CP

‘De Boele’

-

Housing Reform in Oud-Zuid and Zuidas

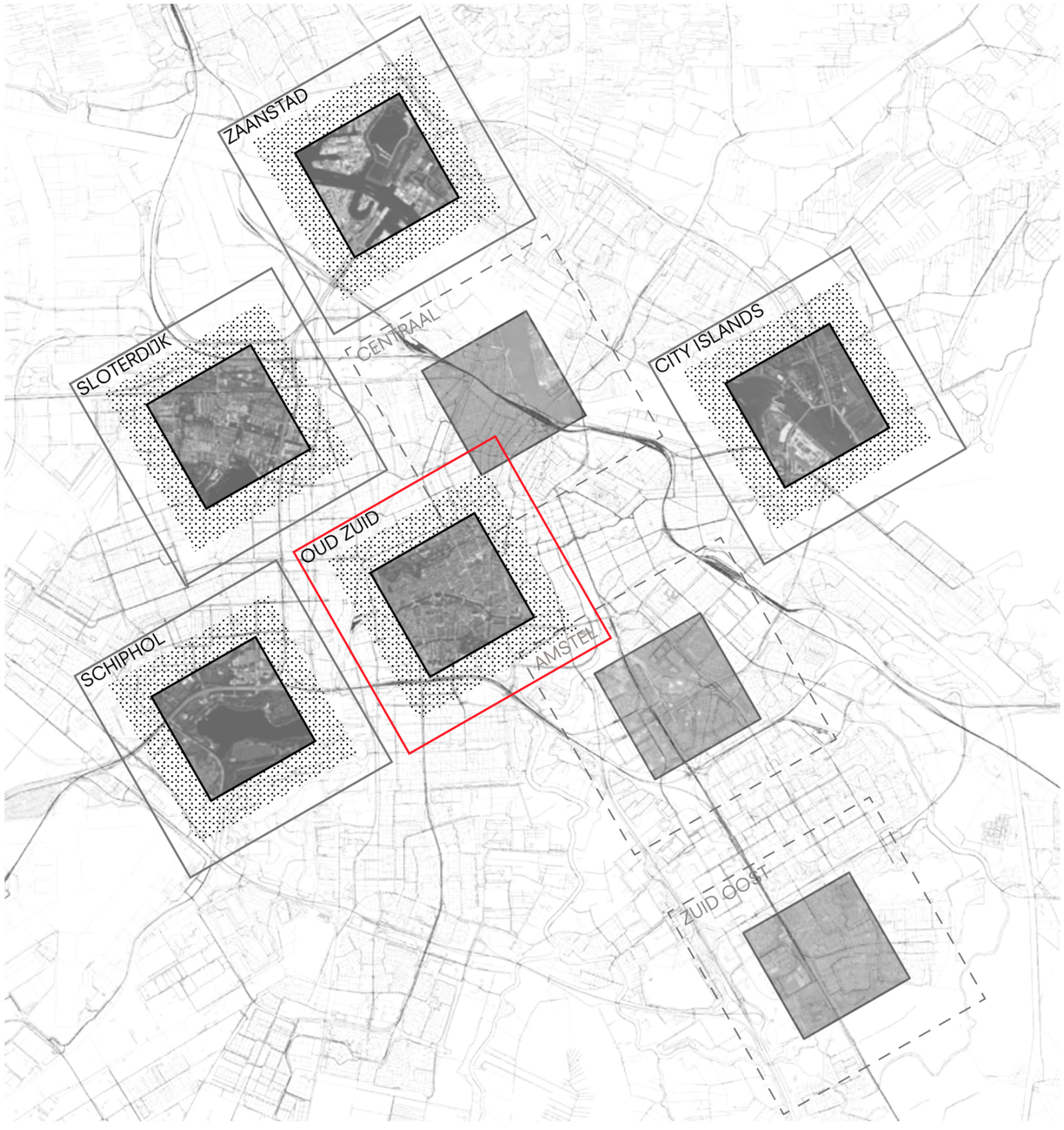
Blanka Borbely
4614585

I. Introduction
II. Research
III. Concept/Brief
IV. Urban Framework
V. Architectural Framework
VI. Conclusion

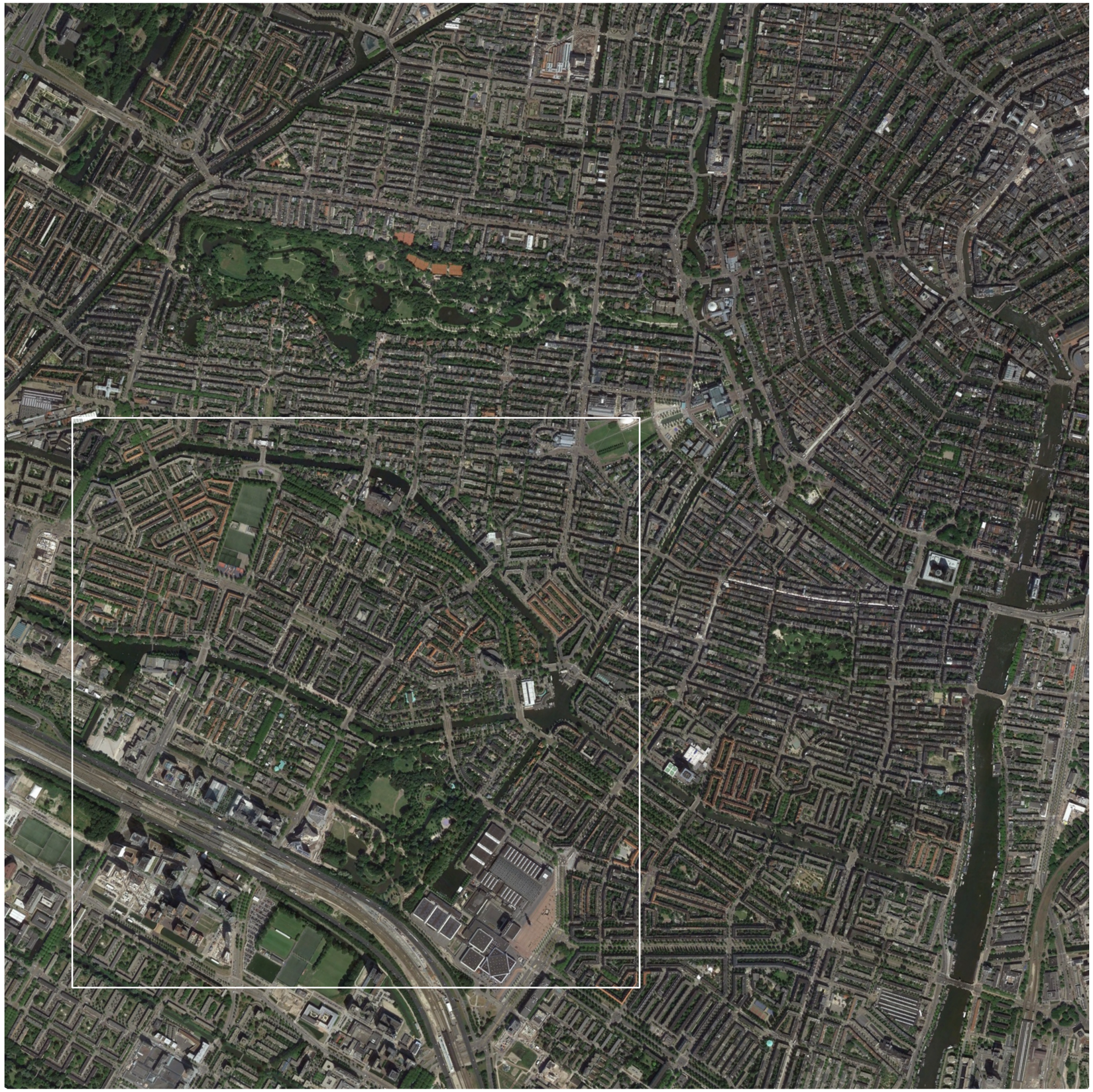
I. Introduction

MOTIVATION

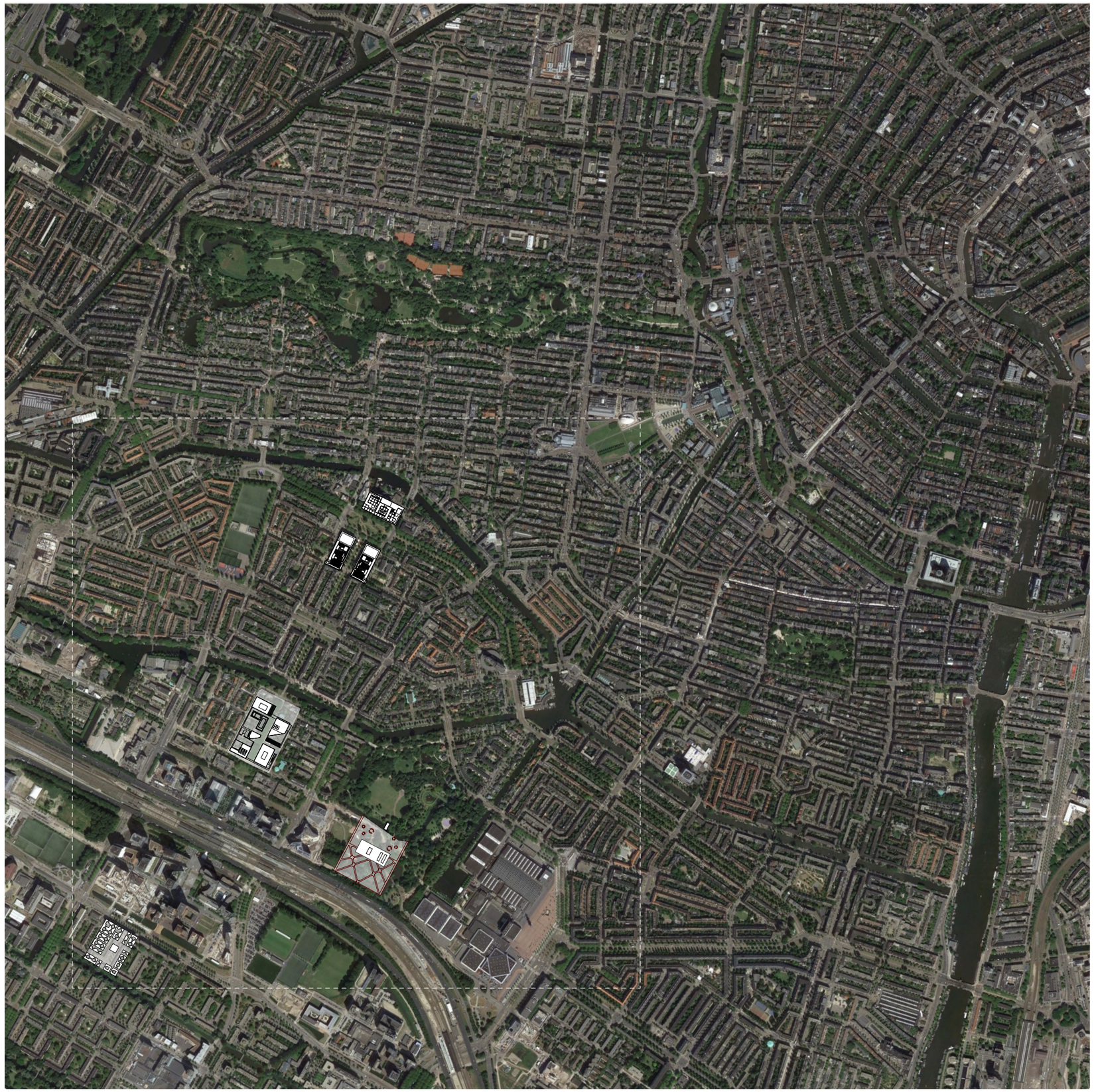
AMS MID CITY


ZAANSTAD
SLOTERDIJK
CENTRAAL
CITY ISLANDS
OUD ZUID
SCHIPHOL
AMSTEL
ZUID OOST

‘OUD-ZUID’ GROUP



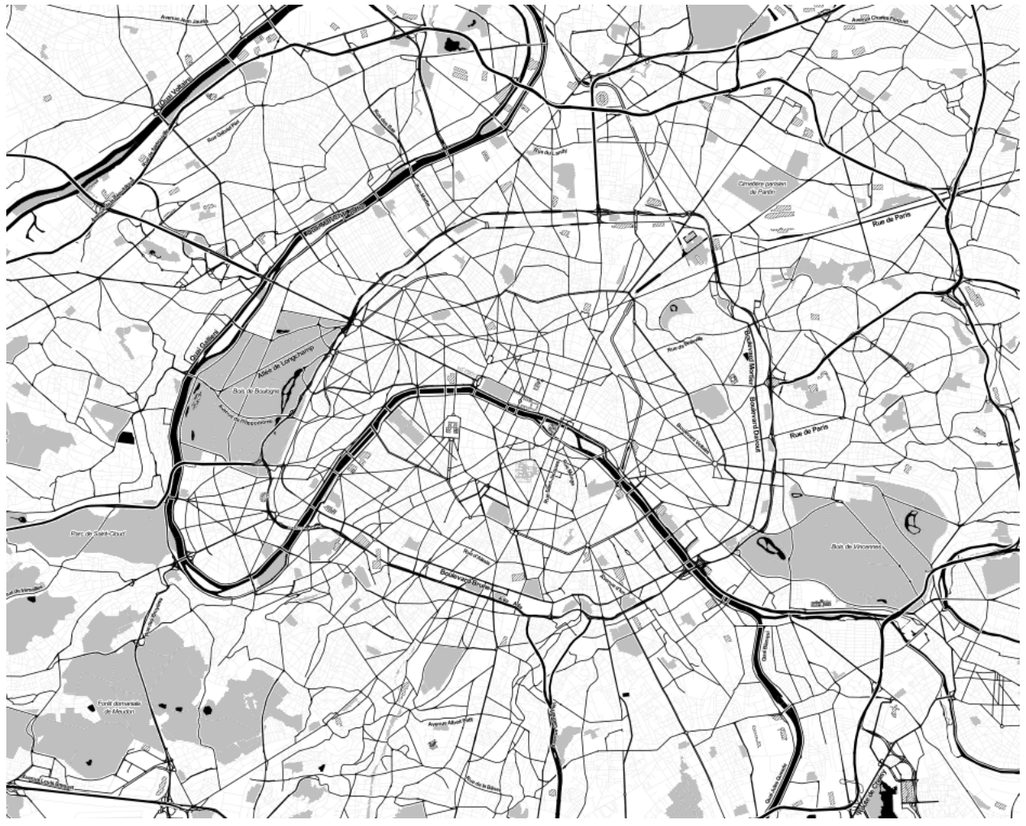
‘OUD-ZUID’ 2050



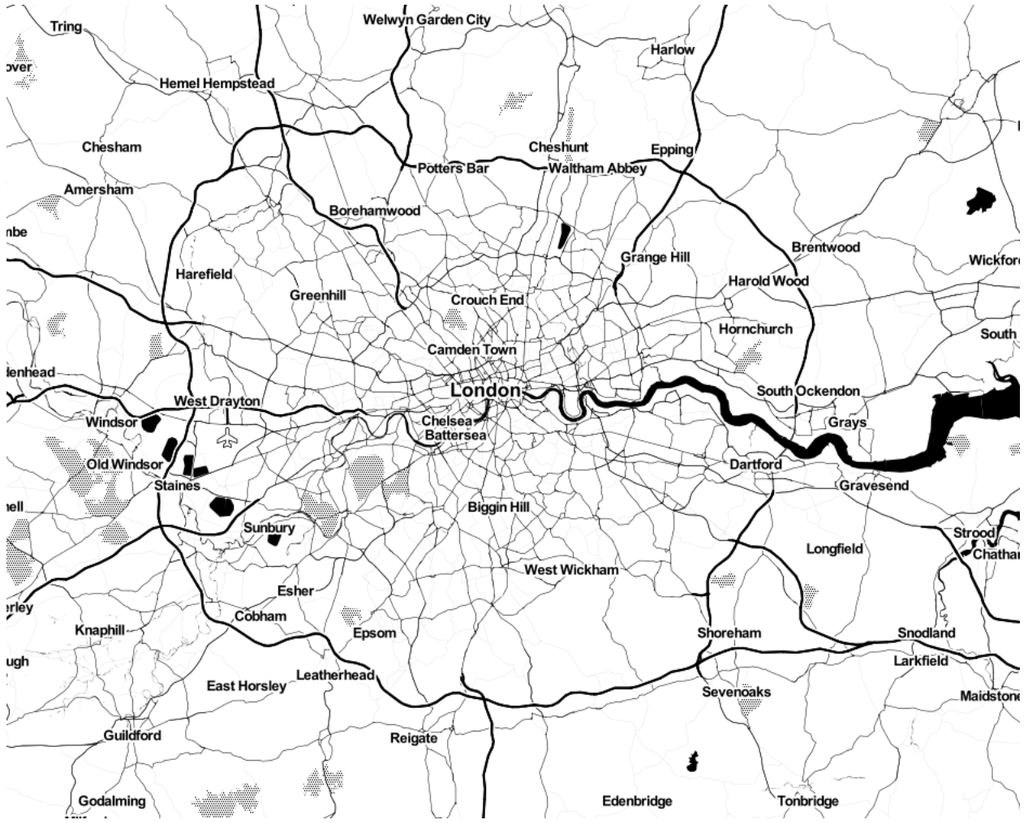
A NEW PERSPECTIVE ON SOCIO-SPATIAL FRAGMENTATION AND HOUSING


GENTRIFICATION
~~SOCIALISM~~
PRIVATISATION
GLOBALISATION
ECONOMIC GROWTH
MARGINALISATION

AMSTERDAM


Rue de Paris
Rue de Paris
Bois de Vincennes
Parc de Saint-Cloud
Forêt domaniale de Meudon

LONDON



PARIS












BIBLIOTHEQUE MUNICIPALE





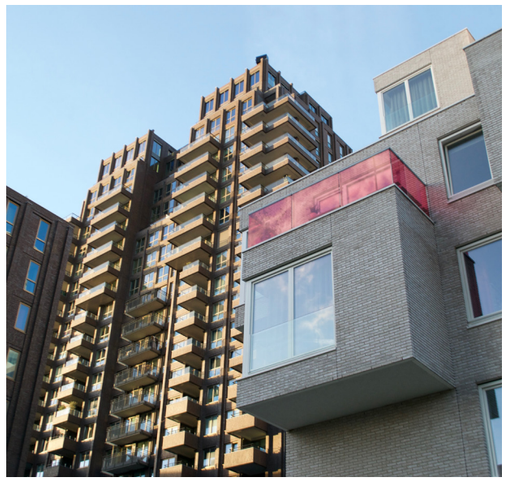






akker
rtram





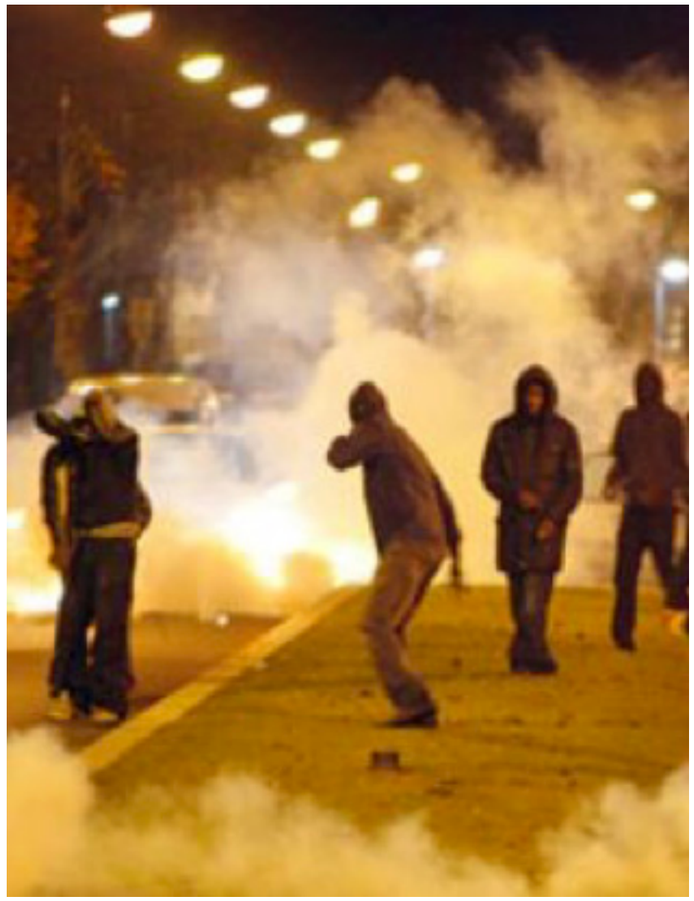





FRICTION AND SOCIAL CONFLICT



London riots
2011

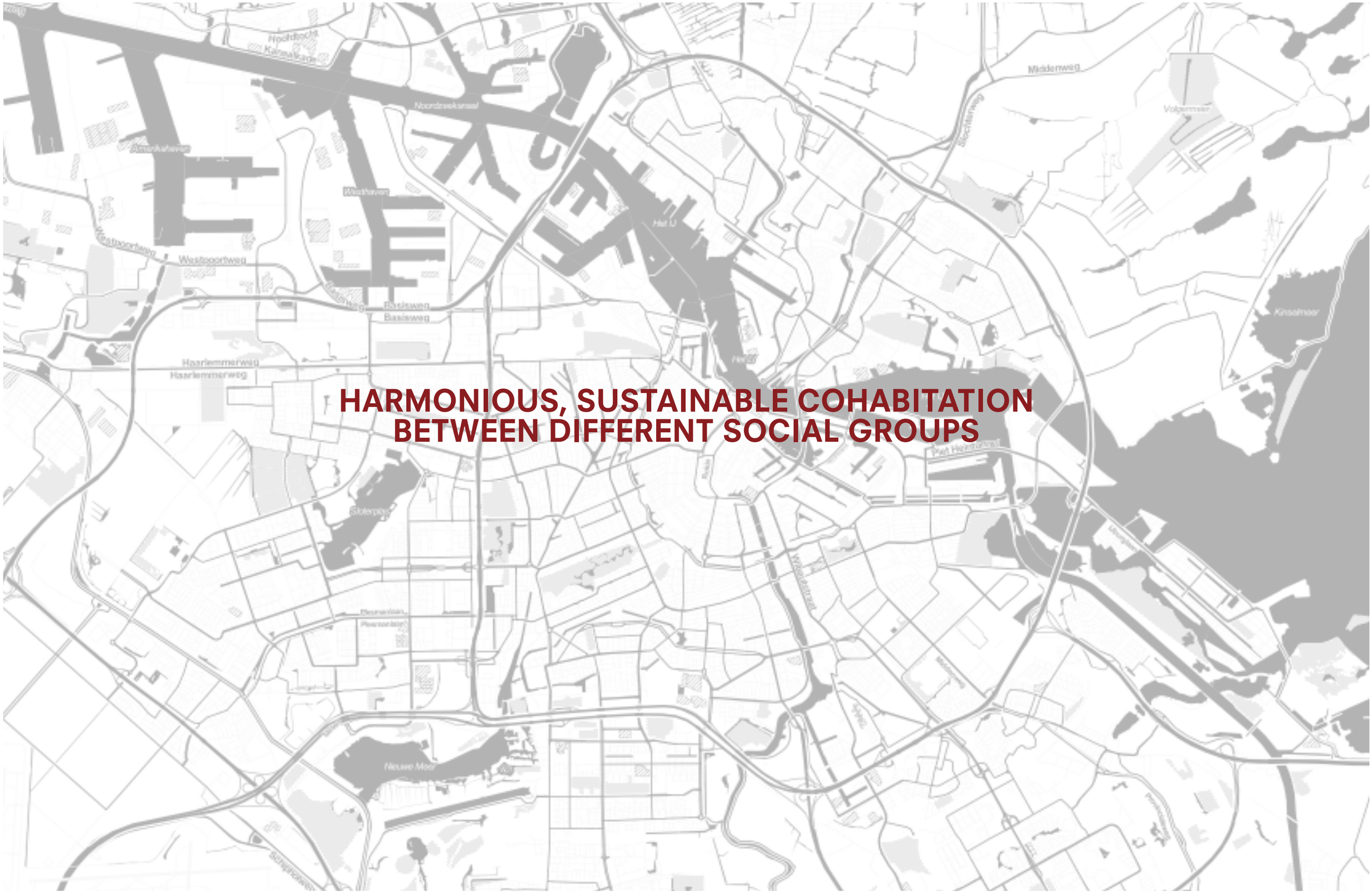


Paris riots
2005

LEADS TO THE DECREASE OF QUALITY OF LIFE

UNSUSTAINABLE

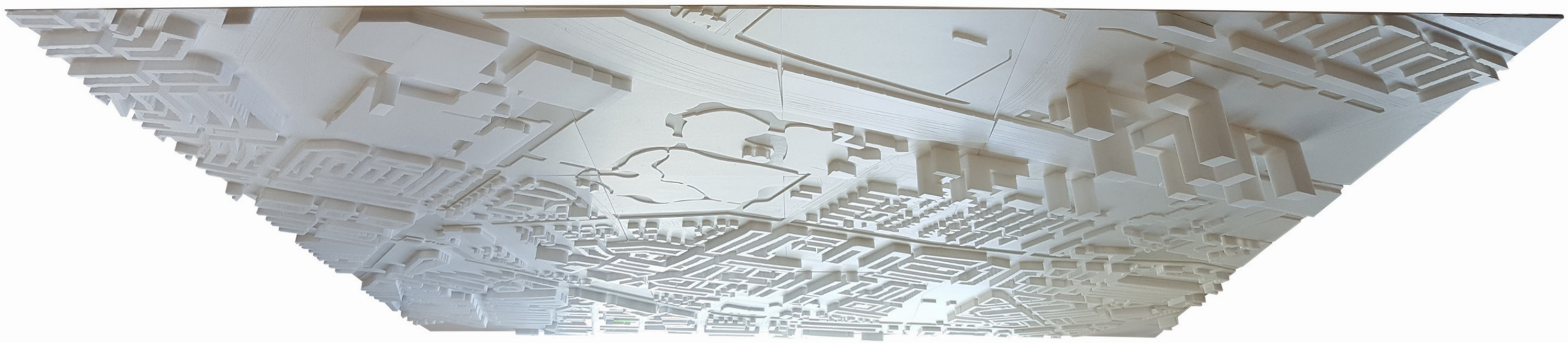
2050 AMSTERDAM

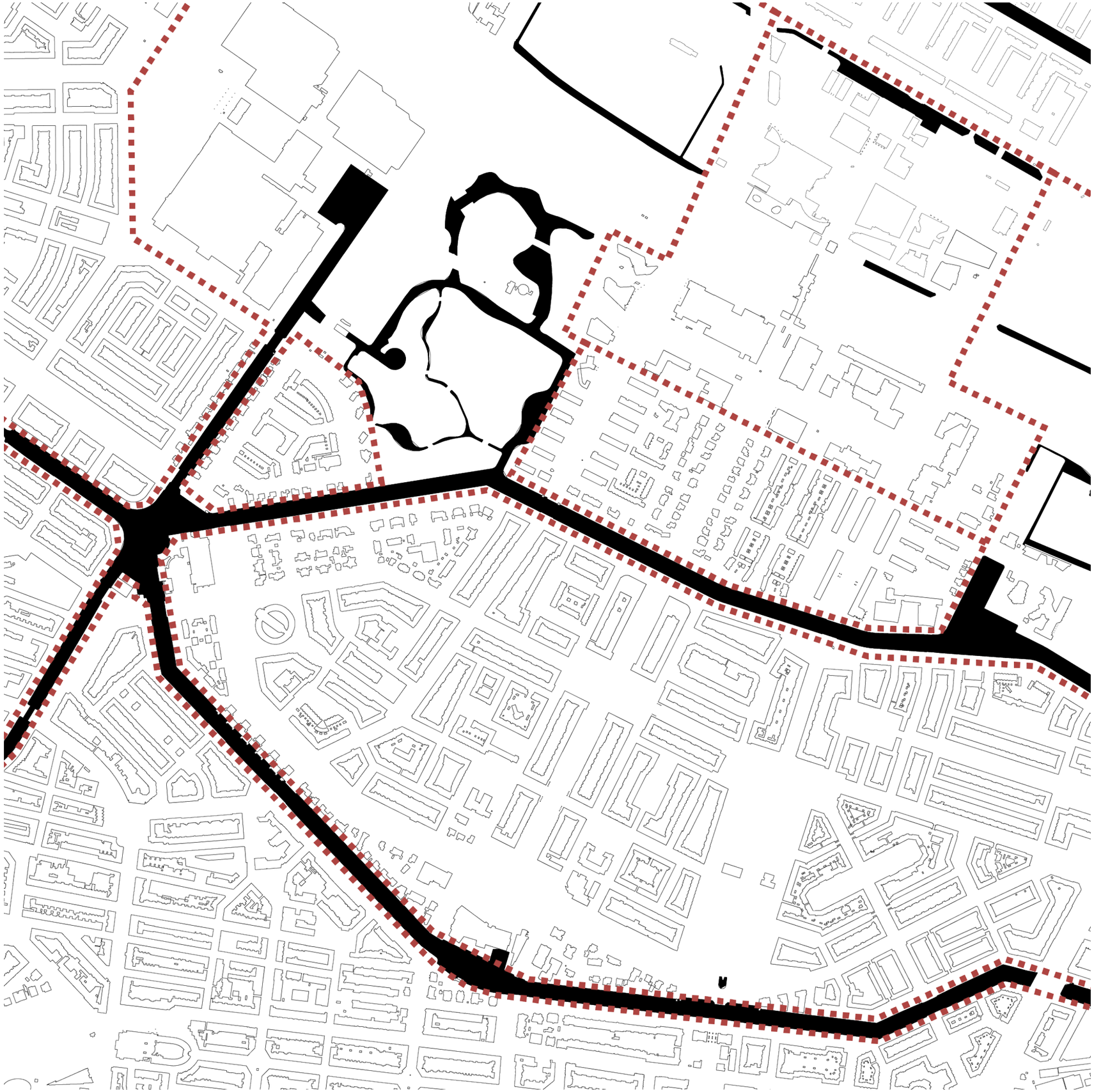


HARMONIOUS, SUSTAINABLE COHABITATION BETWEEN DIFFERENT SOCIAL GROUPS

II. Research

‘OUD-ZUID’





