United in diversity: shared social housing in today's Anderlecht

A curative project that reacts to the individualized society,
striving for a reconciliation of the fragments of Brussels
and mediation of the collective in social housing.

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Urban Architecture MSc 4 2019/2020



Spolia (Latin: ‘spolium’ for loot)

The term Spolia is often used by (architectural) historians and archaeologists and it refers to the antiquity where looted materials are reused for new purposes in constructed environments.

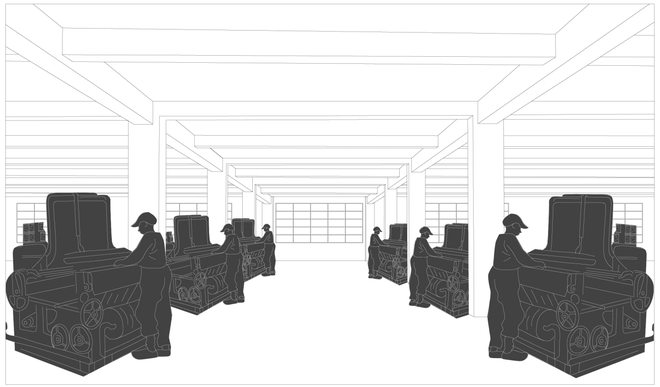
.. in se

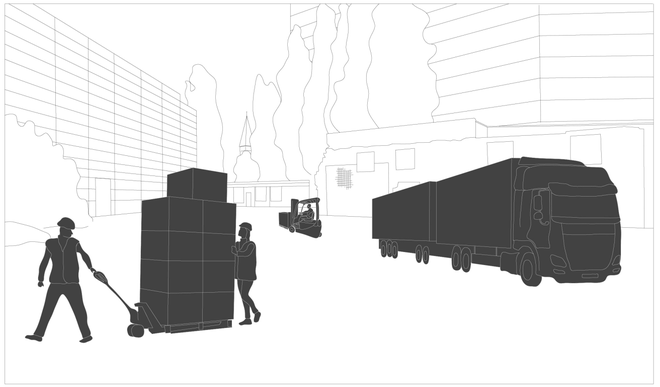
The pragmatic way of reusing actual elements.

.. in re

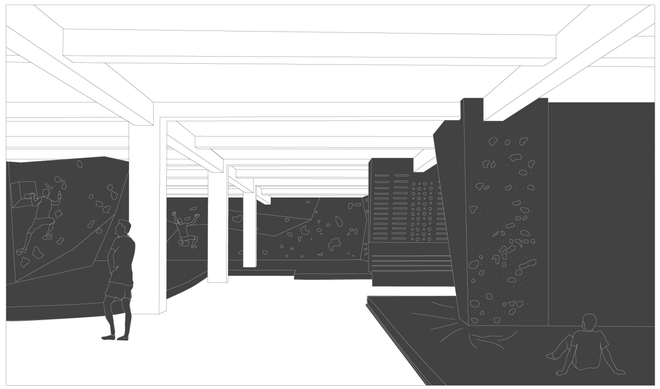
The symbolic way of the use of older images, motifs, styles without the material reuse.

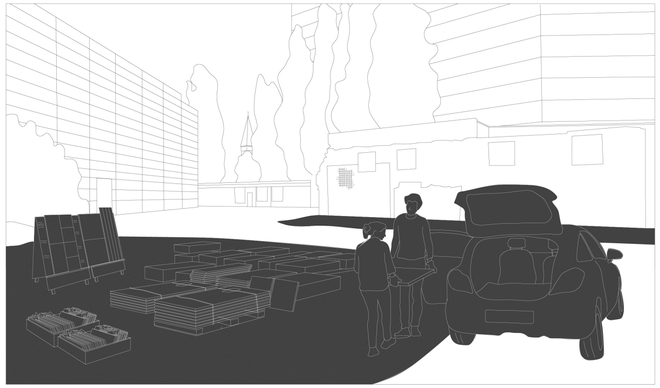
research

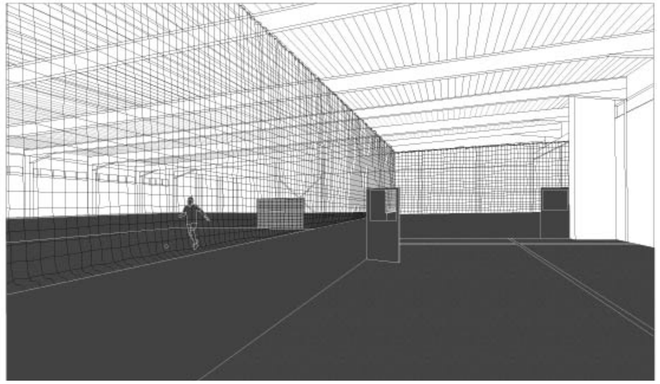




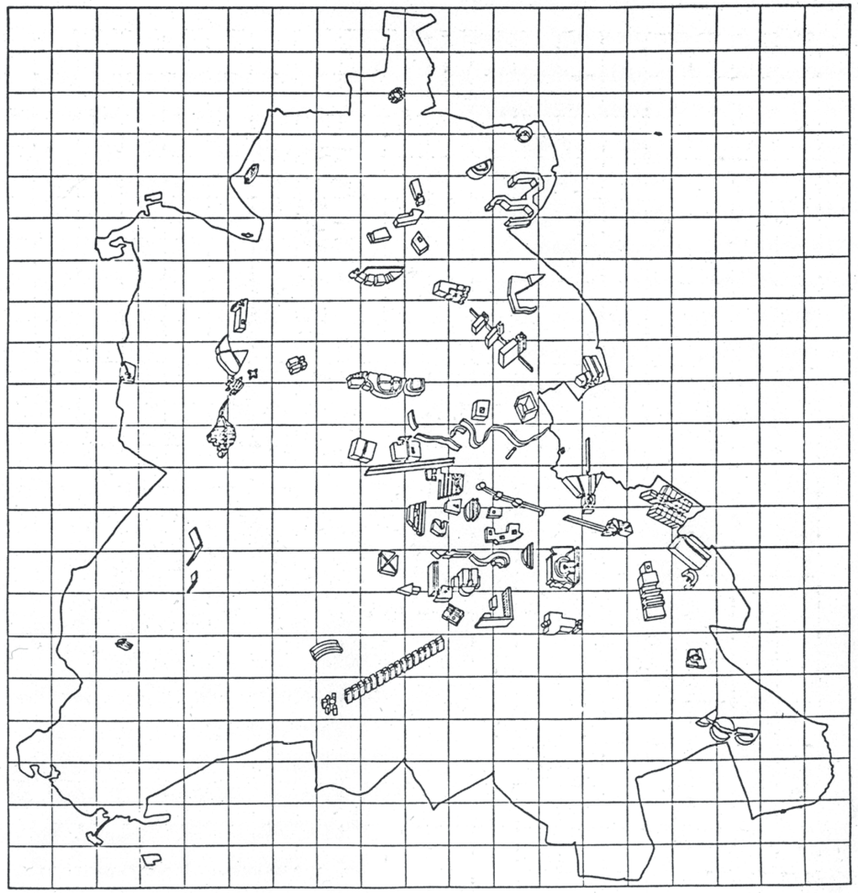








Städte in der Stadt



City in the City

Contemporary city where the changing society desires for individualization versus traditional public spaces in the historical city centre that are offering cohesion and sense of community.

Collectivity admits individualism and at the same time pleats for cohesion.

“the metropolis is to the multitude what the factory was to the industrial city”

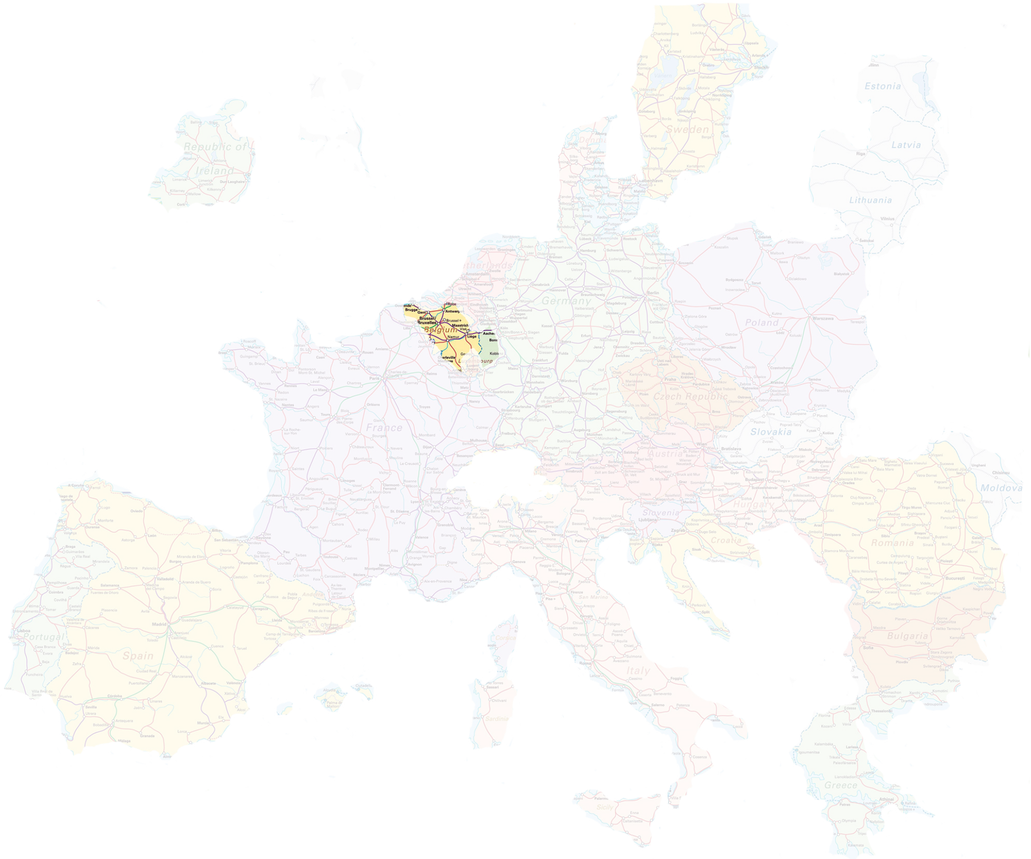
The contemporary city is ‘the space of the common’, a privileged site in which an ‘artificial common’ of ‘languages, images, knowledges, affects, codes, habits, and practices’ is produced. Through their daily acitivies and struggles, individuals and social groups create the social world of the city and, in doing so, create something common as a framework within which we all can dwell.

Michael Hardt & Antonio Negri. (2009). Commonwealth



Europe

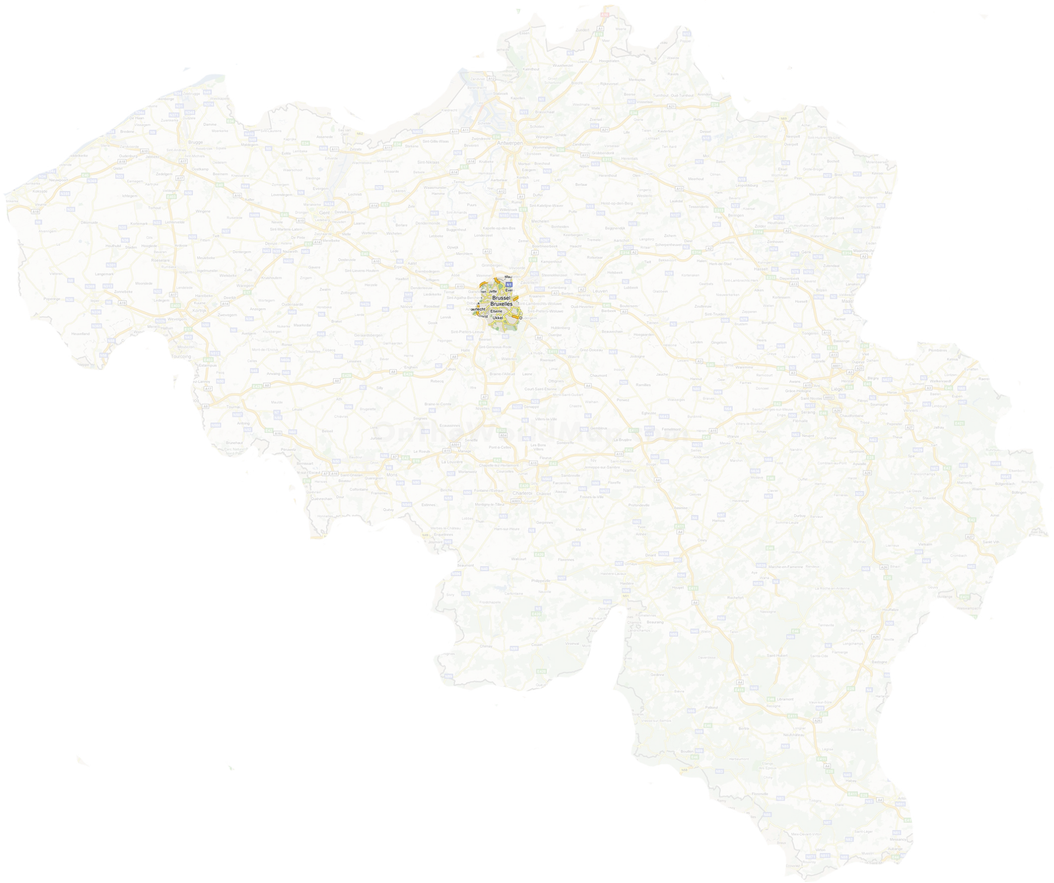
In Varietate Concordia


Estonia
Latvia
Lithuania
Sweden
Republic of Ireland
Germany
Poland
Belgium
France
Czech Republic
Slovakia
Moldova
Romania
Bulgaria
Portugal
Spain
Italy
Greece



Belgium

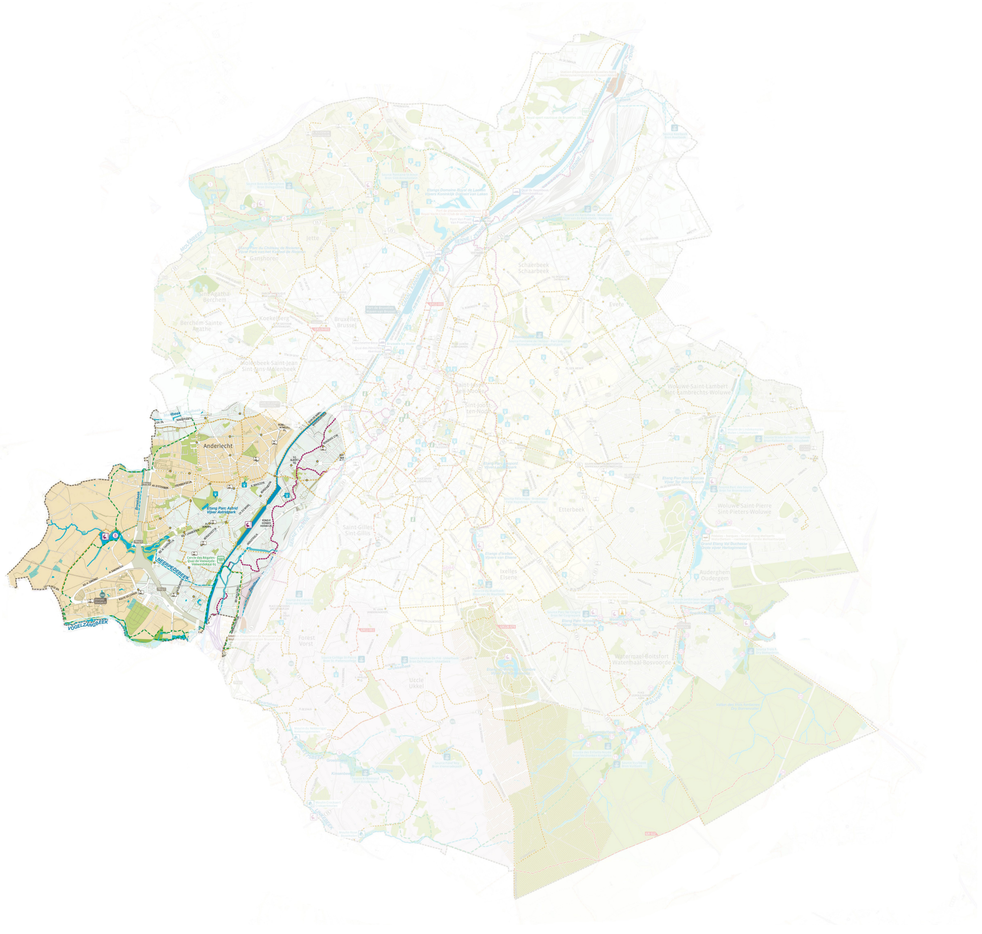
Institutional fragments


Brussel
Bruxelles



Brussels

Poor sickle


Anderlecht



Anderlecht

Many faces


Anderlecht
Etang Parc Astrid
Vijver Astridpark
NEERPEDEBEEK
VOGELZANGBEEK
SENNE / ZENNE
Cercle des Régates
Quai de Veeweyde -
Veeweidekaai 65
Station d'épuration
Waterzuivering



Kuregem

Enclave


Gronobstraat
Doster Kubornst
Eloystraat
De Fennesstraat
Hoofdnoldstraat
Rouwerstraat
Oosterwestraat
Pastoriestraat
Herenstraat
Passerstraat
Schoolstraat
Nieuwestraat
Zuidstraat
Kerkstraat
Dijkstraat
Ebbingestraat
Boterdiepstraat
Gedempte Zuiderdiep
Noorderhaven
Zuiderhaven
Hoendiep
Verlengde Hereweg
Emmalaan
Eemslaan
Ubbo Emmiussingel
Bergemastraat
Bergemaplein
Bergemaweg
Bergemaparkeerterrein
Bergemaziekenhuis
Academisch Medisch Centrum
Academisch Ziekenhuis
Academisch Centrum Tandheelkunde
Academisch Centrum Rechtsgeleerdheid
Academisch Centrum Gerechtsgebouw
Academisch Centrum Economie
Academisch Centrum Letteren
Academisch Centrum Wiskunde
Academisch Centrum Natuurkunde
Academisch Centrum Biologie
Academisch Centrum Geneeskunde
Academisch Centrum Psychologie
Academisch Centrum Sociologie
Academisch Centrum Geschiedenis
Academisch Centrum Filosofie
Academisch Centrum Theologie
Academisch Centrum Kunstgeschiedenis
Academisch Centrum Archeologie
Academisch Centrum Antropologie
Academisch Centrum Geografie
Academisch Centrum Geologie
Academisch Centrum Meteorologie
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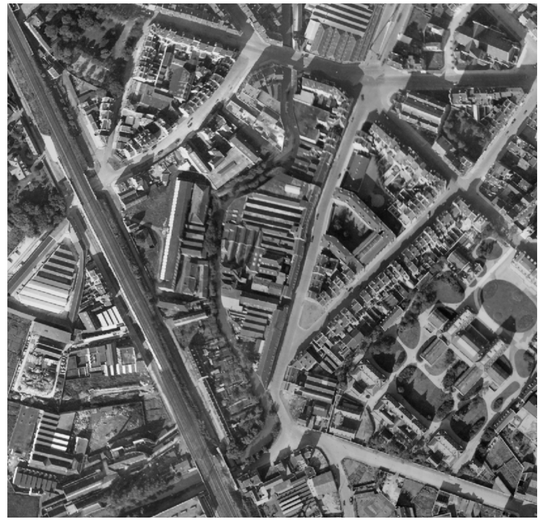
Academisch Centrum Astronomie

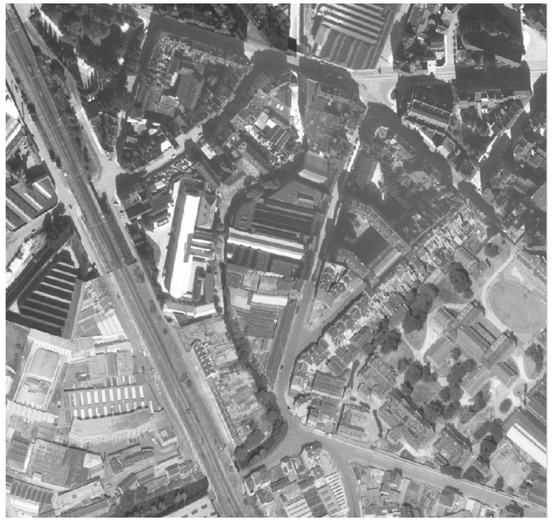


Site

Characters



1930-1935



1953



1971



1978



1996



2020

What is striking when you compare Belgian and Dutch cities?

"Belgian cities are changing **slowly.** Land ownership is very **fragmented.** In Belgium, governments own **less than 10 percent** of the land. That leads to **"slow urbanism".** This gradualism will give you **more stratification, more quality and richer cities.** In Amsterdam, 70 percent of the land is owned by the city. This has led to urban renewal projects, in which entire neighborhoods are tackled.

