

Contextual Refurbishing

Renovations of the Residential Building | Skopje, Macedonia

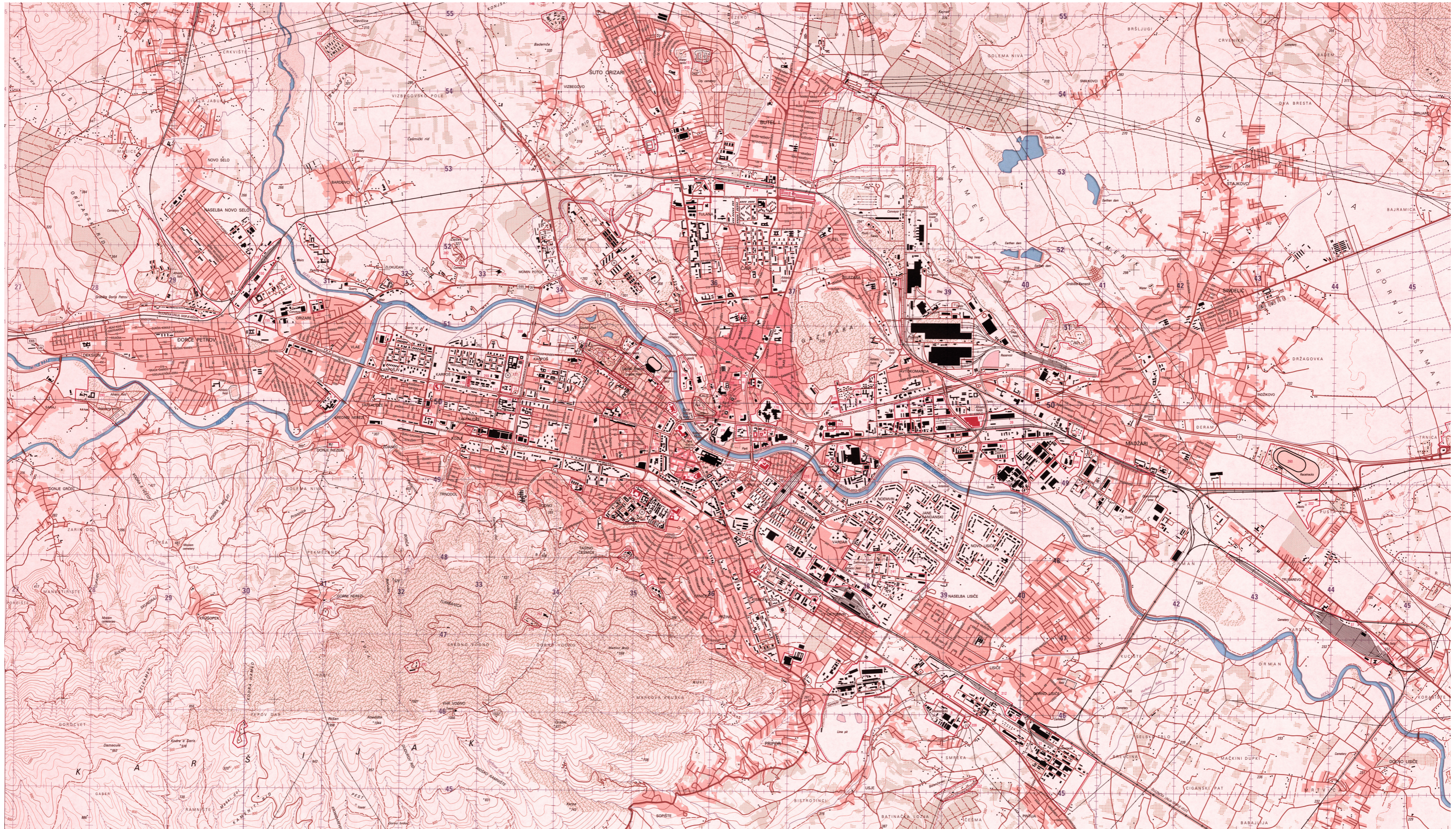
Weichieh Wang

Methods & Analysis | Positions in Practice

P5 Presentation, TUDelft

Dec 2019

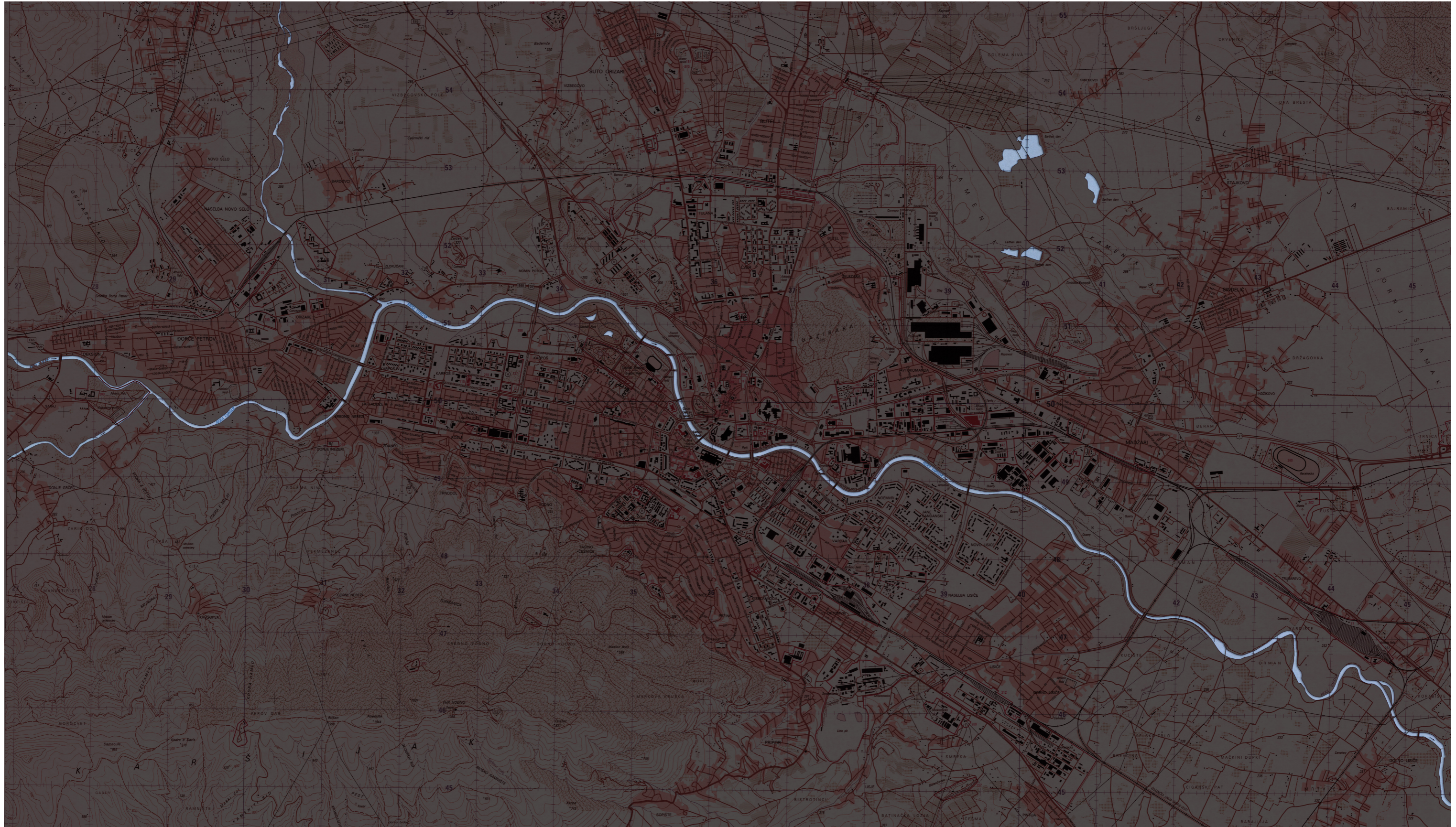
City Skopje



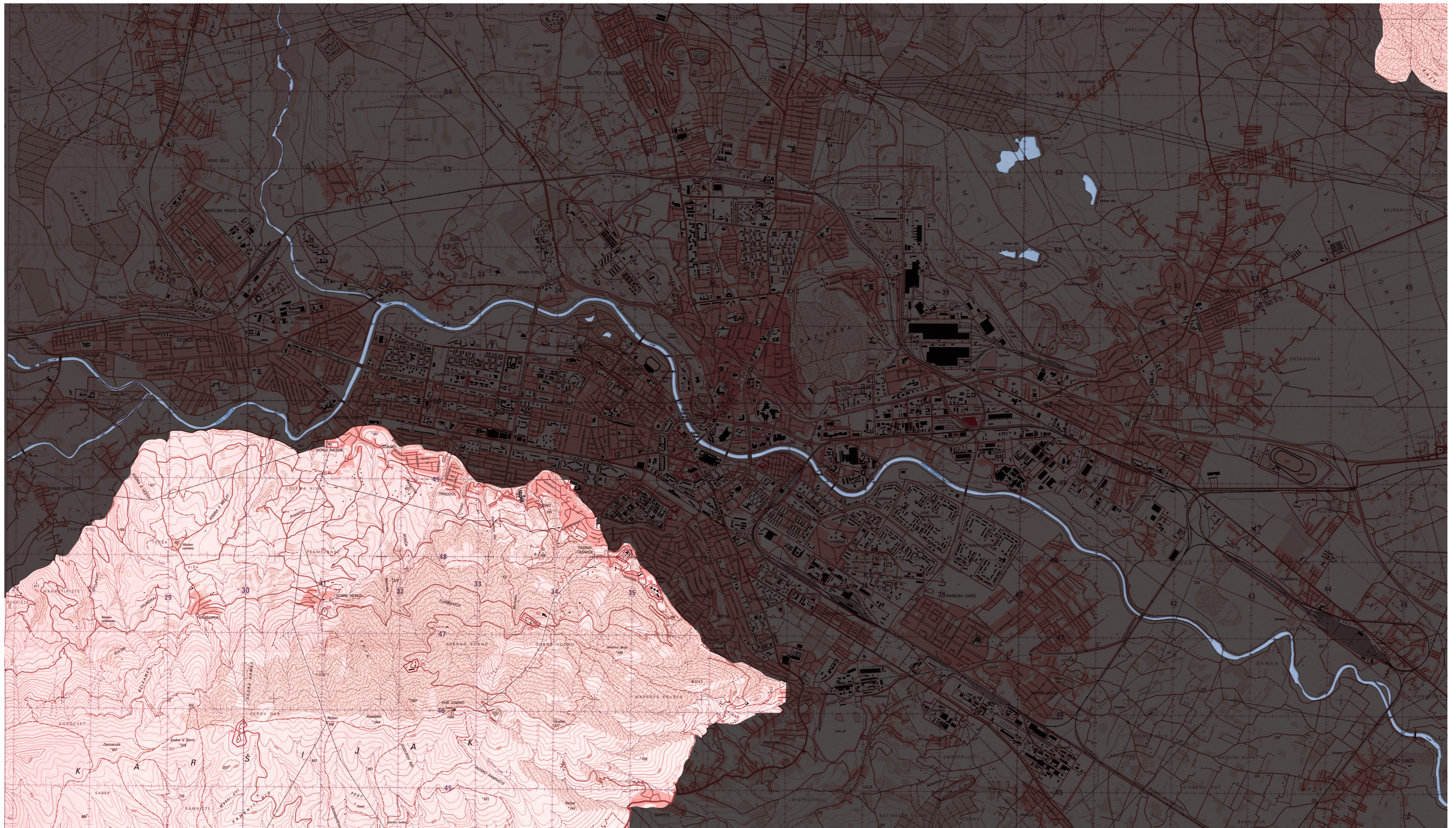
North Macedonia



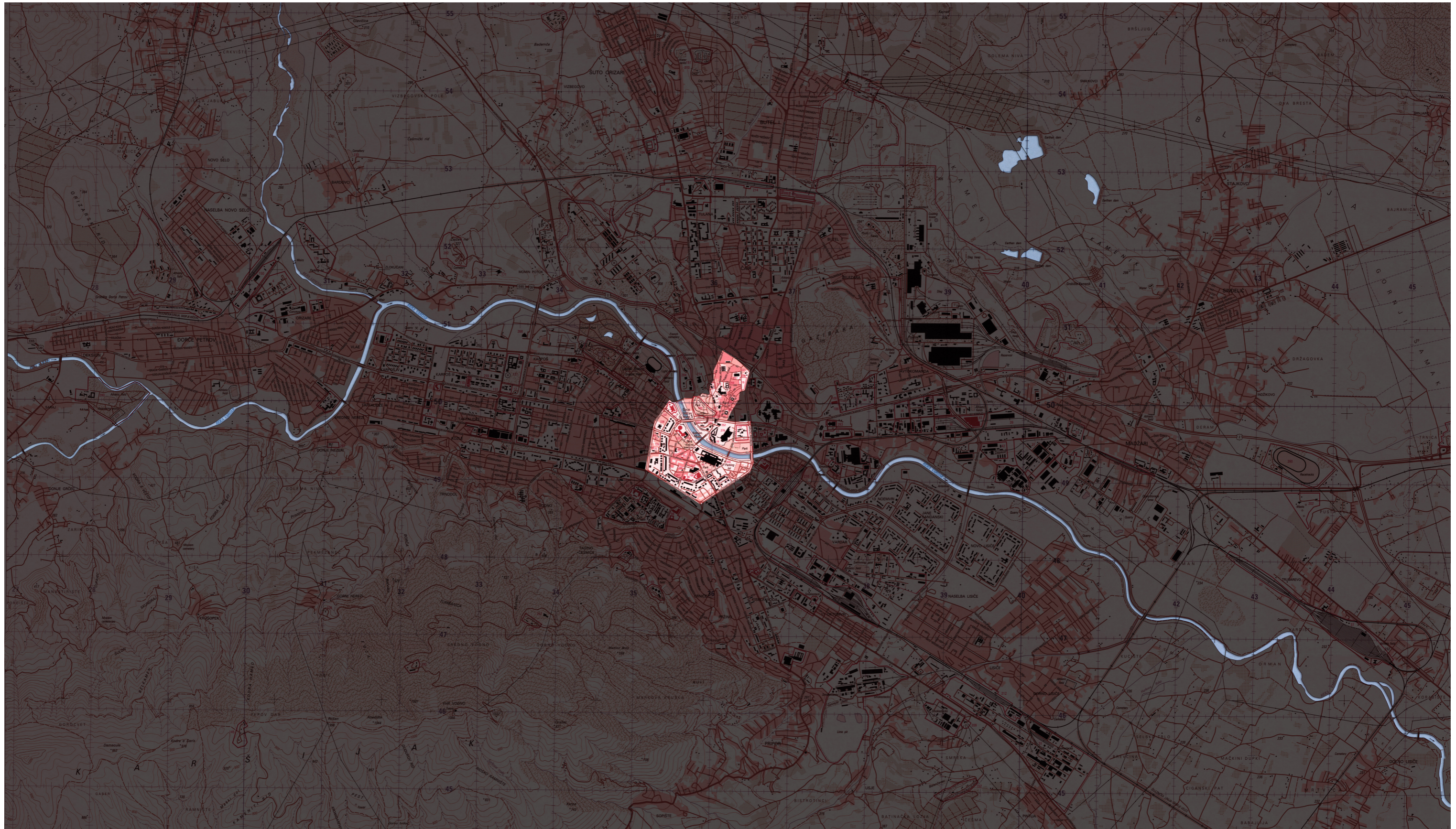
City Skopje



Vadar river



Valley

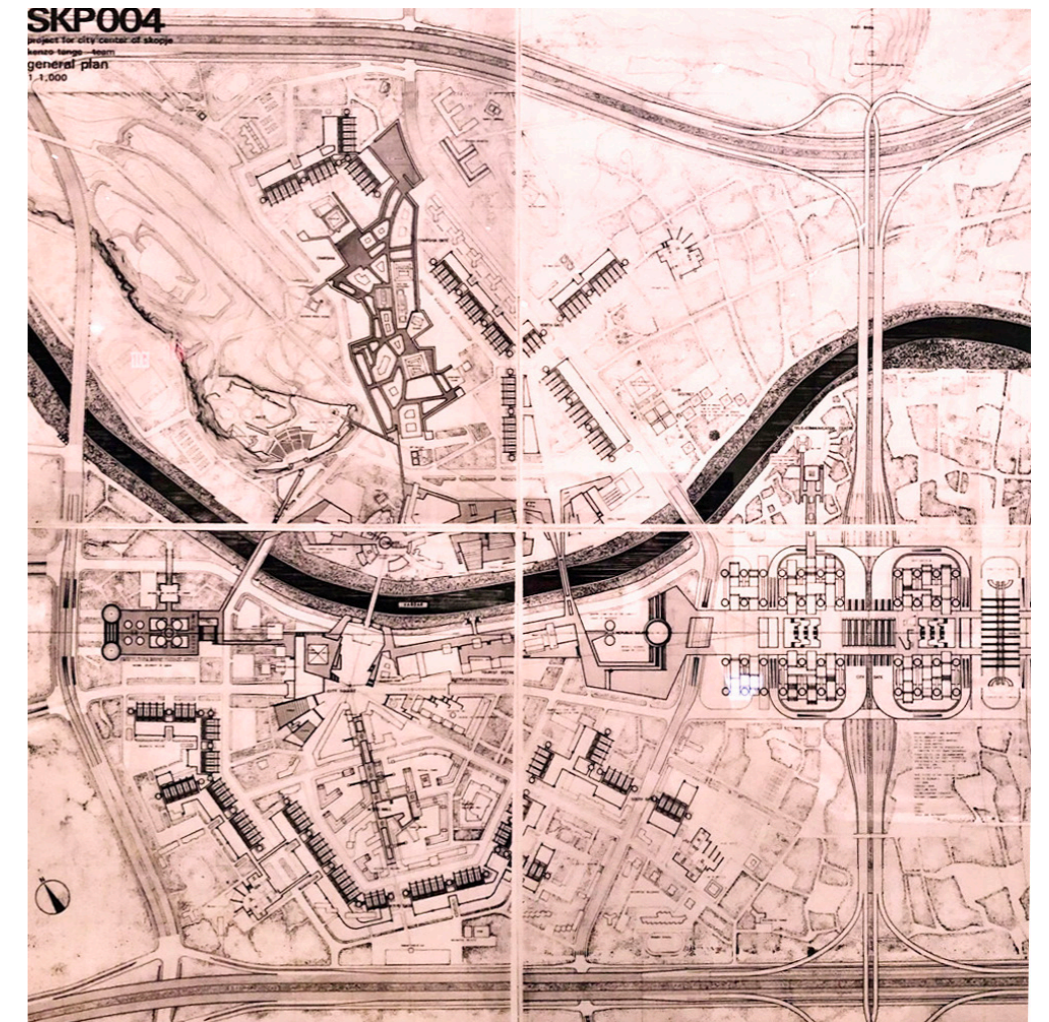


City center

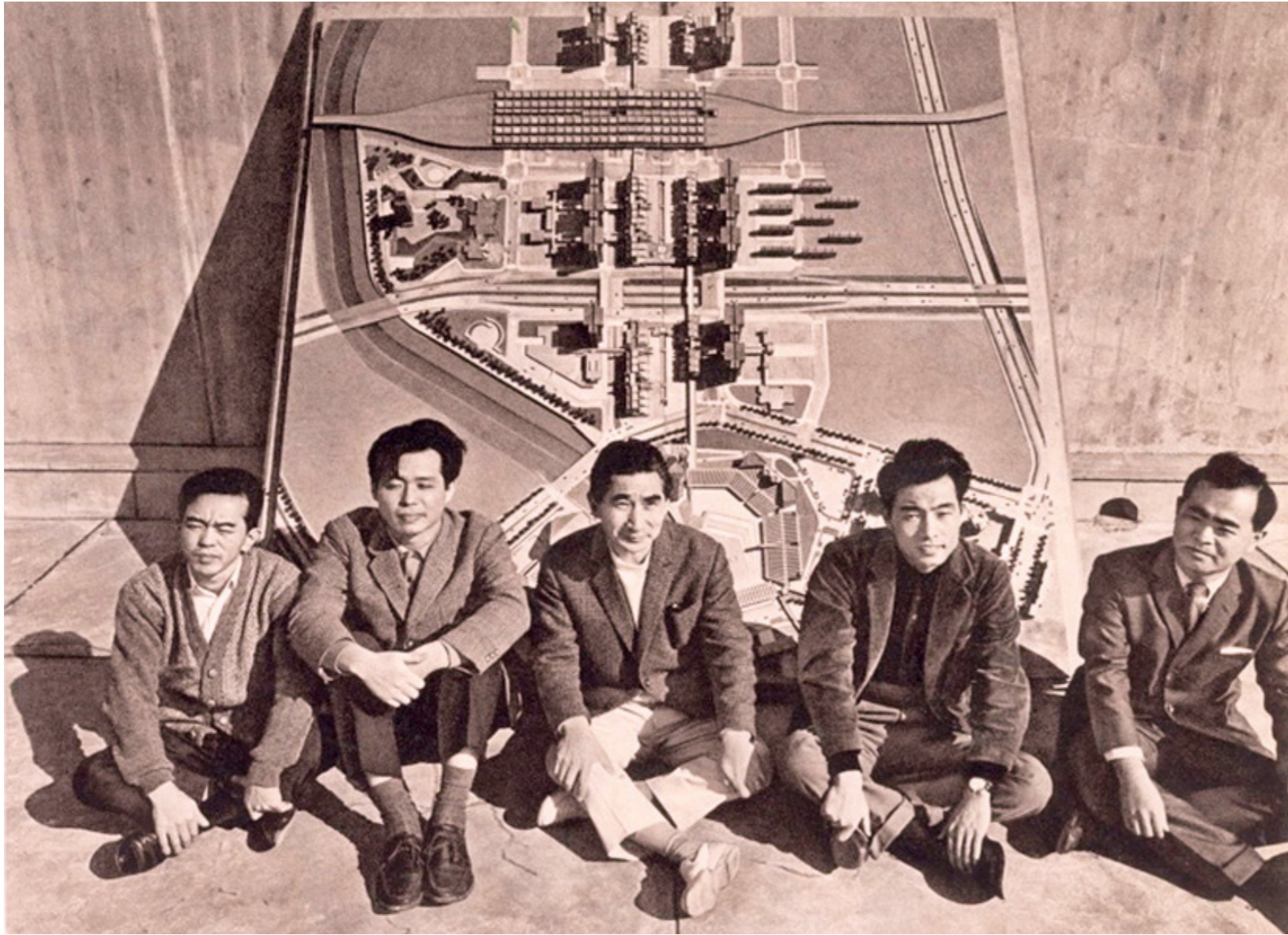
Skopje Urban Plan 1963



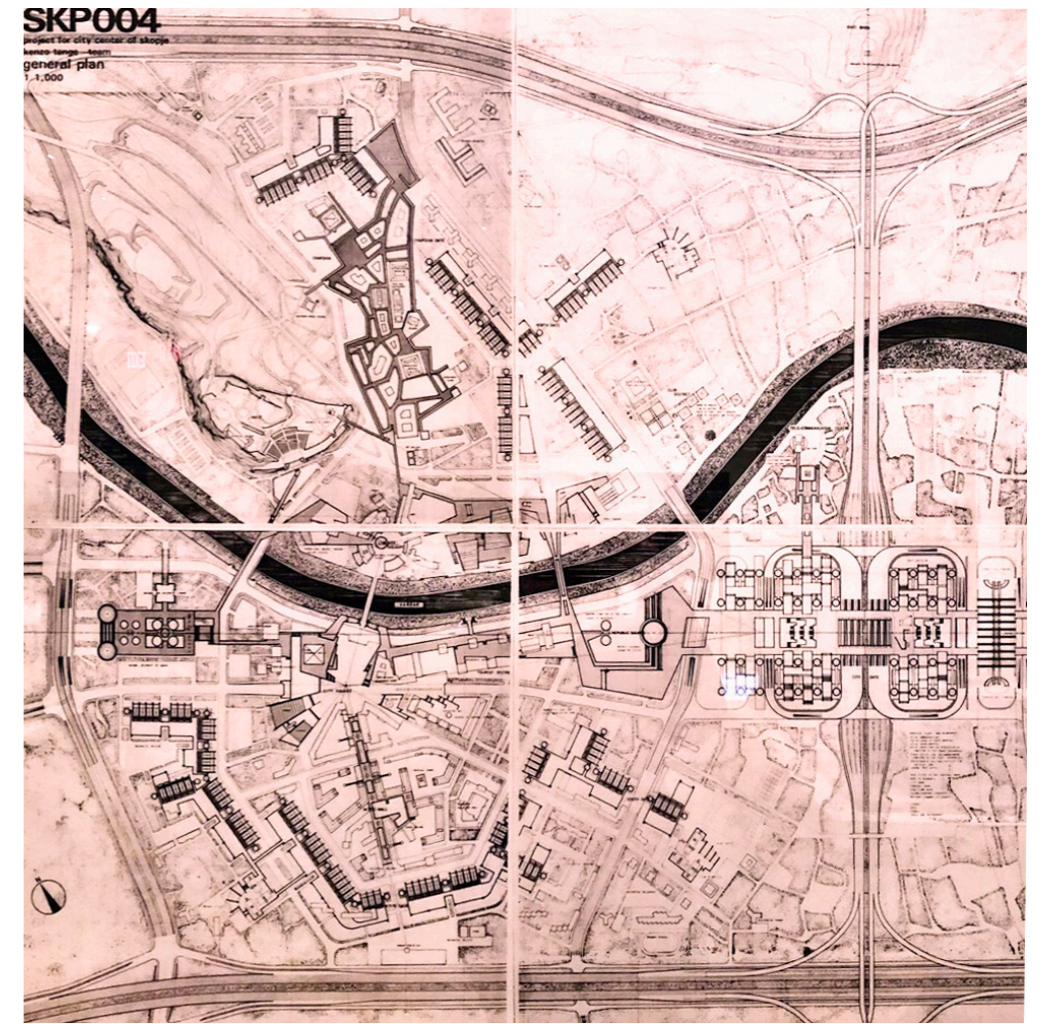
Urban plan, donated by EU



Urban plan, Metabolism, city center

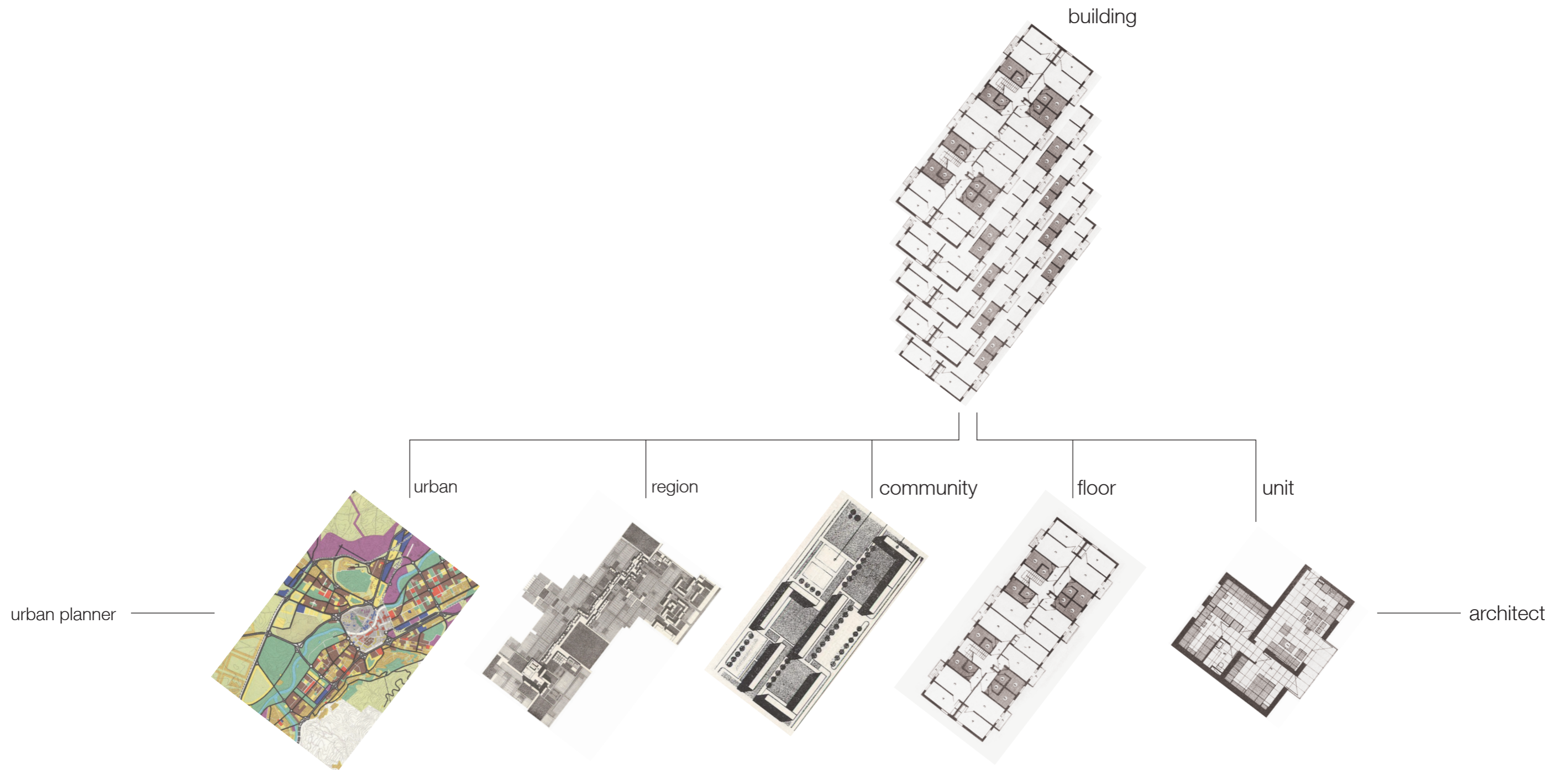


Kenzo Tange



Urban plan, Metabolism, city center

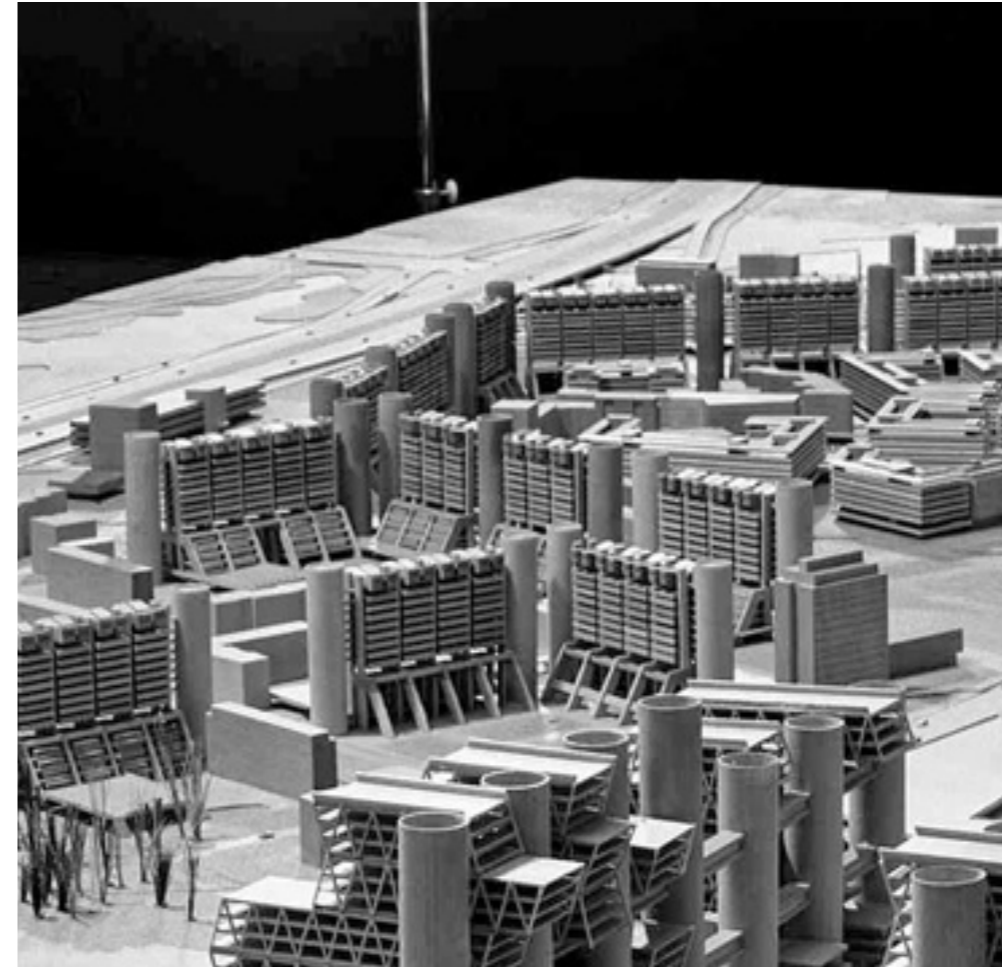
Design Process



Concept VS Concept



Out of the ring



In the city center (the ring)



Residencial building / Outskirt
2019



Residencial building / City center
2019

Prefabricated Heavy-Panel System

Proudovou metodou urychlíme výstavbu bytů

1,200,000

Urychlením výstavby metodou proudové metody lze výstavbu bytů urychlit až o 50% a snížit náklady na výstavbu až o 10%. Tato metoda umožňuje výstavbu bytů v rekordním čase a s vysokou kvalitou.

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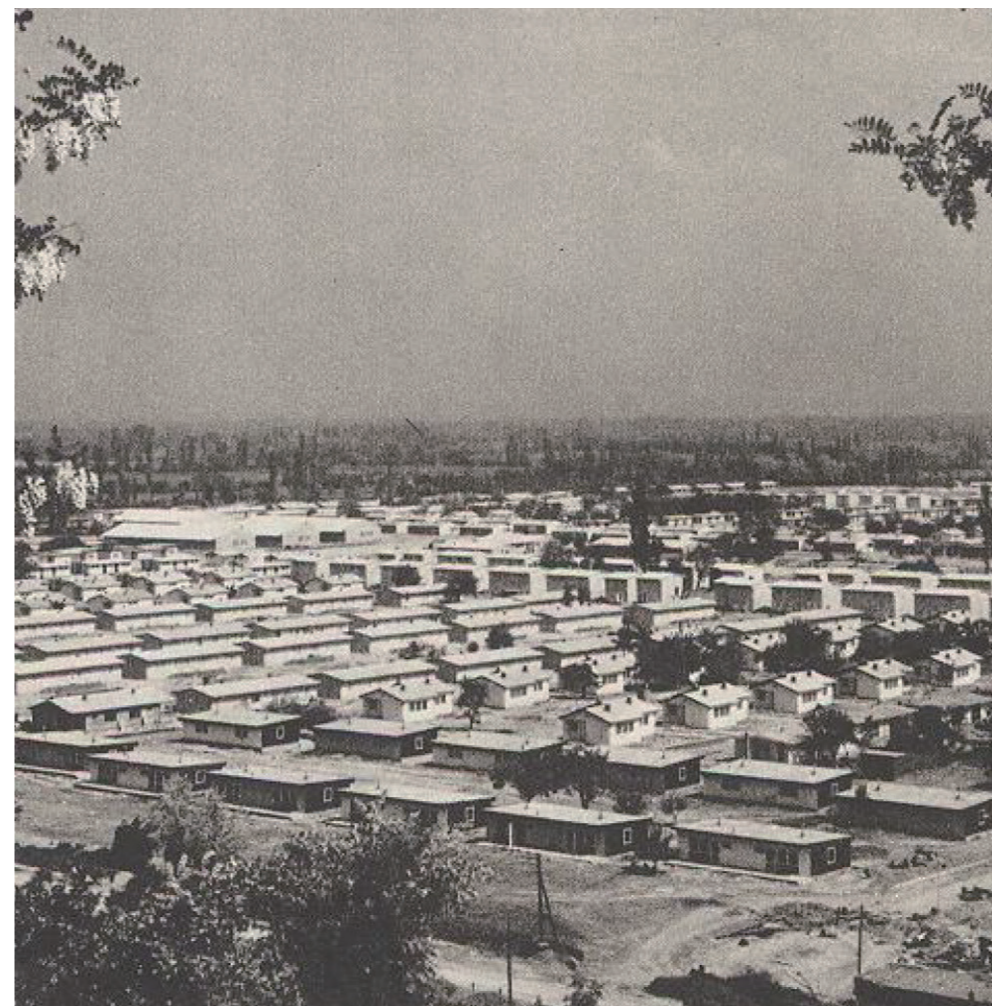
Urychlení výstavby metodou proudové metody	18%
Snížení nákladů na výstavbu metodou proudové metody	10%
Urychlení výstavby metodou proudové metody	100%
Urychlení výstavby metodou proudové metody	15%
Urychlení výstavby metodou proudové metody	25%
Urychlení výstavby metodou proudové metody	11%

Na rychlostech a kvalitě výstavby metodou proudové metody lze výstavbu bytů urychlit až o 50% a snížit náklady na výstavbu až o 10%. Tato metoda umožňuje výstavbu bytů v rekordním čase a s vysokou kvalitou.

Labors and Refuges

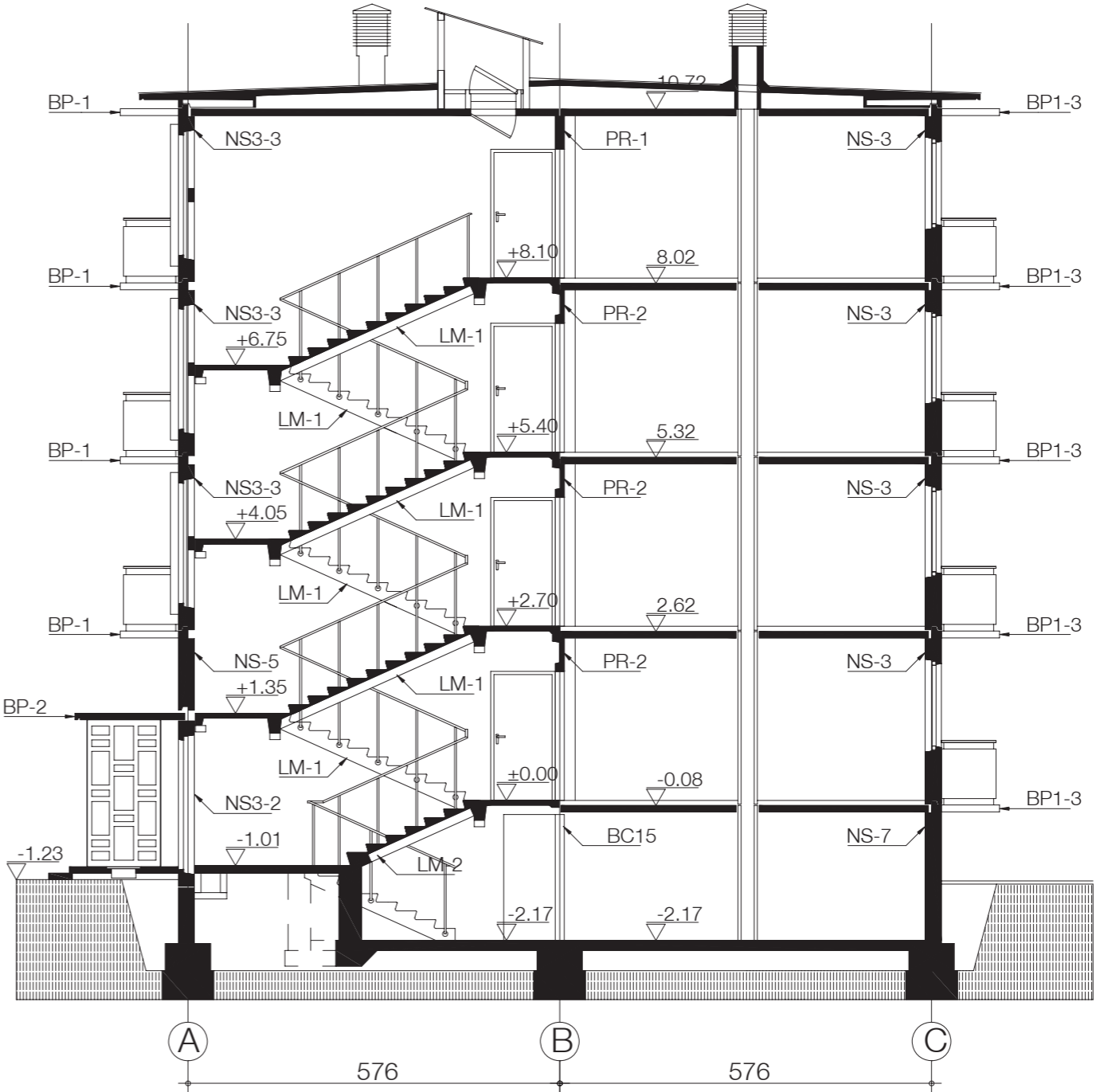
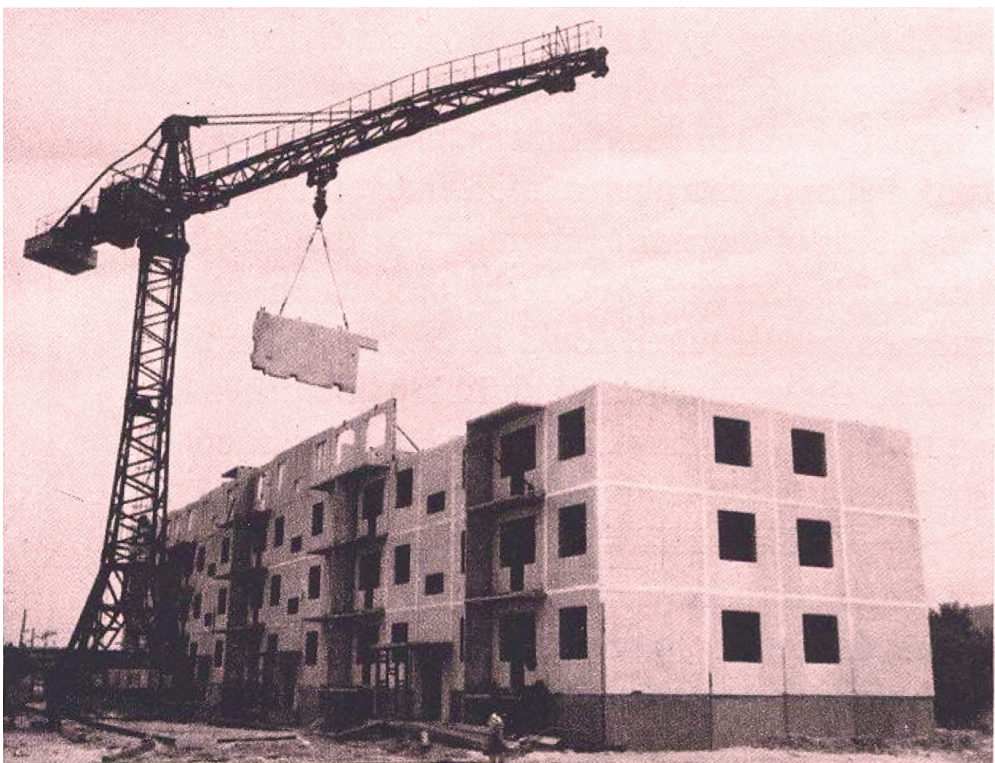


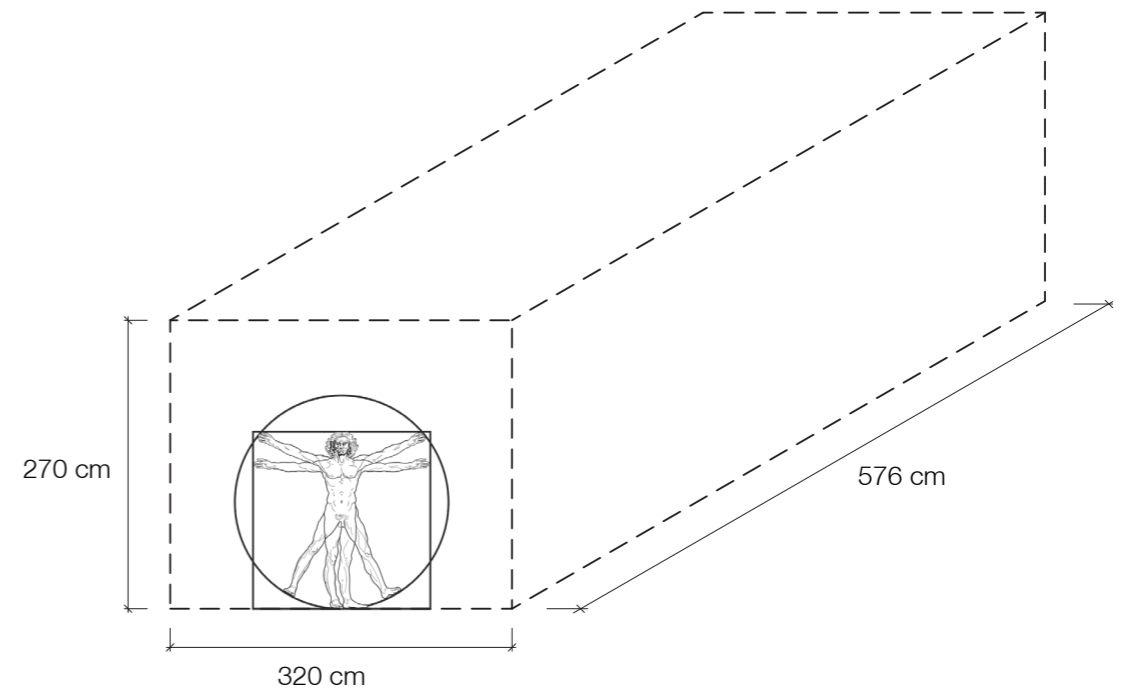
Reconstruction



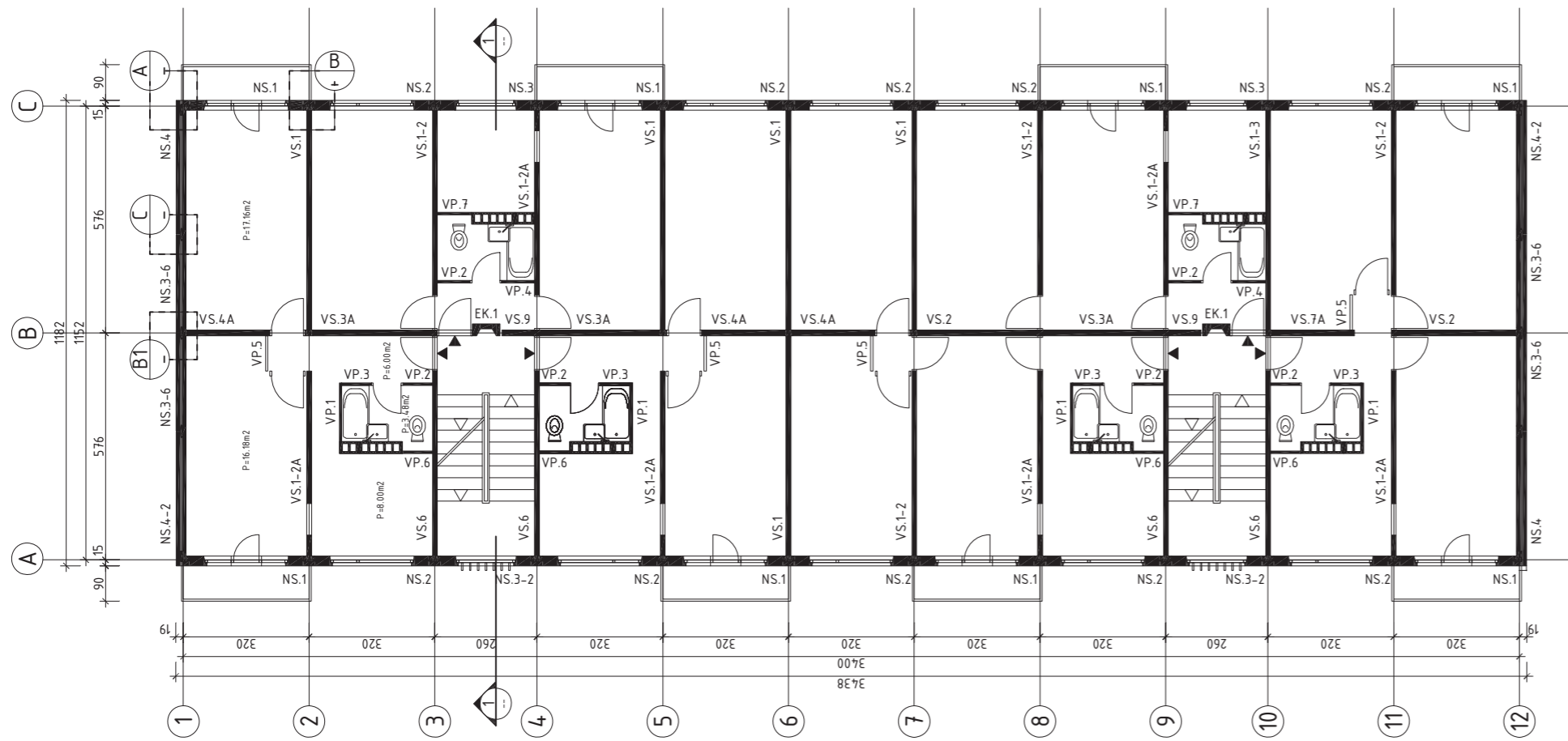
Refuges' settlement area

Soviet Prefabricated Heavy-Panel System "Karpos System"



