

Prevention of Cognitive Impairments Through Architectural Design



Axonometric View



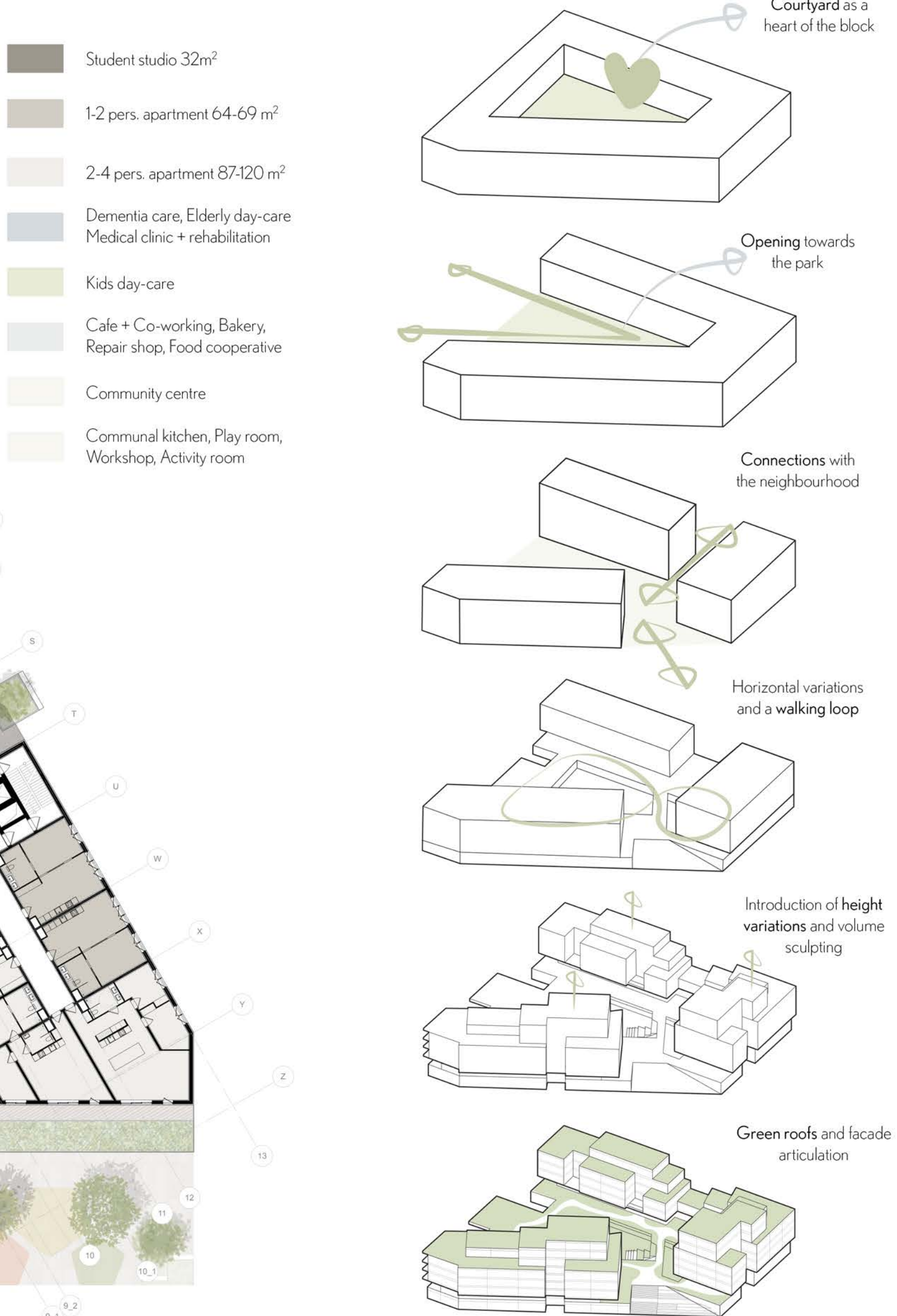
