

RE-INTEGRATING THE CITY

A SCHEME FOR THE DENSIFICATION OF AN UNDER-USED URBAN SITE

METHODS, ANALYSIS AND IMAGINATION
Msc3 Position in Practice

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02 | SITE

03 | PROJECT DEFINITION

04 | DESIGN

05 | URBAN STORIES

06 | REFLECTION

01 | PROBLEM STATEMENT



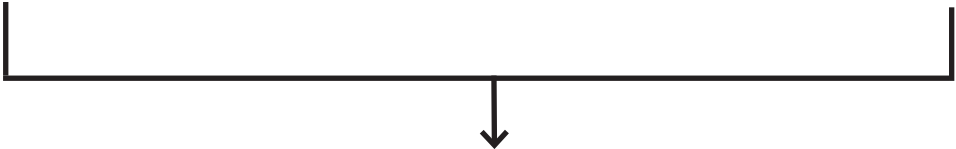
BELGRADE'S SMALL ABANDONED SITES

HOW TO RE-INTEGRATE ABANDONED AND
DIS-USED BUILDINGS IN THE URBAN FABRIC?



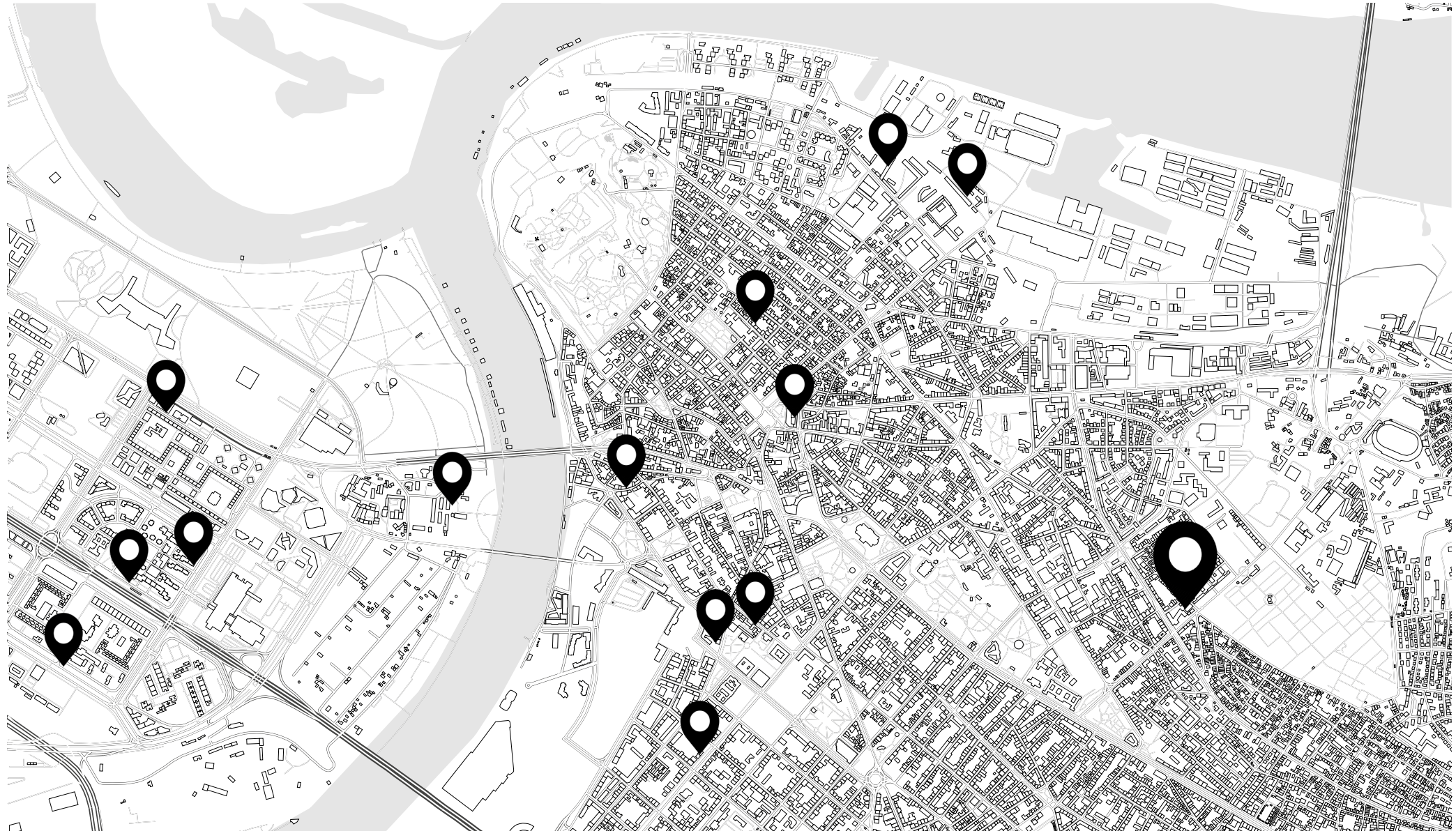
A SHORTAGE OF AFFORDABLE OWNERSHIP

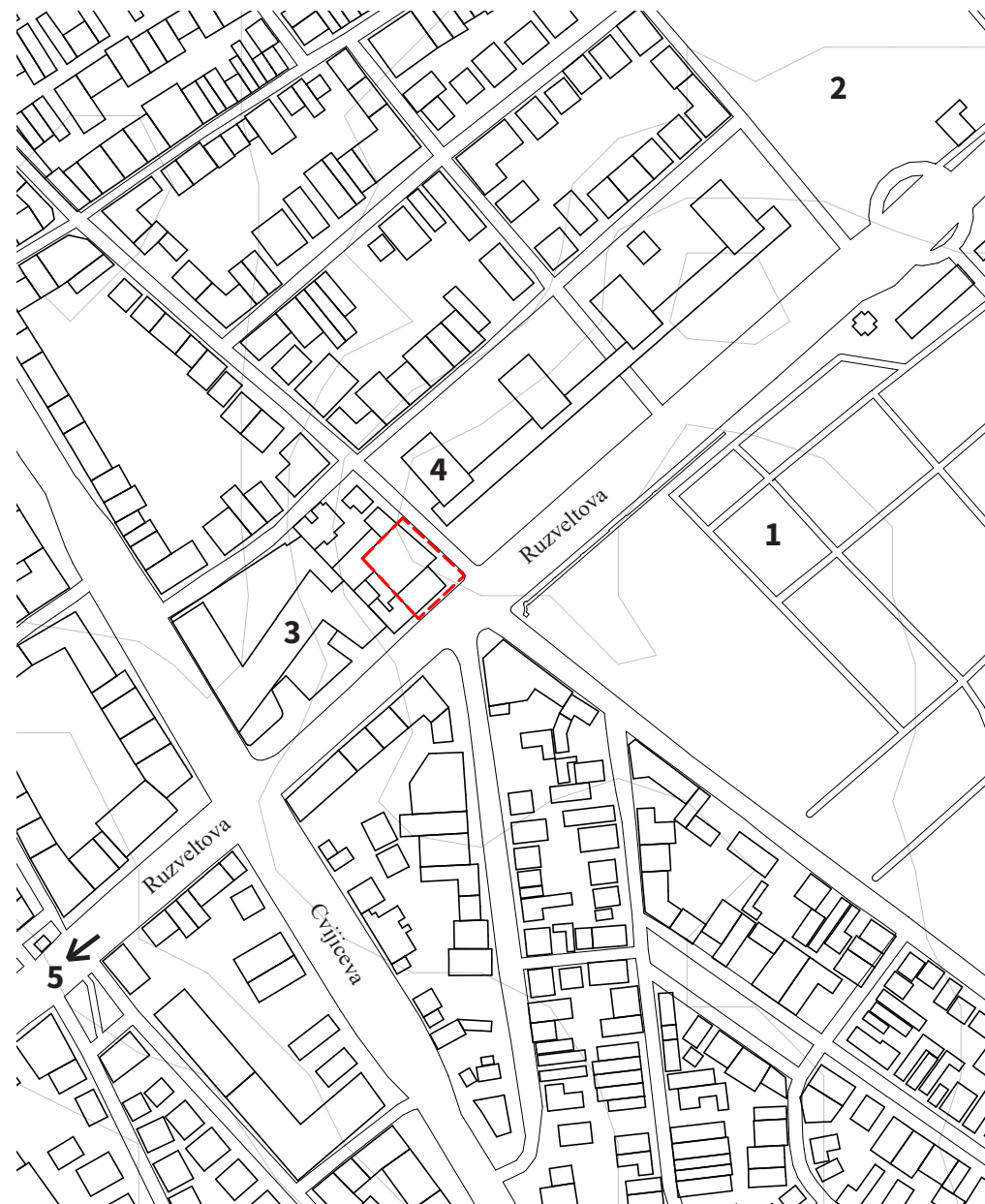
HOW TO PROVIDE AFFORDABLE OWNERSHIP
OPPORTUNITIES WITHIN THE CITY ?



**HOW TO RECOVER DIS/UNDER-USED SITES
AND DENSIFY THEM TO CREATE AFFORDABLE
HOUSING-OWNERSHIP OPPORTUNITIES
WITHIN THE CITY?**

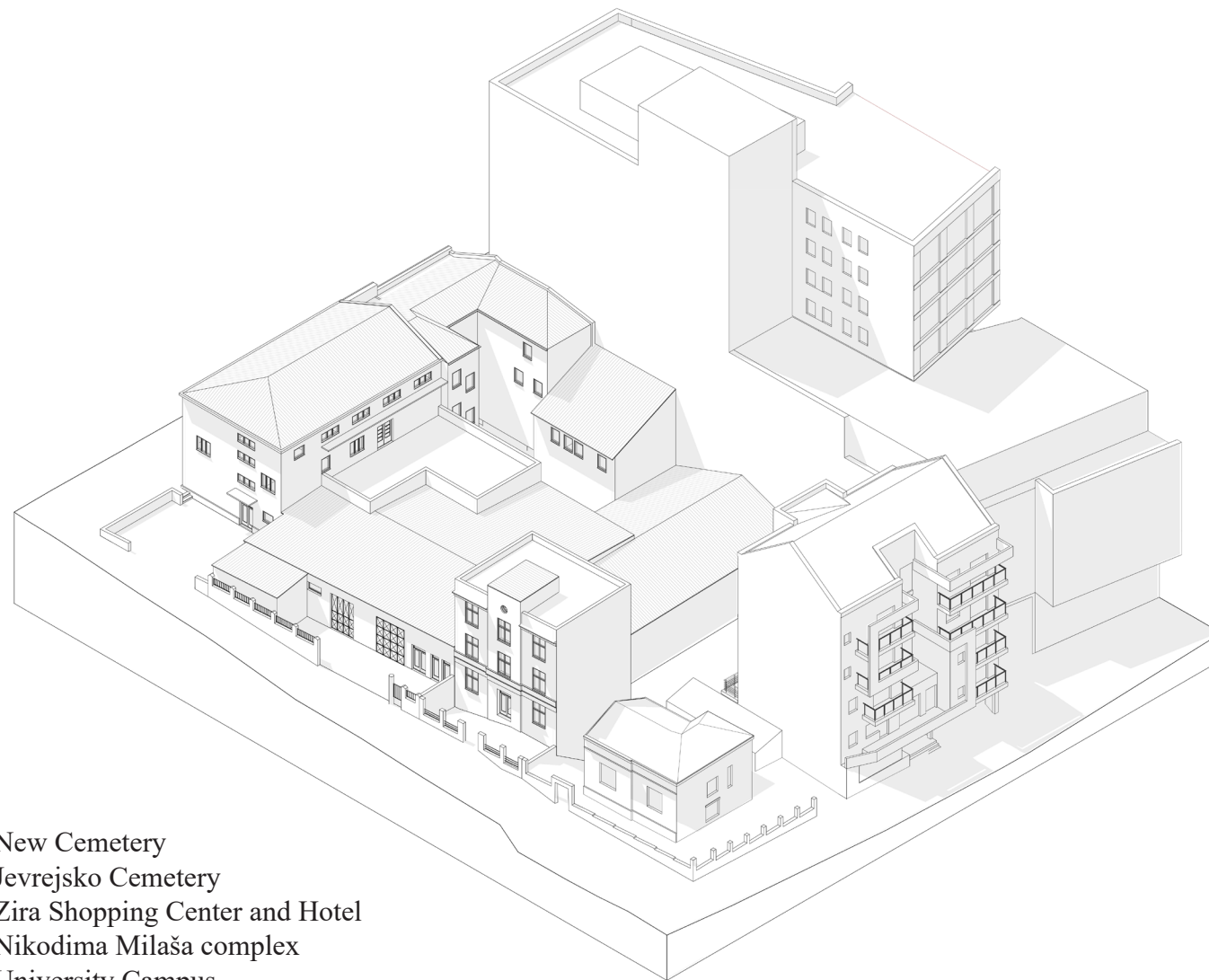
02 | SITE





- 1** New Cemetery
- 2** Jevrejsko Cemetery
- 3** Zira Shopping Center and Hotel
- 4** Nikodima Milaša complex
- 5** University Campus

Site Extent
Plot Area : 957 sqm



KVAKA 22
A CULTURAL COMMUNITY OCCUPATION OF THE SITE



MUSIC AND ART EVENTS



FILM PROJECTION



EXHIBITION

03 | PROJECT DEFINITION

URBAN HOUSING DENSIFICATION IN BELGRADE DESTROYING TO REBUILD?



