

# AGEING ELDERS

Finding the right home to age

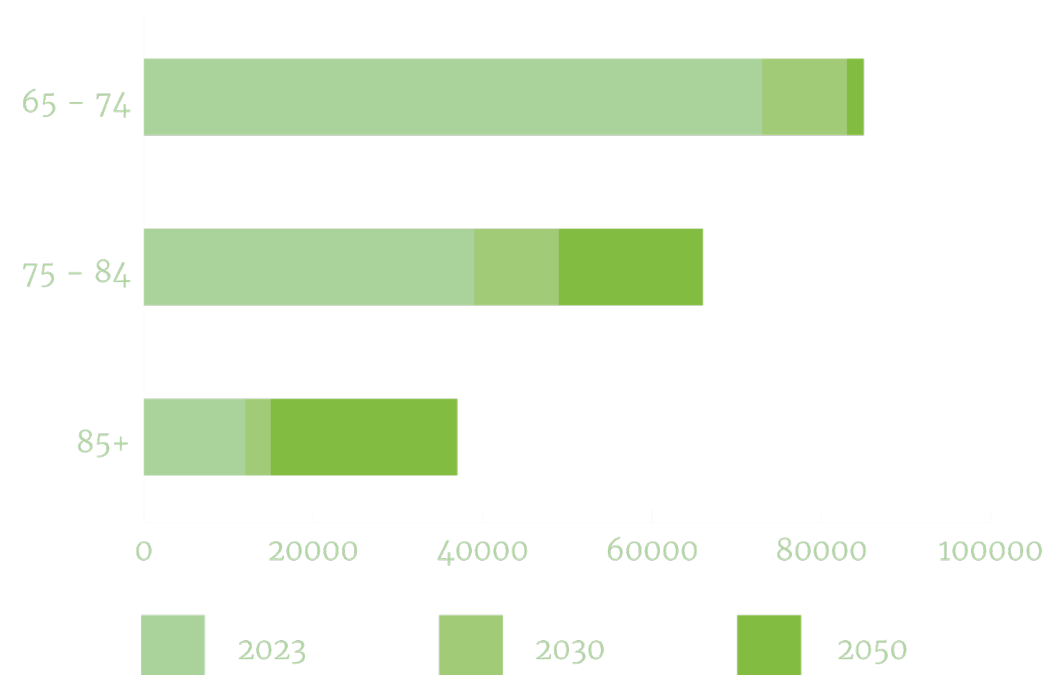
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Graduation Studio: Advanced Housing Design  
Faculty of Architecture & Built Environment, TU Delft







Population prognosis Amsterdam (65+)



(Amsterdam Vergrijst | Website Onderzoek en Statistiek, 2024)

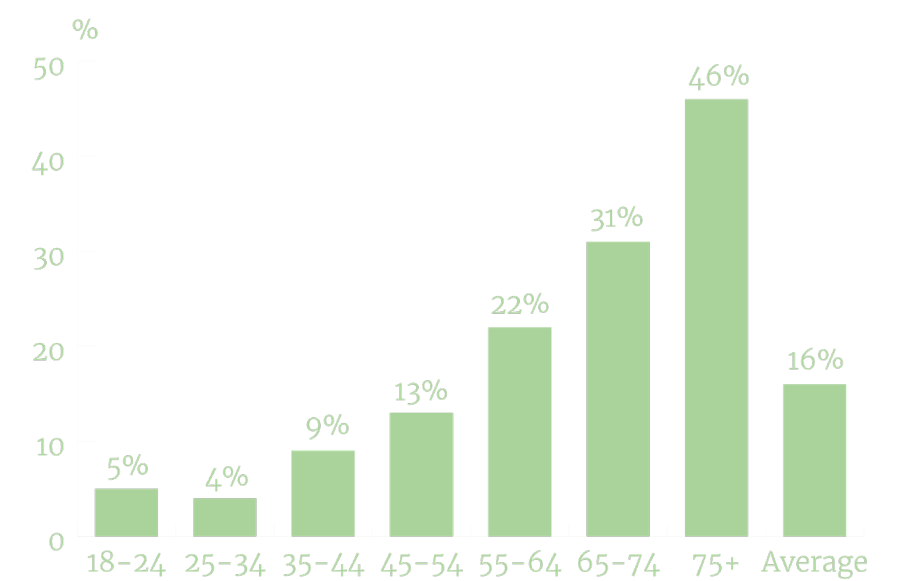
23.000 dwellings needed  
to house seniors in 2040

(Team Stadszaken.nl, 2024)



<https://www.otolift.be/kenniscentrum/gezondheid/moeite-met-de-trap-opgaan/>

Population Amsterdam having trouble walking up the stairs



Dignum, K. (2022). Woonsituatie en woningmarktpositie van Amsterdamse senioren 2022. In Gemeente Amsterdam.



<https://www.destadammersfoort.nl/lokaal/overig/867751/eenzaamheid-onder-ouderen-in-nederland-groeiend-probleem>

# Seniors caught between the lines

“Which design strategy can create a healthy environment in a high density neighbourhood on a social and spatial level where the elderly can age-in-place while also feeling included and helpful?”

When and how did we design housing for seniors and what can we learn from it for nowadays designing for seniors?

What does a group of seniors need in order to stimulate a sustainable community and subsequently what can this community offer to its surroundings?

















# RESEARCH SITE ANALYSIS DESIGN



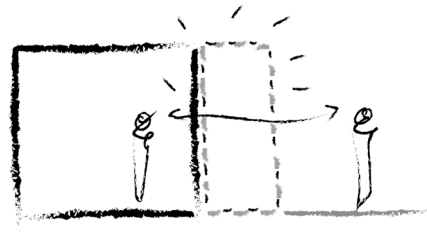


# HISTORICAL ANALYSIS OF THE ELDERLY HOUSING

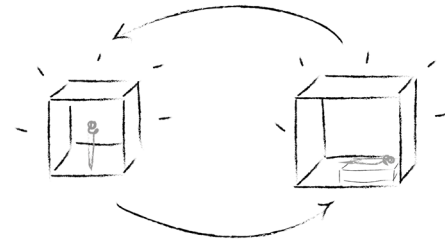


	The Courtyard	Retirement home	Senior houses	Nursing homes	Combination (retirement home and senior houses)	Serviceflats	City in retirement home	Wozoco	Laws
13th – 19th century									
1900s									Armoede wet 1901
1920s – 1940s									Noodwet Drees 1947
1950s – 1960s									AOW 1957 Wet op bejaarden oorden —1963
1970s									Nota Zorg voor Ouderen 1970 – 197
1980s									Nota Zorg voor Ouderen 1986
1990s									
present									WMO & WLZ 2015

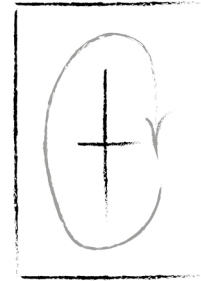
## INDIVIDUAL SCALE



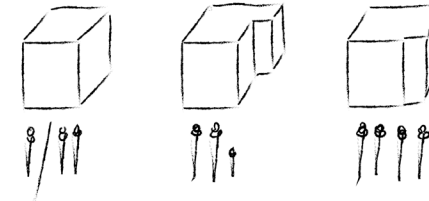
semi-public space



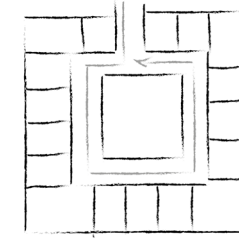
opportunities for growth  
advancements



flexible and clear  
floorplan



different size dwelling  
based on needs

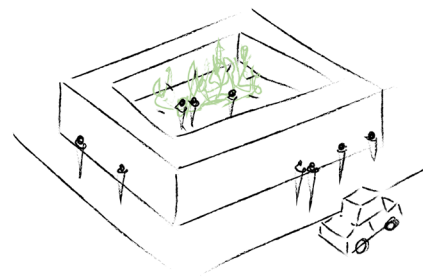


promoting different routes  
and walking



separation between  
collective and individual

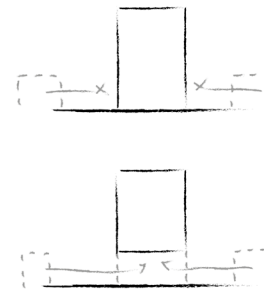
## COLLECTIVE SCALE



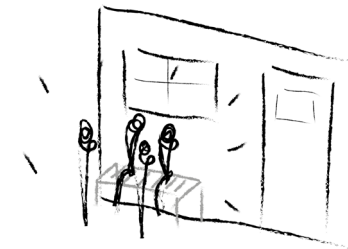
community closed off



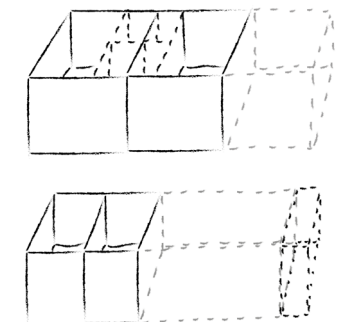
closer connections with people  
within own building



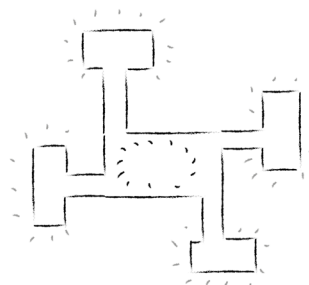
facilities inside building



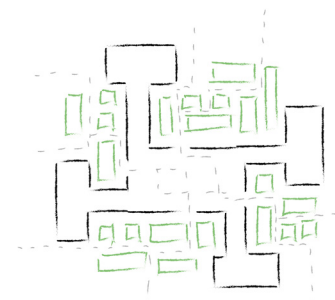
interaction in traffic  
space



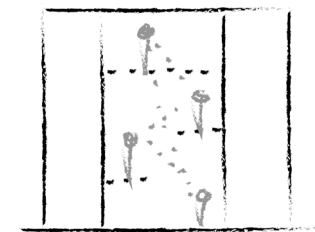
facilities in collective  
space to make it more  
qualitative



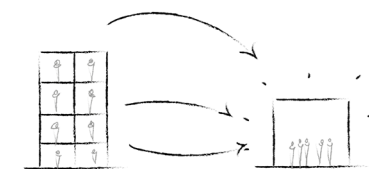
collective space in  
centre of building