- Kristiaan Borret, stadsbouwmeester of Brussels



Site



Characters


















WOODWORKERS
dart





Tous les jours ouvert de 10h00 à 21h00
Alle dagen open van 10u00 tot 21u00





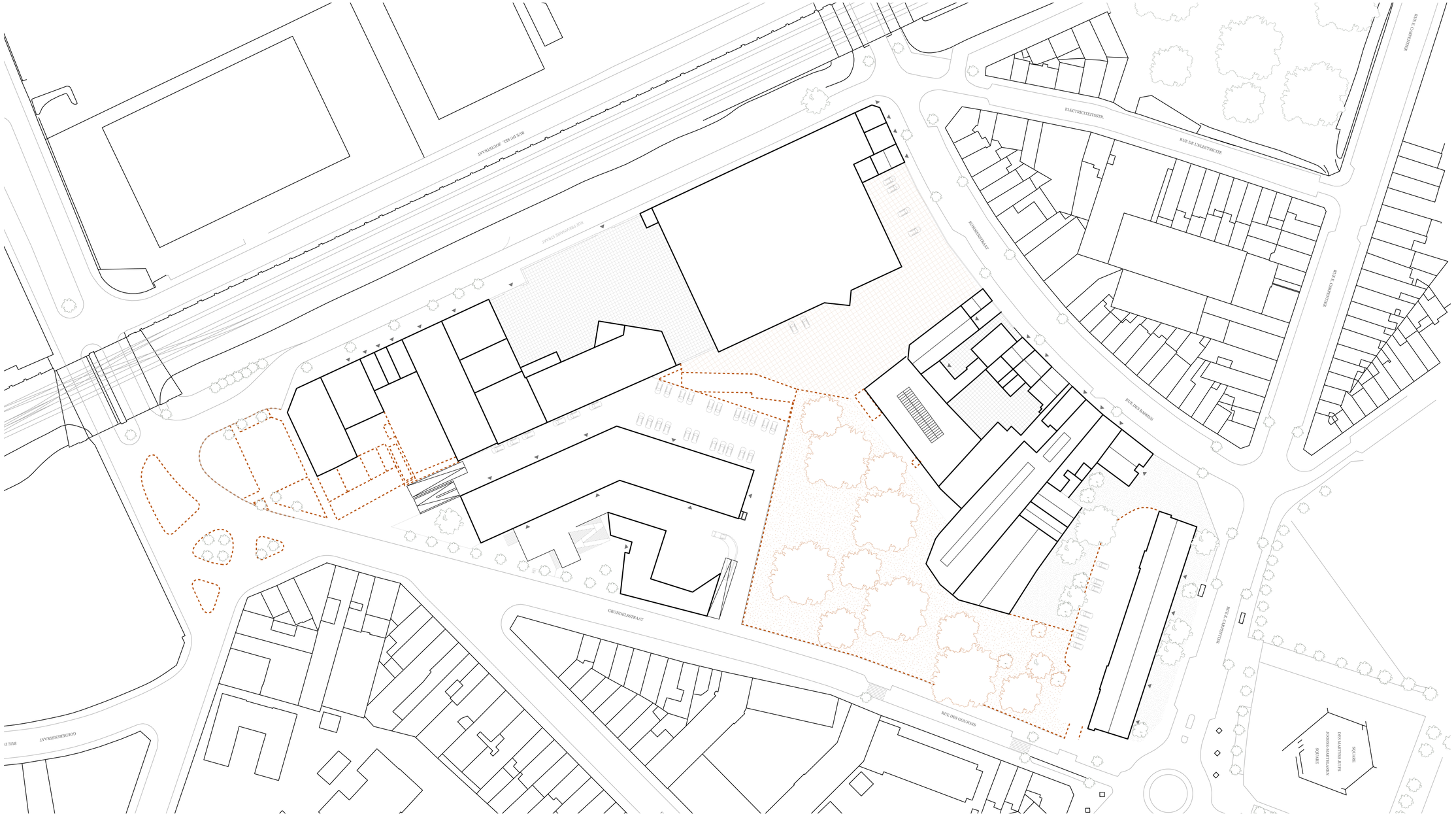

1 Fragmentation on different scales

2 Urban characters on the site

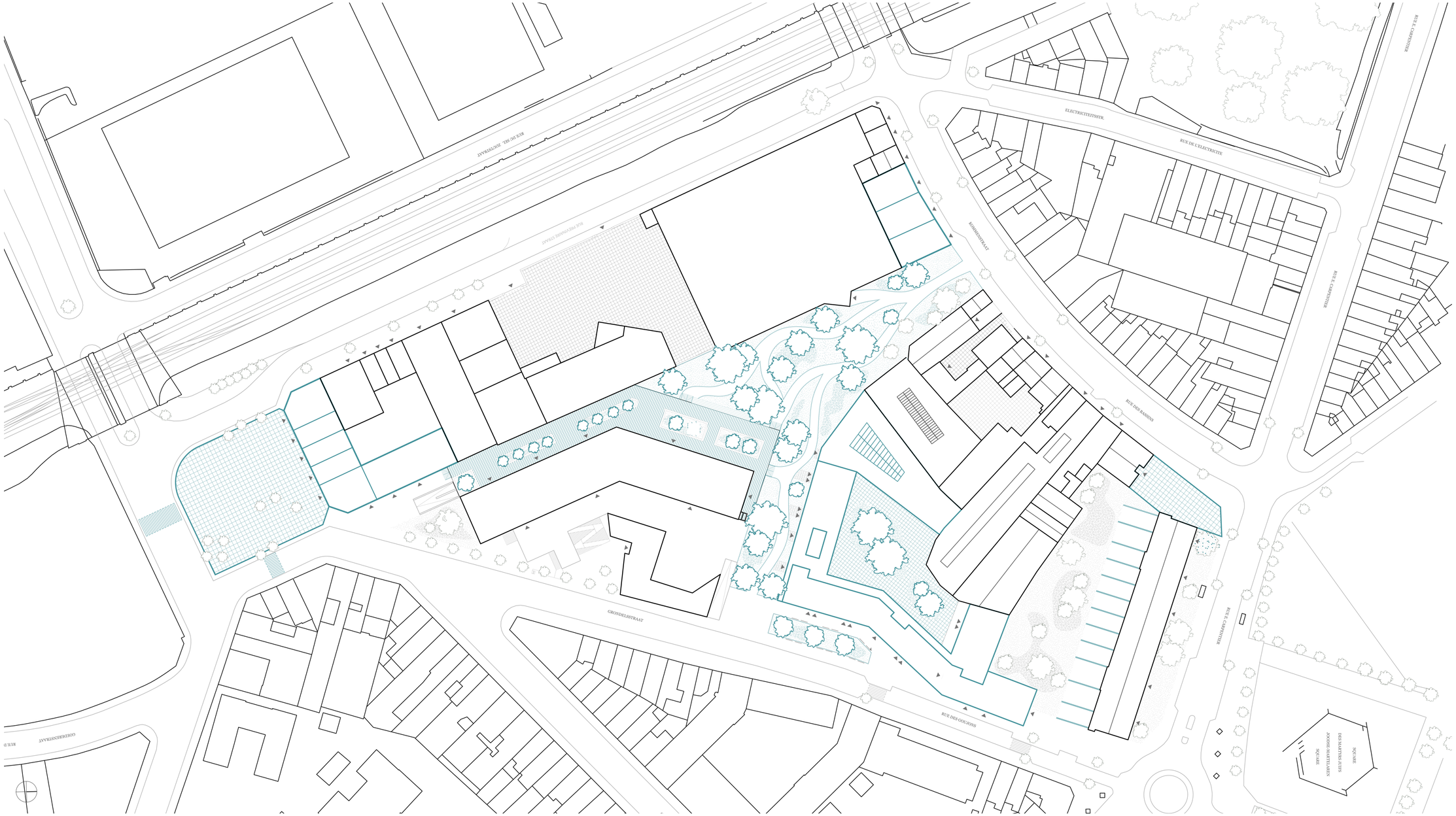
3 Individualism in society

4 Collectivity

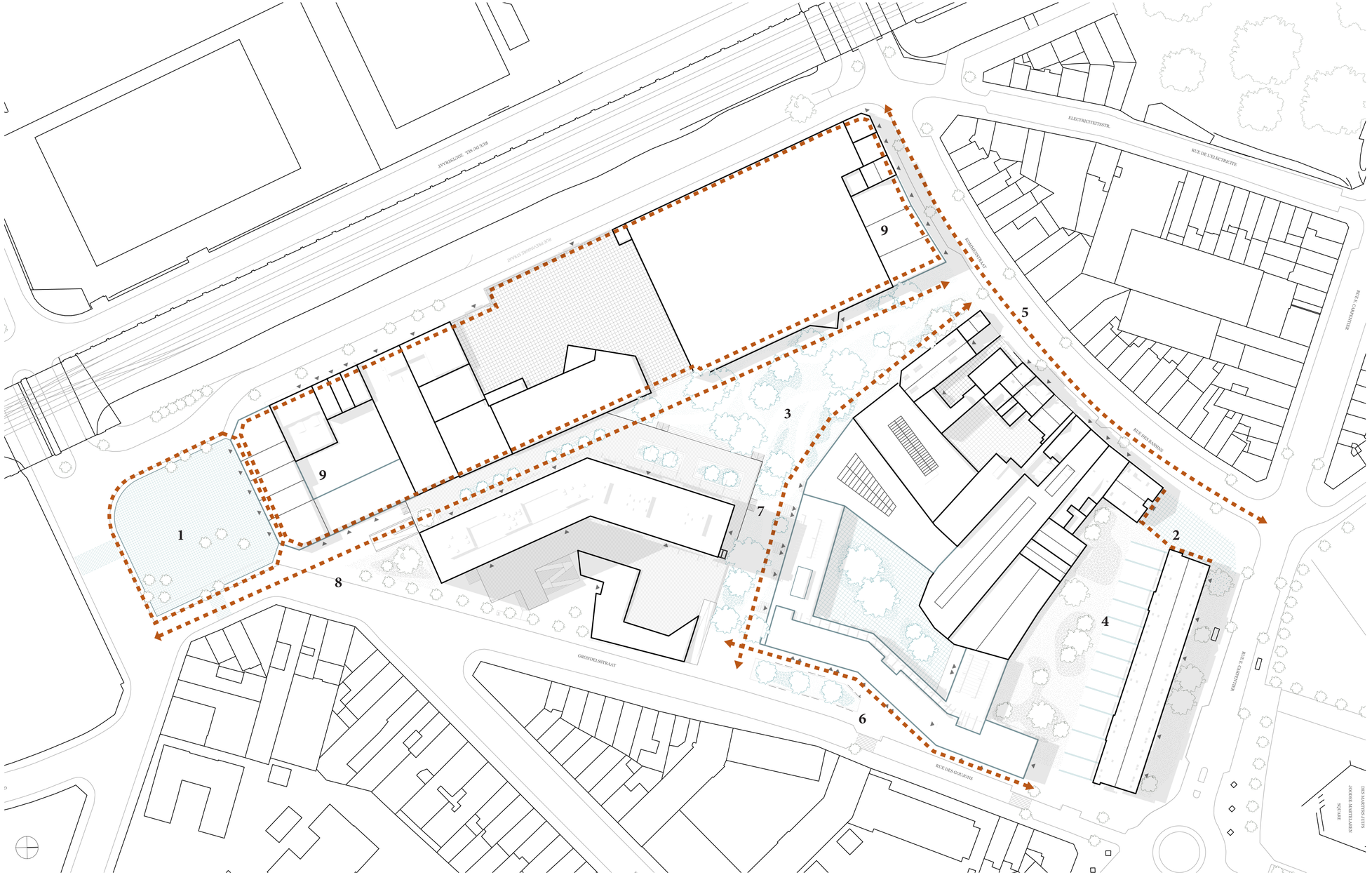
urban design



Existing situation

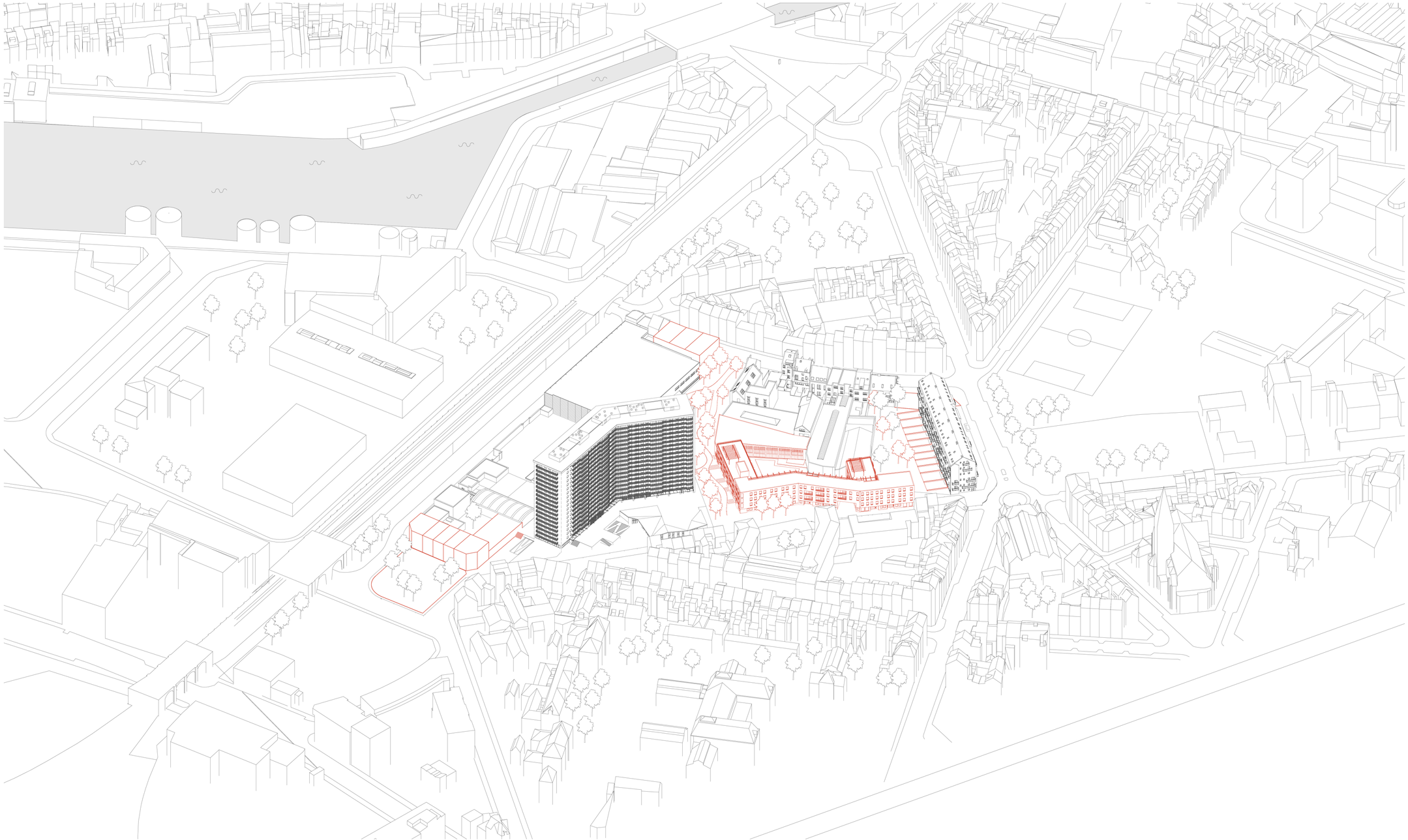


Architect as the mediator



1 improving the traffic knot
2 renew the pavement
3 replacement of the park
4 removing the carparking to the underground parking at Les Goujons
5 preserve the continuity of the street image
6 improving the lines regarding the restaurant
7 improving the border by continuing the facade
8 improving the continuity along the productive border
9 improving the structure of the productive strip by adding buildings at both ends