Willemspark



Plan Zuid



De Pijp



Minervalaan

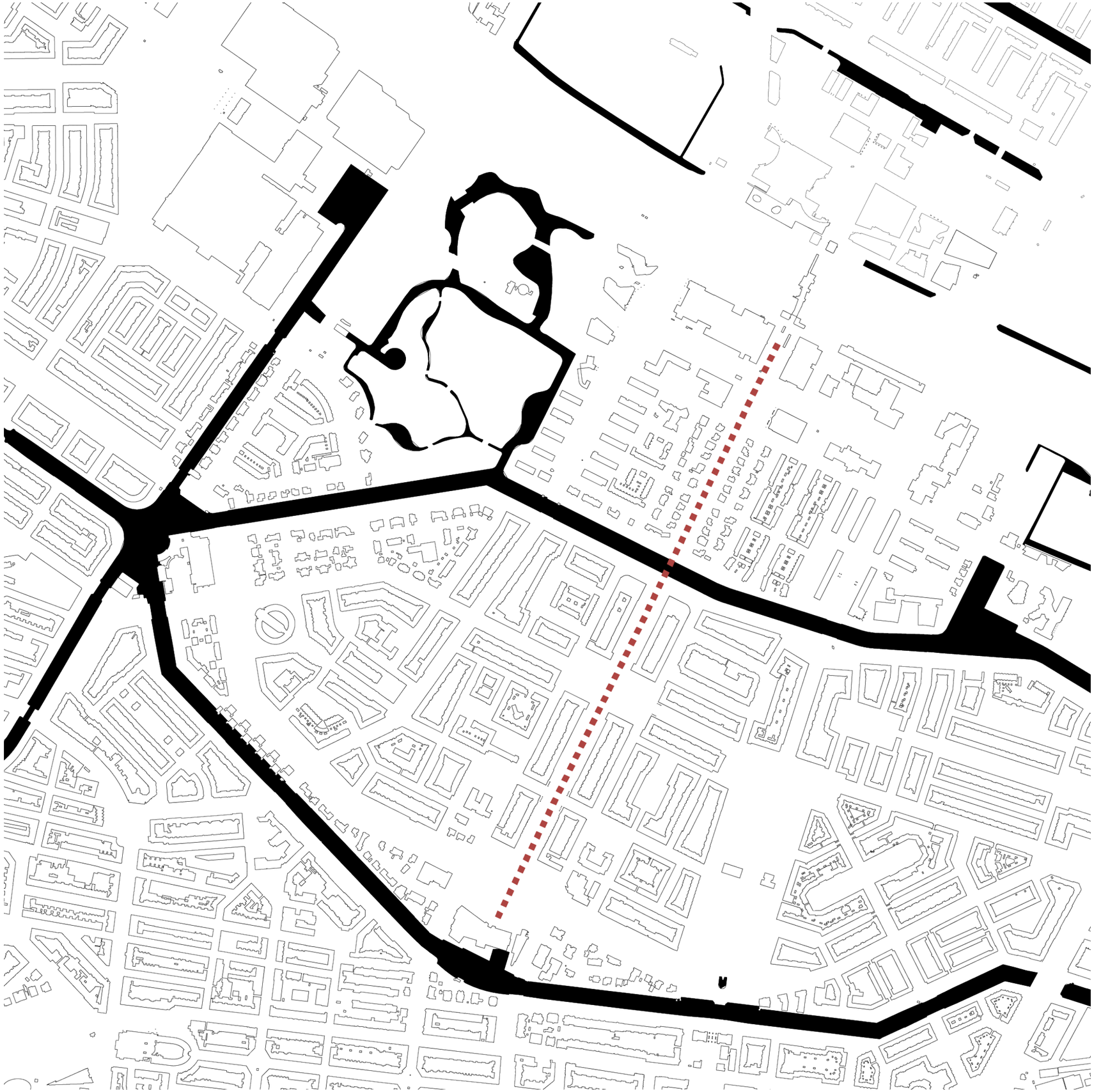


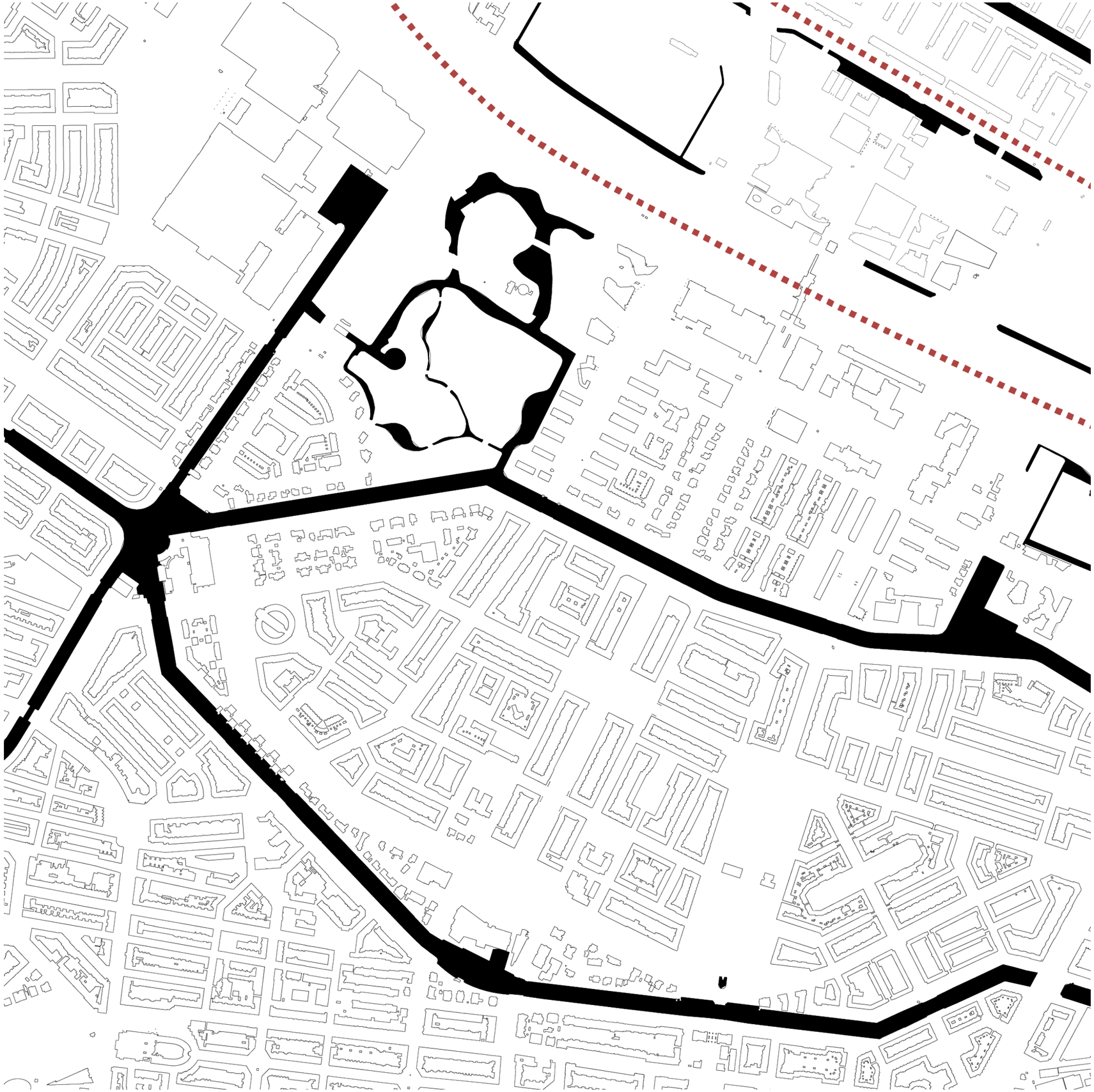
Zuidas

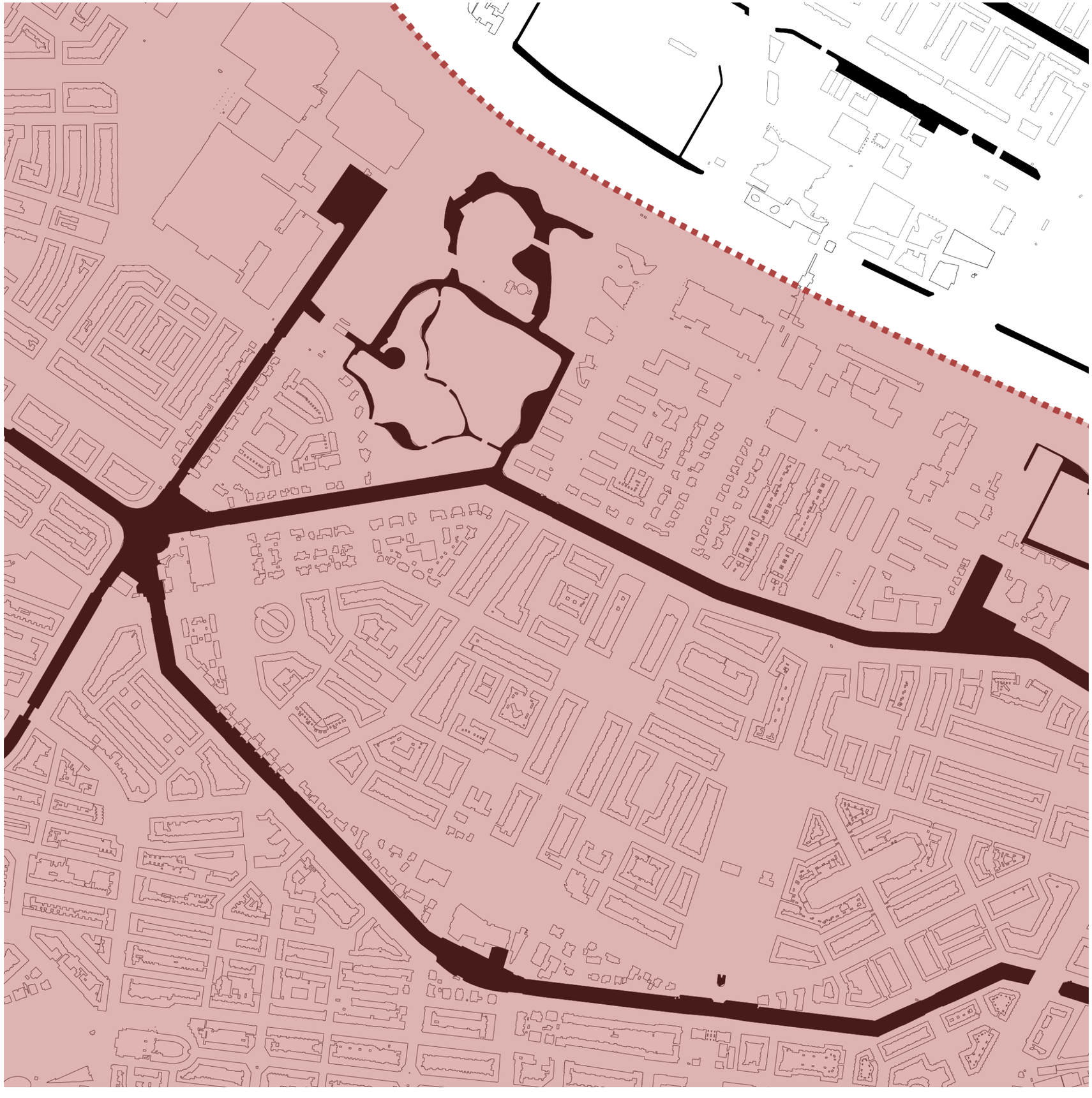


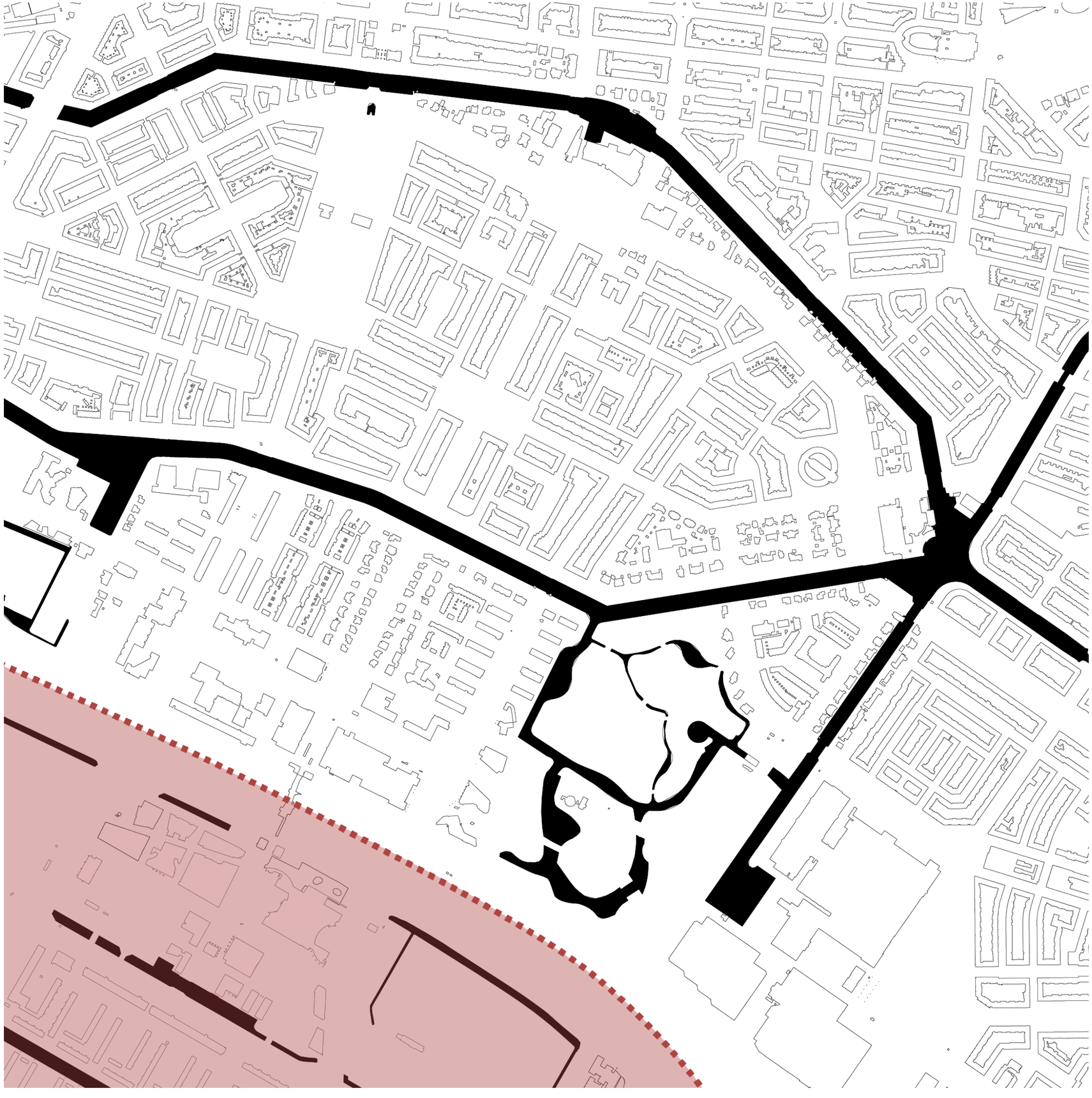
Buitenveldert







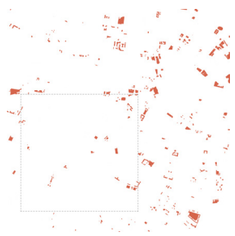




BUILDING OWNERSHIP - 2018



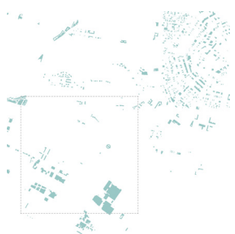
private



public



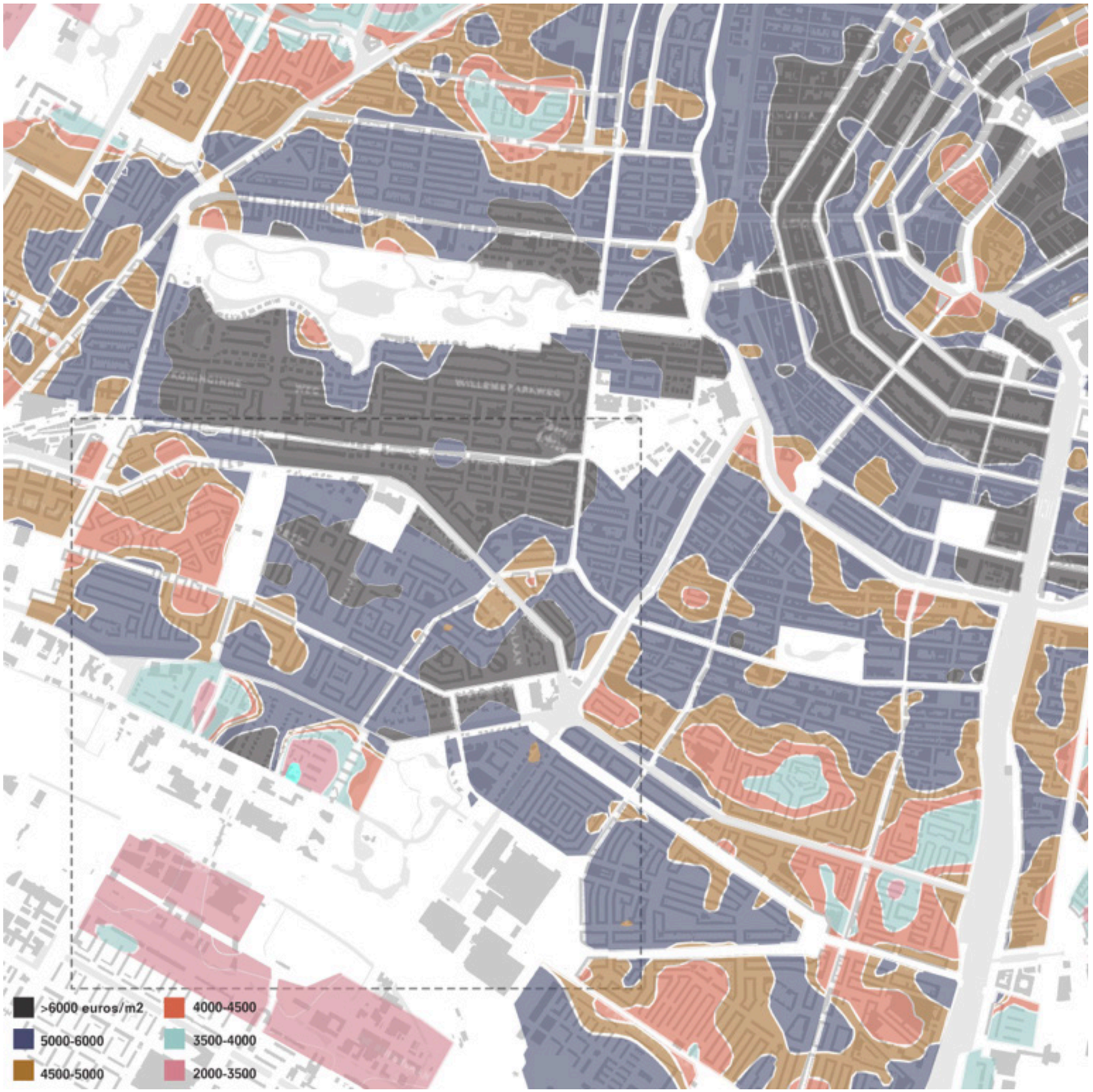
civic

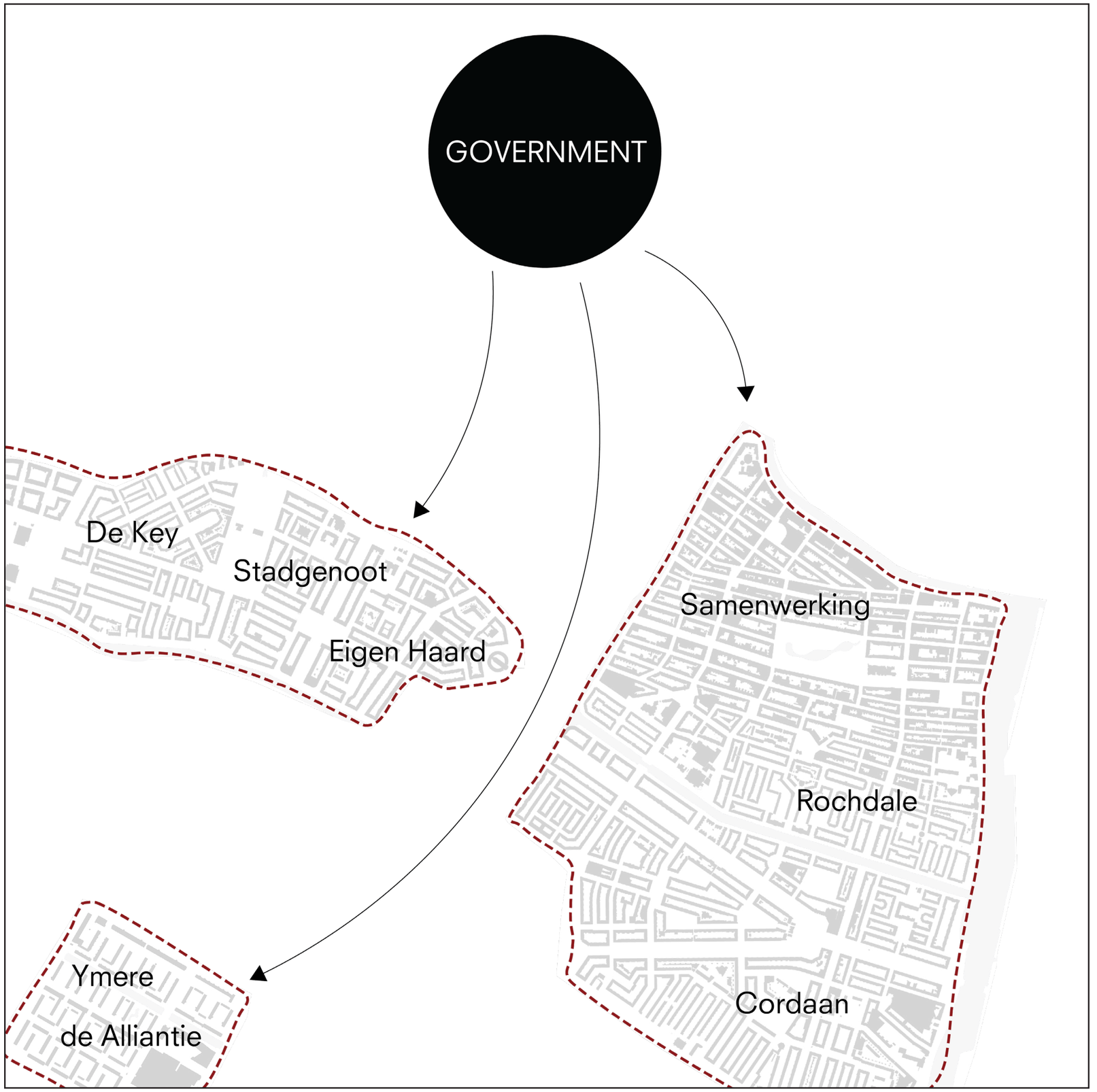


corporate



AFFORDABILITY - 2018




GOVERNMENT
De Key
Stadgenoot
Eigen Haard
Samenwerking
Rochdale
Cordaan
Ymere
de Alliantie

DE PIJP



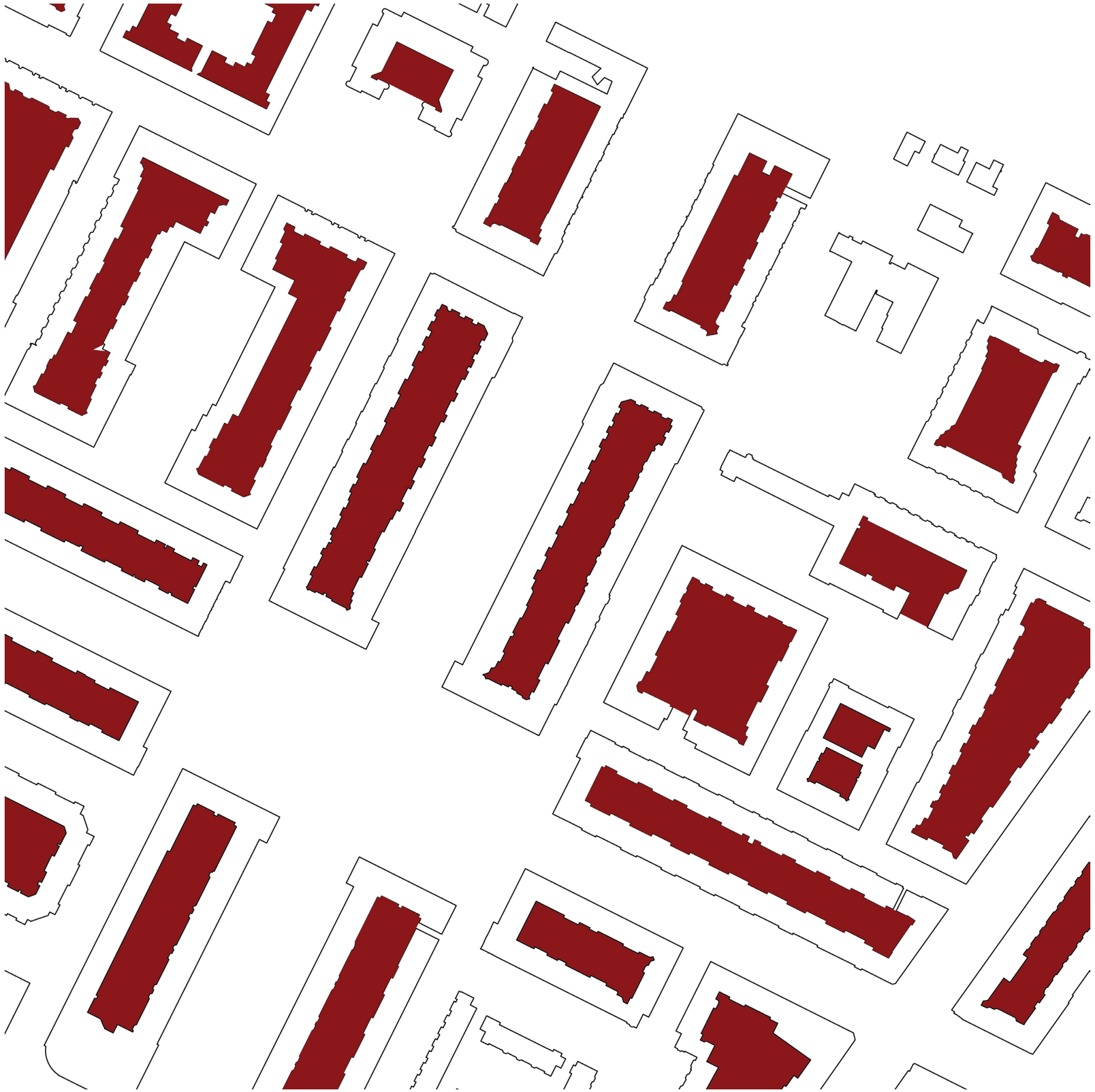
https://www.architectuuramsterdam.nl/node/81

PLAN ZUID



http://amsterdamse-school.nl/objecten/gebouwen/de-dageraad-(oorspronkelijk-plan)/

‘COLLECTIVE’



BUITENVELDERT



SOCIAL HOUSING IS DISAPPEARING



“Each year, housing associations must let 80% of their vacant social housing to people with an income of up to €35,739 (in 2016) and 10% to people with an income of between €35,739 and €39,874 (in 2016). The associations may let **10% of their social housing to households with higher incomes**.”

2050?

EXPANSION OF ZUIDAS



2017
ZUIDAS



2050
ZUIDAS

~~**BUITENVELDERT**~~

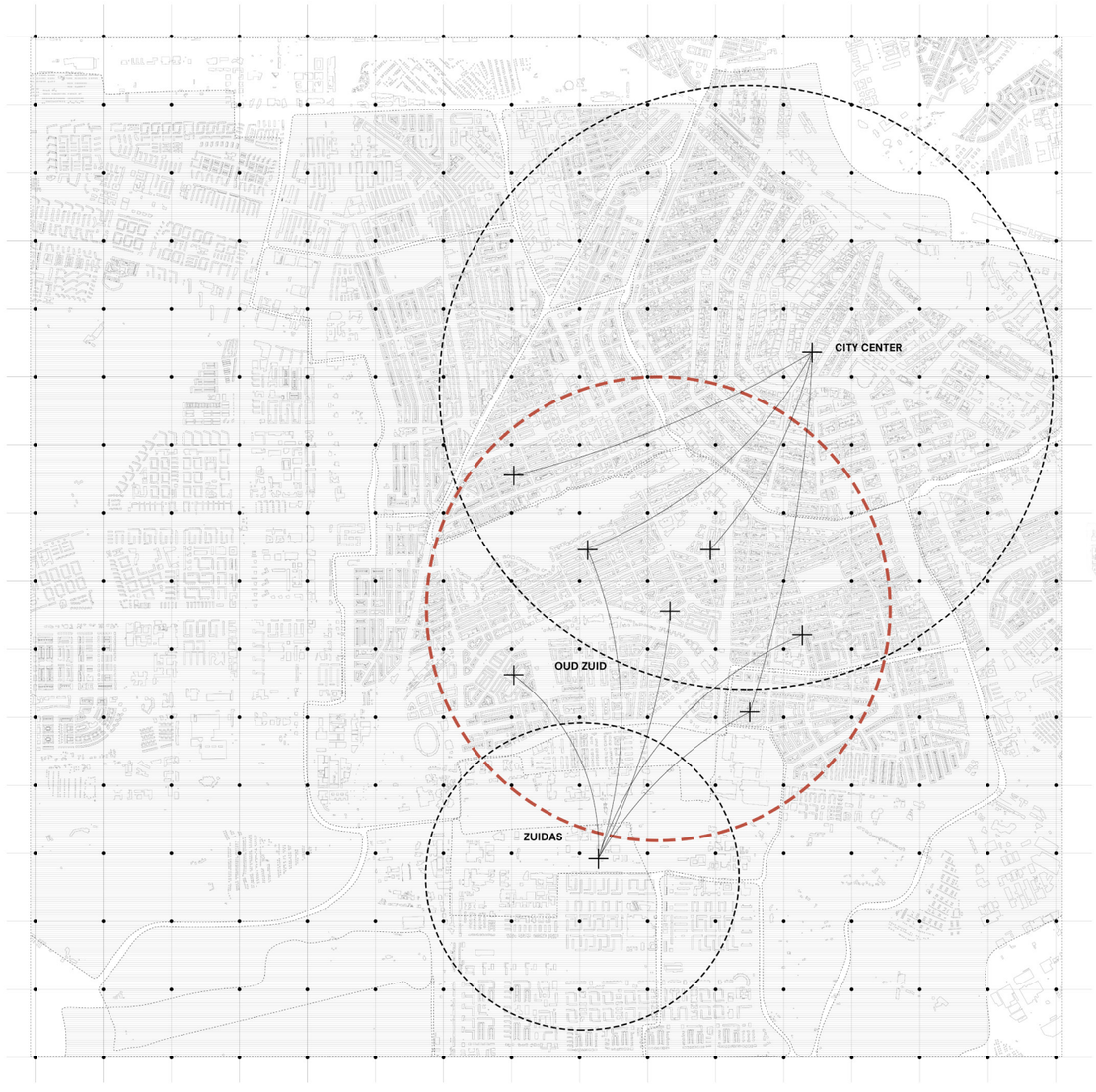


2050
ZUIDAS

The residents of social housing in Buitenveldert will be:

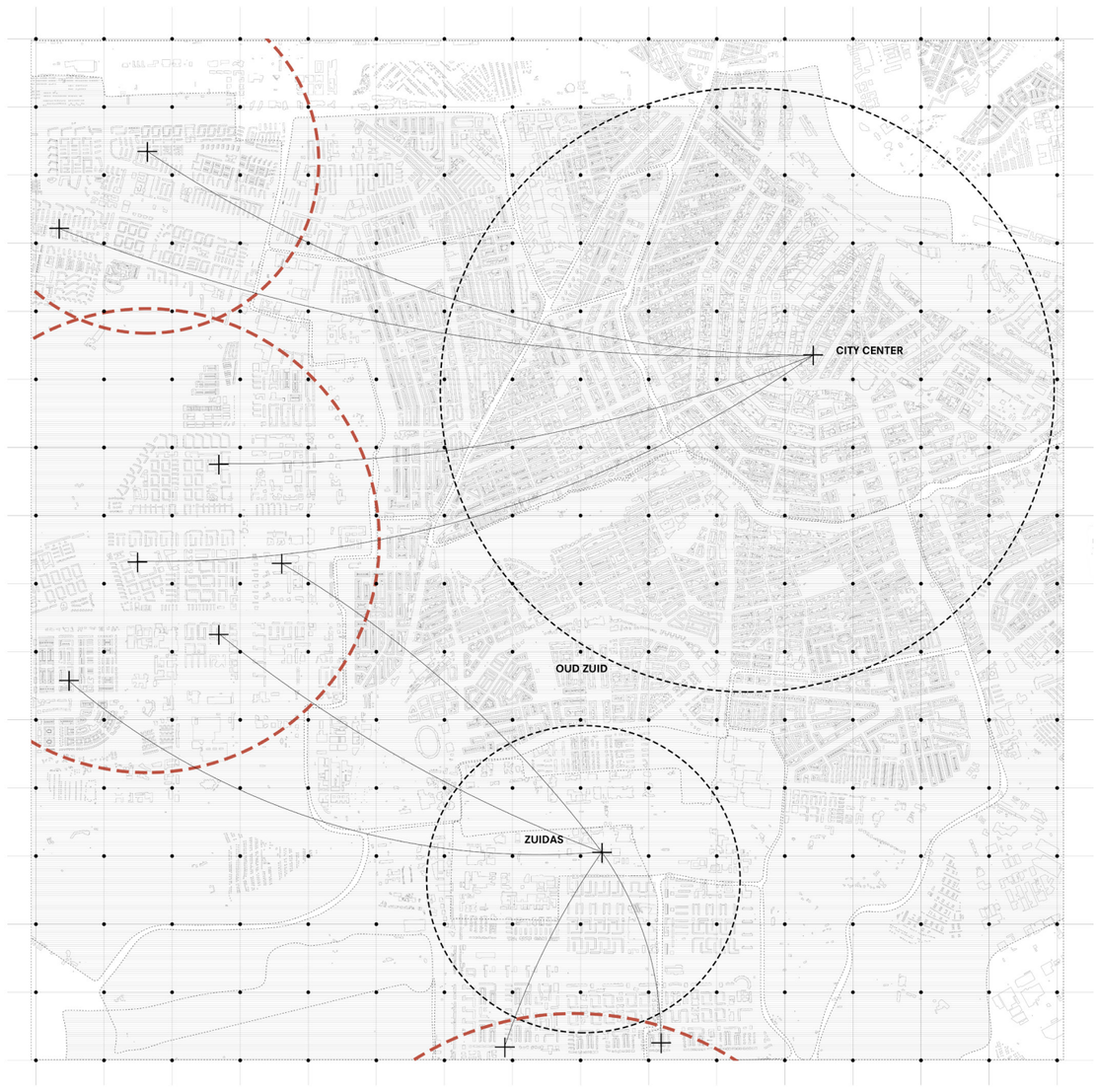
- forcefully displaced
- pushed to the peripheries of the city
- away from flows of opportunities and important urban nodes

urban = nodes of urban centrality, made up of a variety of different economic, cultural, and social densities