A GOVERNMENT PROJECT?
CHOOSING AN APPROACH FOR THE SITE

TAKING A POSITION

PROPOSING AN ALTERNATIVE METHOD OF DENSIFICATION

ONE WHICH **RESPECTS THE EXISTING CONTEXT AND USERS**, ONE WHICH IDENTITY AND FORMAL IMPLANTATION IS **SITE SPECIFIC**, BUT **SCALABLE AND REPLICABLE** THROUGH A **UNIFIED CONSTRUCTION STRATEGY**.

ONE WHICH **USES THE GOVERNMENT AS A LEADING ACTOR OF CHANGE**, BUT SIMULTANEOUSLY **WISHES TO ENGAGE WITH LOCAL ACTORS (USERS/COMMUNITIES)** AND **ENCOURAGES APPROPRIATION**.

PRECEDENTS



PORTO IHLAS

Narrow Housing Block infill



VINZIRAST MITTENDRIN

Top up extension
Mix-use and new Community courtyard



FIEMME

Irregularity of urban massing with successive changes



SPLIT DIOCLETIAN PALACE

Contrast of inside and outside
Internal streets

A PROJECT IN 3 PHASES
FROM SITE SPECIFIC TO NEIGHBOURHOOD REDEVELOPMENT

PHASE 1: RENOVATION

THE RENOVATION AND EXPANSION OF KVAKA 22
TO PROVIDE COMFORTABLE SPACES FOR THEIR
ACTIVITY ALL YEAR ROUND

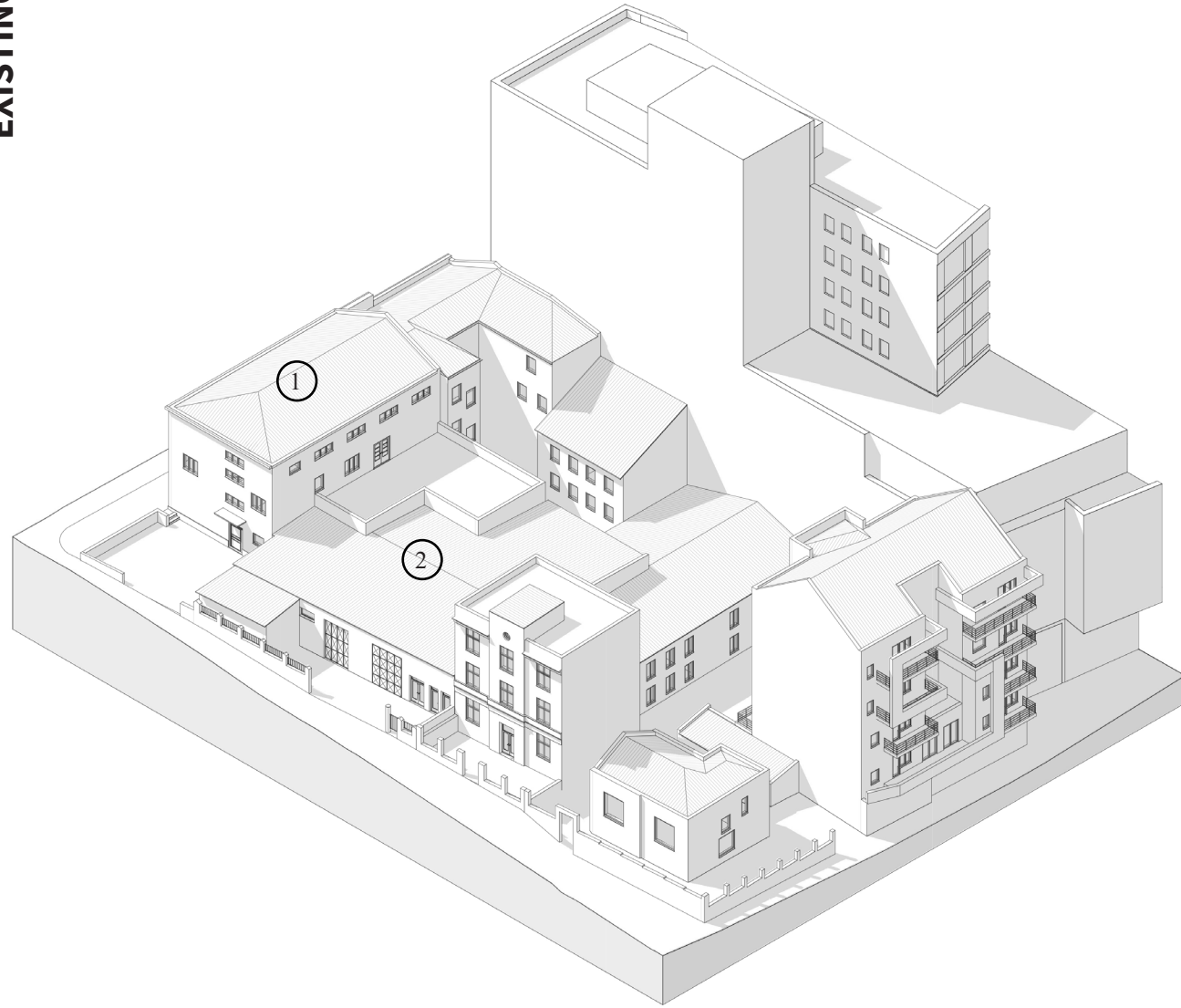
PHASE 2: DENSIFICATION

THE PROPOSAL OF A HOUSING SCHEME FOR
AFFORDABLE OWNERSHIP IN THE LOCATION OF
THE WAREHOUSE

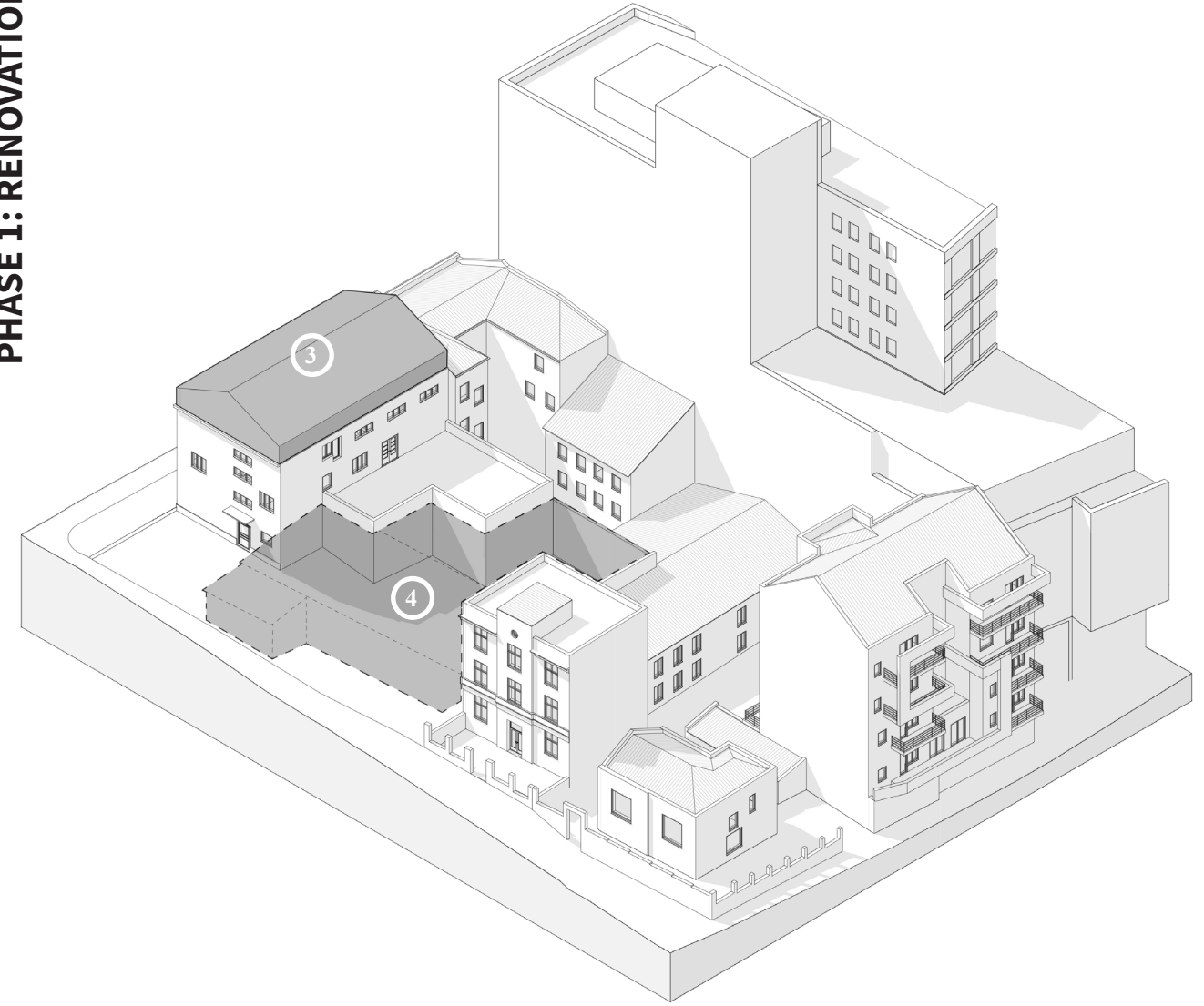
PHASE 3: MASTERPLAN PROPOSAL

THE OVERALL DENSIFICATION OF THE BLOCK
STEMMING FROM THE INITIAL PROJECT A AND B

EXISTING

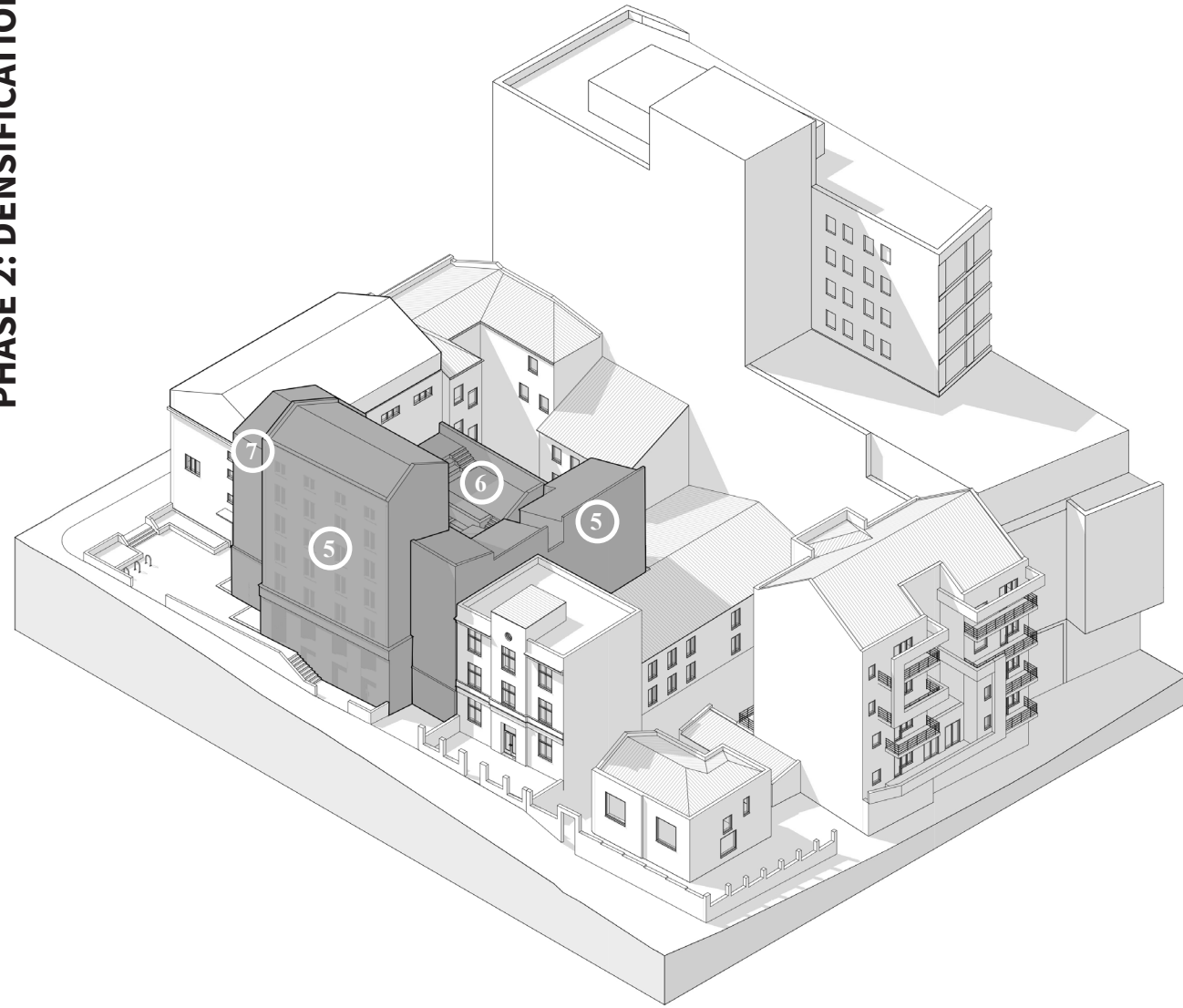


PHASE 1: RENOVATION



- ① Existing Kvaka 22 facilities ② Storage Space ③ Roof extension for artists residence and internal renovation ④ Demolition of the storage facilities