Urban strategy





playground

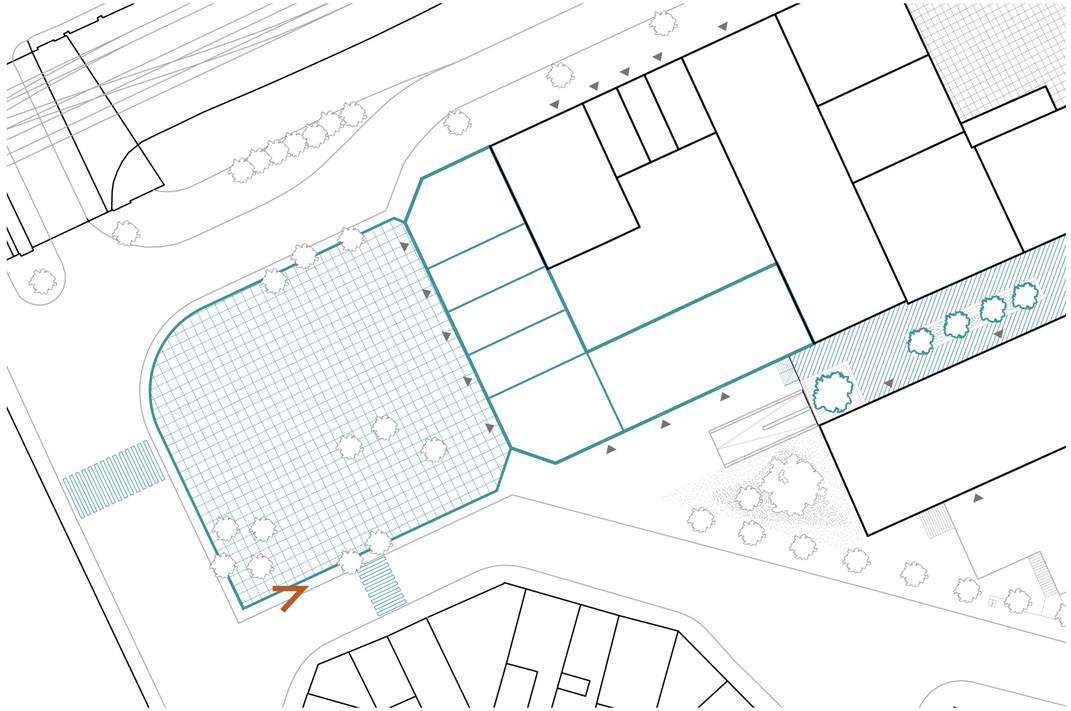


empty plots



historical value





Neighborhood's square



seperation

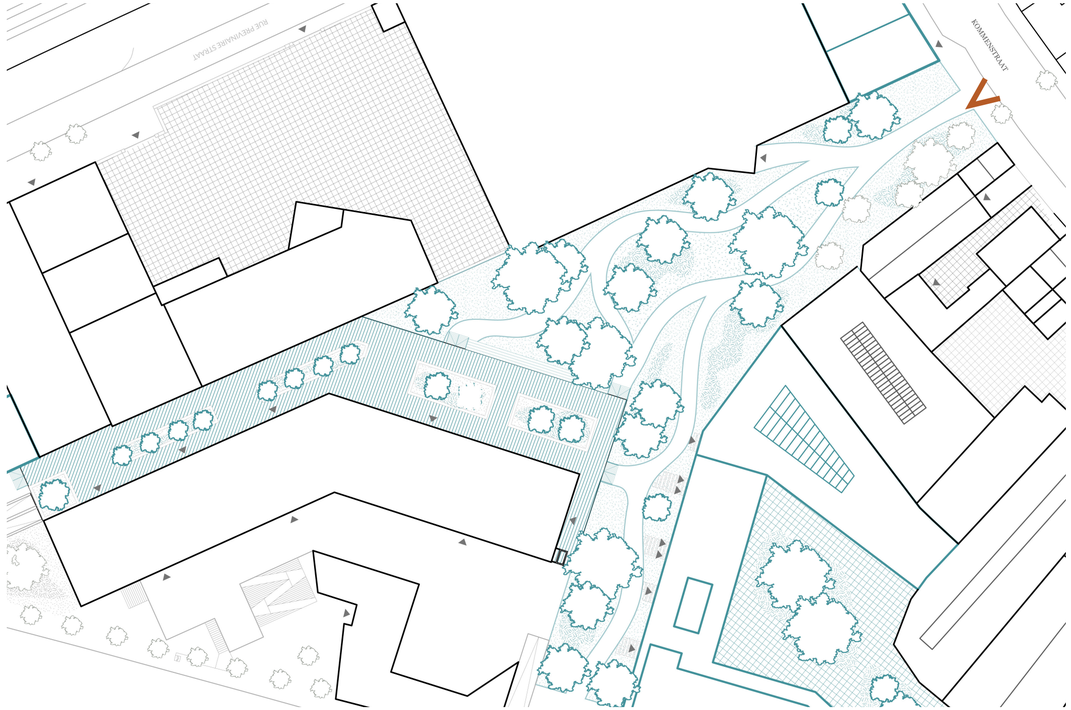


rear side



existing park





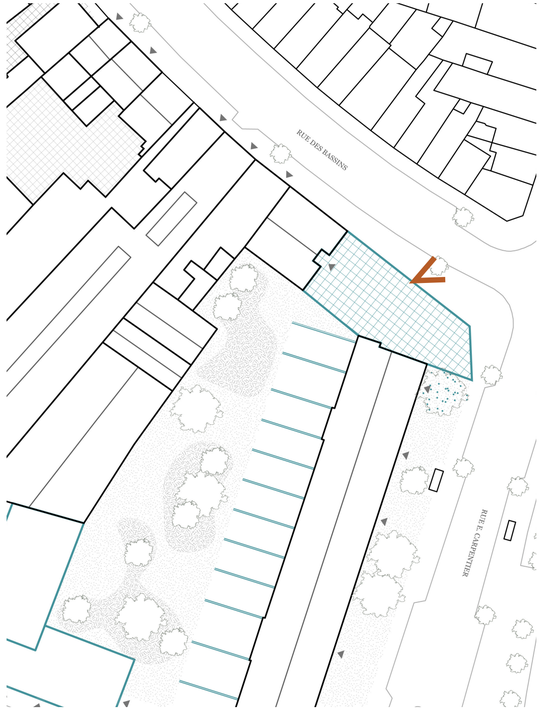
Garden of Les Goujons





Reconnection of the twin building

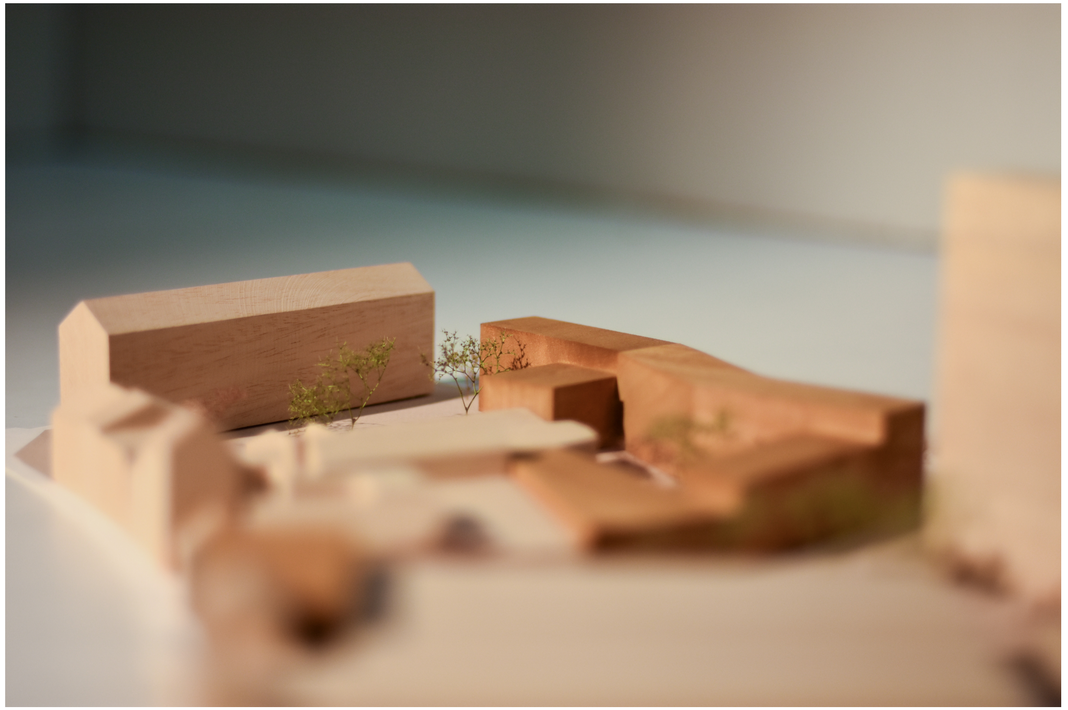


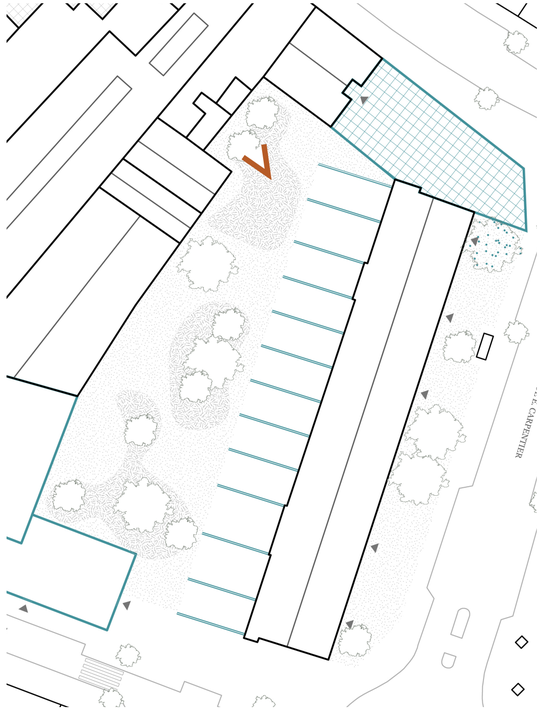


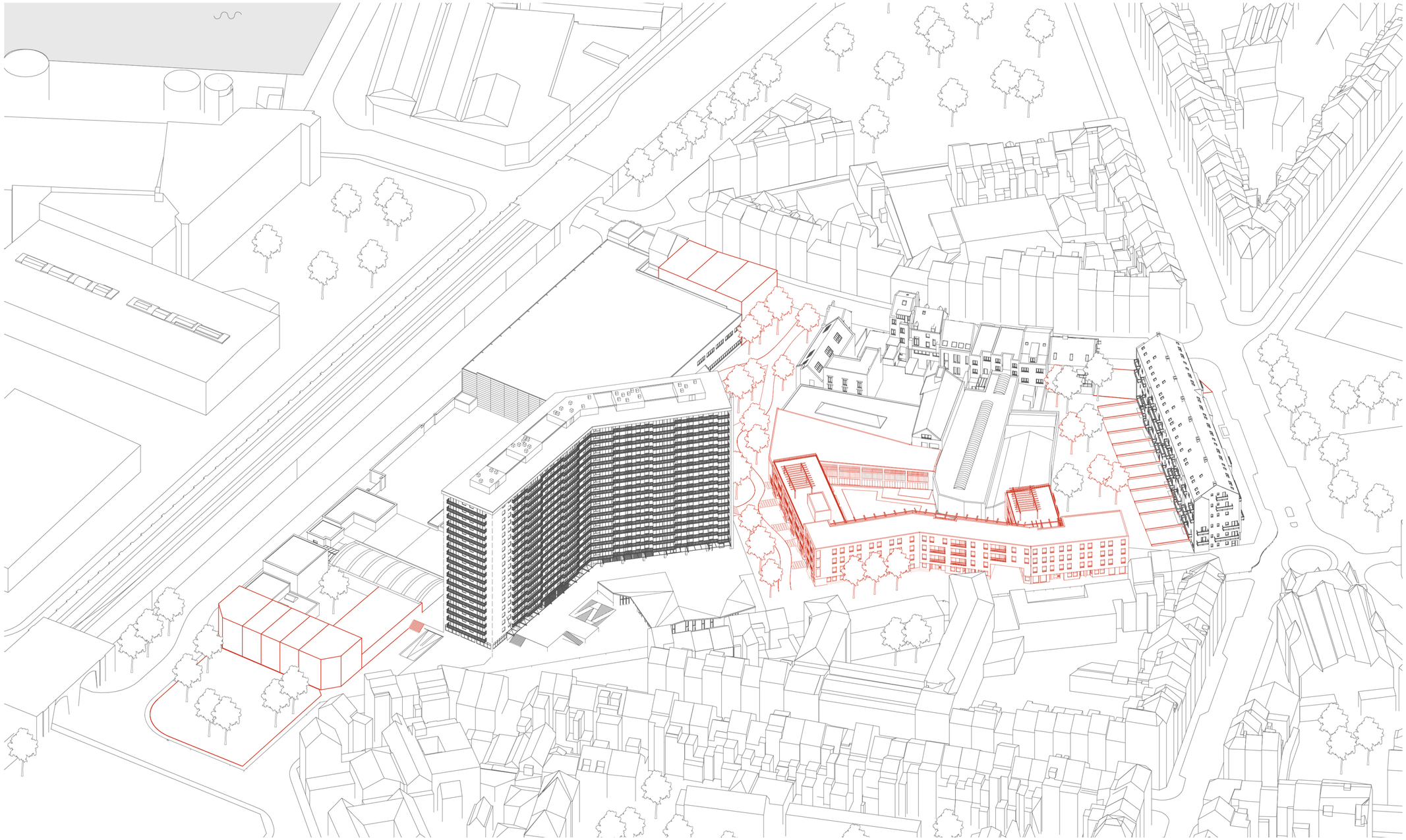
Reconnection of the twin building











Spolia in re



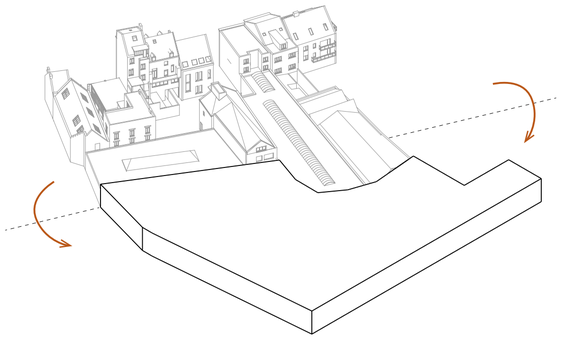
1971



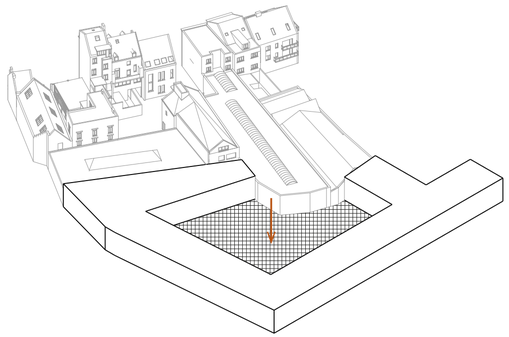
1978



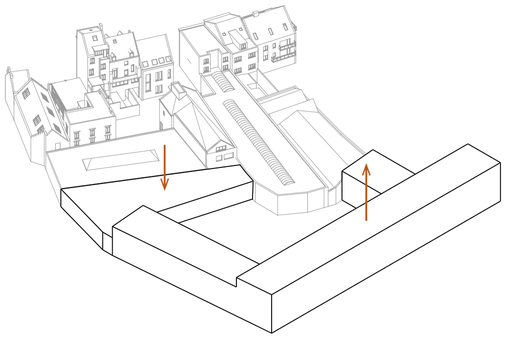
2020



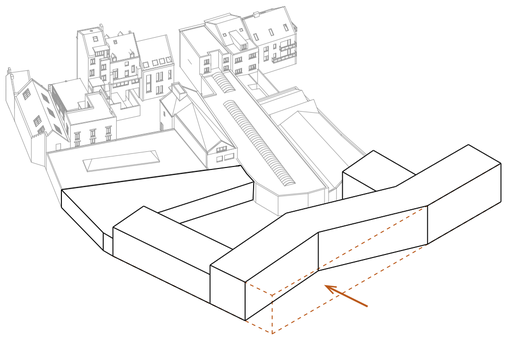
mirroring



collective courtyard



high residentials at the front
low industrial buildings at the rear

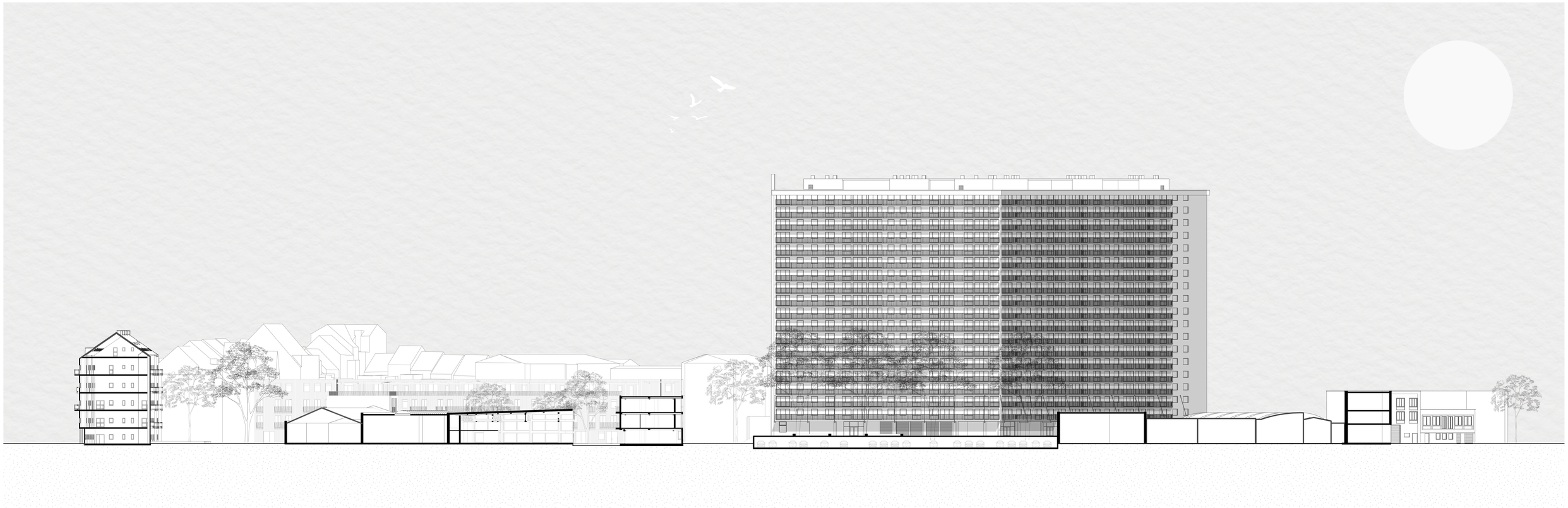


the ‘Les Goujons’ kink

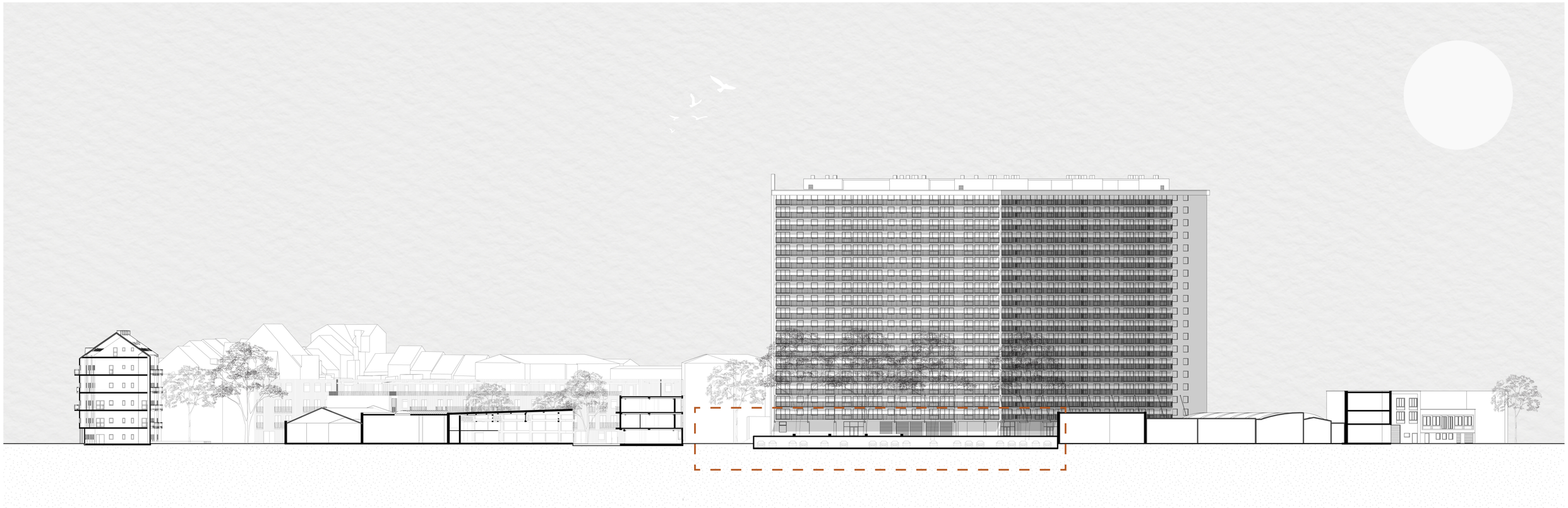
Volume evolution



Border conditions

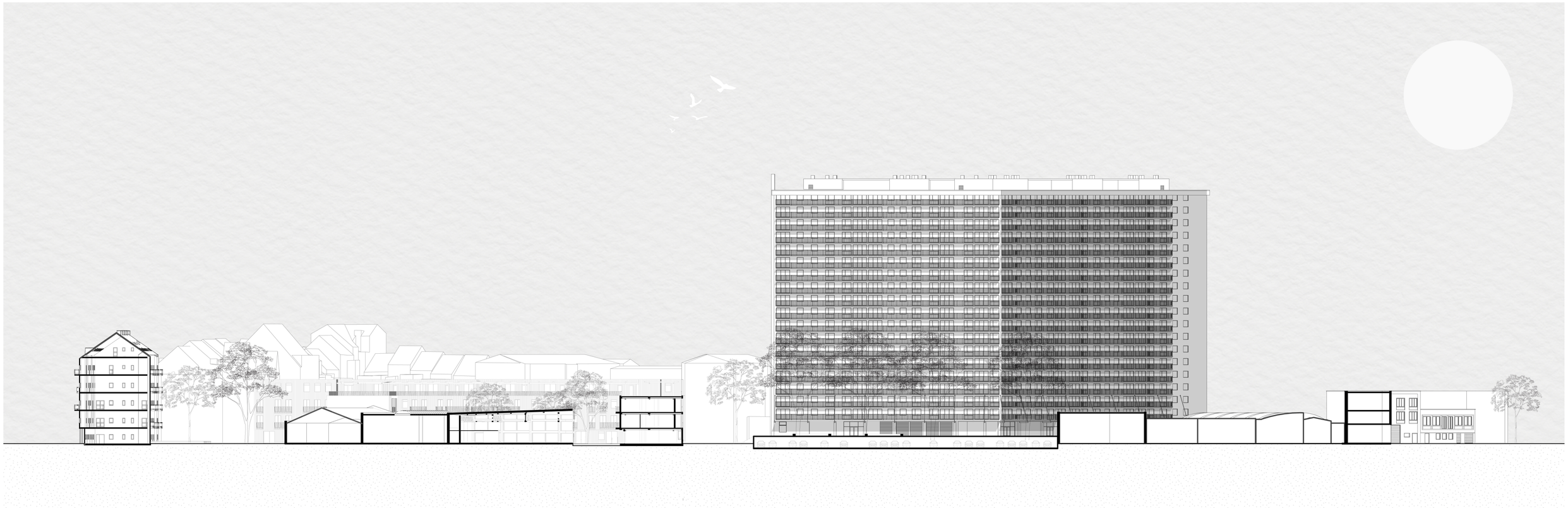


Garden of Les Goujons

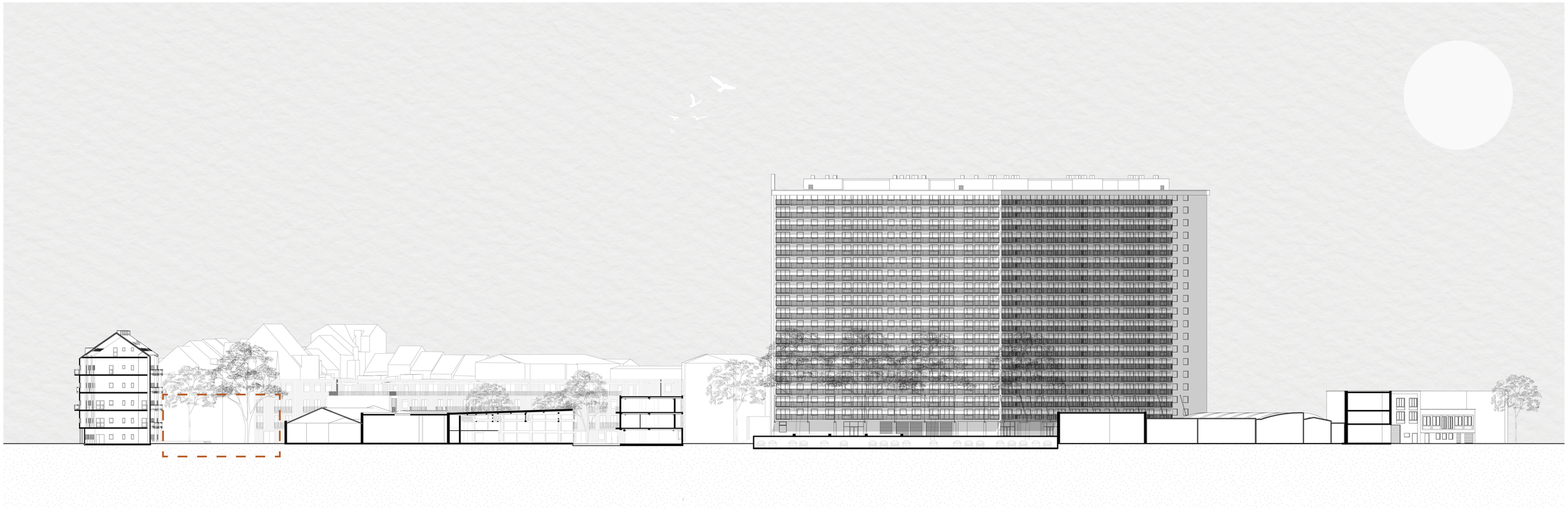


Garden of Les Goujons



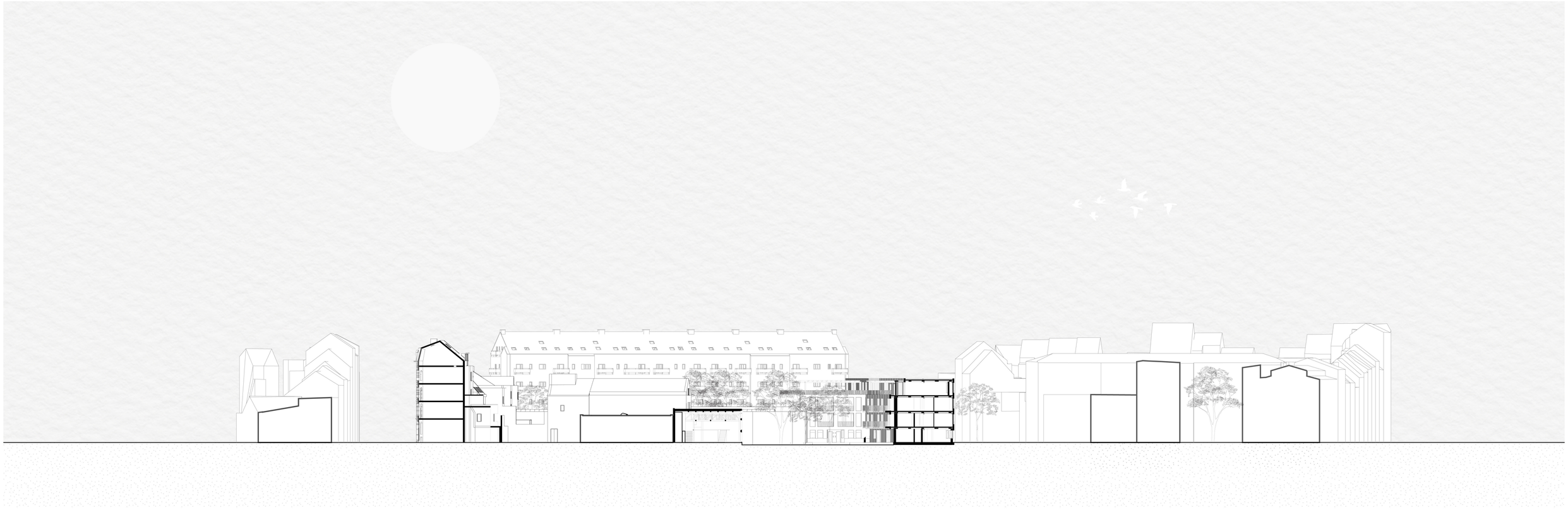


Backyard

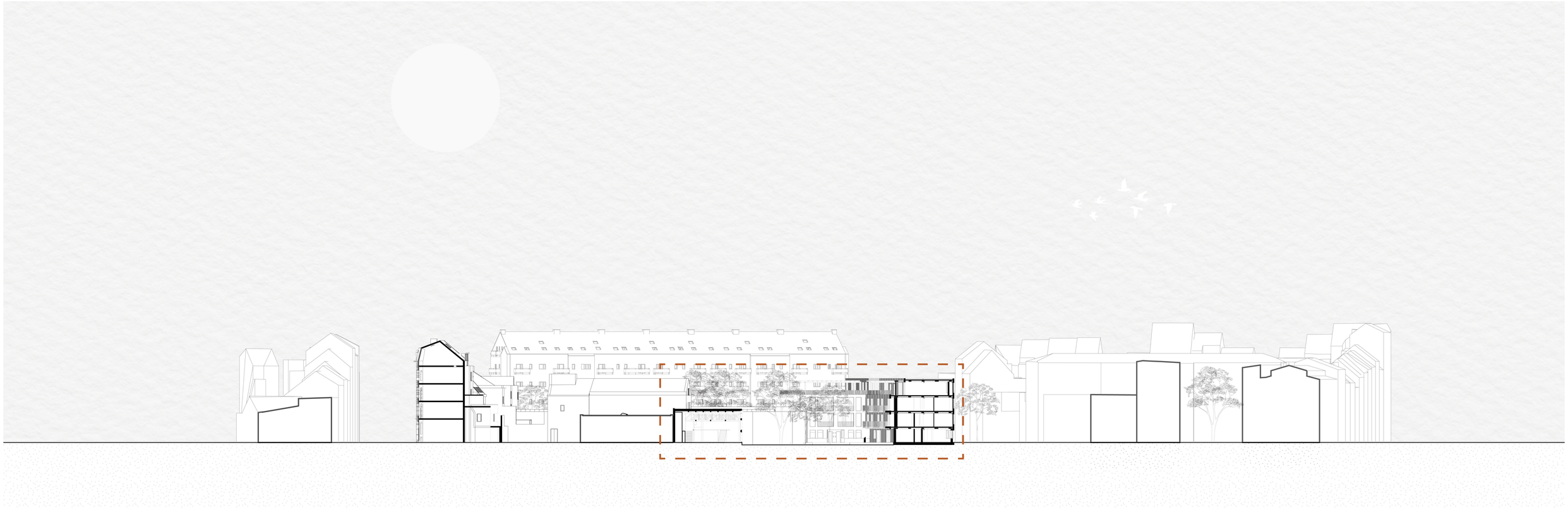


Backyard





Street



Street



1 Shortage of social housing in Anderlecht

2 A place where a community can be formed

3 An industrial-sized building providing flexible spaces

4 Enclosement of the new green backyards

5 Compliment the Les Goujons

architectural design


RUE E. CARPENTIER
RUE DES GOUJONS
1m
5m
10m


RUE E. CARPENTIER
RUE DES GOUJONS
1m
5m
10m



shared social housing

kangoeroewonen

'Kangoeroewonen' are two residents or families sharing one roof for a longer period. Therefore, it is also called 'duowonen'. This form often includes the idea of taking care of eachother, for example eldery on the ground floor with single parenting on the top floor. That is why it is also known as 'zorgwonen'.

solidair cohousing

With solidair cohousing, the group also consists of multiple different households such as families, couples and singles living in the same building. However, there is one particularity: at least one of the residents is positioned in a vulnerable social condition. This not only means financially vulnerable, but also in terms of physical or mentally health, social isolation, age, lack of a (good) house, mobility problems or addiction. One needs to meet at least two of these criteria to become a vulnerable resident.

woongroep

A 'woongroep' contains more private rooms than the 'gemeenschapshuis'. Therefore, it's also interesting for other types of residents, which results in a mix of several categories. These residents are most of the time more engaged to the house on longer term than the 'gemeenschapshuis'.

leefgemeenschap

A 'leefgemeenschap' is similar to a 'woongroep', but the whole household is runned collectively. The grade of community is higher and the residents are often sharing the same ideological belief like religion, solidarity, ecology. Besides communal amenities, also acitivites are organised. Therefore, it requires more social dialogue.

Community Land Trust

This form of collective living is a new form and only experimented in Gent and Brussels. The concept is based on the division between land and house ownership with the aim of creating affordable housing for people with lower incomes. The terrain that hold the individual housing units is managed by a non-profit organisation. So the residents only need to pay for their own home, while they own the land collectively for a profitable cost.

co-wonen

'Co-wonen' is more known in the Netherlands than Flanders. It's based on the concept that every resident has their own unit besides communal amentities in the building. It can occur that the households are living within the borders of a collectively bought terrain. And most of the time, the projects are of a large-scale size.

cohousing *

Cohousing is basically the same principle as 'co-wonen', but it adds another layer of collectivity, namely: the communal living room with eating area where the residents can gather and participate communal activities.

This form is mostly common in countries like Unites States, Sweden and Denmark.

gemeenschapshuis

The 'gemeenschapshuis' is the most commonly way of collective living. It used to be more attractive to students and young adults to live for a temporary span, but the last years there is more interest from other age catagories such as 50+ and single parents. Mainly, it has a social or economical reason behind it rather than a sustainable motive. With exception of the private bedroom, the rest is collectively used, such as kitchen, bathroom, toilet.

degree of commonality

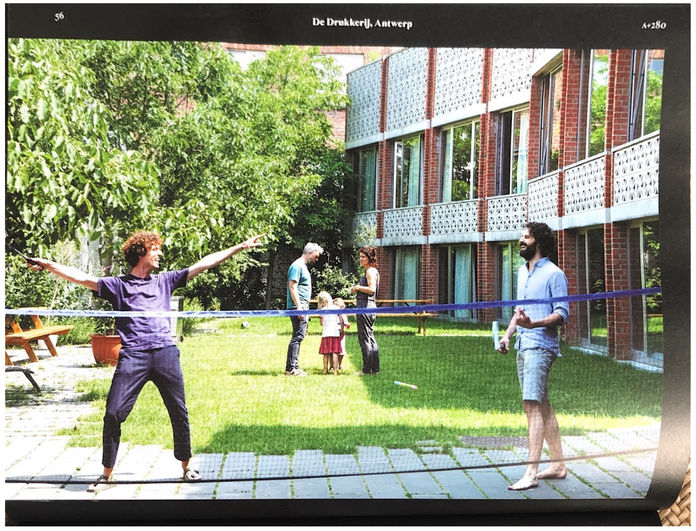
* It is characterized by three basic elements:
1. participatory process, decisions are taken together and also responsibiltiy are shared
2. a concious community, all the residents have freely chosen for a partial community of property.
3. communal spaces such as eating and gathering area, playground for children, laundry room, atelier, collective bikes and cars.



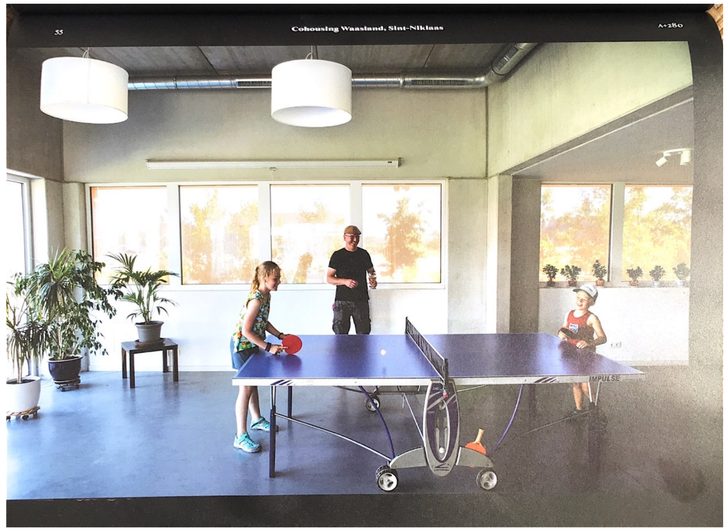
Havana Architectuur, De Schilders, Sint-Amandsberg



MVC - aNNo, Co-housing Hof Ter Beemt, Zingem



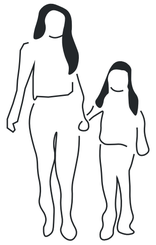
Collectief Noord, De Drukkerij, Antwerp



Blaf & Denc!-studio, Cohousing Waasland vzw, Sint-Niklaas



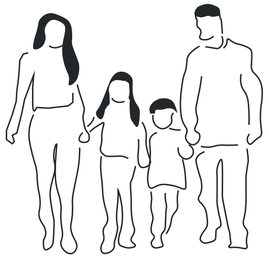
Stekke + Fraas, Brutopia, Brussels



single parent



students



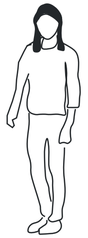
young families with children



elderly



large families with of without migration background



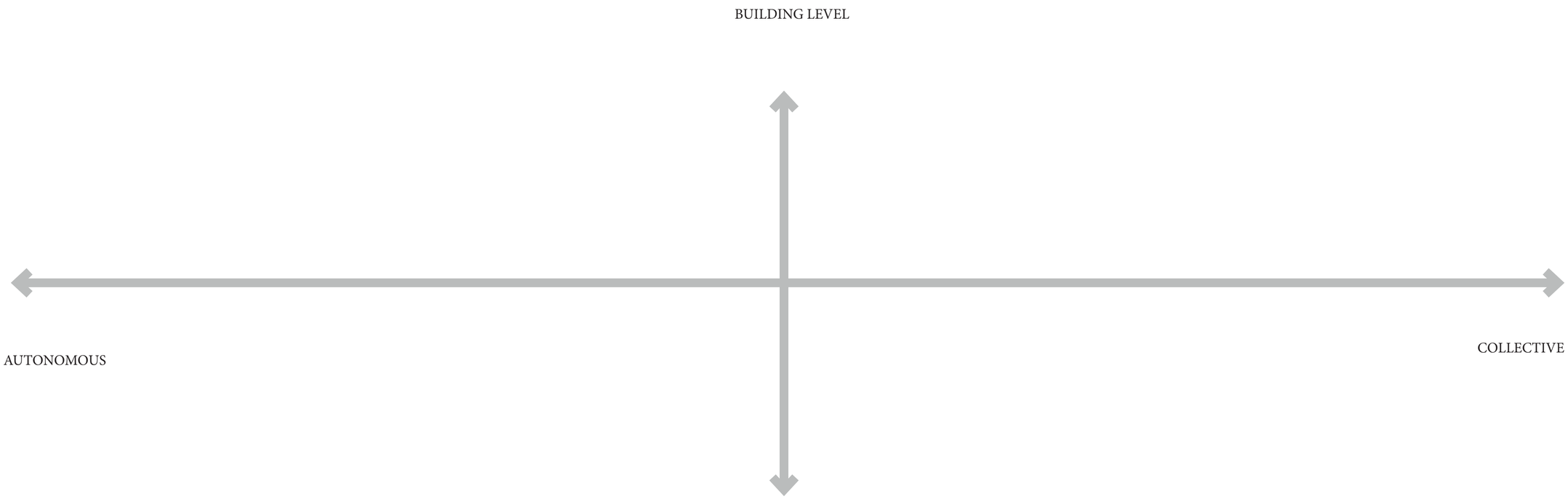
singles



AUTONOMOUS

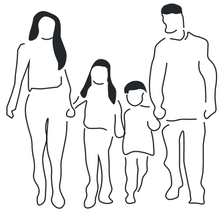
COLLECTIVE

Spectrum of living

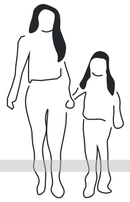


Spectrum of living

BUILDING LEVEL



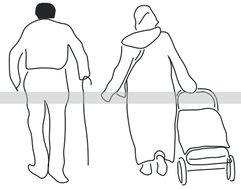
young families



single parent



singles



elderly



large families (with or without migration background)



