A HOUSE IS NOT A HOME

Exploring the role of the architect in creating a sense of home in new living environments.

DESIGN

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Advanced housing

DESIGN A HOME

Advanced housing - Msc 2024-2025
Faculty of Architecture and
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4821599

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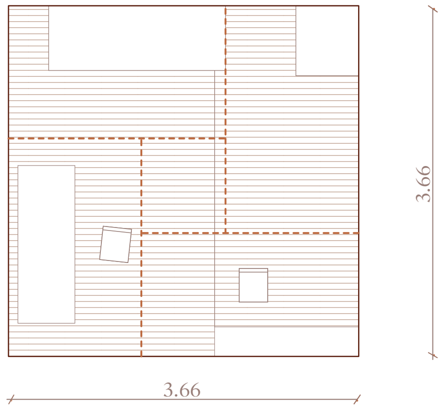
CONCEPT 01

1.1 BUILDING SYSTEM

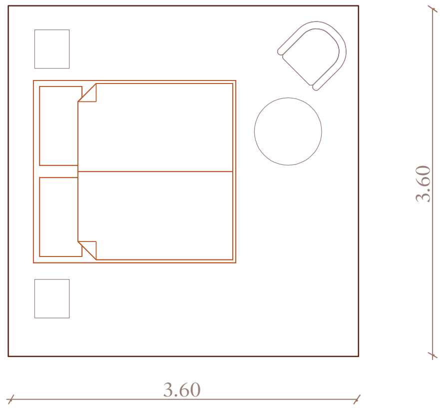
How can we create a home that is quick to build, relatively affordable, adaptable to individual preferences, and future-proof?

To meet this challenge, I started with the 3.6-metre unit as a standard size and developed a system around this measurement. This approach allows the structure to accommodate different dwelling types, providing a versatile solution to meet the needs of different individuals and families.

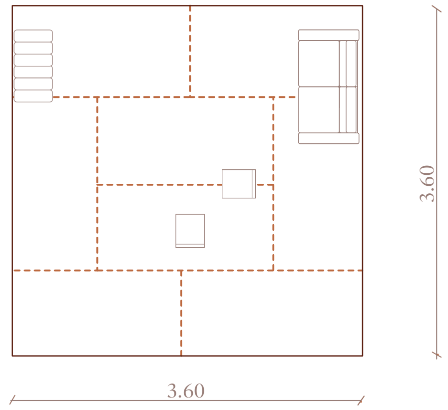
1. MAKE YOUR HOME YOUR OWN
2. SENSE OF BELONGING AND COMMUNITY



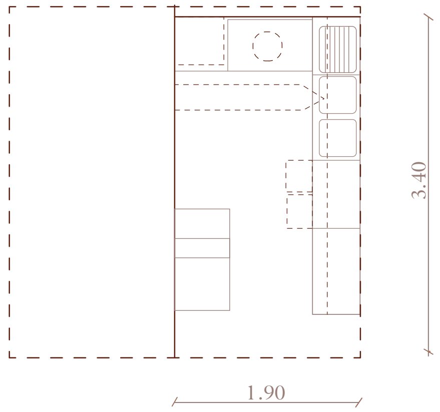
Cabanon le Corbusier



Neufert

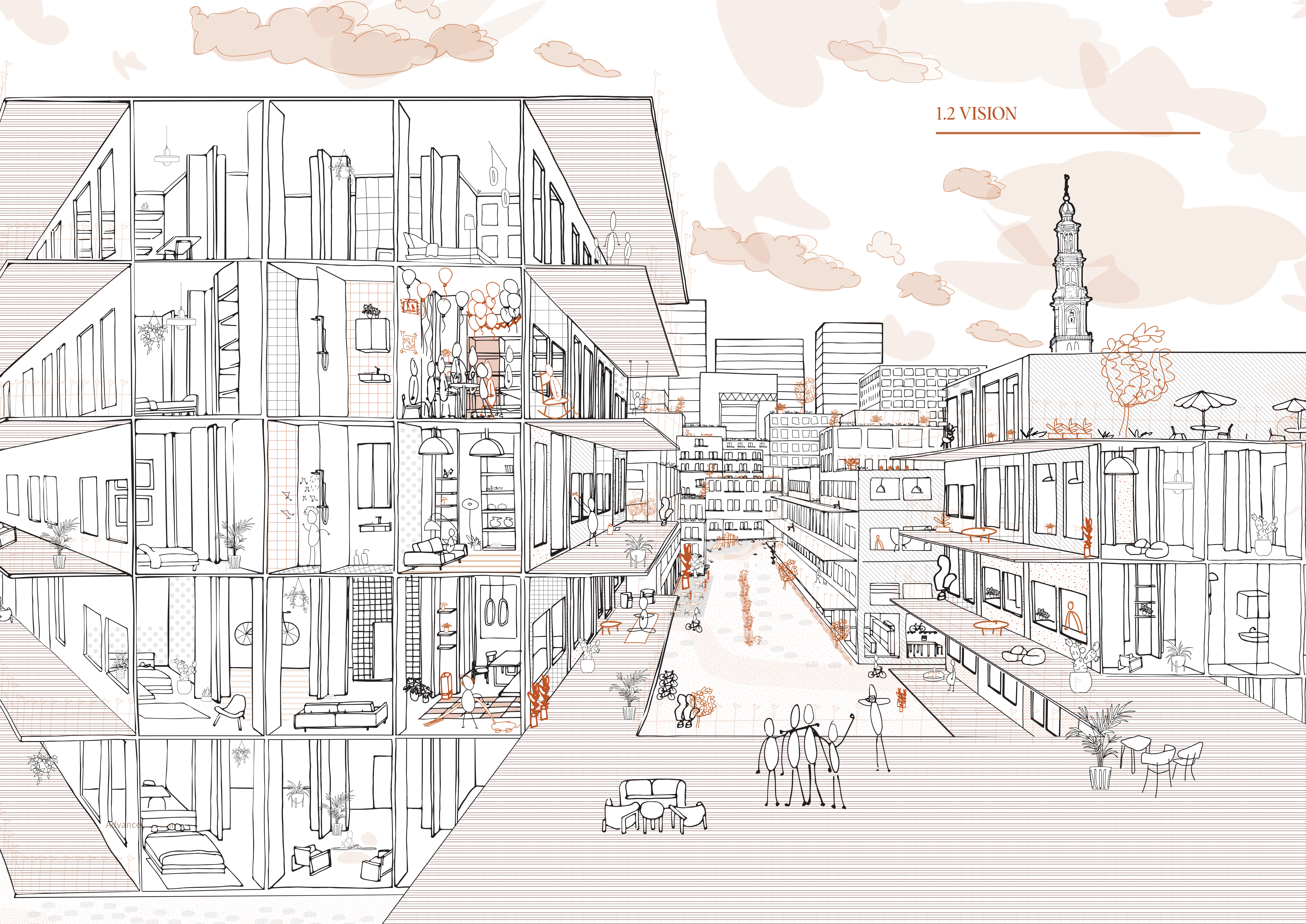


6 Tatami mats

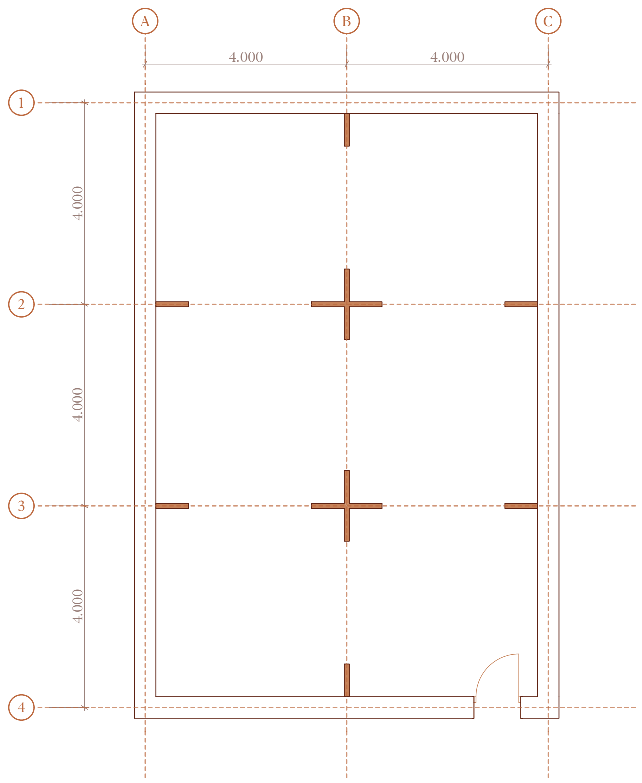


Frankfurter Küche

1.2 VISION

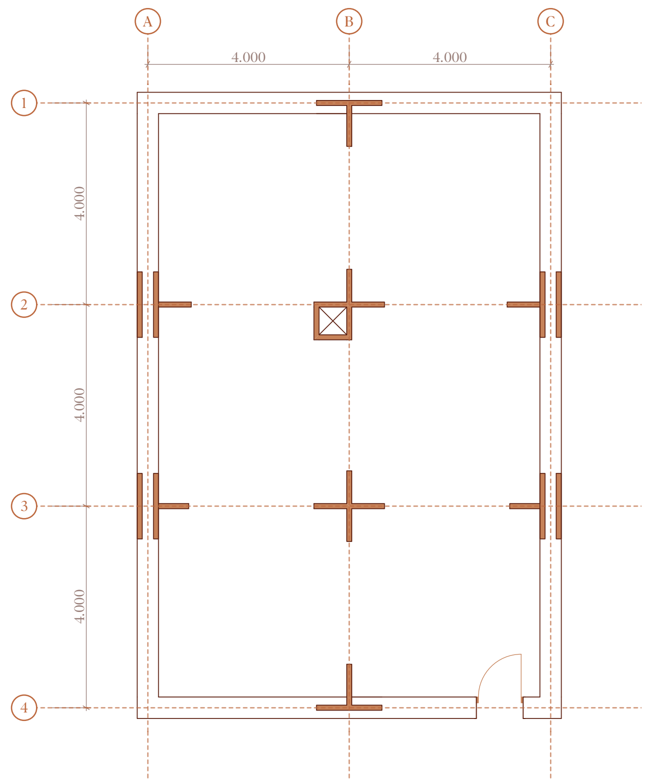


WHAT STEPS ARE TAKEN TO HELP?



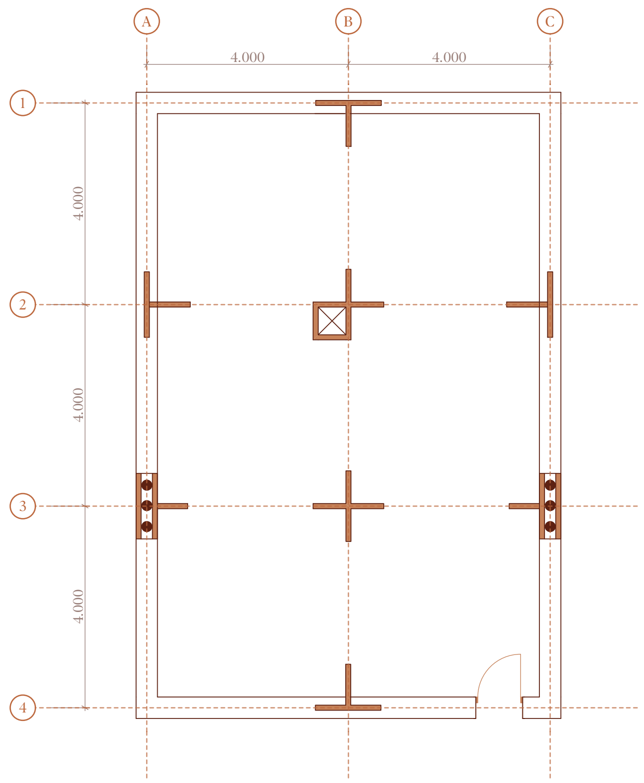
Maximizing dwelling configurations

SERVICES



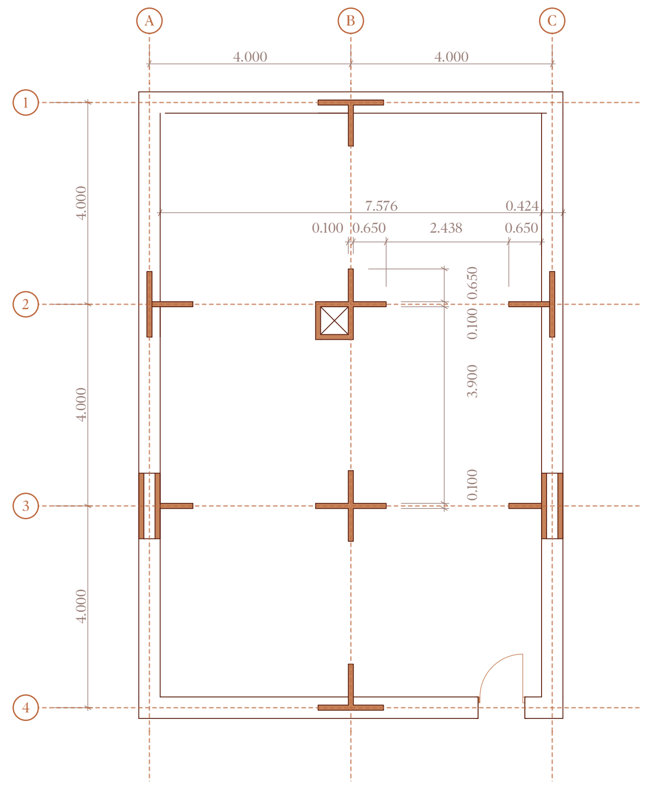
Shaft placement

SERVICES



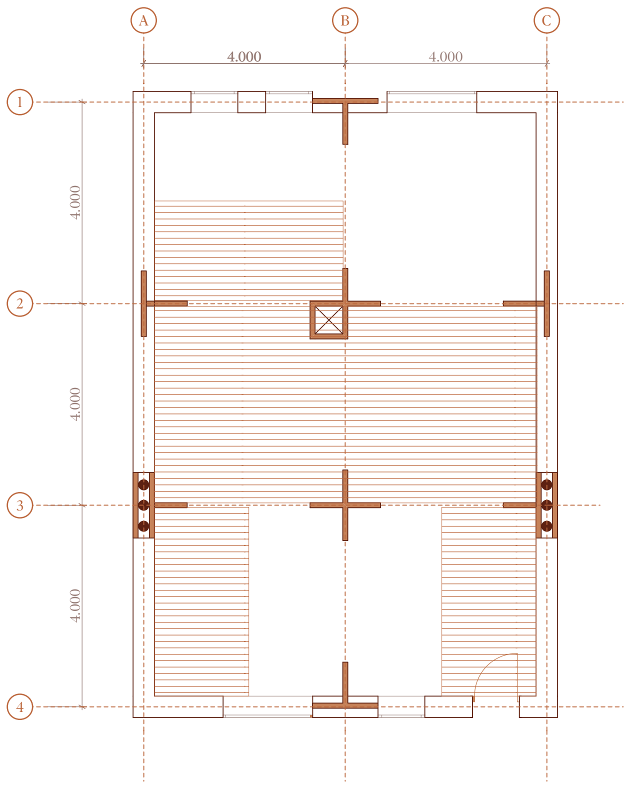
Shaft placement

IKEA



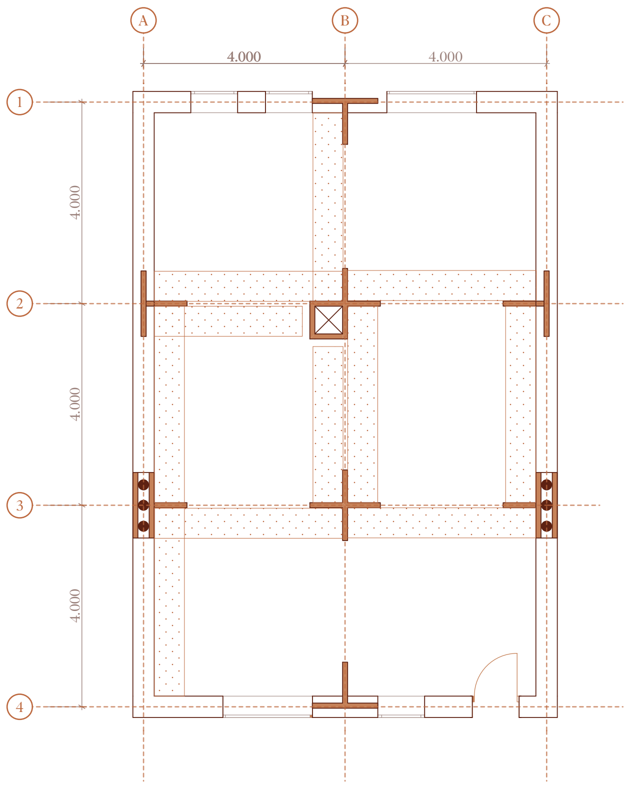
Showing identity

MAXIMIZING OPTIONS



Bathrooms

MAXIMIZING OPTIONS

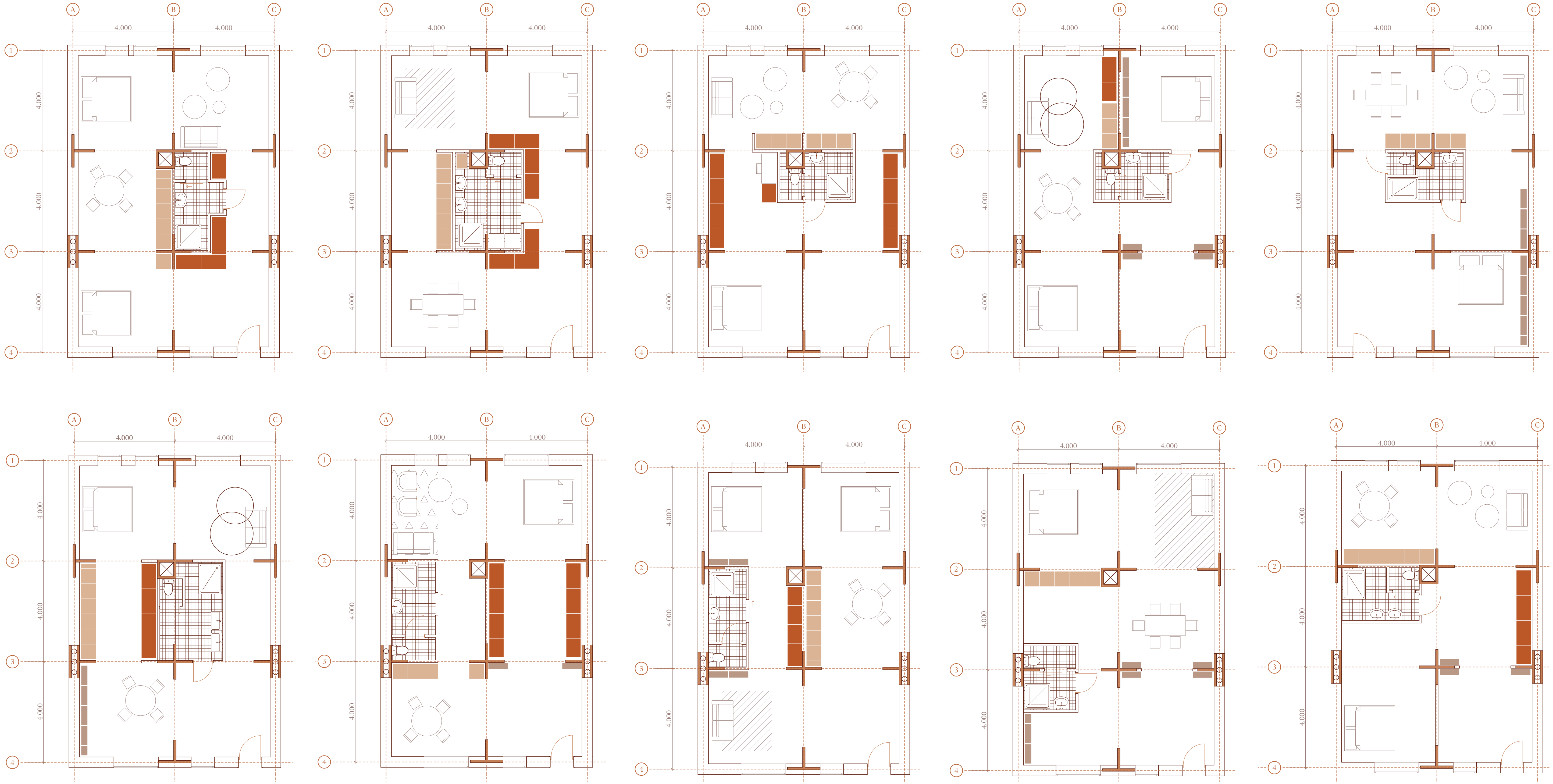


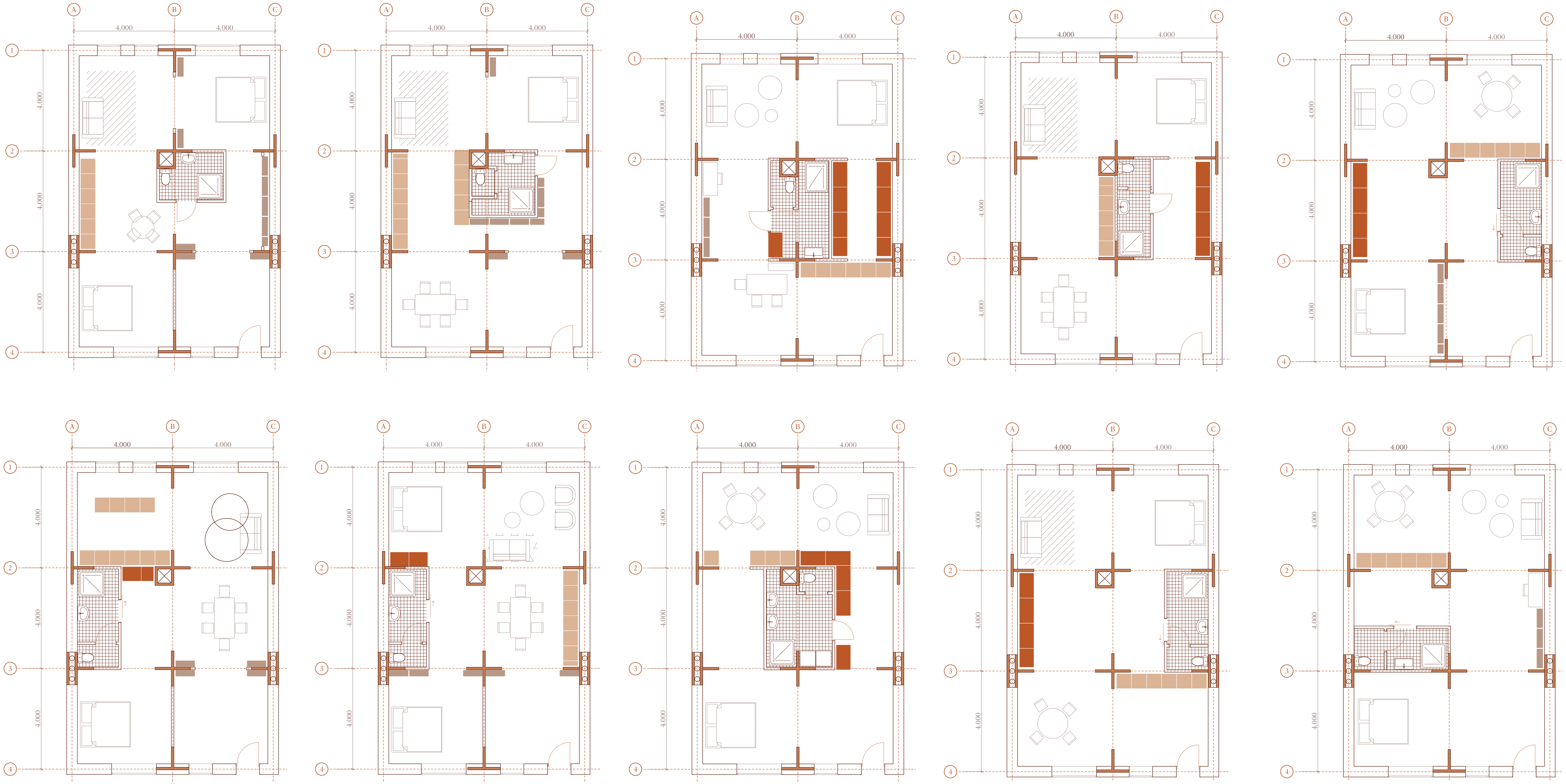
Kitchens

1.2 BUILDING STEPS

The essence of my design philosophy is to start with the individual dwelling and build outwards to the urban scale. This resident-centred perspective redefines the design process, moving from an outside-in approach to an inside-out approach, ensuring that the creation of a home environment begins with the people who live in it.

Experimenting with different floor plans revealed a recurring theme: the core can be either a closed element to navigate around or an open element to pass through. To accommodate different preferences, a system has been designed that can support both configurations and give occupants the freedom to choose. The shafts are key to making this system work.


A
B
C
1
2
3
4
4.000


A
B
C
4.000
1
2
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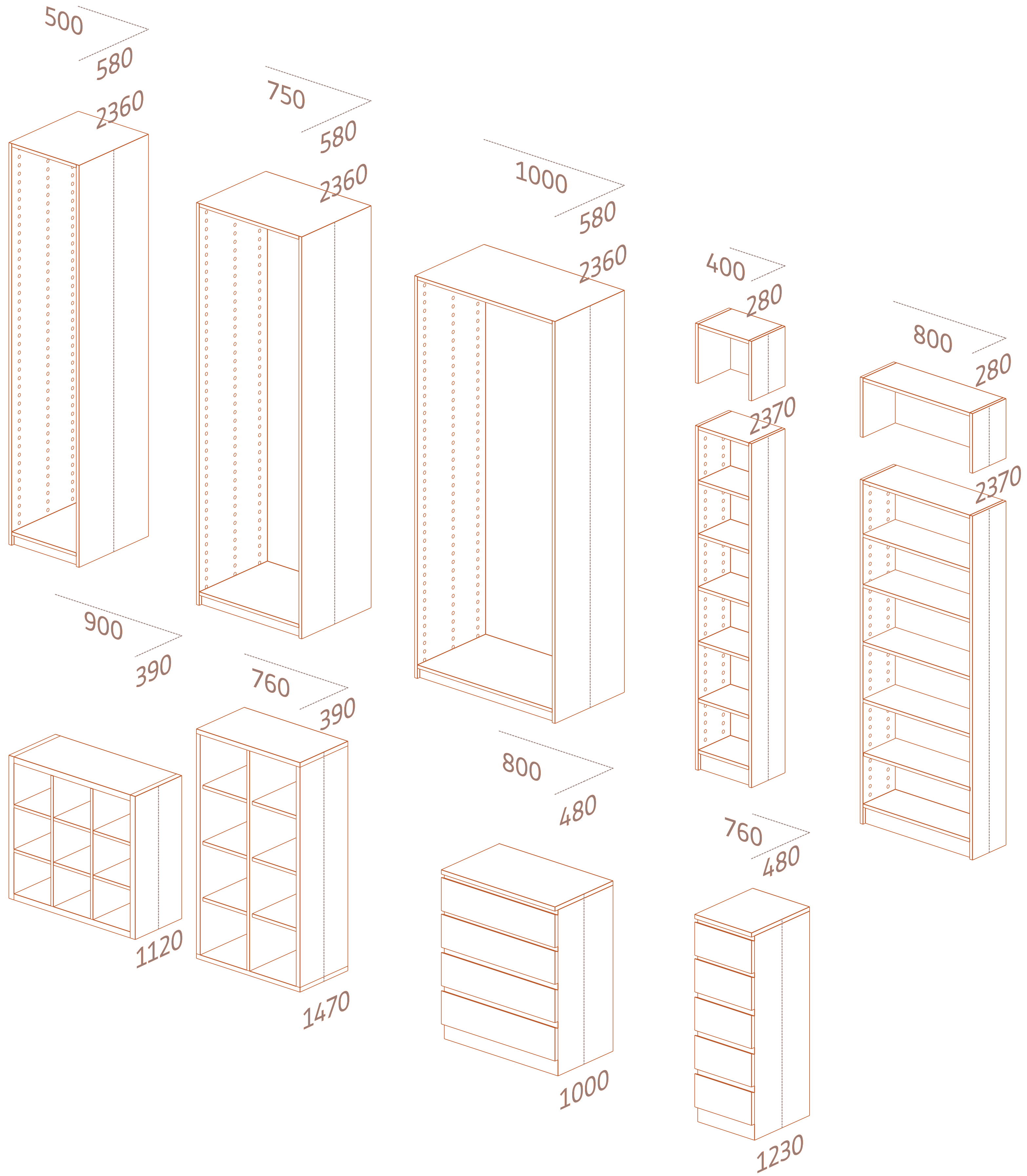
1.4 IKEA INCORPORATION