PHASE 2: DENSIFICATION



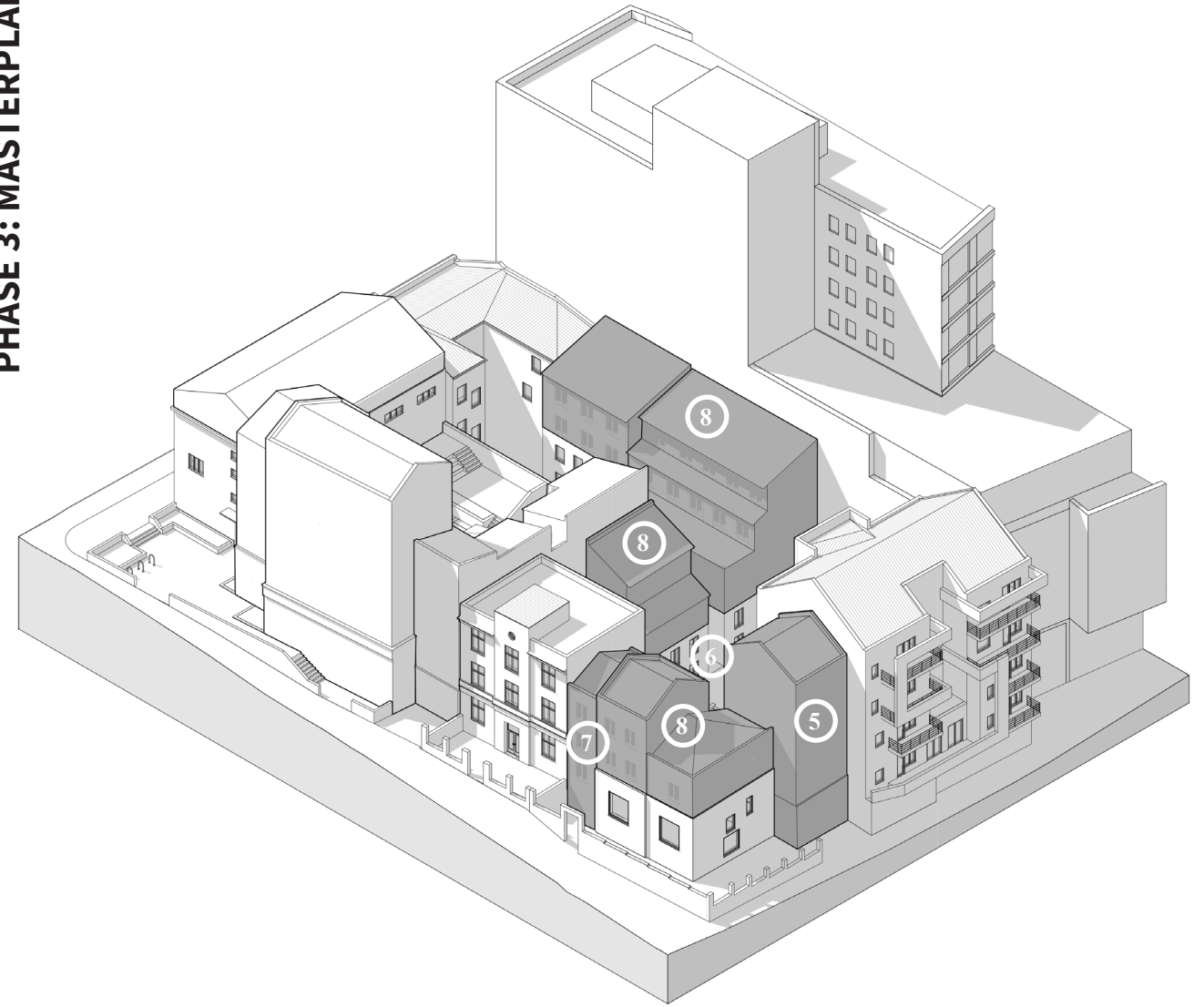
⑤ New Residential Building

⑥ Courtyard remodeling

⑦ Circulation Block

⑧ Roof extension for residential use

PHASE 3: MASTERPLAN

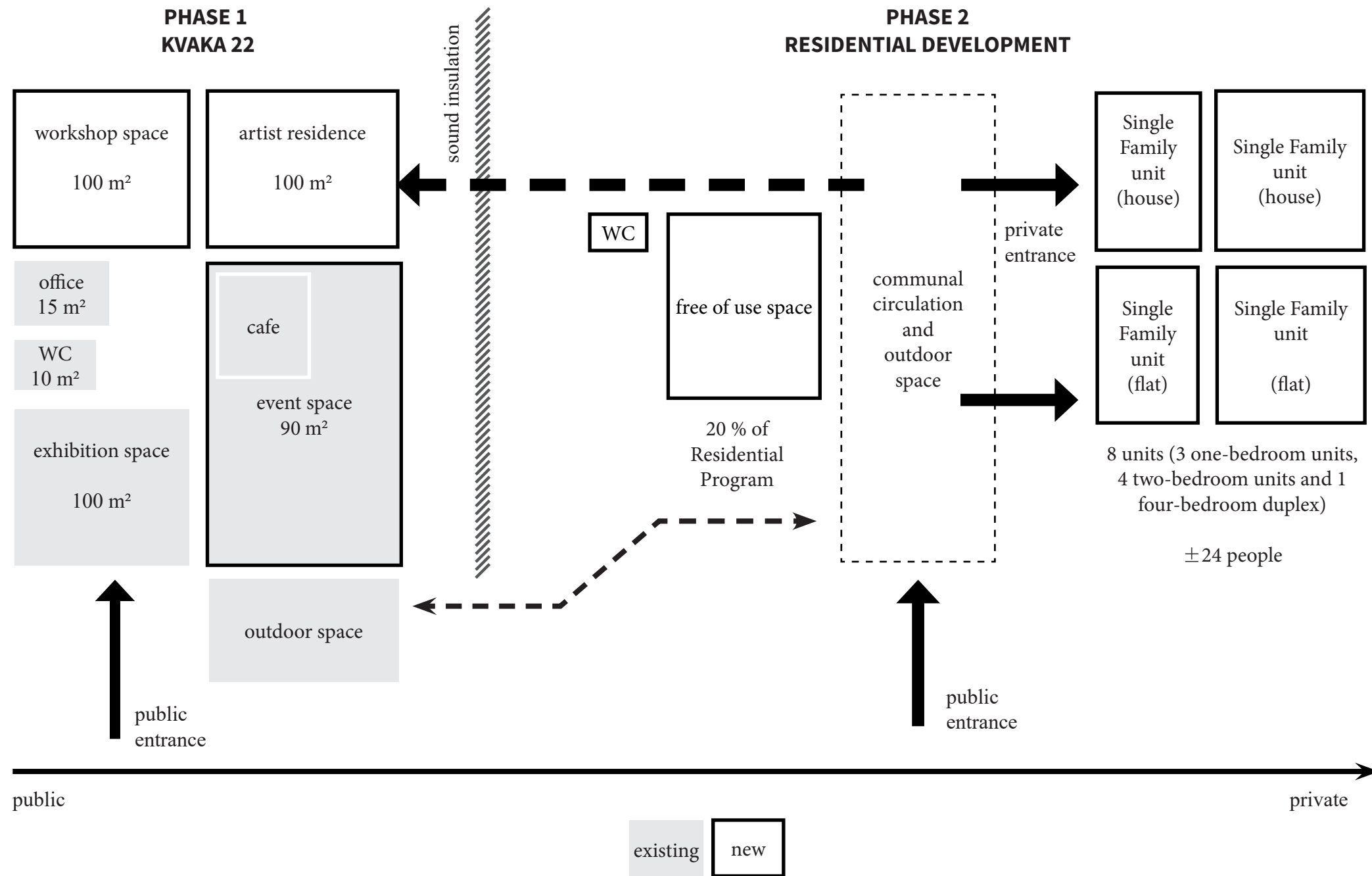


⑤ New Residential Building

⑥ Courtyard remodeling

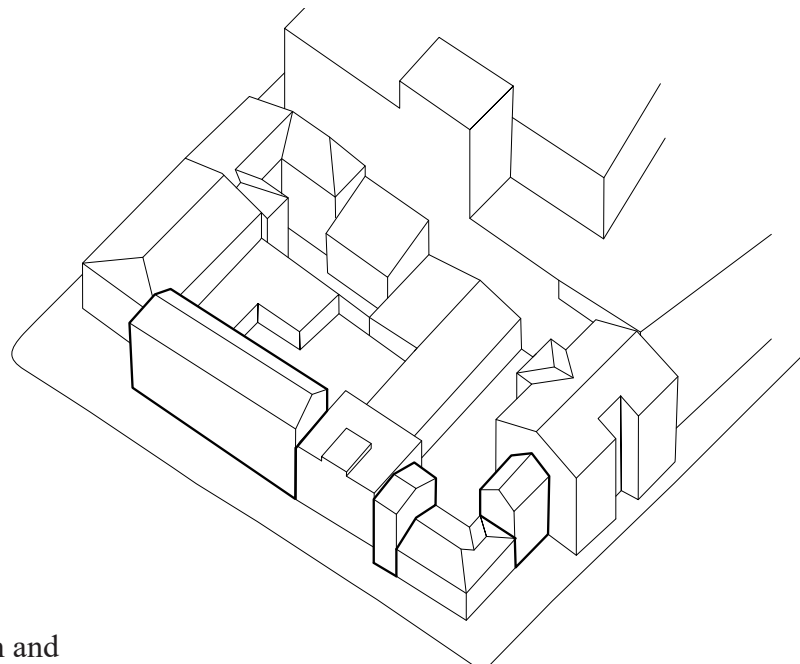
⑦ Circulation Block

⑧ Roof extension for residential use

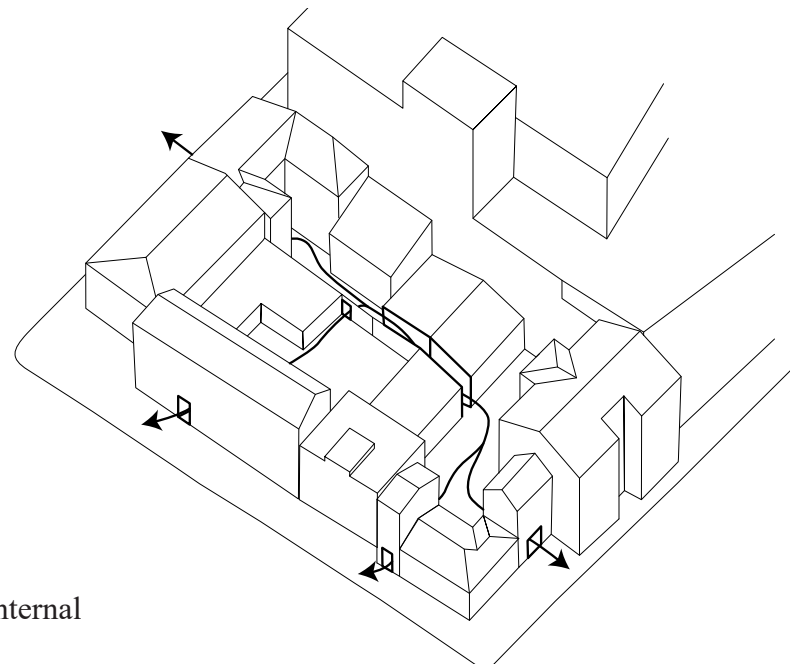


04 | DESIGN

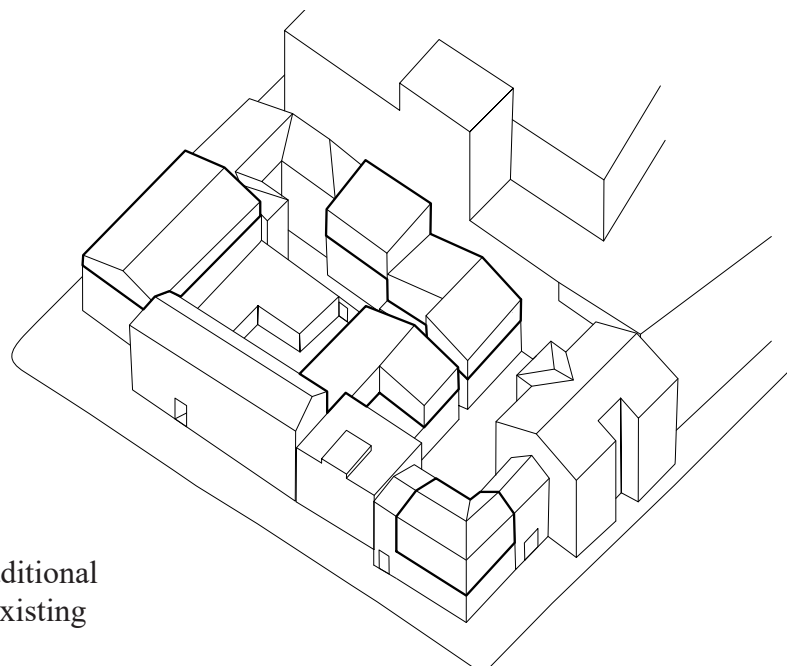
