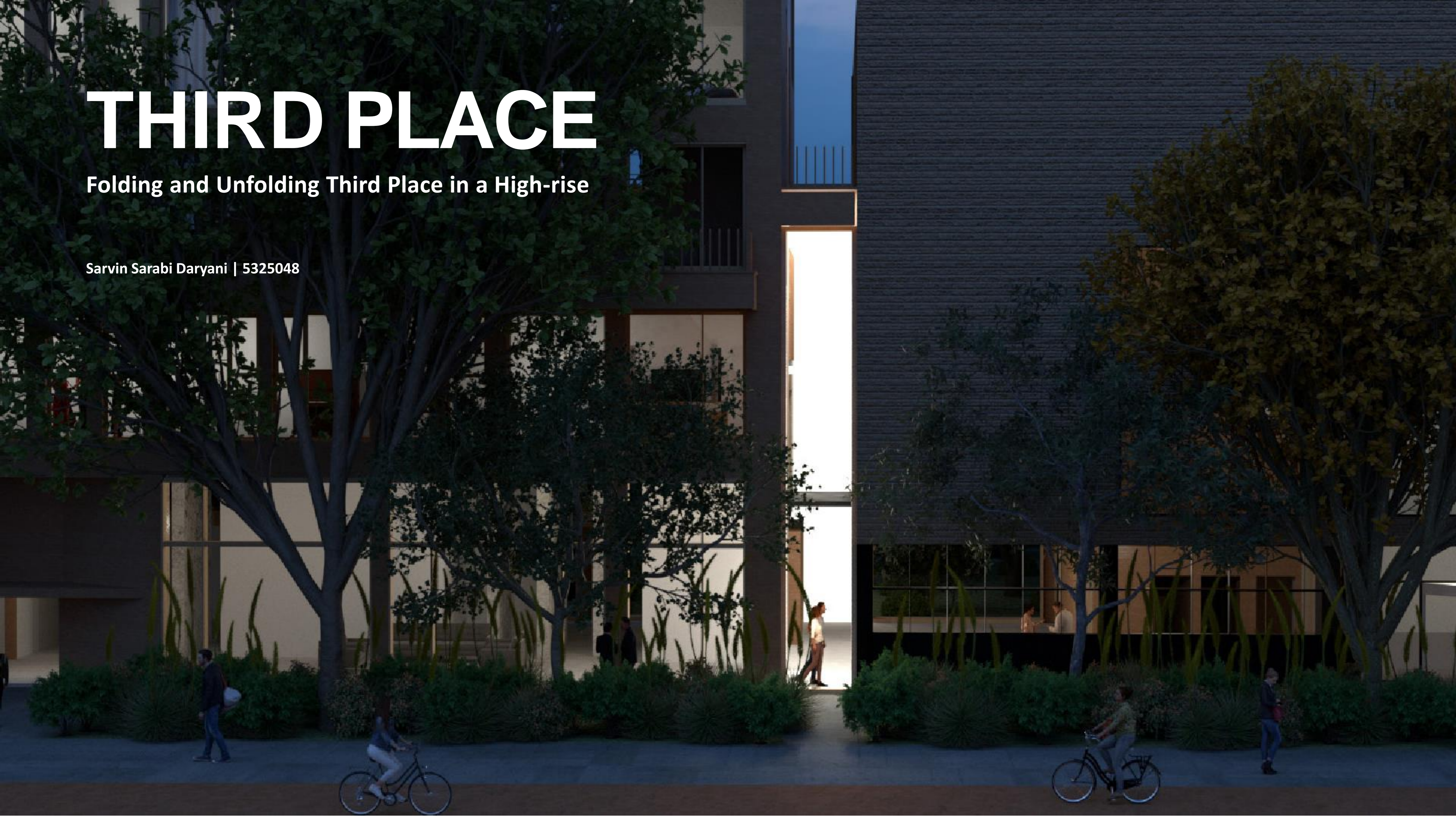


THIRD PLACE

Folding and Unfolding Third Place in a High-rise

Sarvin Sarabi Daryani | 5325048



THIRD PLACE

Folding and Unfolding Third Place in a High-rise

Sarvin Sarabi Daryani | 5325048

Delft University of Technology
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AR3AD100 Advanced Housing Design
Academic Year: 2021-2022

Research Mentor:

Anne Kockelkorn

Design Mentors:

Olv Klijn

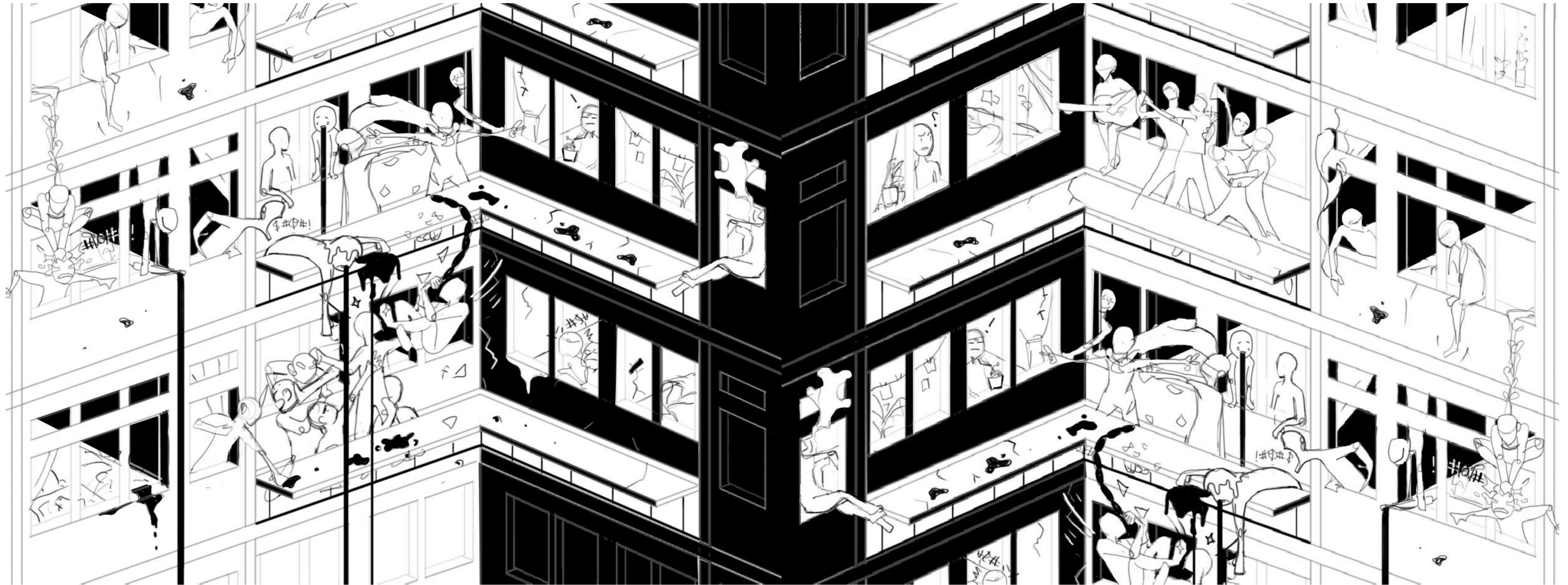
Ferry Adema

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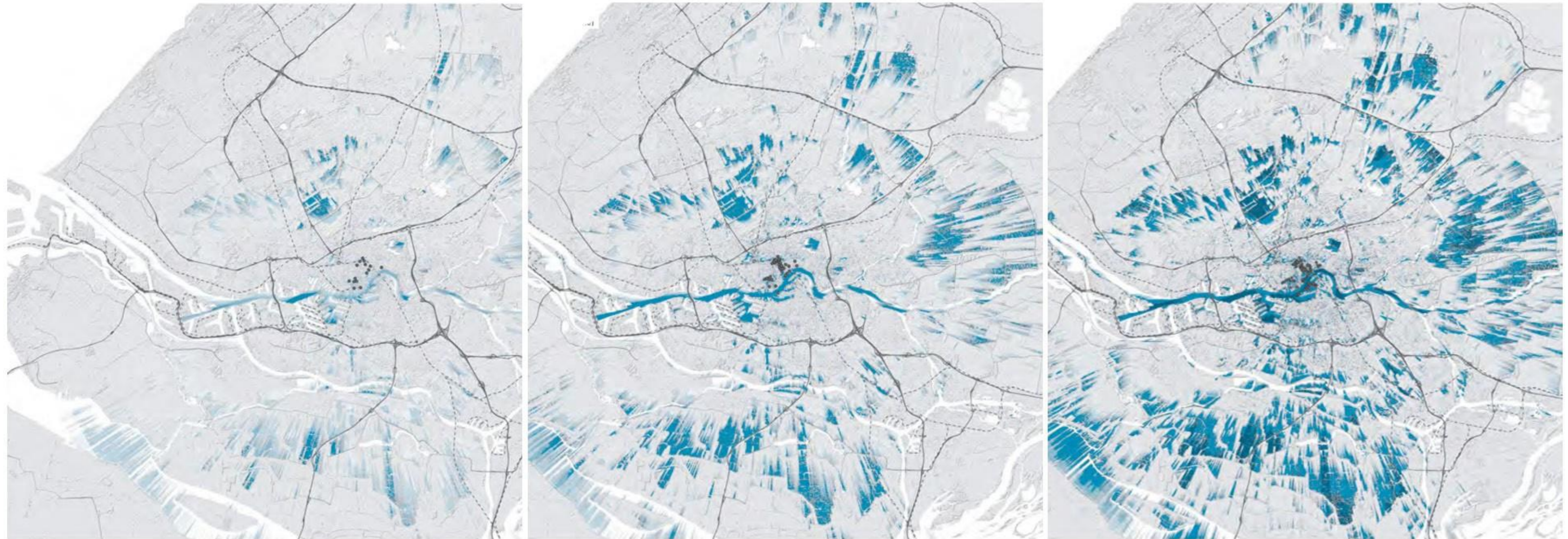
Introduction

Personal Experience



Introduction

Challenges of the high-rise typology

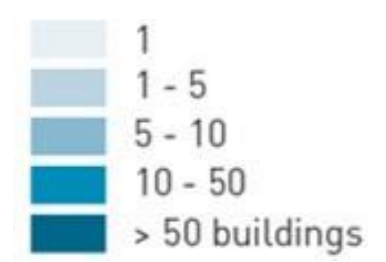


The Rotterdam cluster: Visibility of the high buildings built from 1970 to 2015

built in 1970 or earlier

built in 1922 or earlier

built in 2015 or earlier



Source: van der Hoeven, F., & Nijhuis, S. (2011). Hi Rise, I can see you! Planning and visibility assessment of high building development in Rotterdam. *Research in Urbanism Series*, 2, 277-301.

Introduction

Third Place



Research question

1 What are the main characteristics and the common interests of the young adults living in the Netherlands?

2 How dwelling typologies and their composition can solve the spatial challenges of a high-rise?

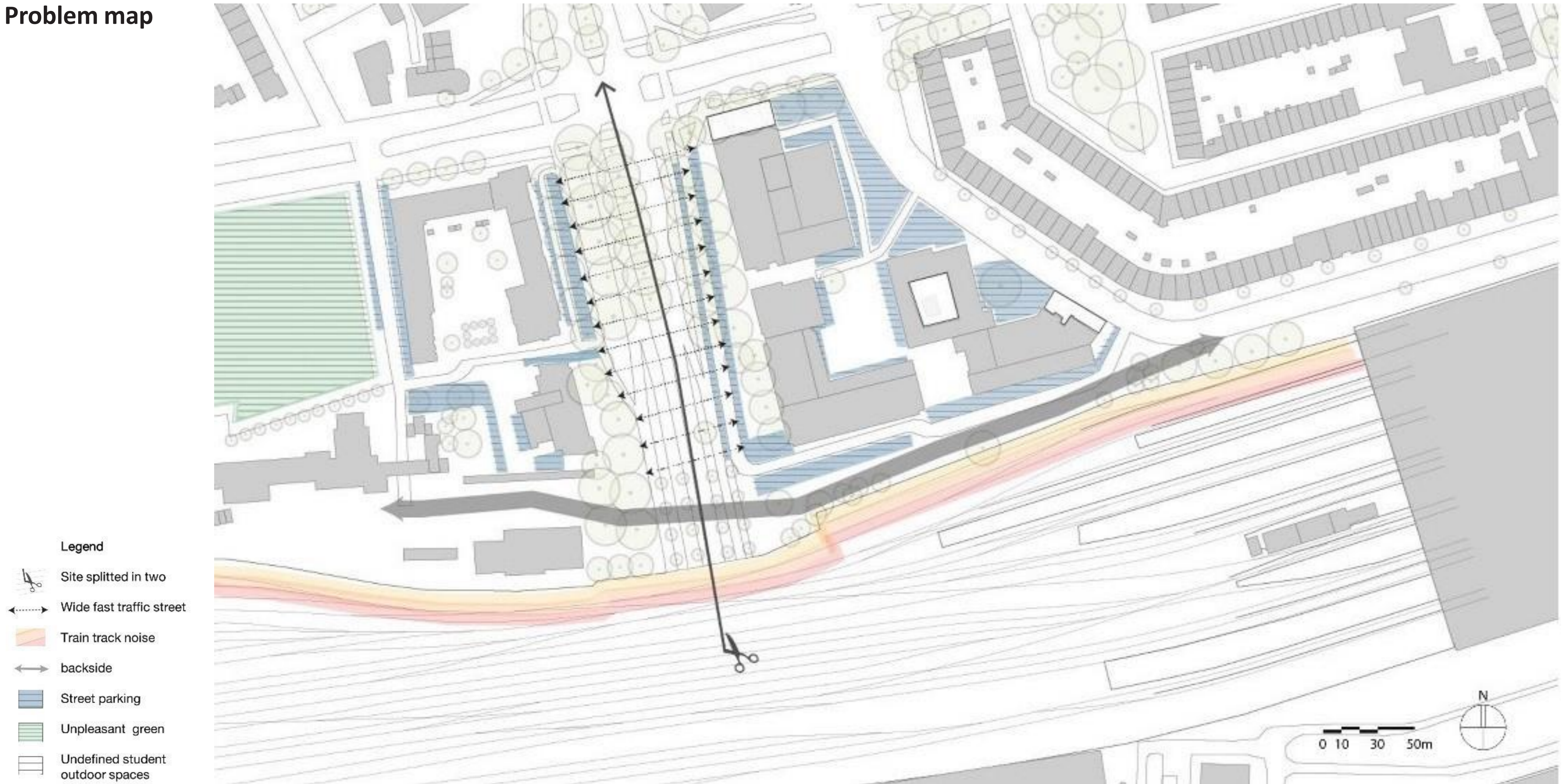
How can lived spaces and workspaces be condensed in **one complex**, while supporting the **common interests** of their users and introducing **spatial tools** to create spaces of encounter for them?

3 How does the Third Place function as spaces of encounter and how can a circulation space function as the Third Place?

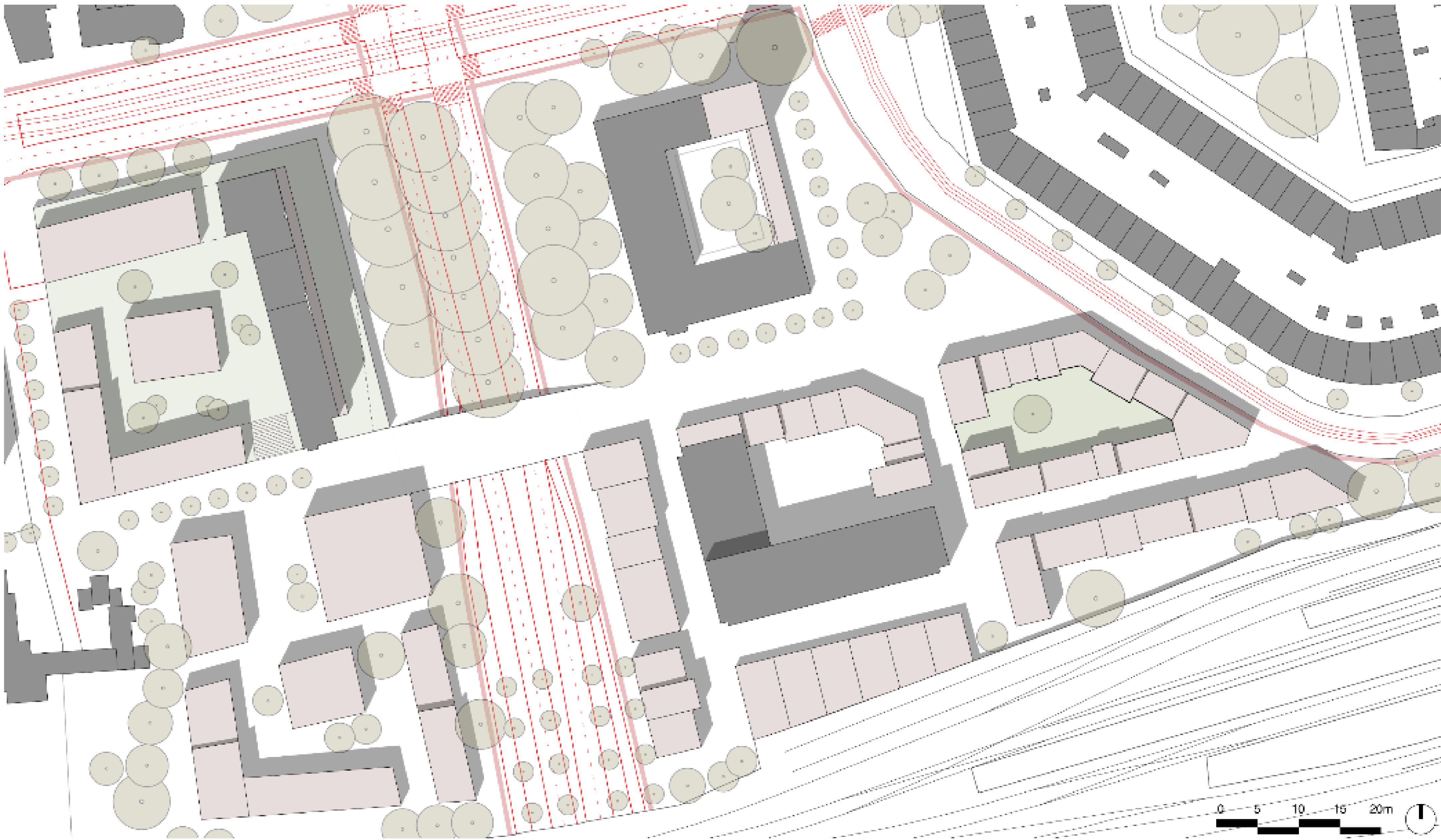


Klijn, O., & Kockelkorn, A. (2021). Advanced Housing Design: Ecology of Inclusion. TU Delft

Problem map



Masterplan

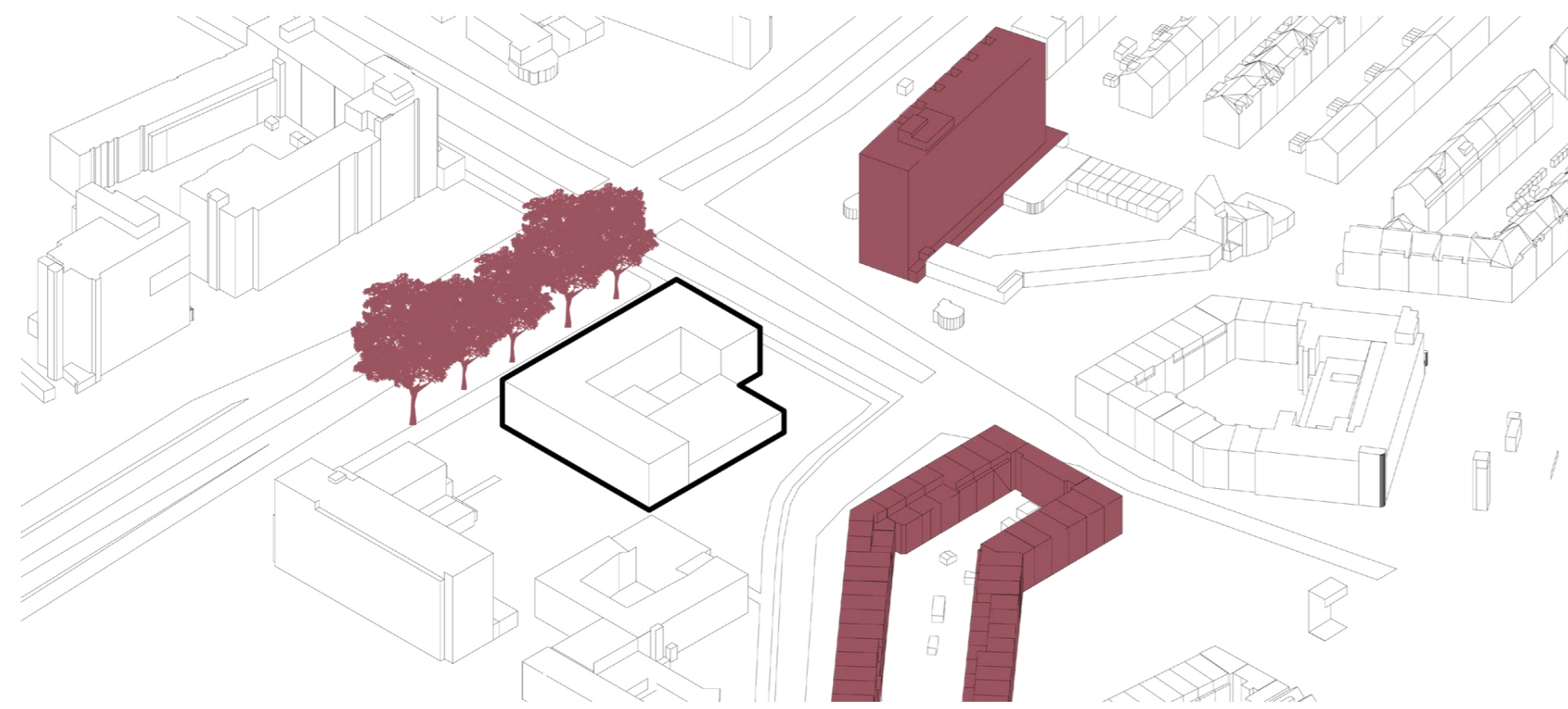


Masterplan by the social group.