MEASUREMENTS



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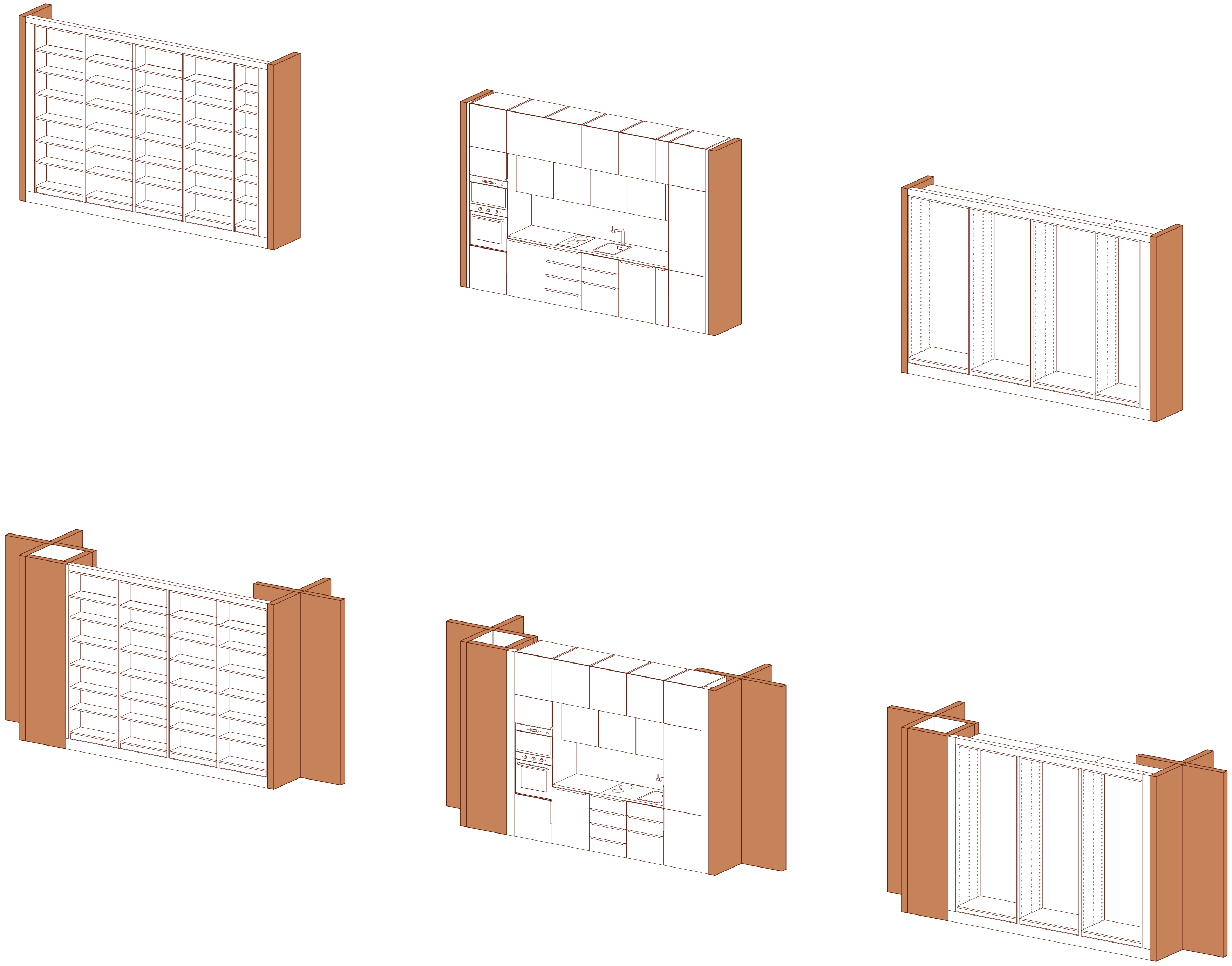
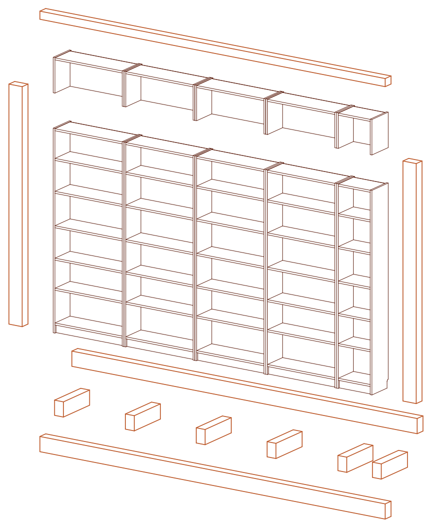
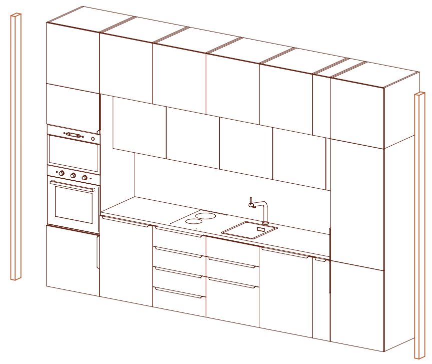
A NICE HUMAN

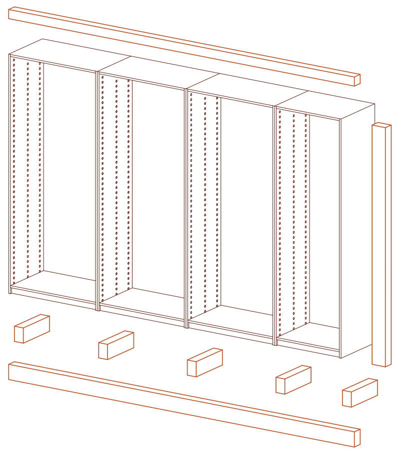
BUILT-IN

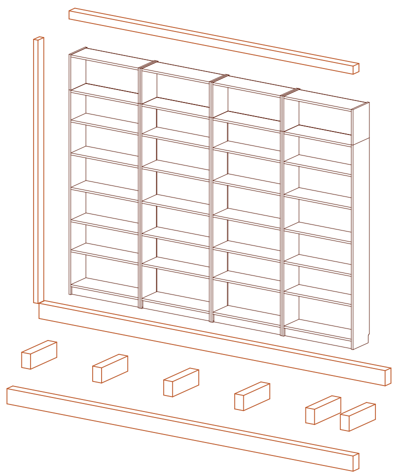


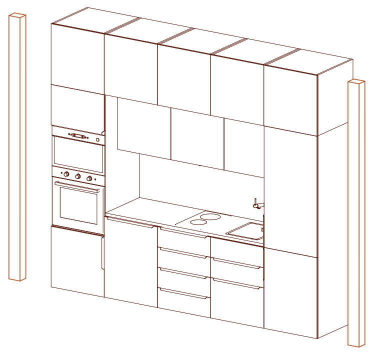
BUILT-IN

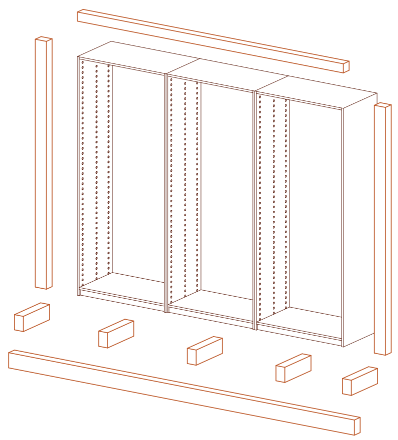












LOCATION 02

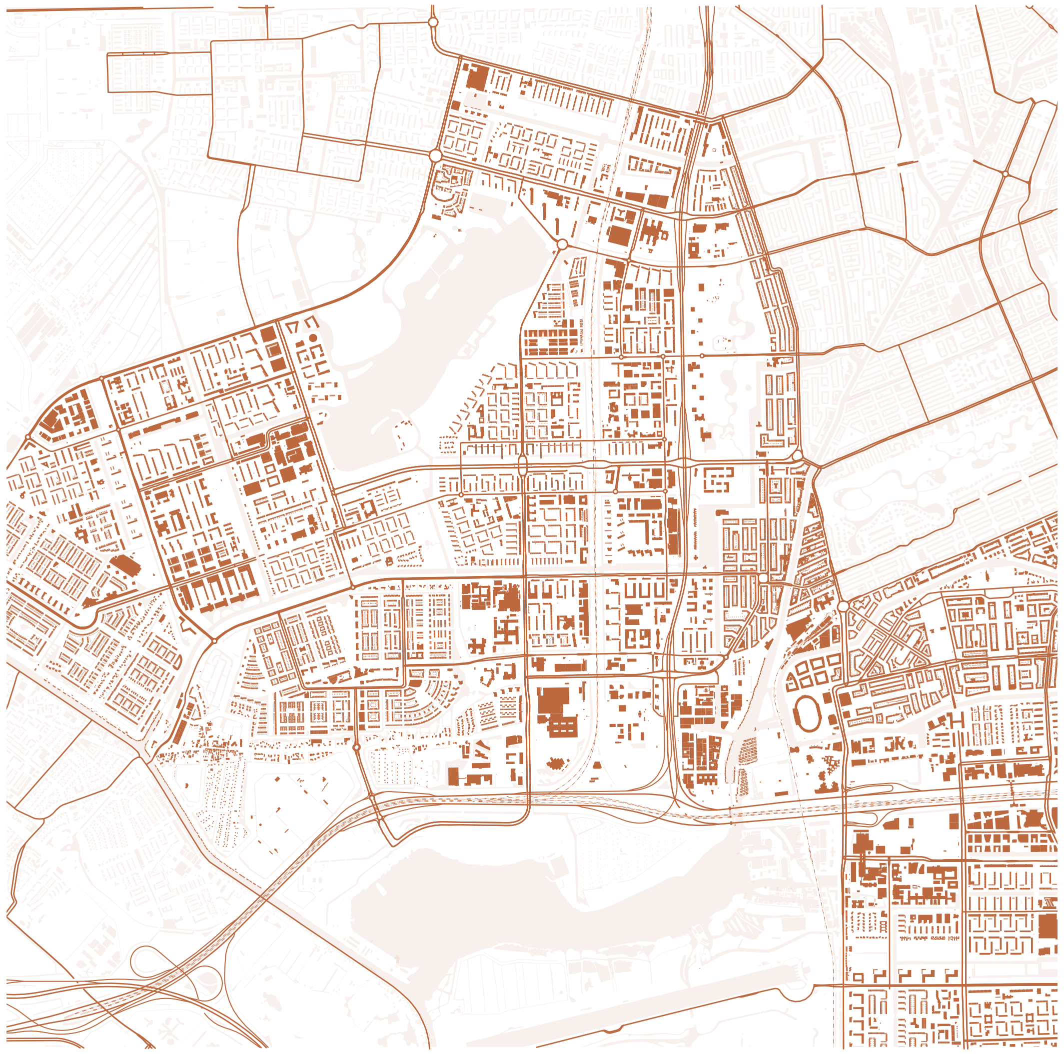
"You are a little bit **entwined with the social life here, with the city** *and then you find that that does define it a lot..."*

2.1 AMSTERDAM

This project focuses on a development site in Amsterdam, specifically in the southwest area, which I chose as the location for my design within the studio assignment. From this area, I chose a building in Het Schinkelkwartier, a district that is currently transforming. The municipality of Amsterdam has already drawn up a master plan for the area, which emphasises semi-open blocks and strong connections with the surrounding neighbourhoods, taking advantage of its strategic location between Zuid and Schiphol Airport. In addition to these goals, I believe the area should also be seamlessly connected to the nearby green spaces and feature prominent vertical accents to enhance orientation within the neighbourhood. Underground parking is planned for buildings at the edge of the neighbourhood, complemented by an extensive network of cycle routes. These routes inspired the design of my building and ensured that residents could park their bikes conveniently and safely close to their homes. Finally, public spaces are integrated along the main street and central square, creating a vibrant and accessible environment.

LOCATION

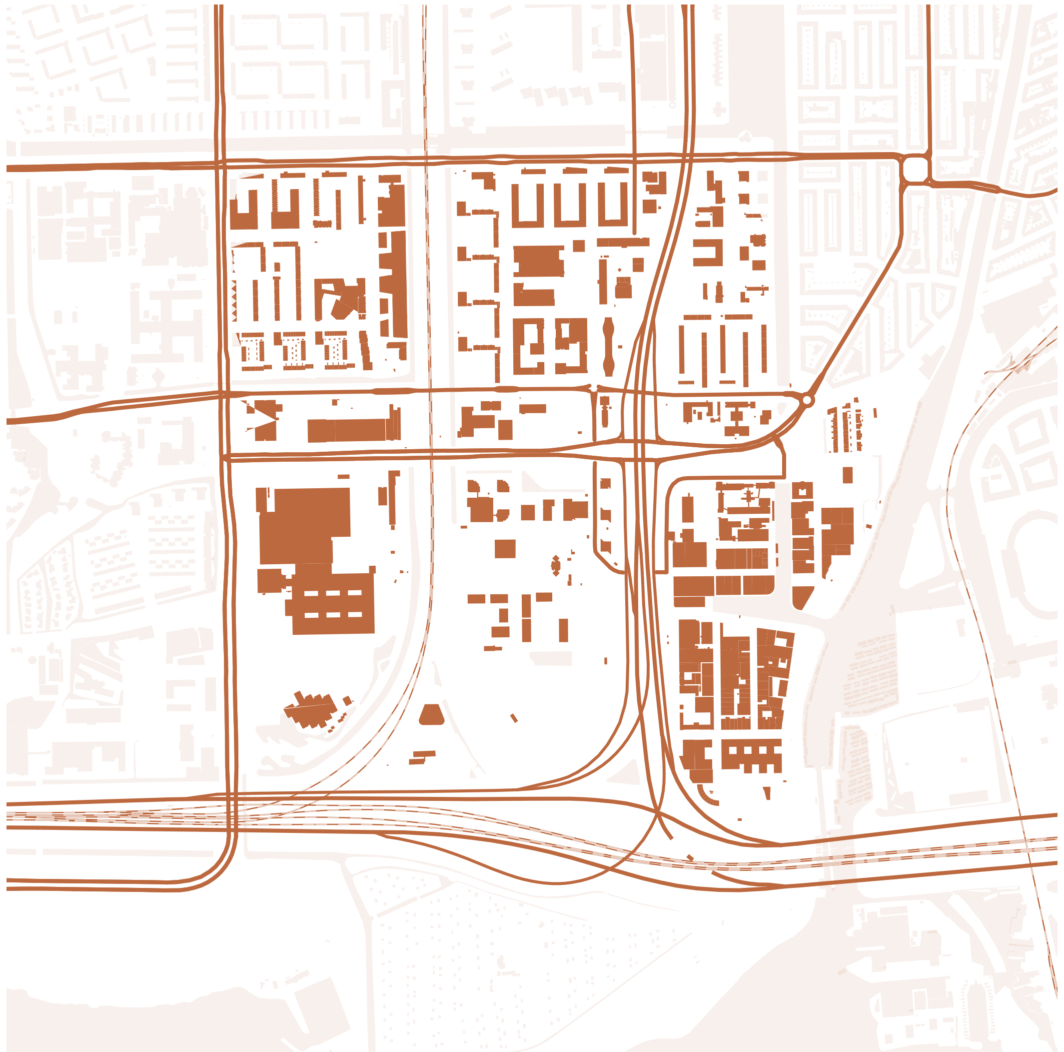
AMSTERDAM SOUTH WEST



500

SCHINKEL

CURRENT STATE



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SCHINKEL

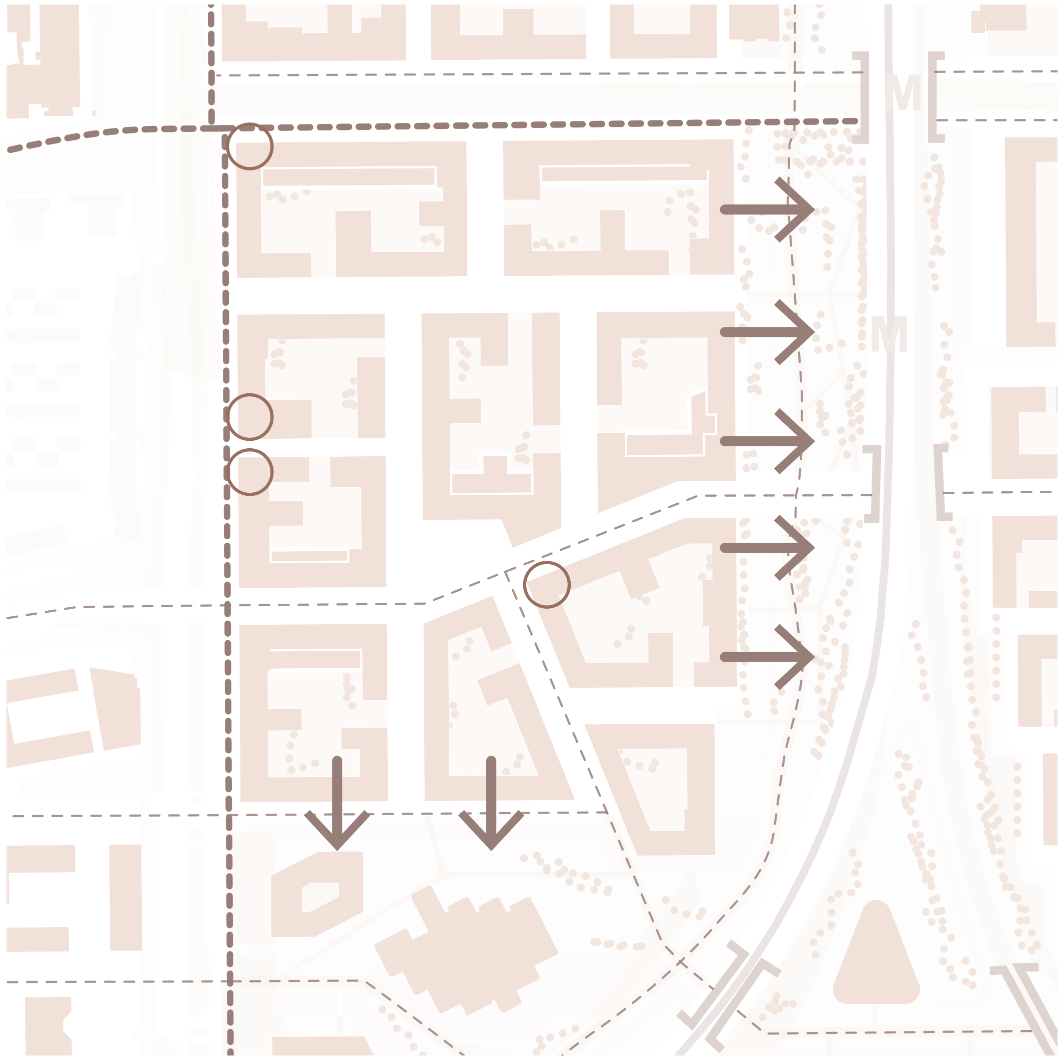
MASTERPLAN

100

100

HEIGHT ACCENTS

GREEN LINKS



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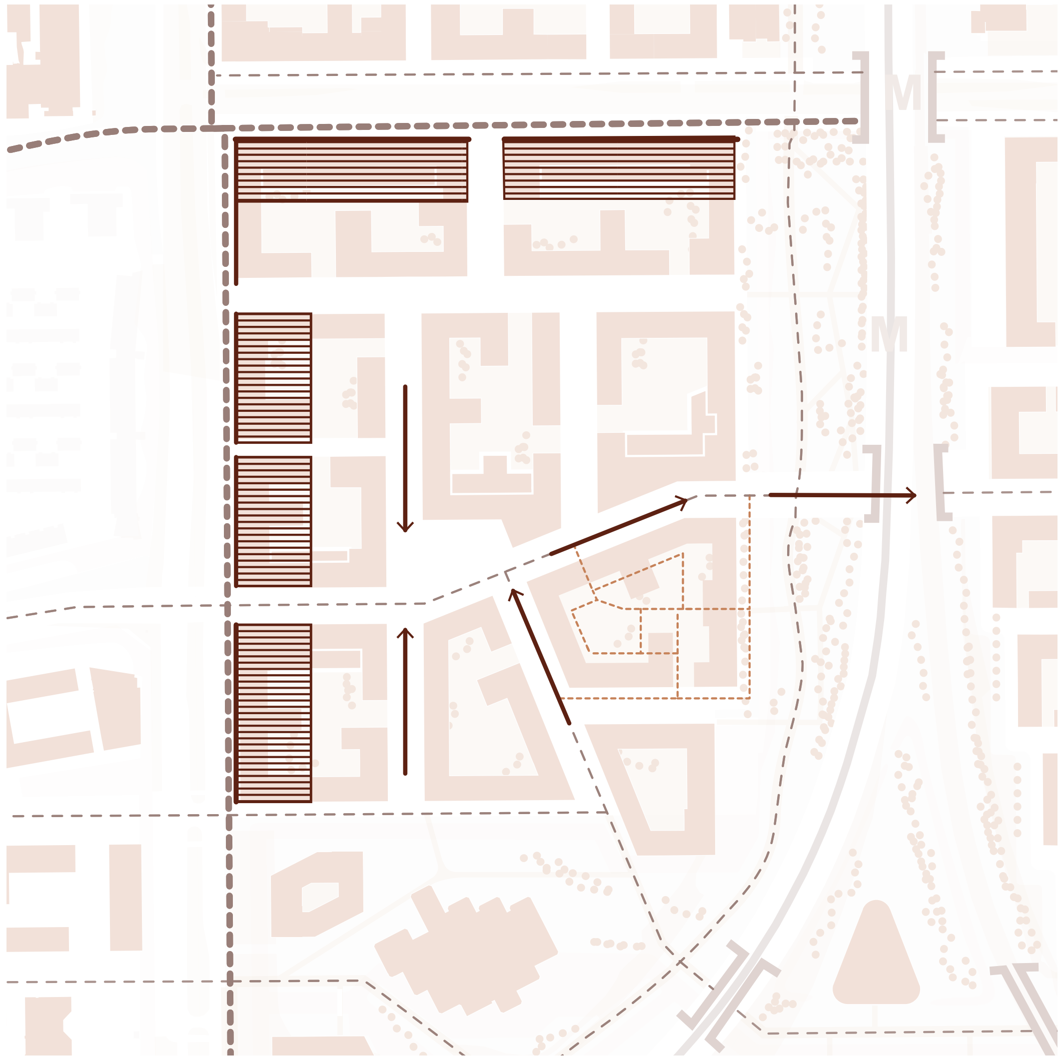
PARKING

NEIGHBOURHOOD ACCESS



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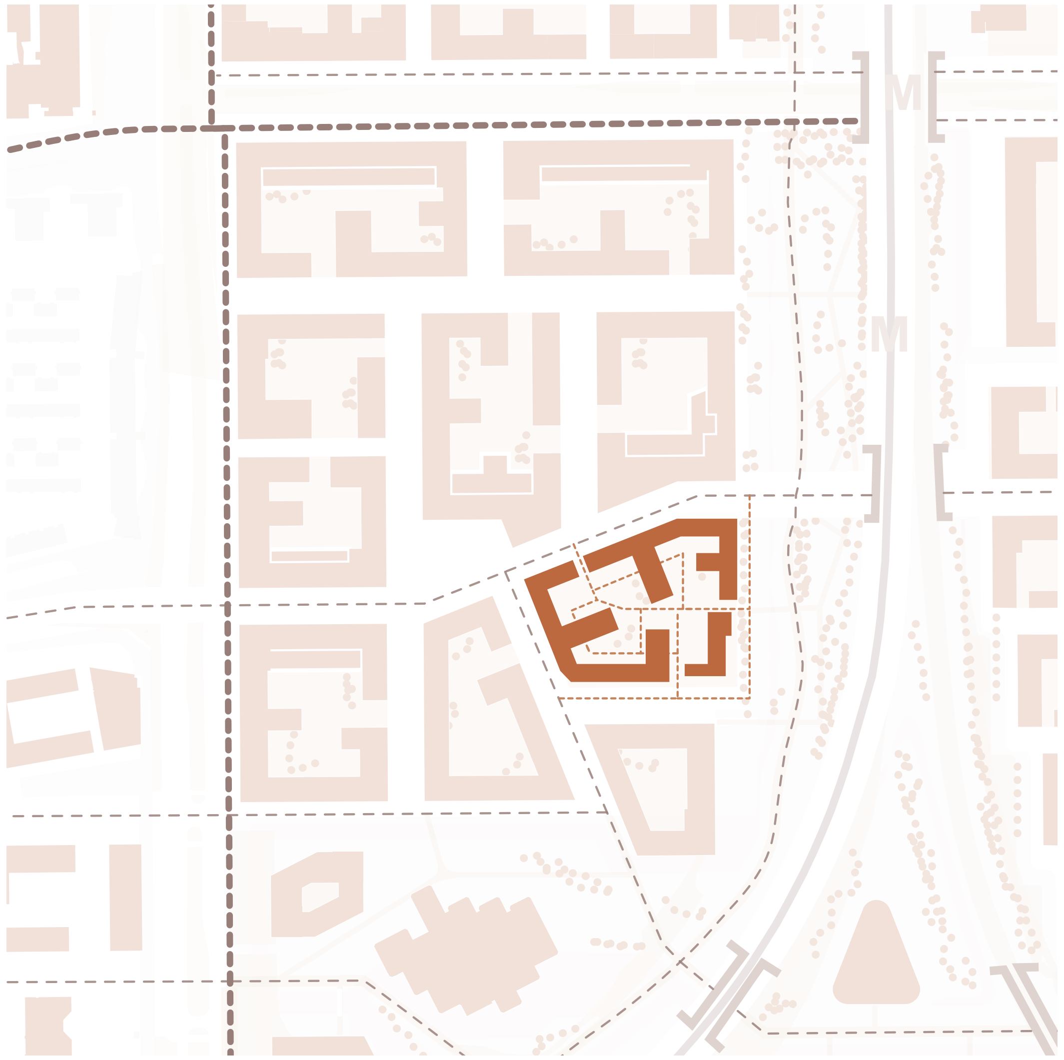
2.2 MASTERPLAN

CYCLING ROUTE

BUILDING SHAPE



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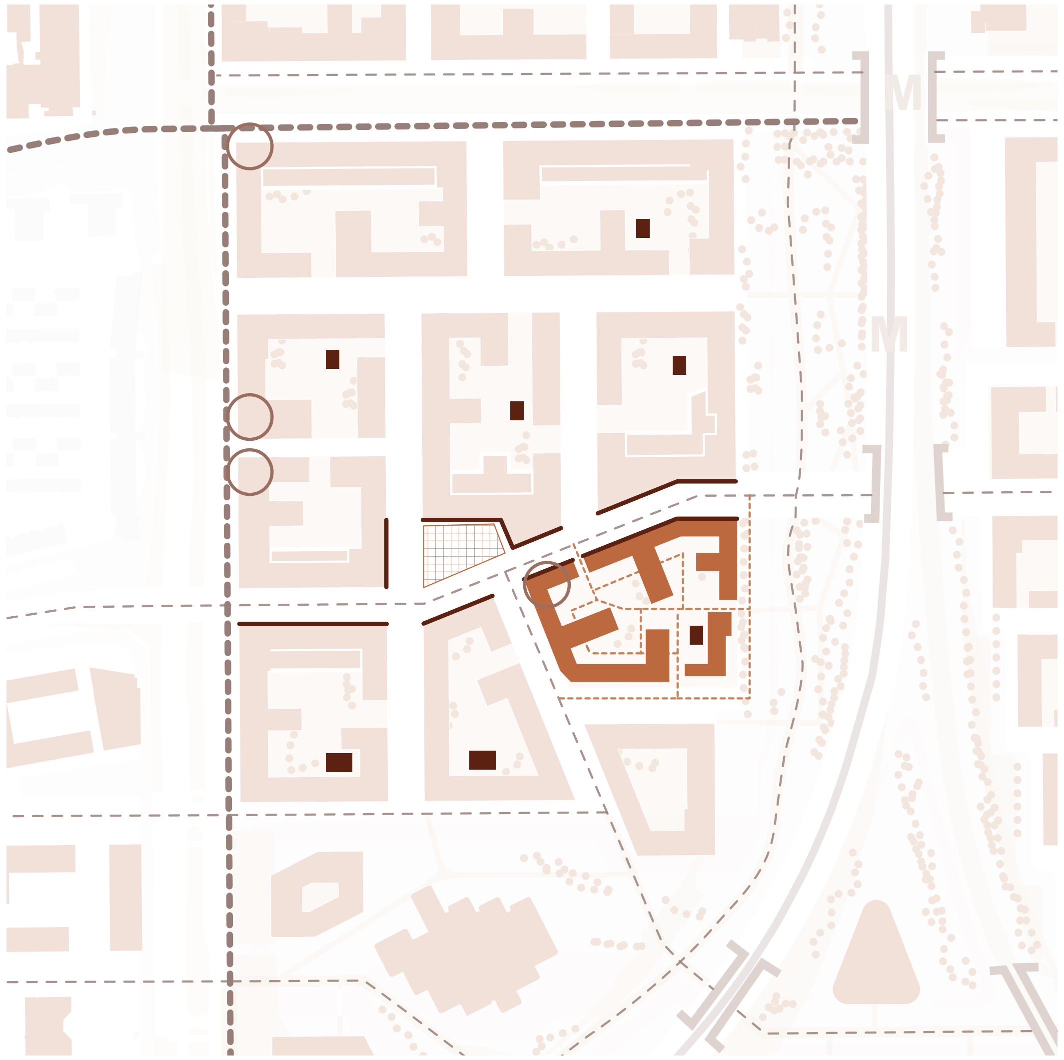
PUBLIC USE

PLAYGROUNDS



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BUILDING DESIGN 03

“.. A lot of new- build homes just sometimes **lack that ambience, the charm**..*”*

3.1 BUILDING DESIGN

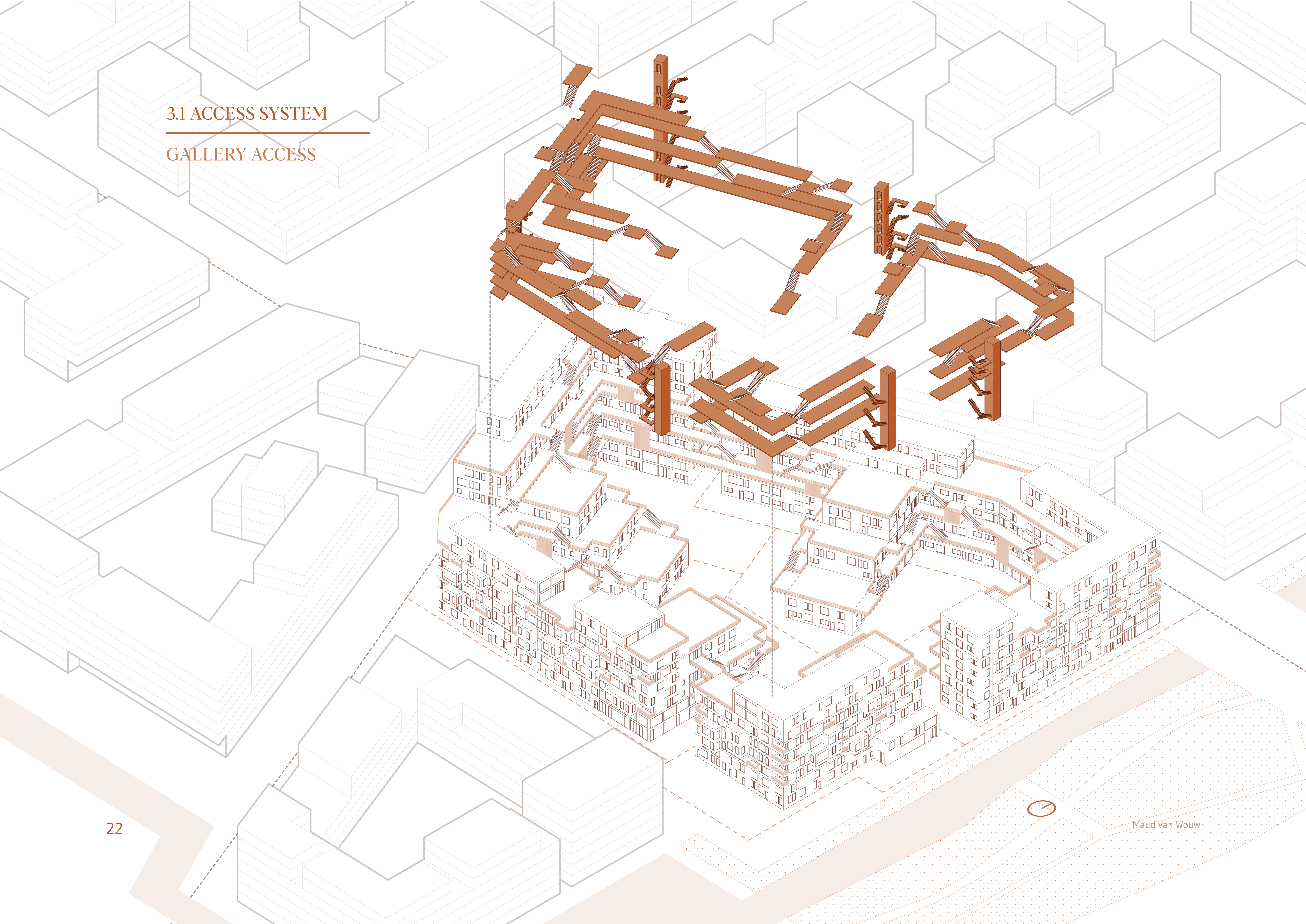
The building's core design is based on a modular 3.6 x 3.6-metre grid, allowing spaces to serve multiple functions, such as a living room or bedroom, depending on the resident's preferences. Essential infrastructure, including strategically placed shafts, ensures flexibility while maintaining structural stability. Cross-laminated timber (CLT) is the primary structural material, supporting both sustainable design and versatile layouts.