STEP 1
Strategic
demolition and
completing the
street-scape



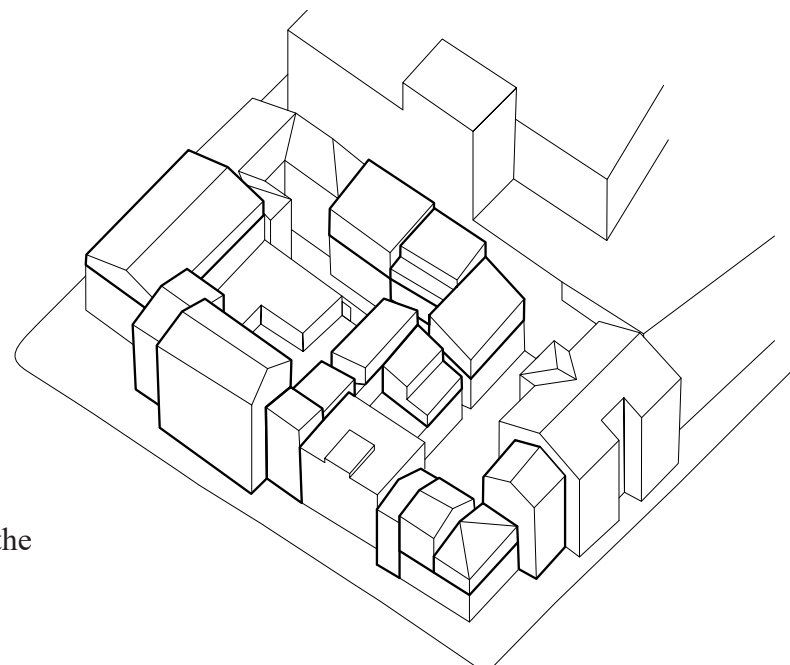
STEP 2
Creating an internal
circulation



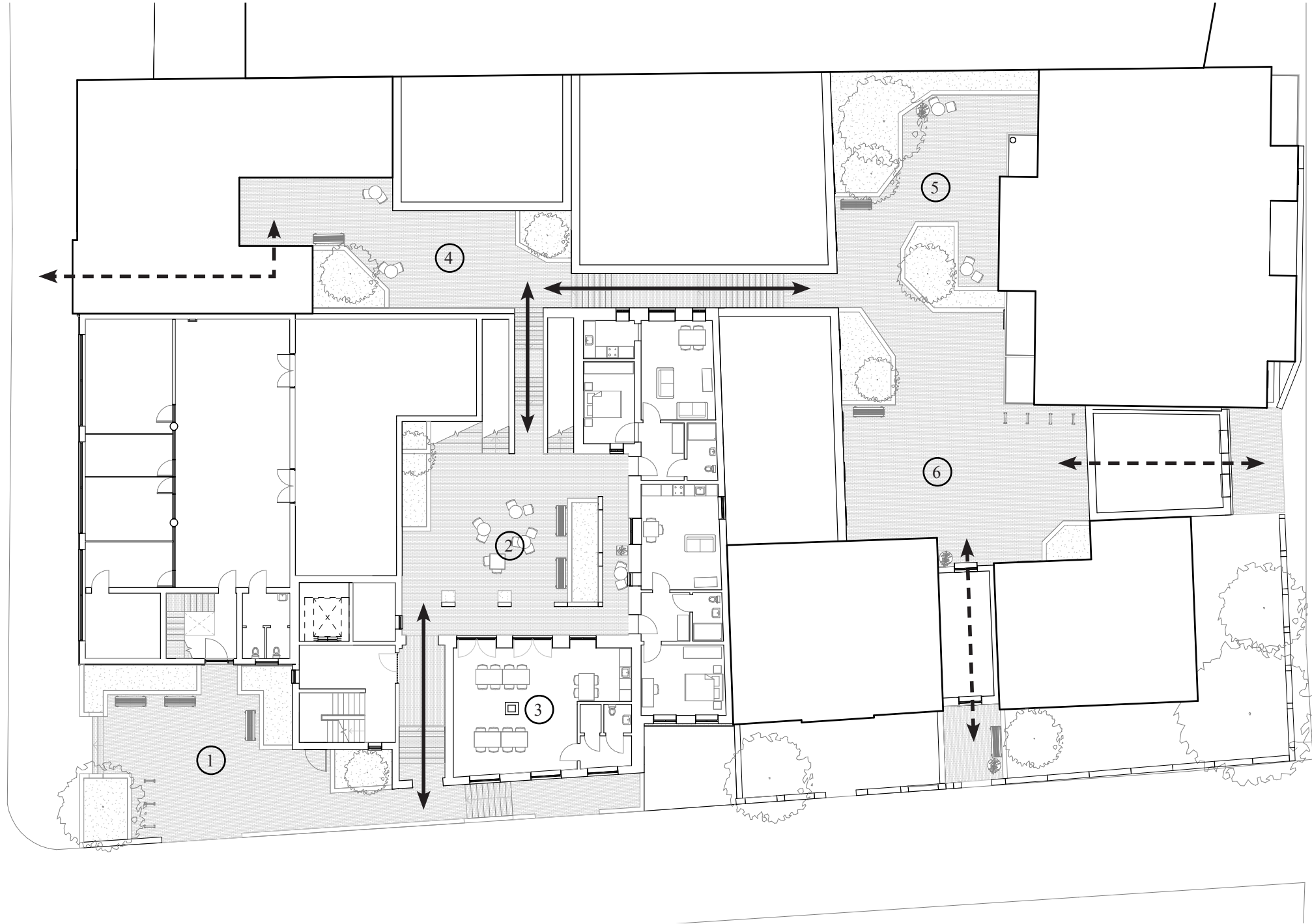
STEP 3
Adding additional
storey to existing
buildings



STEP 4
Breaking up the
massing



DENSIFICATION STRATEGY DIAGRAM



A NEW PUBLIC REALM
COURTYARDS AND
THRESHOLDS



① THE PUBLIC SQUARE
a space for public gathering

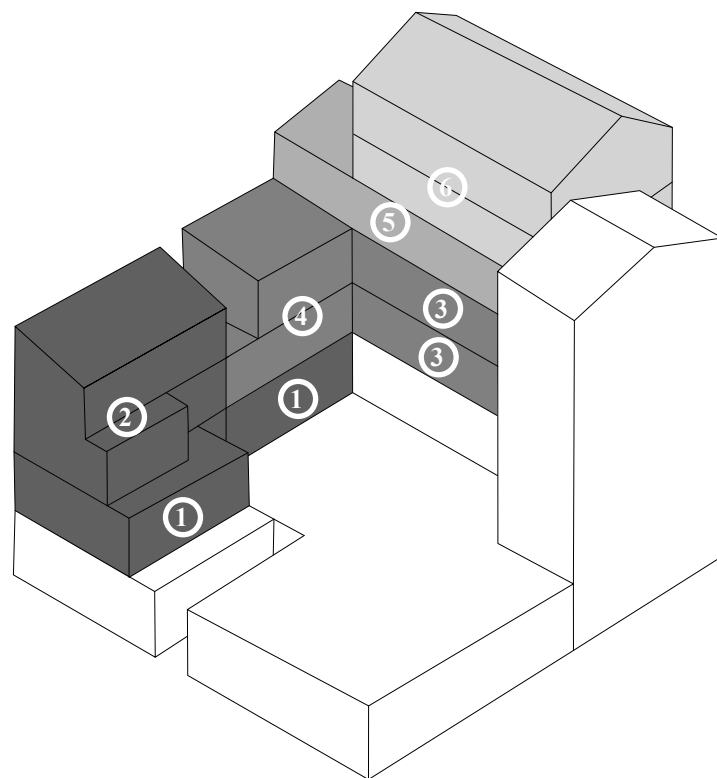
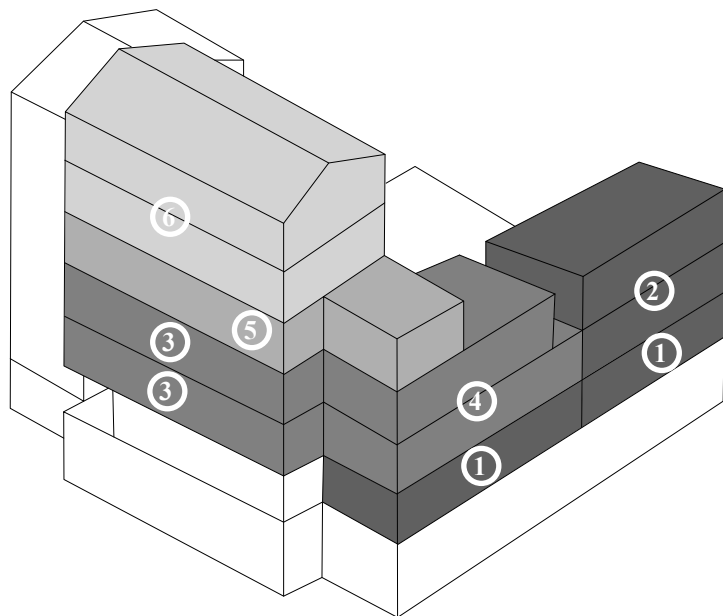