porosity of building for  
the neighbourhood



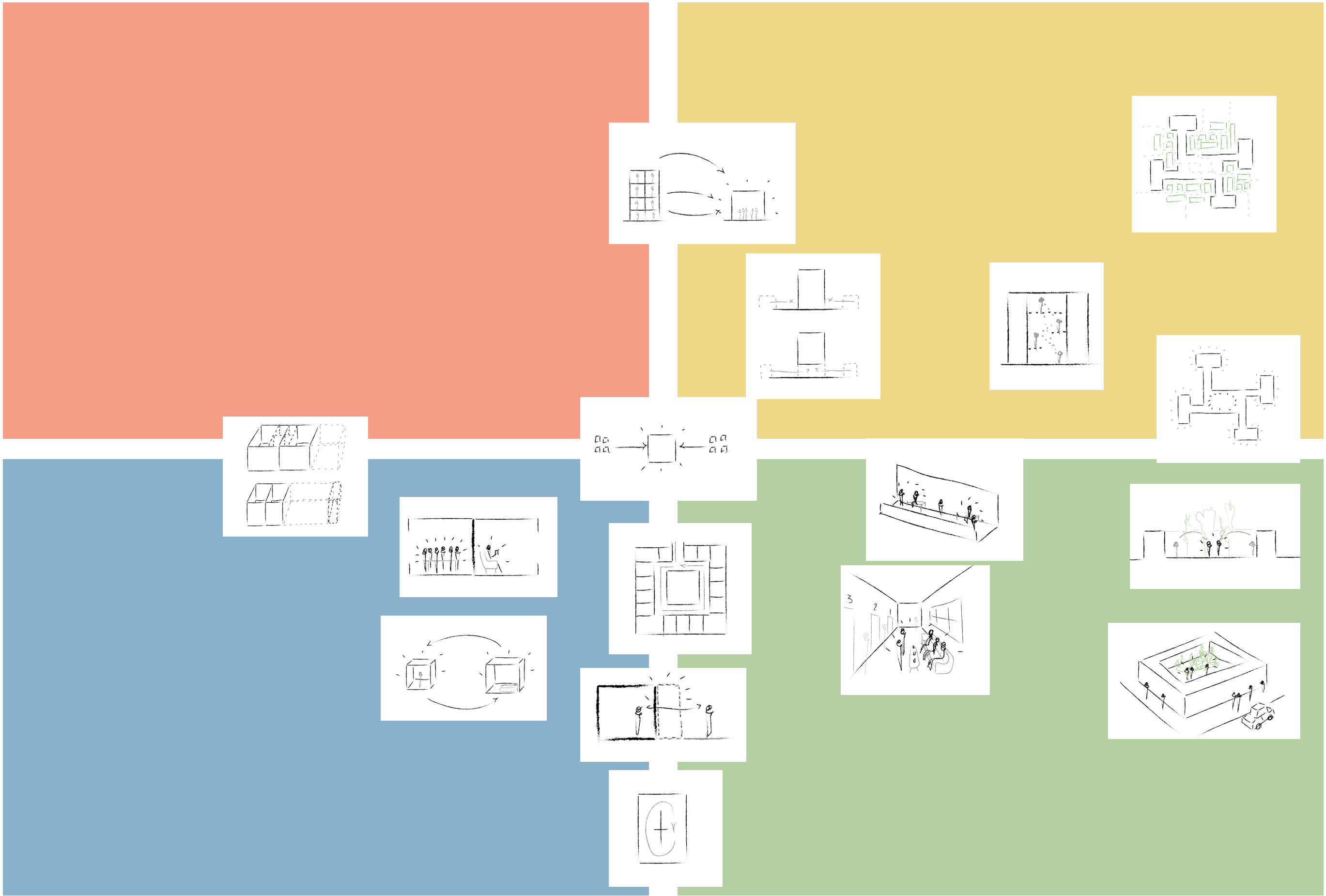
vertical interaction



service centre nearby



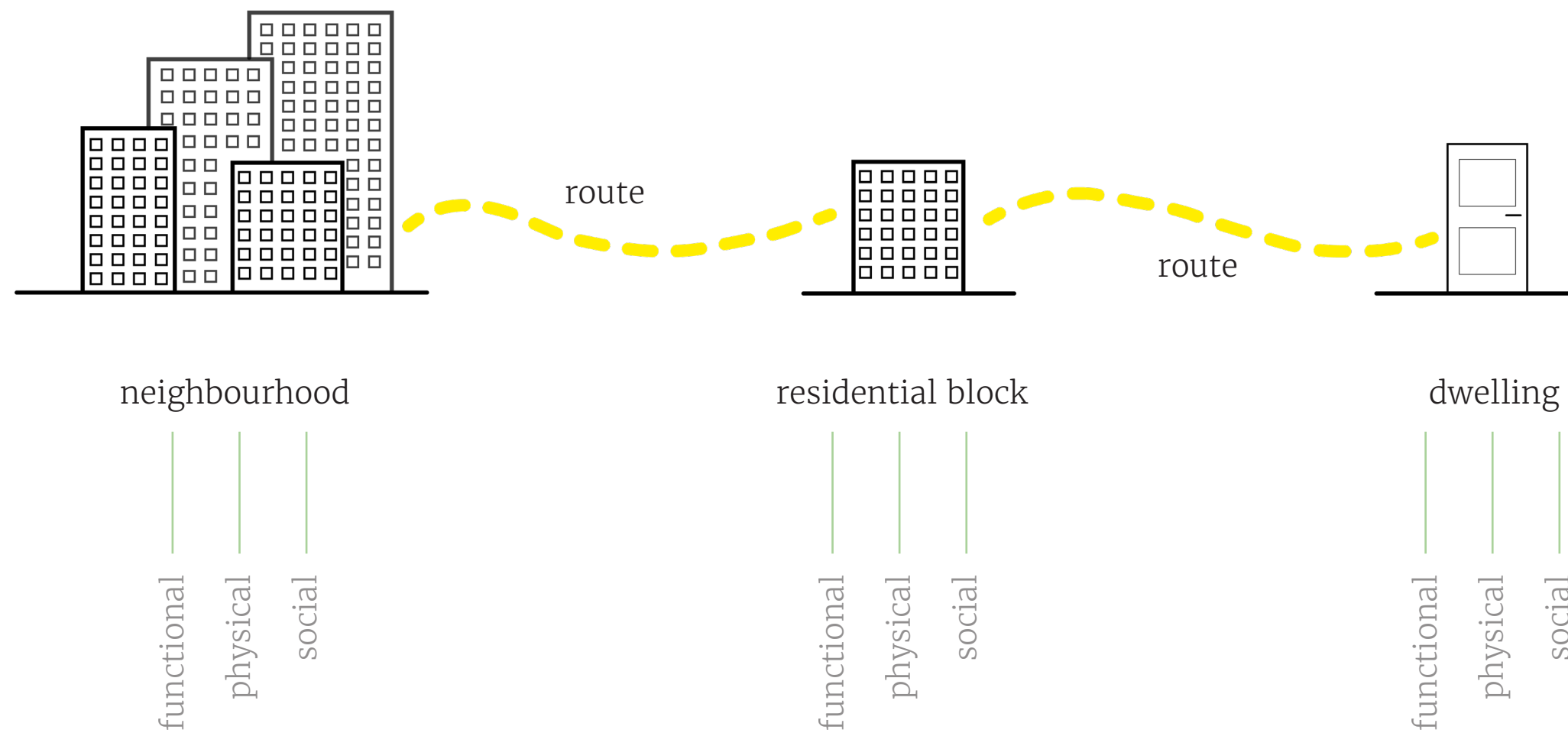
BSR model by AM Vastgoedontwikkeling





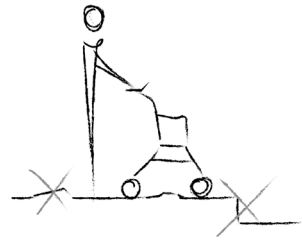


# NEEDS & WISHES OF CONTEMPORARY SENIORS

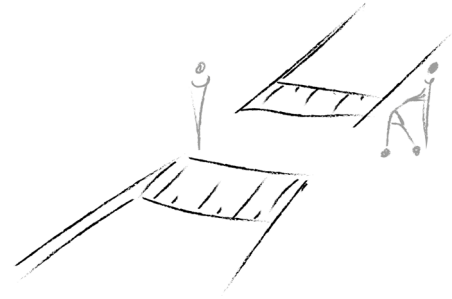


## Physical

### accessibility & safety



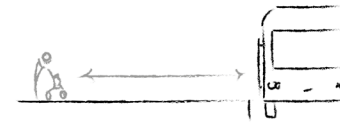
no obstacles



slowing down traffic & easily crossing the street

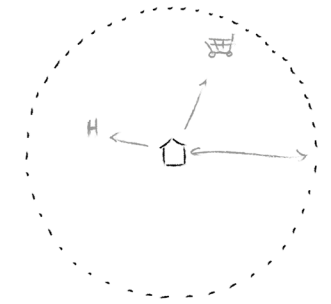
## Functional

### transport



accessible public transport

### amenities

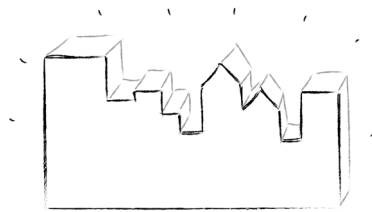


amenities within 500m range

### recognition



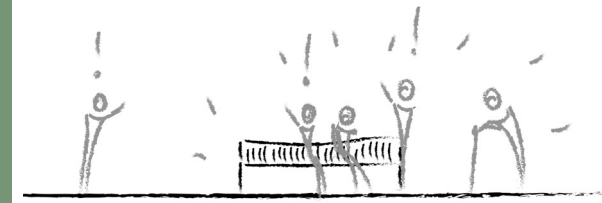
street corners



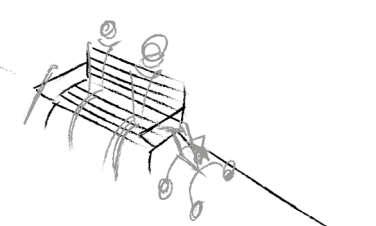
diversity in architecture & functions

## Social

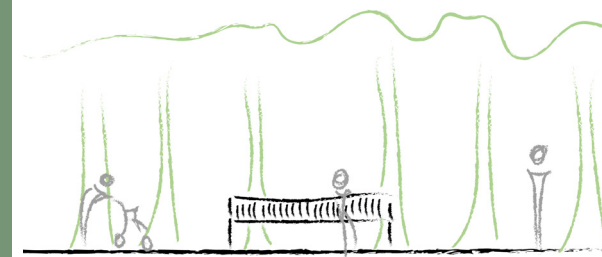
### social interaction



bench in active place

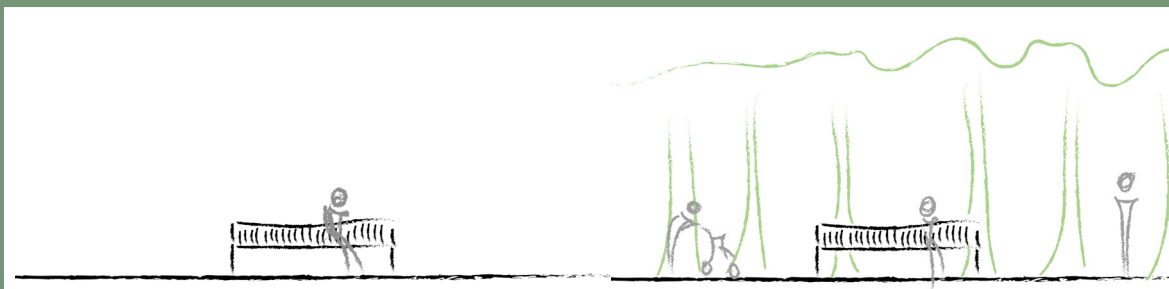


encounters outside



green for stimulating encounters

### activity



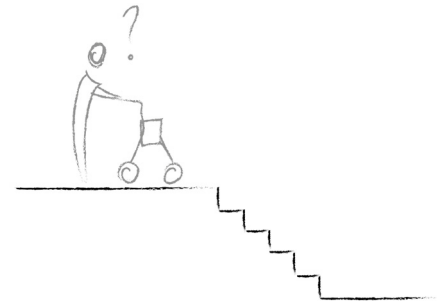
benches

park

drawings based on design principles by Platform31 and Ben Sajet Centrum

## Physical

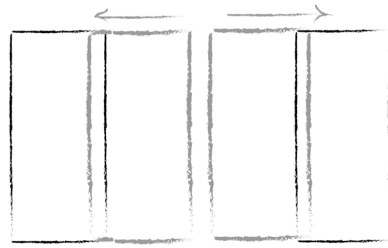
### accessibility & safety



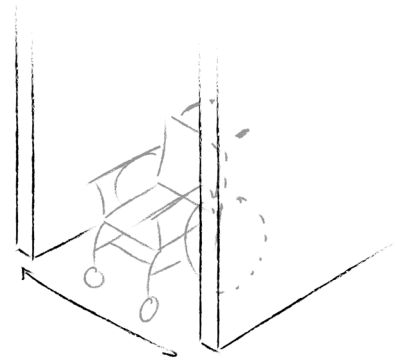
no unnecessary stairs



slopes for wheelchairs & walkers

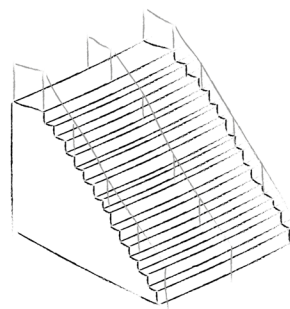


automatic doors



hallways wide enough for wheelchairs and turning

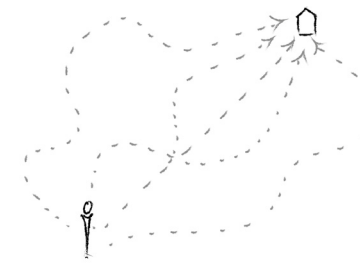
### activity



stairs with bannisters

## Functional

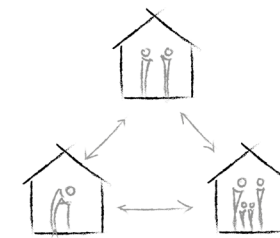
### routing



different routing

## Social

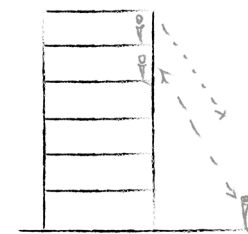
### social interaction



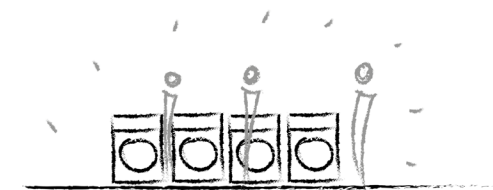
diversity in generations



communal garden



recognizing people from 5 floors



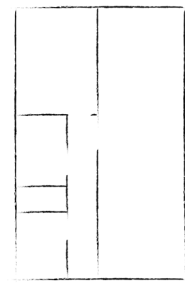
shared spaces

drawings based on design principles by Platform31 and Ben Sajet Centrum

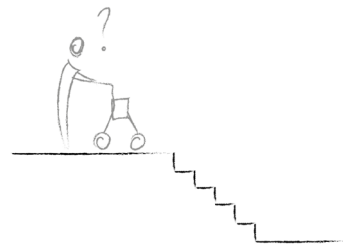


## Physical

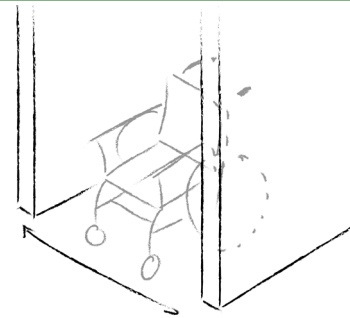
### accessibility & safety



important rooms on ground floor



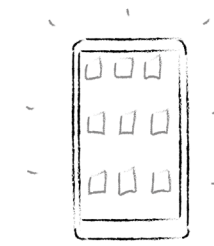
no stairs and thresholds



wheelchair

## Functional

### needs



domotica



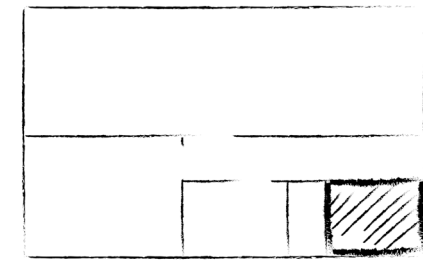
constant temperature

## Social

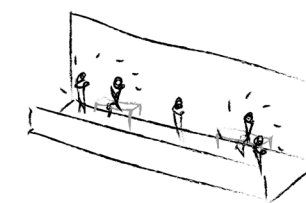
### connectivity



clustered living

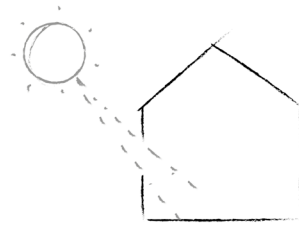


spare bedroom

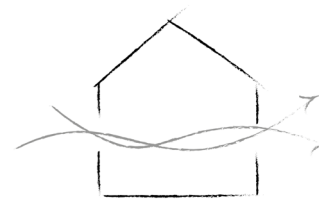


interaction on gallery space

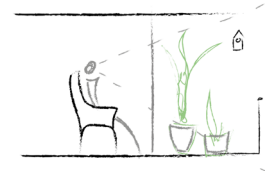
### comfort



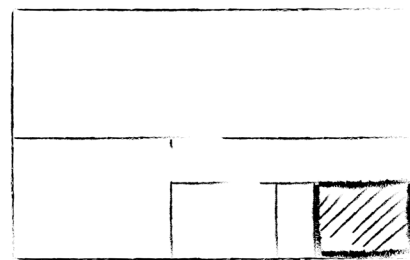
daylight



good ventilation



comfortable space to sit



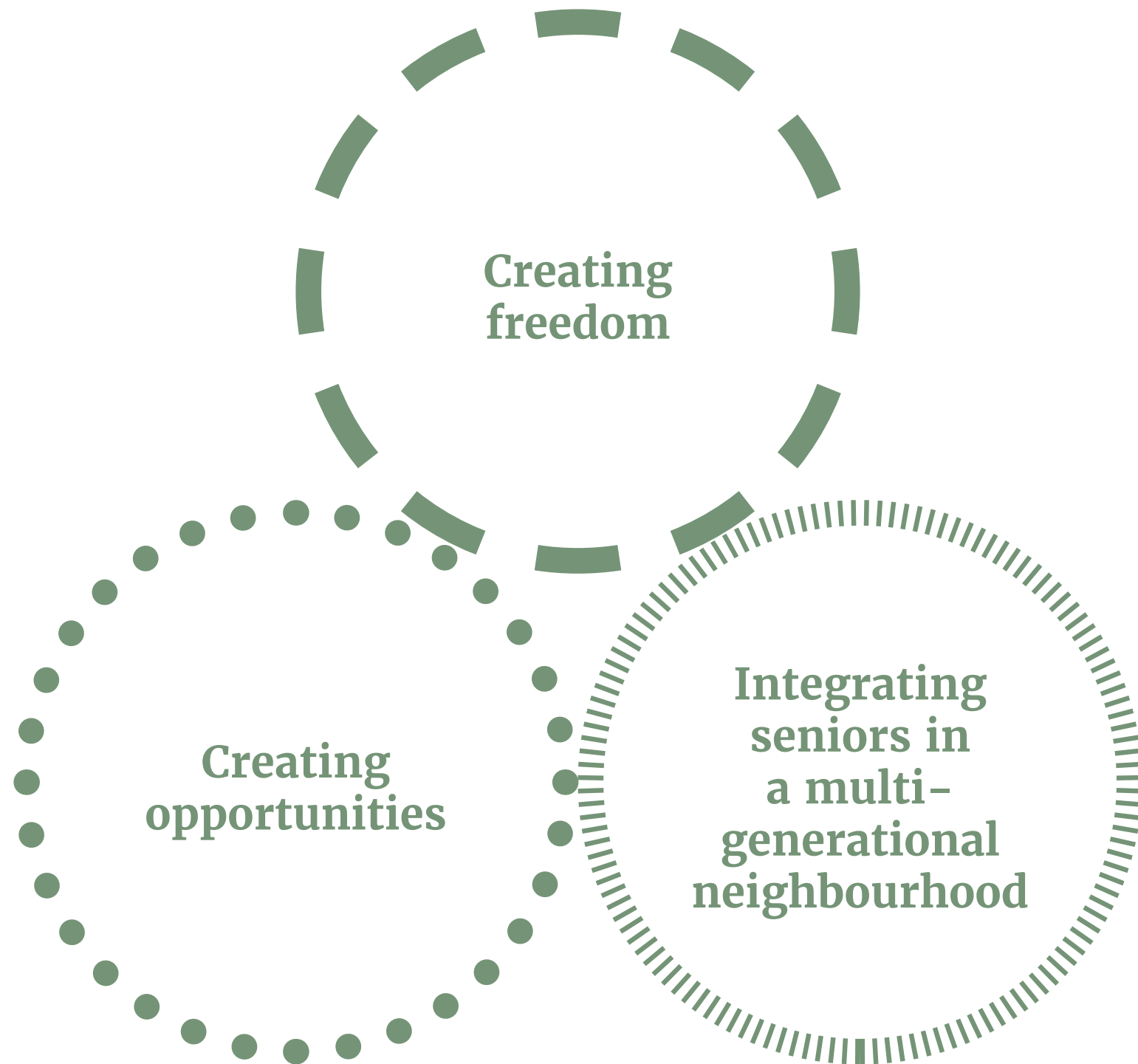
hobby room

### recognition



front door

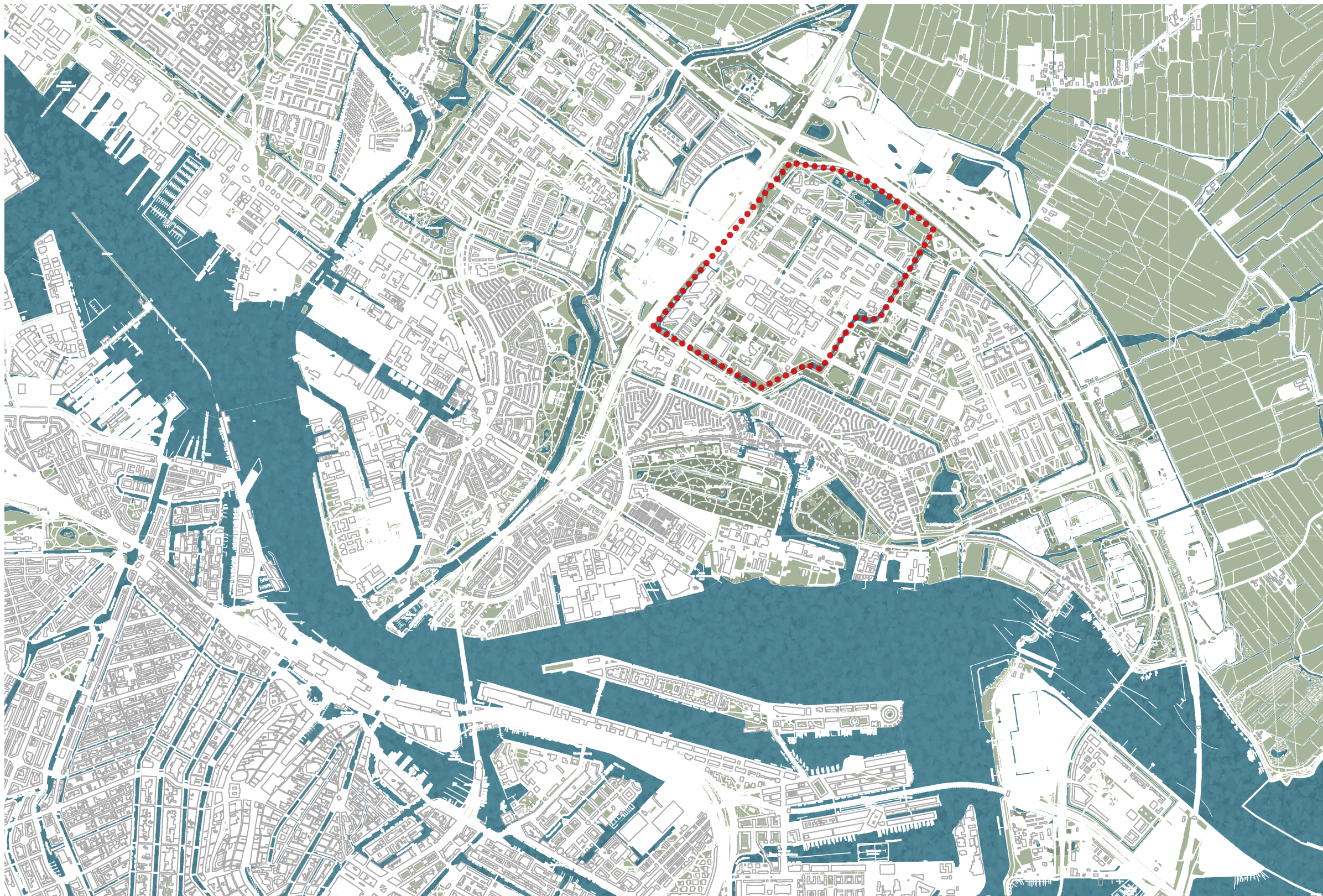
drawings based on design principles by Platform31 and Ben Sajat Centrum