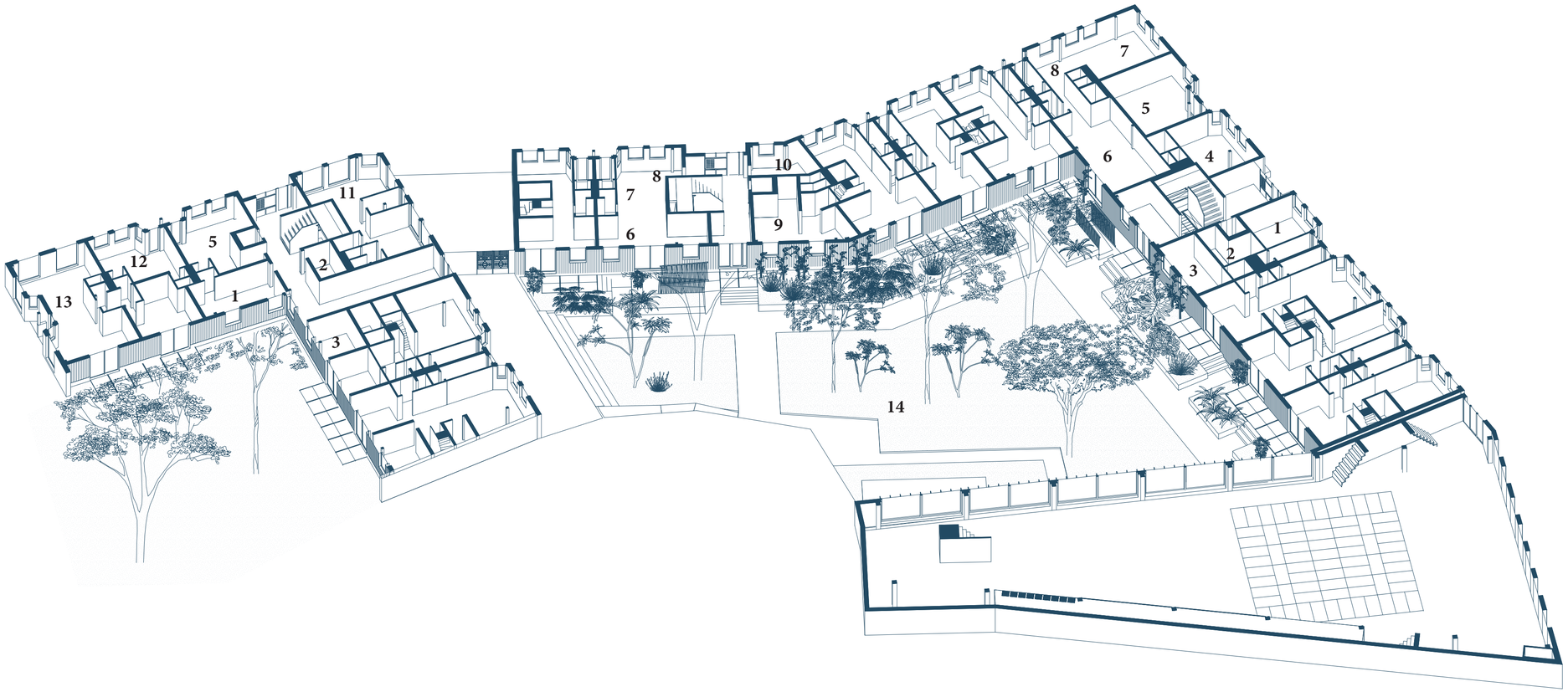
students

AUTONOMOUS

COLLECTIVE

HOUSEHOLD LEVEL

Spectrum of living



1 Office space
2 Laundry room
3 Guest room
4 Atelier
5 Bicycle storage
6 Communal kitchen
7 Communal living room
8 Play corner
9 Bath house with sauna
10 Prayer room orientated to Mekka
11 Local Service Center
12 Workspace
13 Children day care
14 Garden with picnic tables

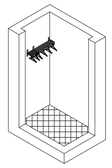
Communal amenities



“Togetherness (...) works destructively in cities. The requirement that much shall be shared drives city people apart.”

When the city lacks shared space such as a sidewalk, the people must enlarge their private lives if they want any contact with their neighbors. They must settle for some form of ‘togetherness,’ in which more is shared with one another than (...), or else they must settle for lack of contact. When people do share much, they become exceedingly choosy as to who their neighbors are, or with whom they associate at all.

Jane Jacobs, (1961). The Death and Life of Great American Cities.

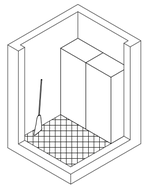


entrance hall

min. 1,5 m²

wardrobe: min. 600x600mm

+0,2m/extra person when more than 4 residents

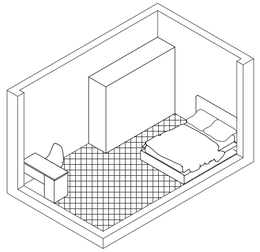


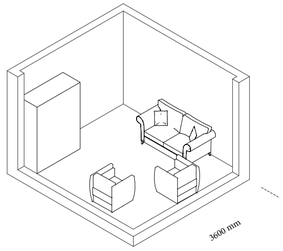
storage

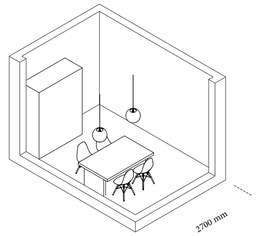
min. 3 m²

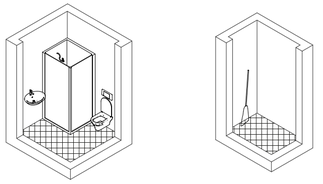
at least one storage space adjacent to kitchen/eating area/ entrance hall

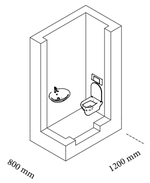
extra 1,5 m² for heatpump and ventilation unit









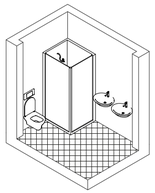


toilet

min. 1,17 m²

extra toilet when more than 3 bedrooms or 5 residents

allowed to have a single toilet in the bathroom when less than 3 residents

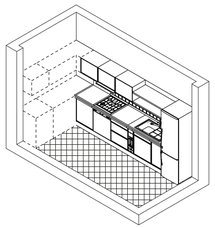


bathroom

min. 4 m² (with toilet)

extra bathroom each 3 bedrooms or 6 residents

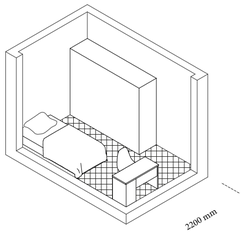
extra sink when more than 4 residents



kitchen

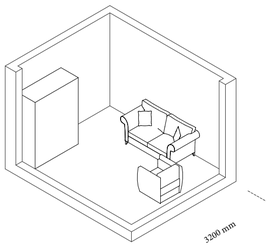
min. 8 m²

up to 2 residents: min. 3600 mm counter
3-6 residents: min. 4200 mm counter
>6 residents : min. 4600 mm counter



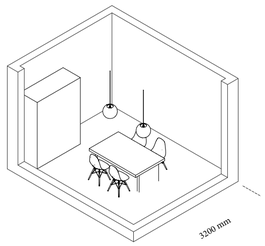
bedroom

min. 9 m² for a small bedroom
min. 14 m² for a large bedroom



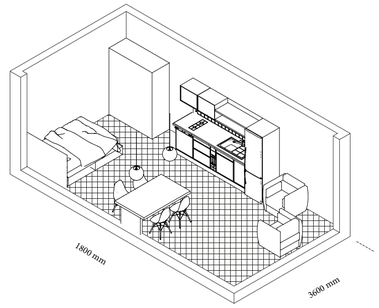
sitting area

up to 2 residents: min. width of 3200 mm
more than 2 residents: min. width of 3600 mm



eating area

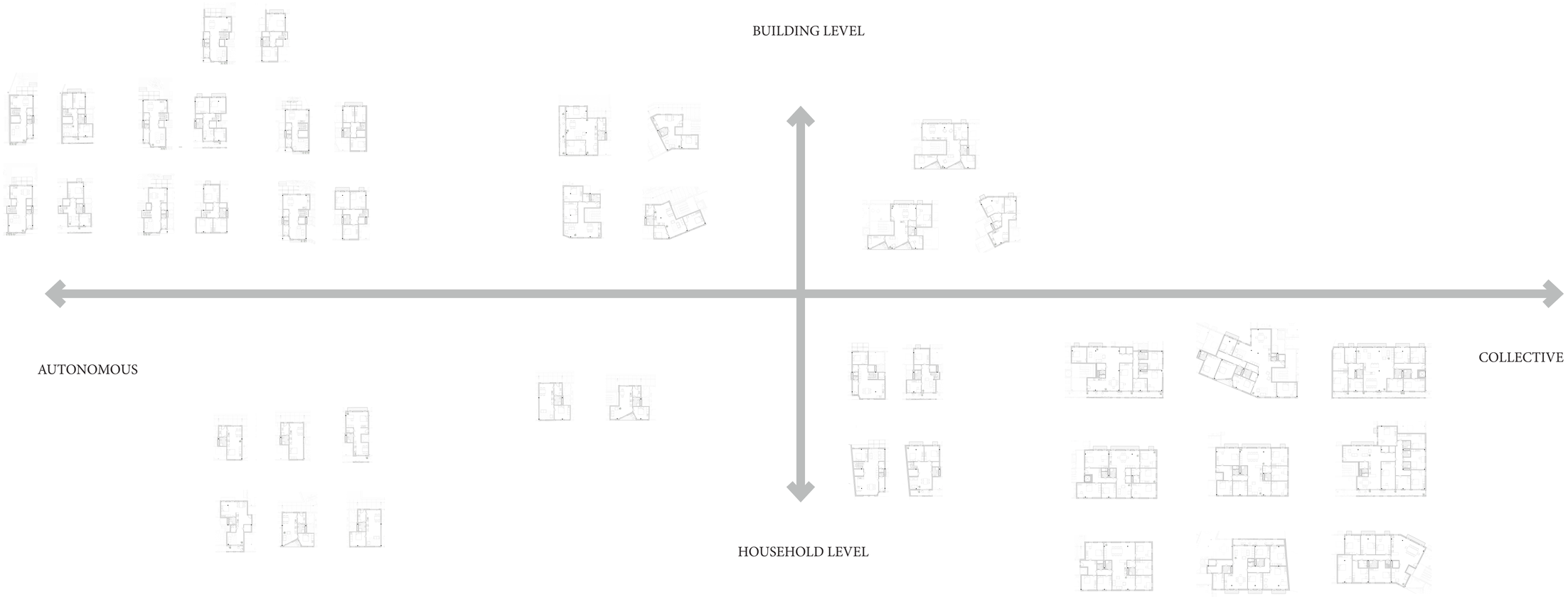
up to 2 residents: min. width of 2700 mm (and allowed to put table against the wall)
more than 2 residents: min. width of 3200 mm



studio

min. 26 m²

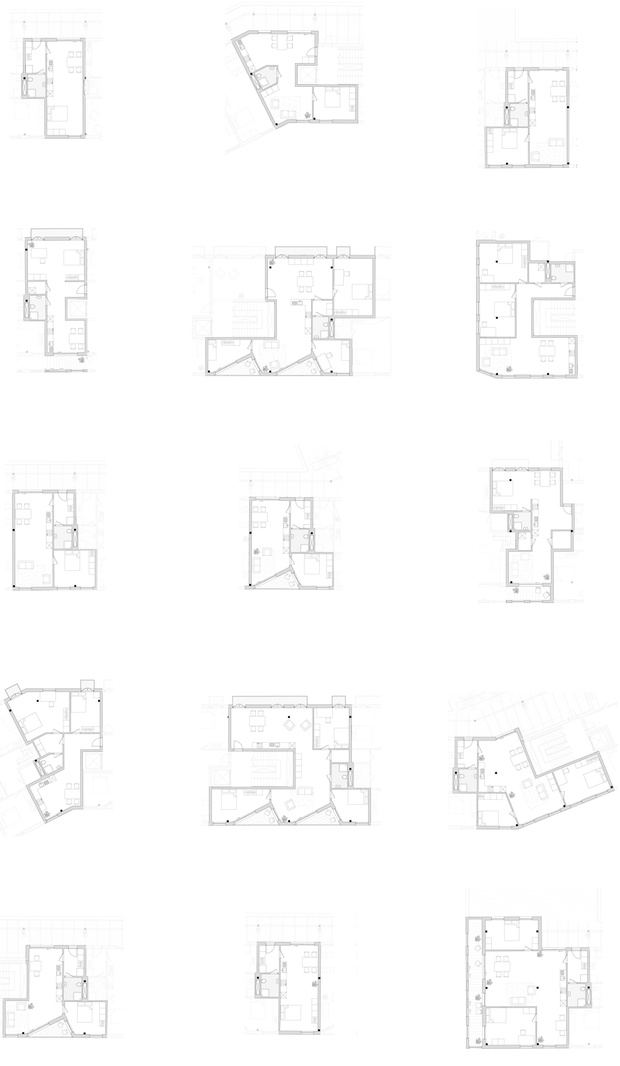
kitchen counter: min. 1800 mm
min. width: 3600 mm
bathroom: min. 3 m²
storage: min. 2 m²



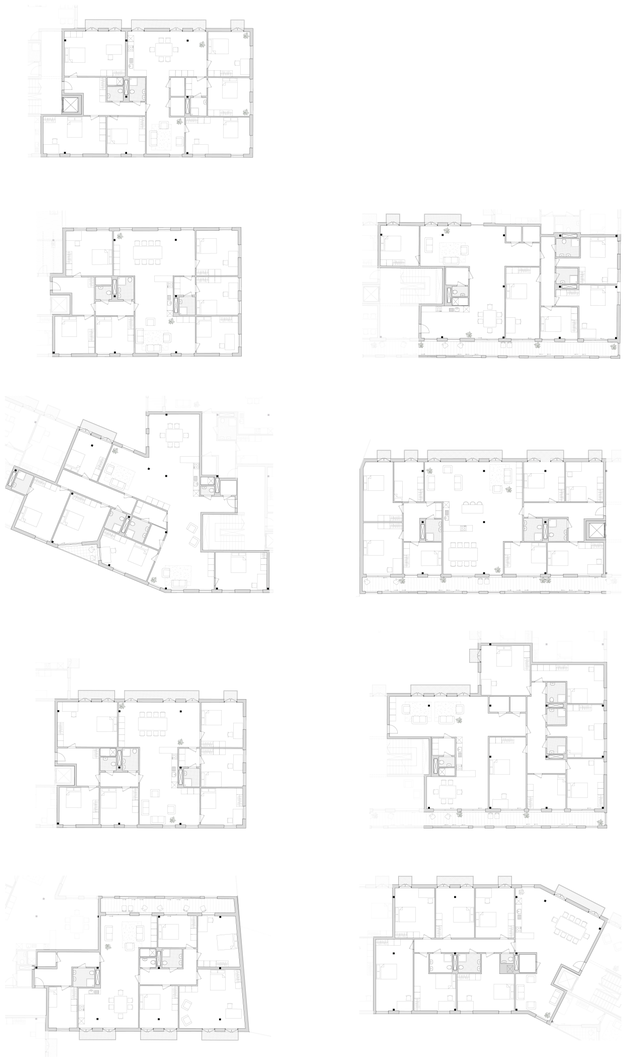
Spectrum of living



duplex units



simplex units



cluster units



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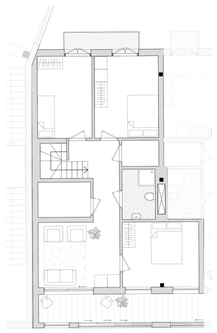

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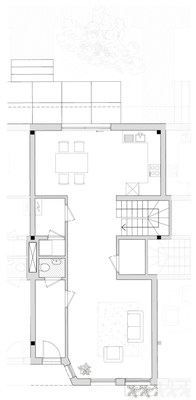

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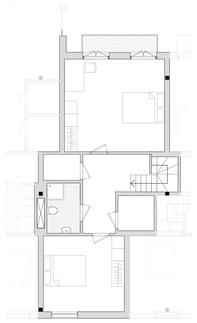

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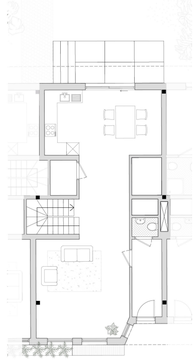

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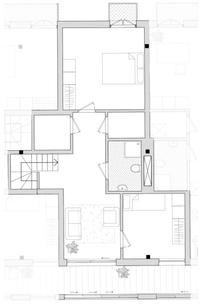

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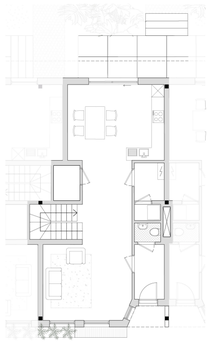

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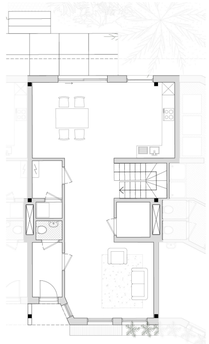

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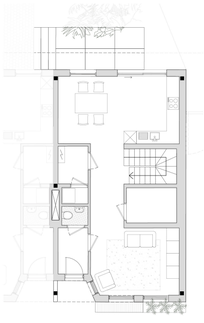

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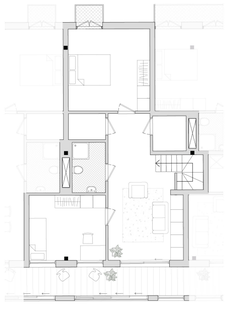

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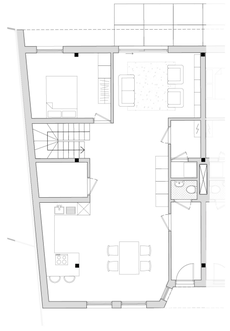

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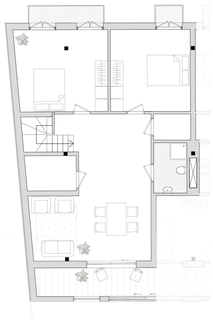

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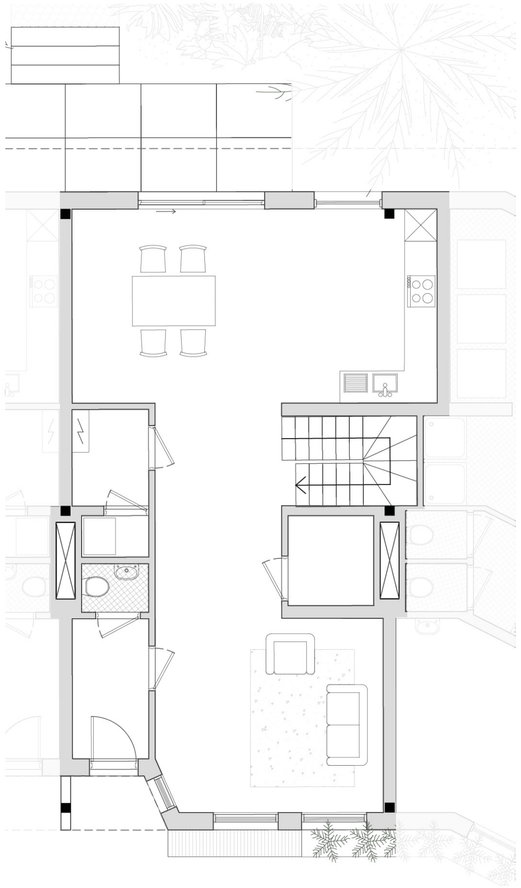
Duplex units



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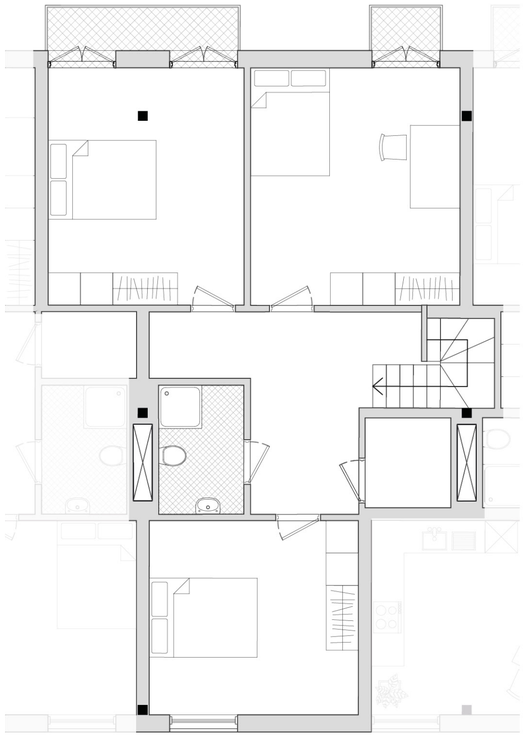

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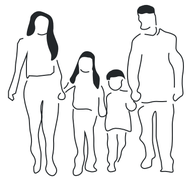

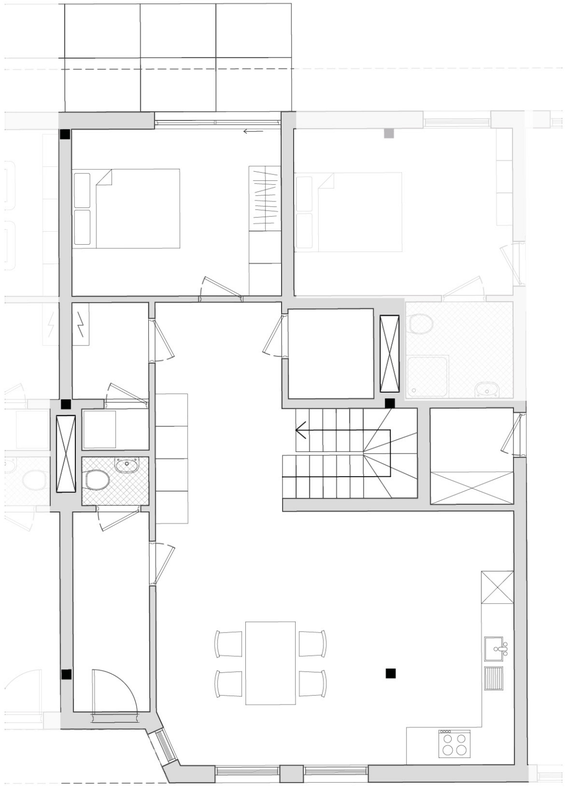

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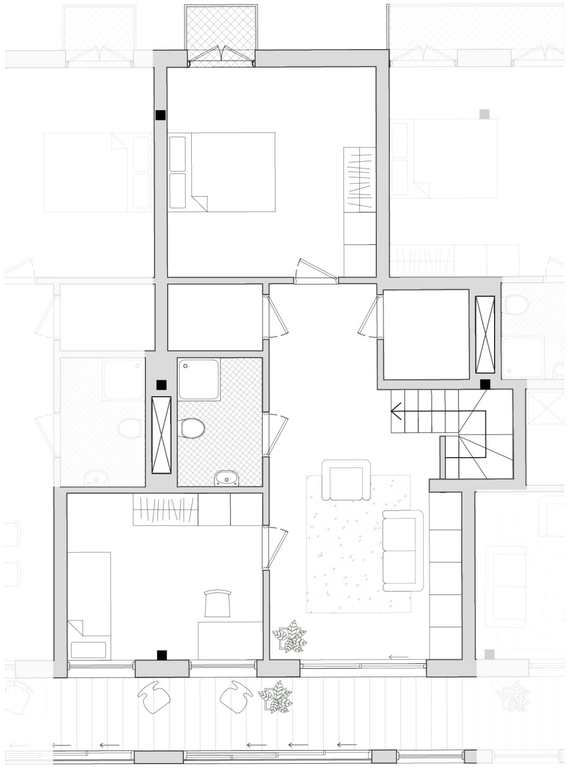

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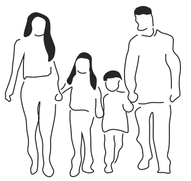
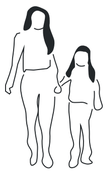
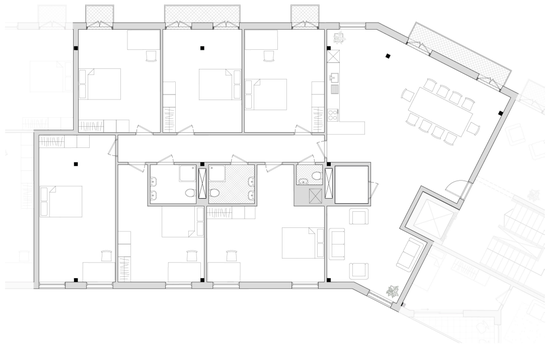
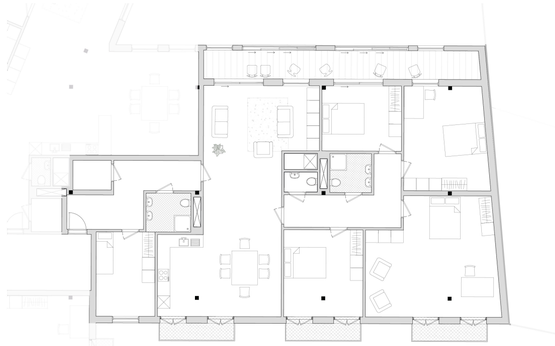