④ THE SUNKEN COURTYARD
a planted circulation space



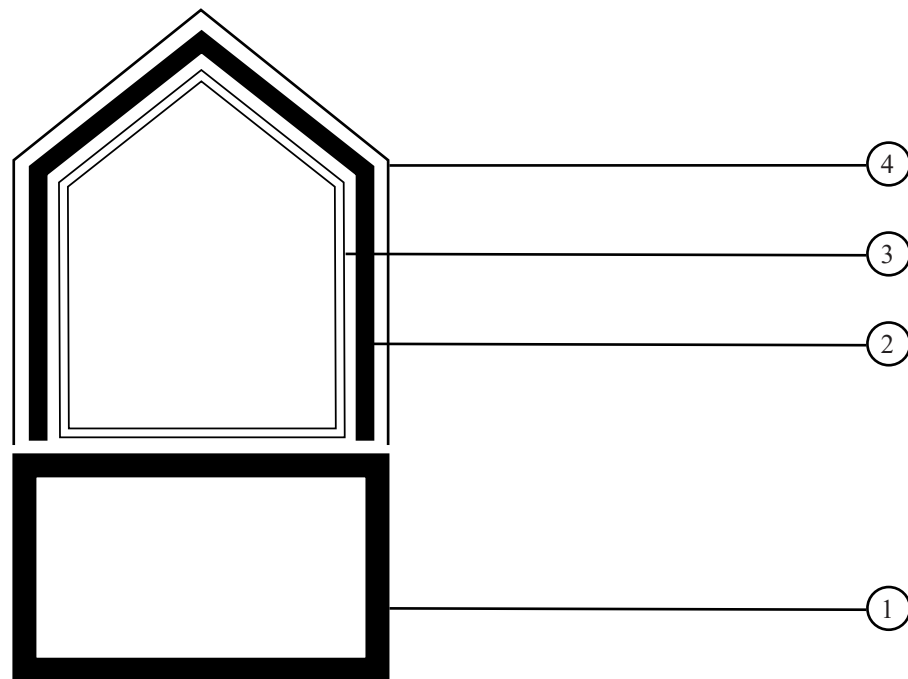
⑤ ⑥ THE PRIVATE COURTYARD
a shared backgarden space

HOUSING AND KVAKA 22
A COURTYARD SCHEME



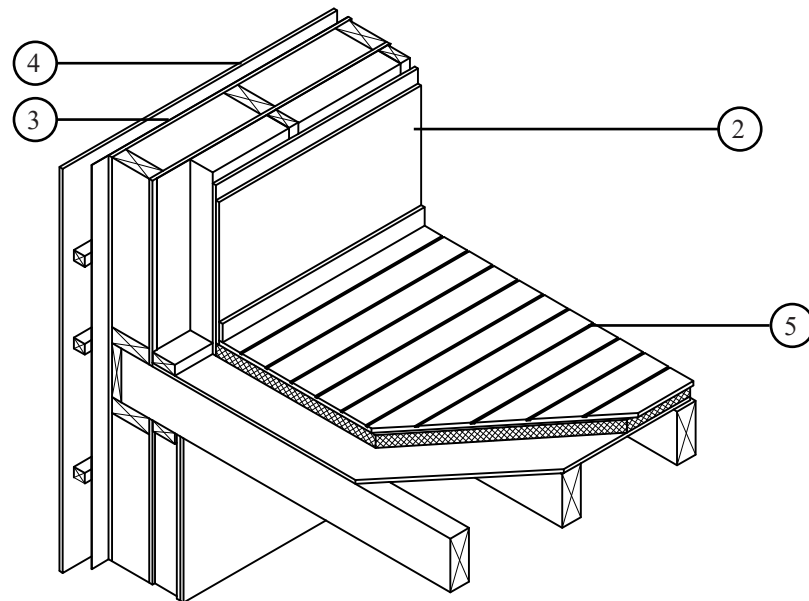
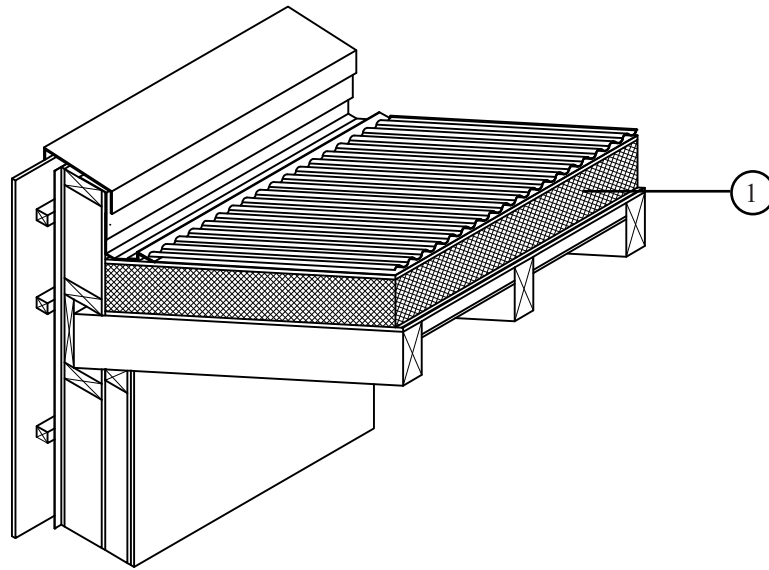
OVERVIEW OF THE 8 DWELLING UNITS

- ① 1-bedroom flats (54 sqm)
- ② 1-bedroom maisonette (68 sqm)
- ③ 2-bedroom flats (73 sqm)
- ④ 2-bedroom maisonette (88 sqm)
- ⑤ 2/3-bedroom flat (90 sqm)
- ⑥ 4-bedroom duplex (145 sqm)



OVERVIEW OF THE CONSTRUCTION STRATEGY

- ① **Masonry/Concrete Base**
Servicing, Parking, Communal Spaces
- ② **Structural Timber Frame**
Structure, Insulation
- ③ **Internal Timber Frame**
Servicing, insulation and internal finishing
- ④ **External Finishing**
Weatherproofing



TYPICAL TIMBER CONSTRUCTION

Roof Build Up

U-Value : 0,12 W/(m²K)

- ① Corrugated Metal roof finish
40mm purlins
waterproofing membrane
18mm OSB
220mm rigid insulation
Vapour Control Membrane
18mm OSB (painted finish)
220x100mm Timber Beams (50mm wood fiber insulation)

Wall Build up

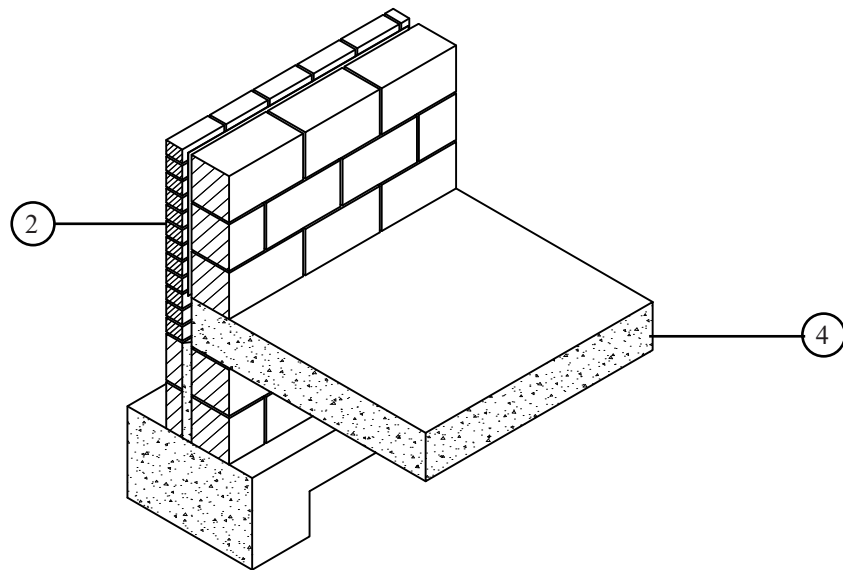
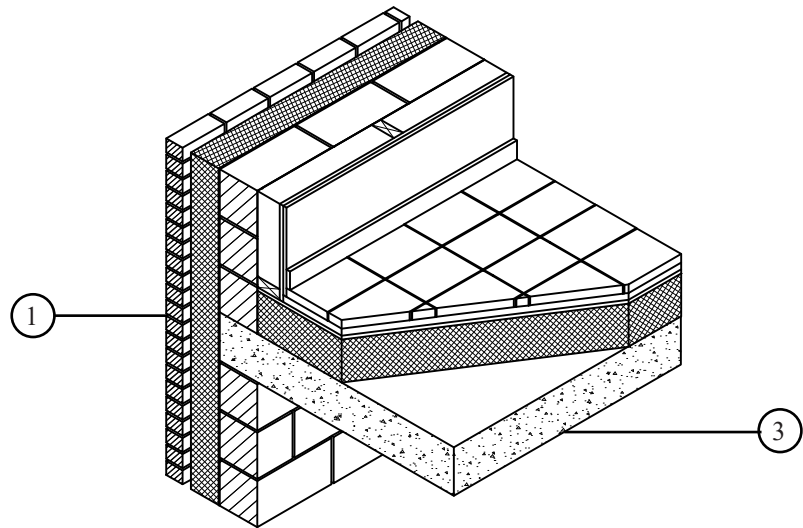
U-Value : 0.14 W/(m²K)

- ② **Internal Timber Wall**
18mm Plasterboard
18mm OSB
120x75mm Stud with wood fiber insulation
- ③ **Structural Timber Wall**
Vapour Membrane
18mm OSB
200x100mm Stud with Wood Fiber Insulation
18mm OSB
- ④ **External Finishing**
Breather membrane
38x50mm timber battens
12mm render board OR 100x38mm wood cladding

Intermediate Floor Build-up

- ⑤ 20mm timber floor finish
18mm floor underlay
80mm rigid sound insulation
18mm OSB
220x100mm Timber Beams