Axonometric View



Ground Floor Plan 1:400



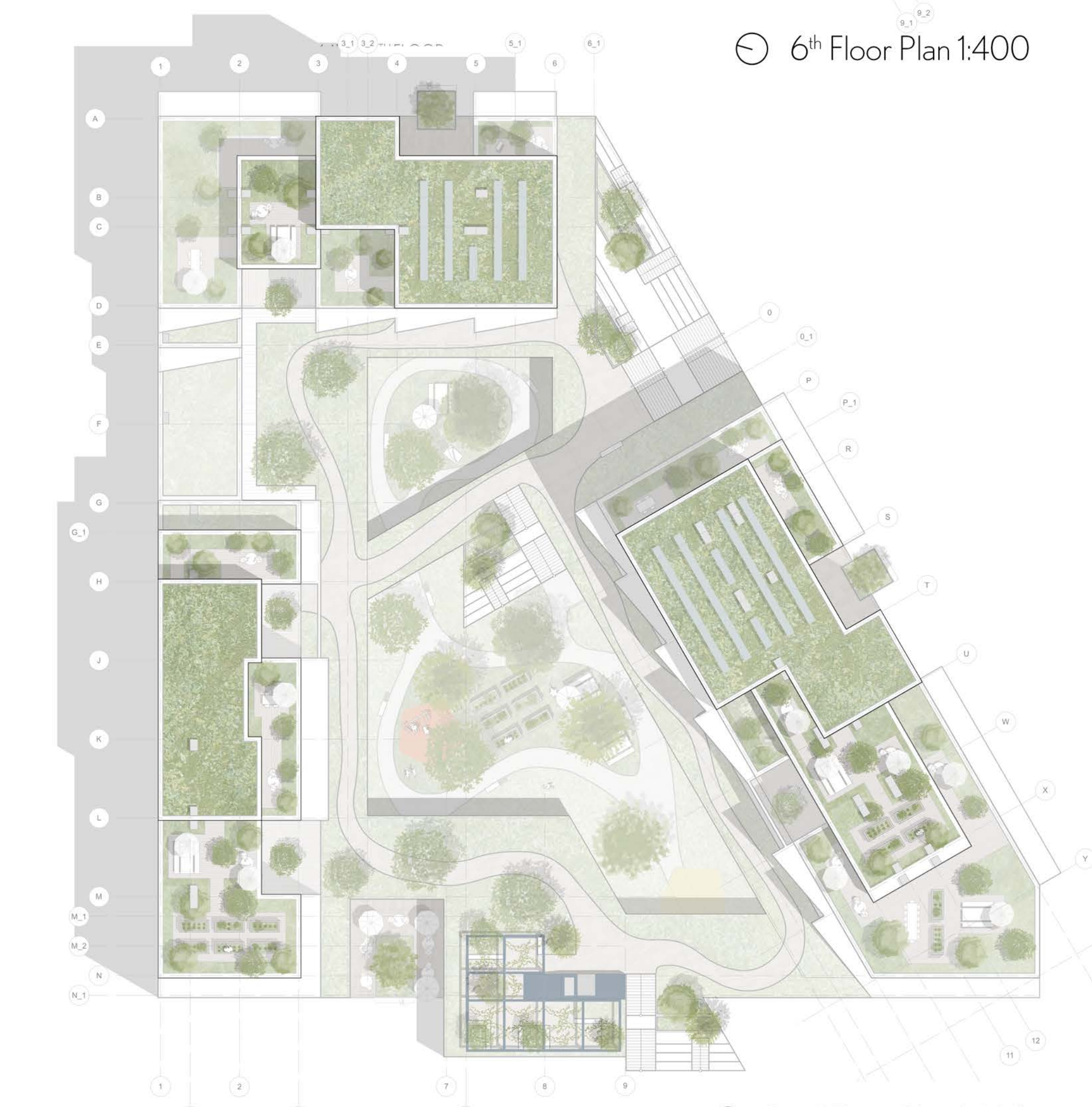