To encourage community interaction, shared amenities such as cycle parking, cafes, co-working spaces and childcare facilities are integrated into the building. In addition, rooftop spaces offer communal gardens and vegetable plots, encouraging residents to engage with each other and the environment. The building's galleries function as semi-public spaces, creating a buffer between private residences and communal areas, further enhancing the sense of home.

Aesthetic considerations also play a key role. The design features a warm palette of wood, tiles and brick in varying colours to create inviting facades. Differentiated window sizes and façade treatments distinguish private, communal and entrance areas, reinforcing a sense of identity and belonging. This integral approach ensures a comfortable, adaptable and vibrant living environment that accommodates different lifestyles and needs.

3.1 ACCESS SYSTEM

GALLERY ACCESS

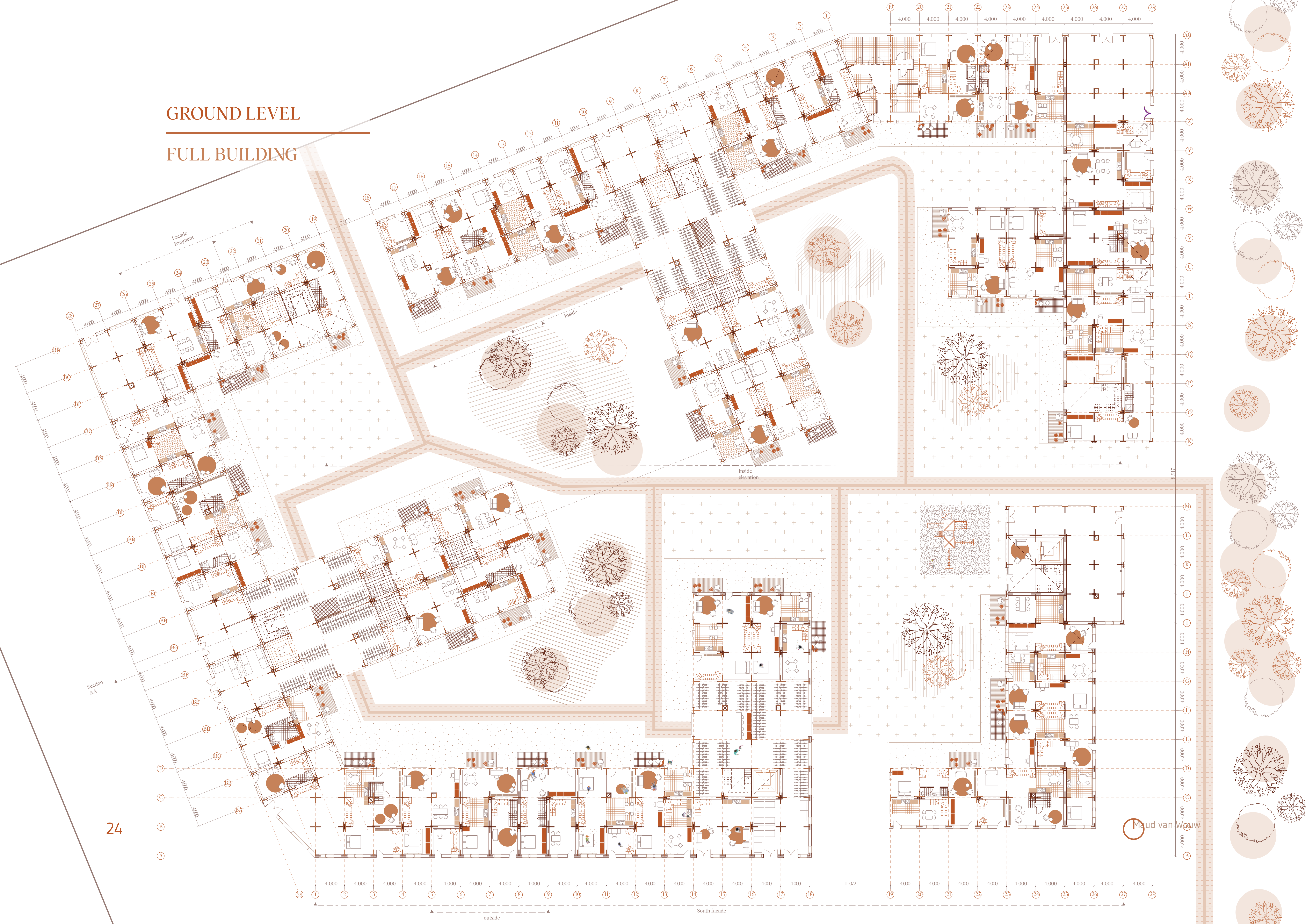


BREAKING DOWN BARRIERS

BETWEEN PRIVATE AND COMMUNAL

GROUND LEVEL

FULL BUILDING



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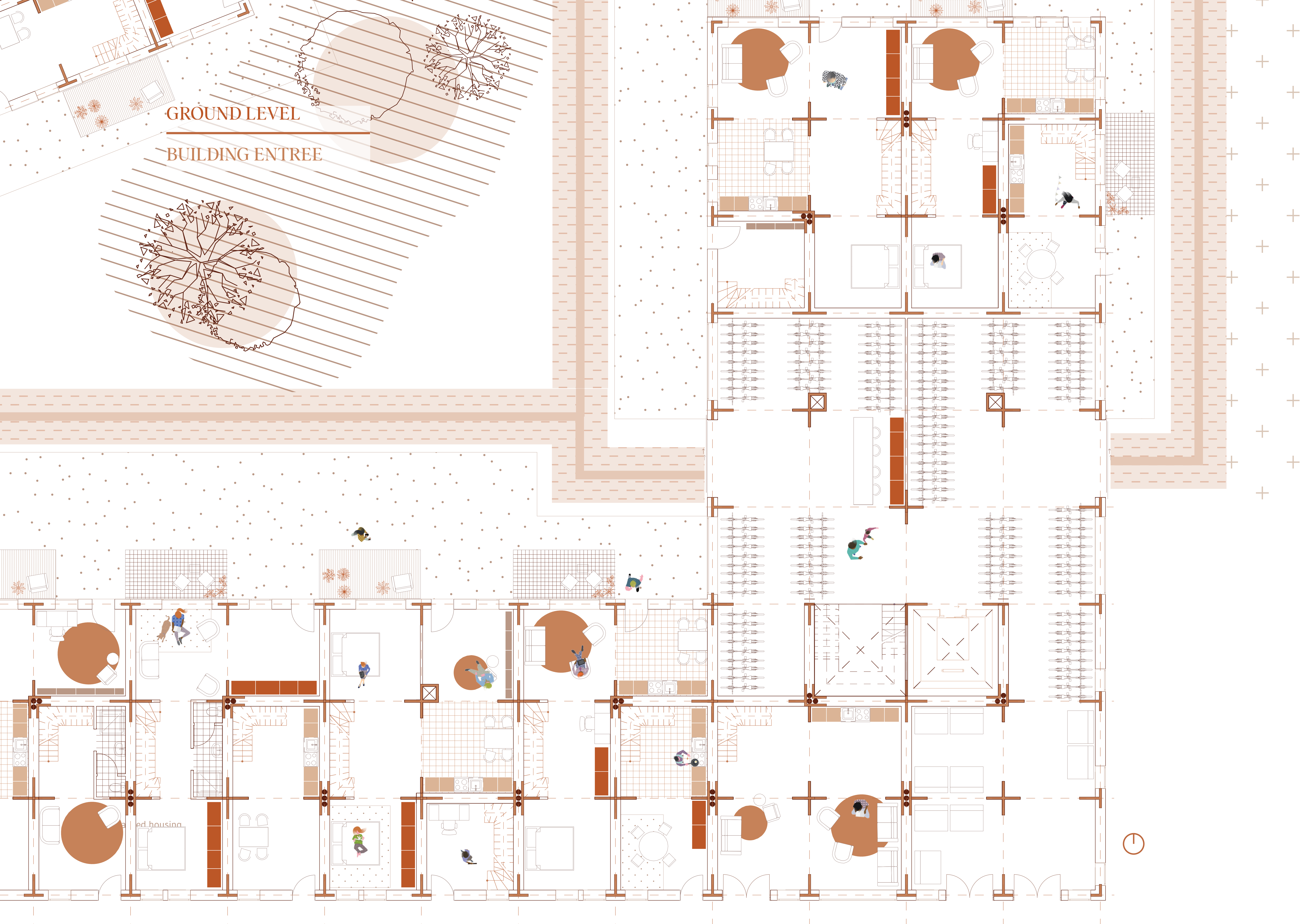
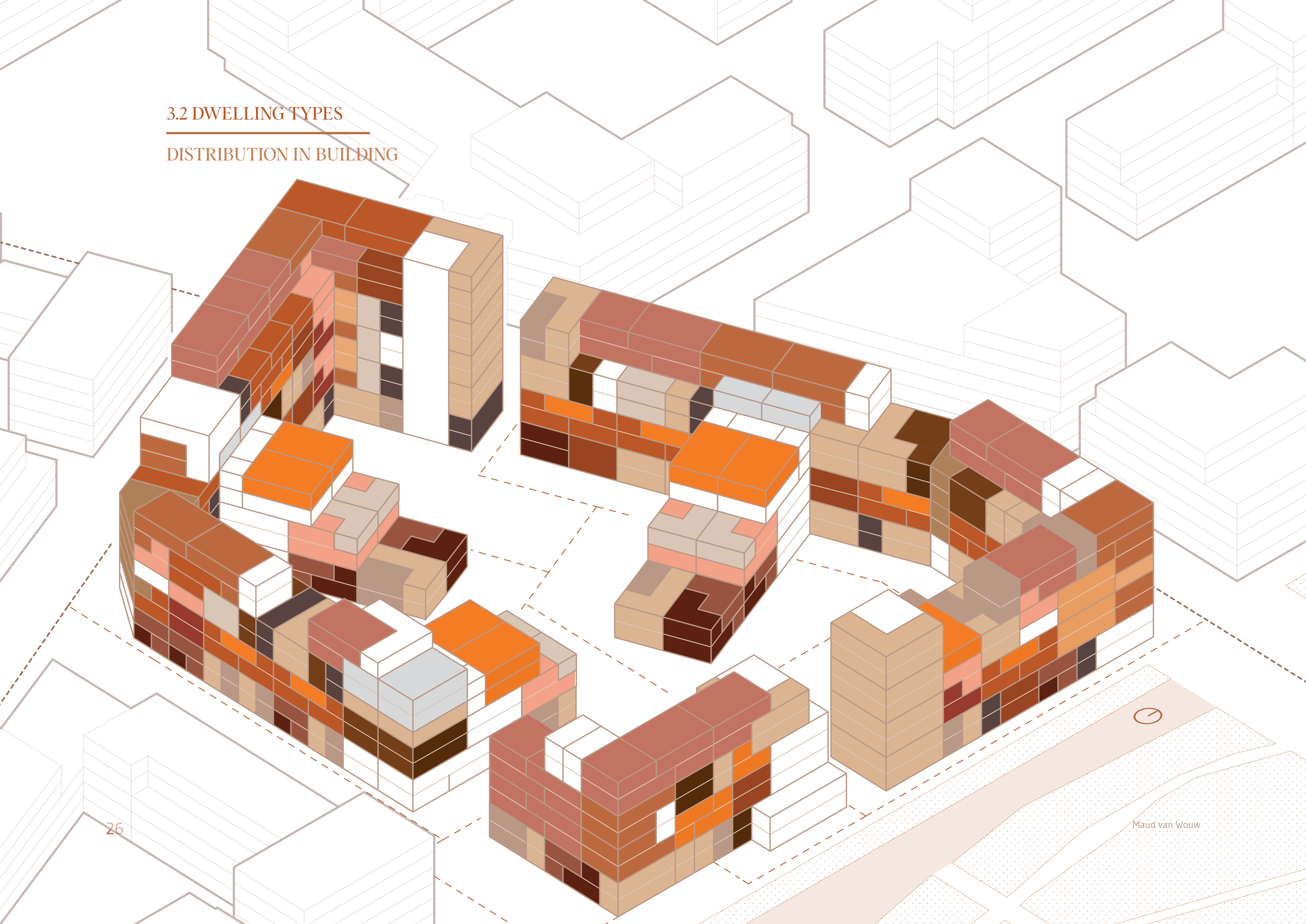

GROUND LEVEL
BUILDING ENTREE

3.2 DWELLING TYPES

DISTRIBUTION IN BUILDING

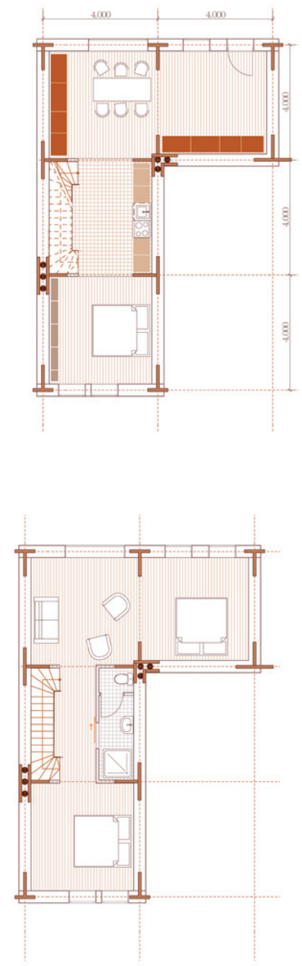


DWELLING TYPES

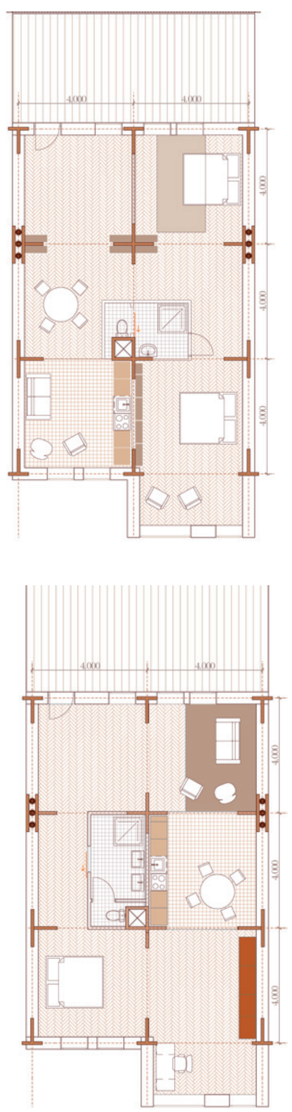
TOTAL AMOUNT OF UNITS - 275

FSI - 2.1

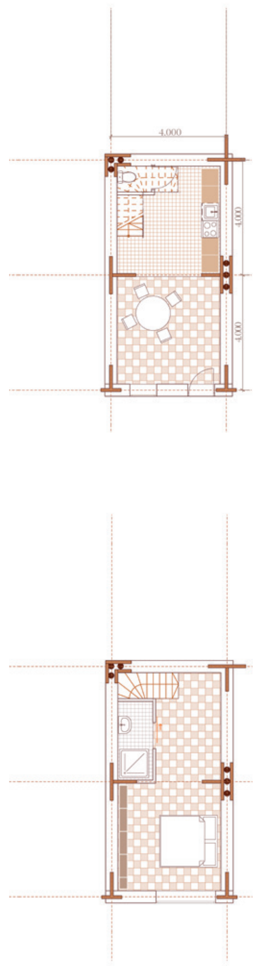
A1
Square metres - 100 m²
number of units - 32



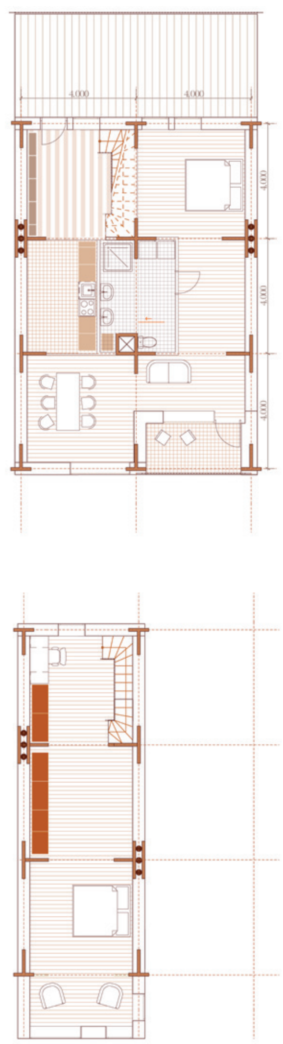
B1
Square metres - 78 m²
number of units - 28



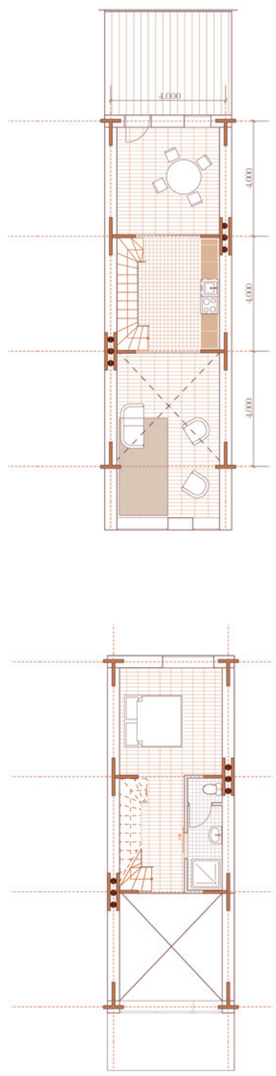
C1
Square metres - 50 m²
number of units - 24



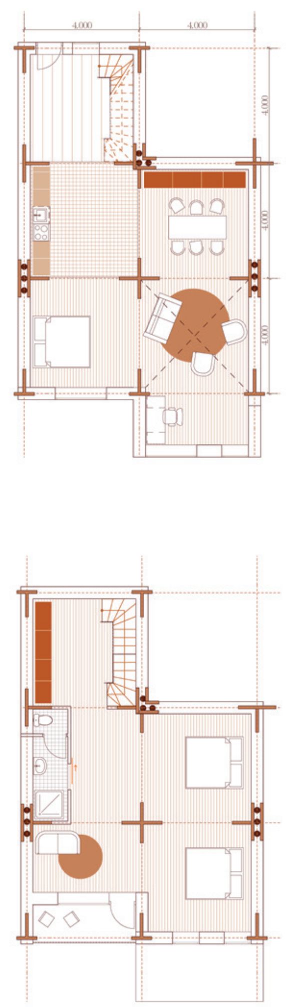
C2
Square metres - 65 m²
number of units - 16



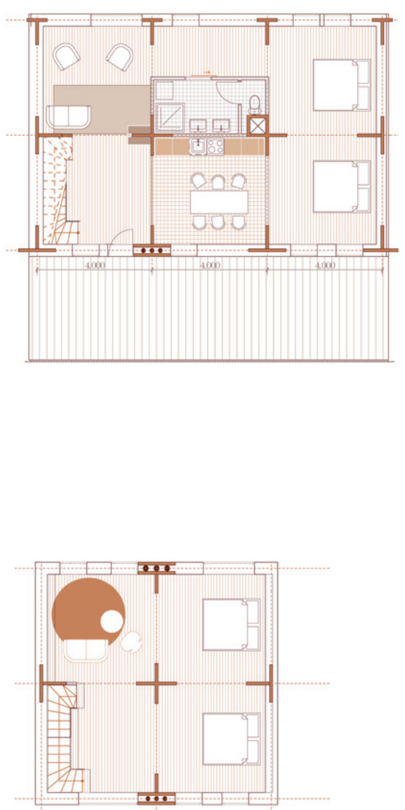
D1
Square metres - 115 m²
number of units - 24



E1
Square metres - 117 m²
number of units - 14

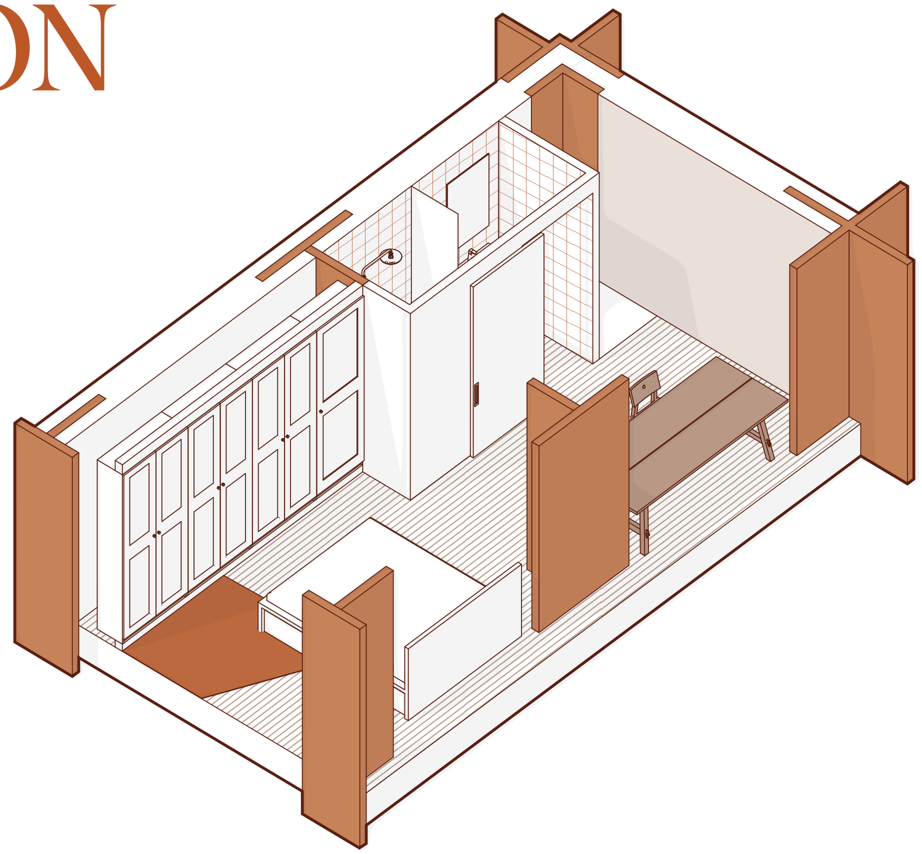


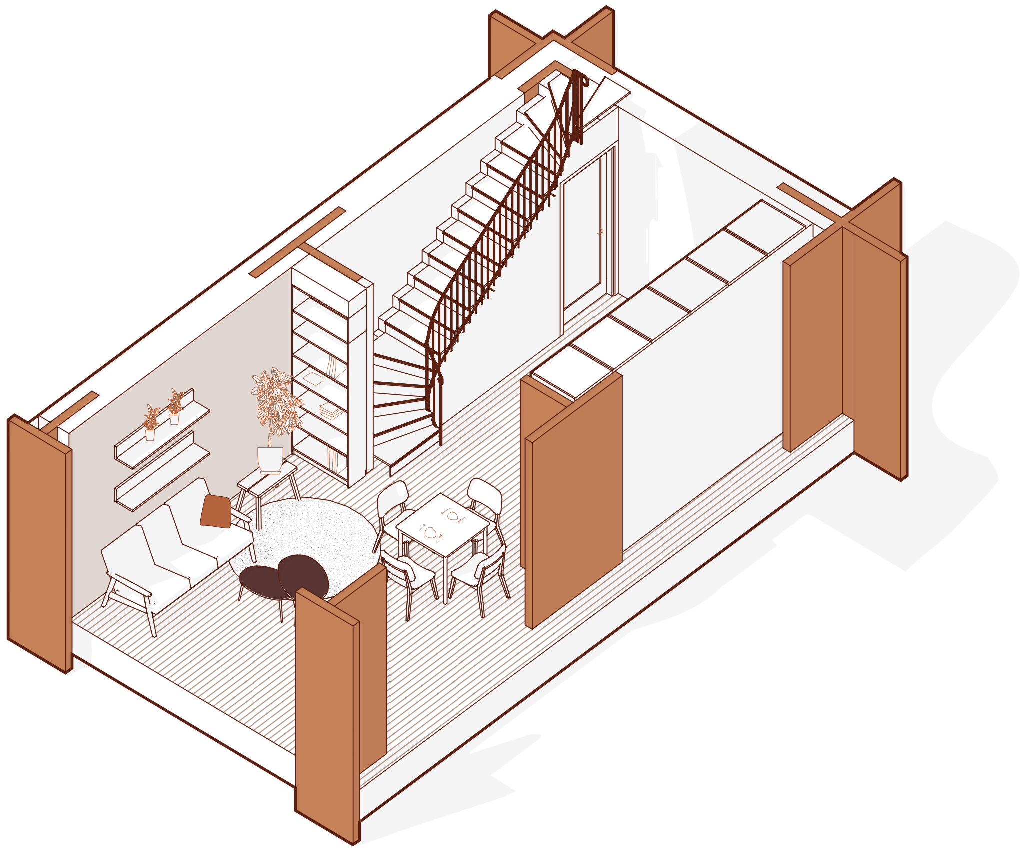
F1
Square metres - 130 m²
number of units - 17



SINGLE-PERSON HOUSEHOLD

SMALL (TYPE C - 50 M²)