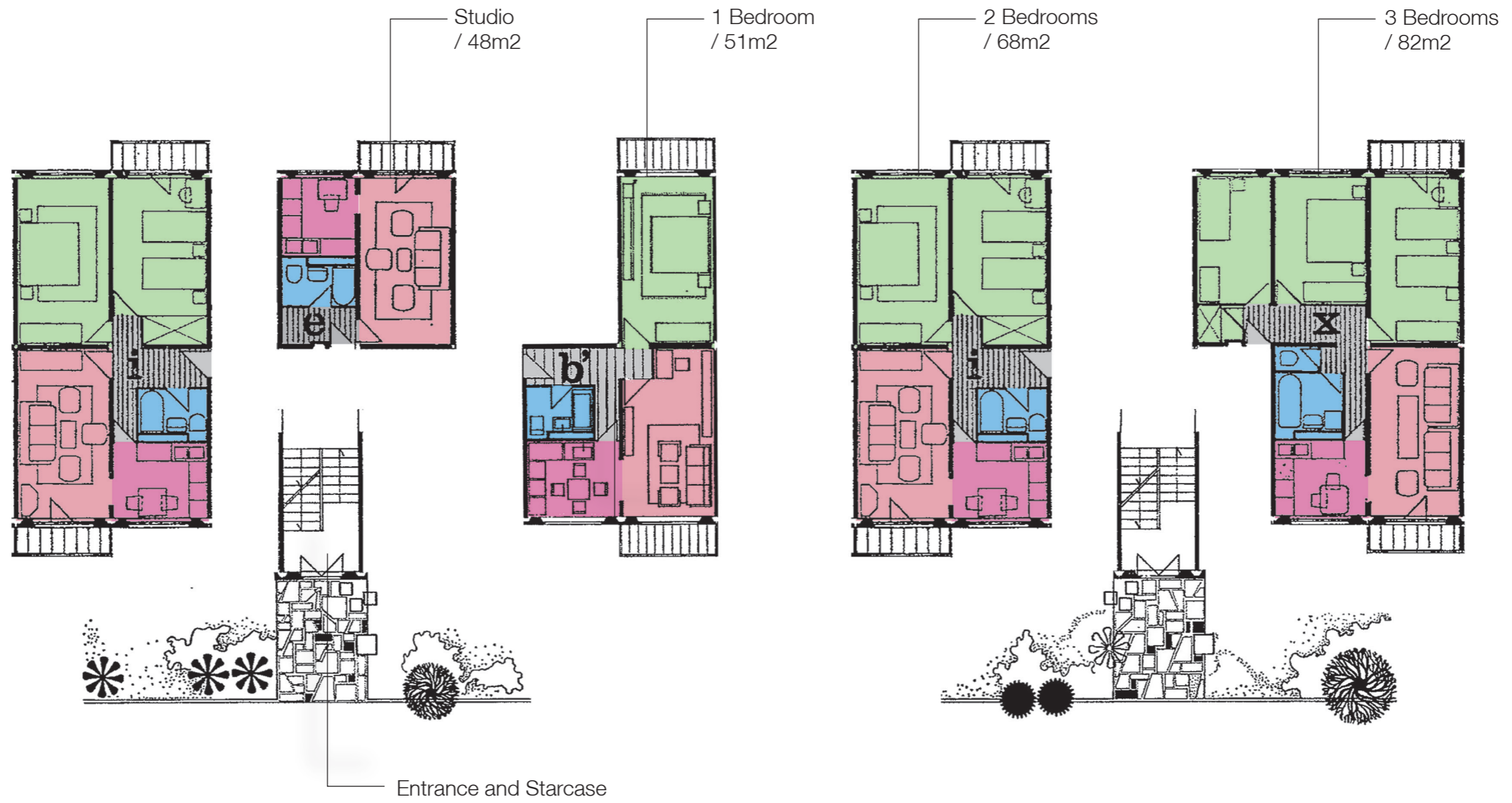


Basic dimension



Floor plan

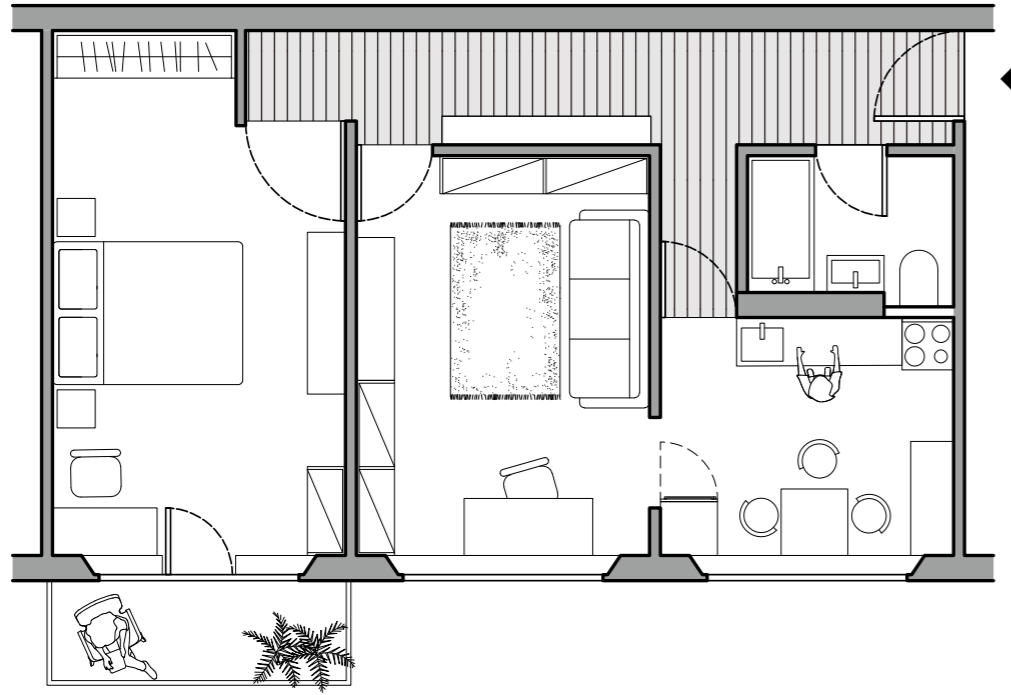
"Karpus System" Housing Types



Composition



Spatial Quality

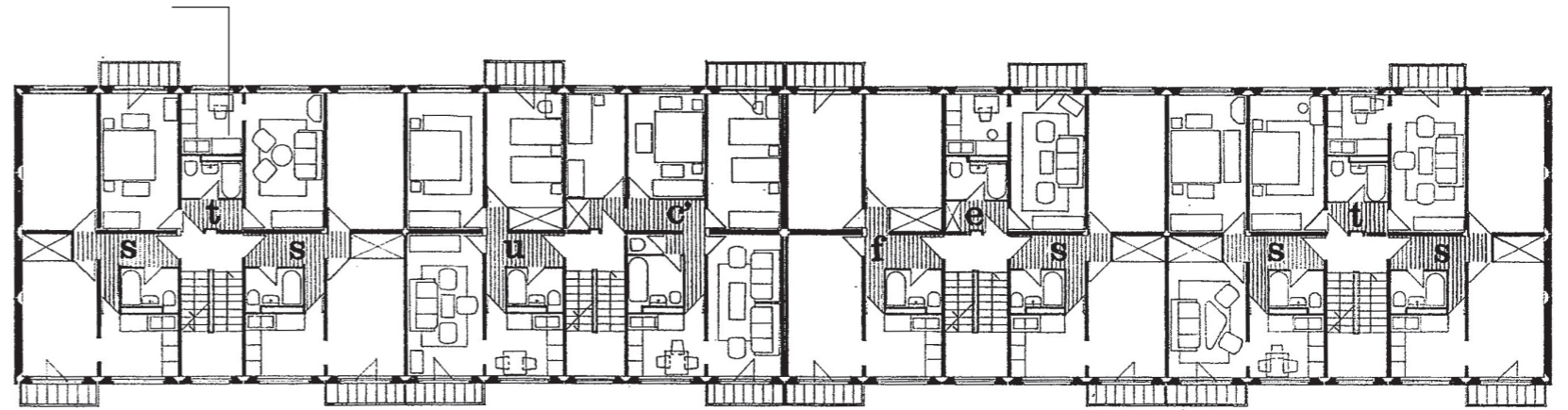
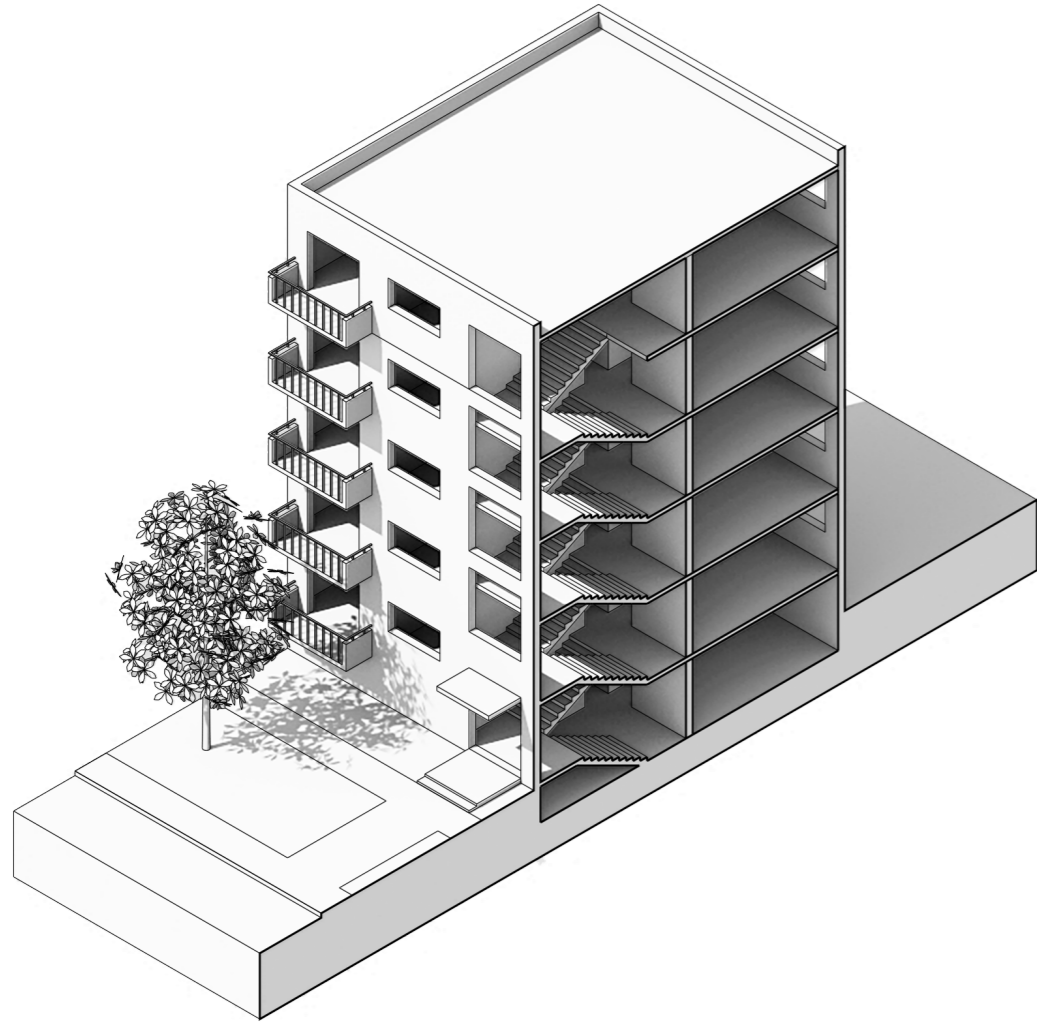


Floor plan

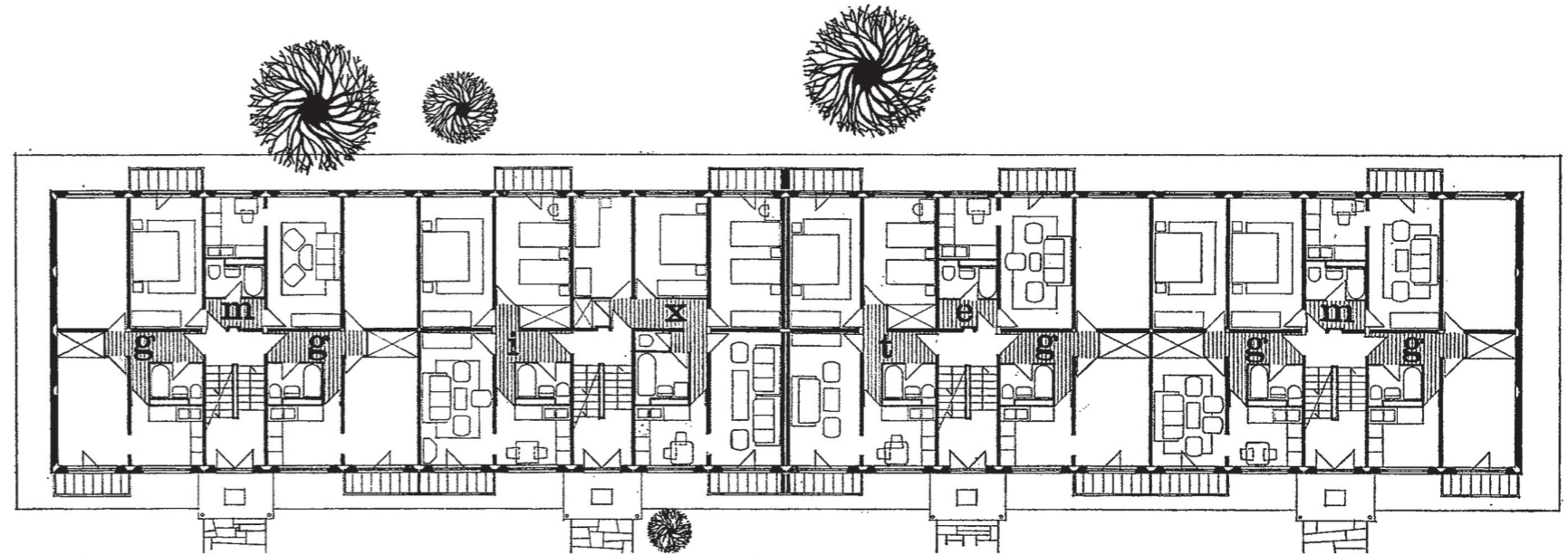


View in the room

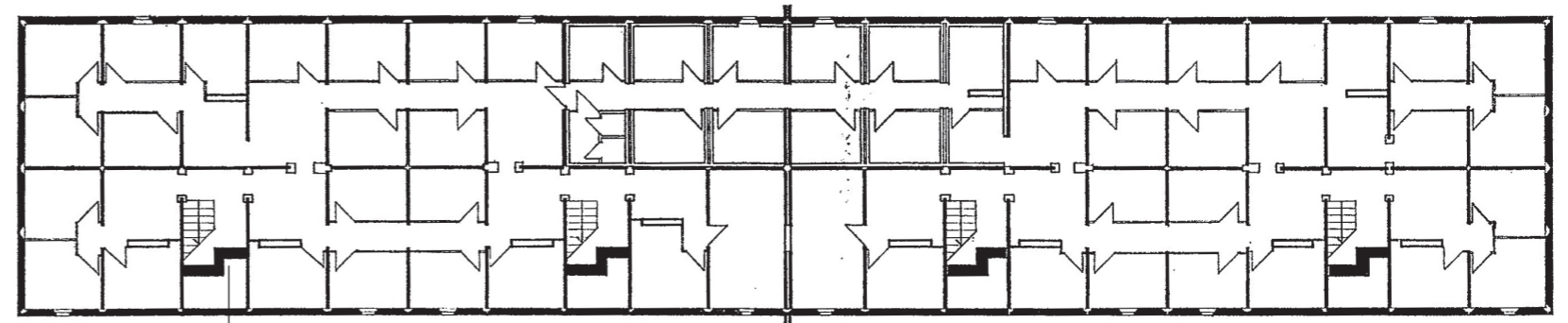
Original Floor Plans



1st-4th Floors



Ground Floors



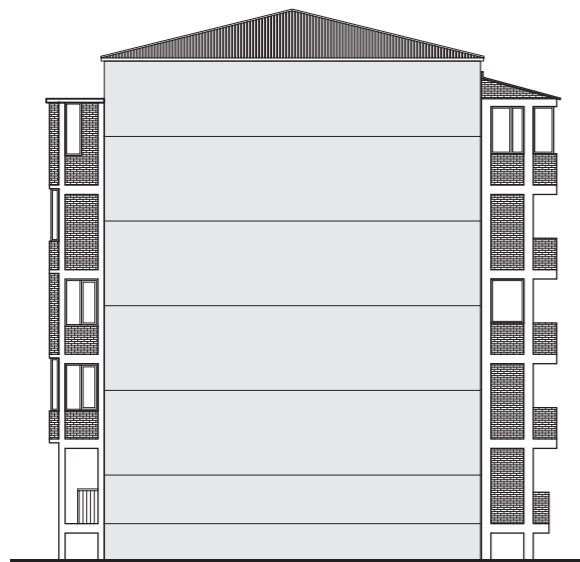
section —

Basement

Extensions



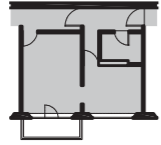
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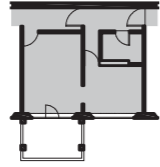
Elevation

Typology

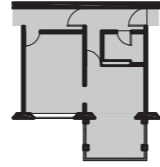
original



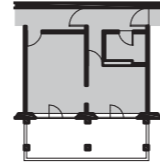
type1



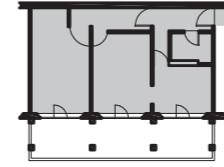
type 2



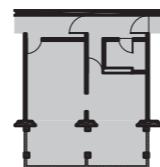
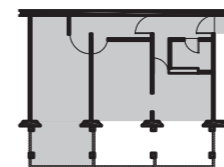
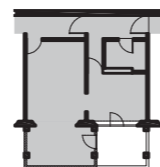
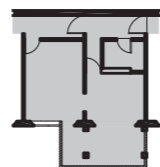
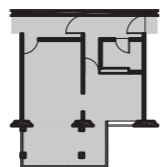
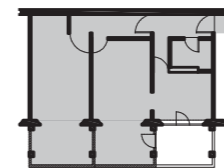
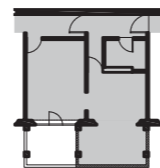
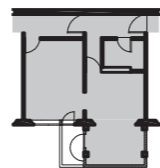
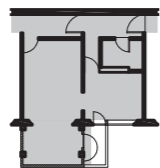
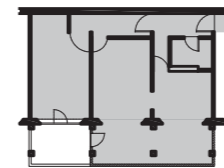
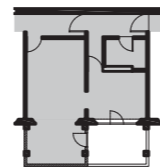
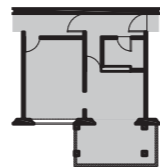
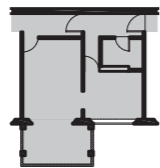
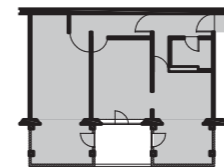
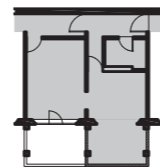
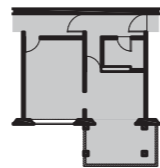
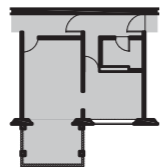
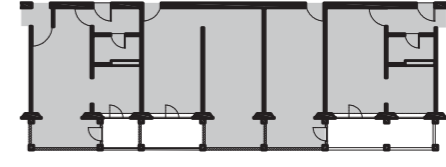
type 3



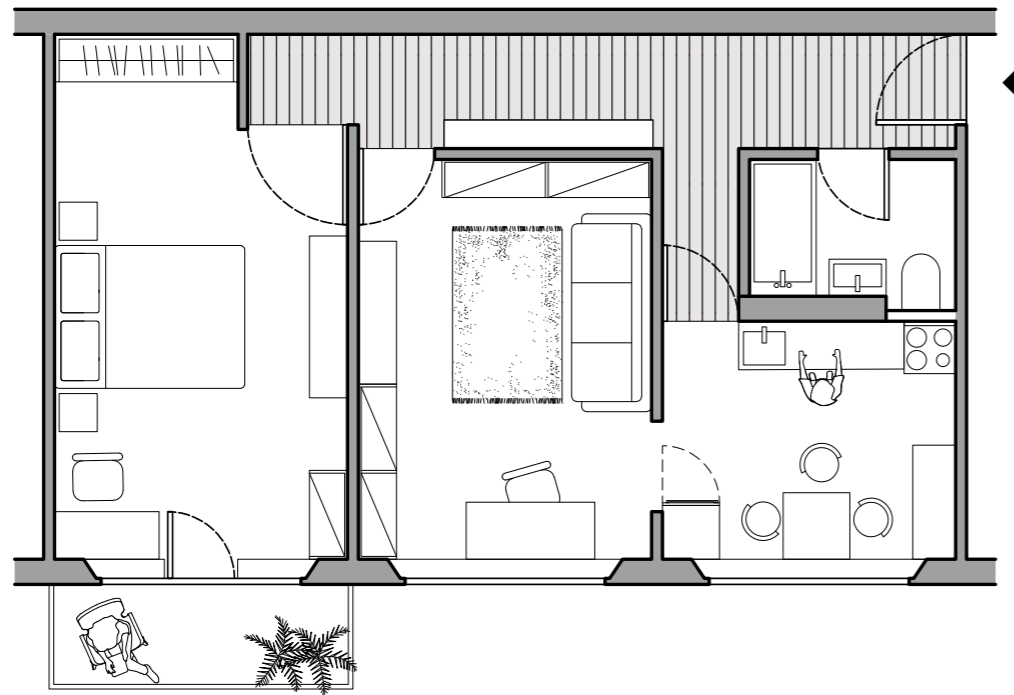
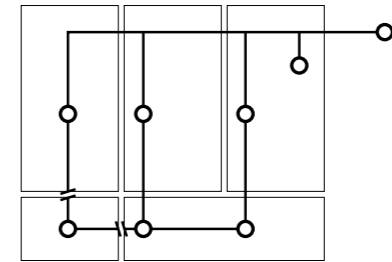
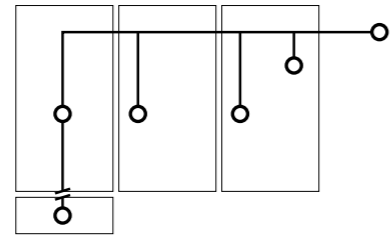
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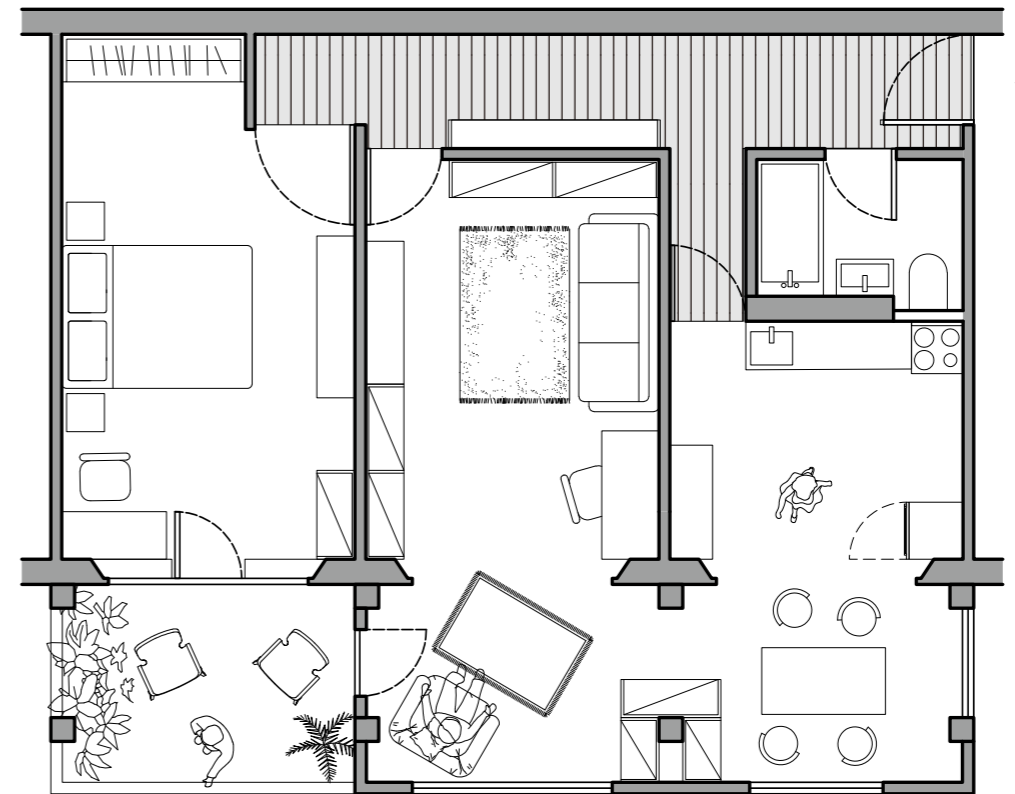
type 5



Plan and Circulation

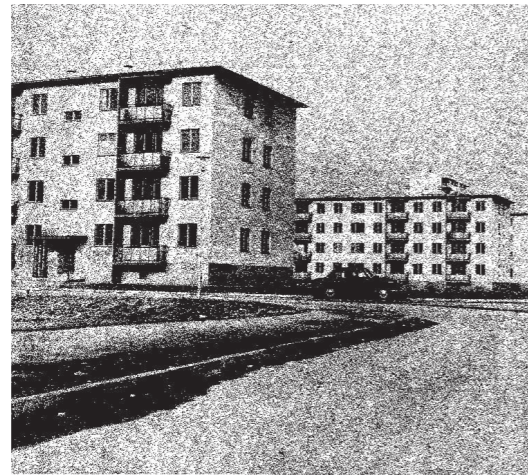


Original



Current situation
(with extension)

Evolving Cityscape

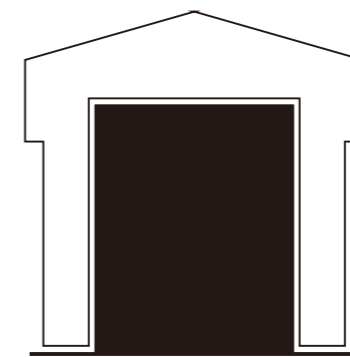


Original



Generation I

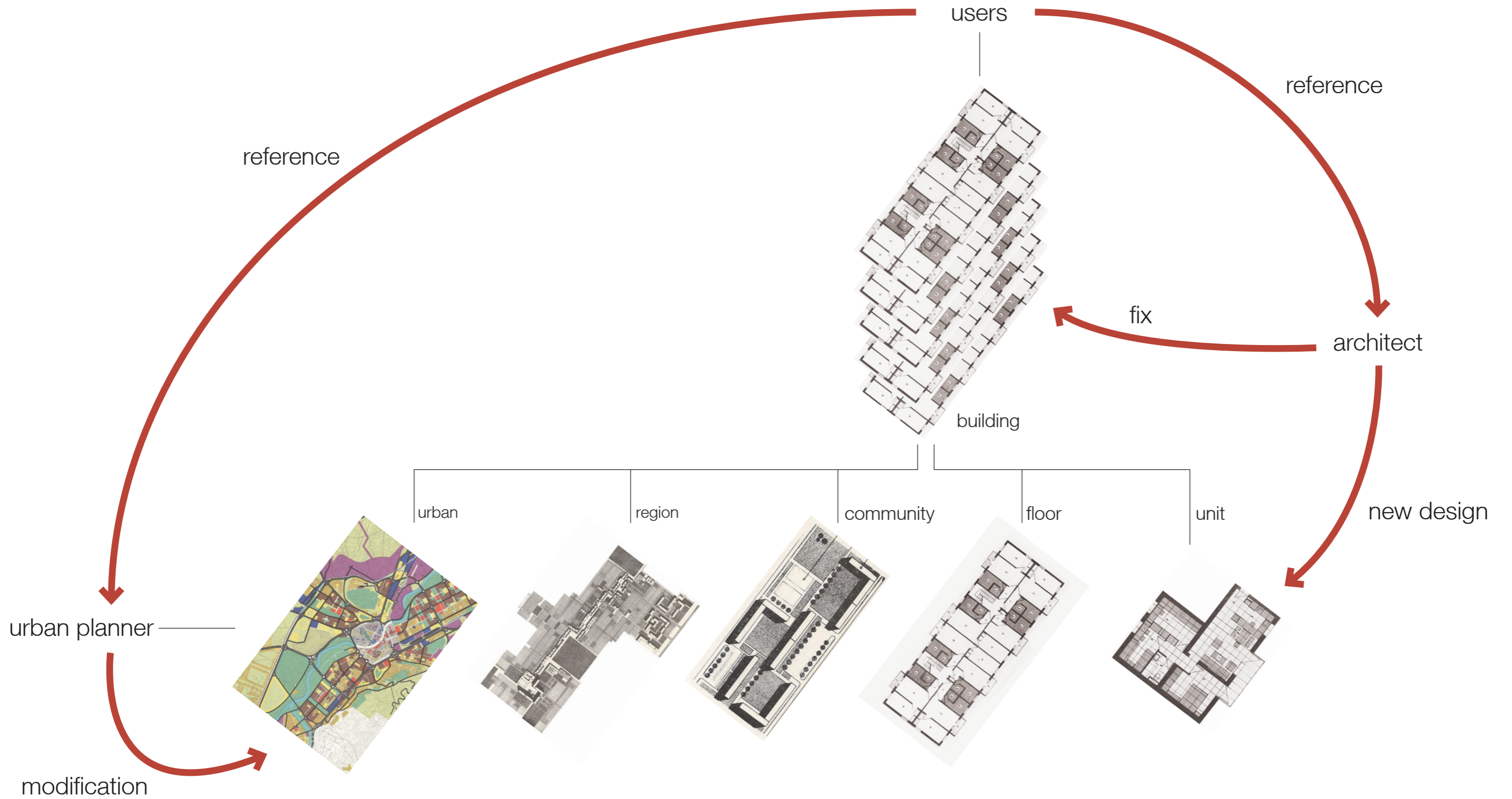
users' autonomy



Generation II

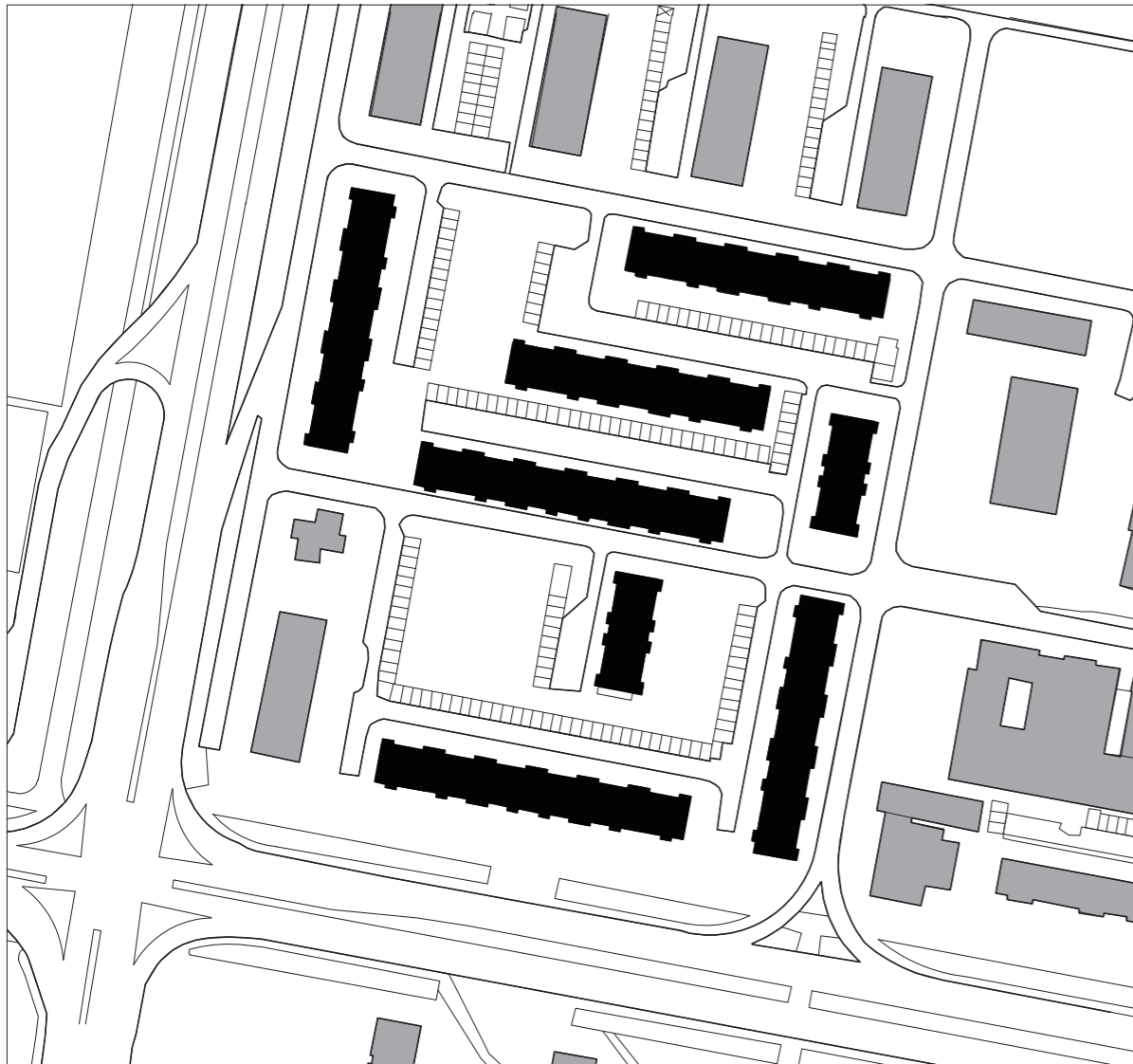
government cooperate with real estate companies