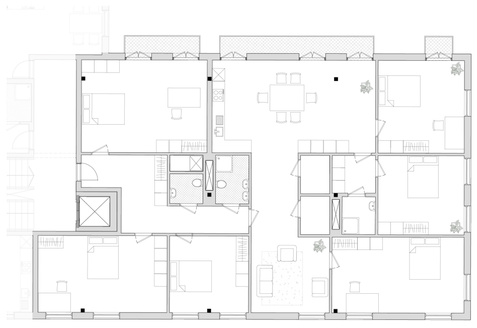






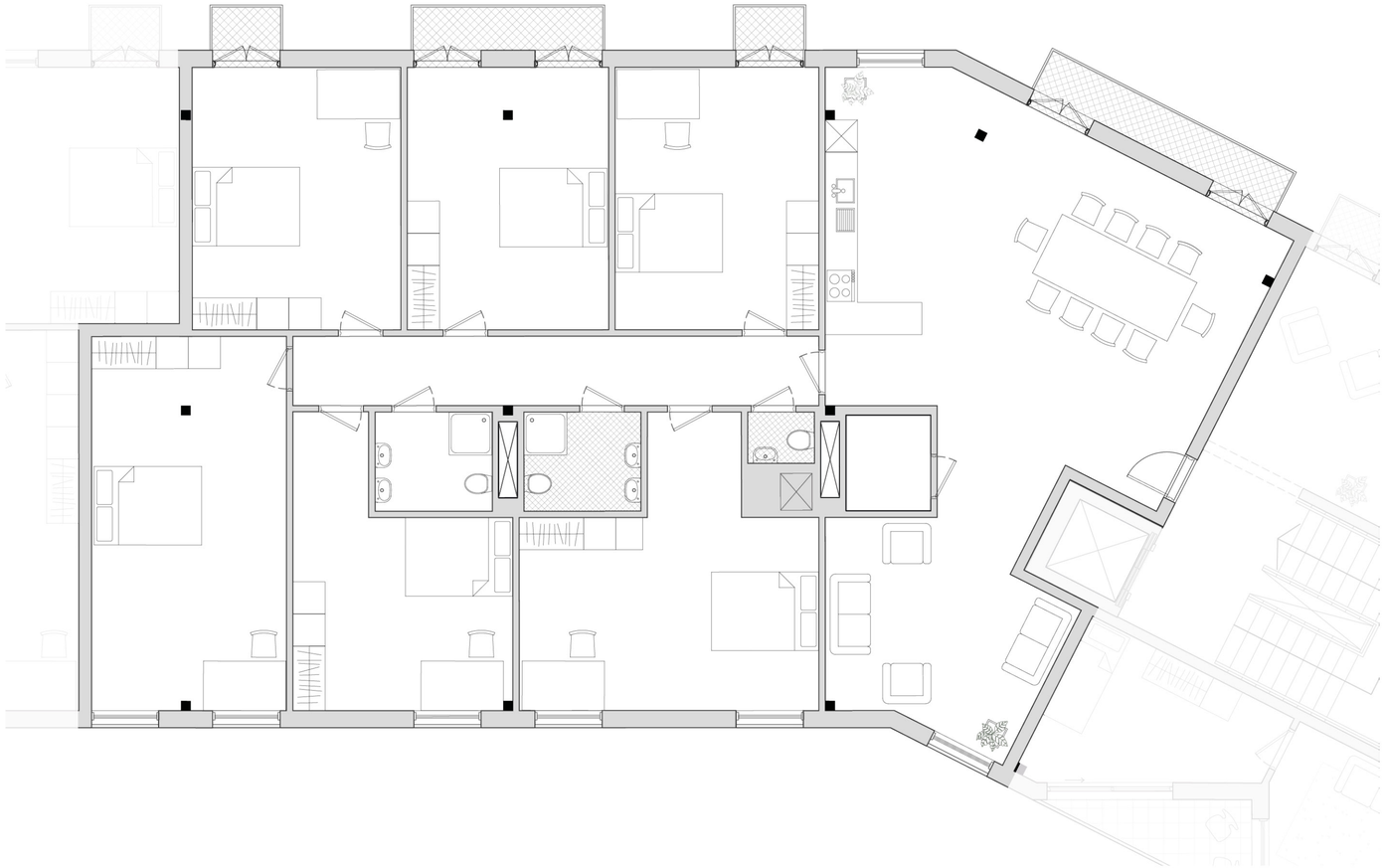






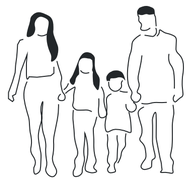


Cluster units













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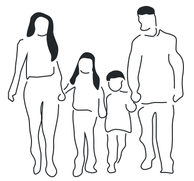





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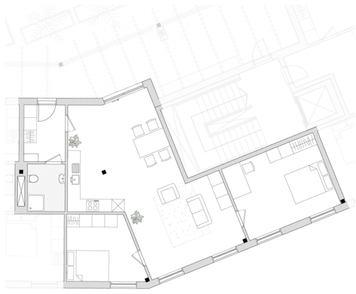
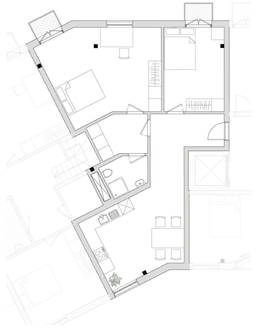
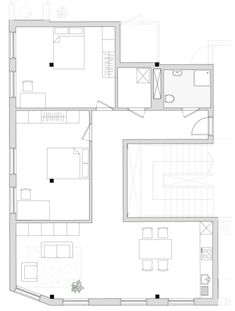
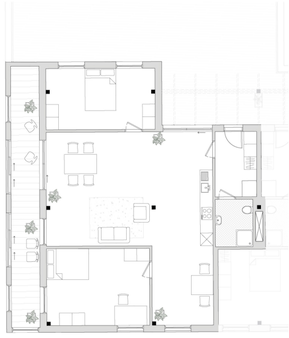


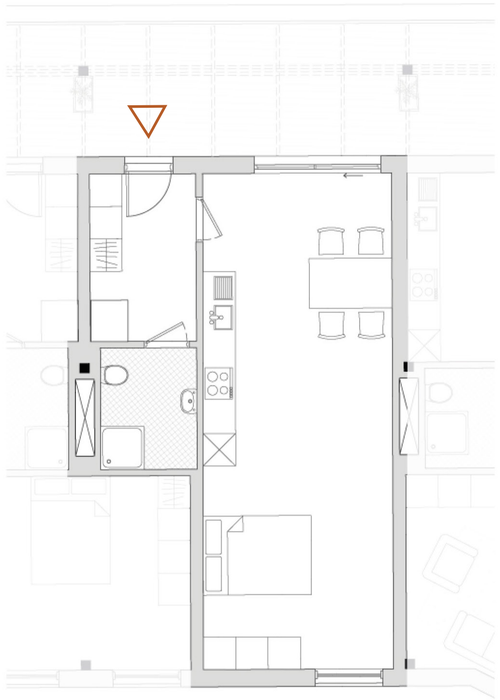


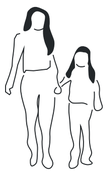









Simplex units







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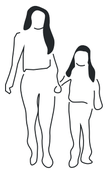



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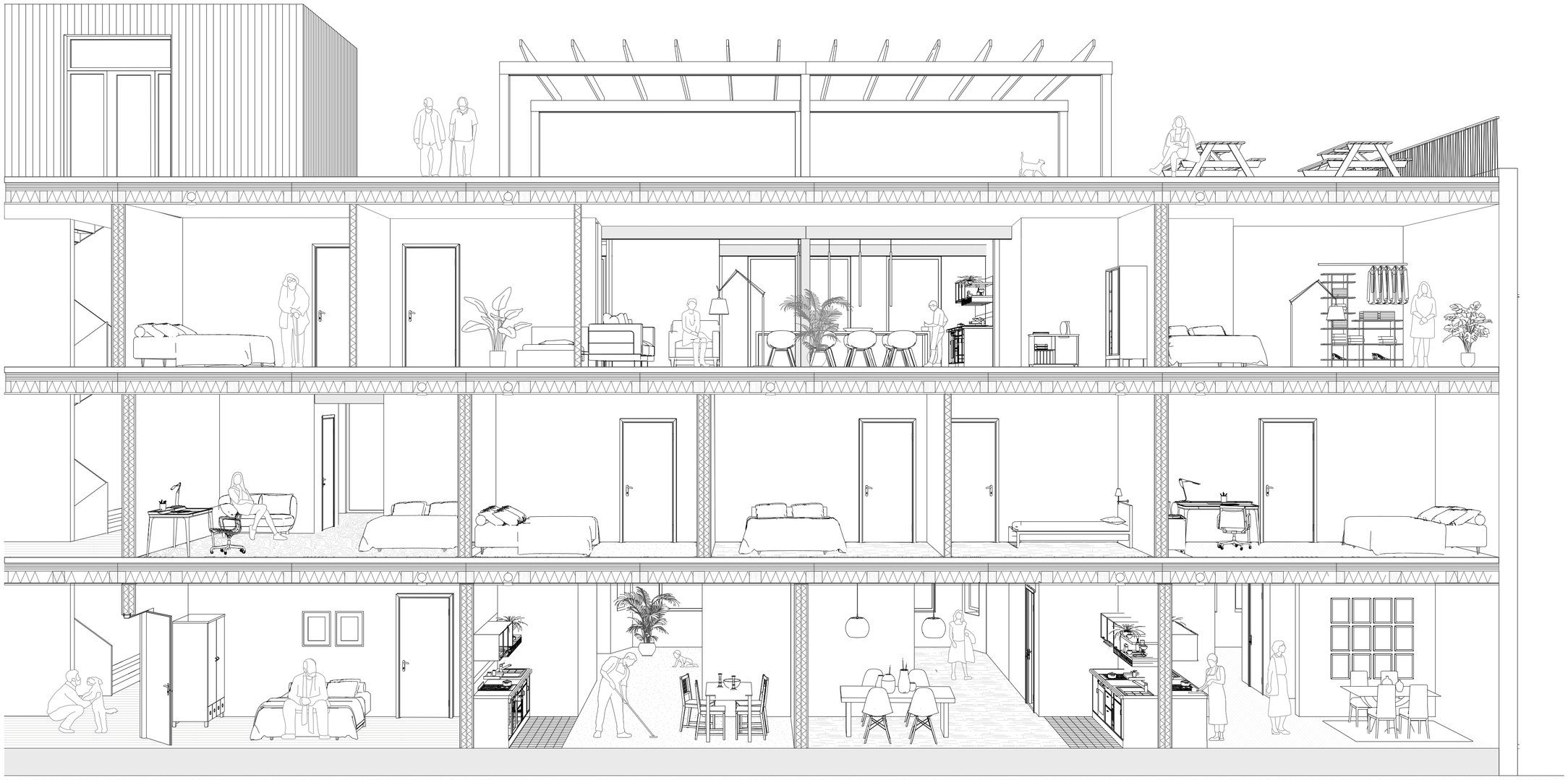
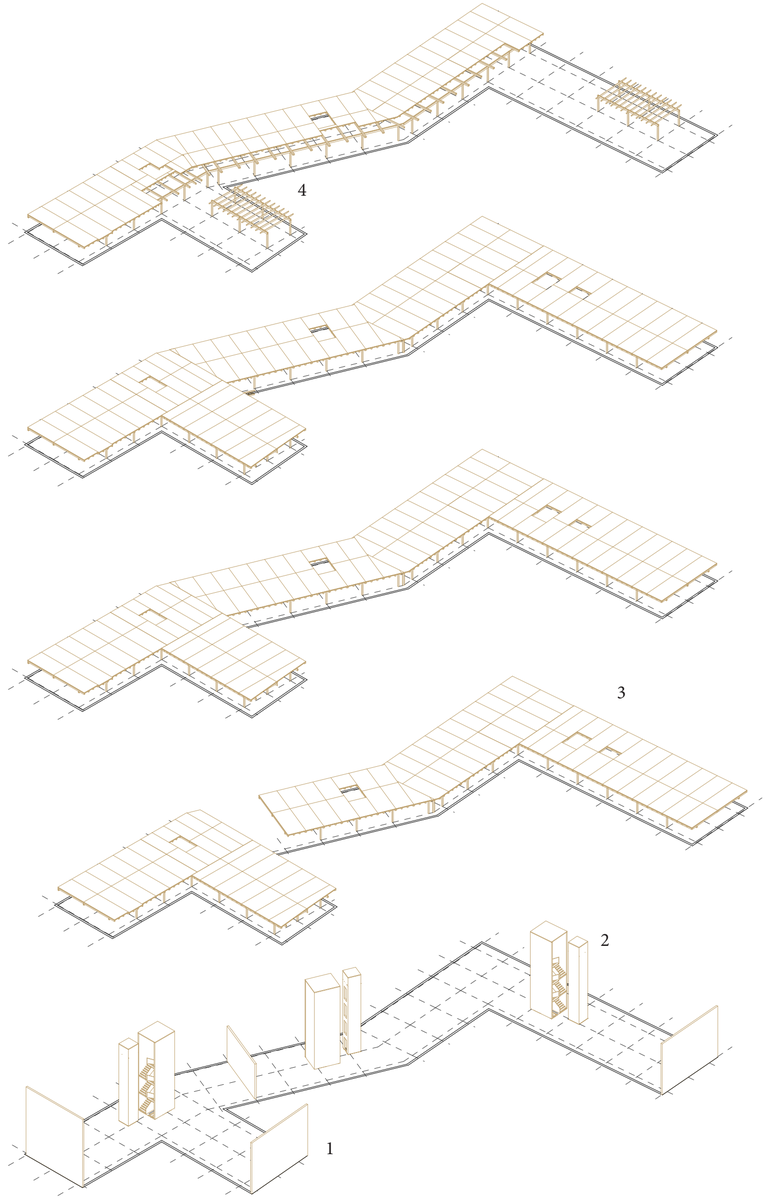
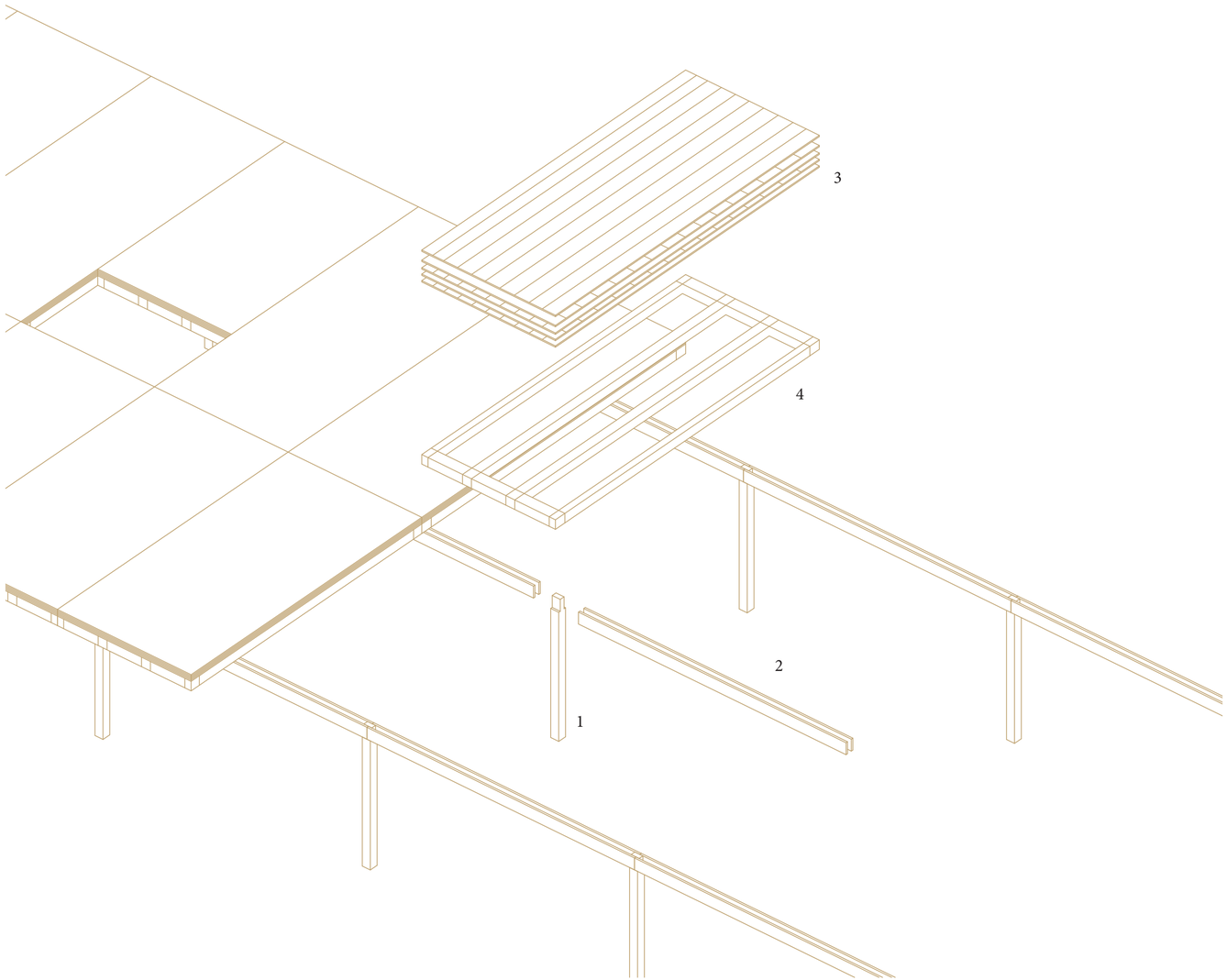




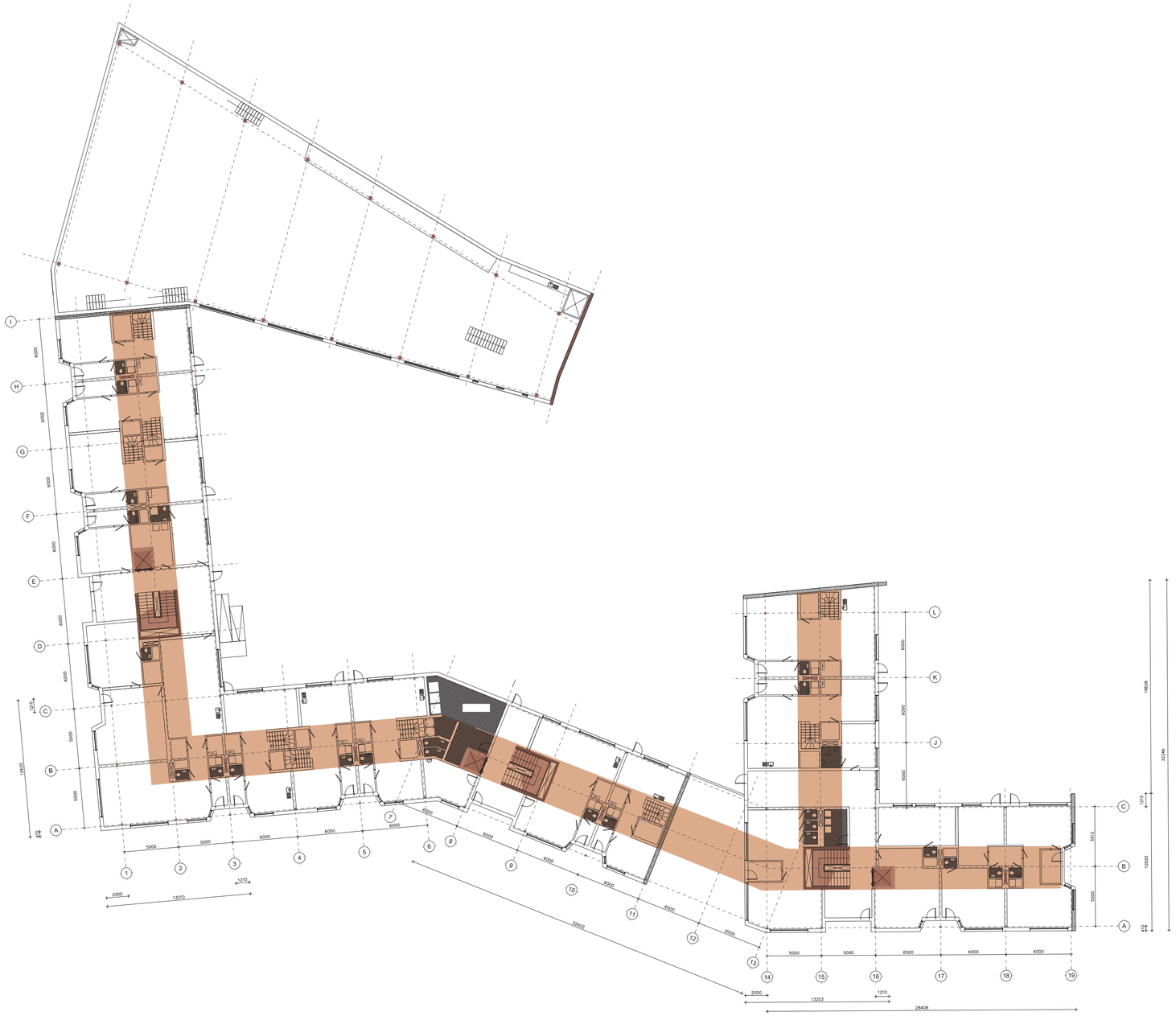
1 CLT walls as stability slabs
2 CLT cores as stability elements
3 GLT columns and beams structure
4 extended columns as pergola on the roof

Structure elements

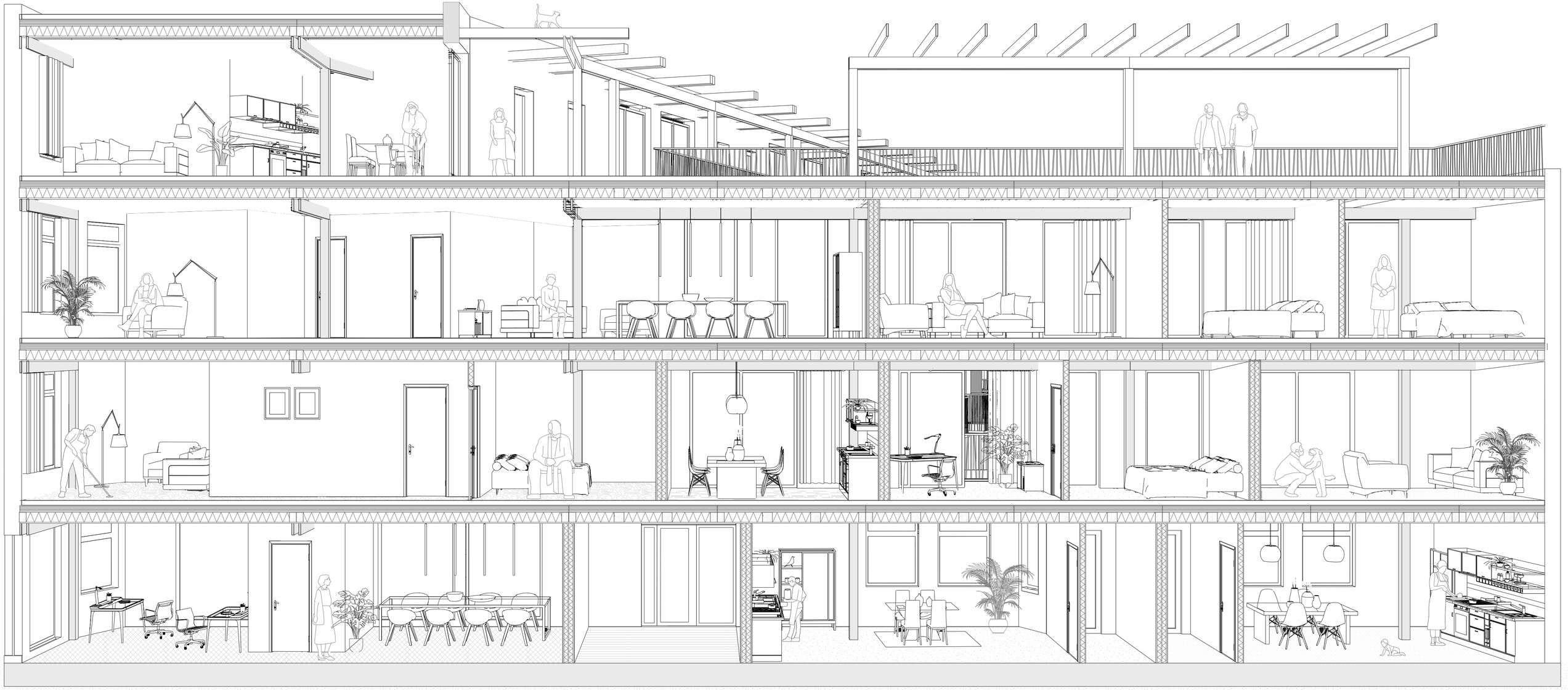


1 Accoya timber columns 180 x 180 mm
2 Accoya double beams 250 x 40 mm
3 CLT (rib panels) 140 L5s: 3000x7000mm
4 ribs 140x200 mm and 200x200 mm