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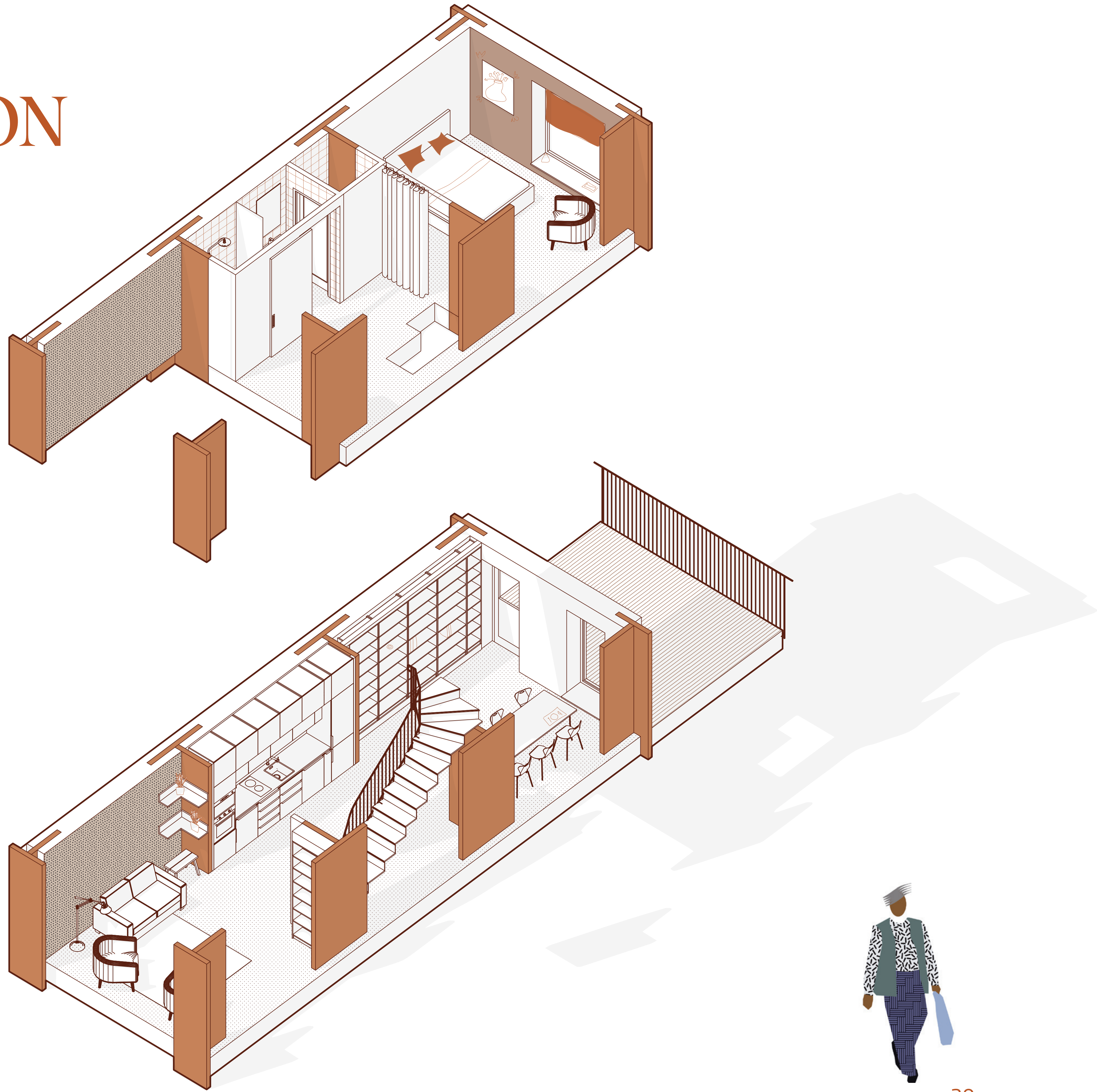
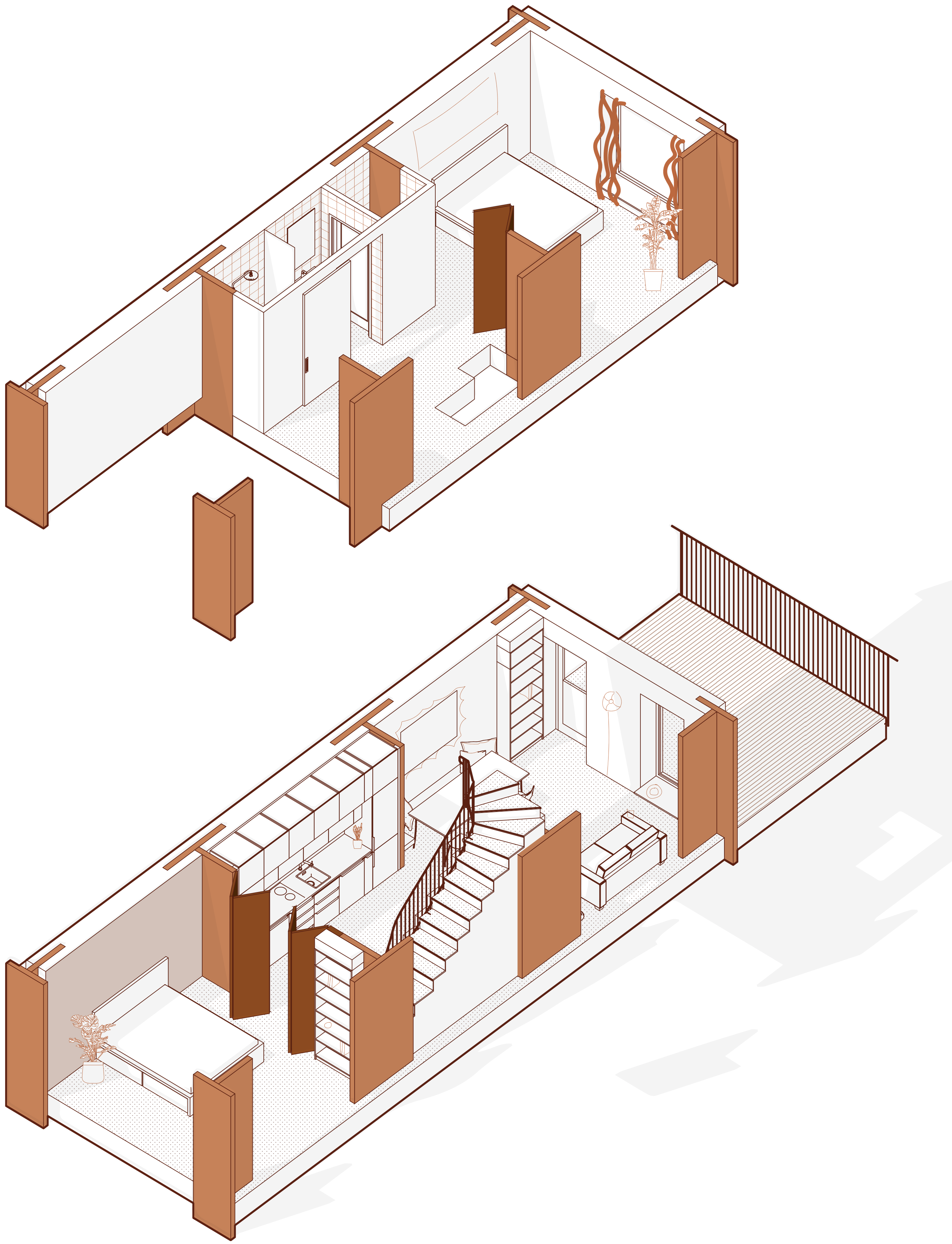
SINGLE-PERSON HOUSEHOLD

MEDIUM (TYPE D -75 M²)



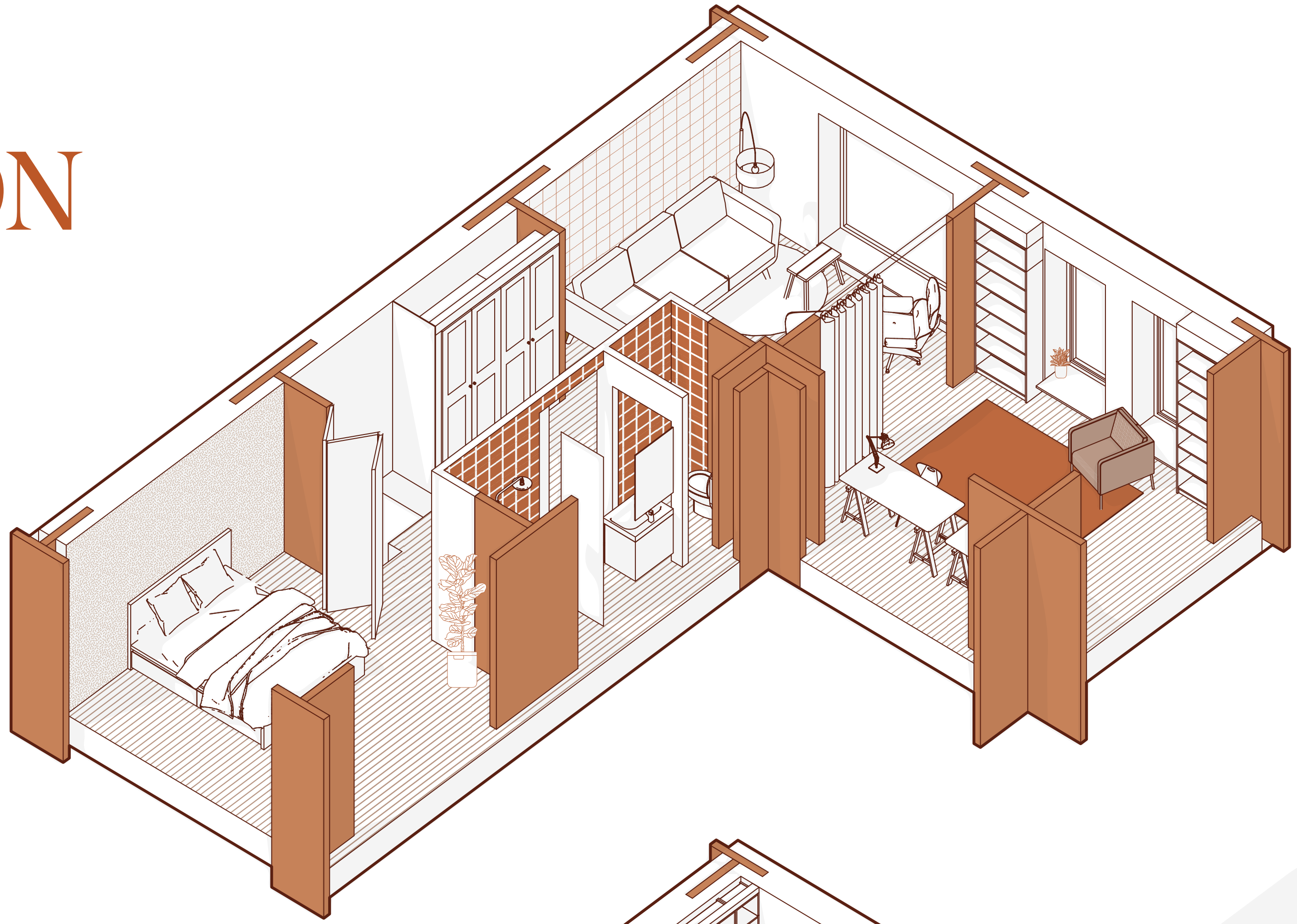
FRIENDS HOUSEHOLD

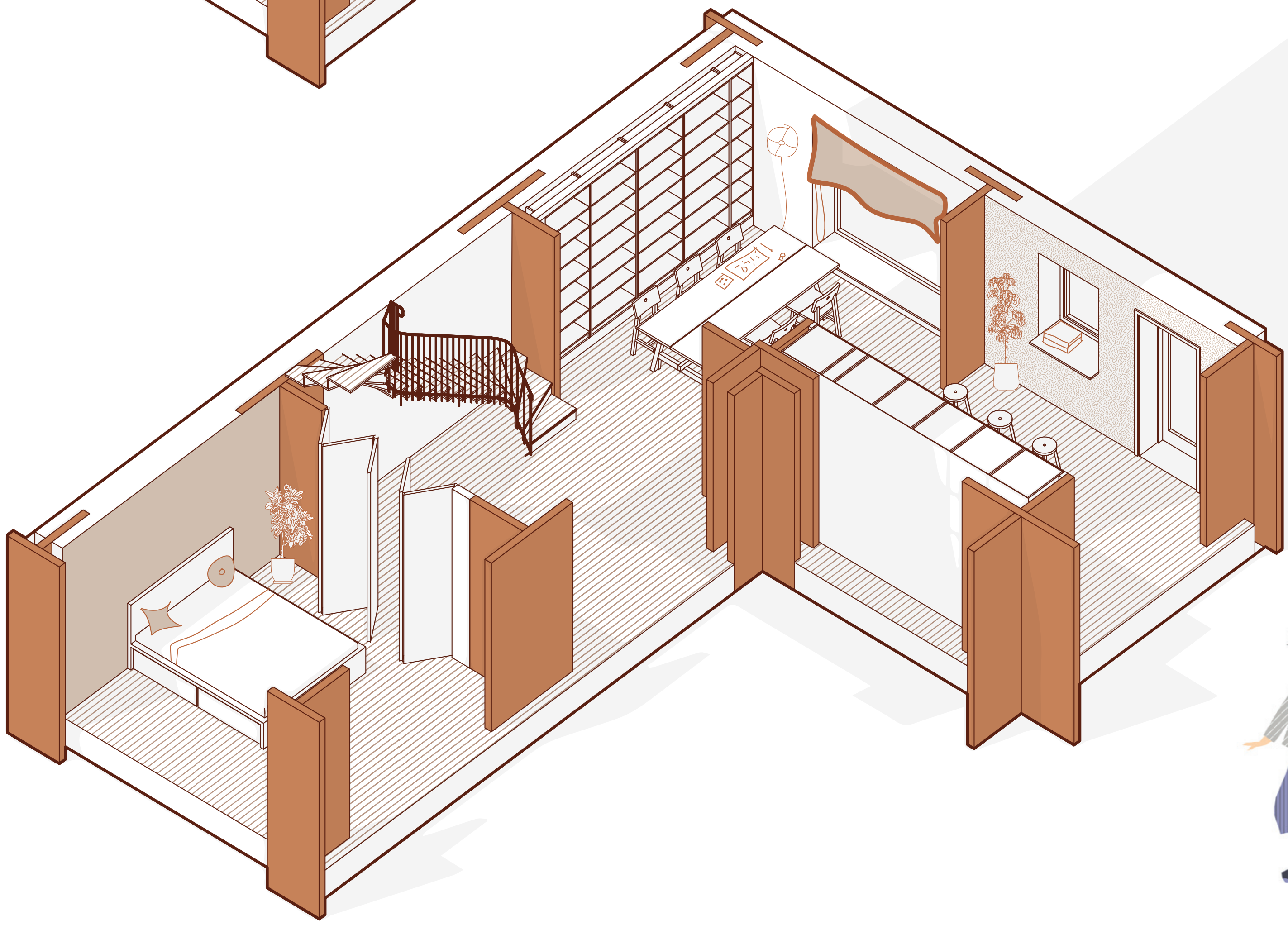
SMALL (TYPE D -75 M²)



THREE-PERSON HOUSEHOLD

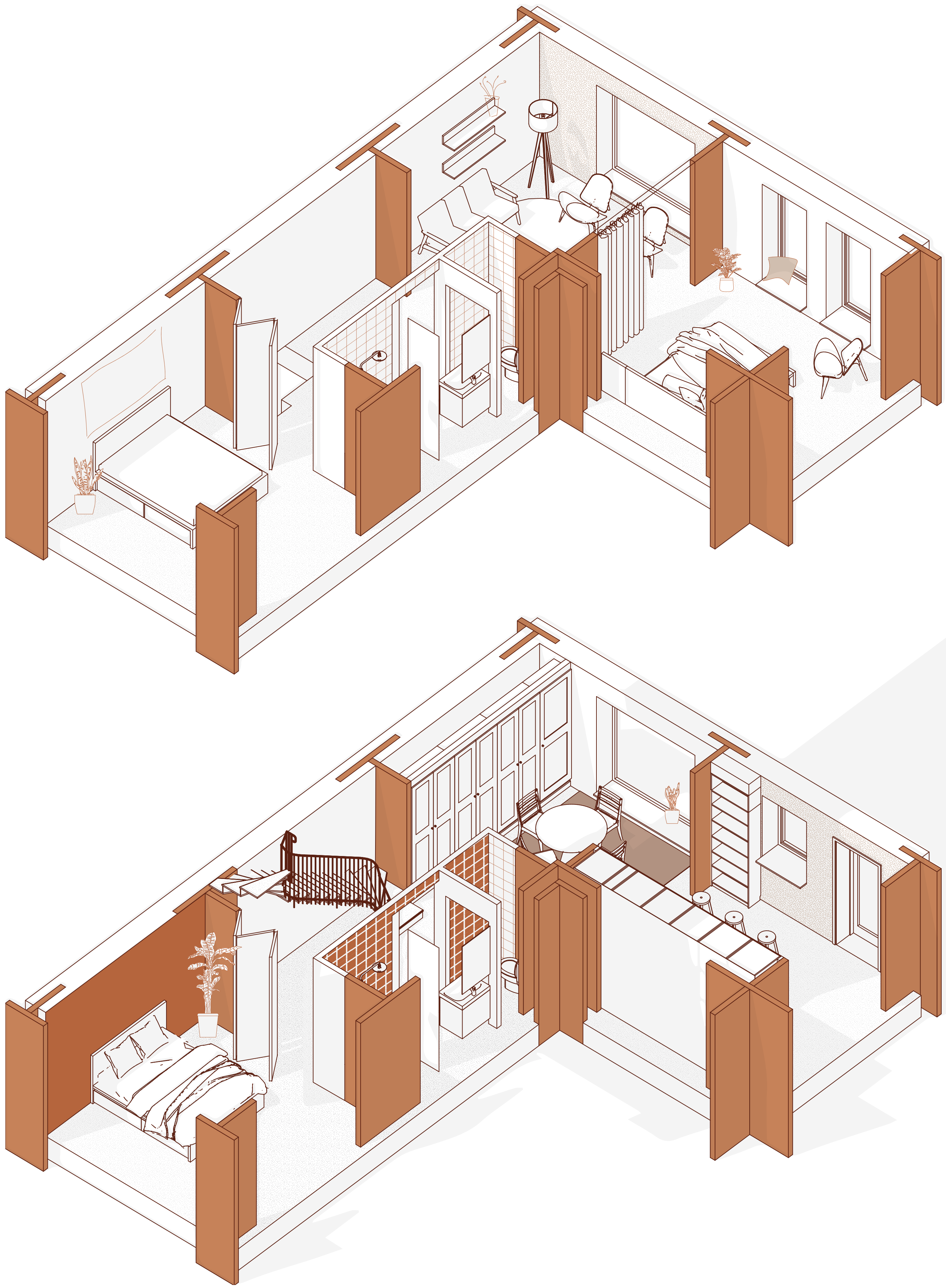
MEDIUM (TYPE A - 100 M²)





FAMILY HOME

LARGE (TYPE A - 100 M²)



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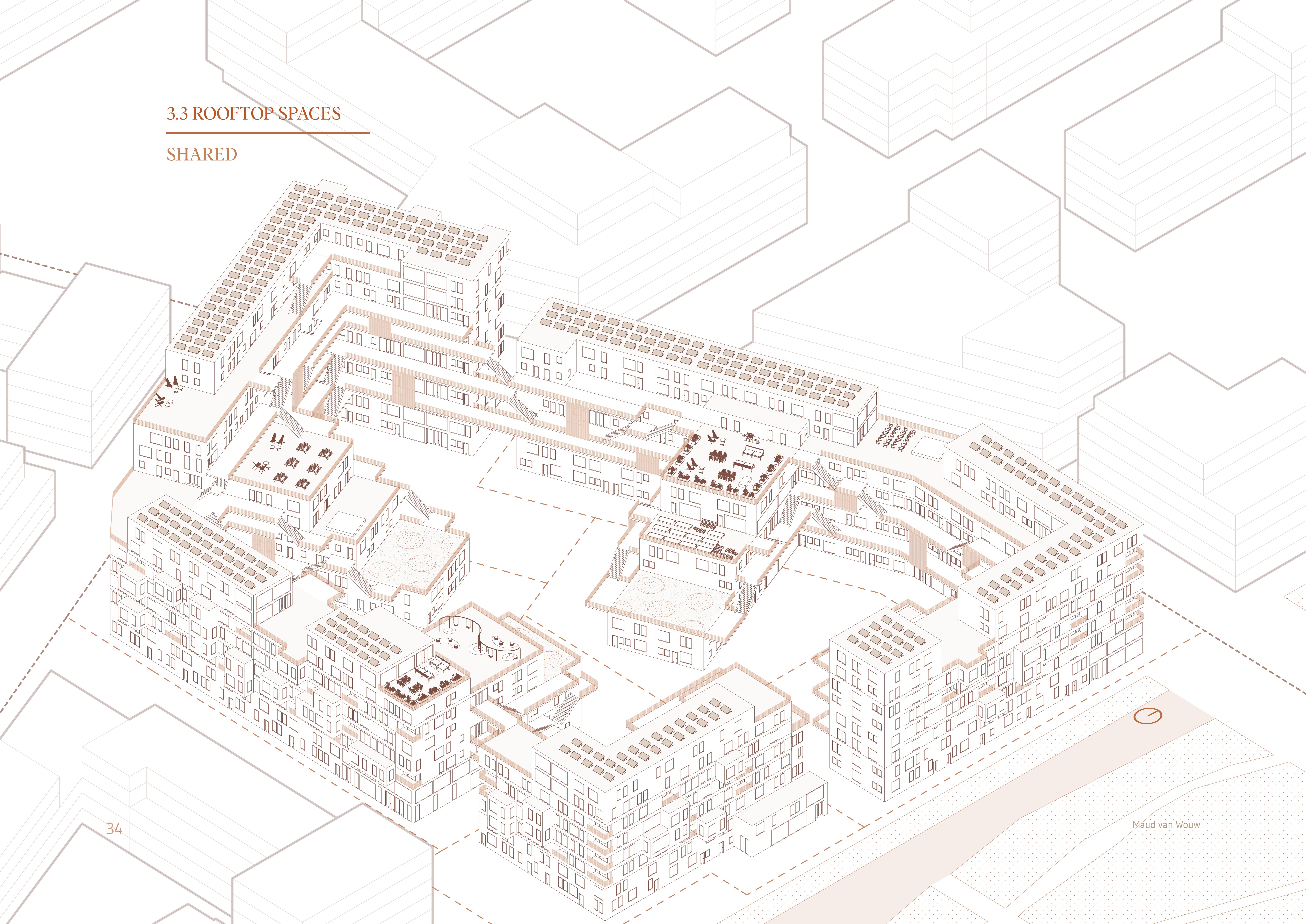
3.3 ROOFTOP SPACES

SHARED

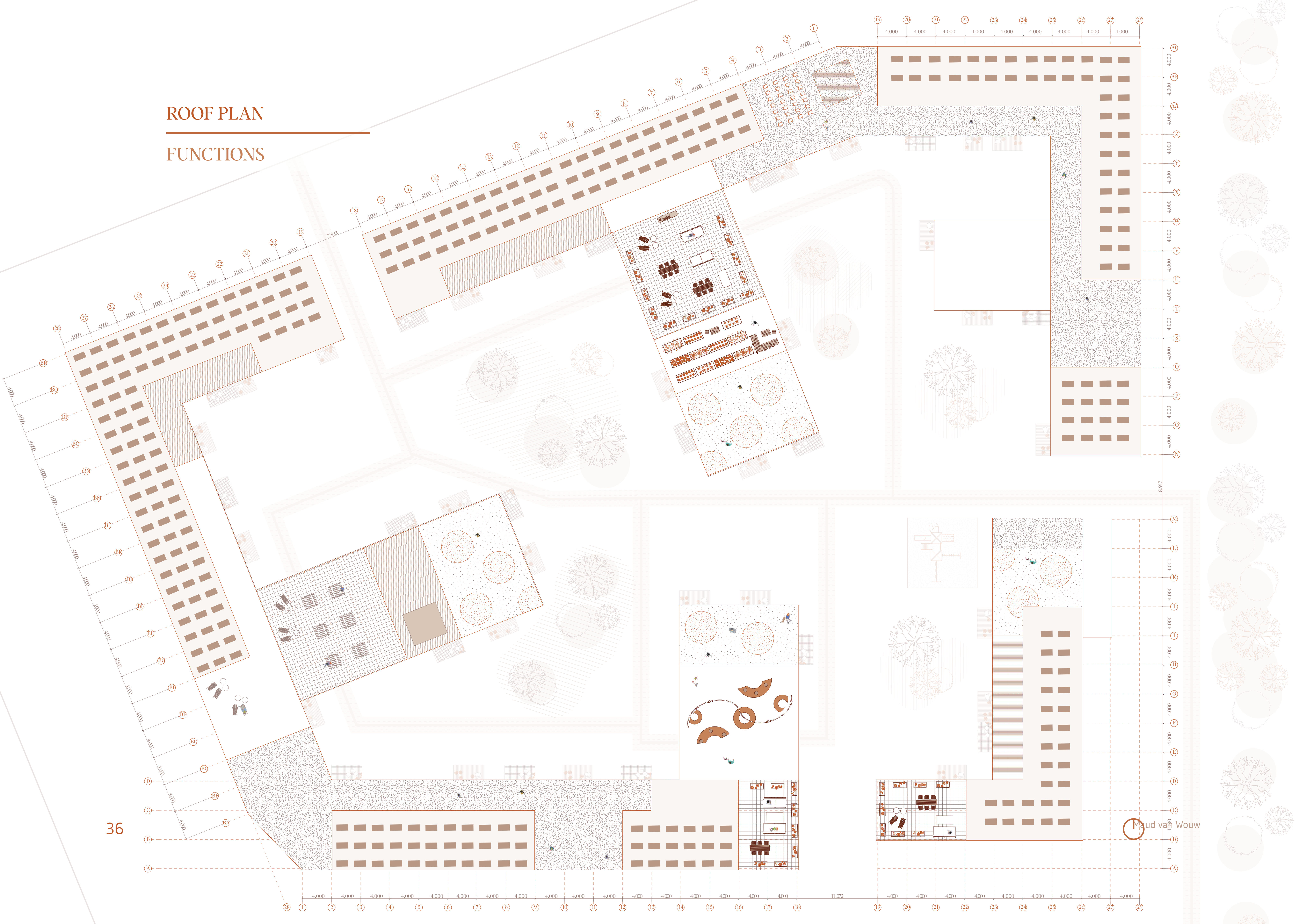


IMPROVE QUALITY OF LIFE

BY SHARING

ROOF PLAN

FUNCTIONS



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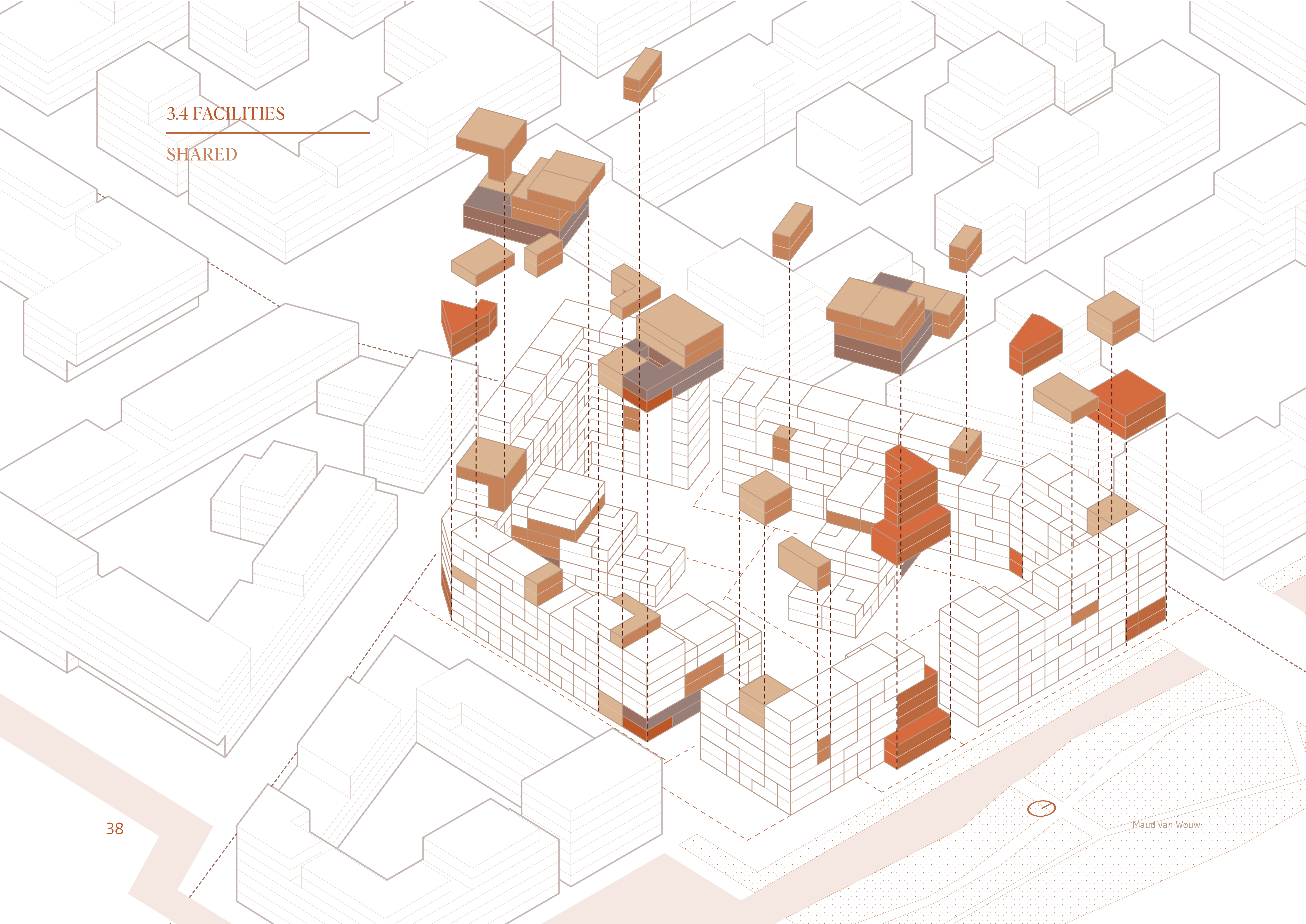
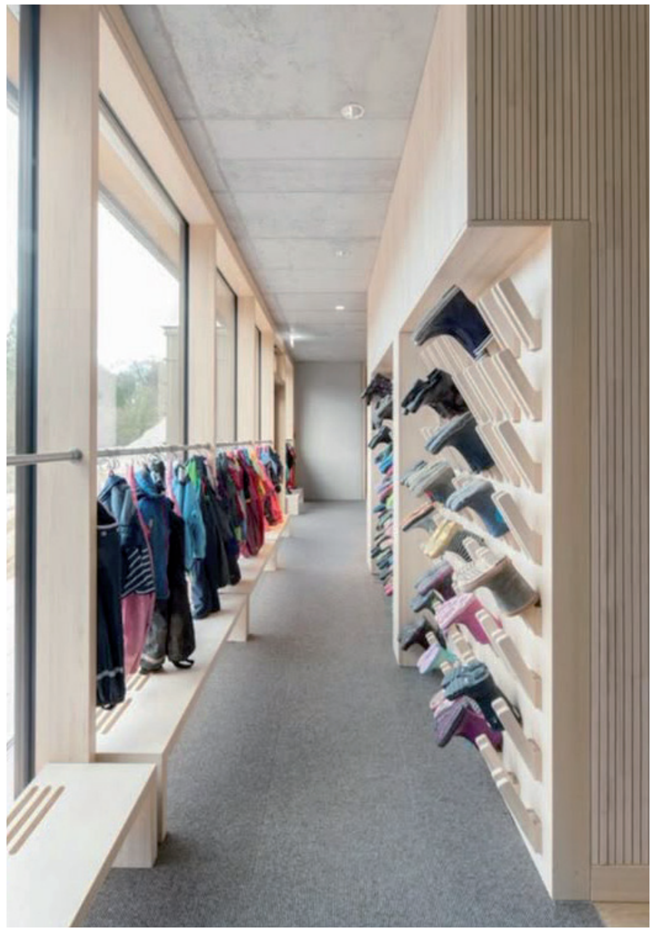
3.4 FACILITIES