Design Loop

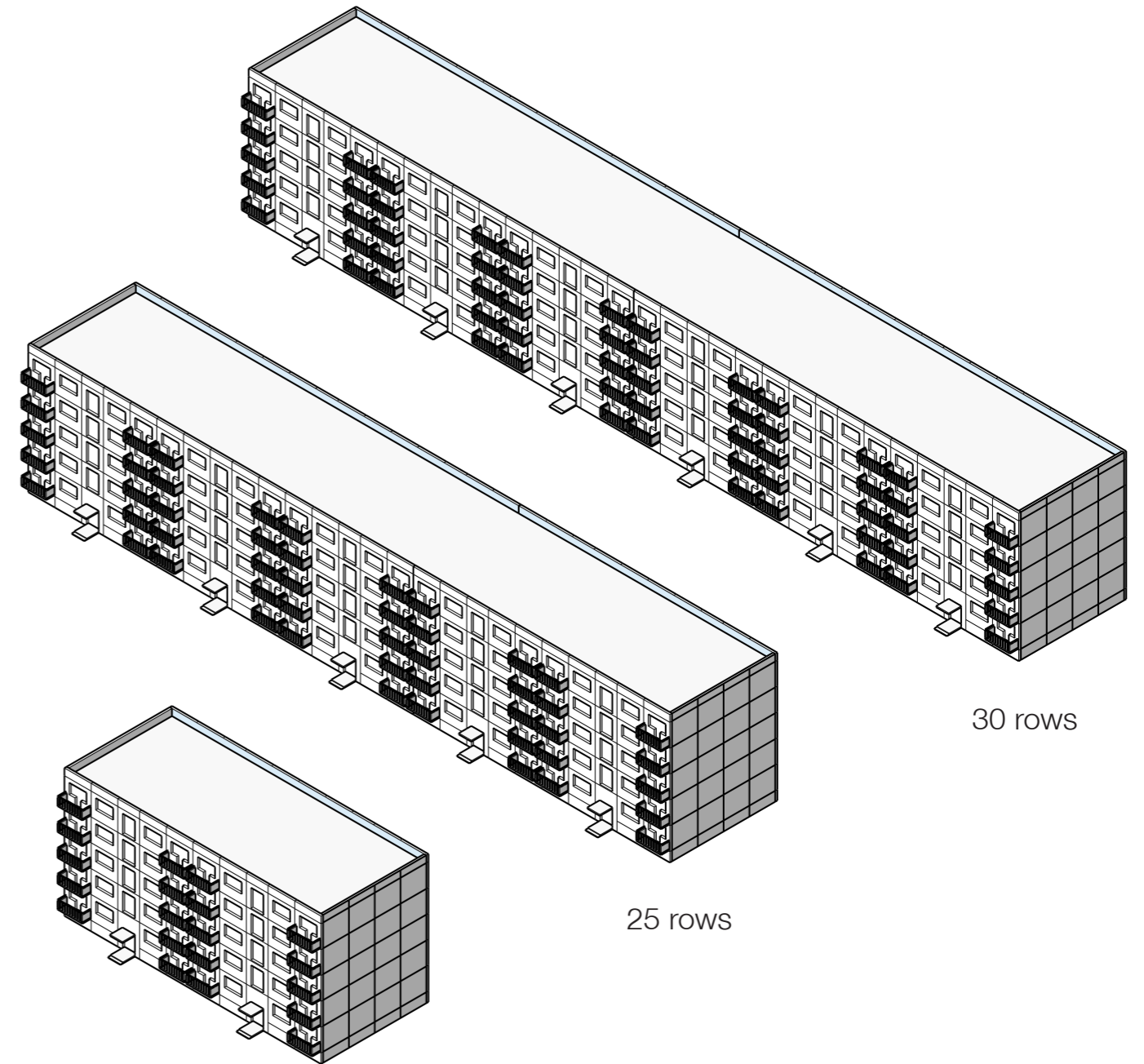




Site



Target blocks

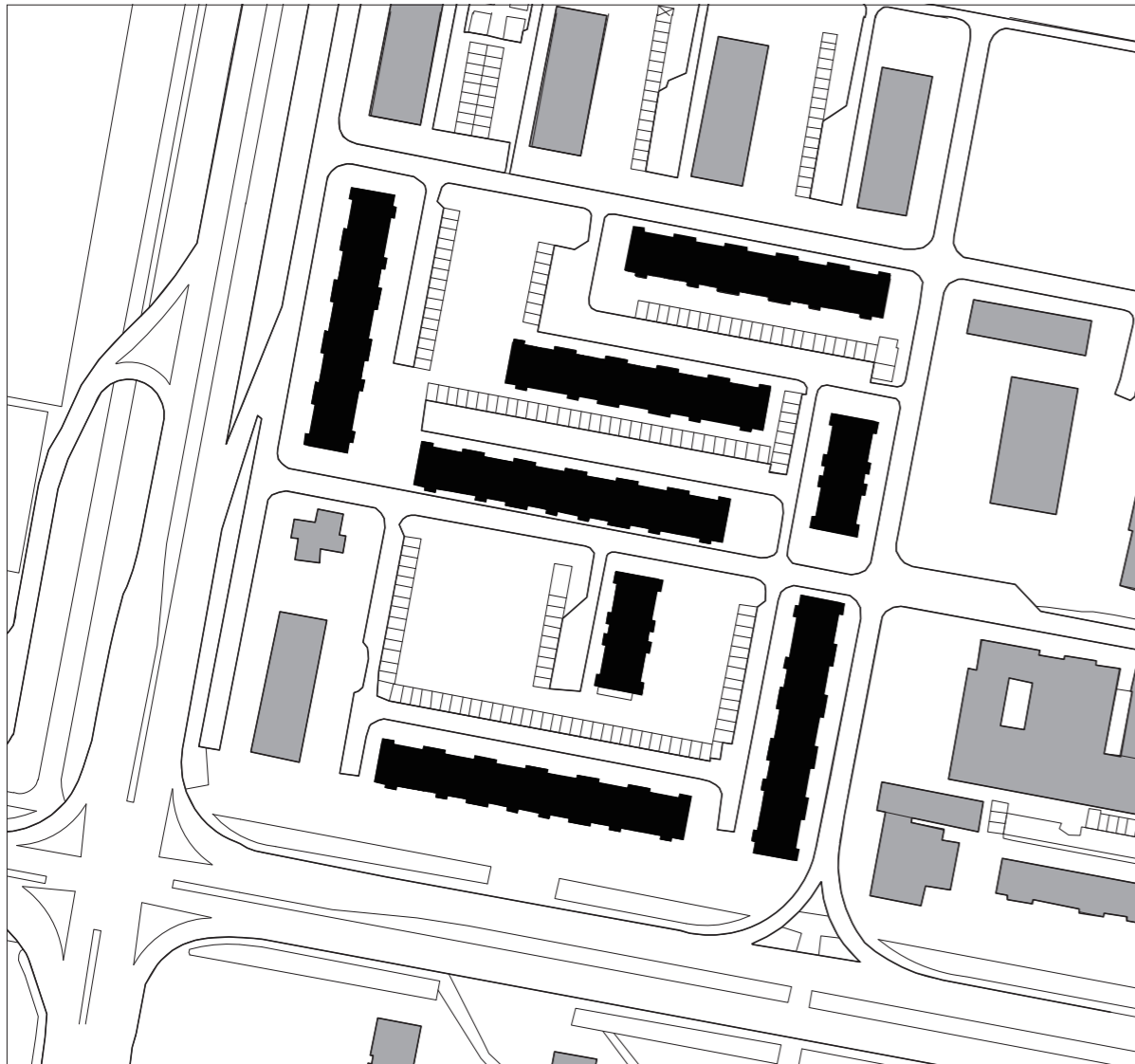


10 rows

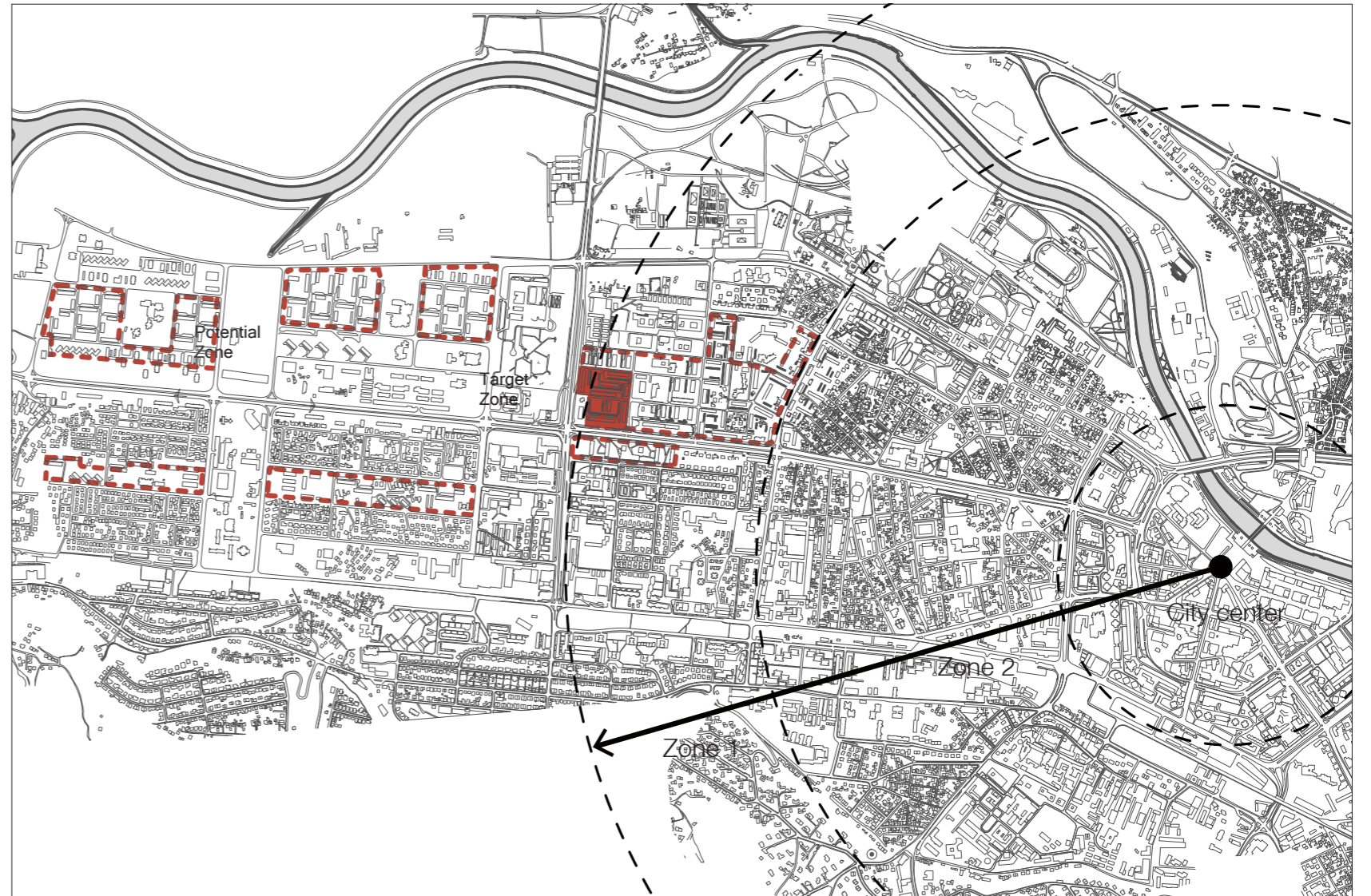
25 rows

30 rows

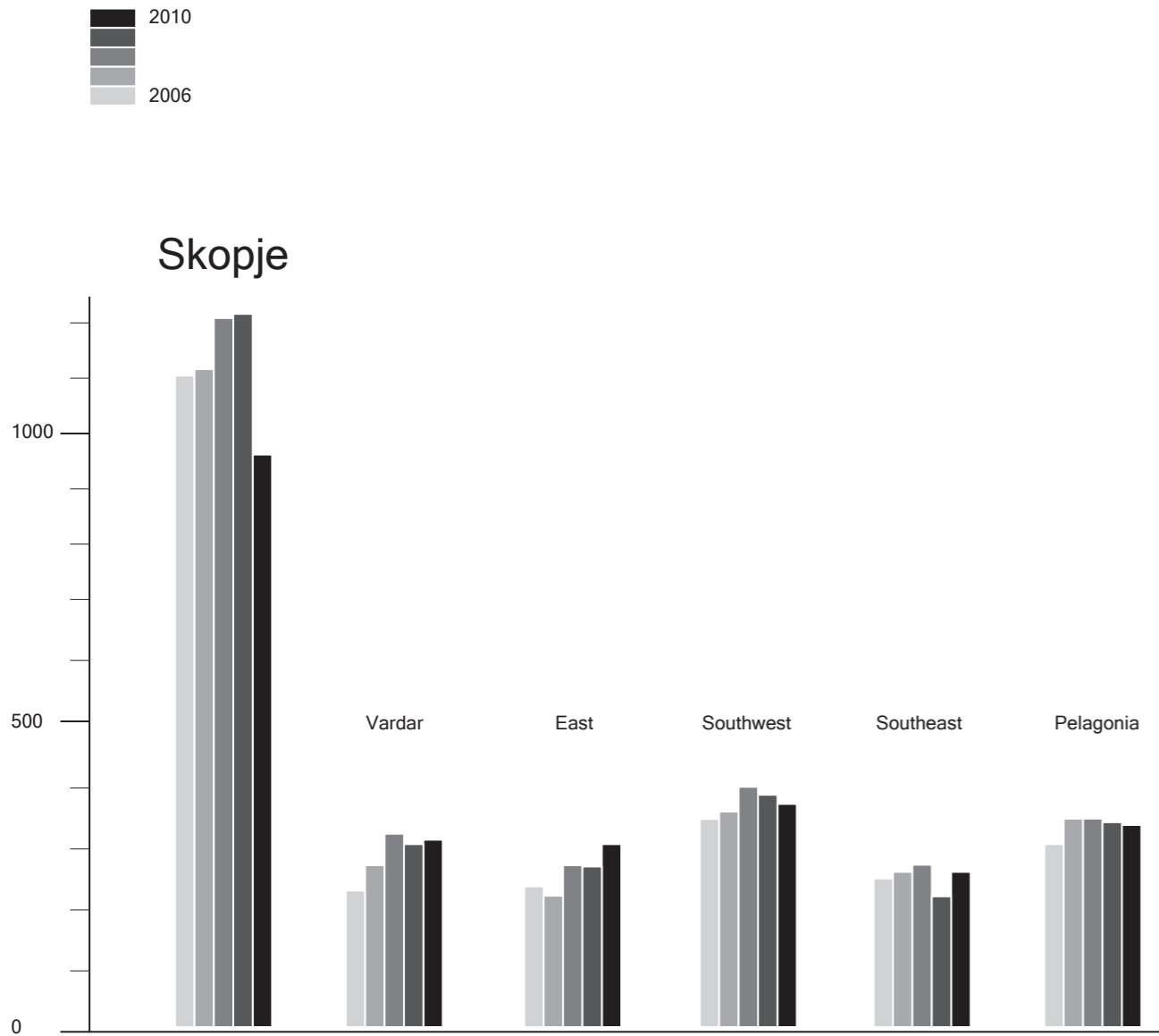
City Expansions



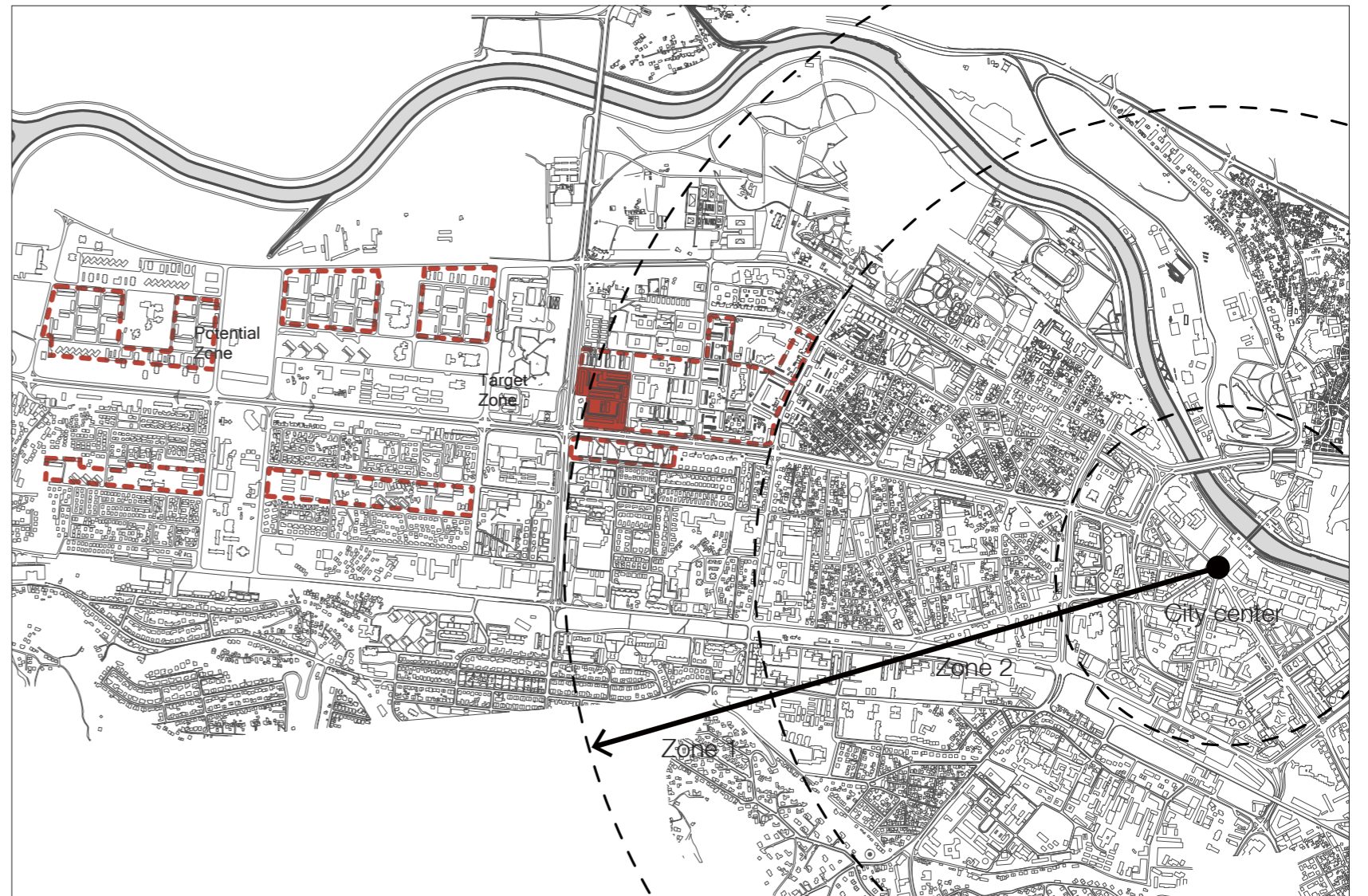
Target blocks



Potential area

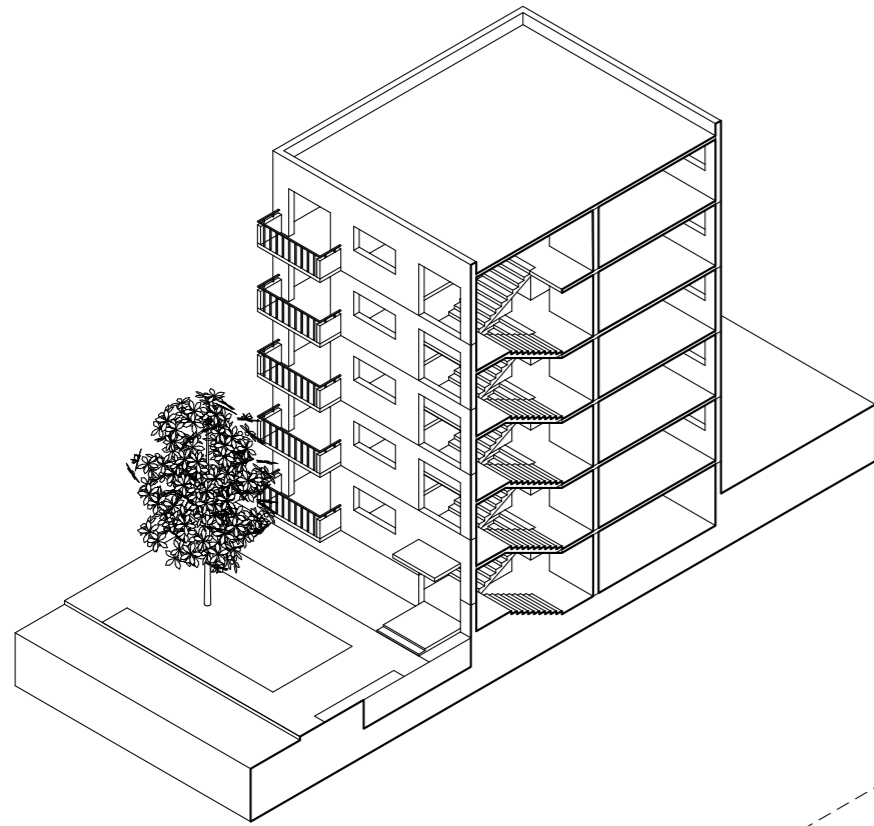


Internal Migrations of Macedonian Citizens, inter-regional level, 2006-2010

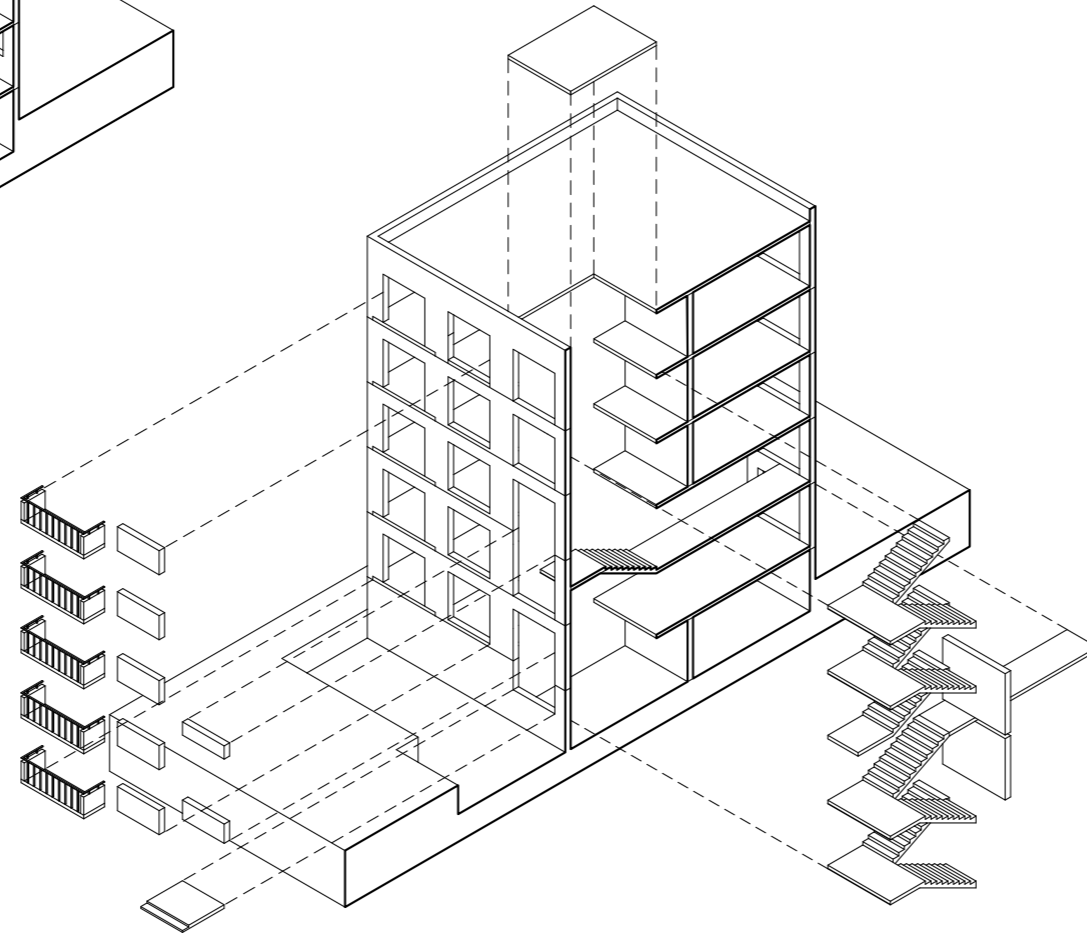


Potential area

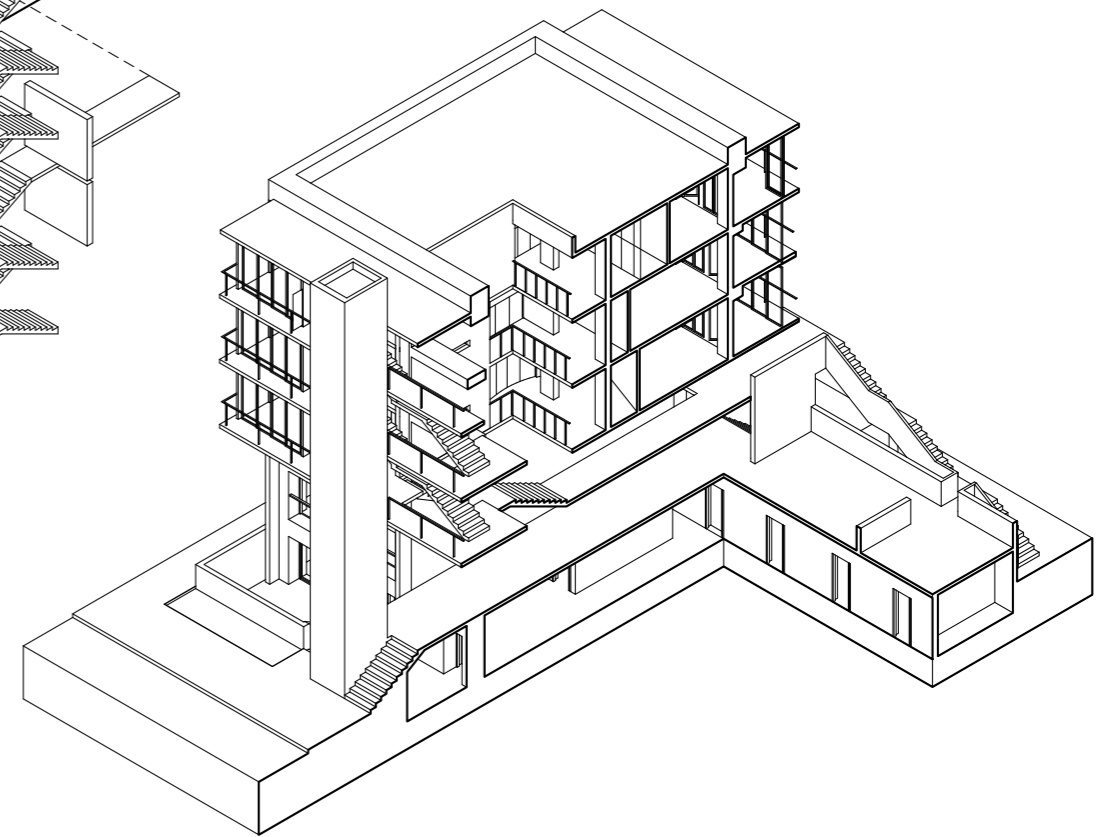
Steps



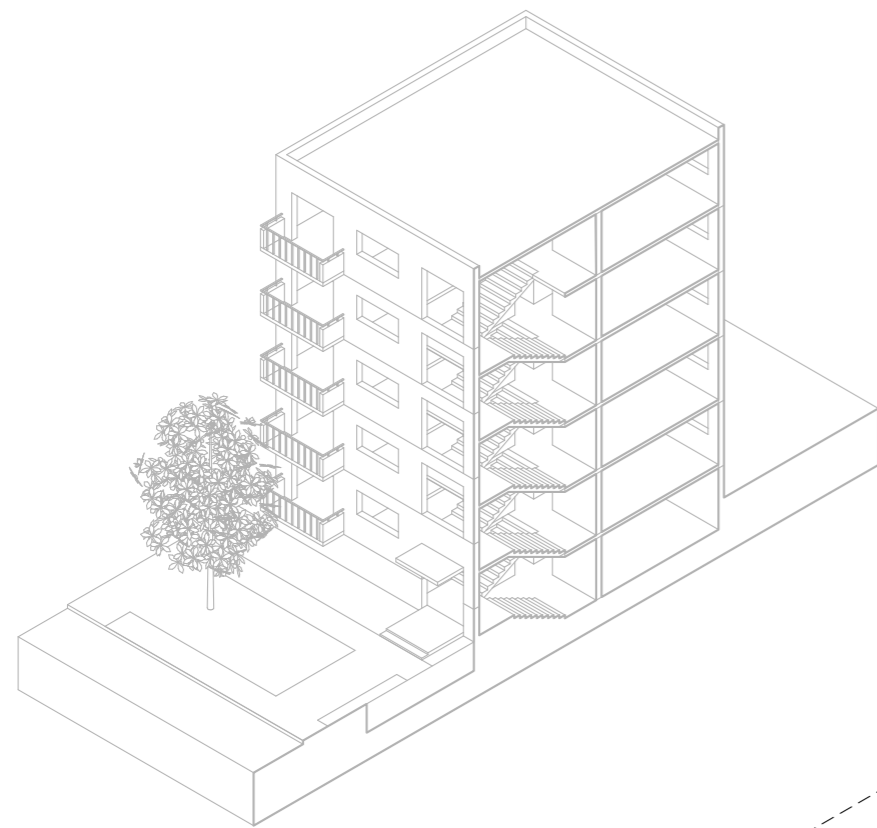
Original



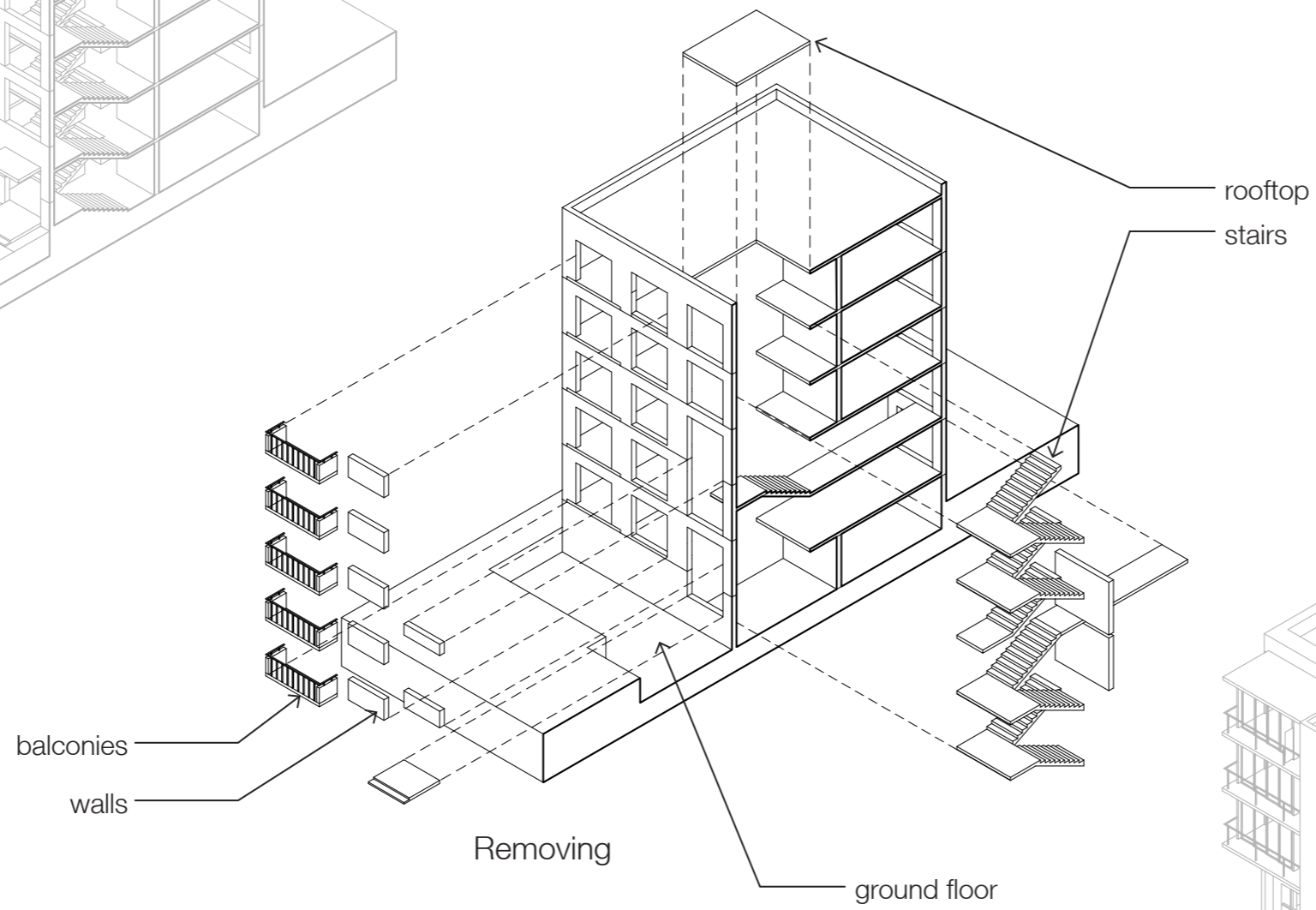
Removing



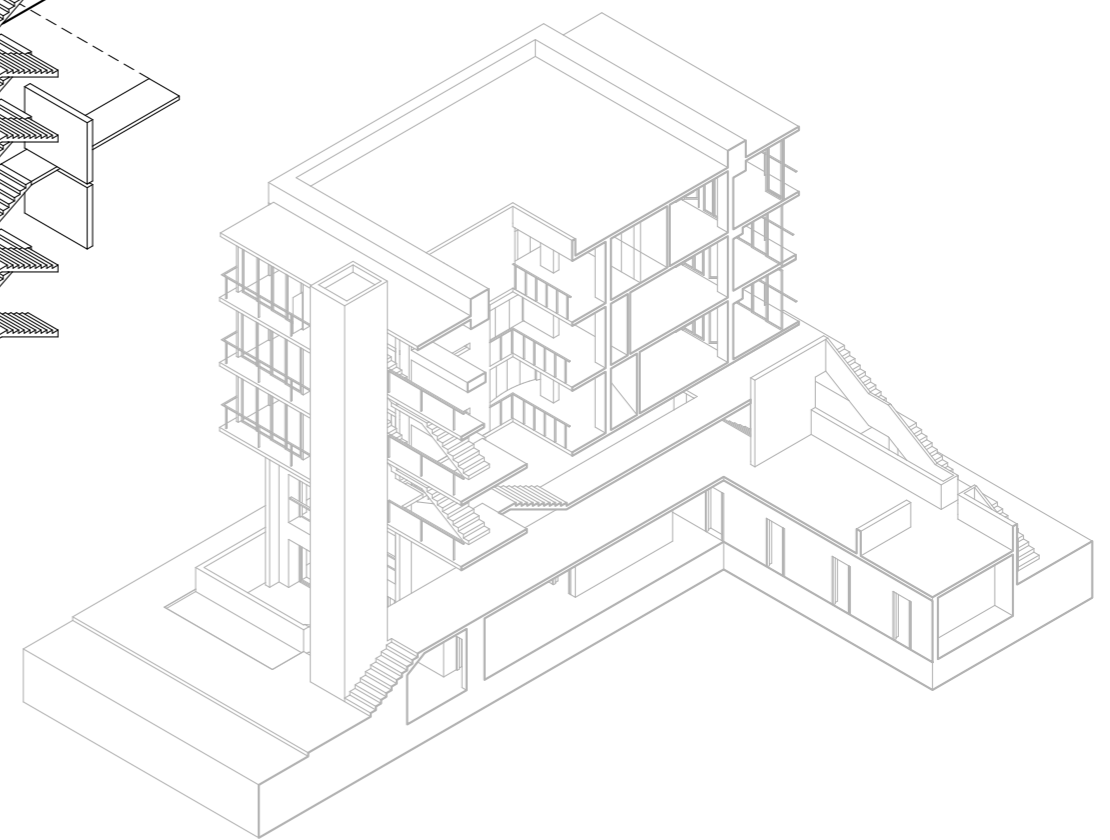
Adding



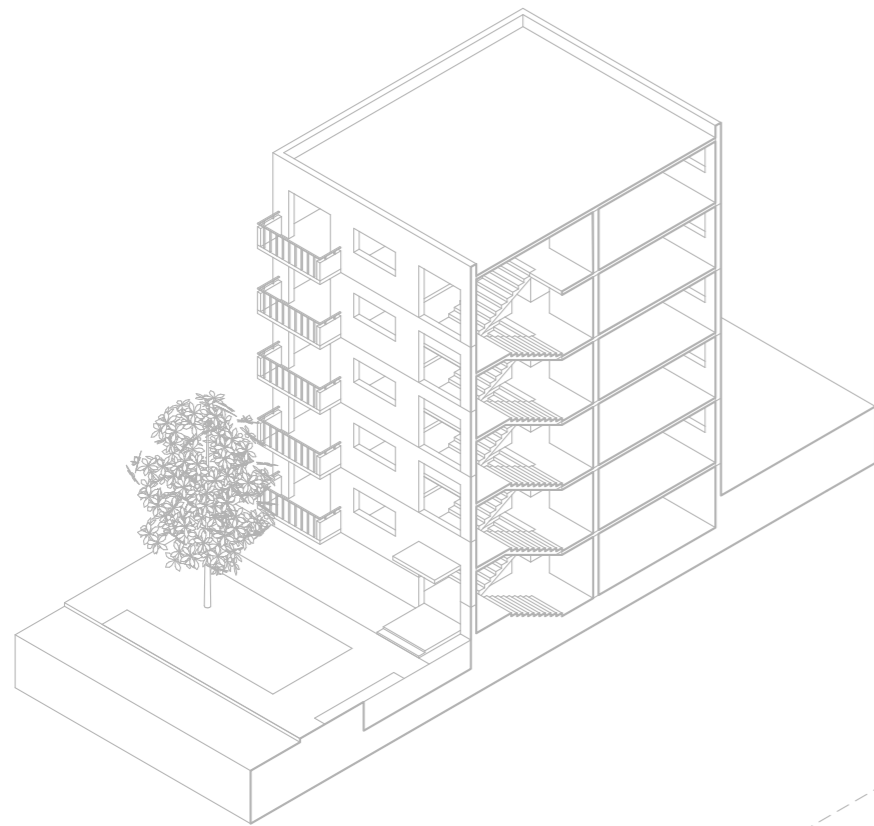
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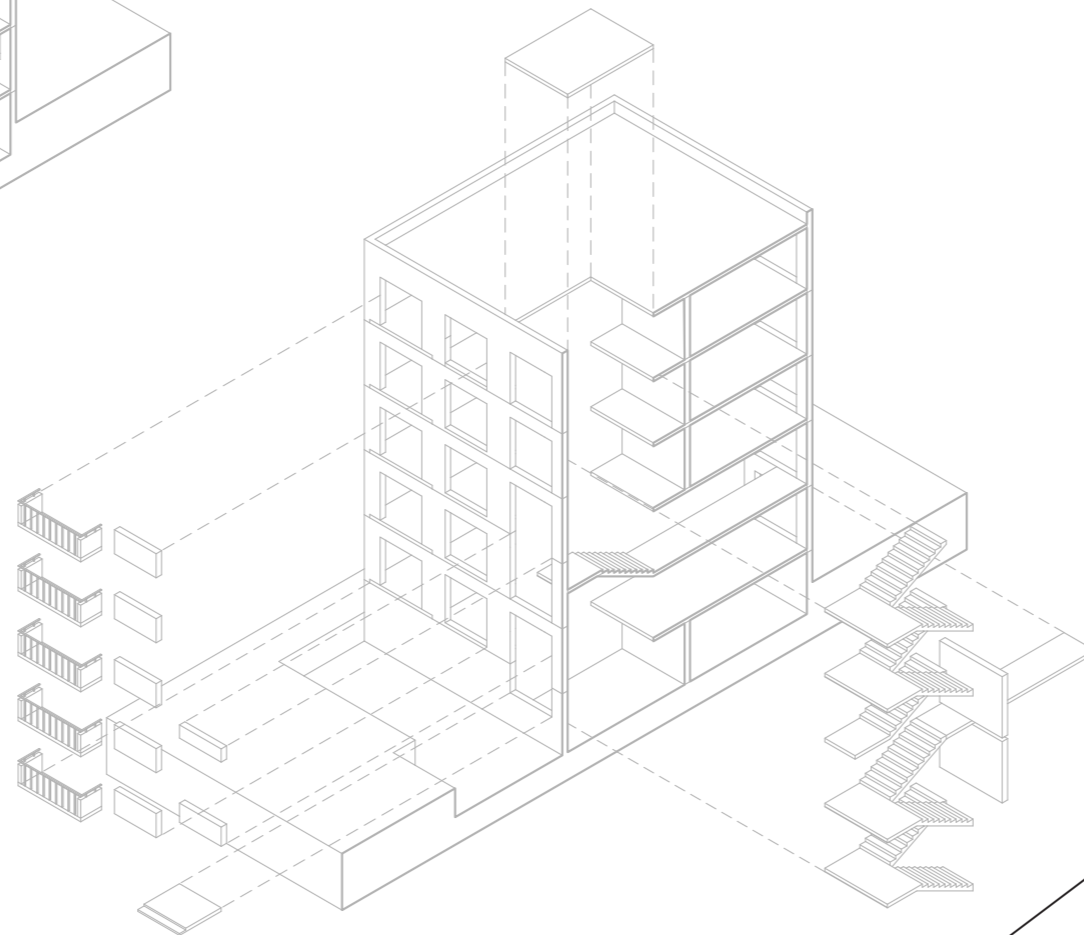
Removing



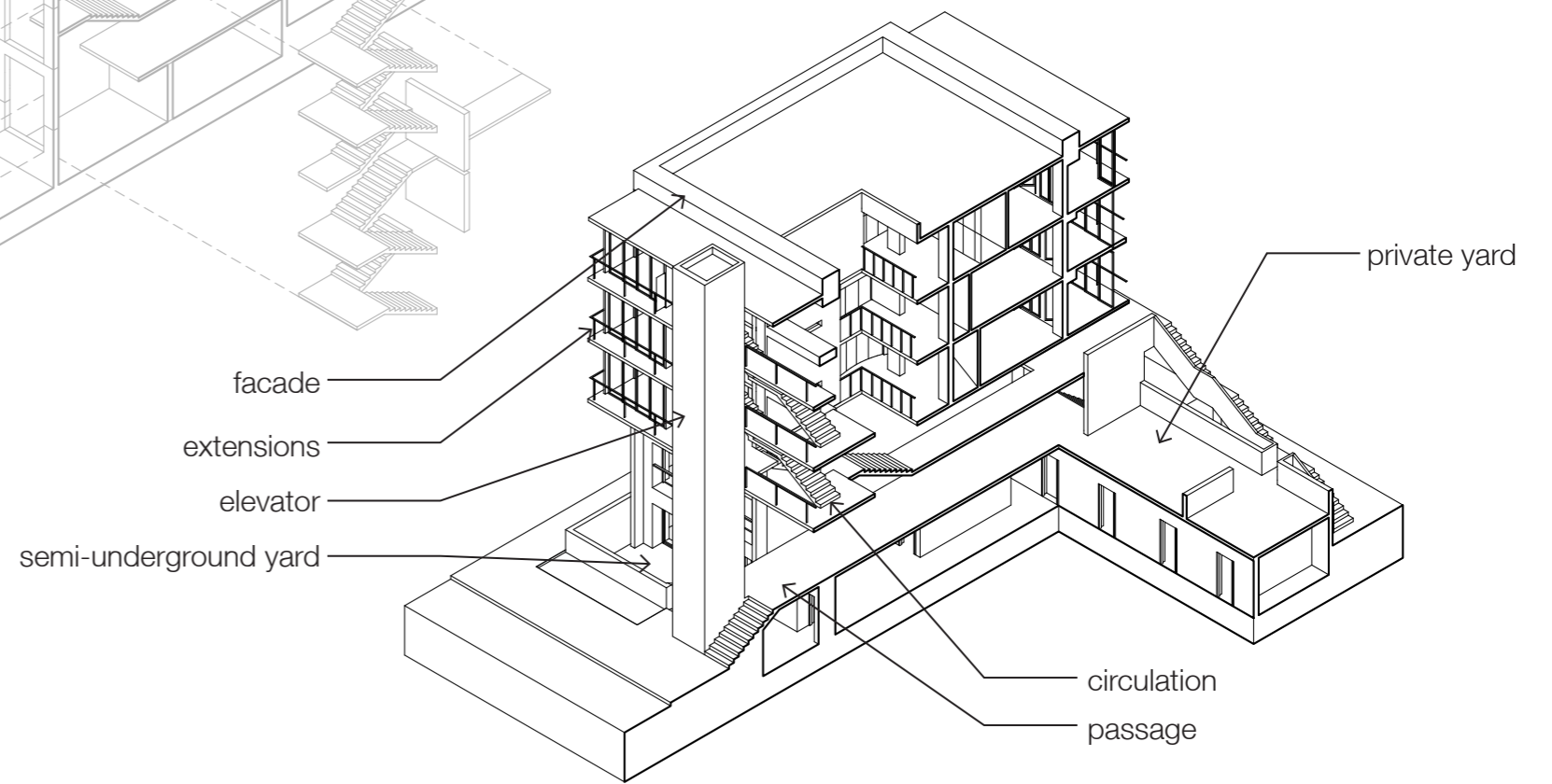
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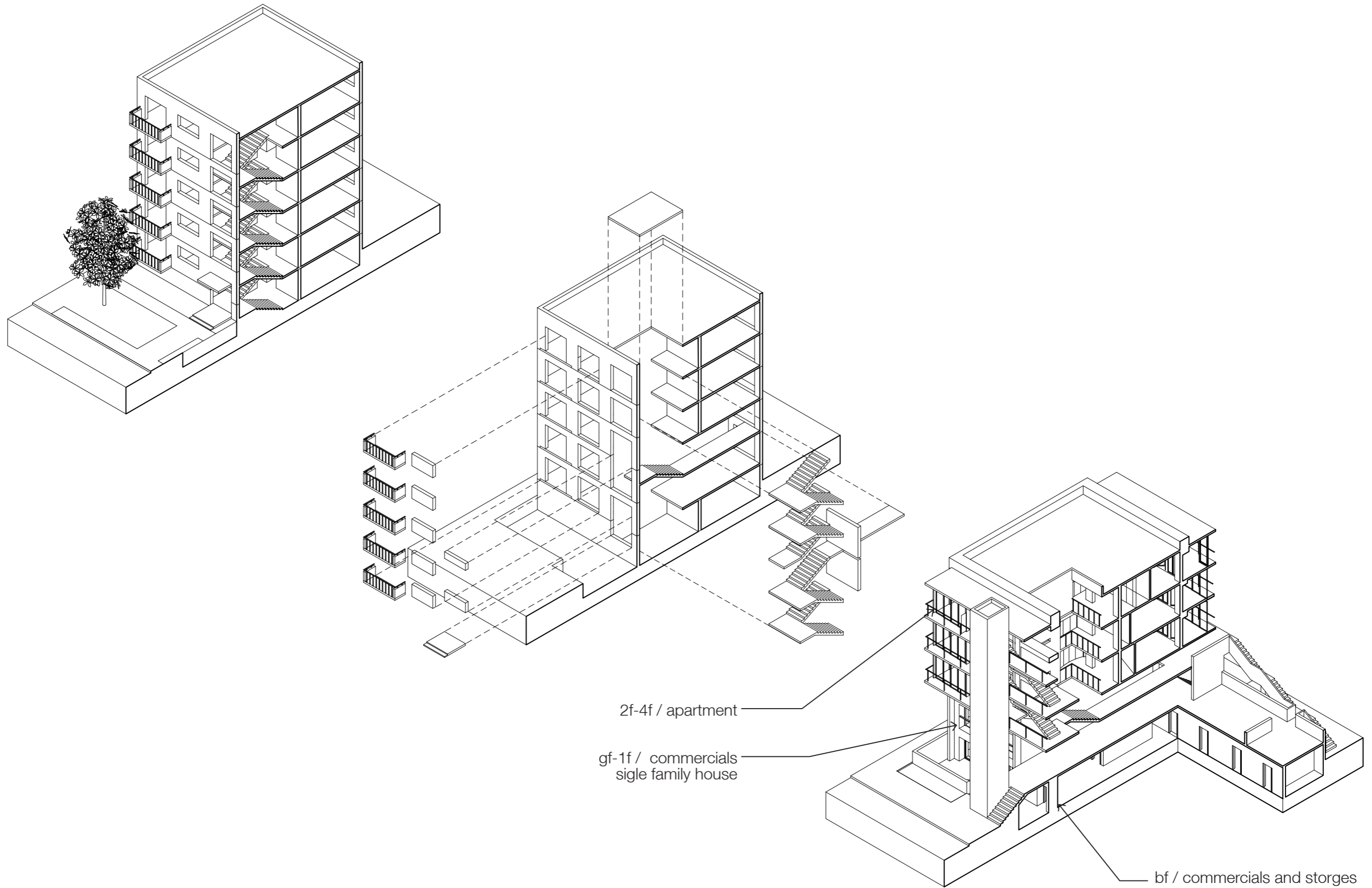
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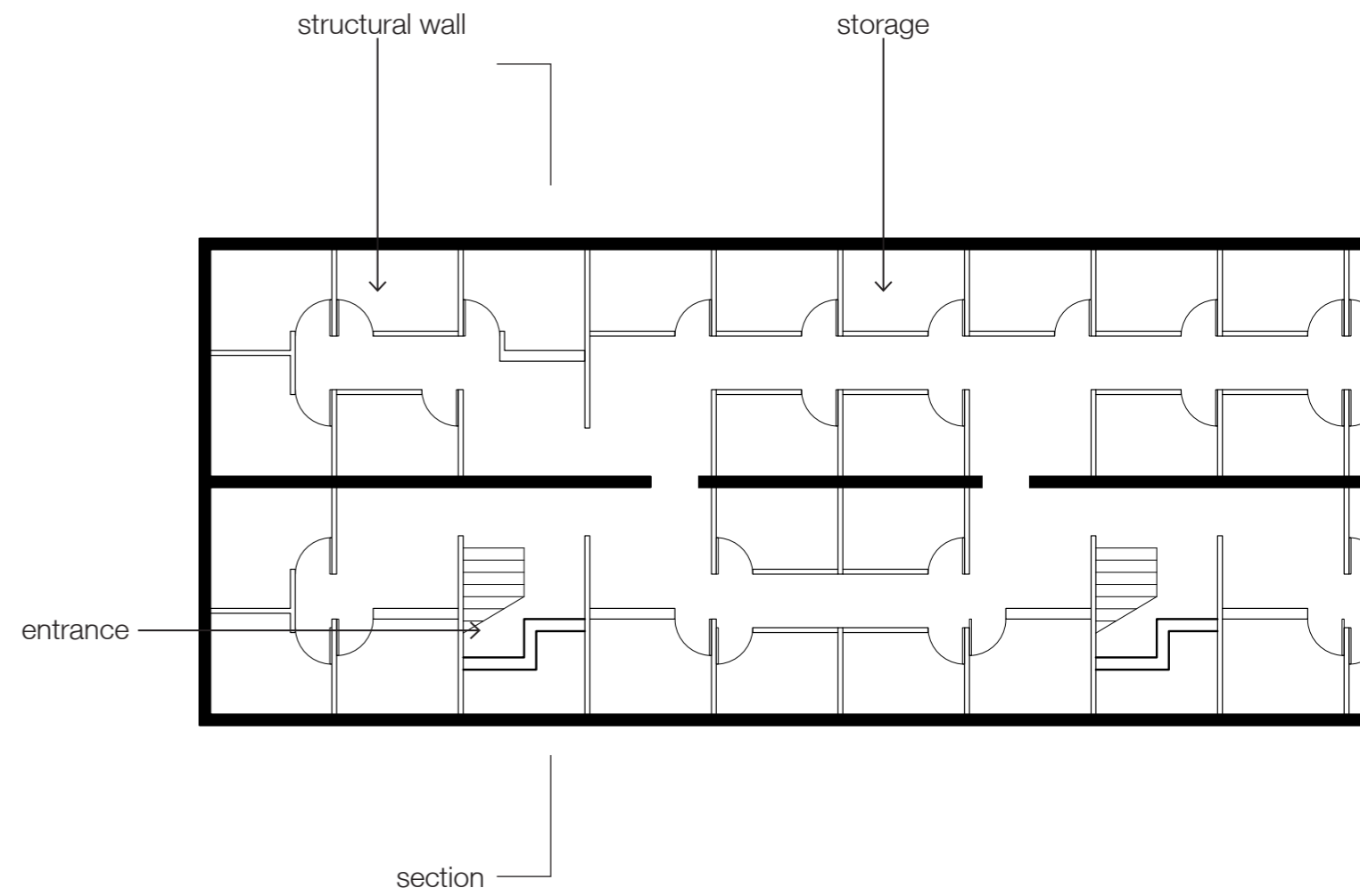
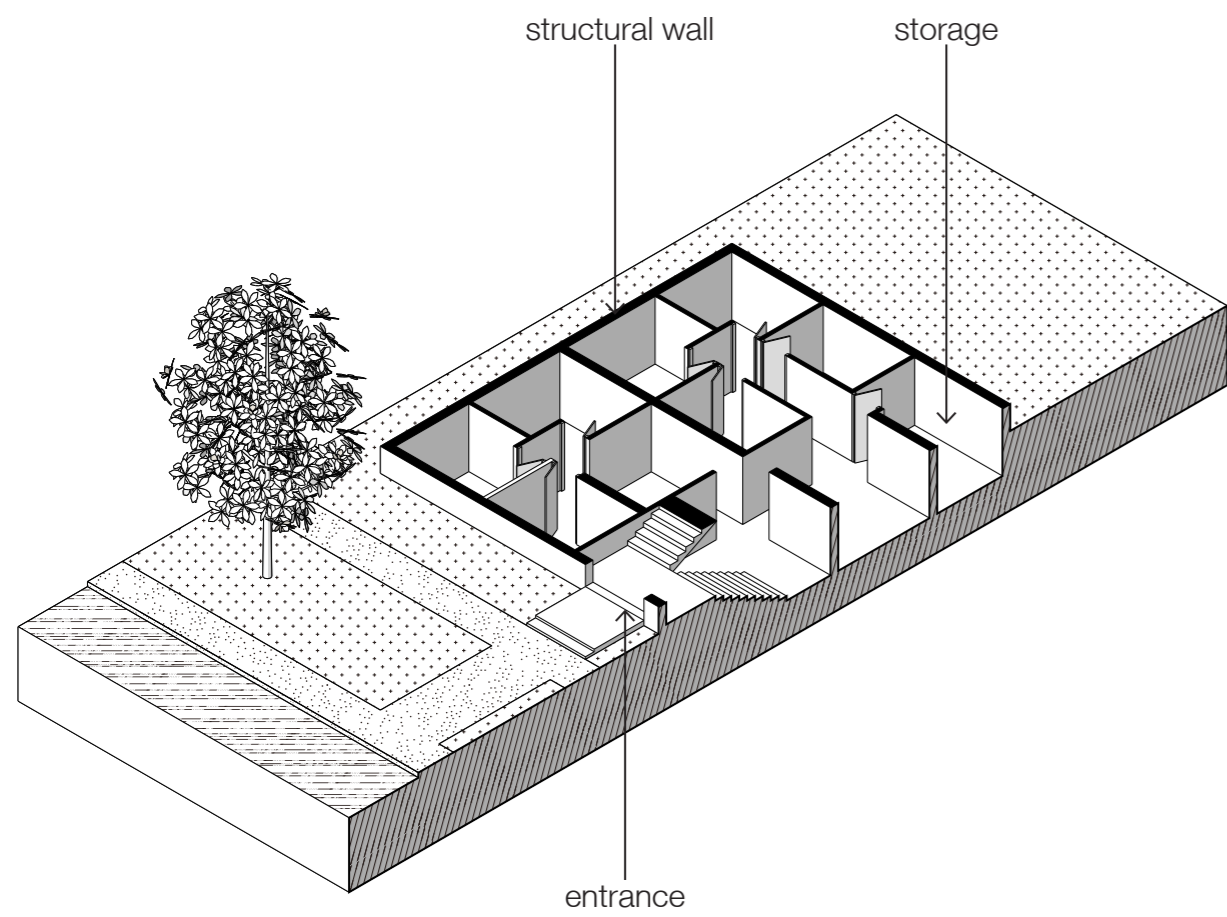
removing



adding



Original Design



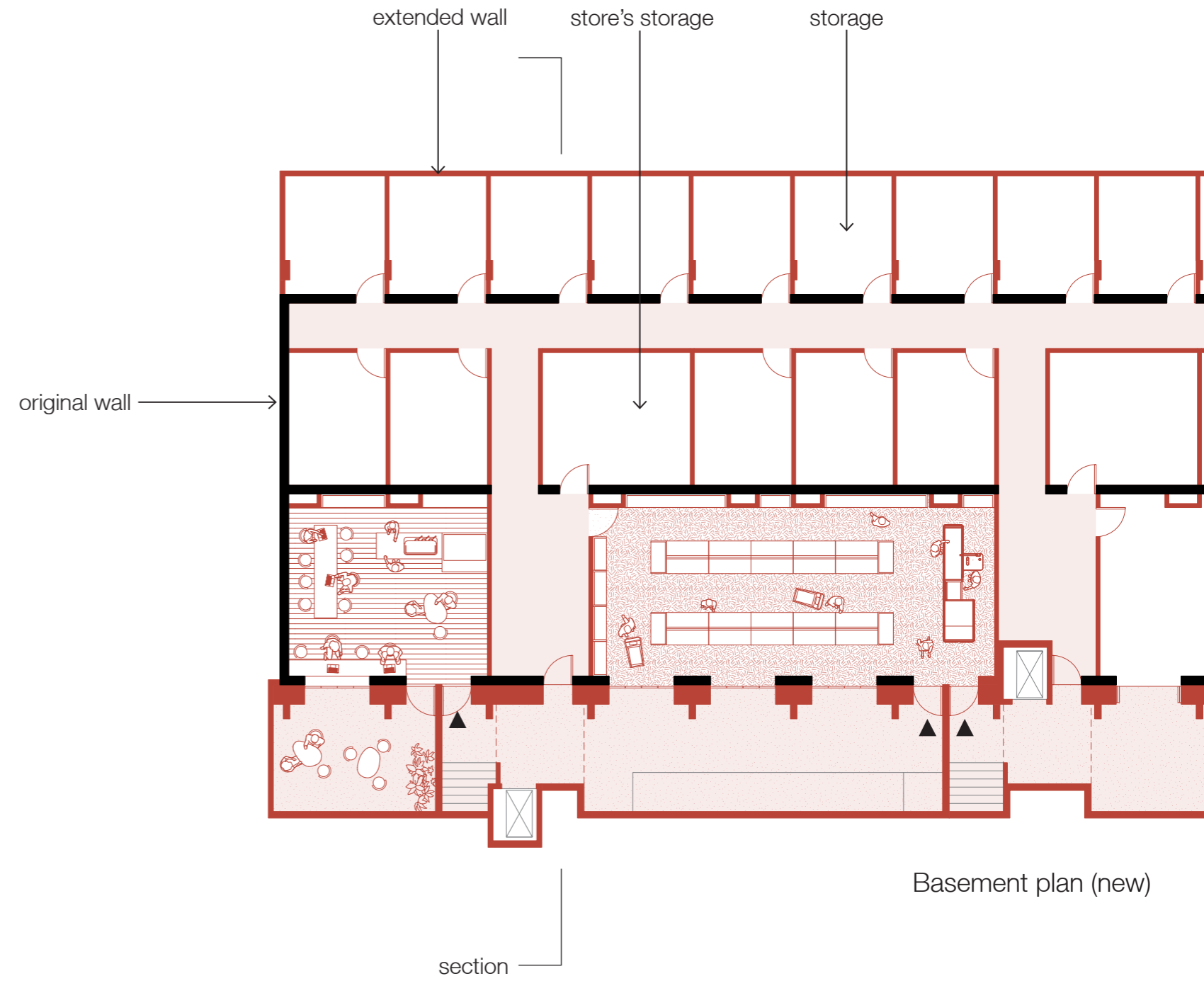
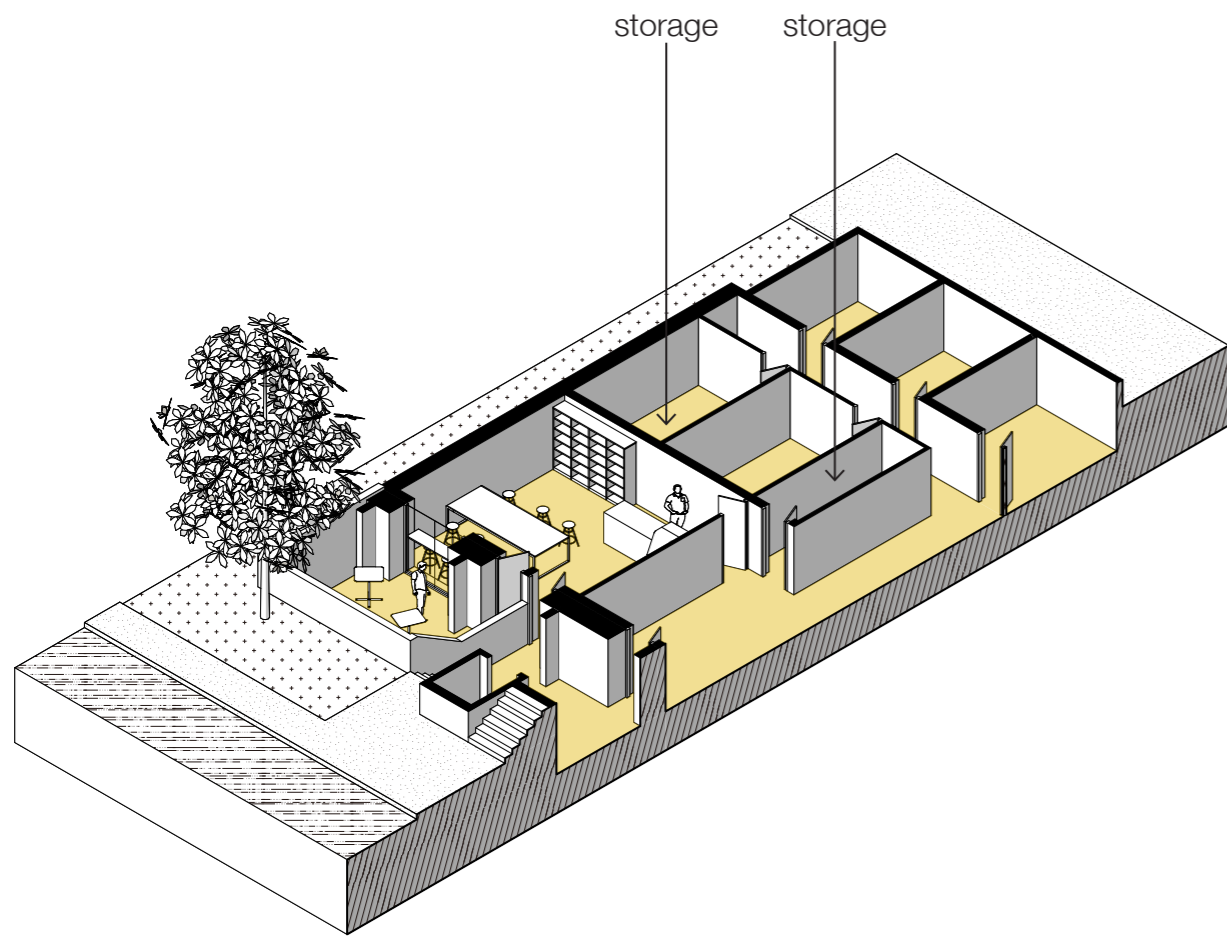
Basement plan (original)

Site Observation

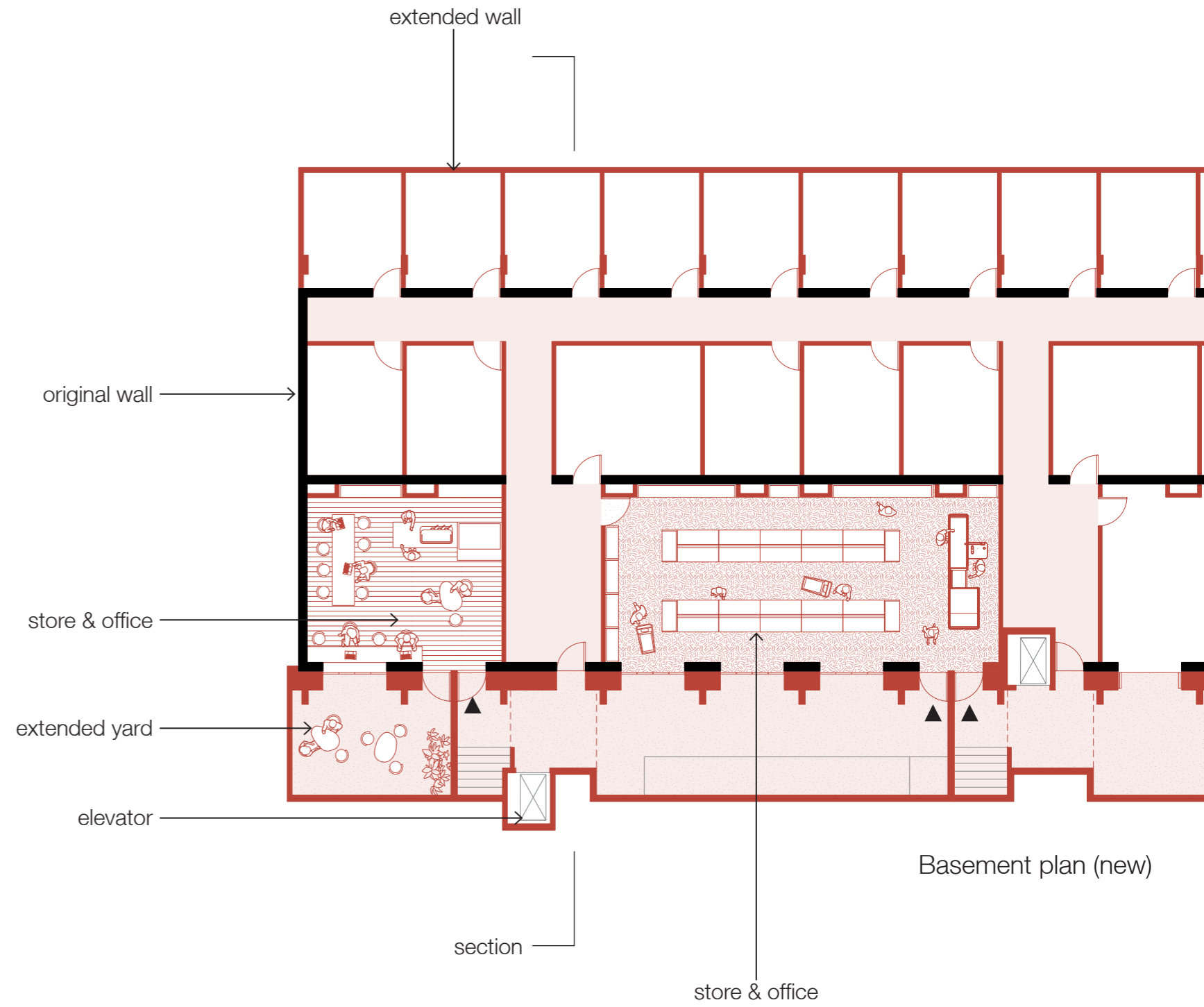
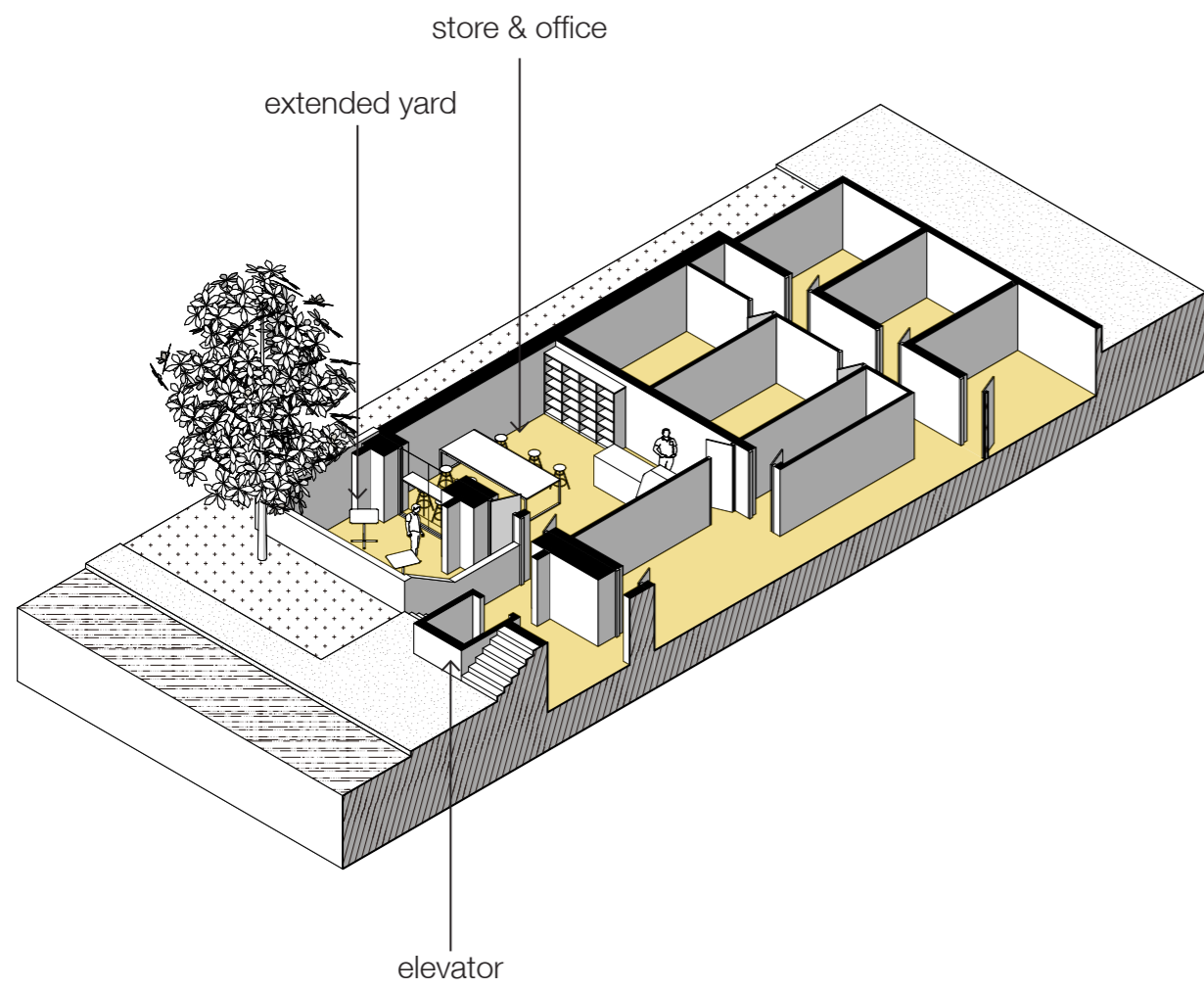




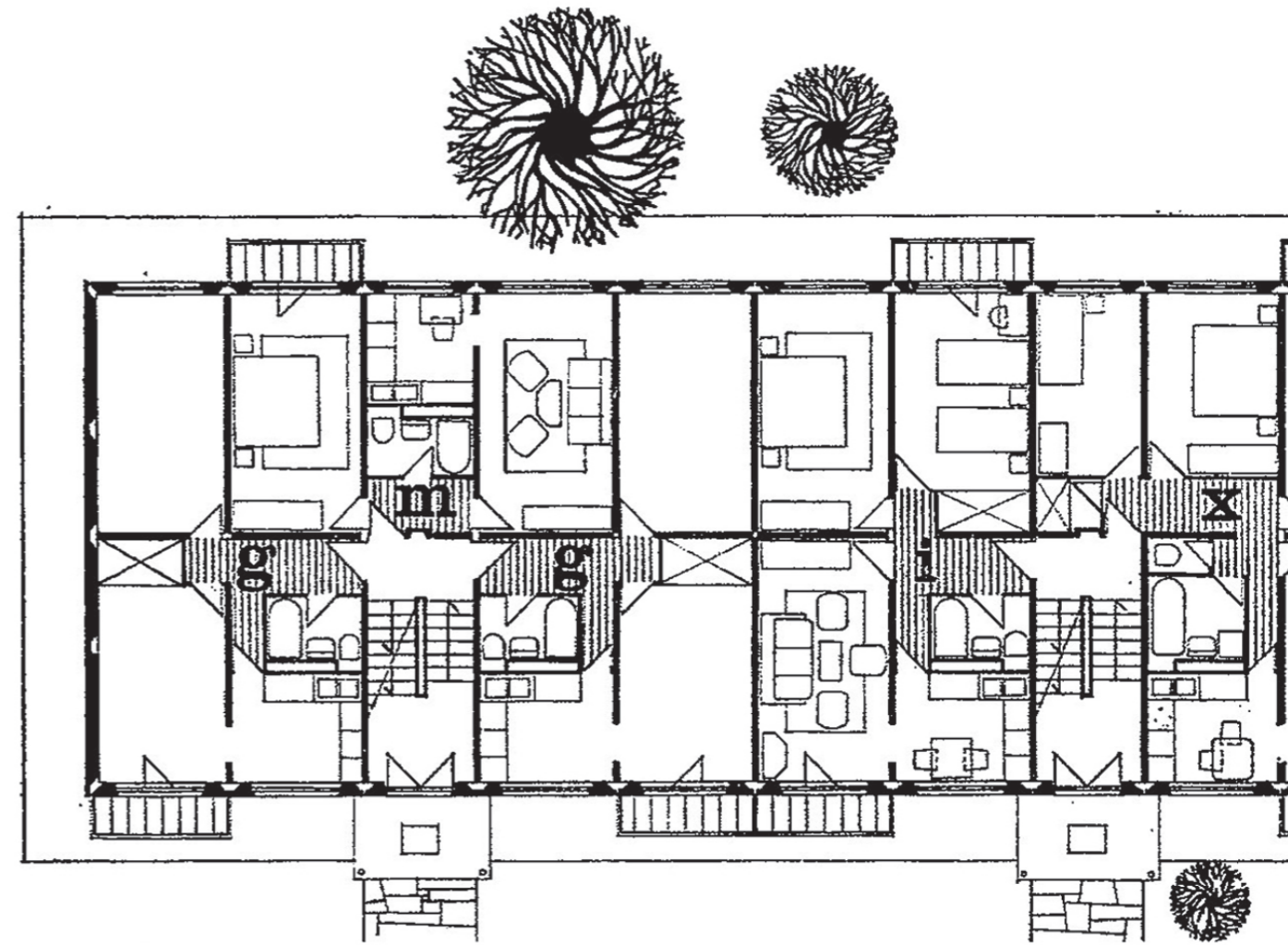
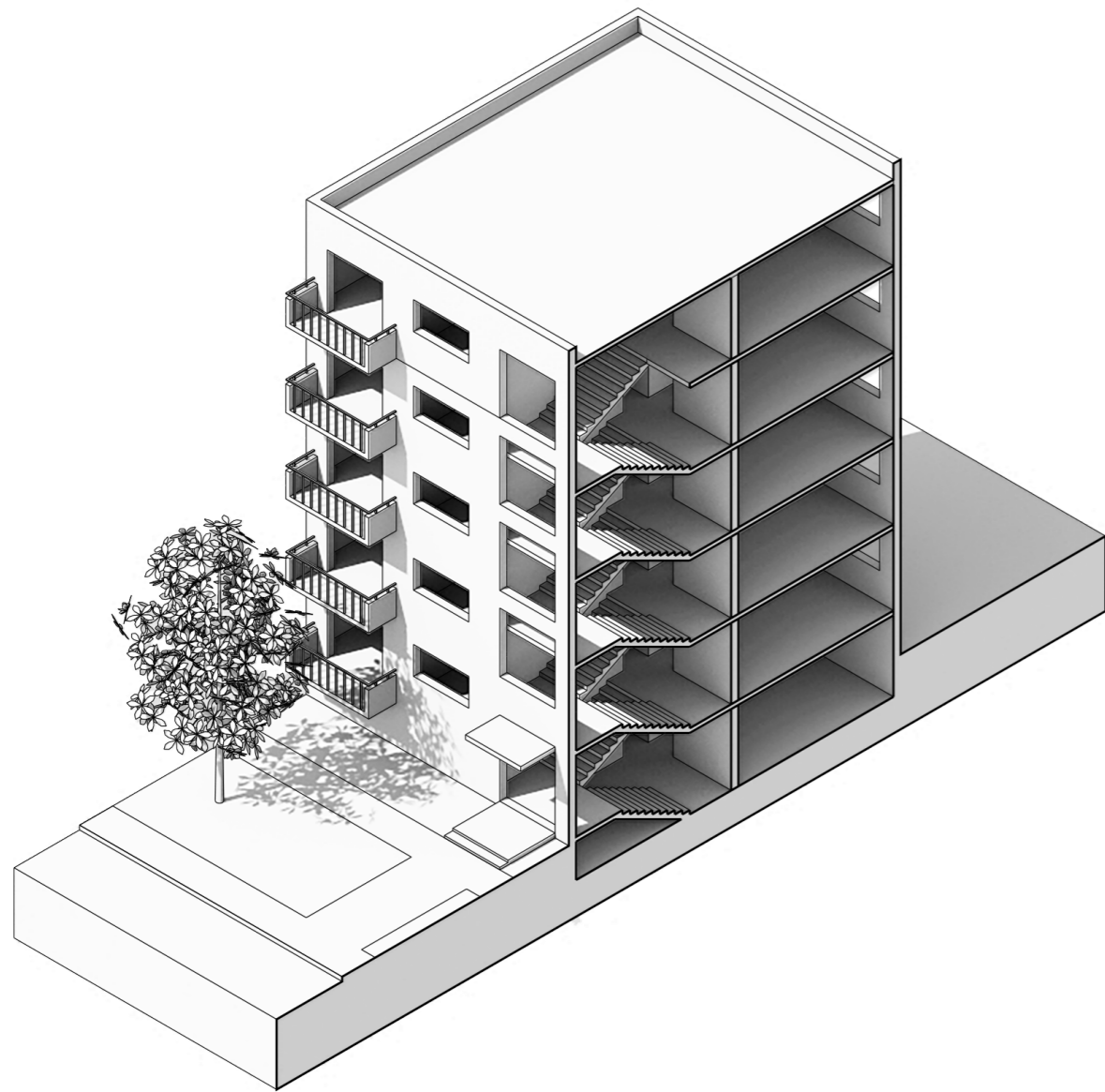
Proposal