TYPICAL MASONRY CONSTRUCTION

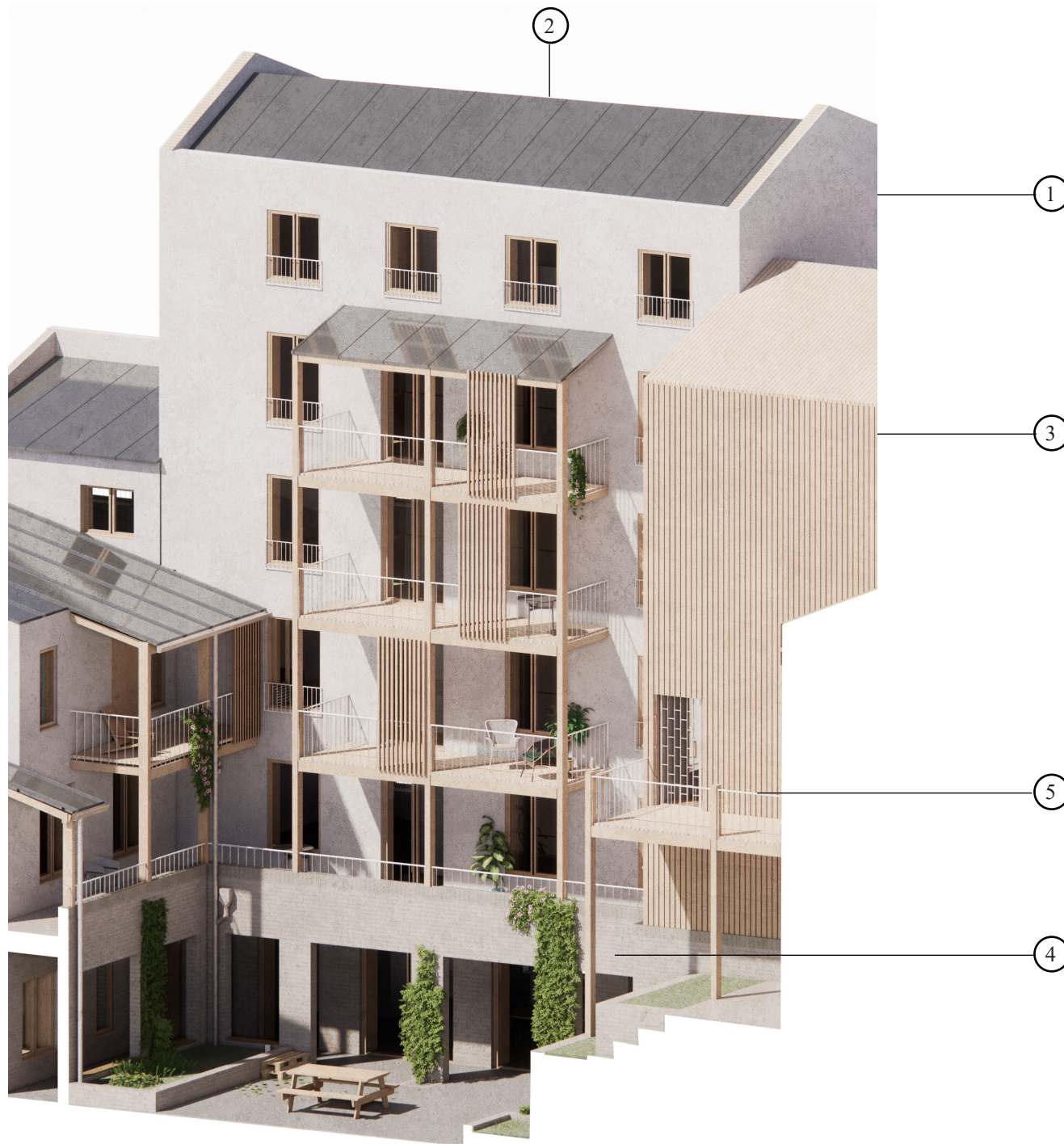


Wall Build up

- ① **Heated Space** **U-Value : 0.14 W/(m²K)**
18mm Plasterboard
18mm OSB
120x75mm Stud with wood fiber insulation
200mm Hollow Concrete Block
50-150mm Wood Fiber board Insulation
Breather Membrane
50mm Cavity
112.5 clay brick
- ② **Unheated Space**
200mm Hollow Concrete Block
Breather Membrane
50mm cavity
112.5 clay brick or 200mm Hollow Concrete block

Floor Build-up

- ③ **Floor to Heated Space** **U-Value : 0.25 W/(m²K)**
20mm floor finish (tiles)
30mm floor underlay
Vapour Barrier
150mm Wood Fiber Board Insulation
230mm Concrete Slab
600/400x300mm Concrete Beam
- ④ **Basement Level Floor (Unheated)**
2mm Finish Coating
300mm Concrete slab
150mm non-frost susceptible fill
150mm Gravel/sand layer



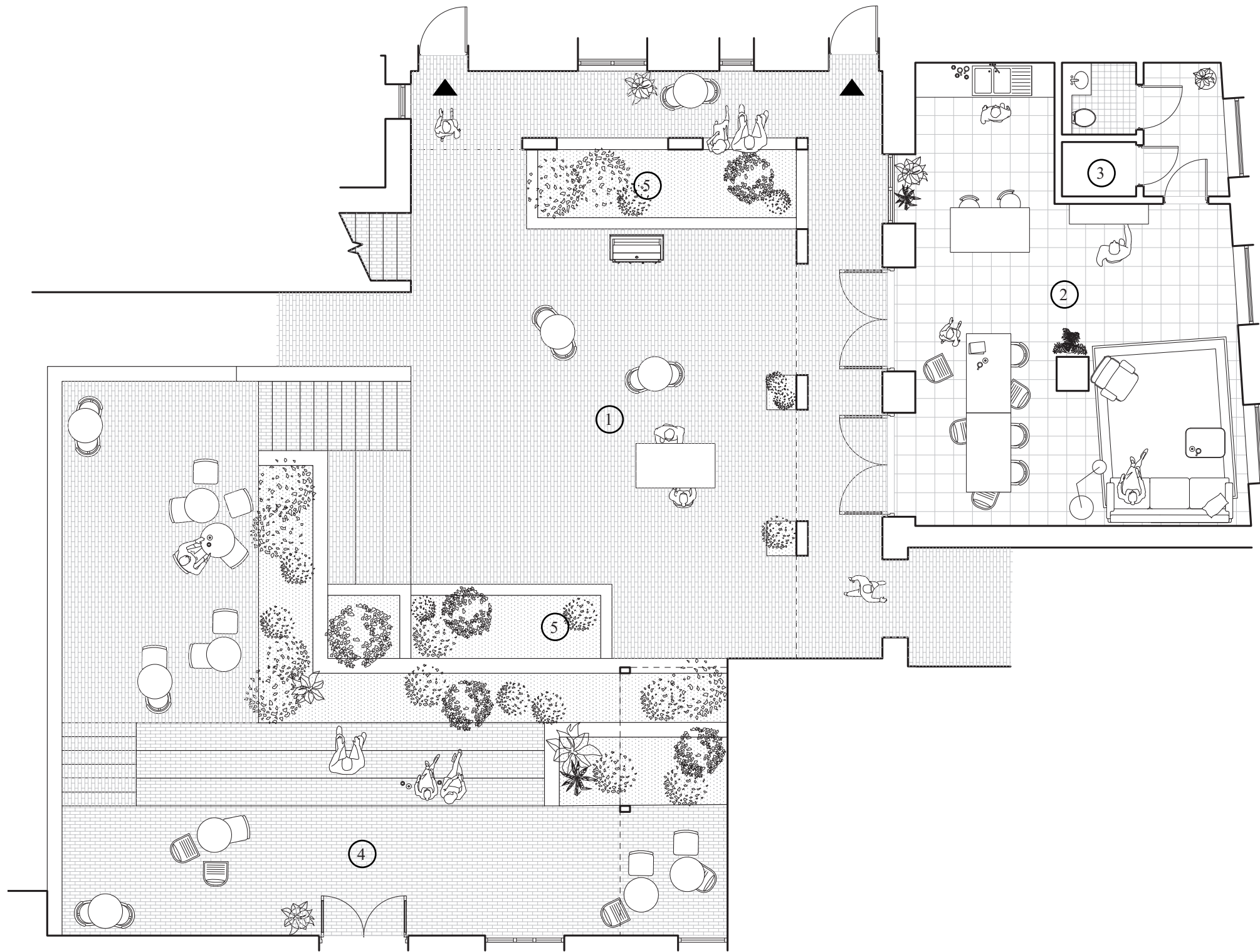
FACADES AND MATERIALITY

- ① **Housing**
White Plaster Facade with Timber windows
- ② **Roofing**
Corrugated Metal
- ③ **Balconies, Circulation core and non-residential**
Timber cladding with white painted window frame
- ④ **Community plinth and Landscaping**
Light Beige Brick
- ⑤ **Balustrades**
Grey-metal circular balustrades



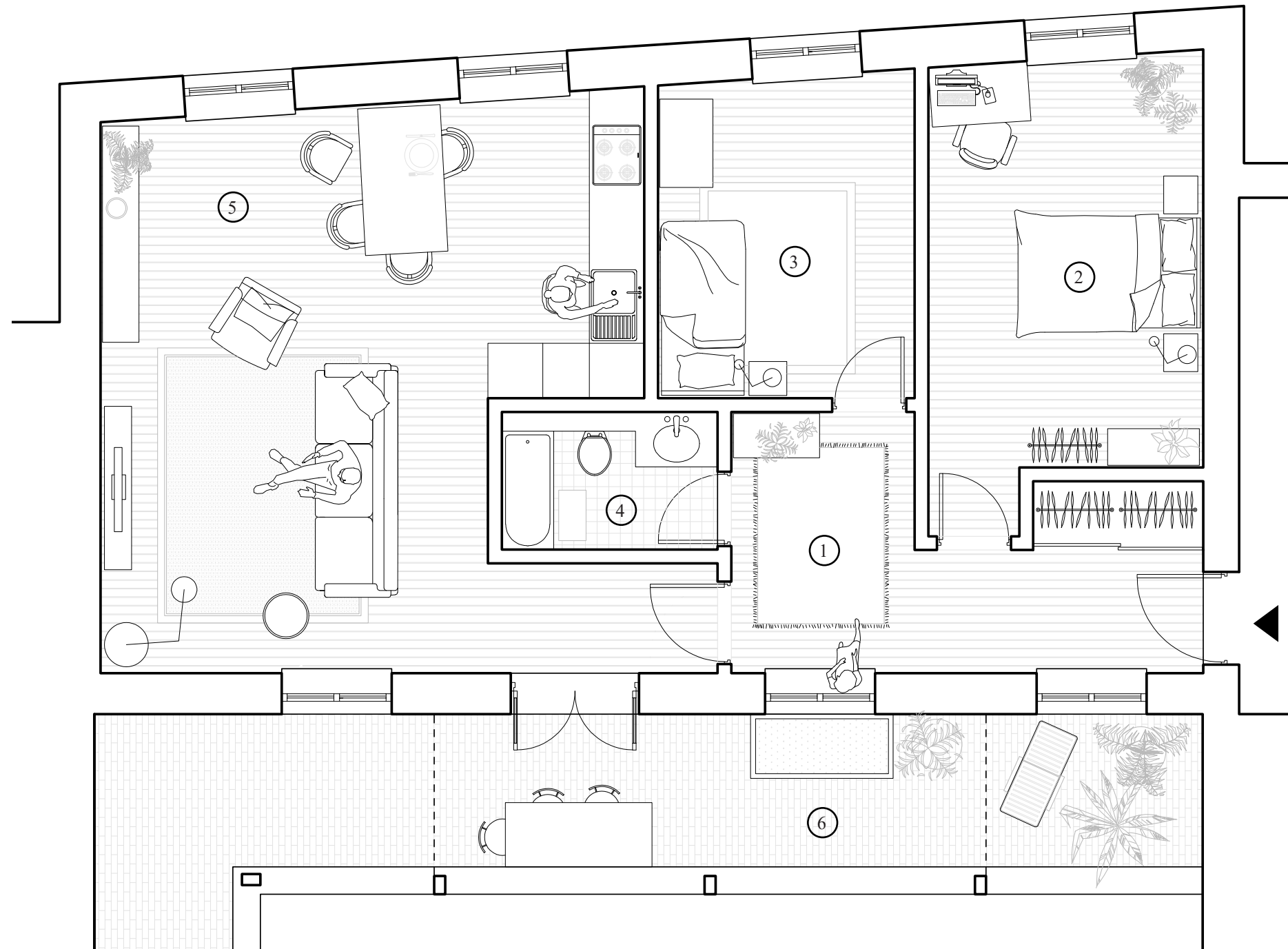
THE COURTYARD ON THE THEATRICALITY OF THE BLOCK