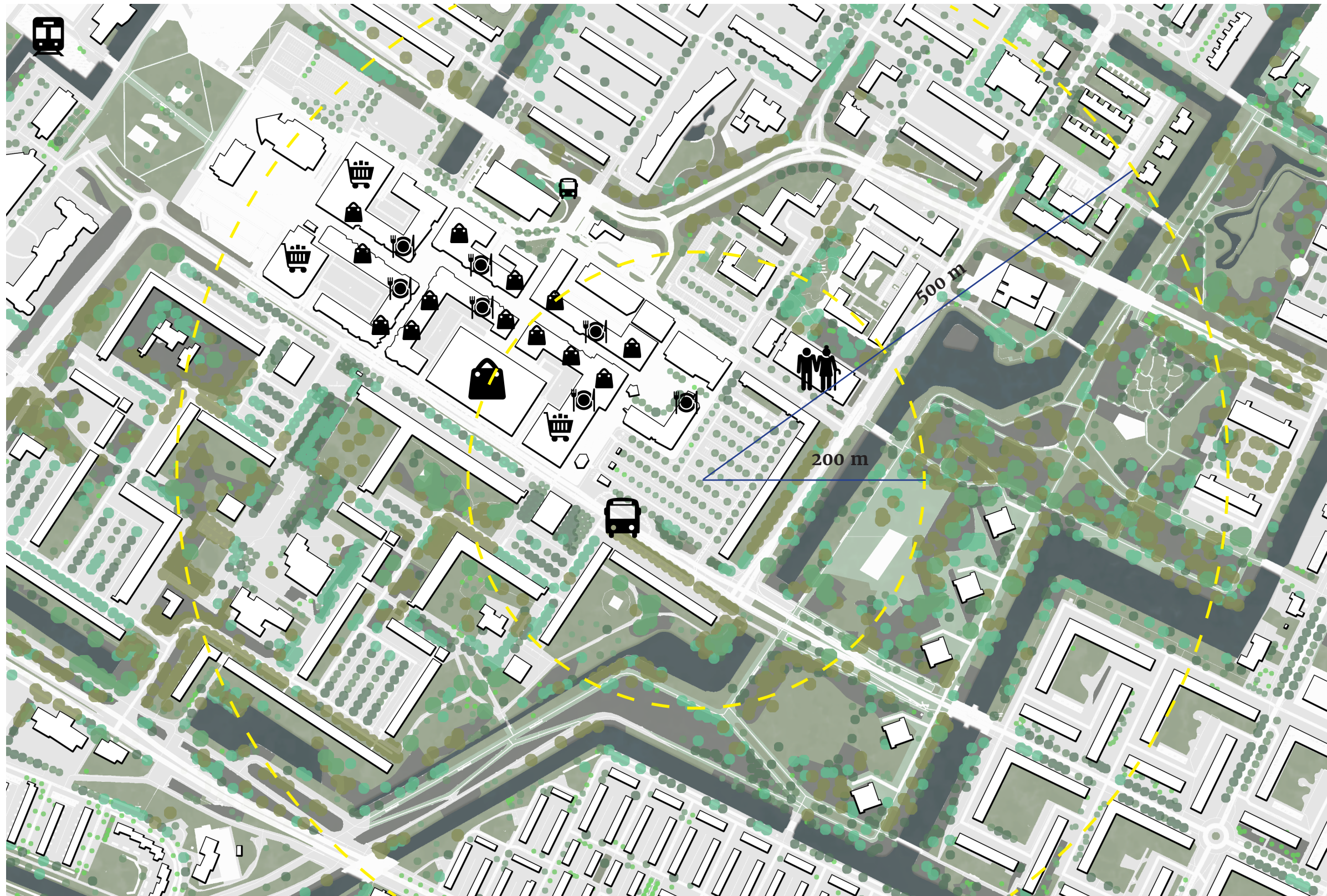




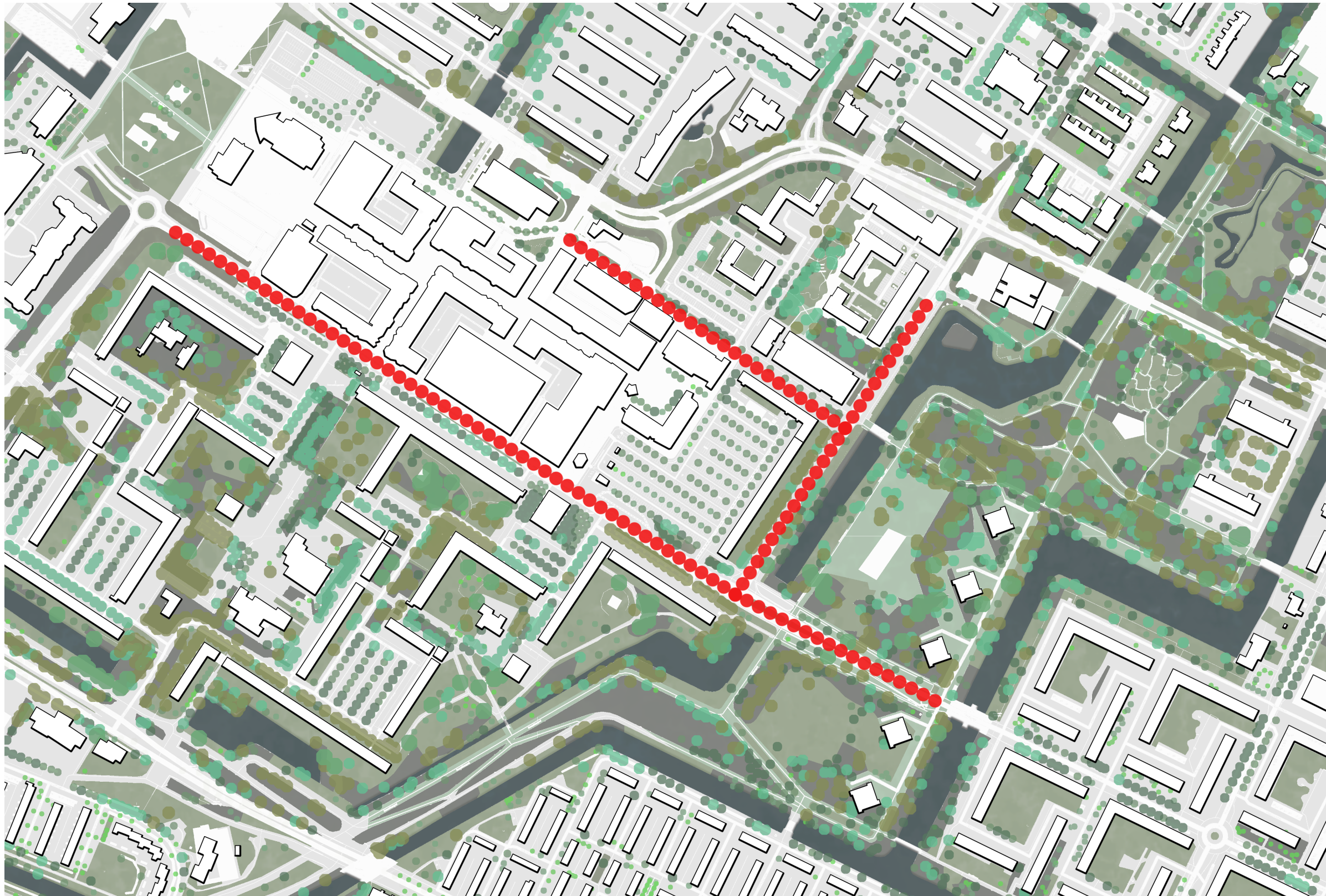




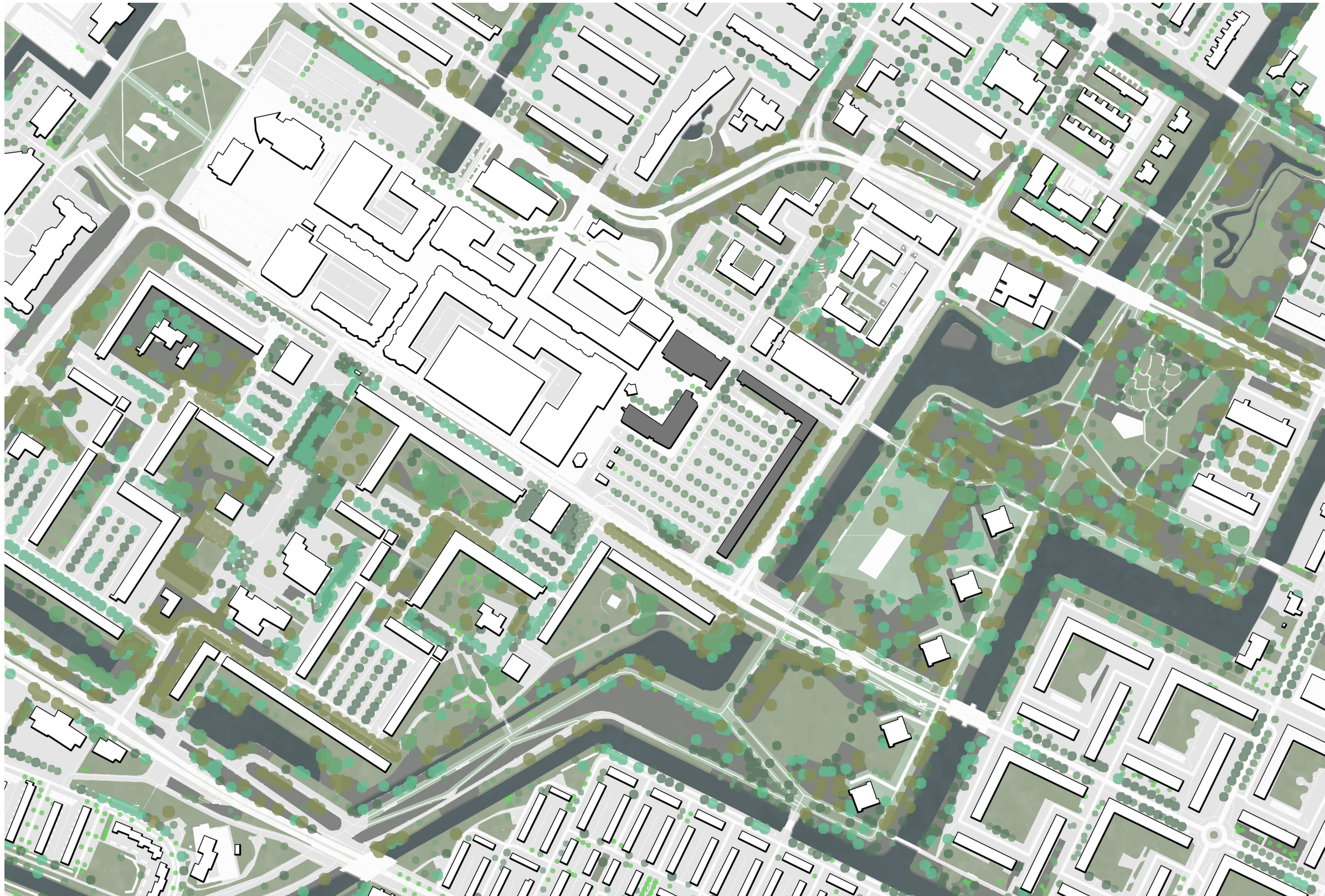








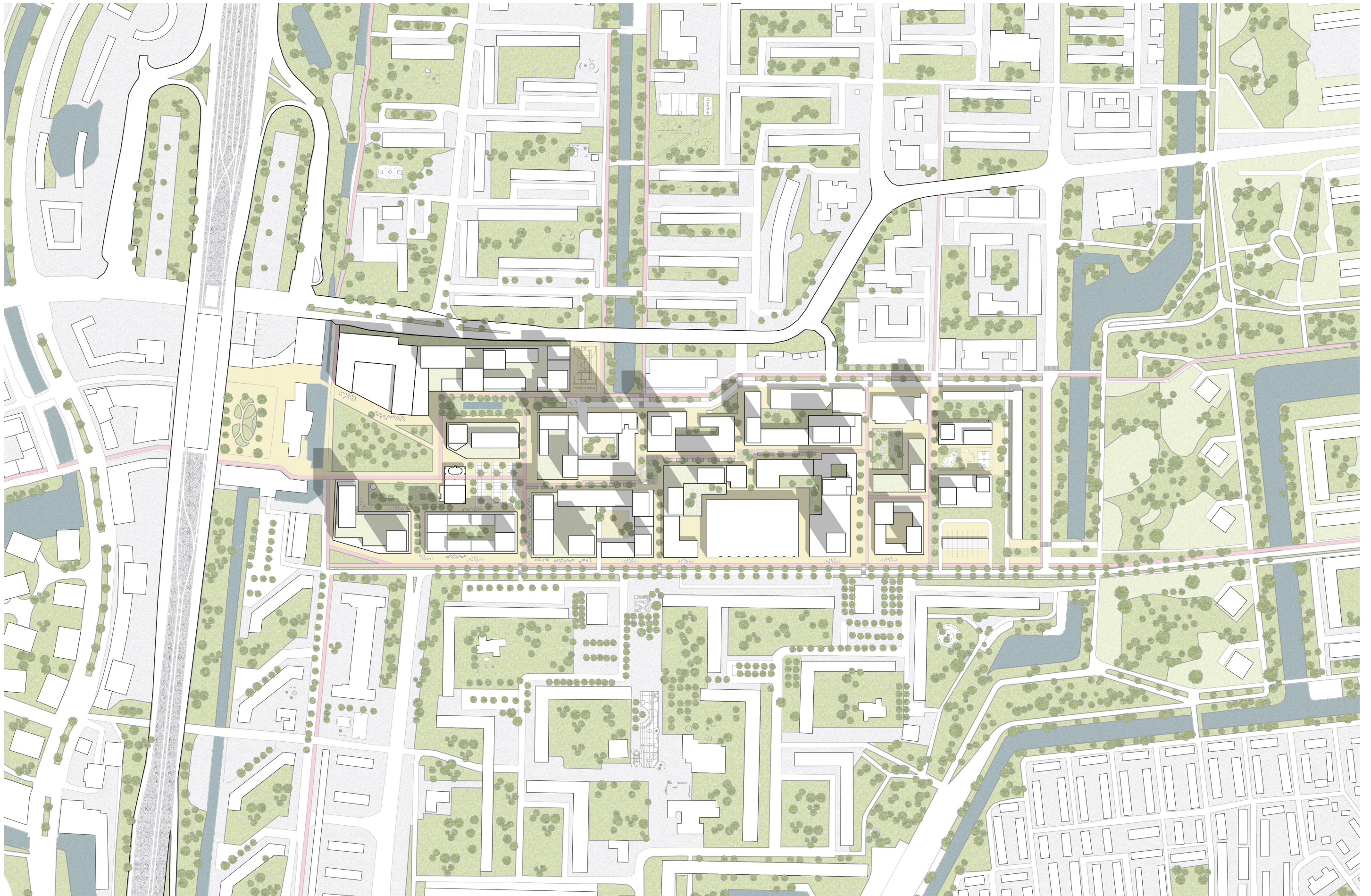














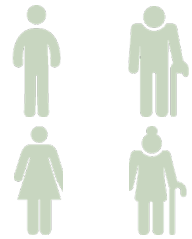








## DWELLINGS



kangaroo dwellings

5% seniors  
5% caregivers



independent senior dwellings

30% seniors



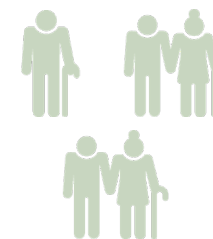
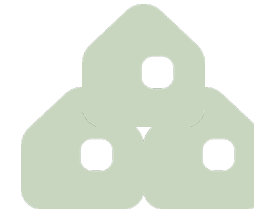
starter dwellings

30% families  
20% younger generation



intergenerational homes

5% seniors &  
families



clustered dwellings

5% seniors



lodger rooms

## PUBLIC SPACES



library  
&  
reading rooms



coffeebar  
&  
living rooms



offices



restaurants



healthcare centre



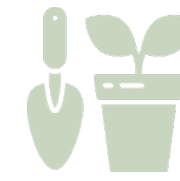
arts & crafts room



hairdresser



gameroom



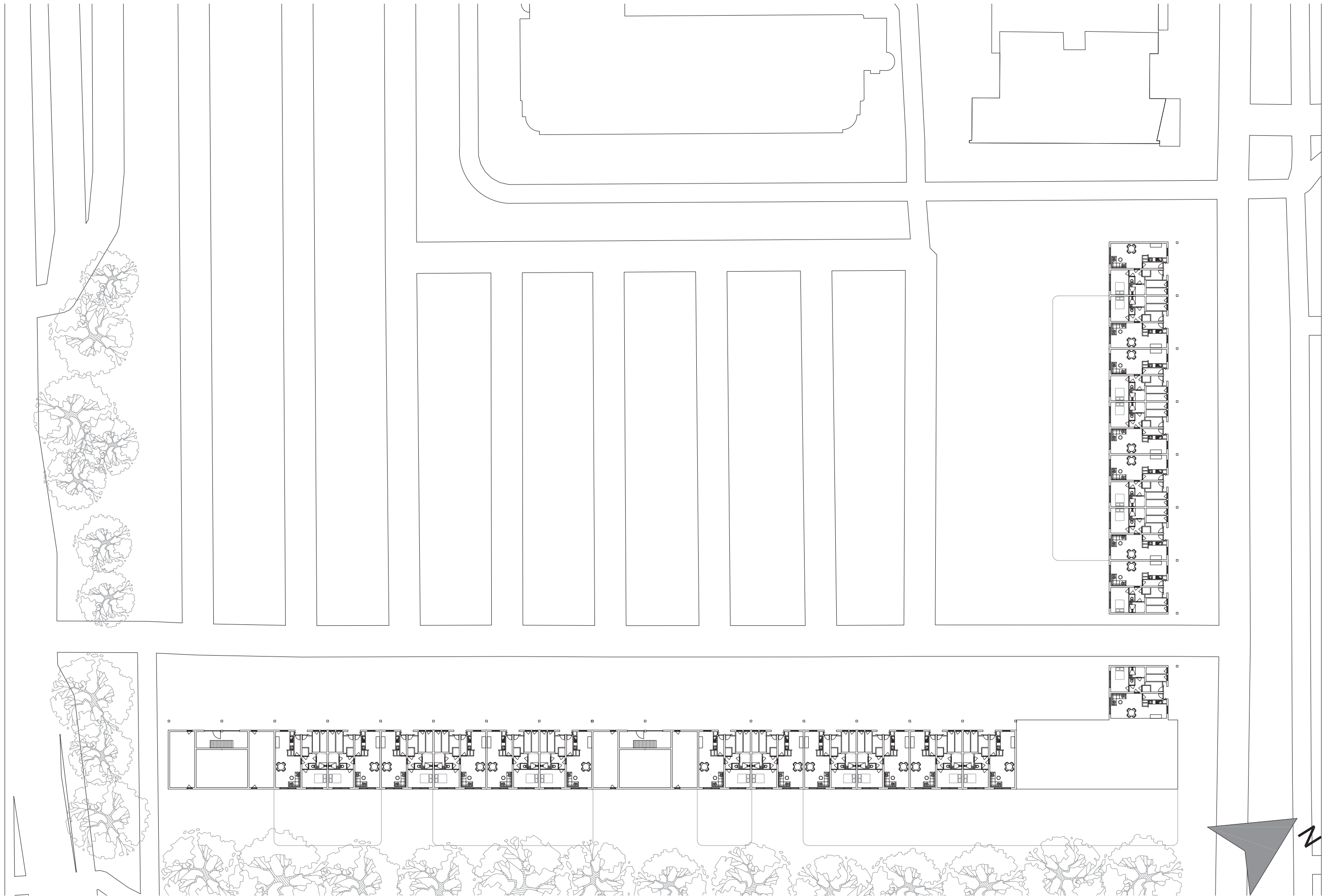
shared gardens



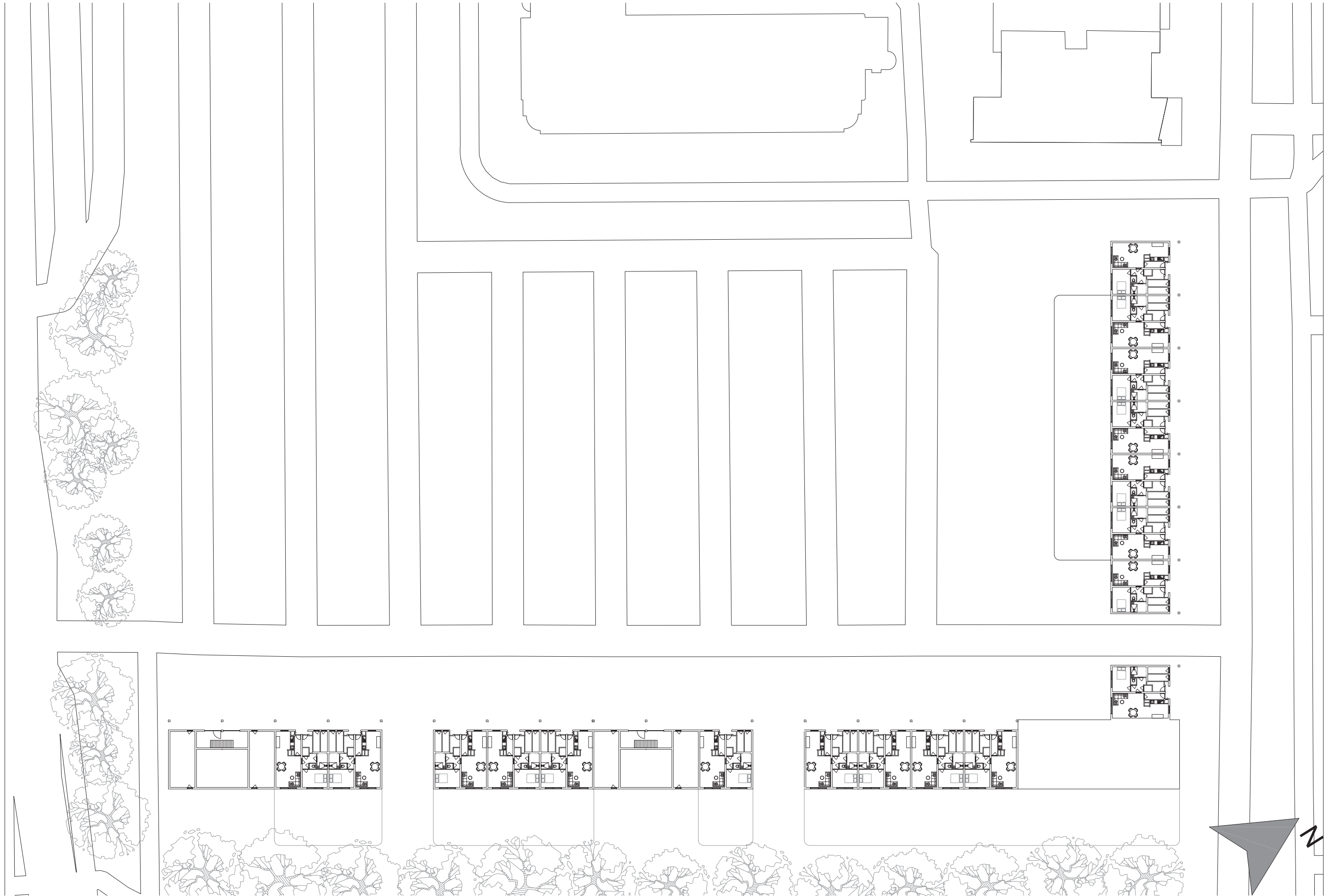
An aerial photograph of a city, likely Amsterdam, showing a dense urban area with a river (the Amstel) flowing through it. The city is surrounded by green fields and forests. The text "BUILDING DESIGN" is overlaid in the center in a large, white, serif font.