SHARED



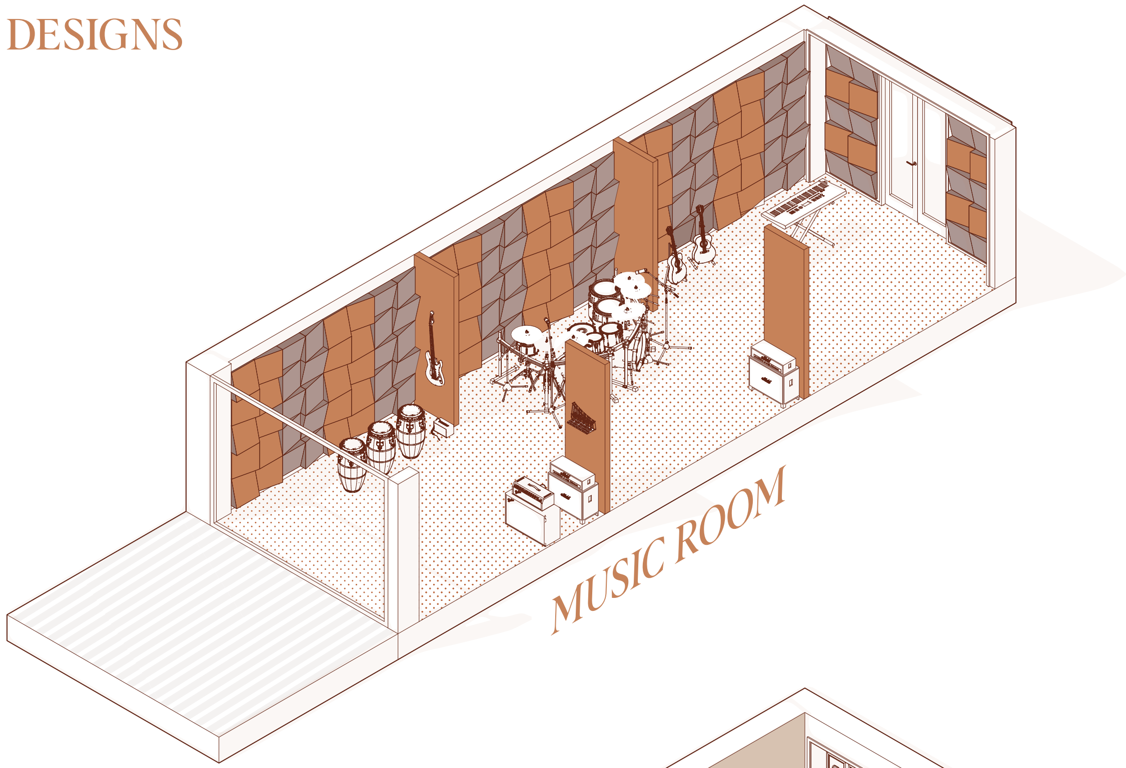
GIVE THE SHARED FUNCTIONS AN IDENTITY

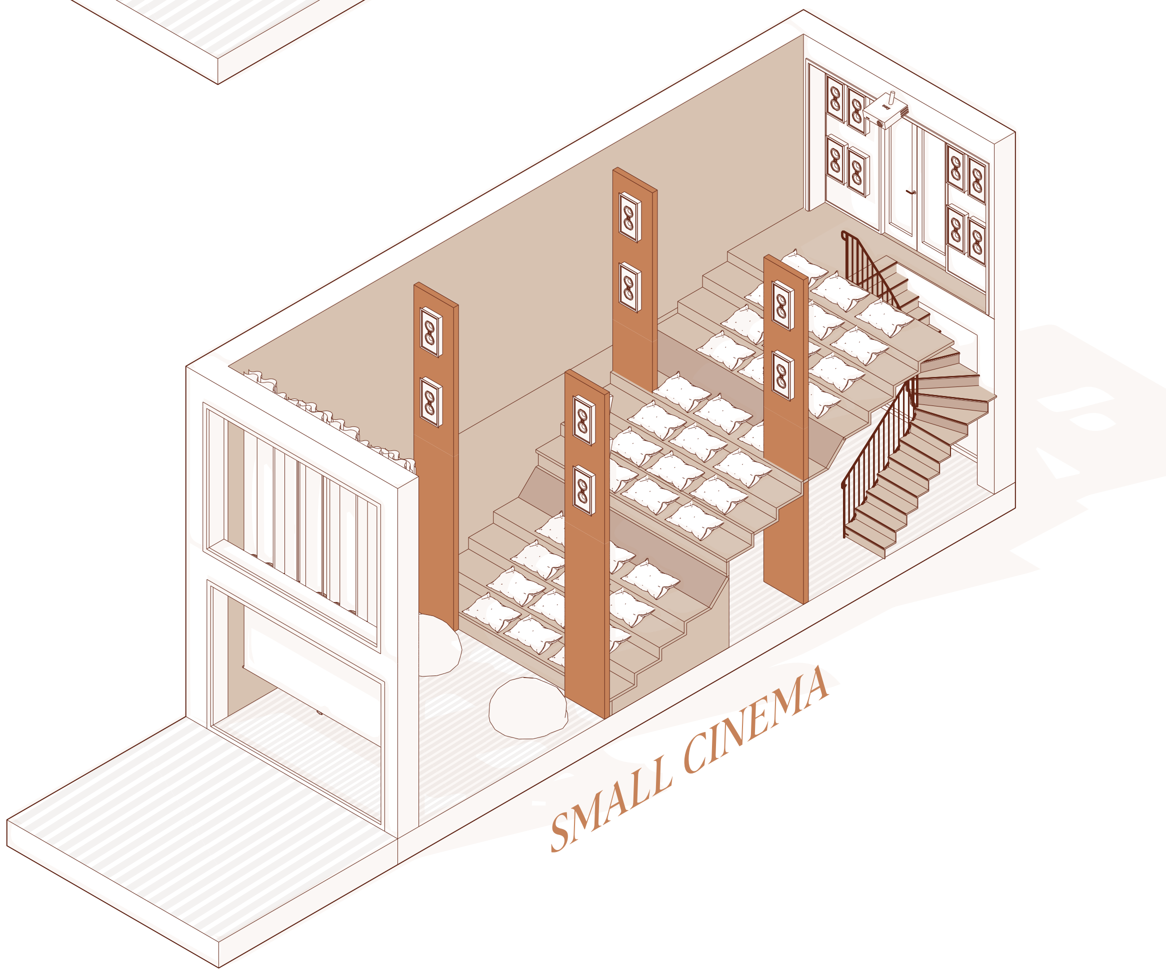


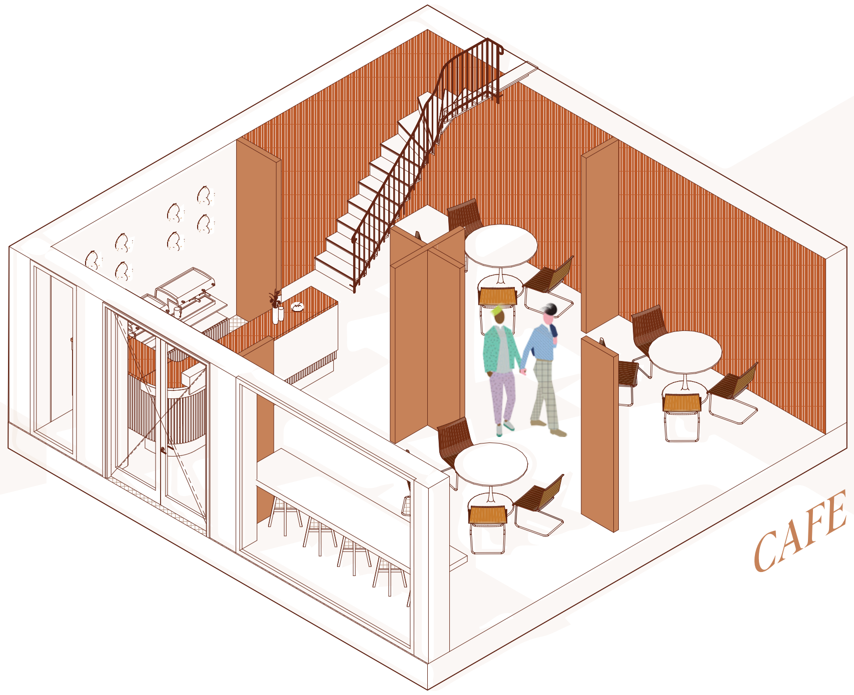
THAT RESIDENTS CAN RELATE TO

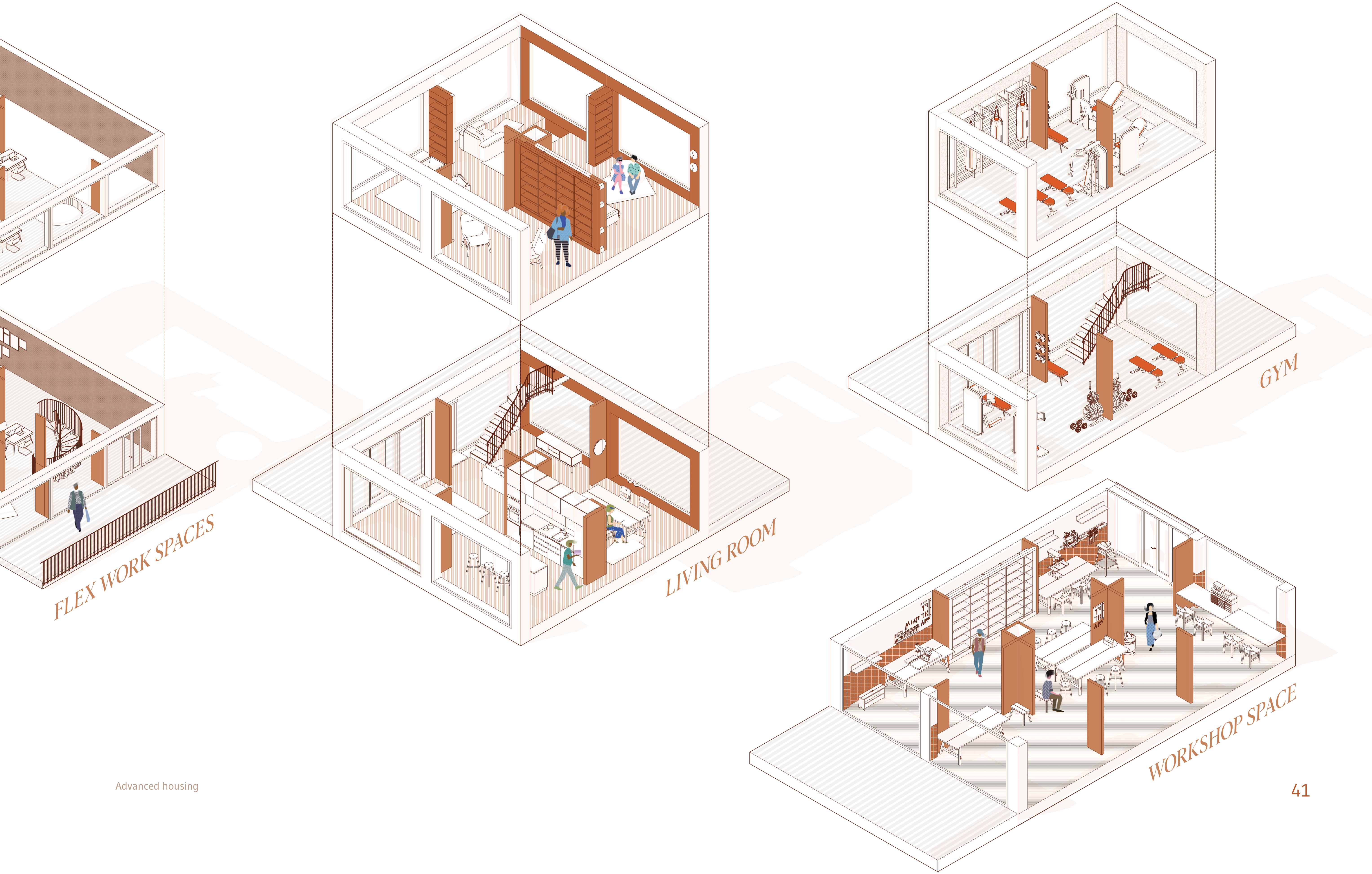
SHARED FACILITIES

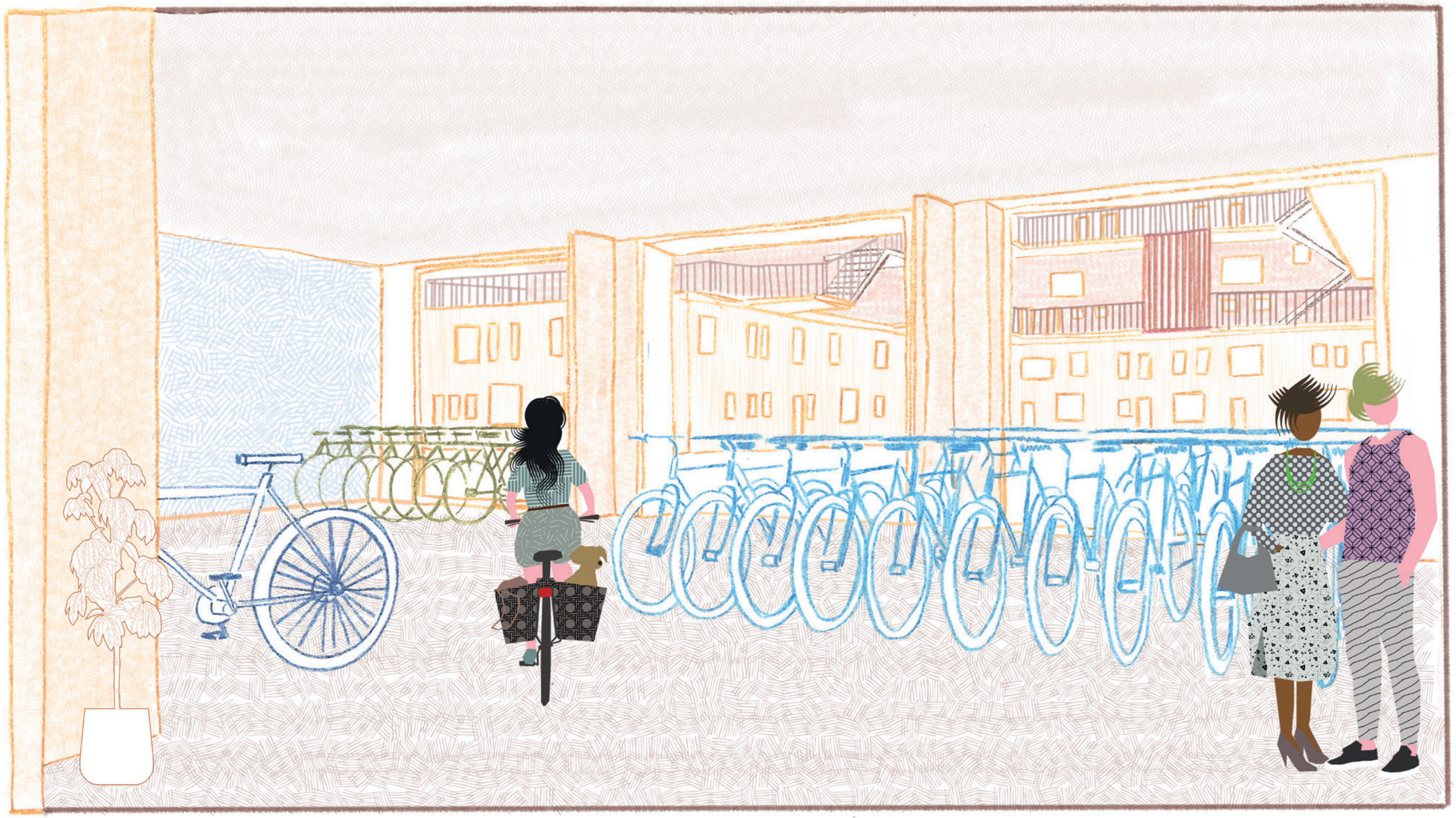
DESIGNS





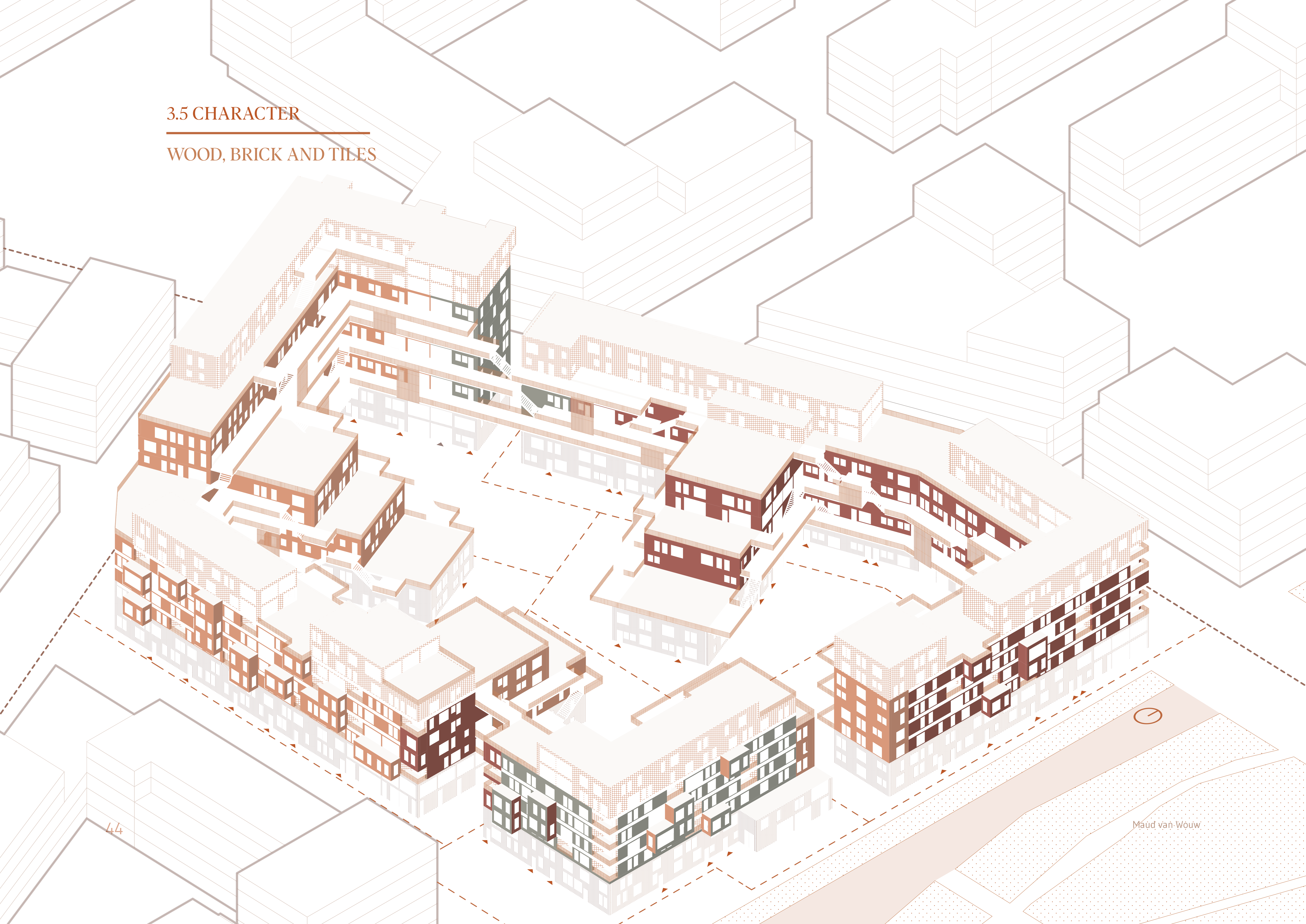



FLEX WORK SPACES
LIVING ROOM
GYM
WORKSHOP SPACE

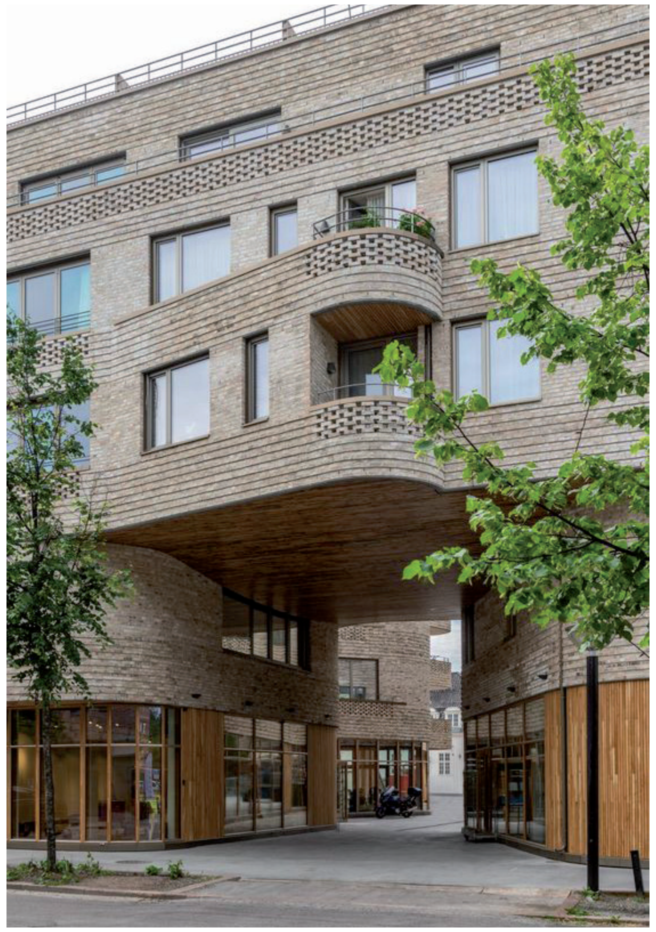


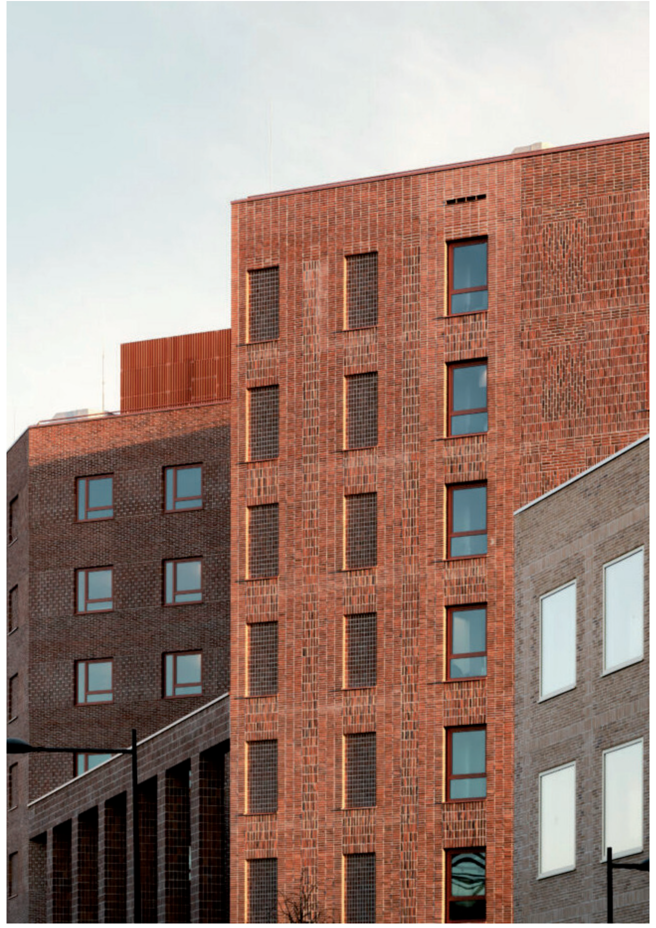
3.5 CHARACTER

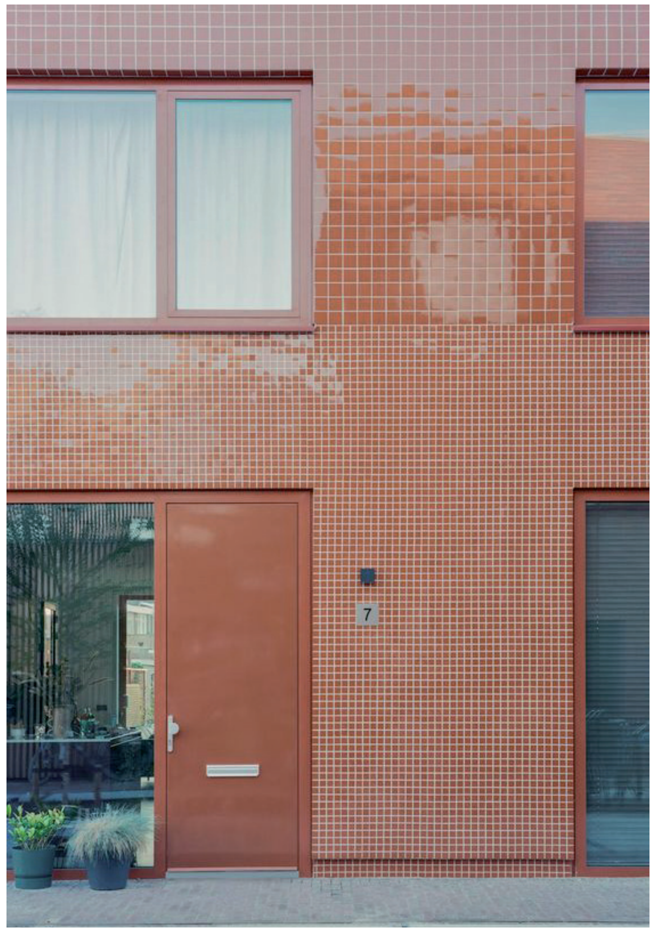
WOOD, BRICK AND TILES

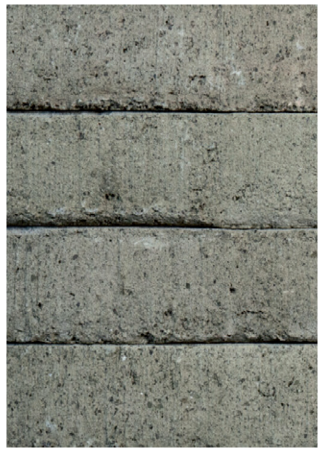


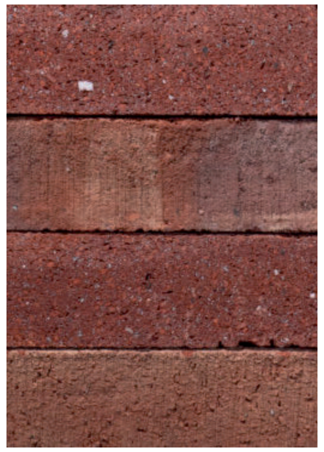
COMBINATION OF WOOD, BRICK AND TILES







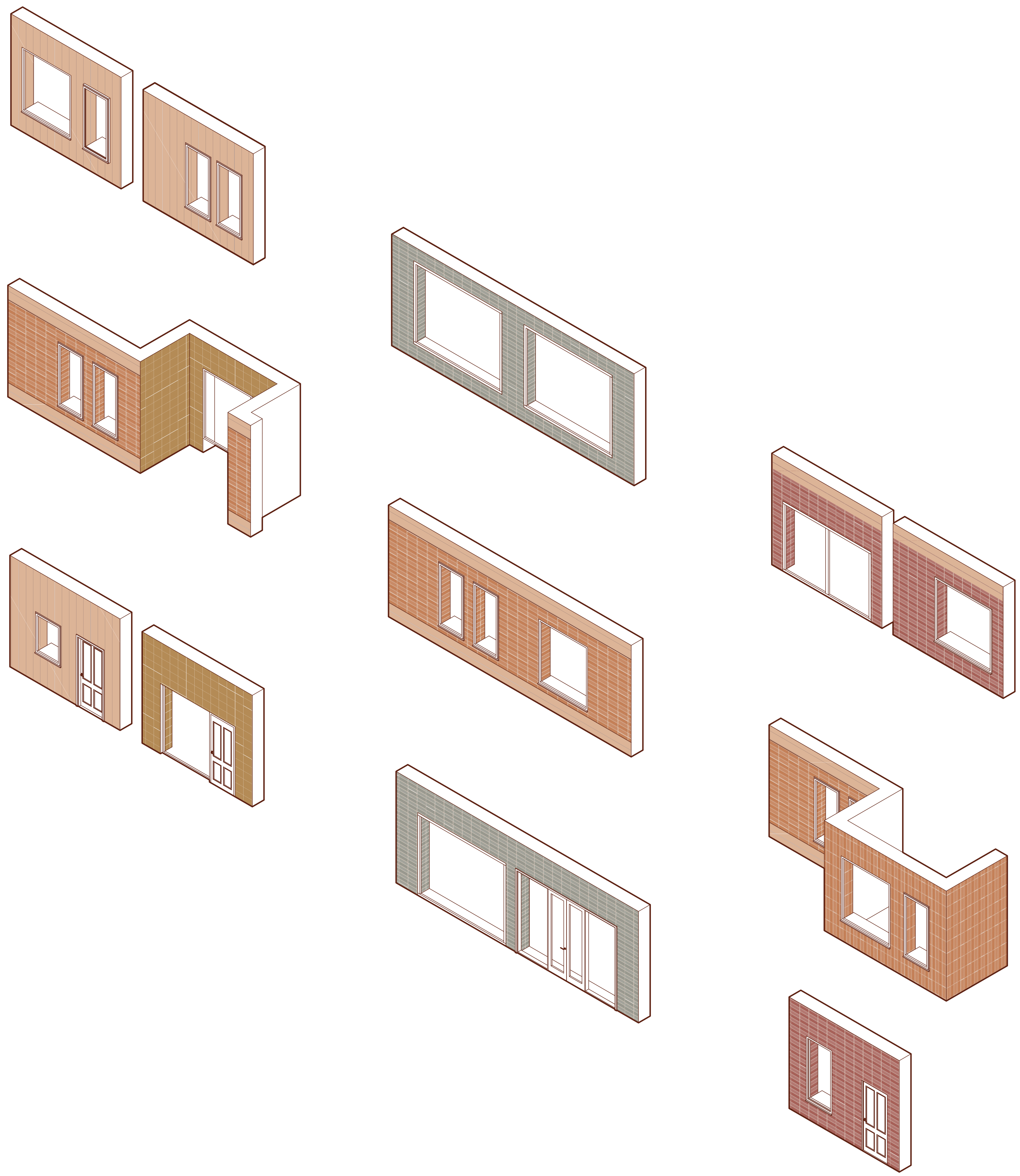




DIFFERENT BUILDINGS WITH SLIGTLY DIFFERENT IDENTITIES

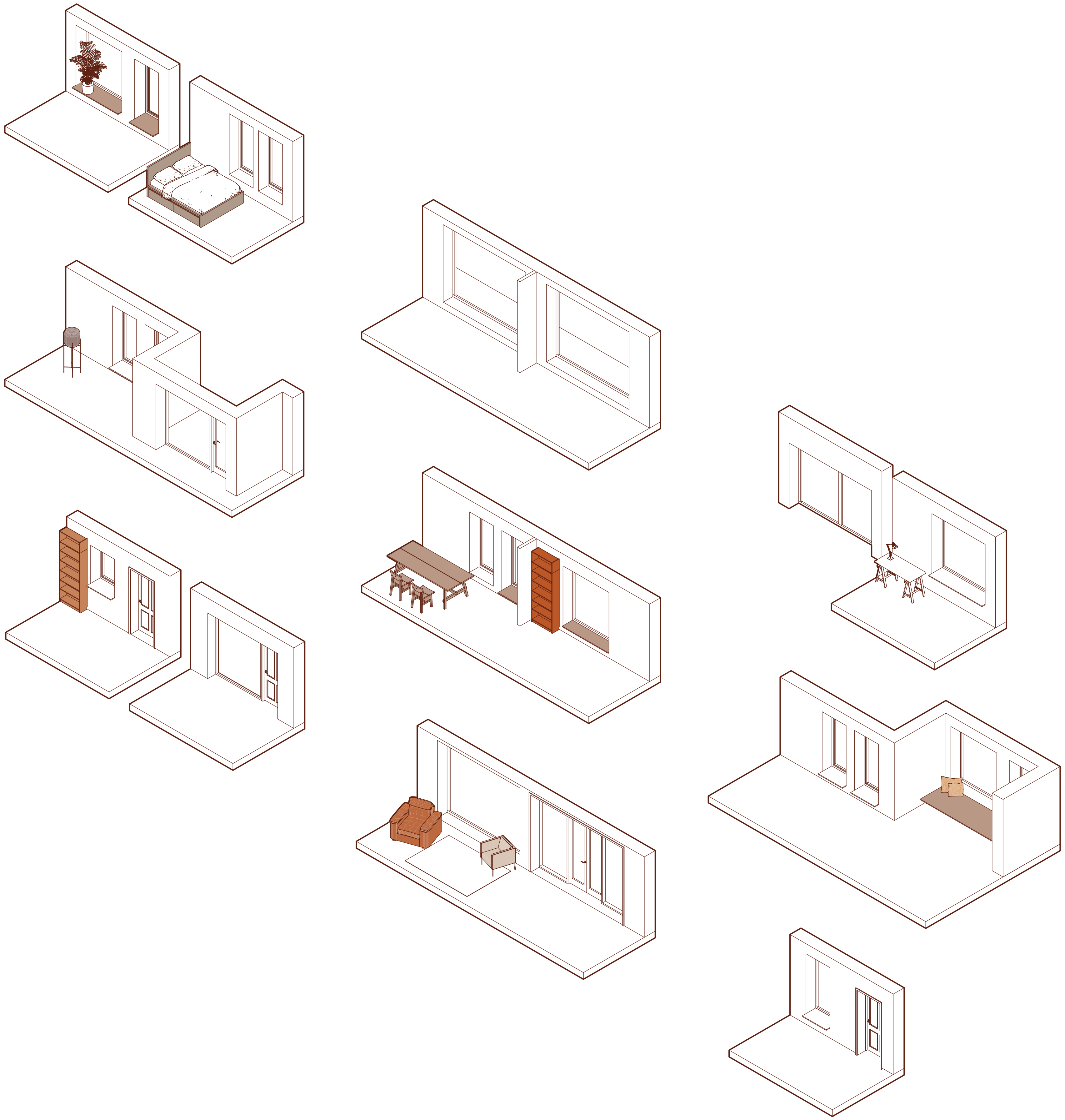