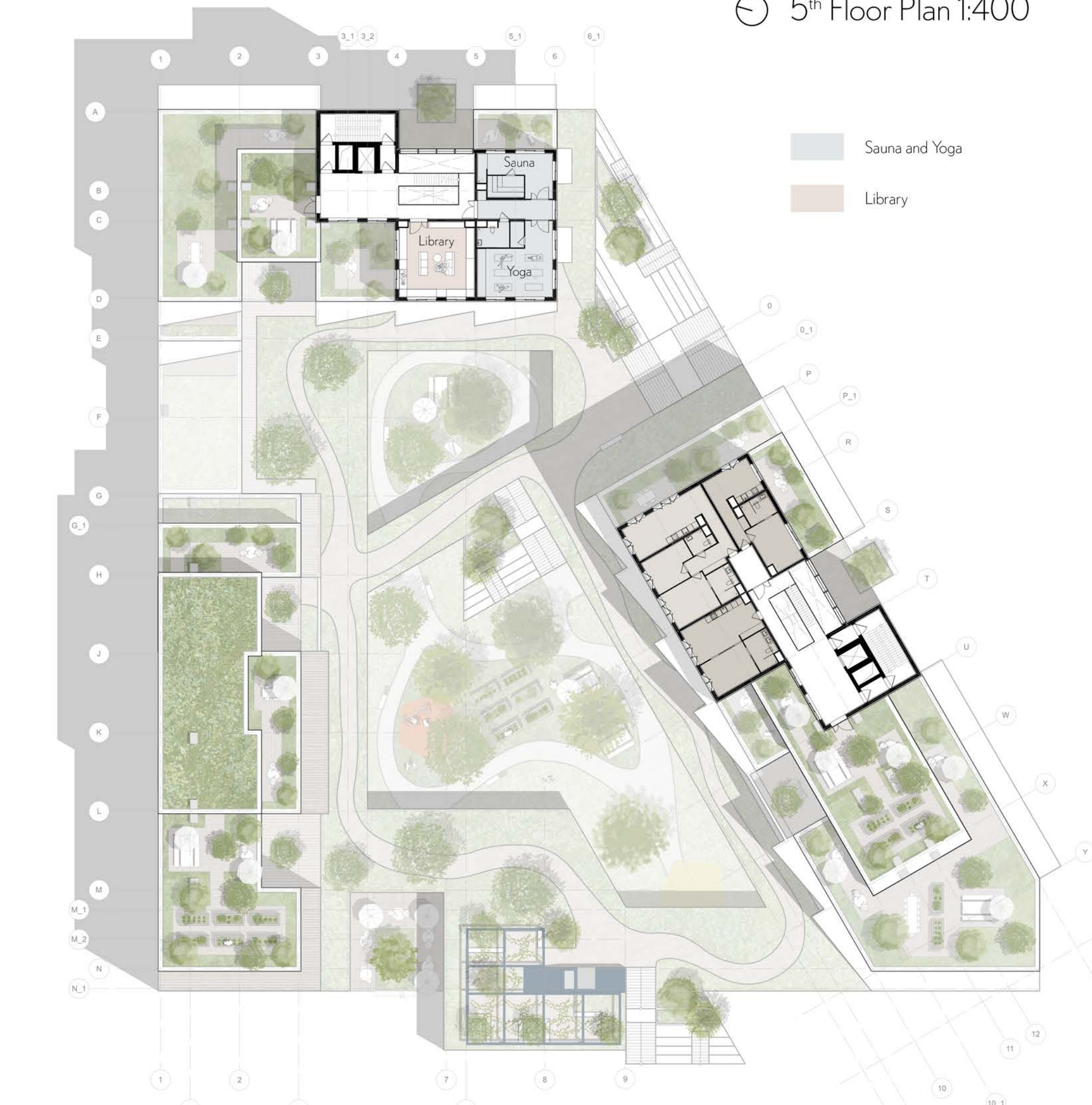
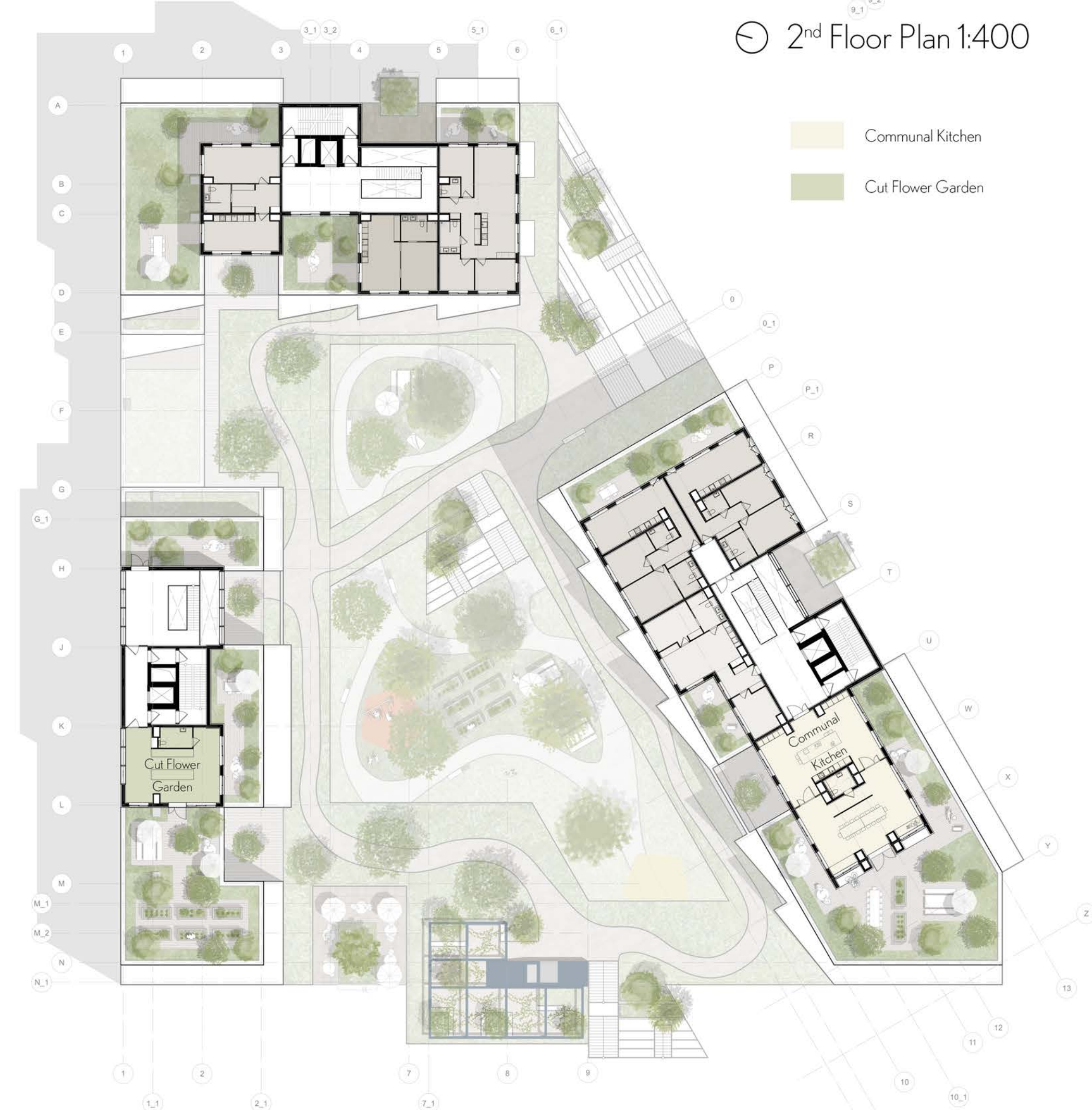
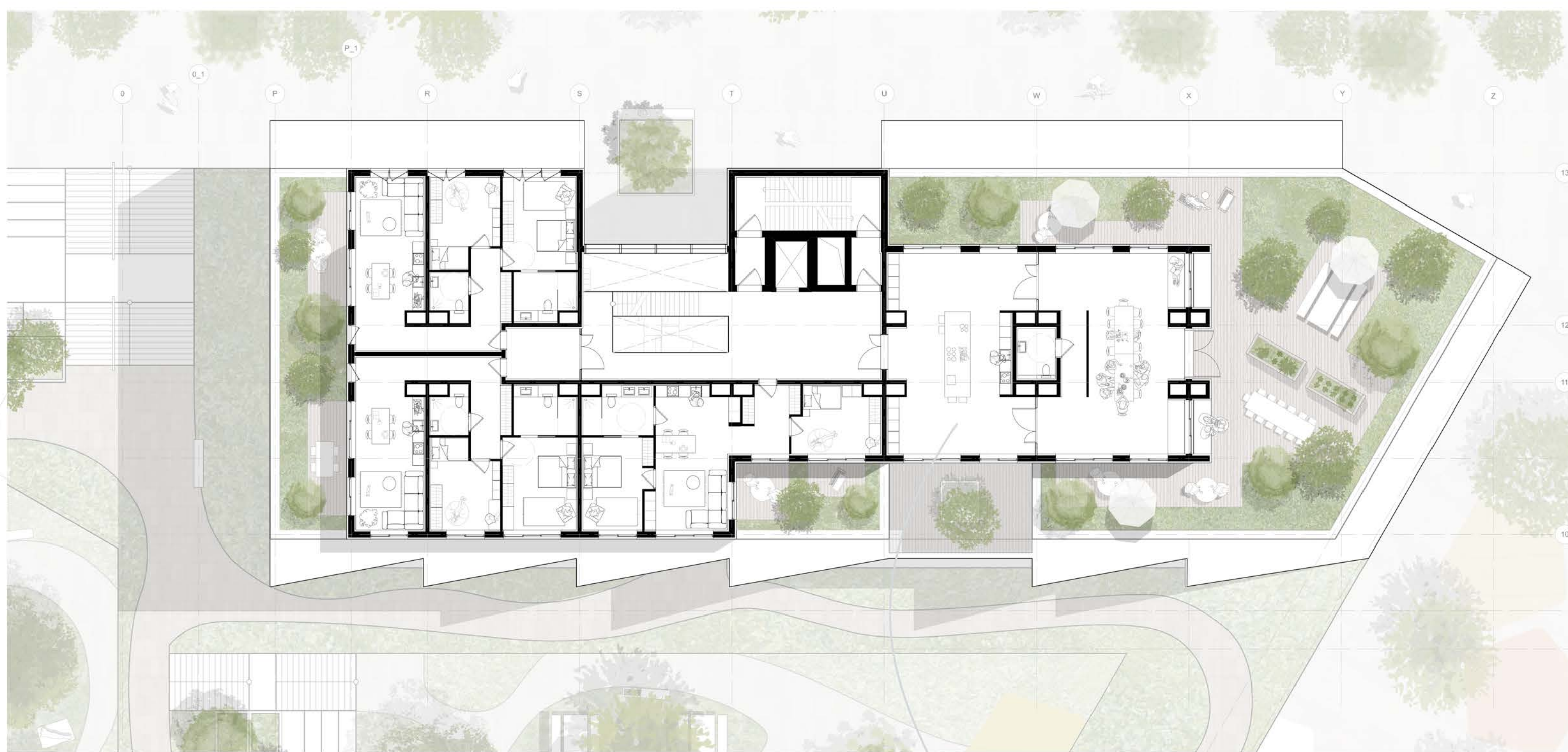