Basement

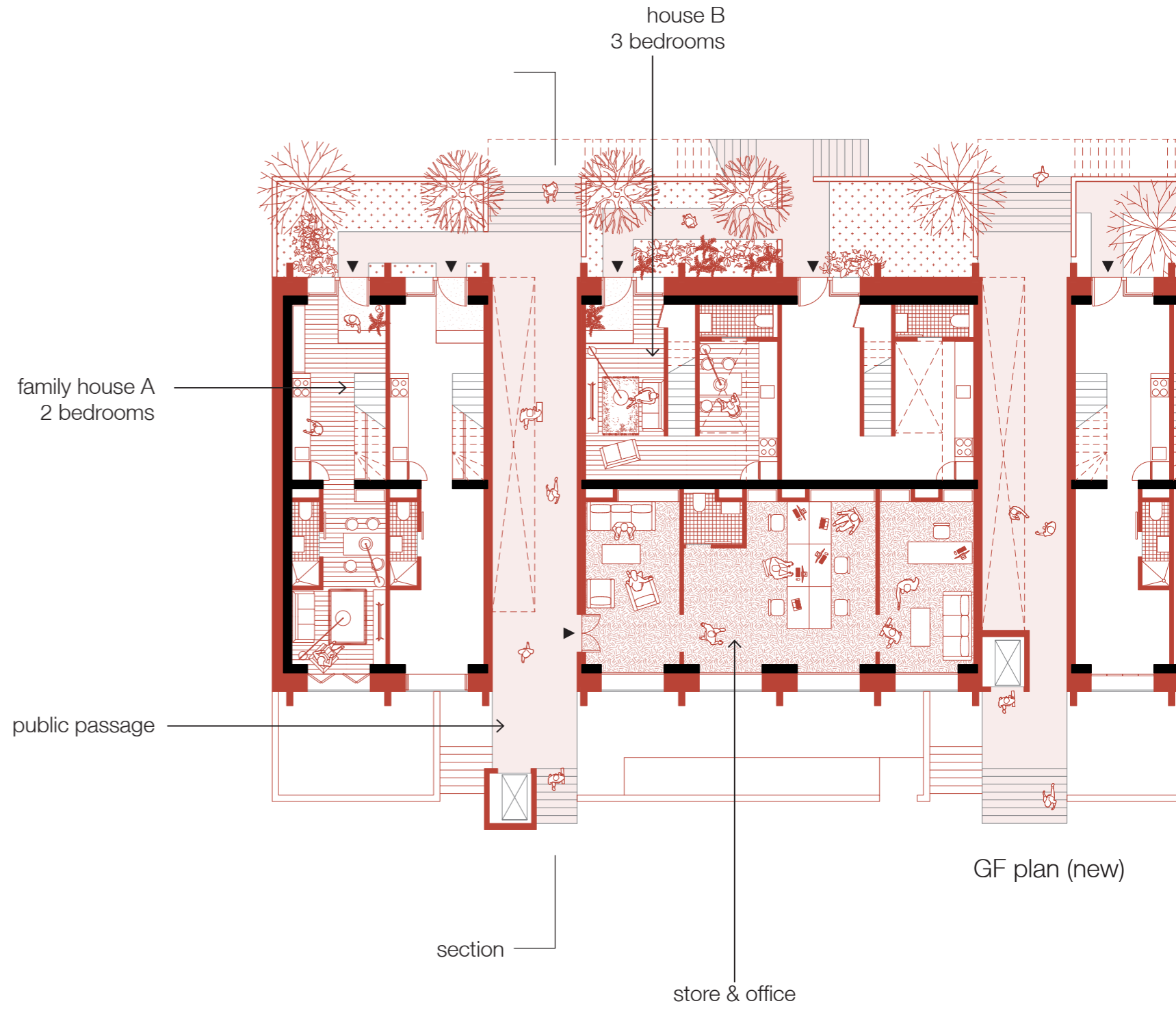
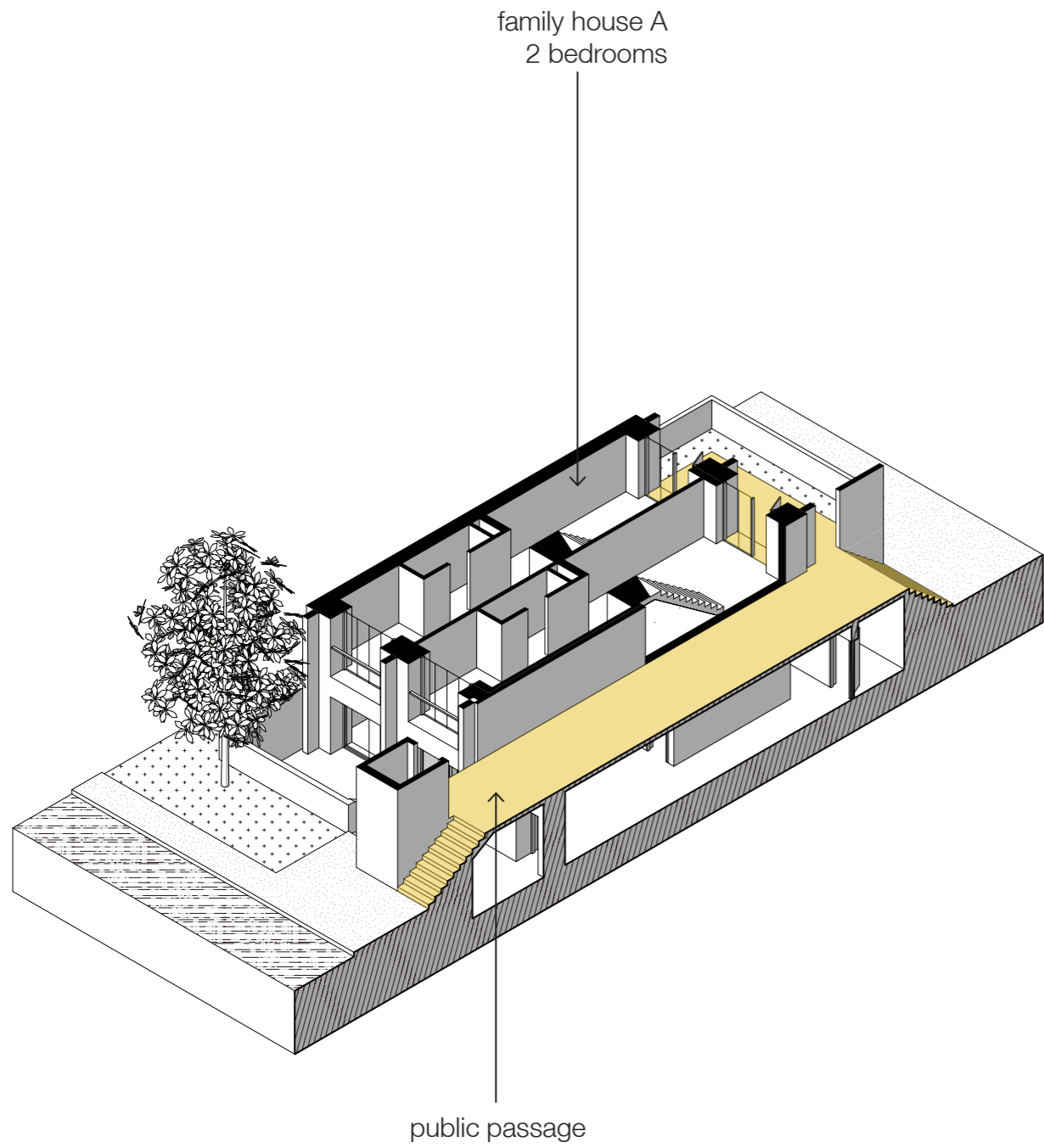


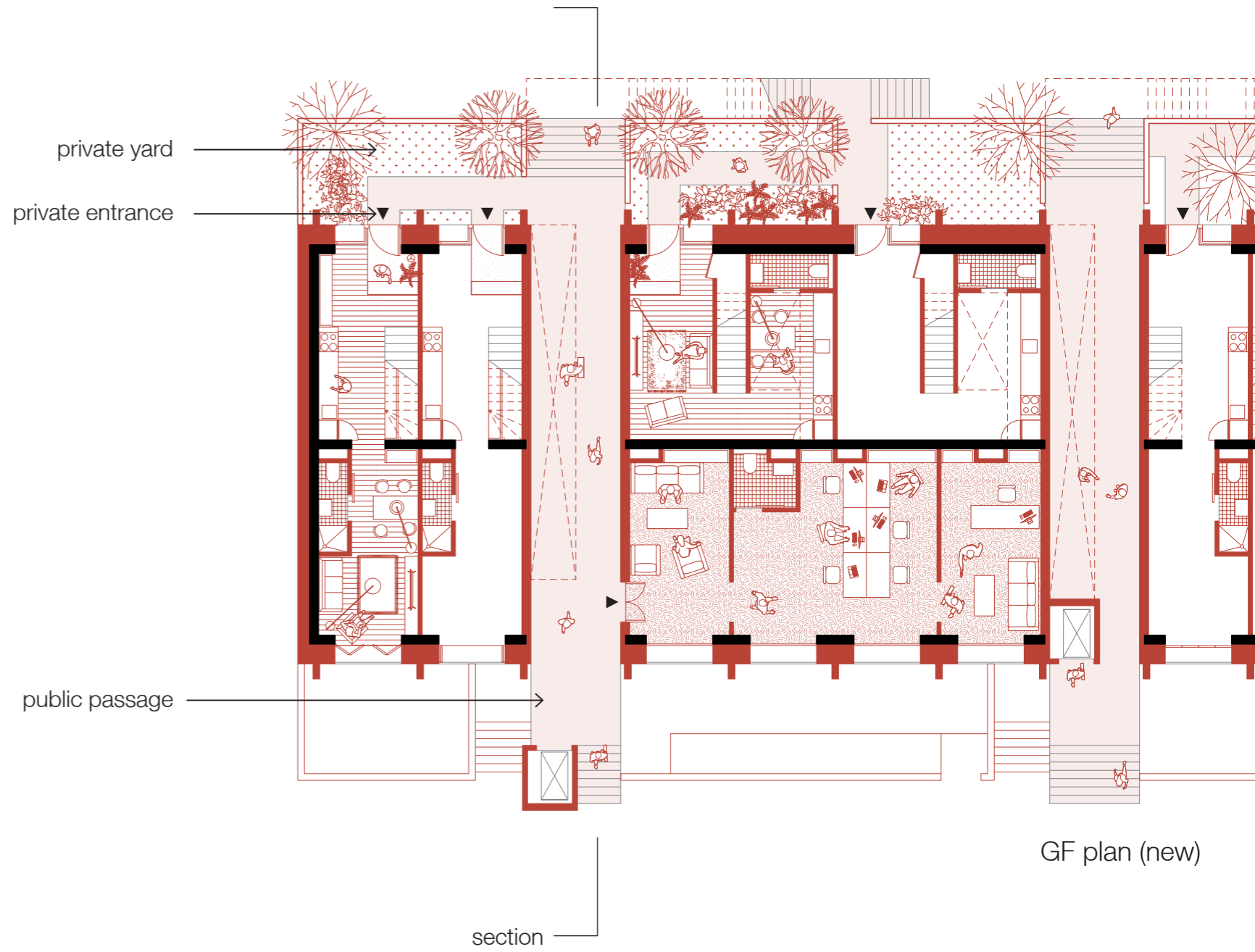
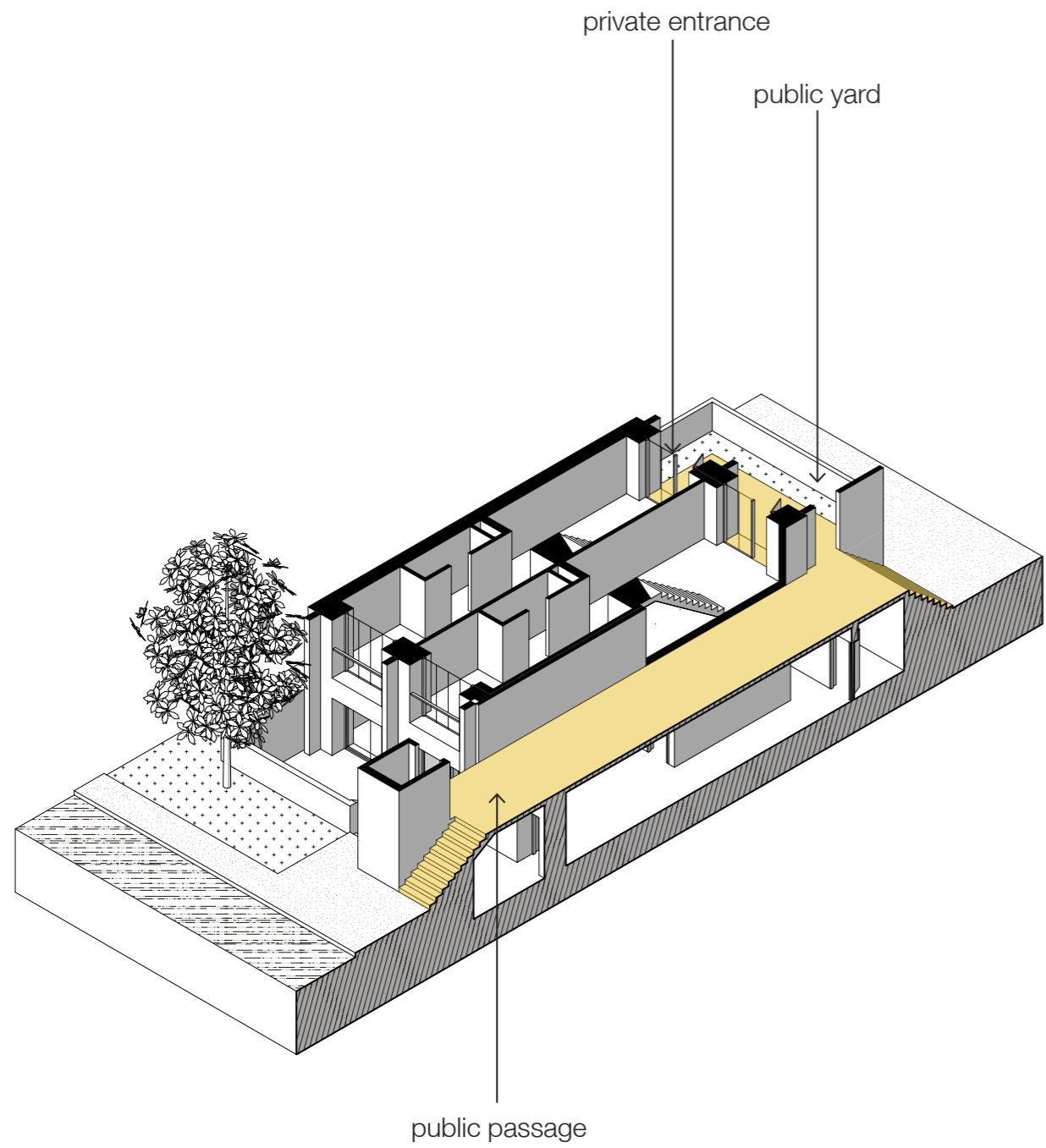
Original Design

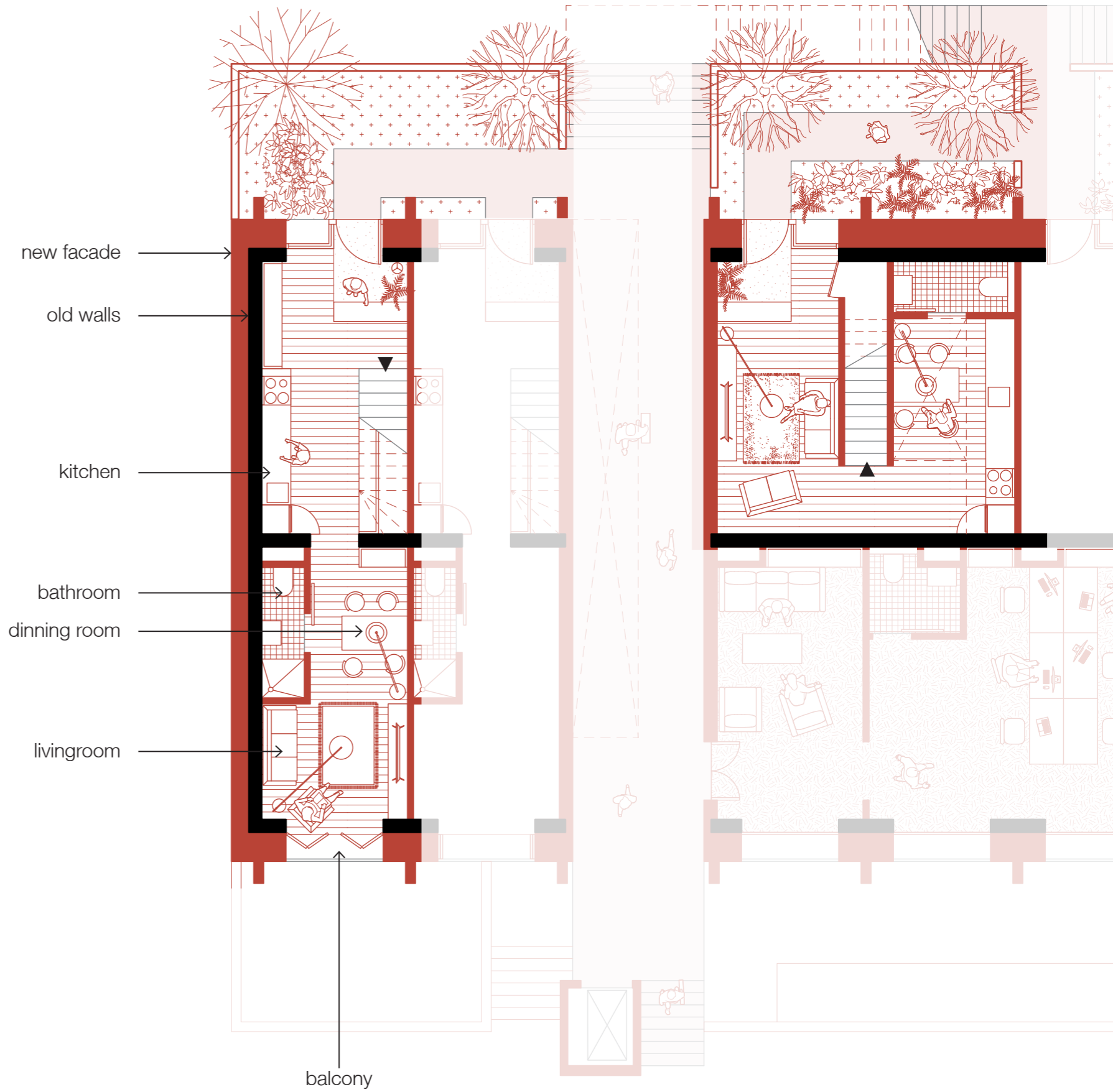
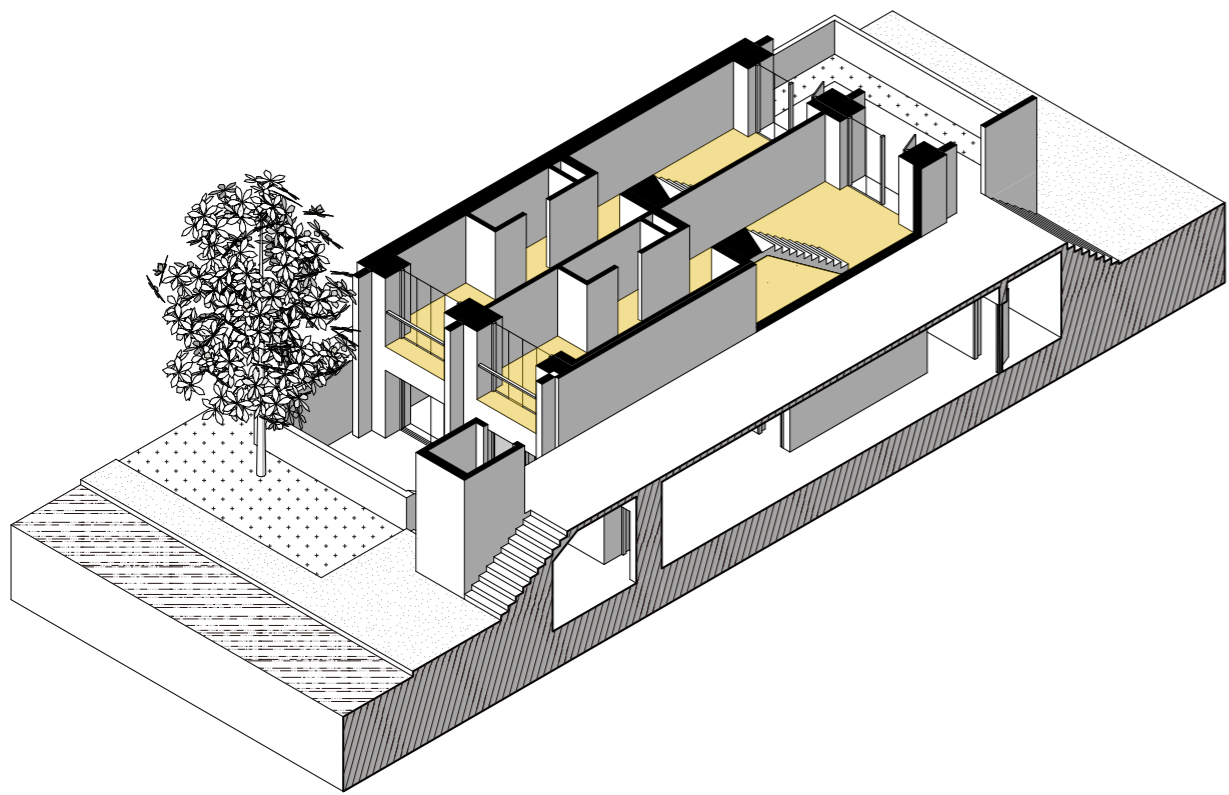


GF plan (original)

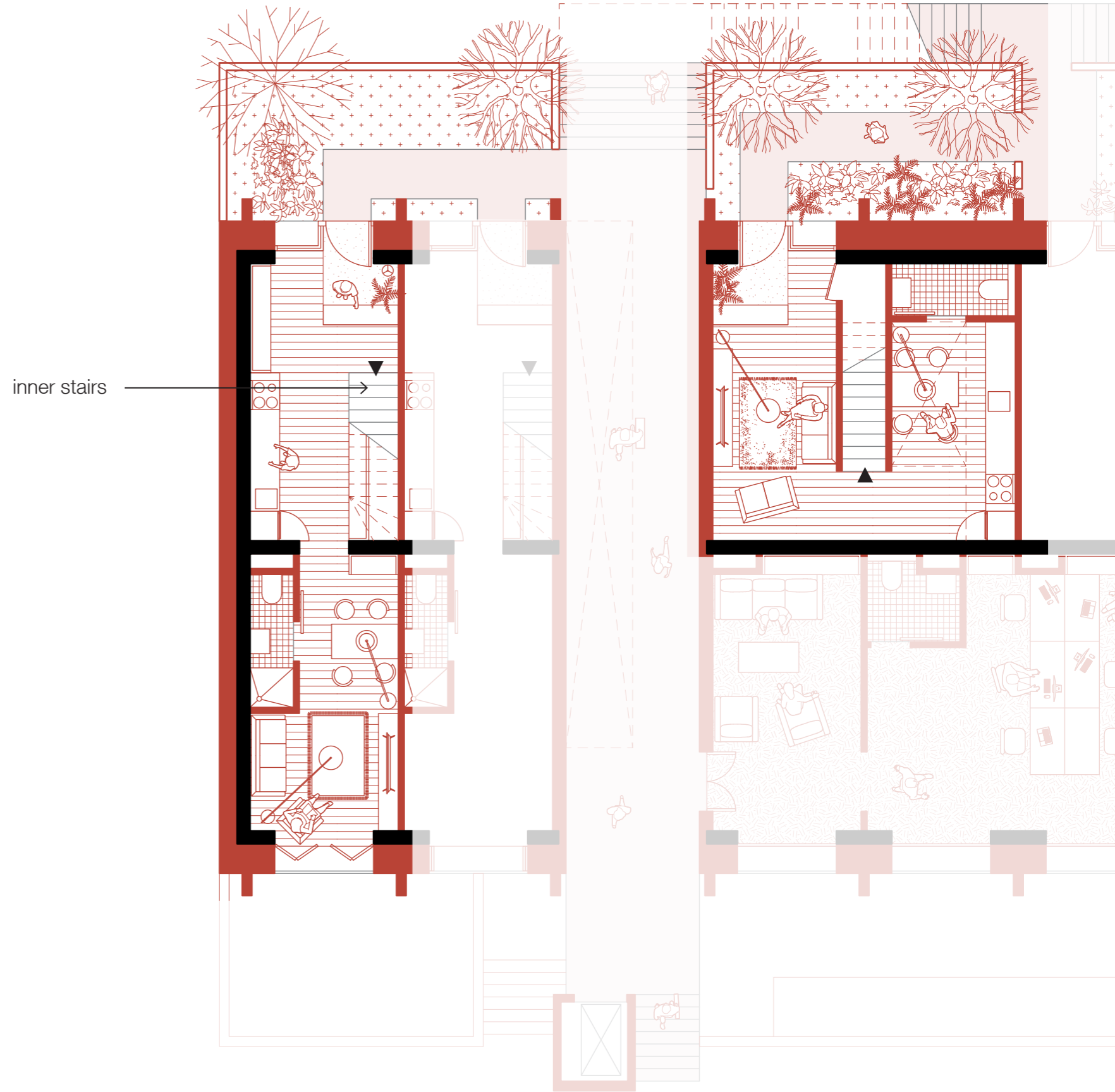
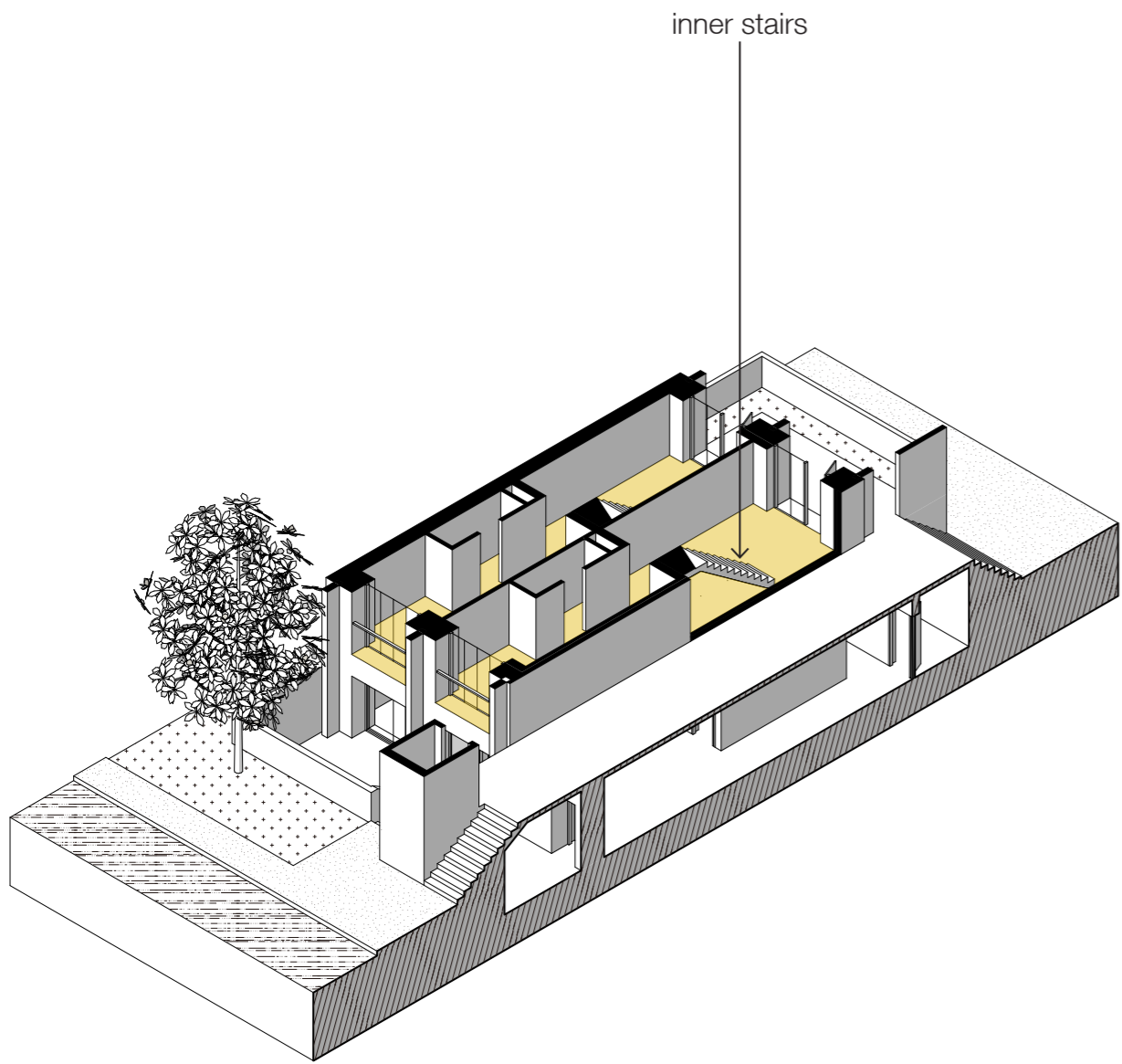
Proposal / Single House, Store, Office



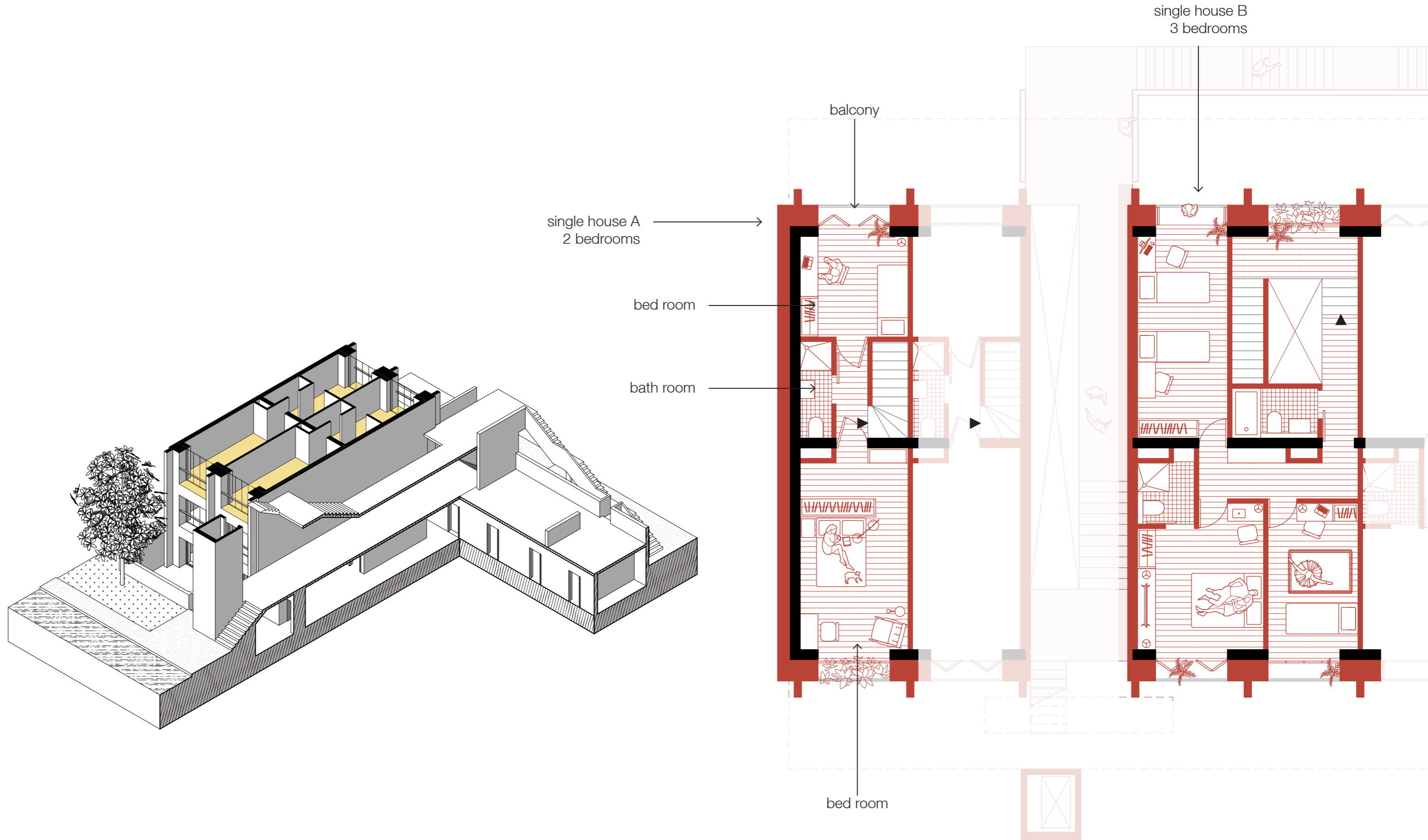




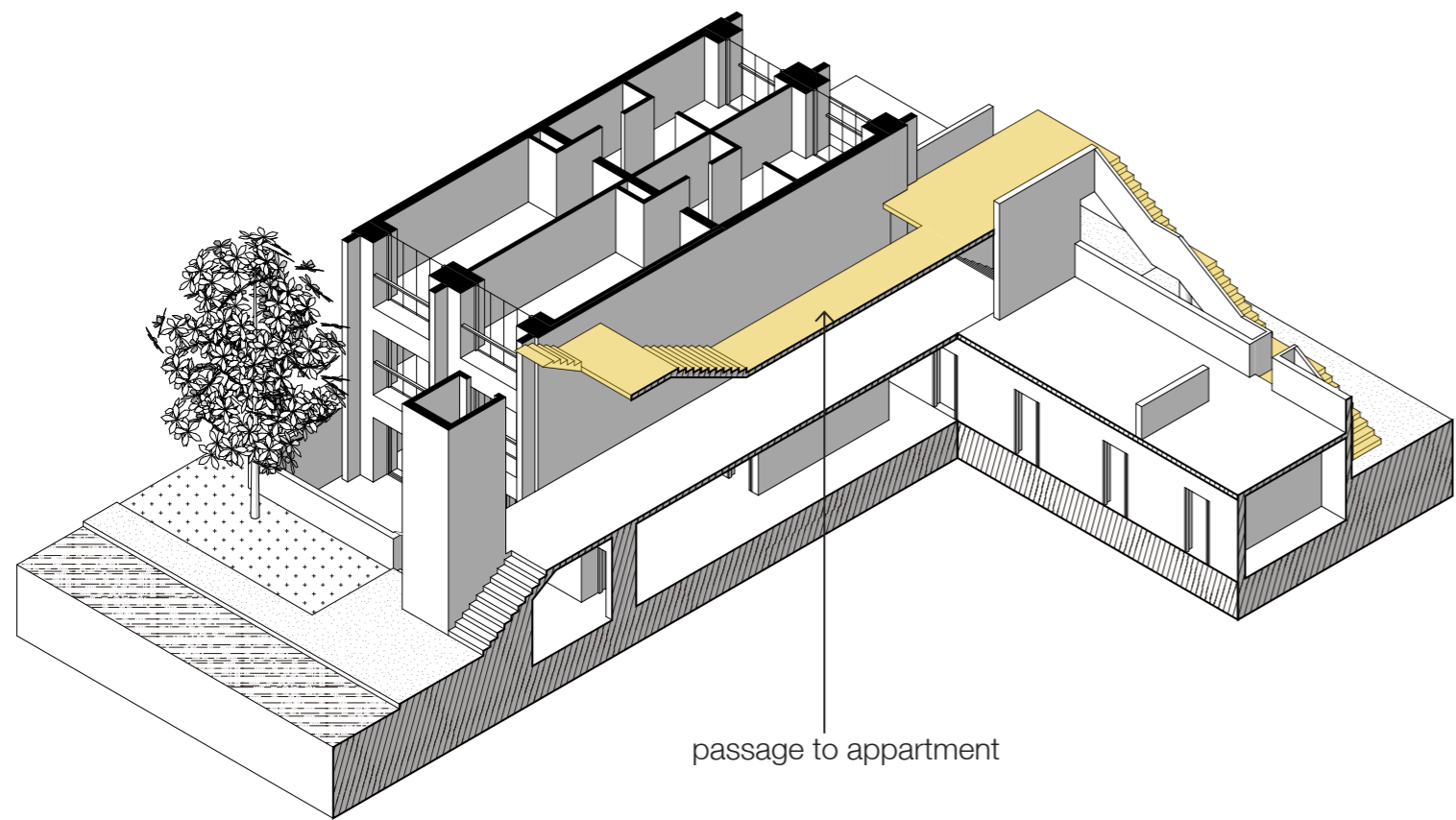
GF plan (new)



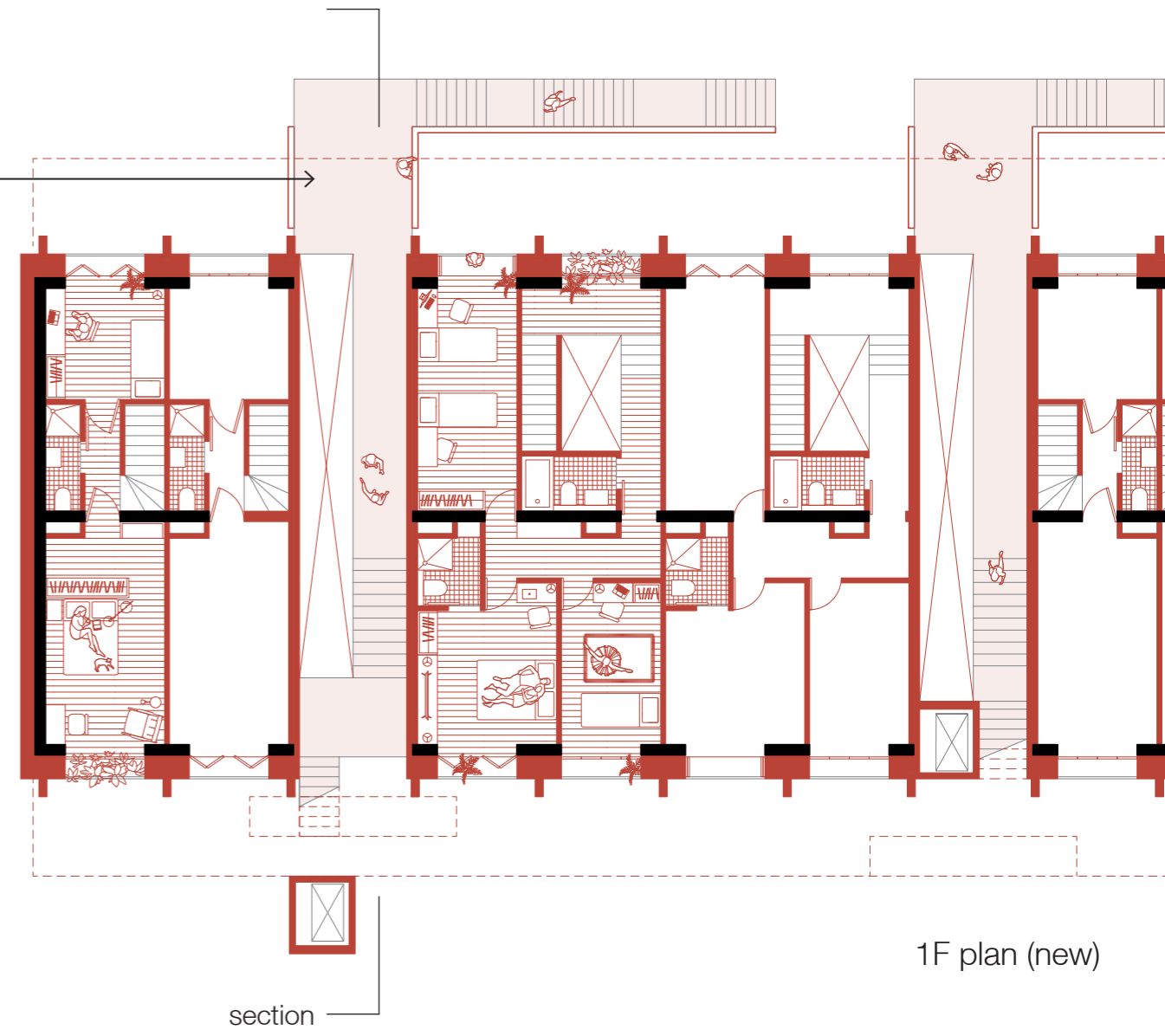
Proposal / Single House



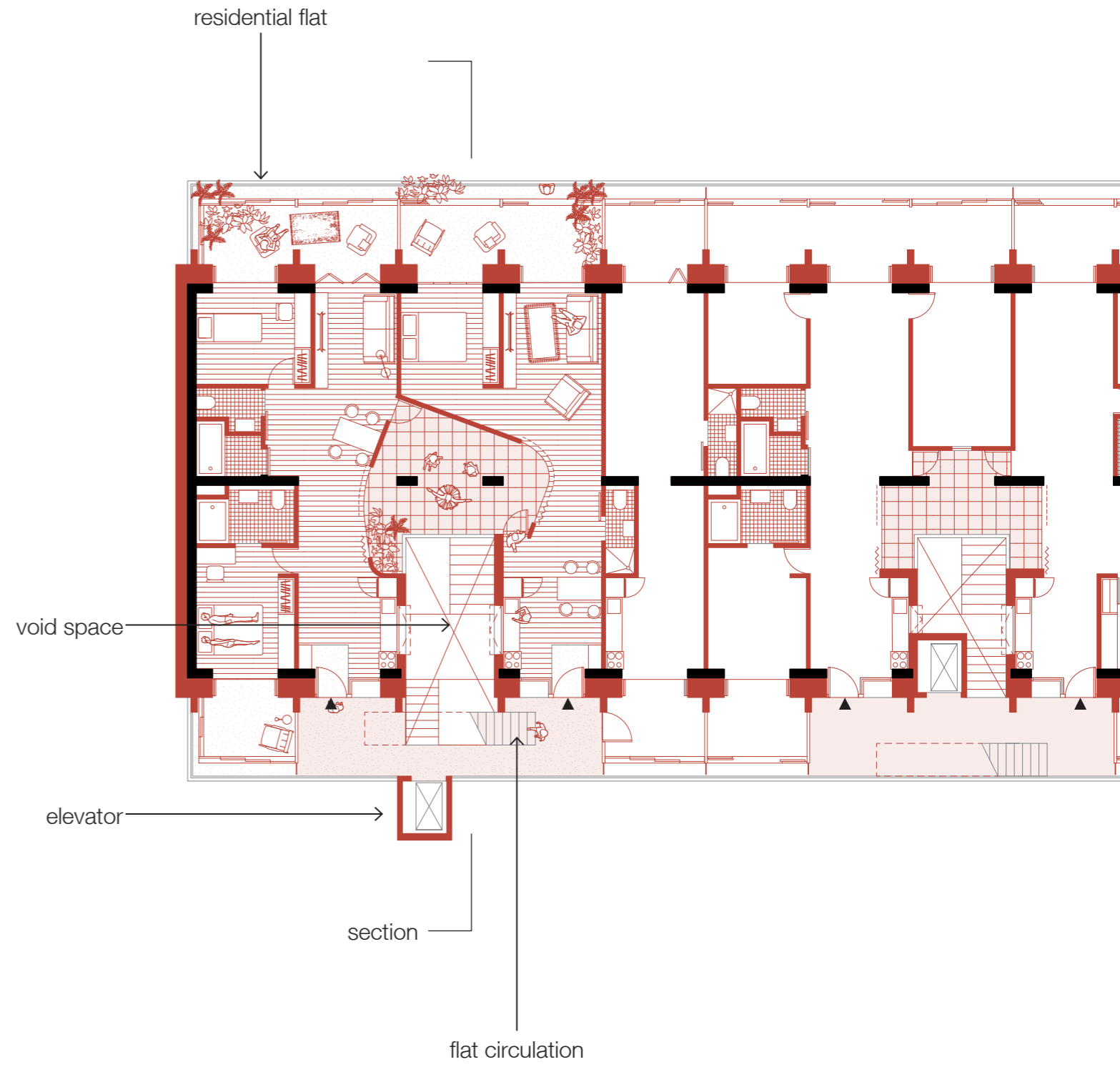
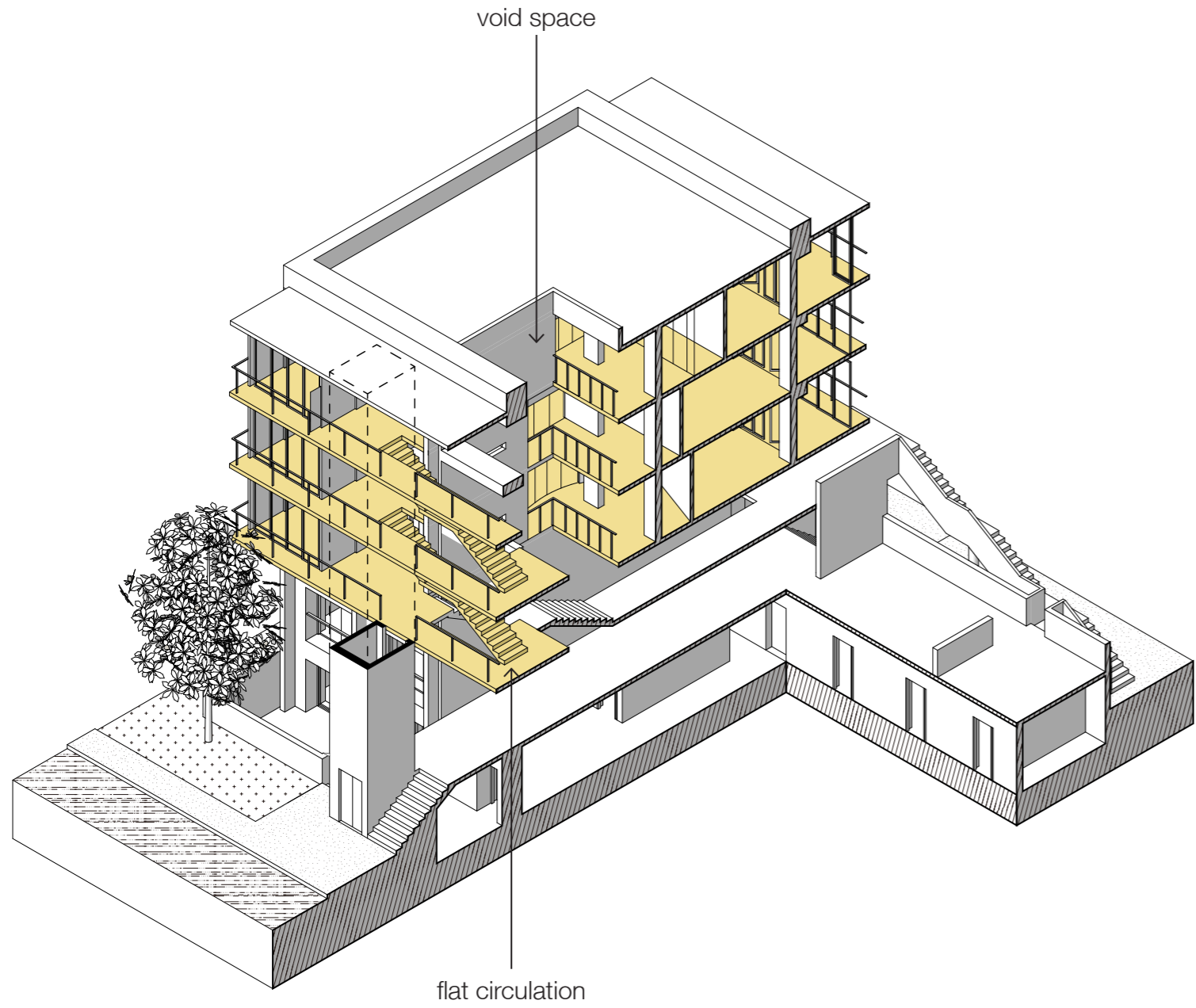
1F plan (new)