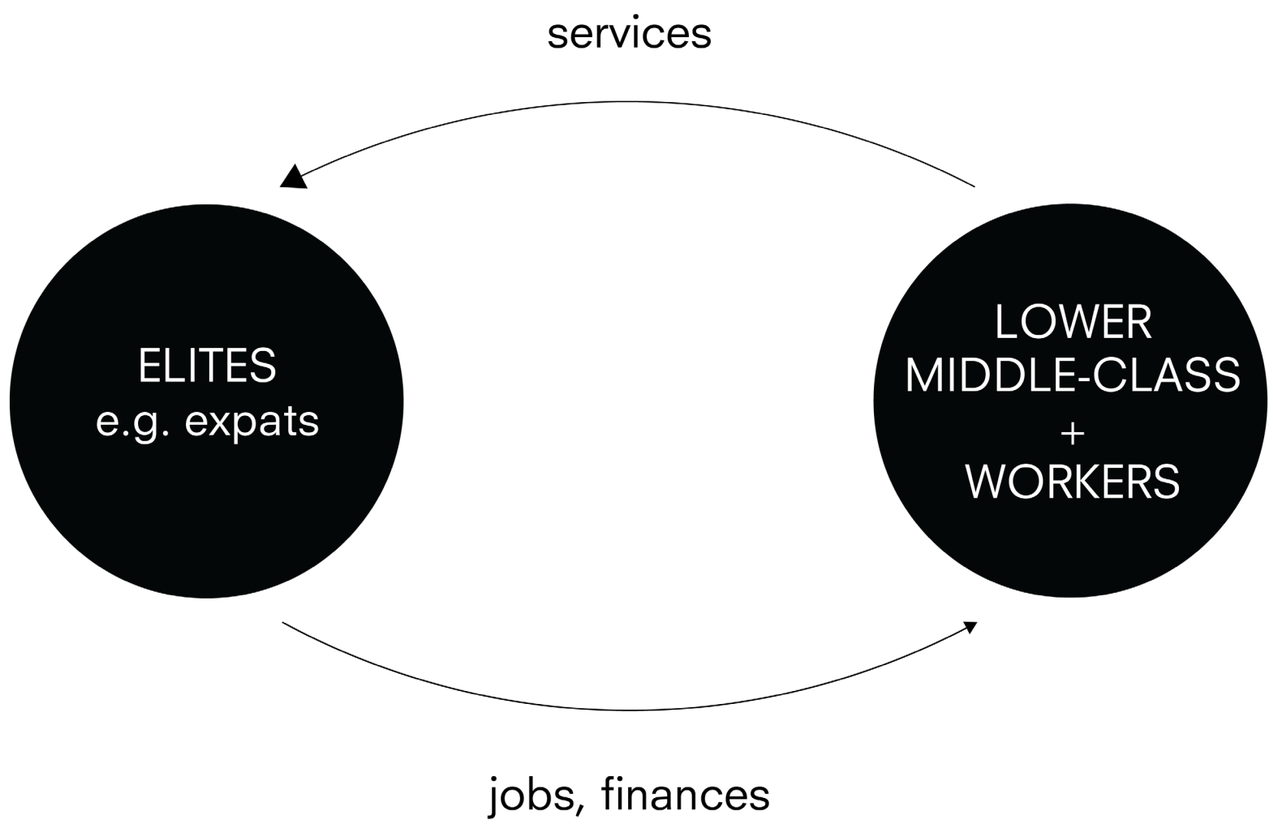
ELITES

LIVING
WORKING



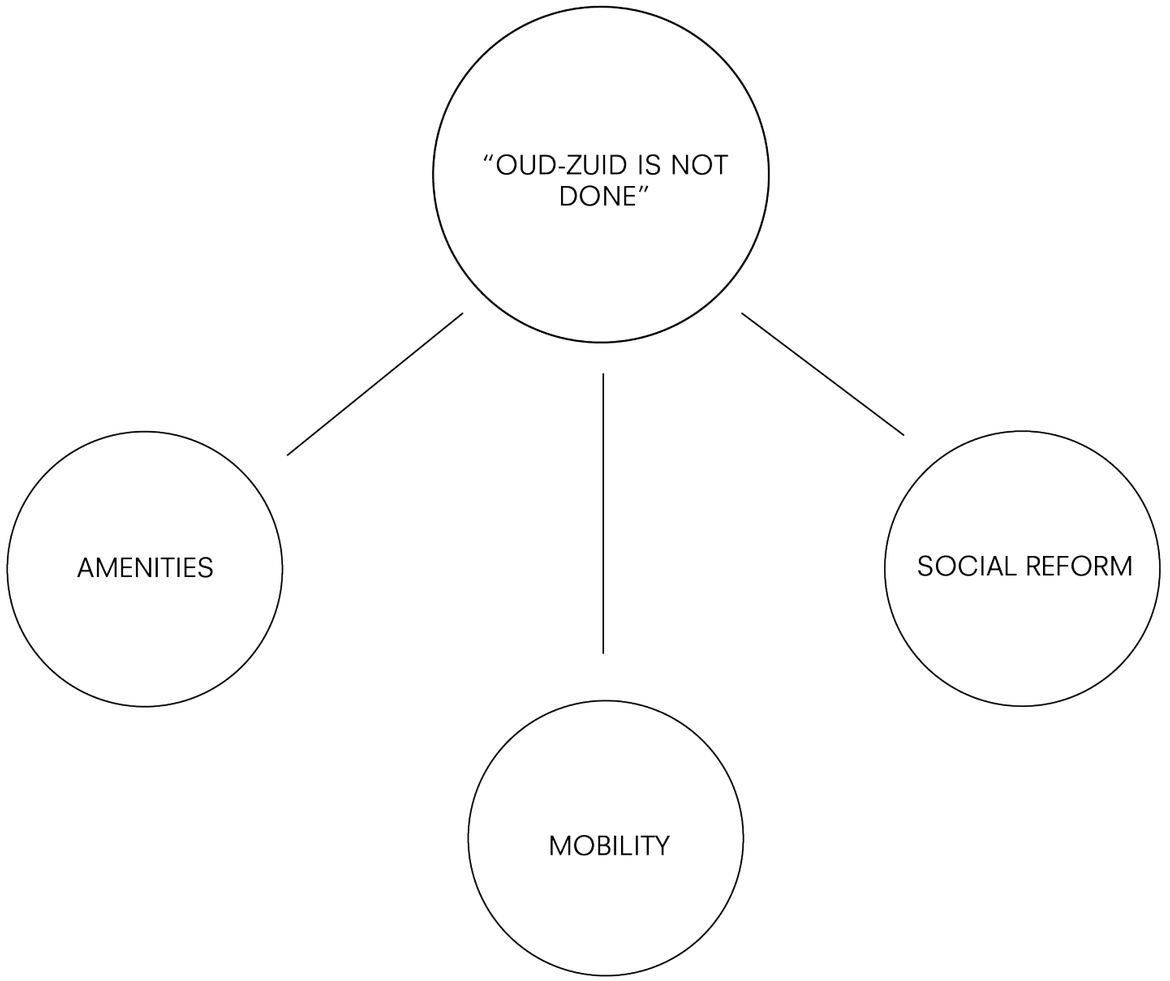
LOWER MIDDLE-CLASS

LIVING
WORKING

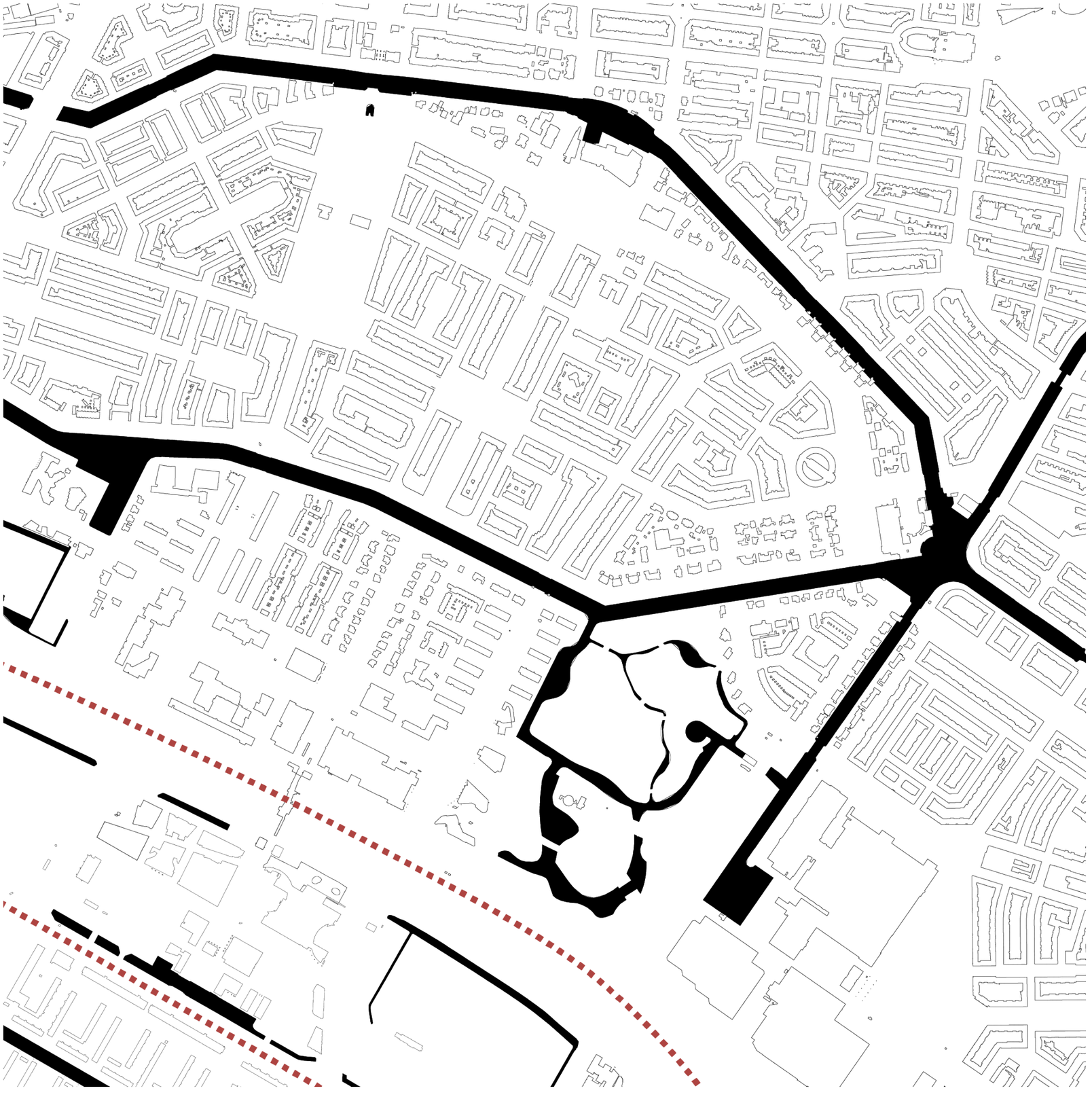

services
ELITES
e.g. expats
LOWER
MIDDLE-CLASS
+
WORKERS
jobs, finances

STRATEGY

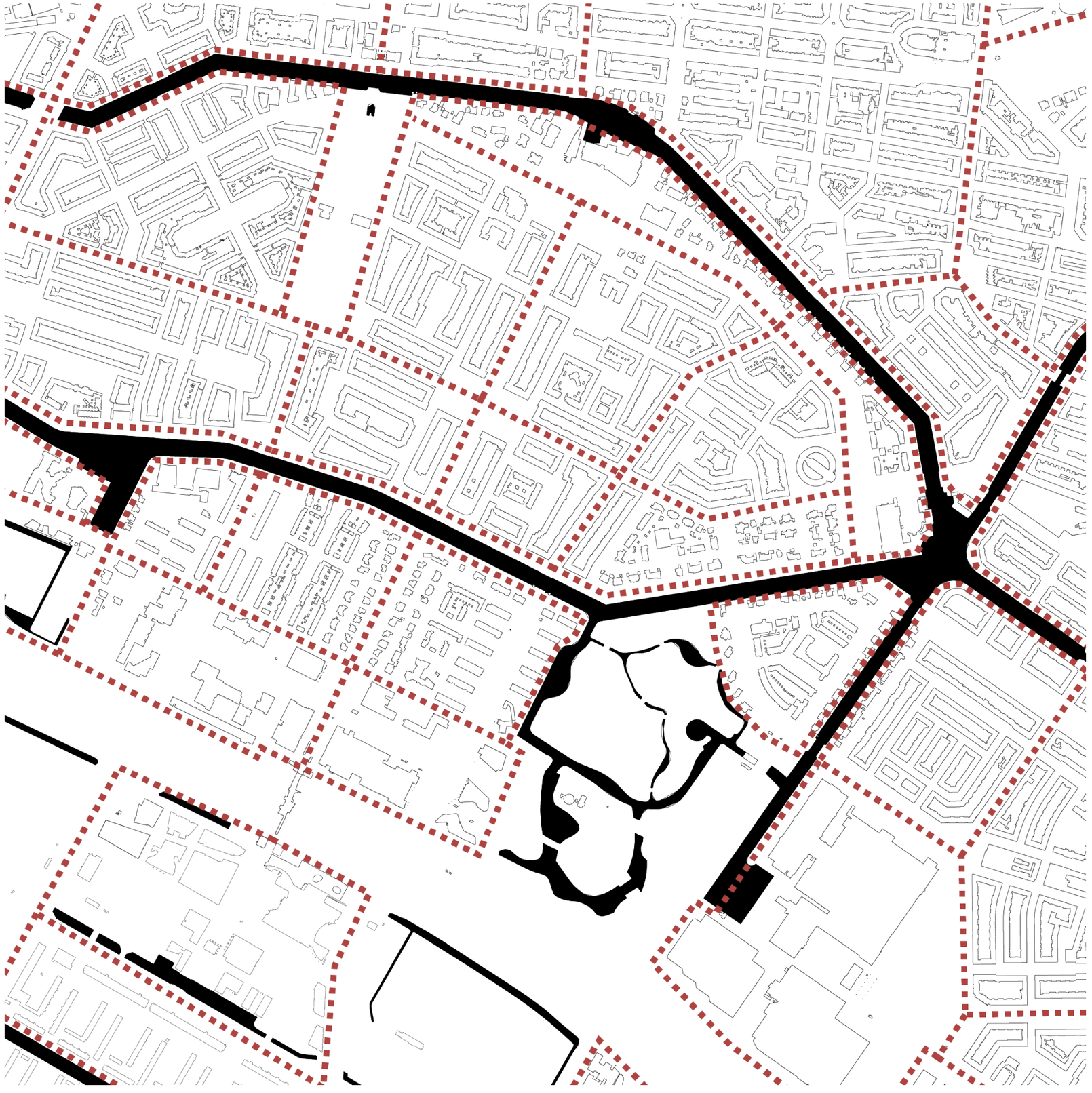
GROUP STRATEGY



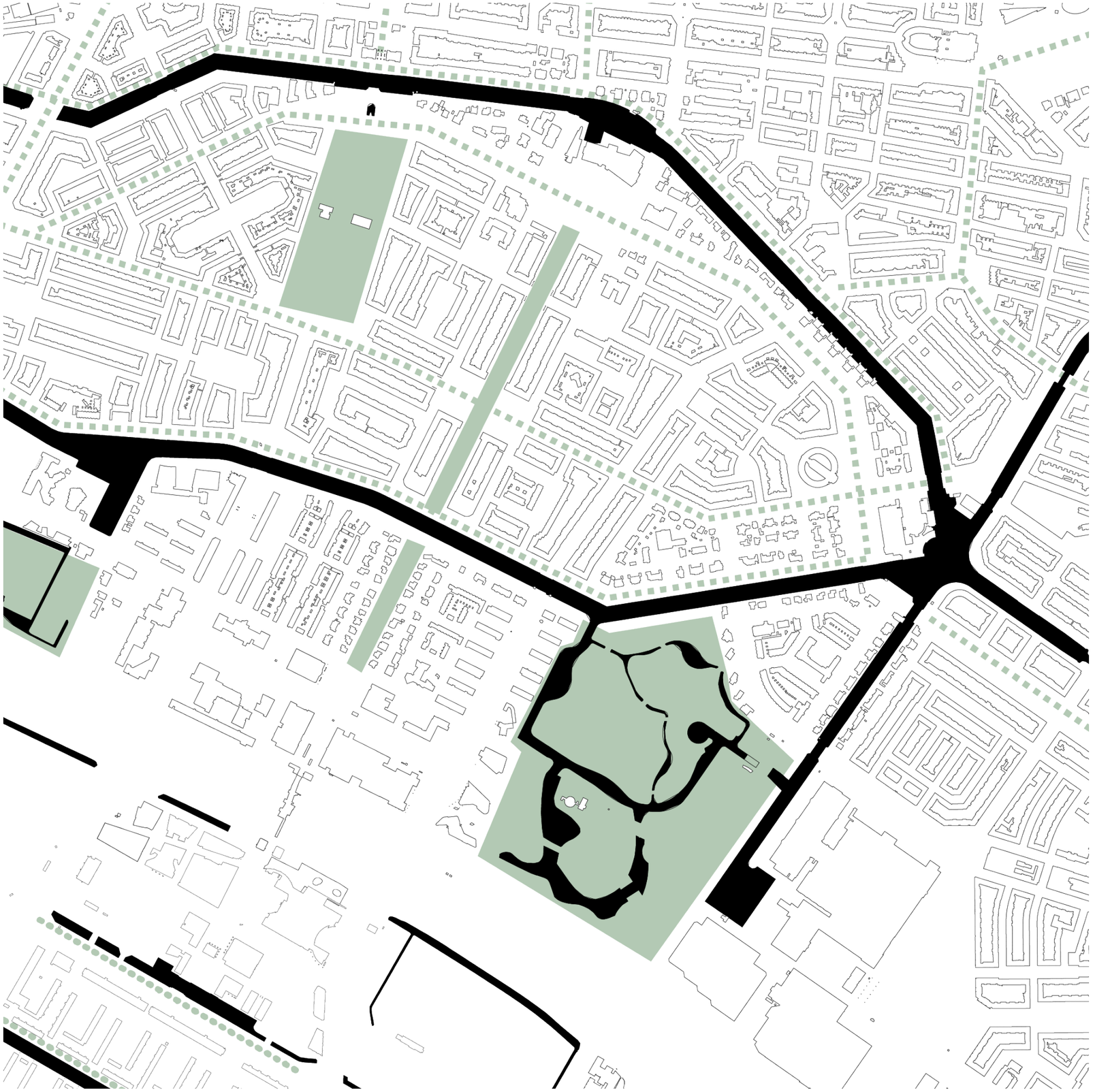
FRAGMENTED



ORGANIZATION OF BLOCKS



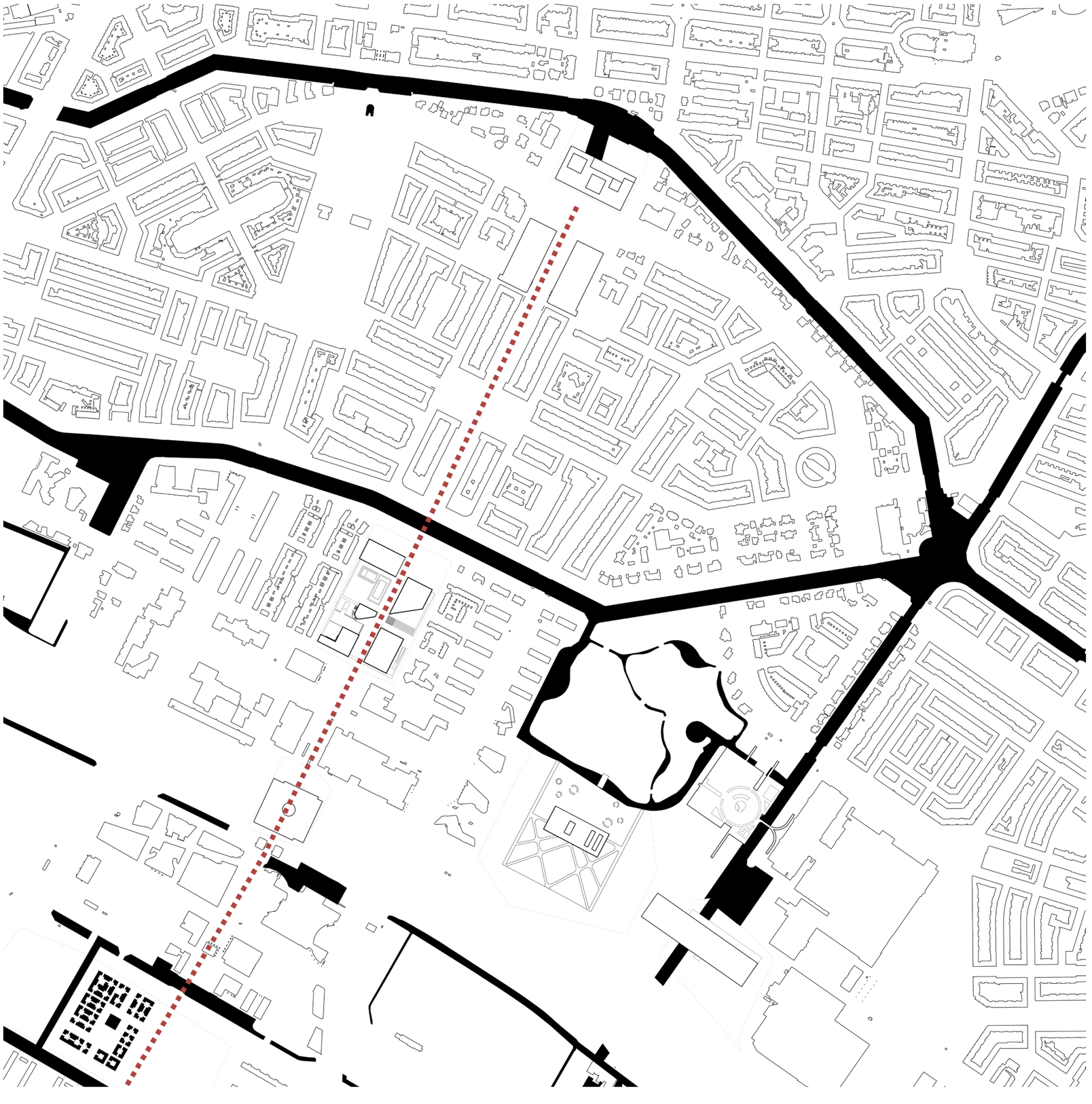
PUBLIC GREEN



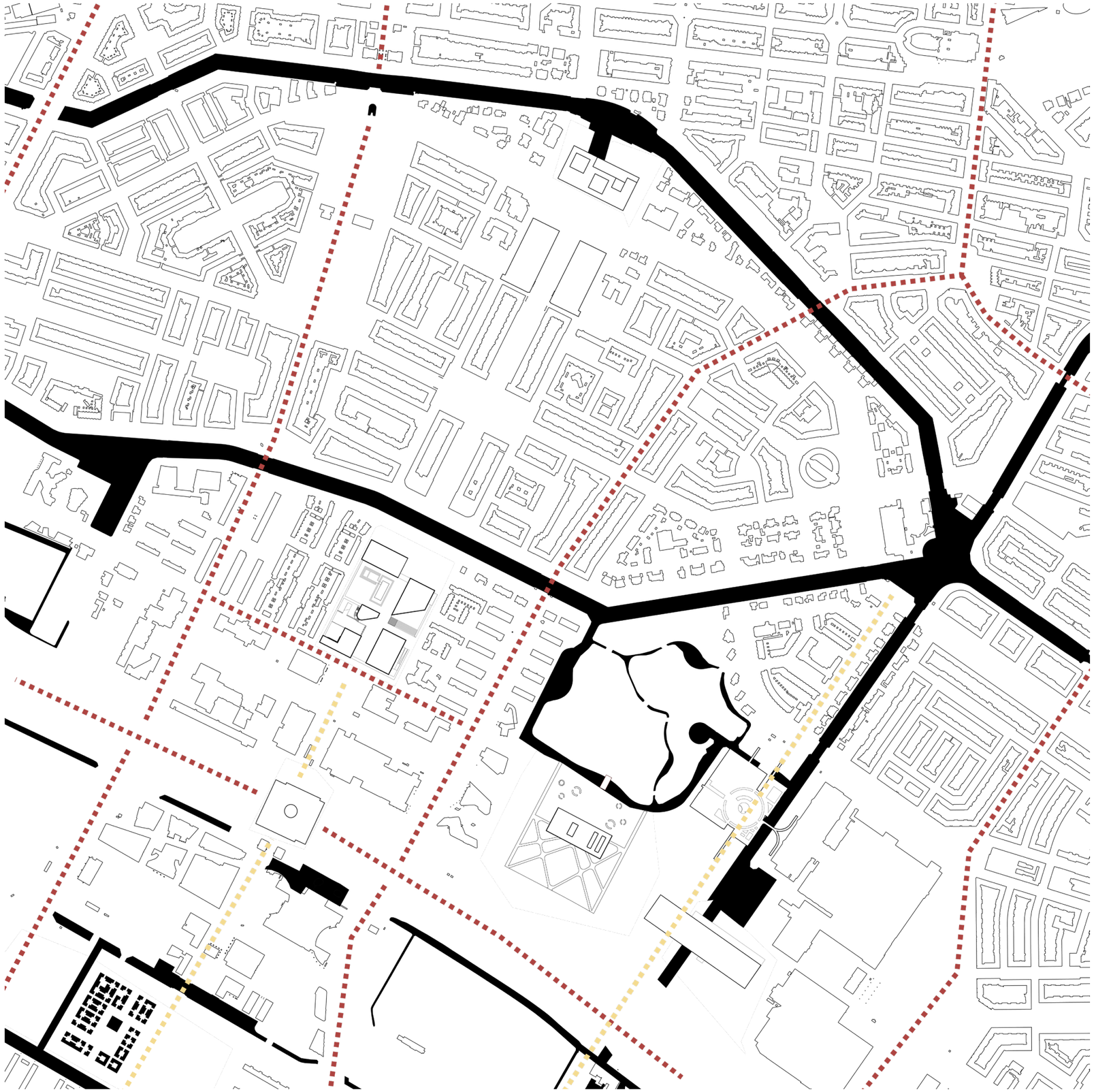
WATER NETWORKS



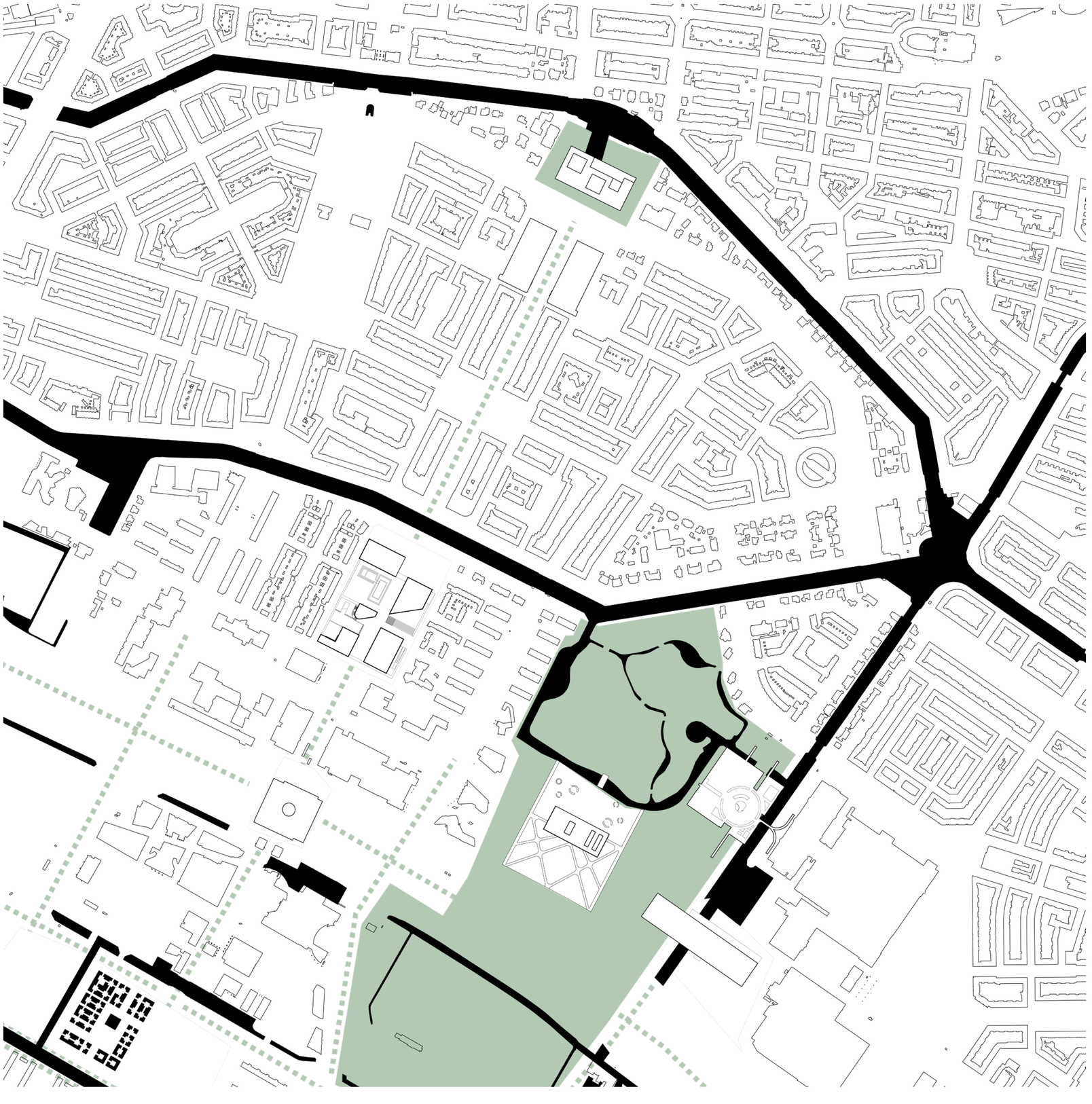
GROUP STRATEGY



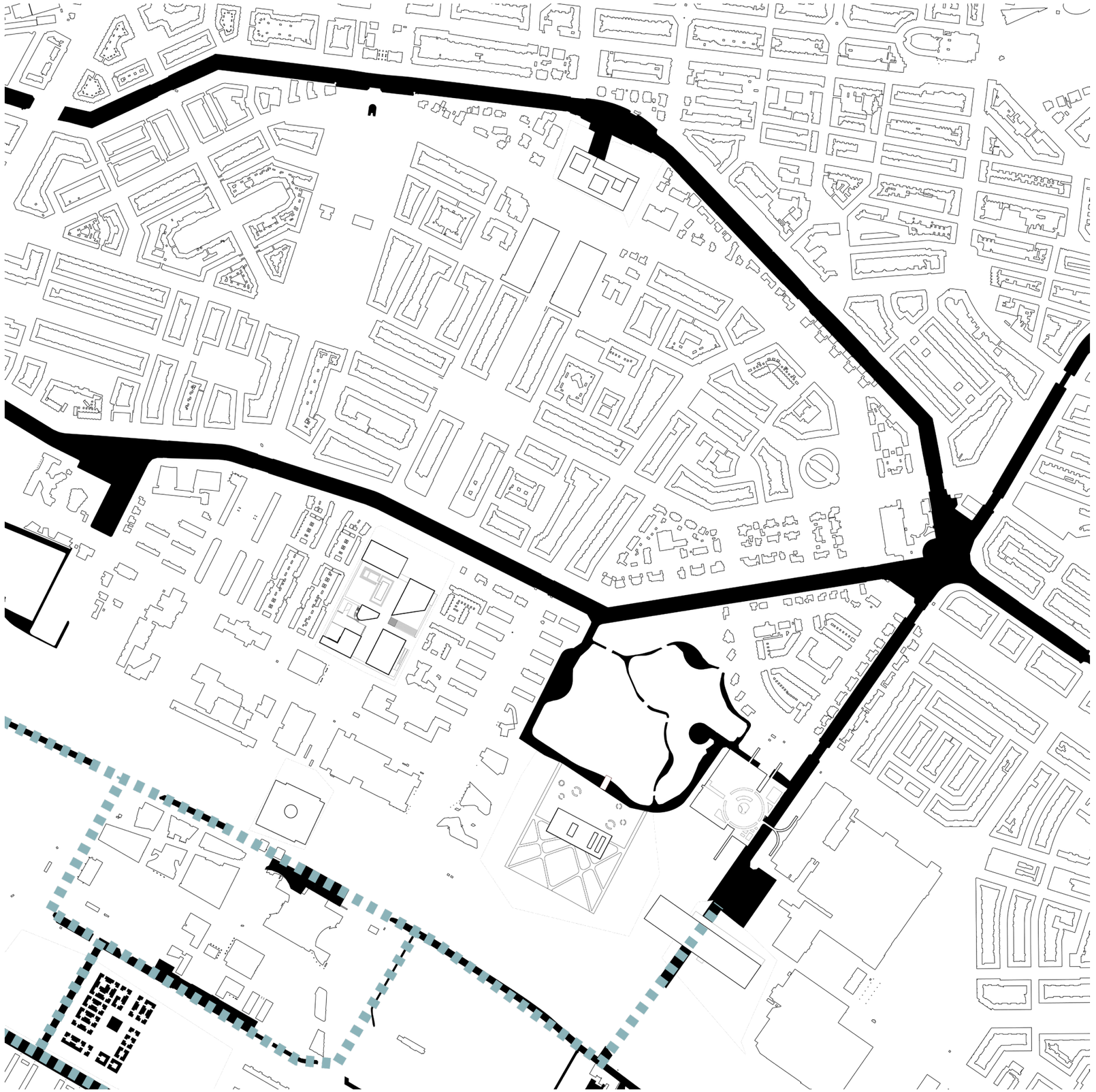
GROUP STRATEGY



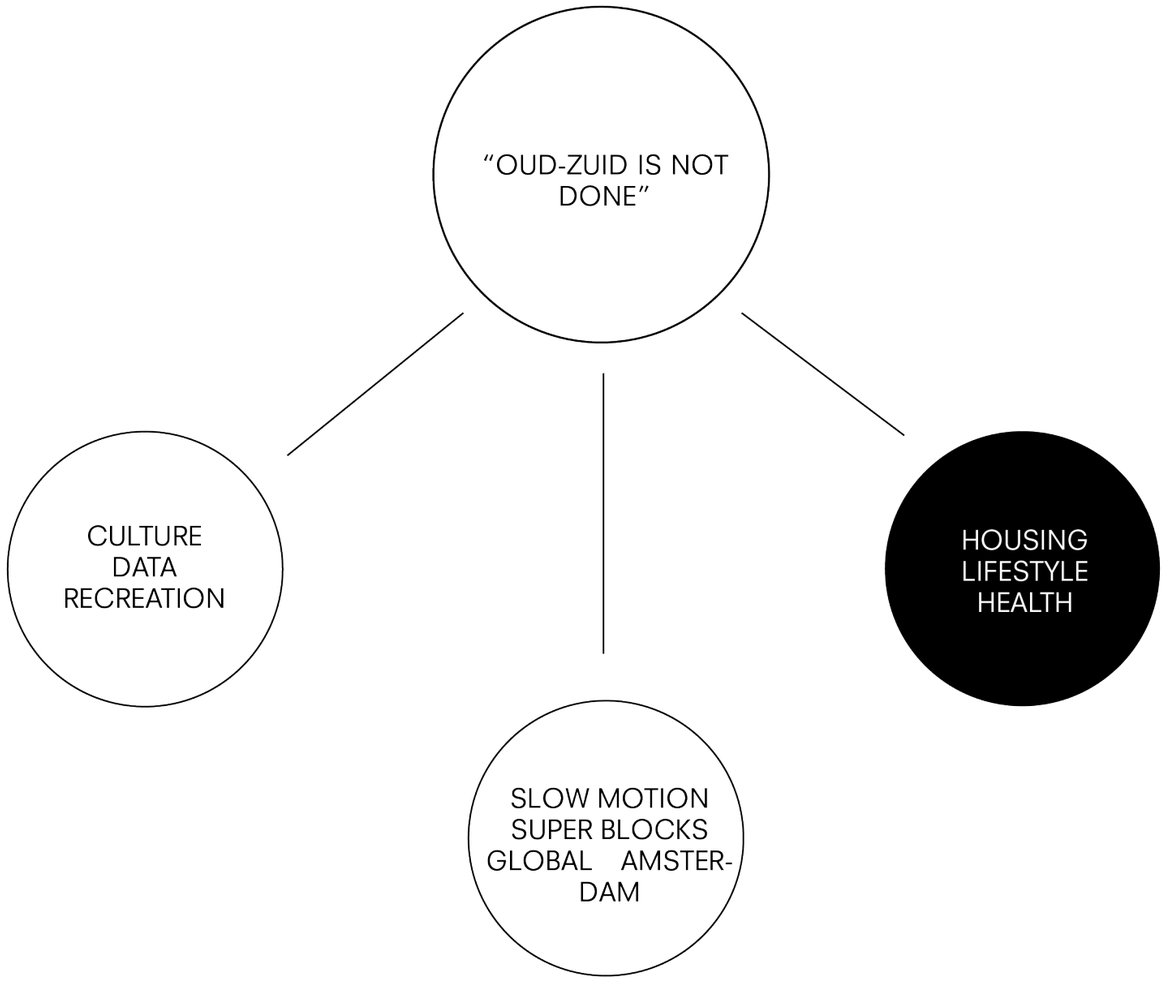
GROUP STRATEGY



GROUP STRATEGY



GROUP STRATEGY



SOCIAL JUSTICE

FORCEFUL DISPLACEMENT



redistribution - social costs need to be taken into account alongside efficiency

e.g.: a social group is put at a disadvantage compared to other groups for the sake of short-term profit, said demographic is likely to become a source of inefficiency later on

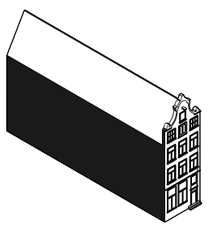
(Harvey, D., 1998)

Can the process of increasing socio-spatial segregation be reduced through **a new collective and collaborative housing typology** that shifts the power relationships between the elites and lower middle-class people towards a **more equitable** arrangement?

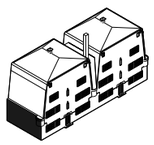
II. Concept/Brief

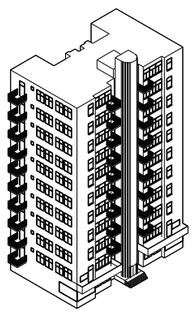
~~SOCIAL HOUSING~~

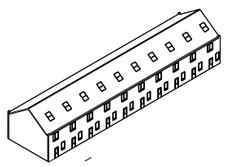
THE HISTORY OF SOCIAL HOUSING

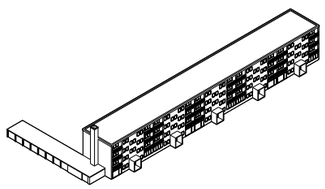


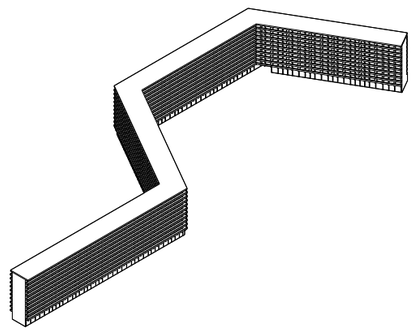












1700s



1800s



1920s-1930s



1930s



1950s



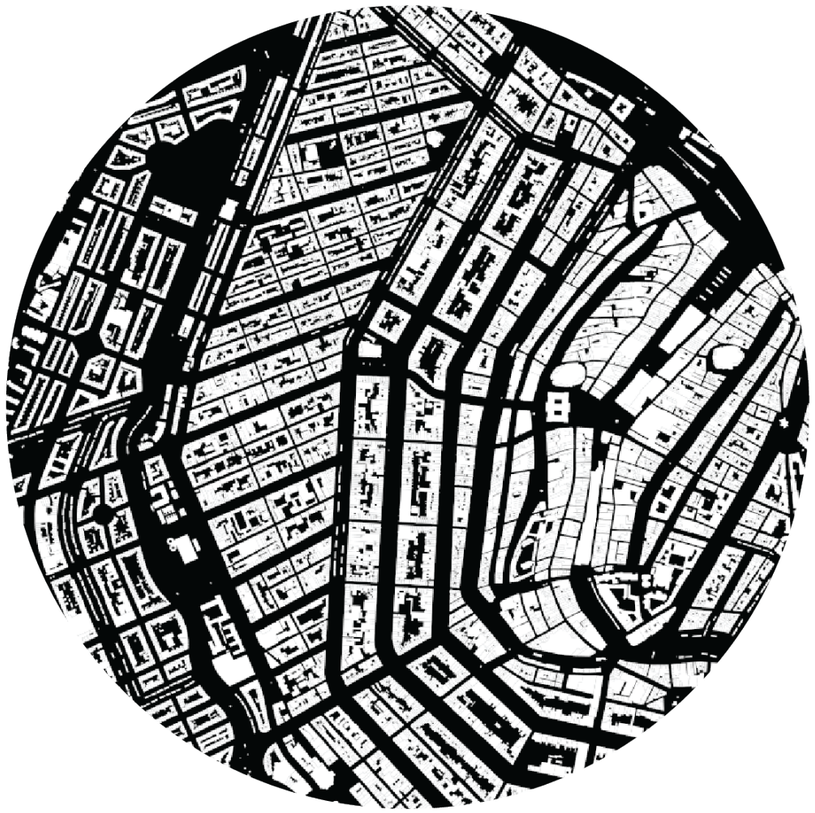
1960s-1970s



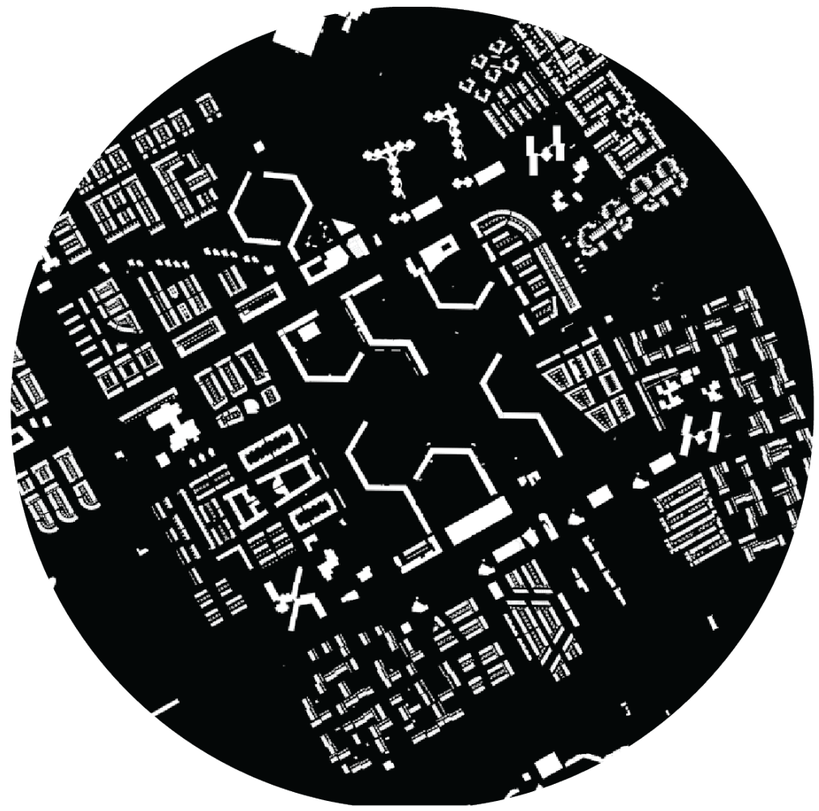
2000s

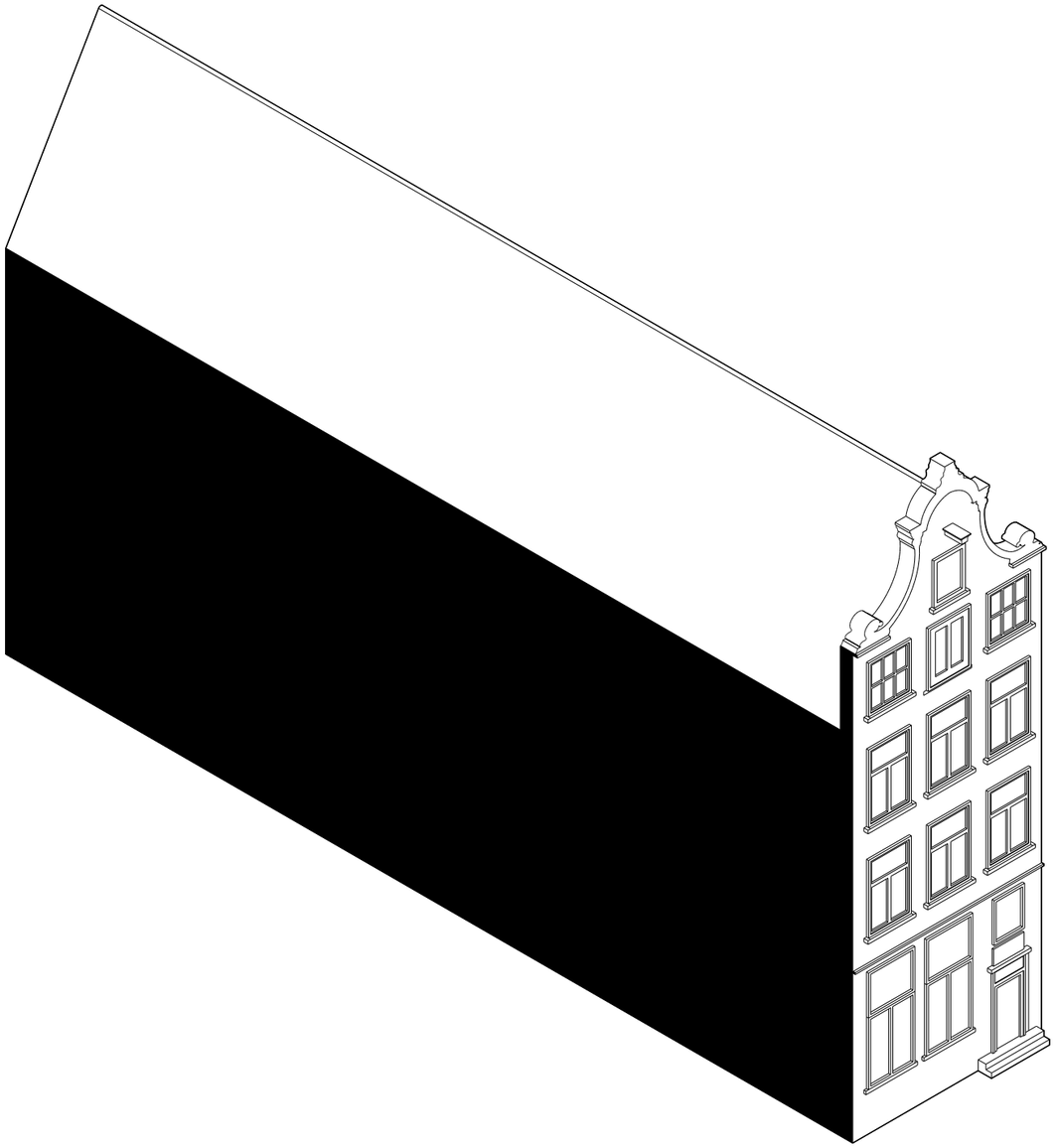


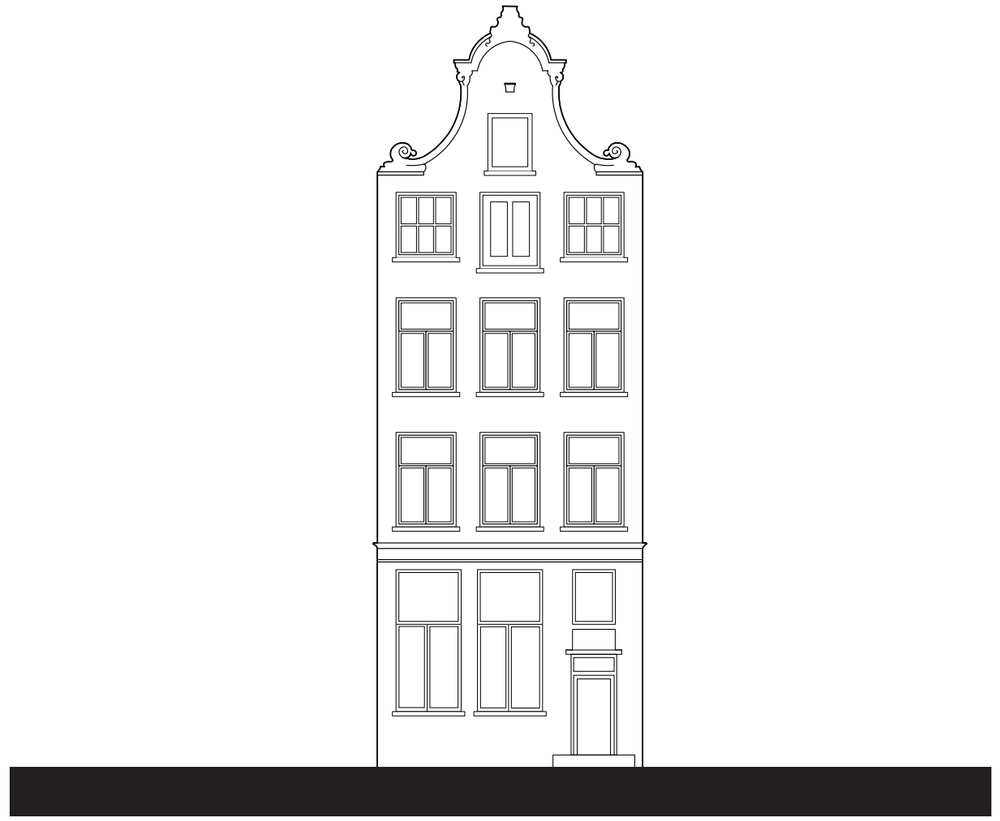
1700s
MIXED DEMOGRAPHIC

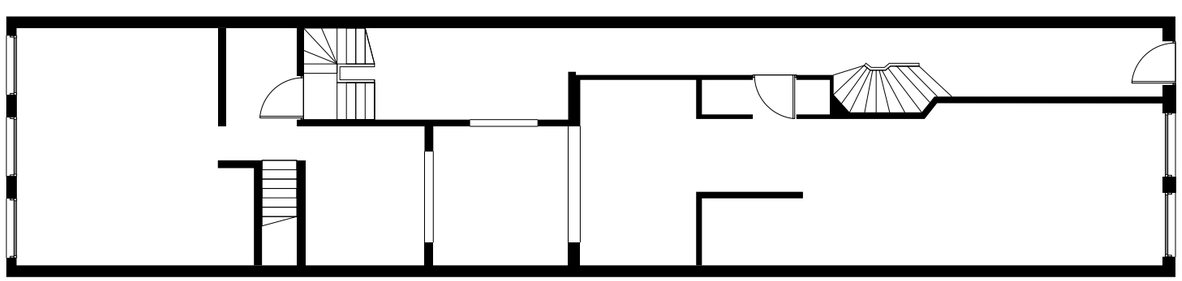


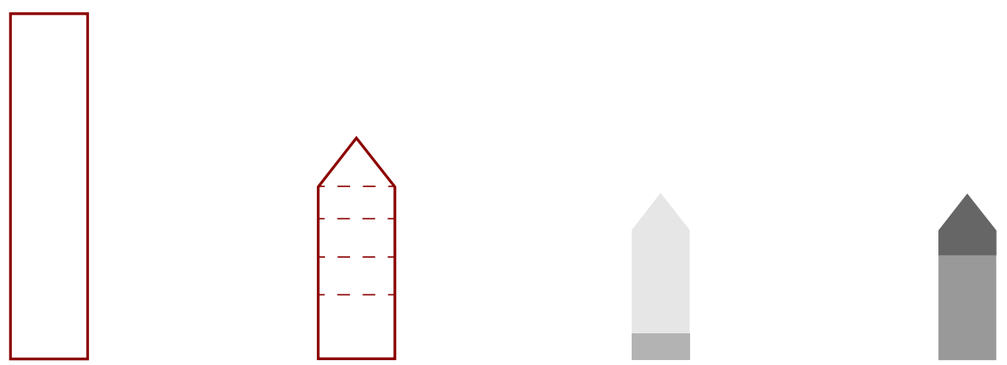
1920s - 2010s
SINGULAR DEMOGRAPHIC

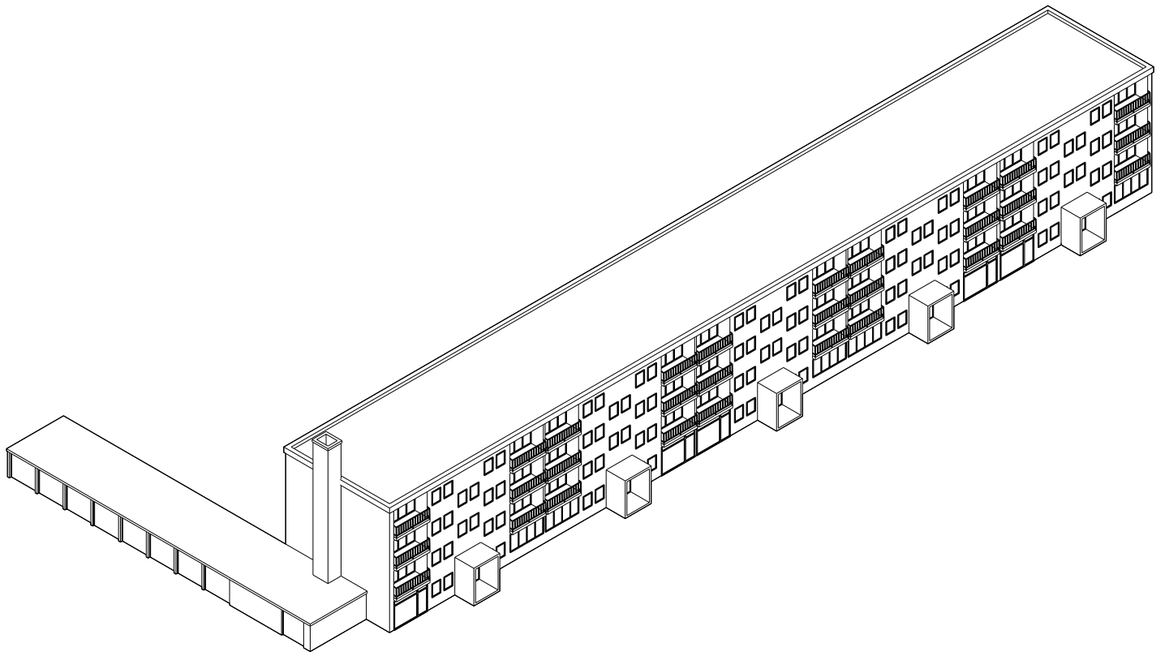




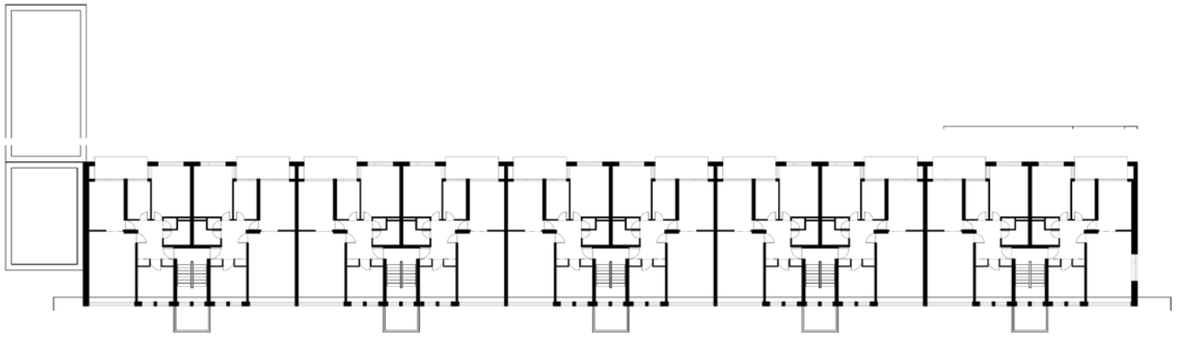





deep plan
vertical facade
dwelling/services
elite+working class





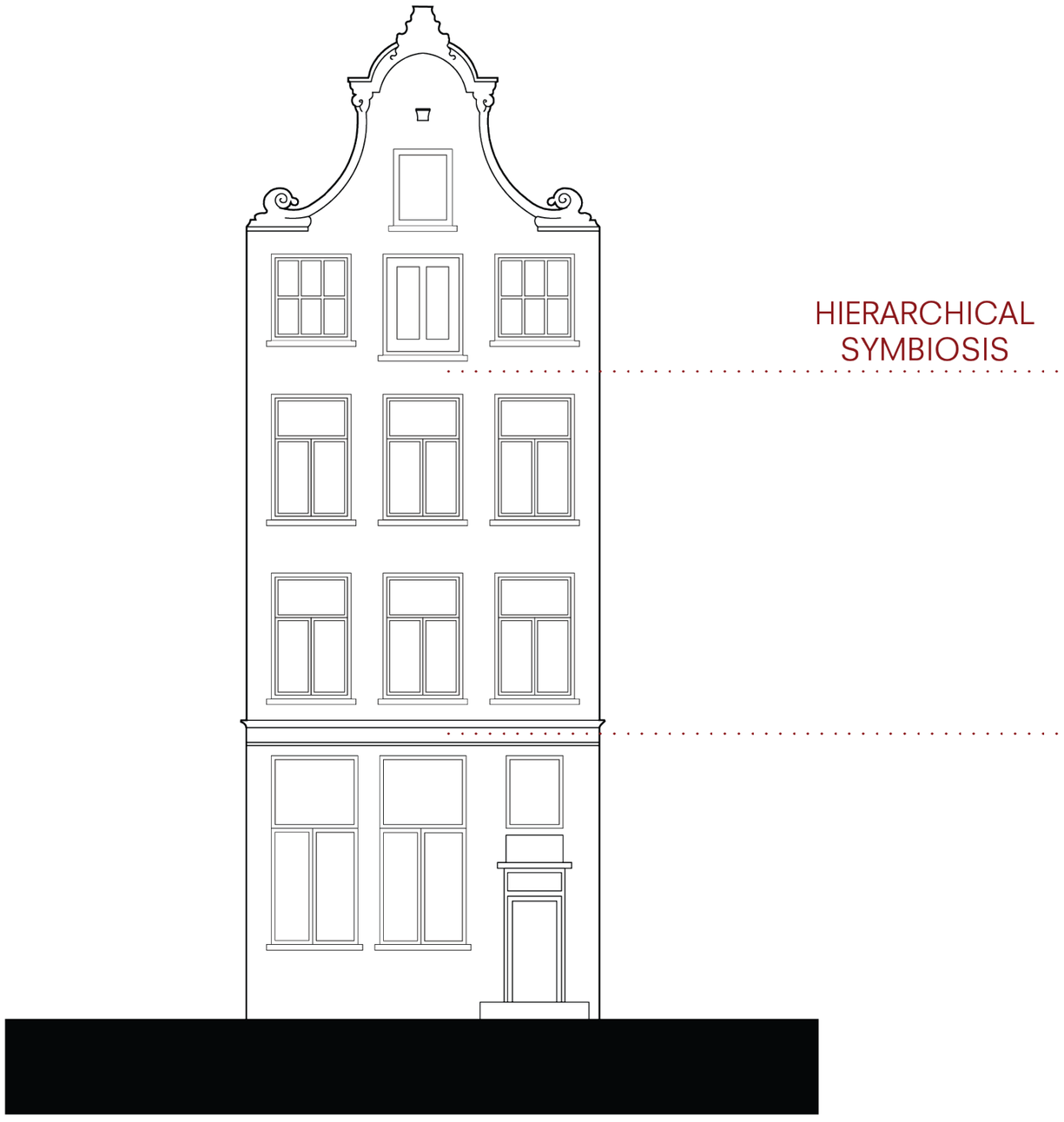


horizontal overall plan

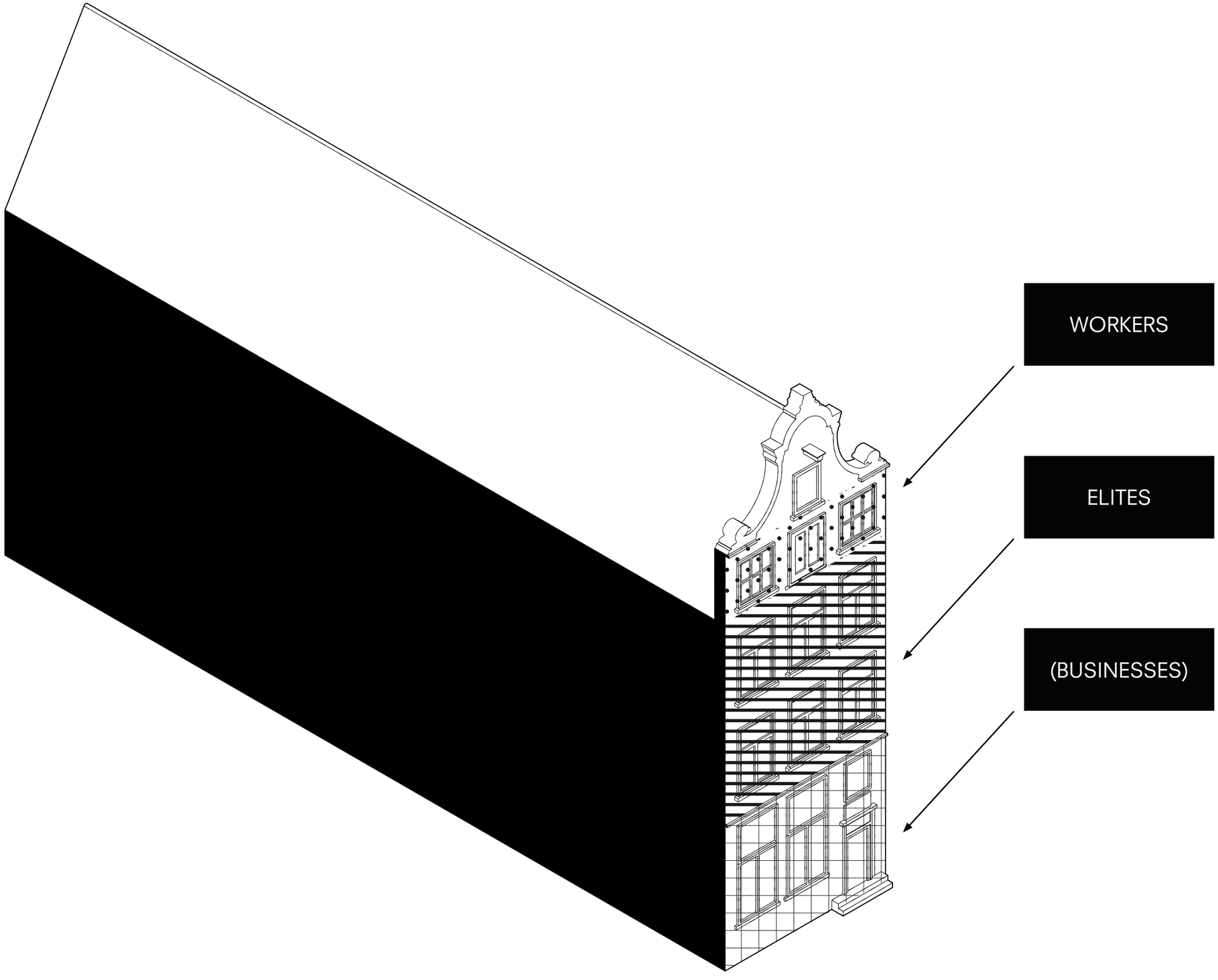
dwelling

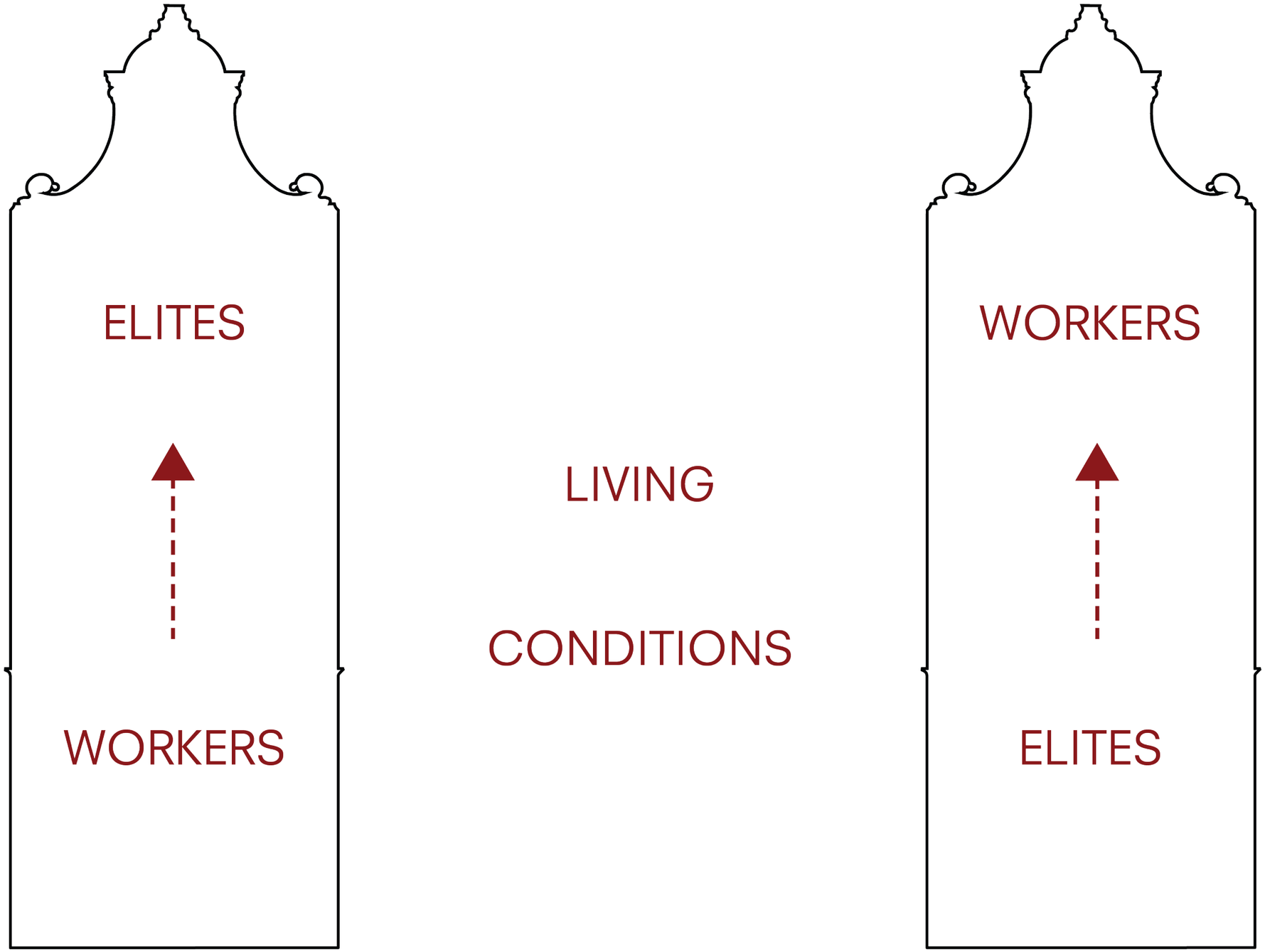
horizontal facade

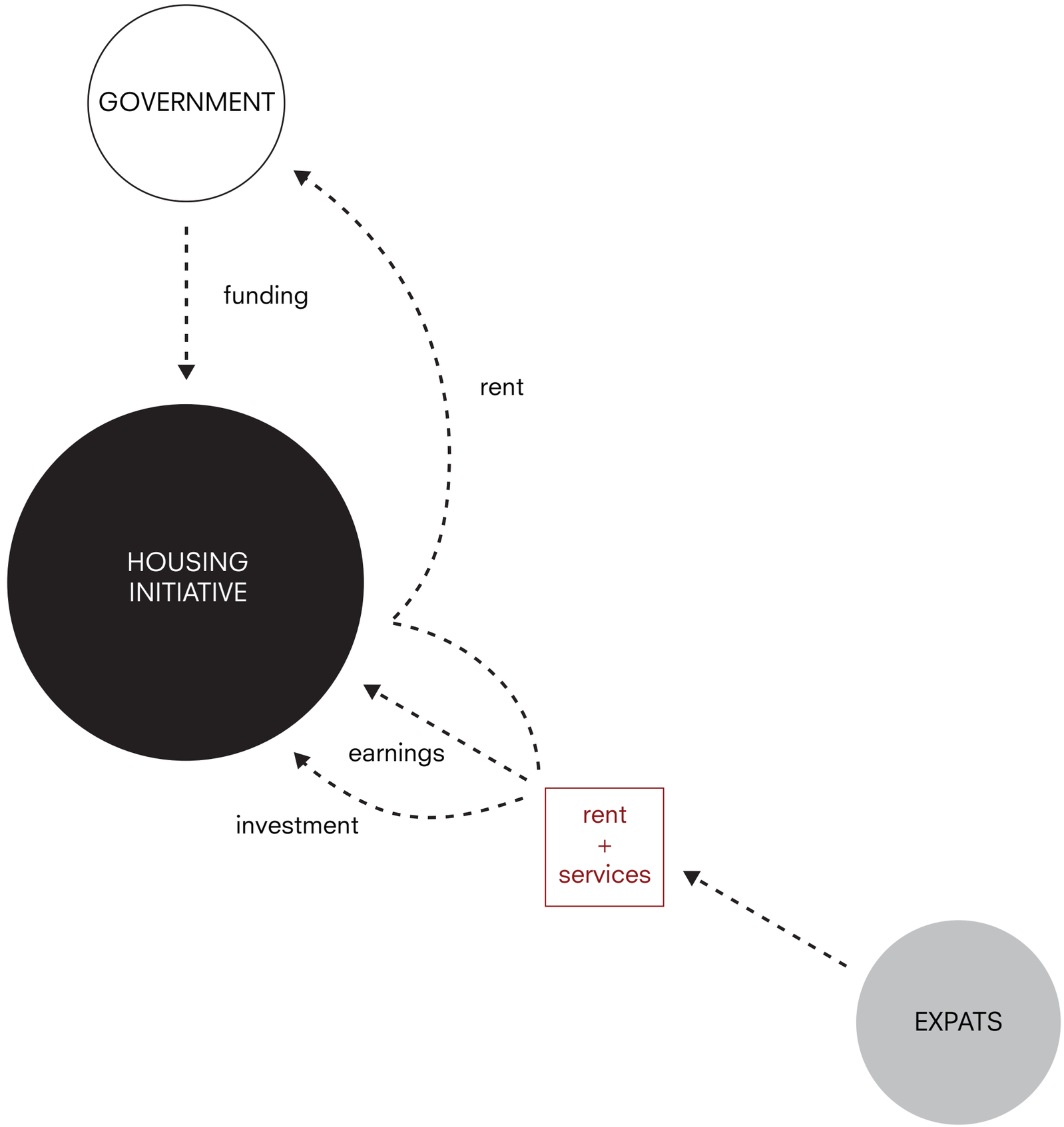
working class



HIERARCHICAL
SYMBIOSIS

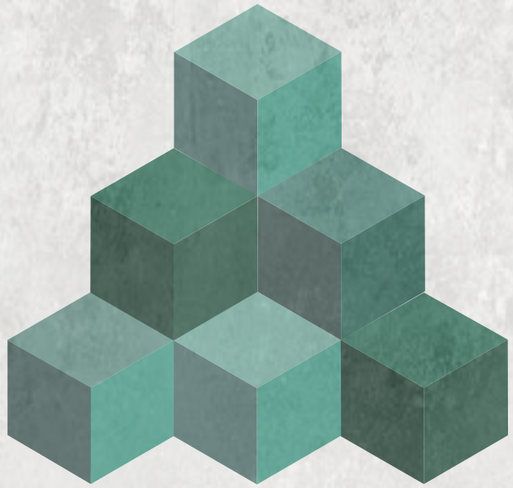

WORKERS
ELITES
(BUSINESSES)