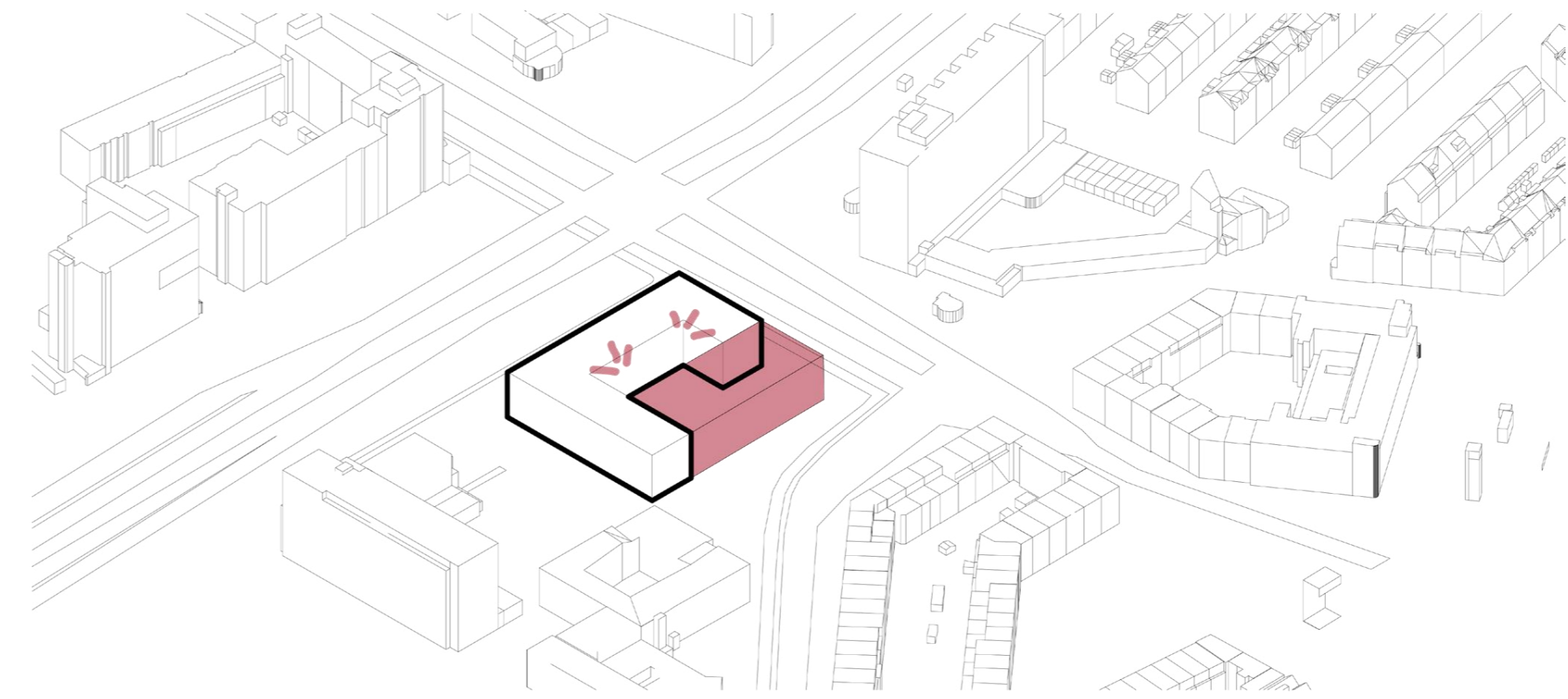


Klijn, O., & Kockelkorn, A. (2021). Advanced Housing Design: Ecology of Inclusion. TU Delft

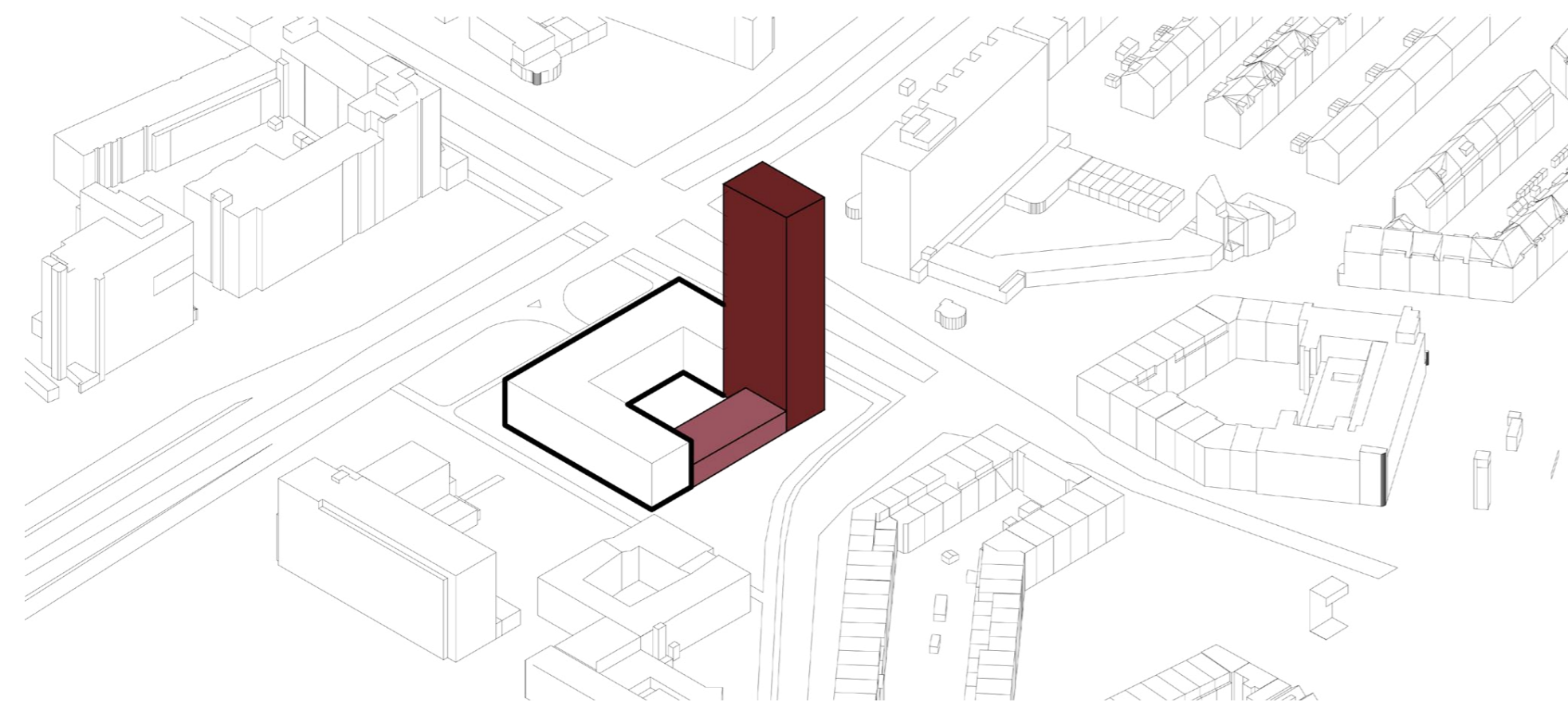
Relation to the context



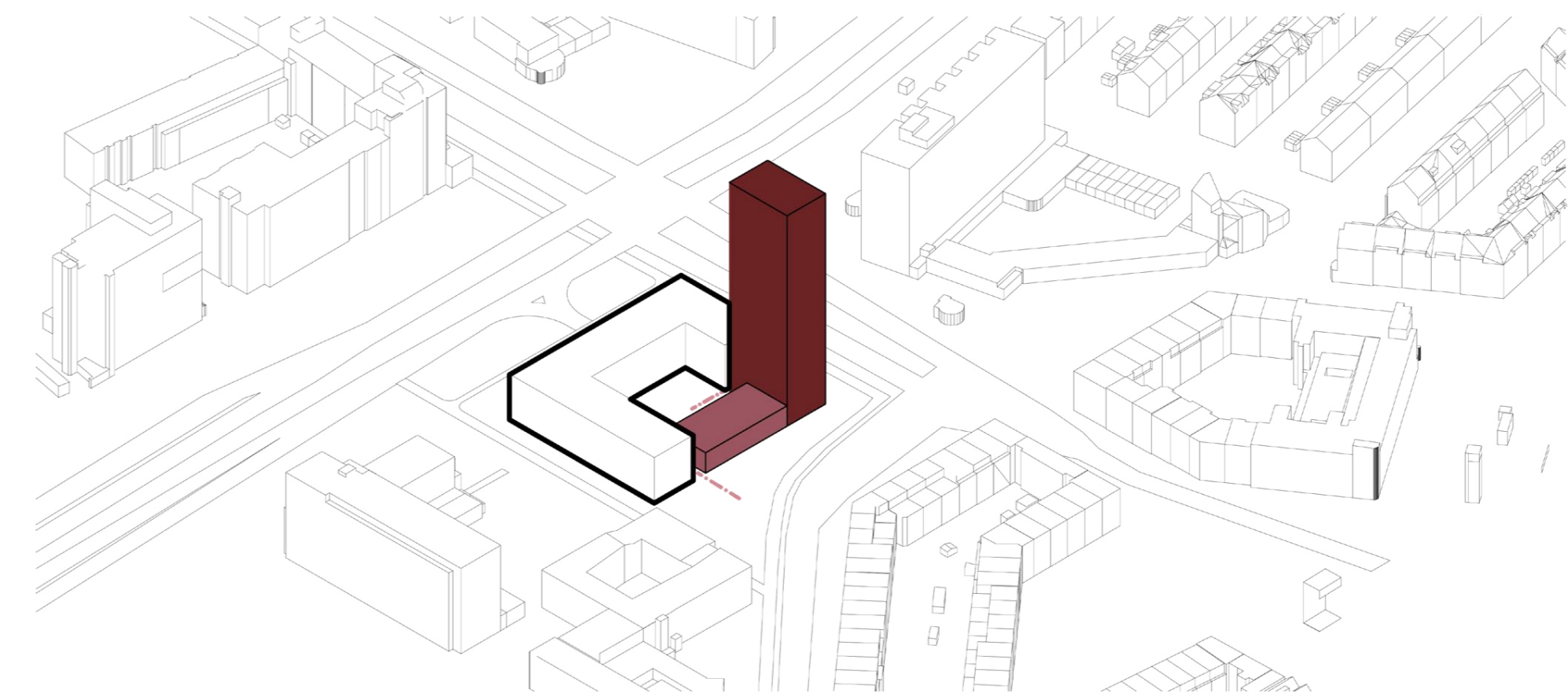
Surrounding buildings



Creating a courtyard

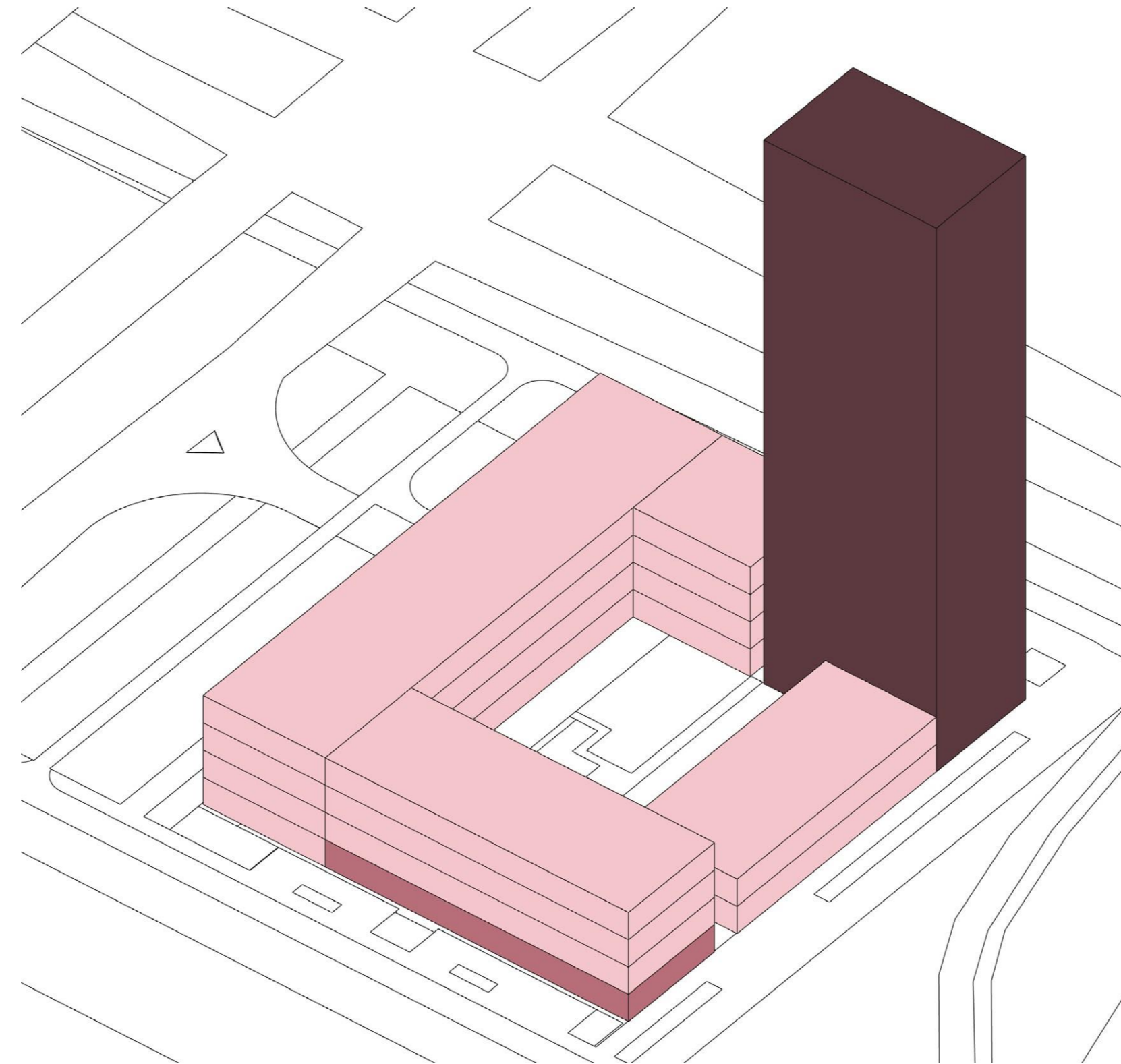


New structure



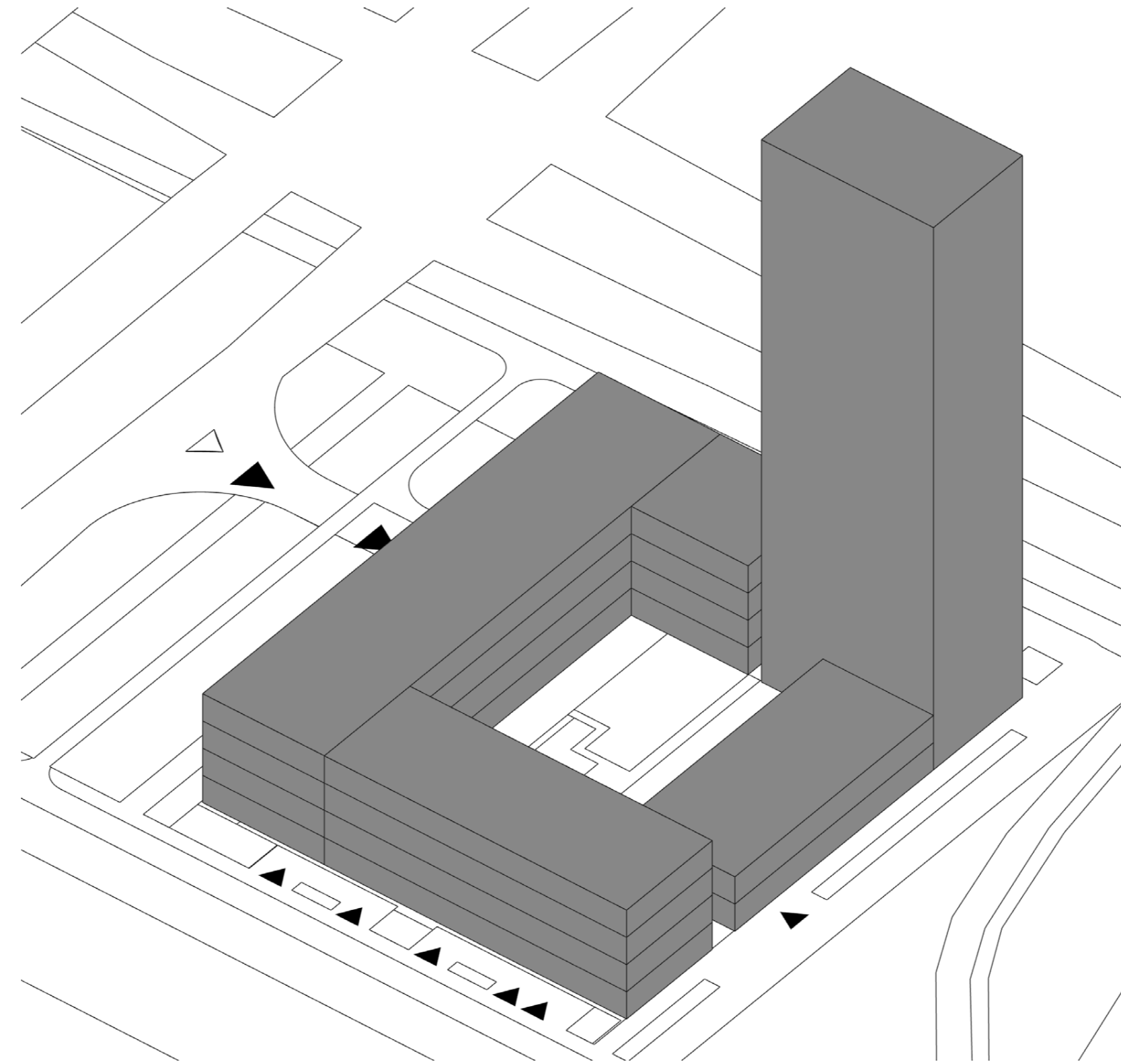
Gaps between the new and existing

Overview of the programs



- workspaces
- shops
- dwellings

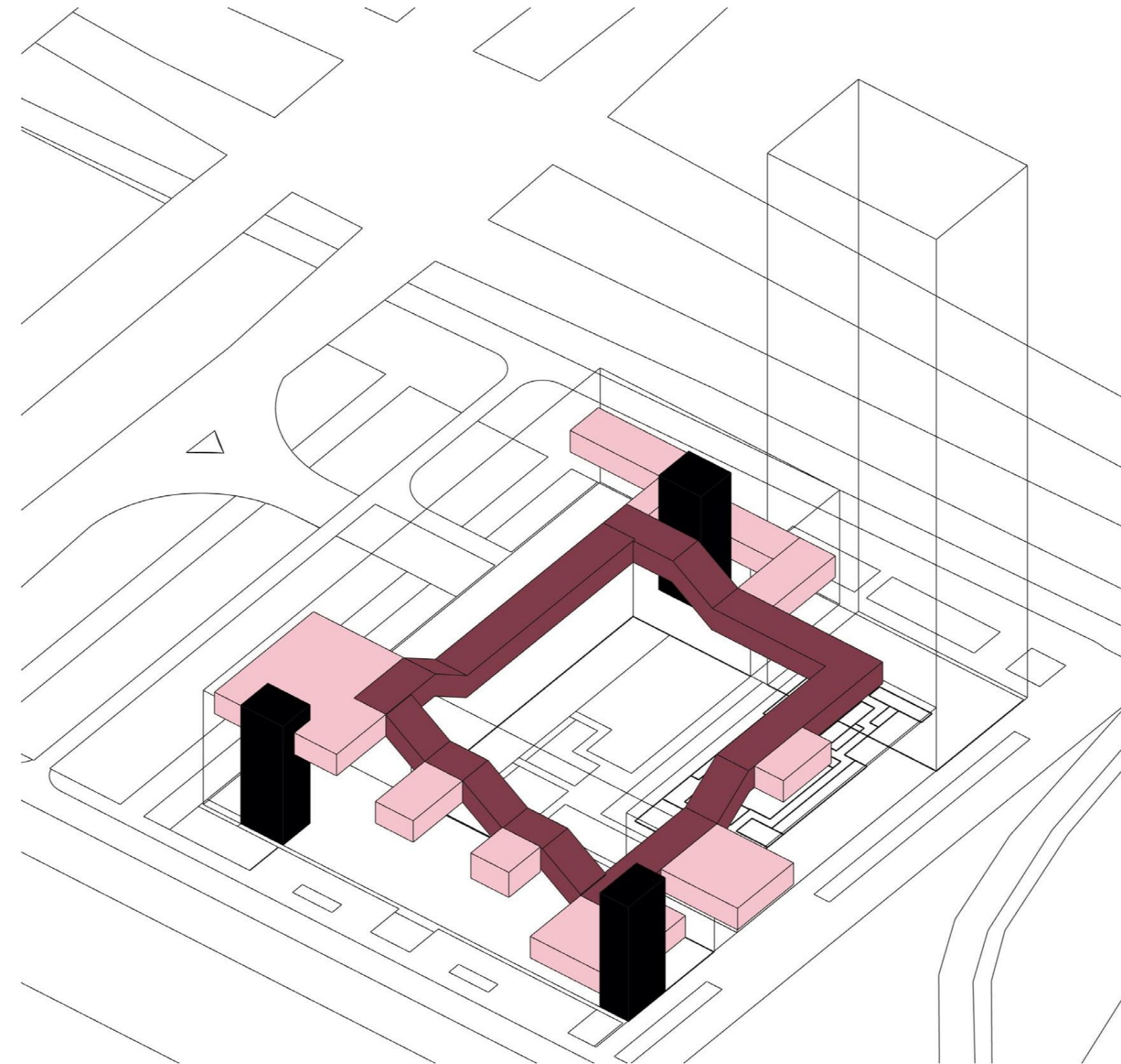
Relation to the surroundings



■ entrances

Third Place

Introducing the Third Place to the site



- Shared spaces
- Third Place route
- Vertical Circulation

User group and personas



The Stable One
 She is working and has a stable job. She is maintaining what she chose as an occupation in the Early Adult Transition. She has a stable personal relationship, which was established in the Early Adult Transition. She's living with her partner. Her occupation and relationship have central importance in her life. She is maintaining continuity with the pre-adult world.



The One in a Life Crisis.
 Age: 30
 He is Experiencing a 'life crisis'. He is changing residency, job, and relationships frequently.
 He is a novelist, earning little from writing. Also, he is changing part-time jobs to have income. He is struggling to find a time for his passion, writing.
 He is from an affluent background. His parents disapprove of him writing. To pursue his dream job, he had to make a sharp break from his parents and his pre-adult world.
 He Lives solo. Sometimes his kid from his previous marriage visits him and stays with him.



The competitive one.

He is 23 years old. He studies at a university but also works part-time. He is from a middle-income family. He is moving towards a high-status business or professional career. He is single. Enjoys spending time with his housemates, but also prefers having privacy. He is experiencing a change in his educational-cultural milieu, family life, and lifestyle. He has a stressed life, but it is outweighed by the excitement of progress in life.



The Exploring One.

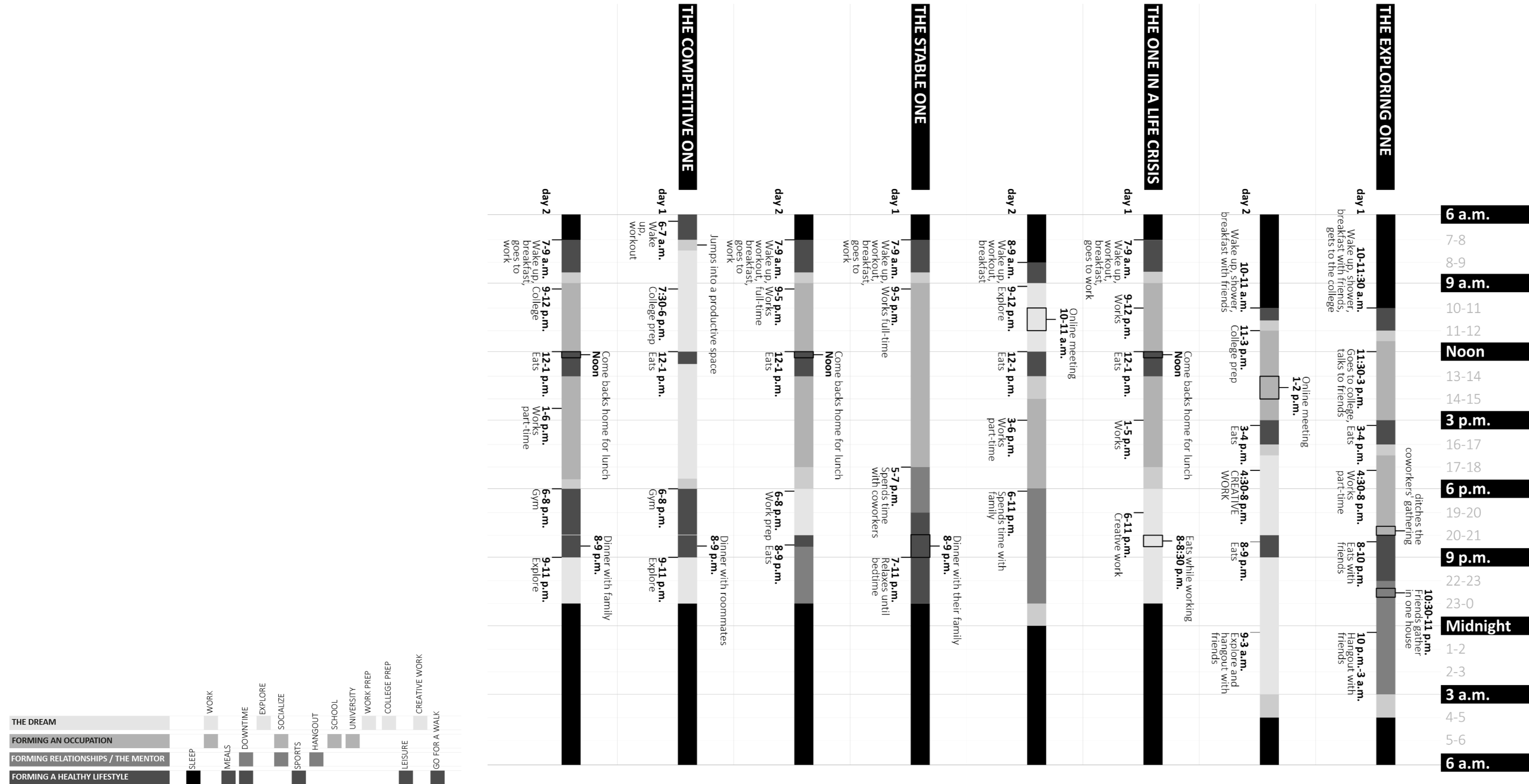
Age: 22. (Early Adult Transition) He is a college student, and he works part-time.

He is very ambitious about painting and graffiti art. However, he is still exploring his skills for his future.

He is not in touch with his family, he has lost contact because of the different objectives and goals that he has for his life. He has a couple of friends that he visits occasionally.