# BUILDING DESIGN



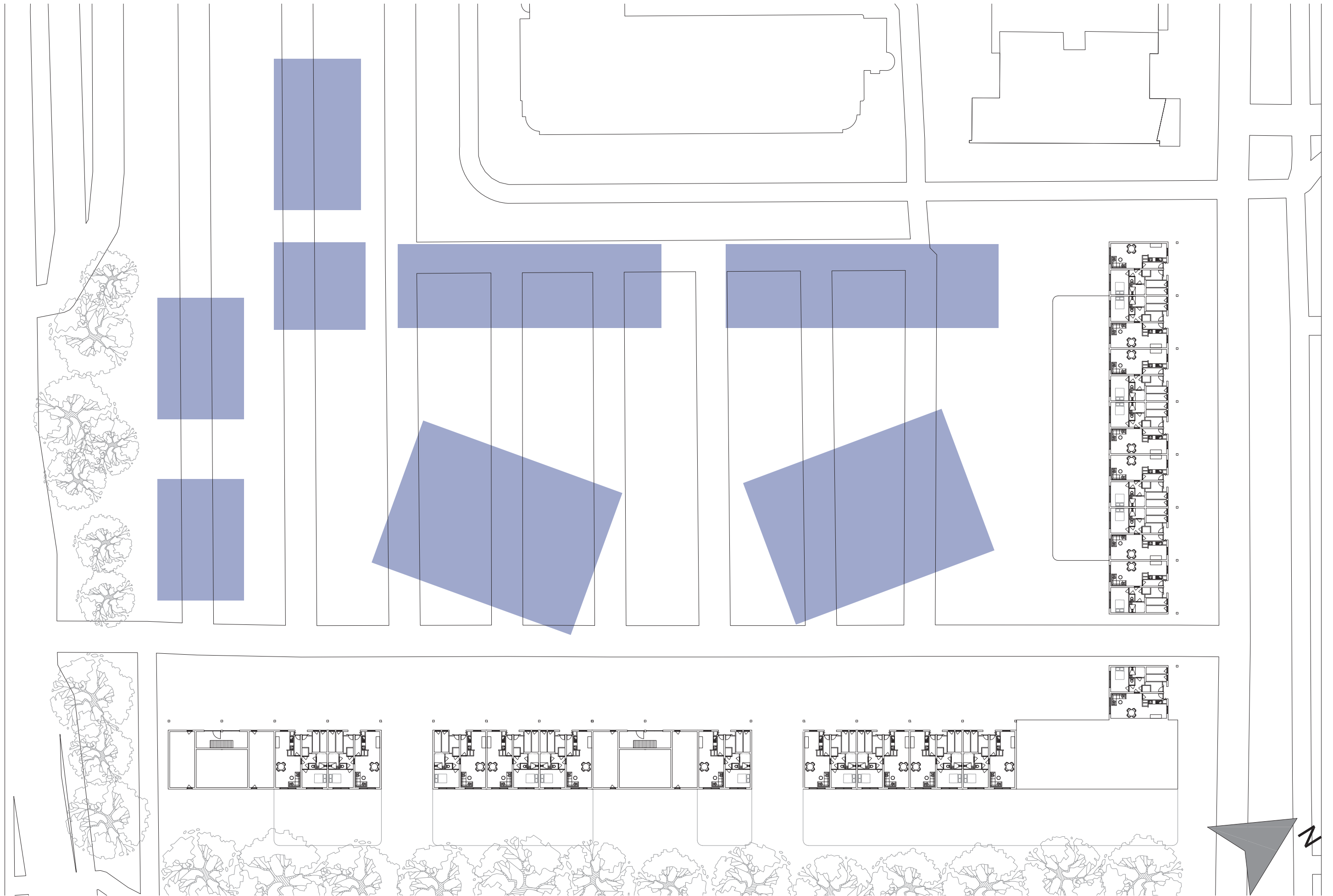


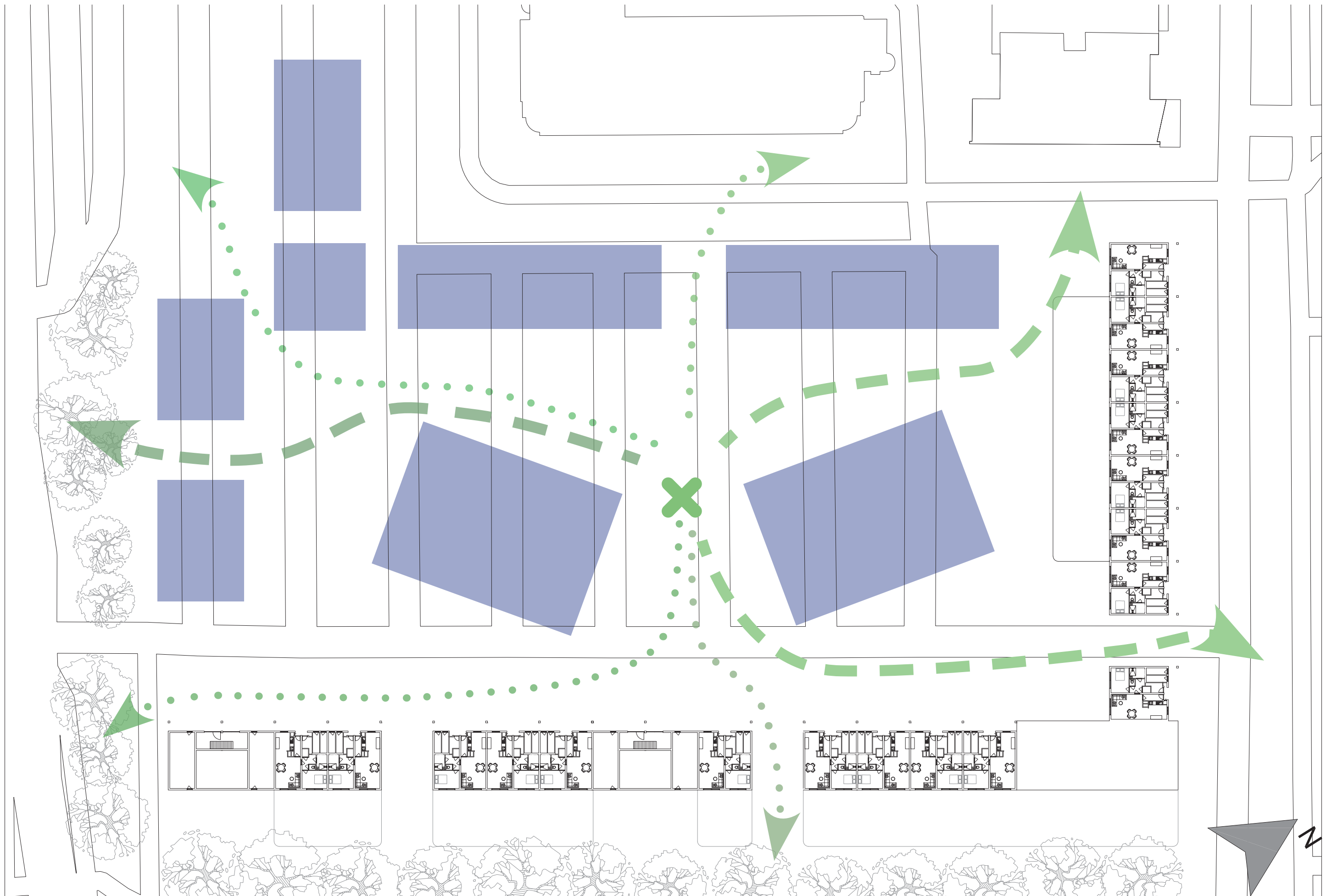




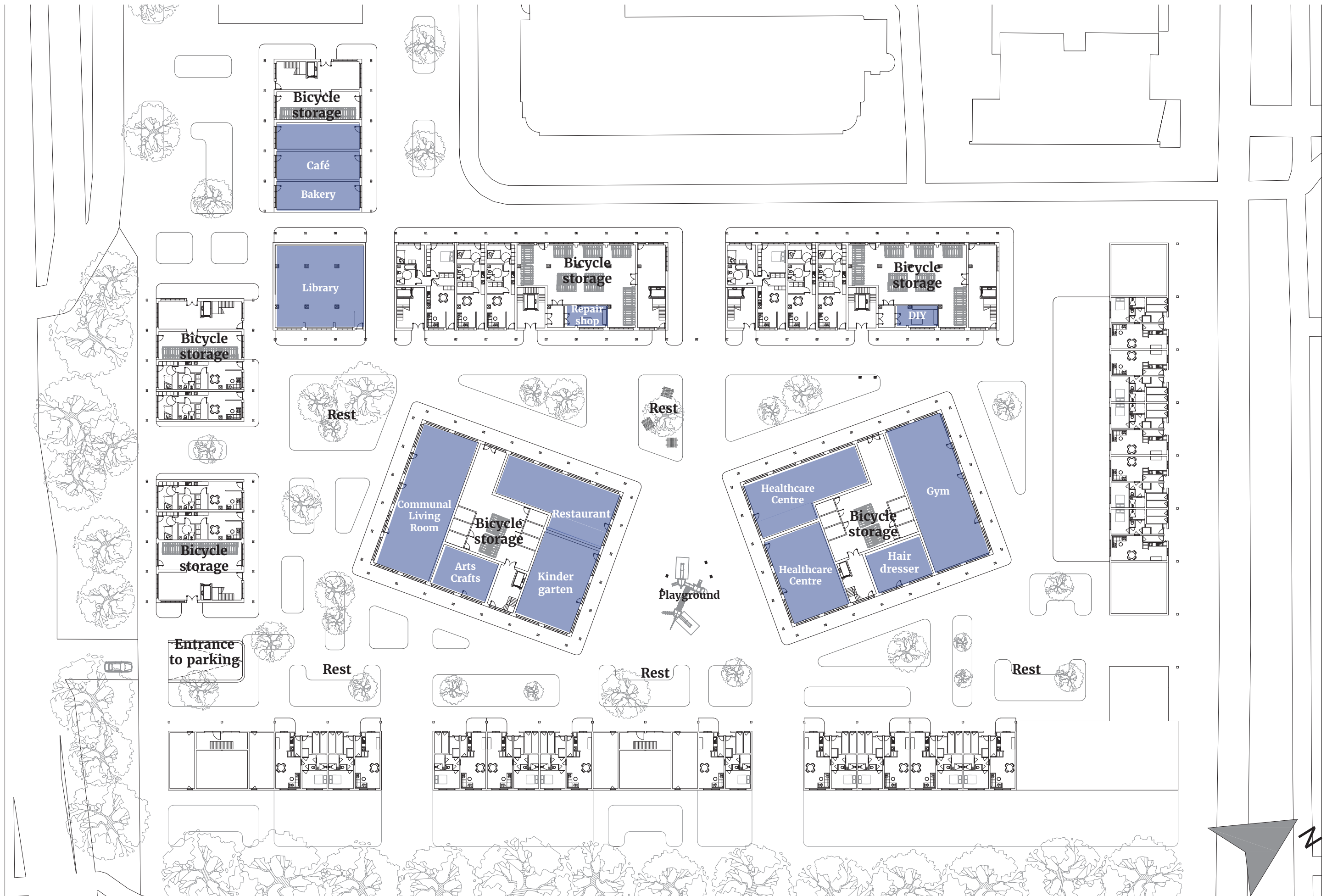




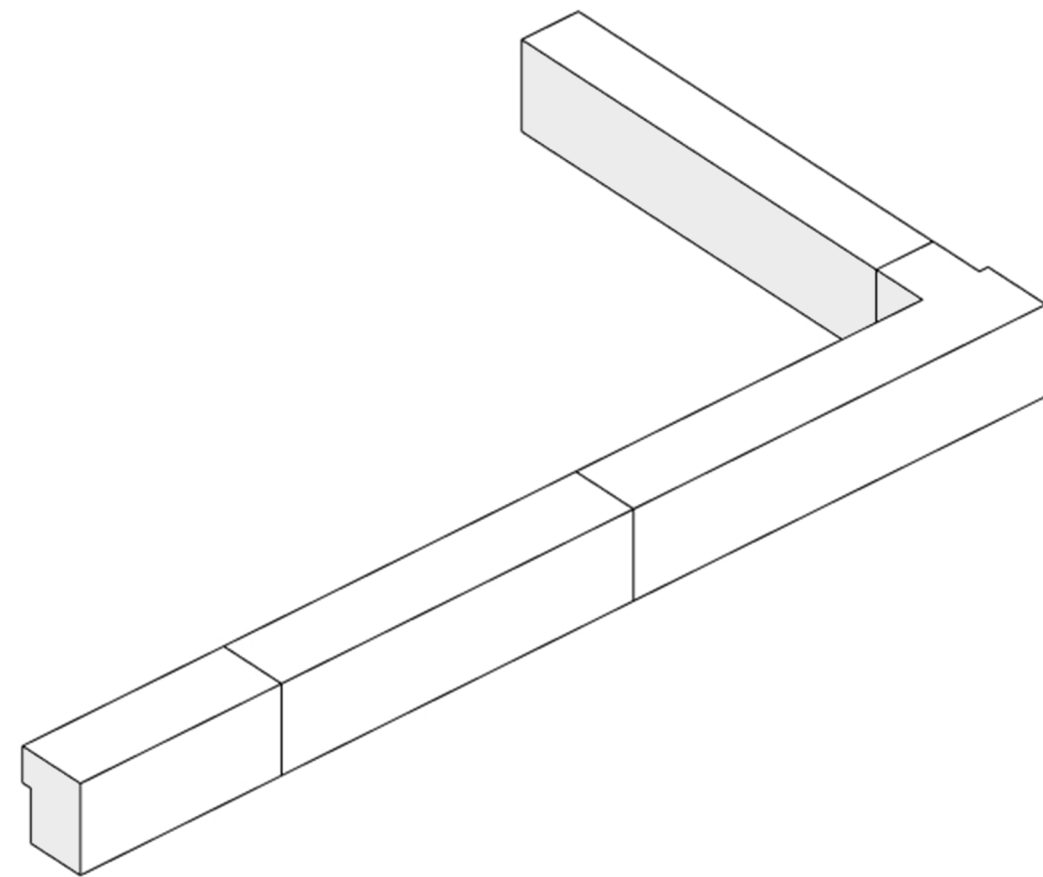


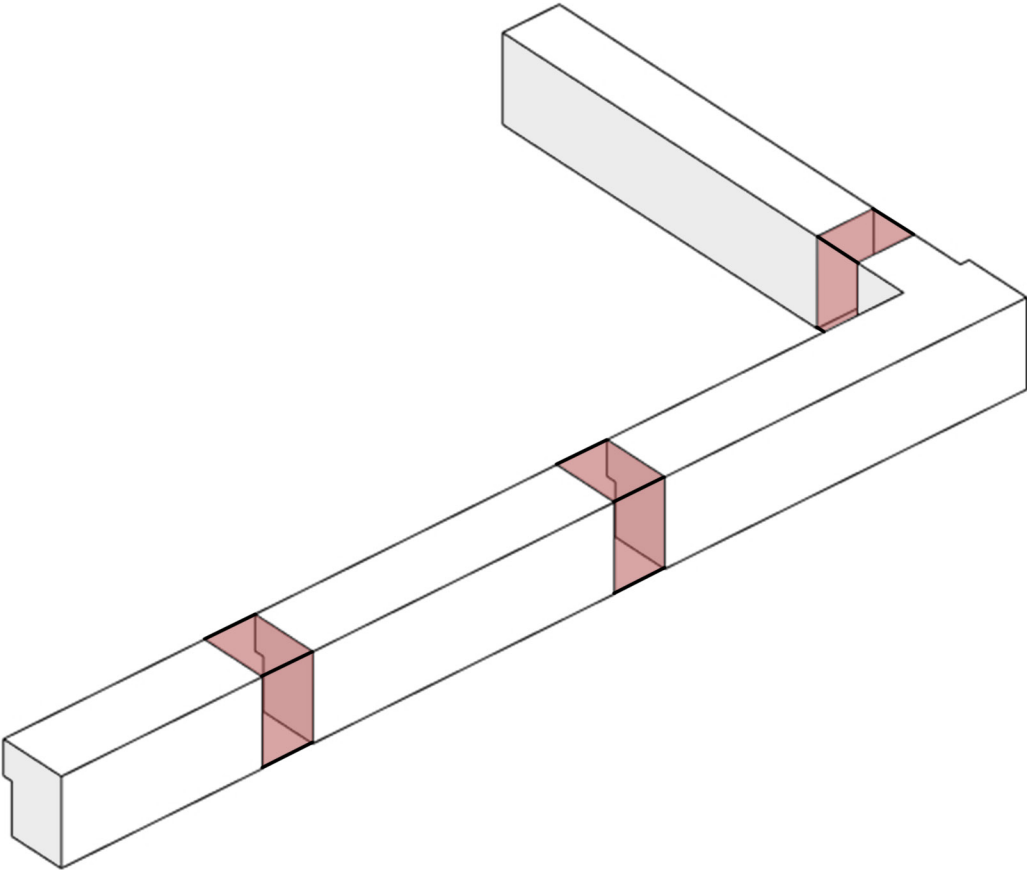


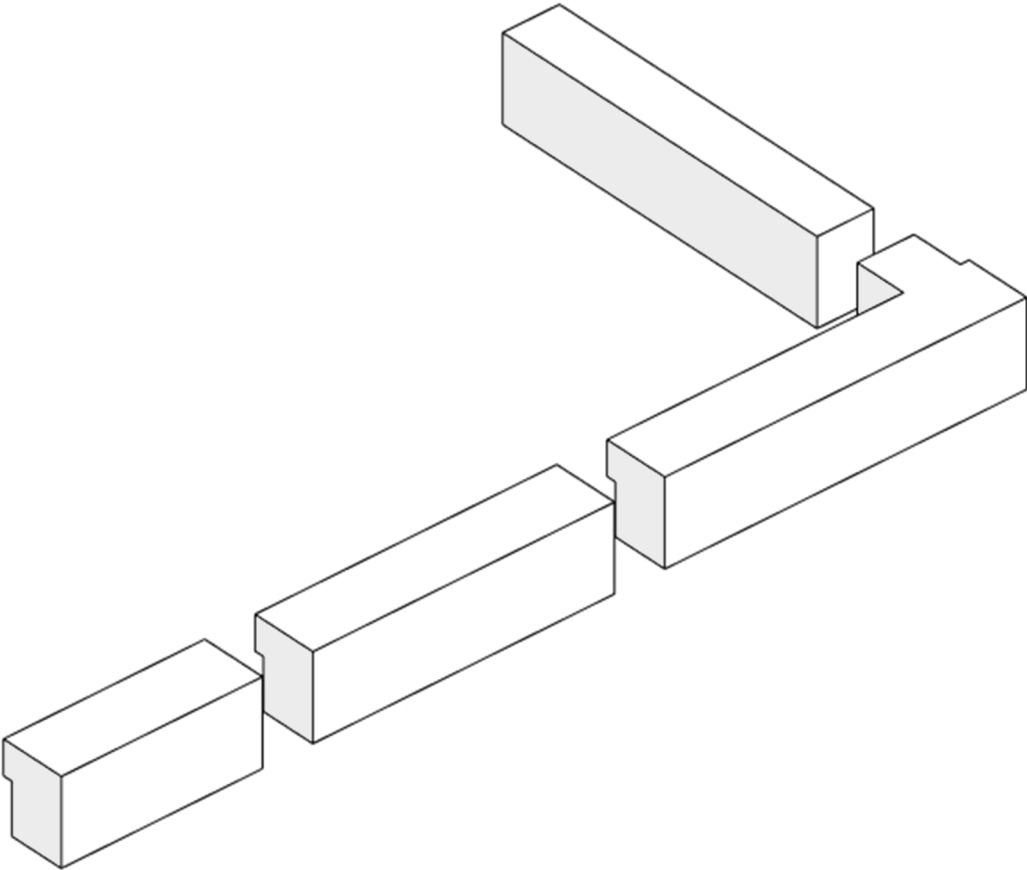


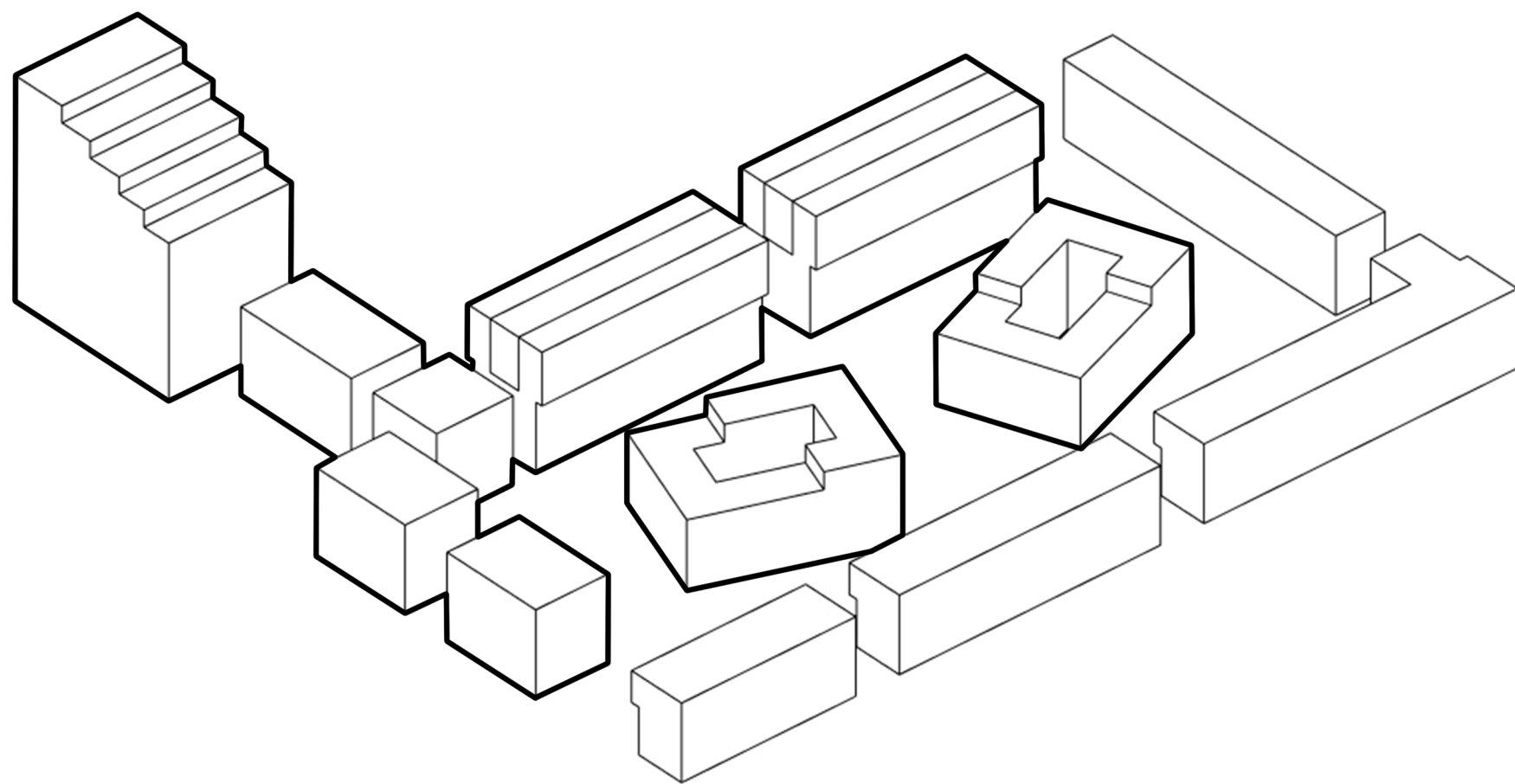




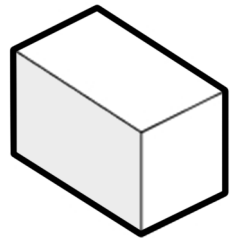






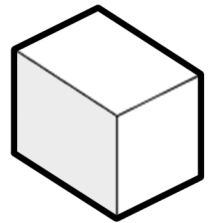






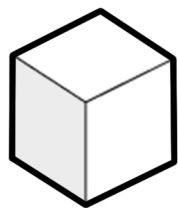
**A**

9 dwellings



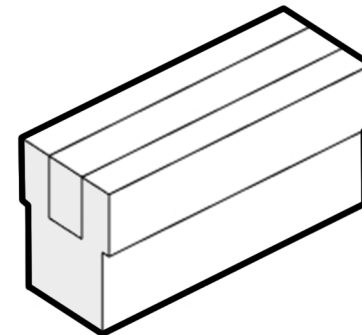
**B**

11 dwellings x 2 = 22 dwellings



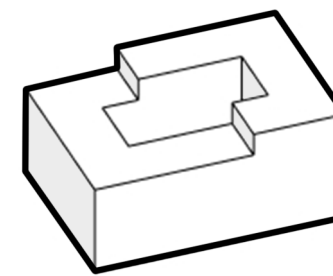
**C**

7 dwellings



**D**

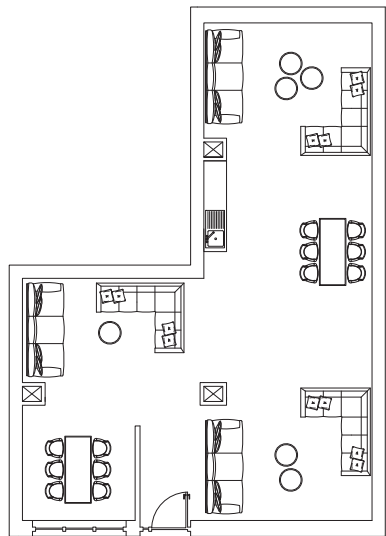