ELITES
WORKERS
LIVING
CONDITIONS
WORKERS
ELITES
1700s
new


GOVERNMENT
funding
rent
HOUSING
INITIATIVE
earnings
investment
rent
+
services
EXPATS

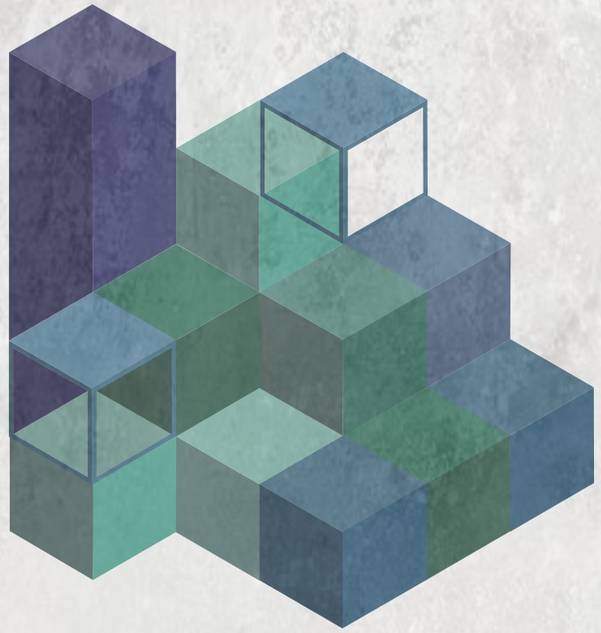
CORE = PERMANENT DWELLINGS

lower middle-class



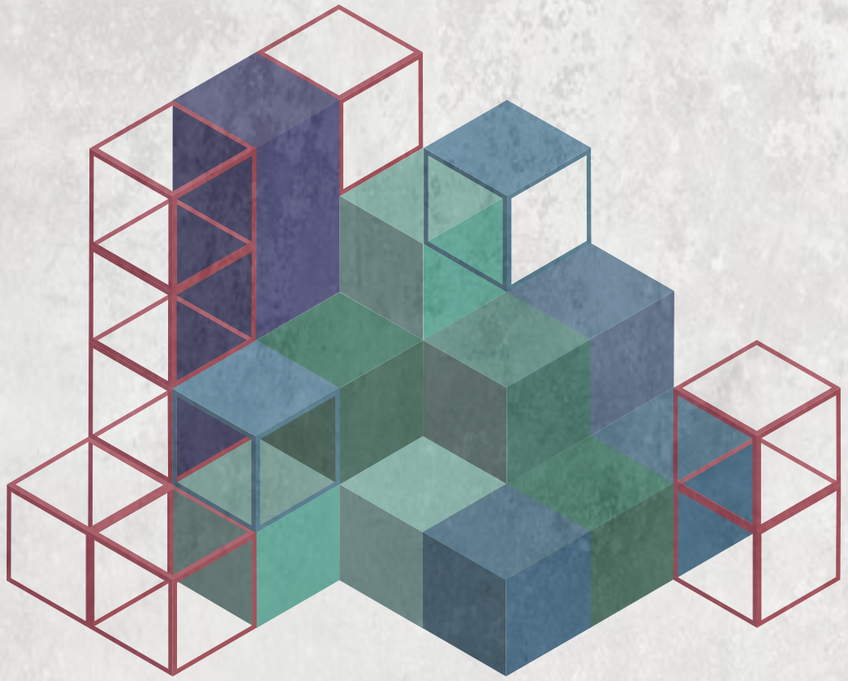
AMENITIES + SERVICES

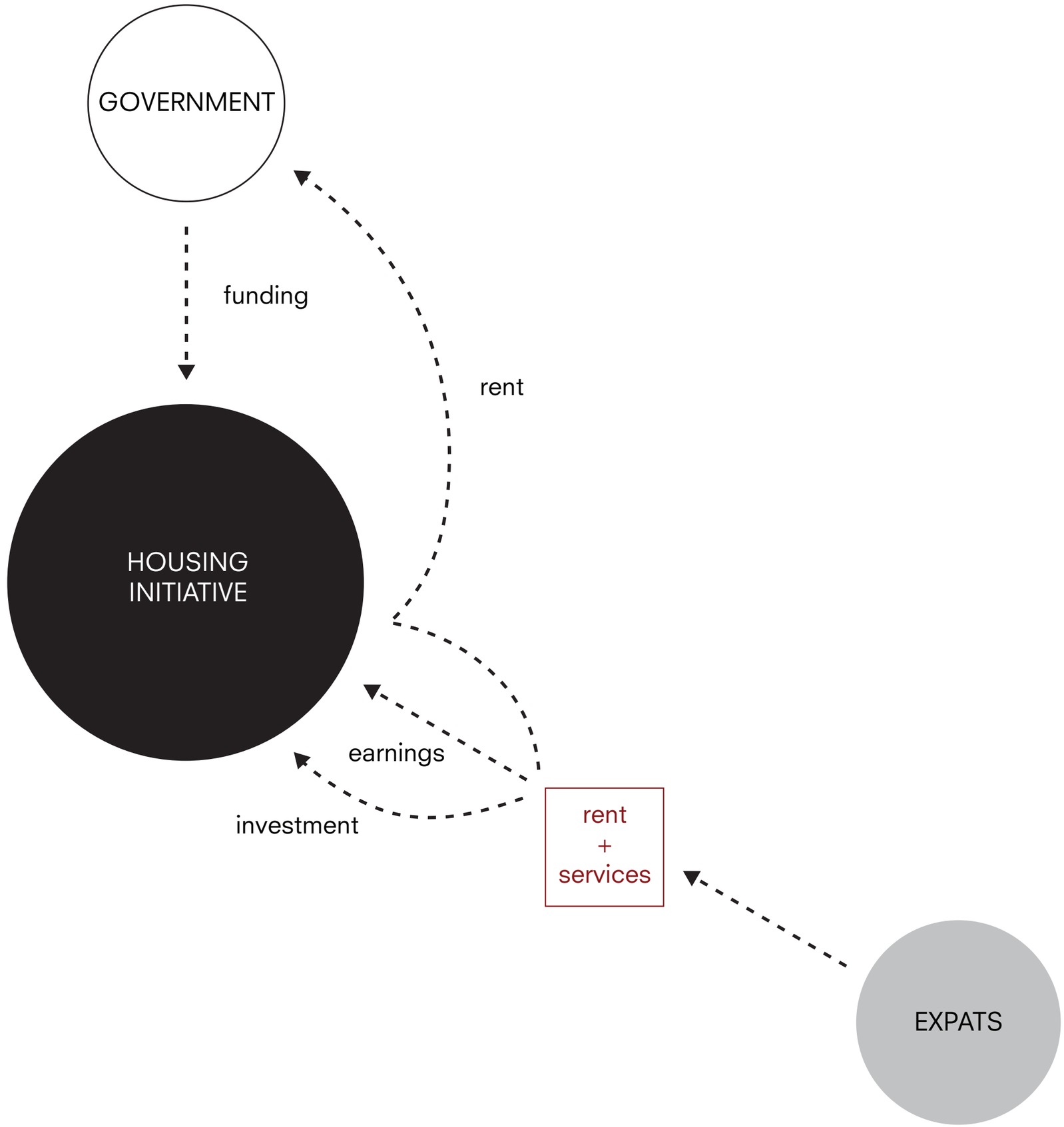
residents + neighbourhood

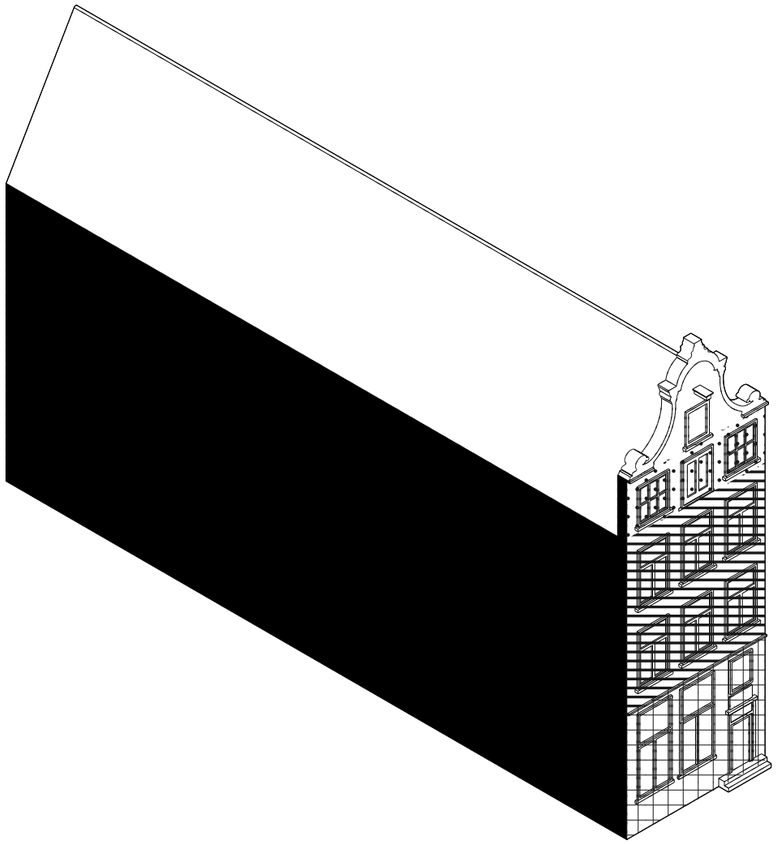


TEMPORARY DWELLINGS

expats



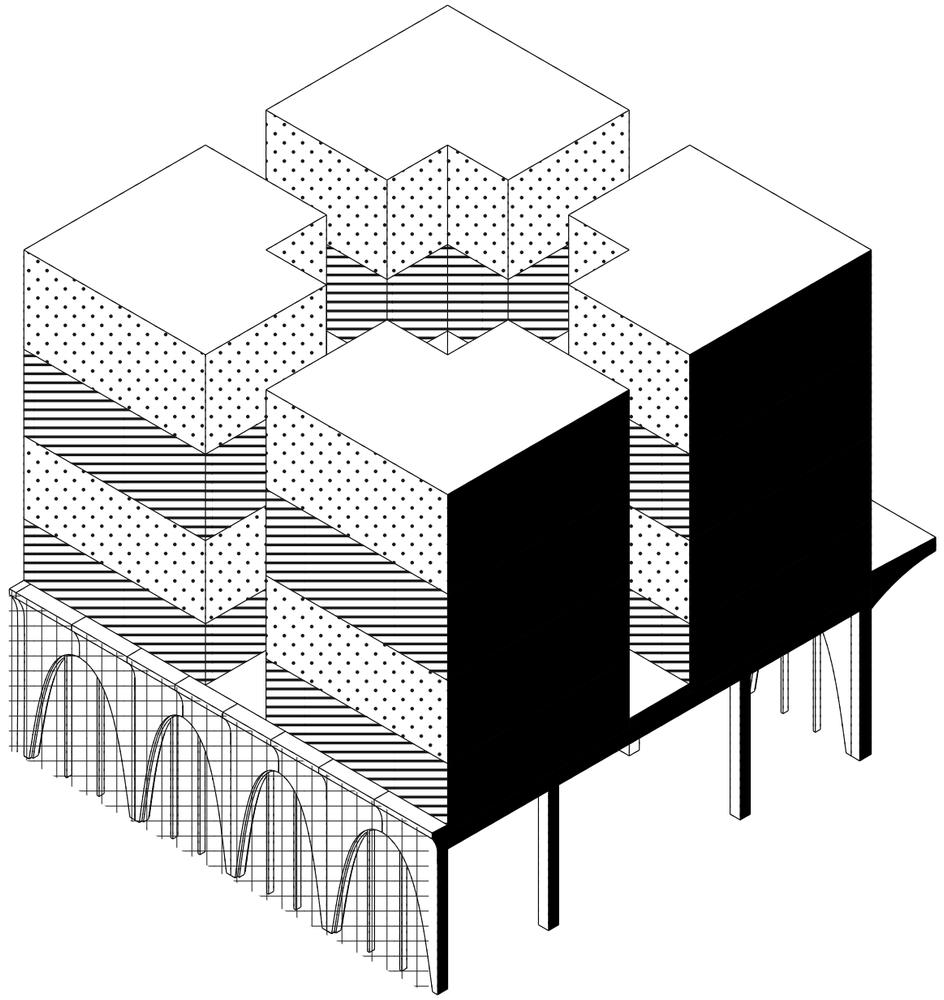

GOVERNMENT
funding
rent
HOUSING
INITIATIVE
earnings
investment
rent
+
services
EXPATS



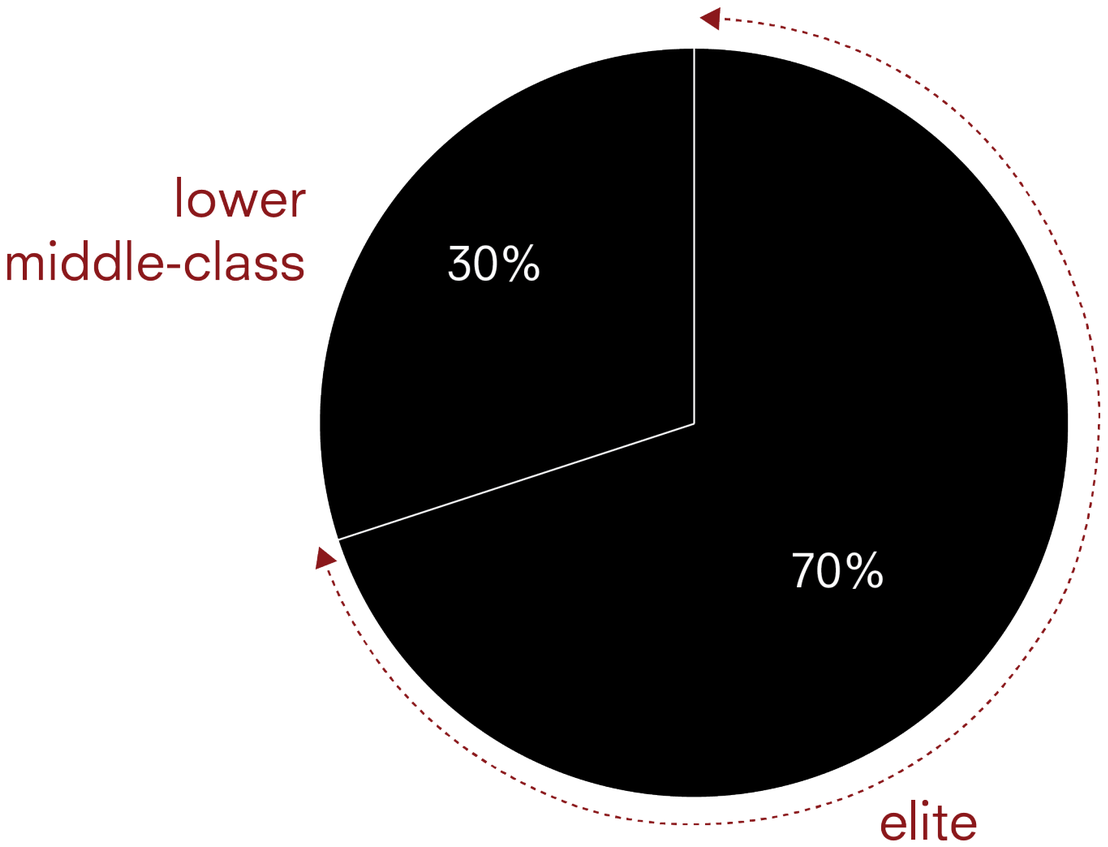
WORKERS

ELITES

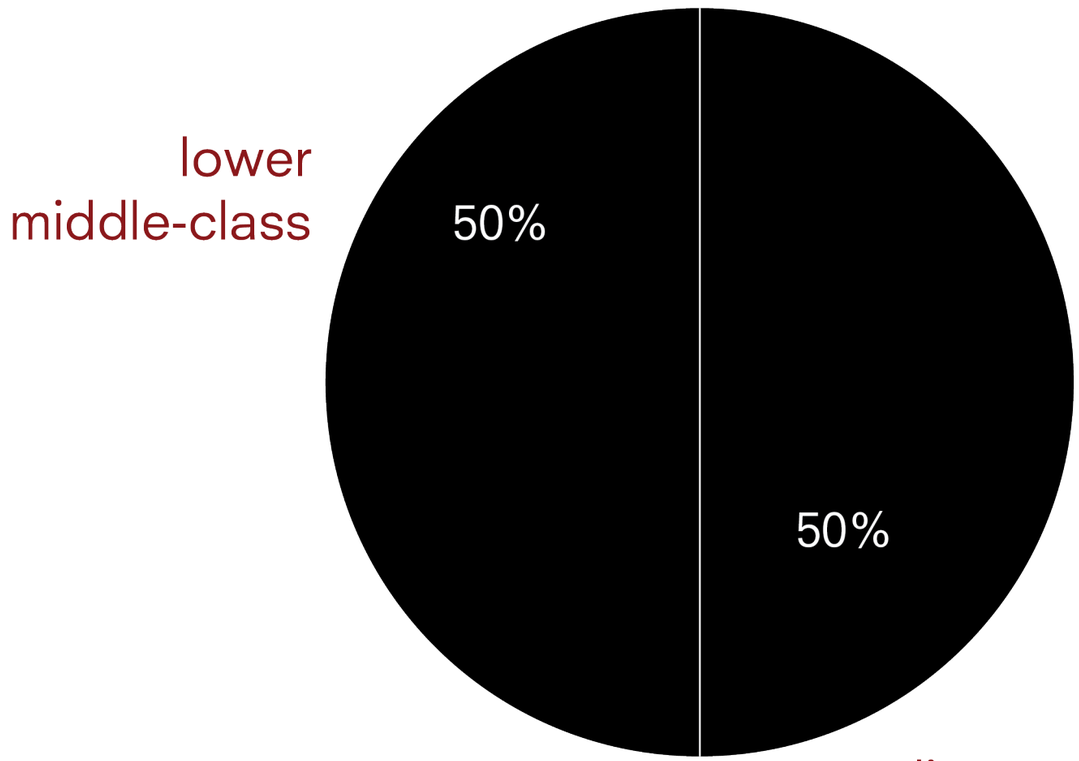
(BUSINESSES)



ECONOMICALLY ADVANTAGEOUS



SOCIALLY ADVANTAGEOUS



Source: Elliot Aronson, The Social Animal (11th Edition)

DECREASED INGROUP/OUTGROUP EFFECT

ENCOURAGED COLLABORATION

ENABLES EXPOSURE AND TRUST

GREATER POSITIVE ATTITUDES

INCREASED EMPATHY

DENSITY



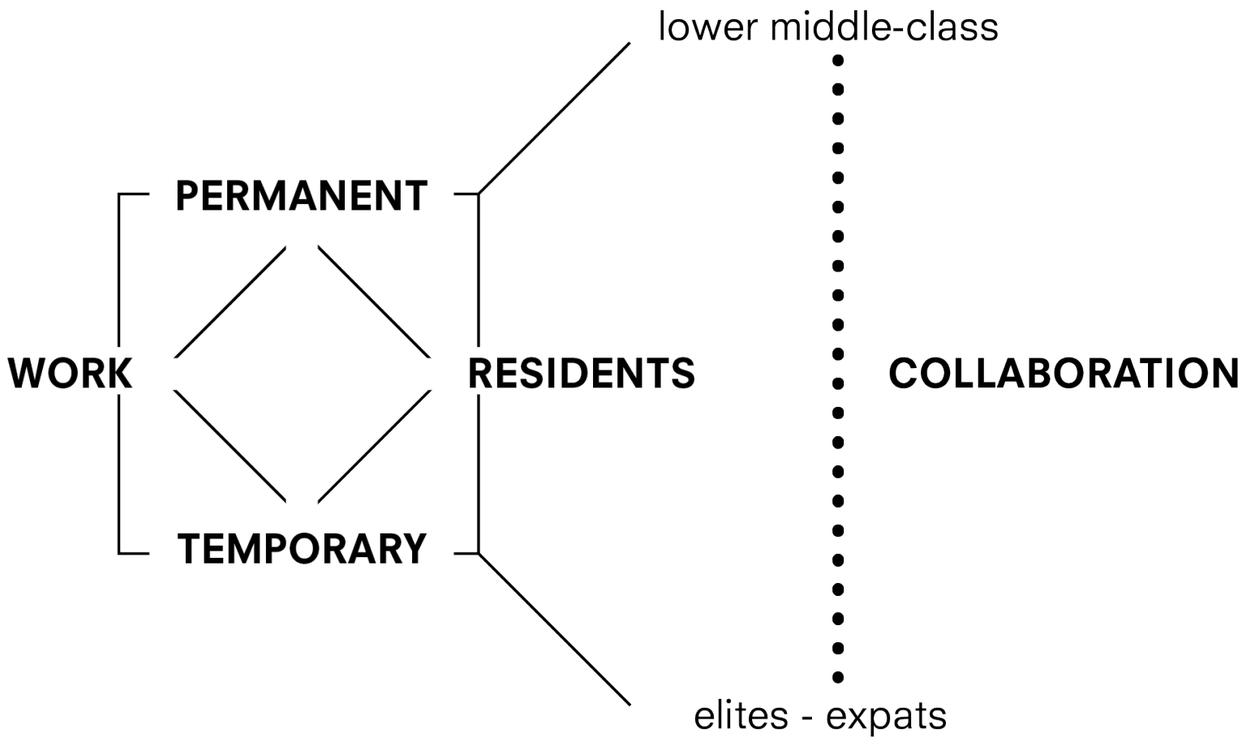
Location Plan



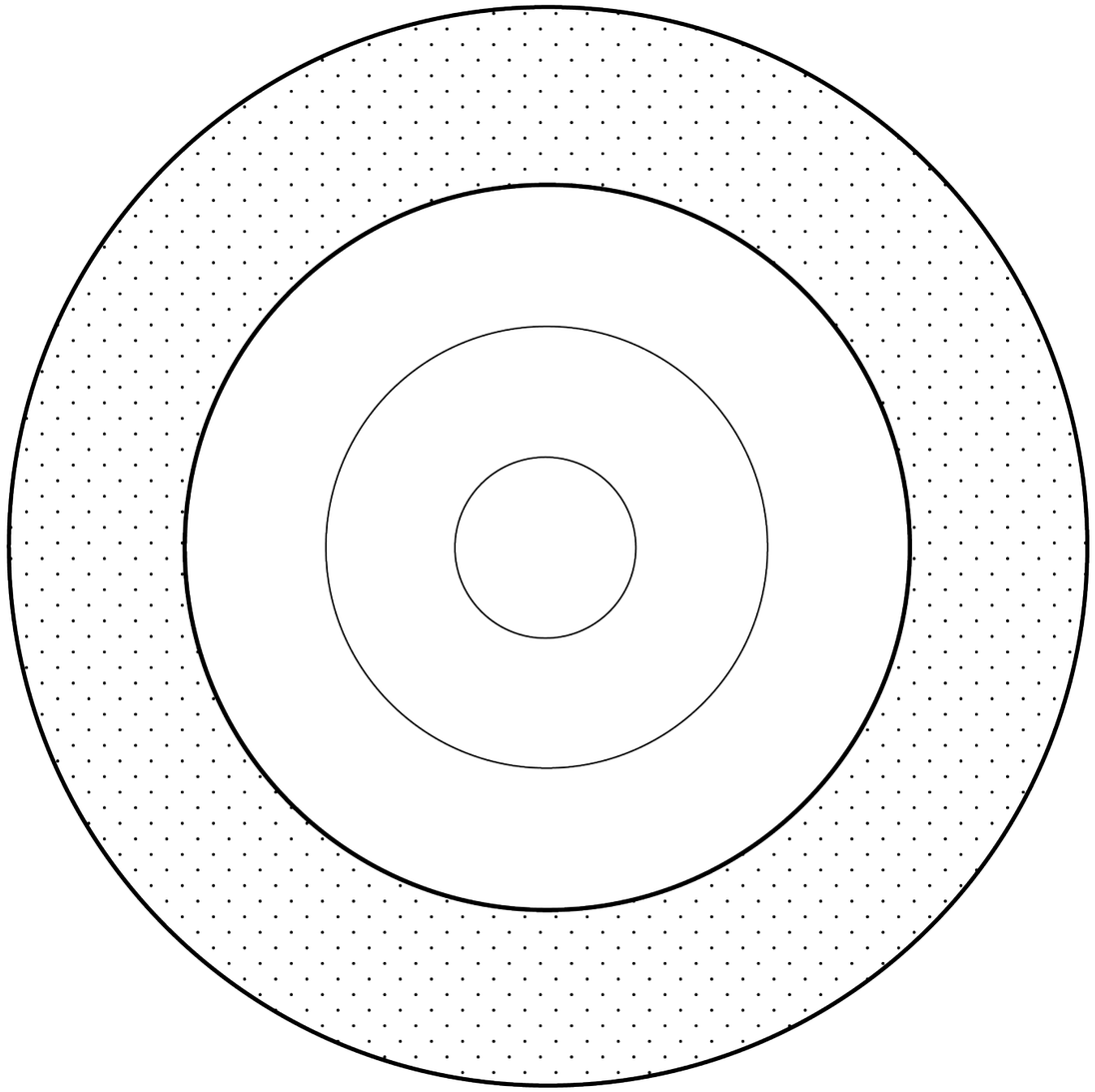
GFA: 3958 m^2

GIA: 3250 m^2

FAR: 0.8

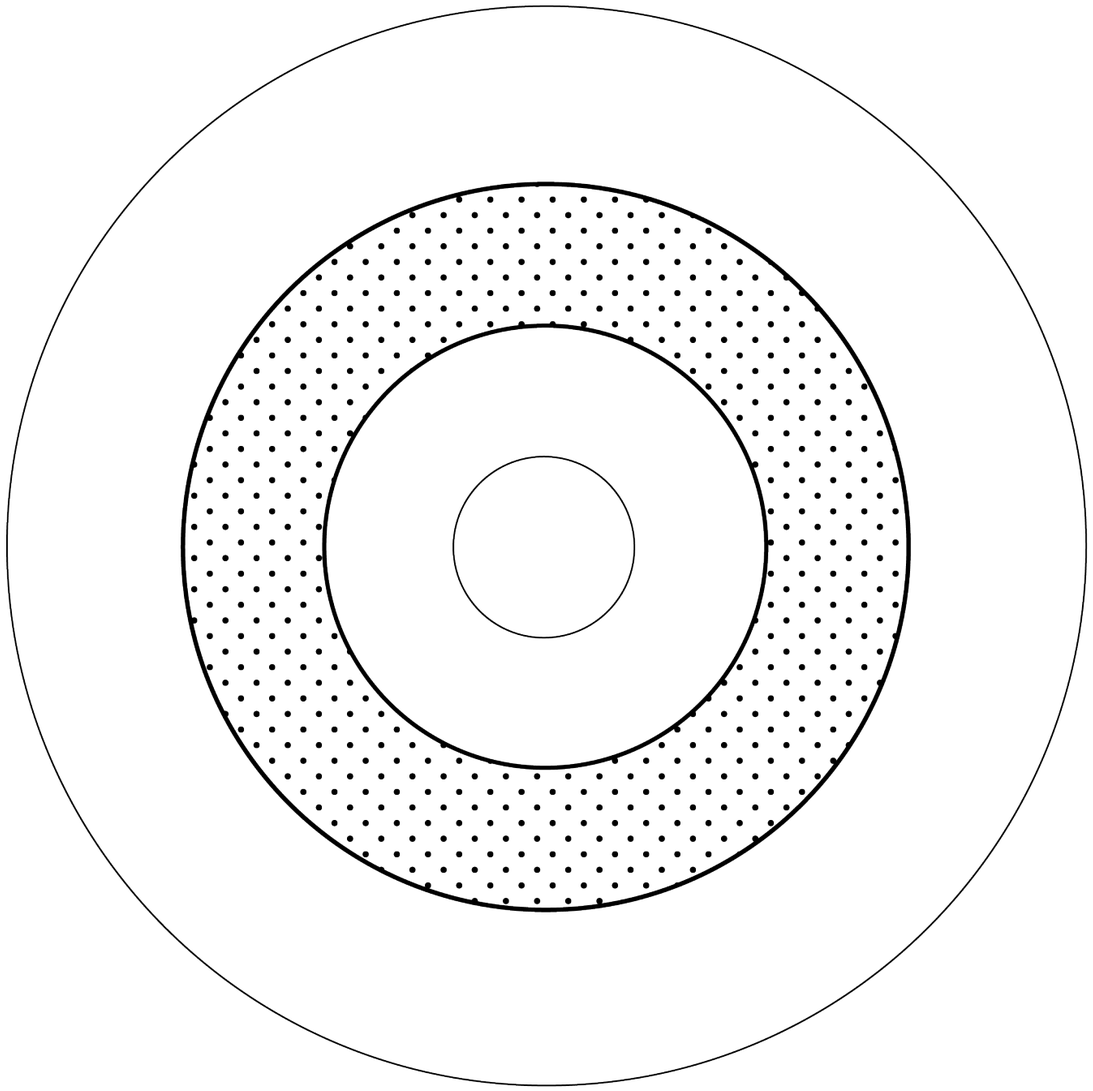

lower middle-class
PERMANENT
WORK
RESIDENTS
COLLABORATION
TEMPORARY
elites - expats

NATURAL COMMUNITY SIZES

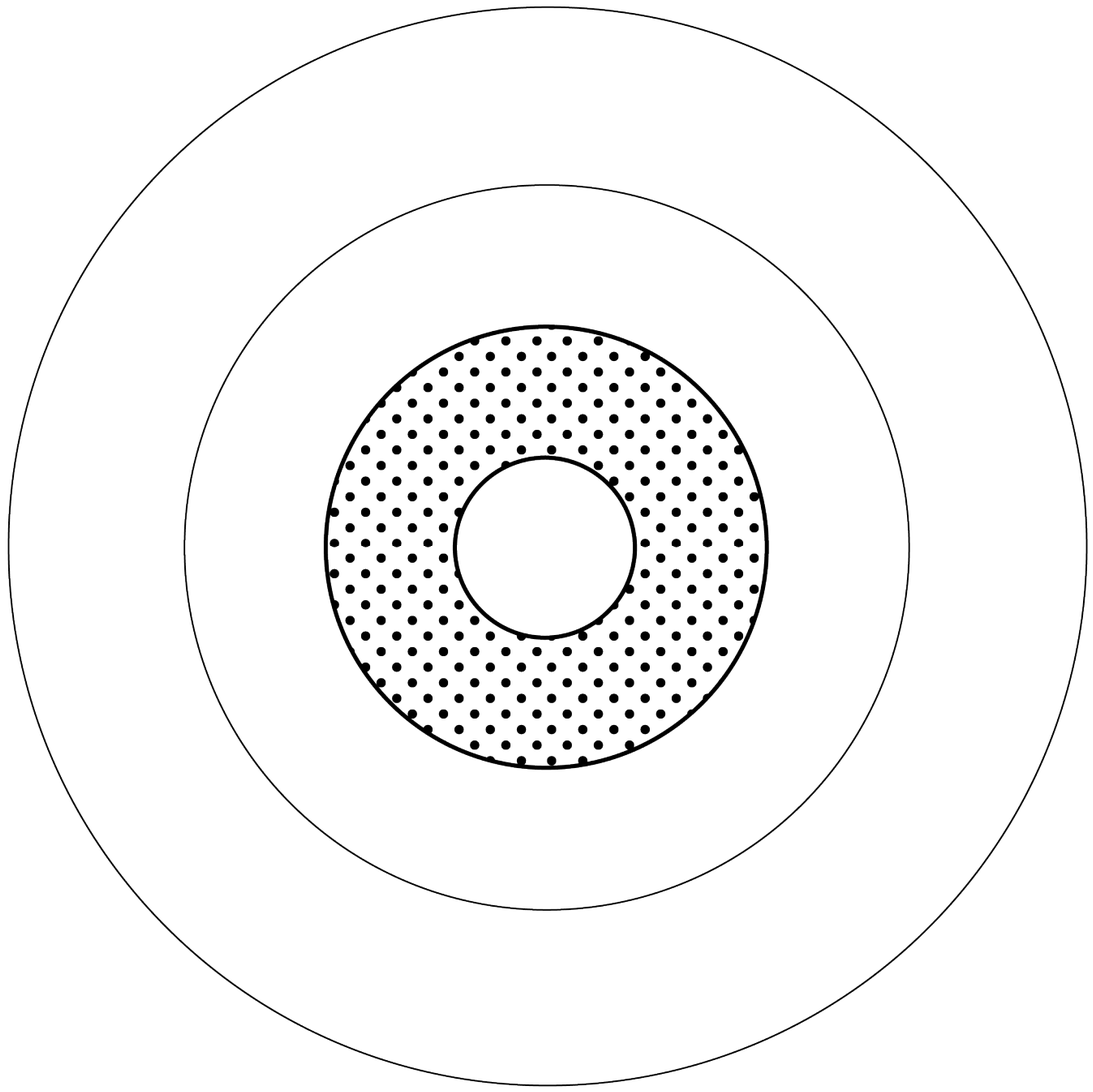


TRIBES
1727.9 ± 620.6

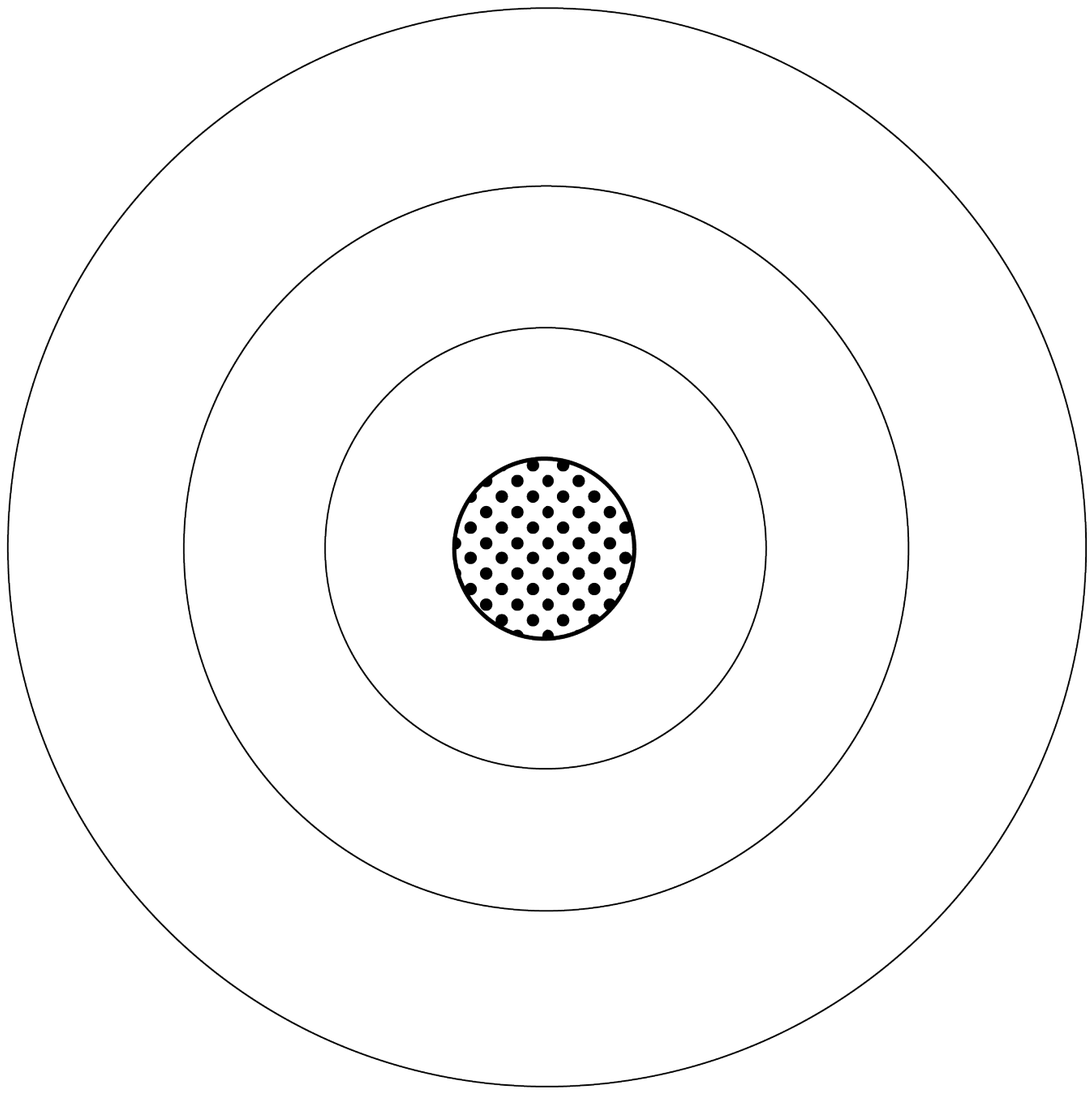
Dunbar, Robin I.M., and Richard Sosis. “Optimising Human Community Sizes.” Evolution and Human Behavior 39.1 (2018): 106–111. PMC. Web. 18 Apr. 2018.