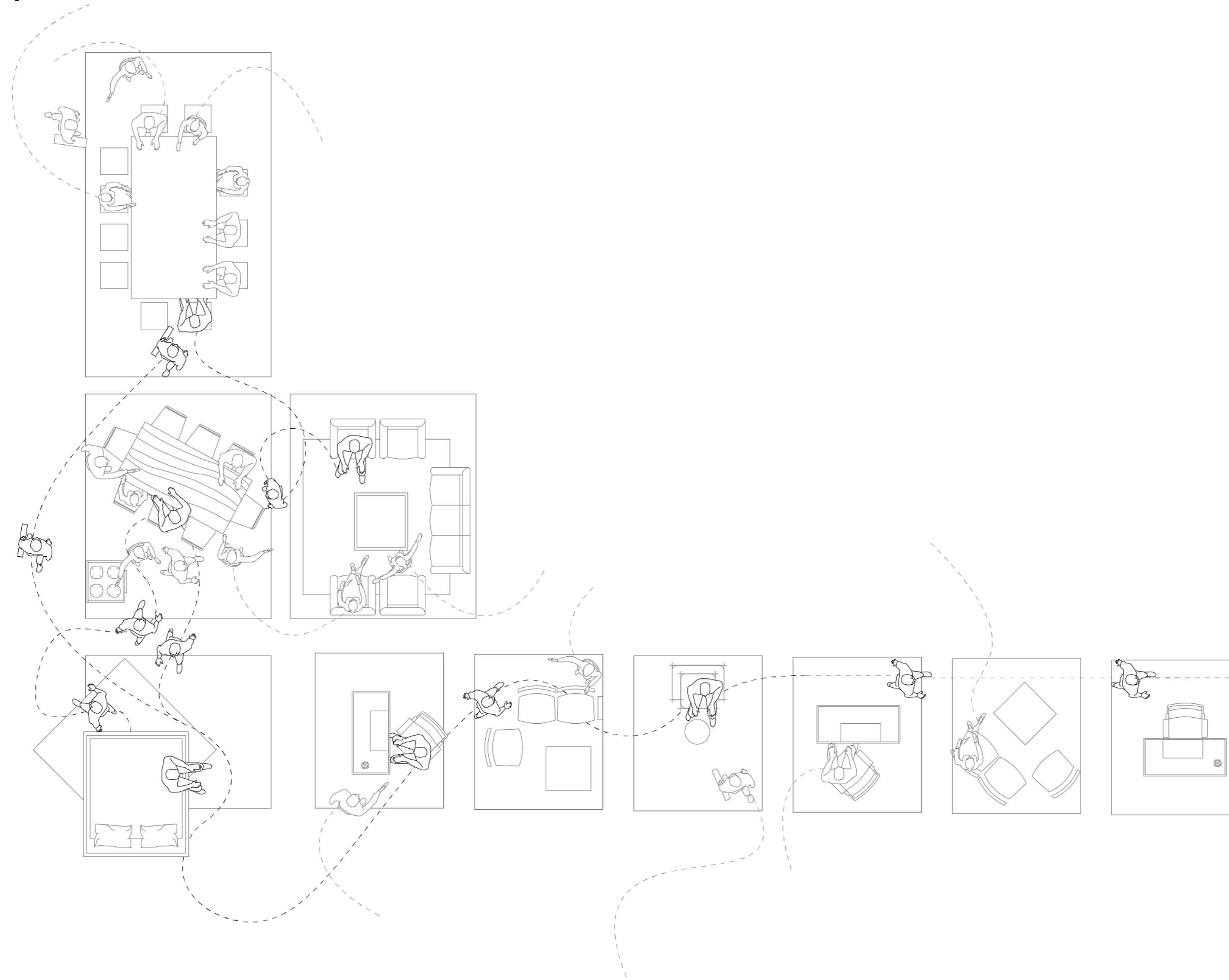
Personas

Daily cycles and common interests



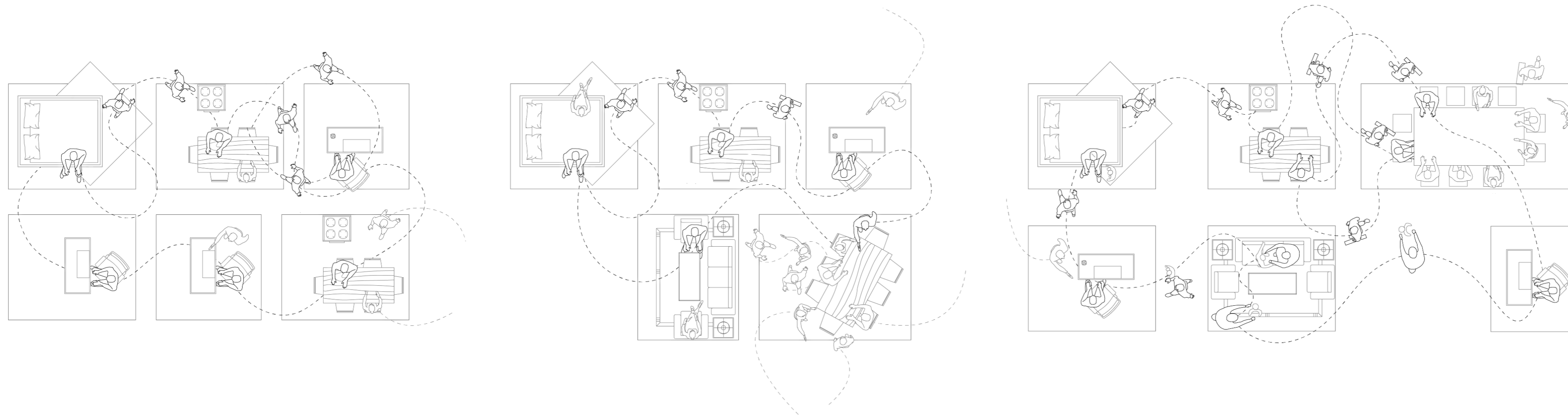
Personas

Living and working pathways



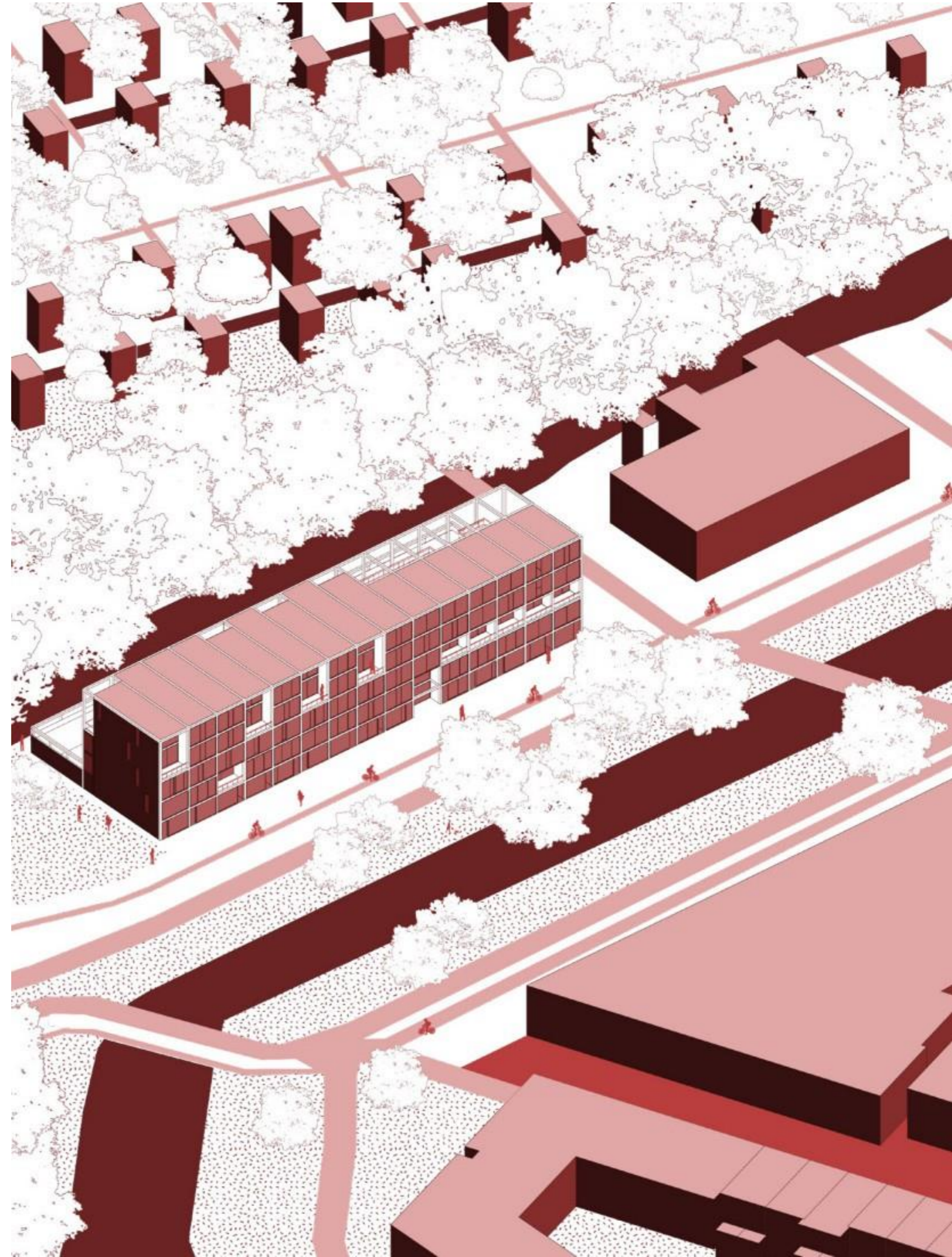
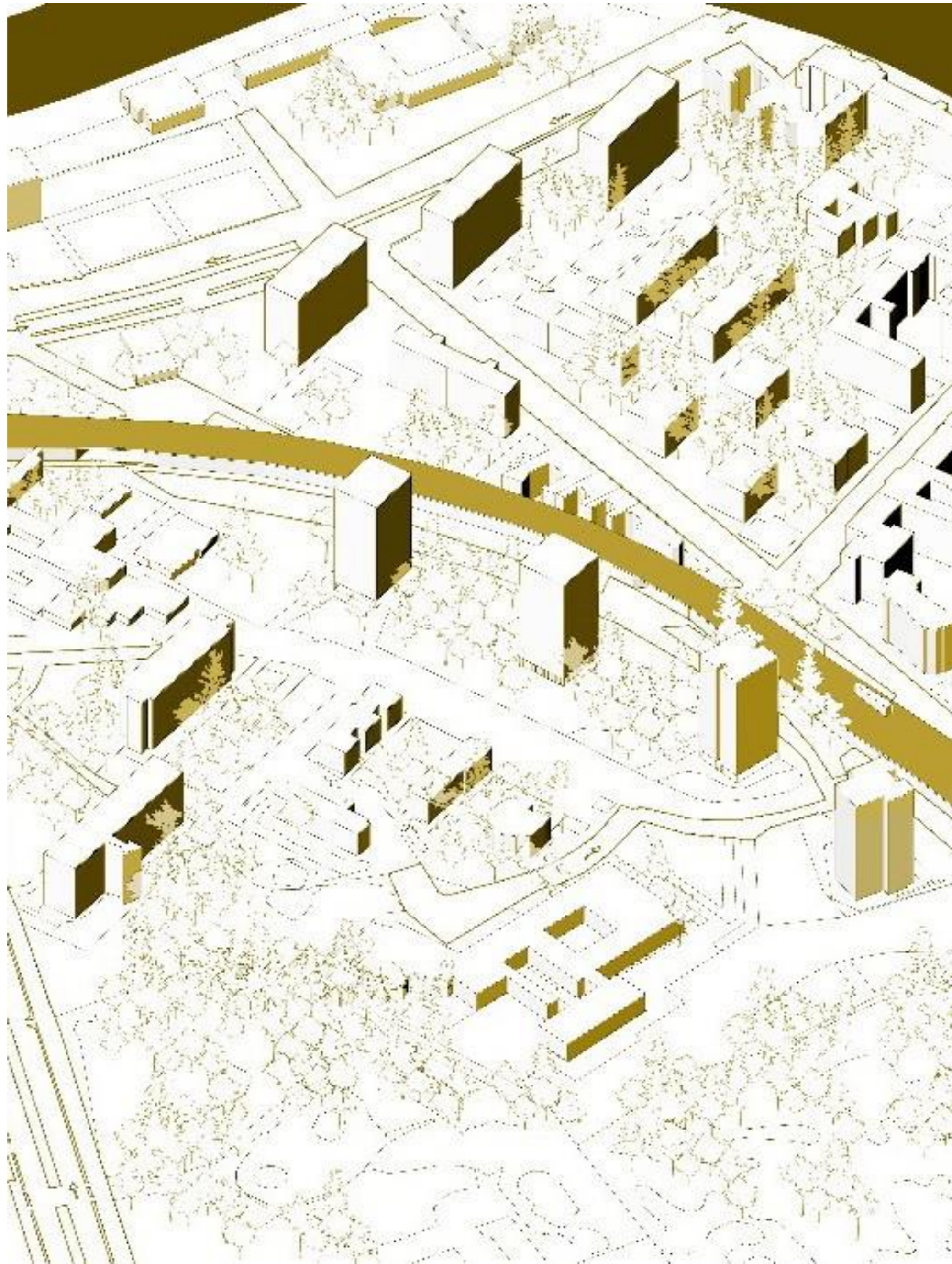
Personas

Living and working pathways



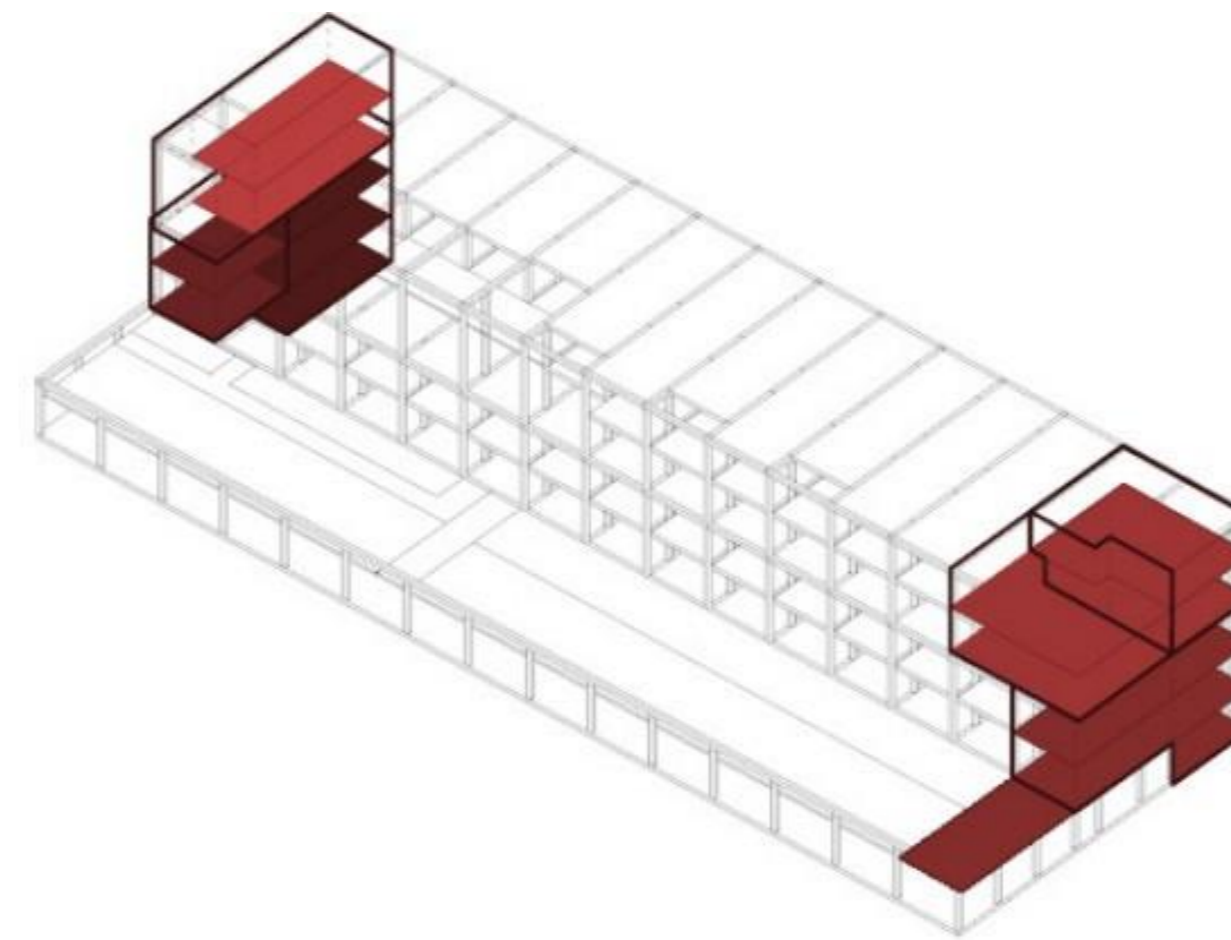
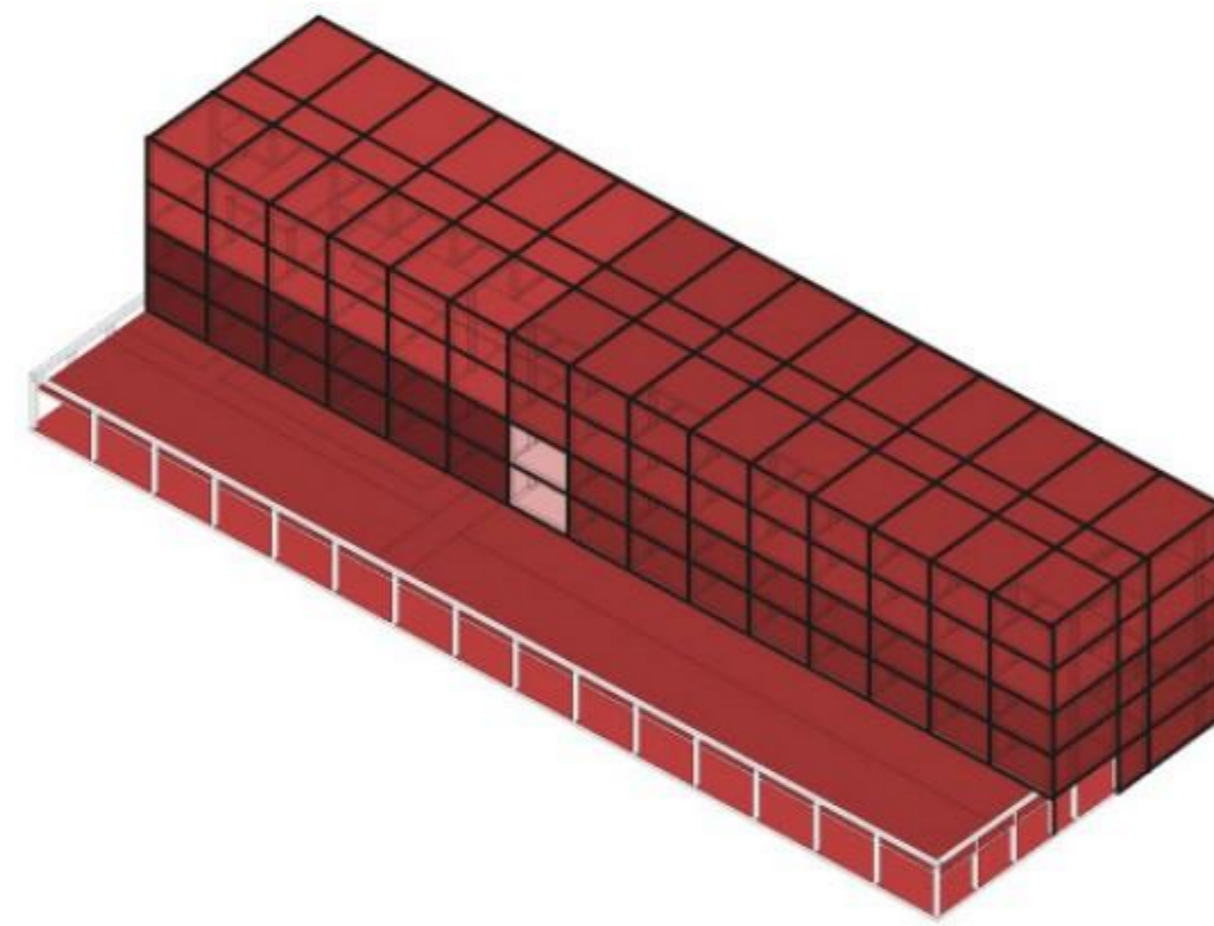
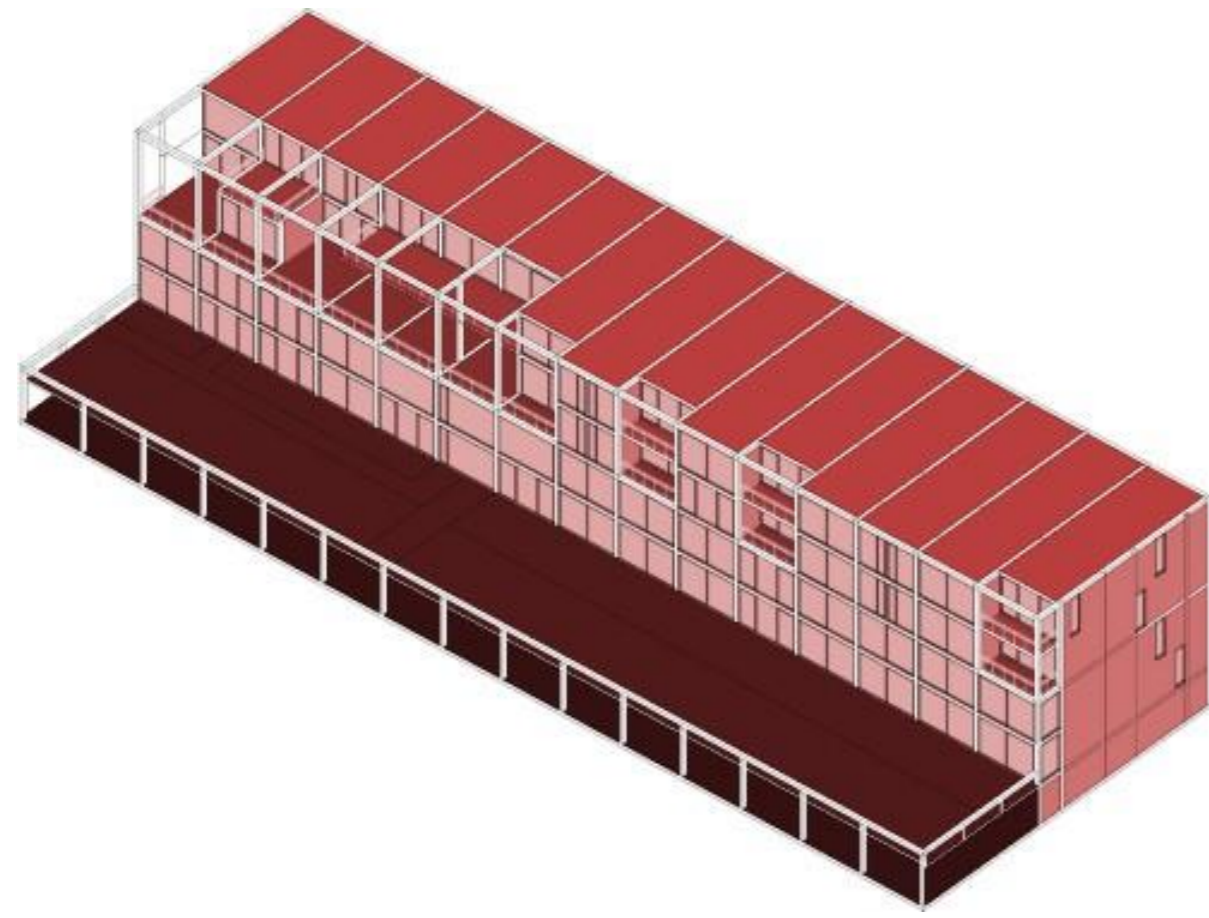
Dwelling composition





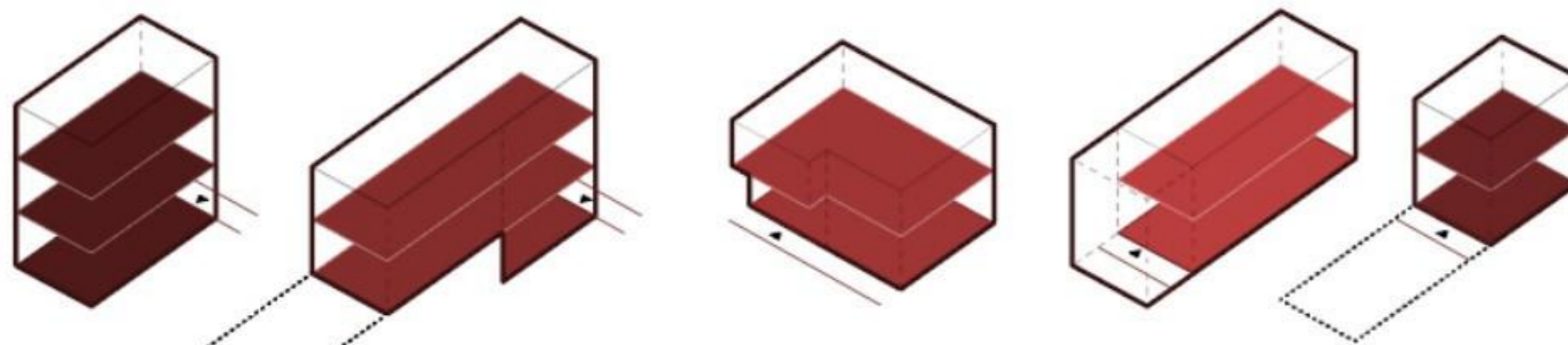
Blok Y

Dwelling composition



Blok Y

Dwelling typologies



	A	B	C	D	E
Type	A	B	C	D	E
Living area	73 m ²	126 m ²	87 m ²	78 m ²	63.5 m ²
Garden area	-	35 m ²	-	-	22 m ²
Orientation	Startreweg	Startreweg	Startreweg or De Pioniers	De Pioniers	De Pioniers
	Startloft Japans	Herenhuis Loft	Penthouse Loft	Doorzon Loft	Startloft tuin

