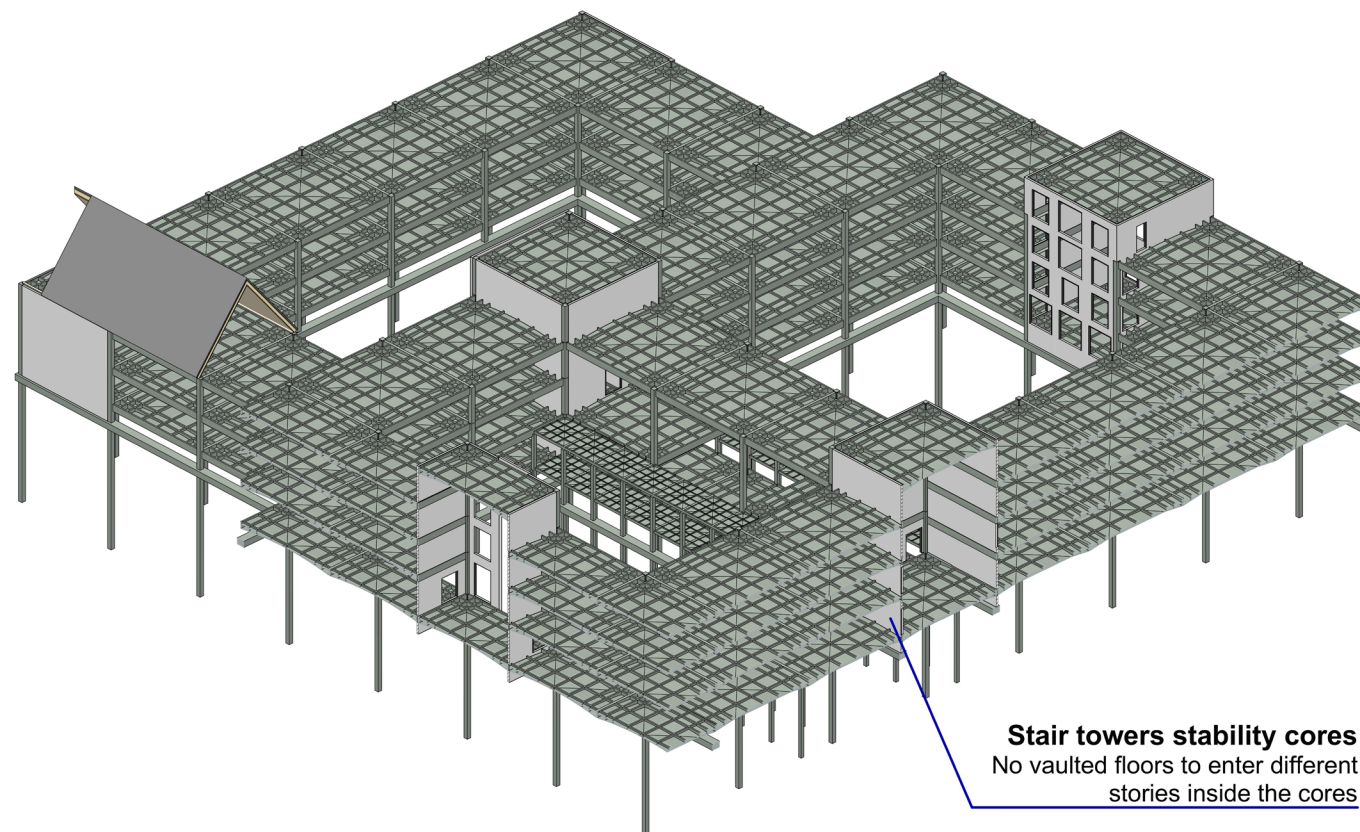


Climate diagram winter situation,
temperature -10 degrees Celsius



INSTALLATIONS





Roof structure

Prefab hinged spruce roof elements, woodfibre insulation R: 6