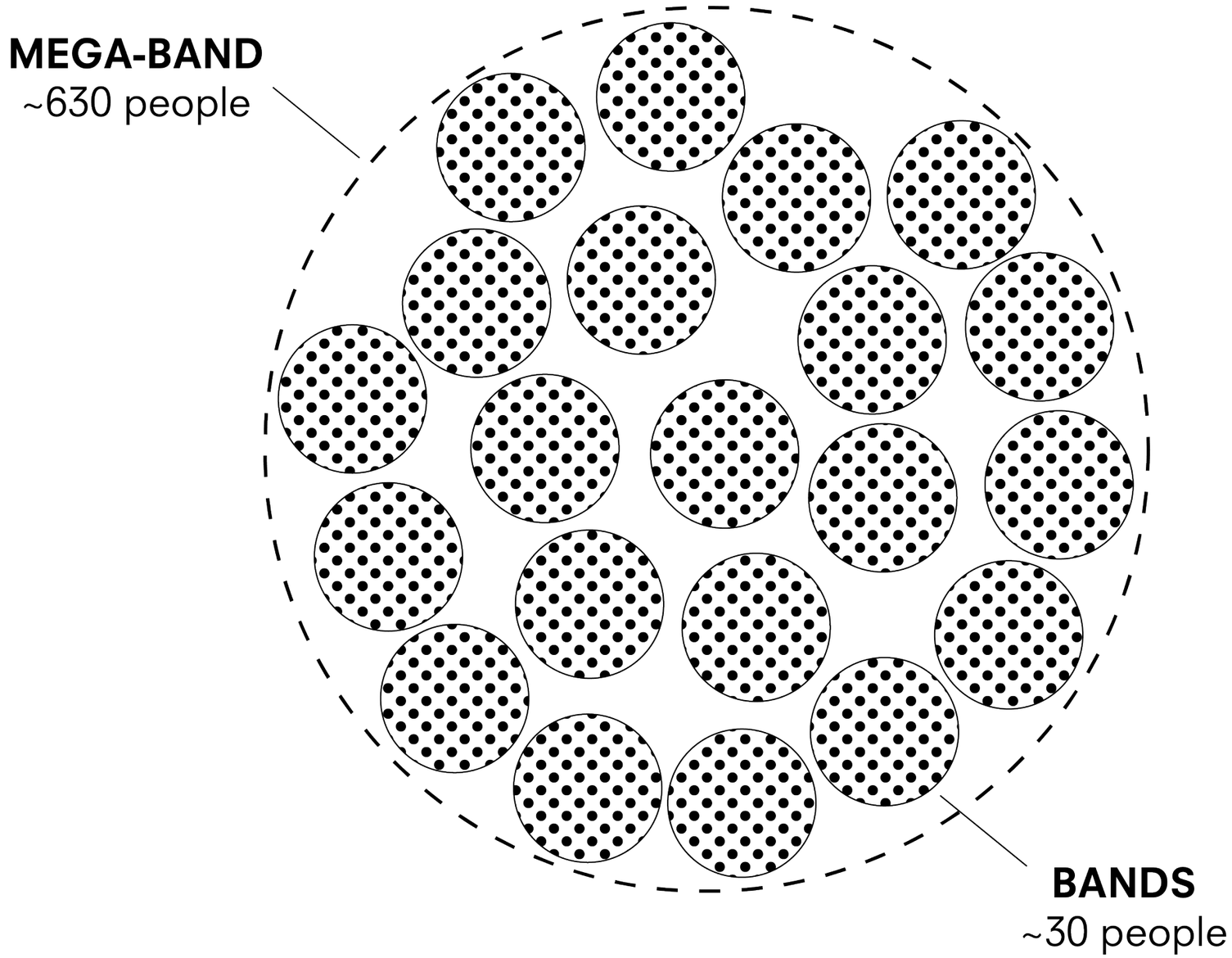
MEGA-BANDS
566.6 ± 166.2

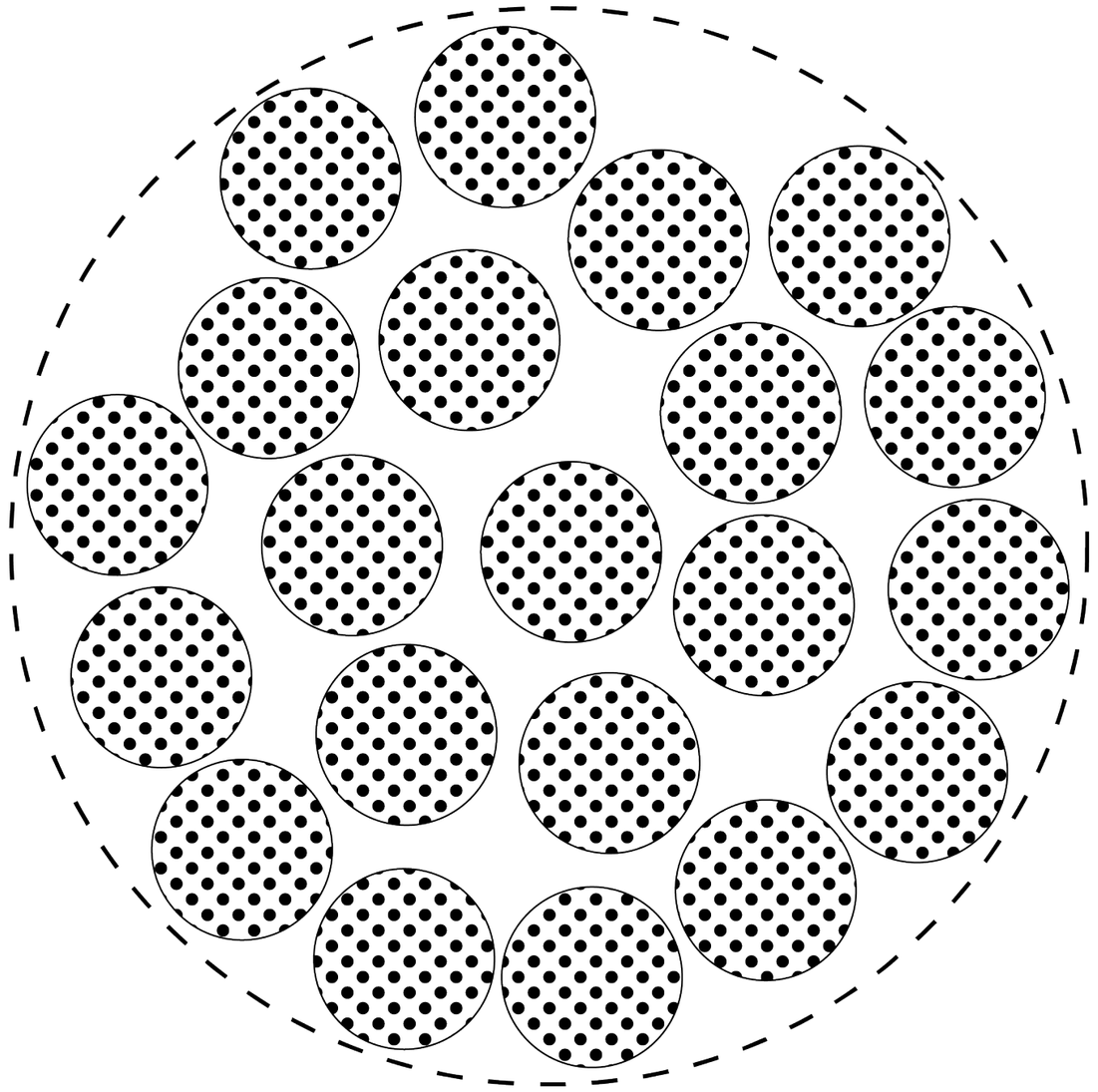


CLANS
127.3 ± 43.8

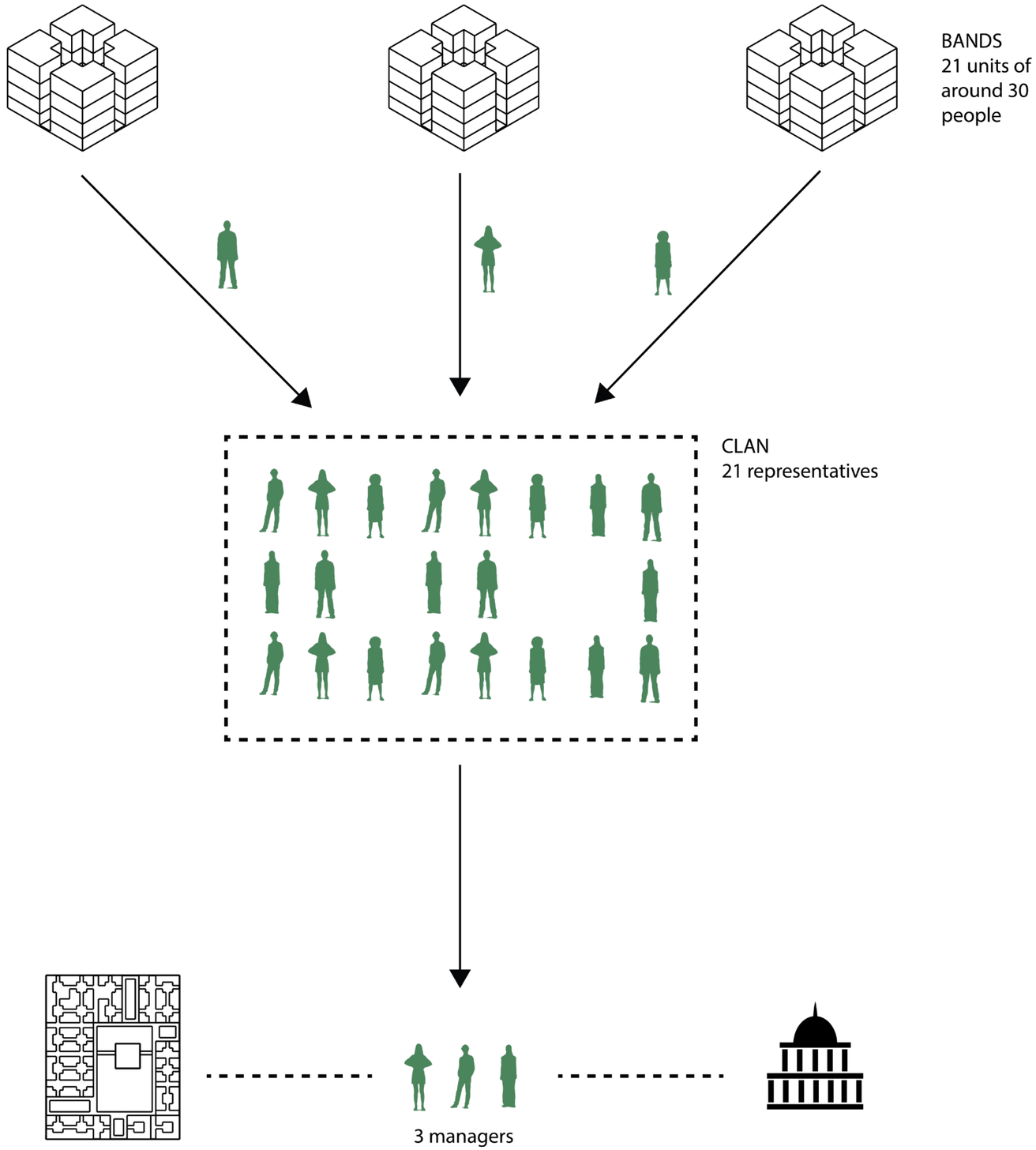


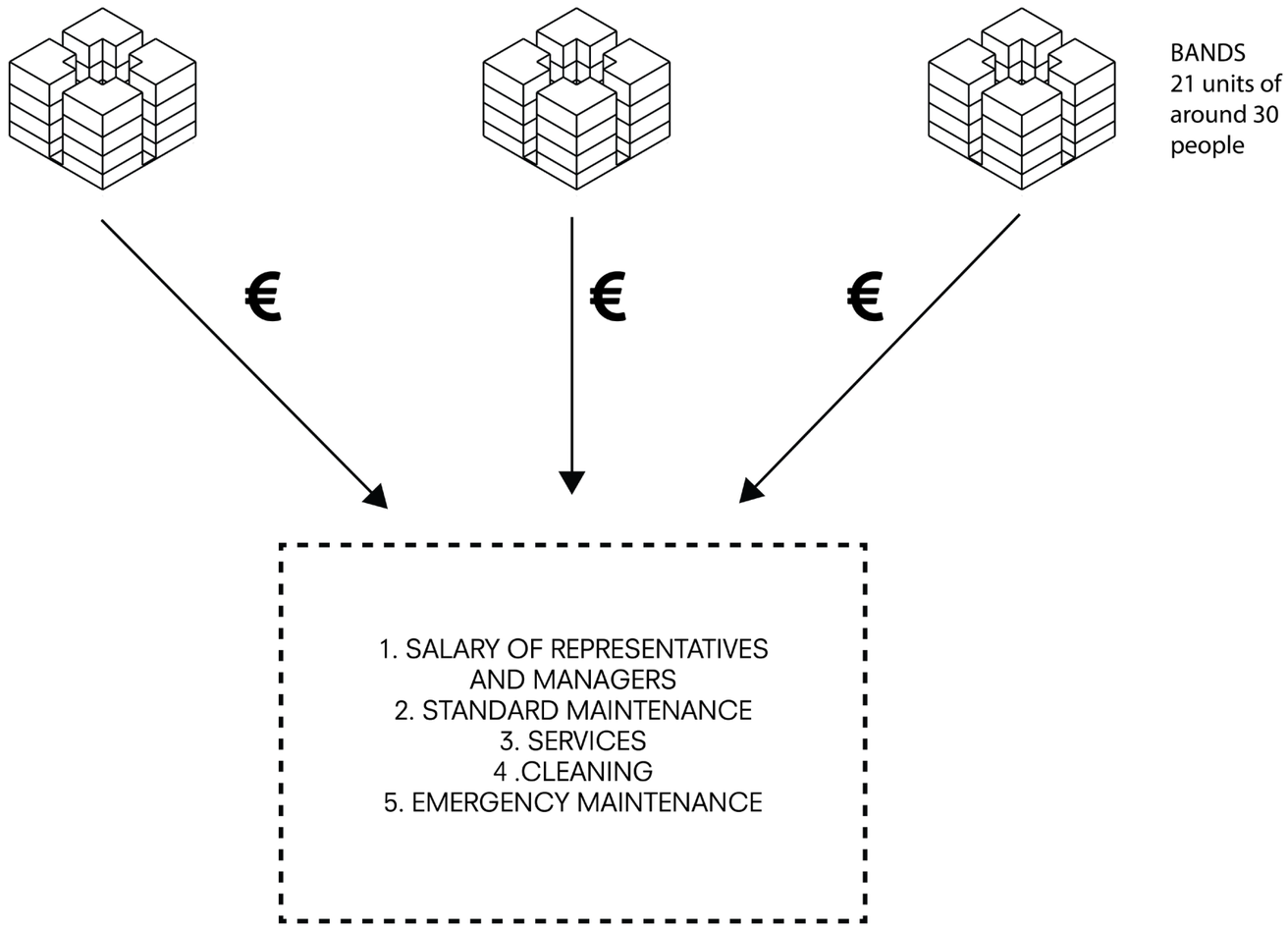
BANDS
42.8 ± 18


MEGA-BAND
~630 people
BANDS
~30 people

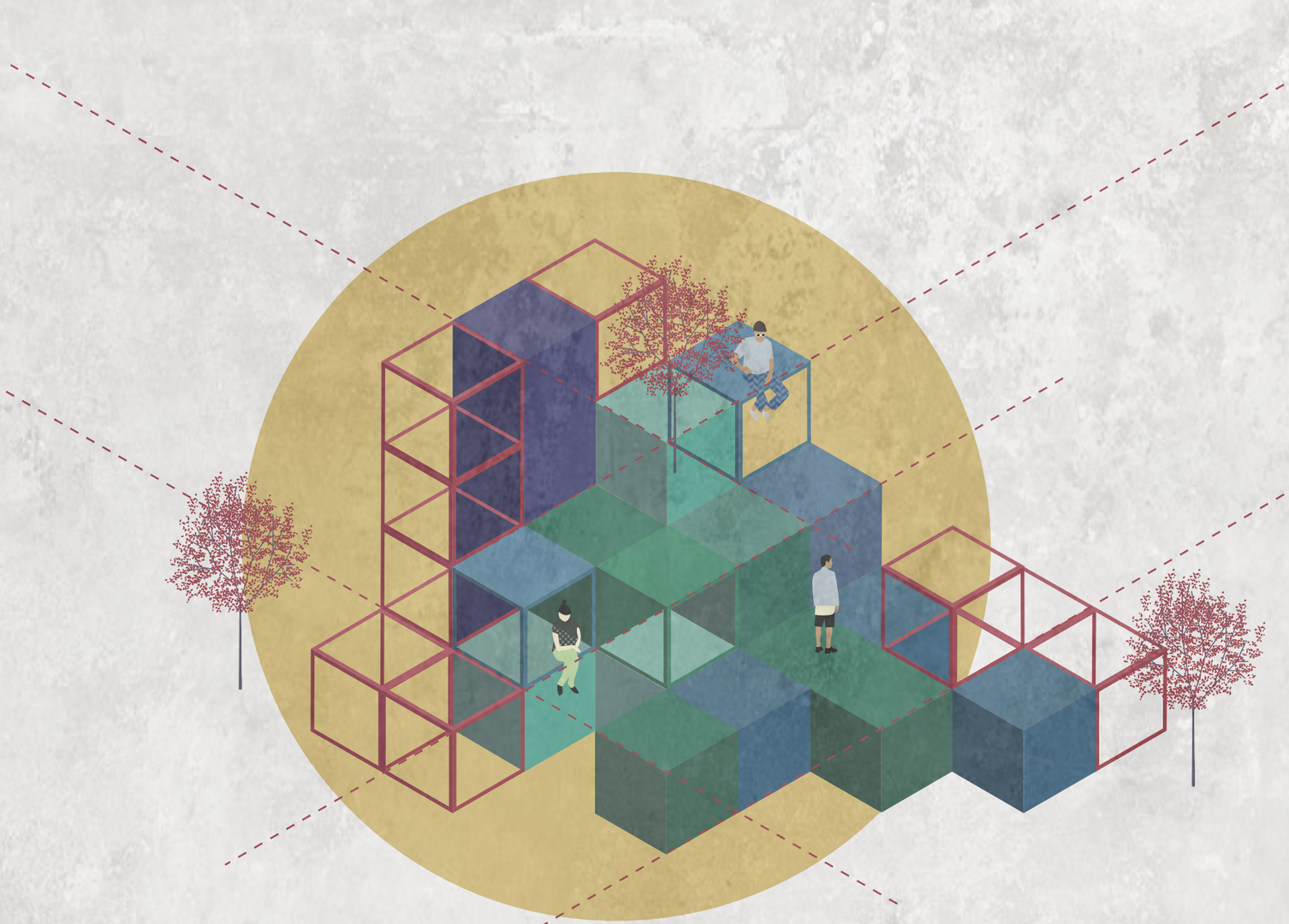


21 BANDS
1 MEGA-BAND


BANDS
21 units of
around 30
people
CLAN
21 representatives
3 managers

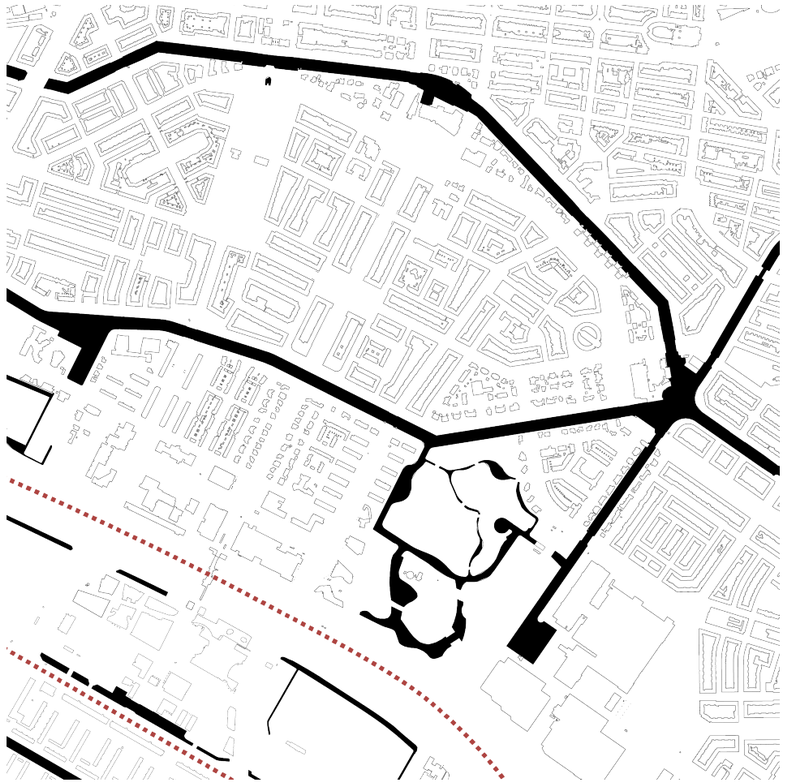

BANDS
21 units of
around 30
people
€
€
€
1. SALARY OF REPRESENTATIVES
AND MANAGERS
2. STANDARD MAINTENANCE
3. SERVICES
4 .CLEANING
5. EMERGENCY MAINTENANCE

FRAMEWORK?

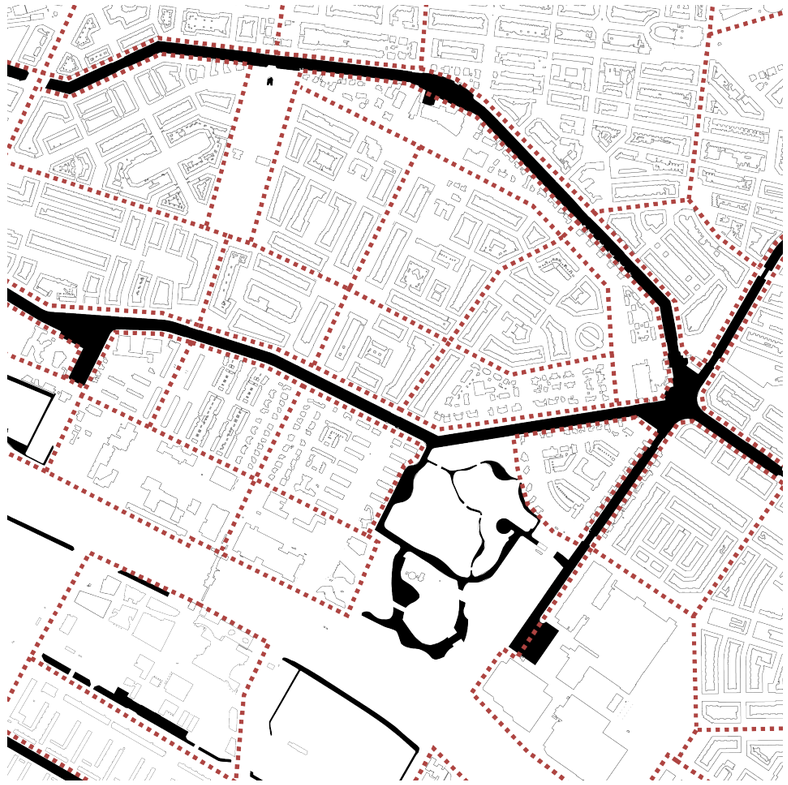


III. Urban Framework

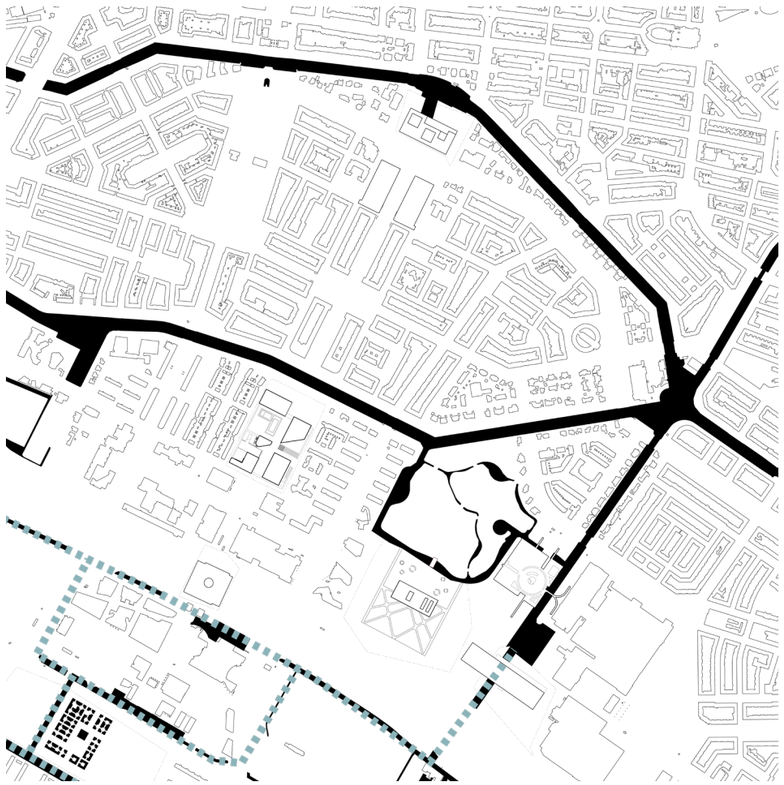
DECREASE BARRIERS



USE BLOCKS + AXES AS ORGANISATIONAL TOOLS



BETTER CONNECT WATER SYSTEMS

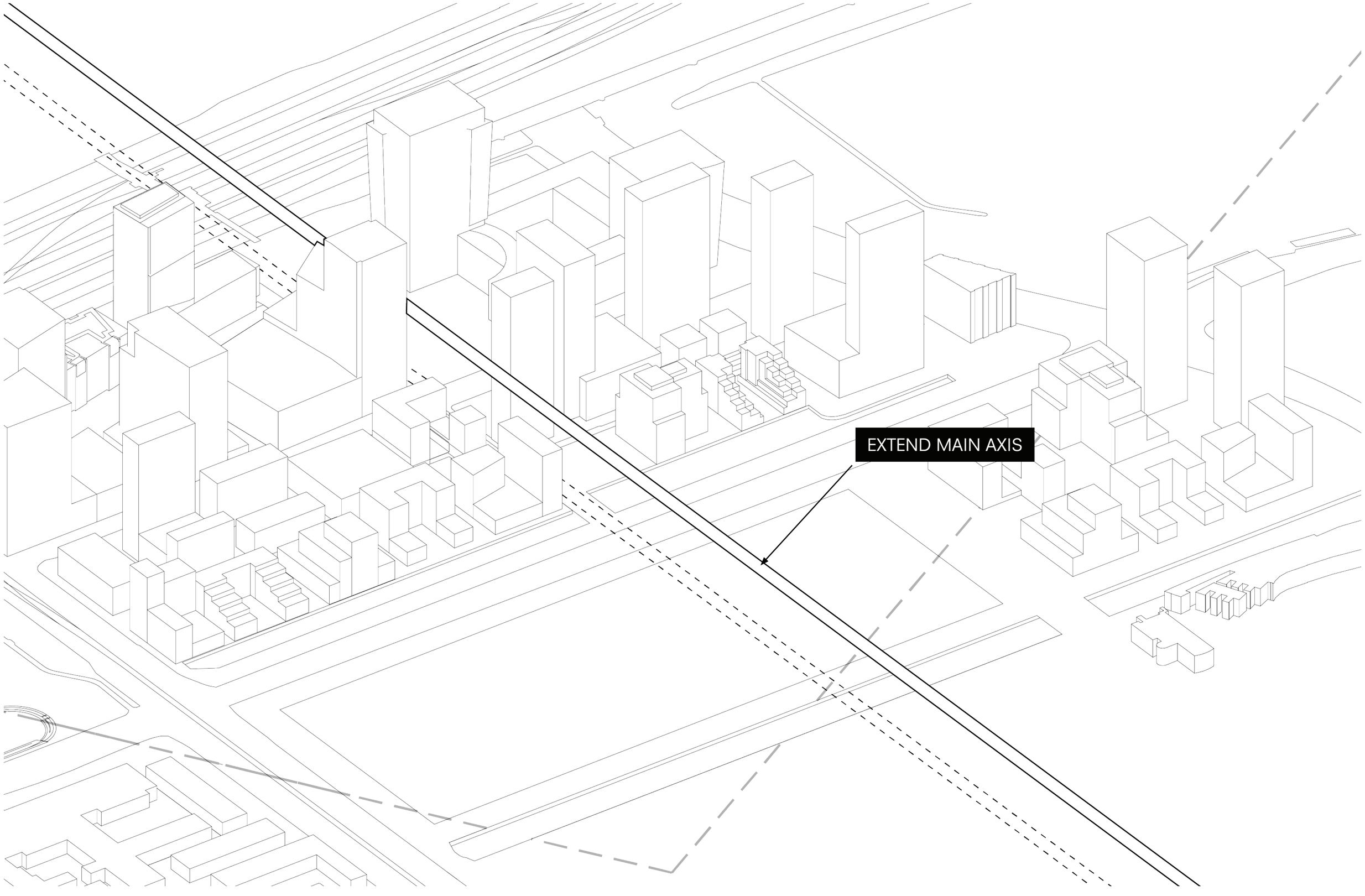


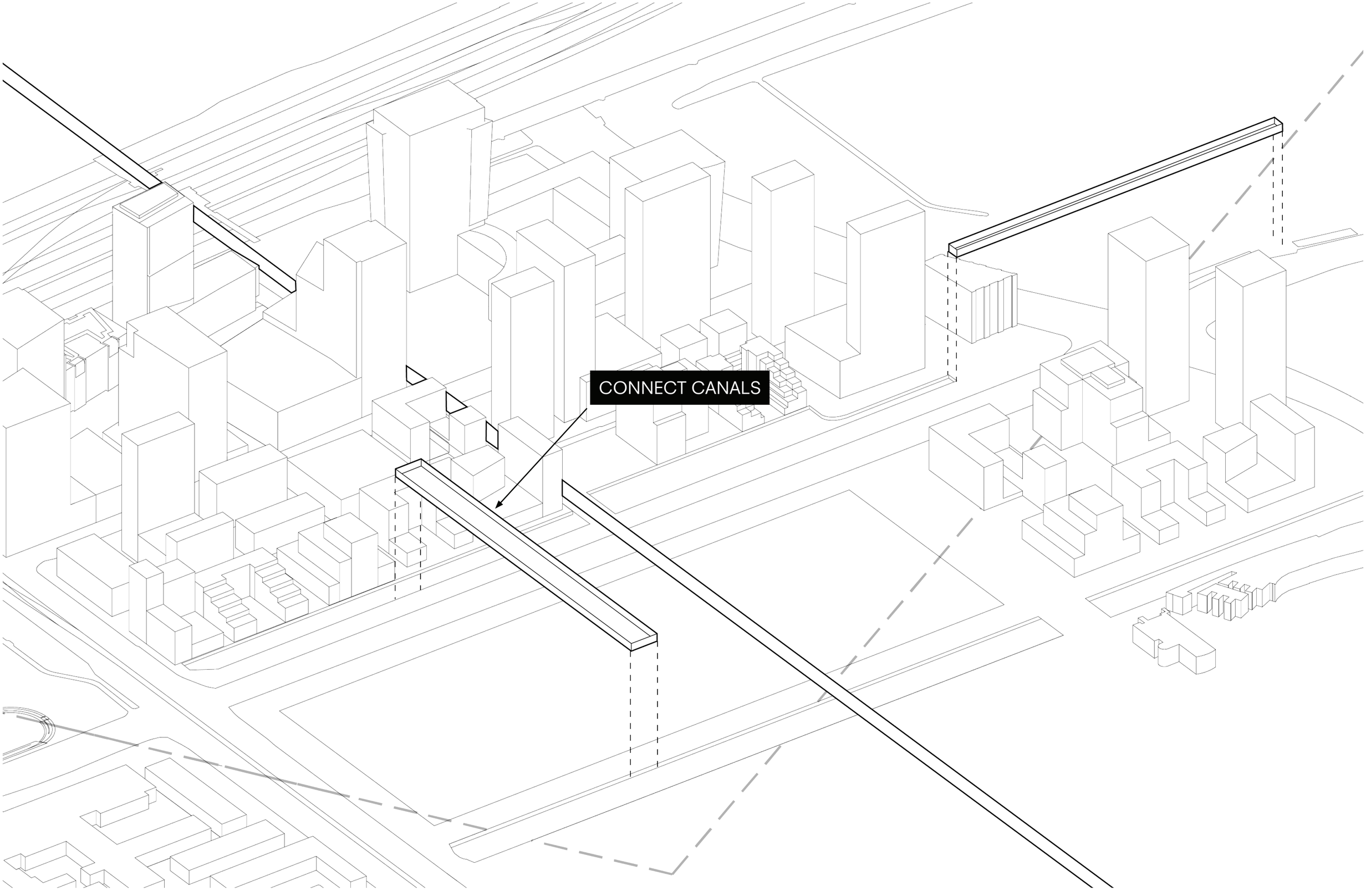
CREATE + MAINTAIN GREEN CORRIDORS

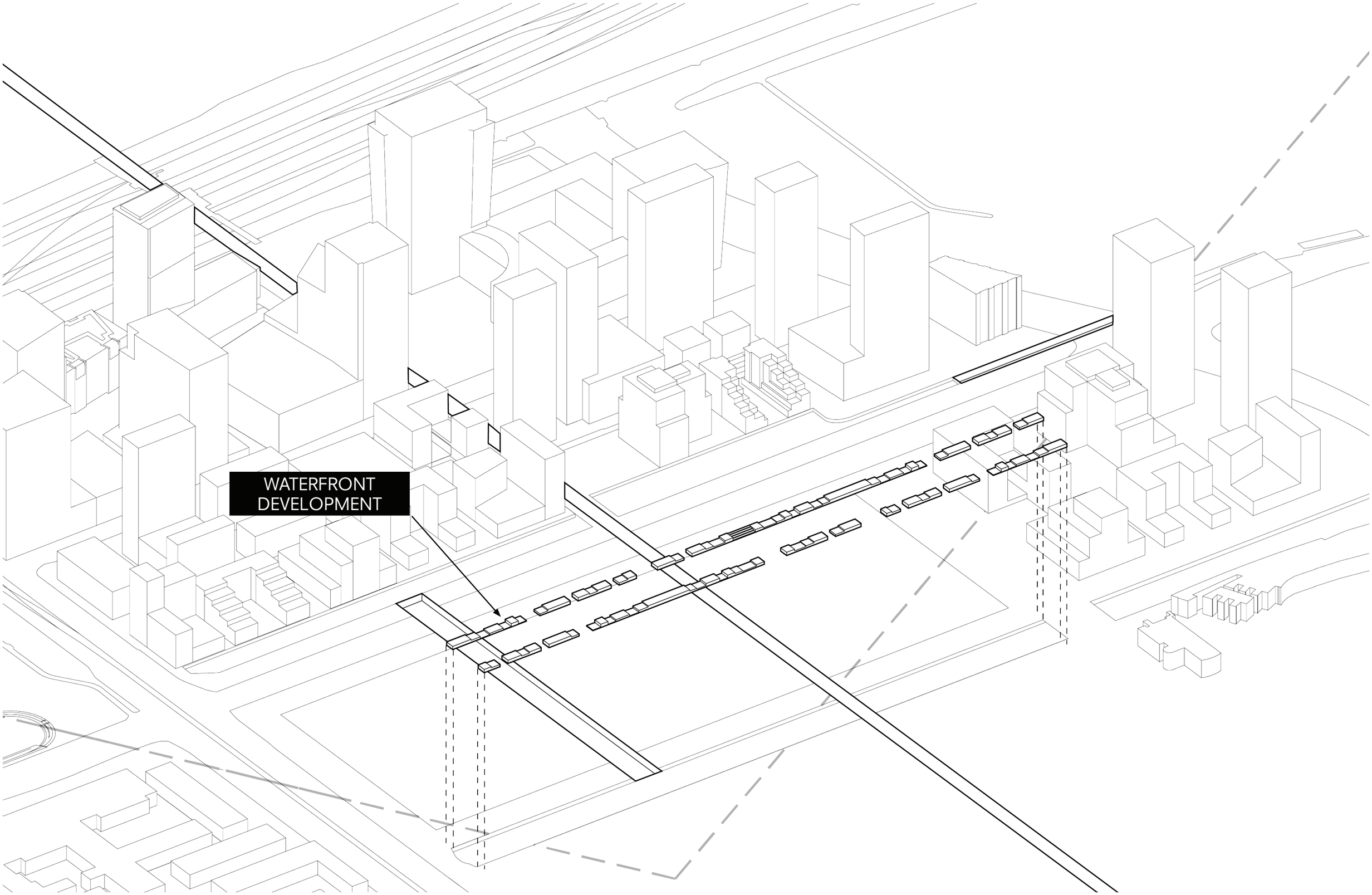


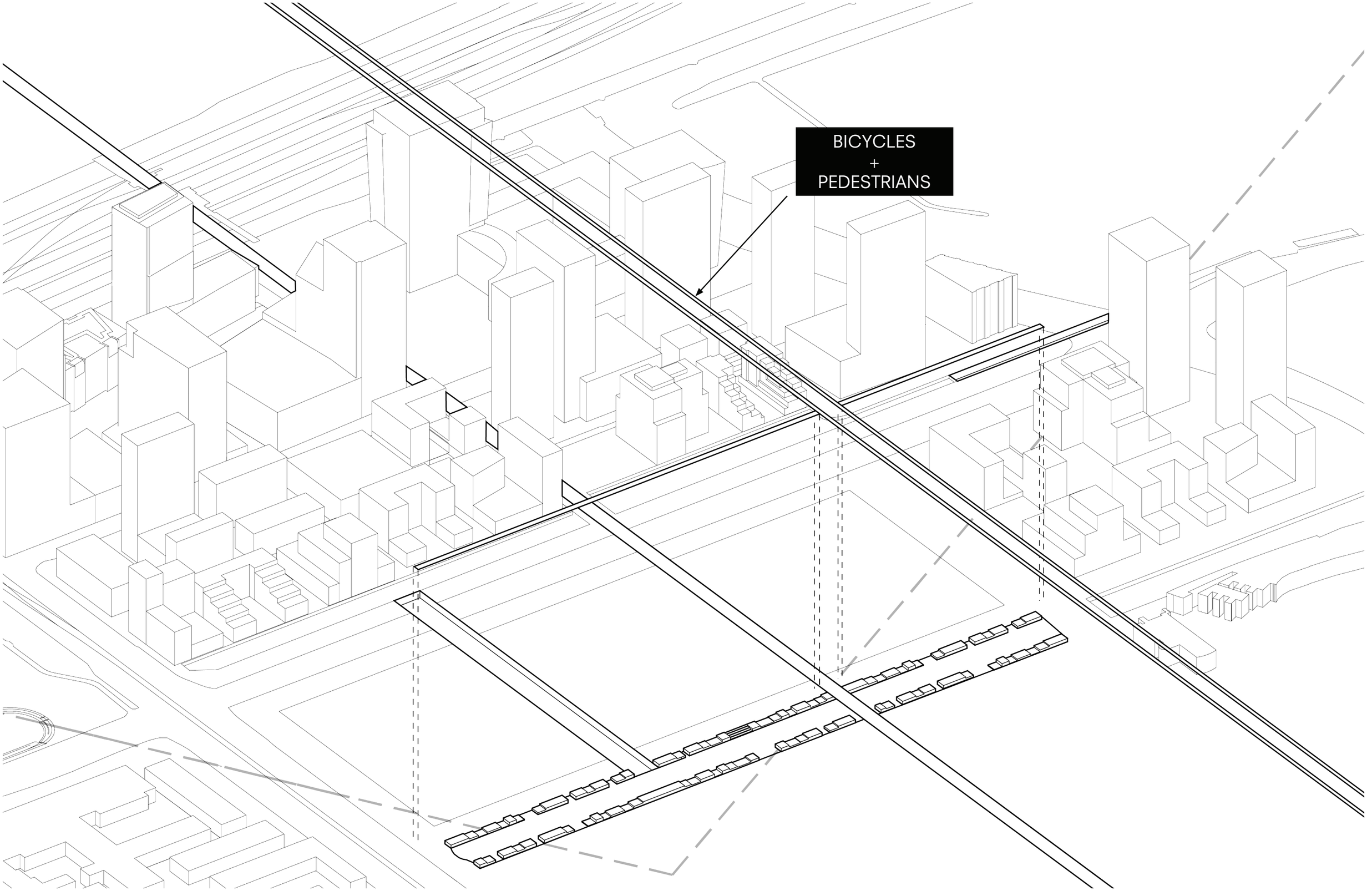
THE SITE

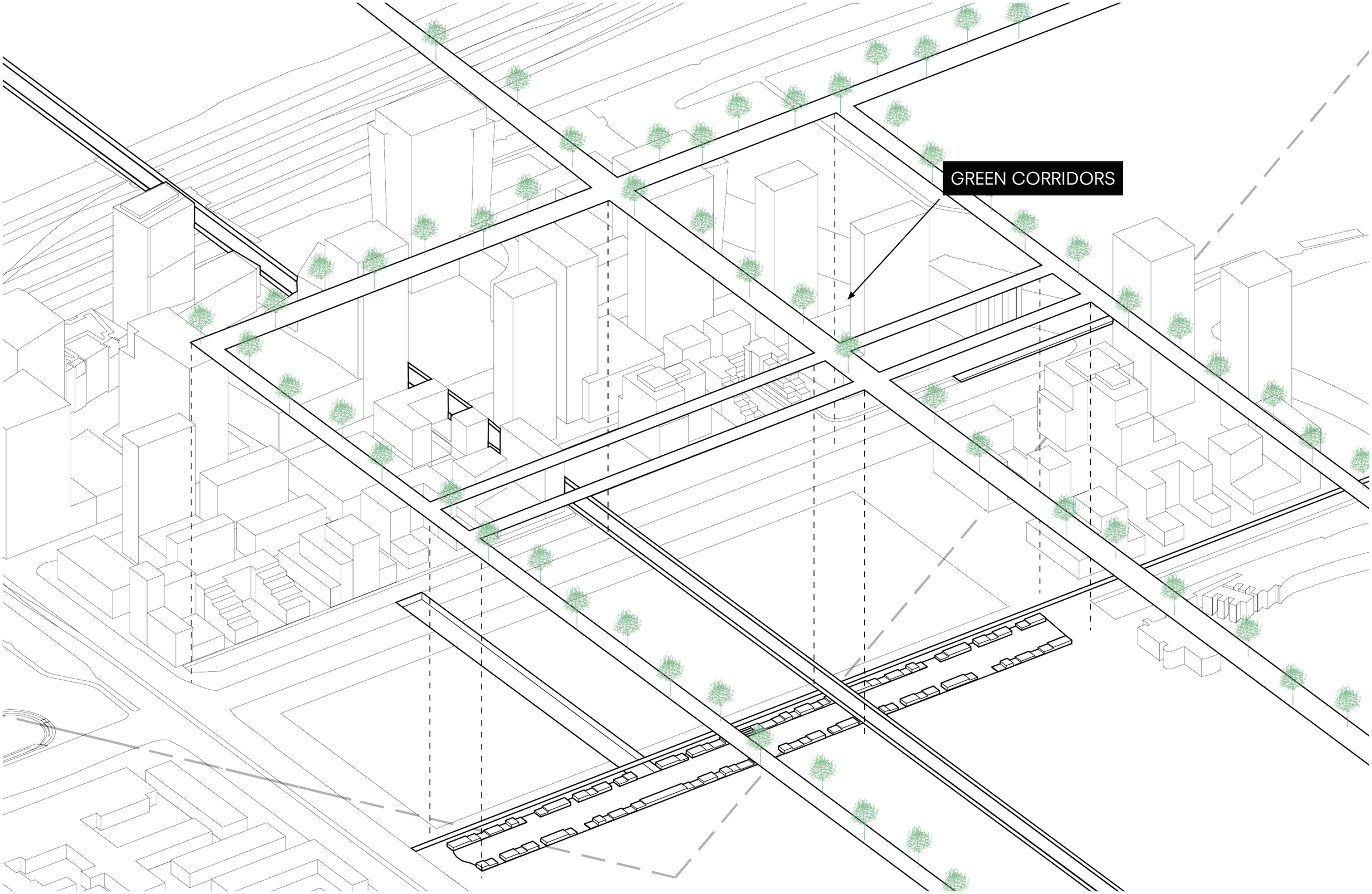


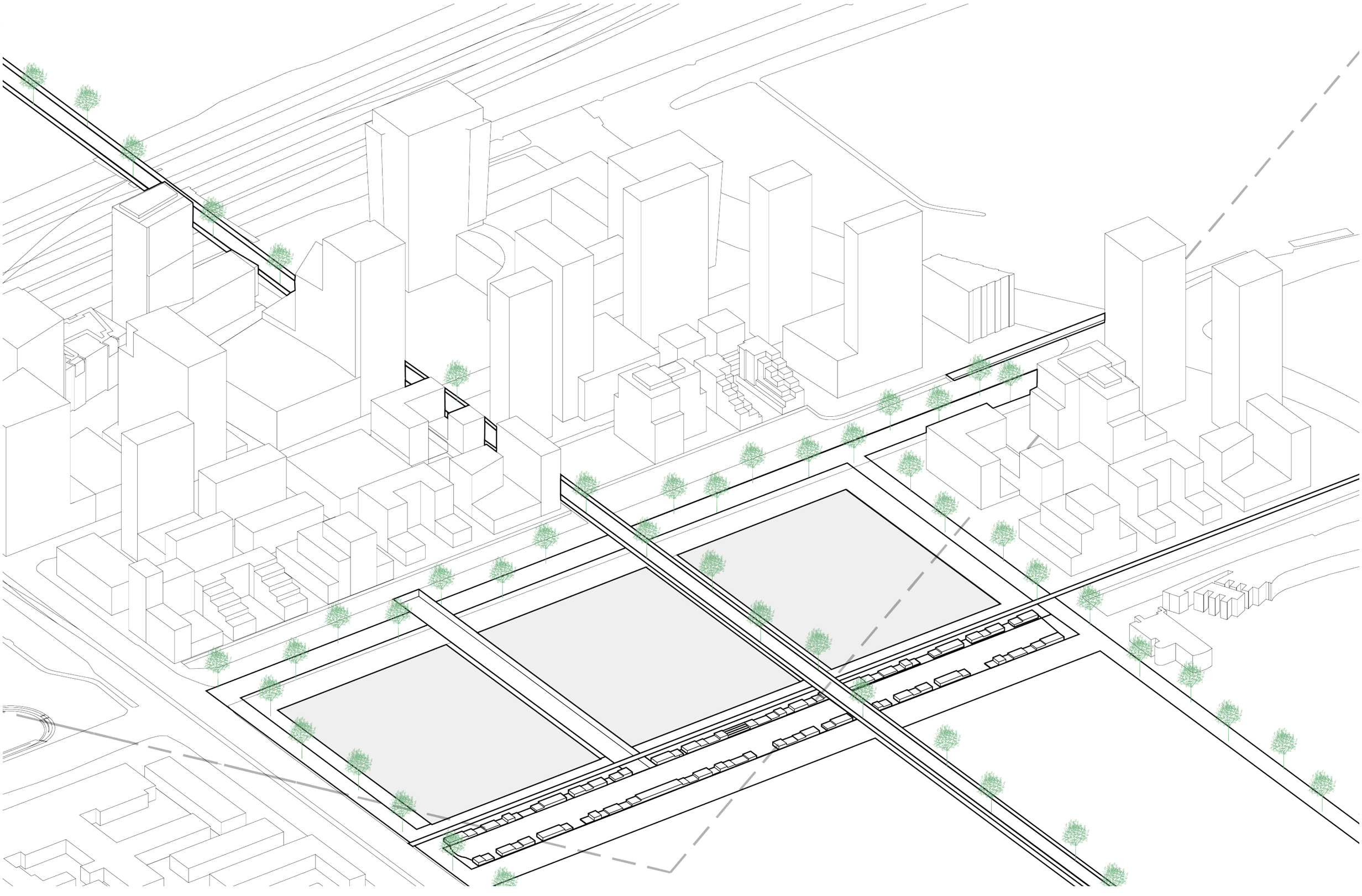

EXTEND MAIN AXIS

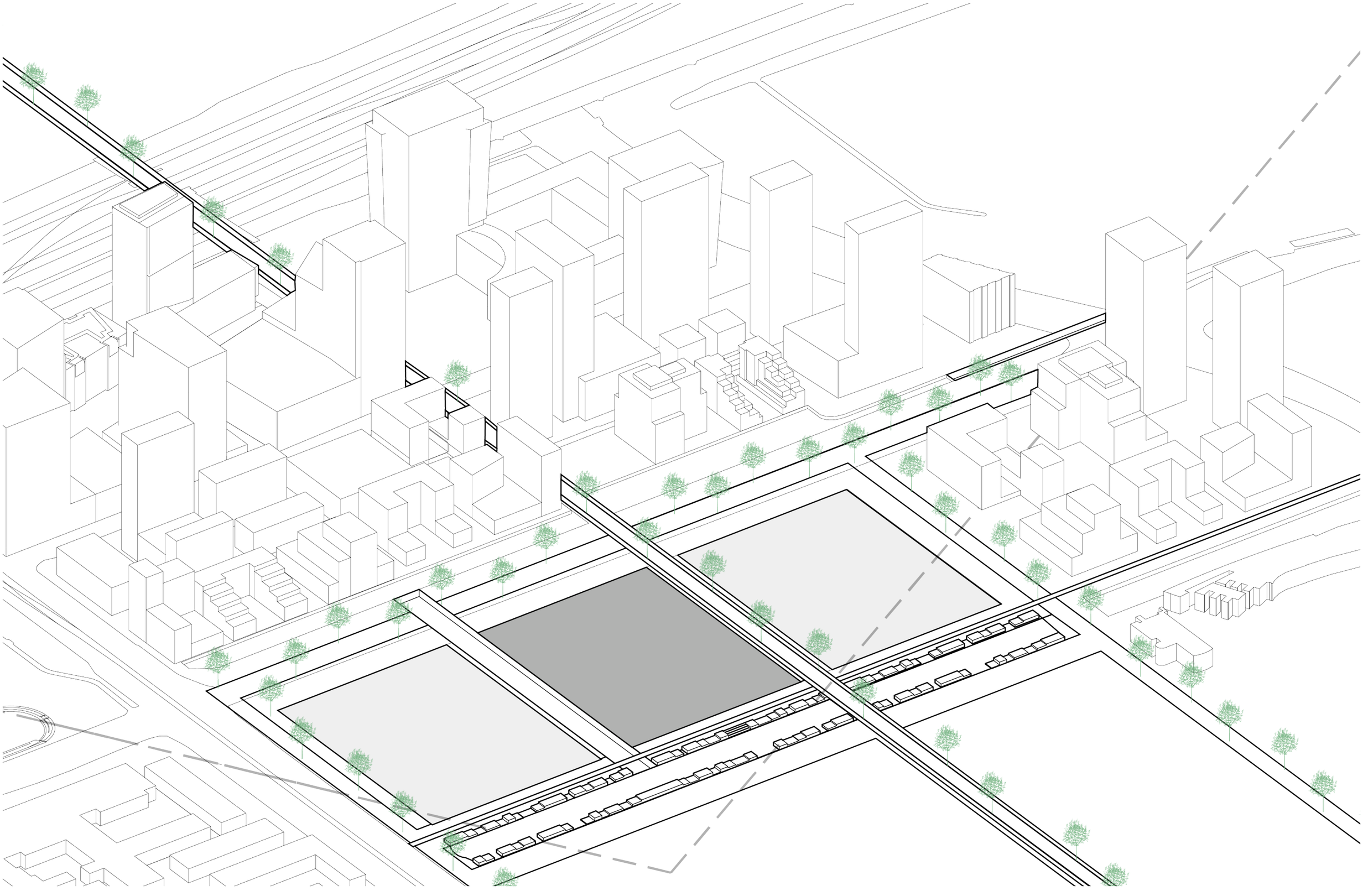

CONNECT CANALS


WATERFRONT
DEVELOPMENT

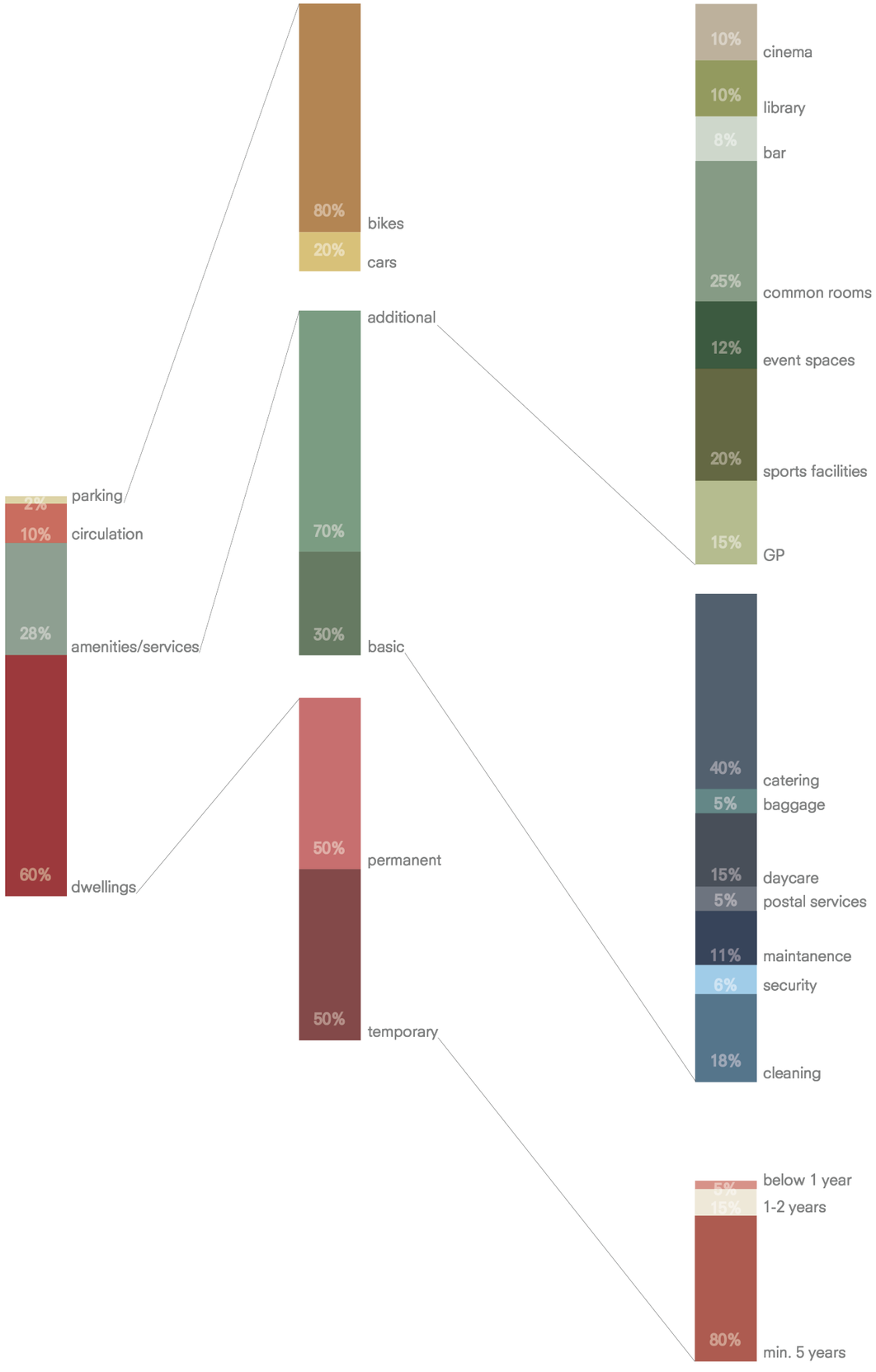

BICYCLES
+
PEDESTRIANS


GREEN CORRIDORS





PROGRAM PERCENTAGES



PRIVATE

HOUSING

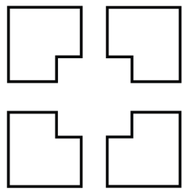
SEMI-PUBLIC

SECURITY
CATERING
MAINTENANCE
CLEANING
BAGGAGE MANAGEMENT
LAUNDRY SERVICE
POSTAL SERVICE
DAYCARE

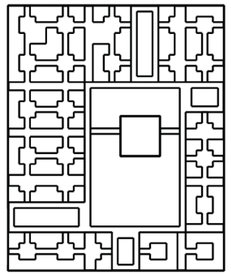
PUBLIC

SPORTS FACILITIES
LANGUAGE SCHOOL
LIBRARY
COMMUNITY CENTER
EVENT SPACES
CINEMA
CAFES/RESTAURANTS/BARS
PHARMACY

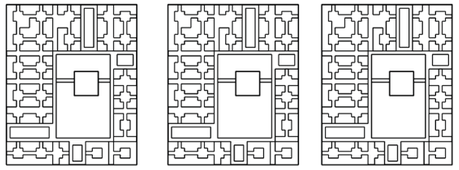
PRIVATE



SEMI-PUBLIC



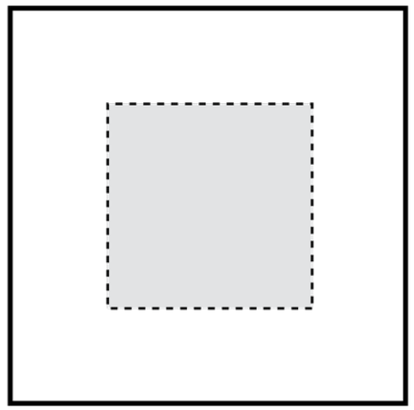
PUBLIC



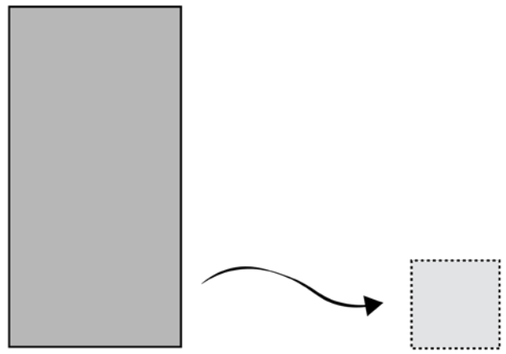
IV. Architectural Framework



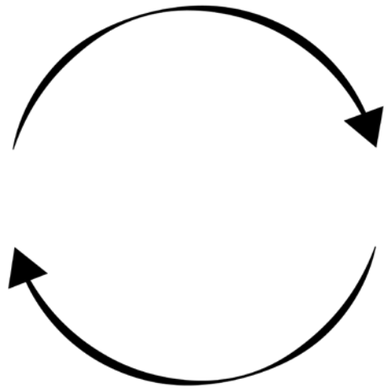
CONCEPT



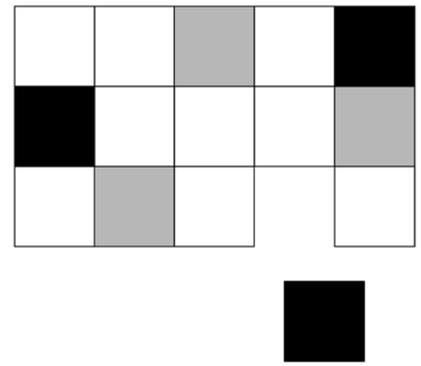
‘COLLECTIVE’