Bakema tower

Dwelling composition



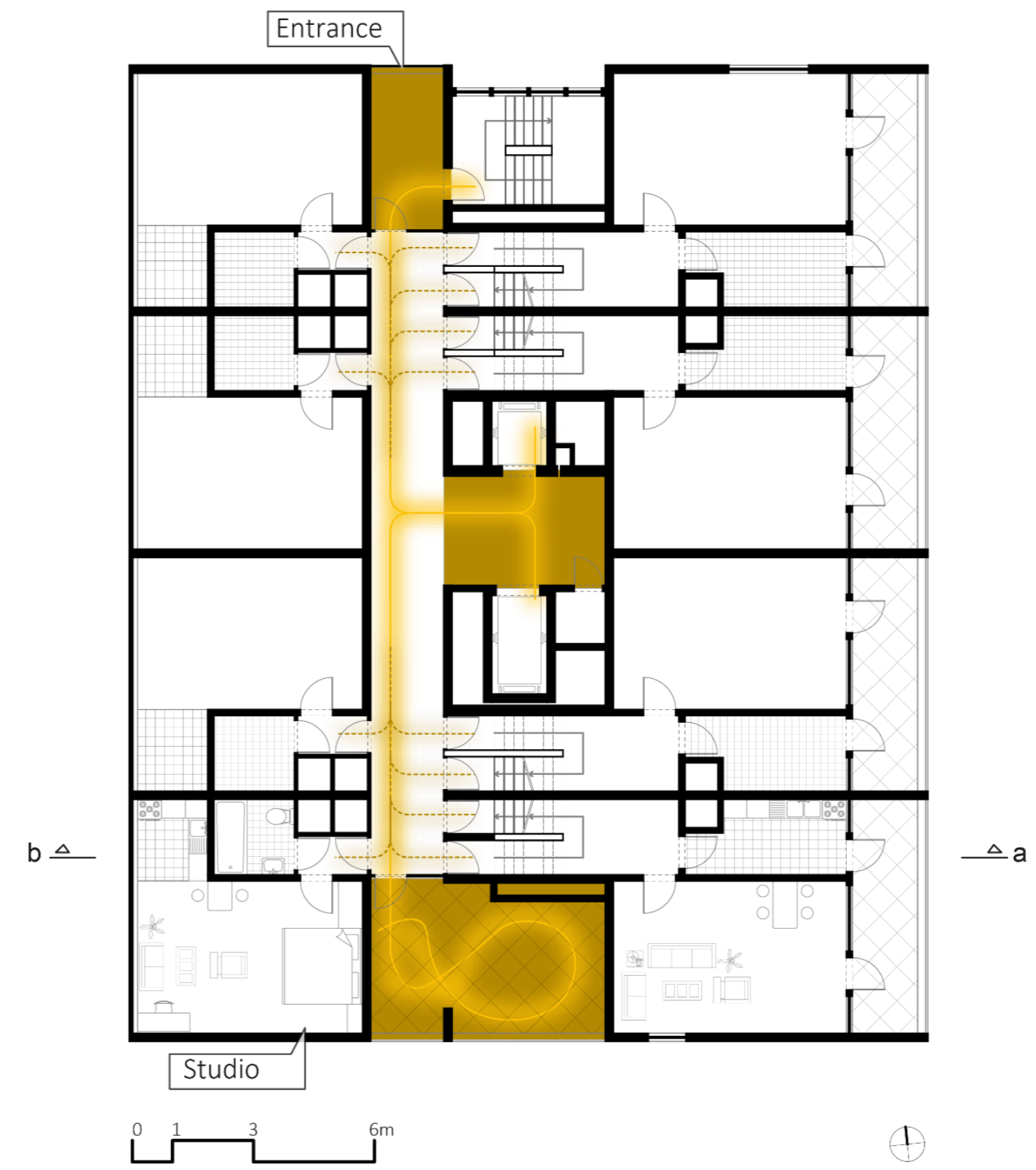
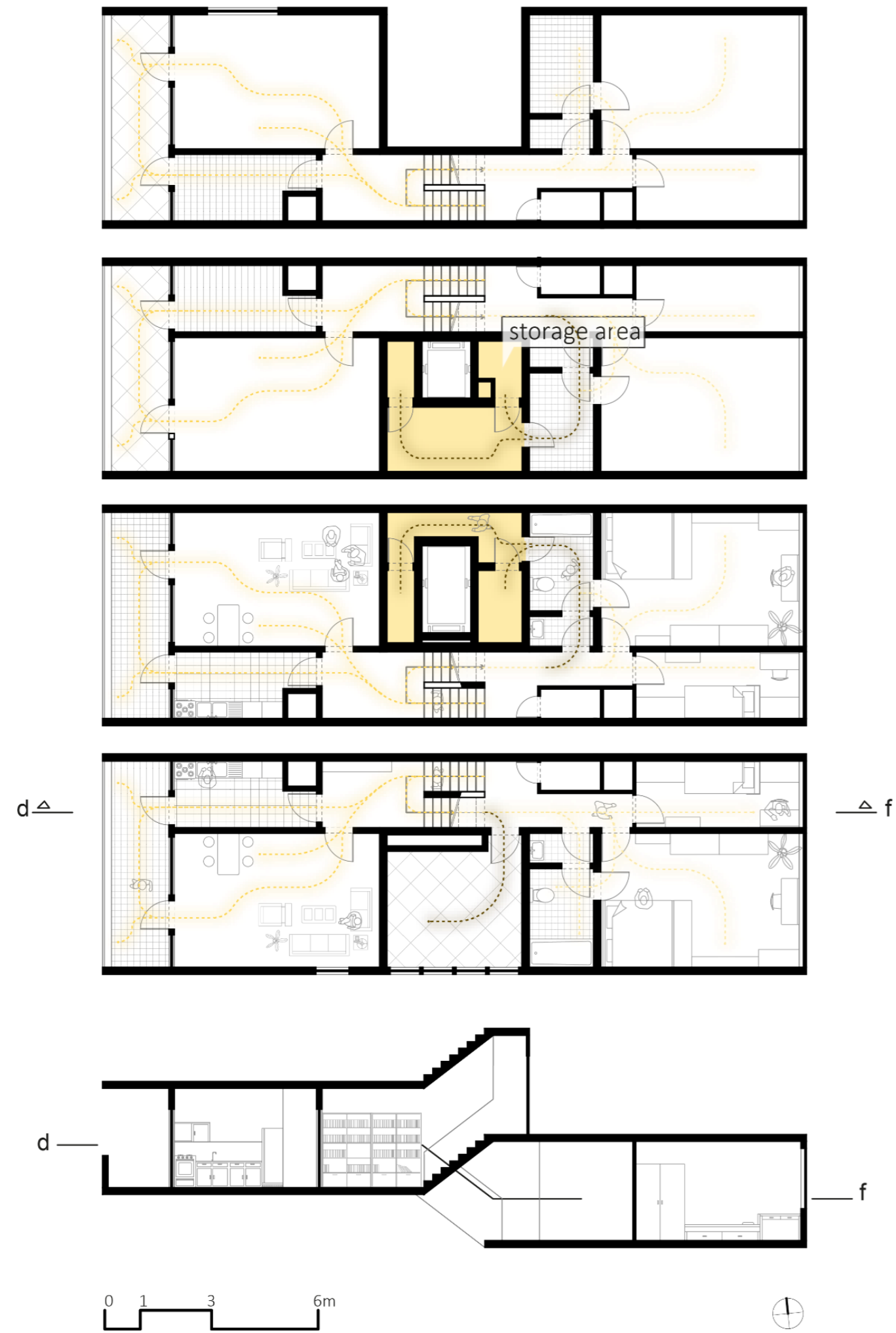
- studios
- two bedroom apartment
- two-bedroom apartment
- corridor



- studios
- living room facade
- communal balcony
- bedroom facade

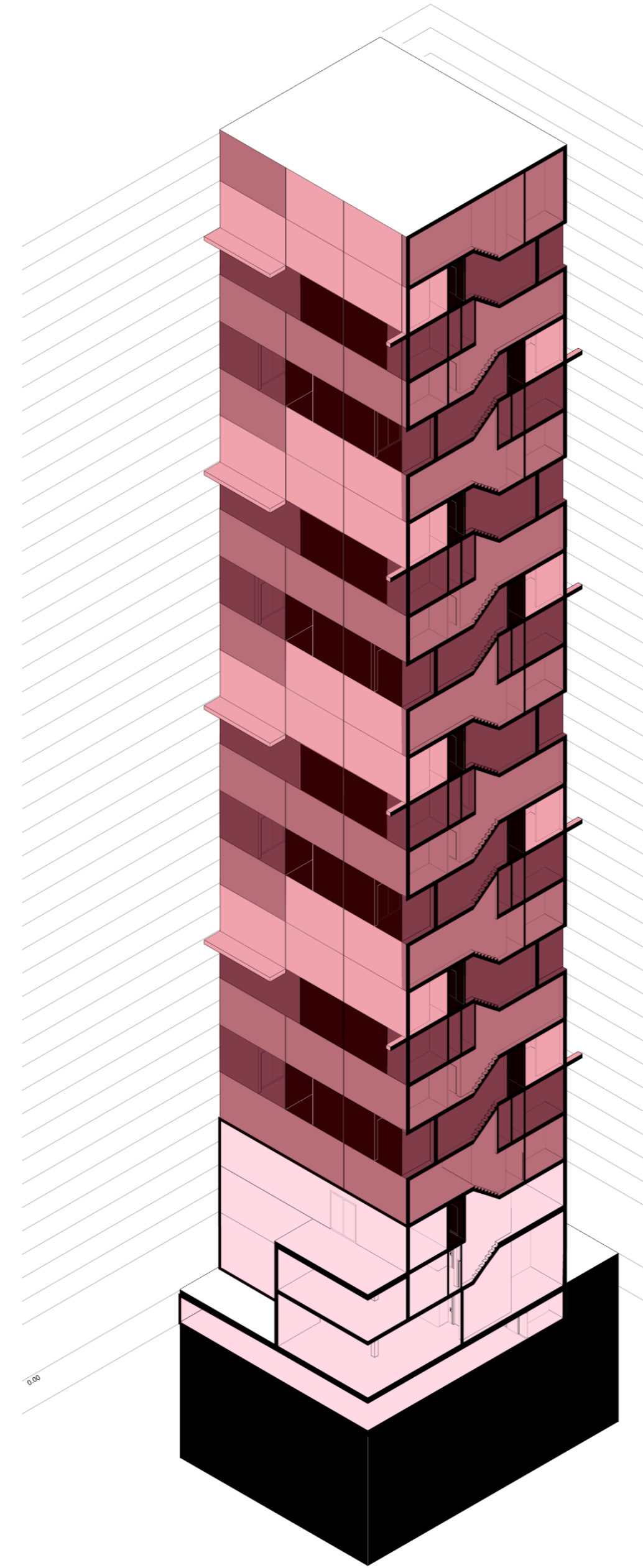
Bakema tower

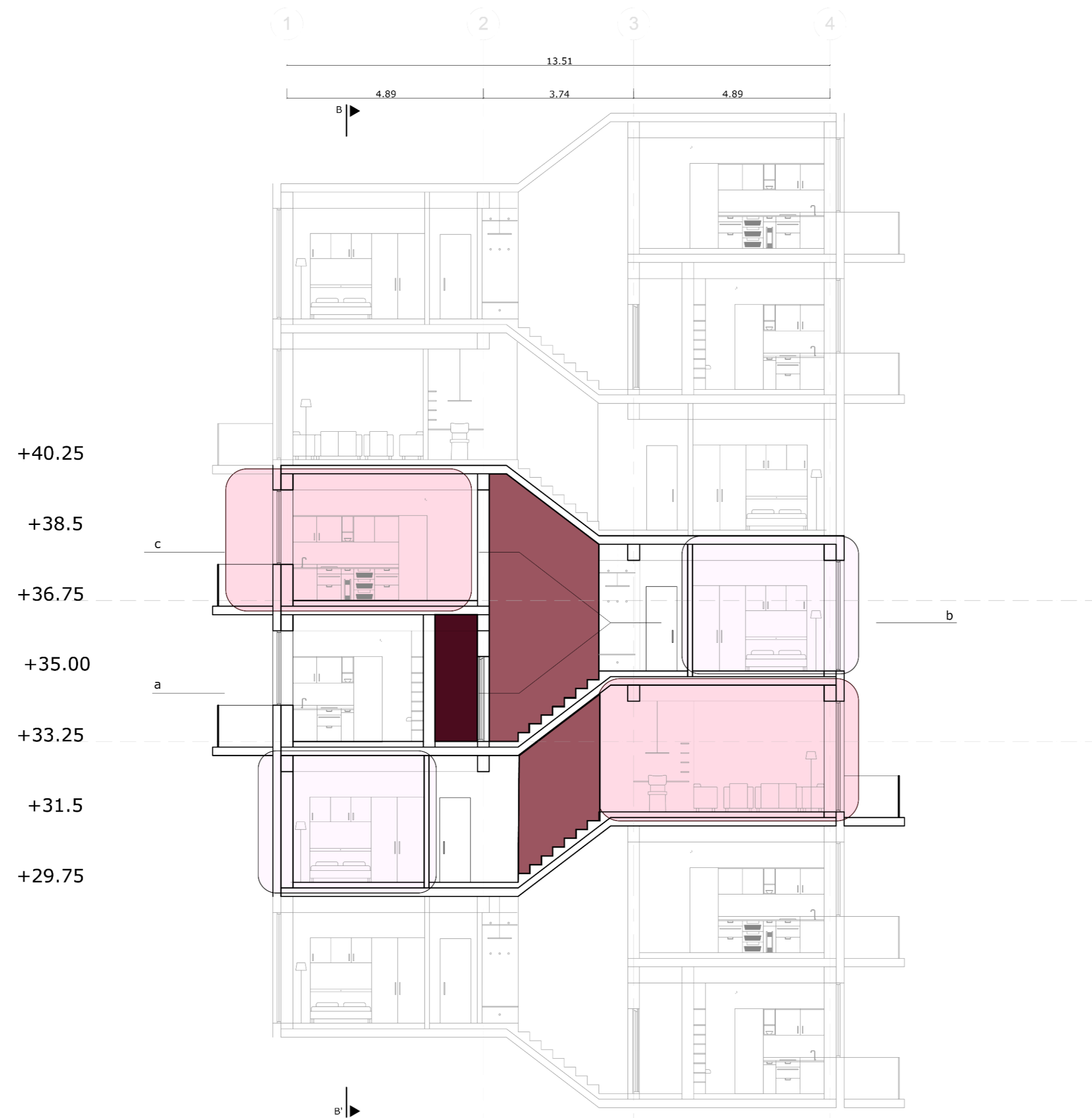
Dwelling typologies



Dwelling composition

- offices, parking, plinth
- two-storey unit
- three-bedrooms split unit
- two-bedrooms split unit
- one-bedroom split unit
- corridor

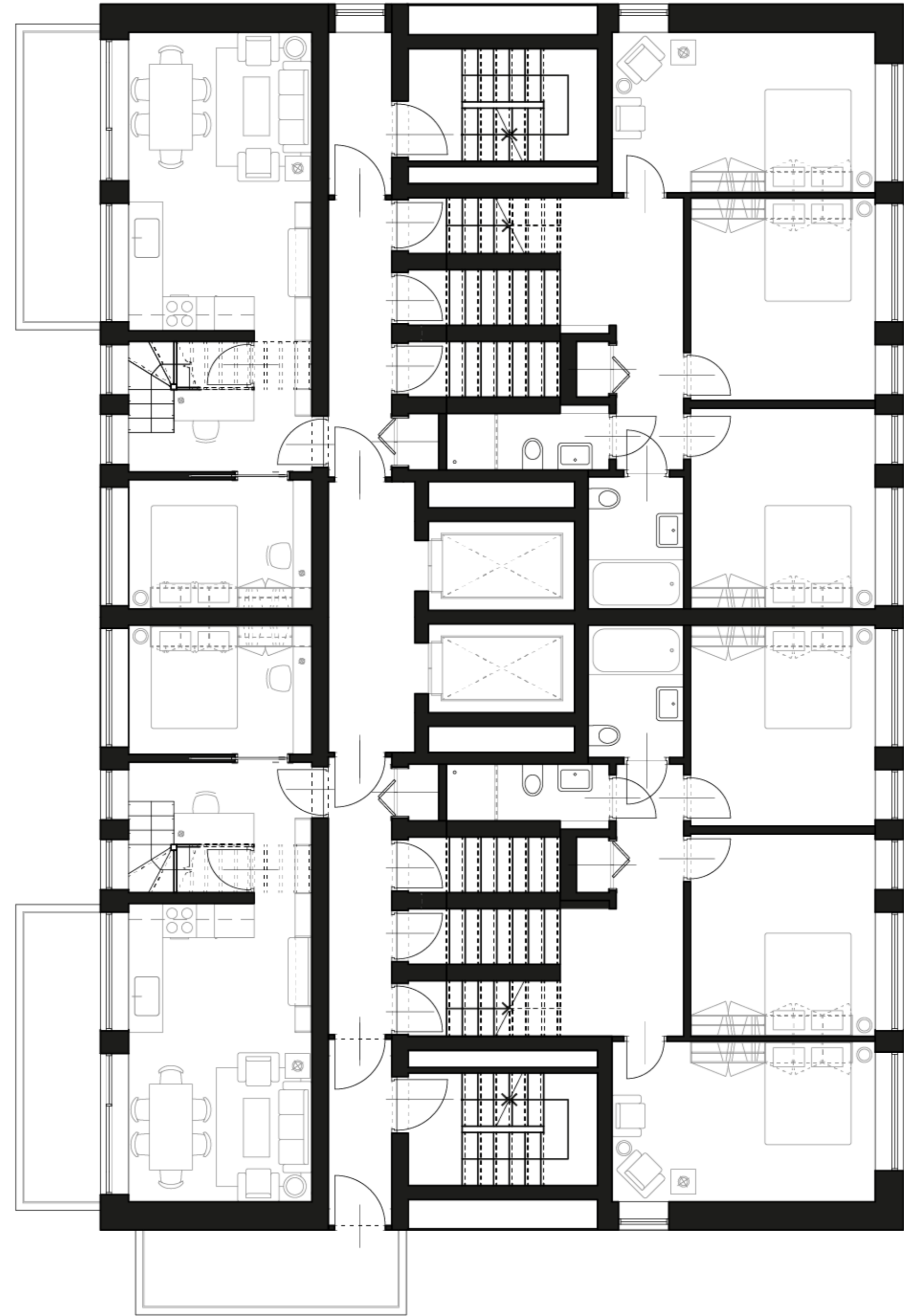




- corridor
- inner stairs
- private zone
- semi-private zone



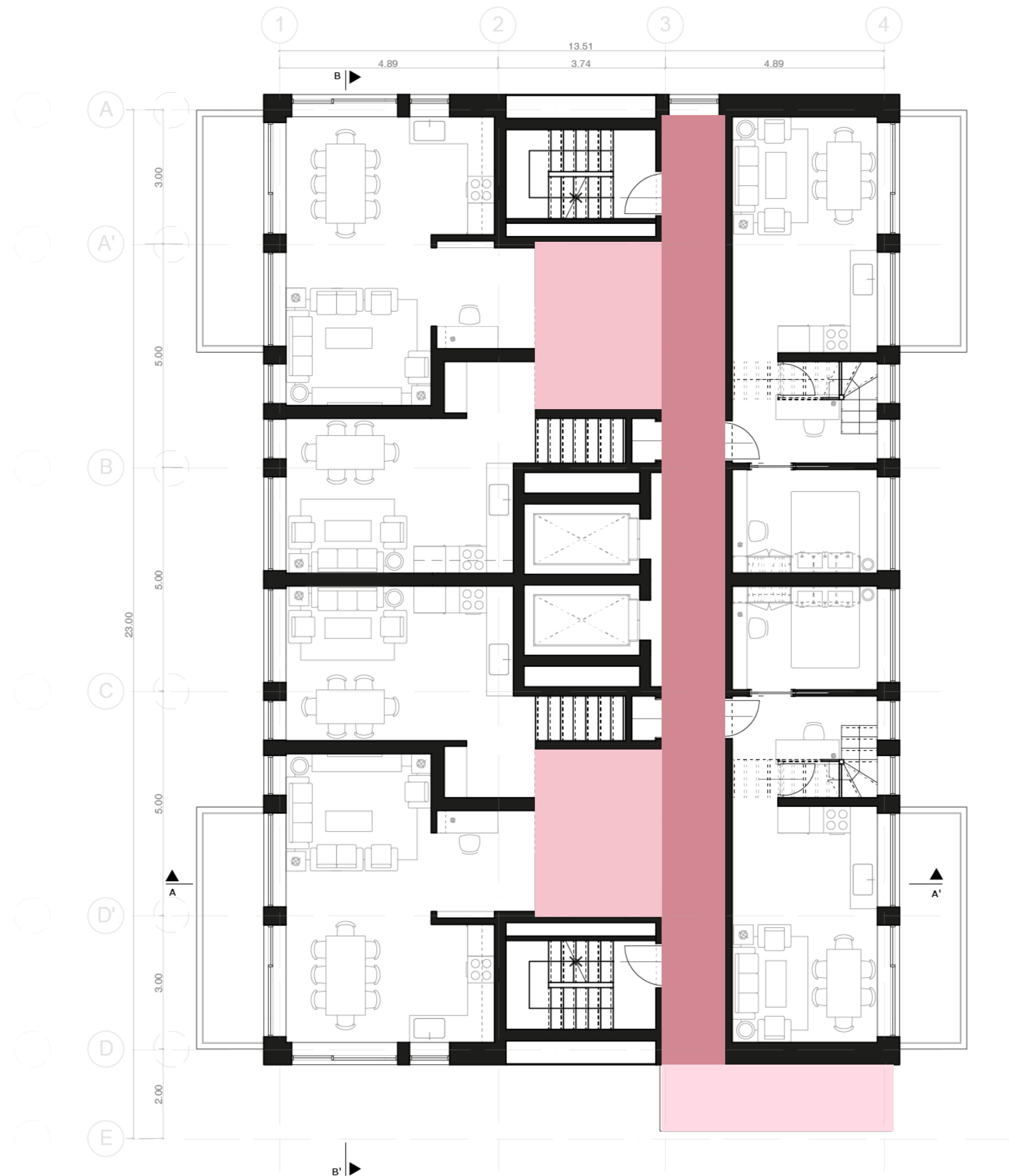
Typical floor plan a-b



- corridor
- inner stairs
- Collective terrace



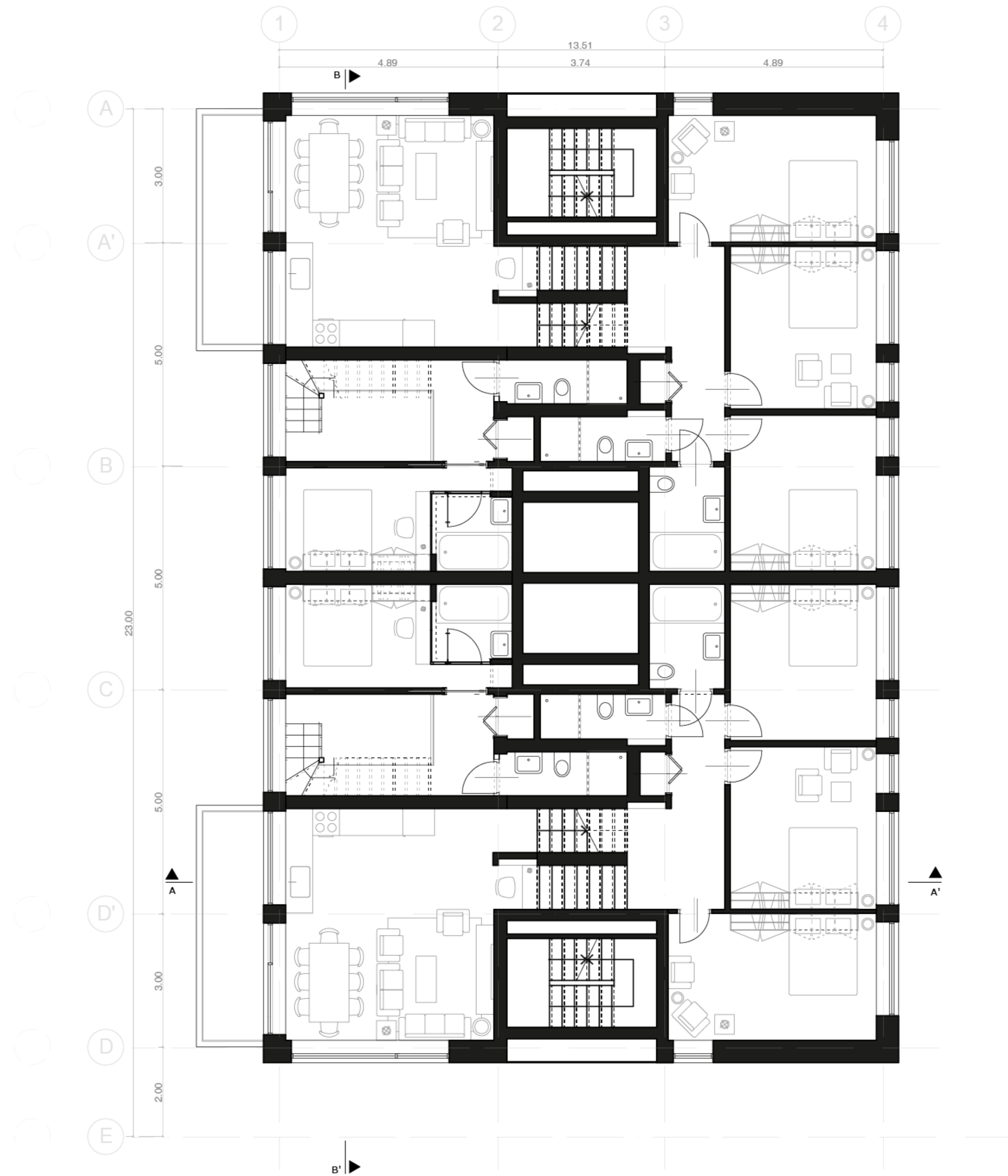
Typical floor plan d-e



- corridor
- inner stairs
- Collective terrace



Typical floor plan c-b



Impression



corridor - entrances to the dwellings

Dwelling typologies

Impression

Living space of
dwelling typology 1



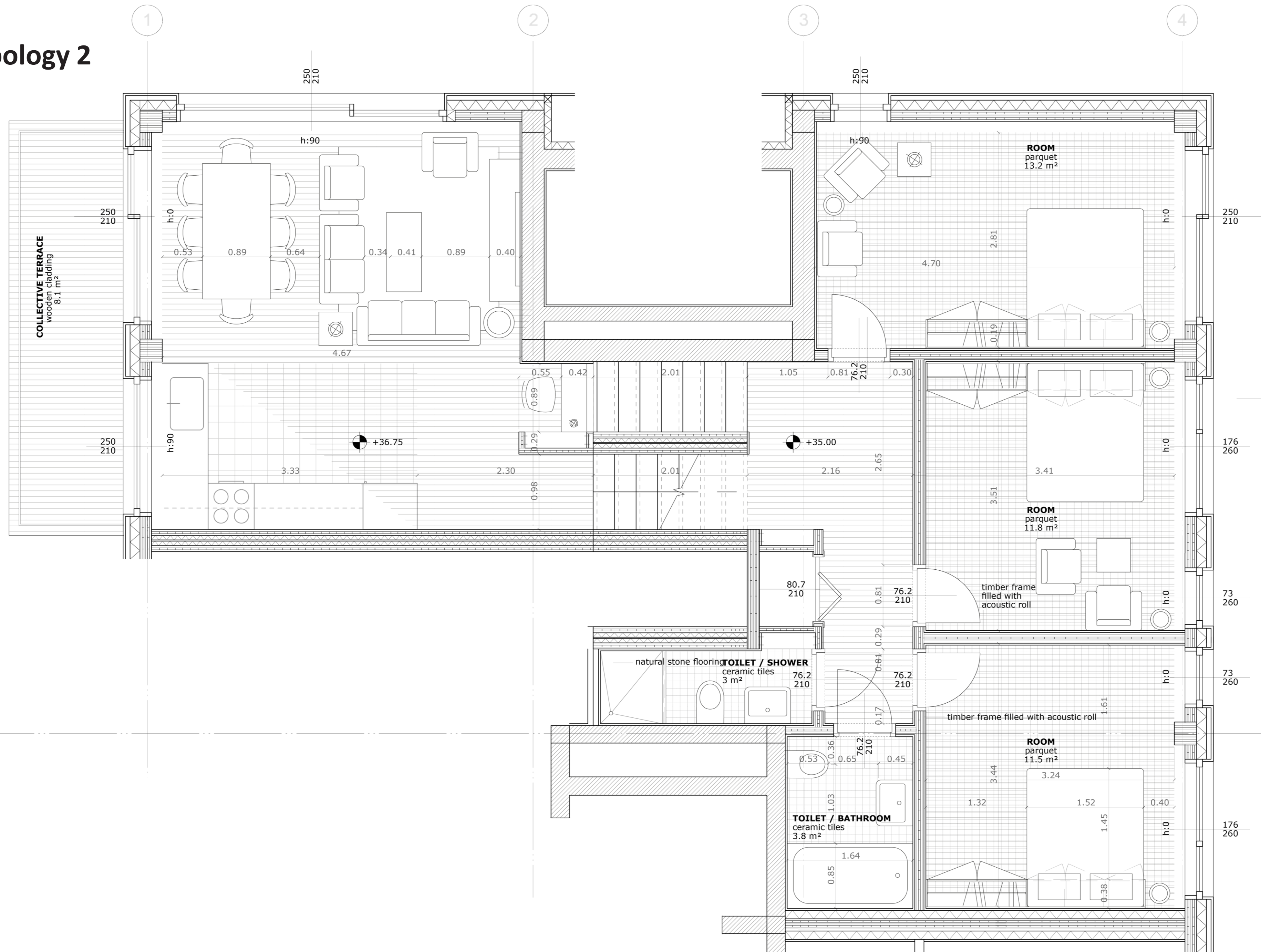
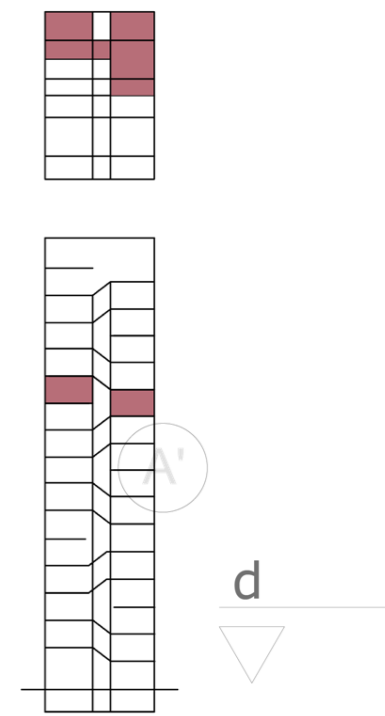
Impression