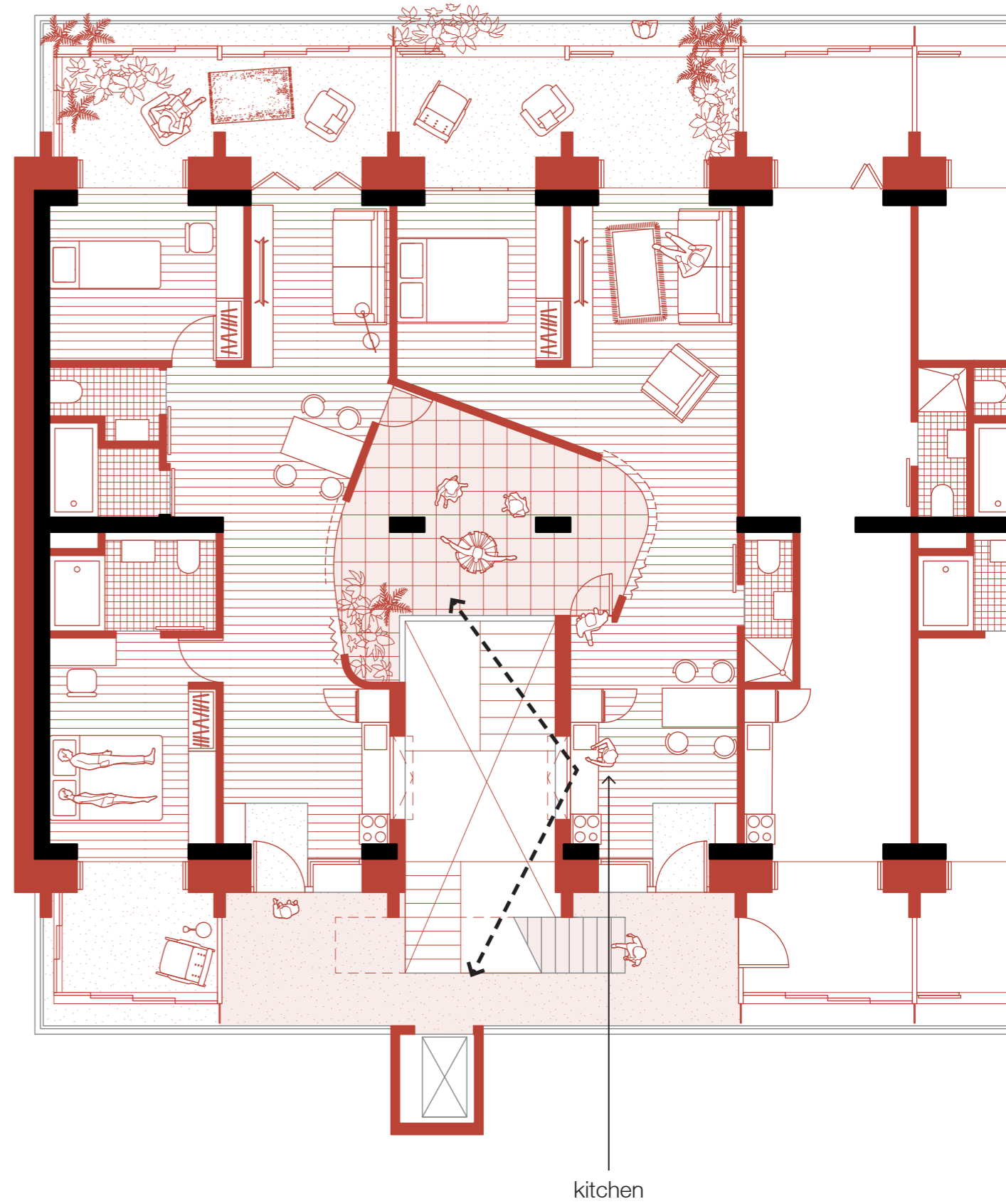
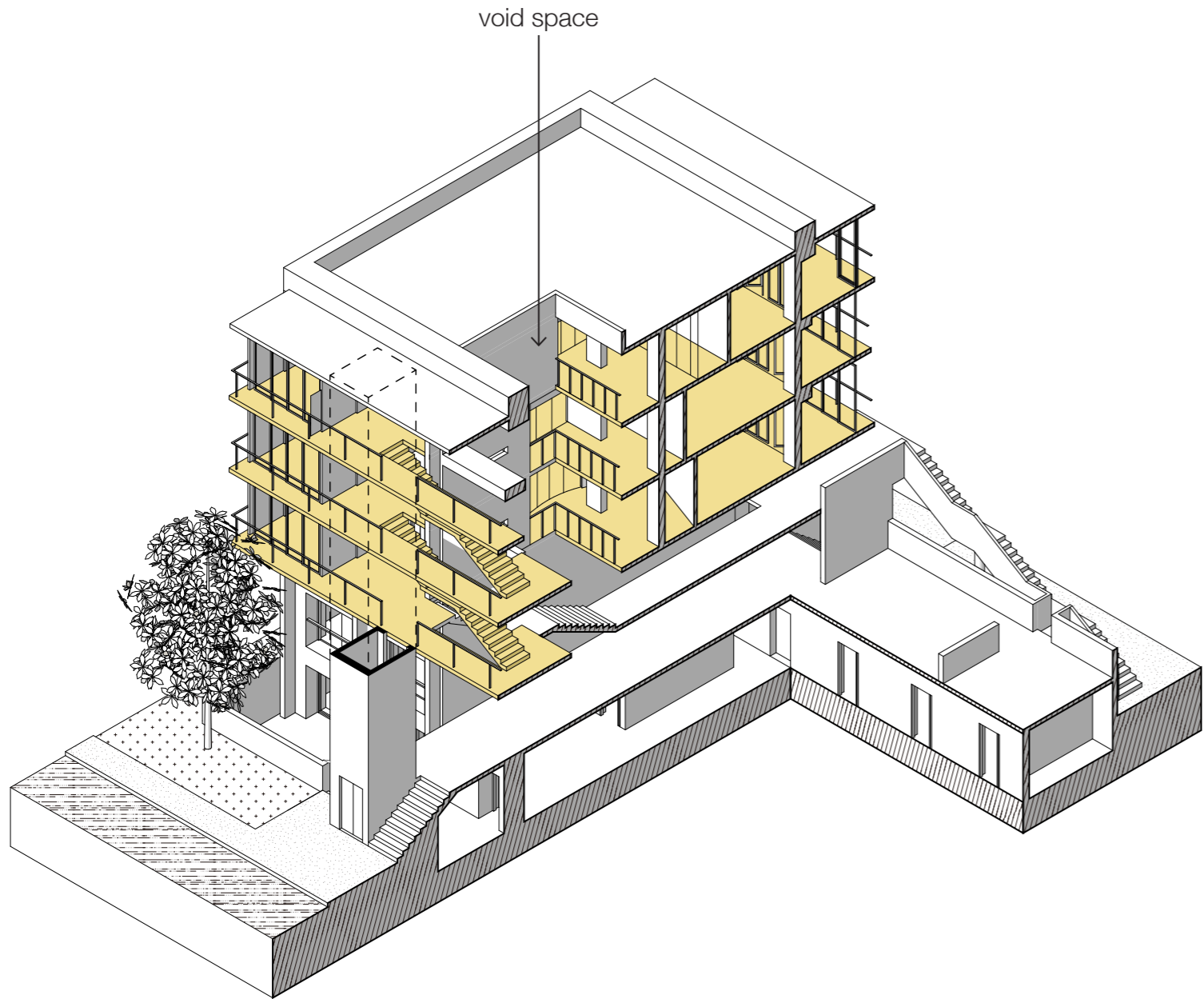


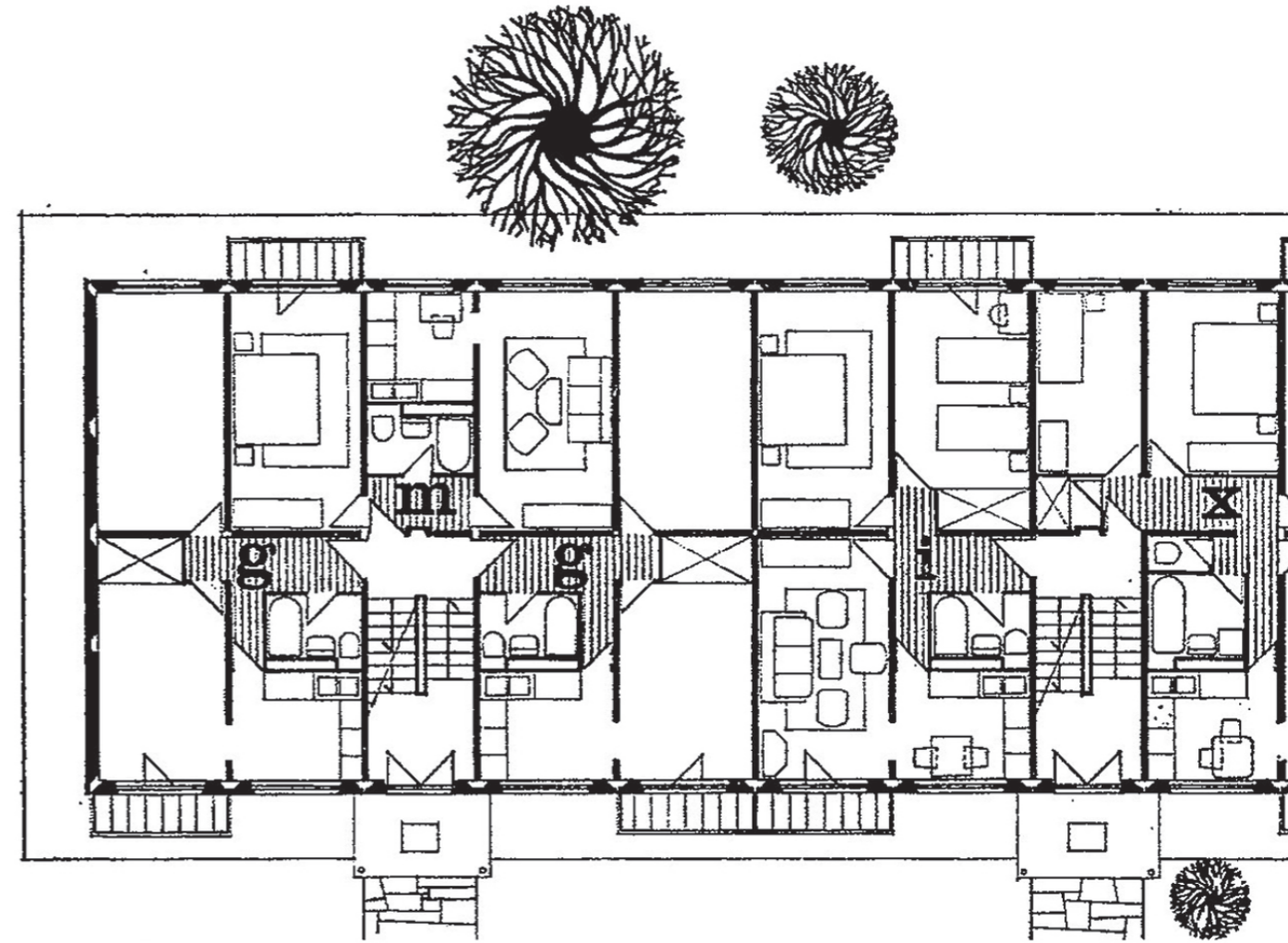
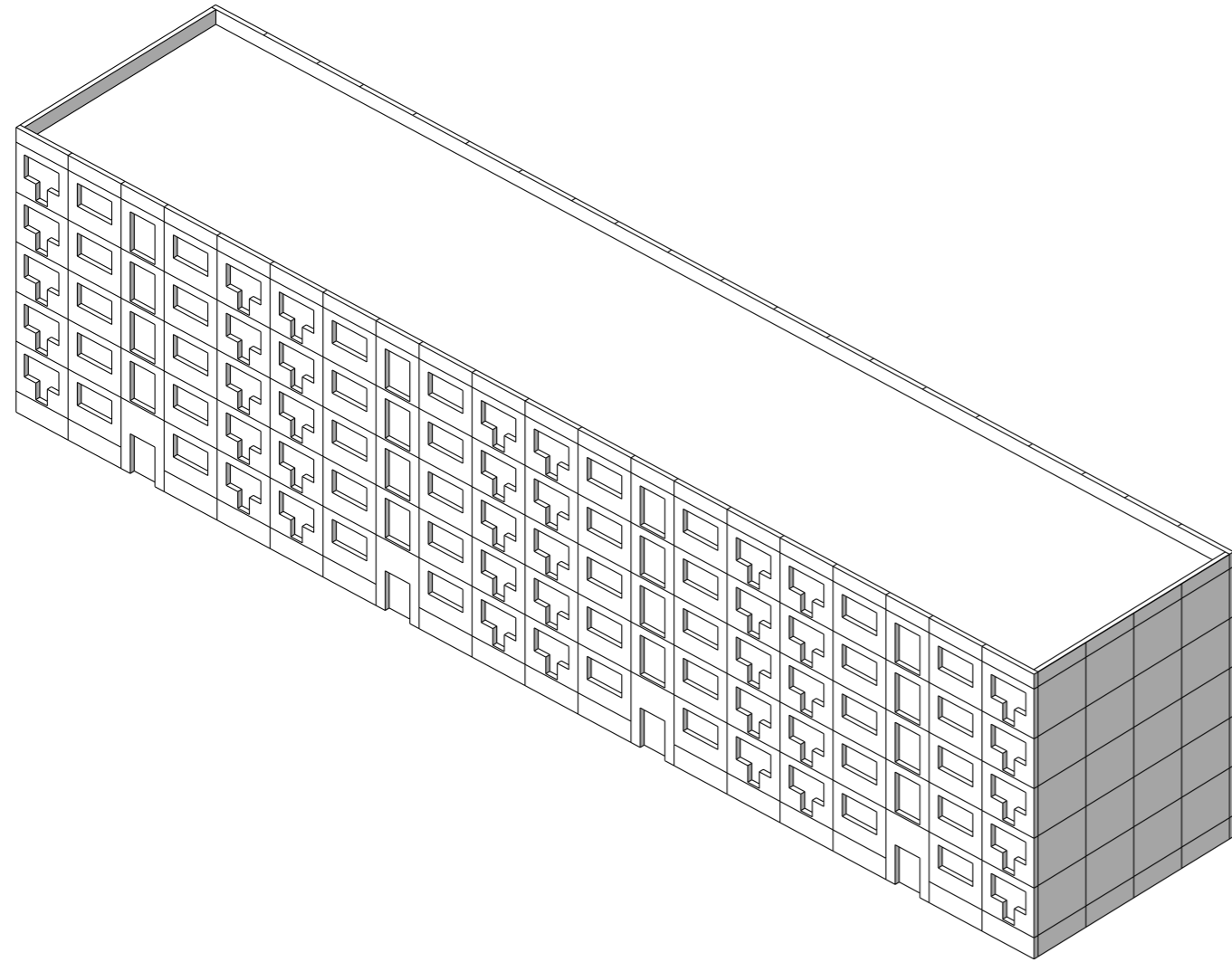
passage to apartment

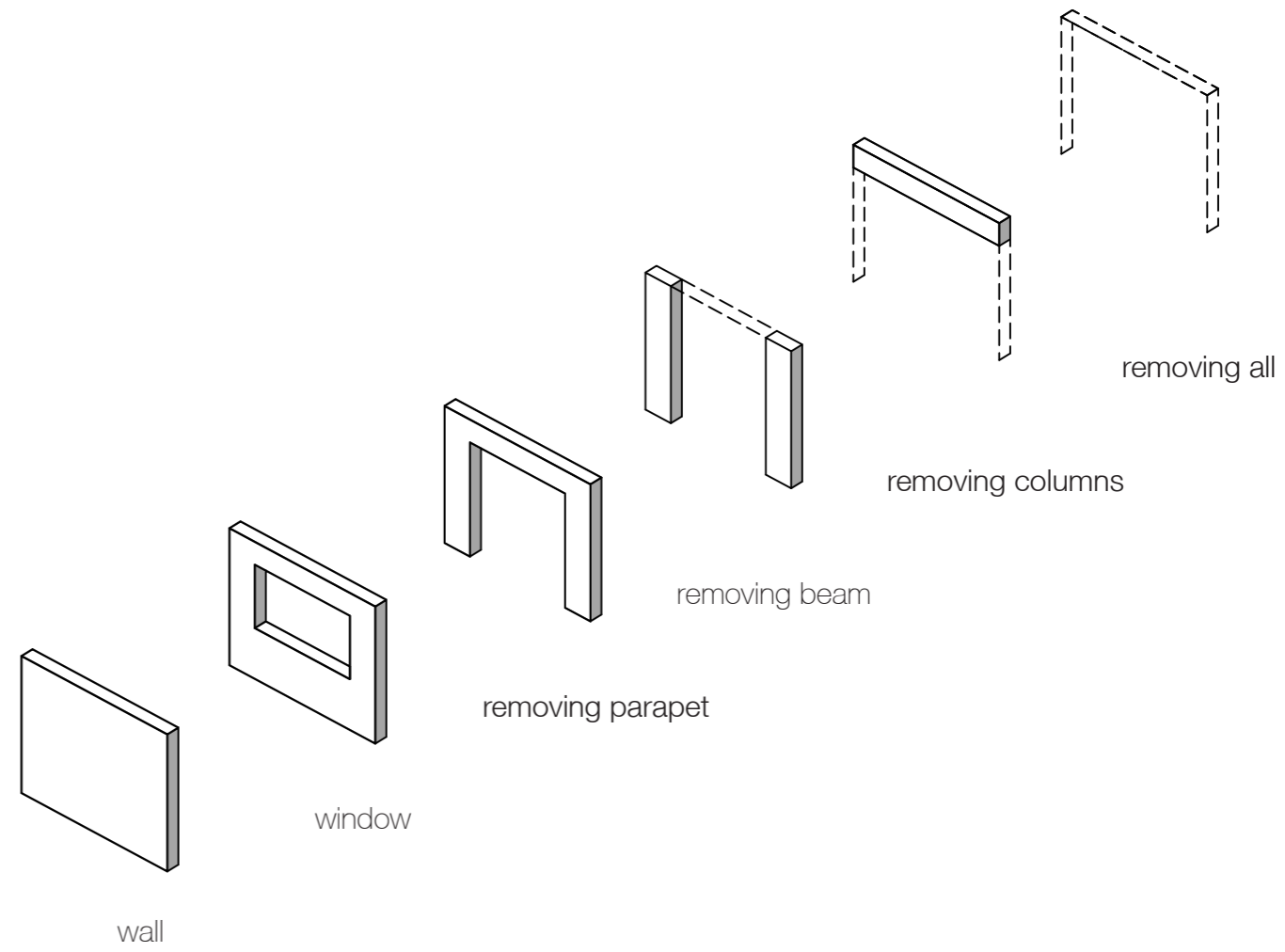
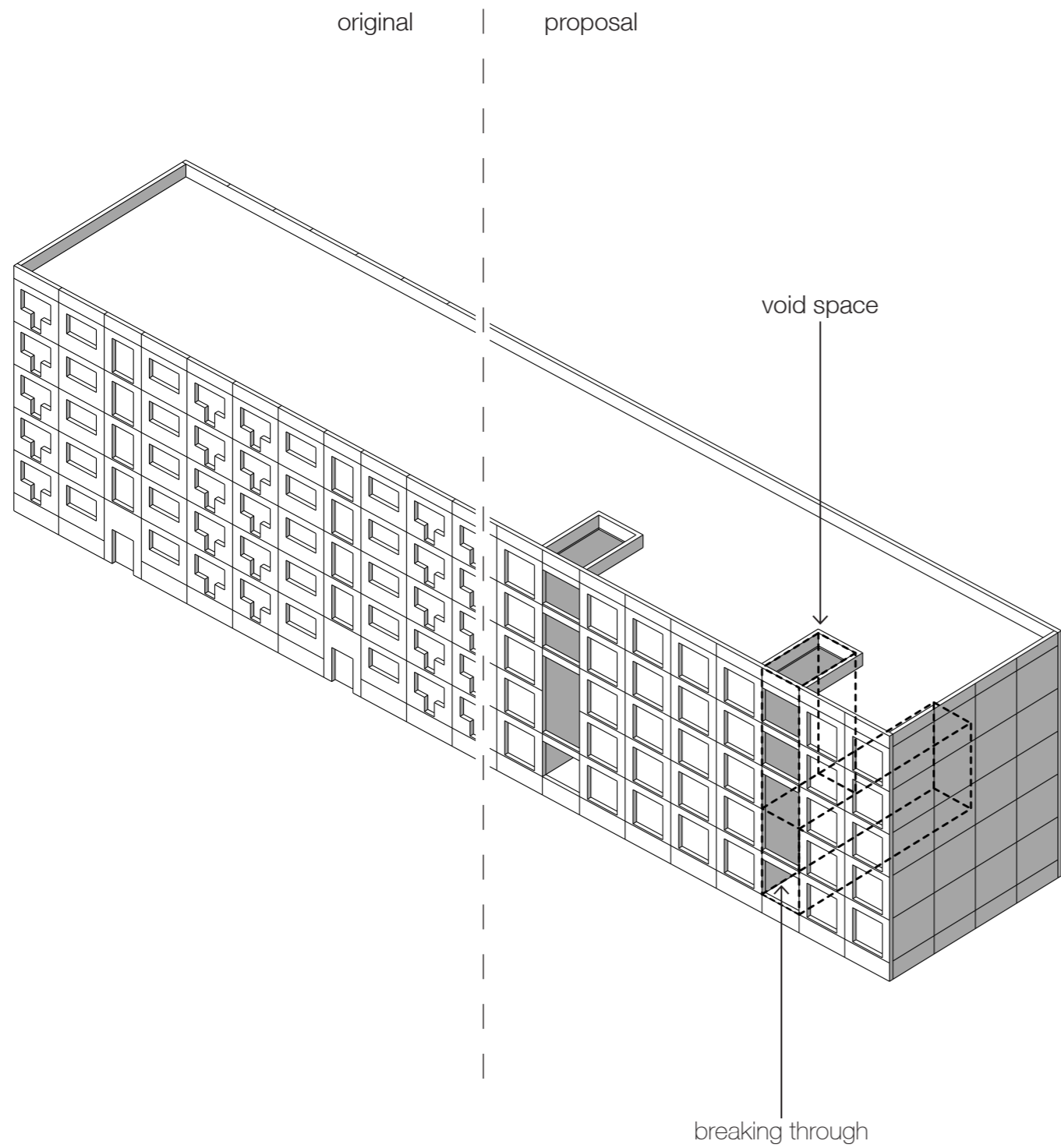


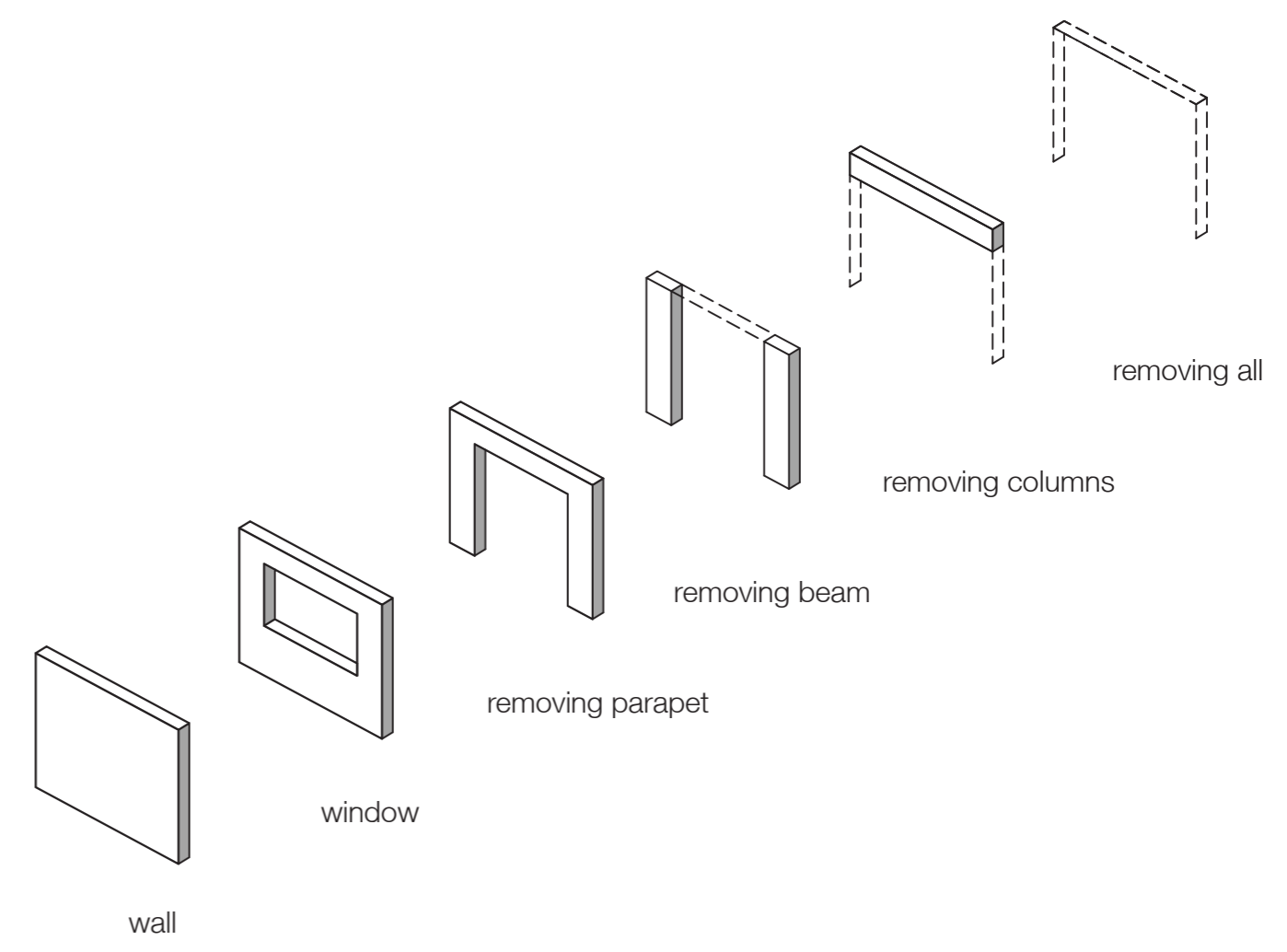
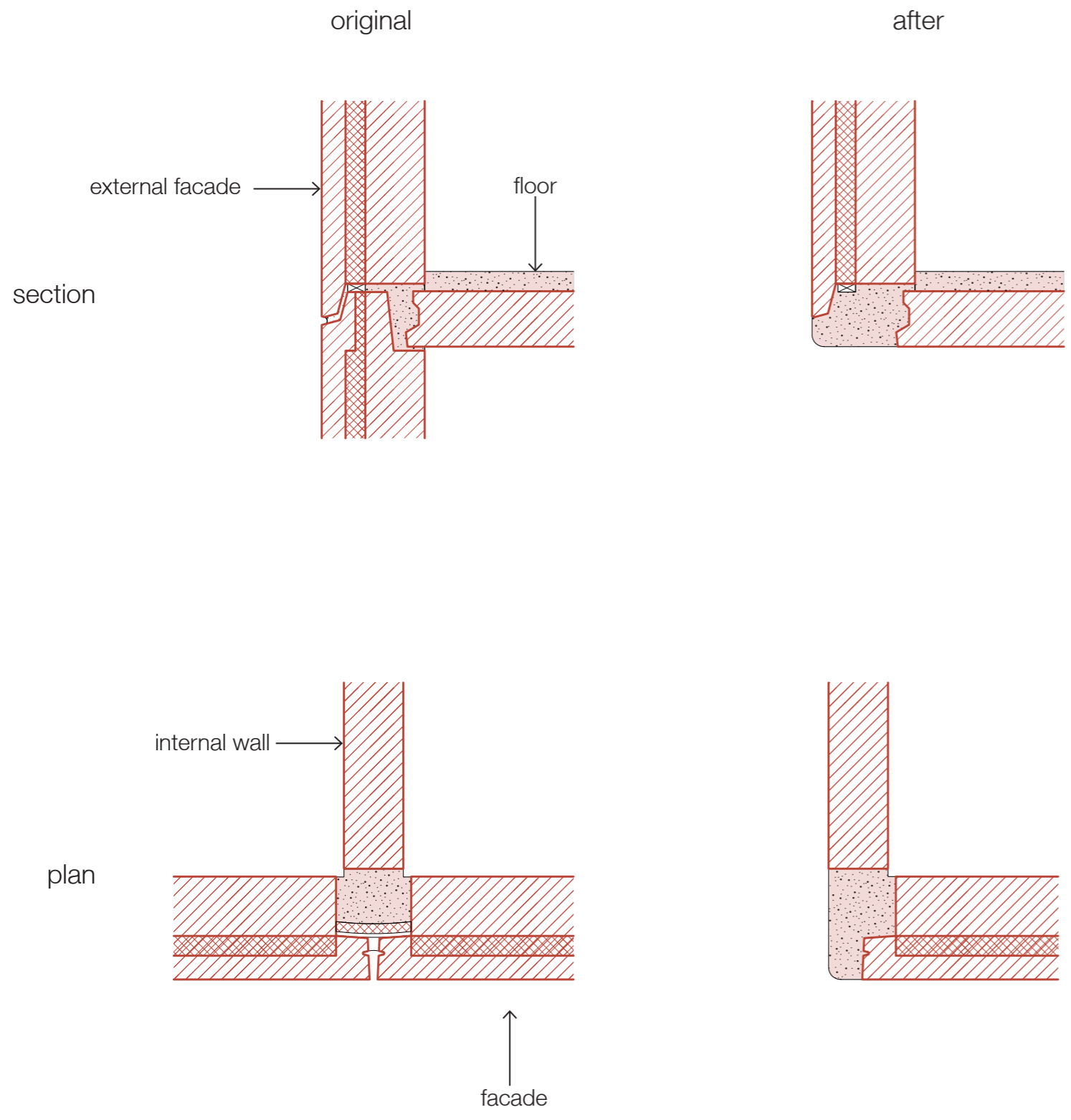
Proposal / Apartment

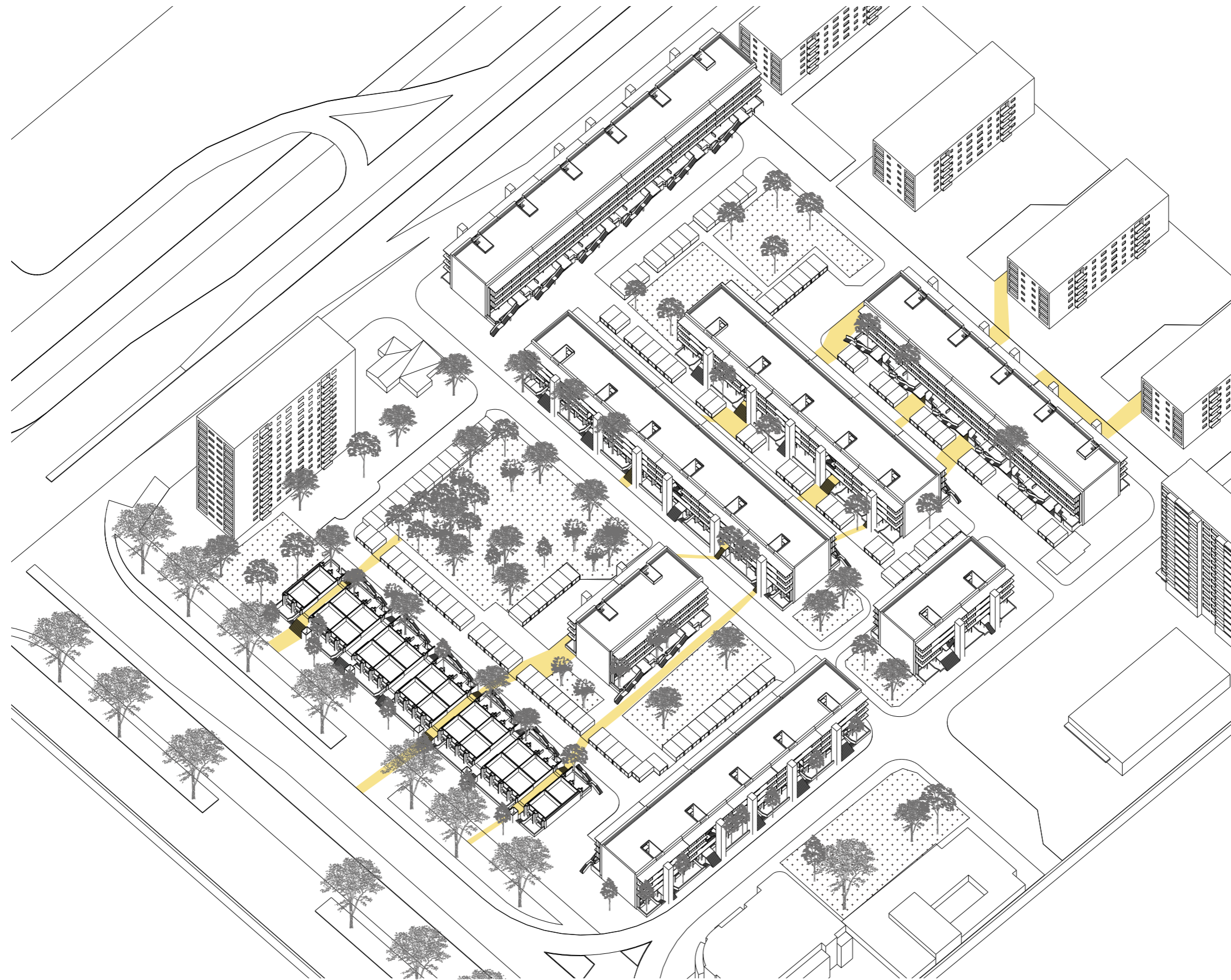




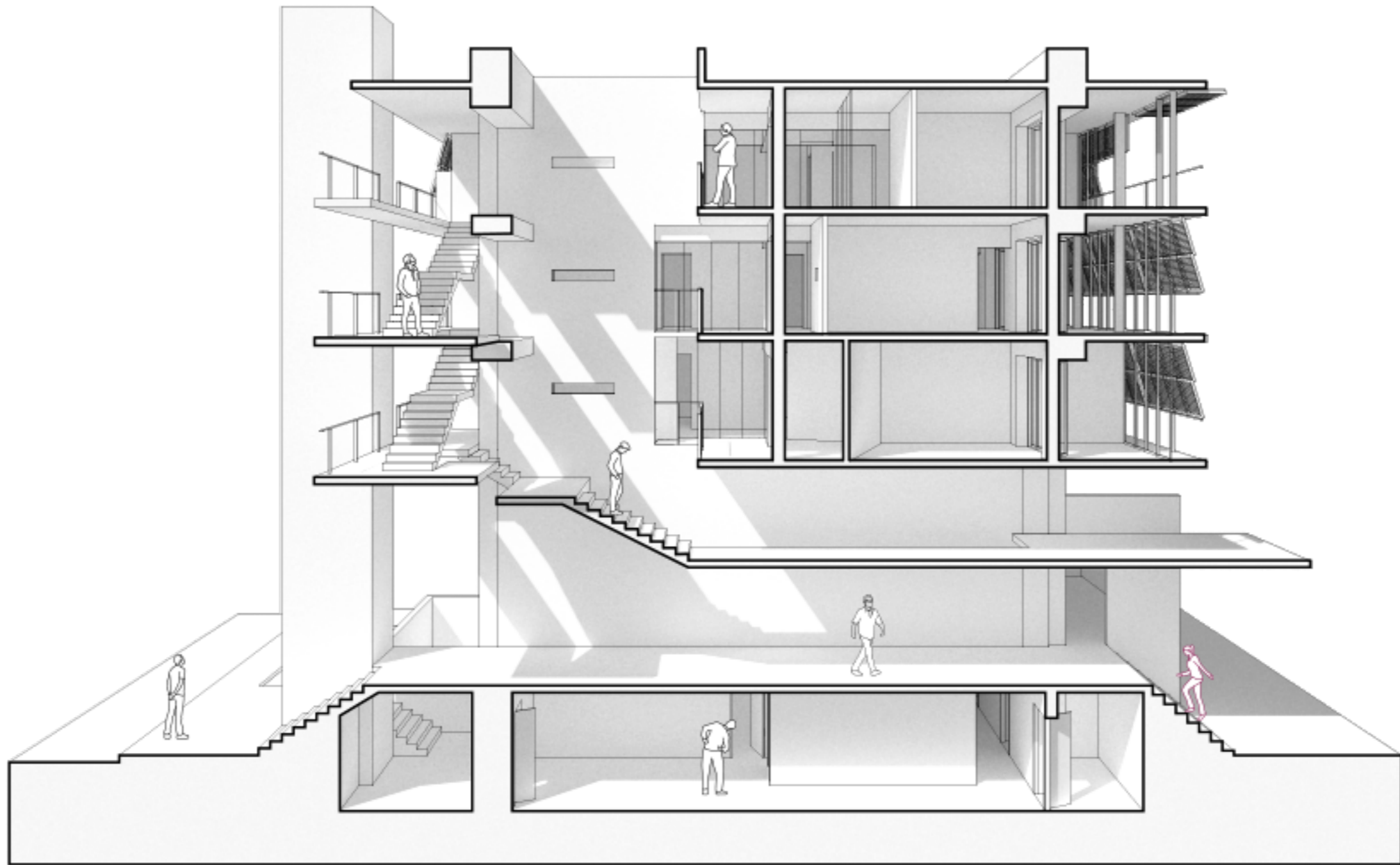




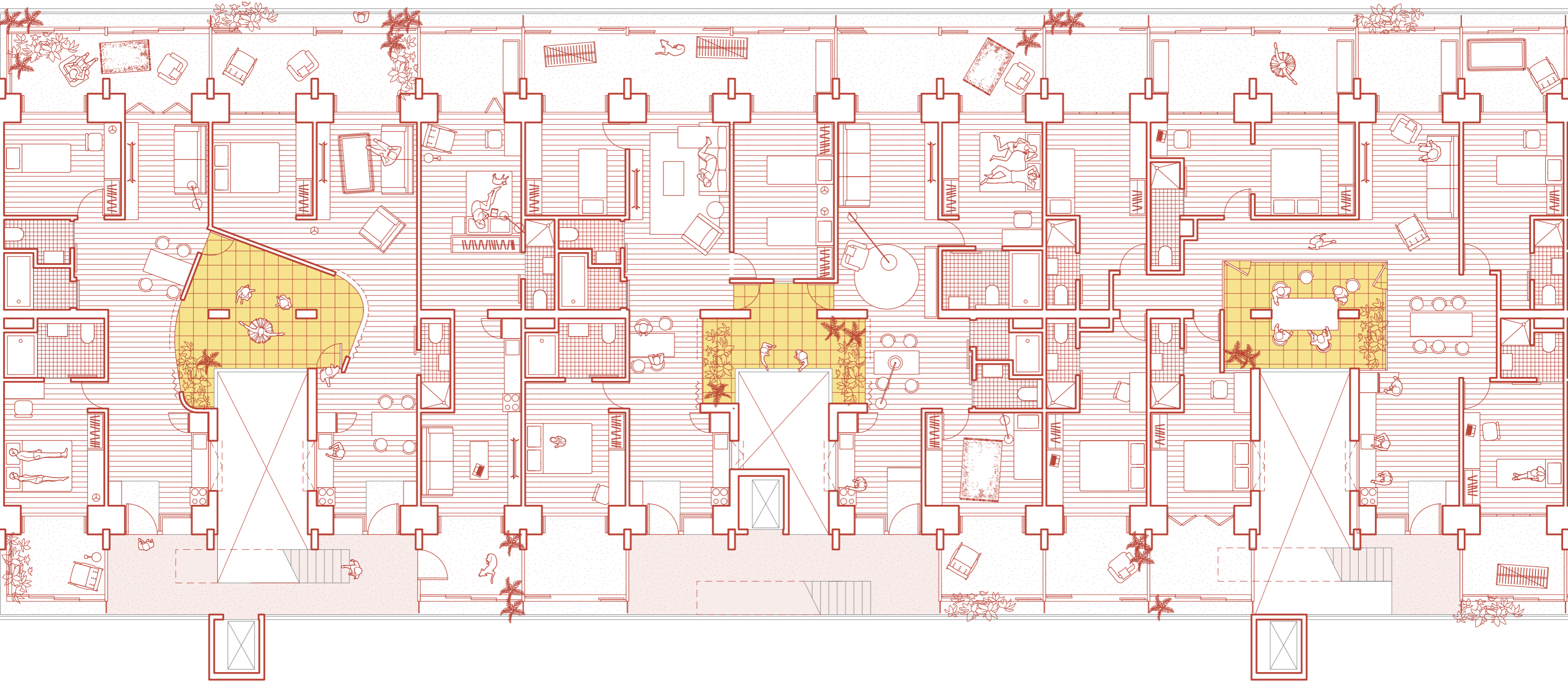








3 Types of the Internal Balcony

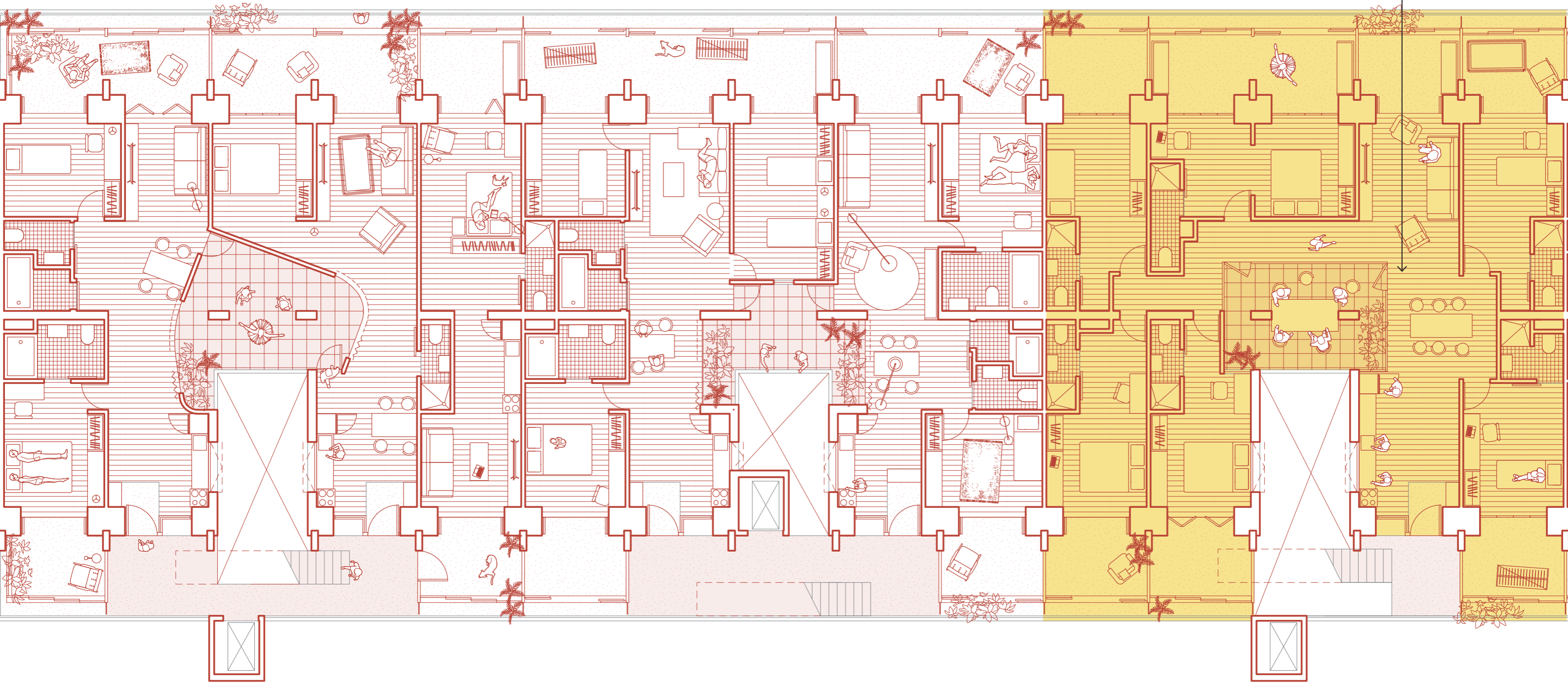


Curvy

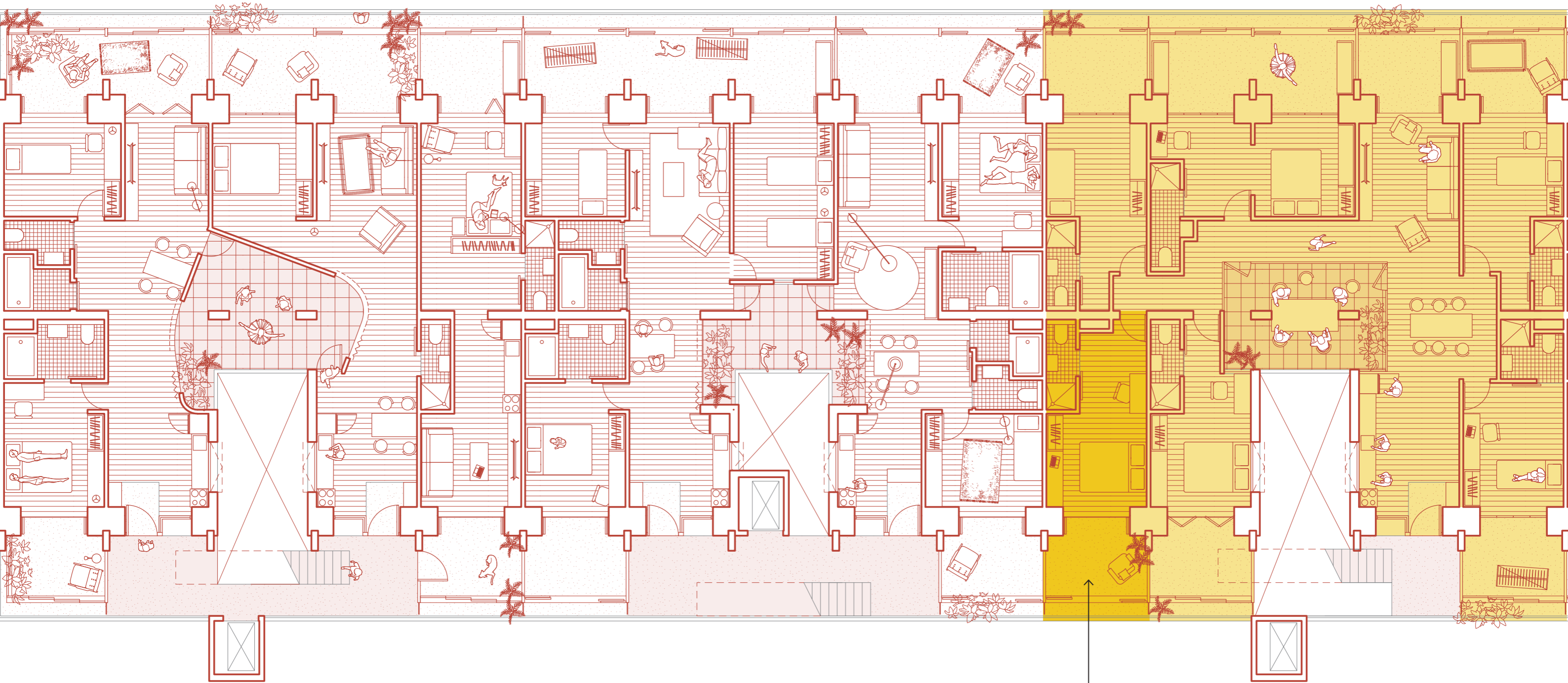
Symmetrical

Freely open

common spaces

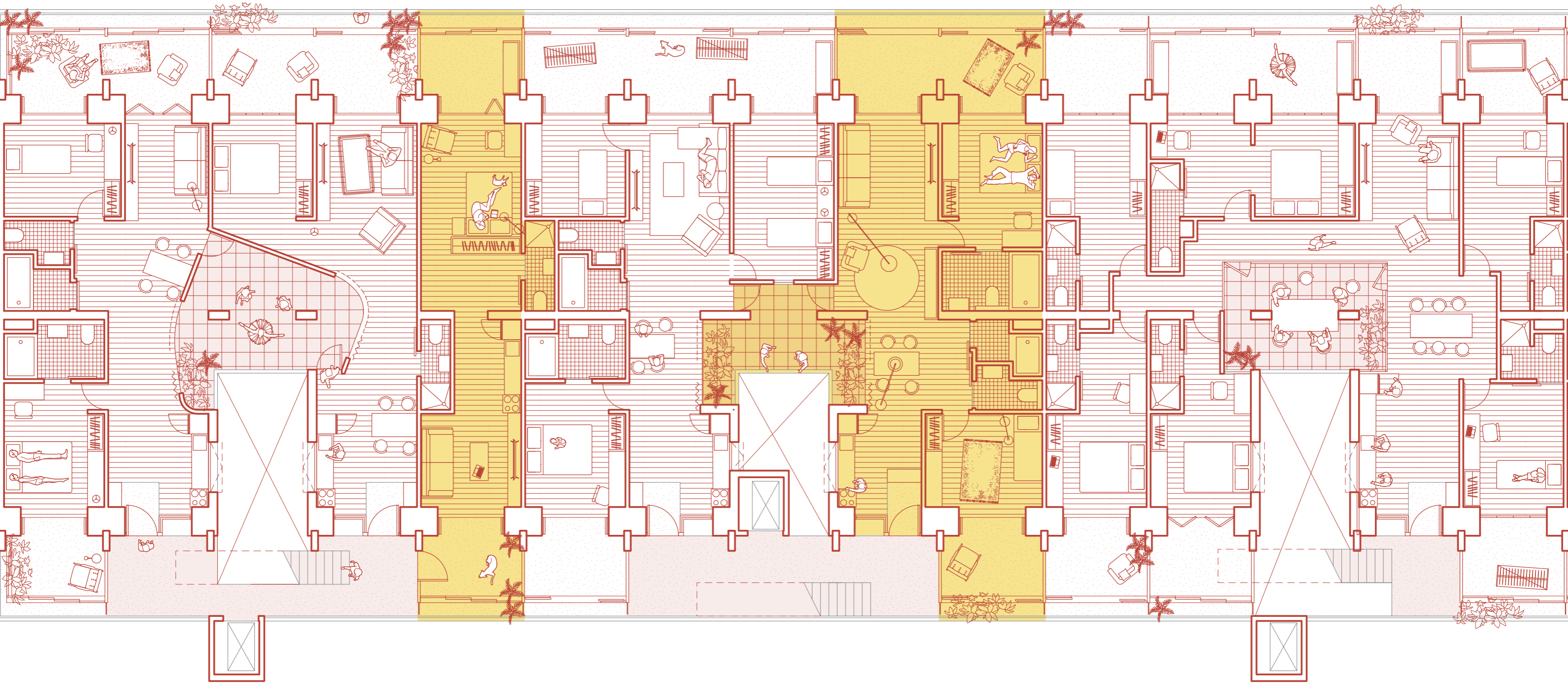


Studios



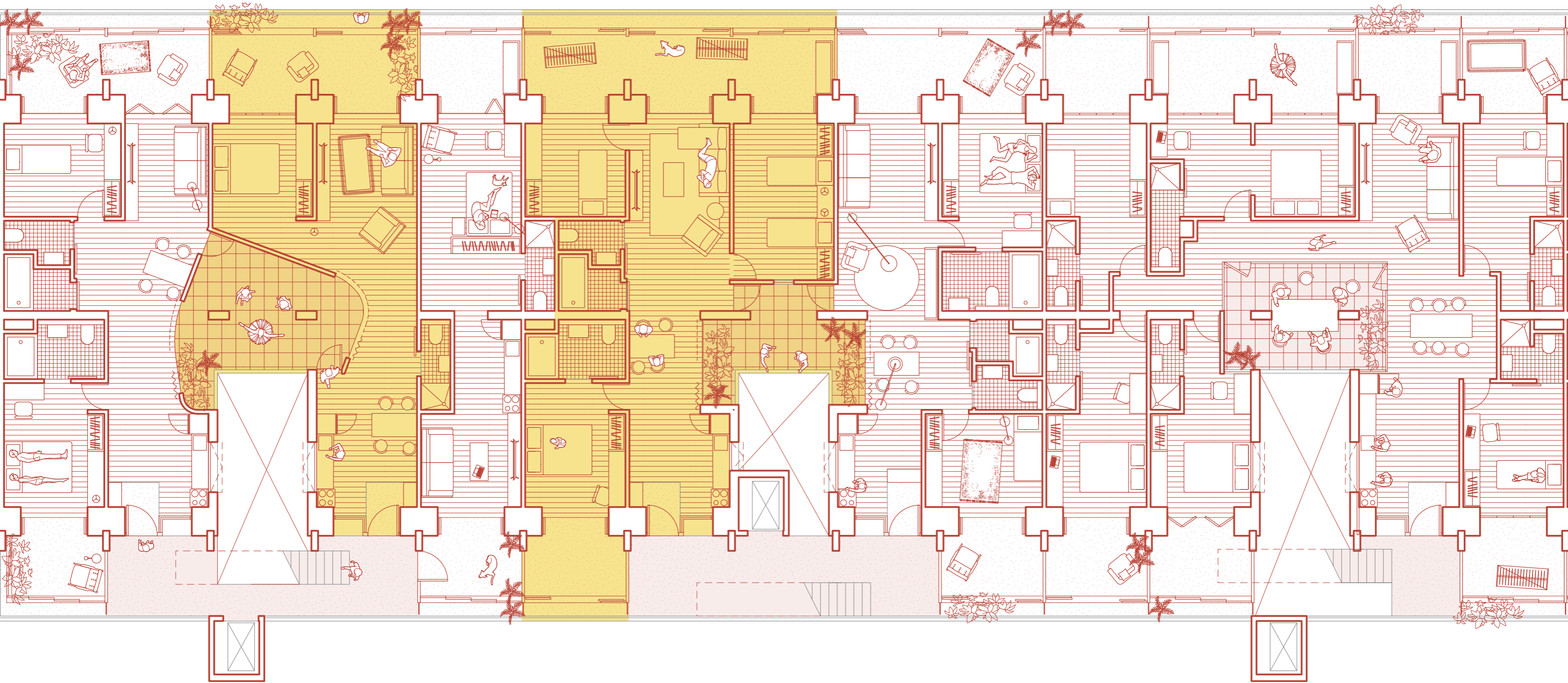
one unit

Studios



Single Studio

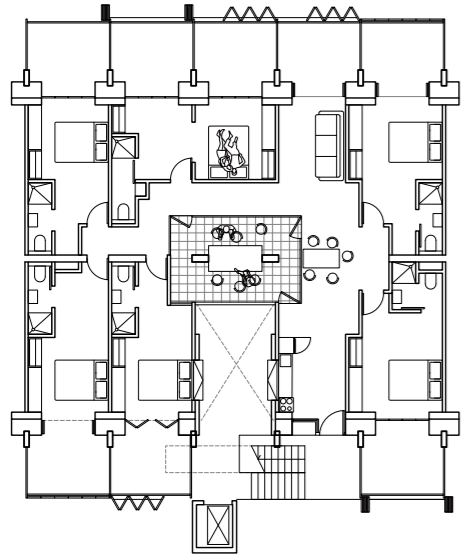
2 Bedrooms flat



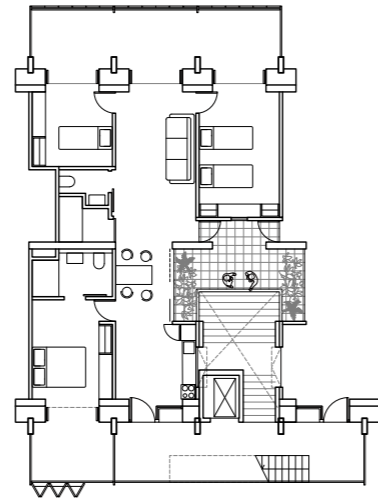
1 Bedroom flat

3 Bedrooms flat

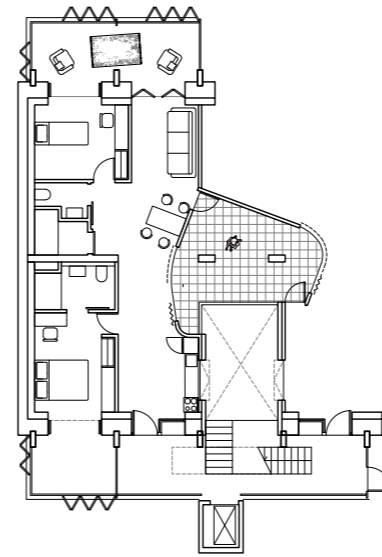
Housing Types



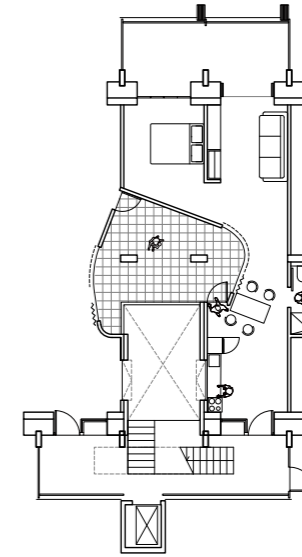
Studio / 6p
/ 27m2 & 246m2



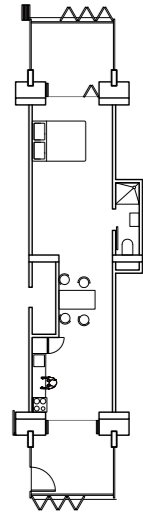
3 Bedrooms flat
/ 136 m2



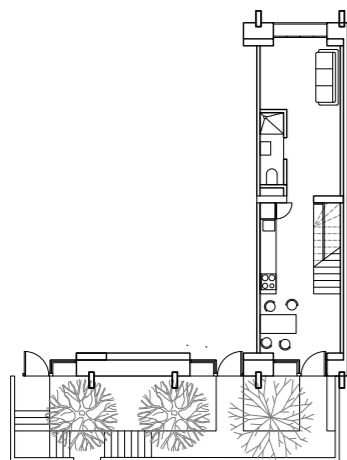
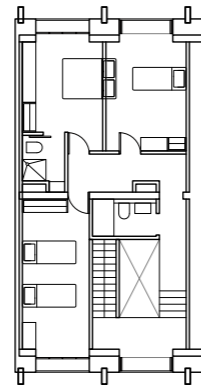
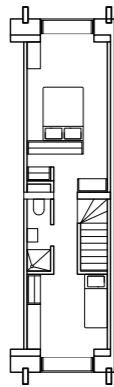
2 Bedrooms flat
/ 123 m2