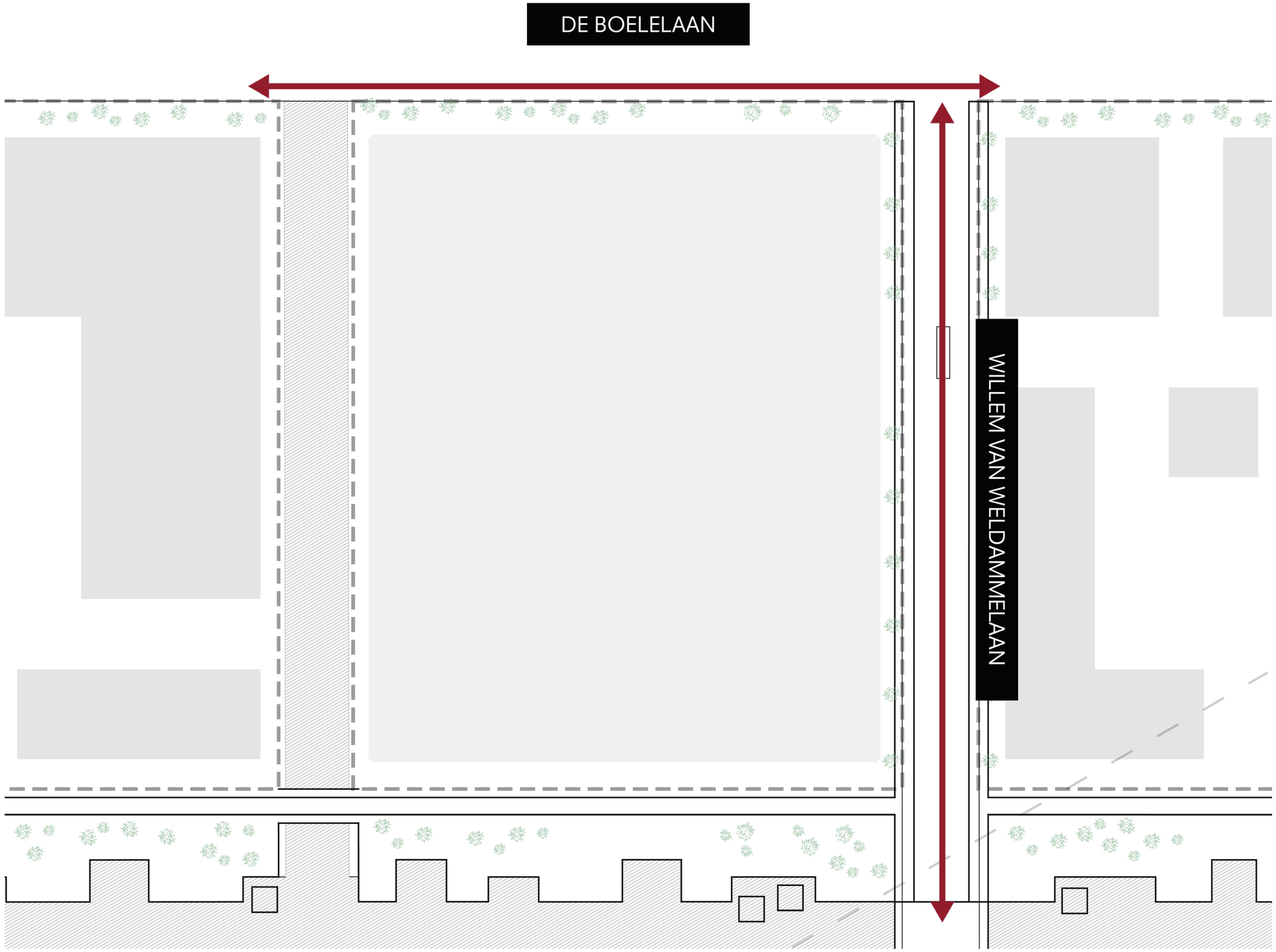
TRANSITION FROM PUBLIC TO PRIVATE

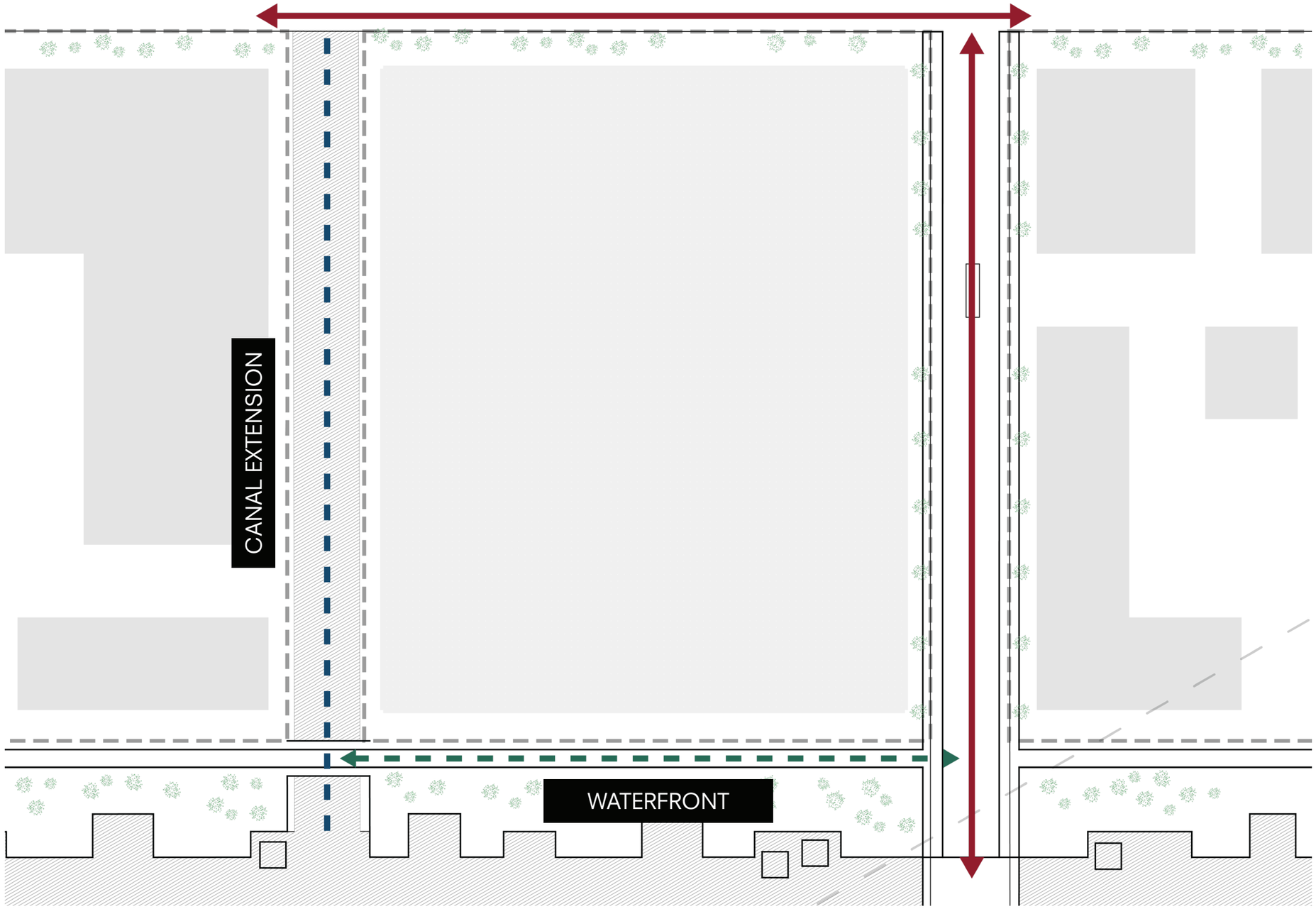


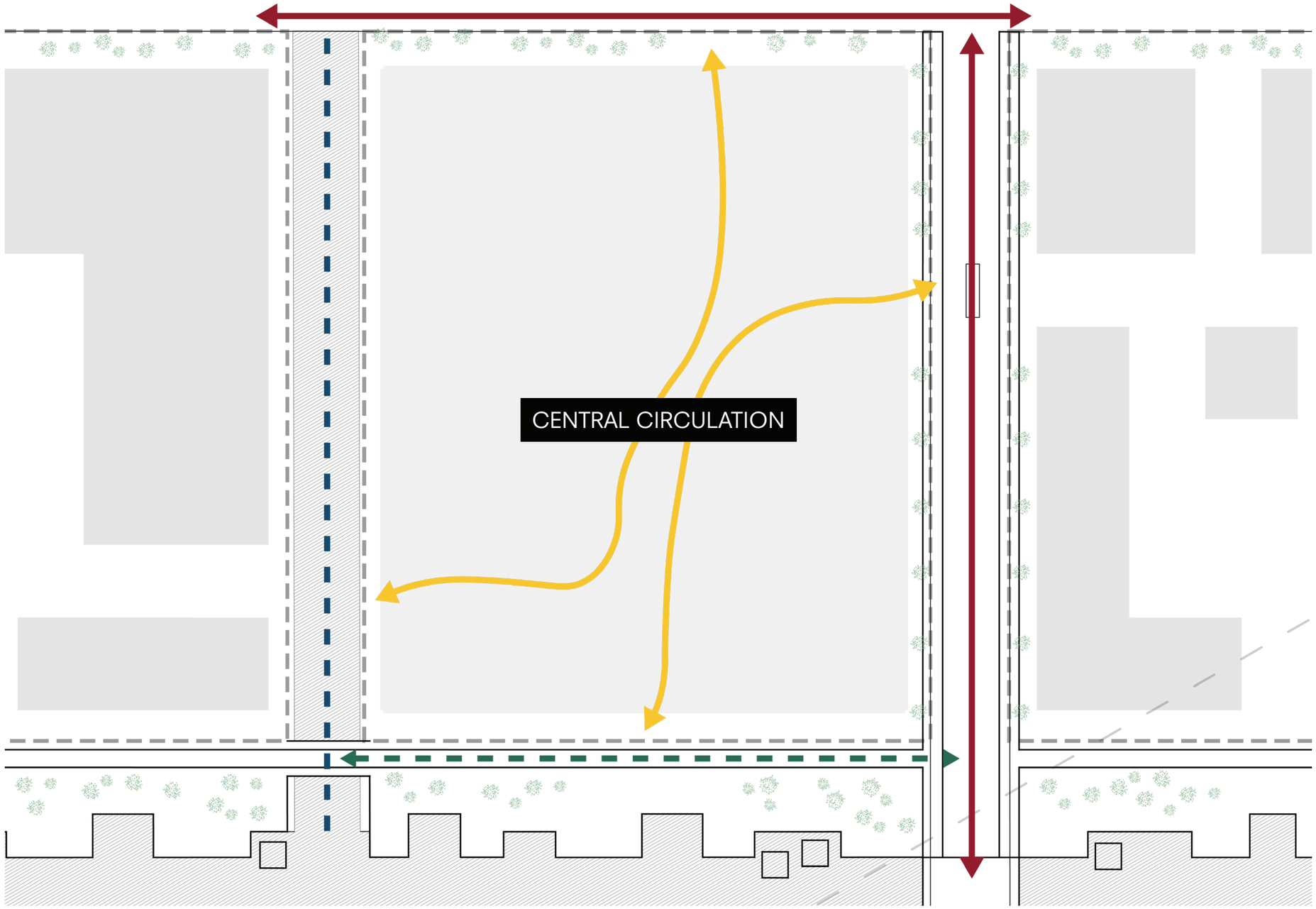
SOCIAL + TECHNICAL SUSTAINABILITY

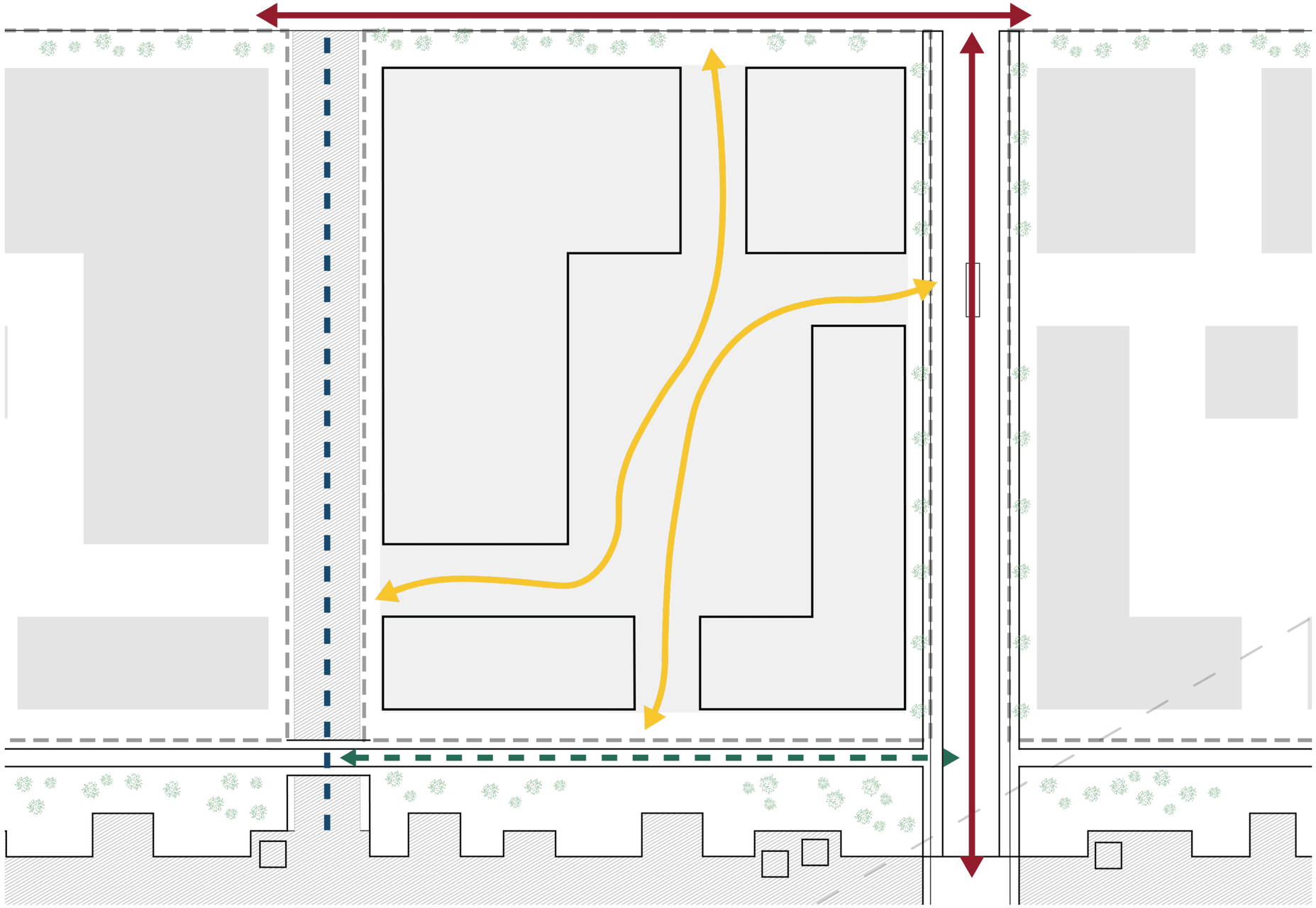


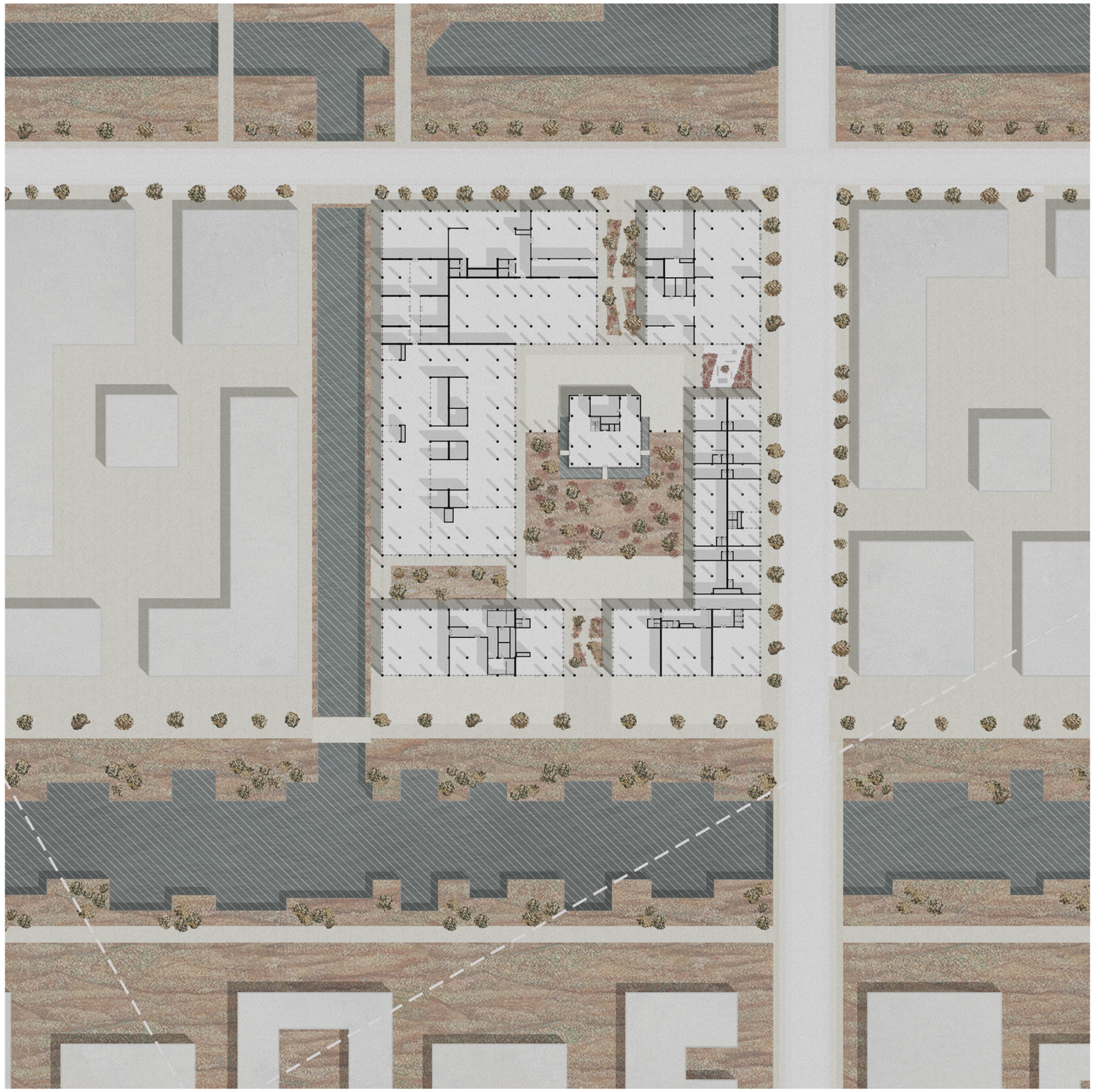
FUTURE-PROOF FLEXIBILTY

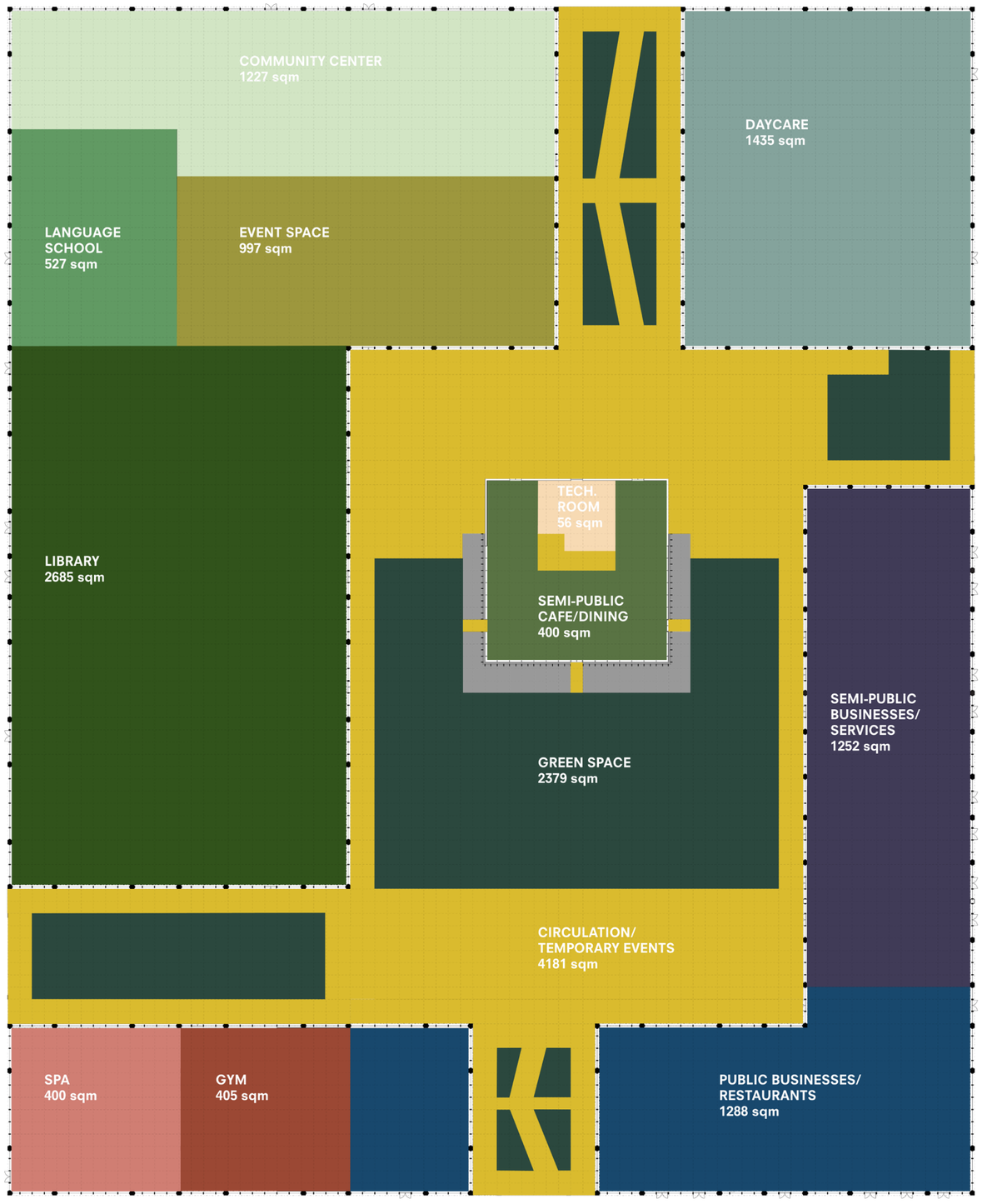

DE BOELELAAN
WILLEM VAN WELDAMMELAAN

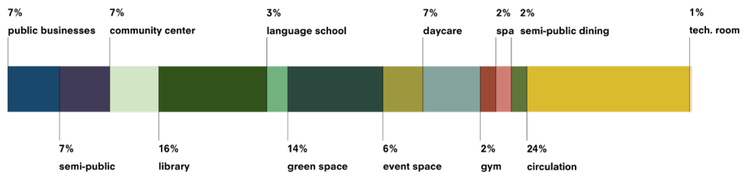

CANAL EXTENSION
WATERFRONT

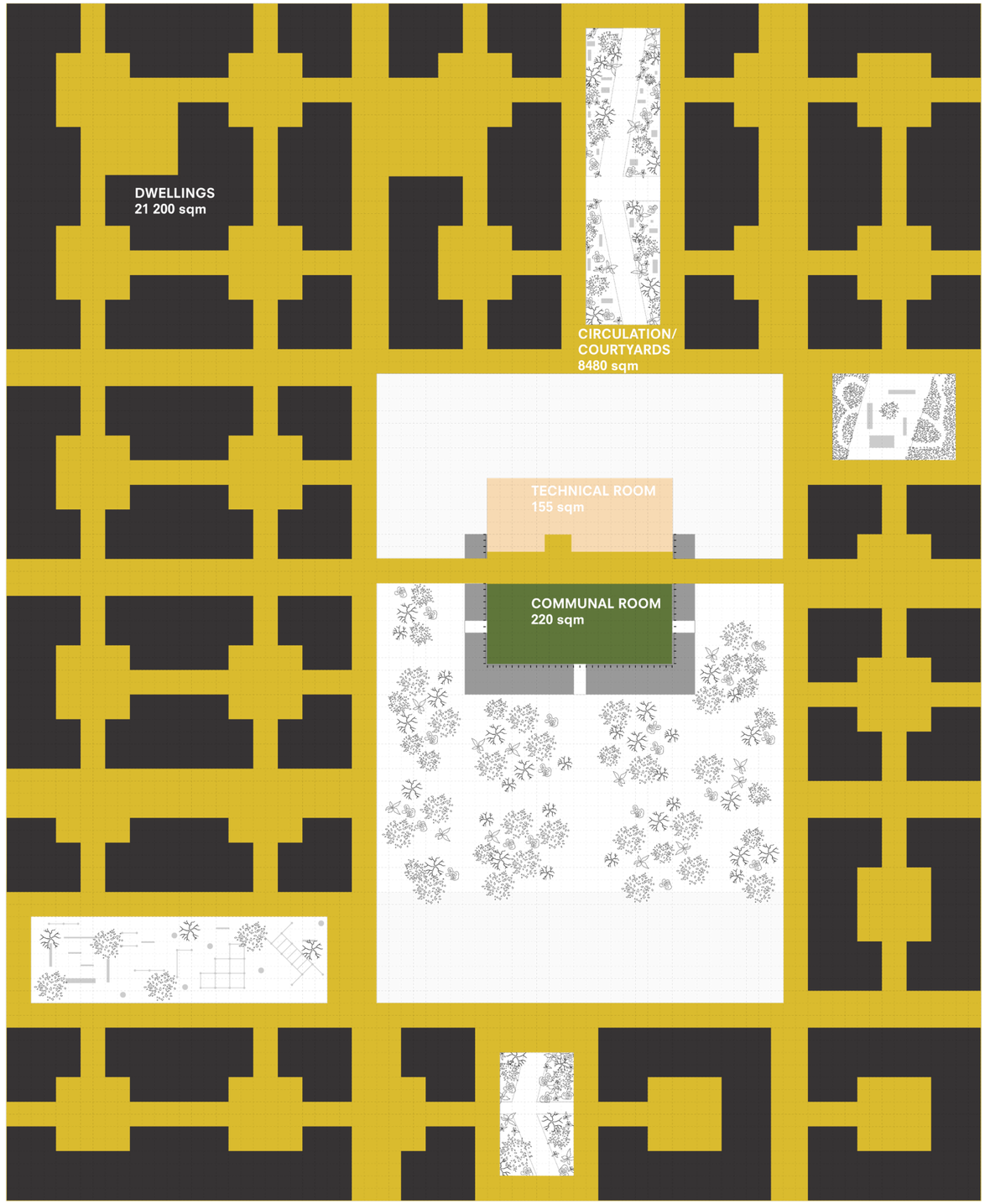

CENTRAL CIRCULATION

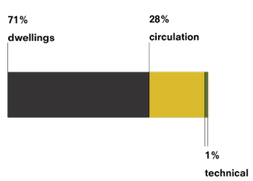



0 m
50 m
10 m
100 m


COMMUNITY CENTER
1227 sqm
LANGUAGE SCHOOL
527 sqm
EVENT SPACE
997 sqm
DAYCARE
1435 sqm
LIBRARY
2685 sqm
TECH. ROOM
56 sqm
SEMI-PUBLIC CAFE/DINING
400 sqm
SEMI-PUBLIC BUSINESSES/ SERVICES
1252 sqm
GREEN SPACE
2379 sqm
CIRCULATION/ TEMPORARY EVENTS
4181 sqm
SPA
400 sqm
GYM
405 sqm
PUBLIC BUSINESSES/ RESTAURANTS
1288 sqm

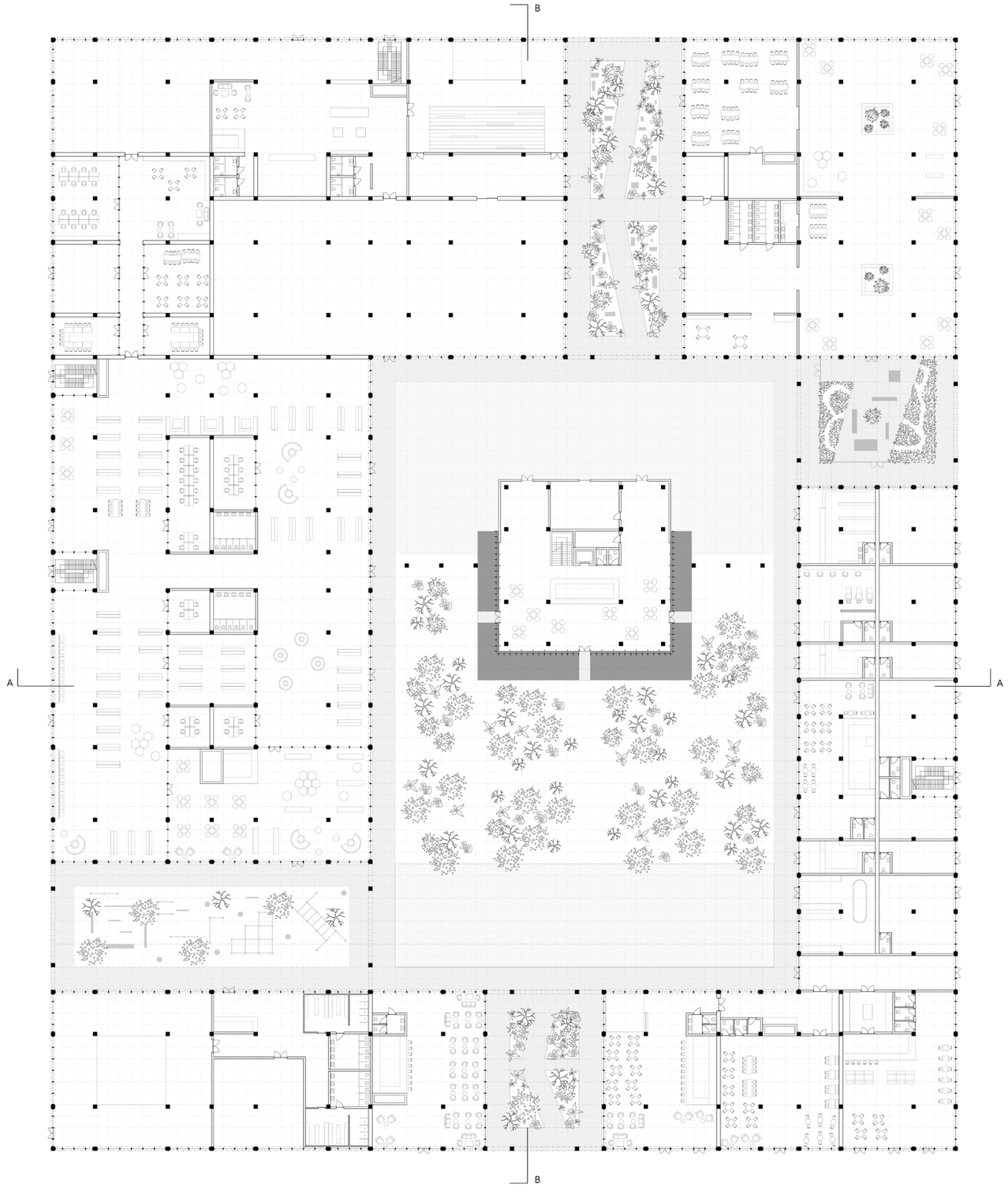

7% public businesses
7% community center
3% language school
7% daycare
2% spa
2% semi-public dining
1% tech. room
7% semi-public
16% library
14% green space
6% event space
2% gym
24% circulation





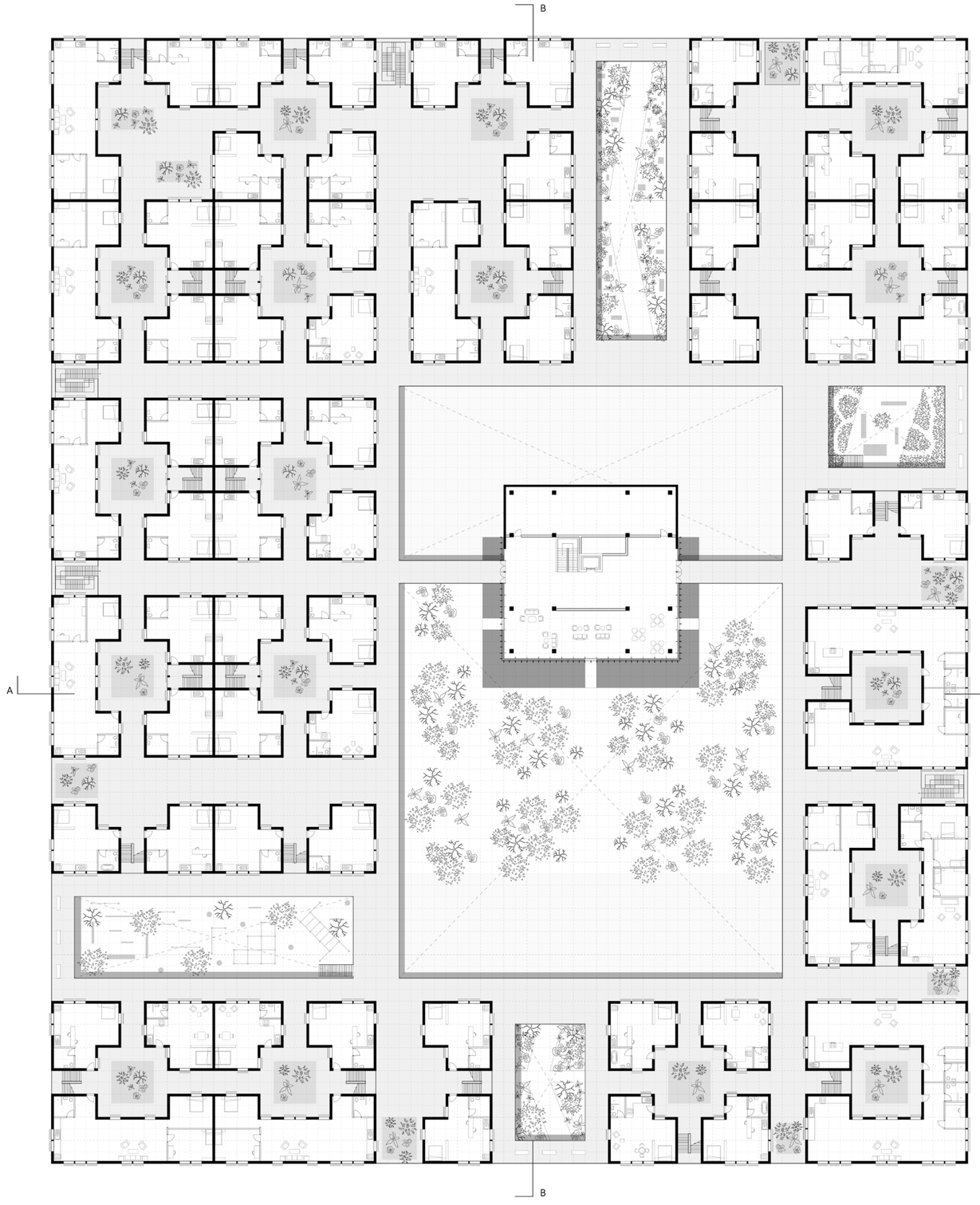
GFA: 41 184 sqm
GIA: 40 864 sqm
FAR: 2,38