Wall plate

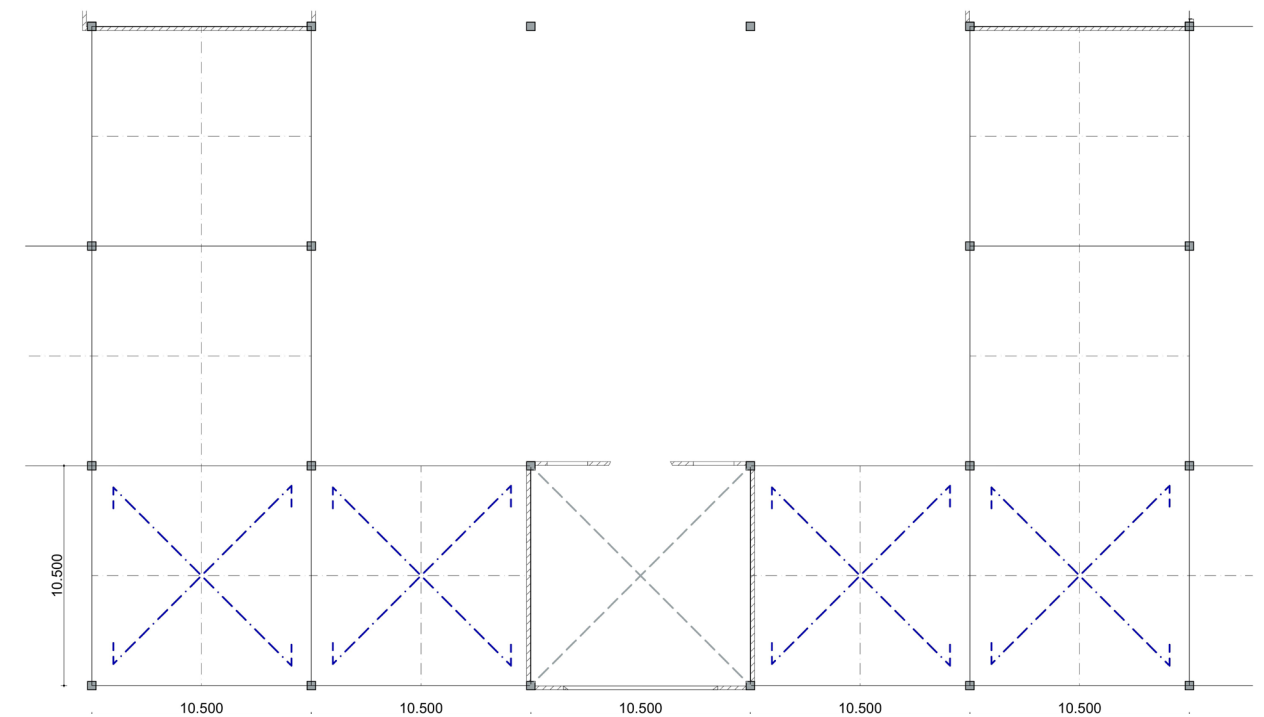
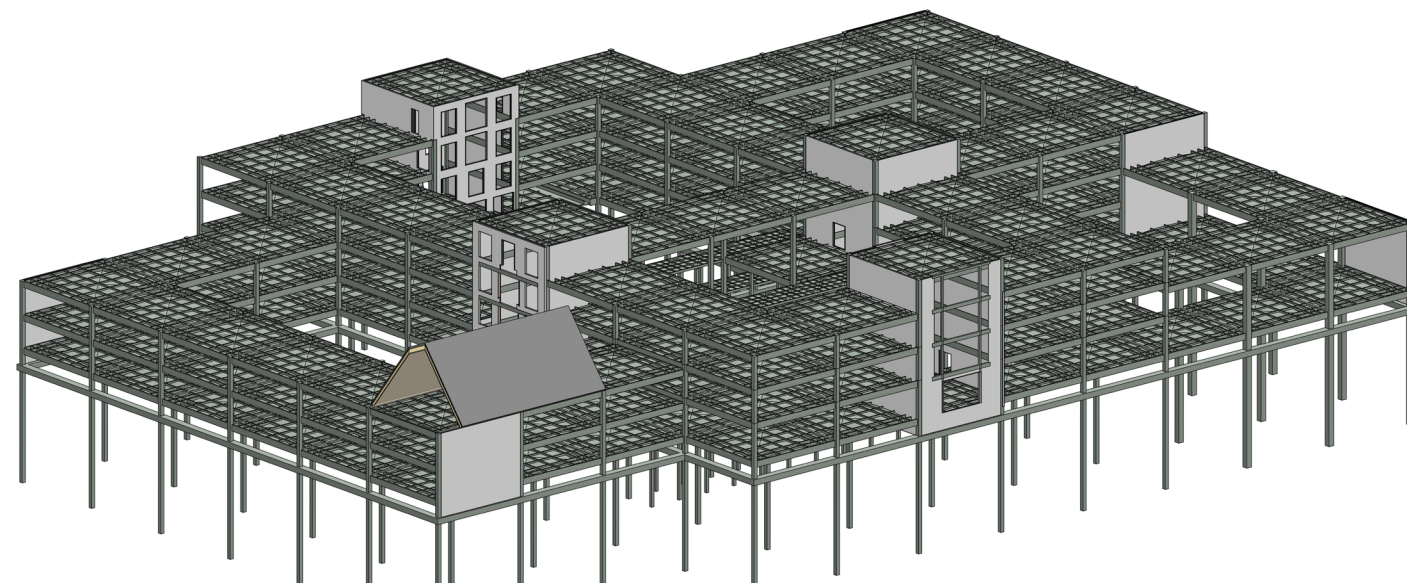
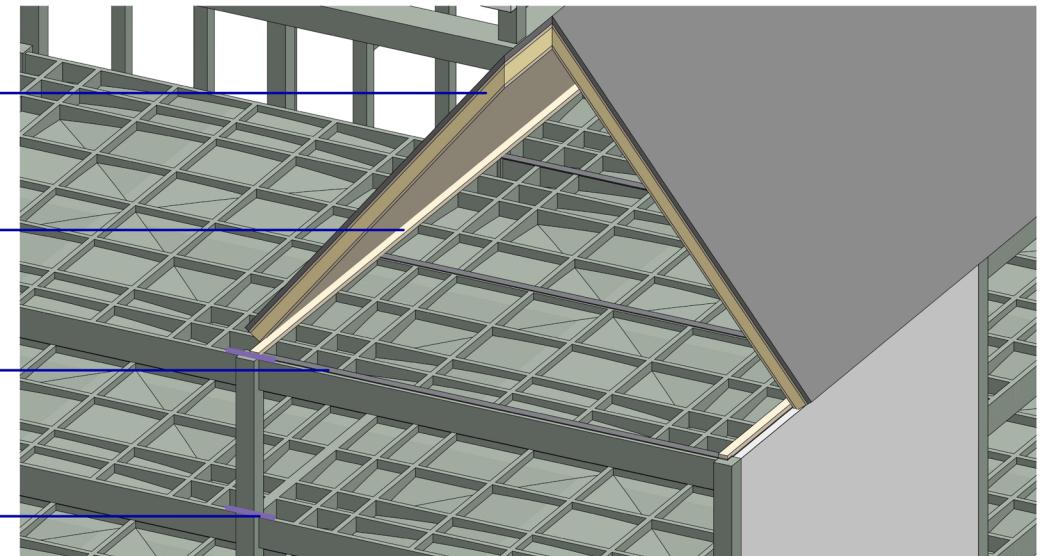
Spruce wooden wall plate to support roof and even out forces