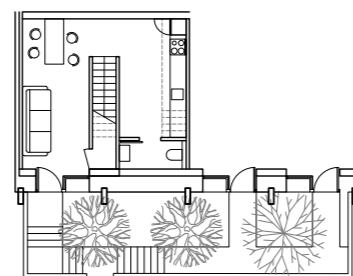
1 Bedrooms flat
/ 89 m2



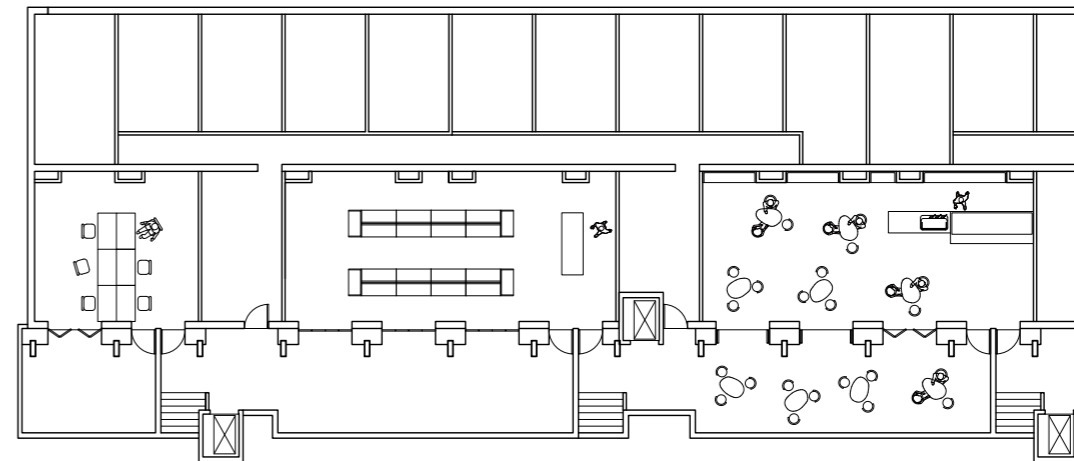
Single studio
/ 56 m2



Single house
(2 bedrooms)
/ 125 m2



Single house
(3 bedrooms)
/ 168m2

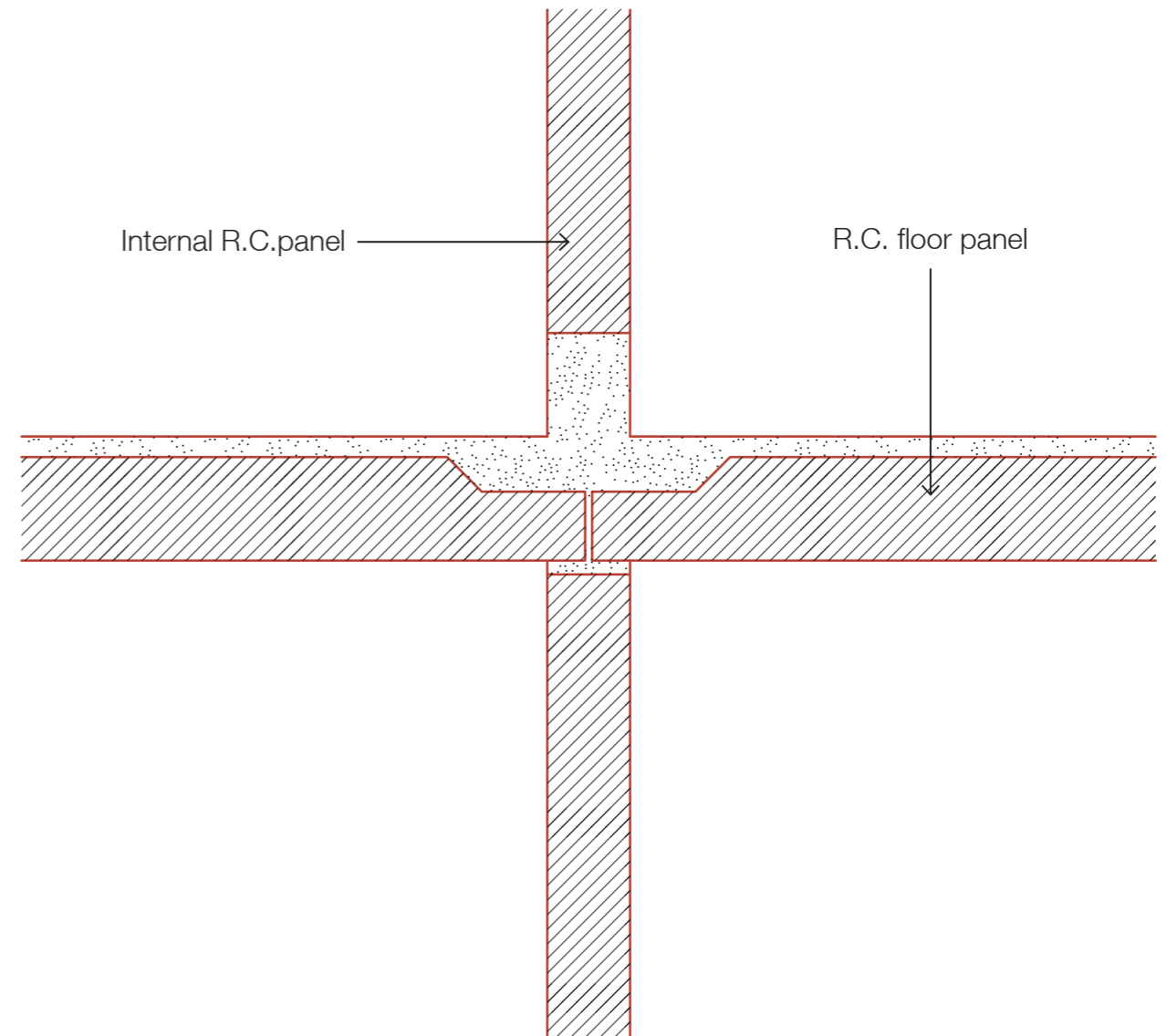
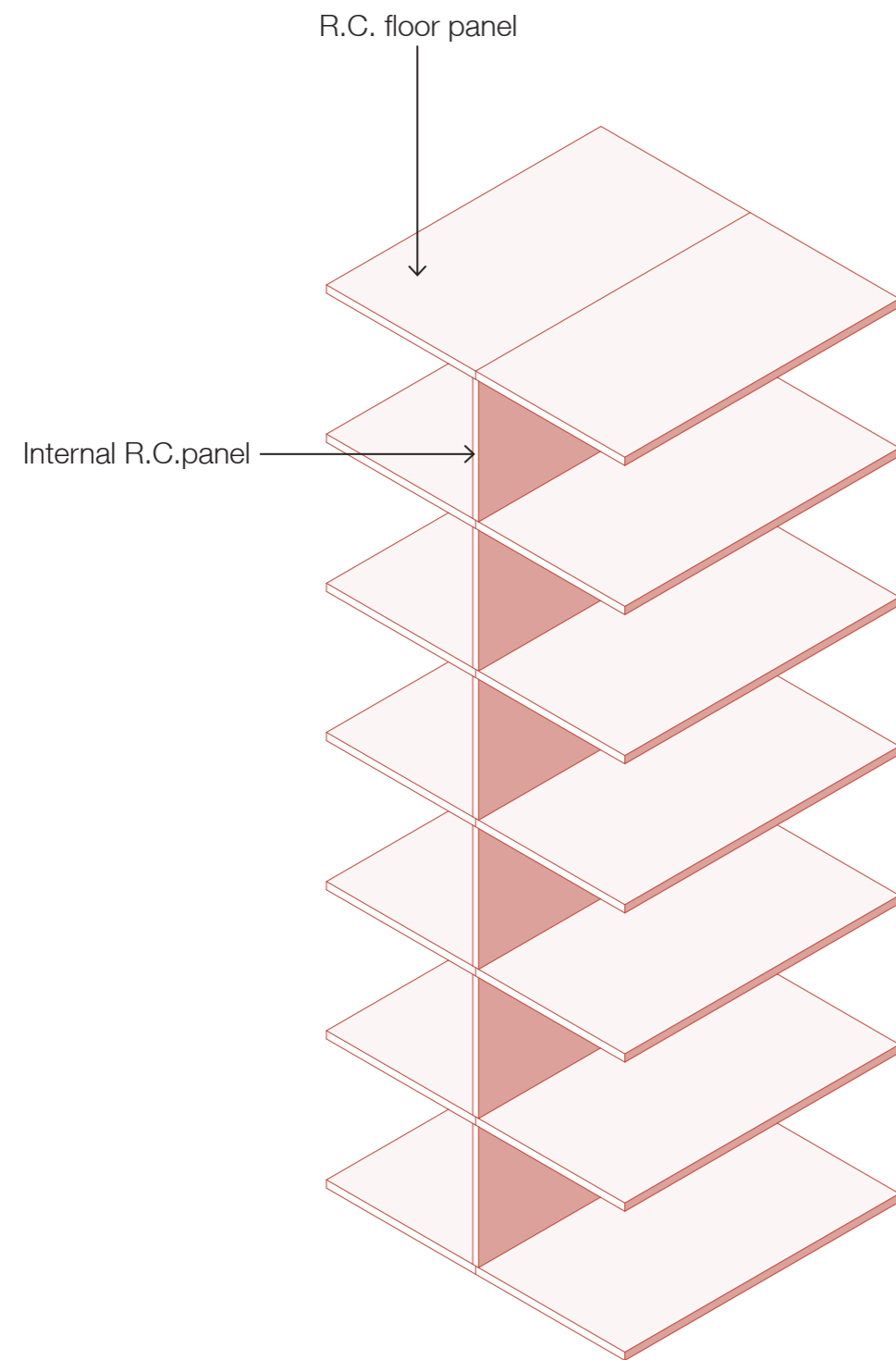


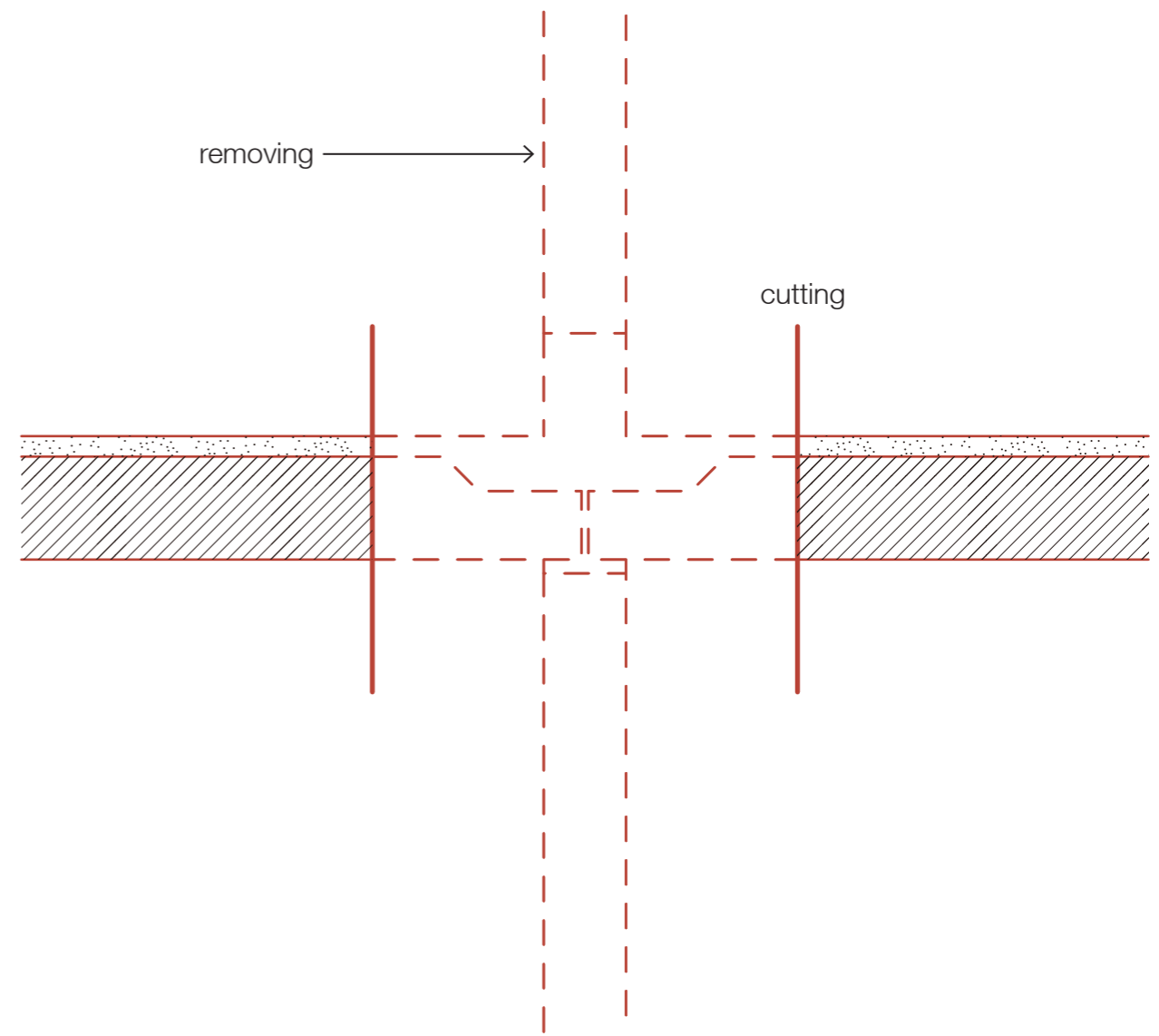
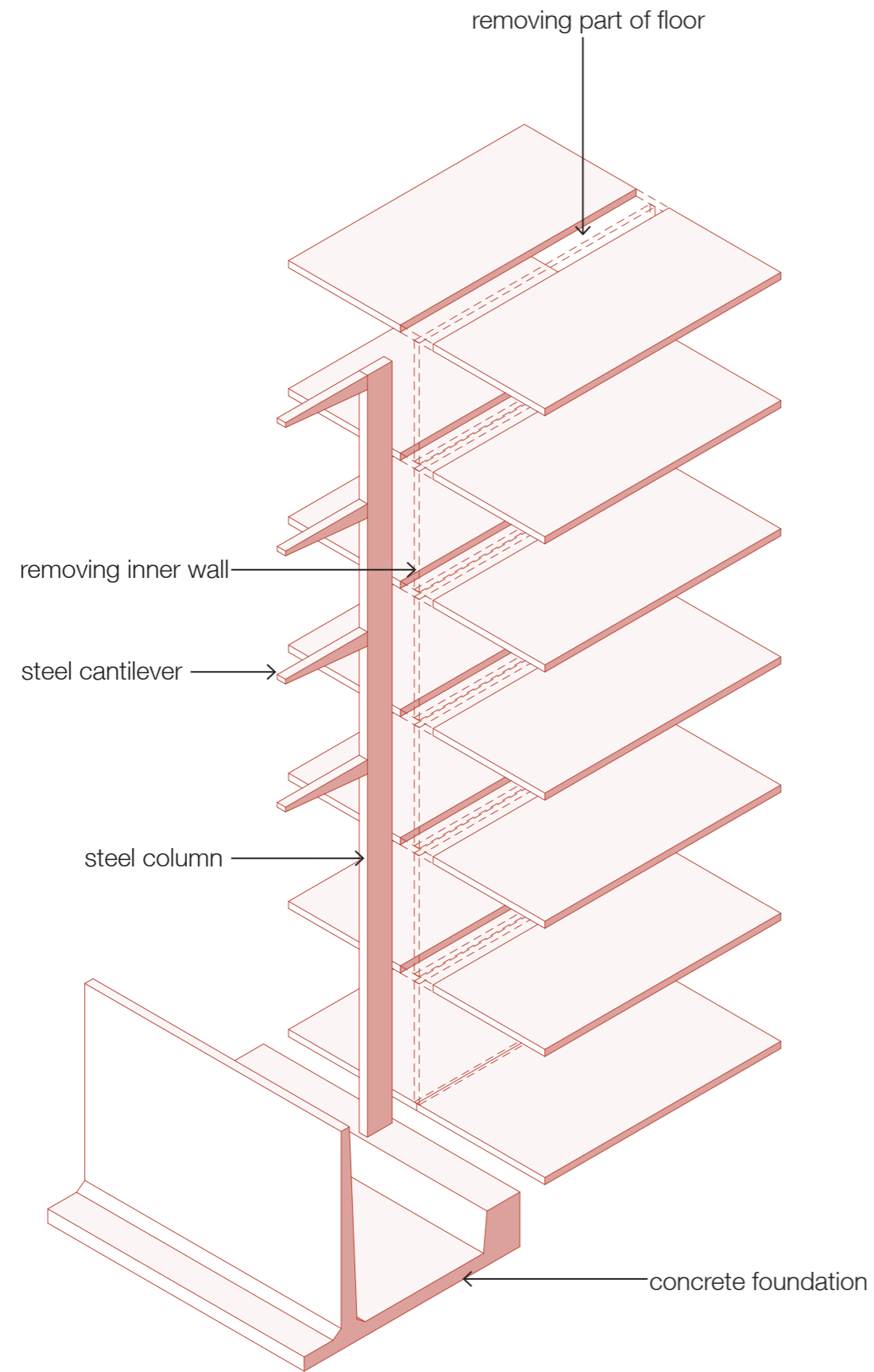
office & store

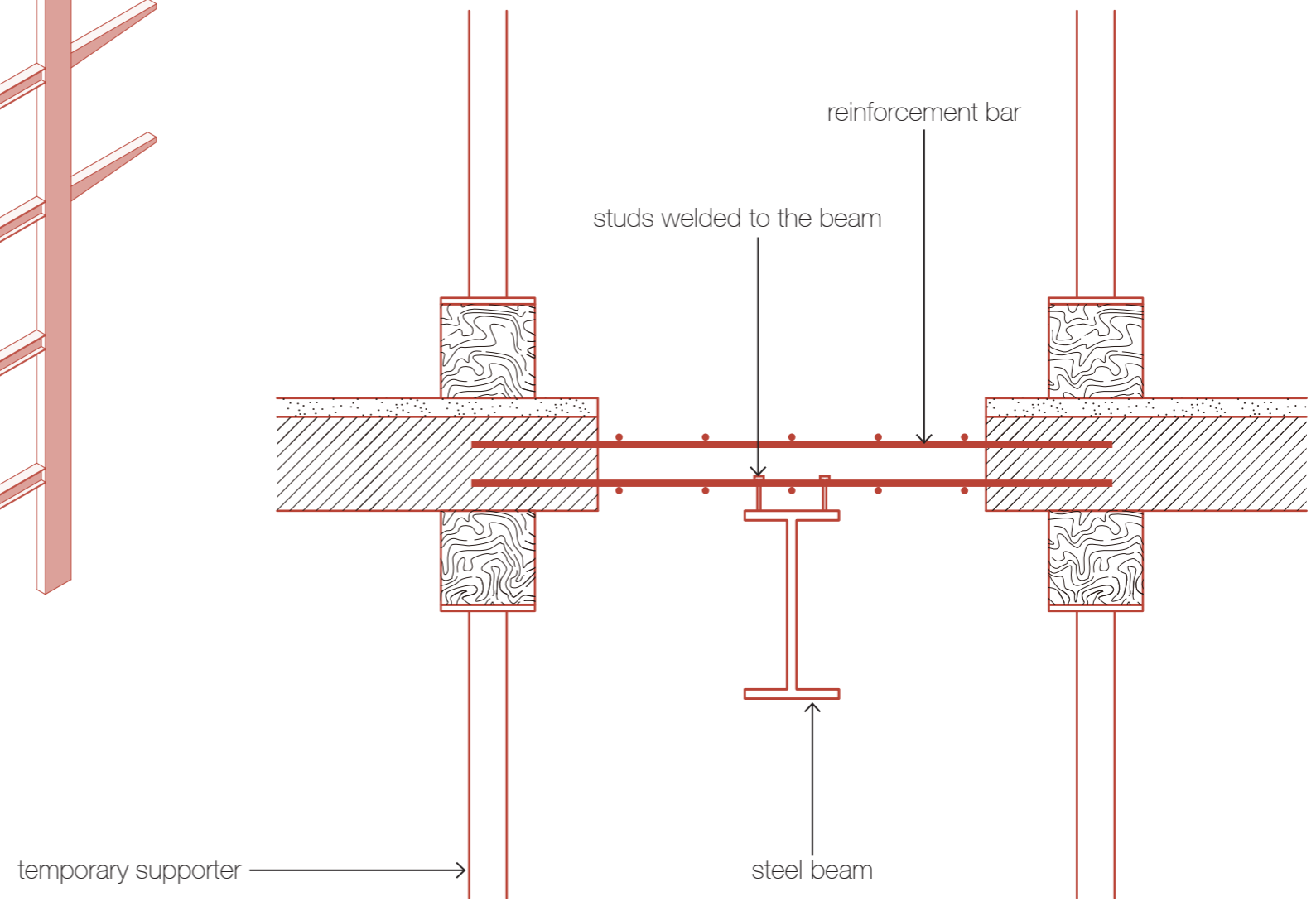
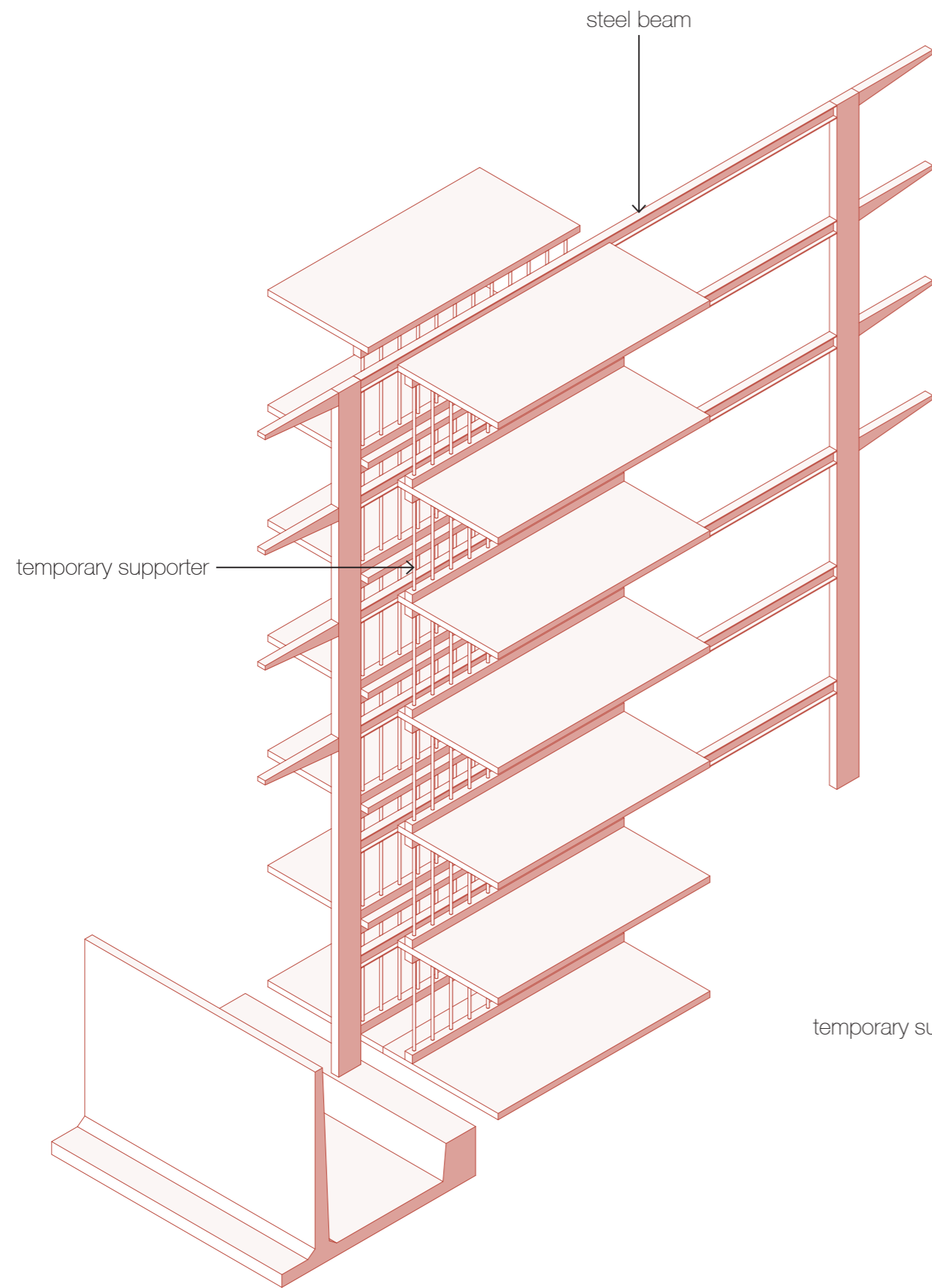
New Extension

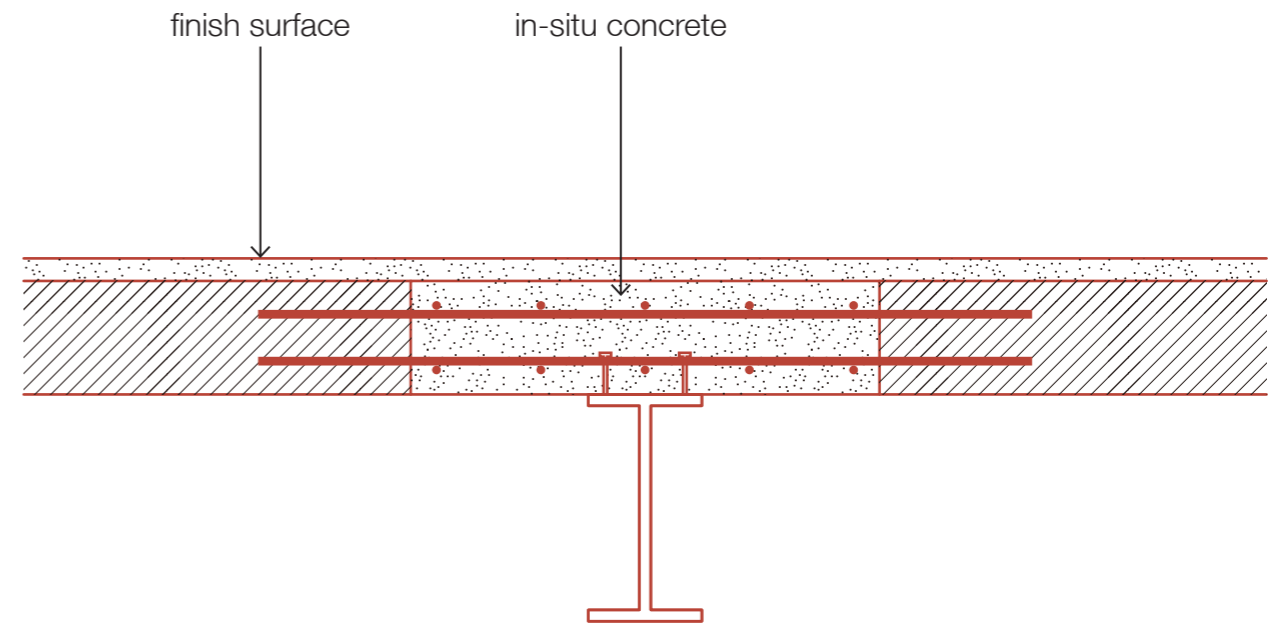
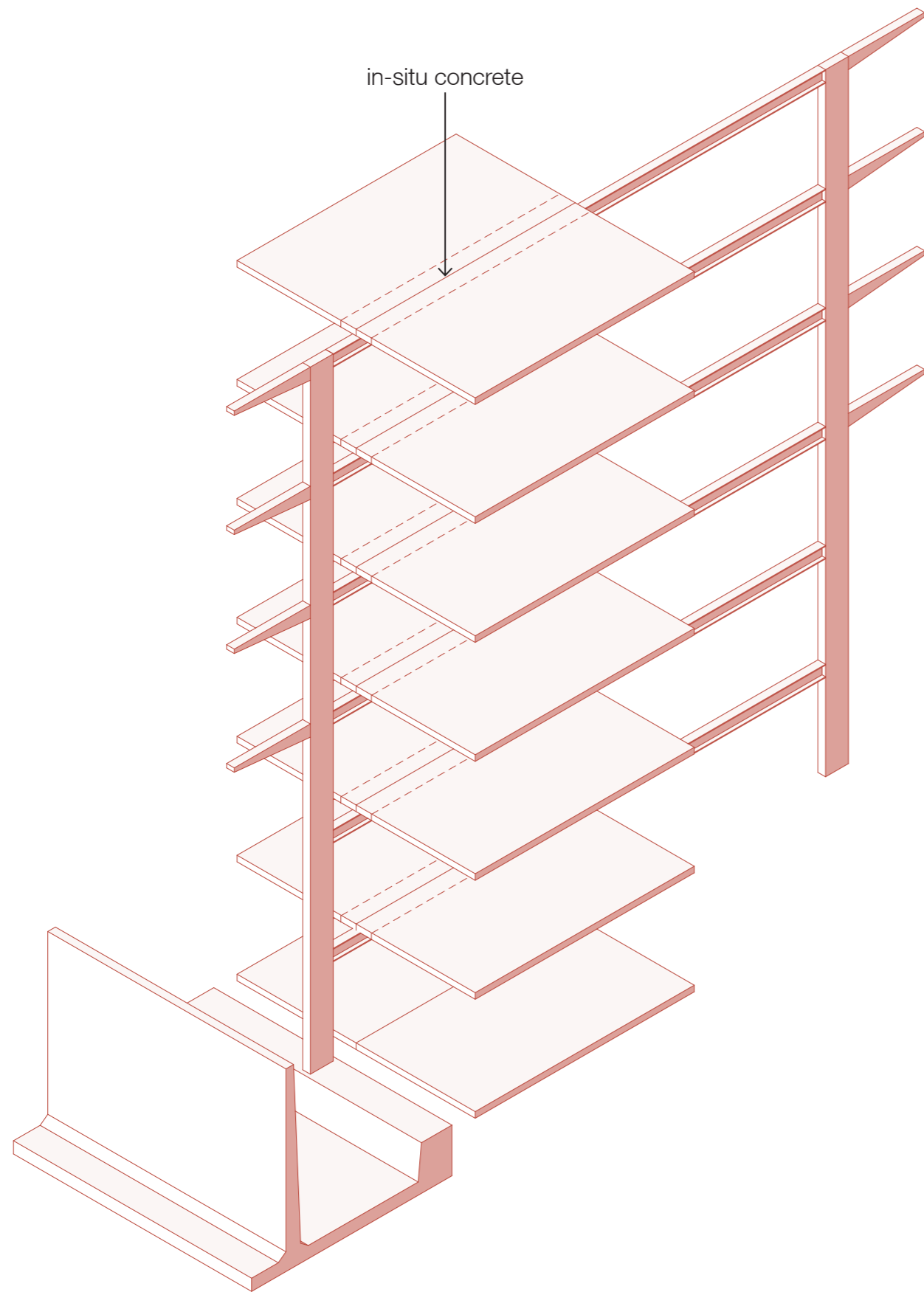


Steel Frame

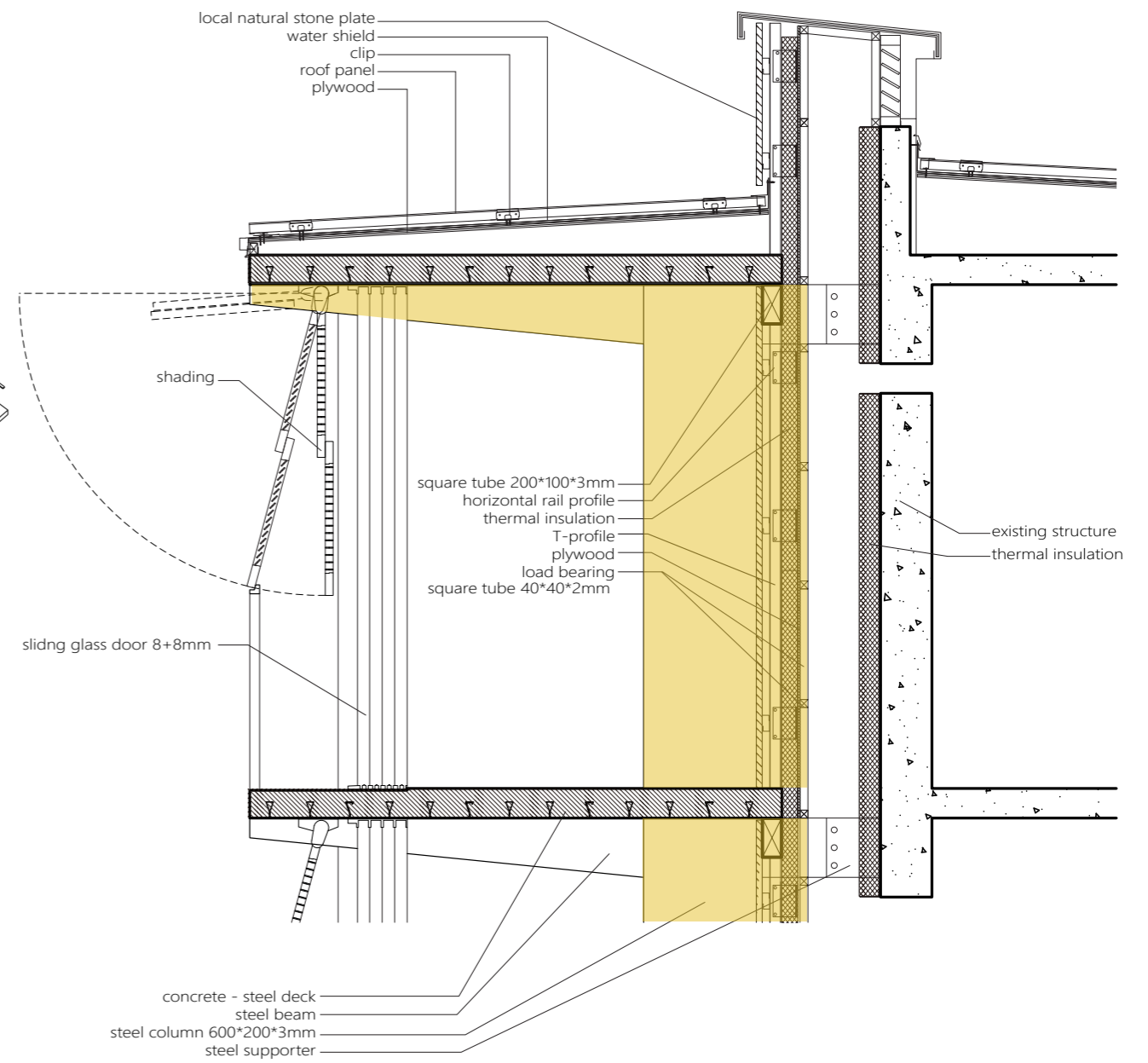
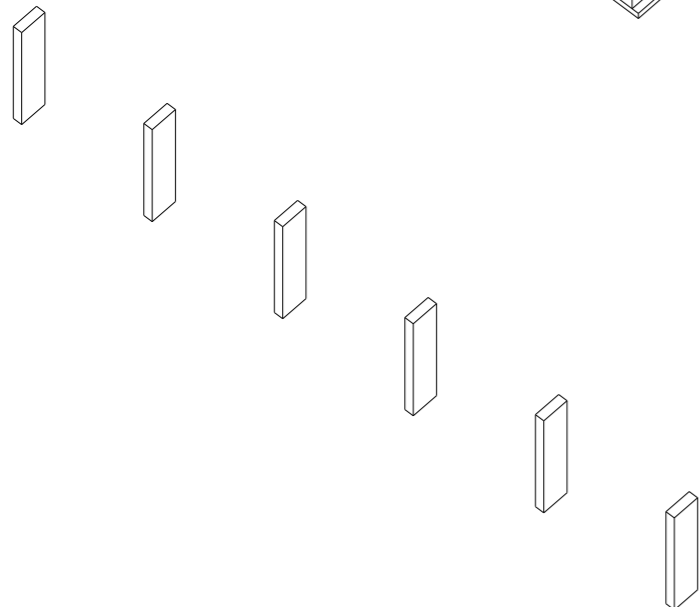
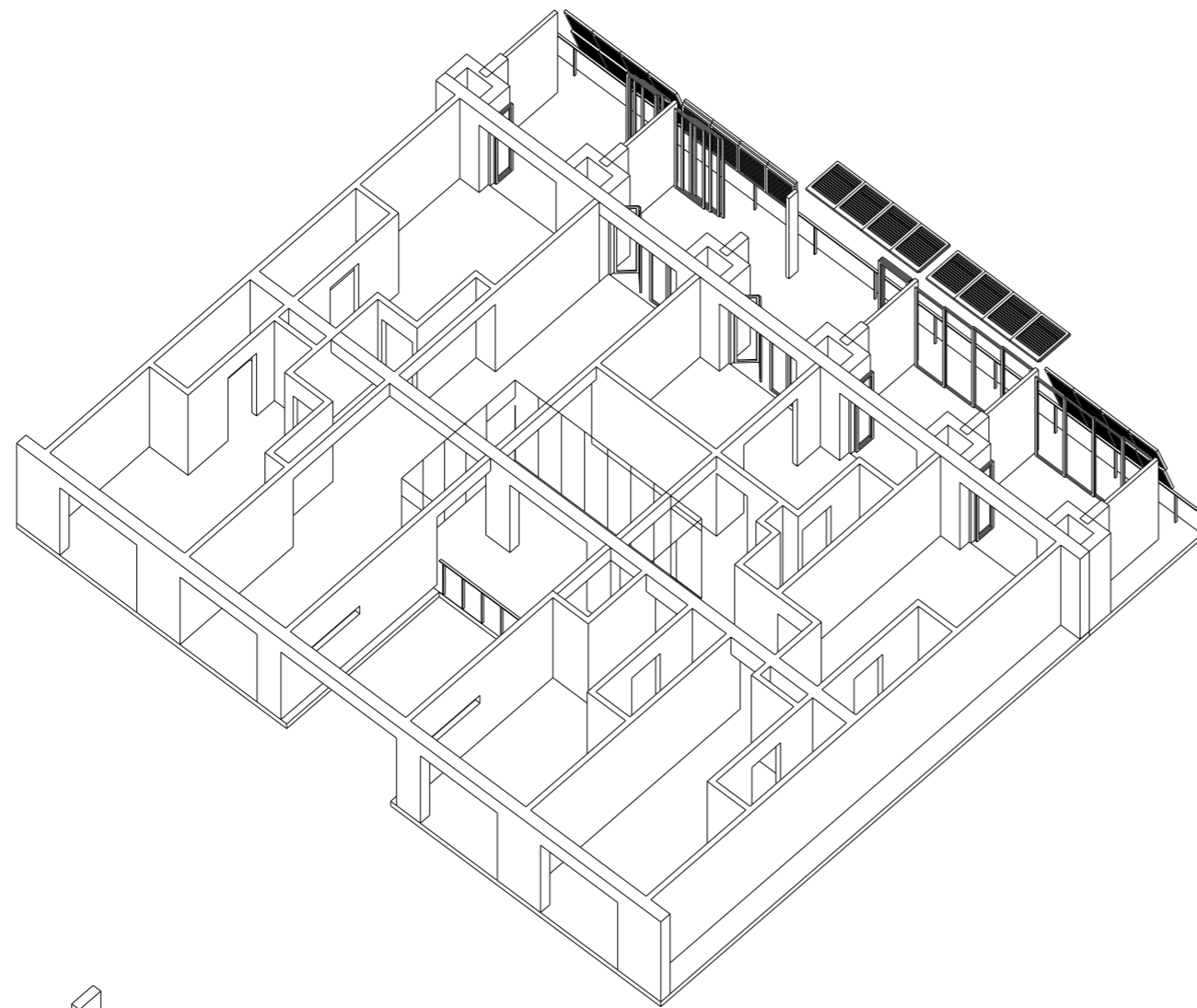




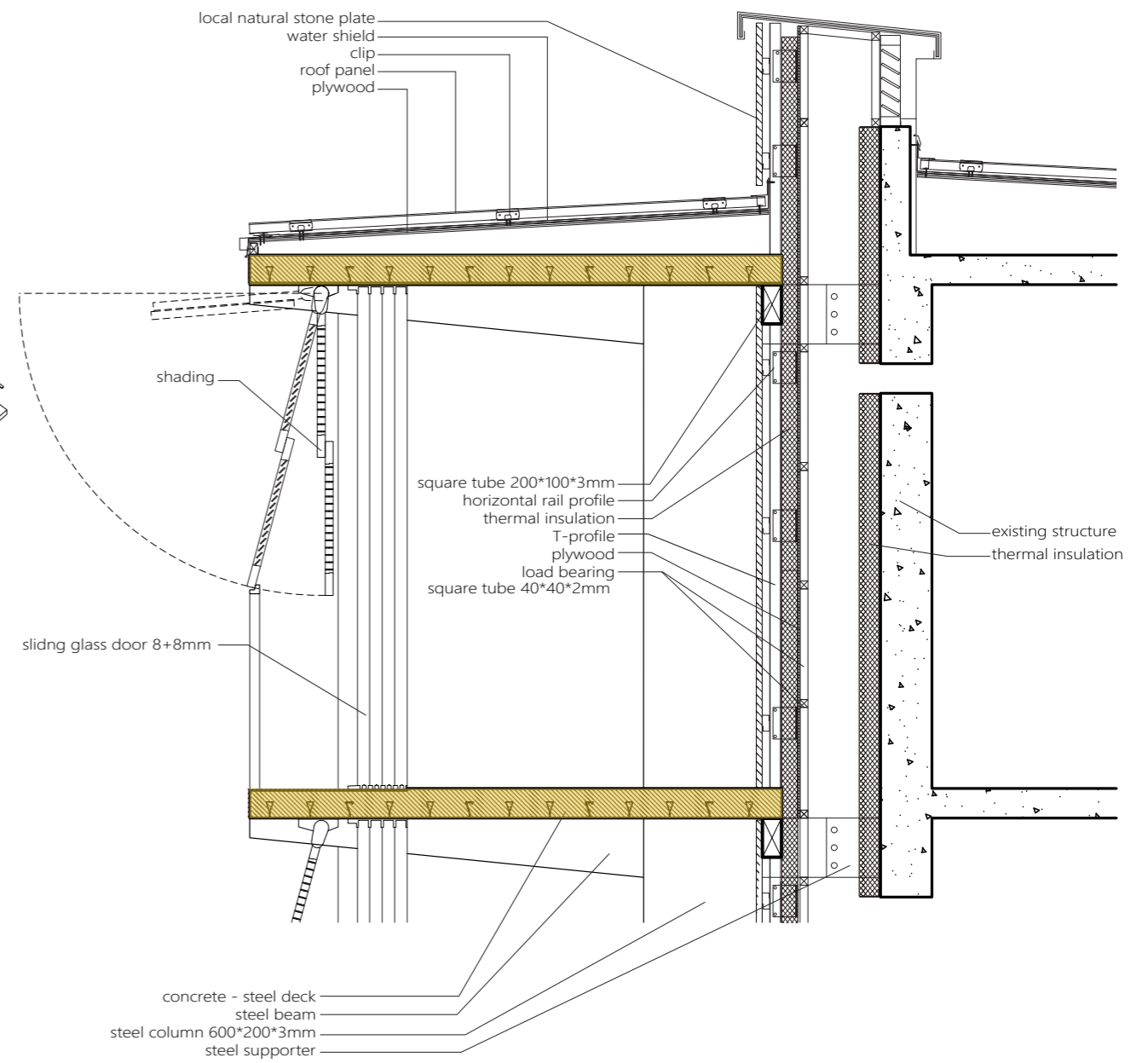
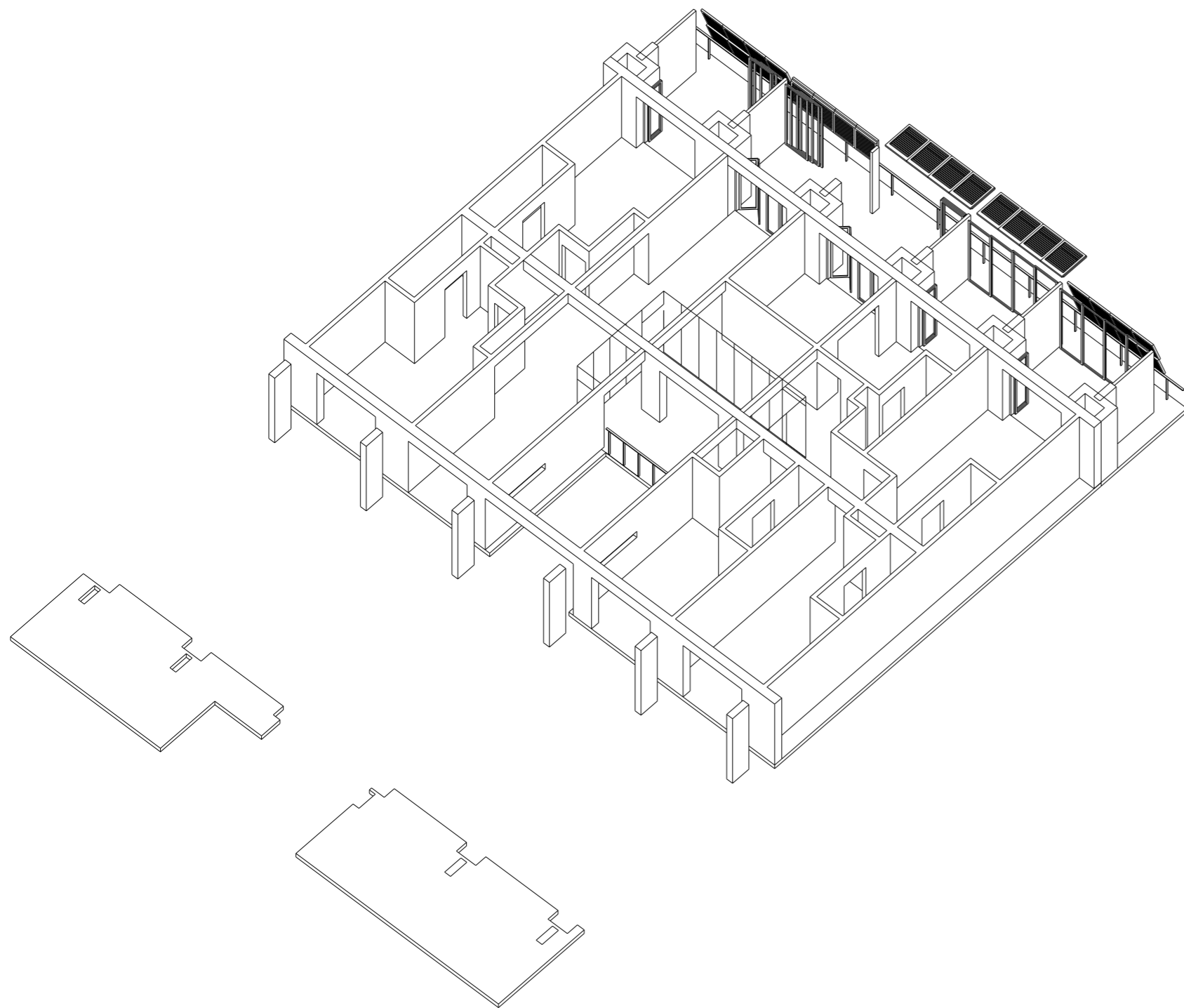