41 dwellings x 2 = 82 dwellings



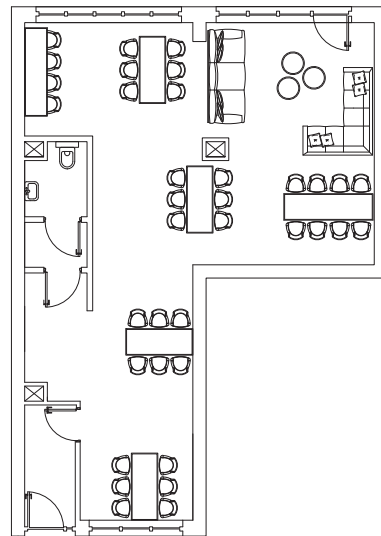
**E**

29 dwellings x 2 = 58 dwellings

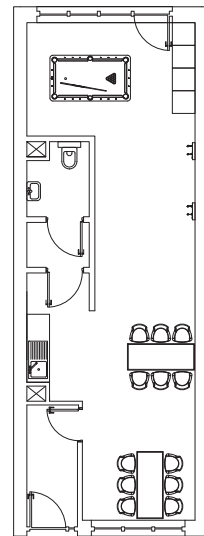




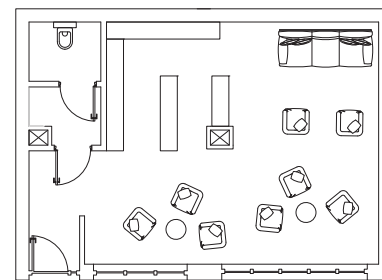
Living room



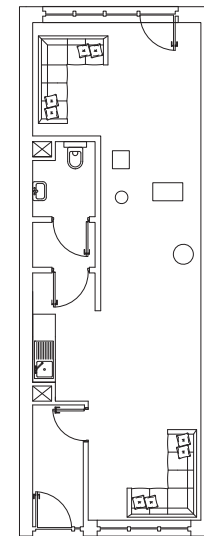
Study room



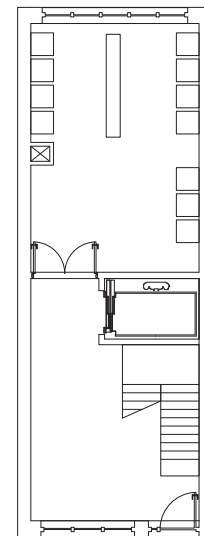
Game room



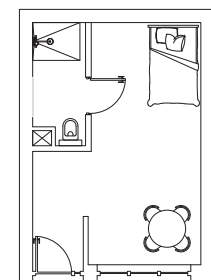
Reading room



Kids  
playroom



Laundry room



Lodger room



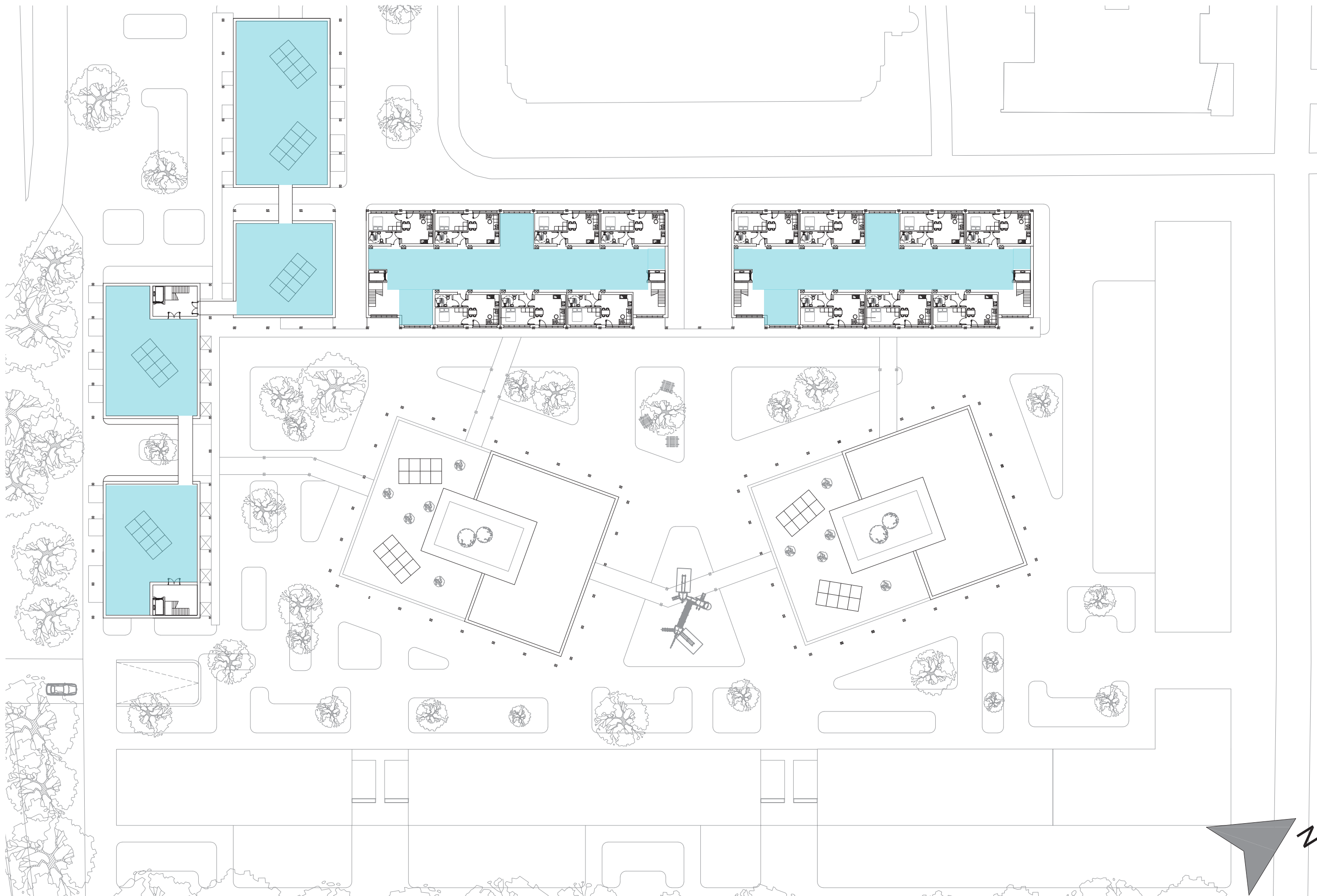












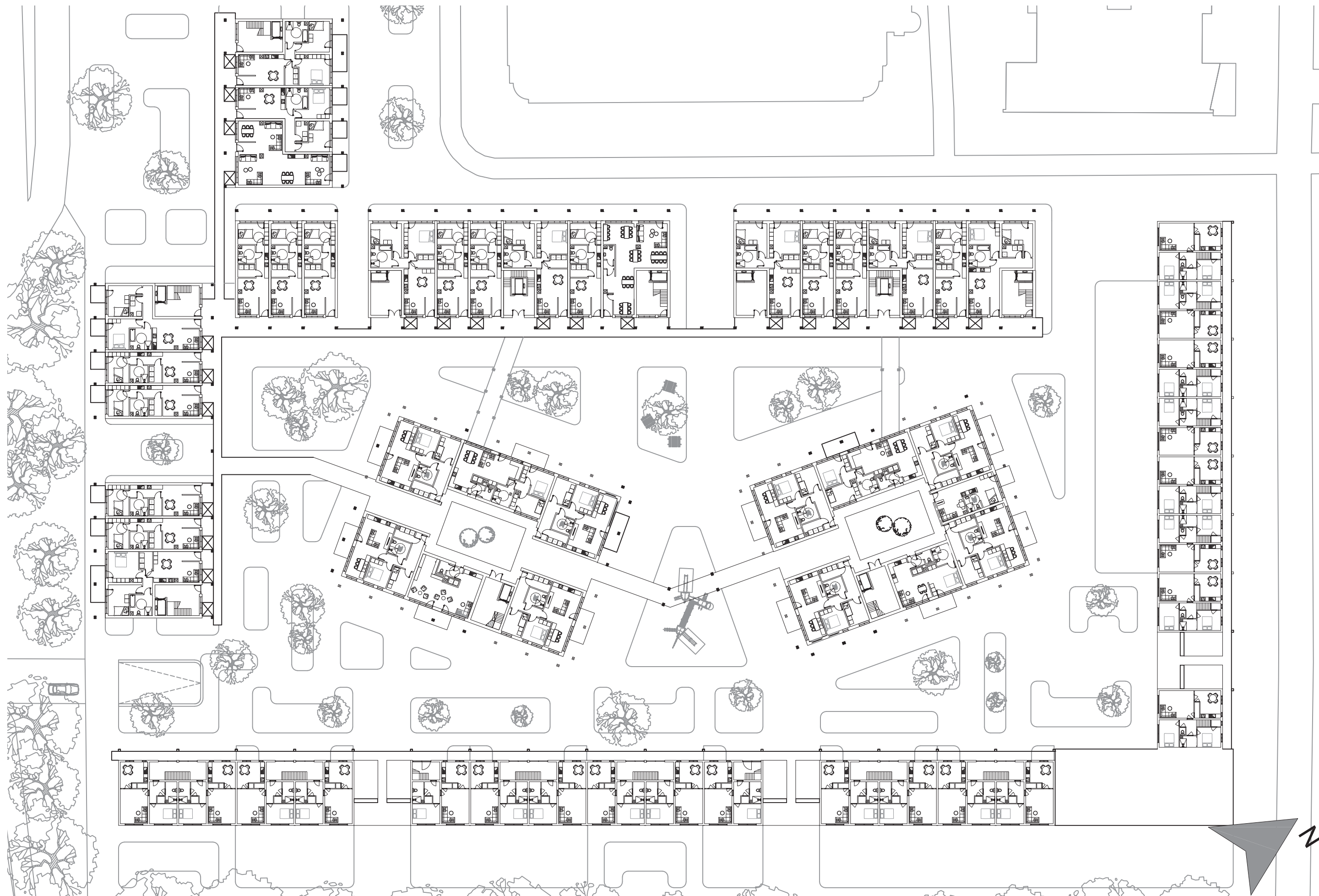




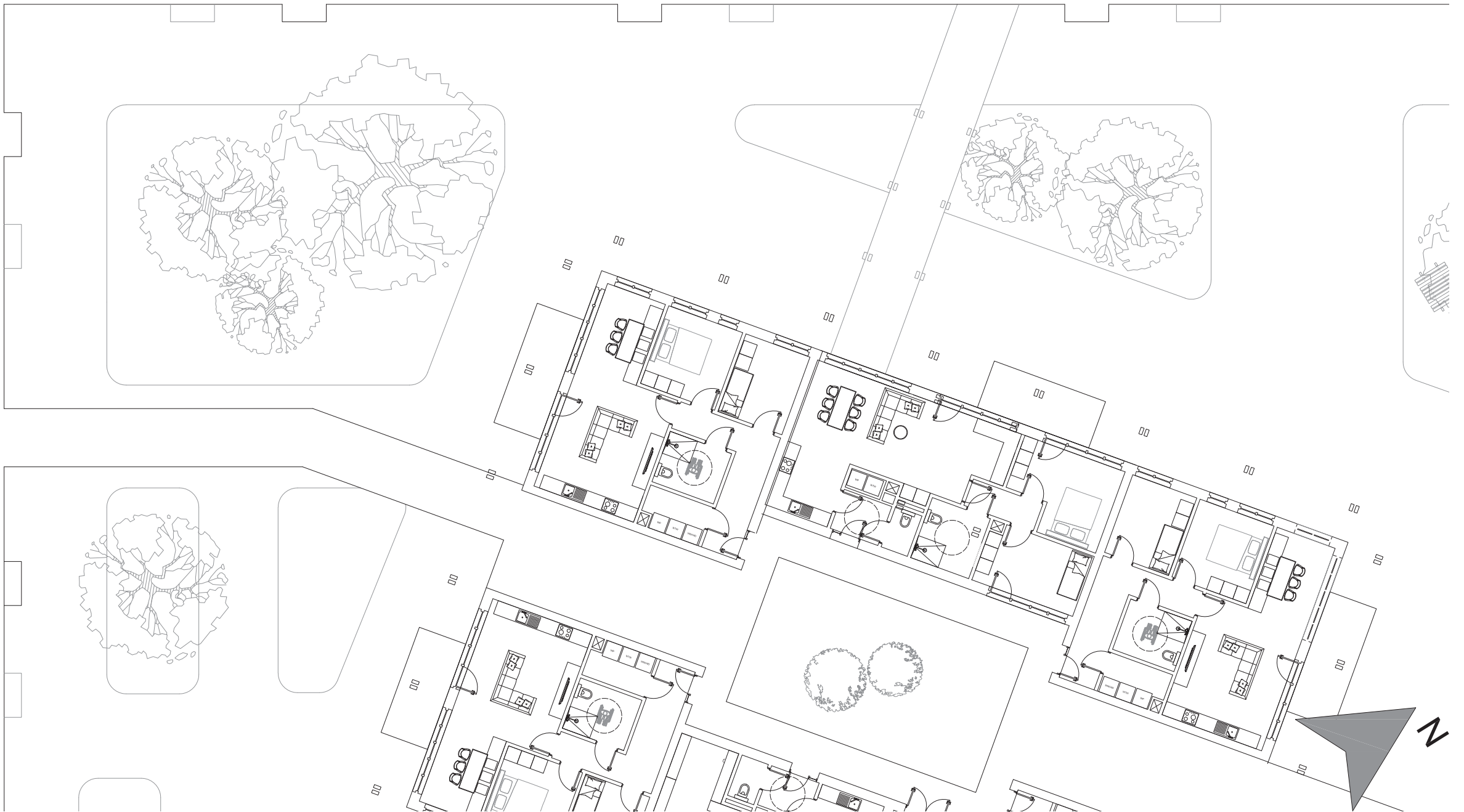
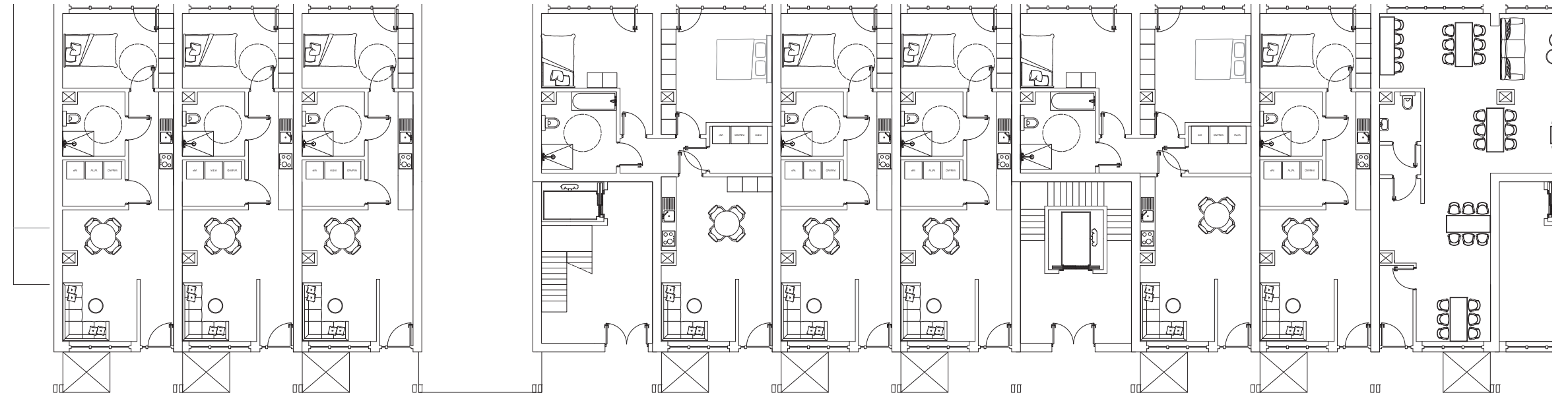
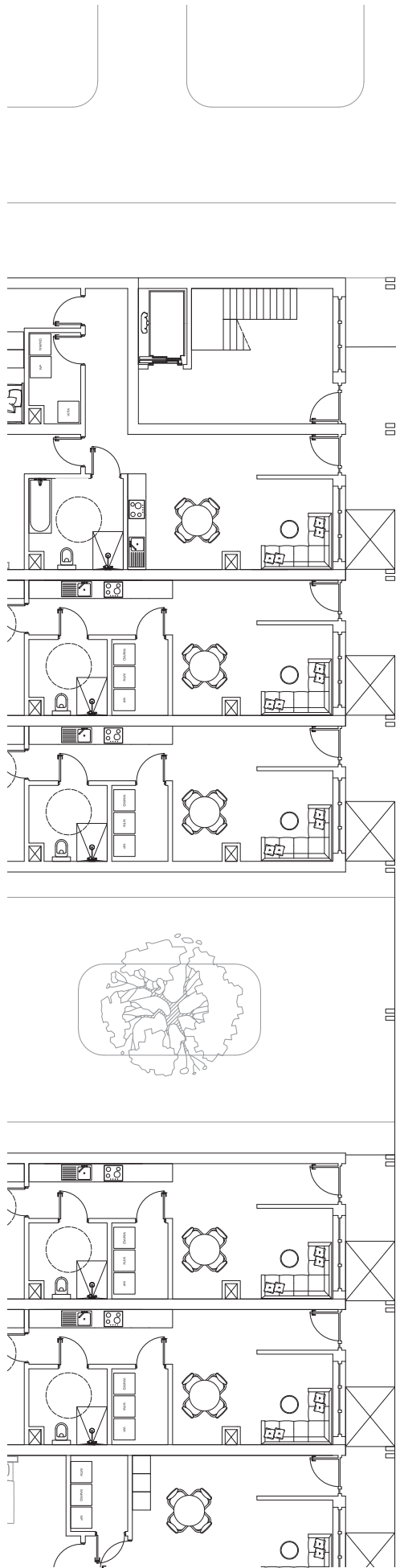