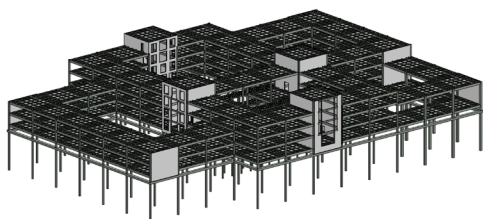
Tensile force bars

Steel plates every 5,25 meters to keep the roof structure in place

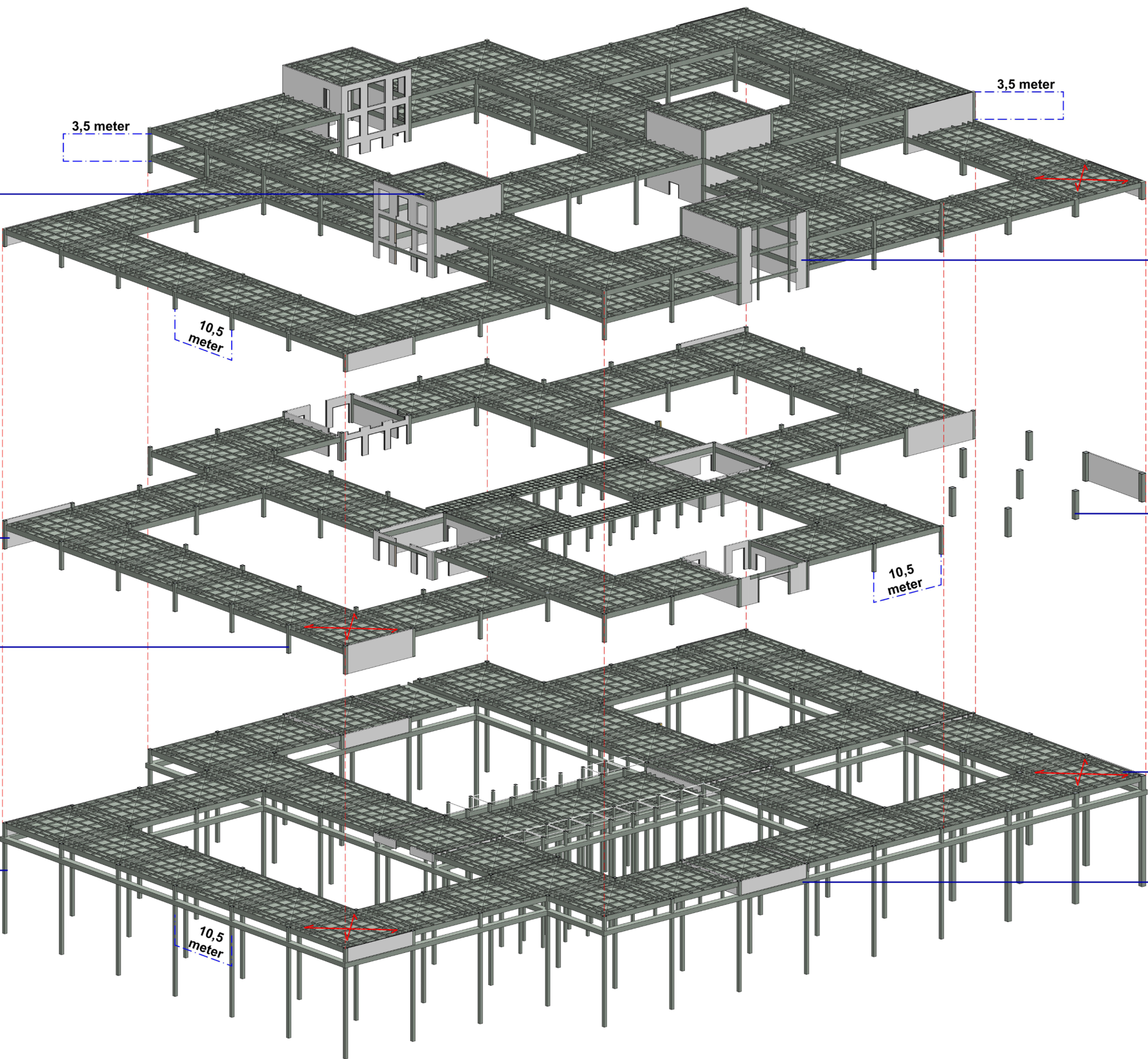
Floor connection

Individual prefab elements connected with steel rods





Vaulted unreinforced concrete floor
Span = 10,5m