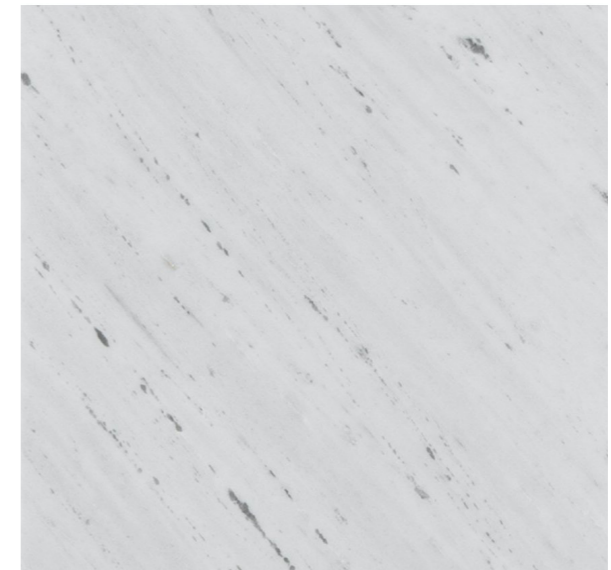
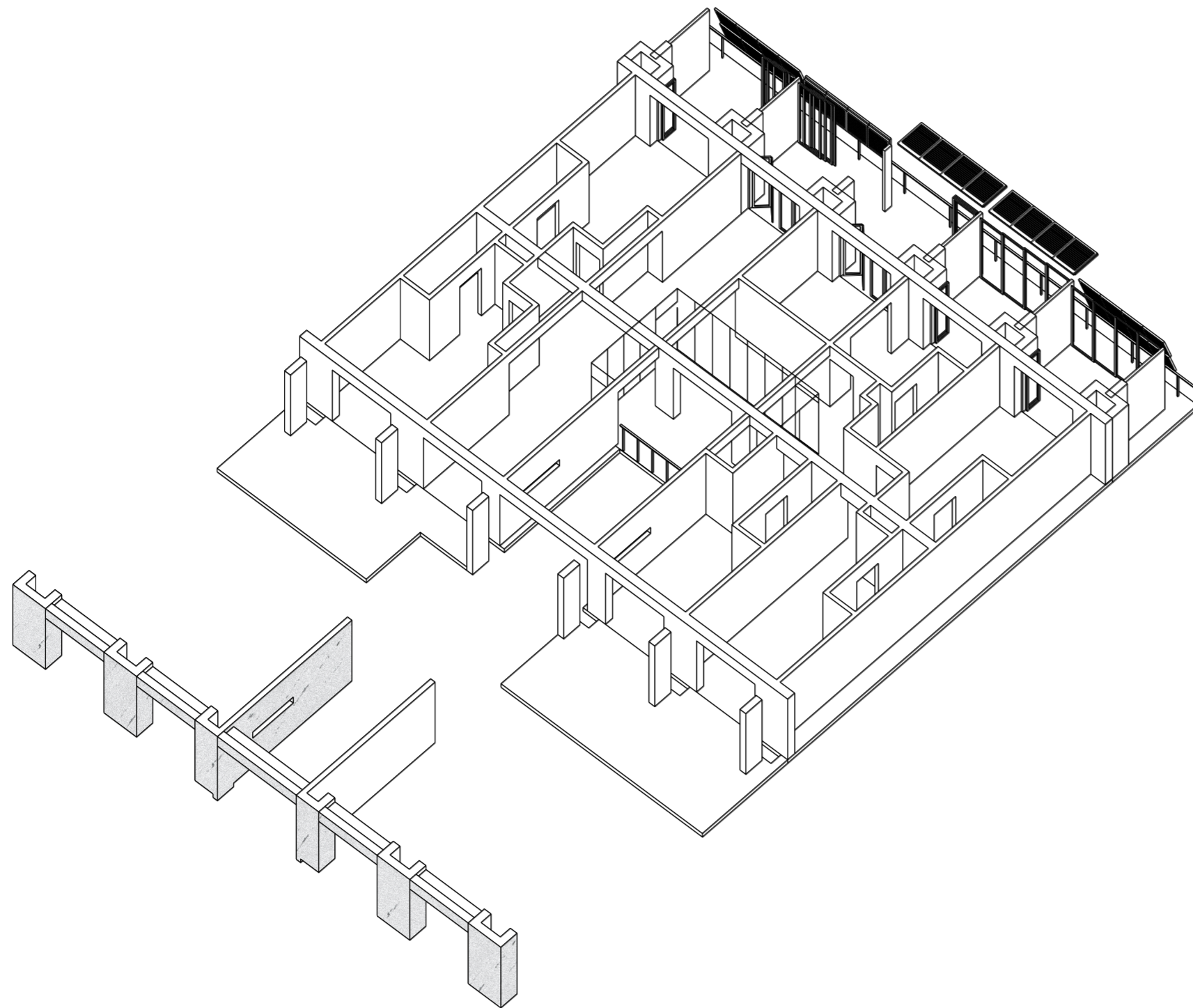
Steel Structure



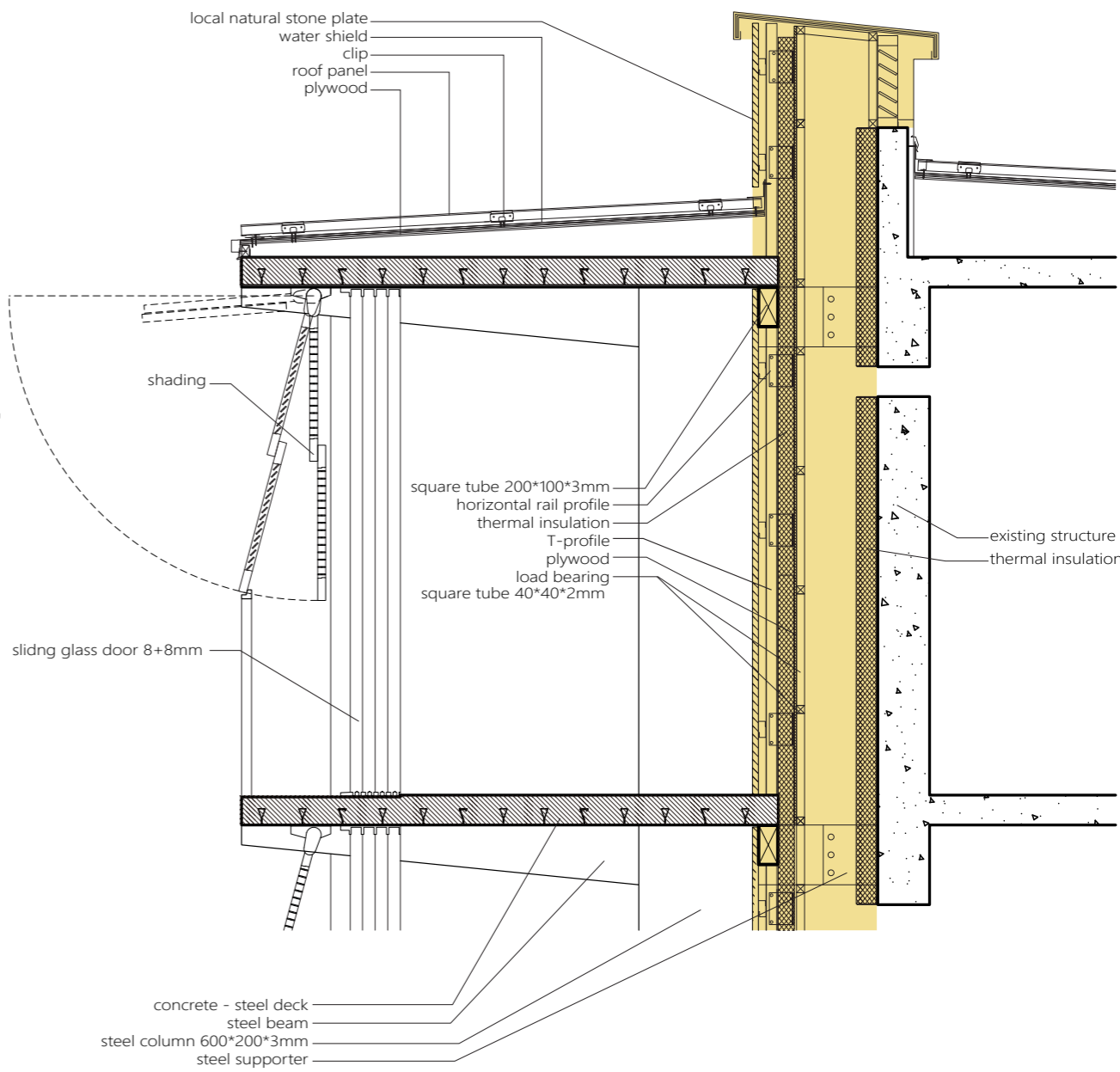
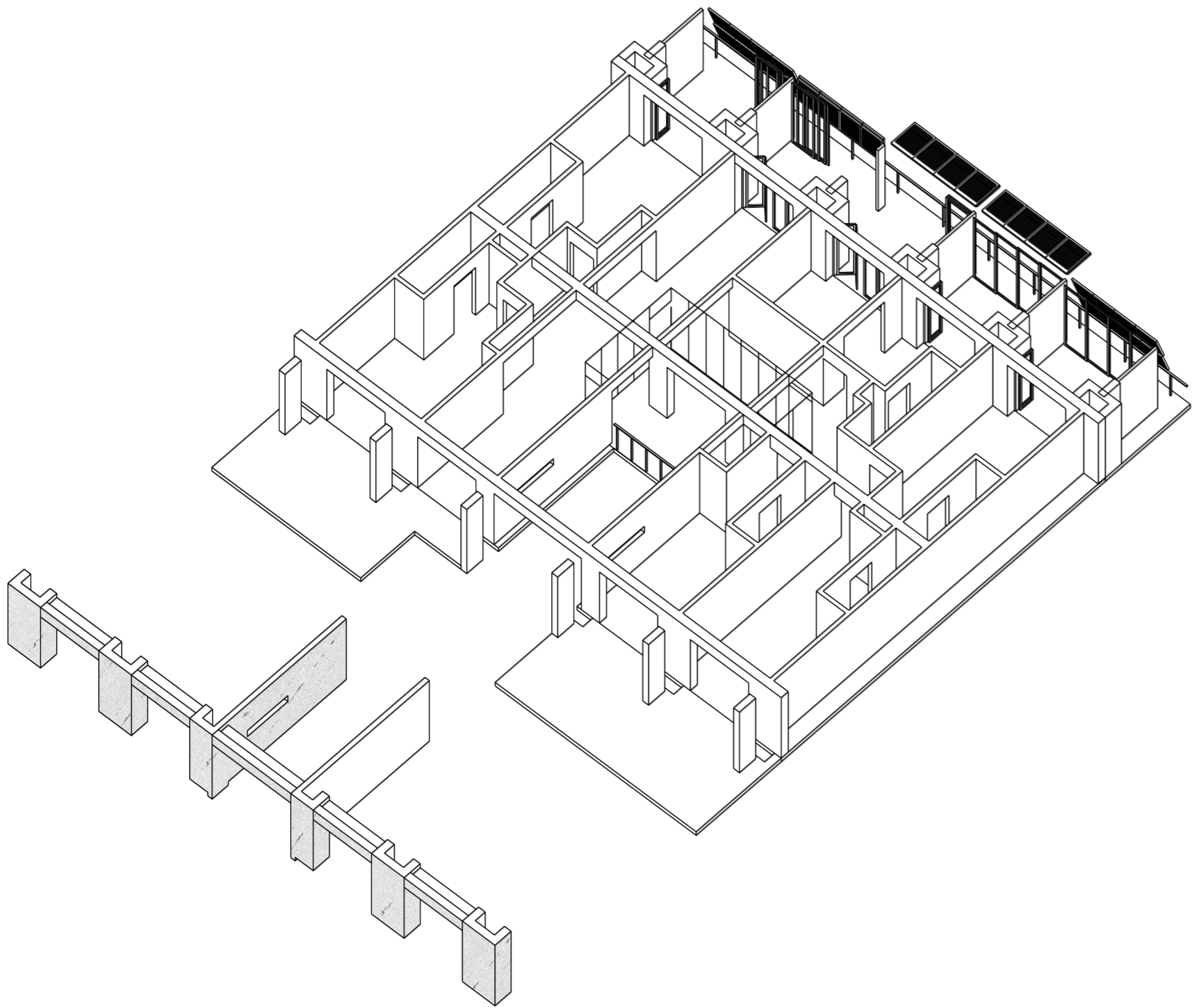
Concrete Floors with Steel Deck



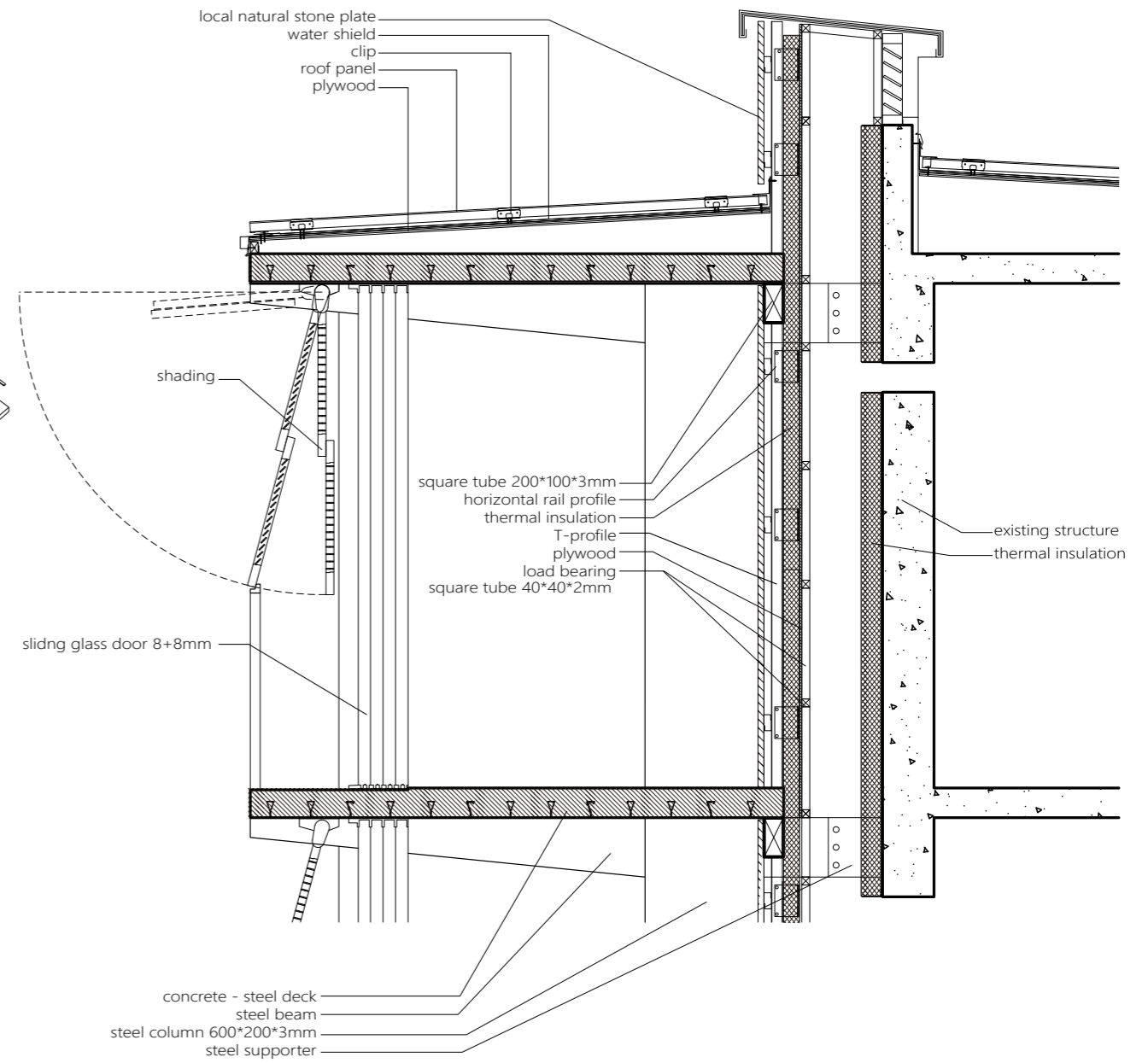
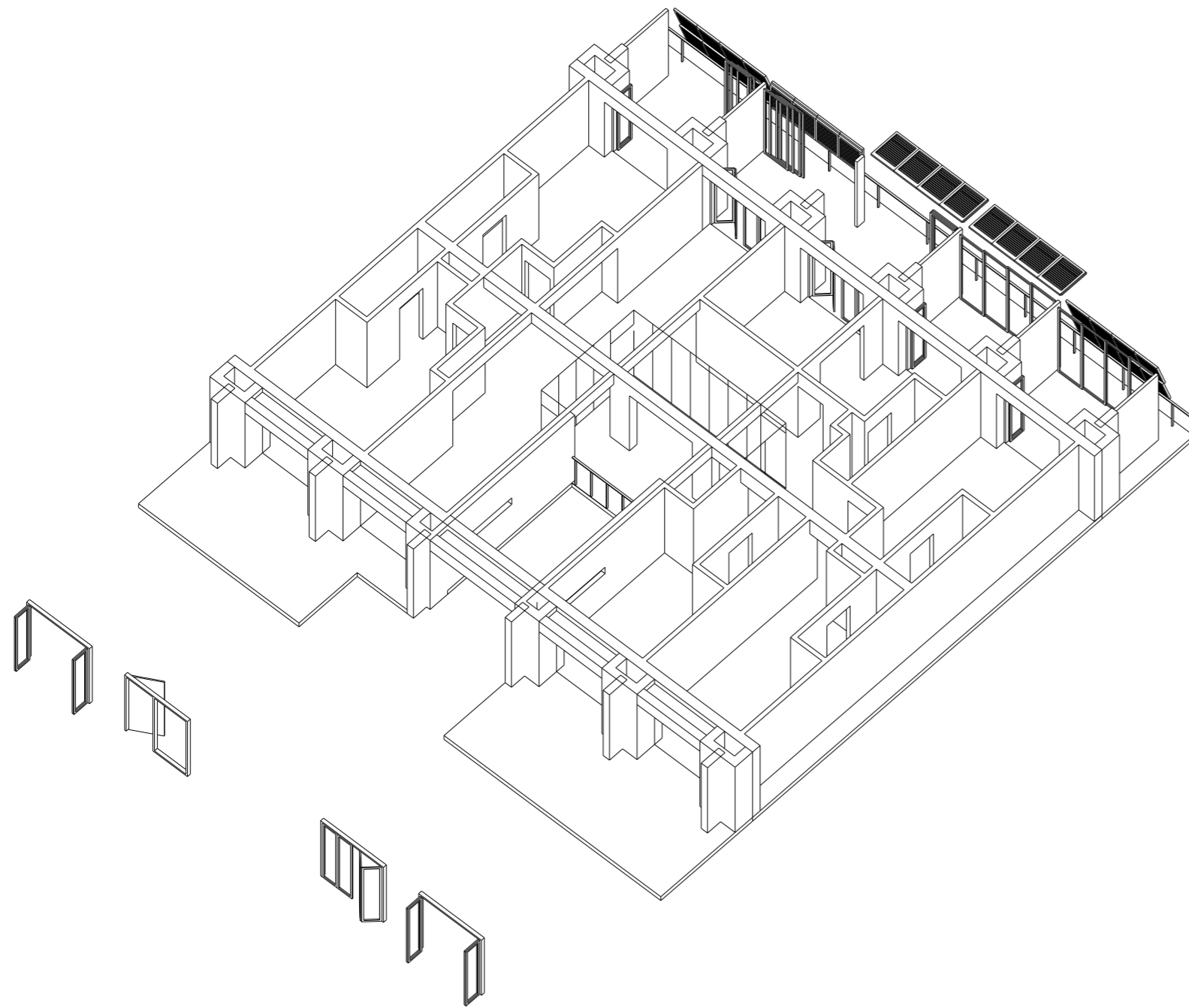
Local Material



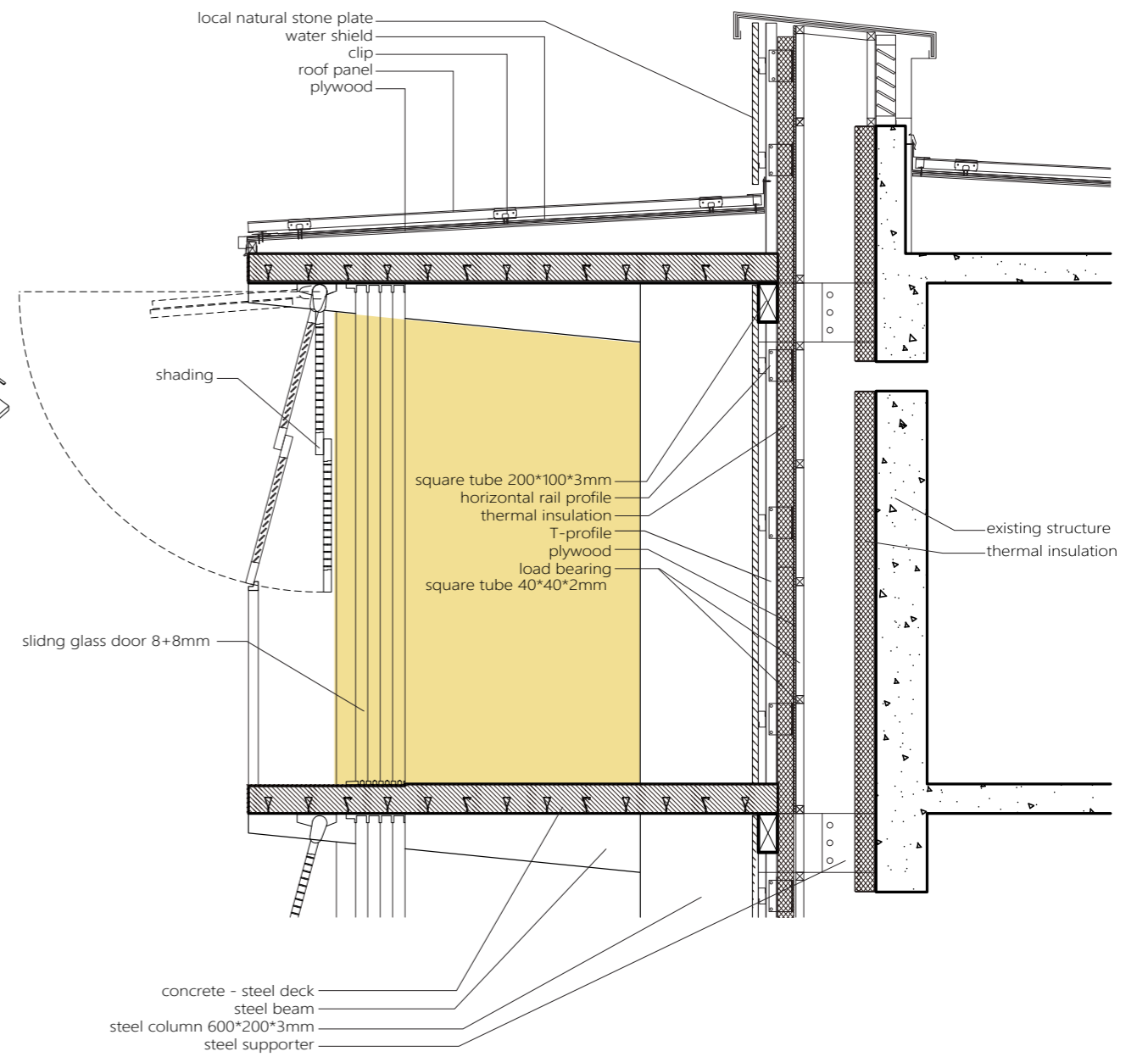
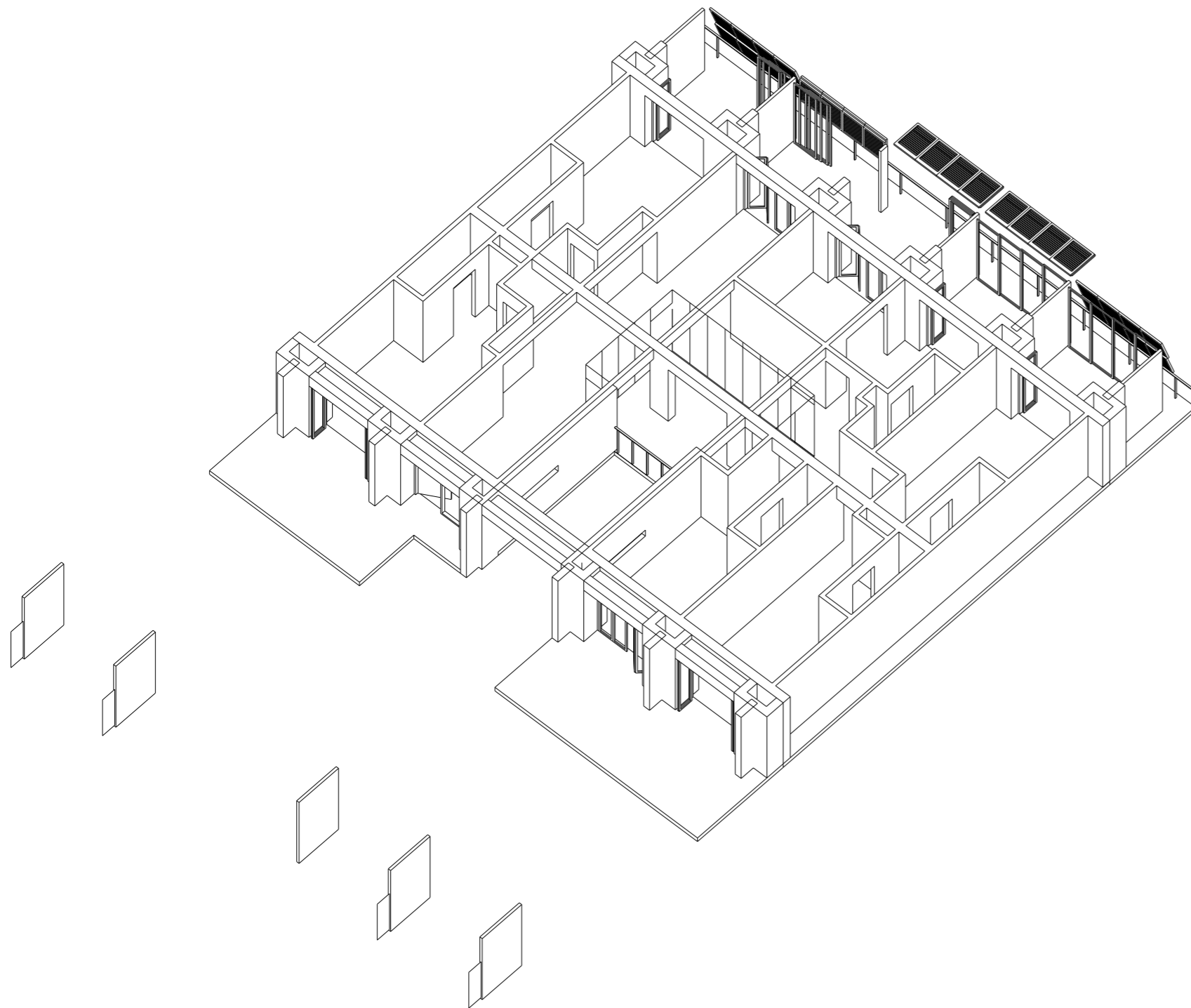
Cladding Facade



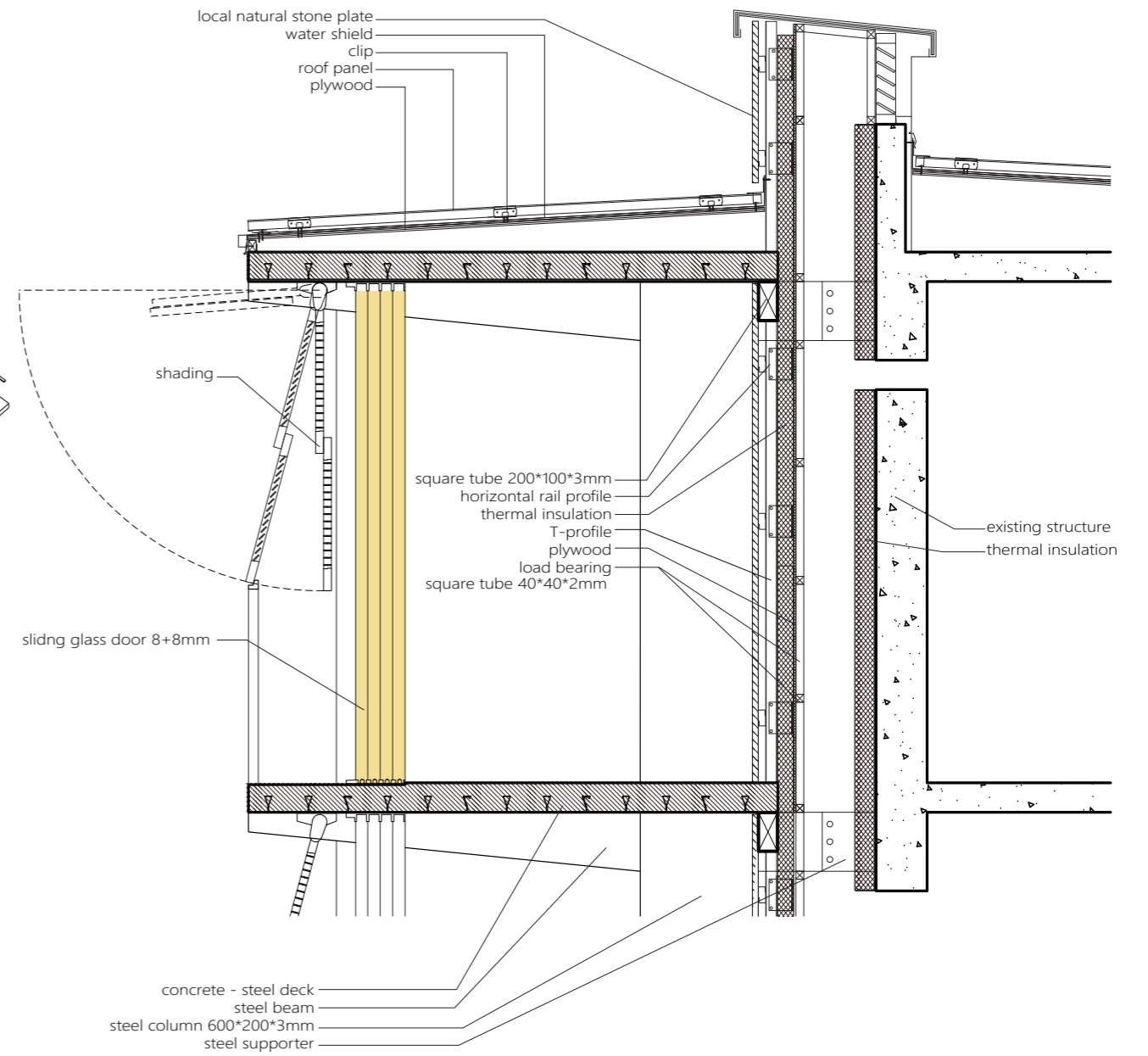
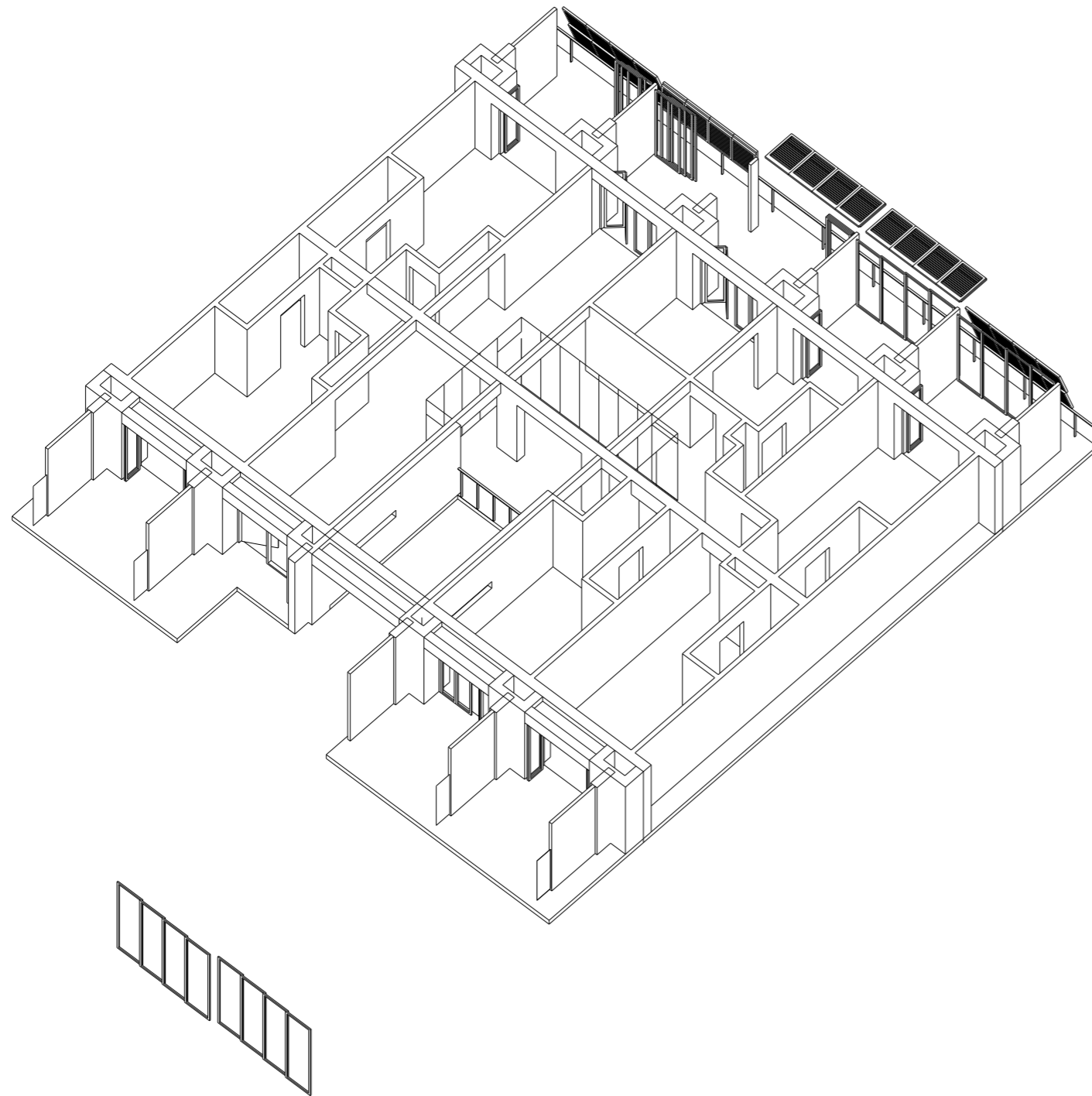
Double Glazing Doors



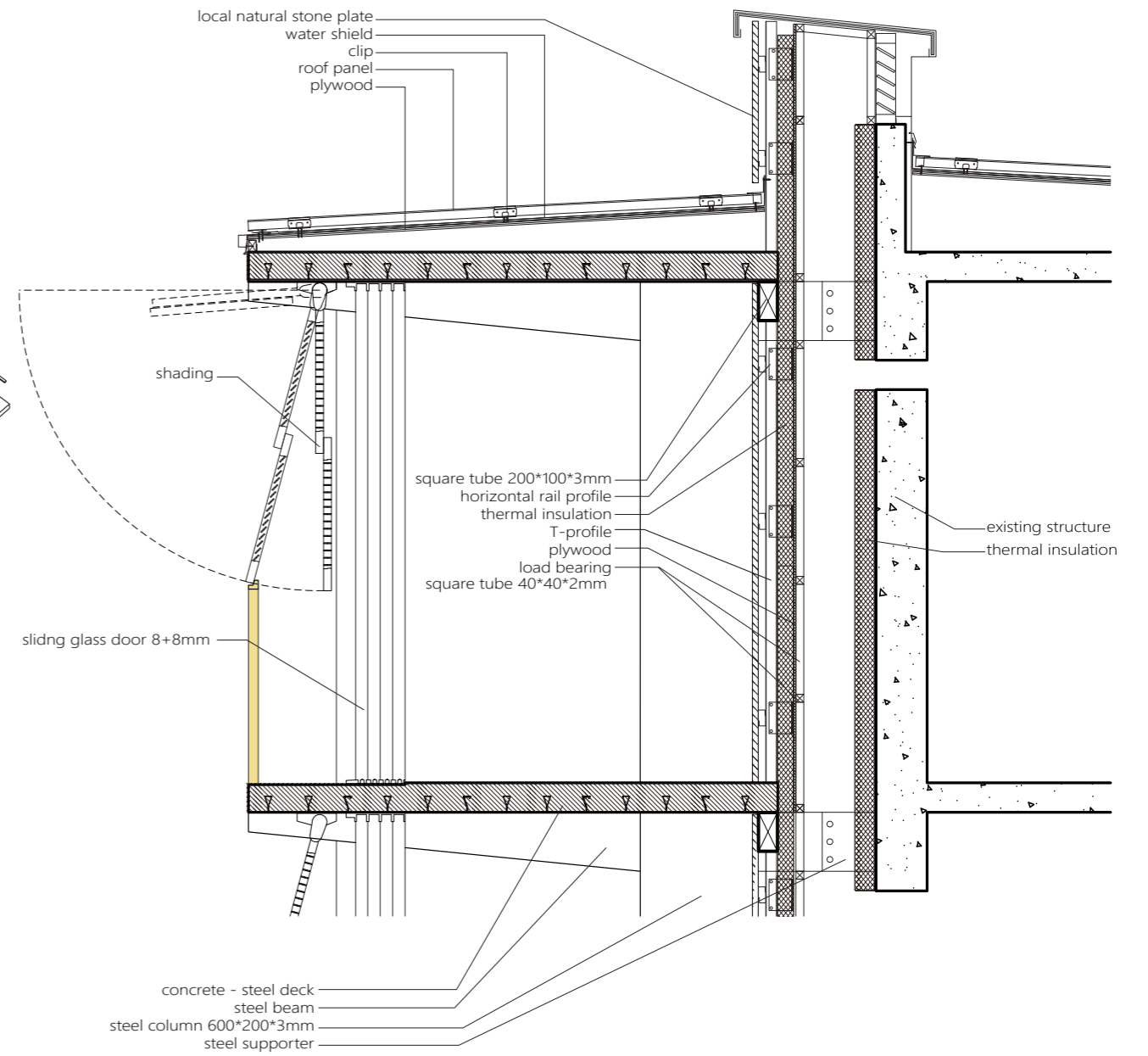
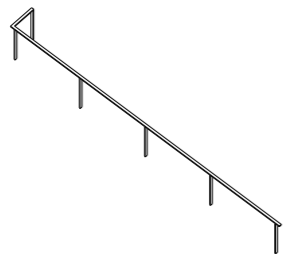
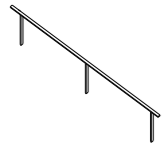
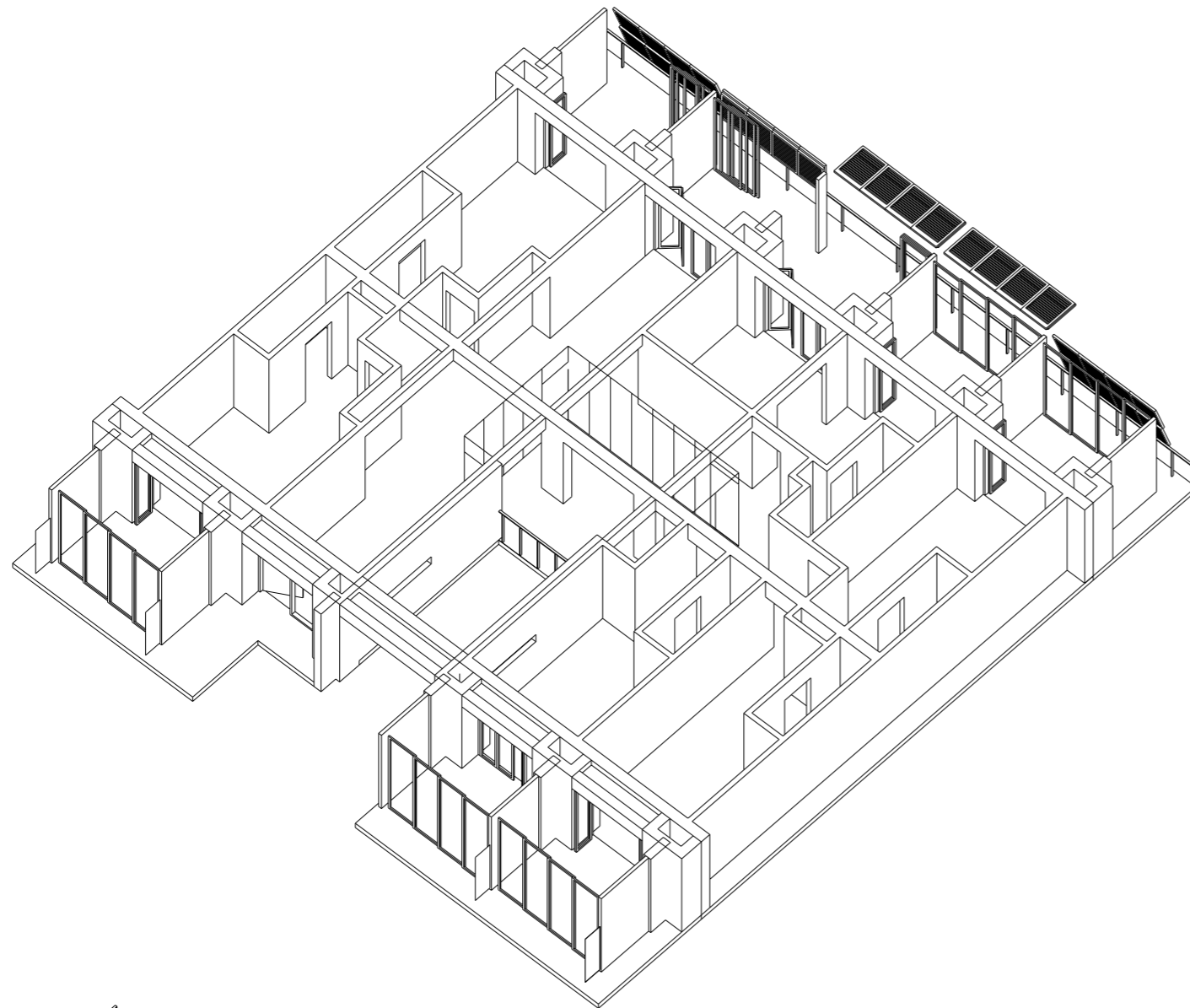
Partition Walls



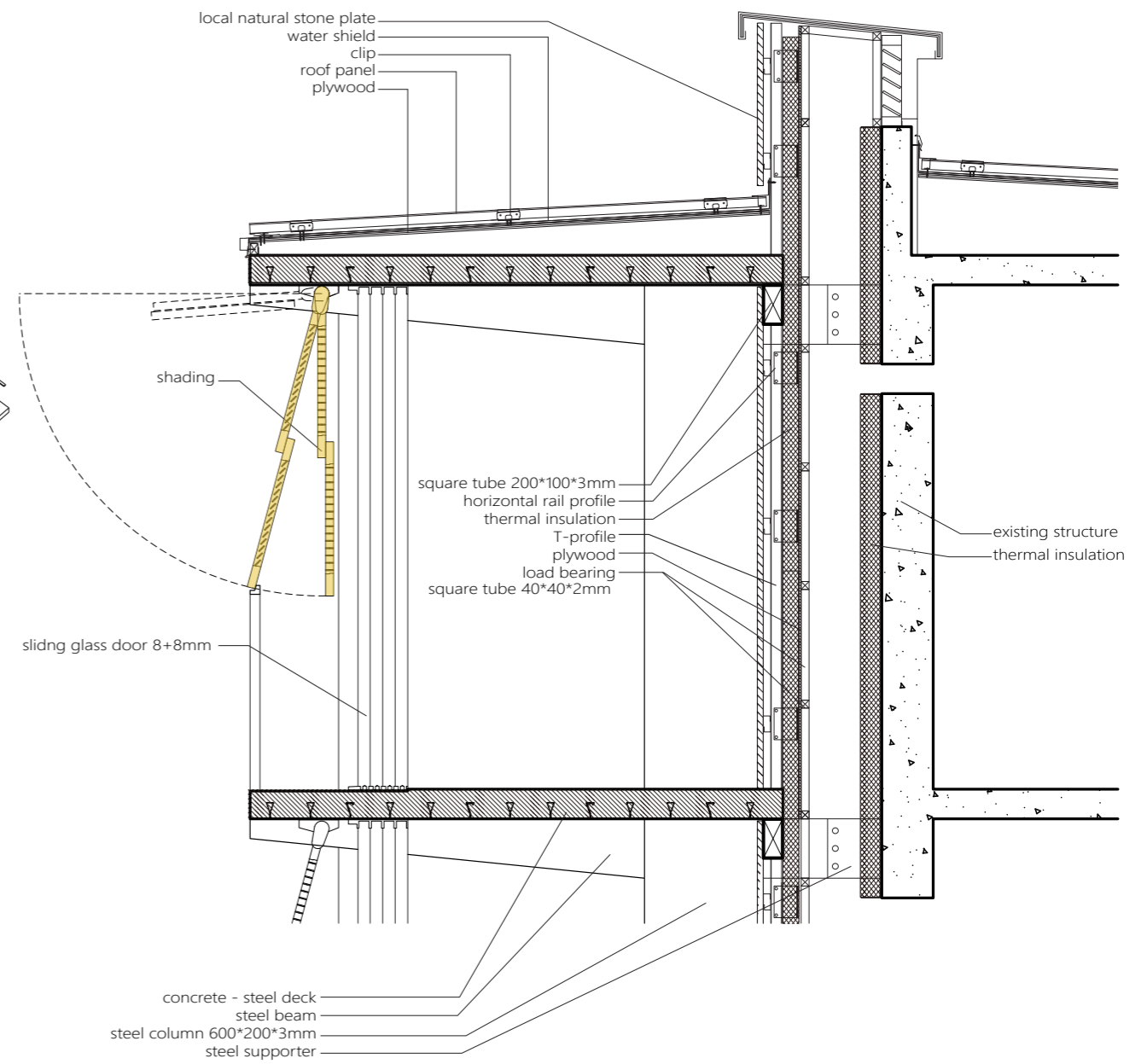
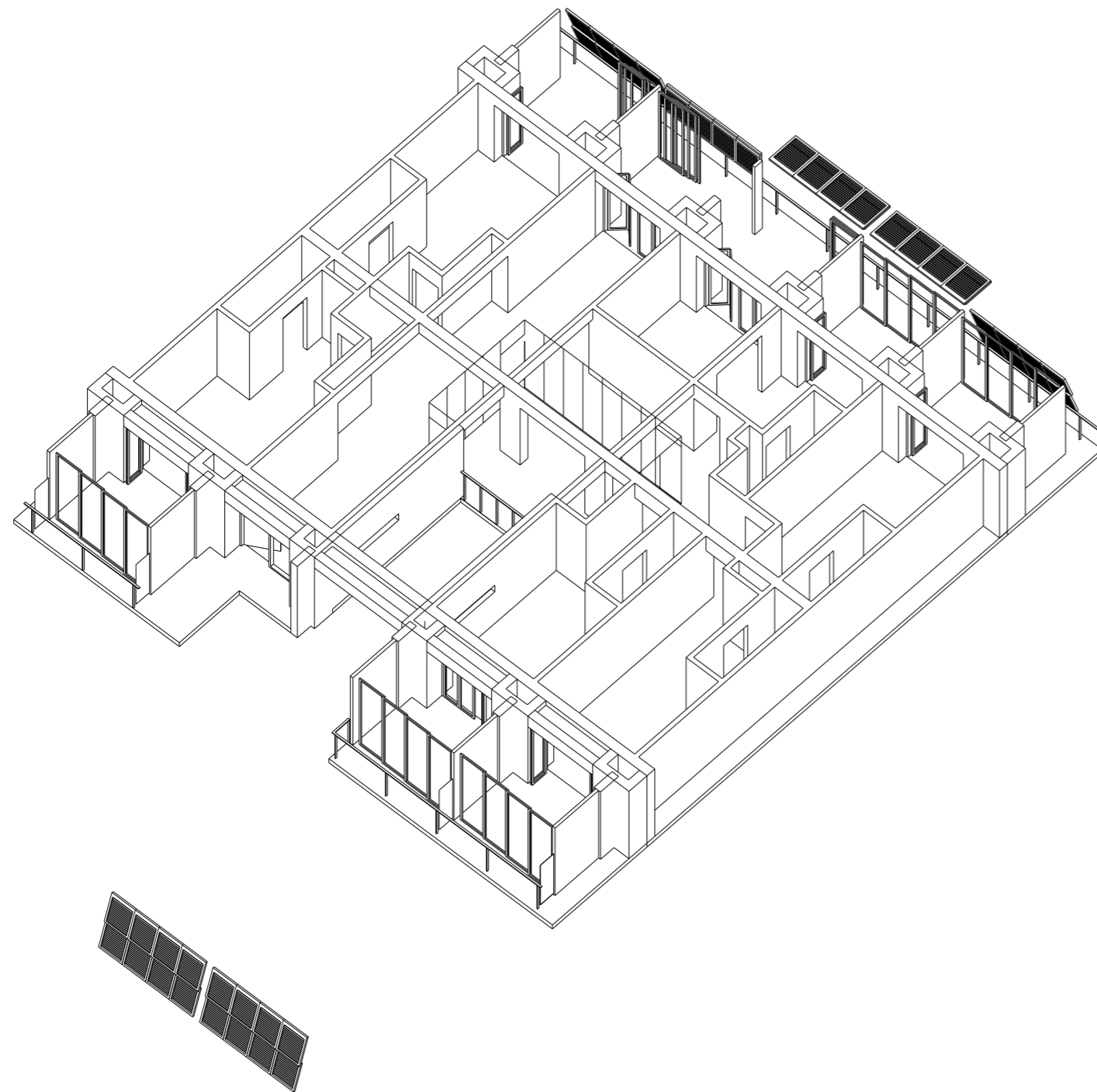
Second Sliding Doors

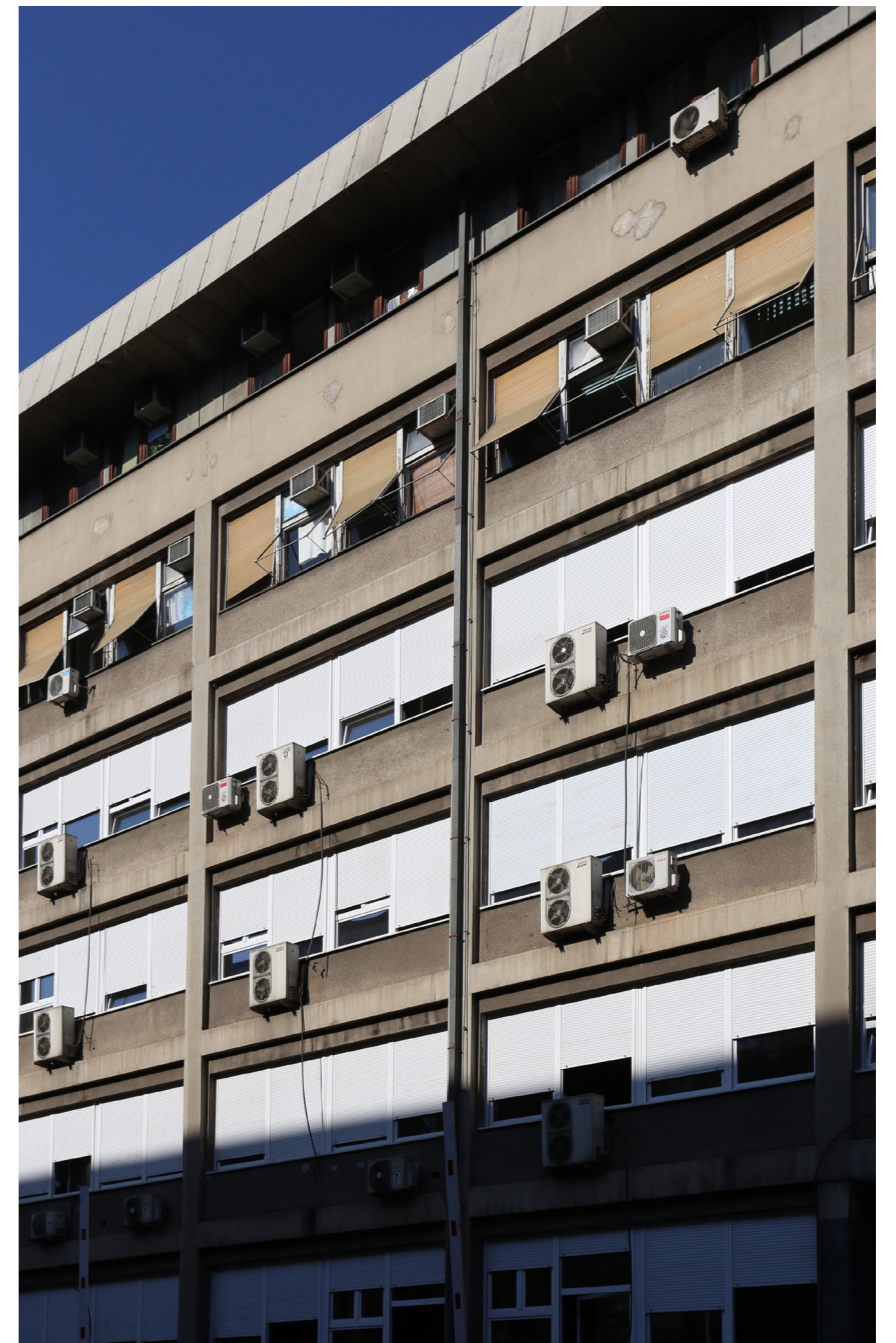
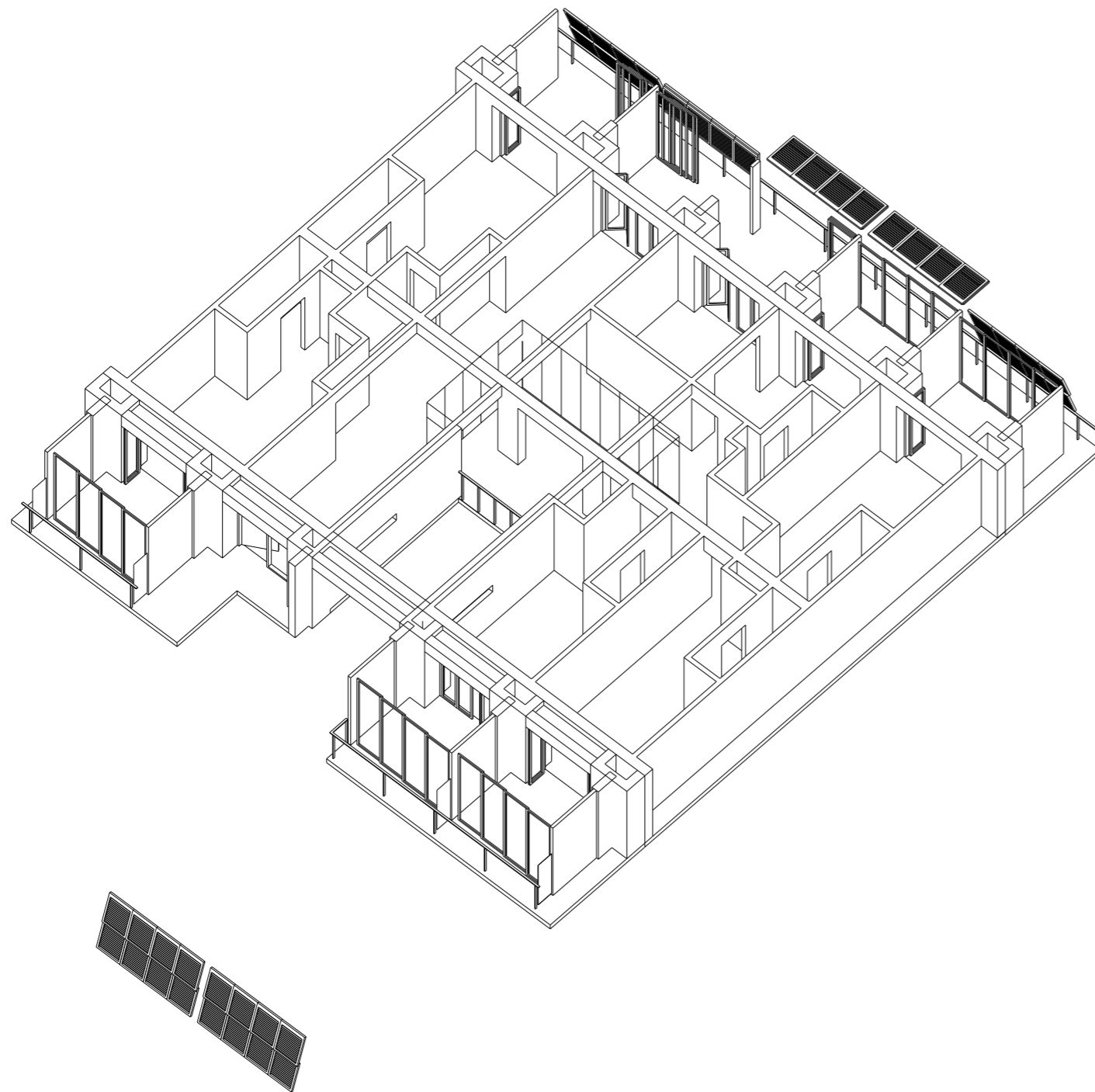