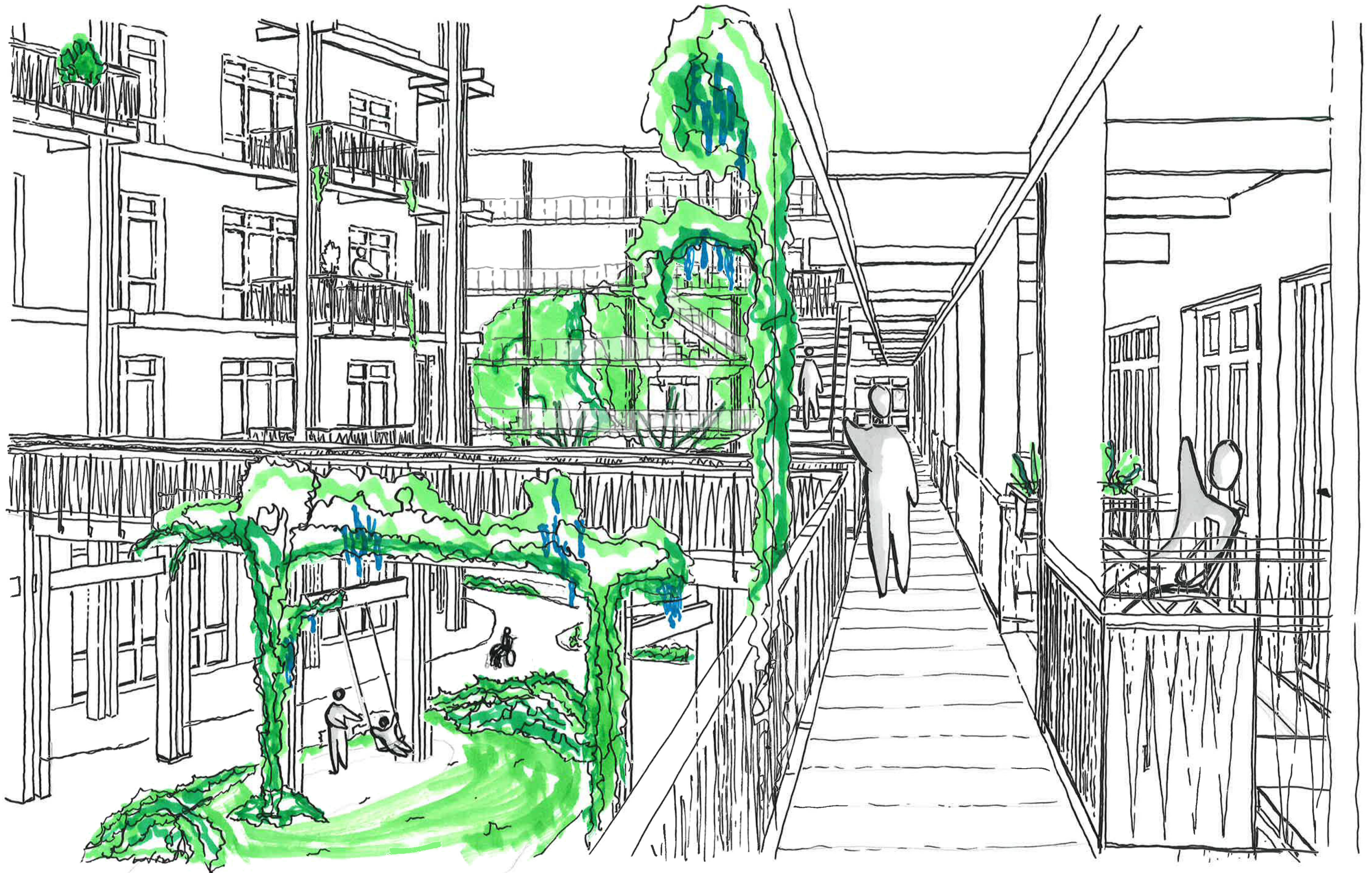




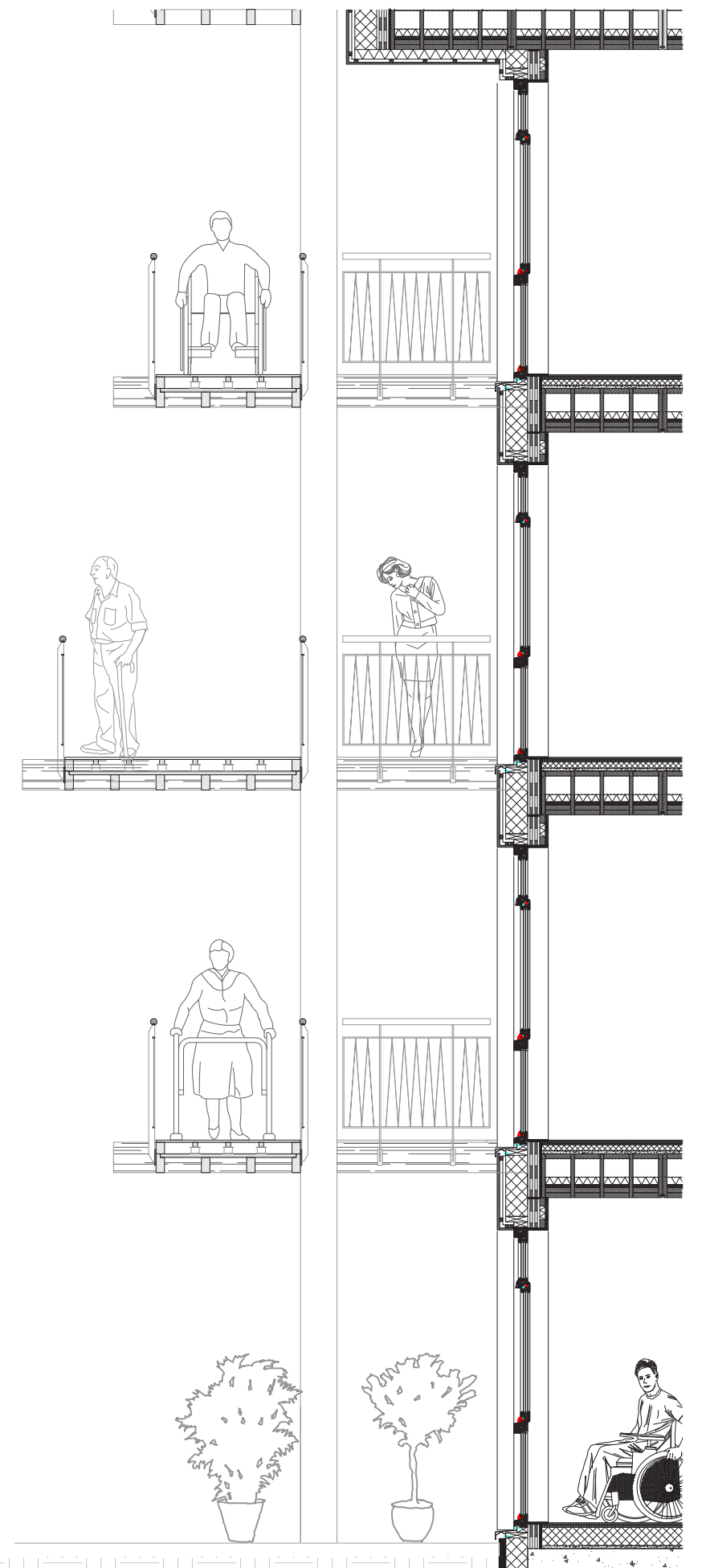




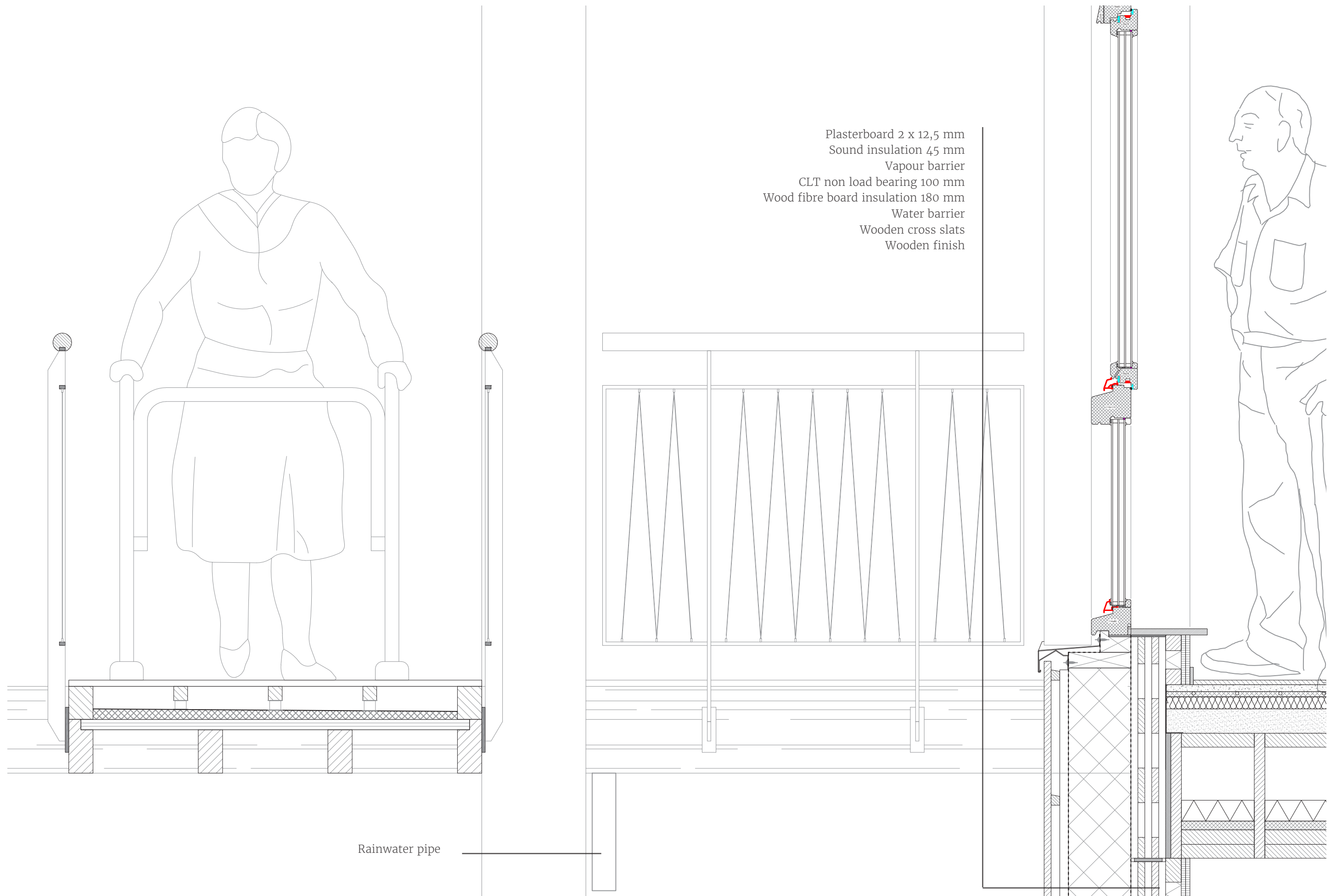




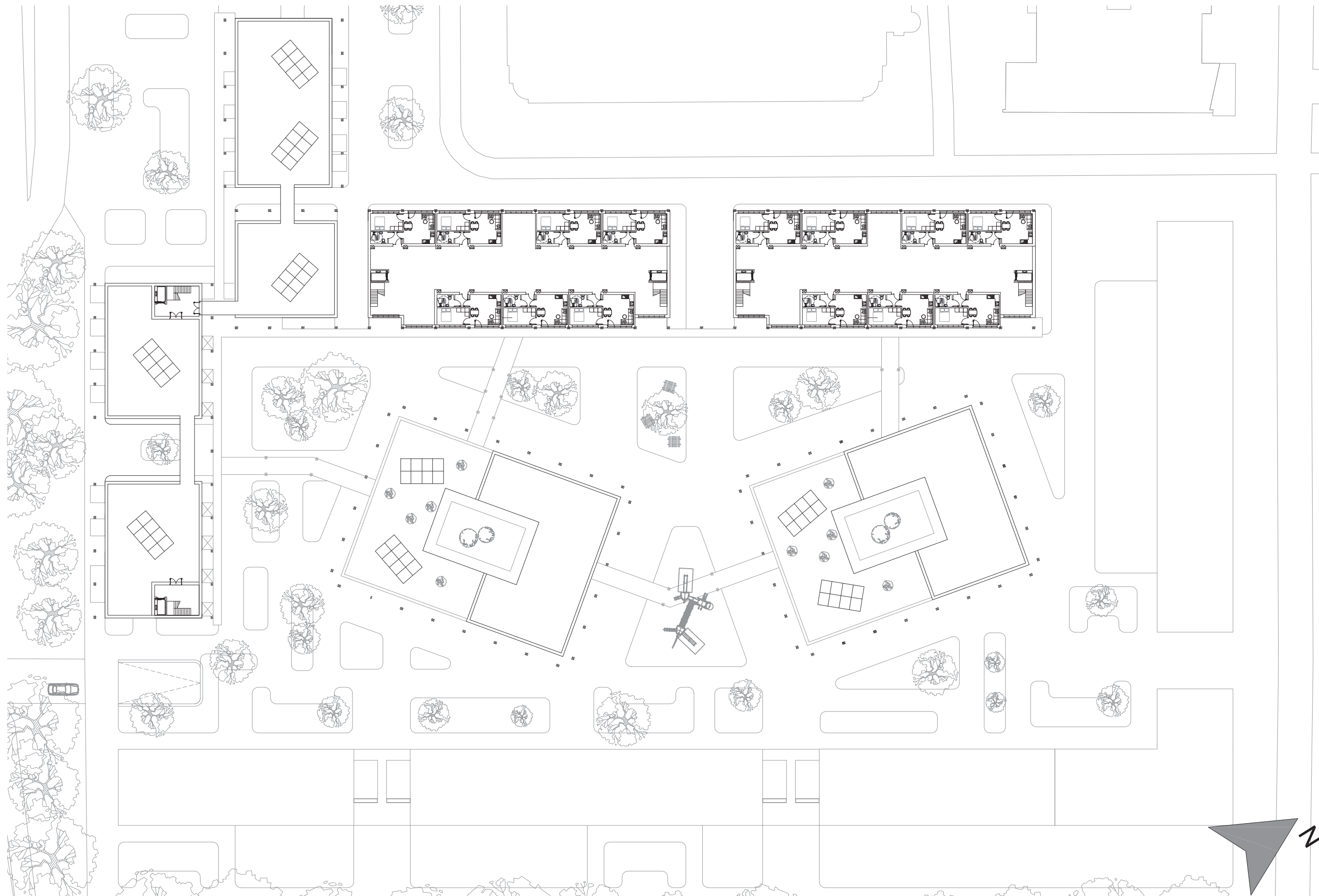








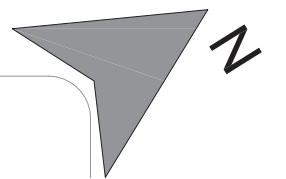
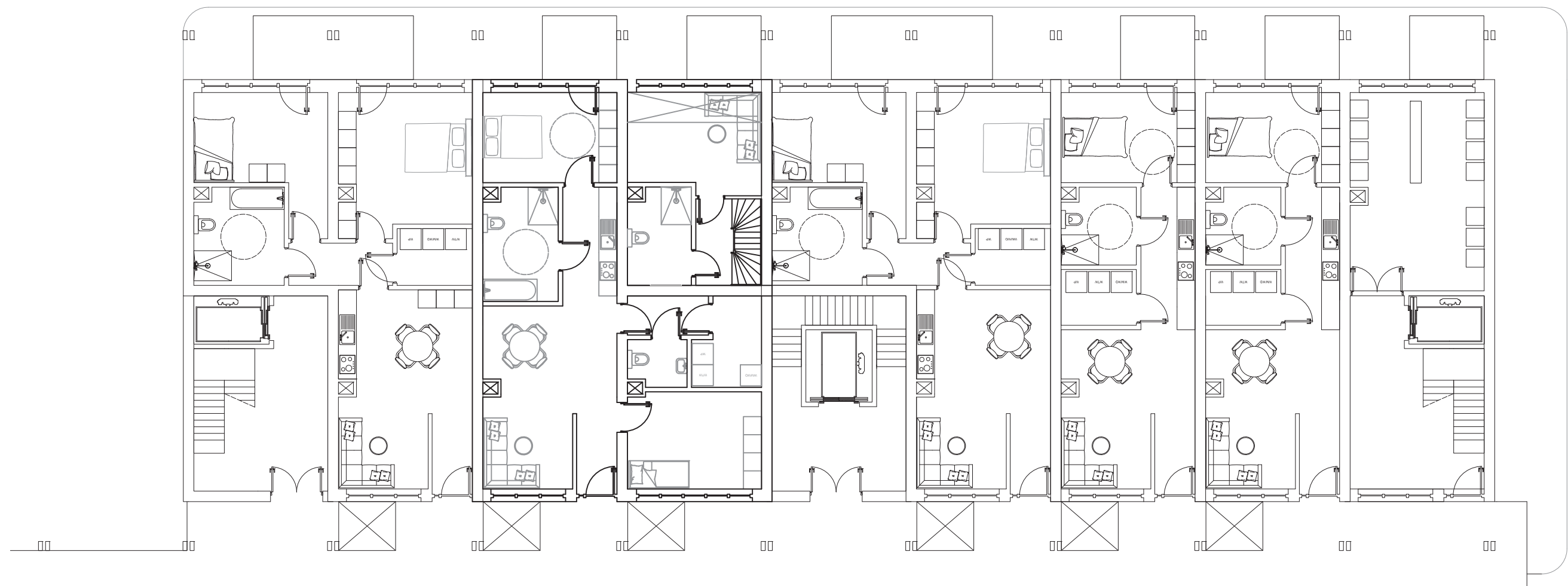






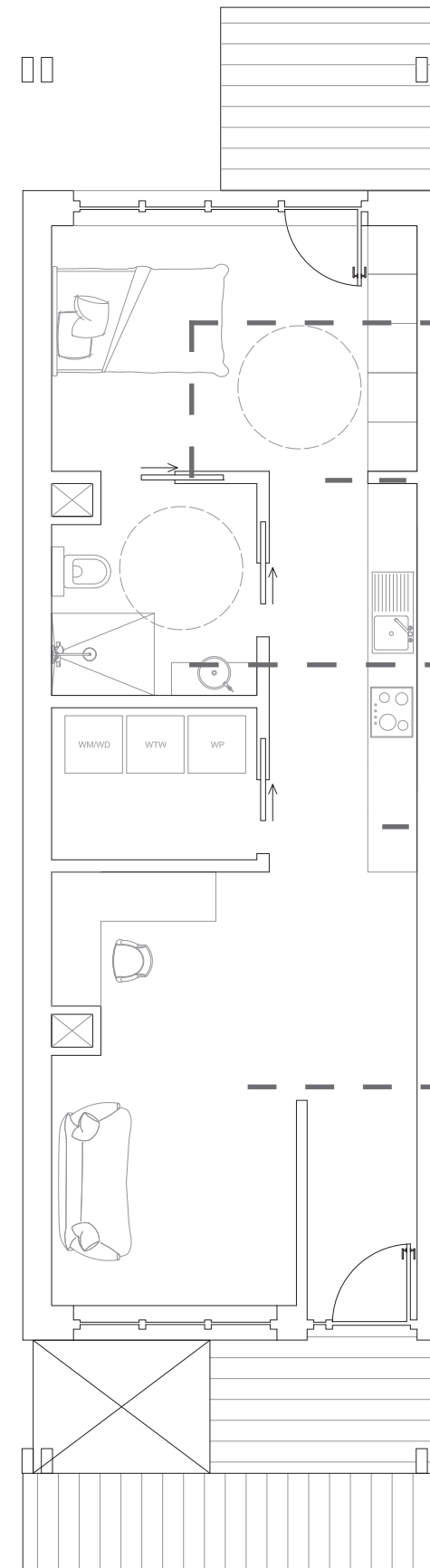
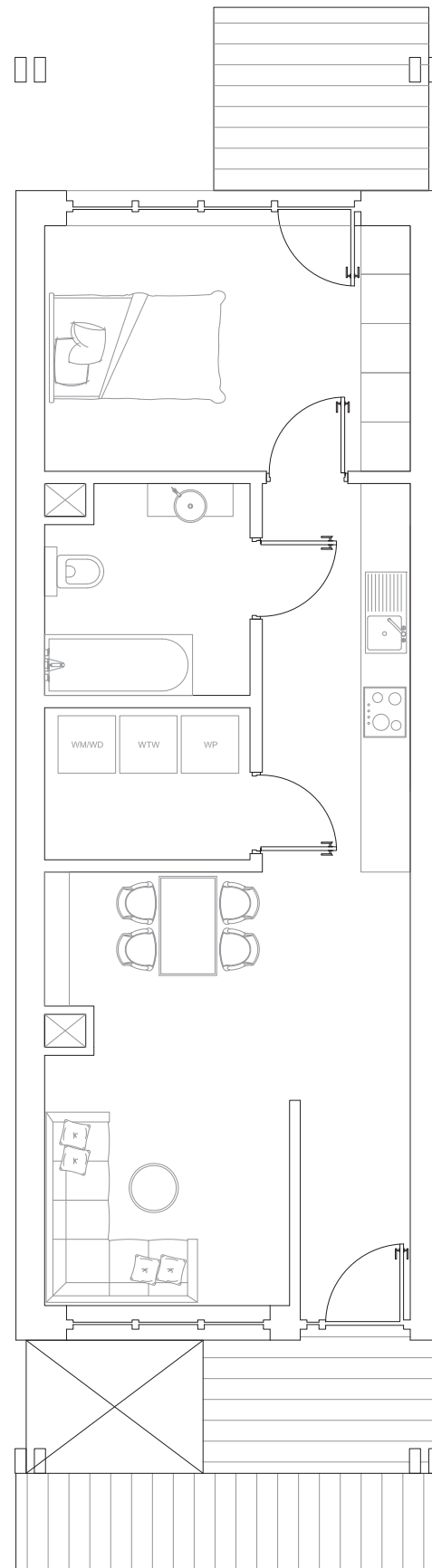








2 room appartement  
(59 m2)  
1 to 2 person



Sliding doors

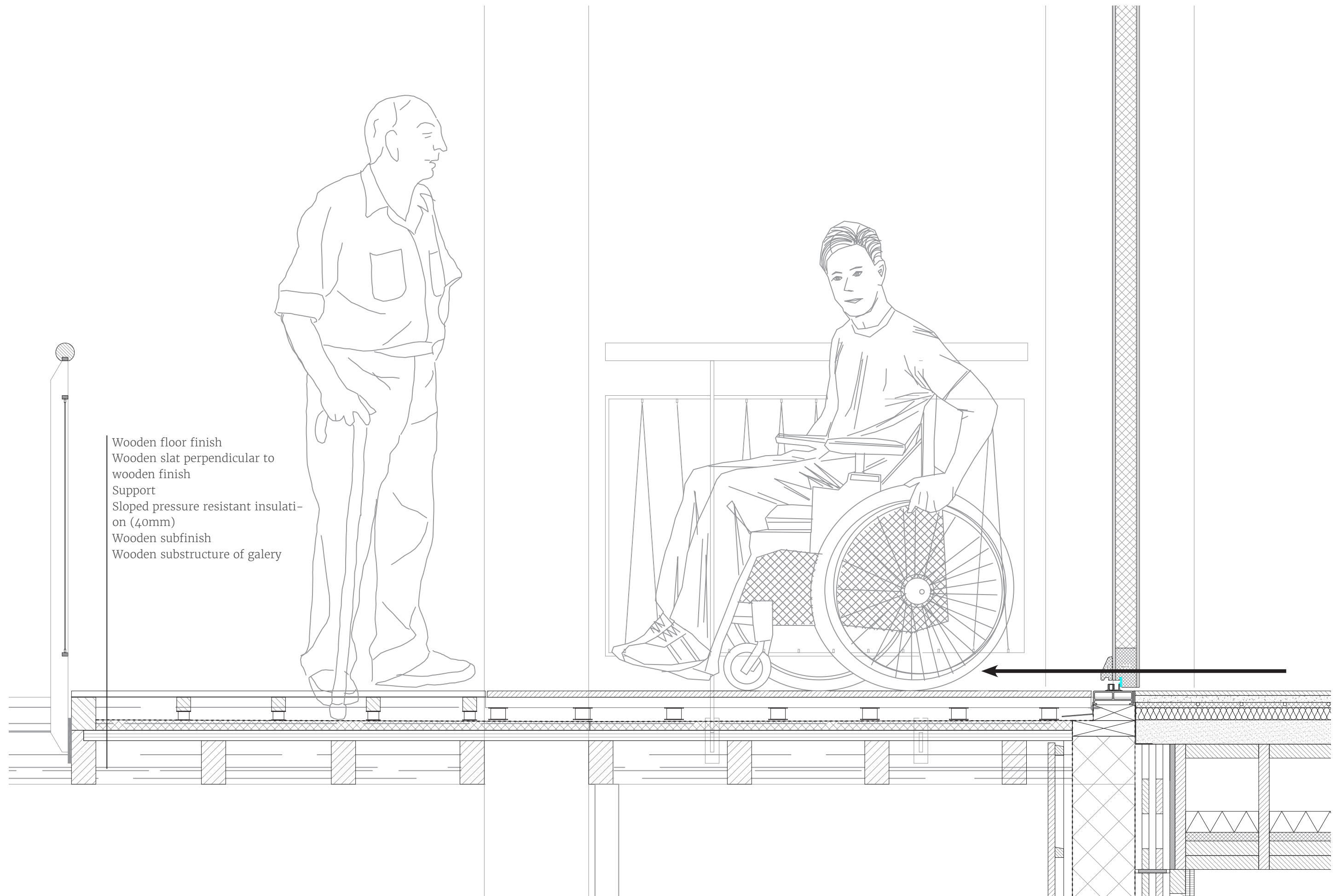
Open entry

Wheelchair  
accessible

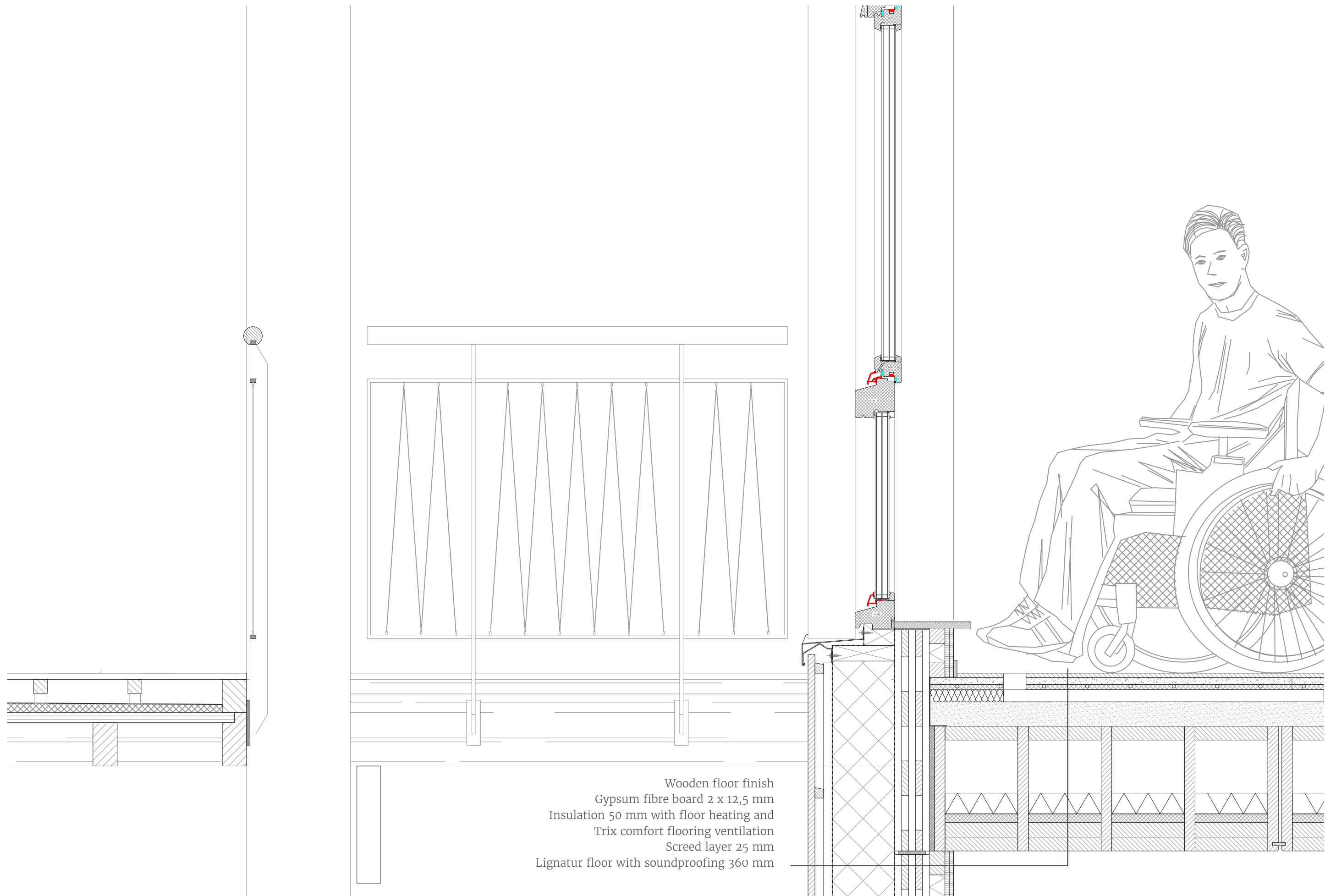
Wheelchair  
proof  
kitchen

Spacious living  
room

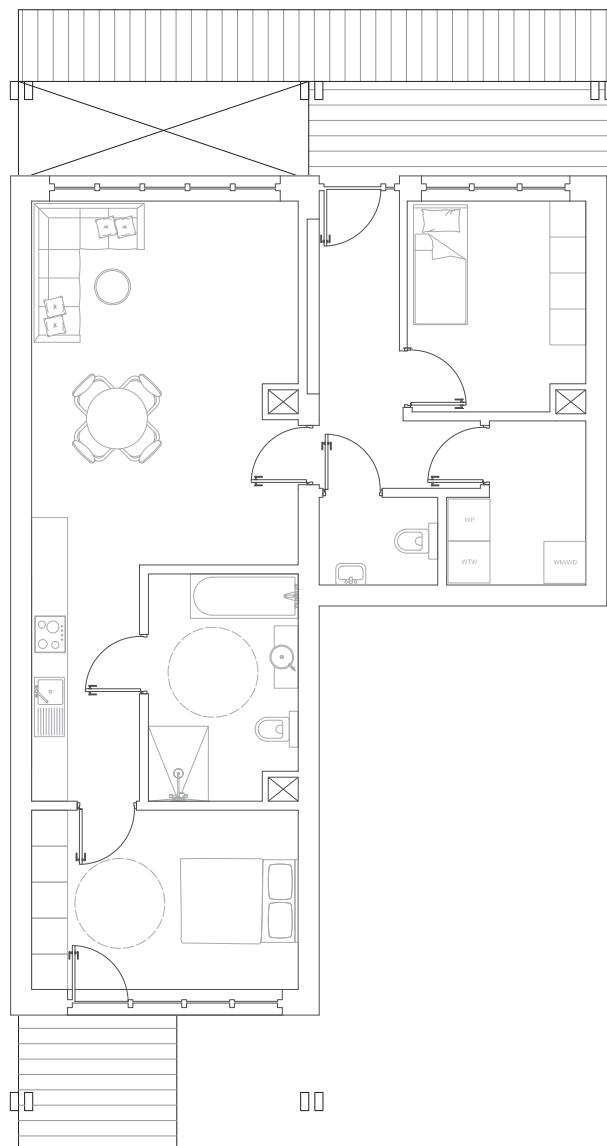






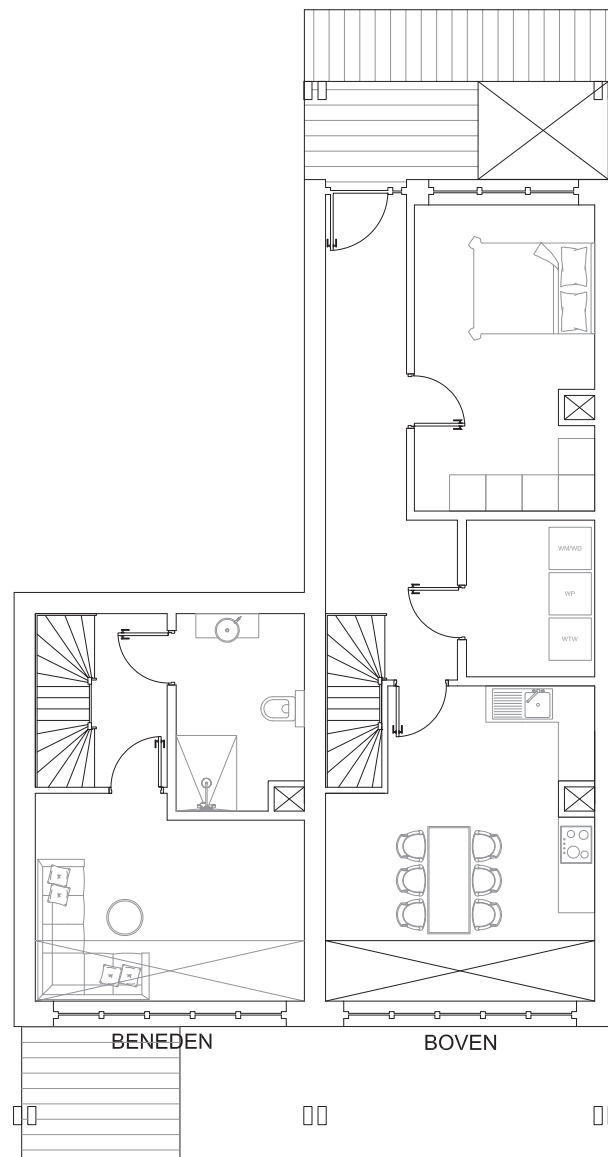






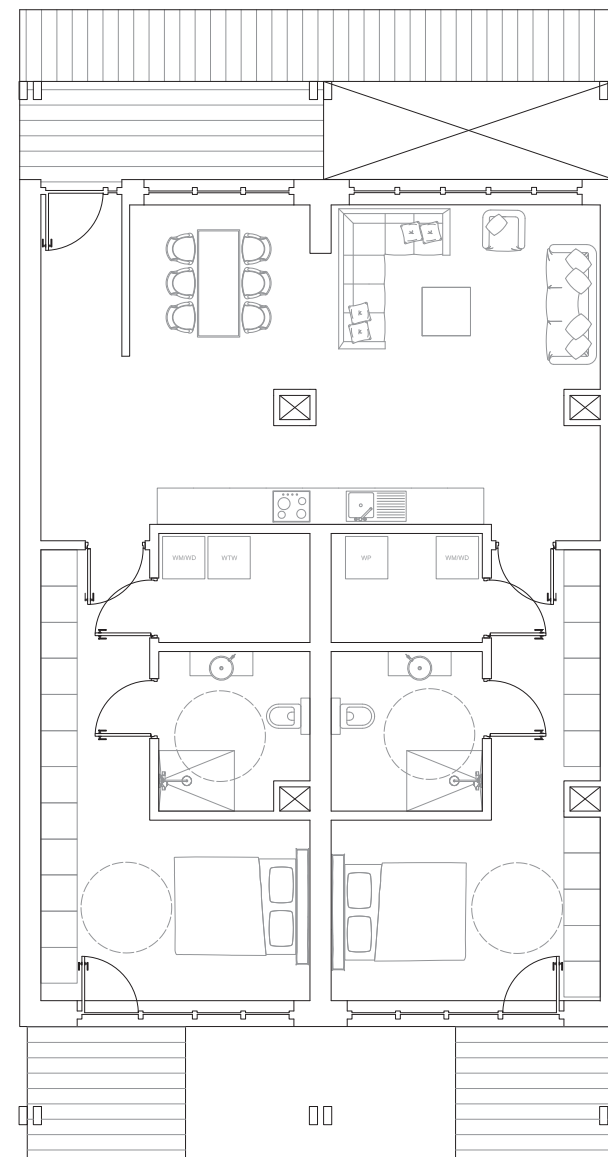
L-shaped

(elderly) Couple  
(90 m2)