Living space of
dwelling typology 1



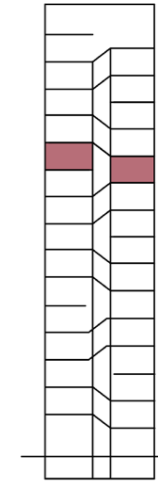
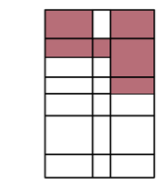
Dwelling typology 2

3 bedrooms
area: 100 sqm



Dwelling typology 2

3 bedrooms
area: 100 sqm



+40.25

+38.5

+36.75

+35.00

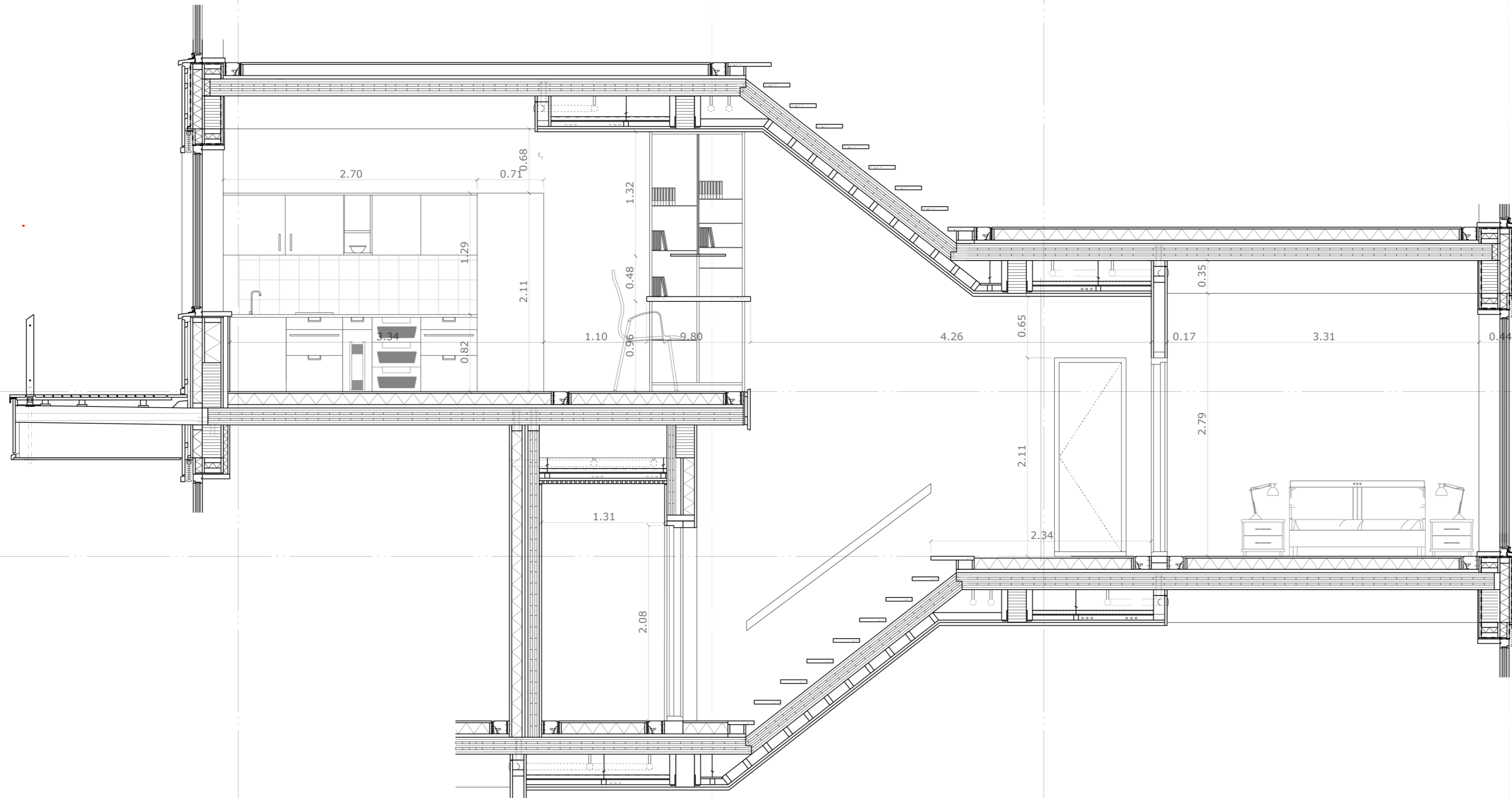
+33.25

1

2

3

4



0 0.5 1 2m

Impression

Living space of
dwelling typology 2



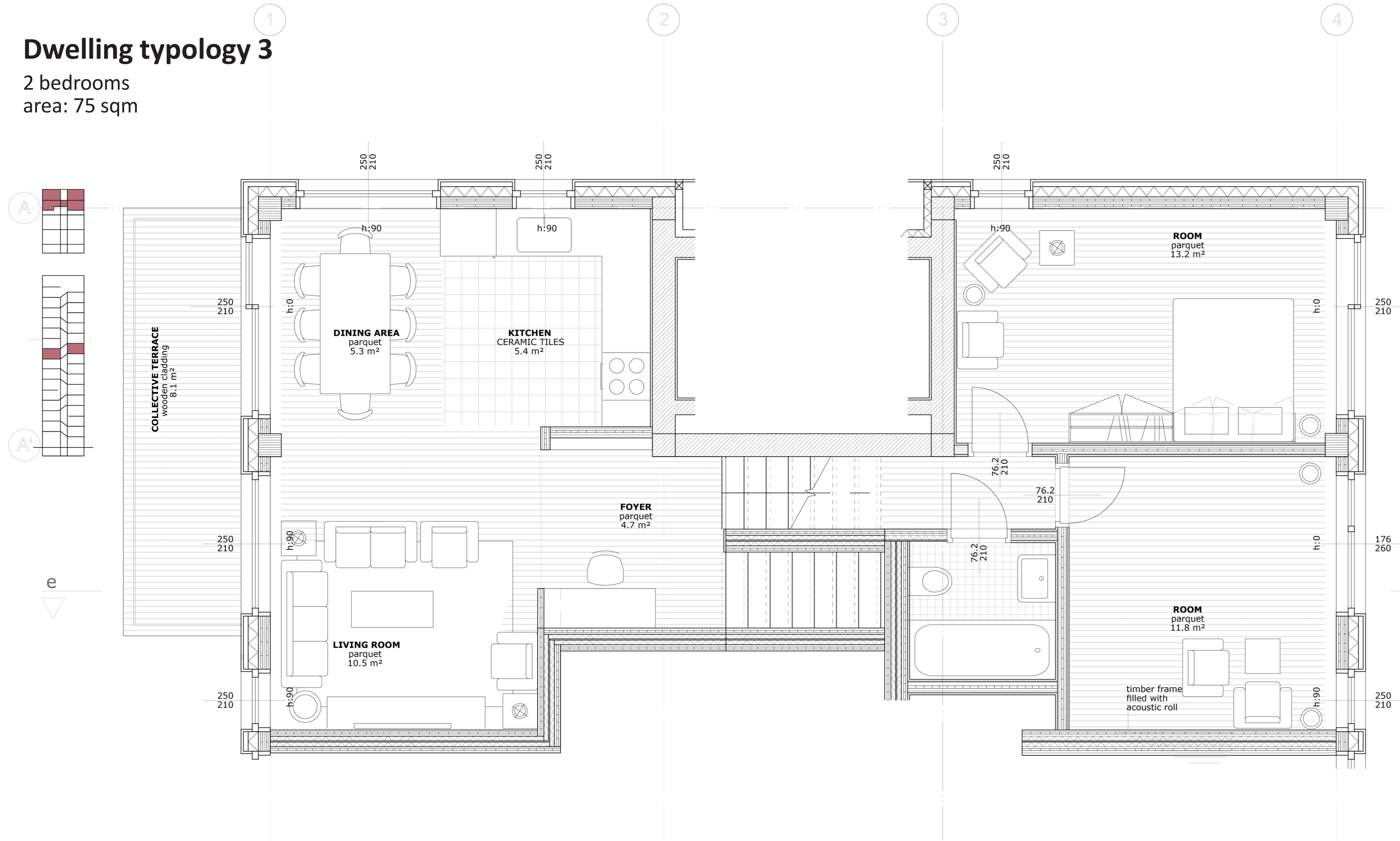
Impression

Living space of
dwelling typology 2



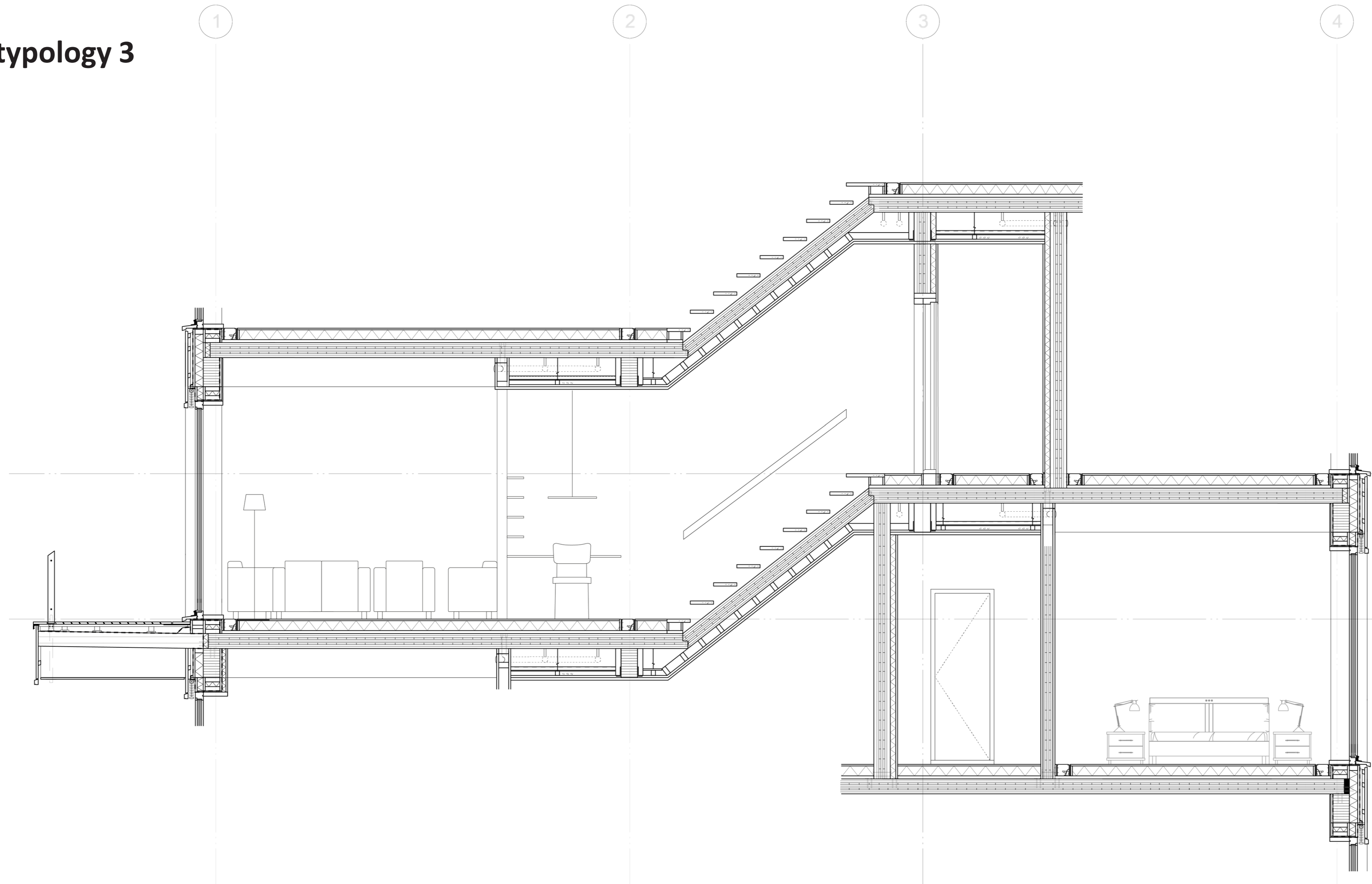
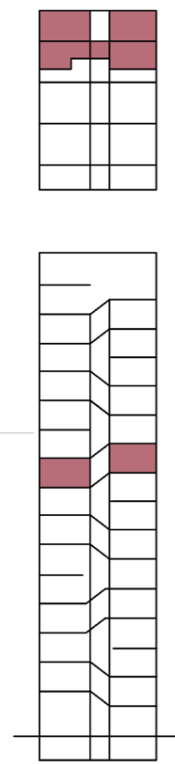
Dwelling typology 3