Structure elements



Fixed spine



north wing

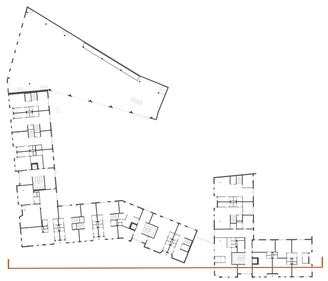


Setback of columns


RUE DES GOUJONS
1m
5m
10m





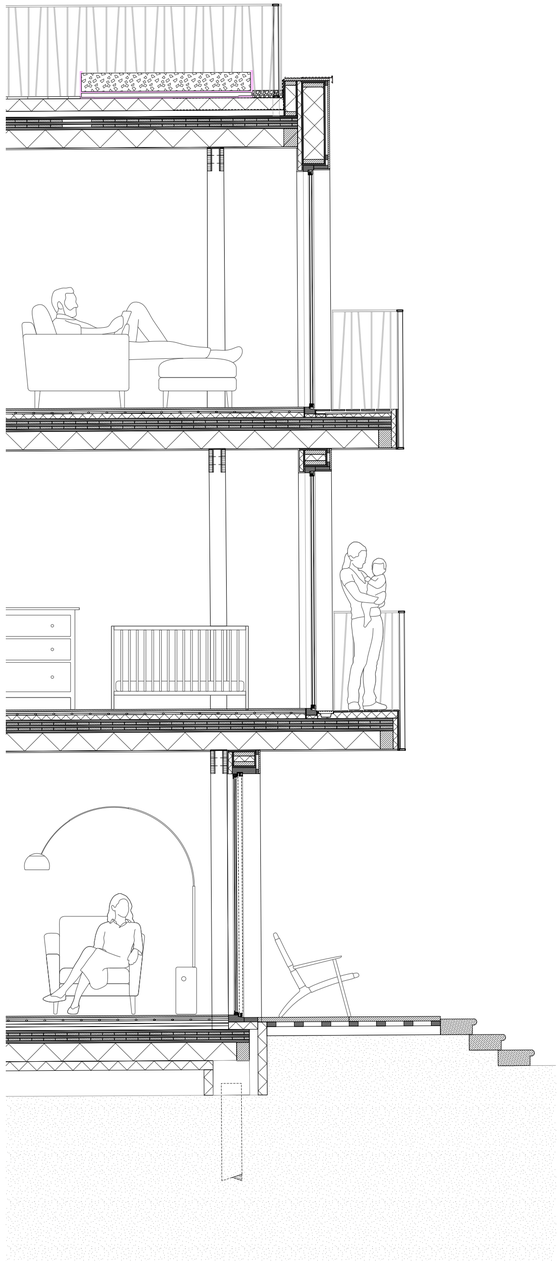


Entrance niche





Overhang veranda







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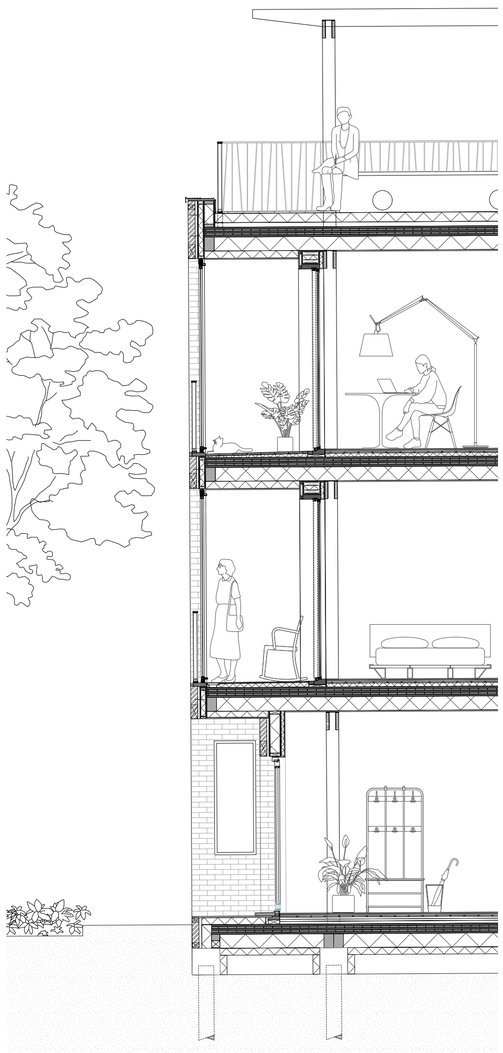

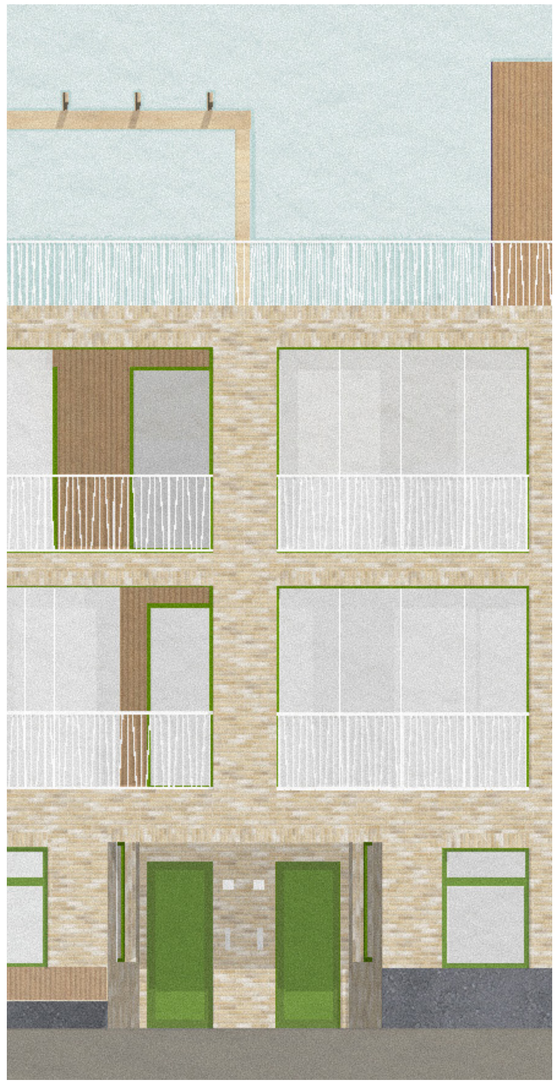

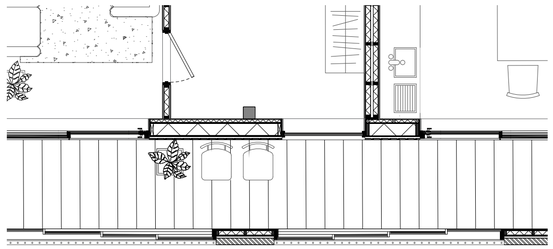



1m 5m 10m

02




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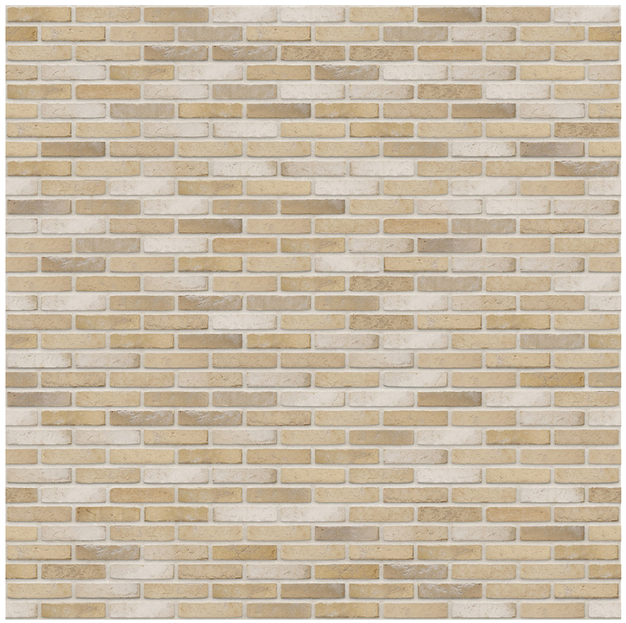
1m
5m
10m

03



Accoya wood (C2C CertifiedCM)
Studio Huijgens



Van der Sanden Bricks
504. Freya Wasserstrich

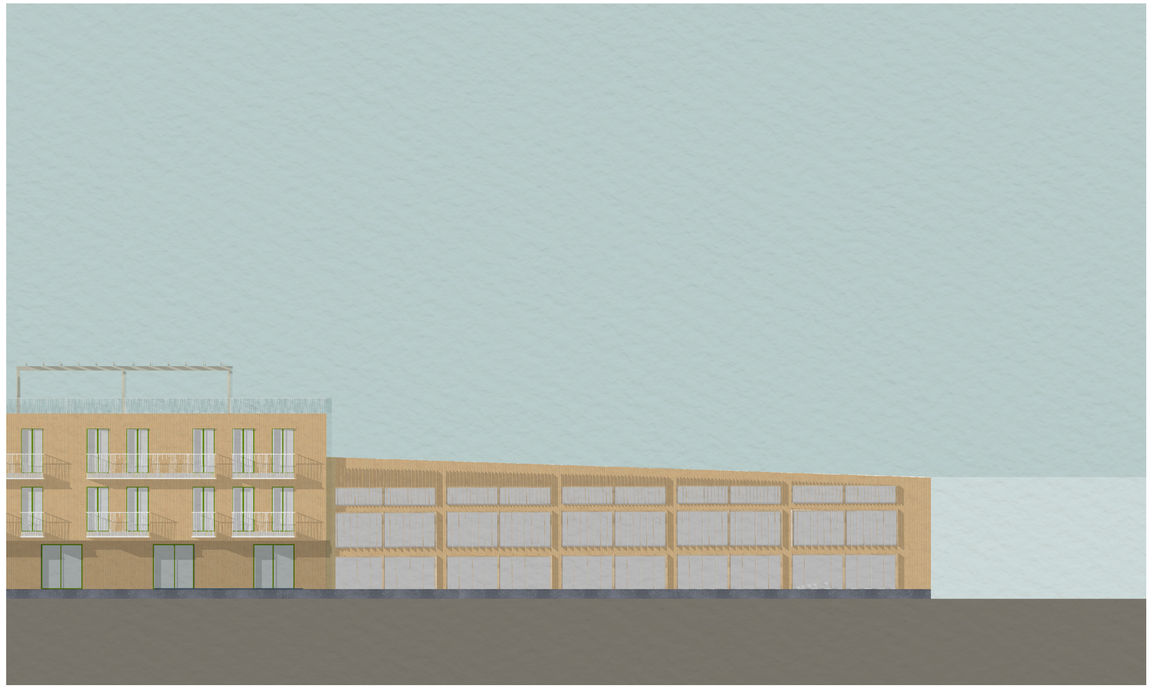


Belgian blue limestone

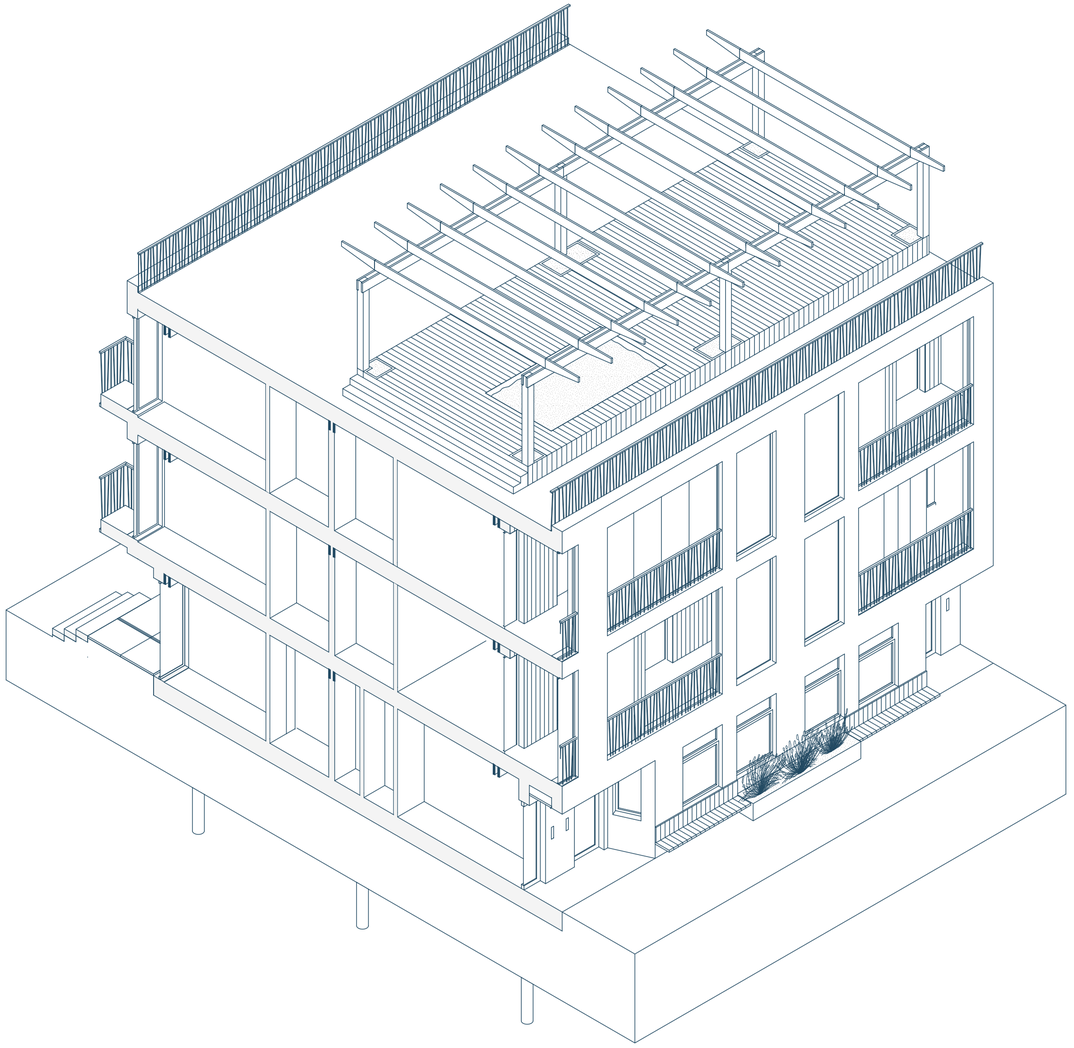


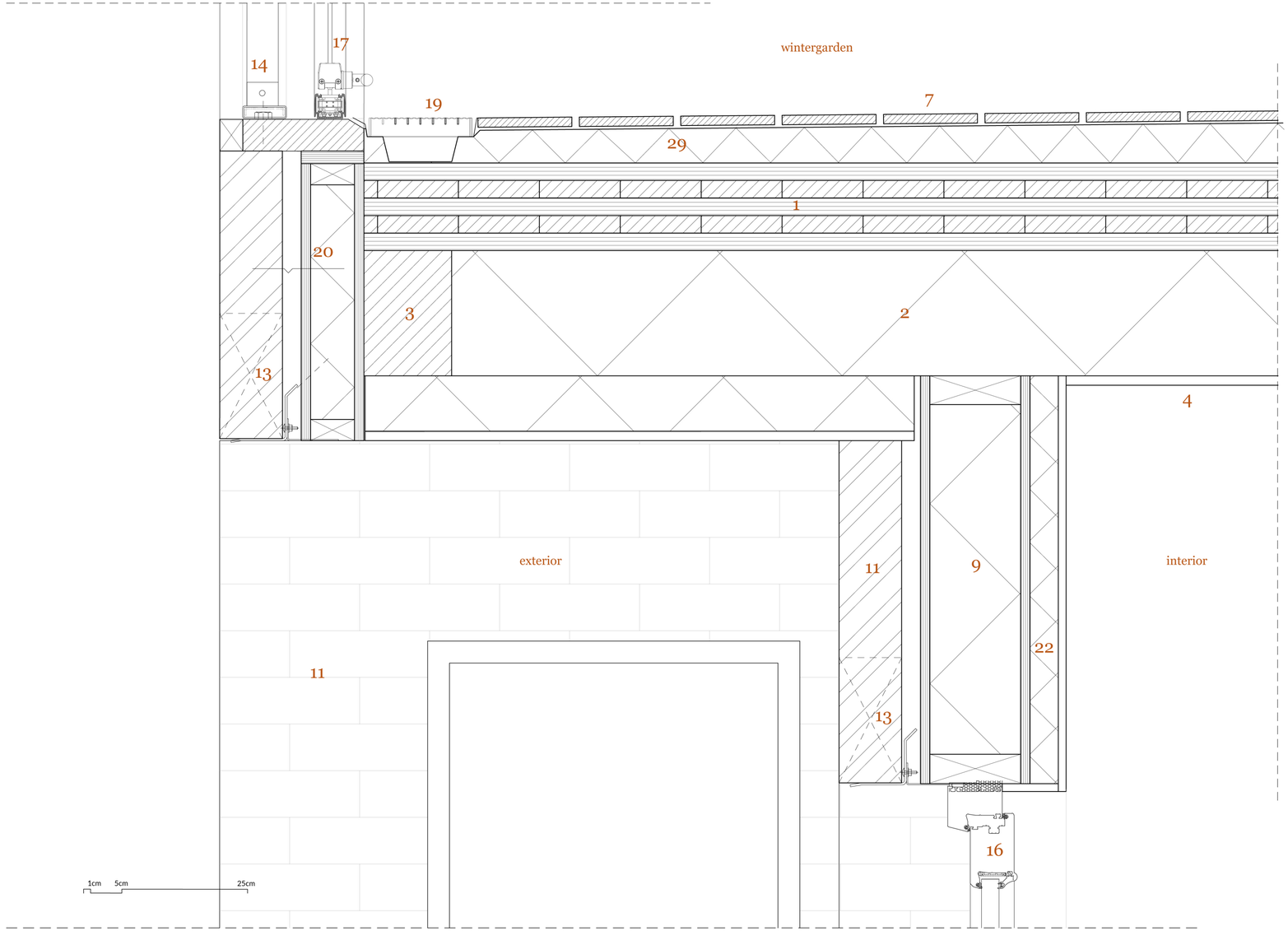


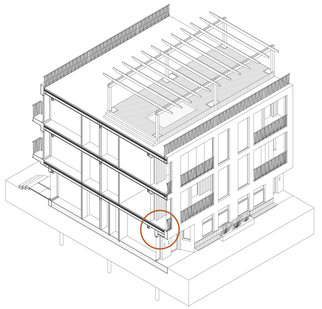




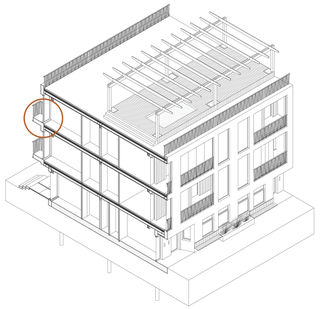


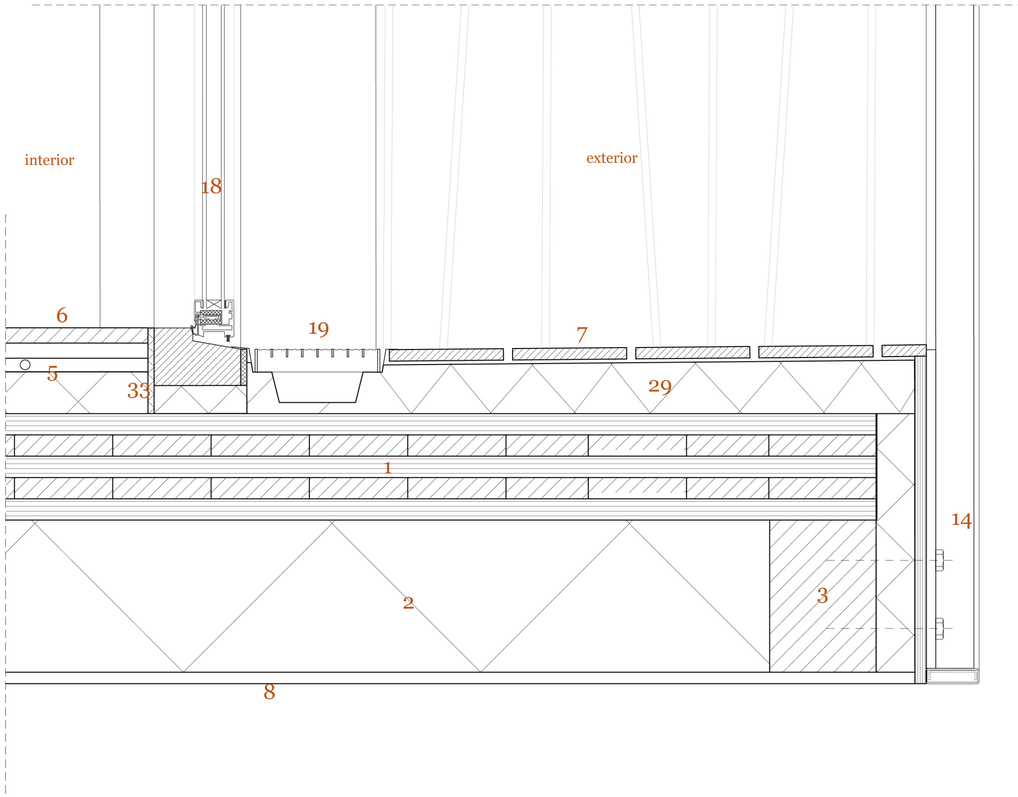



wintergarden
exterior
interior
14
17
19
7
29
1
20
3
2
13
4
11
9
22
11
13
16
1cm
5cm
25cm