- ① Paved sunken courtyard
- ② Kvaka 22 terrace
- ③ Access walkway
- ④ Private balconies



THE COURTYARD COMMUNITY AND GATHERING

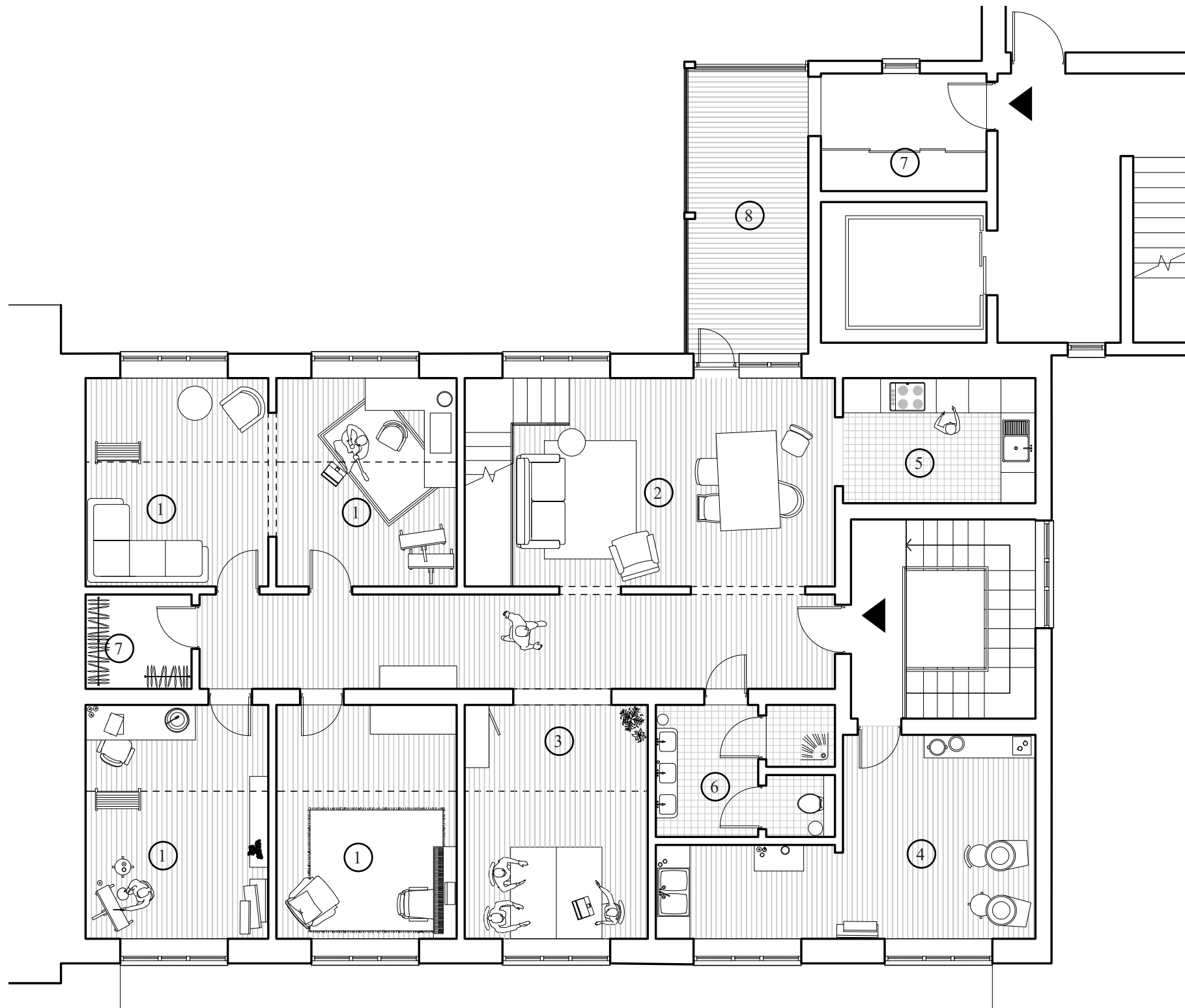
- ① 55 sqm paved courtyard
- ② 50 sqm community space (with wet area)
- ③ Shared storage
- ④ Kvaka 22 terrace
- ⑤ Community planters



EXAMPLE OF HOUSING UNIT

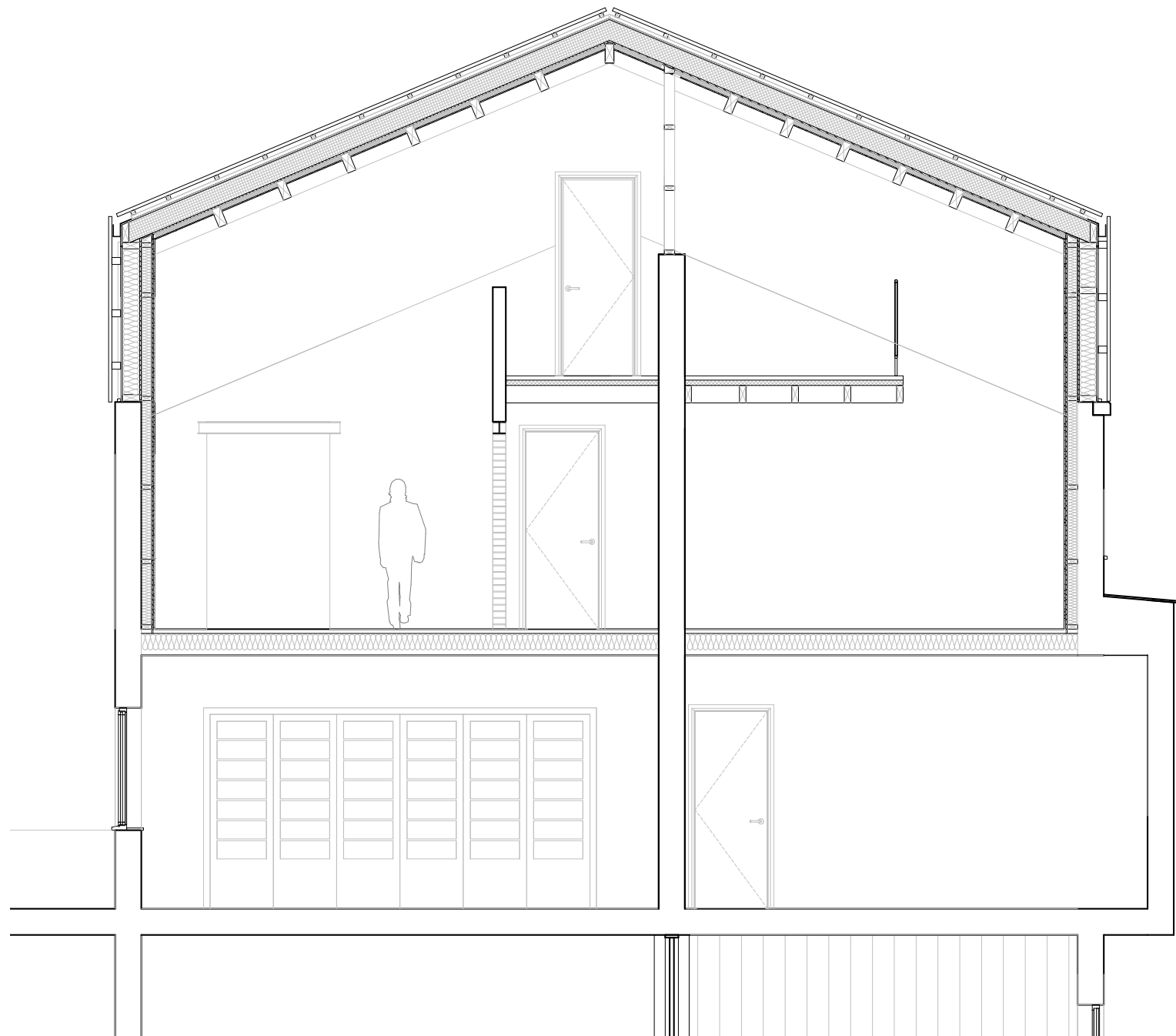
2 BEDROOM FLAT (73SQM)

- ① Entrance and 1.5sqm built-in storage
- ② Double bedroom (14sqm)
- ③ Single bedroom (10sqm)
- ④ Bathroom (4sqm)
- ⑤ Combined kitchen- living room (35sqm)
- ⑥ Terrace (1,7sqm depth)



KVAKA 22 WORKING AND LIVING

- ① Artist Studio (x4) with mezzanine
- ② Shared Living room
- ③ Multi-purpose room
- ④ Wet studio
- ⑤ Shared Kitchen
- ⑥ Shared Bathroom
- ⑦ Storage
- ⑧ Terrace (1,7sqm depth)



05| URBAN STORIES

COLLECTIVE | INDIVIDUAL
CHANGE | PERSISTENCE
UNIVERSAL | SPECIFIC

OR HOW LIFE INHABITS ARCHITECTURE



AN UNFORSEEN EXCHANGE

A man, an book open in his hands. His eyes are focussed on a note, hand-written inside the front cover. While in the background, rain is gently falling in the courtyard, he has found refuge in the entrance gateway. In front of him, a small niche in the wall lined with metal contains various books. After delicately turning a couple of pages, he closes the book, and turns to the post-boxes. With a smile, his gaze stops on one name.

One week later, the same man in the same entrance. He is holding a pencil with one hand, and with the other, he slides the book through the slit of a letterbox.



DOORS

A young man walking up the concrete stairs. His sight is focused on his telephone screen.

Instinctively, he reaches out for his keys as he approaches the entrance door. Finally looking up, he notices the figure of his neighbour through the glass panel of the door. After a first embarrassed exchange, they share a complicit smile, and then raise their hand in a wave.

The young man turns back towards the staircase and resumes his ascension.



ROUTINE

A woman seated at a wooden table. Although her fingers are resting on her keyboard, her gaze is directed at the courtyard.

Every day, she works downstairs in the community room. End every morning, she pours herself a cup of coffee as she sits down, her laptop screen showing the same Word document. Most days, she is alone, only disturbed in her routine by the passing and going of her neighbours .

As the clock rings 5 o'clock, today, like every day, she manically looks up. Patiently, she awaits for his figure to appear in the frame of the glass doors. But today, is not like the other days. Today, as he stands outside, a cigarette between his fingers, she closes the Word document, and steps into the courtyard.



BORED

A child, in the threshold of an open window. He is sitting on a pillow while his legs are hanging through the metal railing. The TV has been turned off, and the voice of adults cover the sizzling sound of a meal being prepared. Next to him, a textbook is open to an exercise spread covered with many red annotations and doodles.

He crosses his arm over the railing and rests his head there. Although the low evening sun blinds him, he looks around the courtyard, searching for a familiar face, or maybe something out of the ordinary. Anything, so long as it could distract him until diner is ready.



A PARTY

A group of children chasing each other. Their laughter fills the sunken courtyard, overlapping with the voices of adults and the music coming out of the community room. On the tiled floor, a chalk hopscotch game is starting to fade. Banners have been hung from the balconies, so that when looking to the sky, one's vision is punctuated by little triangles of red, blue, and white. Many people are tending to different tasks all around the courtyard; starting a barbecue, picking up herbs from the planters, taking out tables and chairs...

On the second floor, across the courtyard, a man is overlooking the scene. He closes his window and turn to his guest.

“20 years I have been living here, you know, and ever since this Kvaka 22 group invested the building, I wished for the government to kick them out. So last year, when it was announced that they were finally doing something with the building, I had imagined everything but that the squatters would remain! All the loud music, and those strange people wondering around, they were not the ideal neighbours, that's for sure. But to be honest, I think I might have changed my mind. They must have changed the windows or something because I can actually sleep at night now. Also, I don't have an interest in these art exhibitions, I never did really. So I never even went inside. But now that the terrace is accessible from this side and the café open all day, I thought I'd give them a chance. Outside of all the wacky art, they actually serve a pretty decent coffee, and the terrace is sunny in the evening. Maybe we should go together some time.