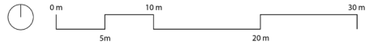




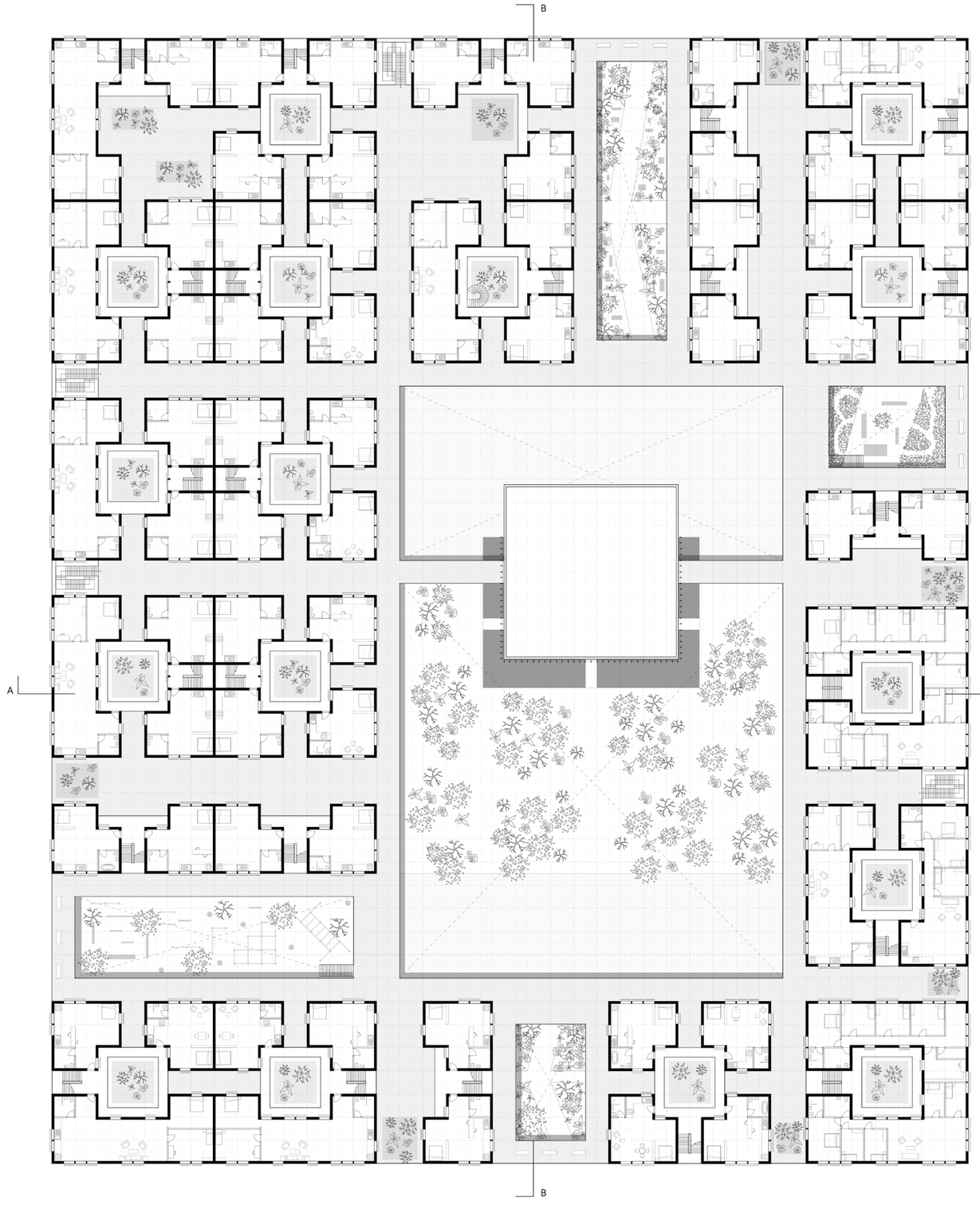
0 m 5m 10 m 20 m 30 m

Ground Floor Plan



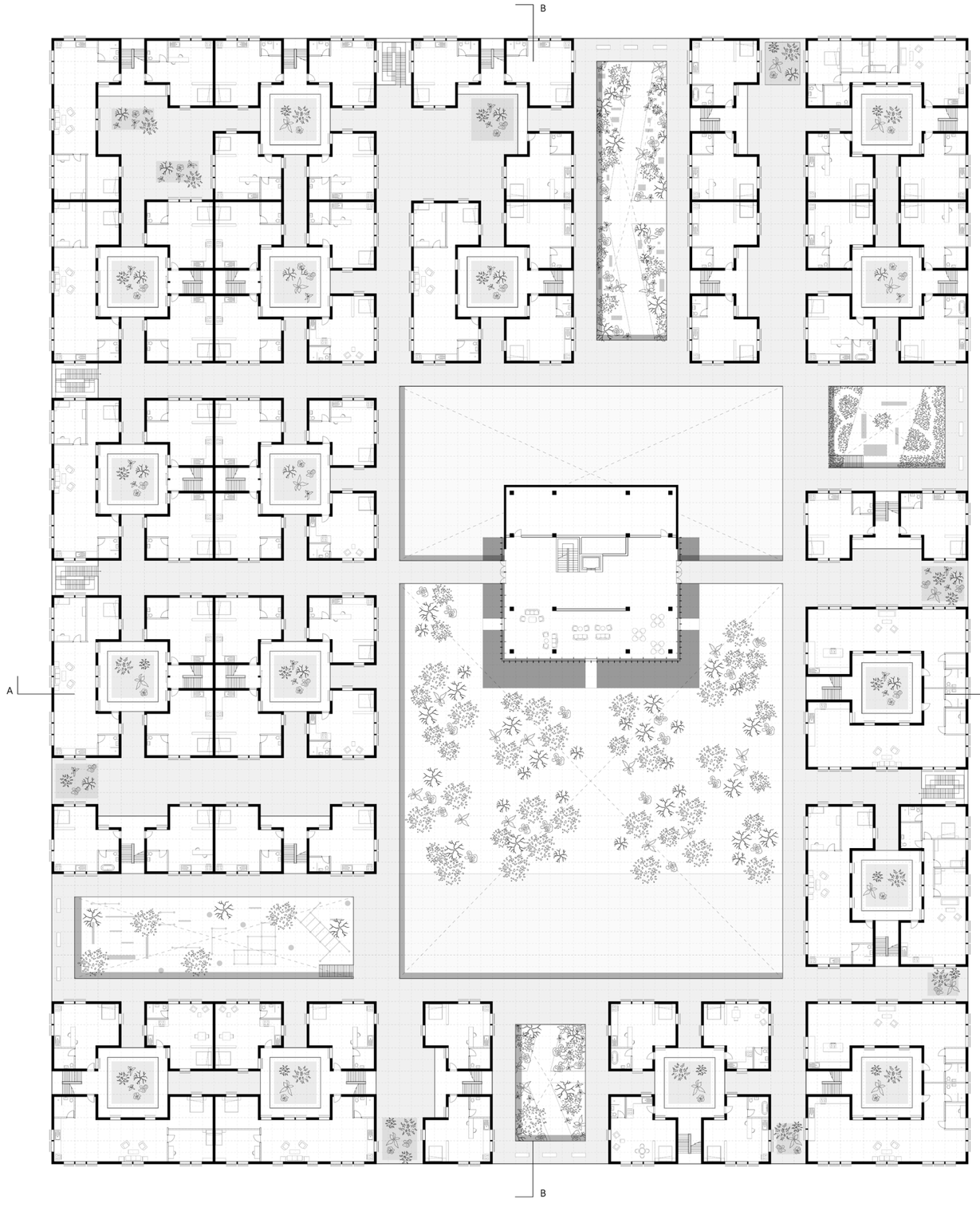


First Floor Plan



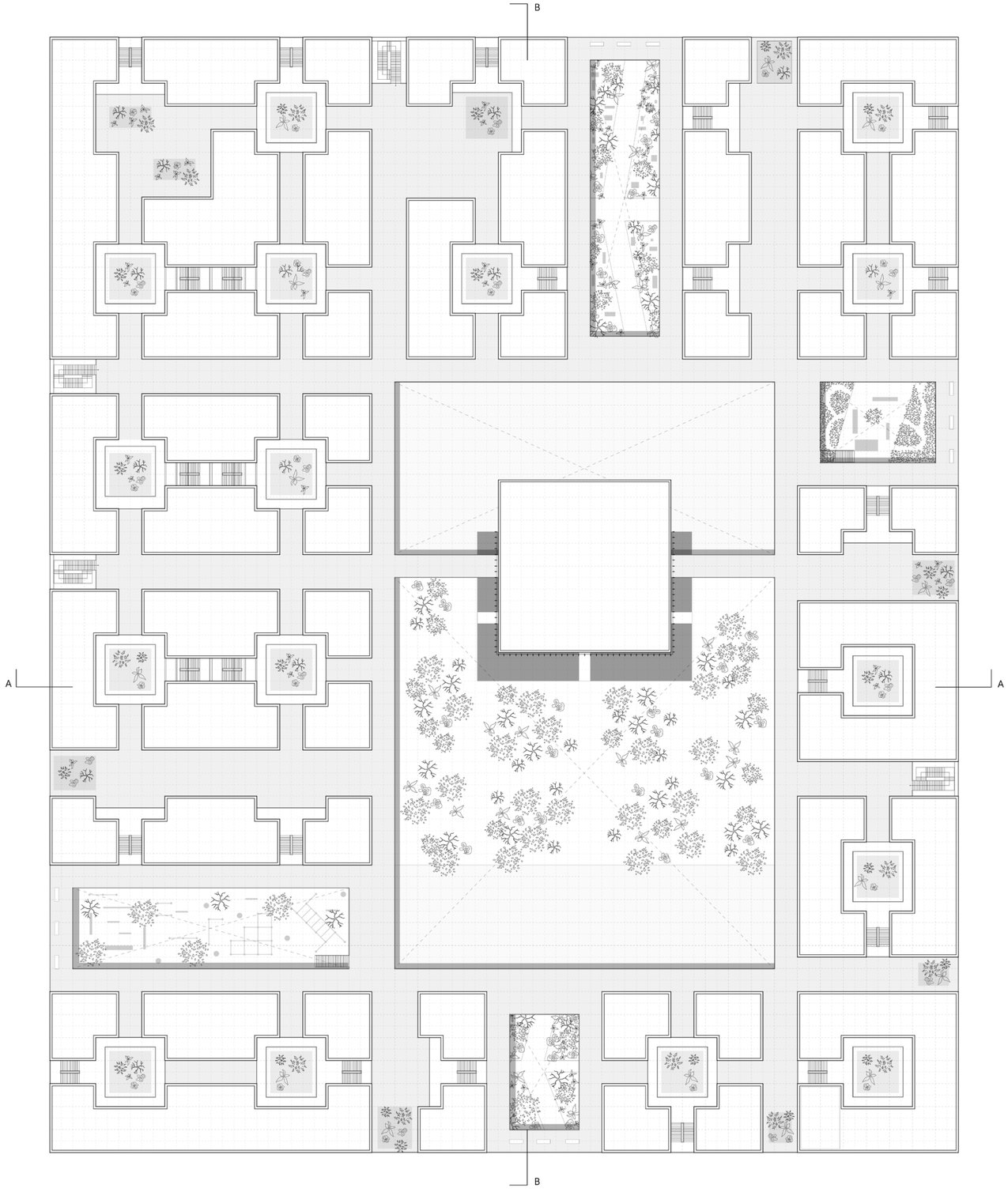


Second and Fourth Floor Plan



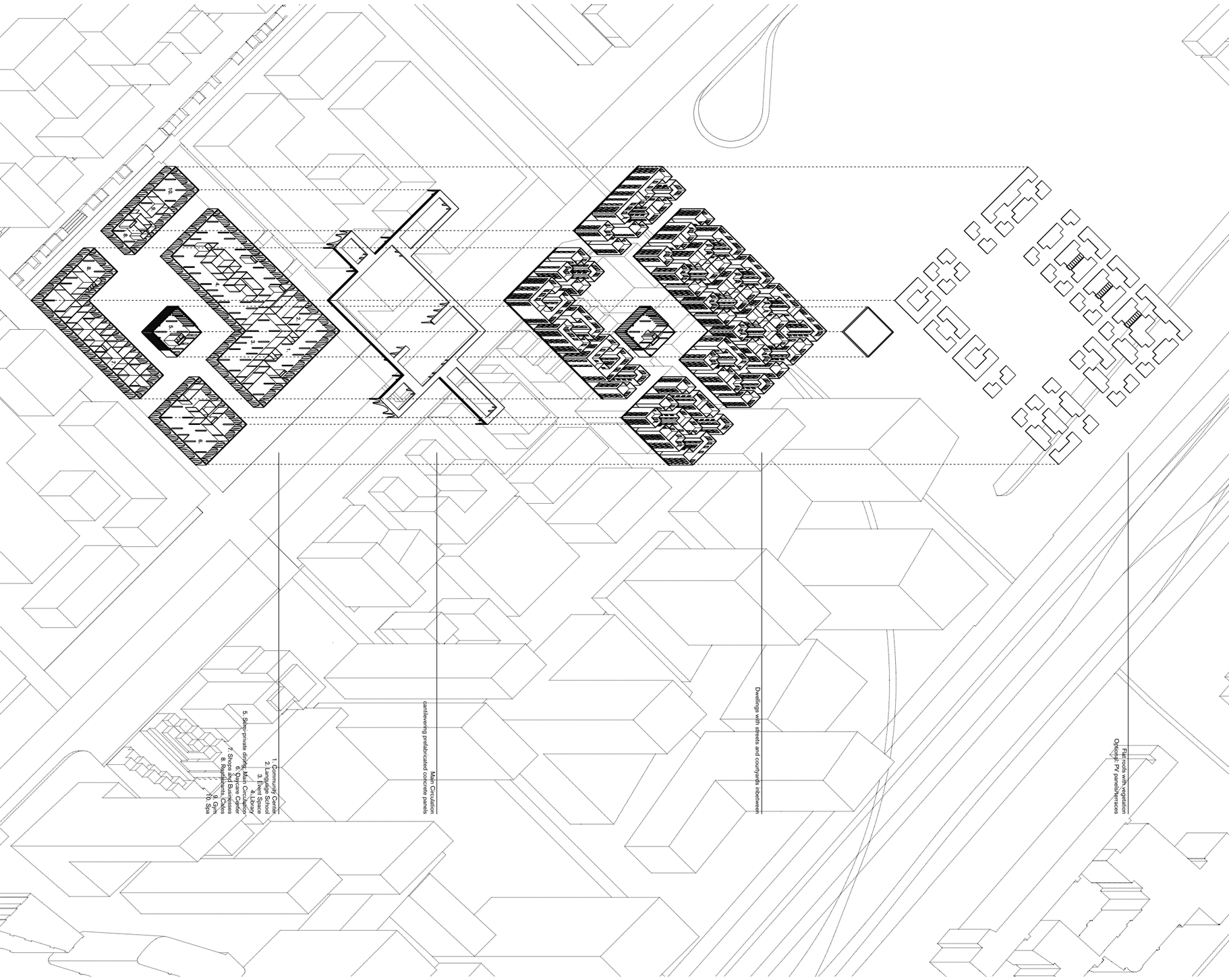
0 m 5m 10 m 20 m 30 m

Third Floor Plan

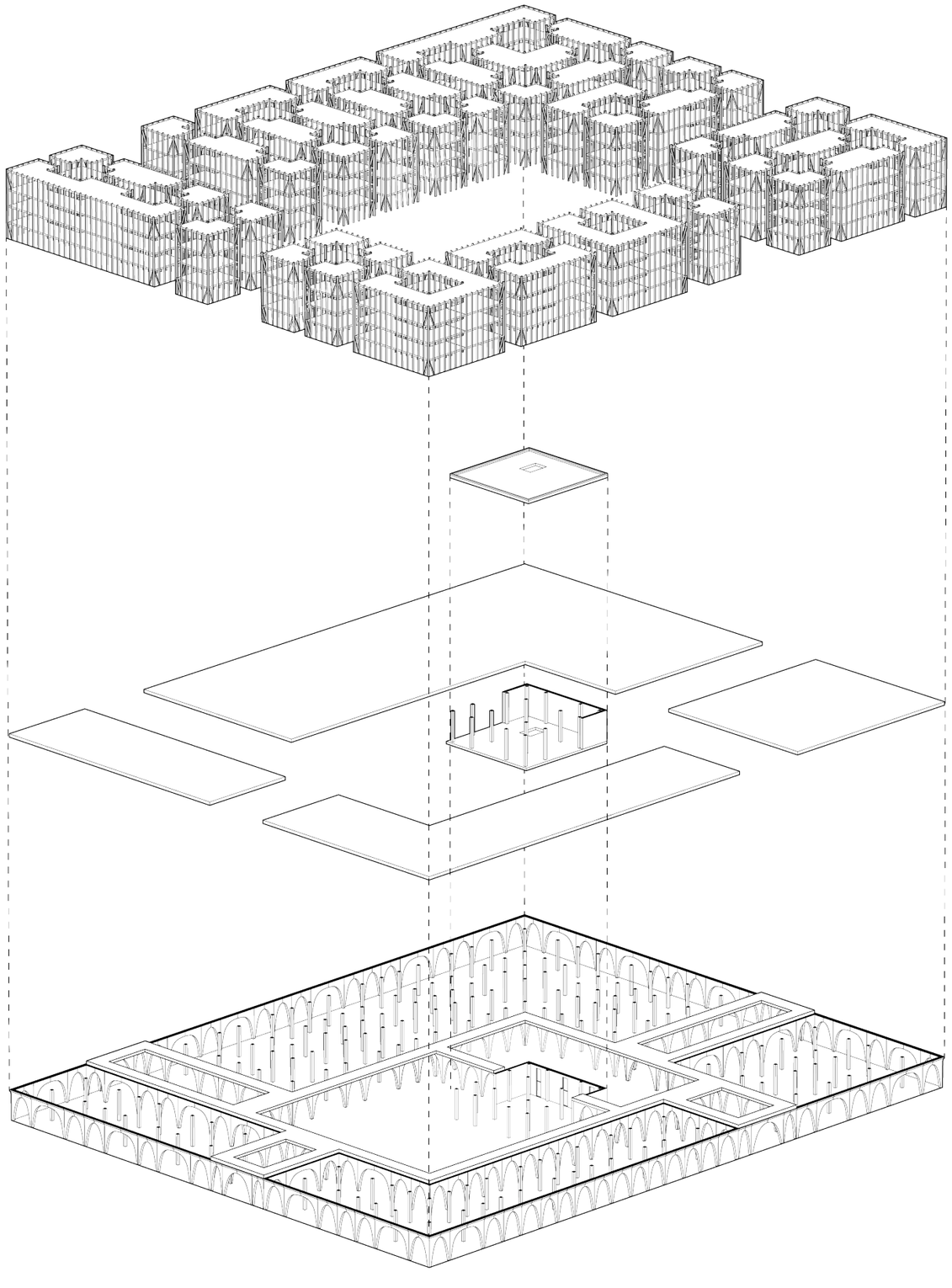


0 m 10 m 30 m
5m 20 m

Roof Plan


Flat roofs with vegetation
Optional: PV panels/terraces
Dwellings with streets and courtyards inbetween
Main Circulation
cantilevering prefabricated concrete panels
1. Community Center
2. Language School
3. Event Space
4. Library
5. Semi-private dining, Main Circulation
6. Daycare Center
7. Shops and Businesses
8. Restaurants, Cafes
9. Gym
10. Spa

STRUCTURE



timber frame structure

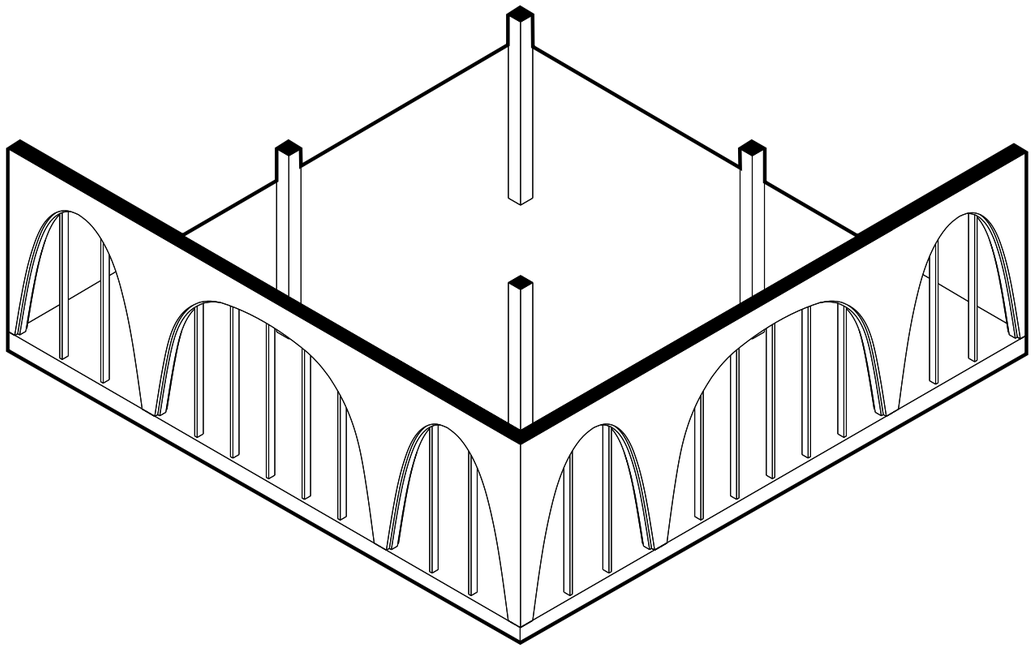
double floor structure:
in-situ concrete floor slab with an elevated timber floor on top to give space for services

concrete structure with columns and structural wall for bracing, housing the main circulation for the upper floors

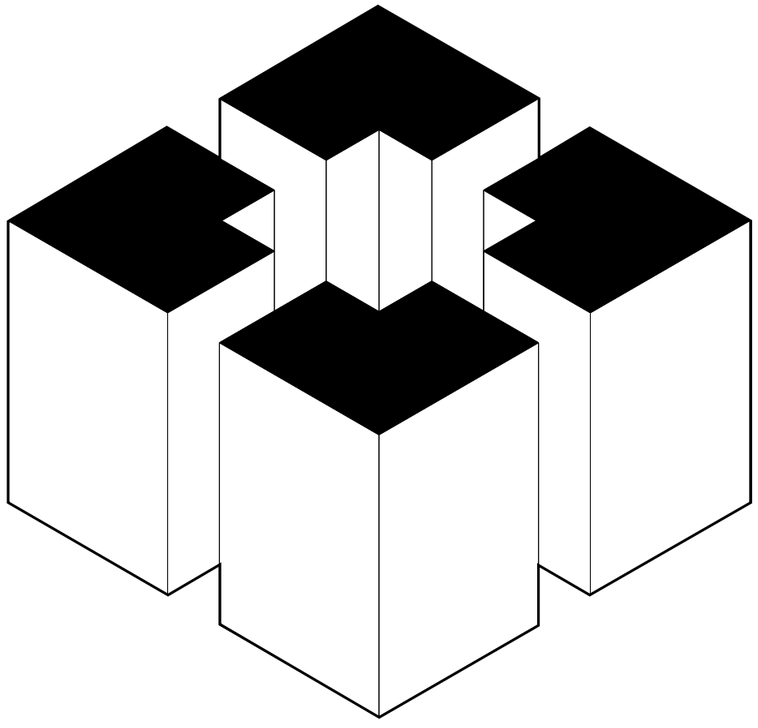
main circulation routs cantilevered by the arched wall panels

concrete ground floor structure:
columns with rigid connections to the upper floor slab, prefabricated arched panels for resisting lateral loads

ARCHITECTURAL LANGUAGE

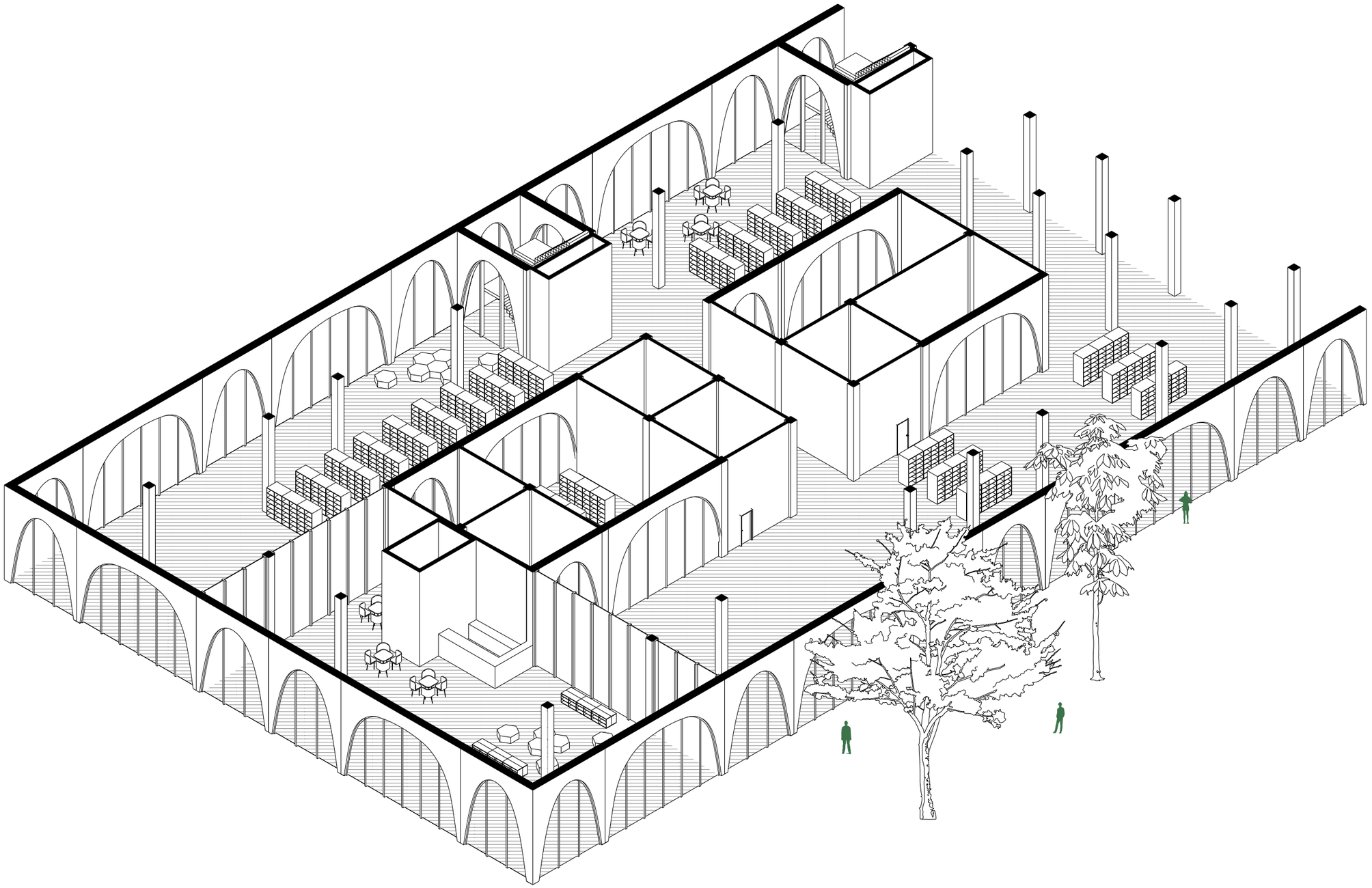


Public

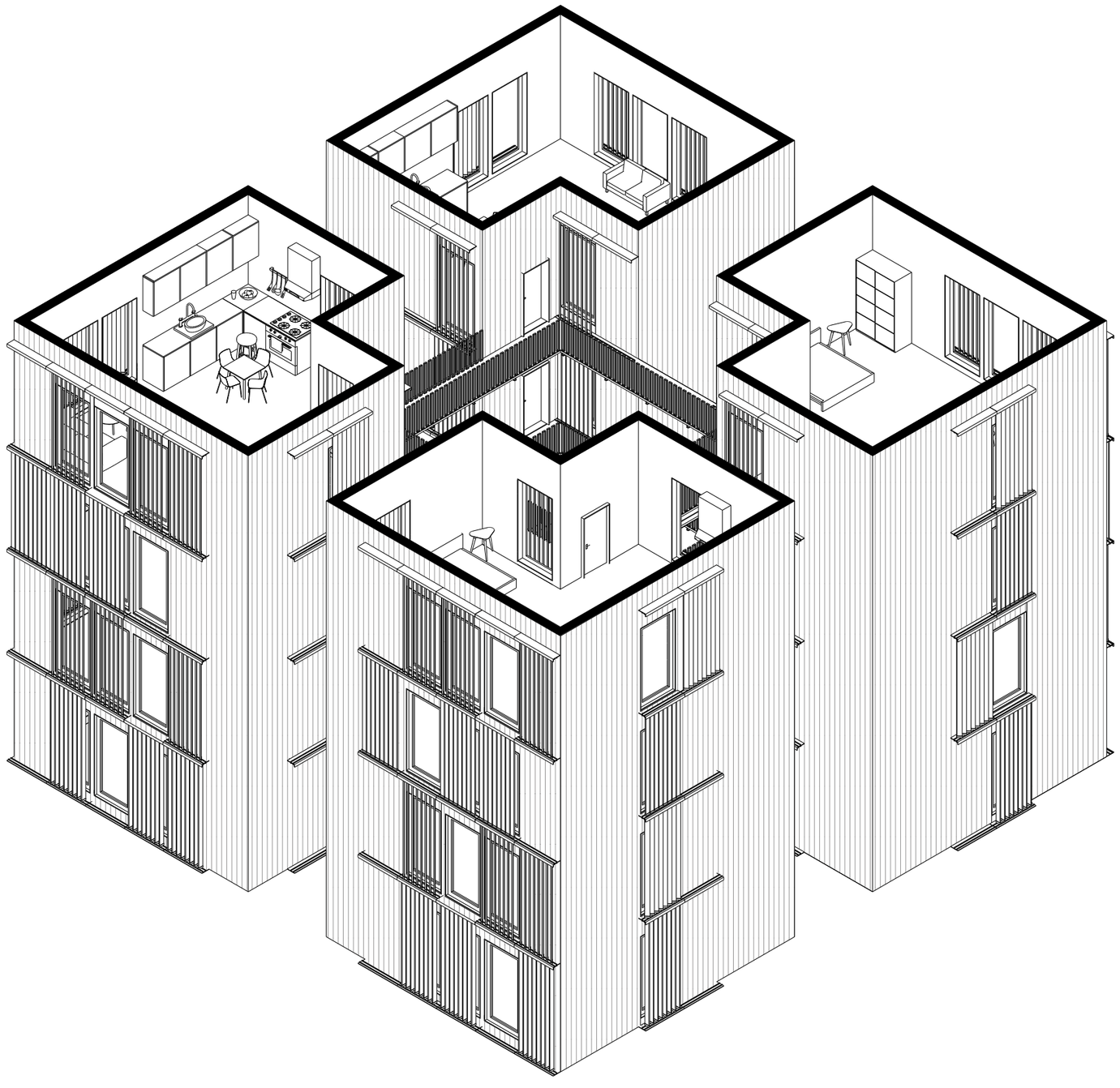


Private

PUBLIC - LIBRARY



PRIVATE - DWELLING

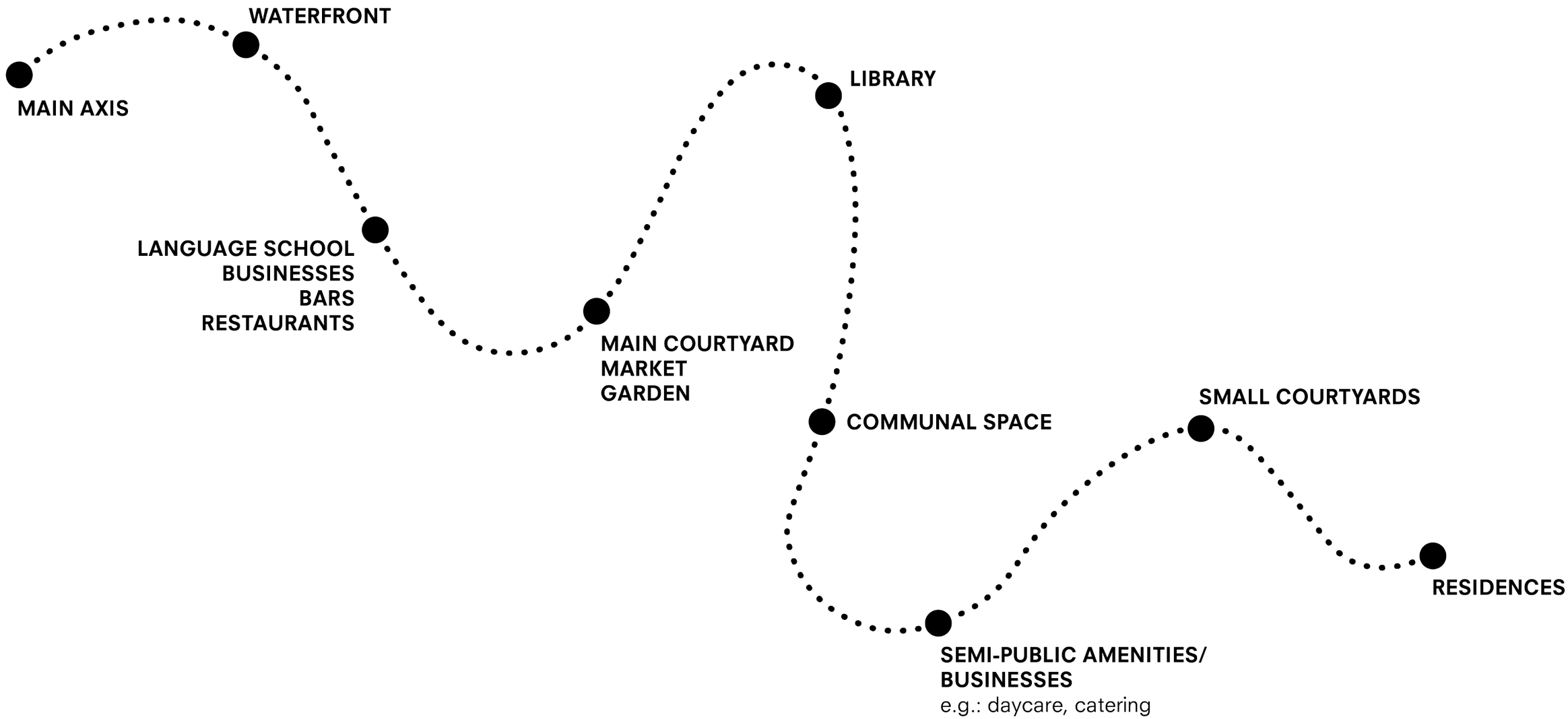




East Elevation 1:200



Section B-B 1:200


WATERFRONT
MAIN AXIS
LANGUAGE SCHOOL
BUSINESSES
BARS
RESTAURANTS
MAIN COURTYARD
MARKET
GARDEN
LIBRARY
COMMUNAL SPACE
SMALL COURTYARDS
RESIDENCES
SEMI-PUBLIC AMENITIES/
BUSINESSES
e.g.: daycare, catering



Main Axis



Restaurant



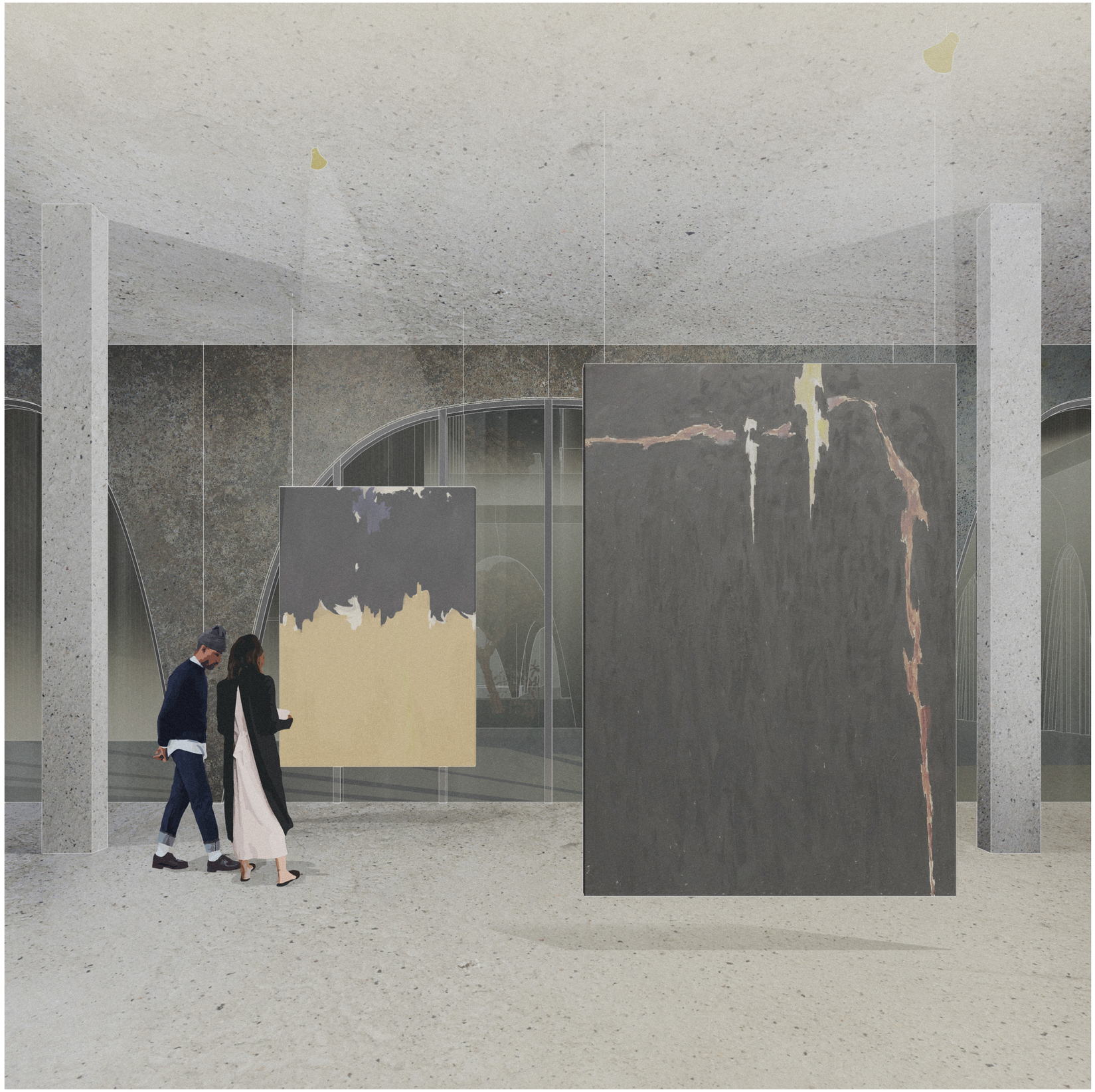
Green Corridor



Main Courtyard



Library



Event Space



Communal Space

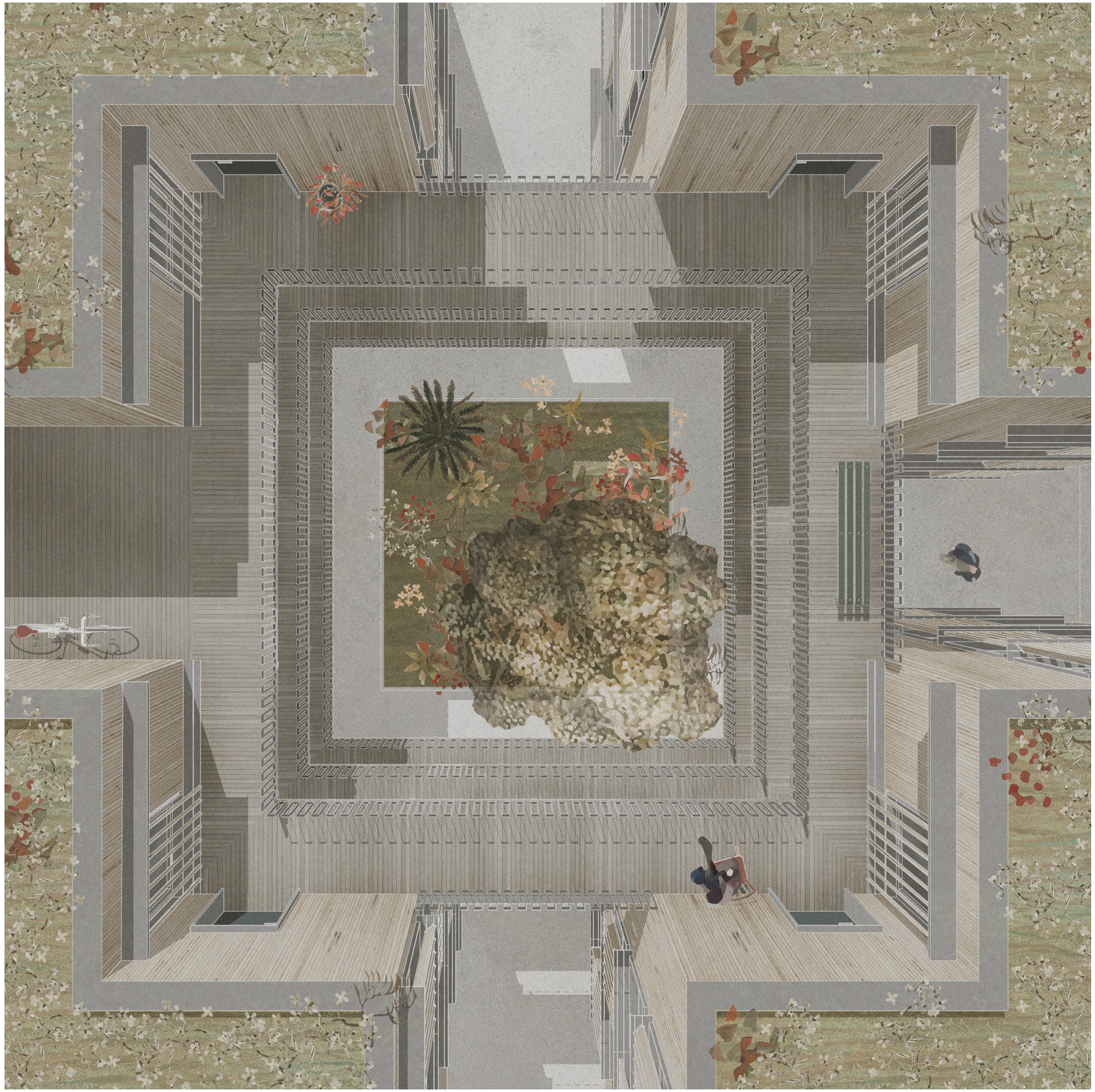


Streets



Apartments

Semi-public Courtyard





Living Room



Bedroom



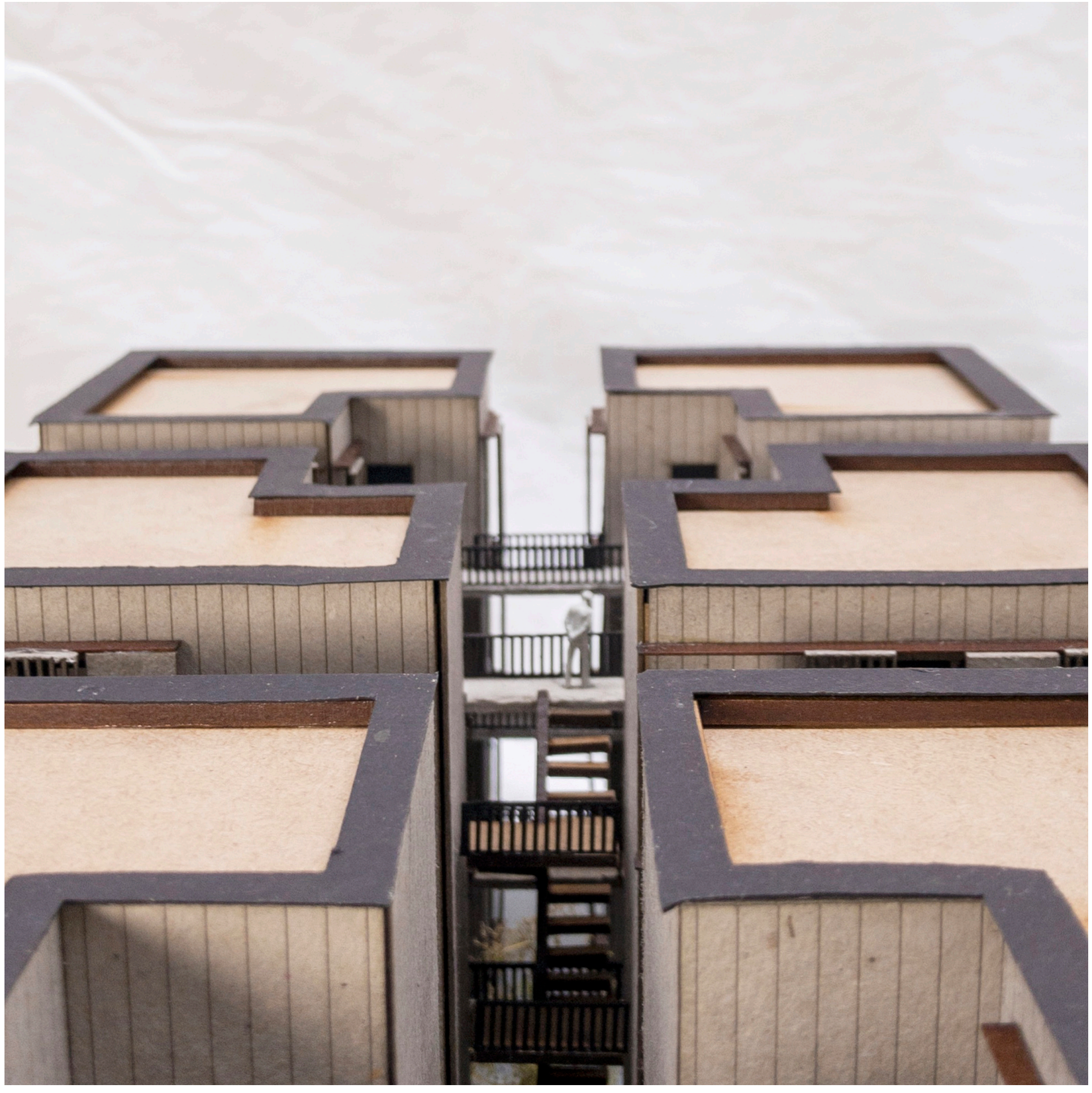
Waterfront



Facade

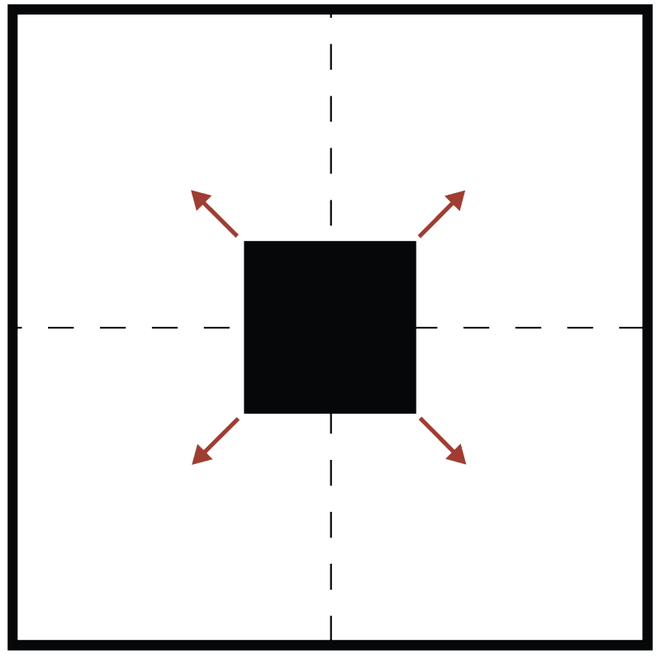


Streets

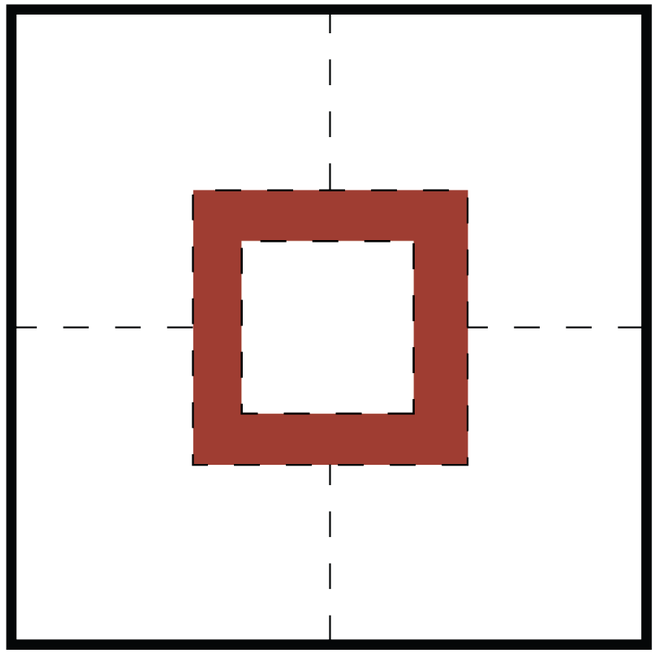


Semi-private Courtyards

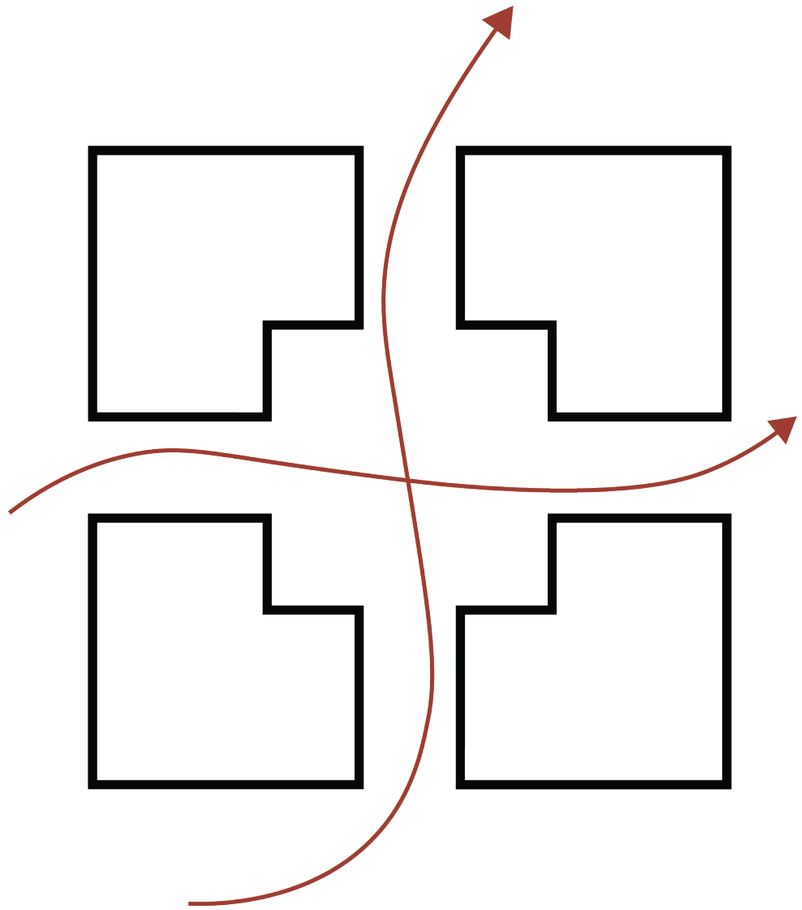
CENTRALISED CIRCULATION

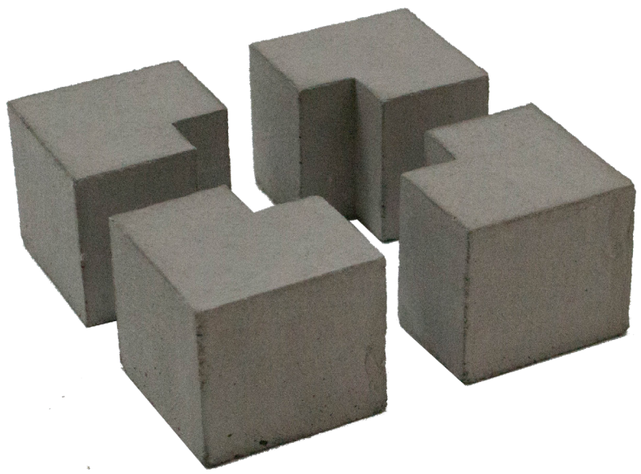


SPACE FOR INTERACTION - UNITS

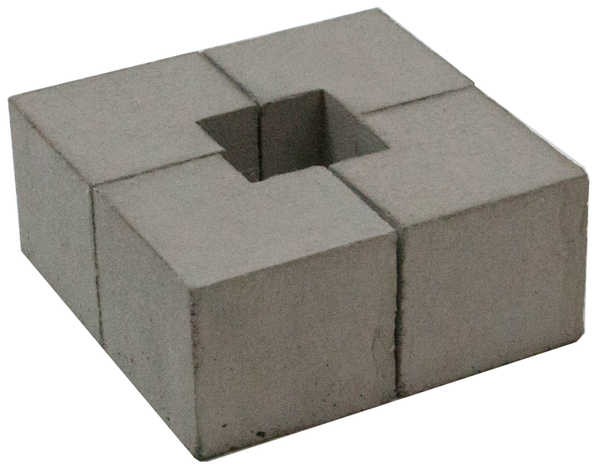


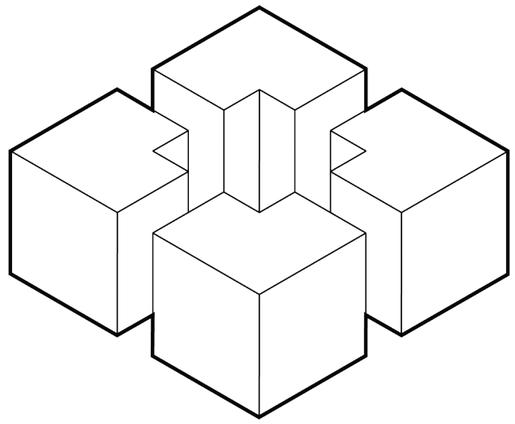
SPACE FOR INTERACTION - SURROUNDING BLOCKS