FACADE ELEMENTS

POSSIBLE CONFIGURATIONS

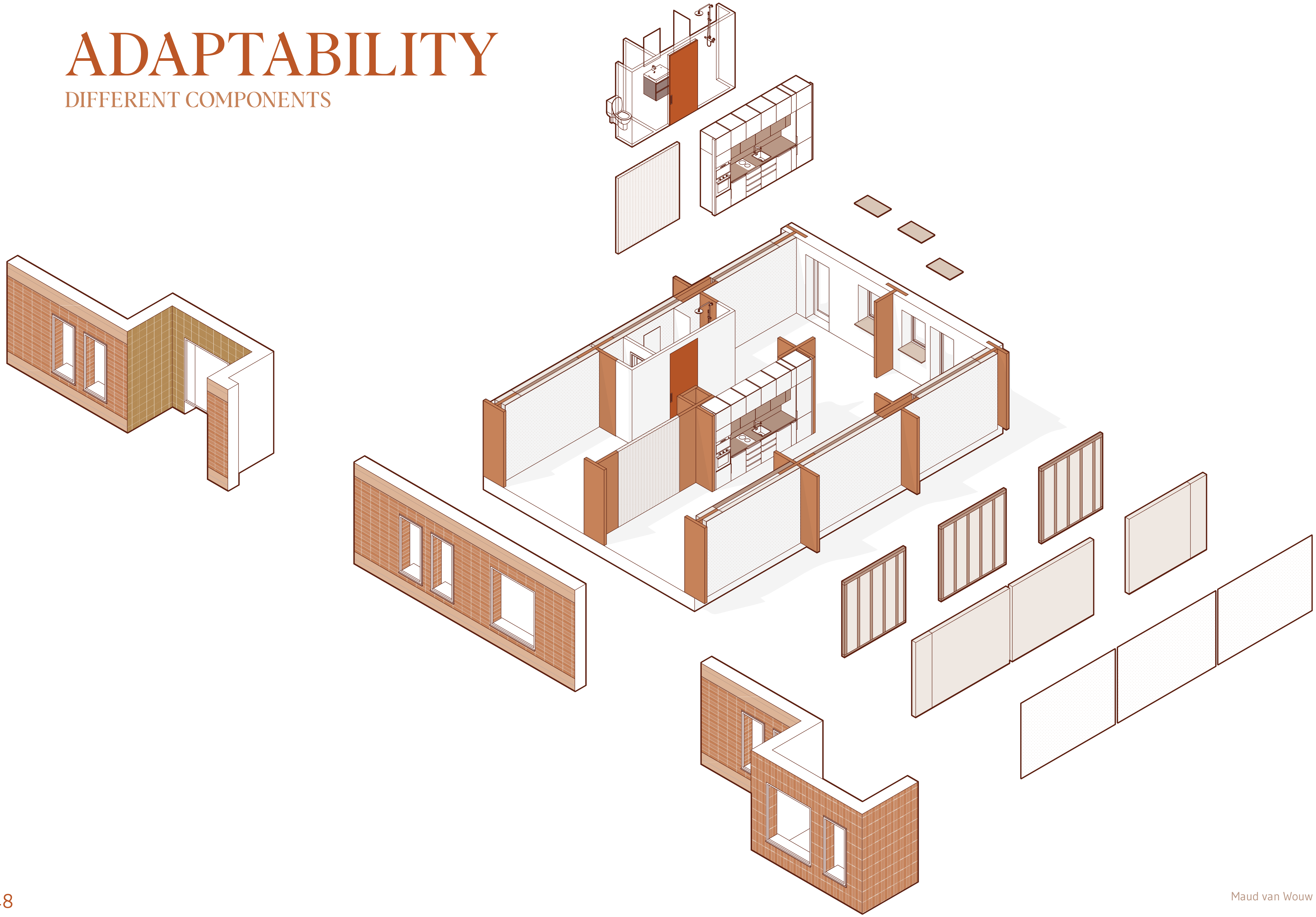


FACADE ELEMENTS

DIFFERENT QUALITIES

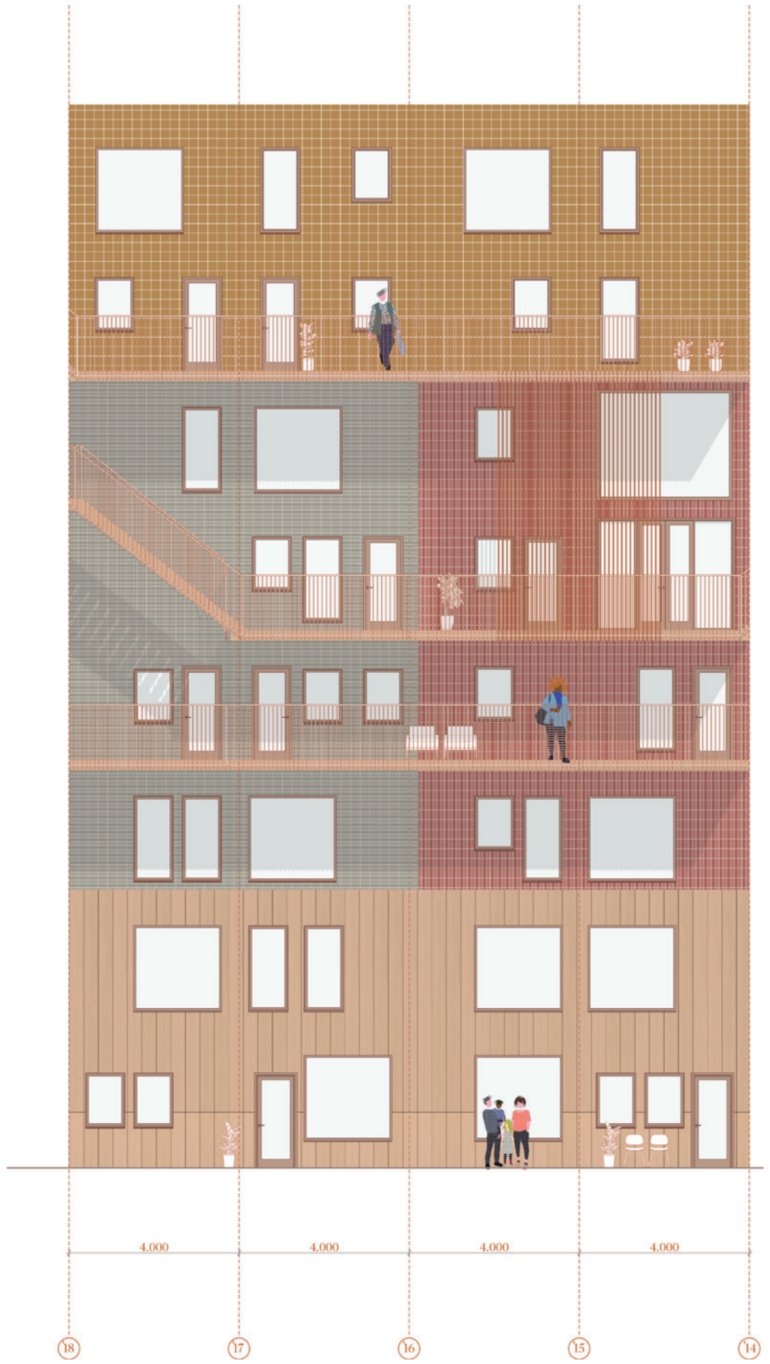


ADAPTABILITY
DIFFERENT COMPONENTS



DIFFERENT FACADES

ENTRANCES

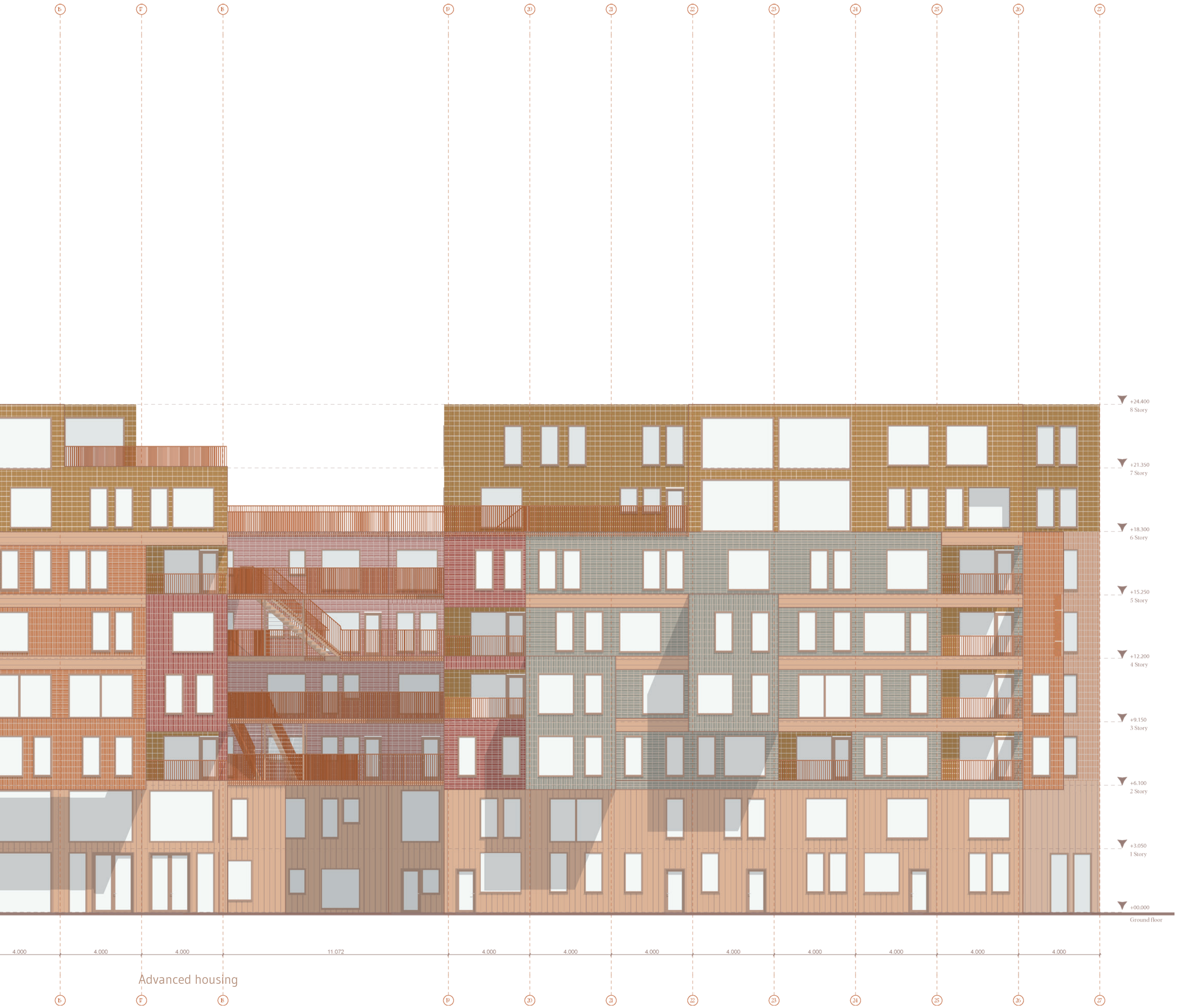


INSIDE

OUTSIDE

FACADES

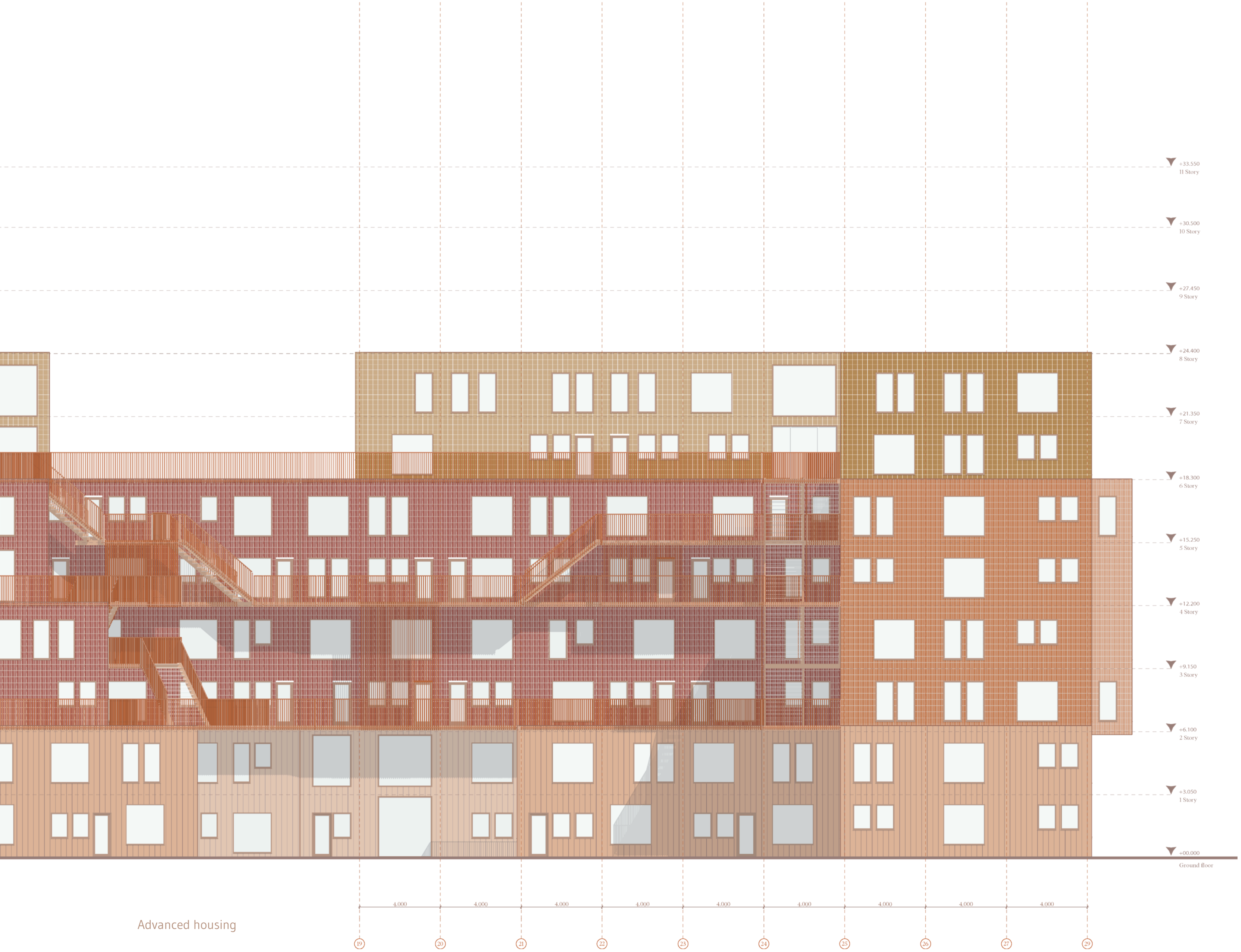
SOUTH FACADE (OUTSIDE)



Advanced housing

FACADES

NORTH FACADE (INSIDE)



+33.550
11 Story
+30.500
10 Story
+27.450
9 Story
+24.400
8 Story
+21.350
7 Story
+18.300
6 Story
+15.250
5 Story
+12.200
4 Story
+9.150
3 Story
+6.100
2 Story
+3.050
1 Story
+00.000
Ground floor
4.000
4.000
4.000
4.000
4.000
4.000
4.000
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19
20
21
22
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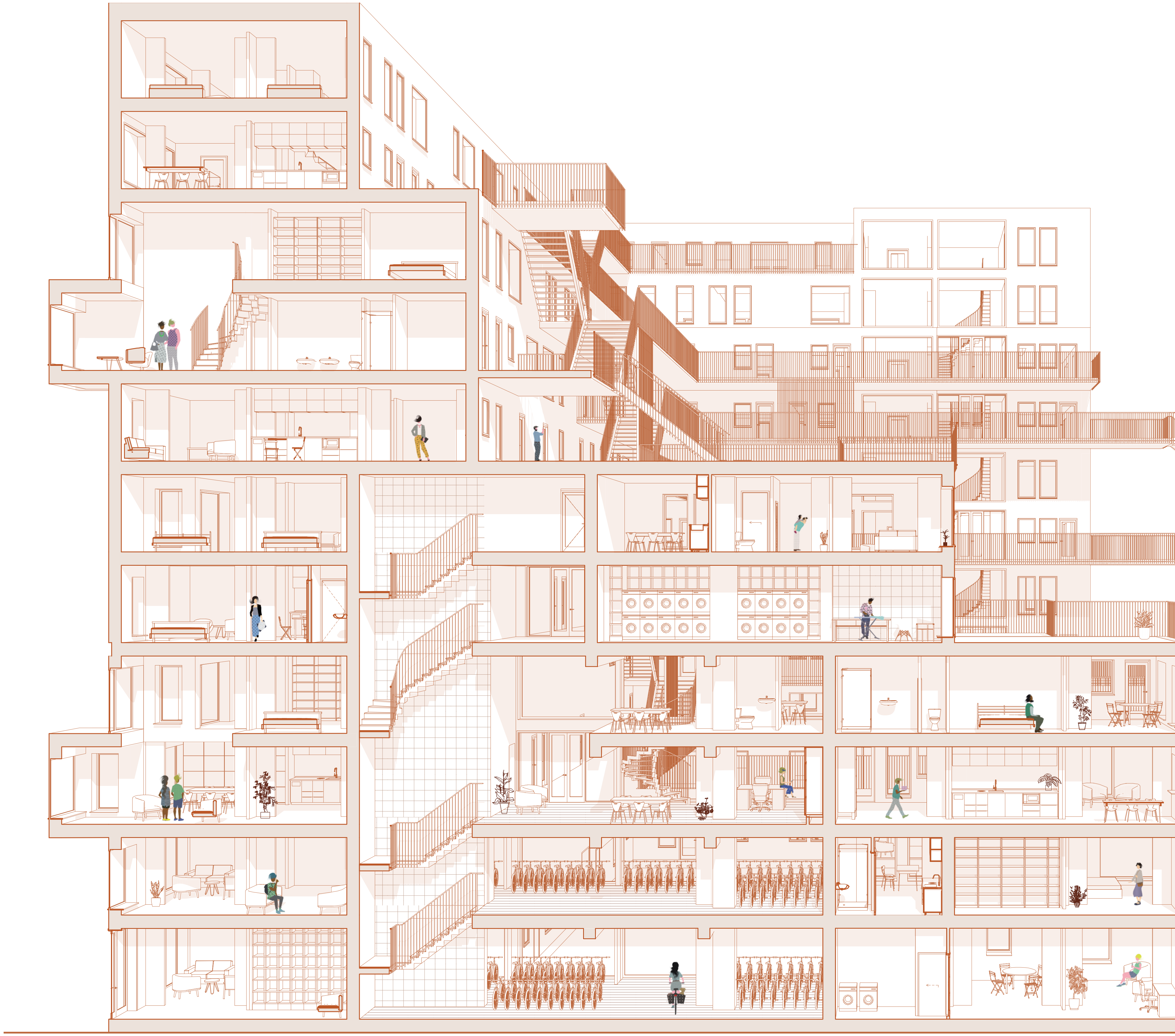
27
29