2 bedrooms
area: 75 sqm



Dwelling typology 3

2 bedrooms
area: 75 sqm



Impression

Living space of
dwelling typology 3



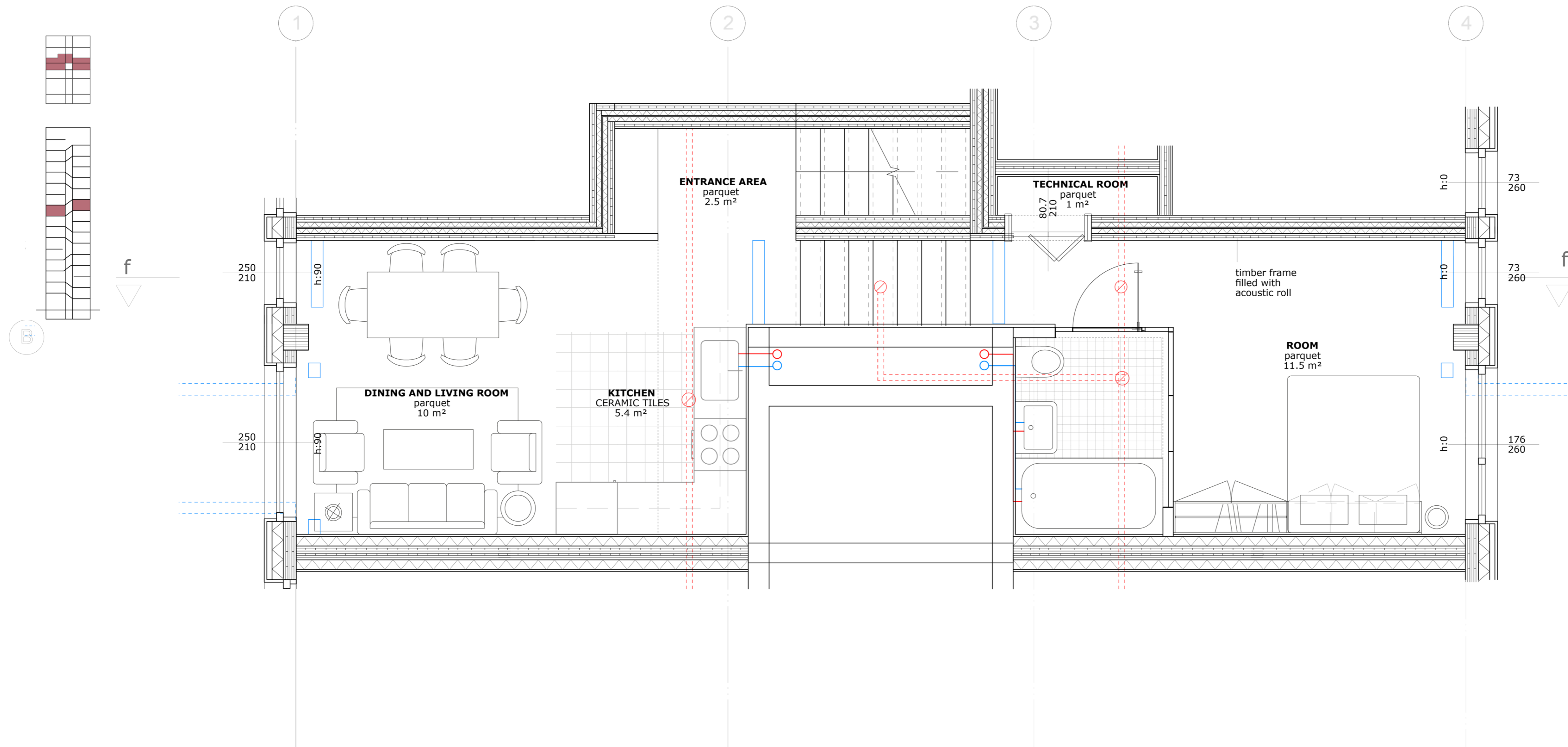
Impression

Living space of
dwelling typology 3



Dwelling typology 4

1 bedroom
area: 50 sqm



Impression

Living space of
dwelling typology 4



Impression

Living space of
dwelling typology 4



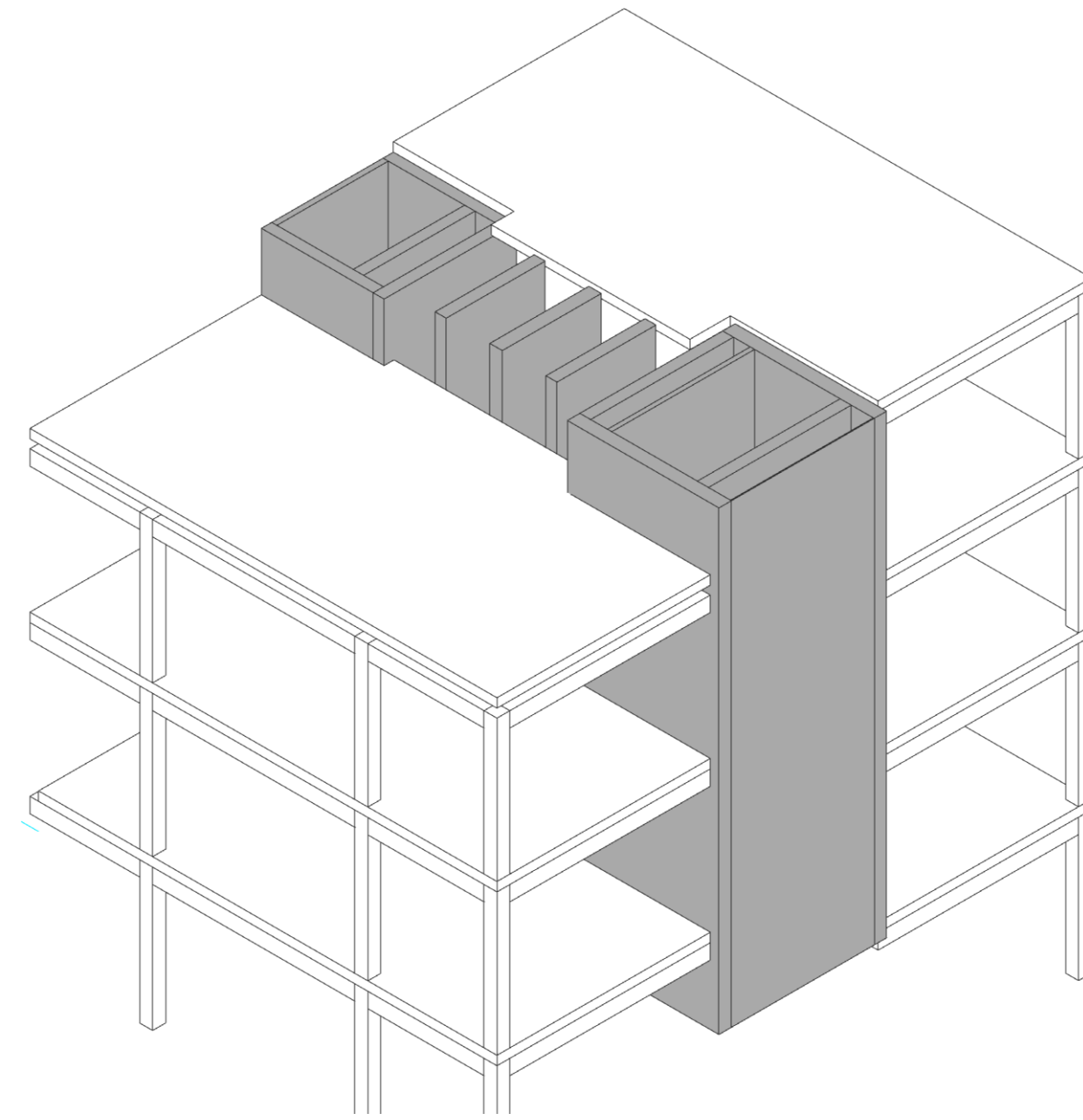
Impression

Living space of
dwelling typology 4

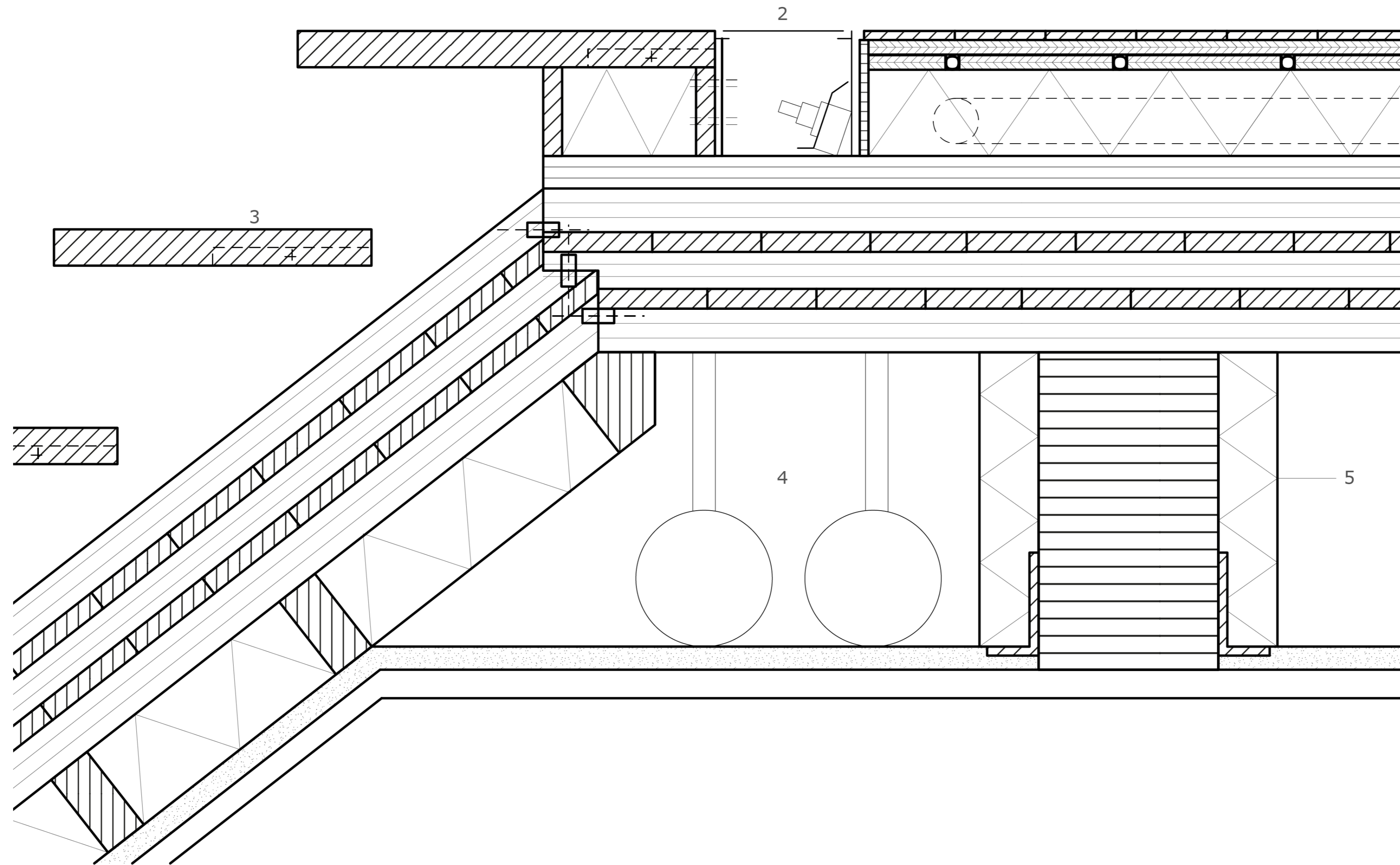


Construction

Hybrid construction



Detail Split units' stairs

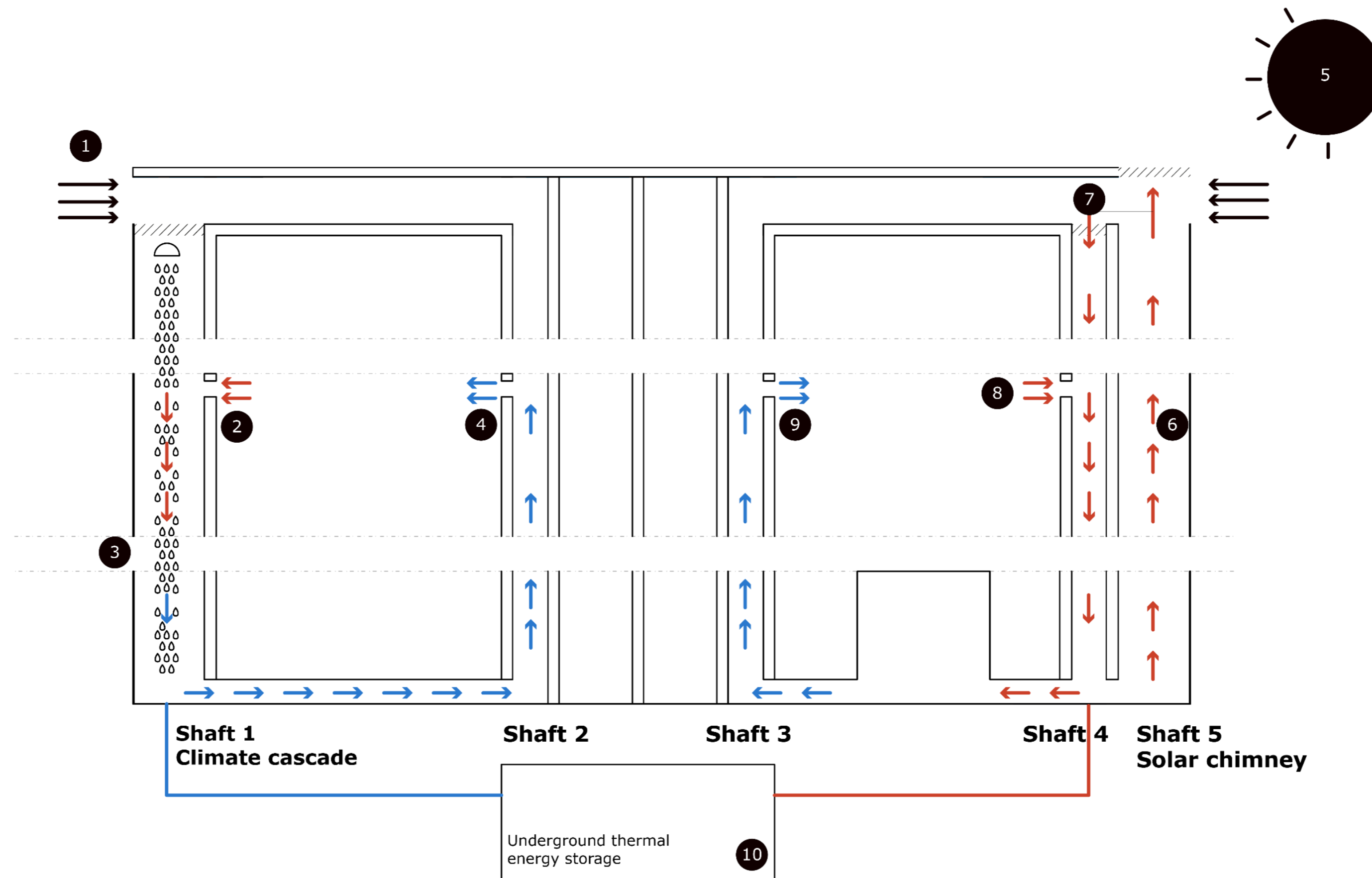


- 1 Cross laminated timber 180mm
Fixing battens 50x100mm with
fire resistant wool between
them
Interior cladding, silver fire
30/50-120mm
- 2 Floor air duct with steel plate
80x150mm, screwed into
gypsum fibreboard
Pine stair board 350x40mm.
Connected to the load-bearing
wall by brackets, the interface
between the tread and the
vertical element in the load-
bearing wall
- 3 Installation level for ventilation
pipes 0-240mm
- 4 Glued laminated beam

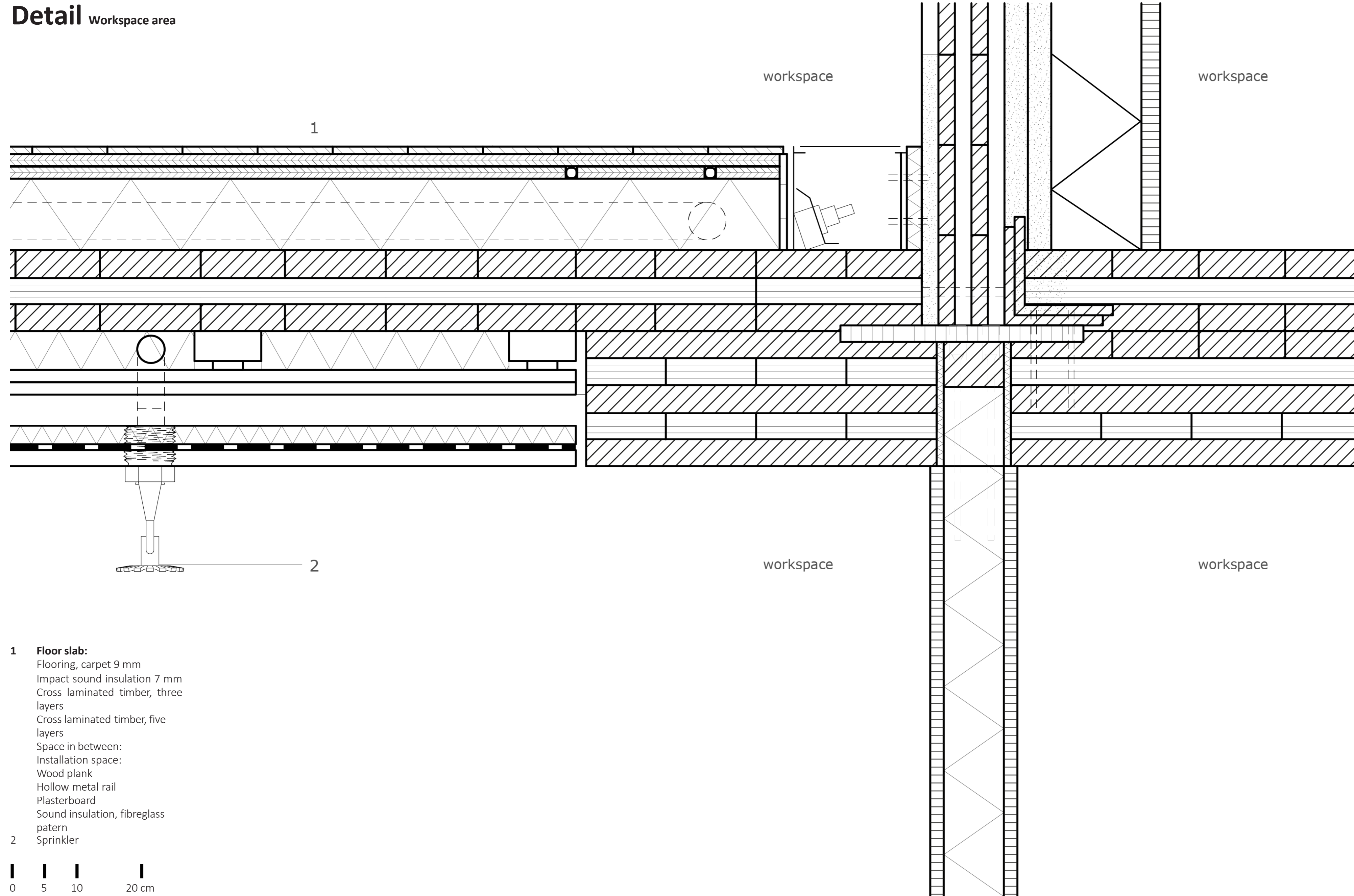
0 5 10 20 cm

Climate design

1. Warm air blows inside the shafts by passing the fans
2. Wind pressure pushes warm air of the dwellings into the climate cascade, shaft 1
3. The air is sprinkled by water
4. Cold air is blown into the building passing shaft 2.
5. Solar chimney gets heated by the sunlight.
6. Warm air, because of the heat difference, ascends and leaves the building.
7. Wind is blown into the building by the fans of shaft 4.
8. The warm air of the dwellings get mixed with this air.
9. The warm air cools down in the basement and is blown into the dwellings.
10. The surplus of warm and cool air is stored underground.



Detail Workspace area

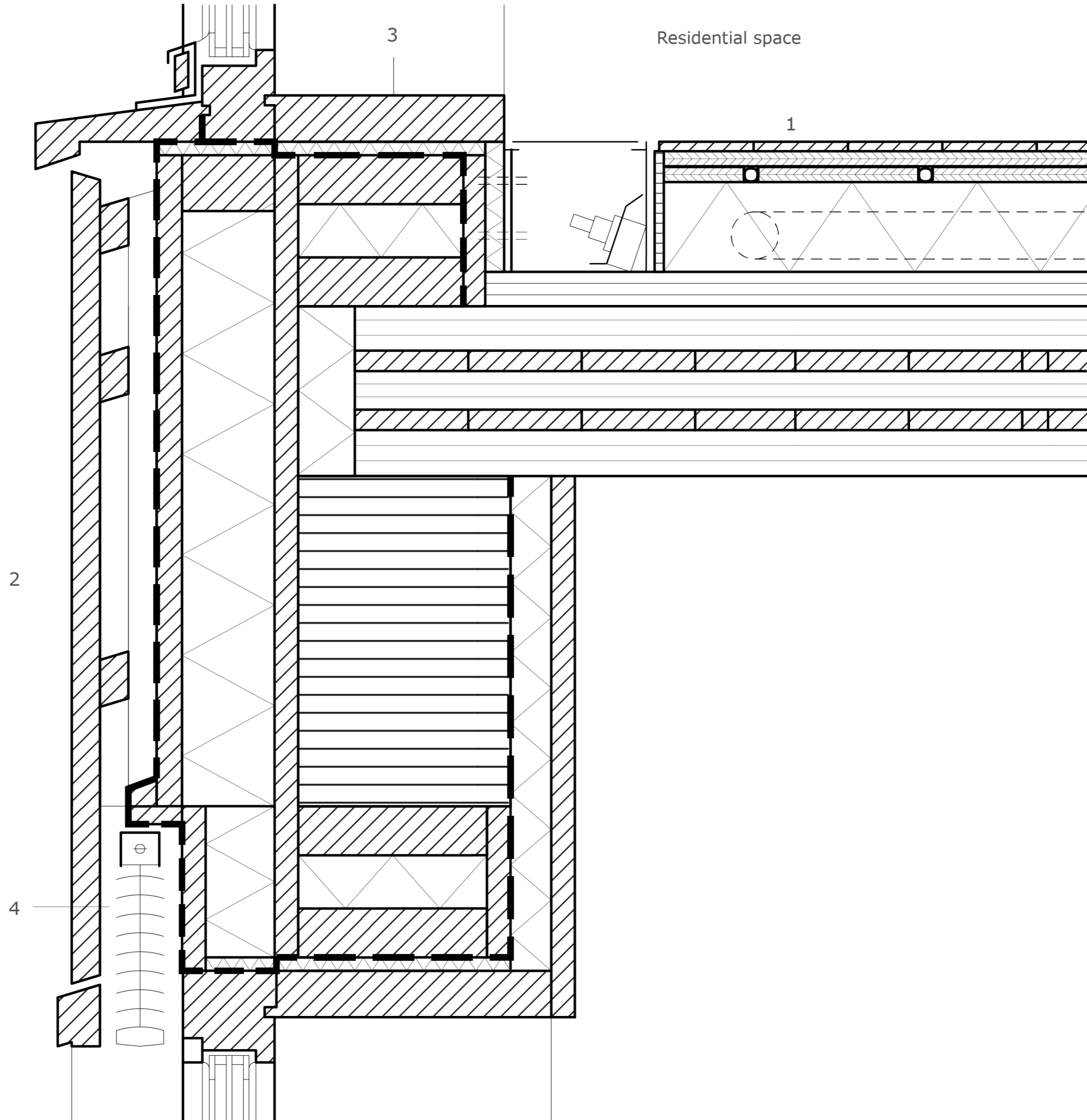


- 1 Floor slab:**
 - Flooring, carpet 9 mm
 - Impact sound insulation 7 mm
 - Cross laminated timber, three layers
 - Cross laminated timber, five layers
 - Space in between:
 - Installation space:
 - Wood plank
 - Hollow metal rail
 - Plasterboard
 - Sound insulation, fibreglass pattern
- 2 Sprinkler**

0 5 10 20 cm

Detail Residential area

- 1 **Floor slab**
 Strap floor, silver fir, rough-sawn, nailed, tongue-and-groove 27/80-100mm
 Plywood sub-floor 15mm
 Aluminium heat-transfer plates 1-16mm
 Tubing pressed into aluminium plates
 Plywood sleepers 15mm
 Plumbing pipes pressed into thermal insulation, mineral wool 95mm
 Impact sound insulation, wood fibre 36mm
 Cross laminated floor 180mm
- 2 **Facade:**
 Cladding, silver fir, rough-sawn 30/50-120mm
 Substructure, battens, spruce 30/50mm
 Counter battens/rear ventilation, spruce 30/50mm
 Wind paper, black
 Prefabricated element: cladding, spruce, tongue-and-groove, diagonal 25/80-150mm
 Post, spruce 125/60mm between them insulation, wood fibre
 Cladding, vapour barrier
 Battens, between them: installation level, thermal insulation, sheep's wool
 Interior cladding, silver fir
- 3 Window still, silver fire, solid
- 4 Timber window, silver fir, sanded smooth with insulated triple glazing
 Sun proction, shading



Workspaces

THE EXPLORING ONE

P1

P3

P4

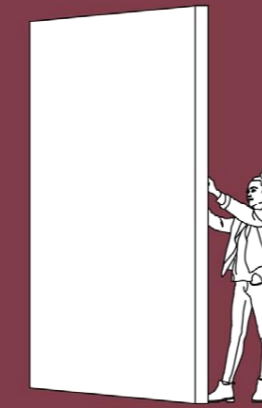
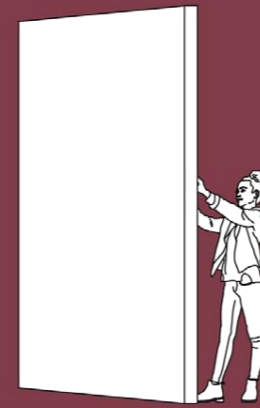
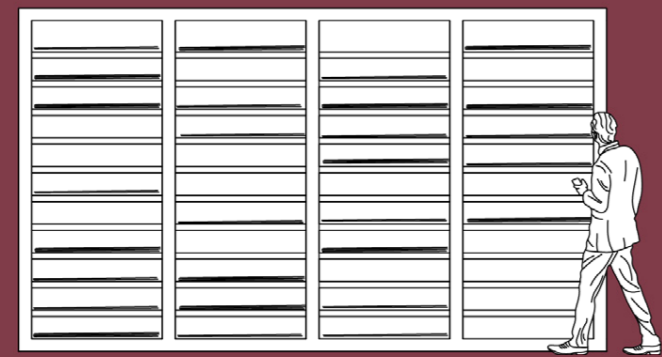
P6

P2

P3

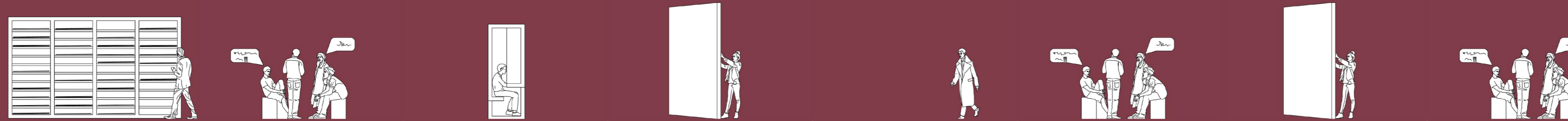
P6

P3



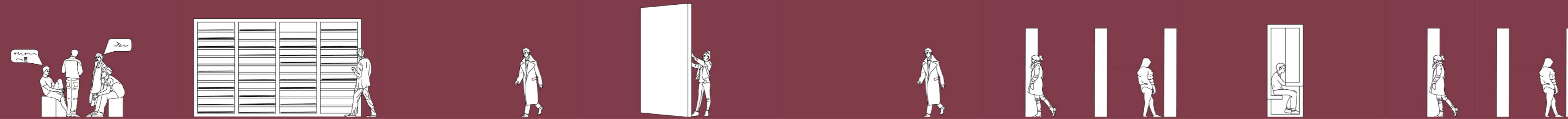
THE EXPLORING ONE

P1 P3 P4 P6 P2 P3 P6 P3



THE ONE IN A LIFE CRISIS

P3 P1 P2 P6 P2 P7 P4 P7



THE STABLE ONE

P1 P5 P4 P2 P2 P1 P4 P3



THE COMPETITIVE ONE

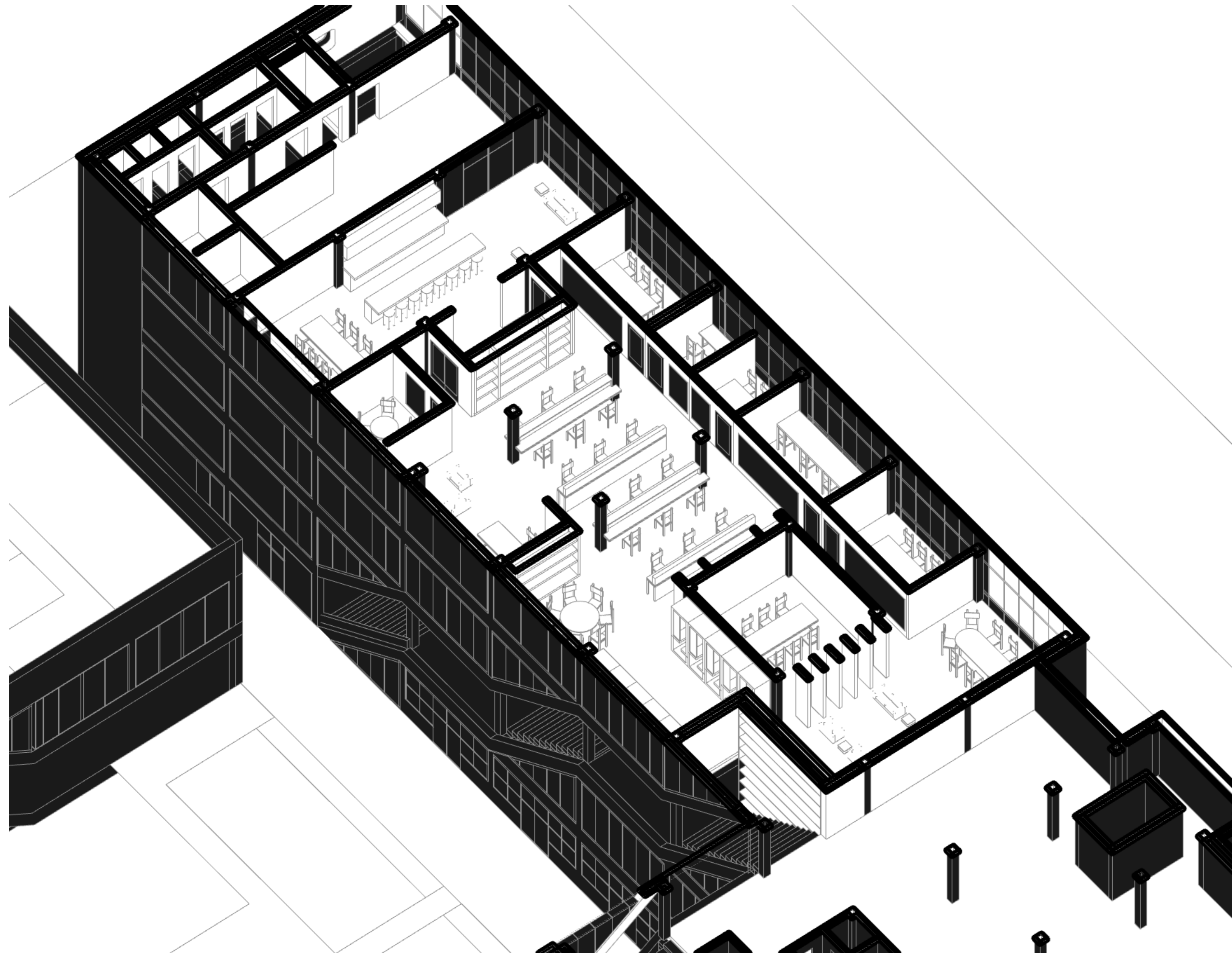
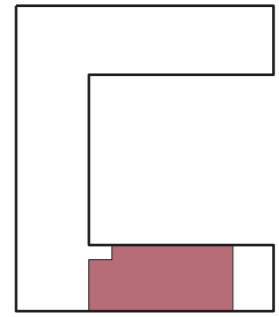
P4 P7 P5 P2 P6 P1 P6 P3



	Preparation	Serendipity	Incubation	Synthesis	Illumination	Development	Elaboration	Verification
THE EXPLORING ONE	P1	P3	P4	P6	P2	P3	P6	P3
THE ONE IN A LIFE CRISIS	P3	P1	P2	P6	P2	P7	P4	P7
THE STABLE ONE	P1	P5	P4	P2	P2	P1	P4	P3
THE COMPETITIVE ONE	P4	P10	P5	P2	P6	P1	P6	P3

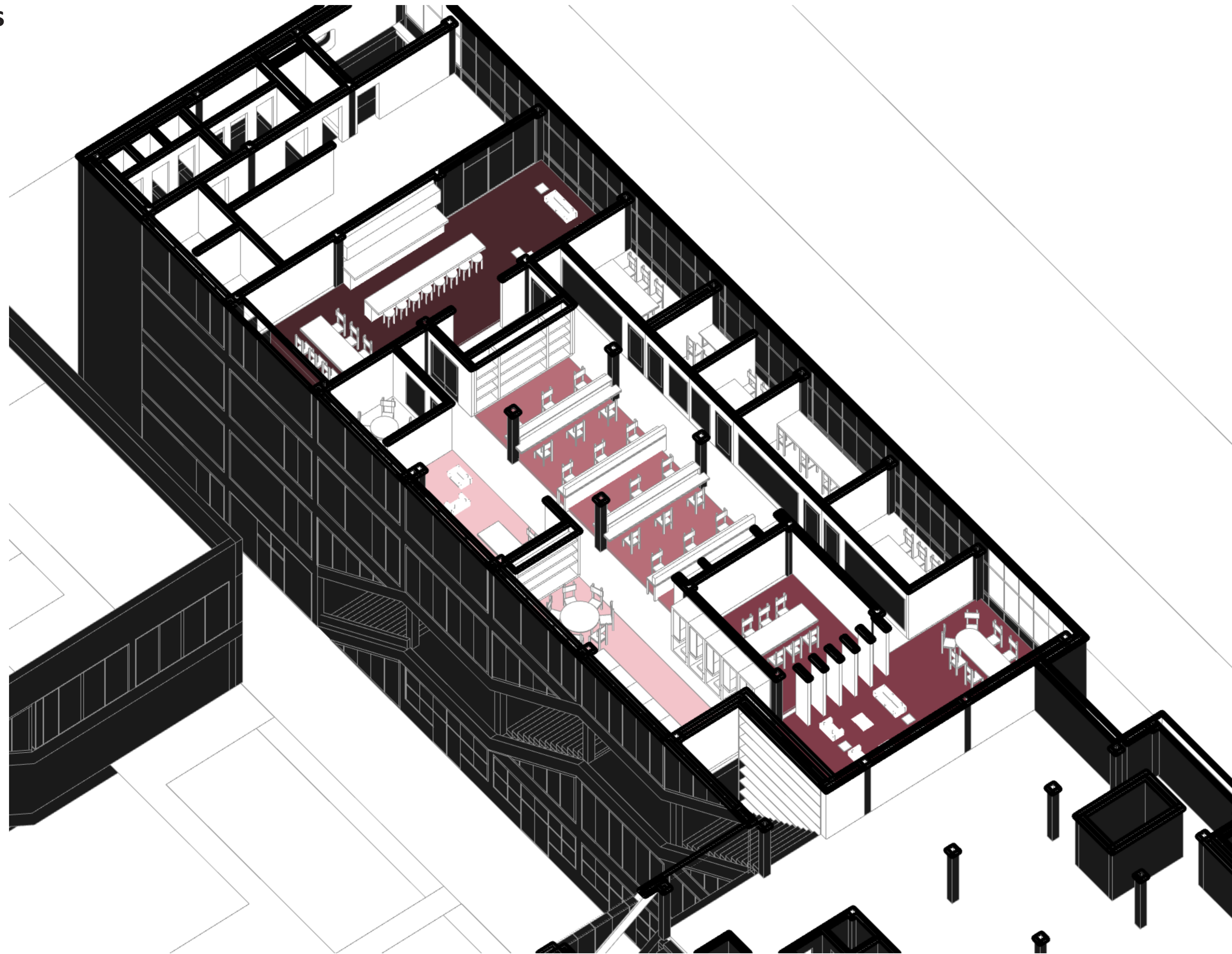
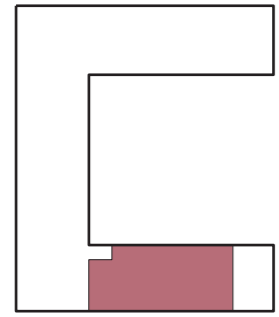
Propositions