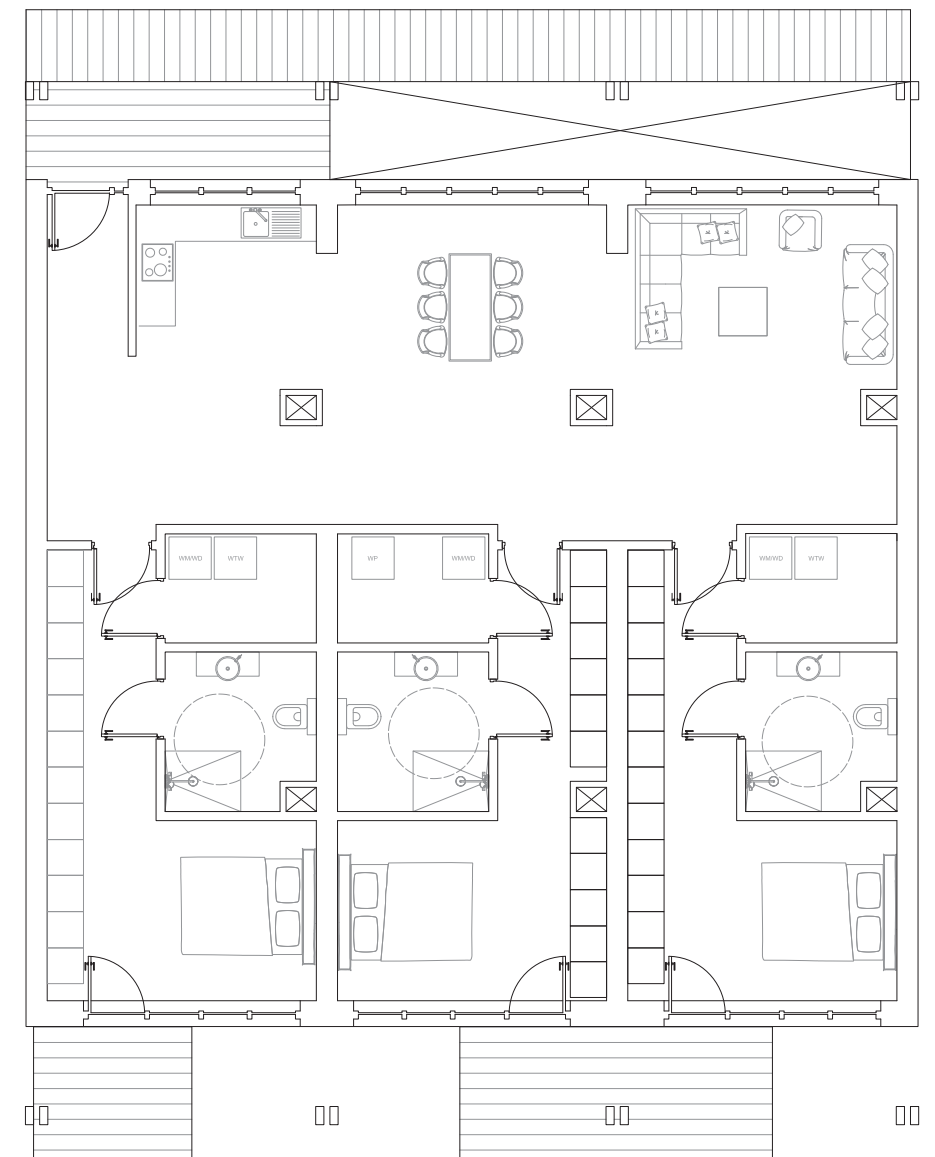
Maisonnette

Starter apartment  
(83 m2)



Kangaroo  
apartment

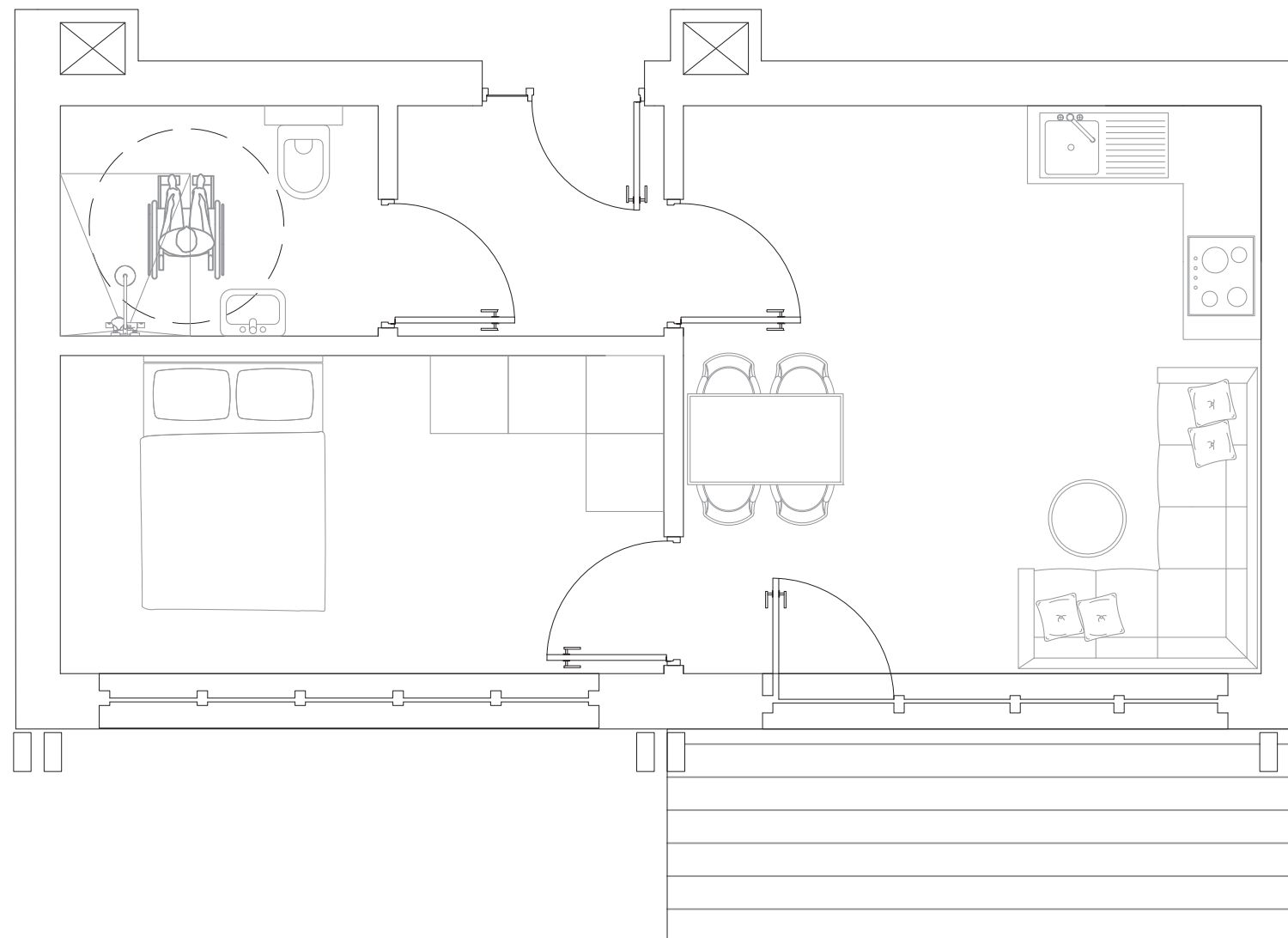
2 generations



Coliving

3 couples  
(186 m2)





Atrium

1 couple  
(40 m2)





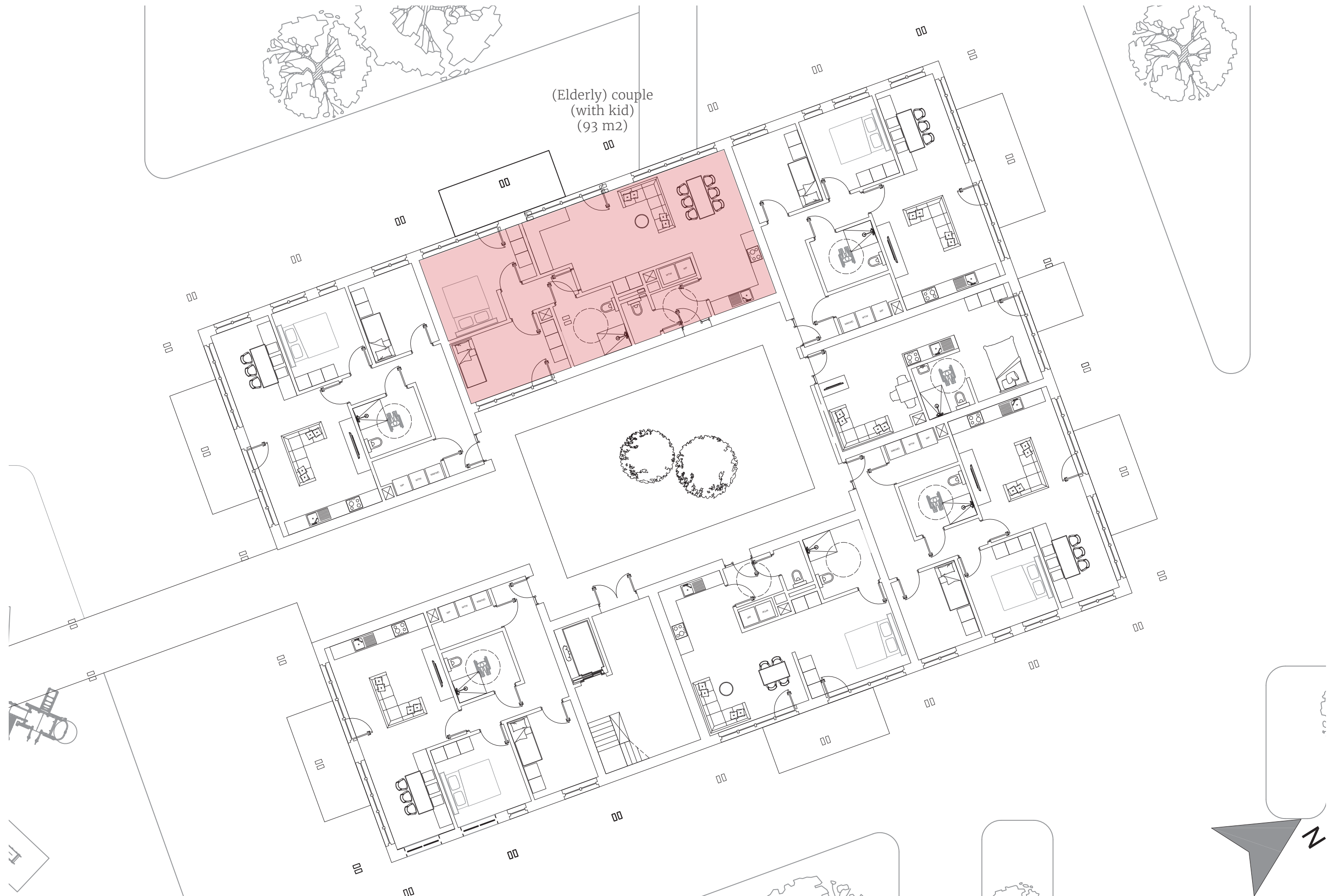
(Elderly) couple  
(with kid)  
(86 m2)

1 person studio  
(41 m2)

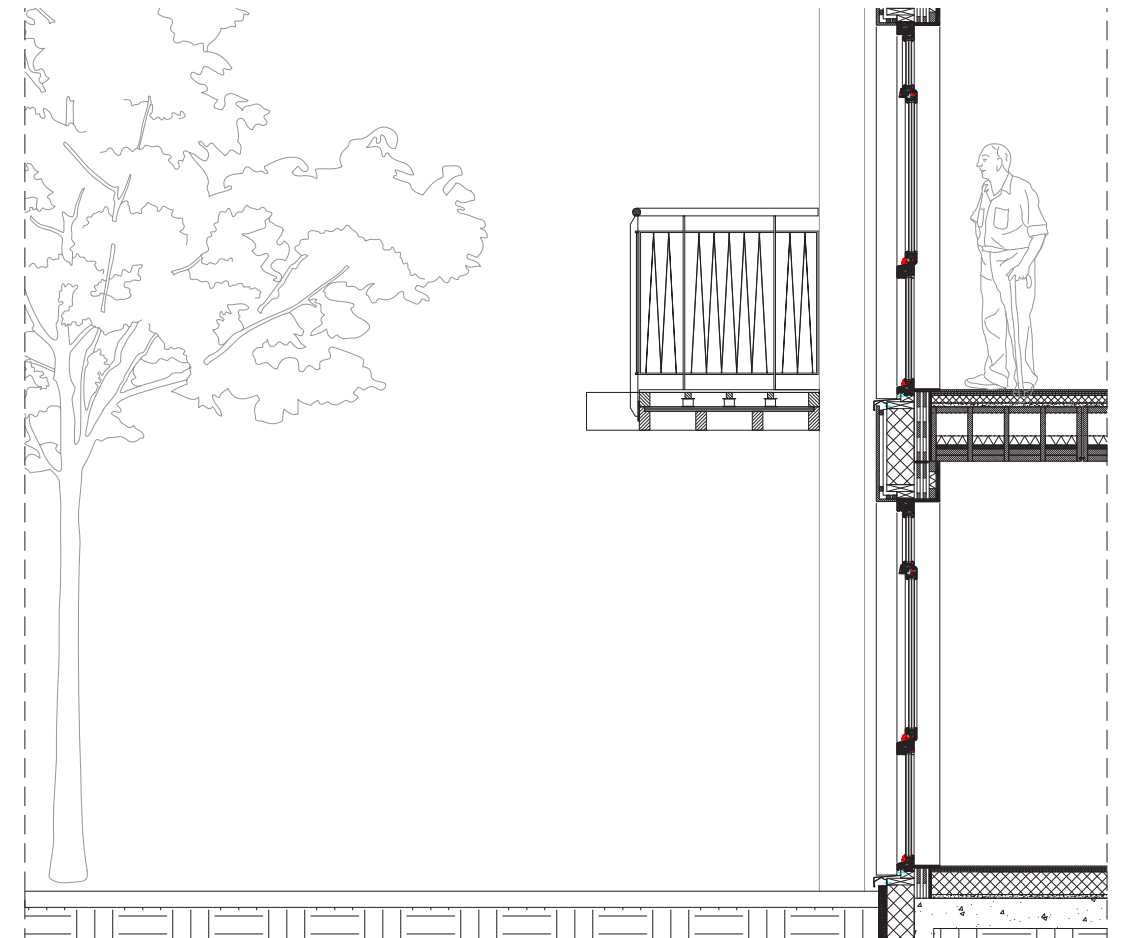
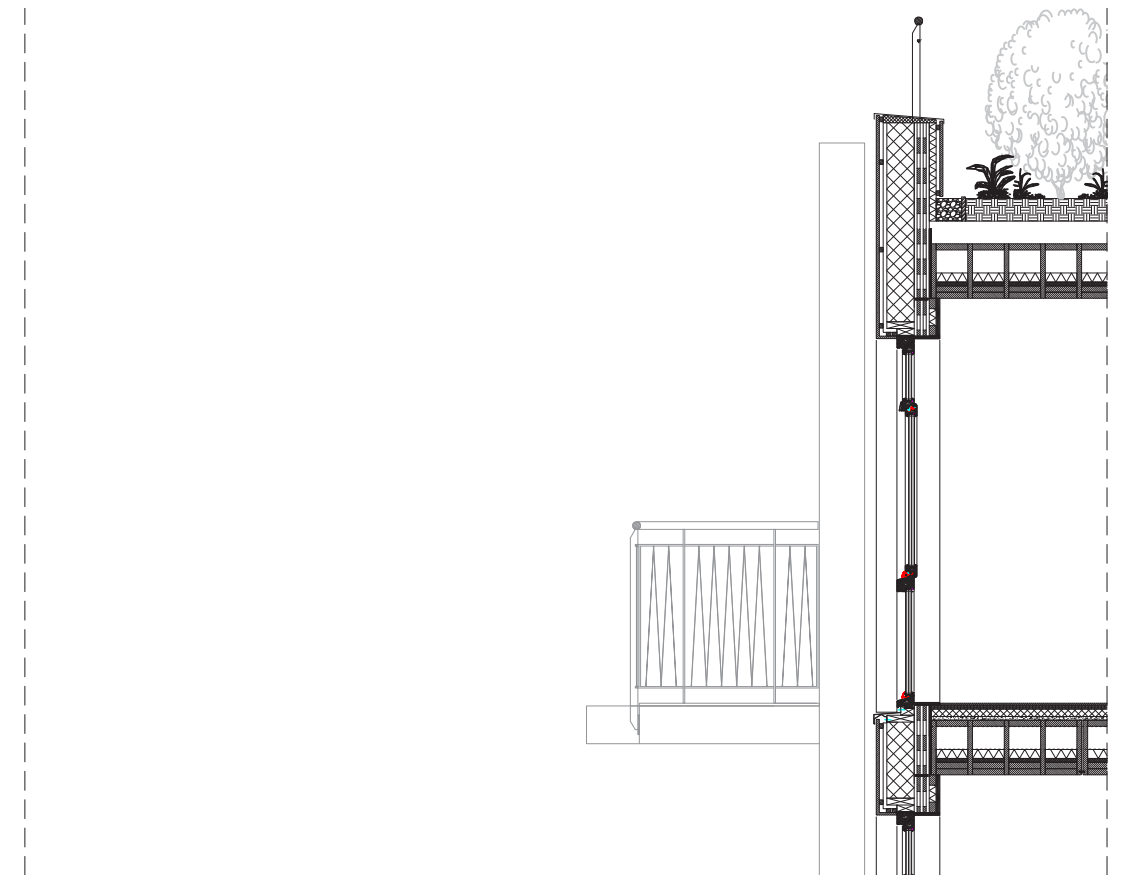
(Elderly) couple  
(61 m2)



(Elderly) couple  
(with kid)  
(93 m2)