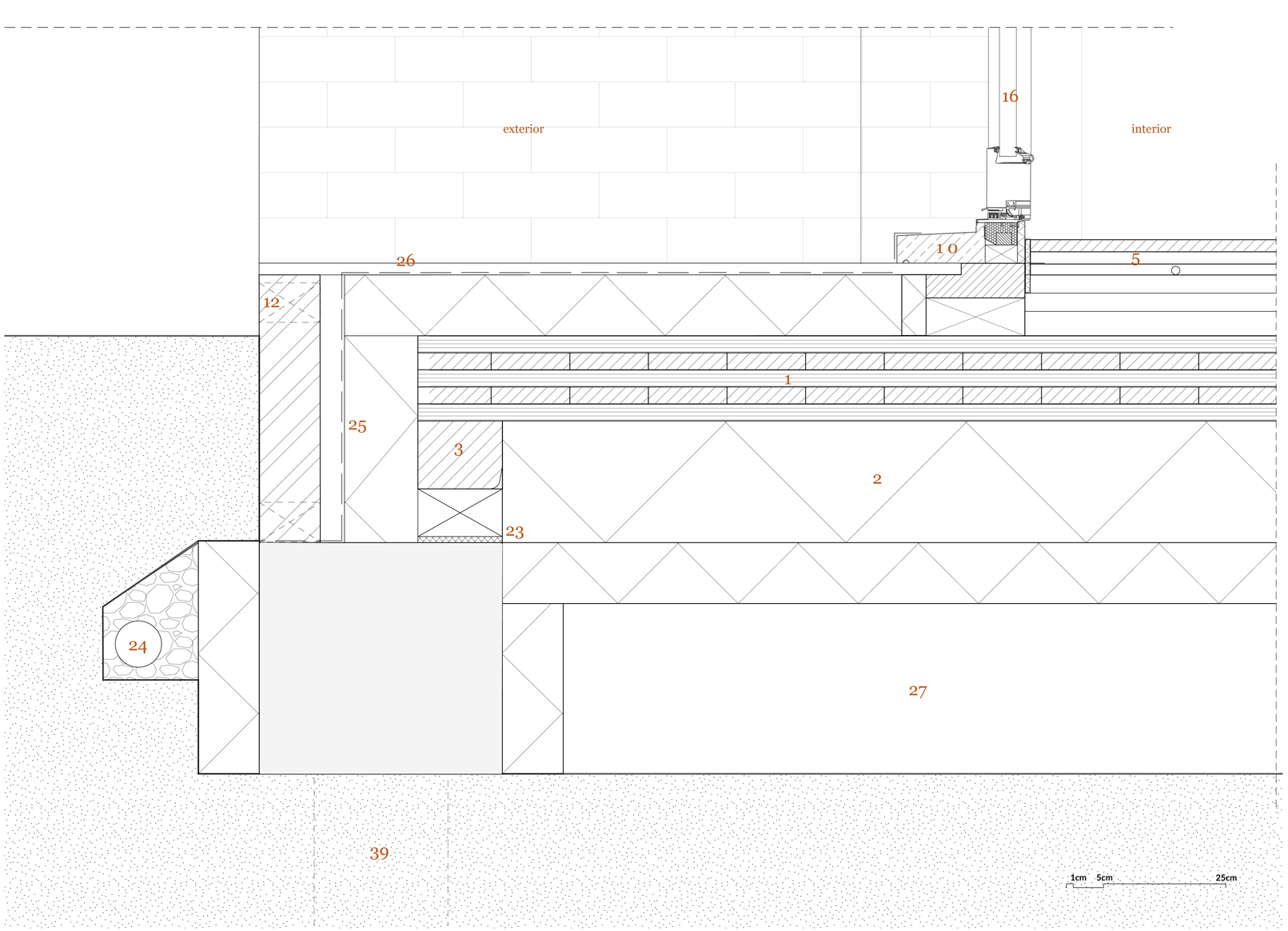
Rainwater

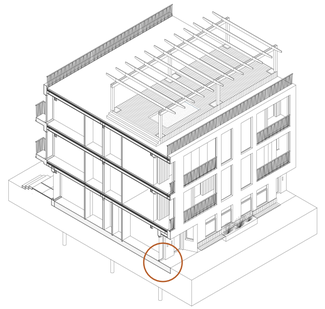




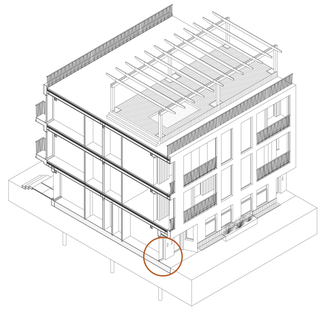


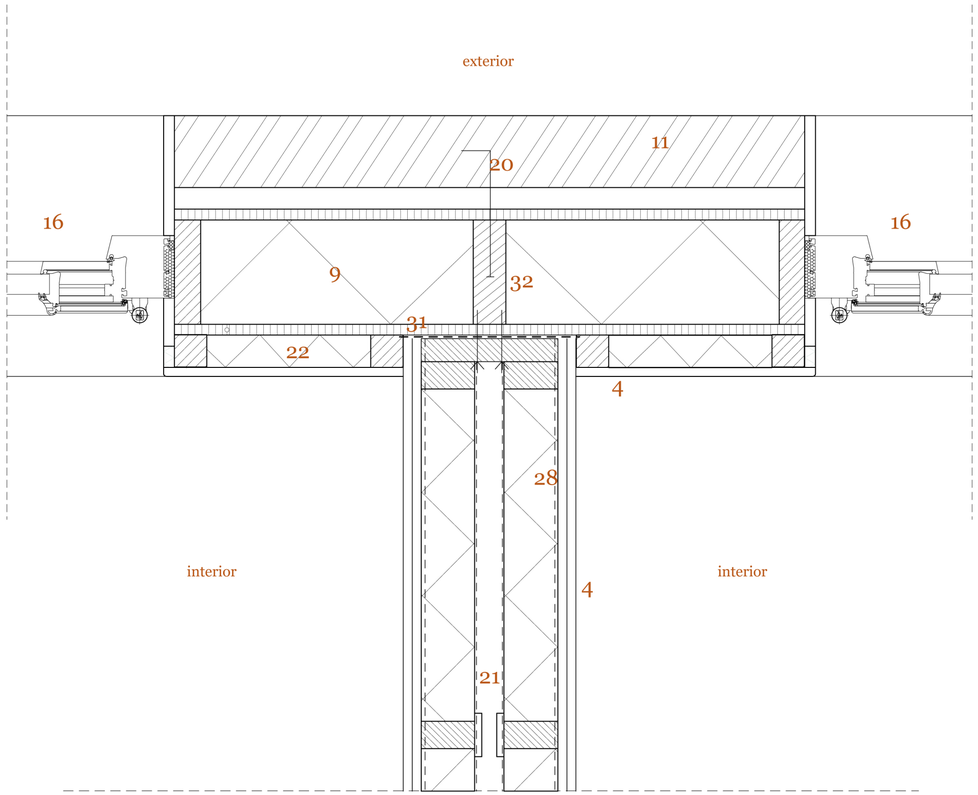
Rainwater





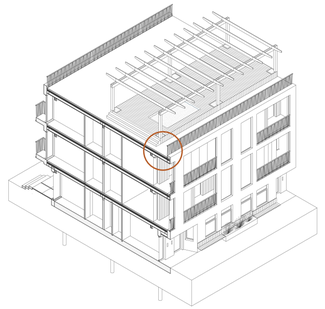
Rainwater drainage

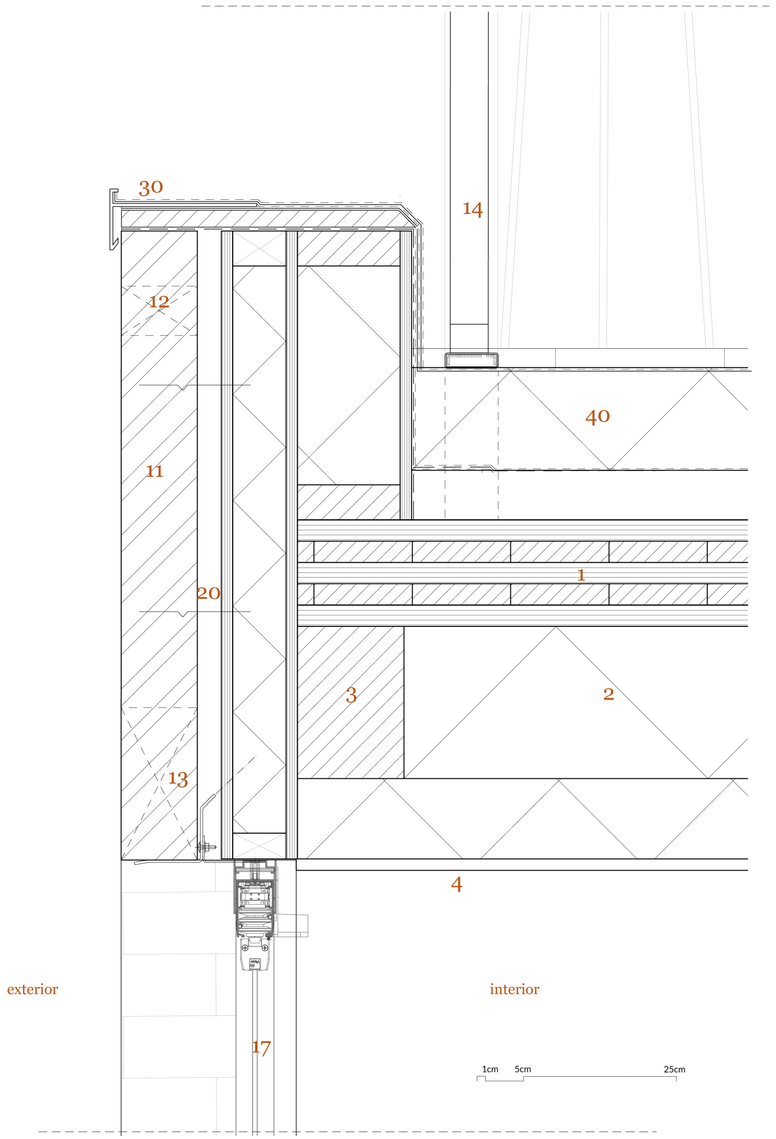




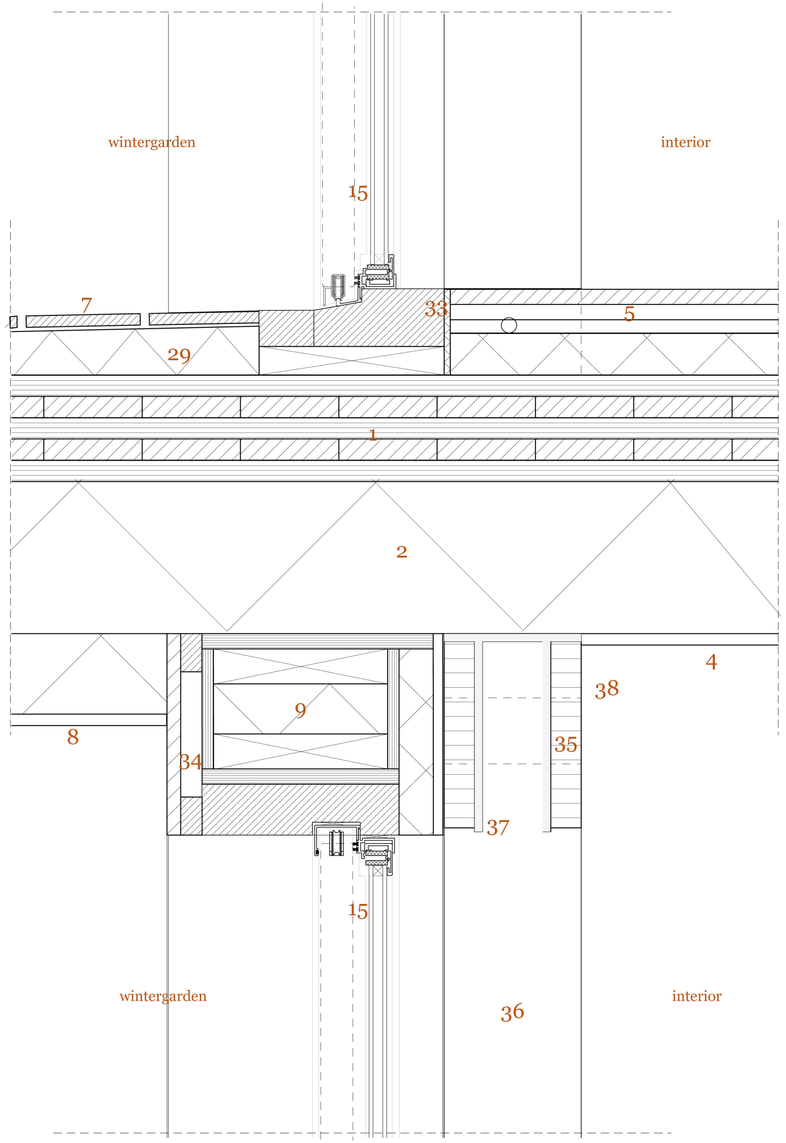


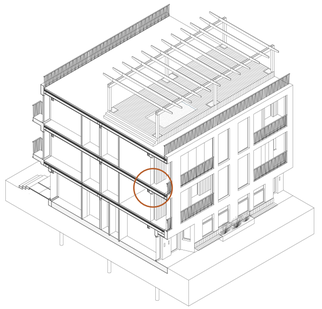
Fire safety and acoustic insulation



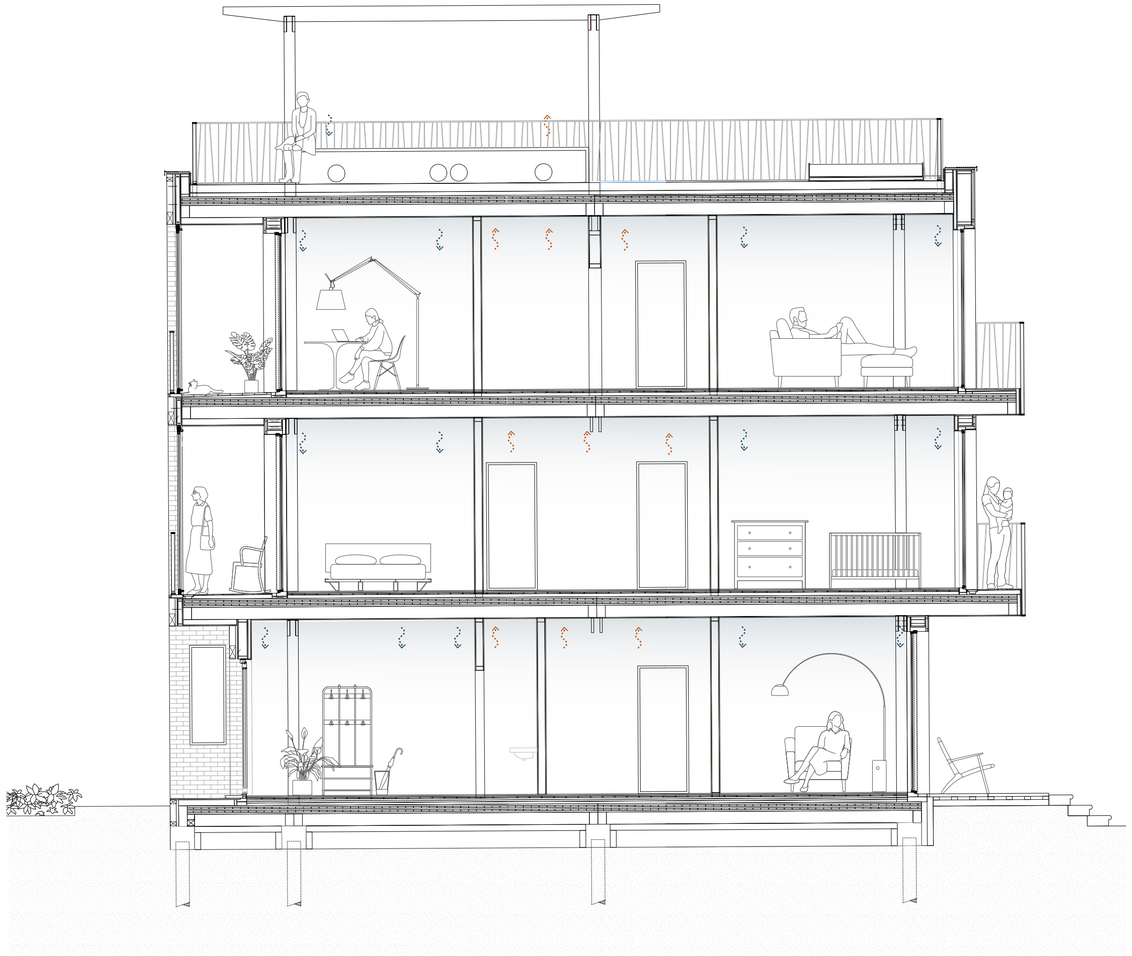


Suspended ceiling

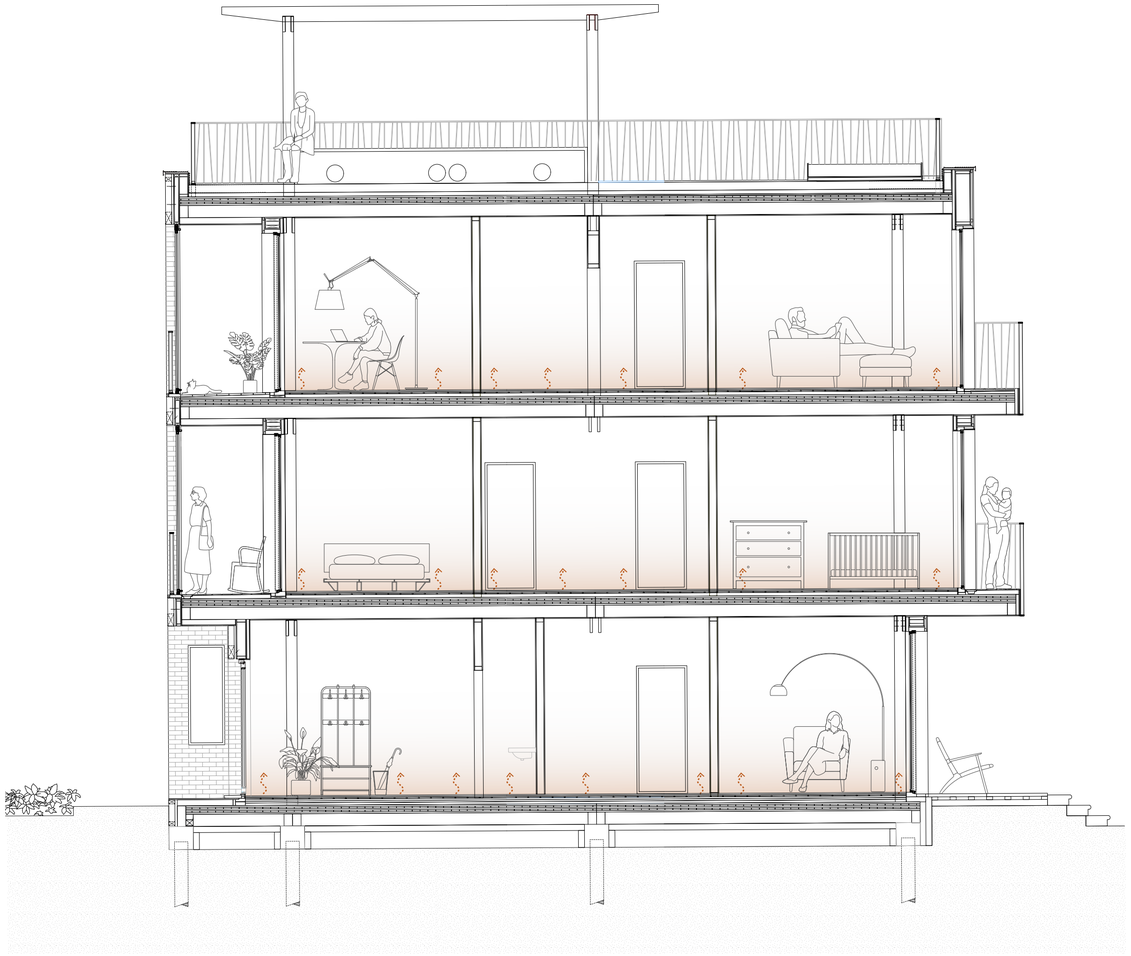




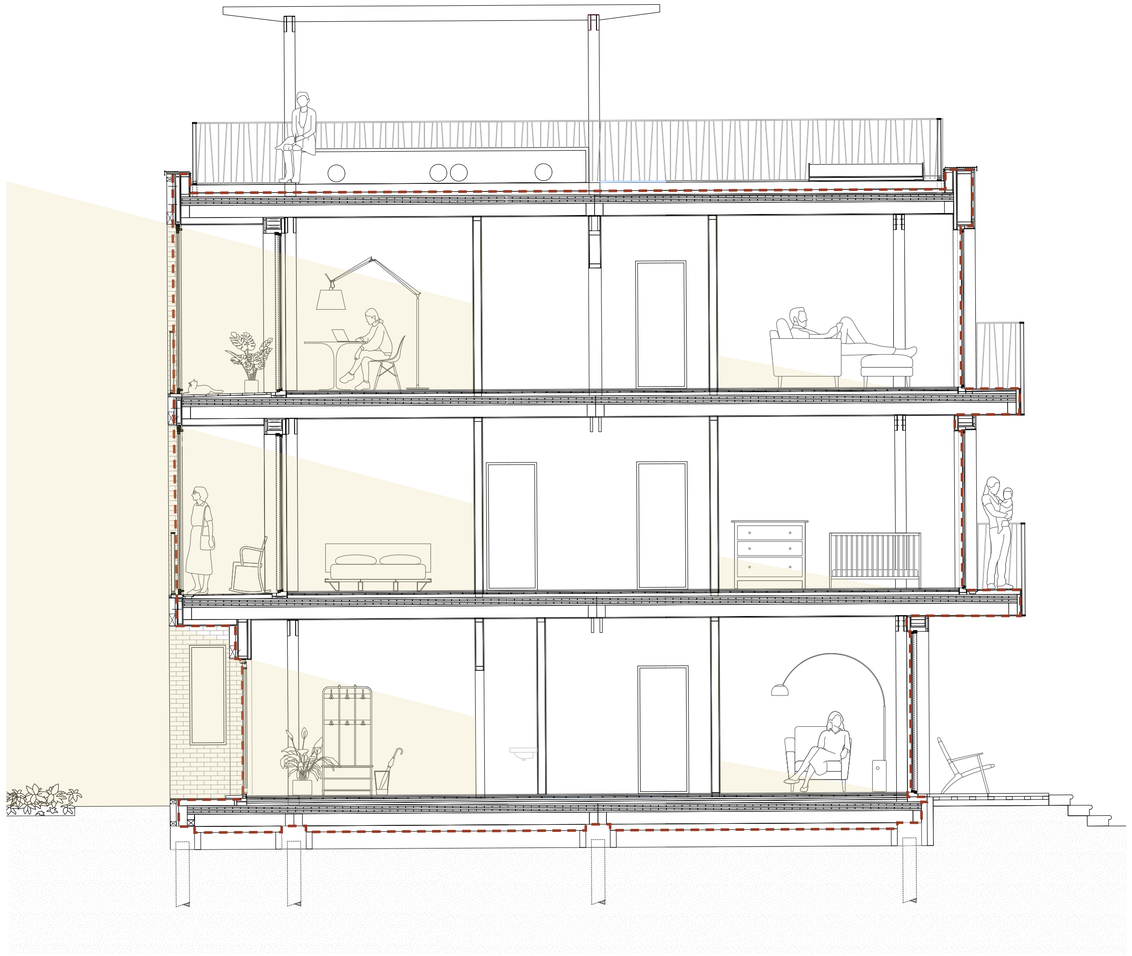
Floating screed



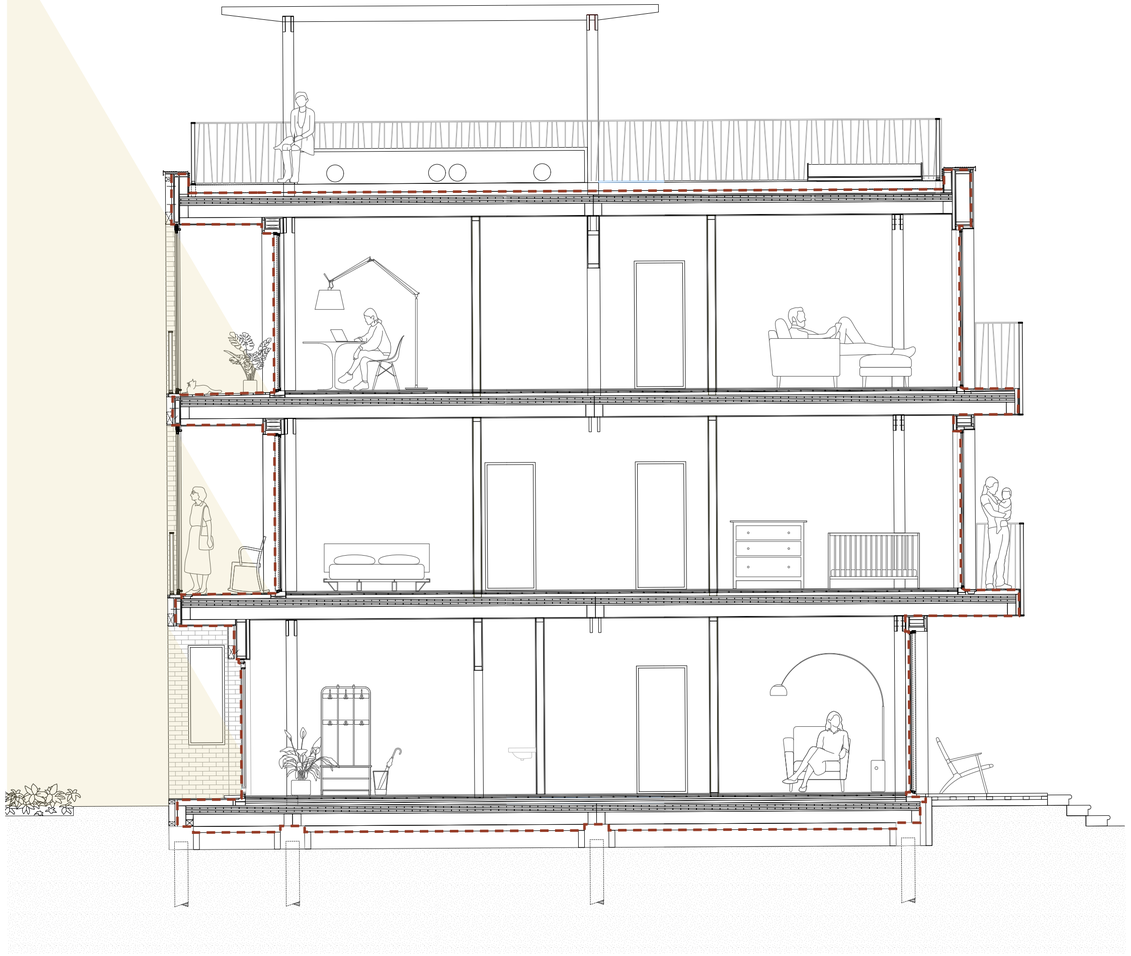
ventilation system D



floor heating



winter



summer





courtyard gate
queen of the south, Genk (BE)
2 doors of 192 cm x 415cm



blue lime stone
Van Dyck Belgian Stone Company, Herstal (BE)





Douglas wood steenschotten
PRCE, Brakel (BE)
1400x1100x50 mm
€15 - €25



Belgian sandstone cobbles 'carré' m²
carriere de la hazotte, Tavier (BE)
15x15



Blue lime stone steps
Het Arduinen Hoekje, Vleteren (BE)
2000x350x170mm
around 285 kg each - €64/m





Belgian produced tiles by Boch in ca. 1930
Rotor DC, Brussels (BE)
15x15x9 mm
€ 49,00 /m²

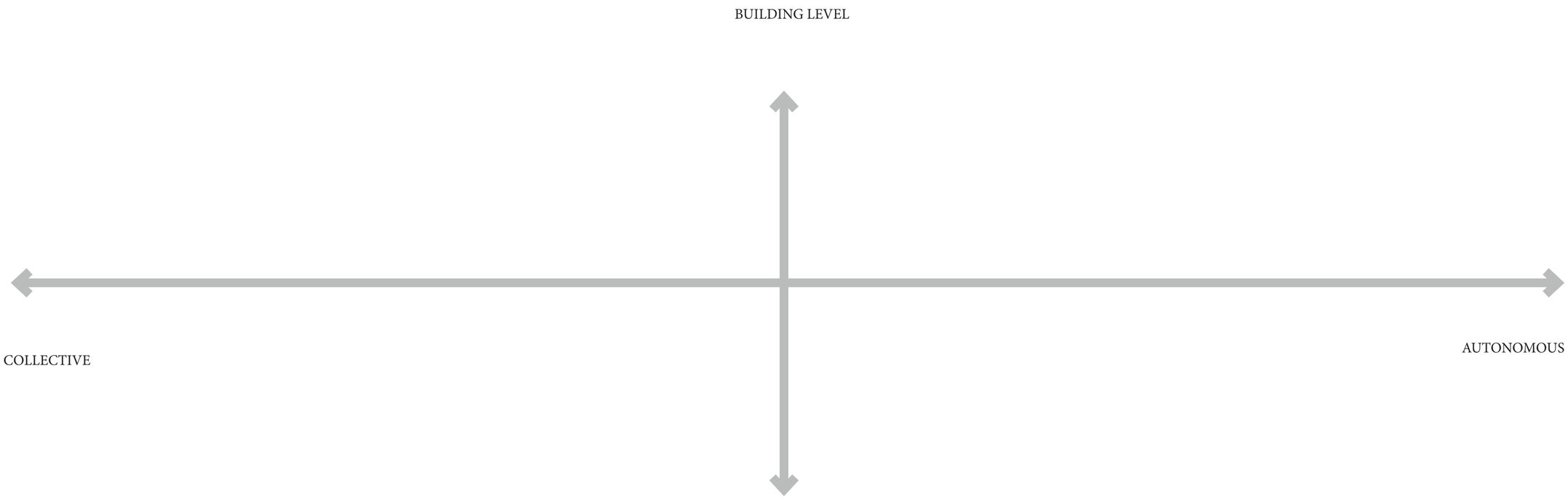


non-generic interior doors
Gebruiktebouwmaterialen, Sint-Oedenrode (NL)
€70 - 150 each