Large offices



Spatial qualities

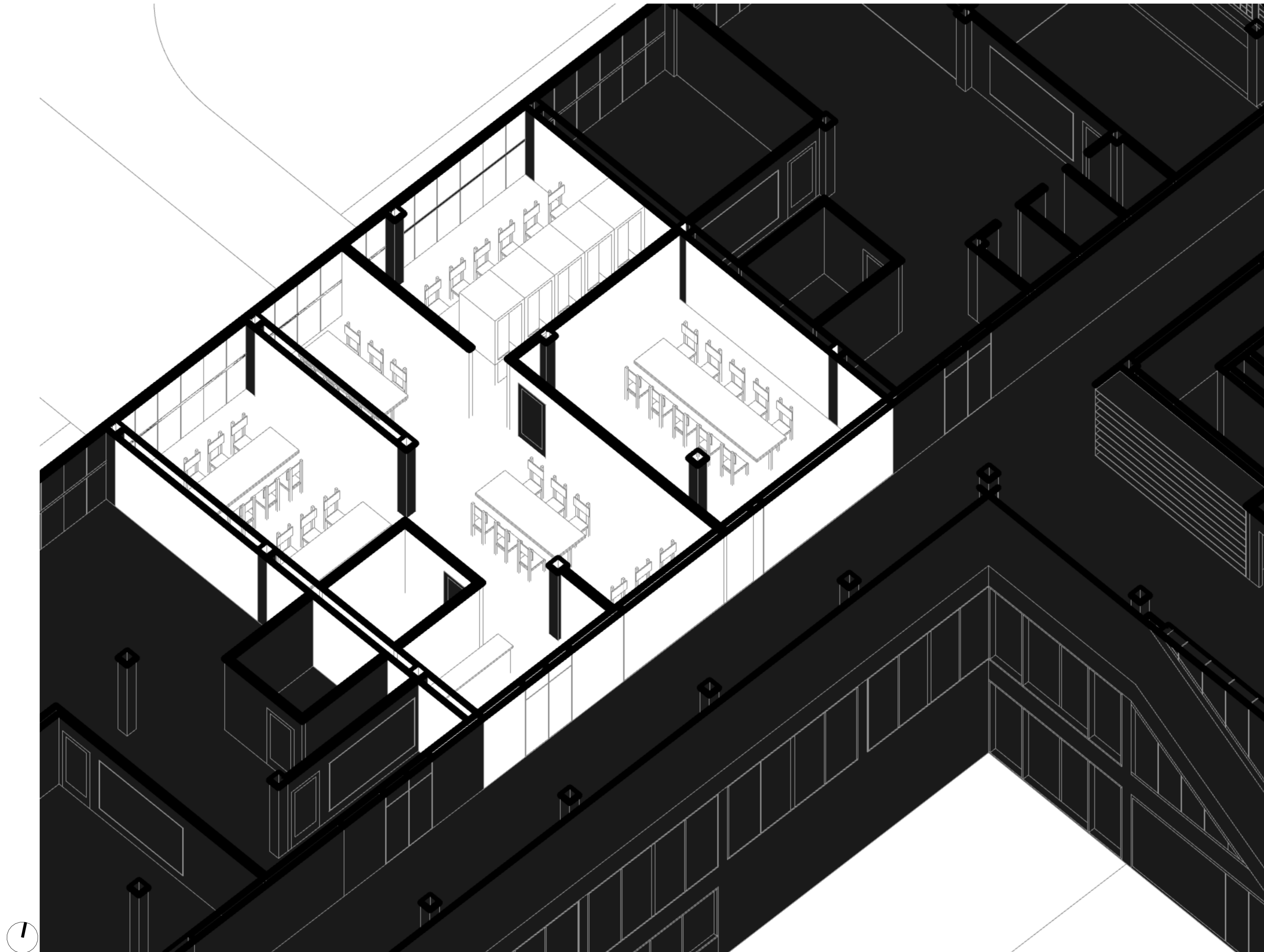
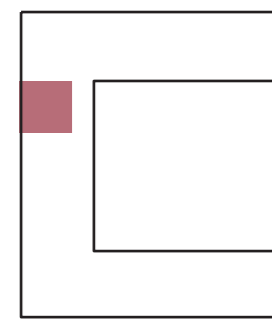
Large offices





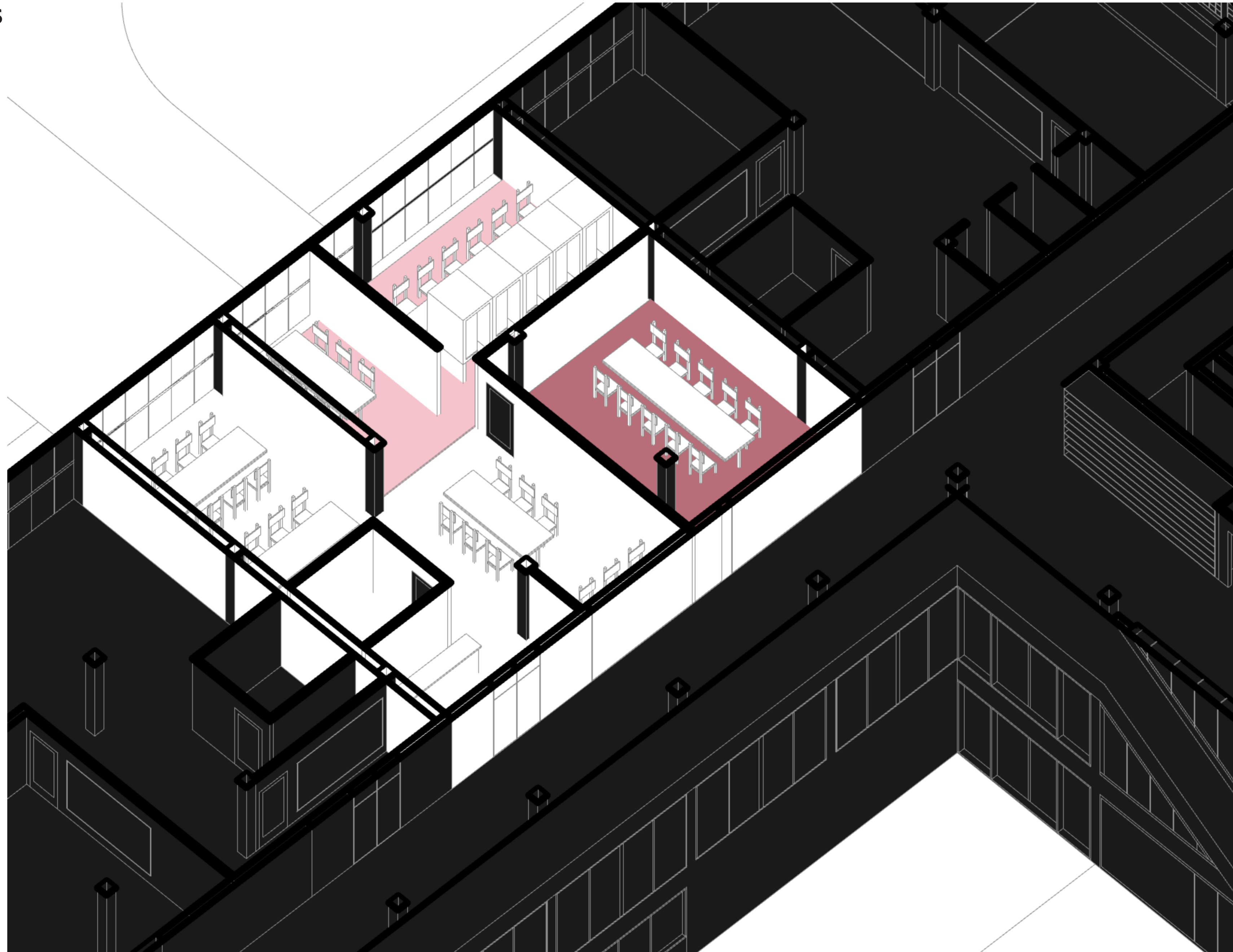
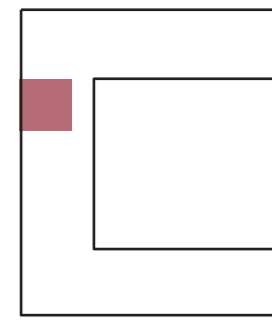
Propositions

Small offices



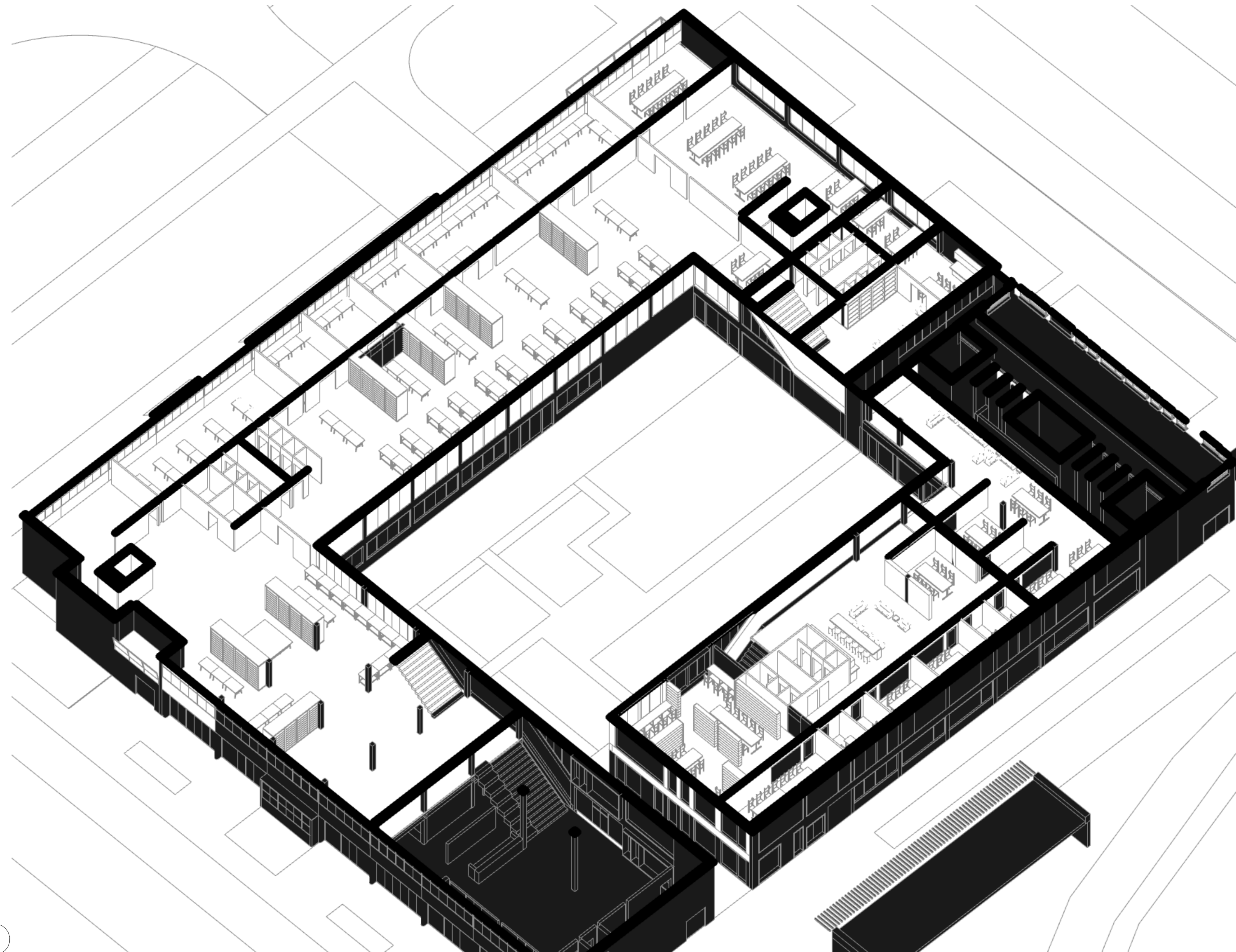
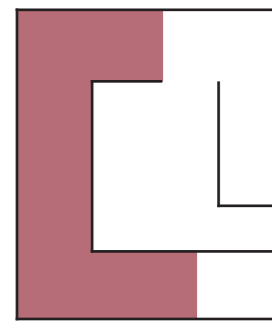
Spatial qualities

Small offices



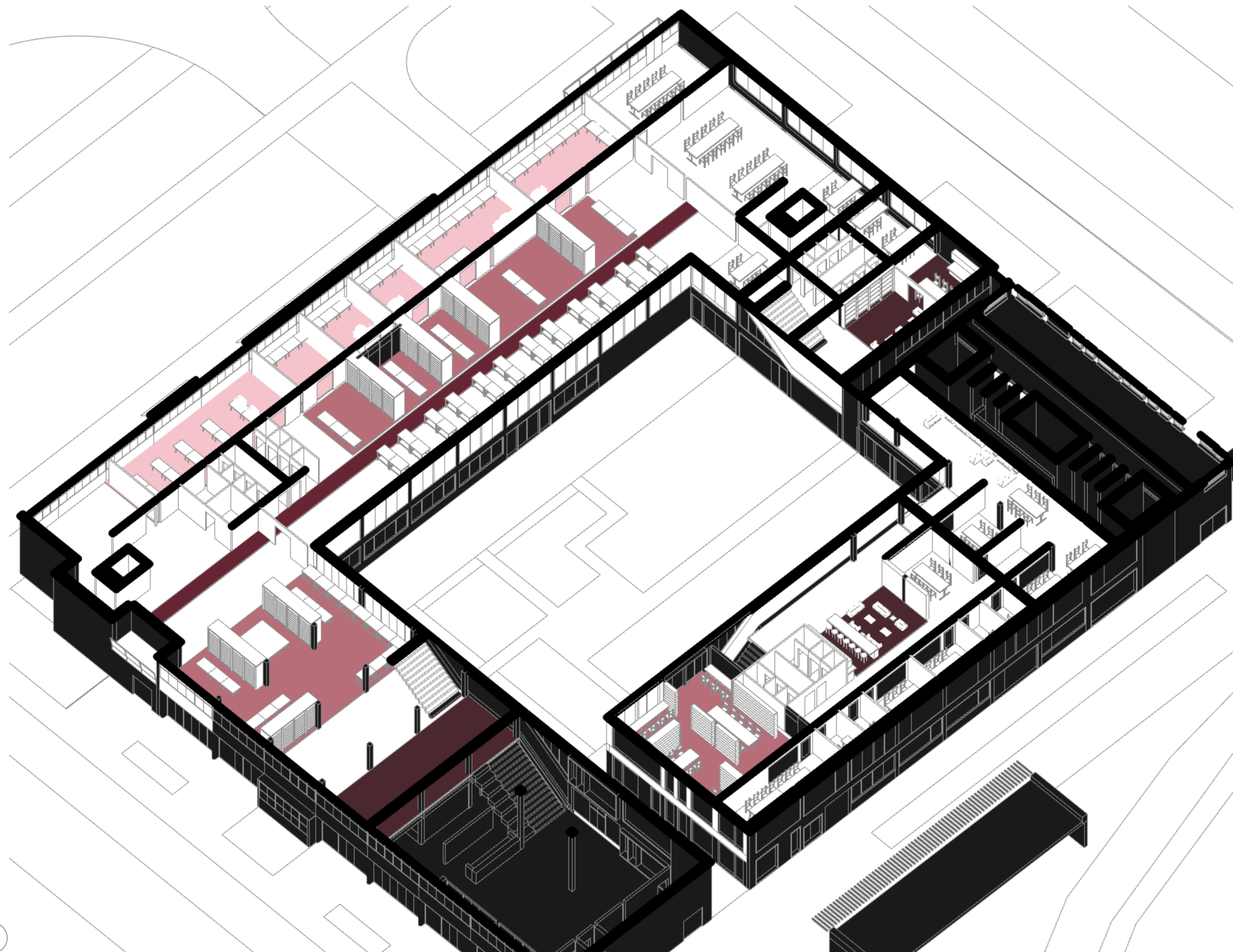
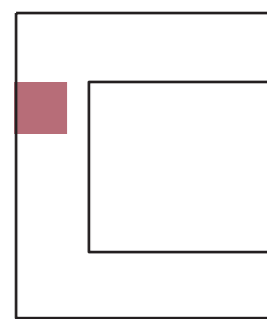
Propositions

Making spaces



Propositions

Making spaces



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

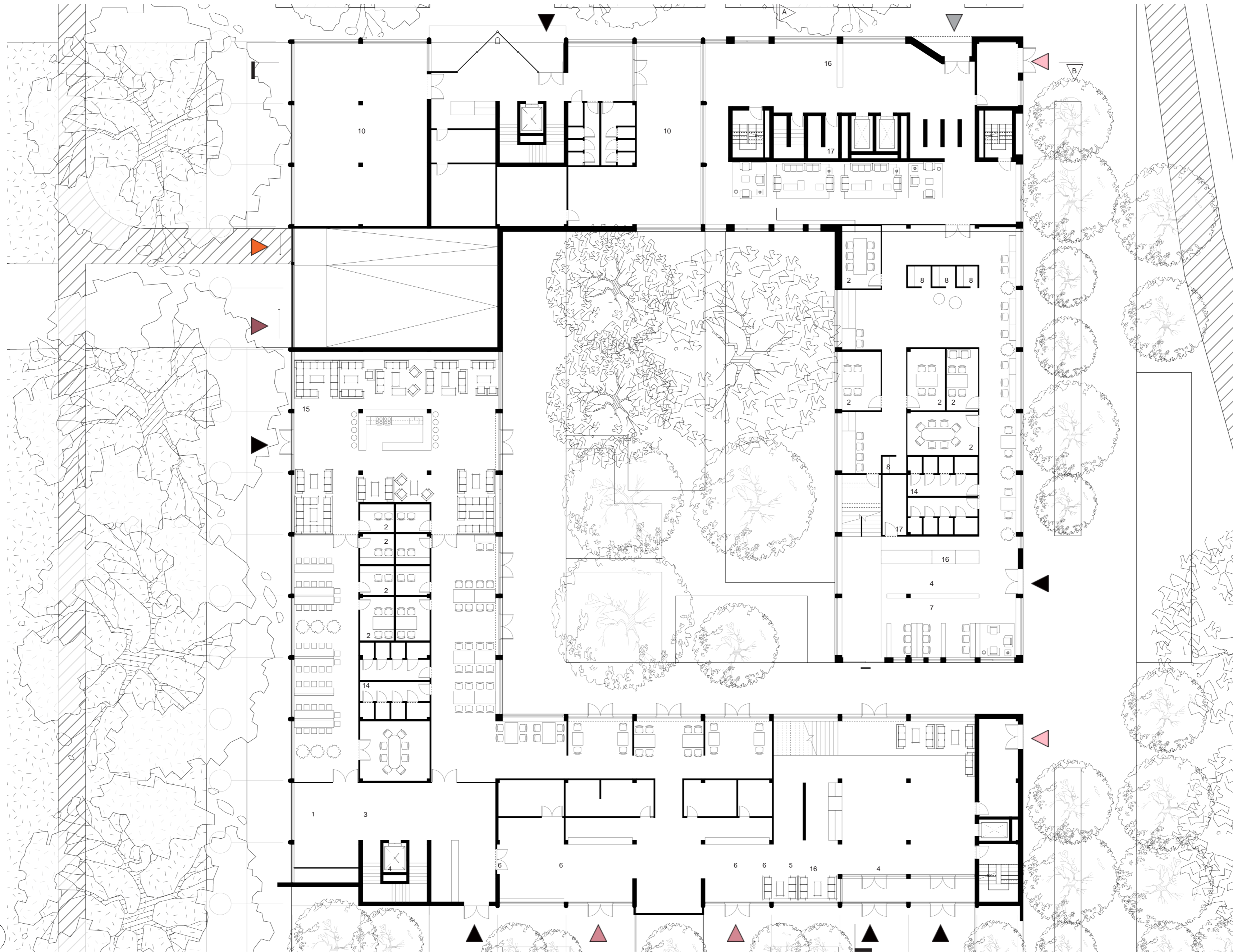


Ground floor

- 1 Collaborative workspace
- 2 Focus room
- 3 Conference room
- 4 Foyer
- 5 Print corner
- 6 Shop

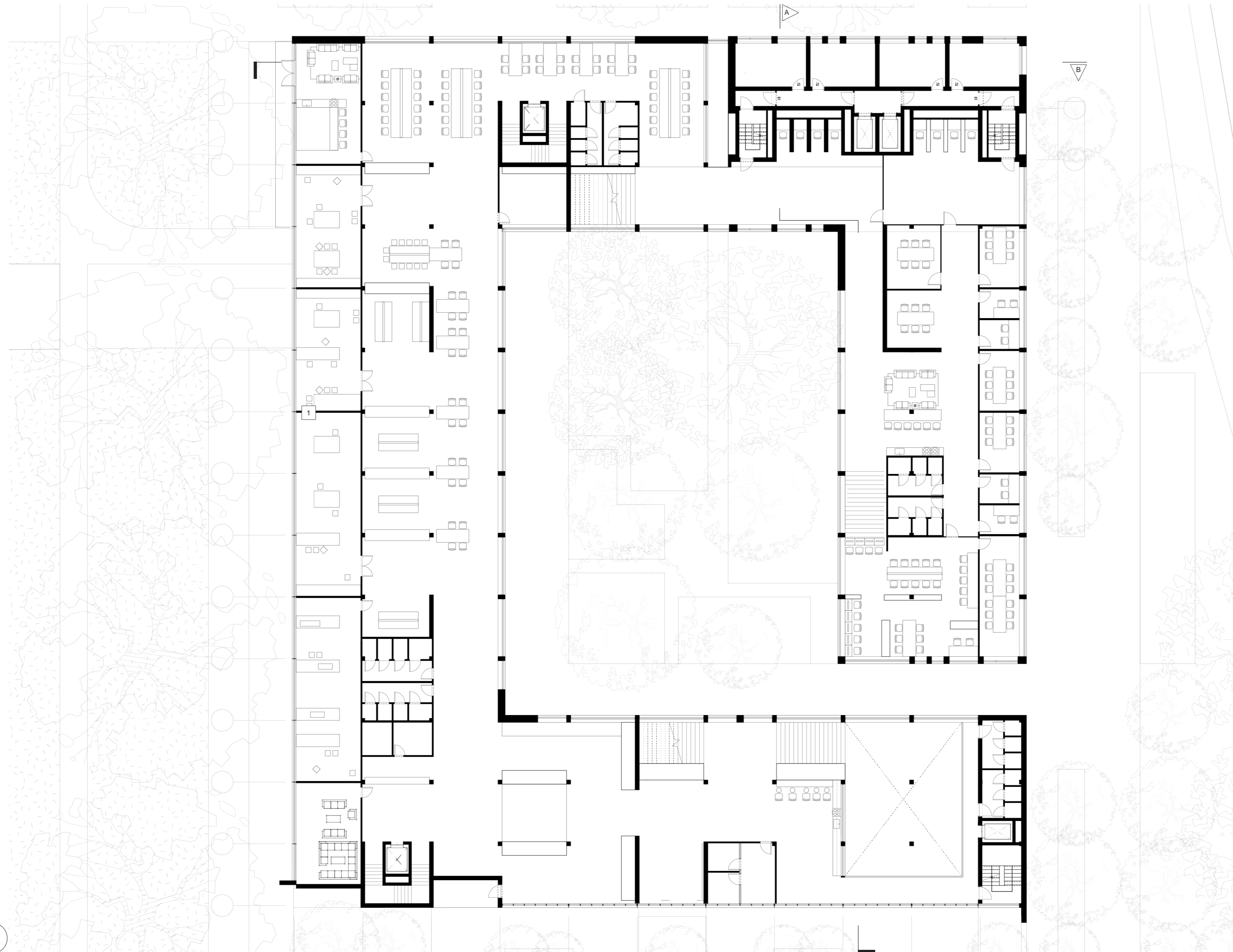
- 7 Informal library
- 8 Seclusion space

- 9 Residential lounge
- 10 Exhibition space
- 11 Public lounge
- 12 Waste room
- 13 Courtyard
- 14 Toilet
- ▲ Cafe
- ▲ Reception
- ▲ Reception room
- ▲ Residential entrance
- ▲ Workspace entrance