L/D ratio: 15, thickness 10,5 / 15 = 700mm



Stability core
Sand lime stone CALDURAN
180mm Ø, to be specified by constructor

Stability disc
Sand lime stone CALDURAN
180mm Ø, to be specified by constructor

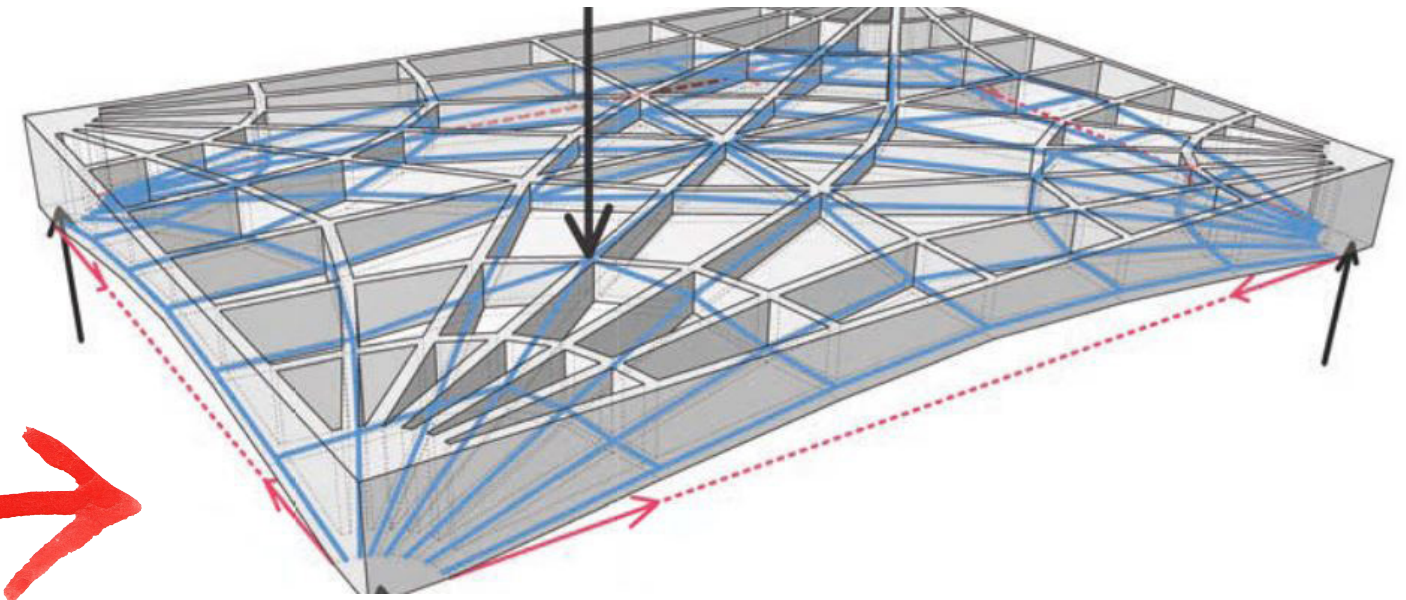
Double height for 2 story dwellings
Column height = 7,5m
7 / 12 ≥ 625mm Ø concrete columns