It's strange, but now it feels like all these new buildings were always here. But you know, somehow it changed everything. It's like the block has turned into a small village. I have noticed that the kids from down that way now come under my window on the weekends to play basketball with my neighbours' children, and their parents even come to sit together at the terrace. It always reminds me of my childhood when I see them running up and down those stairs.

Don't think that it's all perfect though, it's definitely not! Like all those plants they added everywhere; sure it makes pretty flowers and all, but we will see this winter when someone will have to swipe all those leaves off of the floor!“





A POT OF BLUE PAINT

A woman standing in the courtyard. She is holding a paint brush and a child no more than 7 is sitting on the ground next to her. As she finishes painting a small shelf, the child rises to his feet and places a hand on the brick wall behind them. With a satisfied smirk, he uncovers a blue mark: five fingers and a small palm. Two people are overlooking the scene, leaning against the balustrade of the balcony.

“- Did you see this? I hope for him his mother won’t notice, or he will be in trouble!” They both laugh.

“This place is just nothing like what I expected. Most artists residencies I visited were in the middle of nowhere, and mostly encouraging introspection. But here we are, in the heart of the city. And yet, it is still a very protected space. I don't think I would ever walk into this courtyard without knowing where I was going. Perhaps that’s what makes this space different, it’s quite unexpected. Everything contrasts so much with the ordered and loud street. It’s like entering a small world hidden in plain sight.

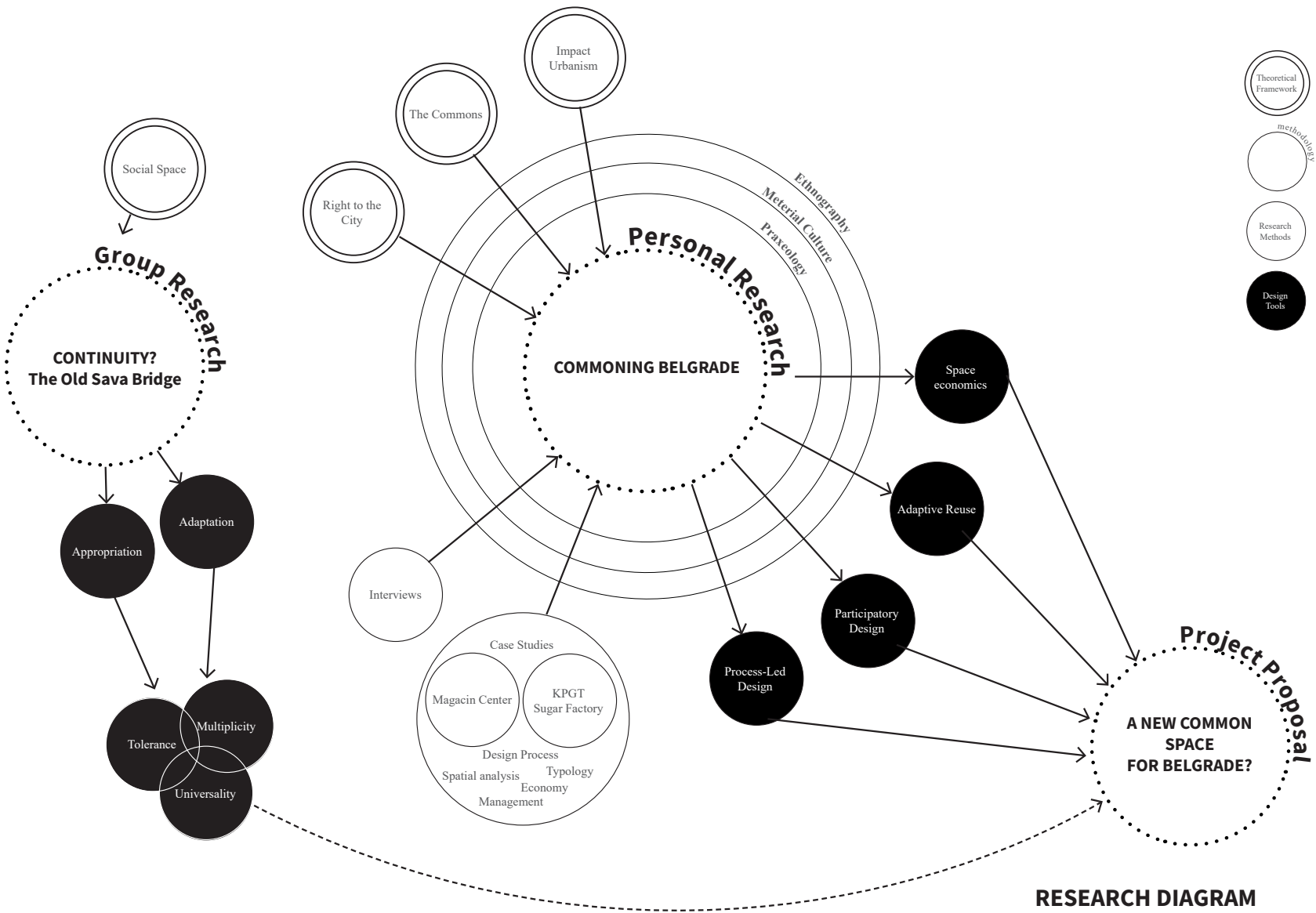
I think people’s description of the events in the courtyard also mislead me to think the space was much bigger than it is. But then, I saw the concert the other day, and I understand now. All the windows opened, and the people standing in their threshold, the balconies crowded; it felt like the whole space became one of these old theatres. The way the sound resonated against the facades, it was wonderful.

A cry from the mother brings their awareness back to the courtyard.
“Ah, finally she noticed! I get the kid though. You know, all these blank walls are screaming for some colour. Hey, weren’t you the one who wanted to do something with the residents? Maybe a mural activity would be fun?
and I am sure that kid would be happy to help!"



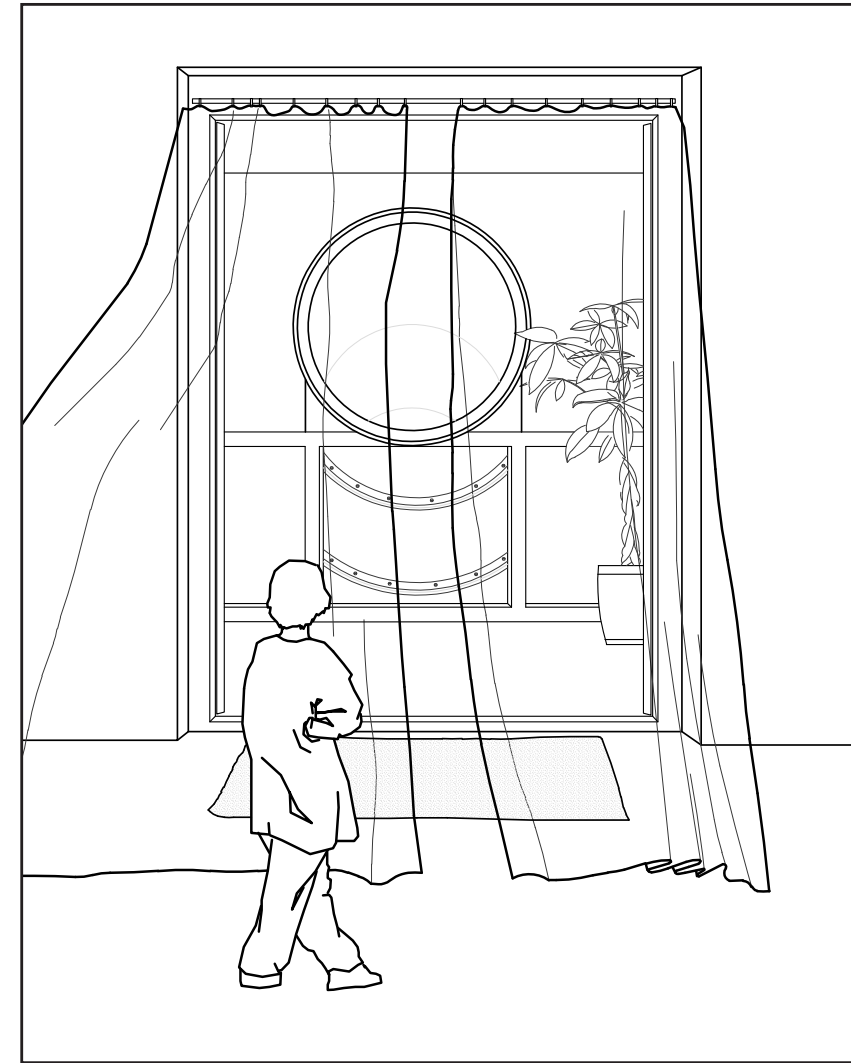
06| REFLECTION

FROM RESEARCH TO PROJECT
A FEEDBACK LOOP?

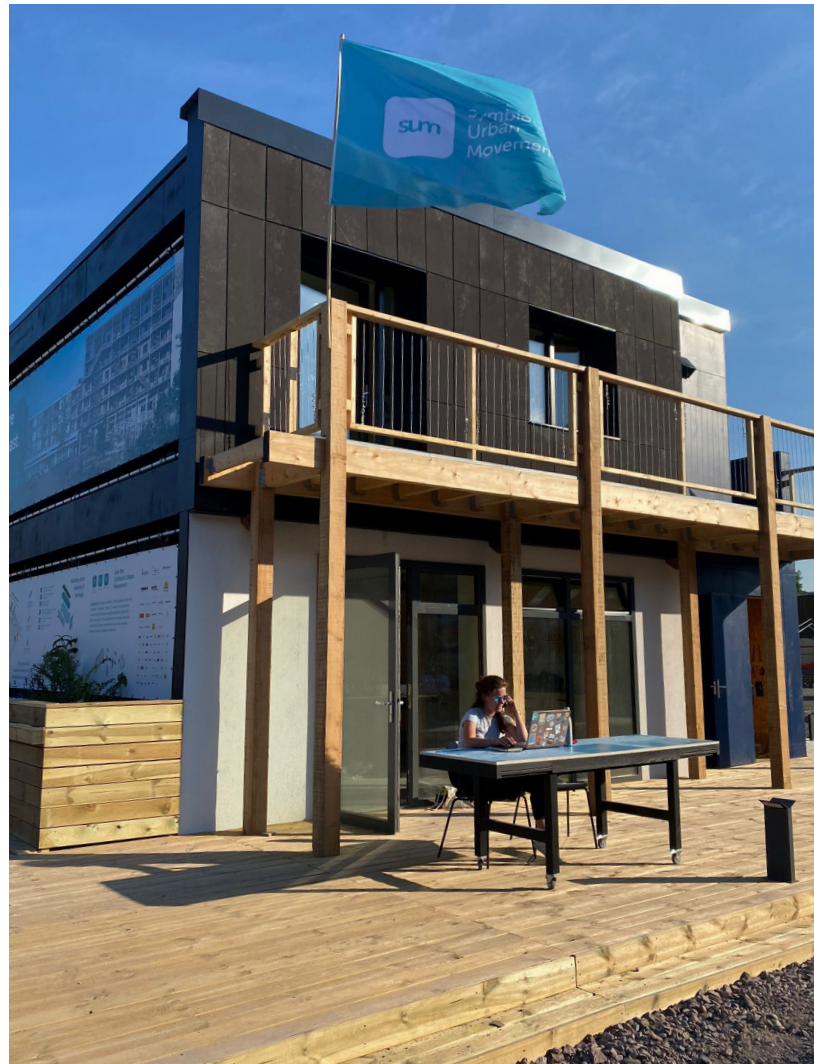


RESEARCH DIAGRAM
FROM RESEARCH PLAN (11/21)

STUDYING AT THE TU DELFT
TRENDS, DISCOVERIES AND EXPLORATIONS



TEAM SUM | GRADUATION
LESSON LEARNED FROM DOING IT ALL





THANK YOU !
QUESTIONS?