Transparent Railing

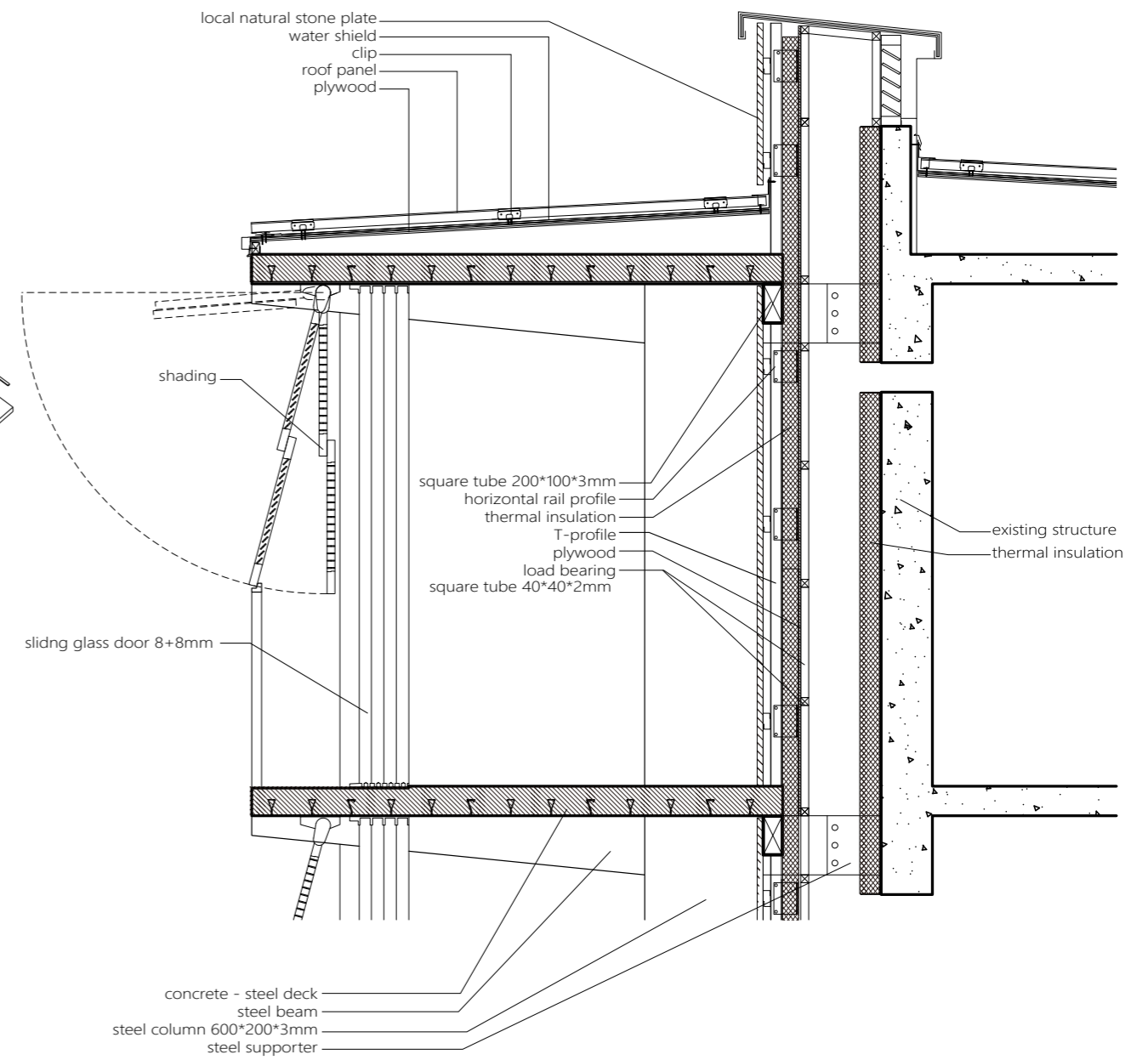
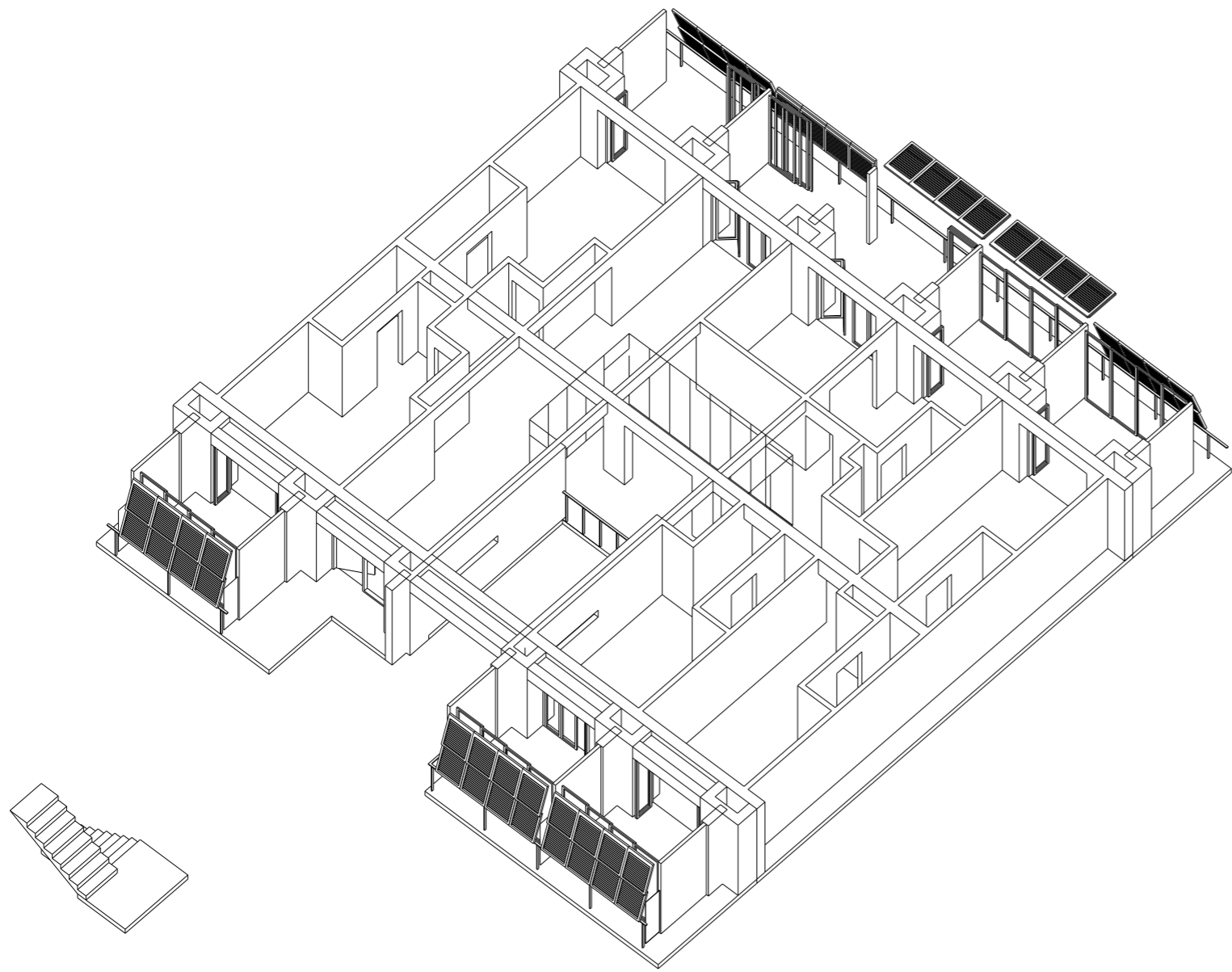


Shadding

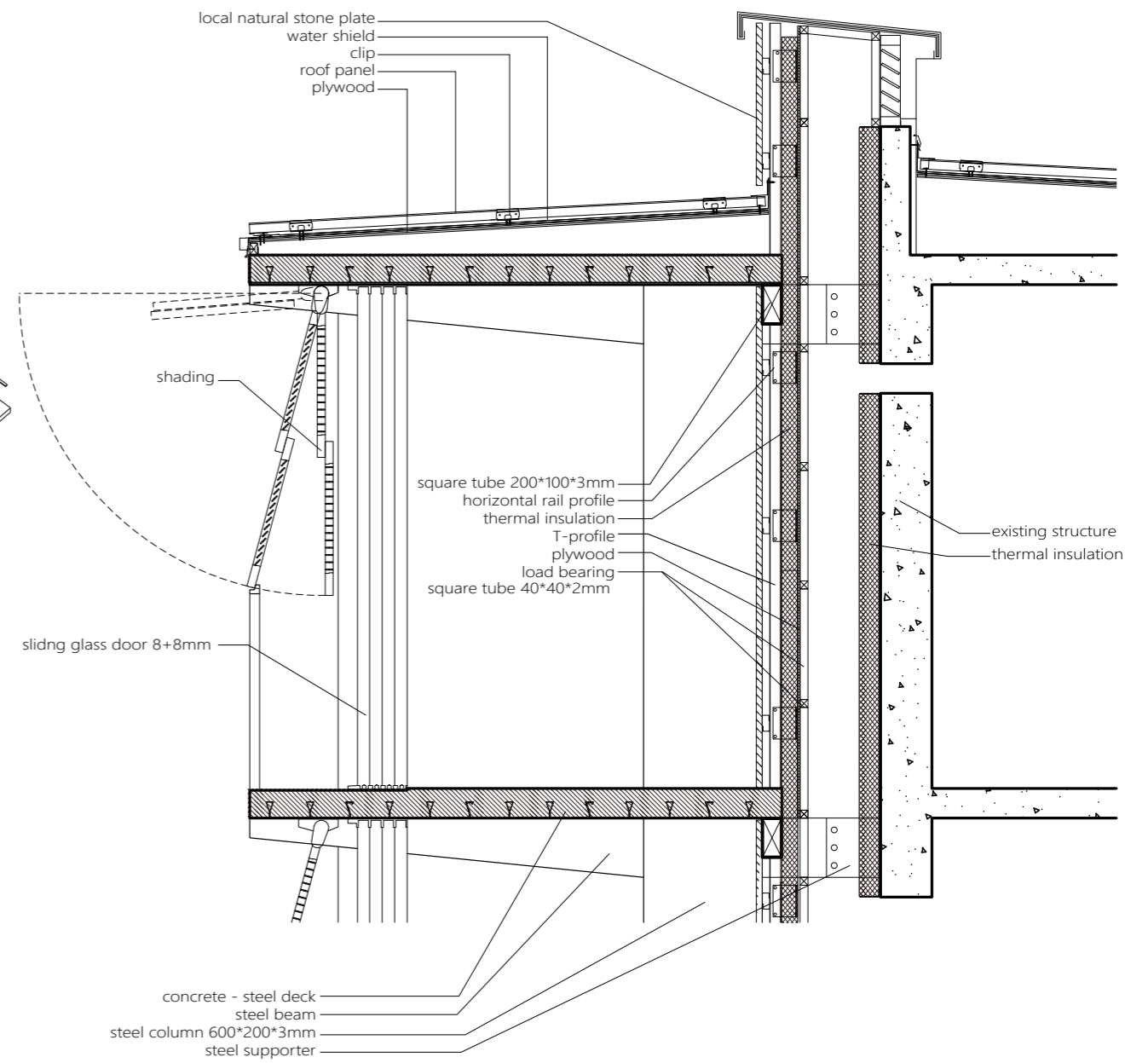
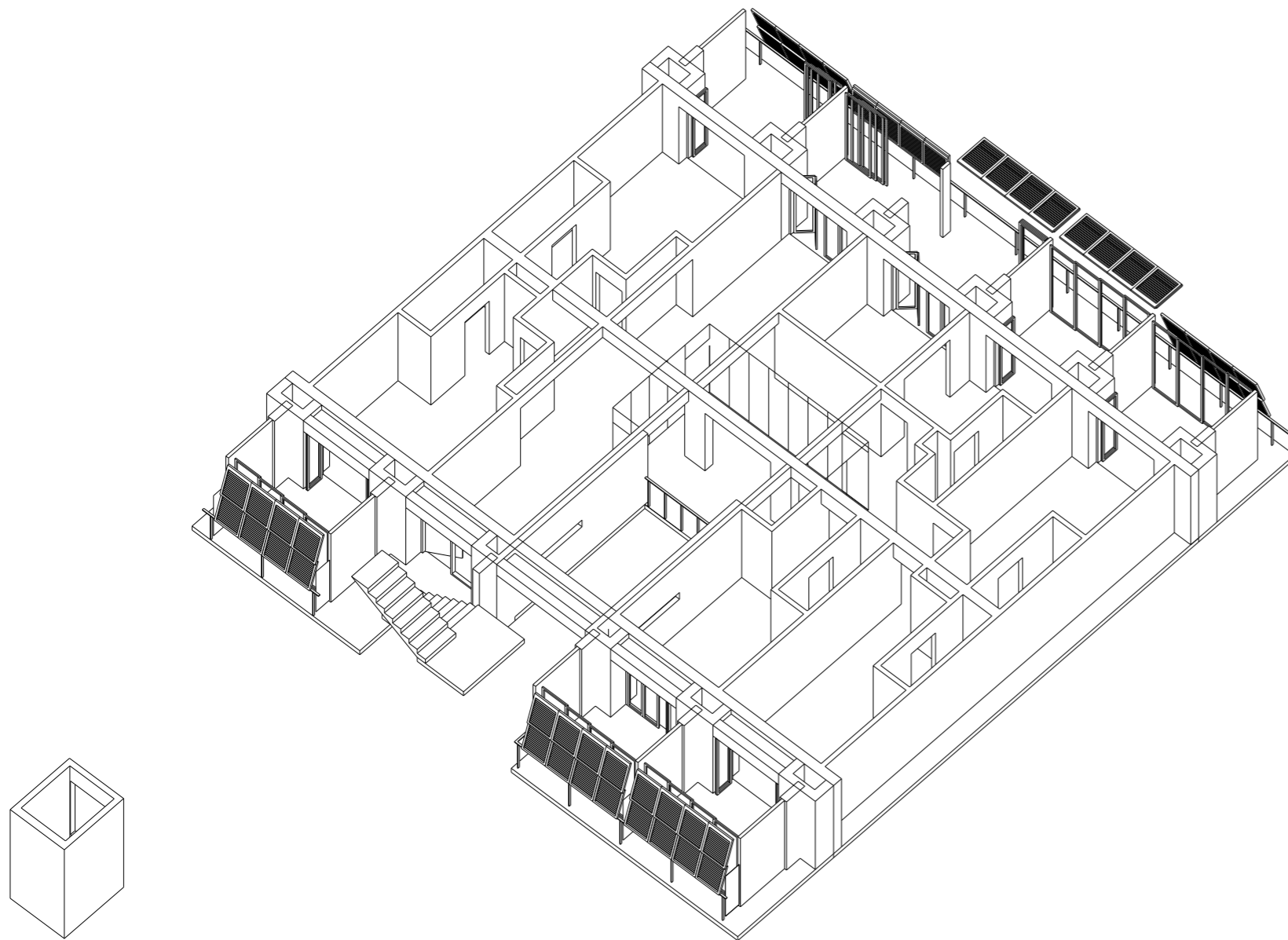




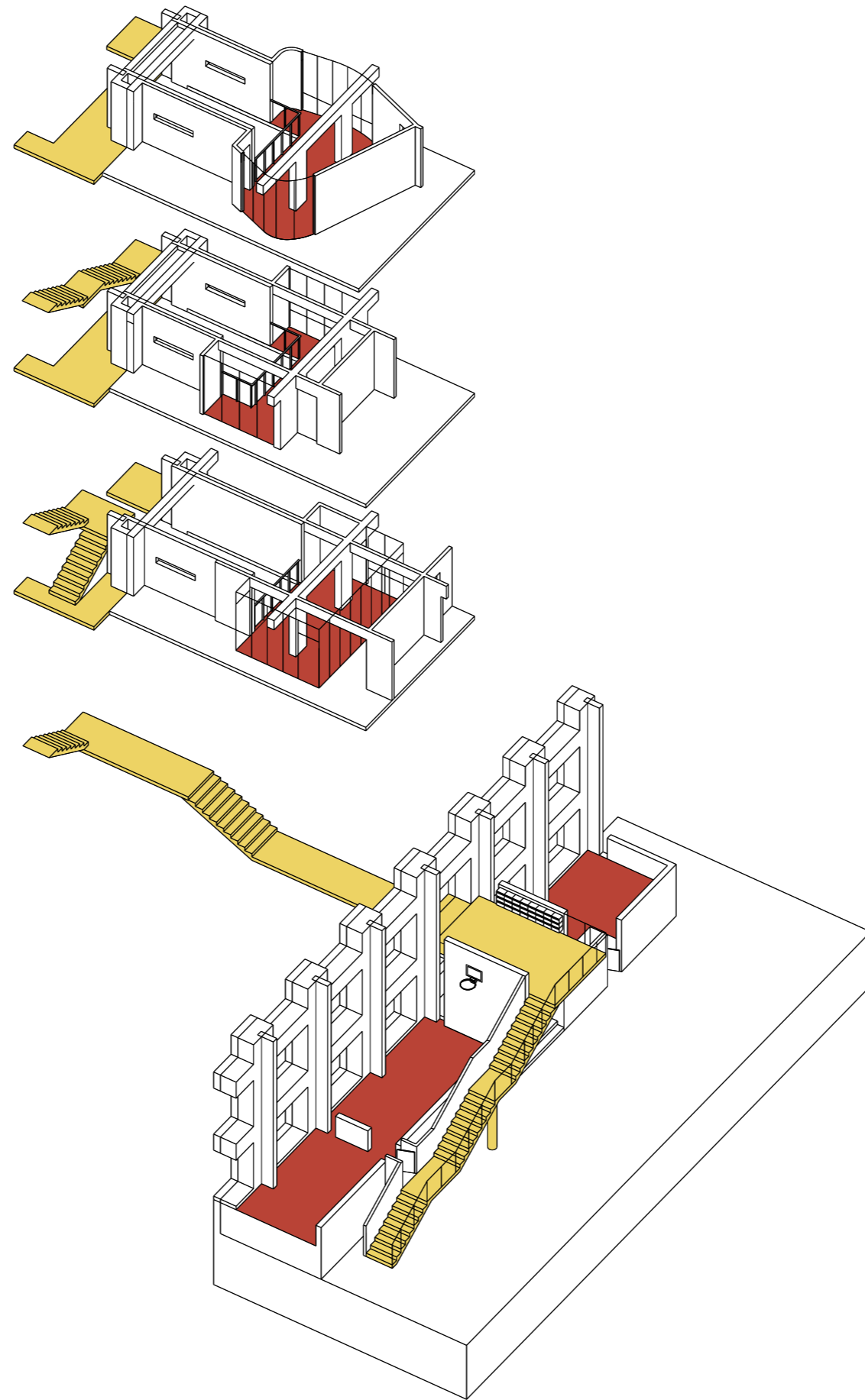
Public Stairs



Elevator

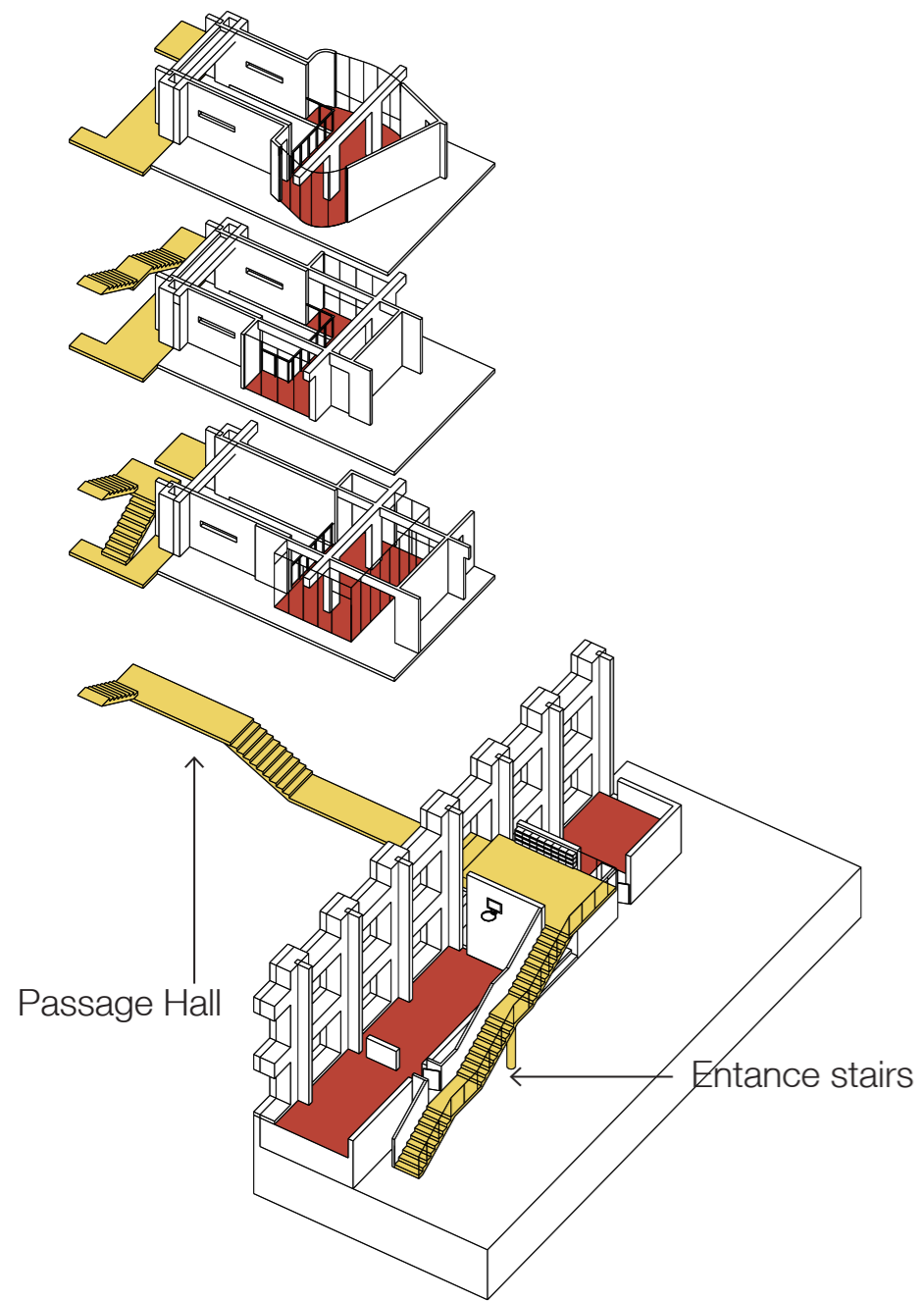


Interactions Along the Circulation

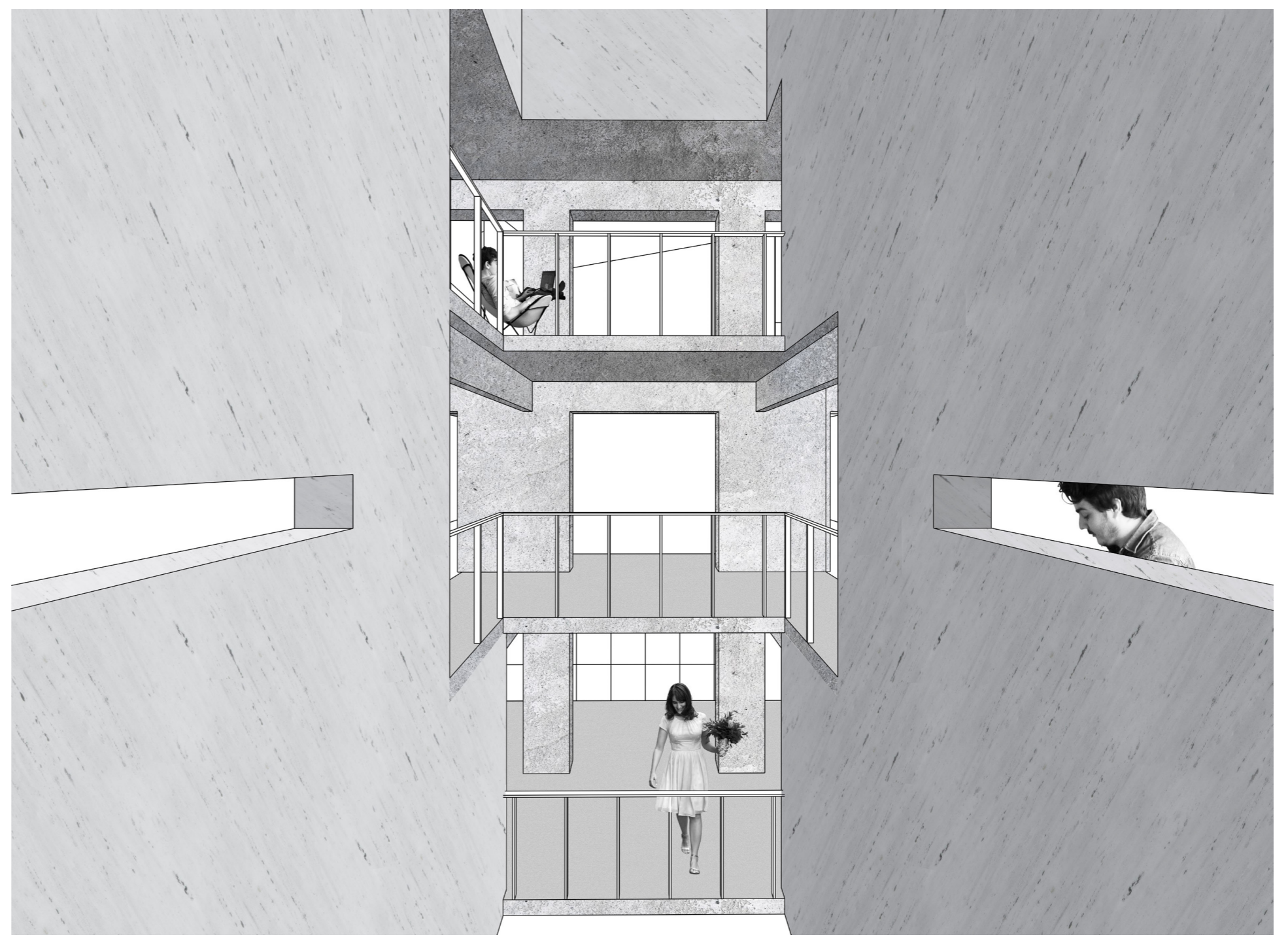
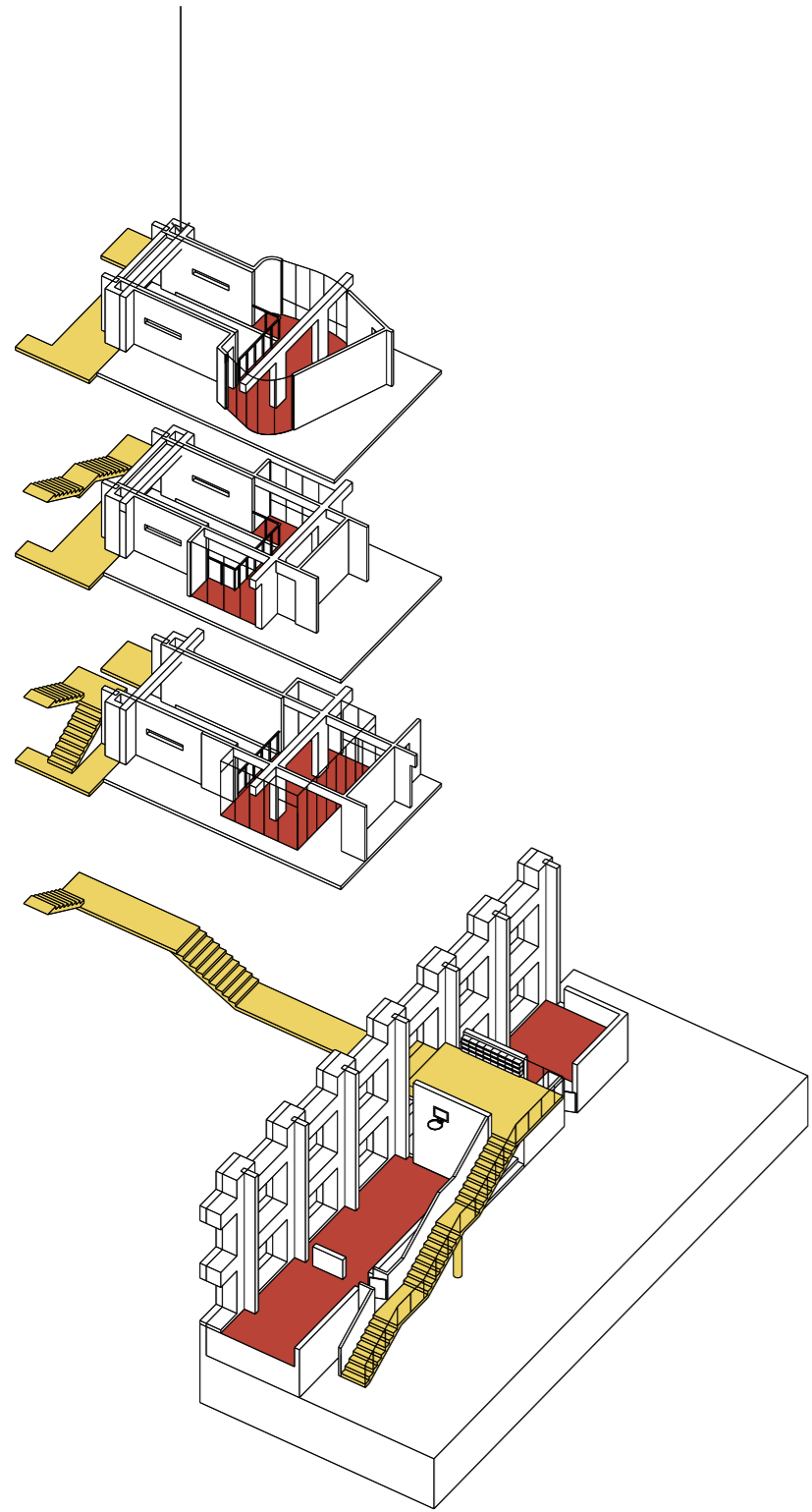




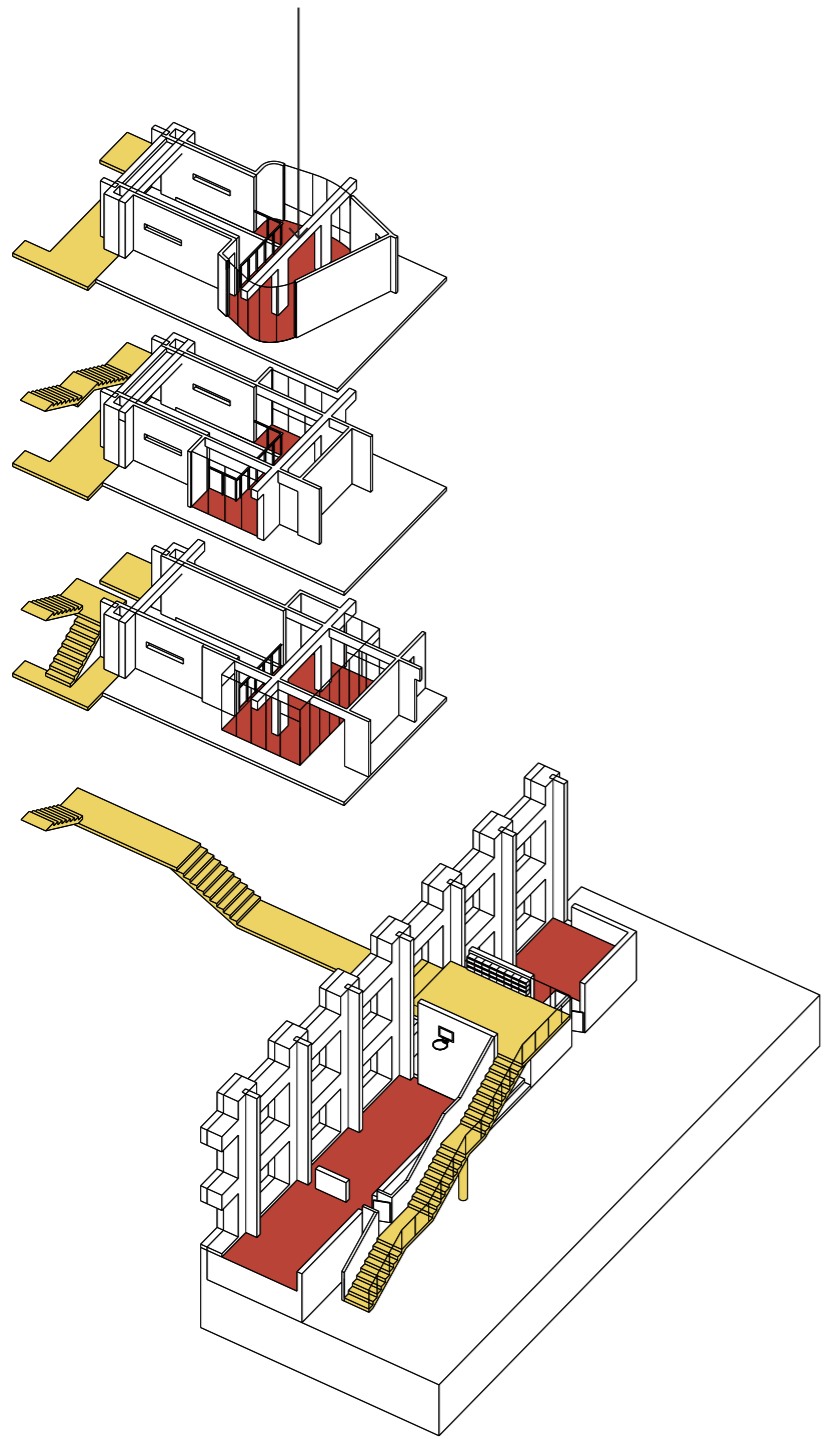
Observation on site



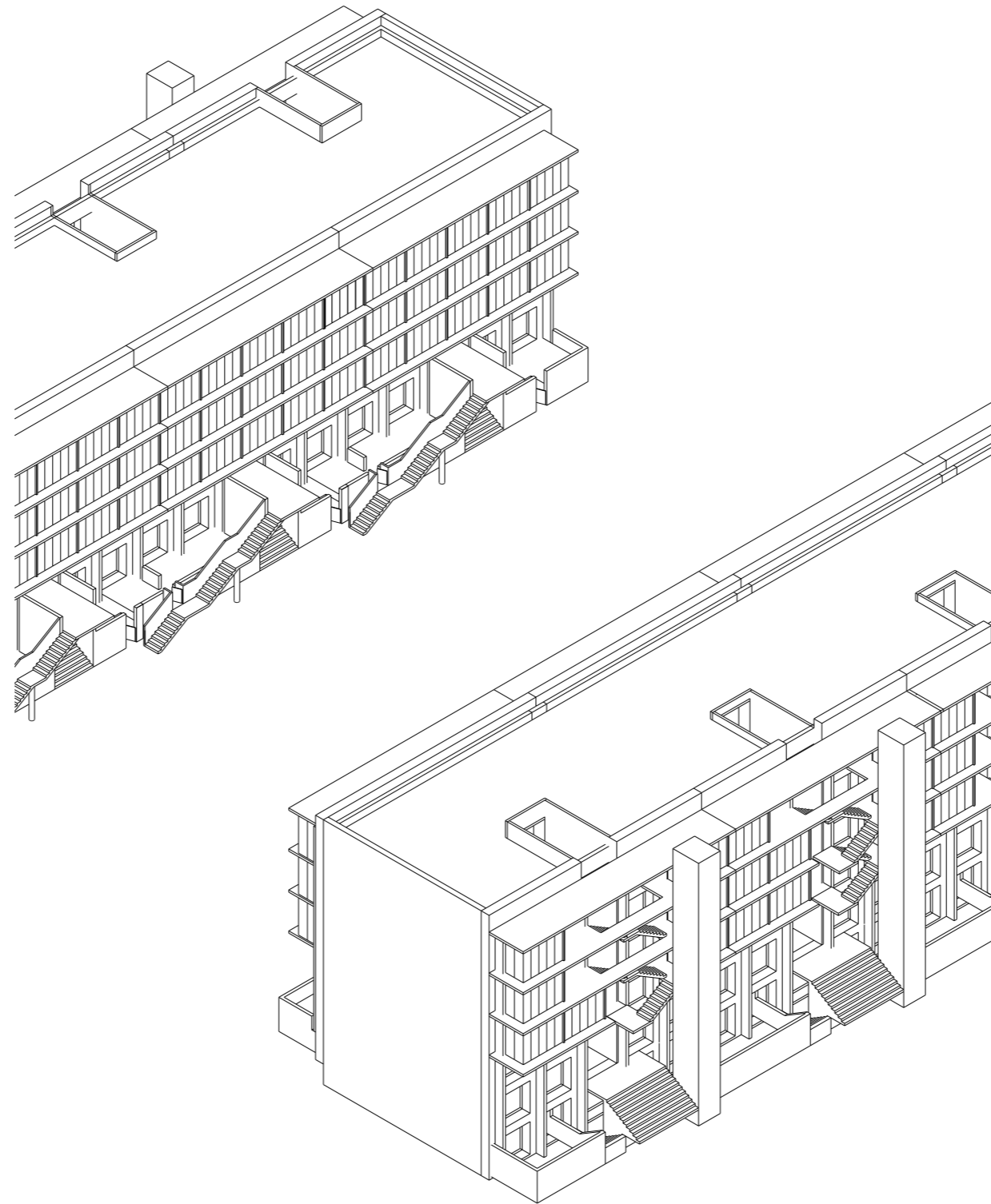
Void spaces

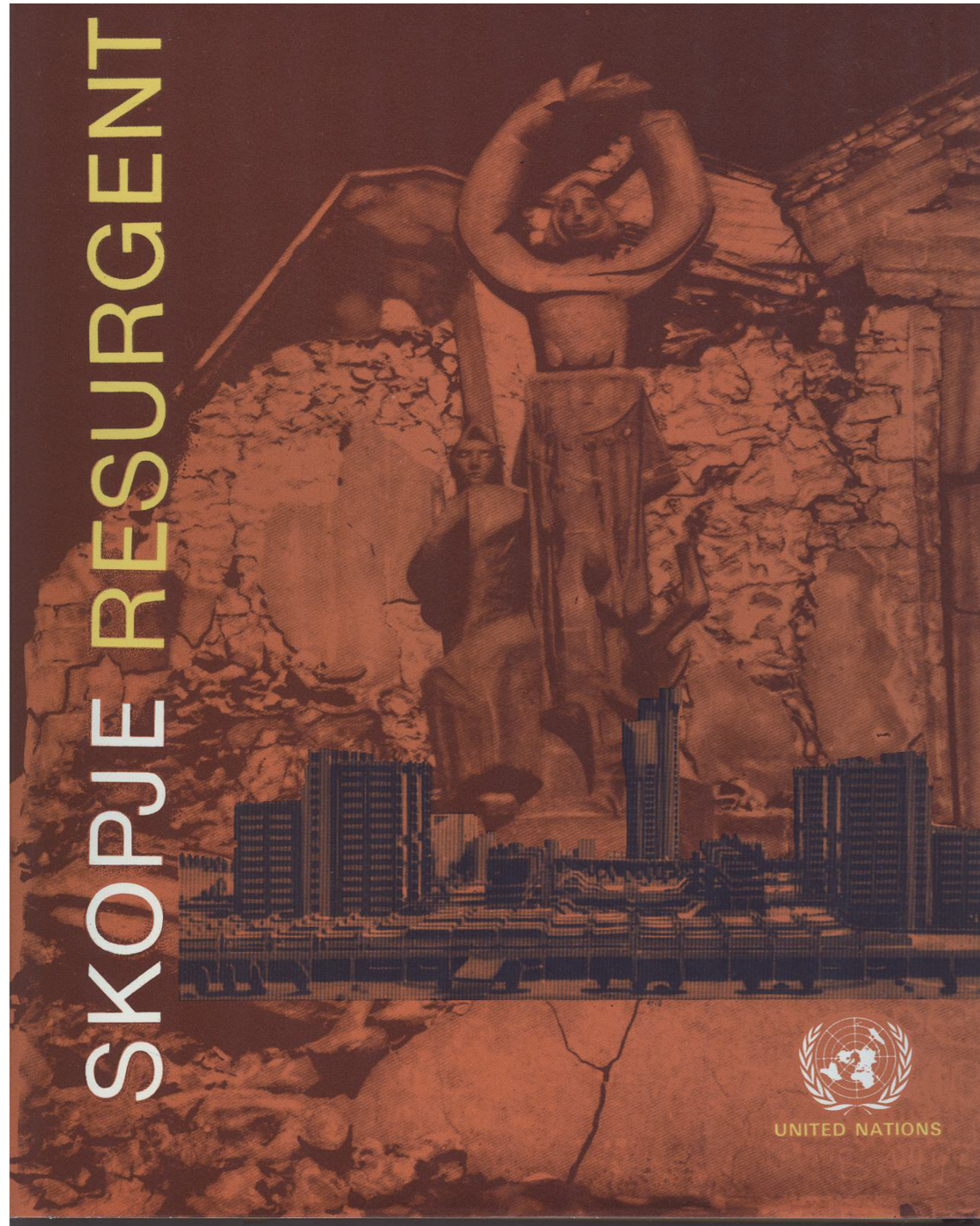


Internal Yard

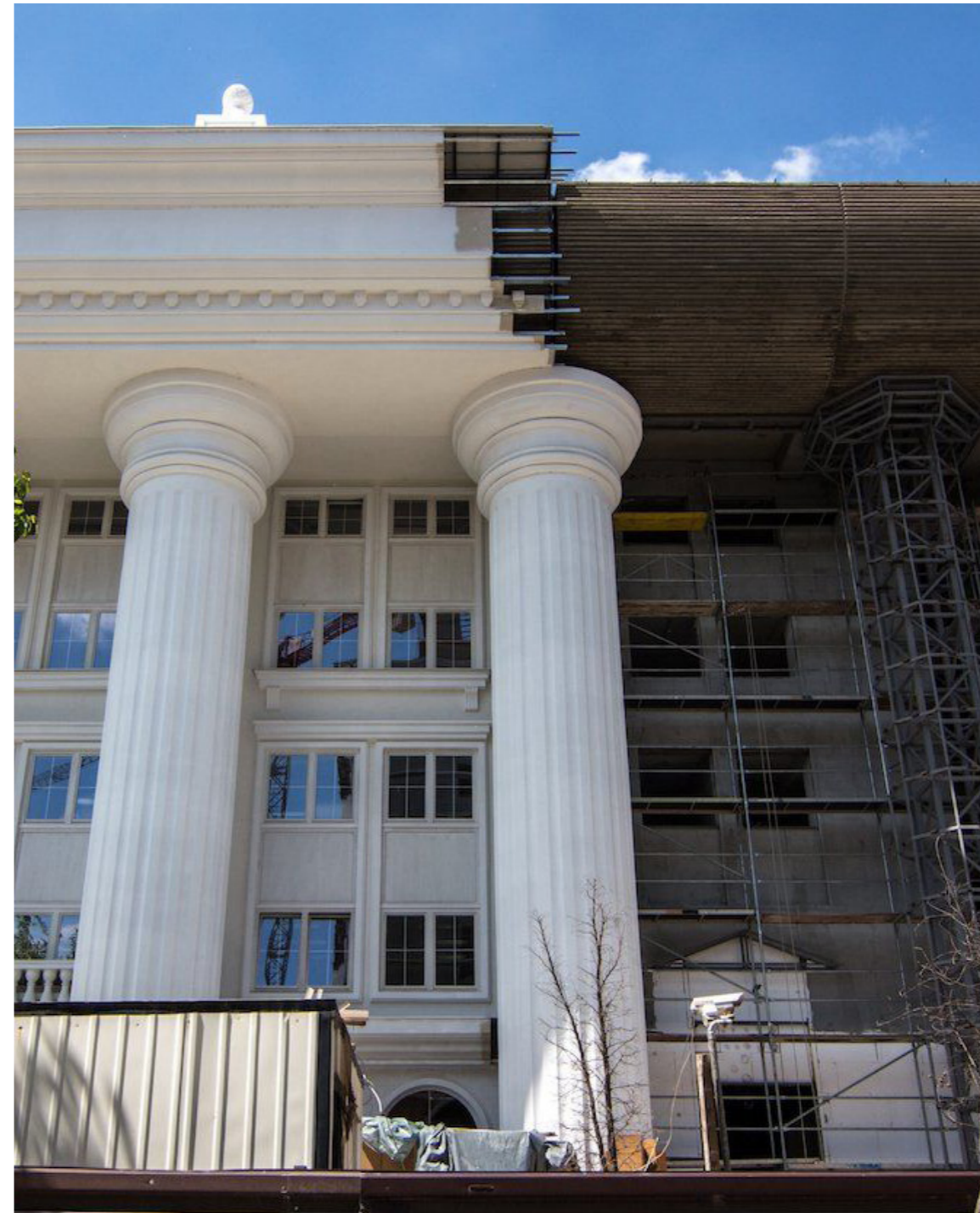


Reflection





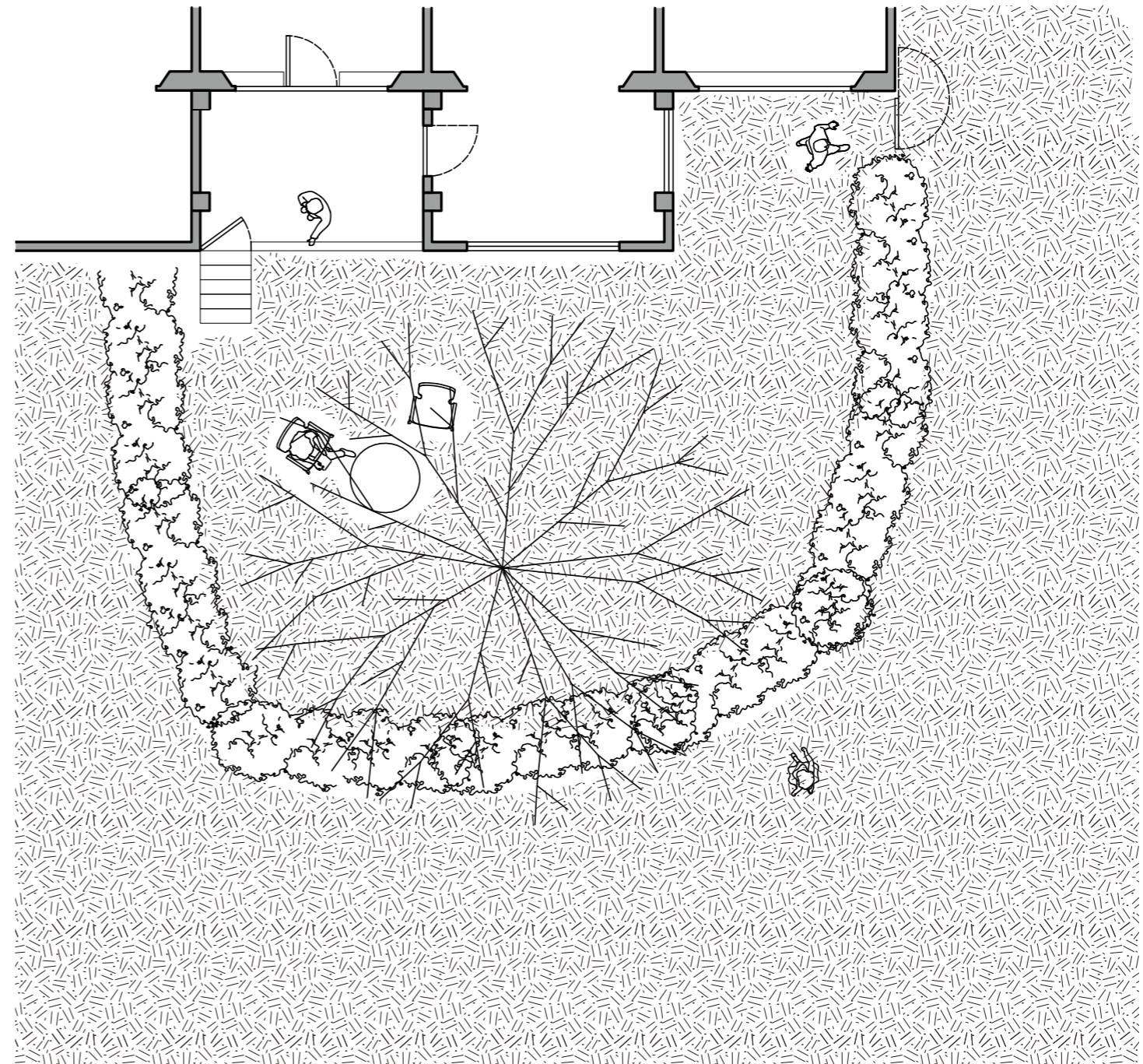
Skopje resurgent 1963



Skopje 2014



Current appropriation



Plan of the appropriation

Architectural Behavior

The term **“Behavior”** could be central to a hypothesis for understanding the **correlations** between human life, nature, and the built environment. ... We can discern at least three main classifications relating explicitly to **architecture and urban space**.

1. Behavior of human beings.
2. Behavior of the natural elements, such as light, heat, water and wind.
- 3. Behavior of buildings as observed in their larger context or environment.**

Form which Support Building Behavior

In places where certain **attributes** of a building **repeat** and **accumulate**, a **streetscape order is produced**. For such an appearance to emerge, these places were not planned, nor were there original blueprint. Rather, their forms seem to **have stabilized after years**. Enduring repetition over time, both the **unique elements** and the **overall compositions** of built form could only **survive** through a **process of continuous trial and error**.

- Atelier Bow-Wow

Repeat, Accumulate, Strive, Timescale