Concrete column
Column height = 4m
4 / 12 ≥ 333mm Ø

Foundation
Concrete pillar foundation
Ø to be determined by constructor

Vaulted unreinforced concrete floor
Span = 10,5m
L/D ratio: 15, thickness 10,5 / 15 = 700mm

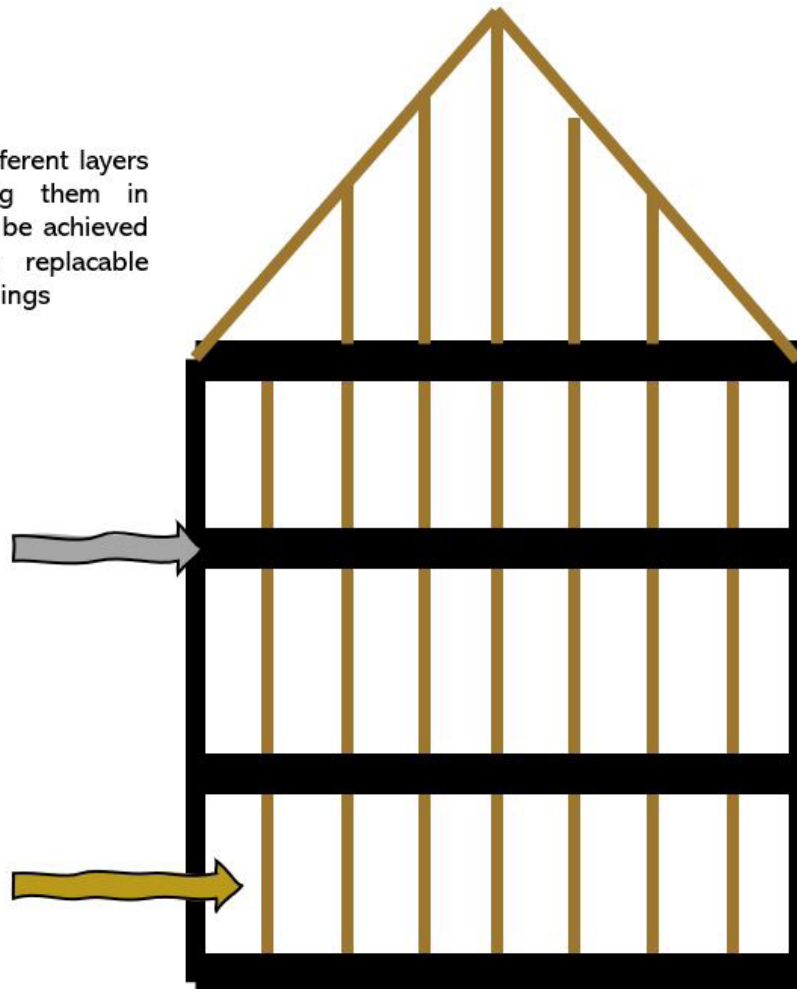
Foundation beams
Span = 10,5m, 800mm below ground level
Ø to be determined by constructor



Ambition: visual expression of the two different layers that make up the façade, separating them in permanent and replaceable. This goal can be achieved by only placing windows within the replaceable wooden frames, and giving different claddings

Solid concrete columns and floors that will stay in place over the lifespan of the building

Wooden panels in between the concrete construction which are easily replaceable in the future as taste or requirements change



Sustainable in three ways



Permanency



OR



Renewability



OR



Demountability