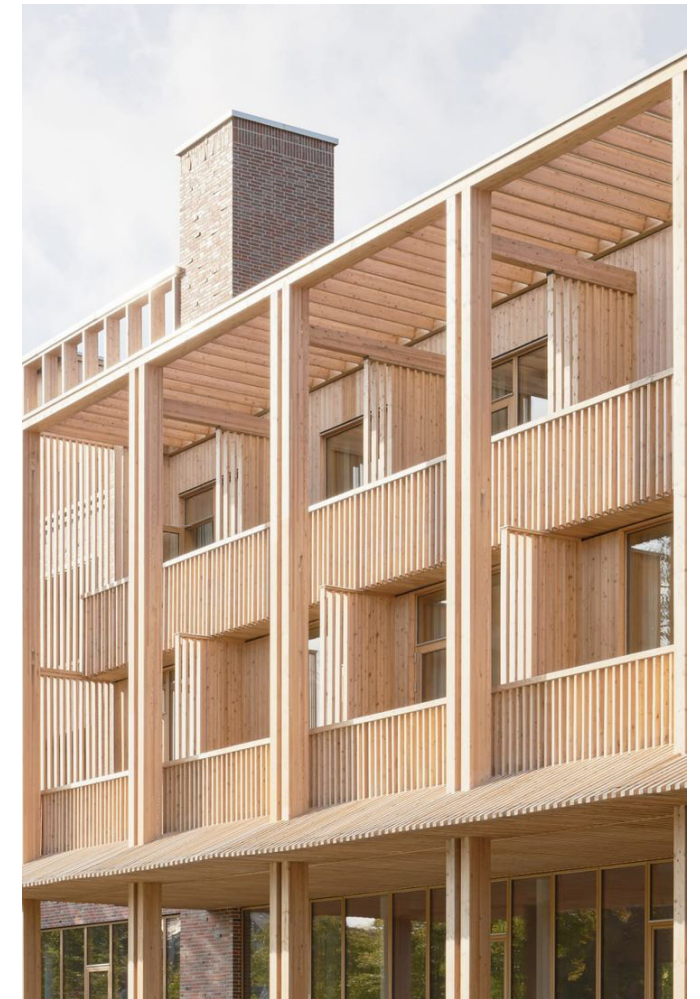




Lignatur floor elements



CLT load bearing walls



Wooden structure for gallery

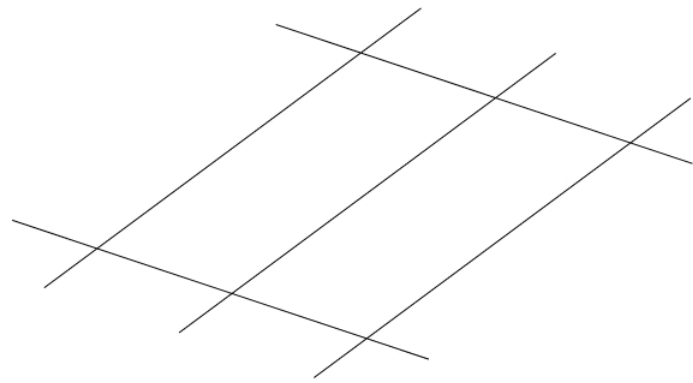


Prefab facade elements

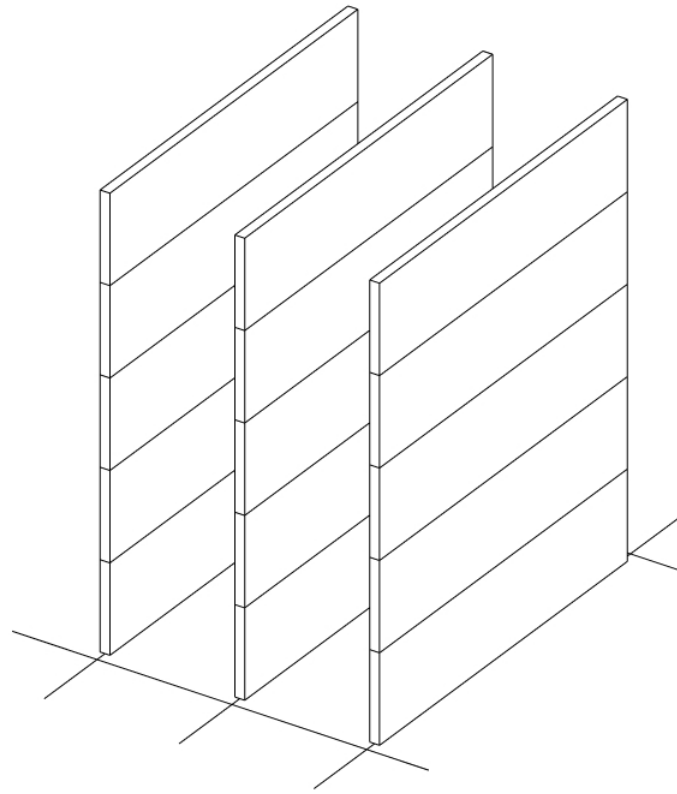


Wooden planks for facade and gallery floors

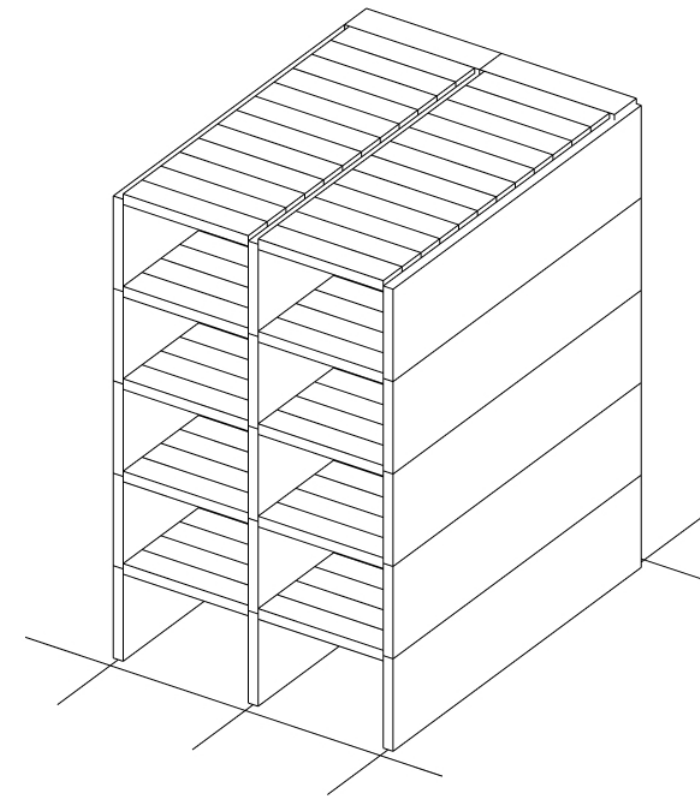




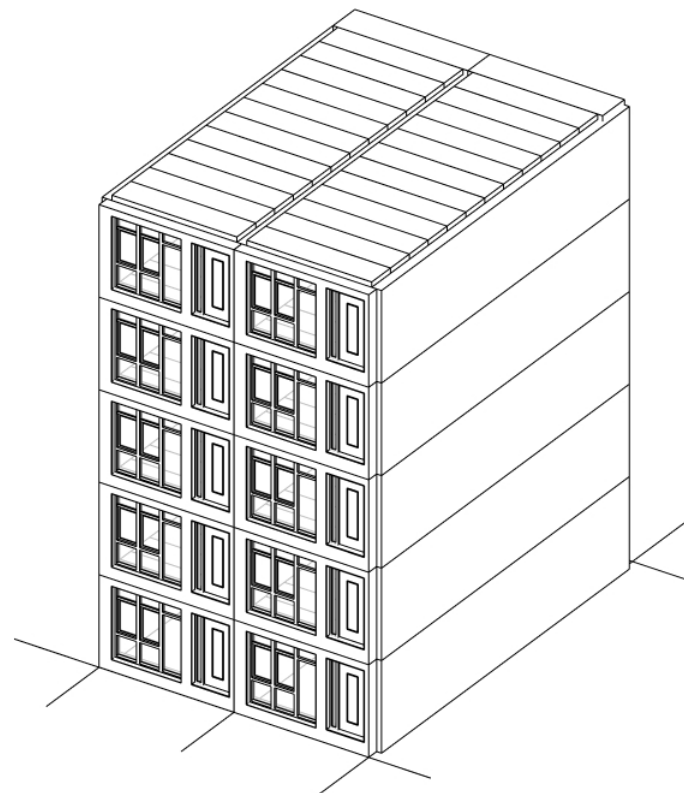
Construction grid



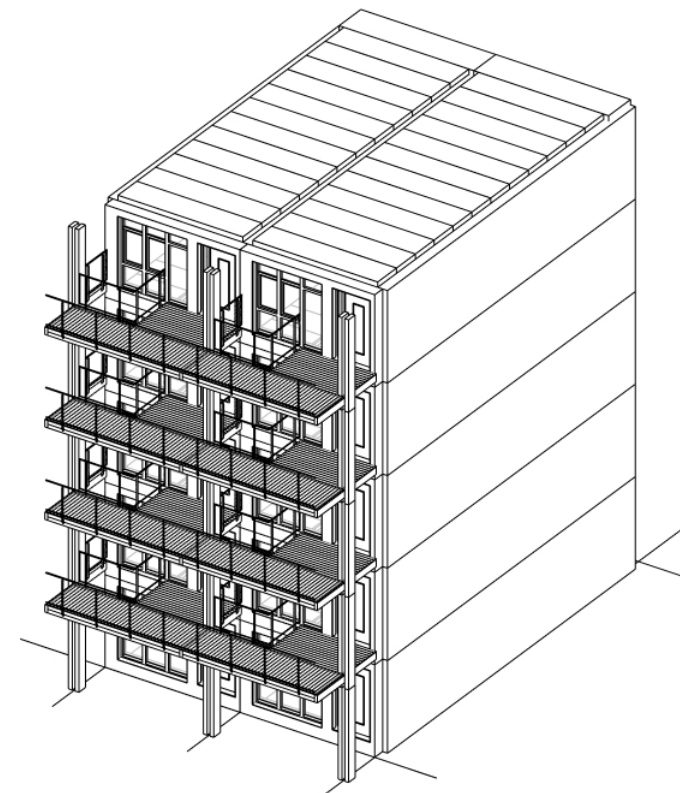
CLT walls



Lignatur flooring



Facade non load bearing

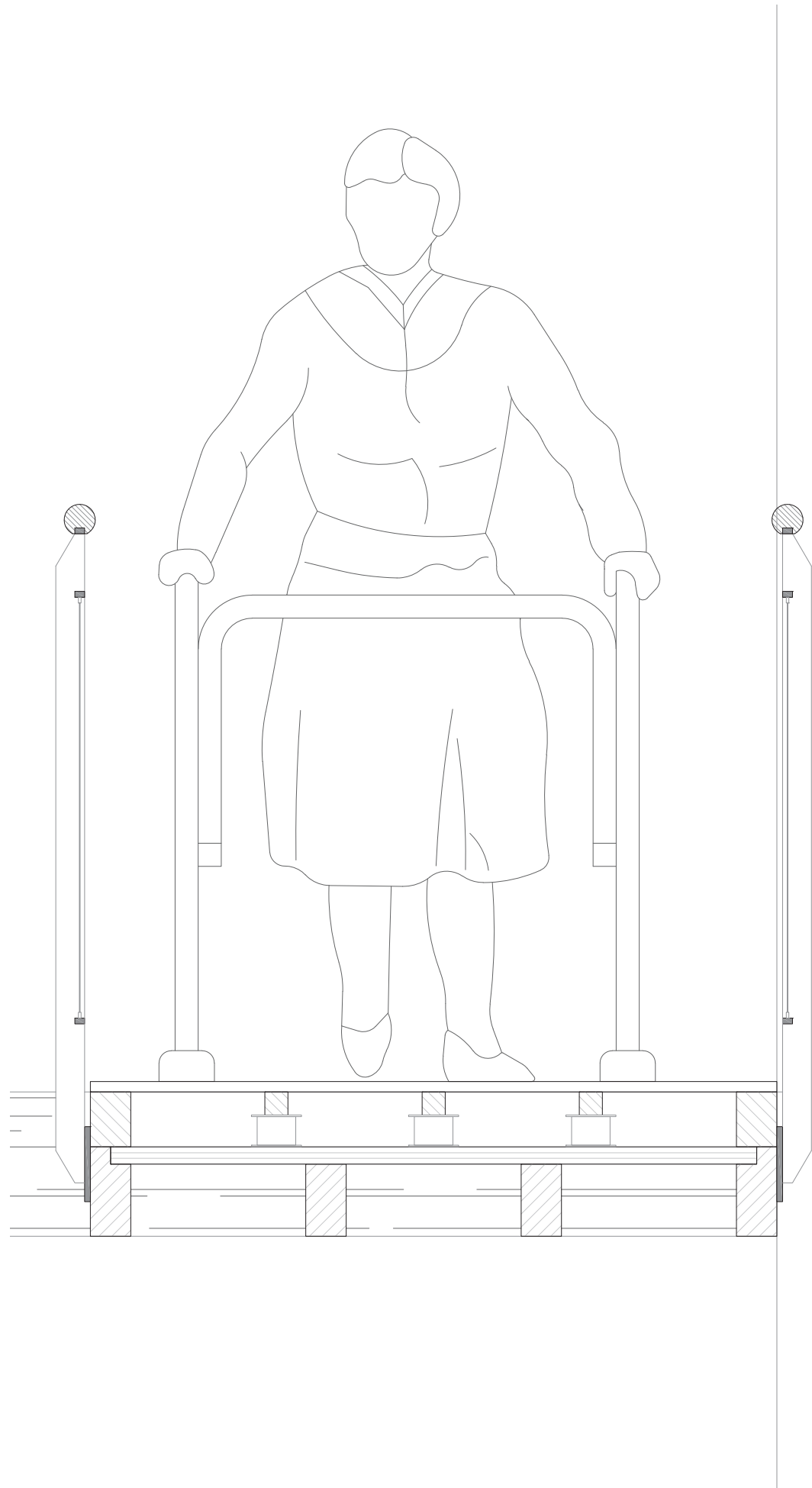


Wooden gallery elements

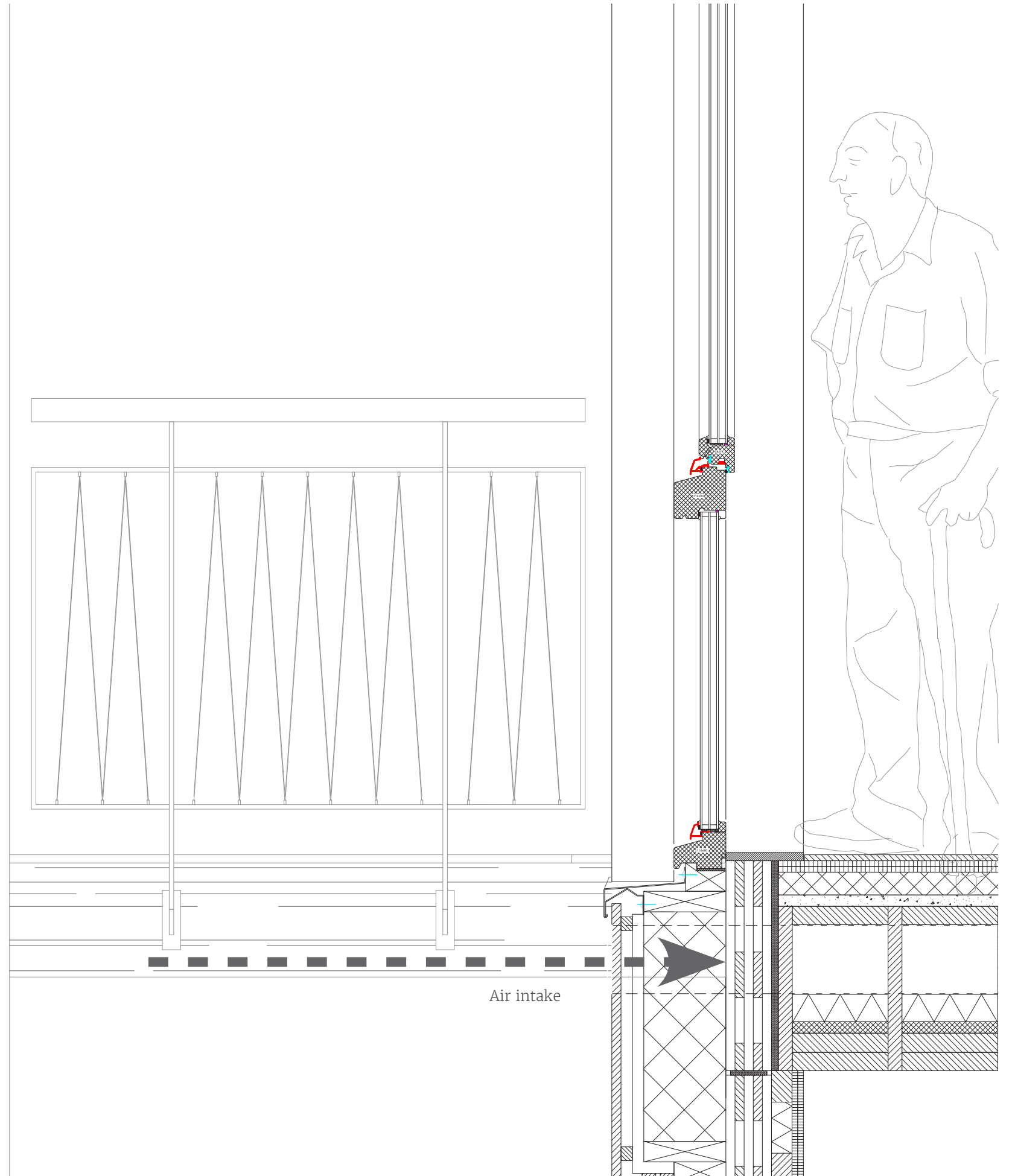
## Construction principle



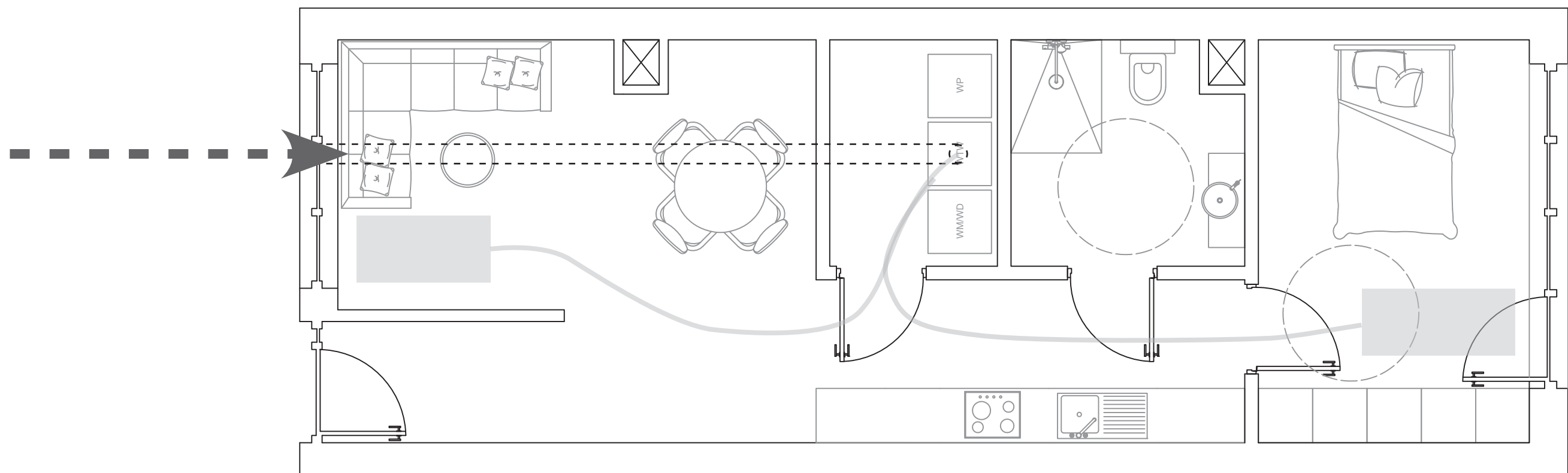


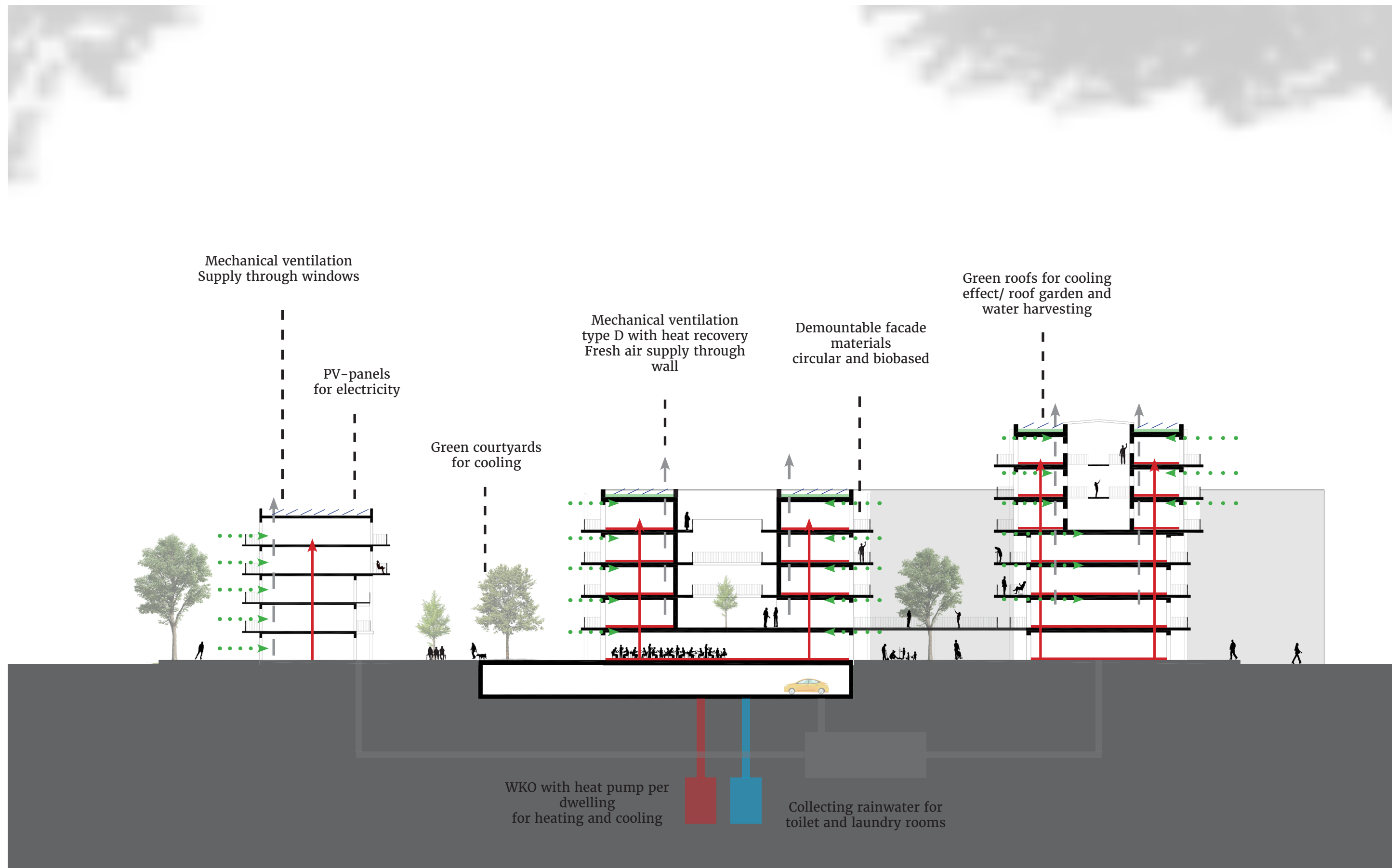


## Climate concept ventilation

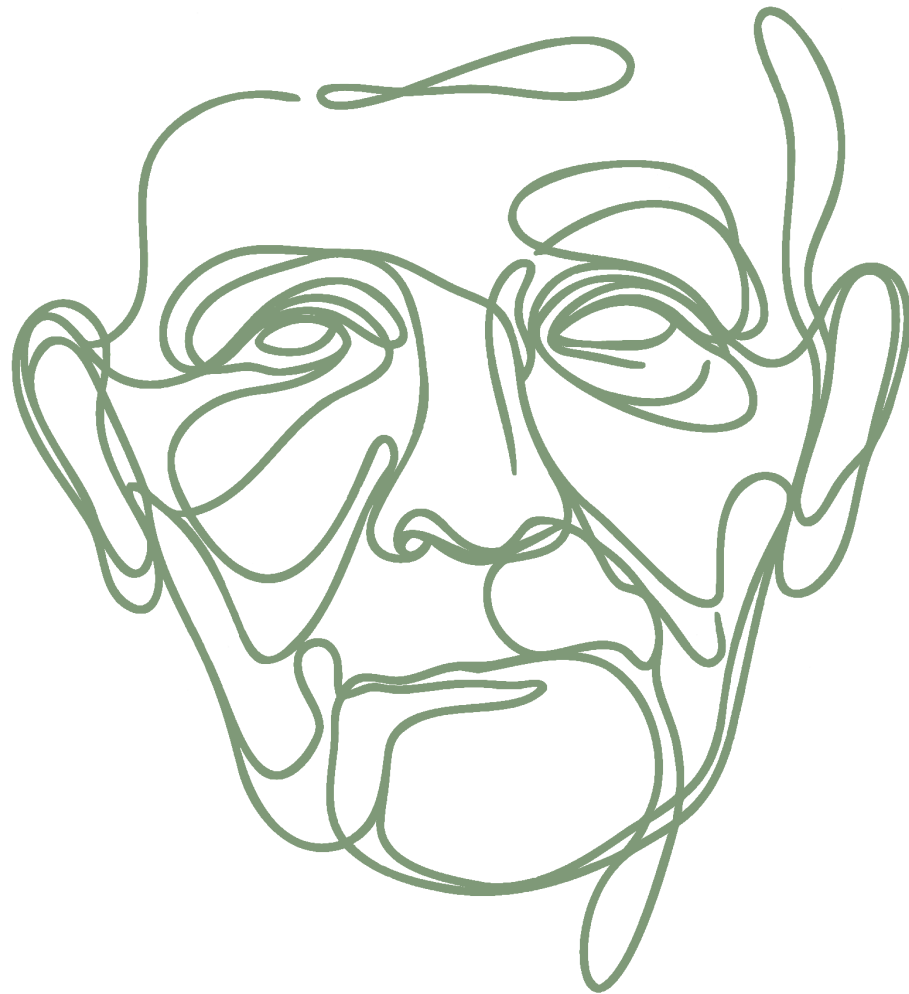












**Thank you**