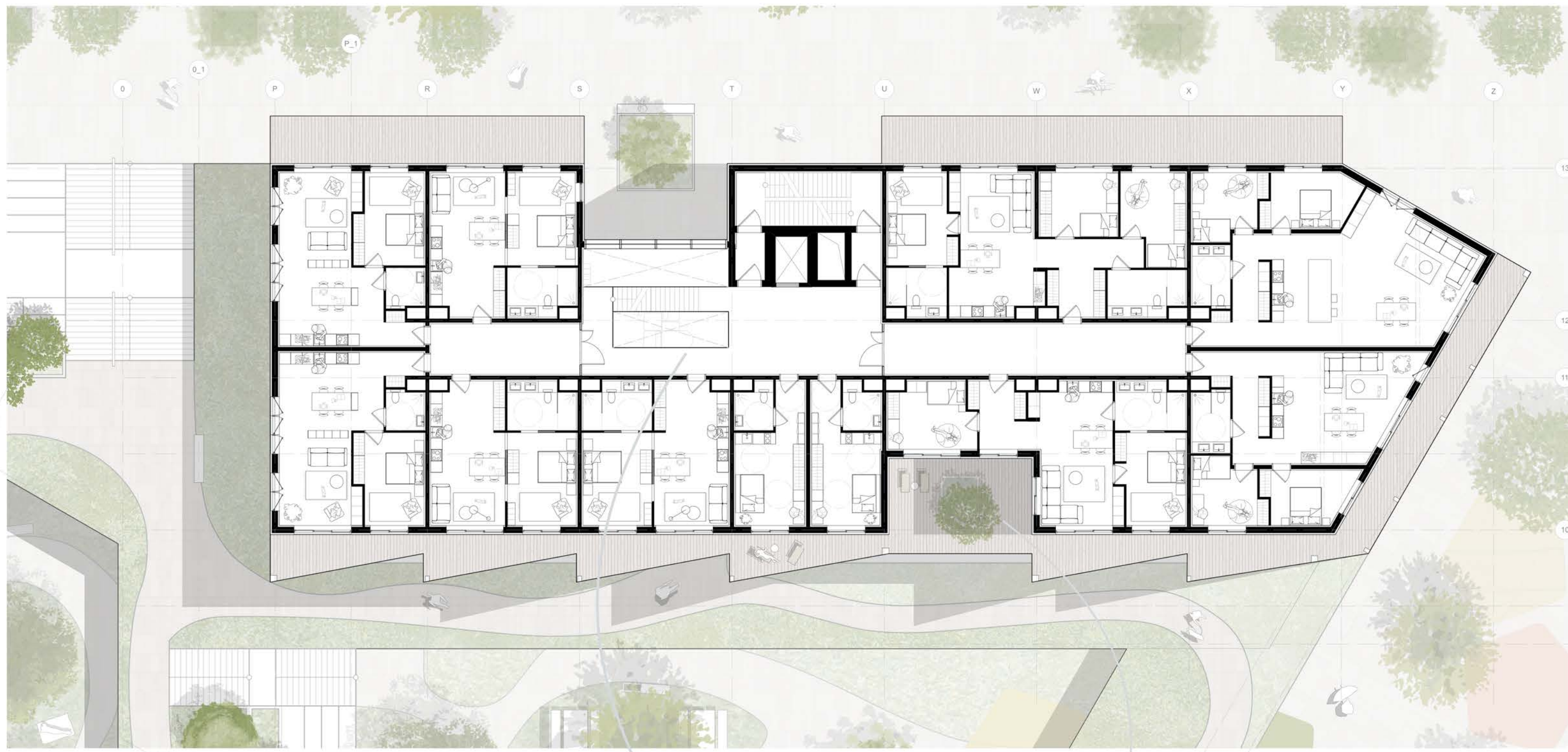
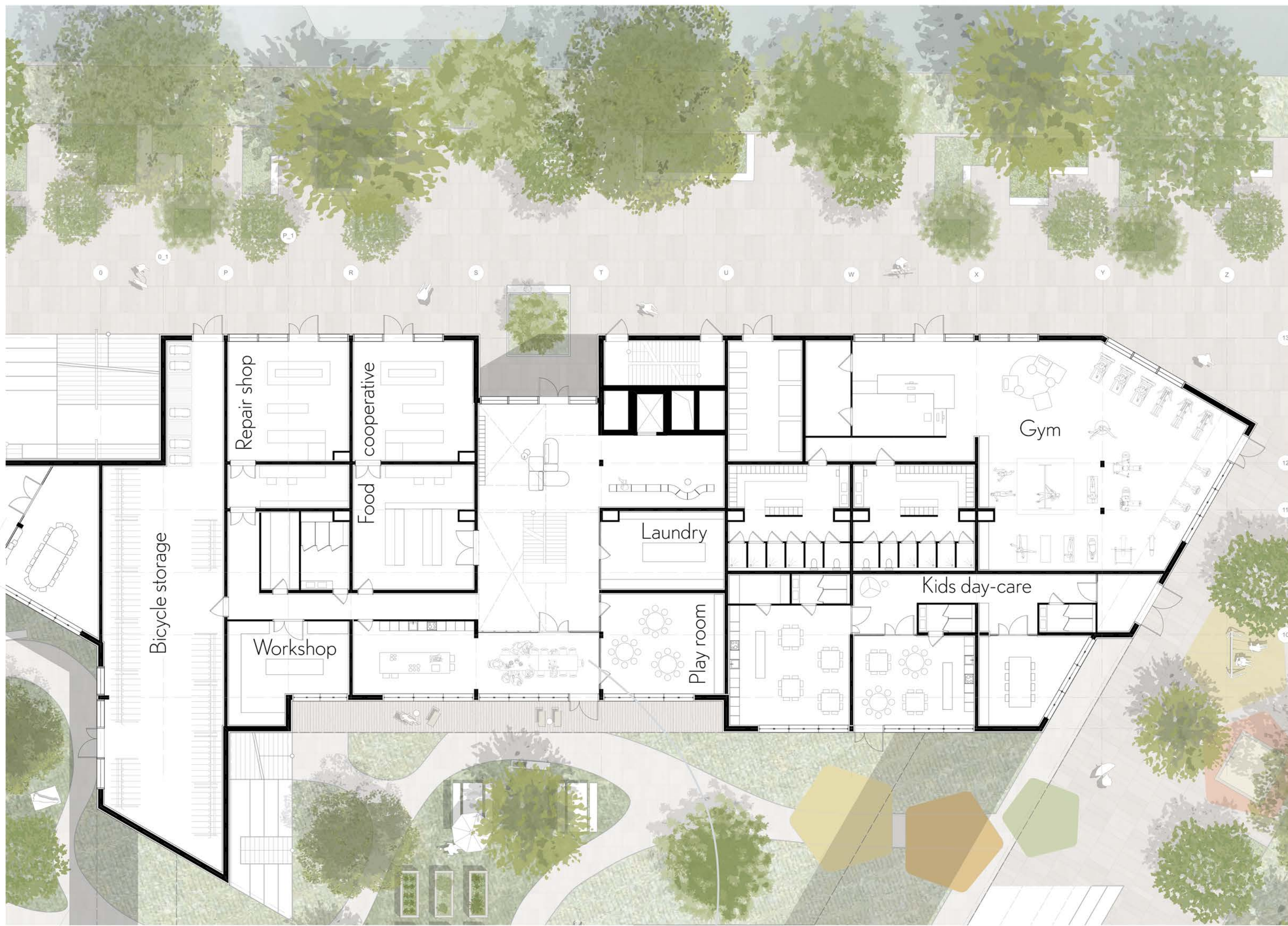
1st Floor Plan 1:400