BUILDING SECTION

AA

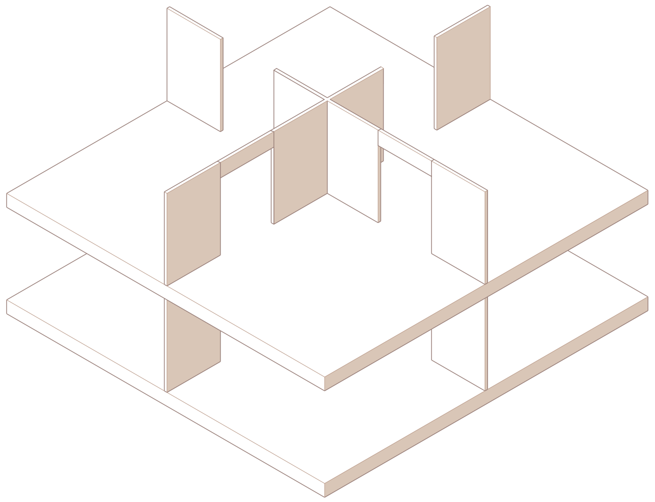


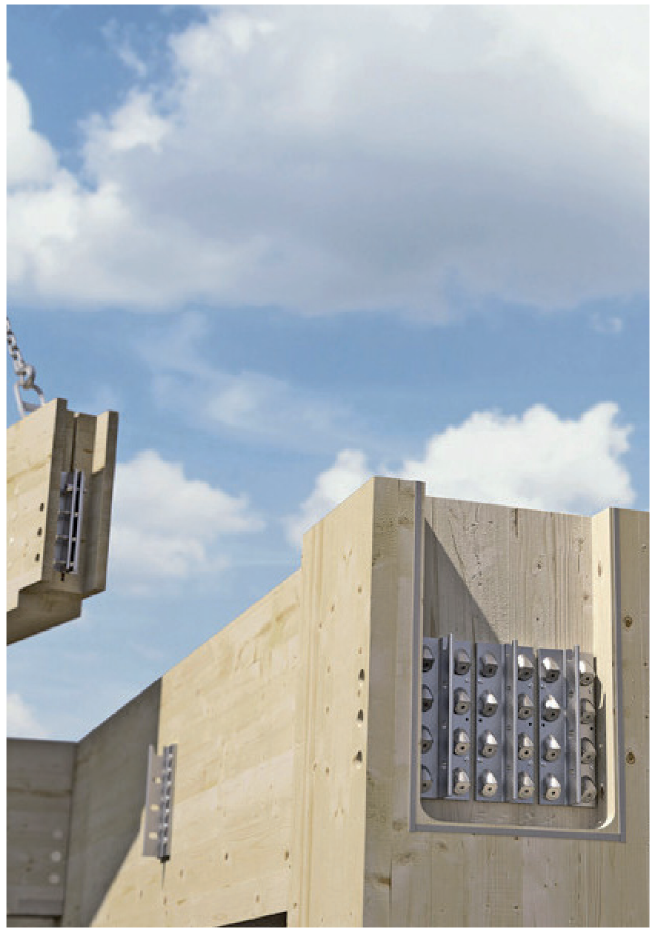
Maud van Wouw

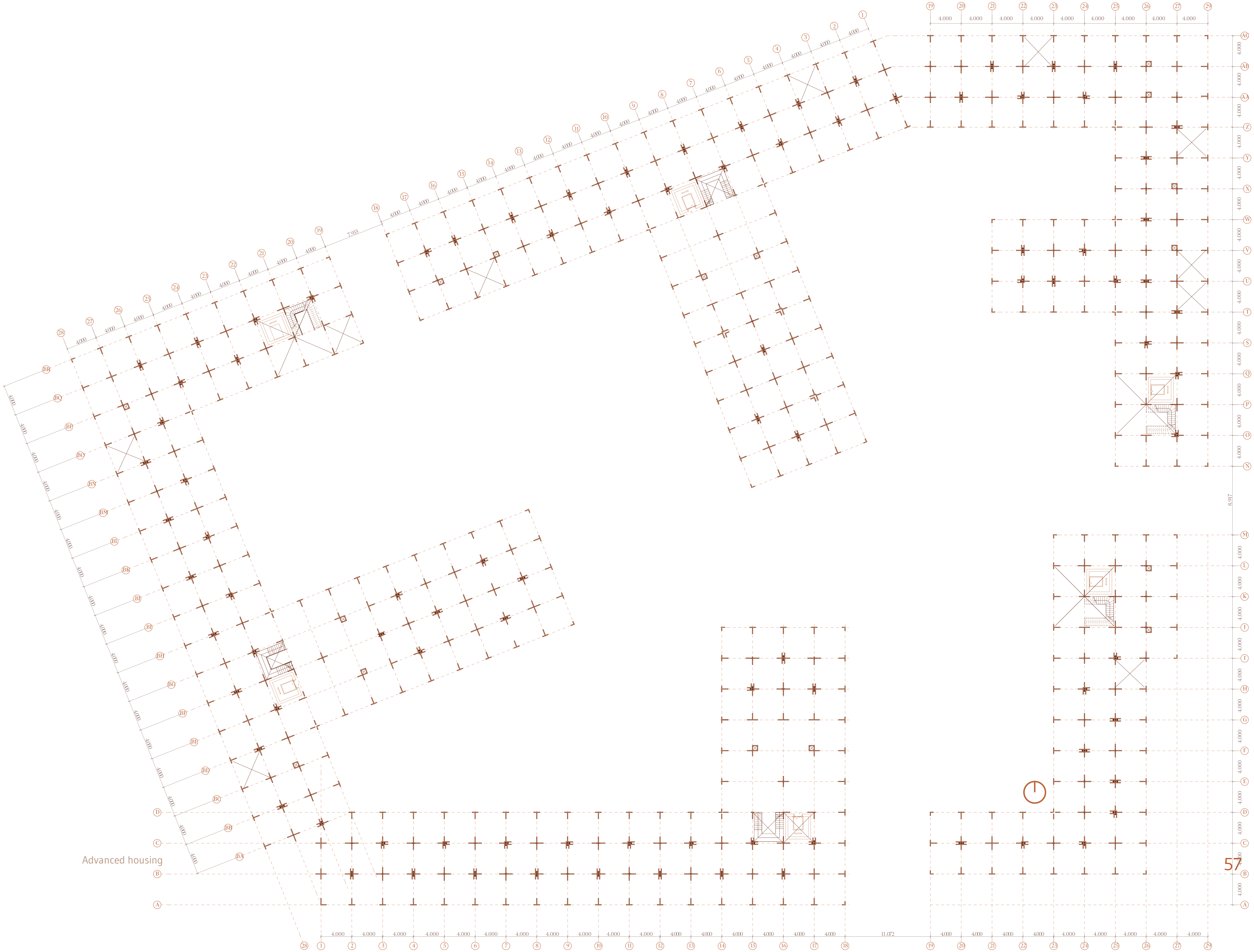
Advanced housing

3.1 BUILDING TECHNOLOGY

STRUCTURE



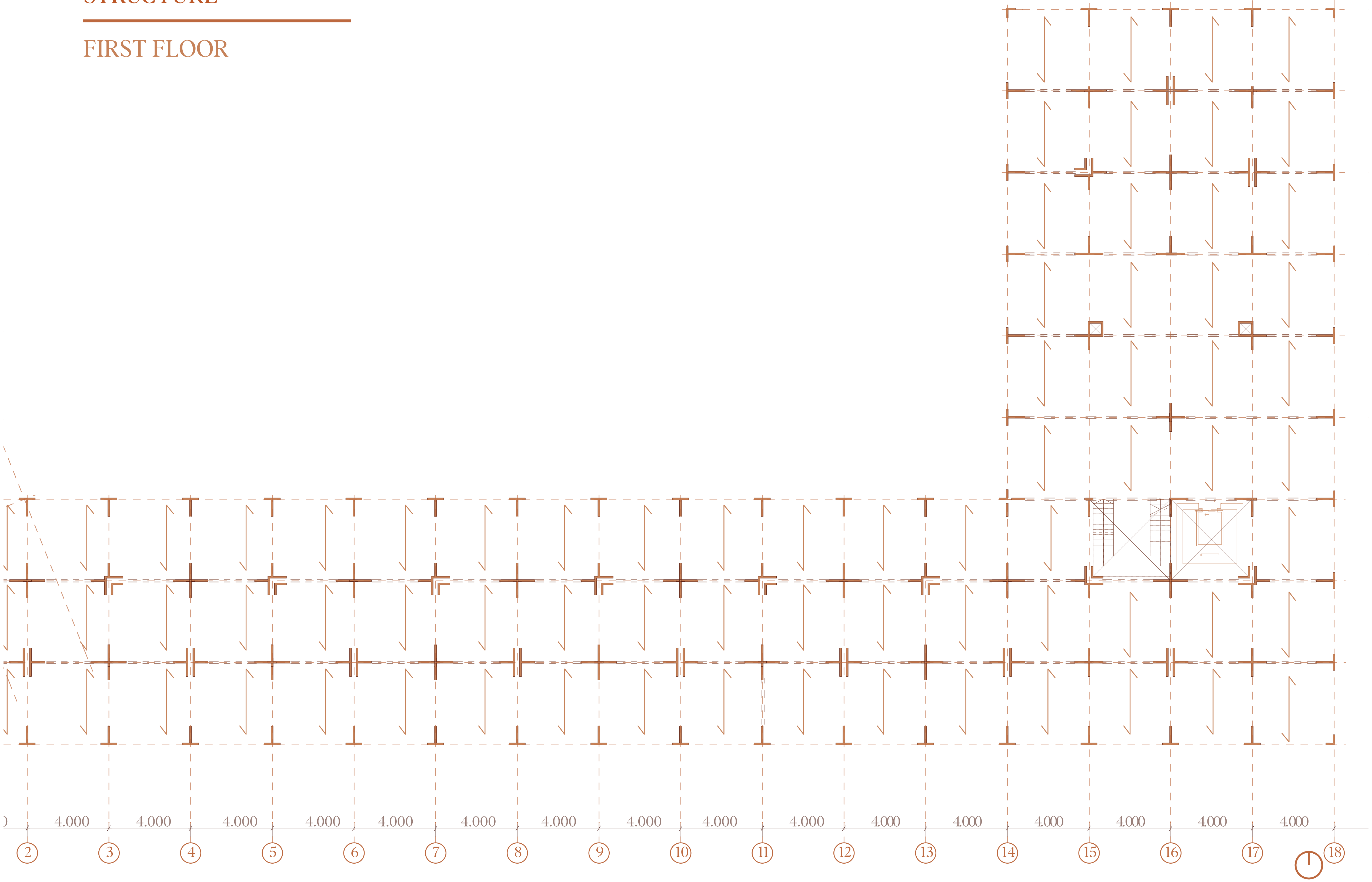




Advanced housing

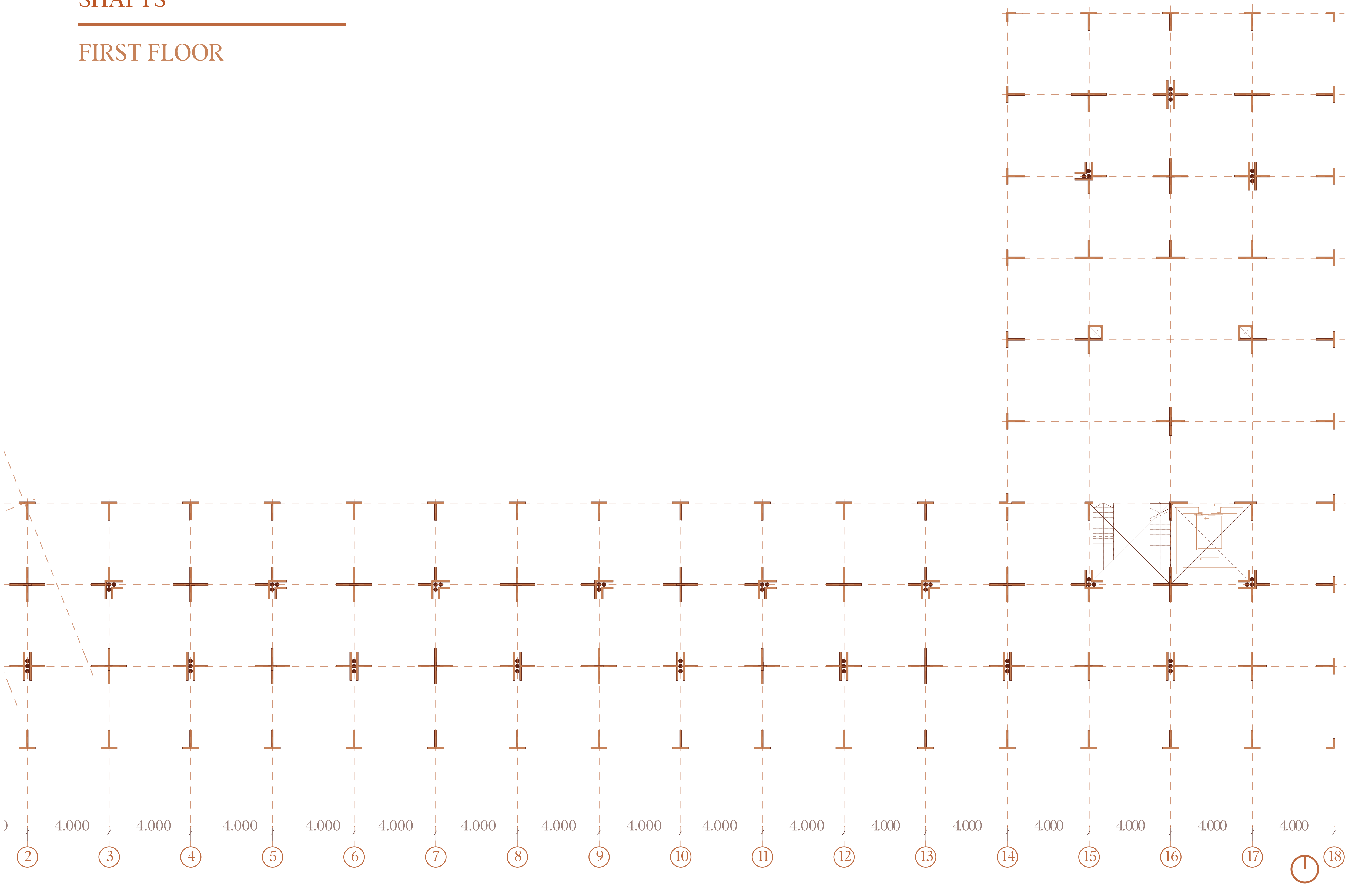
STRUCTURE

FIRST FLOOR



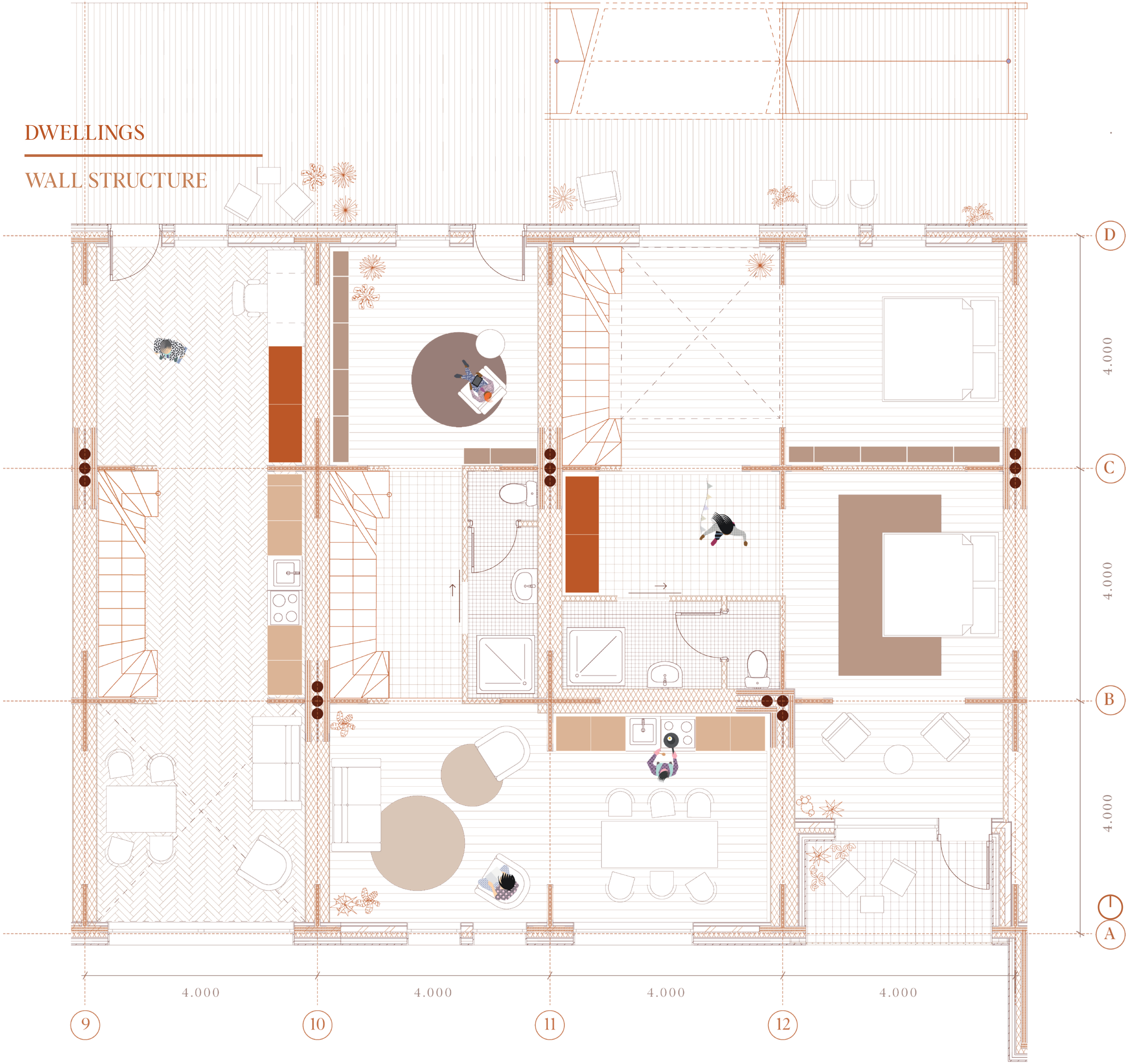
SHAFTS

FIRST FLOOR



DWELLINGS

WALL STRUCTURE



Maud van Wouw

CLIMATE SECTION

DIAGRAM

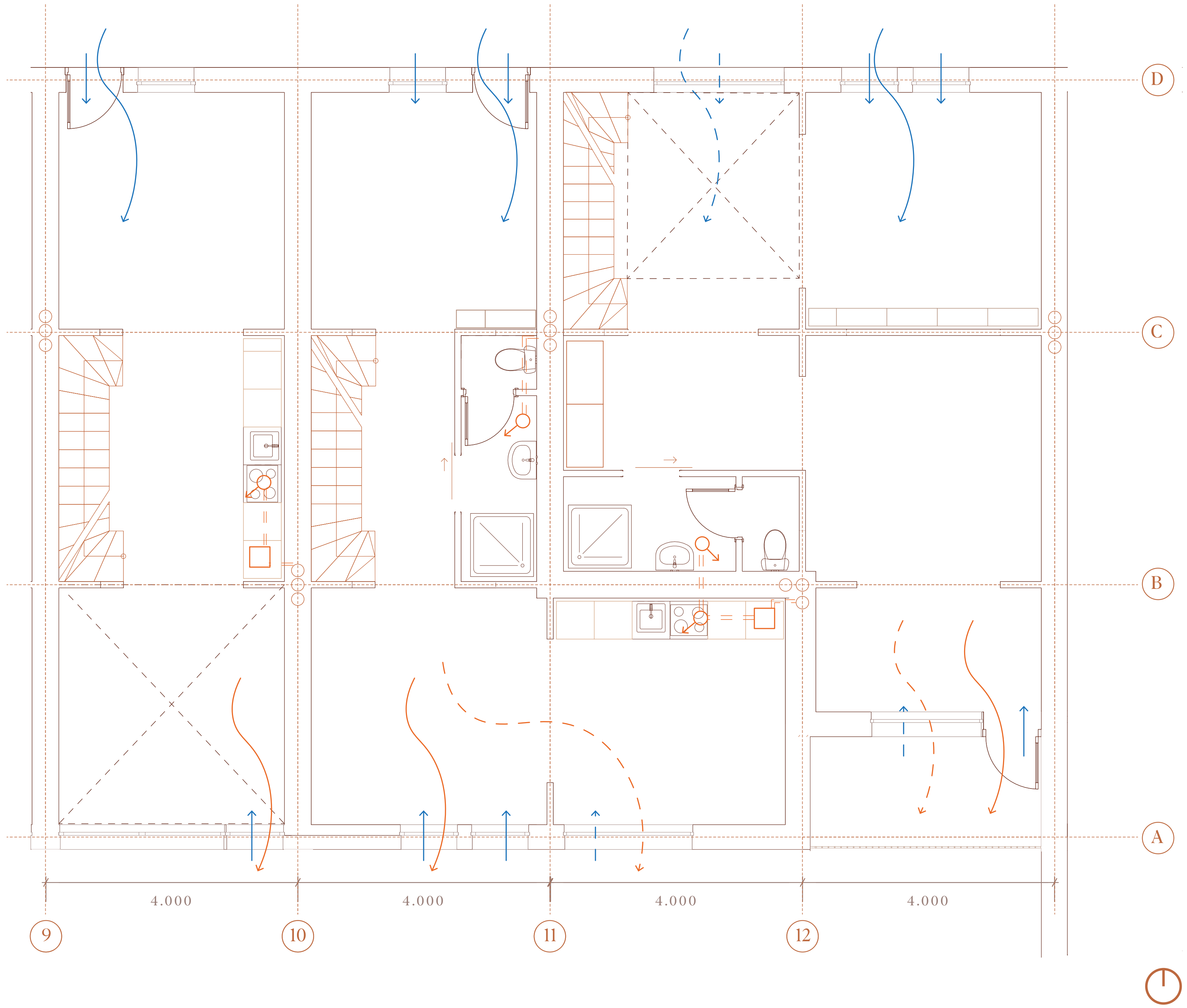
VENTILATION

DIAGRAM

Natural fresh air supply through ventilation grills over windows and doors

Mechanical air extraction in bathroom and kitchen

Cross ventilation

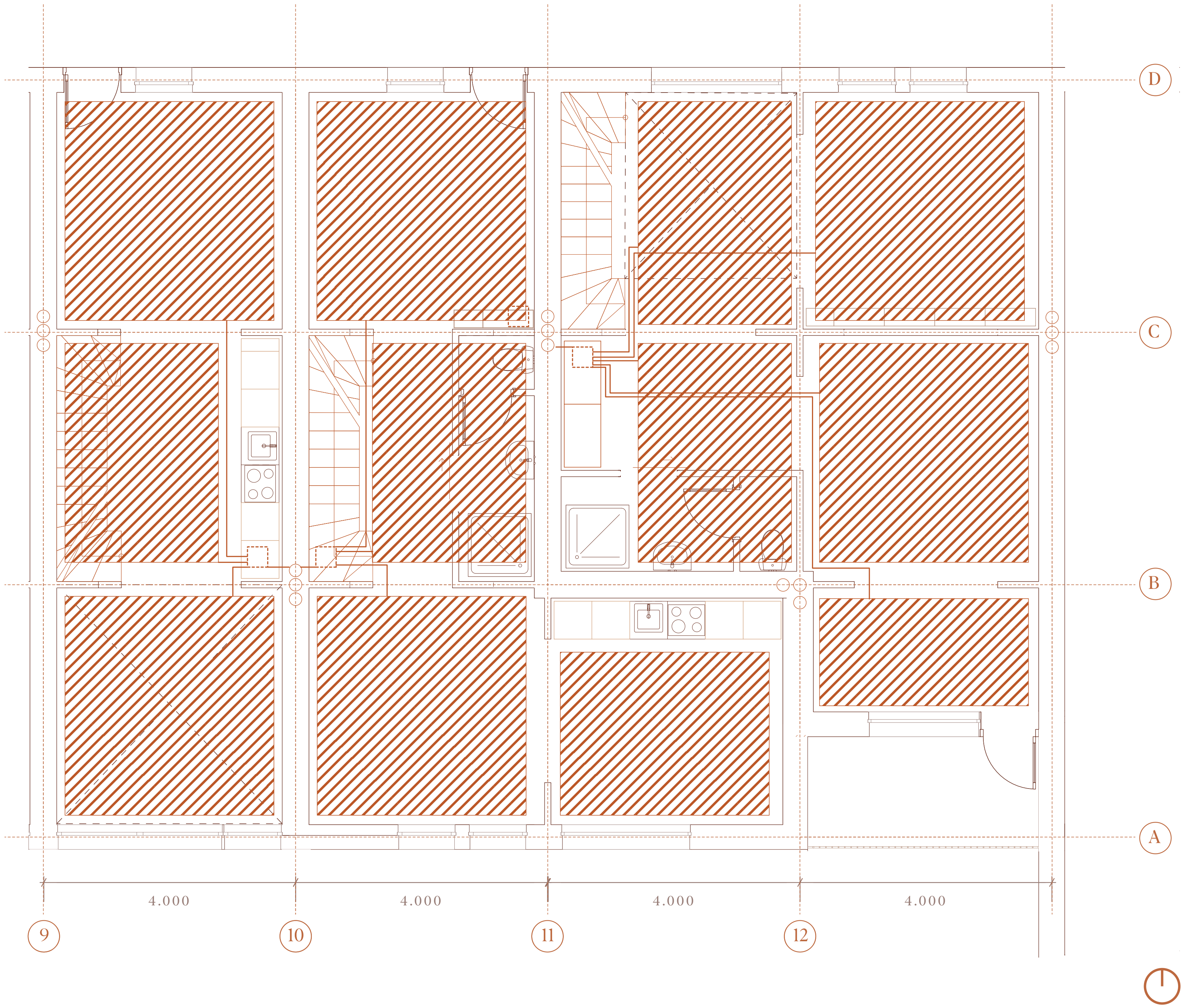


FLOOR HEATING

DIAGRAM

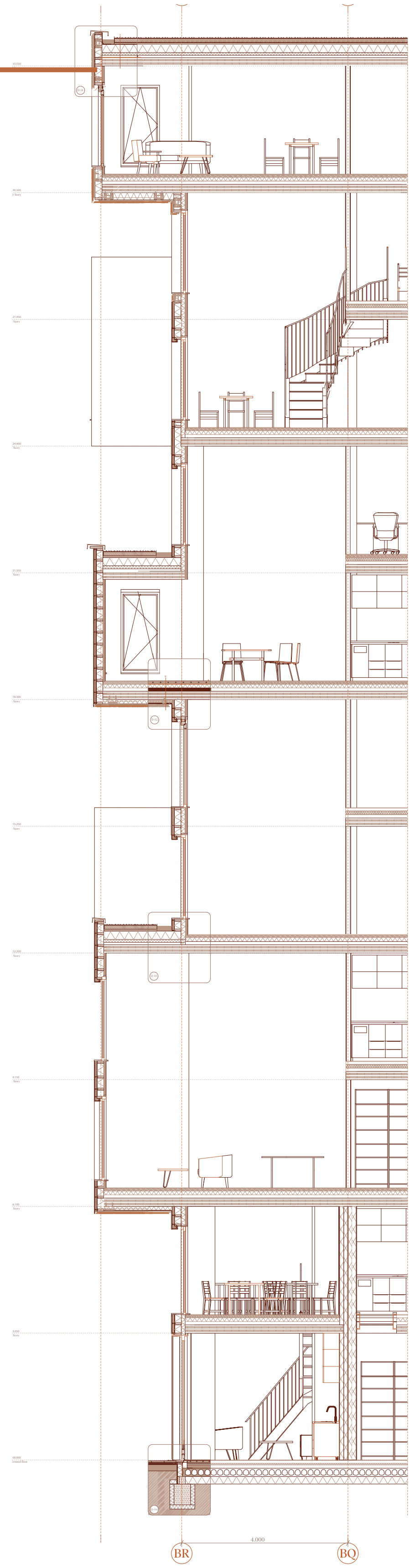
Wiring center and manifold connected to boiler through shaft