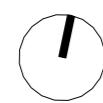


Level 01

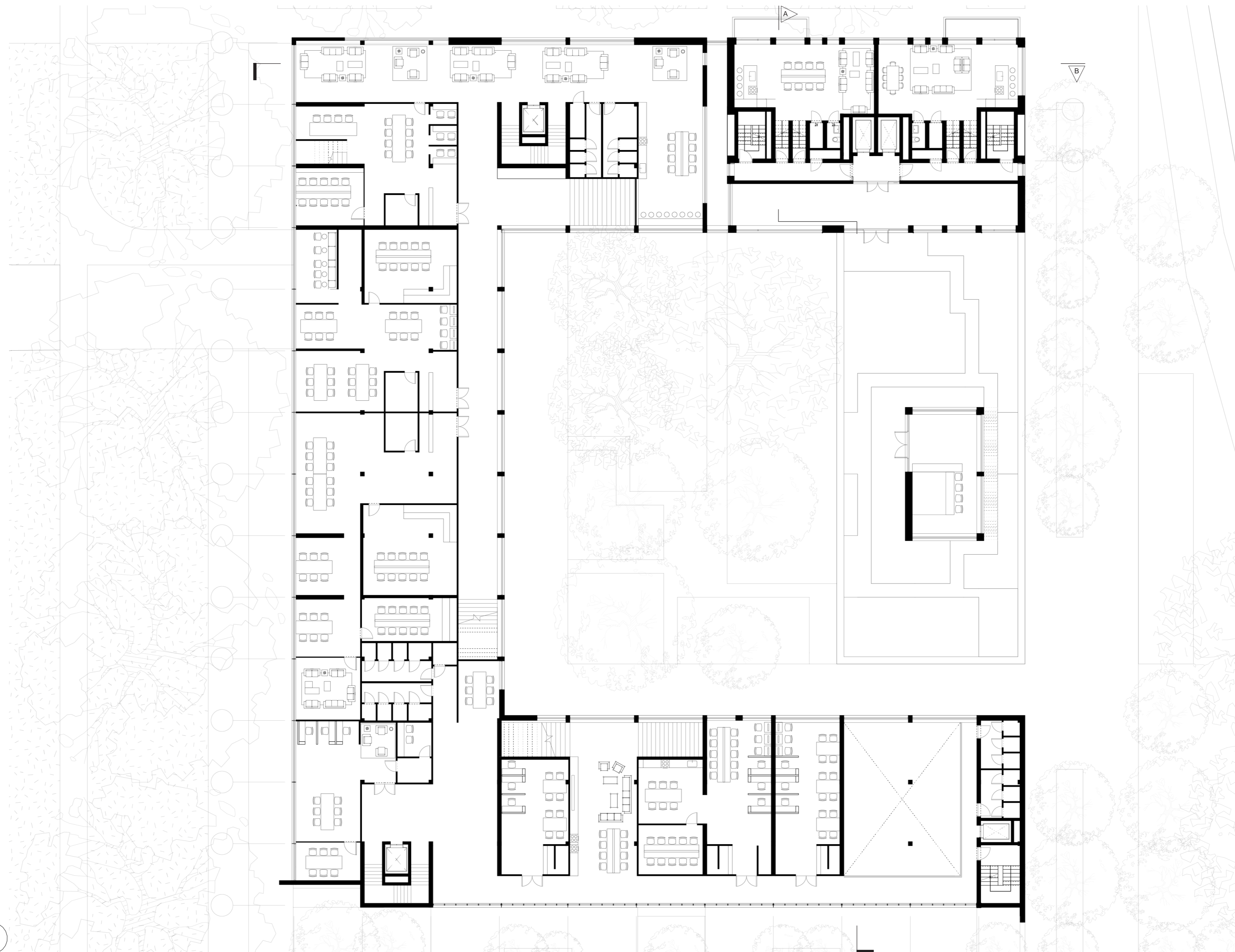


- 1 Model making space
- 2 Model making facilities
- 3 Material shop
- 4 Meeting corner
- 5 Collaborative workspace
- 6 Toilet
- 7 Temporary stay room
- 8 Focus cubes
- 9 Void space
- 10 Focus room
- 11 Conference room
- 12 Entrance
- 13 Print corner
- 14 Formal library
- 15 Reception room

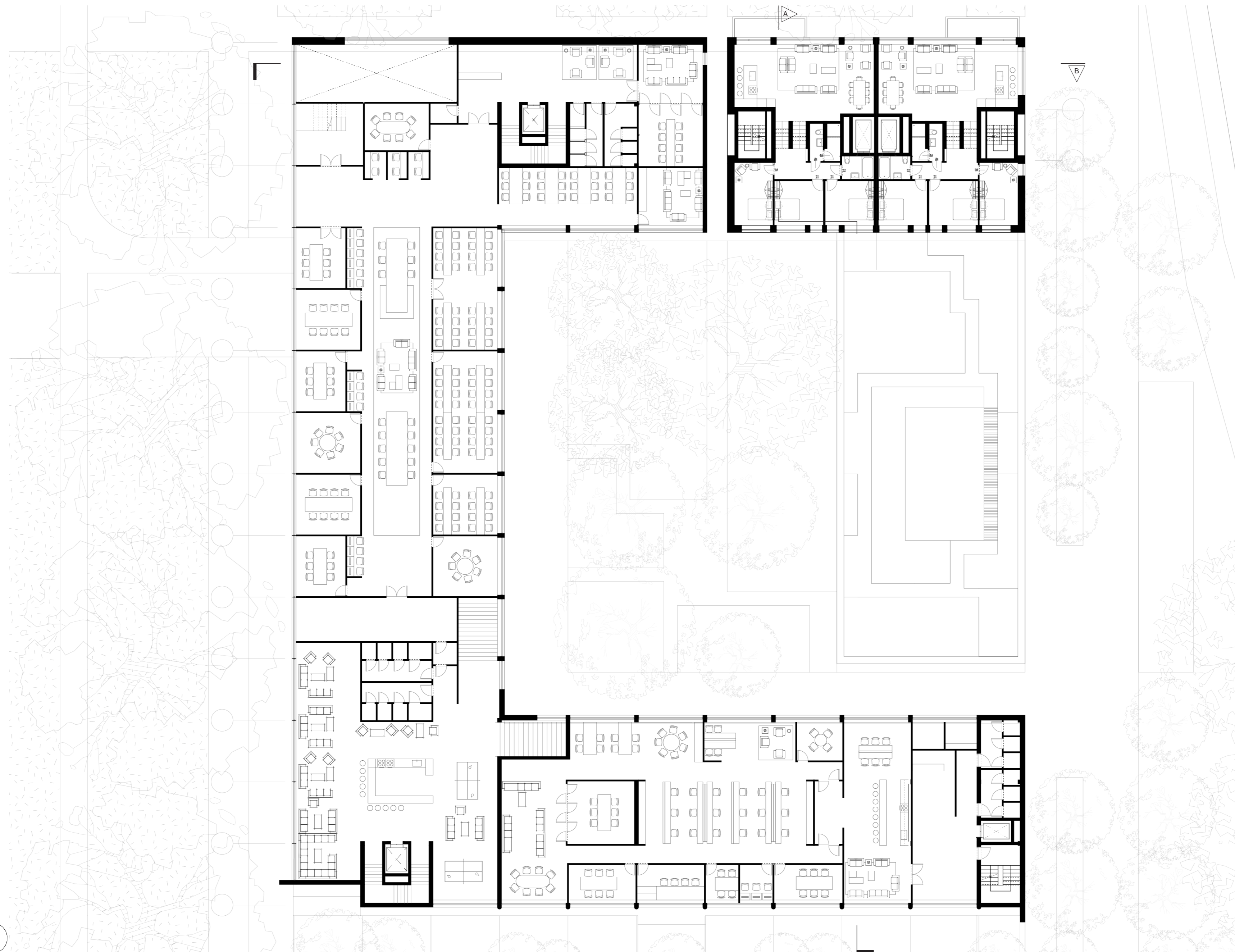
0 2.5 5 10 m



Level 02

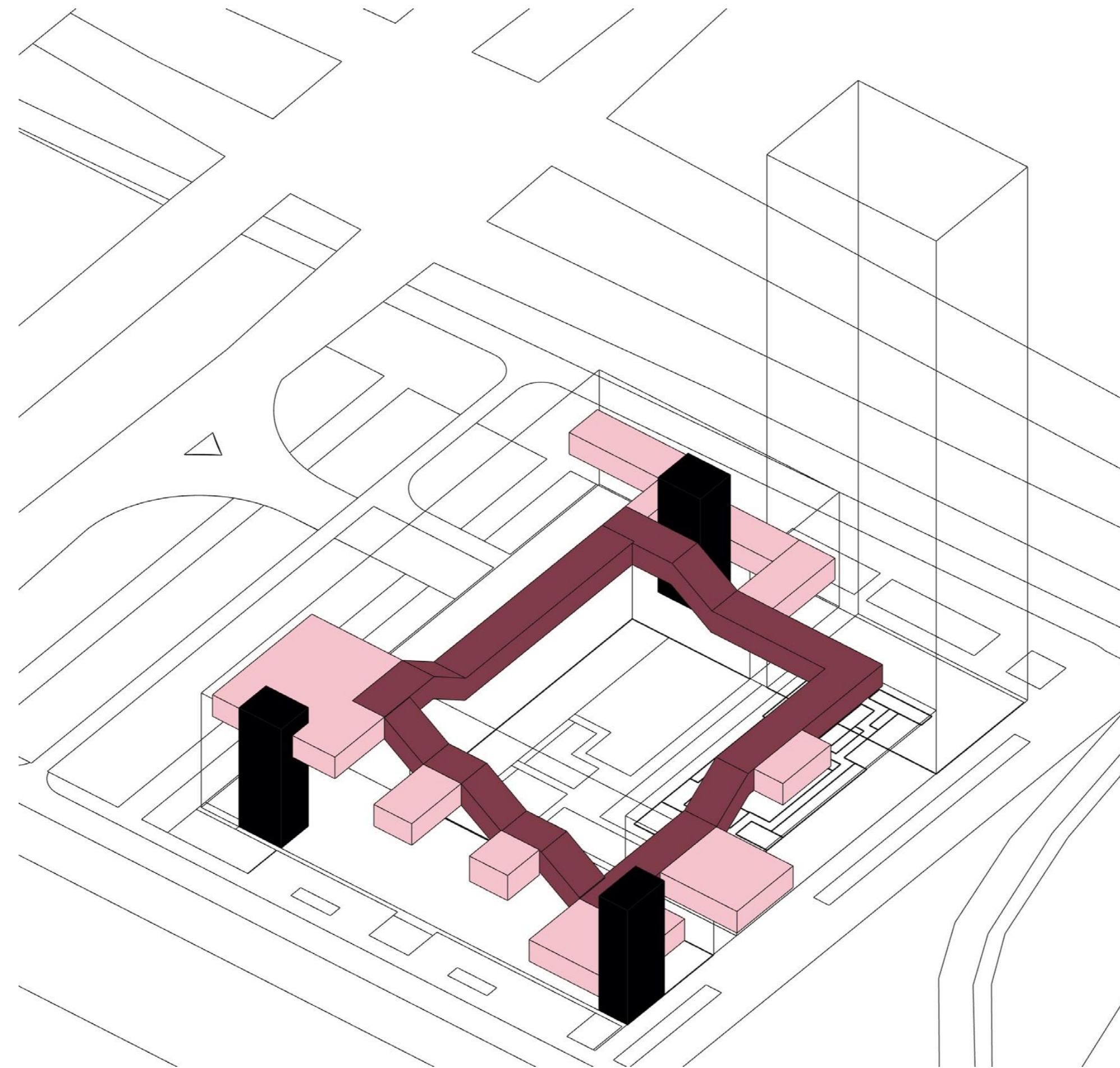


Level 03



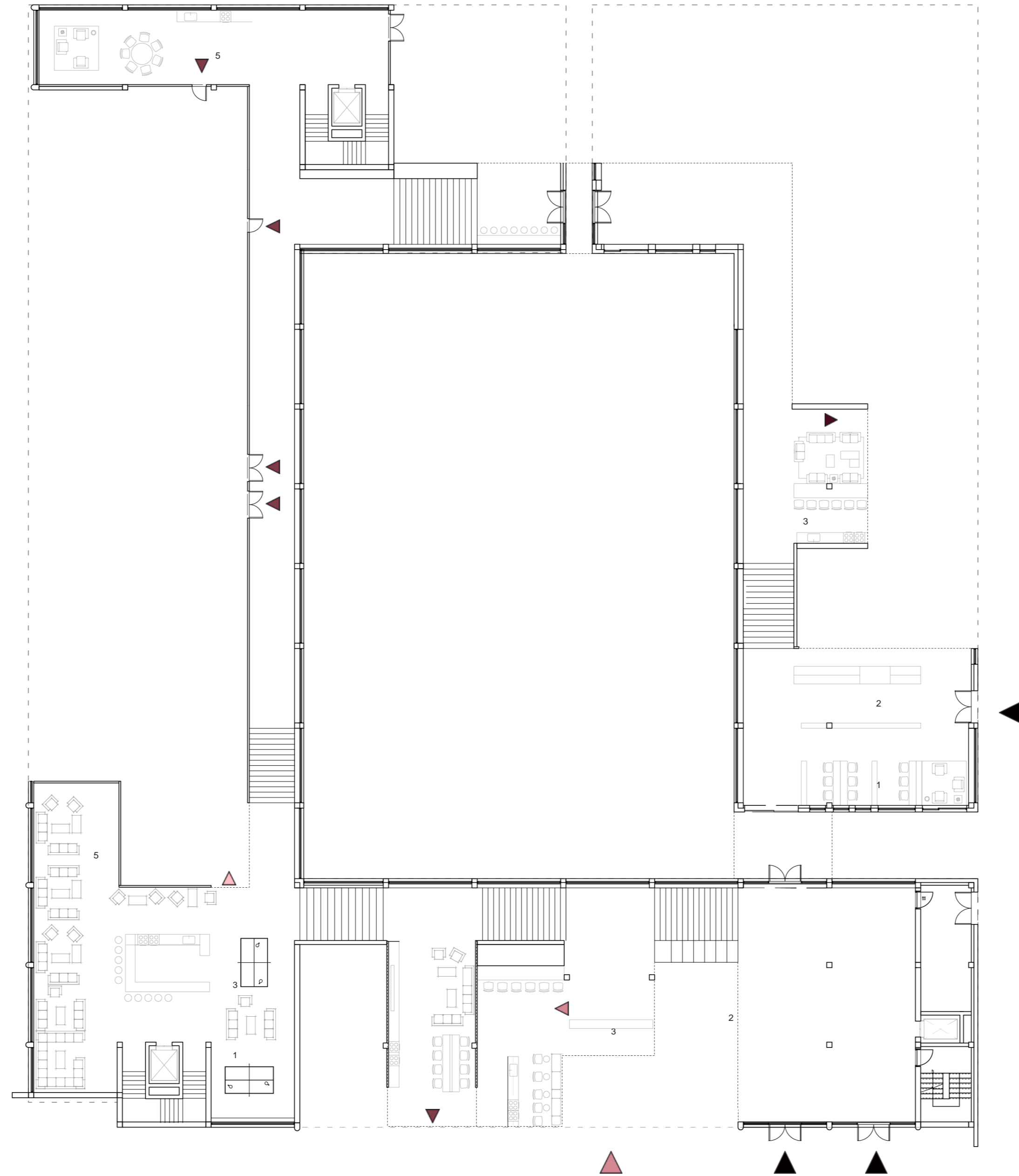
Third Place

Introducing the Third Place to the site

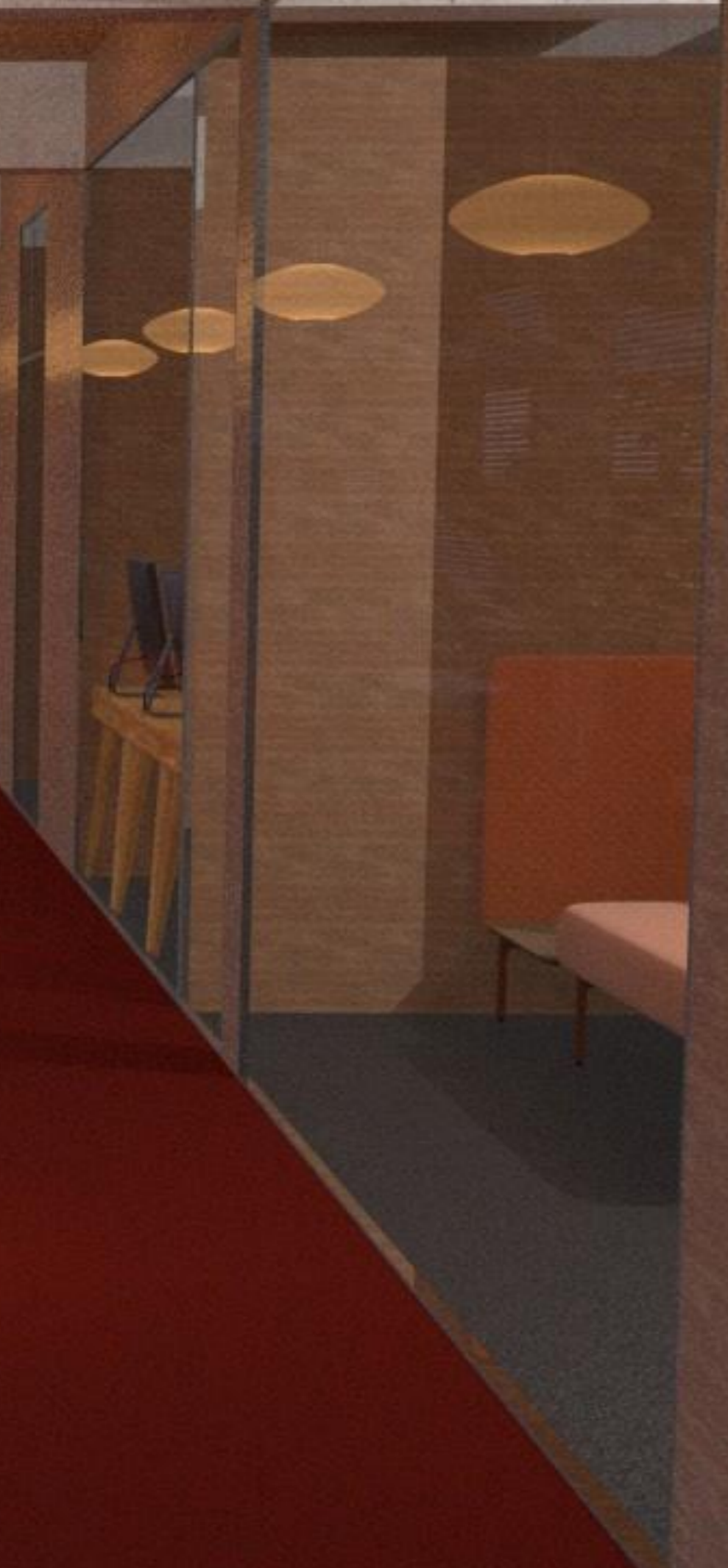


- Shared spaces
- Third Place route
- Vertical Circulation

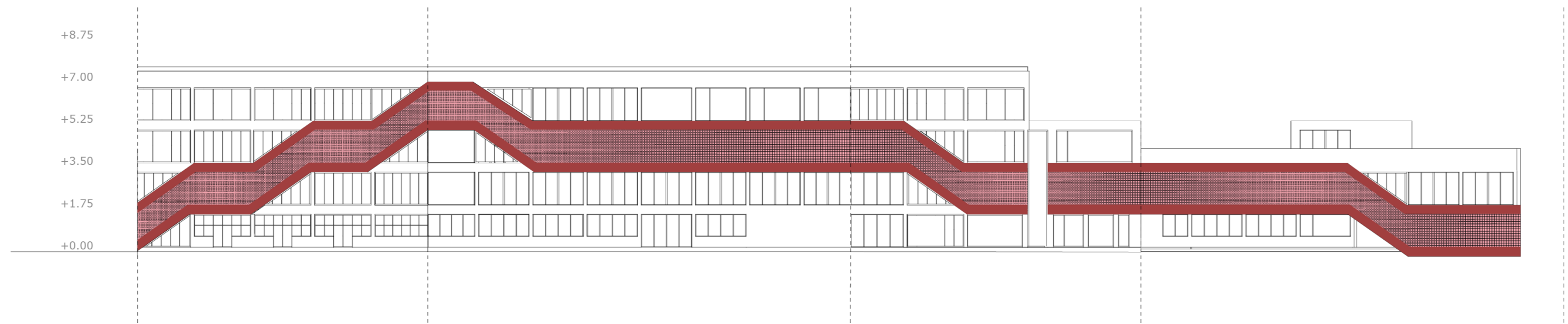
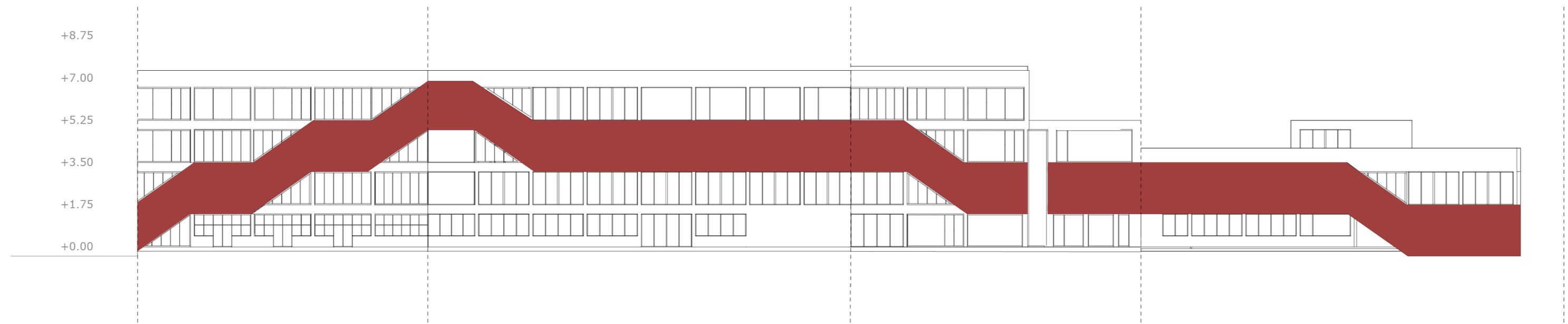
Third place mapped plan



- 1 Informal library
- 2 Reception
- 3 Meeting area
- ▲ Ground floor entrance
- ▲ Entrance to large office
- ▲ Entrance to the material
- ▲
- library
- ▲ Entrance to the small











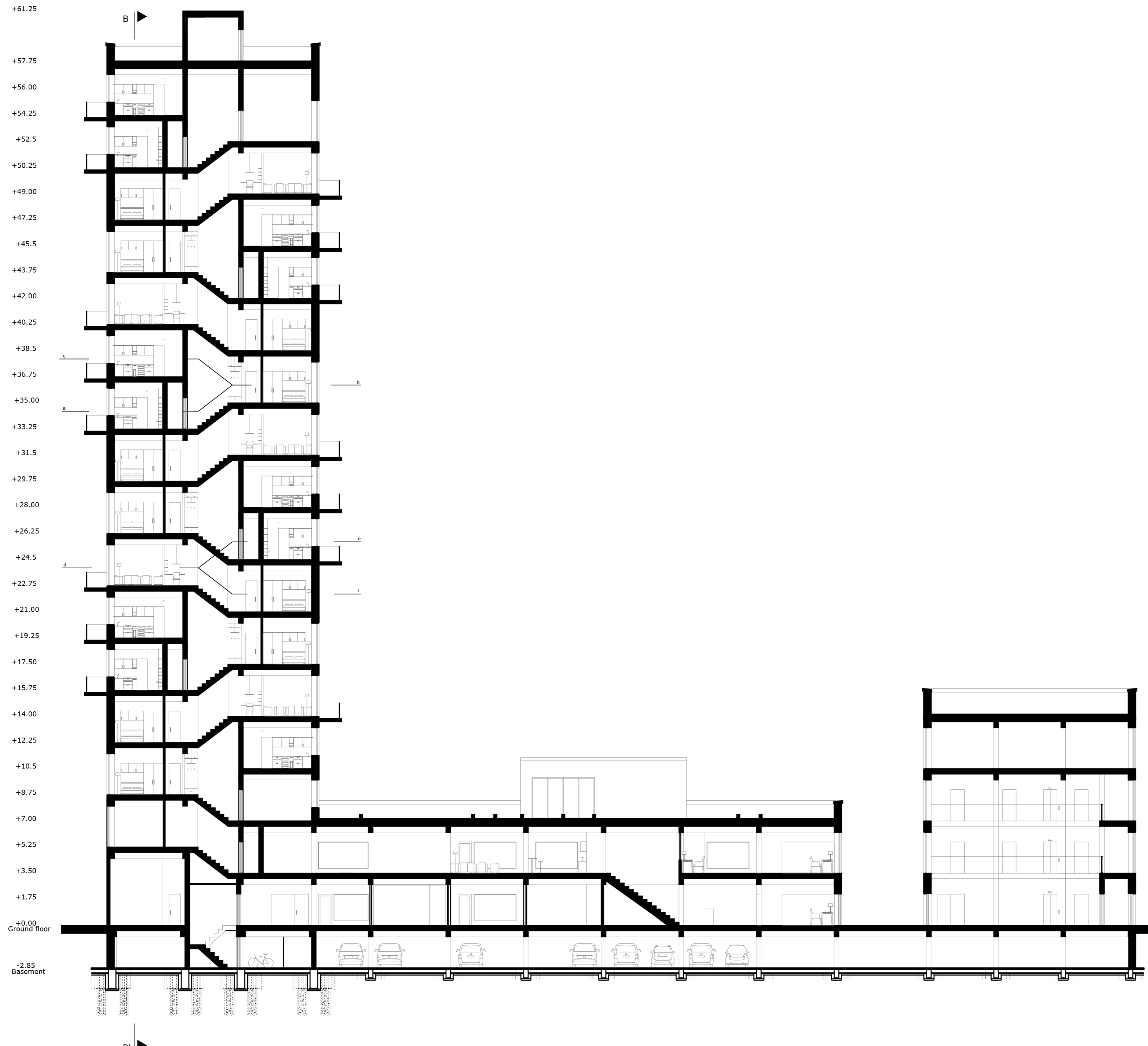
East Elevation



North Elevation



Section A-A'



Section B-B'