Volume Development



Master Plan 1:1000





Cross-section B-B and West Elevation 1:200

Balconies with retractable glass panes act as an acoustic, wind and temperature barrier

Horizontal variations enhance experience and feed curiosity while creating a gradation of public vs semi-private spaces

Attractive and green public space with high level of transparency ensures 'eyes on the streets' and contributes to walkability

Re-used azobe wood from former Dutch quay walls



South-East Elevation 1:200

Activity spaces in a visible location encourage staying physically active

Stairs with planters next to a busy square encourage use and strengthen connection with the neighbourhood

Local businesses like cafés, bakeries and a food cooperative break with anonymity and act as connective spots for the neighbourhood



North-West Elevation 1:200

Transition between public space of the walkway and the semi-private space of the courtyard and lobby

Community functions like communal kitchen, workshop and kids play room clustered around communal courtyard encourage interaction

Shared garden with vegetable beds fosters inter-generational contact, encourages residents' ownership, embraces passions and connection with nature

Opening to the park strengthens the connection with nature and provides sufficient amount of green walking spaces



South Elevation 1:200

Community centre enhances connections with the neighbourhood and provides a meeting spot where passions and hobbies can be embraced

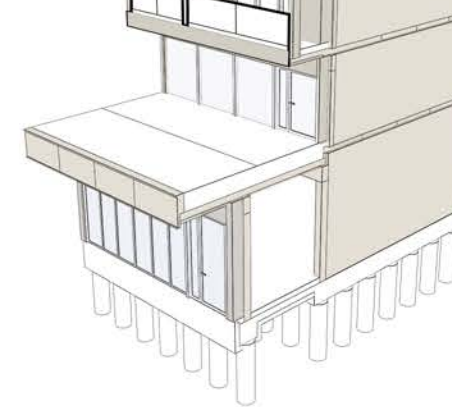
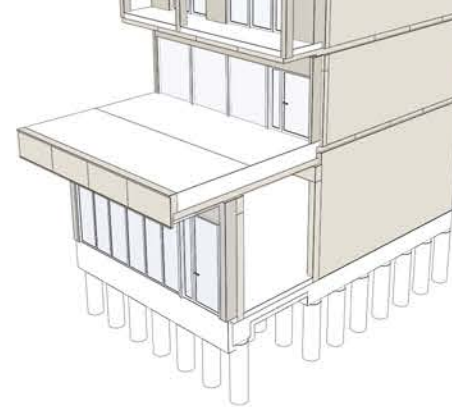
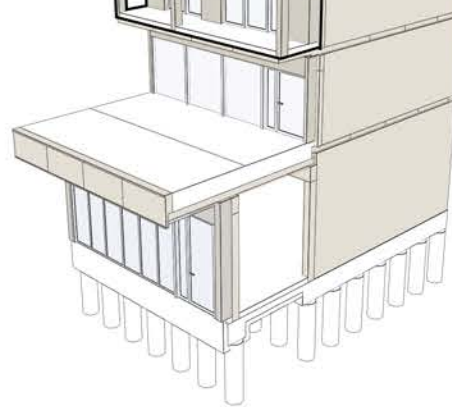
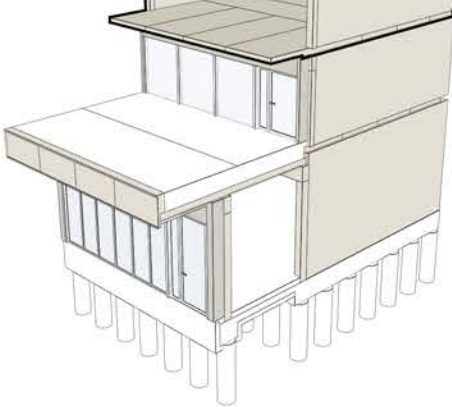
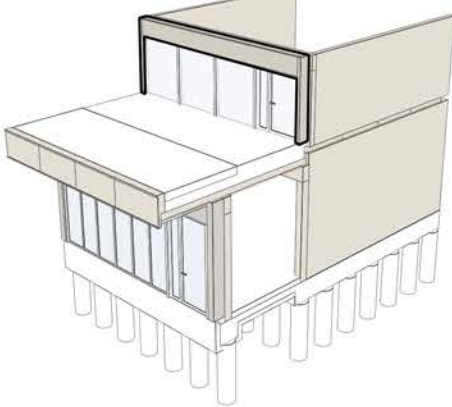
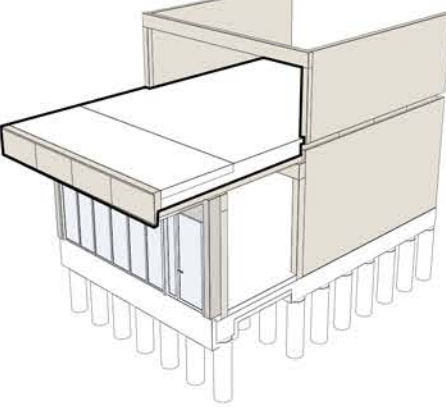
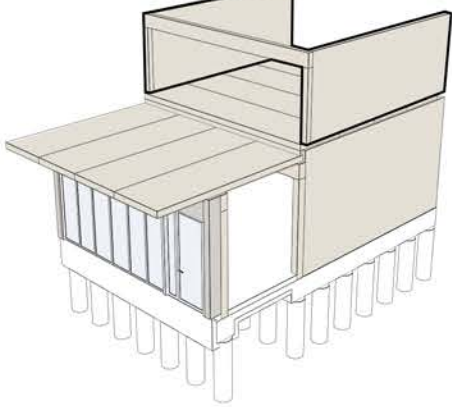
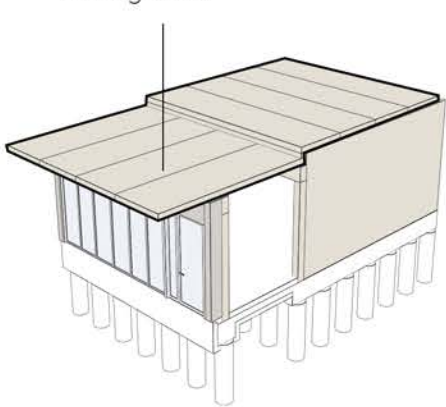
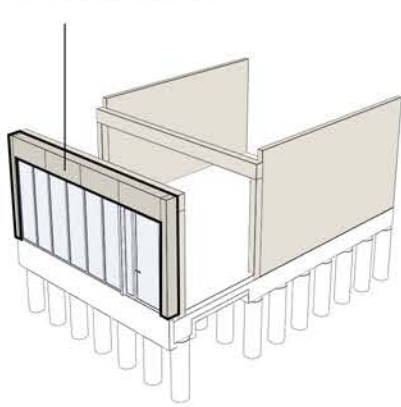
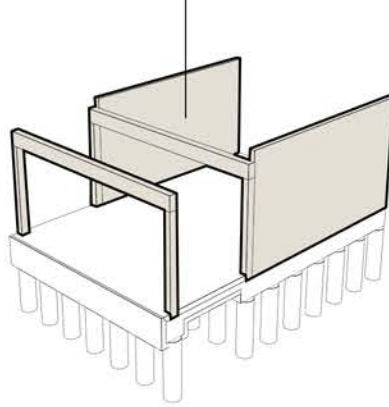
Dementia-care and Elderly day-care make it possible for the elderly to 'Age in Place' and keep their social network

Medical clinic and rehabilitation centre provide necessary medical services for the neighbourhood