Zones for pipe circuits



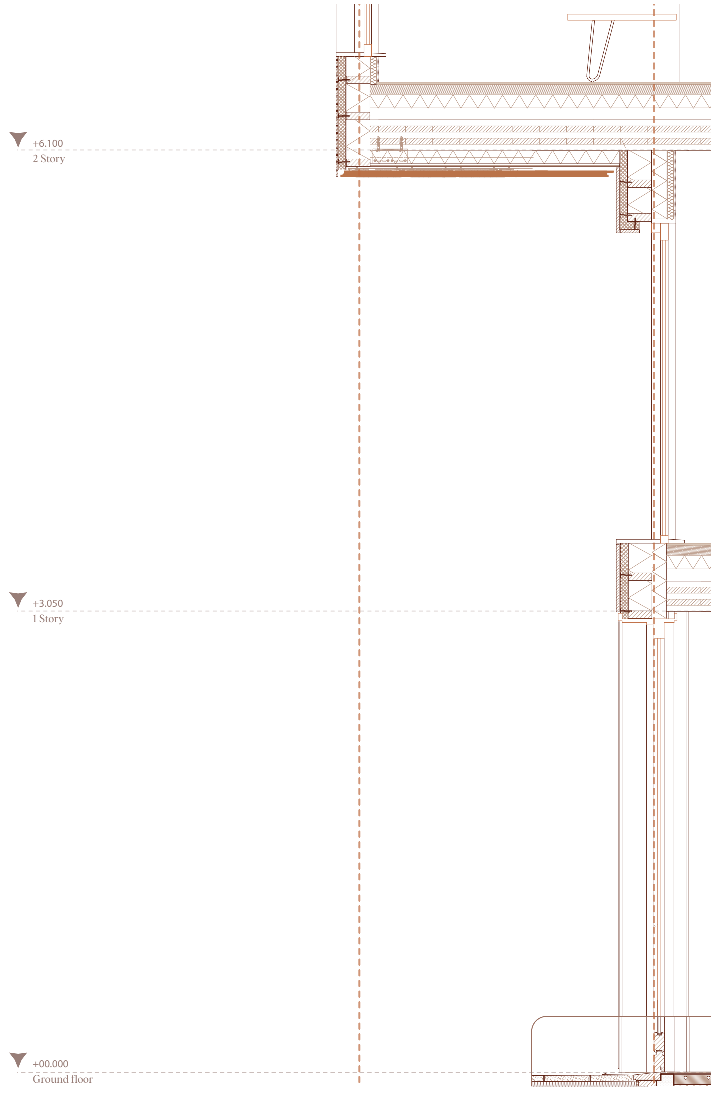
FACADE

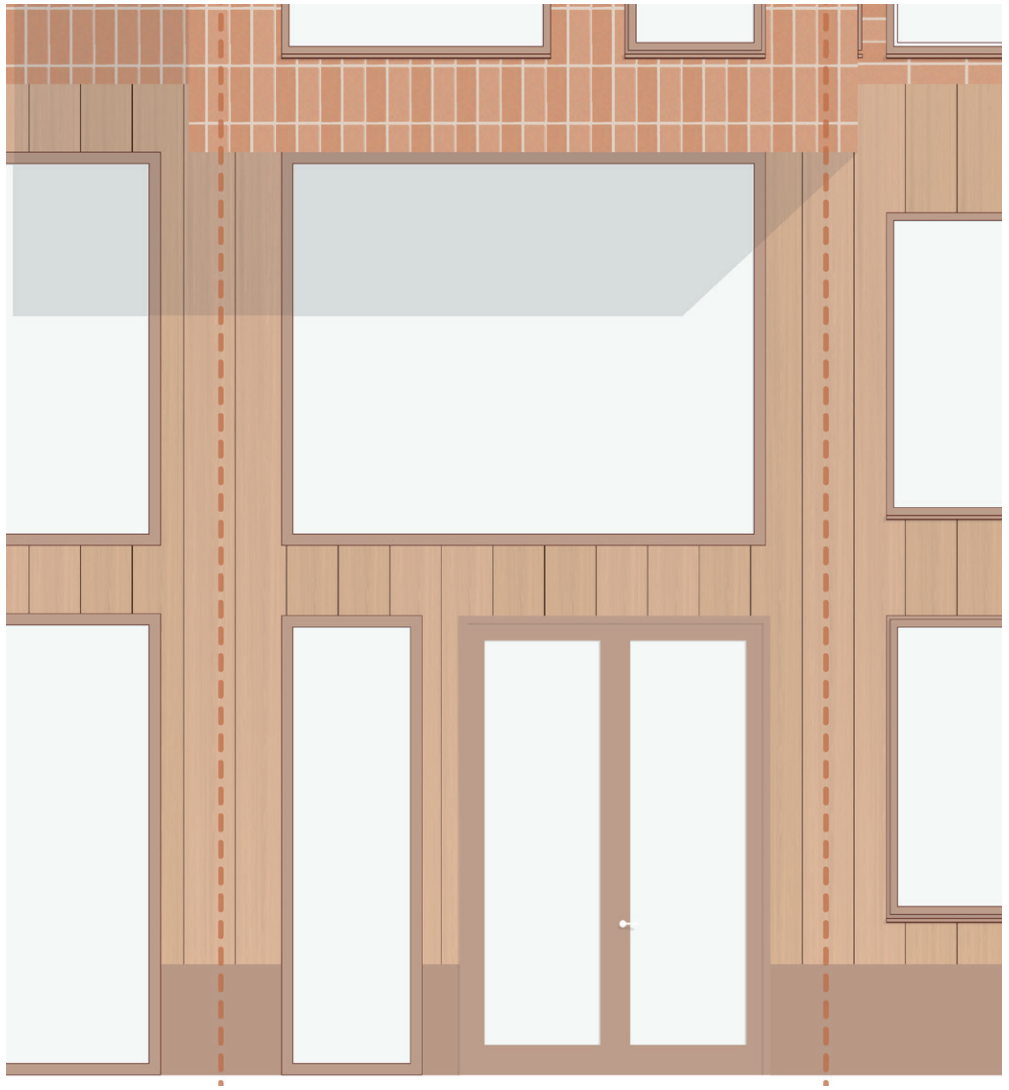
FULL FRAGMENT



FACADE

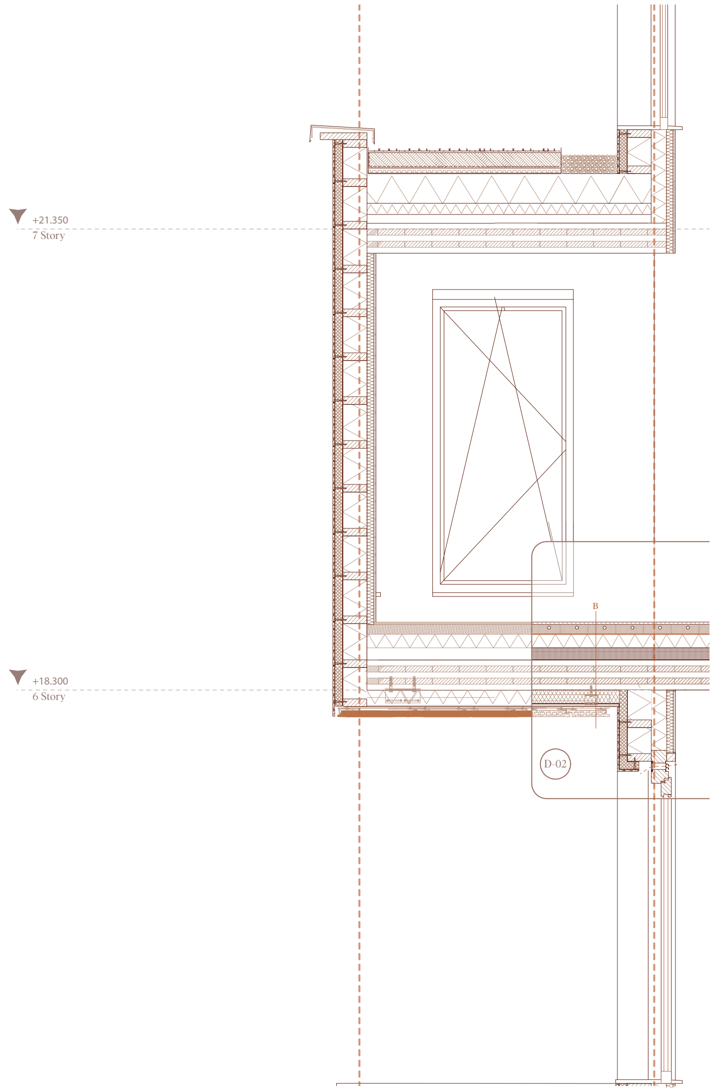
BOTTOM FRAGMENT

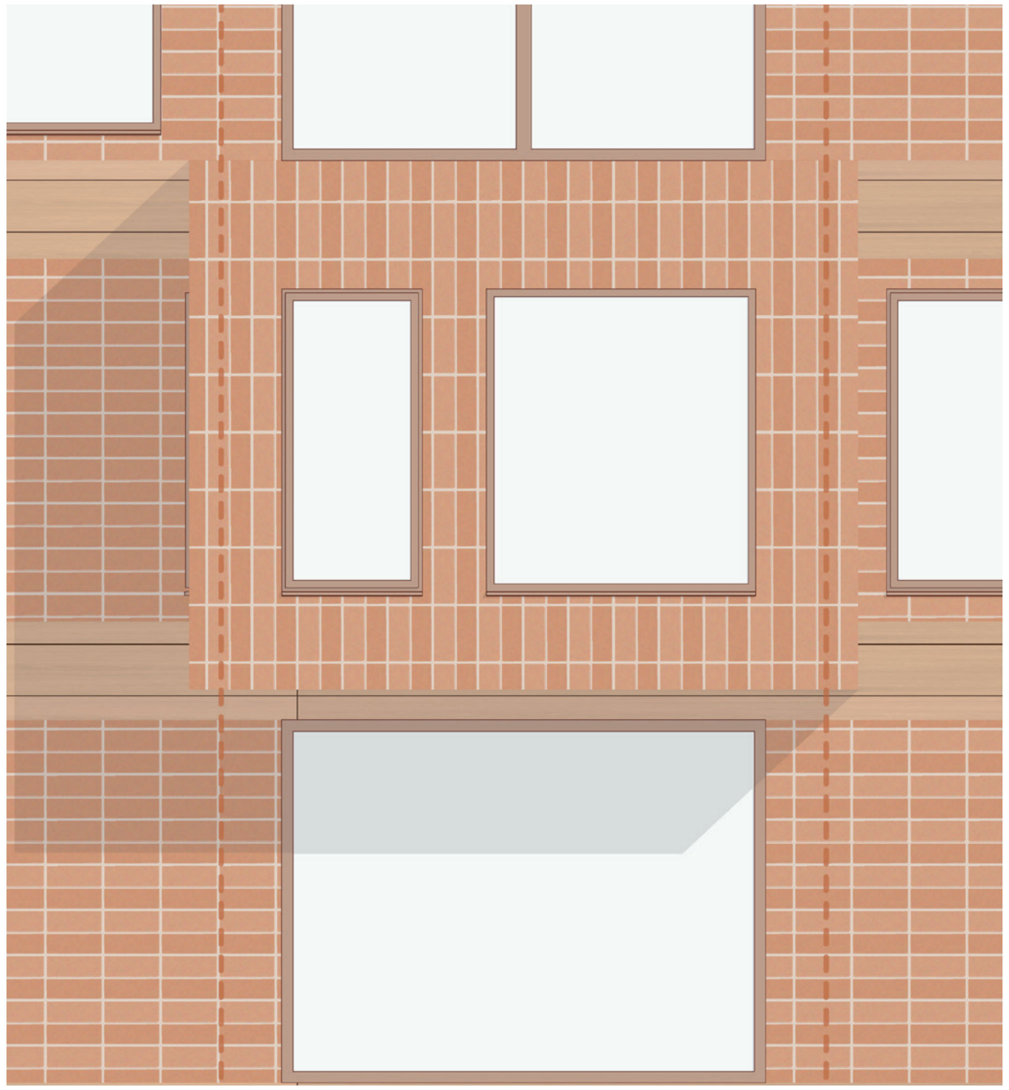




FACADE

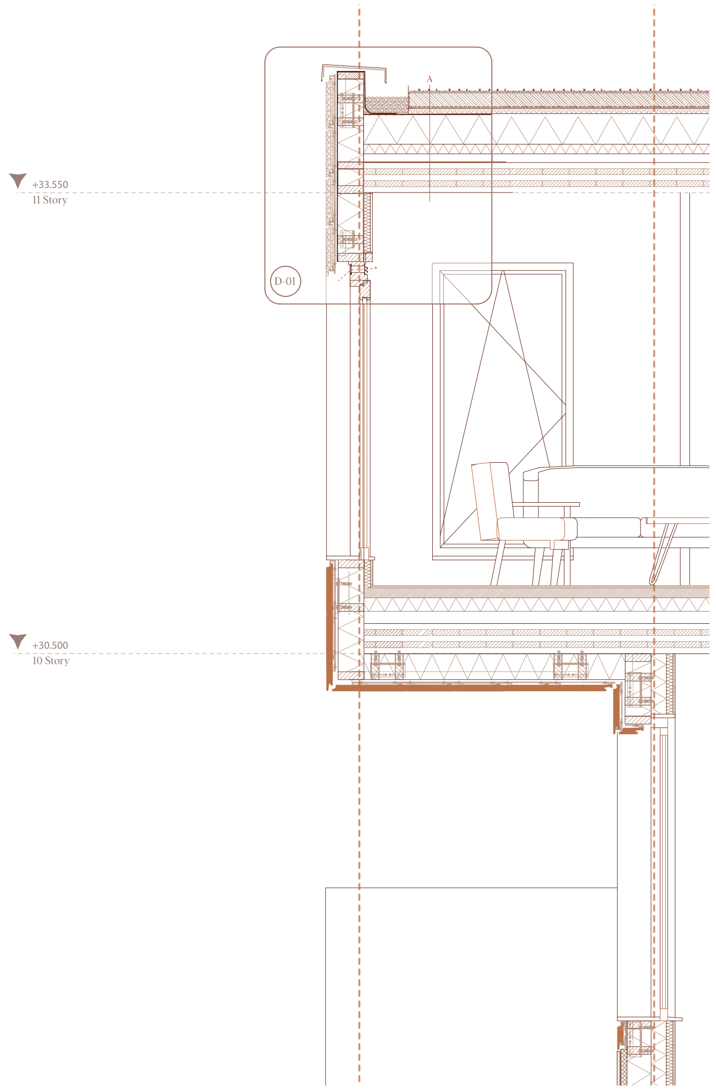
MIDDLE FRAGMENT

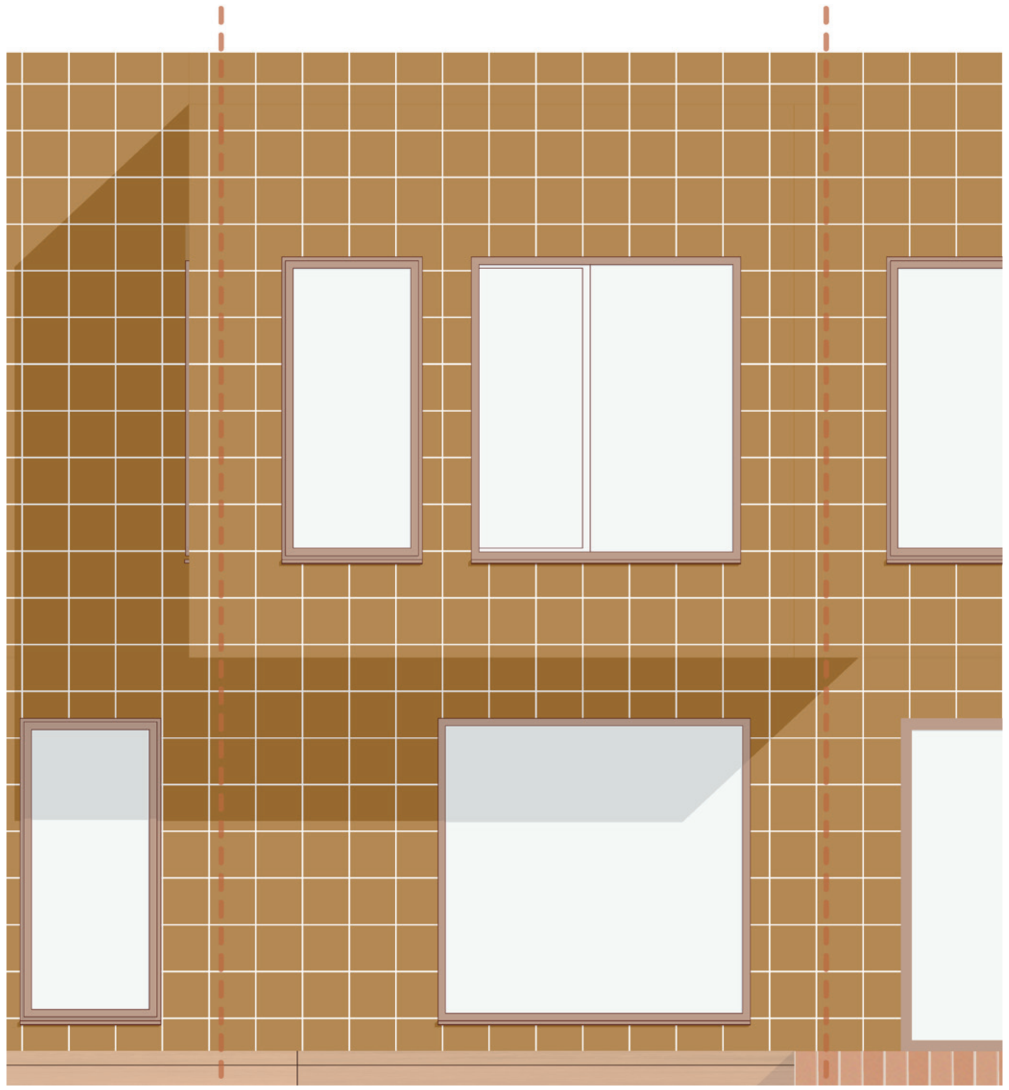




FACADE

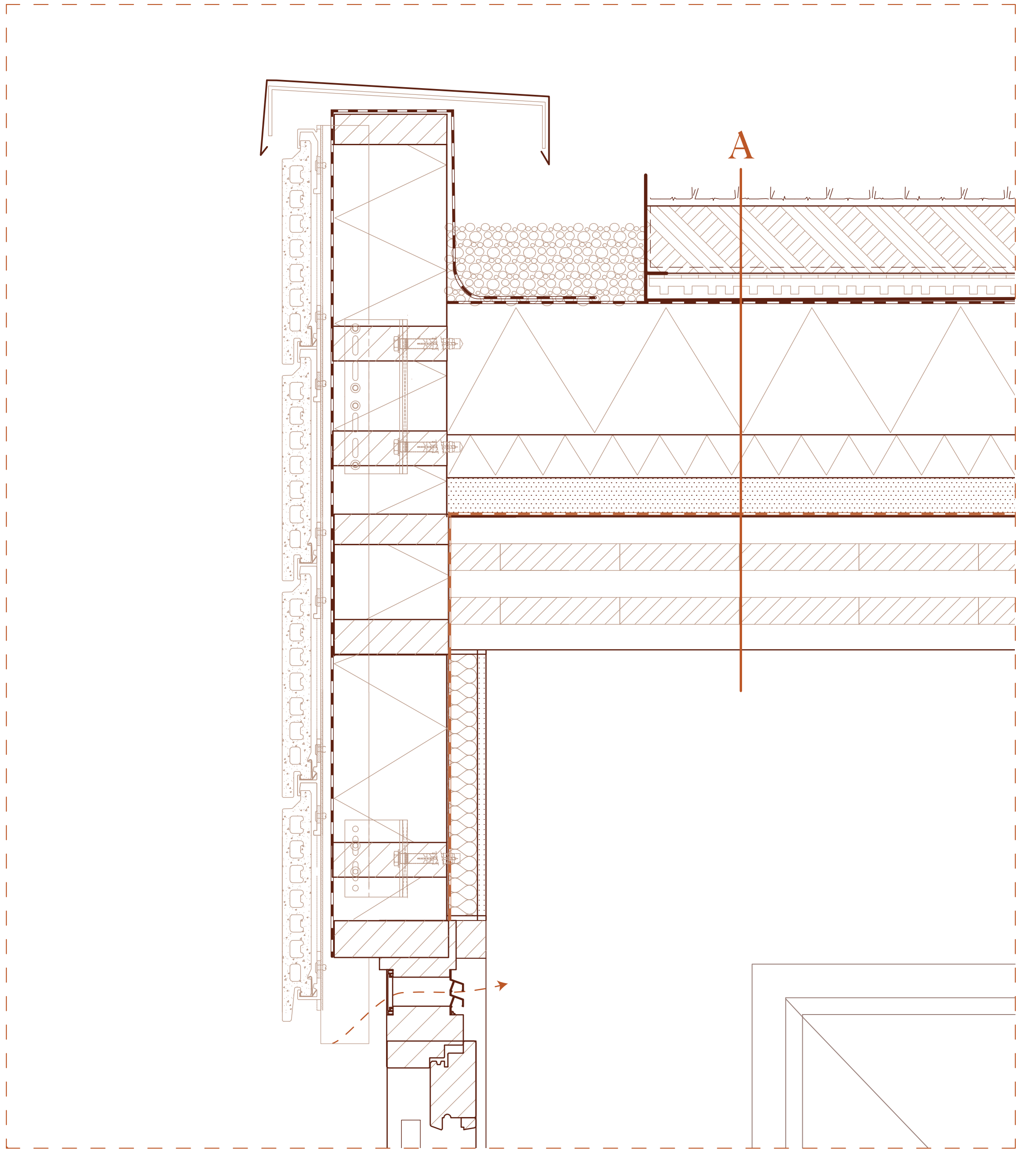
TOP FRAGMENT





ROOF

DETAIL 01

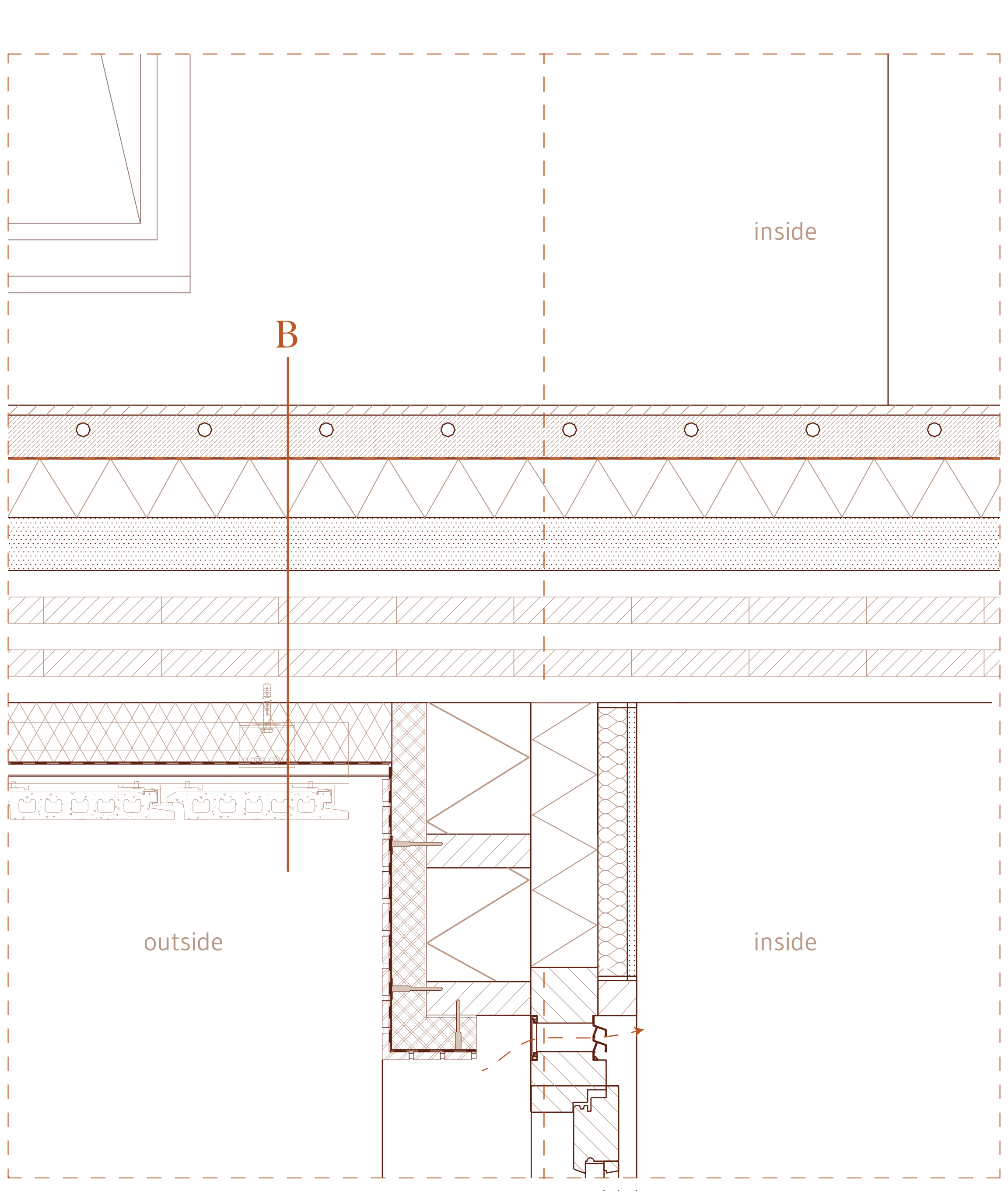


A ROOF STRUCTURE

100 mm Sedum vegetation
Filter fleece
40 mm Drainage element, water reservoir and root barrier
Water proof membrane
150 mm ESP thermal insulation
60 mm ESP thermal insulation
60 mm Chipping infill
Vapour barrier
200 mm Cross laminated timber

BAY WINDOW

DETAIL 02

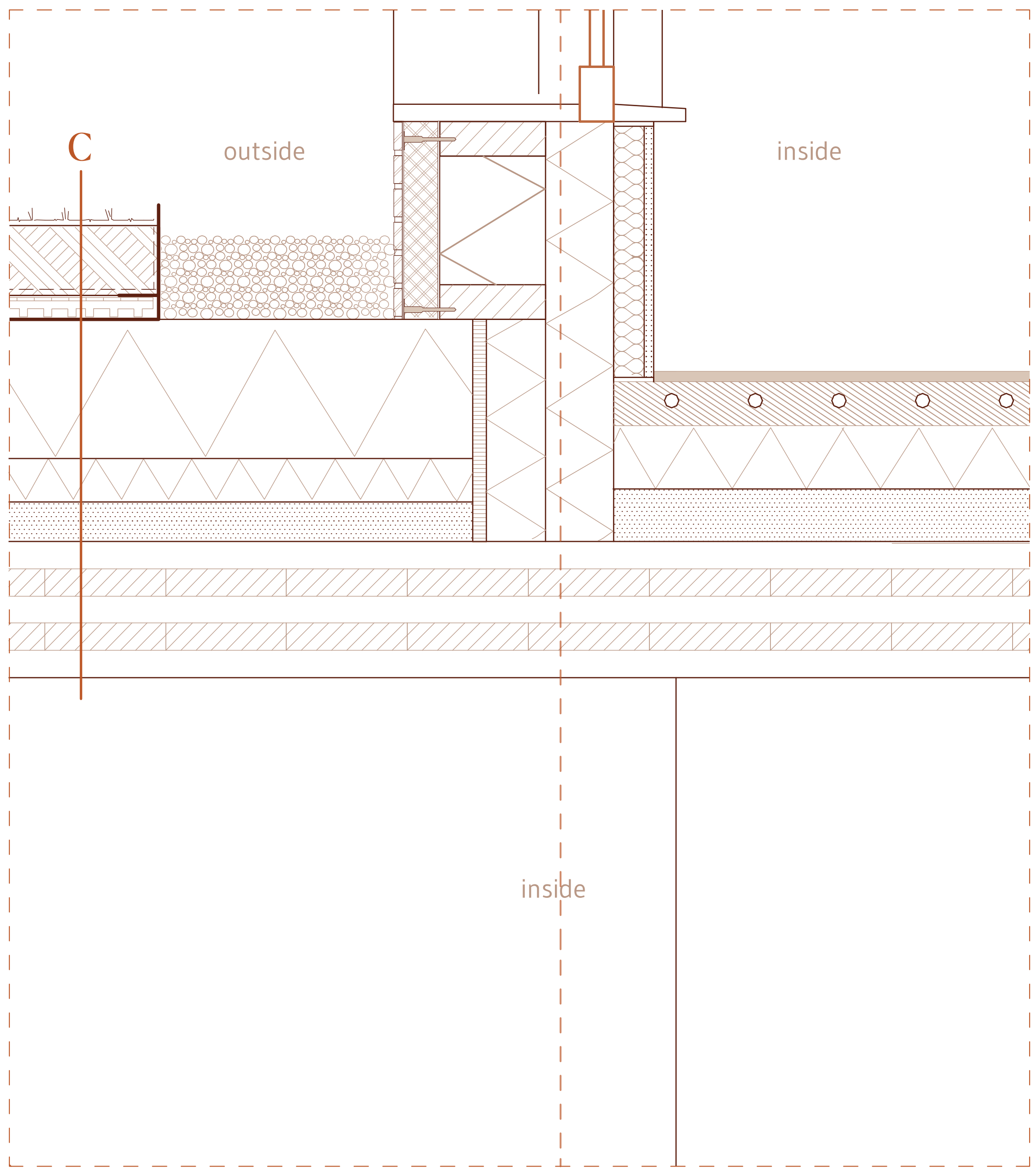


B BAY WINDOW STRUCTURE

15 mm Parquet flooring
65 mm Heating screed
PE foil
90 mm Mineral wool
80 mm Chipping infill
membrane
200 mm CLT
90 mm Hard insulation
20 mm Water resistan fiber board
Vapour barrier
Ceramic tiles

BAY WINDOW

DETAIL 03

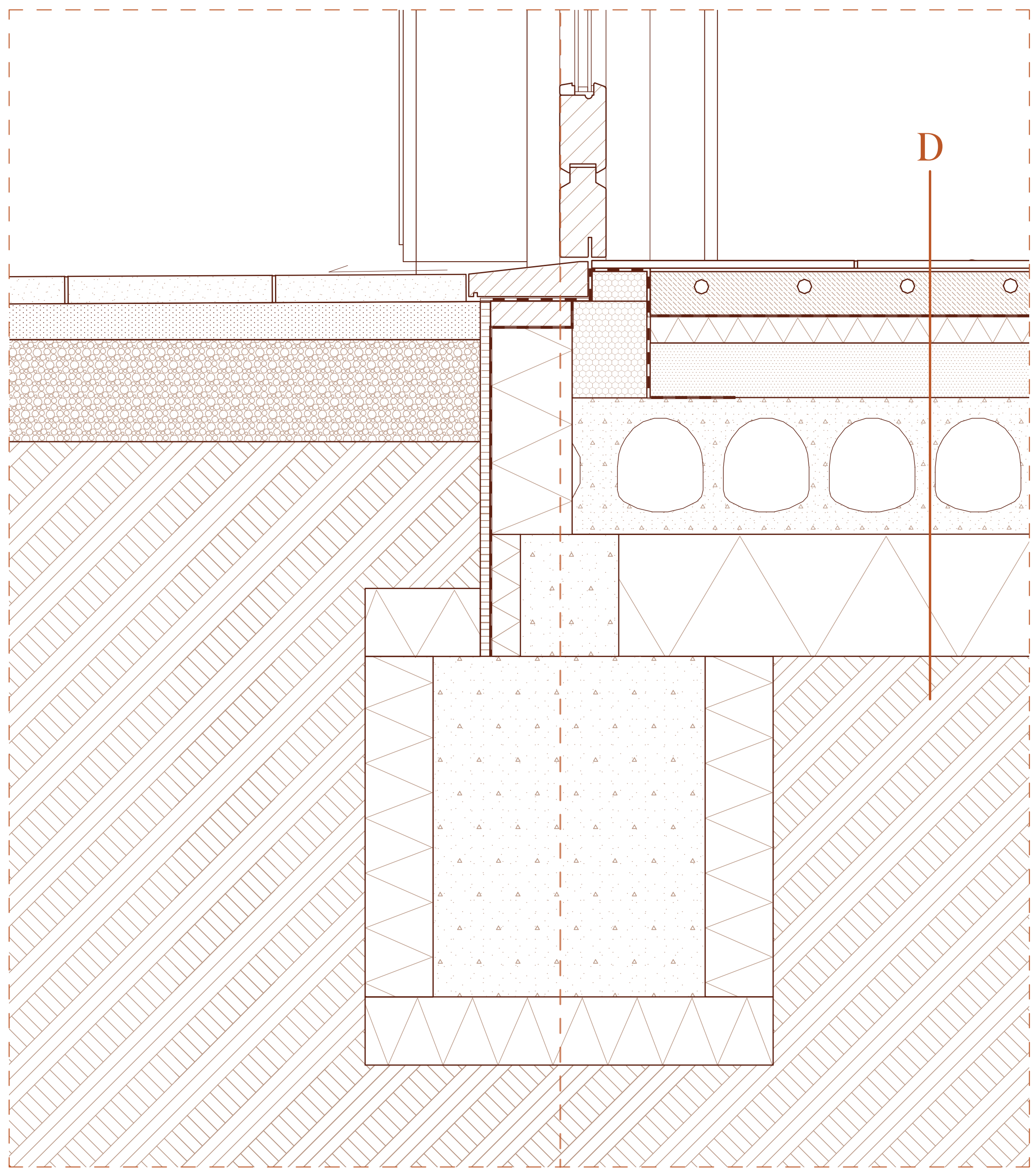


C BAY WINDOW STRUCTURE

100 mm Sedum vegetation
Filter fleece
40 mm Drainage element, water reservoir and root barrier
Water proof membrane
150 mm ESP thermal insulation
60 mm ESP thermal insulation
60 mm Chipping infill
Vapour barrier
200 mm Cross laminated timber

GROUND FLOOR

DETAIL 04

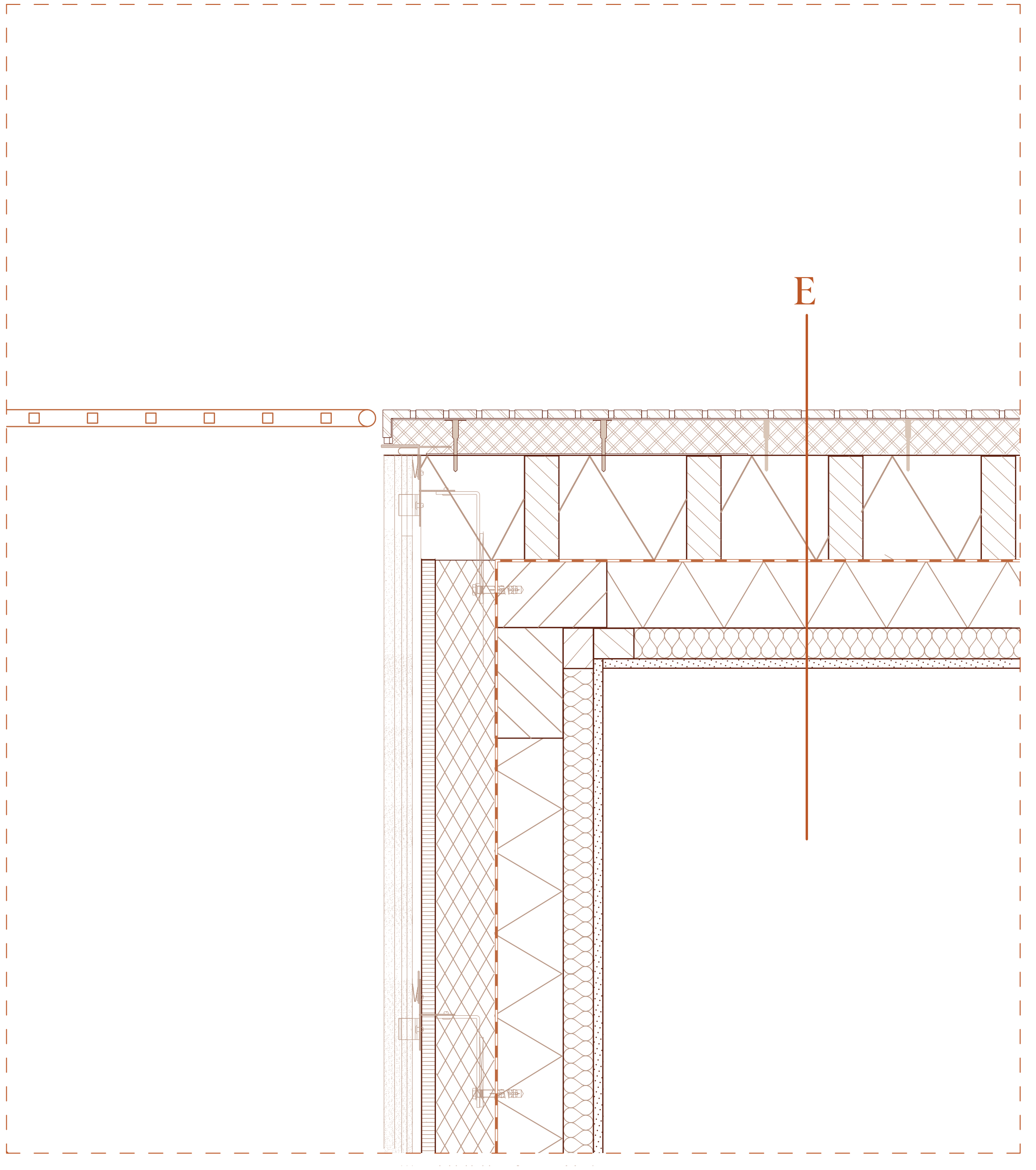


D GROUND FLOOR STRUCTURE

15 mm tiles and adhesive
65 mm heating screed
PE Foil
40 mm mineral wool insulation
80 mm chipping infill
membrane
200 mm concrete hollow core
180 mm EPS insulation

VERTICAL

DETAIL 05



E VERTICAL STRUCTURE
23 mm Brick slips
60 mm E-board
200 mm HSB element
Vapour barrier
100 mm insulation
45 mm Pipe cavity w/ mineral wool
13 mm Gypsum