Small hanging light 'Emma'
Rotor DC, Brussels (BE)
317 pieces in stock
€39 each

Martial Arts School

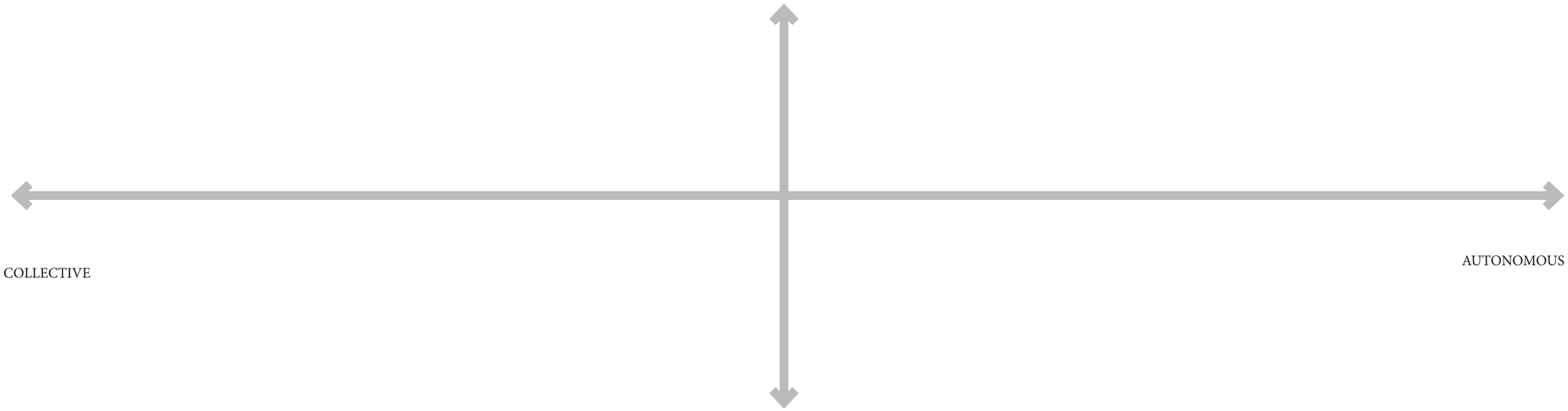


Spectrum of living

NEIGHBORHOOD LEVEL

Local Service Centre
Children Day Care
Martial Arts School

BUILDING LEVEL



COLLECTIVE

AUTONOMOUS

HOUSEHOLD LEVEL

Spectrum of living


RUE E. CARPENTIER
RUE DES GOUJONS
115 / 121

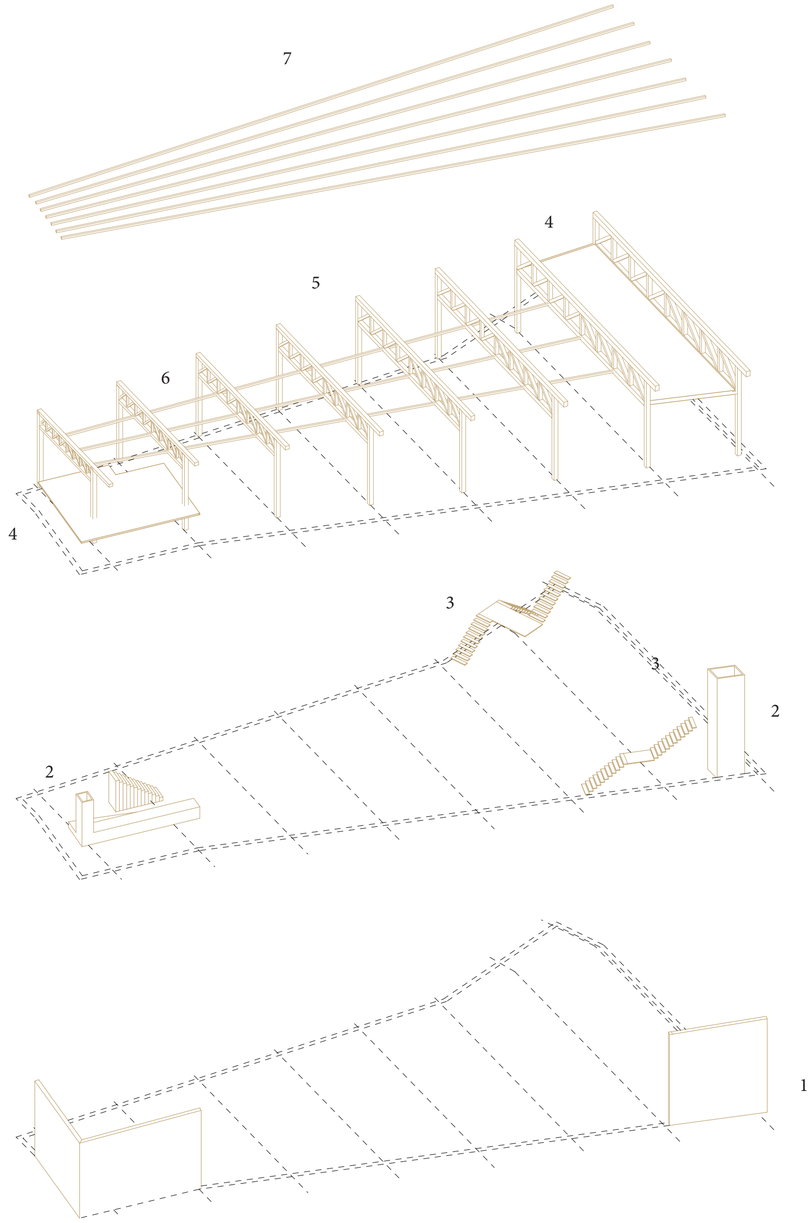

RUE E. CARPENTIER
RUE DES GOUJONS





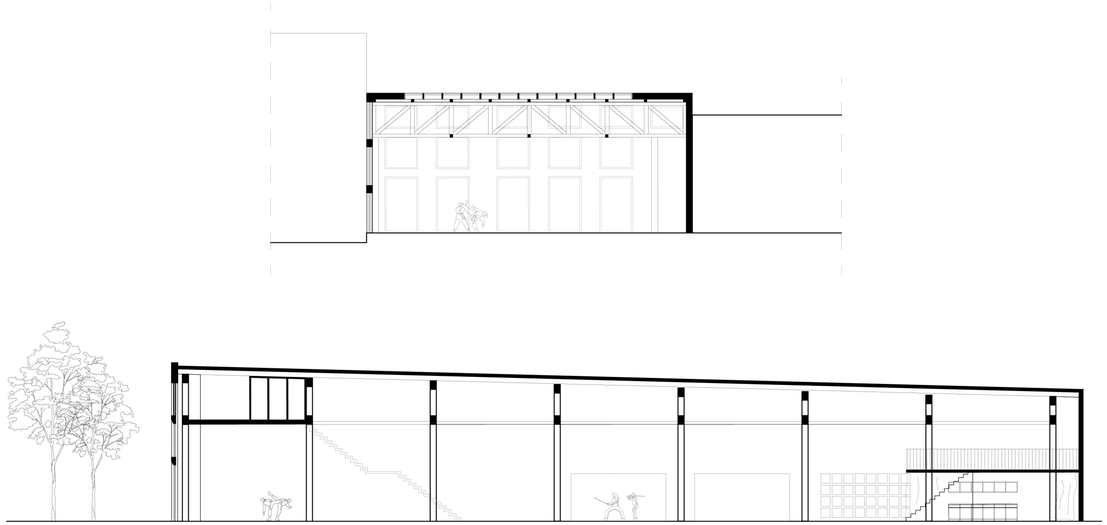


Climate system

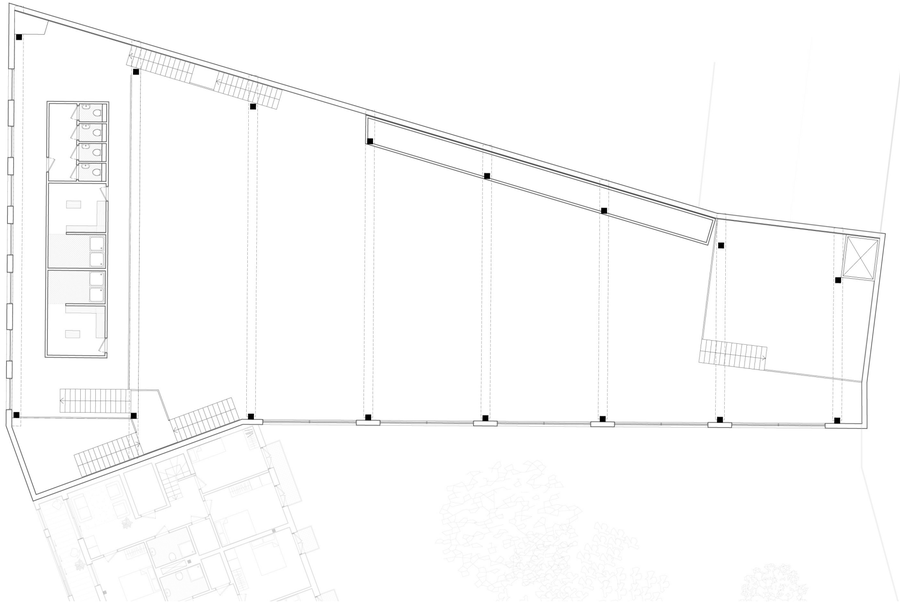


Sructure elements

1 CLT walls as stability slabs
2 Two technical shafts in the corners
3 Double stairs to the second floor
One stairs supporting the mezzanine
4 Floors
5 Timber trusses
6 Connection beams
7 Roof beams



1m 5m 10m



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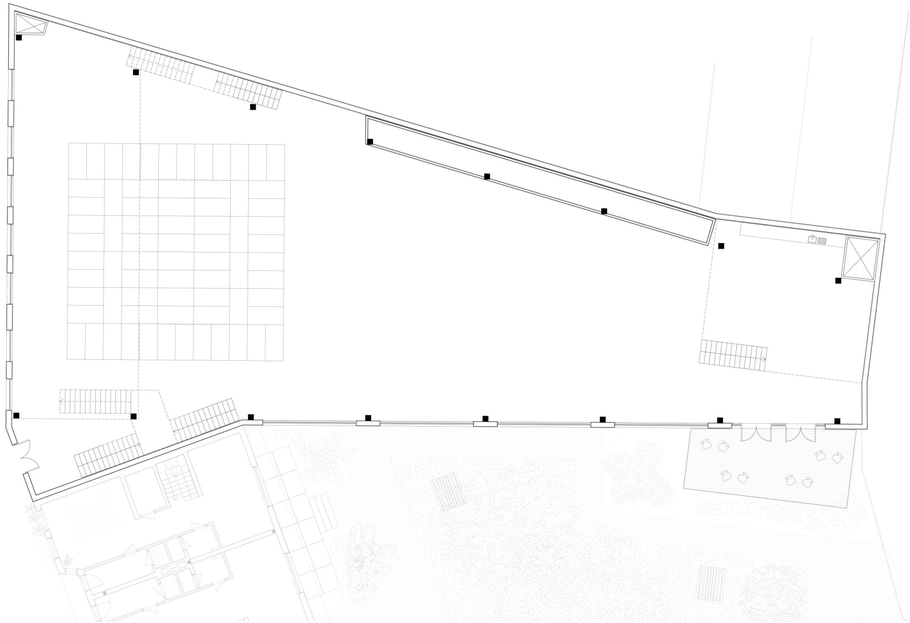

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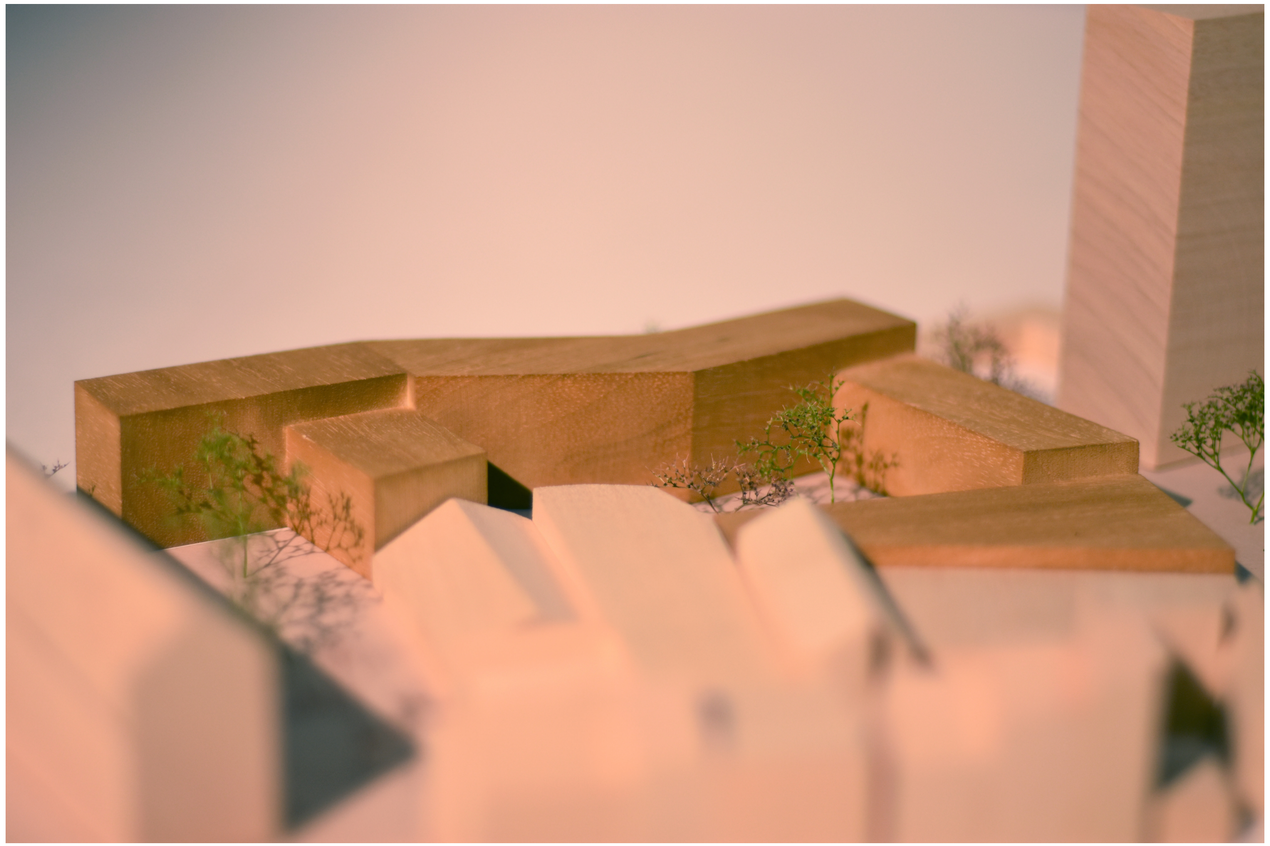
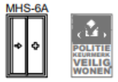


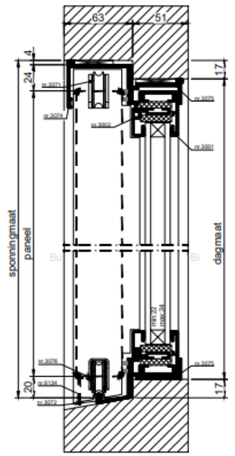
A curative project that reacts to the individualized society,
striving for a reconciliation of the fragments of Brussels
and mediation of the collective in social housing.

Thank you!

METHERMO®ORIGINAL RAMEN/GEVELS - HORIZONTAAL SCHUIVEND

MHS-6A

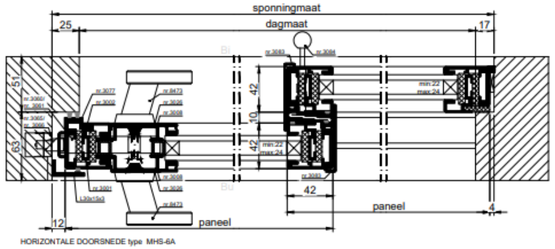




VERTICALE DOORSNEDE type MHS-6A

Methermo®Original horizontaal schuifsysteem, type **MHS-6A**. Opgebouwd uit 1 schuivend deel en 1 vast deel.

Voorzien van:
- HR** isolatieglas, glasdikte maximaal 24 mm
- geïsoleerd aluminium raamprofiel
- bovenrail nr. 3074 en nr. 3075 inclusief dichtingen
- onderrail nr. 3072 en nr. 3075 met blokkeringsprofiel nr. 6325
- looprollen nr. 3071 of nr. 3076
- middennaad afdichtingsklauw nr. 3083 met middennaad vergrendeling nr. 3084
- doorlopend rvs slotkap nr. 3026
- meerpuntsluiting nr. 3060
- rvs deurschild nr. 3049
- rvs schijfgreep nr. 8473
- euro profielcilinder 35/35
- afdichtingsprofiel nr. 6134 en nr. 3077
- borstelprofielen



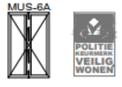
HORIZONTALE DOORSNEDE type MHS-6A

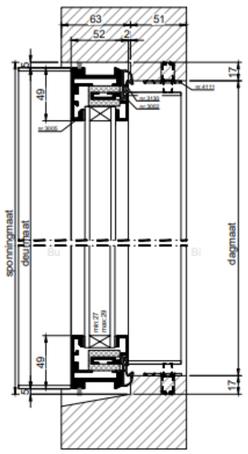
1.8.6
01-2019

Metaglas
Postbus 270, 4000 AG Tiel Tel: (0344) 75 04 00
Het Eek 5, 4004 LM Tiel E-mail: info@metaglas.nl

METHERMO®ORIGINAL DEUREN EN STOLPDEUREN

MUS-6A

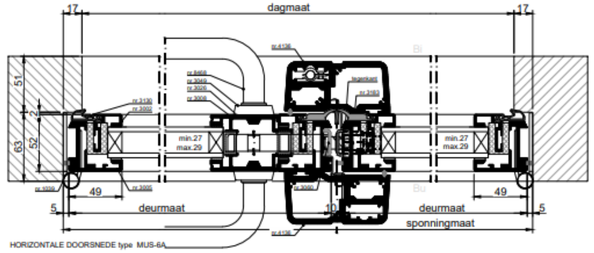




VERTICALE DOORSNEDE type MUS-6A

Methermo®Original inbraakwerend naar buiten draaiende stolpdeur, type **MUS-6A**.

Voorzien van:
- HR** isolatieglas, glasdikte maximaal 29 mm
- geïsoleerd aluminium deurprofiel
- aluminium middennaad afdichting nr. 4136
- rvs scharnieren nr. 1039
- rvs meerpuntssluiting
- rvs doorlopende slotkap nr. 3026
- rvs smalschild nr. 3049
- rvs deurkruk nr. 8468 aan binnen- en buitenzijde
- euro (nood-)profielcilinder 35/35
- afdichtingsrubber nr. 3180 en nr. 3183
- borstelprofielen
- espagnolet
- verborgen espagnoletgreep nr. 9745
- sluitpot nr. 4111

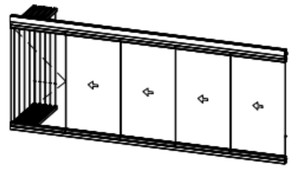


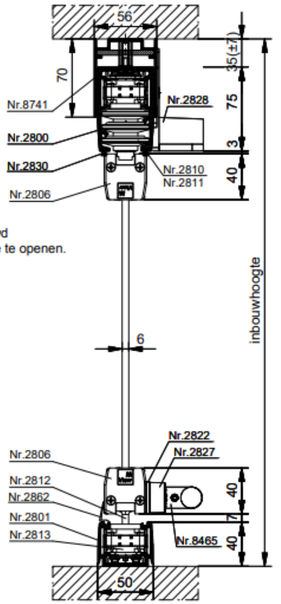
HORIZONTALE DOORSNEDE type MUS-6A

1.5.8
01-2020

Metaglas
Postbus 270, 4000 AG Tiel Tel: (0344) 75 04 00
Het Eek 5, 4004 LM Tiel E-mail: info@metaglas.nl

M-VIEW BALKON EN VERANDA BEGLAZING

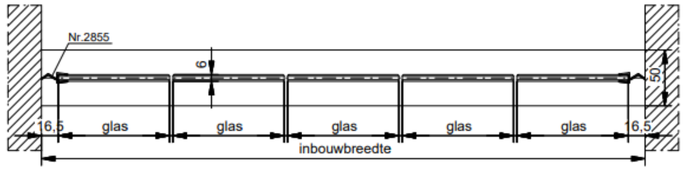




VERTICALE DOORSNEDE type MBR-1A

M-View gepatenteerde rechte balkonbeglazing voor plaatsing op een borstwering, type MBR-1A, opgebouwd uit een draaipaneel en schuifdraaipanelen. Naar 1 zijde te openen.

Voorzien van:
- 6, 8, 10 of 12 mm blank voorgespannen floatglas (hier getekend met 6 mm glas)
- telescopisch stelprofiel nr. 8741
- bovenrail nr. 2800
- bovenlooprollen nr. 2810/2811
- samengesteld raamprofiel nr. 2806
- draaigeleider nr. 2828
- onderdraaipunt nr. 2812
- onderrail nr. 2813
- ondergeleidingsprofiel nr. 2801
- rvs ondervergrendeling nr. 2827/2822
- rvs bedieningsgreep T-model nr. 8465
- aansluitprofiel nr. 2855



HORIZONTALE DOORSNEDE type MBR-1A

3.2.12
04-2015

Metaglas
Postbus 270, 4000 AG Tiel Tel: 0344 75 04 00
Het Eek 5, 4004 LM Tiel Fax: 0344 75 04 99
Wijzigingen voorbehouden E-mail: info@metaglas.nl

veranda / loggia / (interior) wintergarden sliding doors

balcony doors

(exterior) wintergarden







Requirements buildings with 10 m < H < 25 m

FIRE CLASSES (product feature indicating reaction to fire)
Facade finishing **B-s3-d0**
Extra beschermde vluchtroute **B**
Roof finishing **B**
Shafts **A2**
of which 5% of visible surface is exception

RESISTENCE FIRE COMPARTMENTS (requirements)
Firecompartment > fire compartment: **WBDBO60**
> Extra beschermde vluchtroute (EBV): **WBDBO 60**
Firecompartment > EBV: **WBDBO 30**

Indien een vloer van een verblijfsgebied hoger ligt dan 7 m en geen vloer van een verblijfsgebied hoger ligt dan 13 m boven het meetniveau **R90**

Walls between compartments **EI60**
Self-closing doors **EI30**
Walls technical rooms **Rf120**
Flat roofs, facades, staircase and floors **Rf60**
Interior walls **Rf30**

EVACUATION
Distance domestic area to exit (start of escape route): **30 m**
(source: Bouwbesluit Online 2012)

Material Fire Class

☑ Gypsum fiberboard (plasterboard) **A2-s1-d0** (https://www.fermacell.be/be)
2x 12,5mm **EI60**
☑ Glued Laminated Timber of Spruce GL24C **D-s2, d0** (https://www.hasslacher.com/data/_dateimanager/broschuere/HNT-Brettschichtholz-EN.pdf, page 5)
☑ Cross Laminated Timber Rib panels by Stora Enso **D-s2, d0** R60
(H340 140L5s) (https://www.storaenso.com/en/products/wood-products/massive-wood-construction/rib-panels)
☑ Accoya facade finishing **B-s2,d0**
(when fire retardant treatment is applied: impregnation of Burnstop®/ Flameaway® IMW475HP. Afterwards, a transparant coating of FR Wood-protection is applied to make exterior use possible.) (https://www.accoya.com)
☑ Van der Sanden bricks Freya **A1**

Portiekartikel

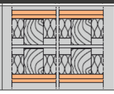
"In een portieksituatie is het wel toegestaan dat de extra beschermde vluchtroute waarop de woningtoegang aansluit, in het trappenhuis ligt en dat langs andere woningtoegangsdeuren wordt gevlucht, mits deze zijn voorzien van een zelfsluitende woningtoegangsdeur (Regeling Bouwbesluit artikel 2.3)."

"In een woongebouw (...) is de loopafstand over een extra beschermde vluchtroute in een gemeenschappelijke verkeersruimte ook niet gelimiteerd"

Er geldt in plaats daarvan voor woongebouwen met een totale vloeroppervlakte aan verblijfsgebied van meer dan 600 m² een eis voor de minimum breedte van de trap (1,2 m) in het trappenhuis waardoor de vluchtroute voert

(source: Bouwbesluit Online 2012)

2.2 Niet-dragende scheidingswanden met houten onderconstructie

Systeemcode	Systeemtekening	Wanddikte	Onderconstructie [1][3]	Plaatdikte per zijde [1][2]	Isolatie [1] dikte/persing [1][2]		Maximale wandhoogte Toepassingsgebied [1]	Gewicht van de constructie	Luchtgeluidisolatie R_w [1][3][5]	Brandwerendheid [4] + richting	Brandrapport [6]
1 H 25		240	2 x 60/80	2 x 12,5 GV	2 x 60/20 [2a]		4000	76	63	60	KB 3.2/18-010-5

2.6 Dragende scheidingswanden met massieve houten onderconstructie (CLT/X-LAM)
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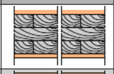
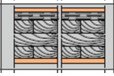
Systeemcode	Systeemtekening	Wanddikte	Onderconstructie [1][3] massief hout (CLT)	Plaatdikte per zijde [1][2]	Isolatie [1] dikte/persing [1][2]		Toelaatbare drukbelasting	Gewicht van de constructie	Luchtgeluidisolatie R_w [5]	Brandwerendheid [4]	Brandrapport [6]
		[mm]	[mm]	[mm]	[mm]/ [kg/m³]		[kN/m]	[kg/m²]	[dB]		
1 HTM 21		≥ 145	≥ 120	12,5 GV	–		200	≥ 87	≥ 40 *	60	PB 3.2/16-279-1
1 HTM 22		≥ 172	≥ 120	12,5 GV	40/15 [2a]		200	≥ 89	≥ 55 *	60	KB 3.2/16-388-2

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„De Belg wordt geboren met een baksteen in zijn maag”