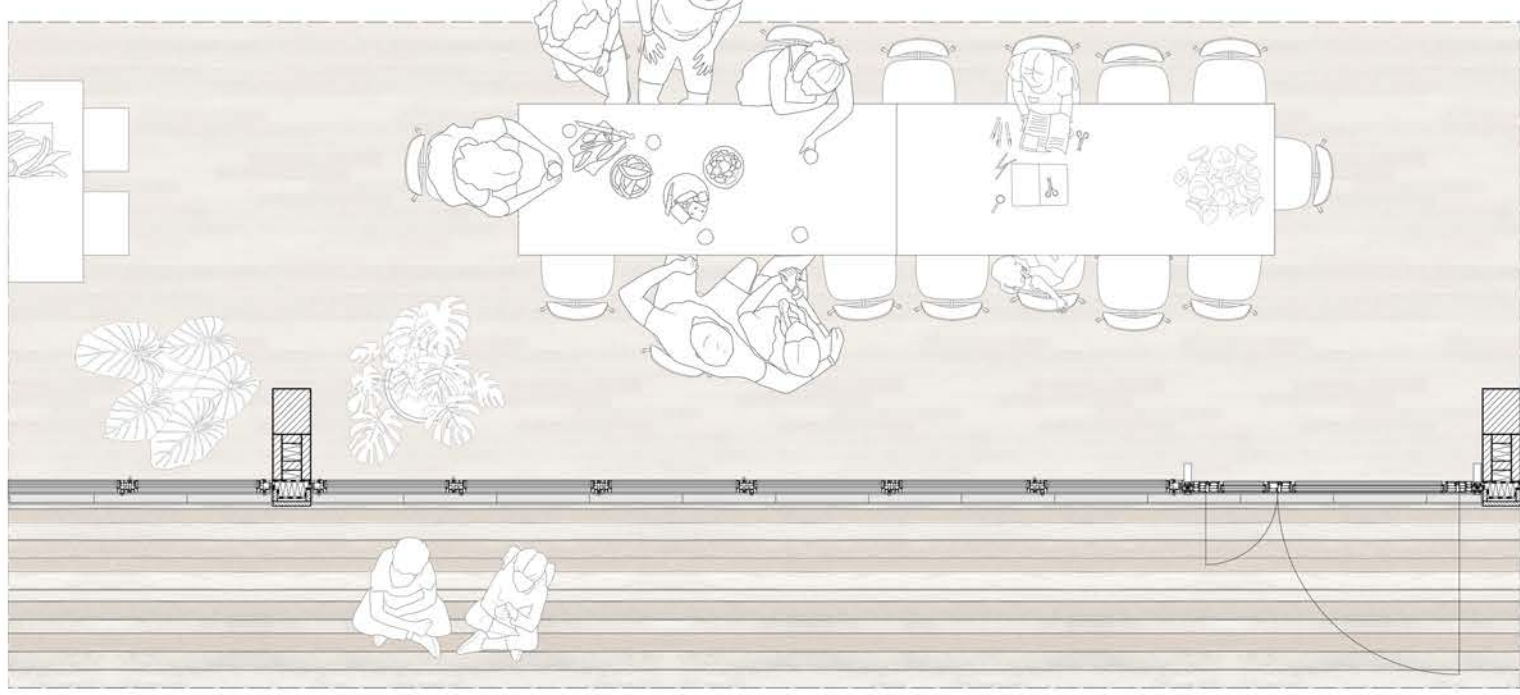
CLT Walls and beams

Prefabricated Timber Frame Facade Element

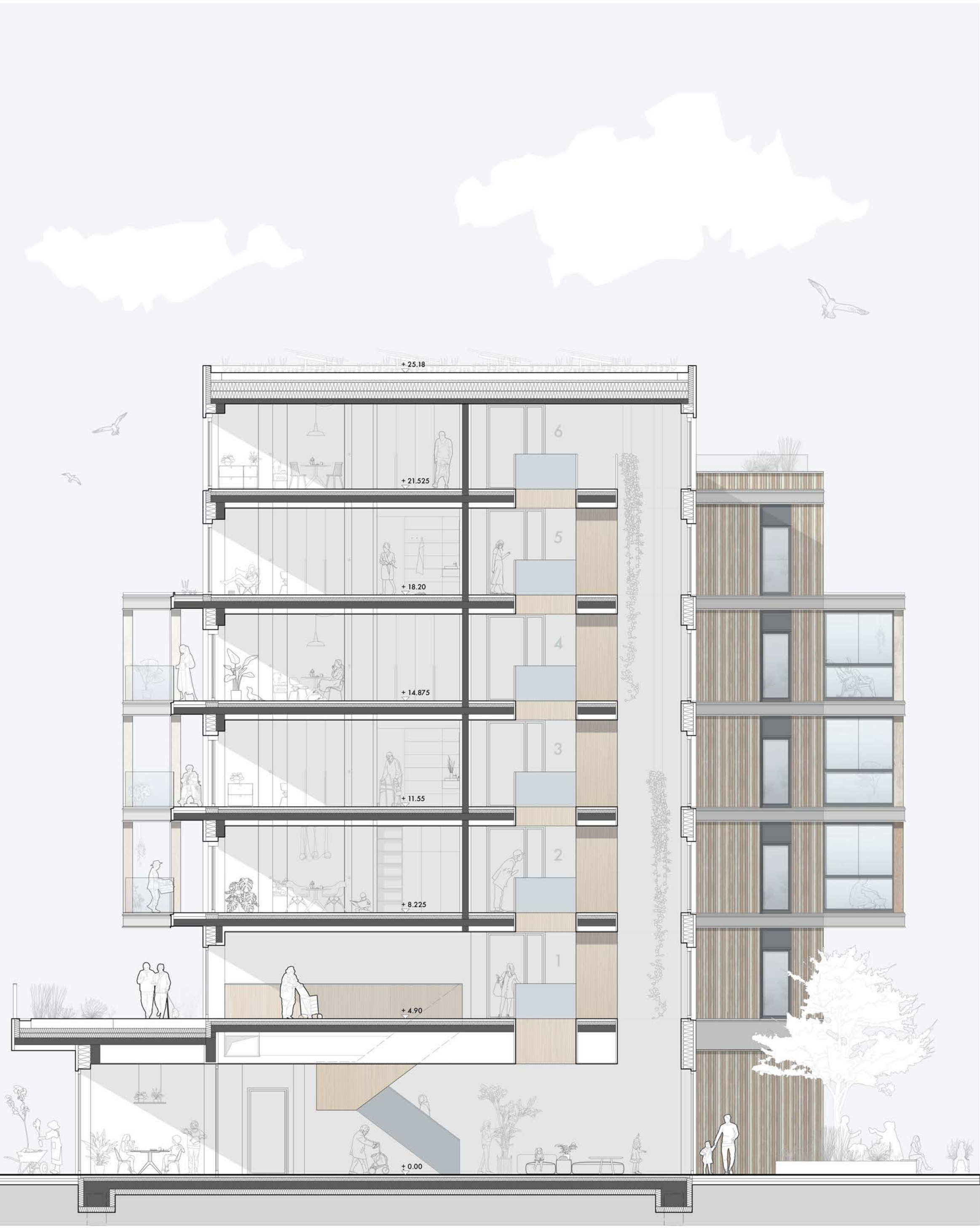
Prefabricated CLT Ceiling Slabs



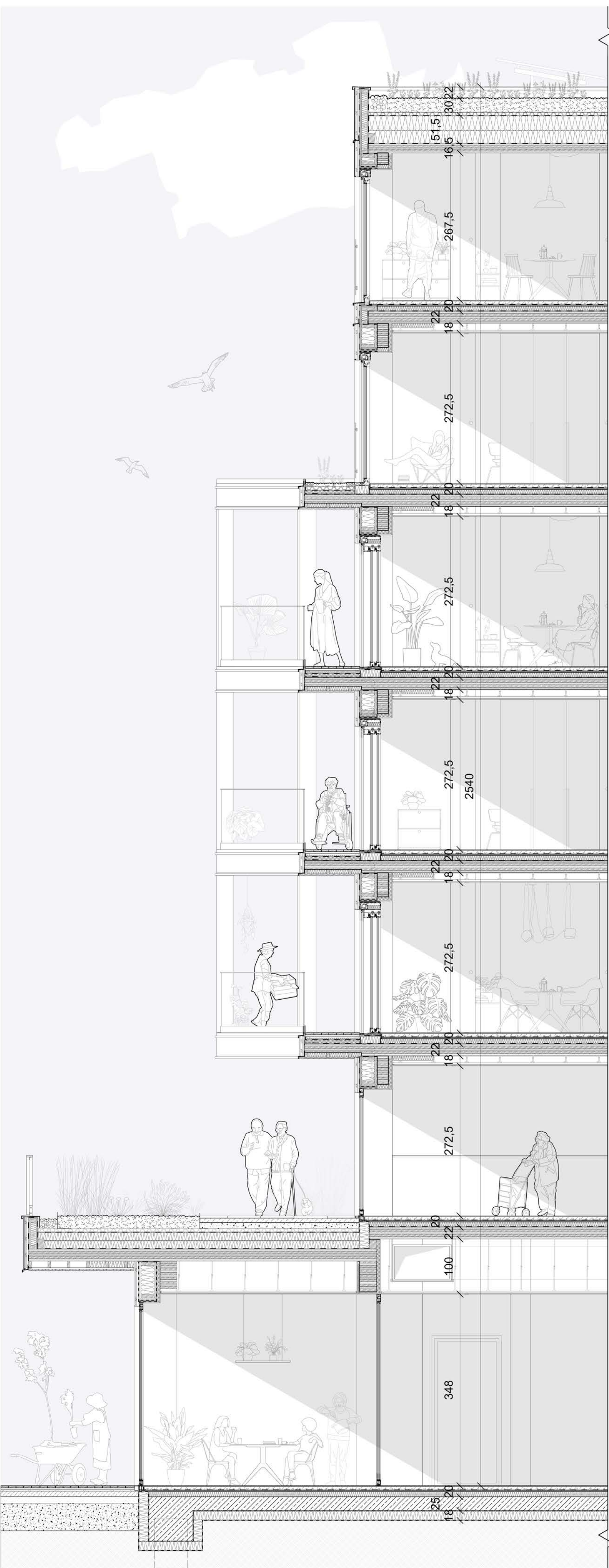
Construction / Sequence of assembly scheme



Facade detail 1:50



Crosssection fragment 1:100



5 Floor:
parquet 15 mm
heating screed 65 mm
PE film, impact soundproofing 30 mm
perlite fill 90 mm
trickle protection
cross-laminated timber 220 mm
cavity for installations 125 mm
suspended ceiling

6 Green terrace:
extensive vegetation (mosses, sedum)
250 mm mineral substrate
geotextile
vedafloor SD20 drainage mat
geotextile
root barrier felt
FFL self-adhesive felt underlay
rockwool hardrock insulation 2 x 150 mm
vapour barrier membrane
cross-laminated timber 160 mm
mineral wool with wind-proofing 12 mm
Wood blocking 120 mm x 50 mm
counter-battens 25 mm
pre-weathered silver fir 25 mm

7 Facade:
re-used Azobe wood sourced from Dutch quay walls 24 mm
coating battens 24 mm
back ventilation 40 mm
wind-proofing
prefabricated timber frame element:
gypsum fibreboard 2x 18 mm
wood studs, thermal insulation 100 mm
OSB 240 mm
vapour barrier membrane

8 Terrace:
pre-weathered silver fir decking 35 mm
counter battens 40 mm
blocking 20 mm
lean concrete 80 mm
compacted sand 120 mm
gravel 500 mm
subsoil

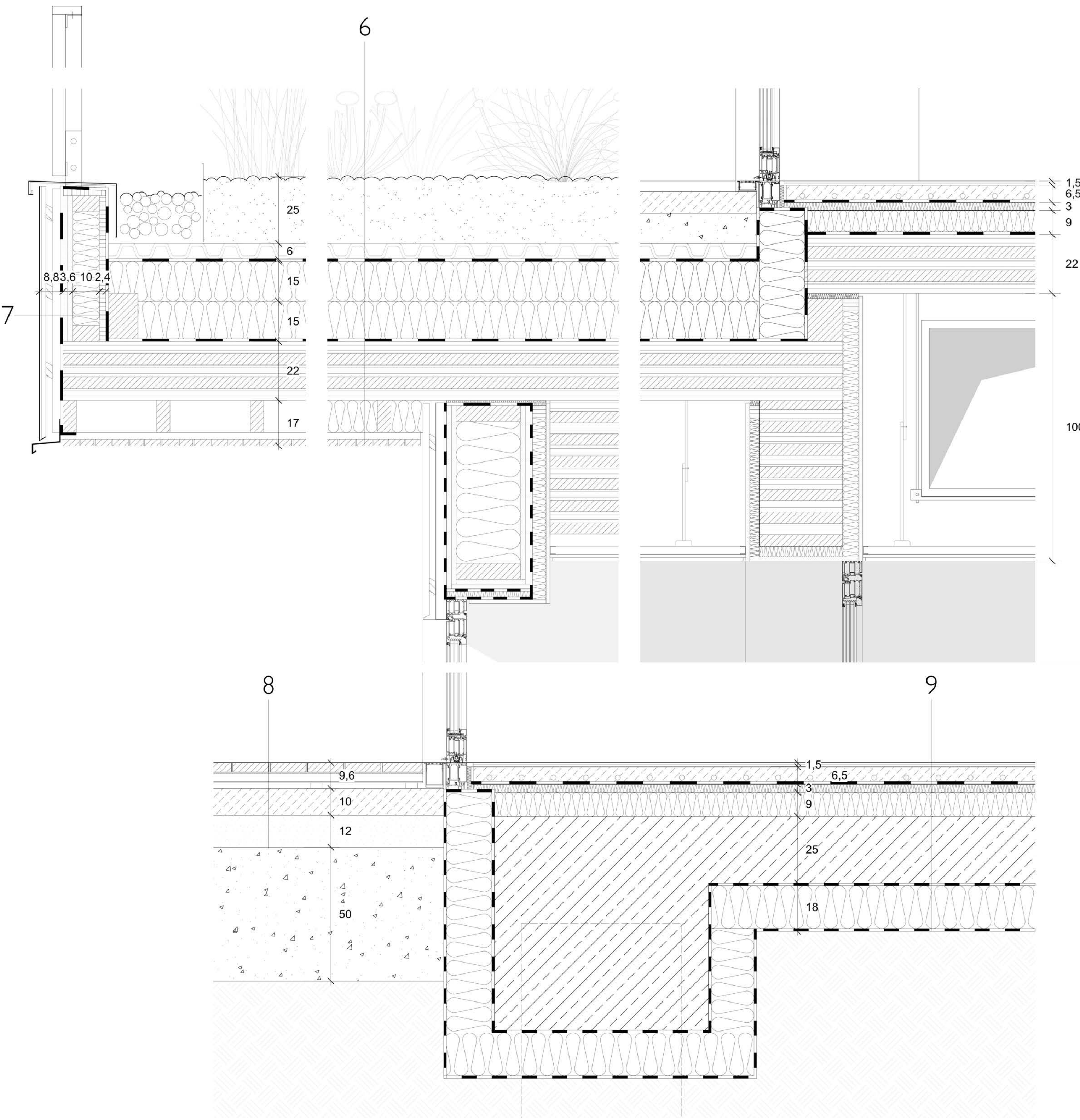
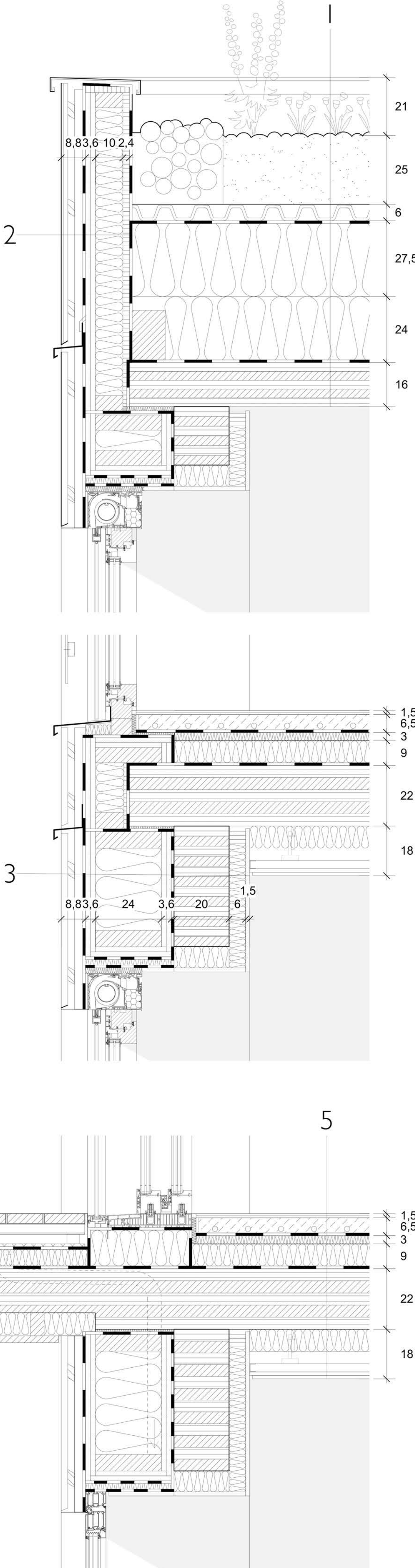
9 Floor:
parquet 15 mm
heating screed 65 mm
PE film, impact soundproofing 30 mm
perlite fill 90 mm
trickle protection
foundation plate 250 mm
polyethylene HDPE membrane Grace
extruded polystyrene 180 mm
PE foil
subsoil

1 Green roof:
extensive vegetation (mosses, sedum)
250 mm mineral substrate
geotextile
vedafloor SD20 drainage mat
geotextile
root barrier felt
FFL self-adhesive felt underlay
thermal insulation 2% to falls 275 mm
PIR thermal insulation 240 mm
vapour barrier
cross-laminated timber 160 mm
visibly exposed surface

2 Facade:
re-used Azobe wood sourced from Dutch quay walls 24 mm
coating battens 24 mm
back ventilation 40 mm
wind-proofing
prefabricated timber frame element:
gypsum fibreboard 2x 18 mm
wood studs, mineral wool thermal insulation 100 mm
OSB 240 mm
waterproofing

3 Facade:
fibre cement facade panel 24 mm
coating battens 24 mm
back ventilation 40 mm
Prefabricated timber frame element:
gypsum fibreboard 2x 18 mm
wind-proofing gypsum fibreboard 2x 18 mm
wood studs, mineral wool thermal insulation 240 mm
gypsum fibreboard 2x 18 mm
vapour barrier
cross-laminated timber beam 200x 440
installation level:
inlaid mineral wool thermal insulation 60 mm
gypsum fibreboard 15 mm

4 Balcony:
pre-weathered silver fir decking 35 mm
counter battens 40 mm
blocking 35 mm
protective rubber mat 10 mm
water proofing
rockwool hardrock insulation 80 mm
vapour barrier membrane
cross-laminated timber 160 mm
mineral wool with wind-proofing 80 mm
Wood blocking 124 mm x 80 mm
pre-weathered silver fir 25 mm



Details 1:5

Young adult
69 m²

When she needs help or a friendly talk, all she has to do is step out of the flat! She meets her neighbours on the staircase all the time! She is very happy about the shared library because she no longer needs to buy all of her books.



Elderly disabled woman
64 m²

She is very happy that the building is fully accessible. She loves that she can just go out to the terrace without anyone's help because the balcony's floor is at the same level as in the apartment!



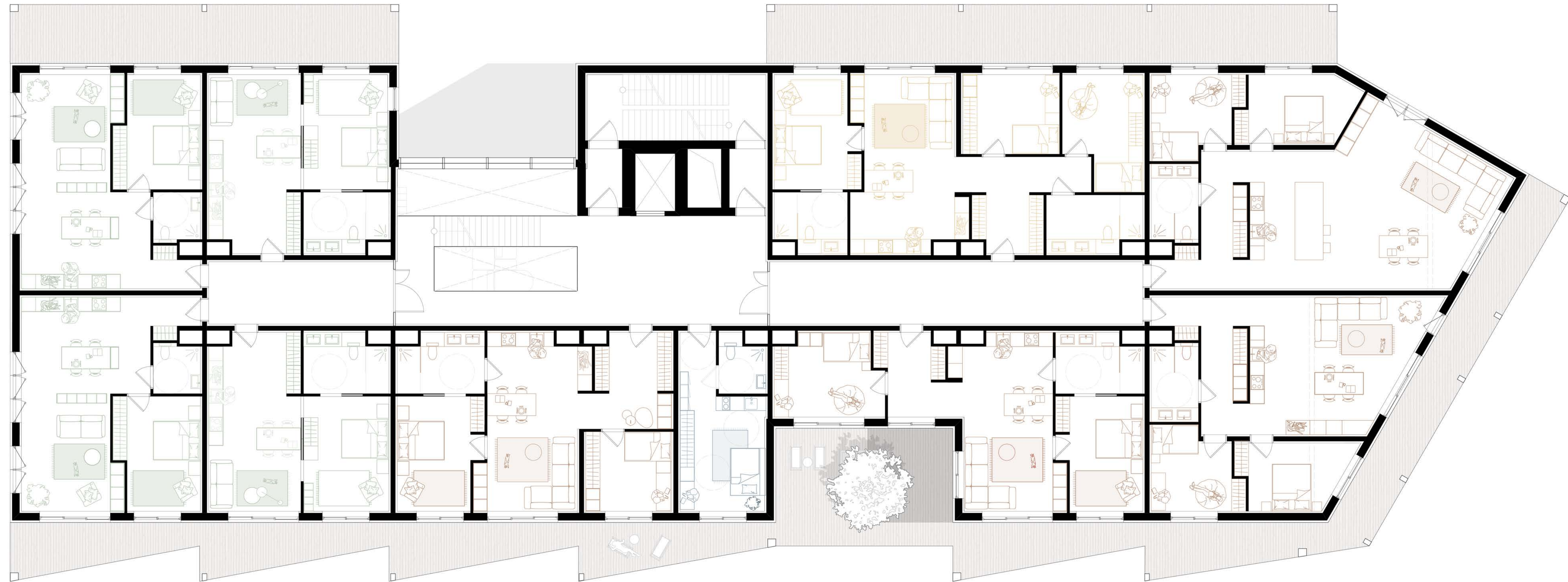
Family with two children
118 m²

Their children go to the kids day-care downstairs every day! They love the variety of play spaces.



Family with one child
69 m²

They value the shared areas in the building. They use the workshop to build their own furniture!



Young couple
69 m²

They moved in because they were looking for an affordable first apartment. They really enjoy working in the co-working cafe downstairs.



Elderly woman
64 m²

She was actively looking for a community housing project because she used to have a flat in a big housing block where she did not know her neighbours. The communal aspect of this project convinced her to move in because she really wants to have more social contact. When she goes out of her flat she often bumps into her neighbours!



Elderly couple
96 m²

Their children moved out of their family home and decided to move to the city. The couple decided to move to a smaller apartment in the city to spend more time with their grandchildren.



Art student
32 m²

He was looking for an affordable student location close to the university. He chose to live here because of the communal spaces outside of the flat which feel like an extension of his home.



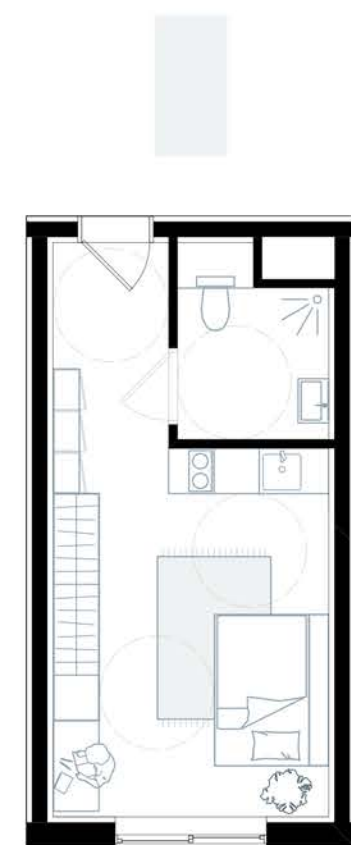
Young family
87 m²

They love to spend time in nature and could not say no to an apartment located right next to a park. They also love to spend time on the big terrace of their apartment.



Young family
90 m²

They love the feeling of being a close-knit community! They spend a lot of time in the communal kitchen where they cook meals together with their neighbours.



Module 1
32 m²



Module 2
64 m²



Module 3
96 m²



Module 4
118 m²