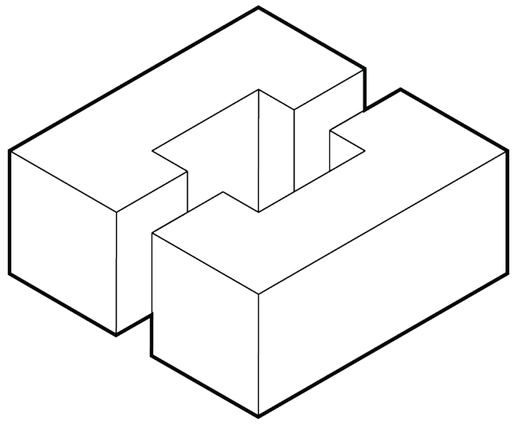






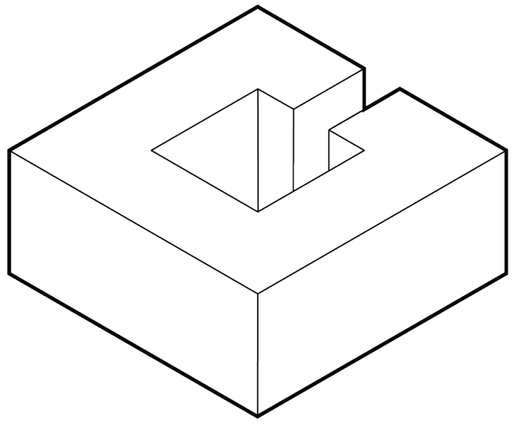
1 - 2 people

45 sqm



3 - 4 people

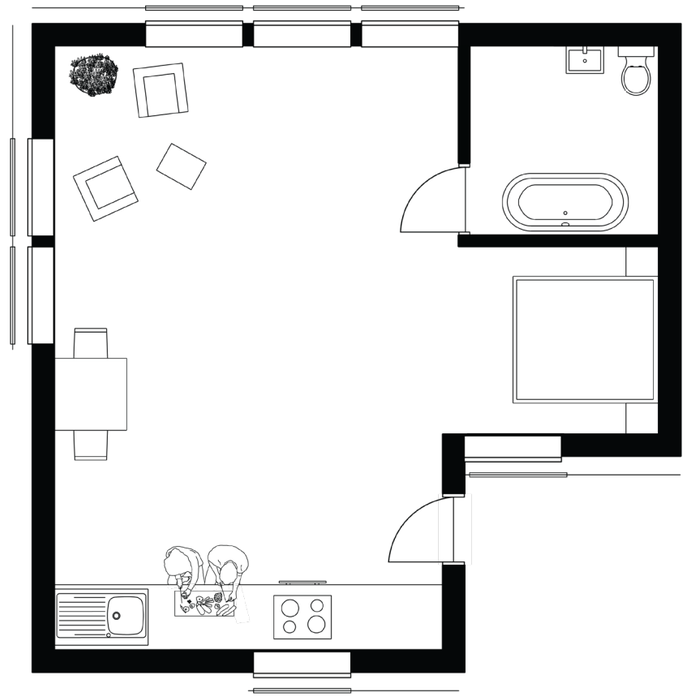
100 sqm

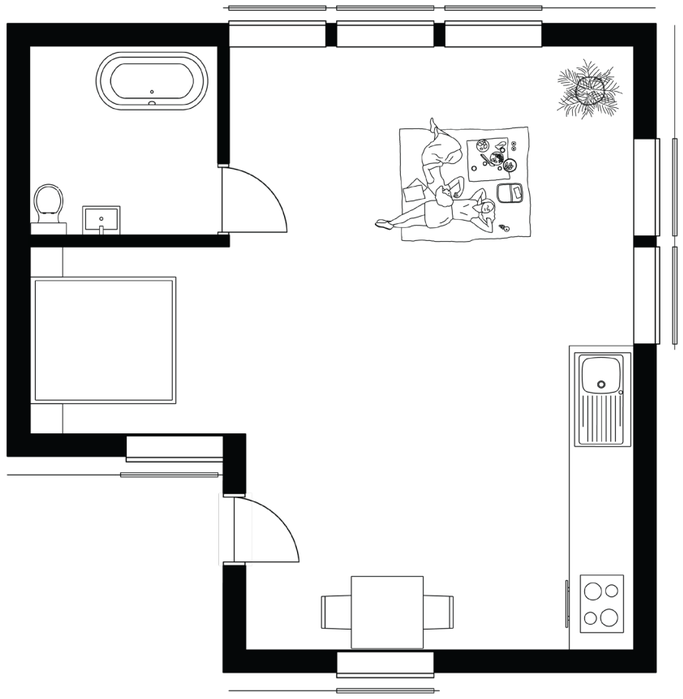


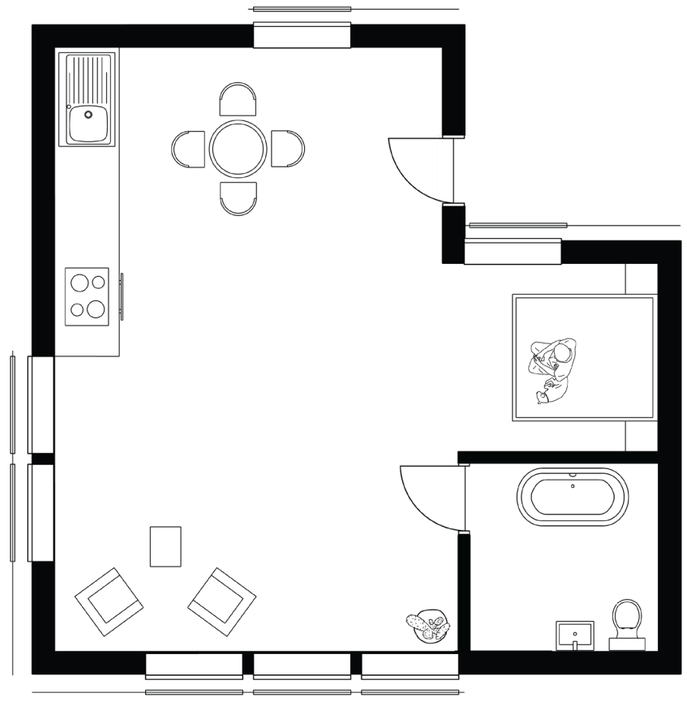
4 - 6 people

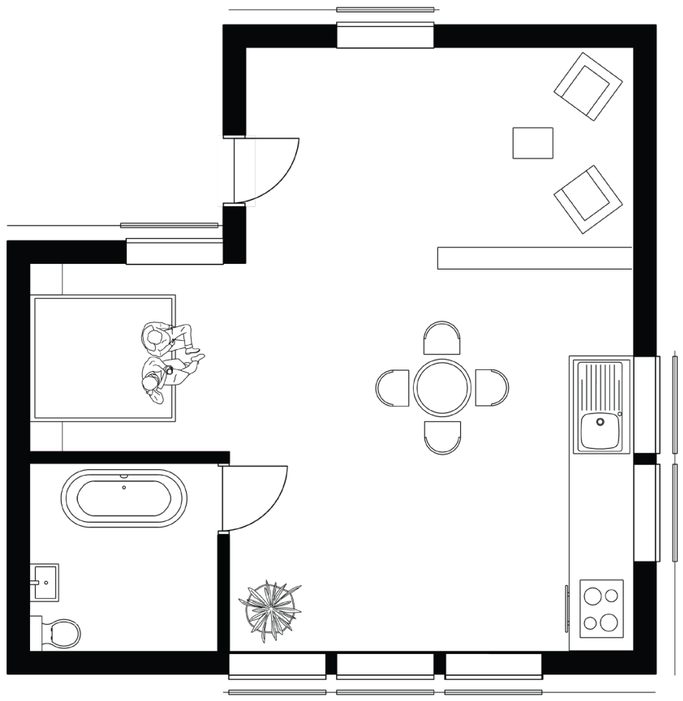
200 sqm

FLEXIBLE, ADAPTABLE









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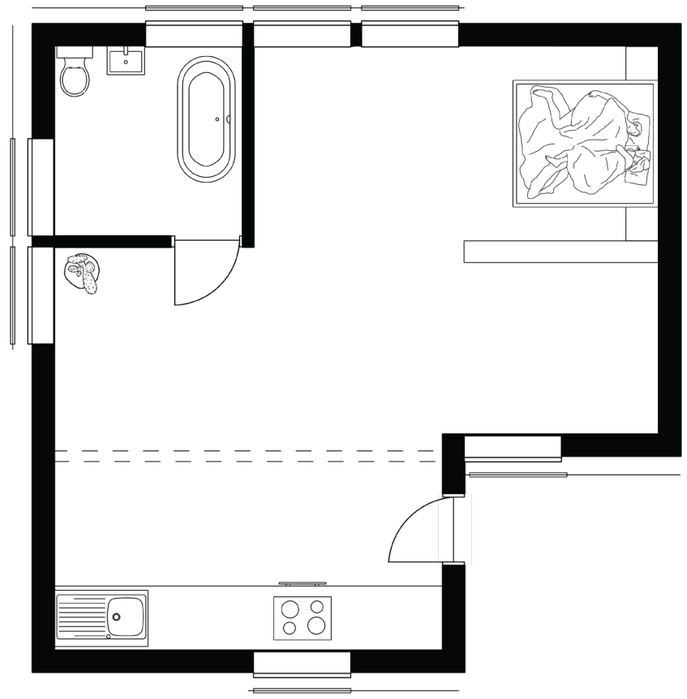

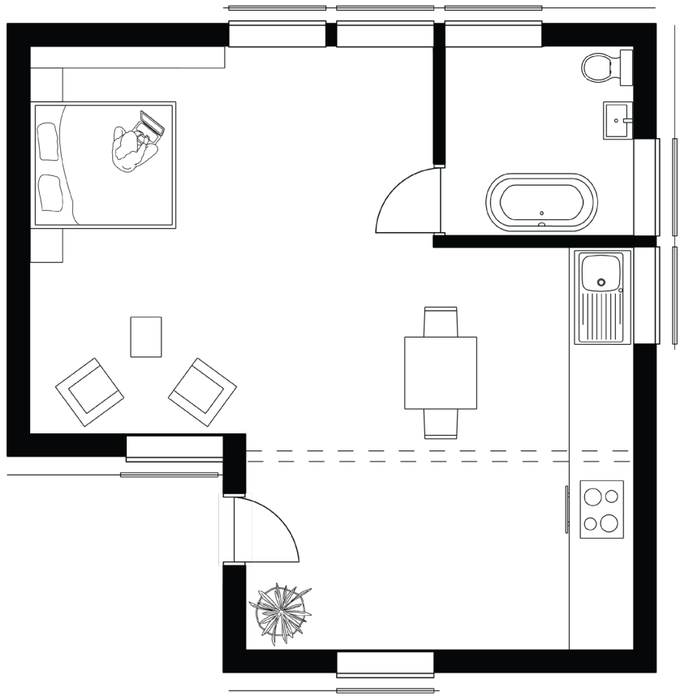

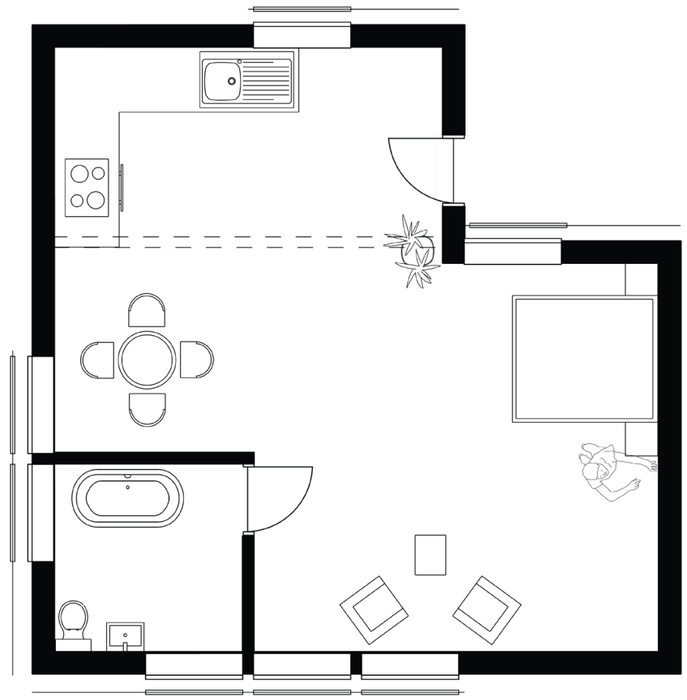

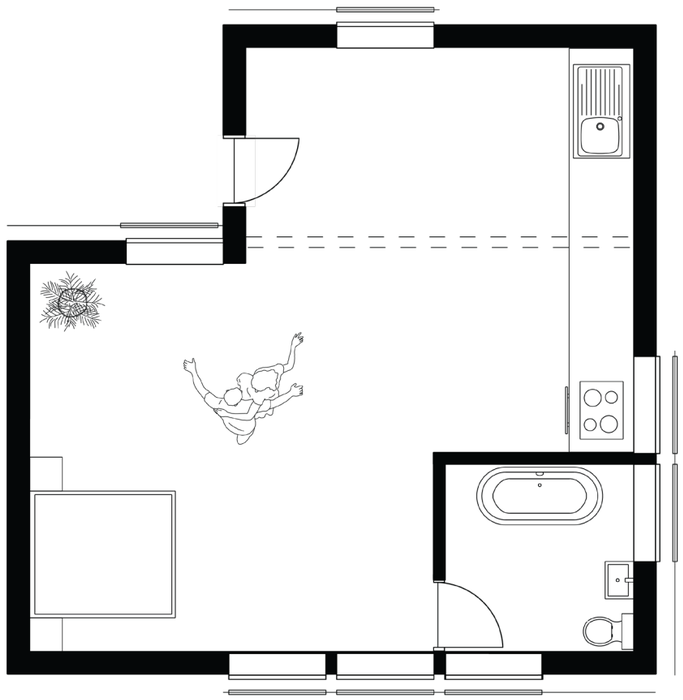

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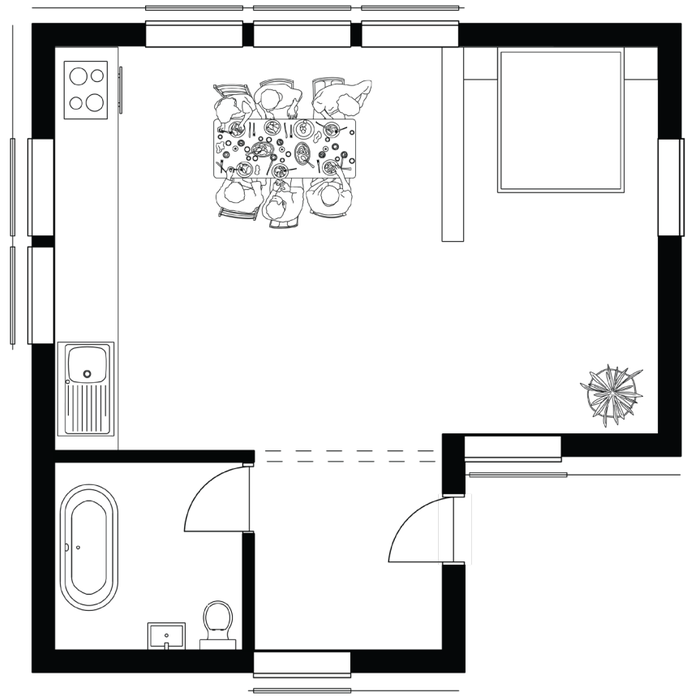

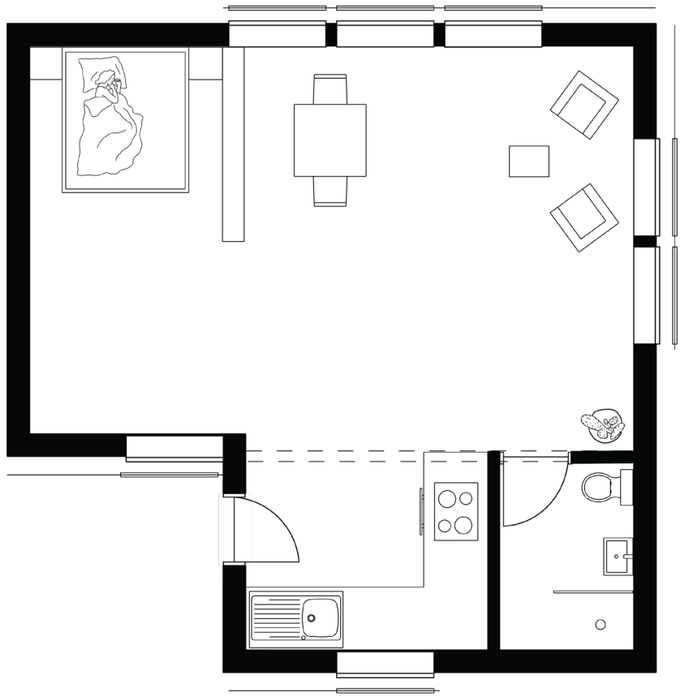

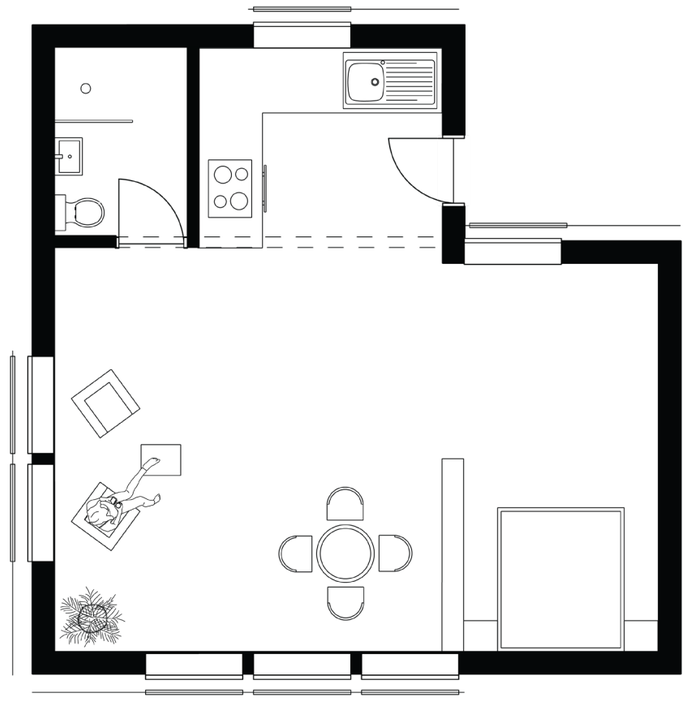

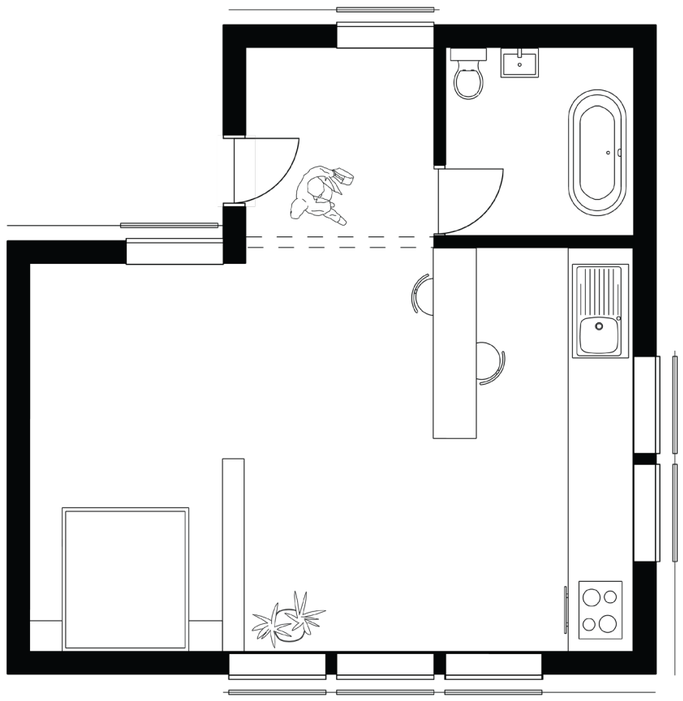

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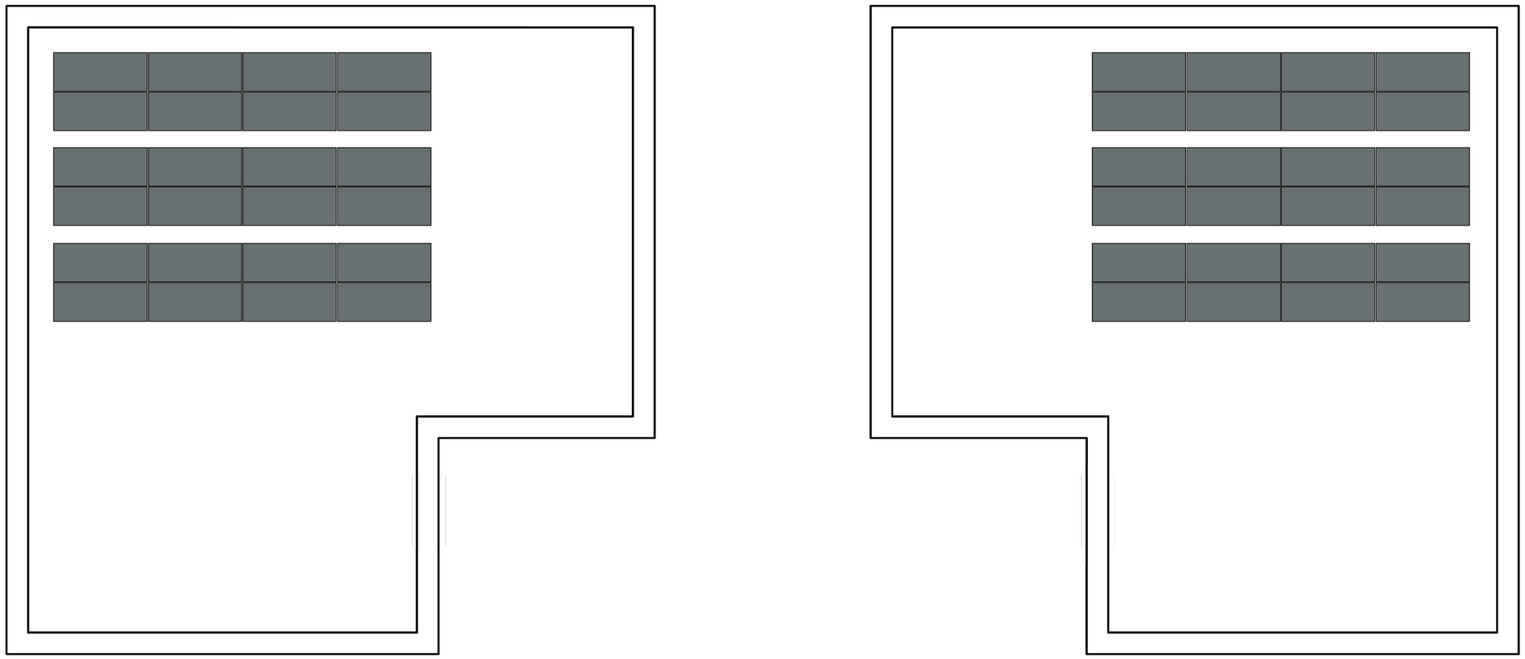

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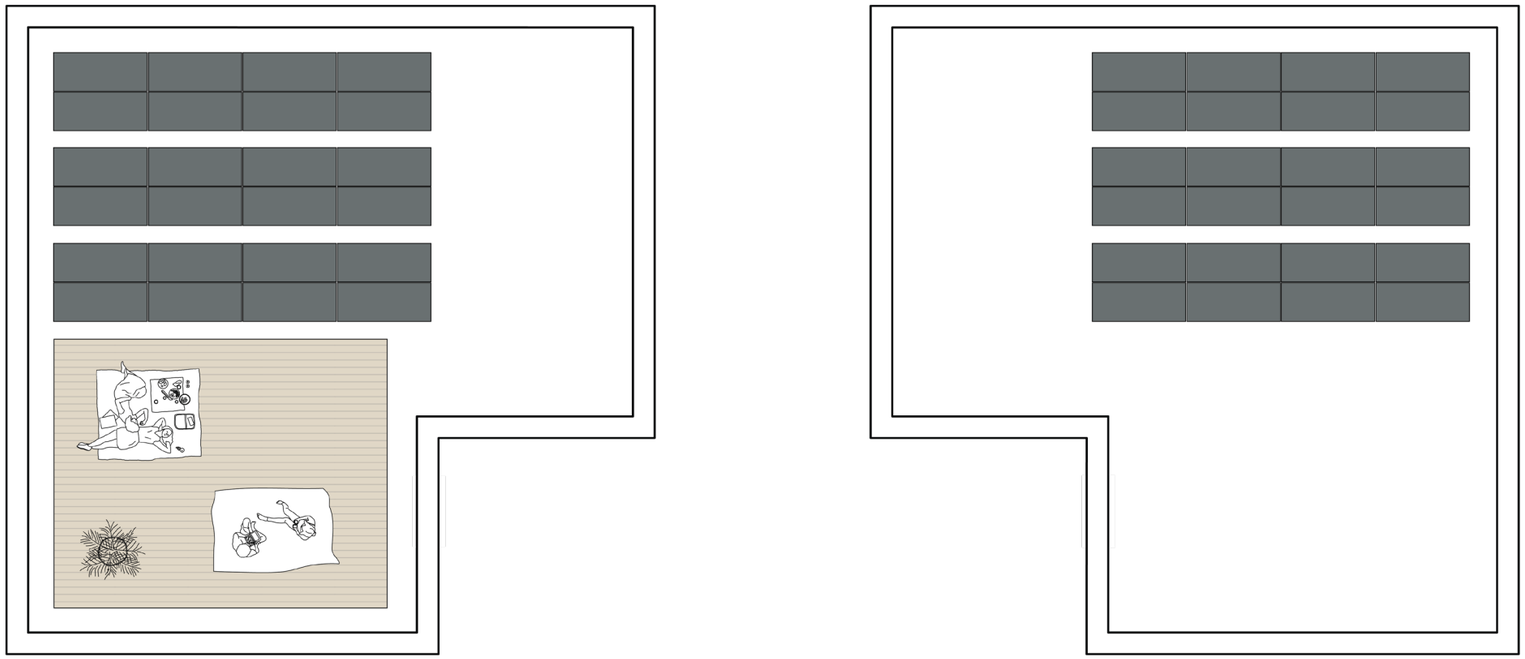

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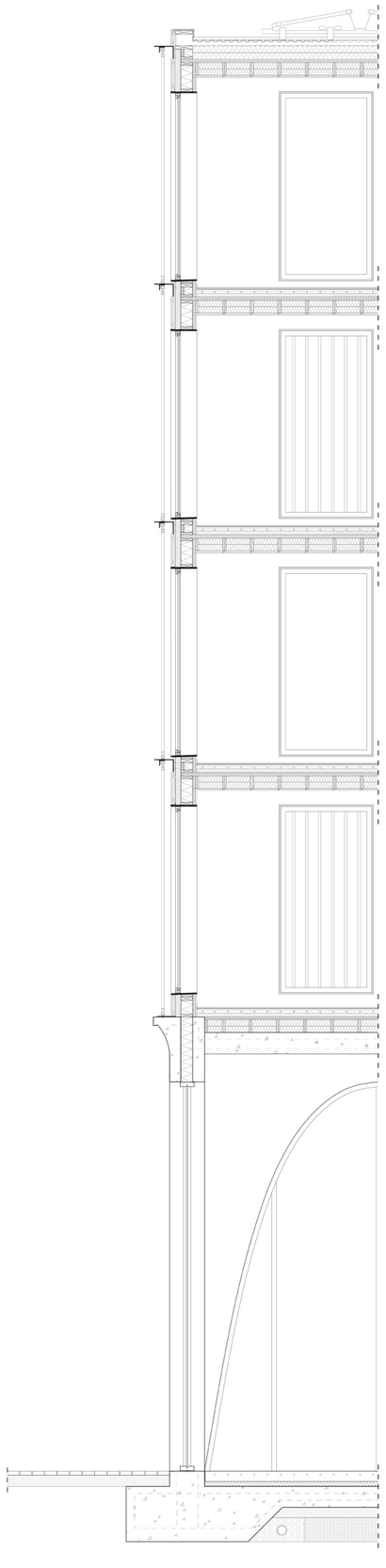
MATERIALITY

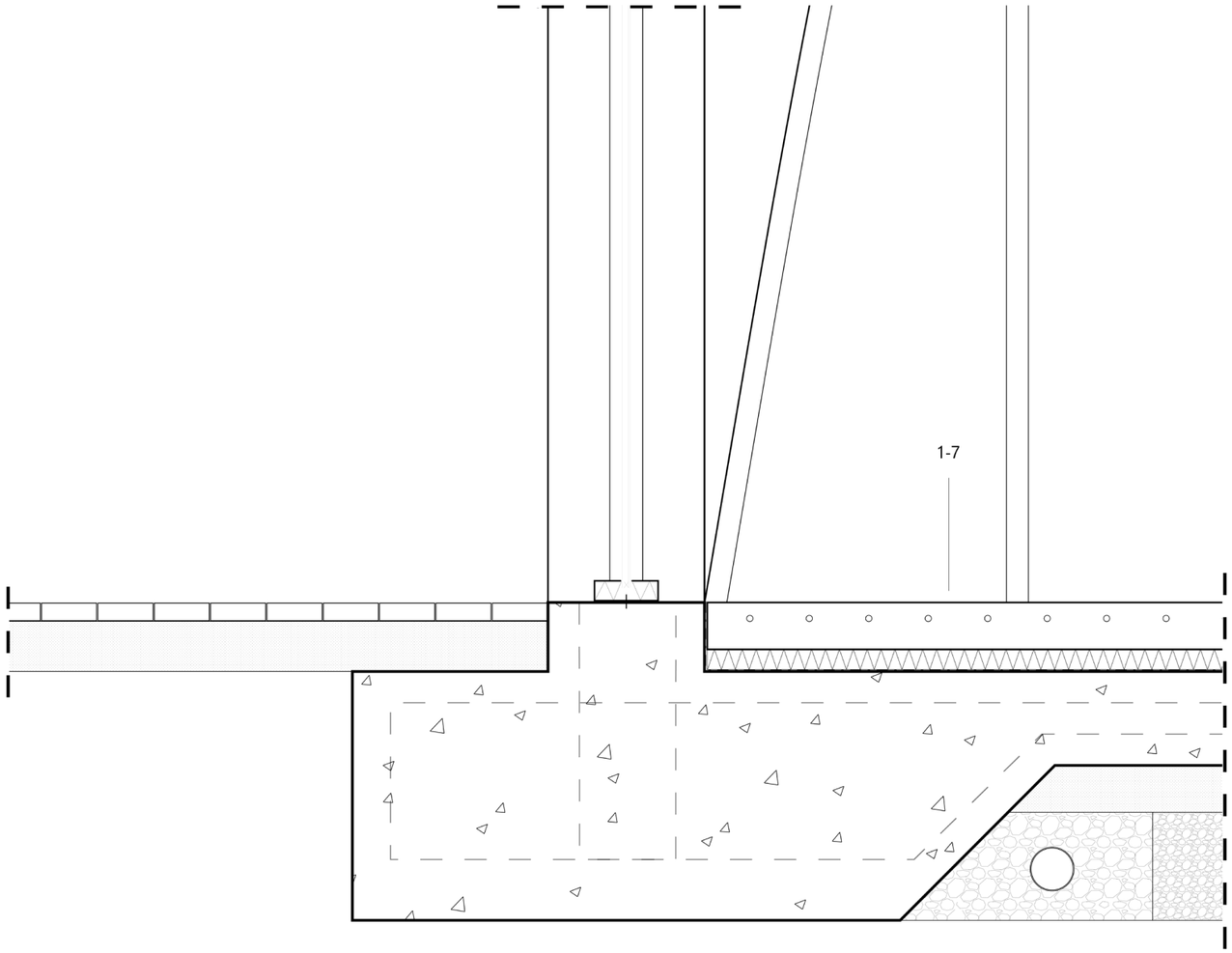






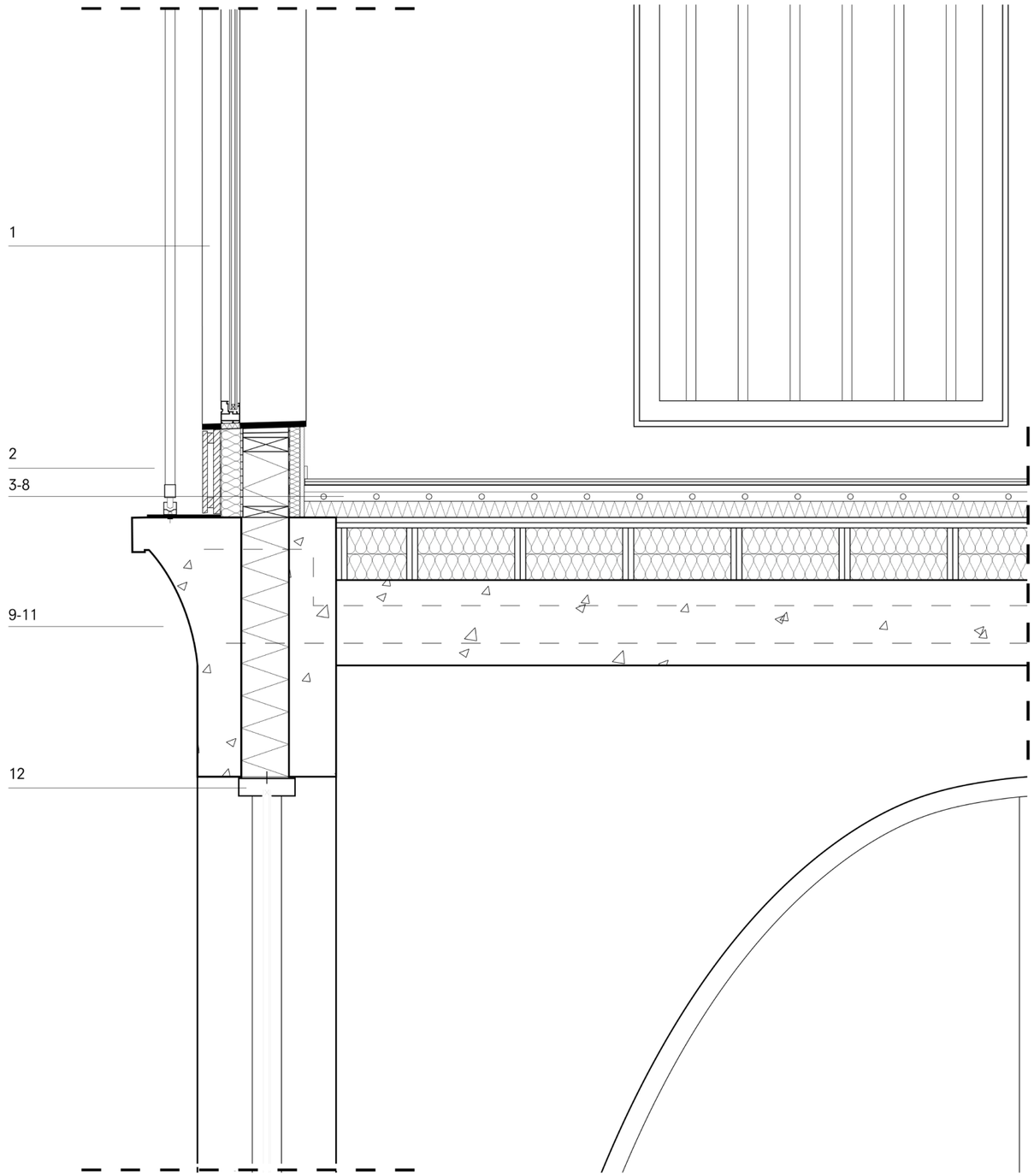


DETAIL #1

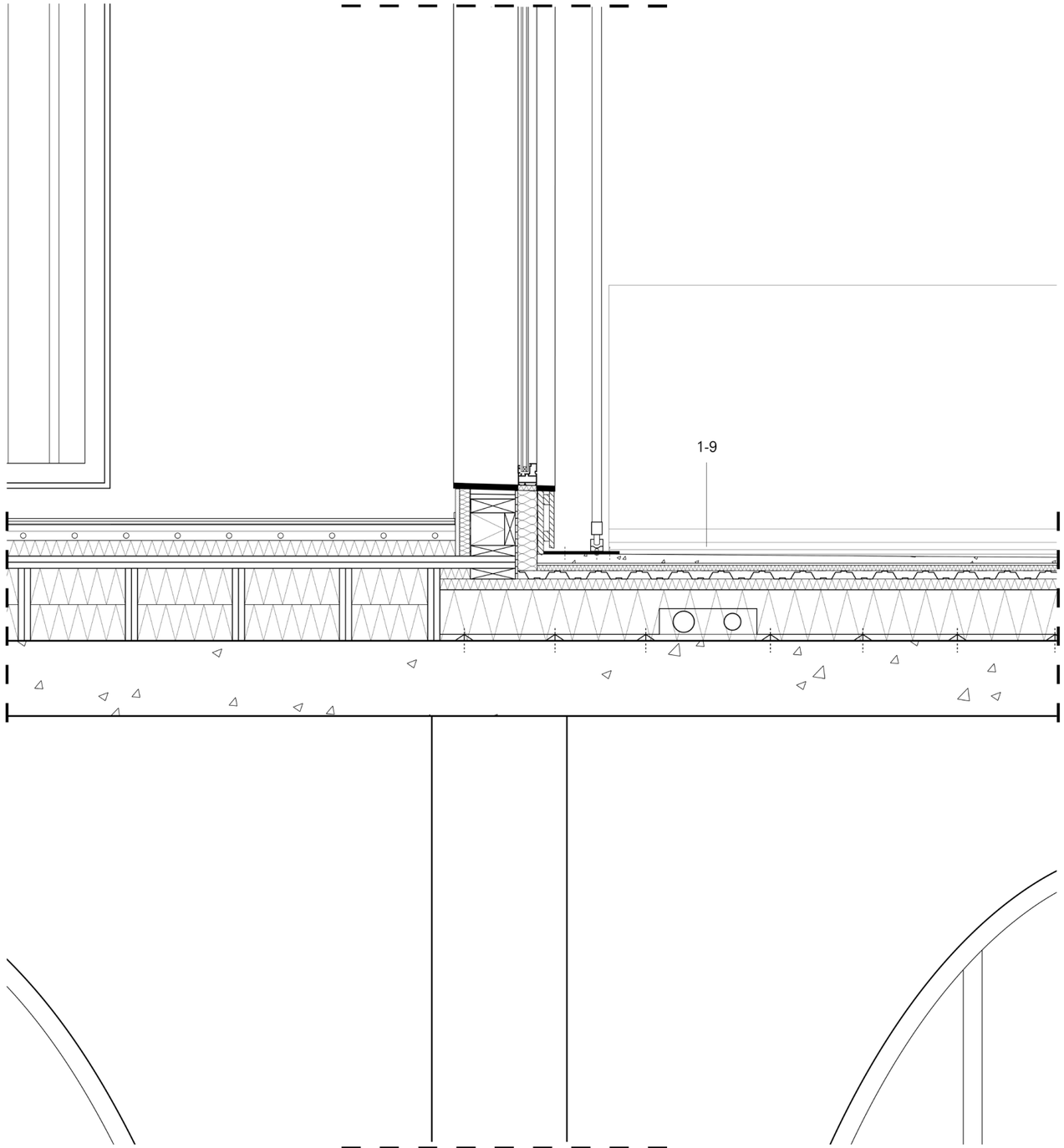


1. polished concrete floor with underfloor heating at 150 mm - 300 mm
2. separating layer
3. insulation - 65 mm
4. DPM
5. reinforced concrete foundation
6. sand layer - 150 mm
7. gravel with drainage - 345 mm

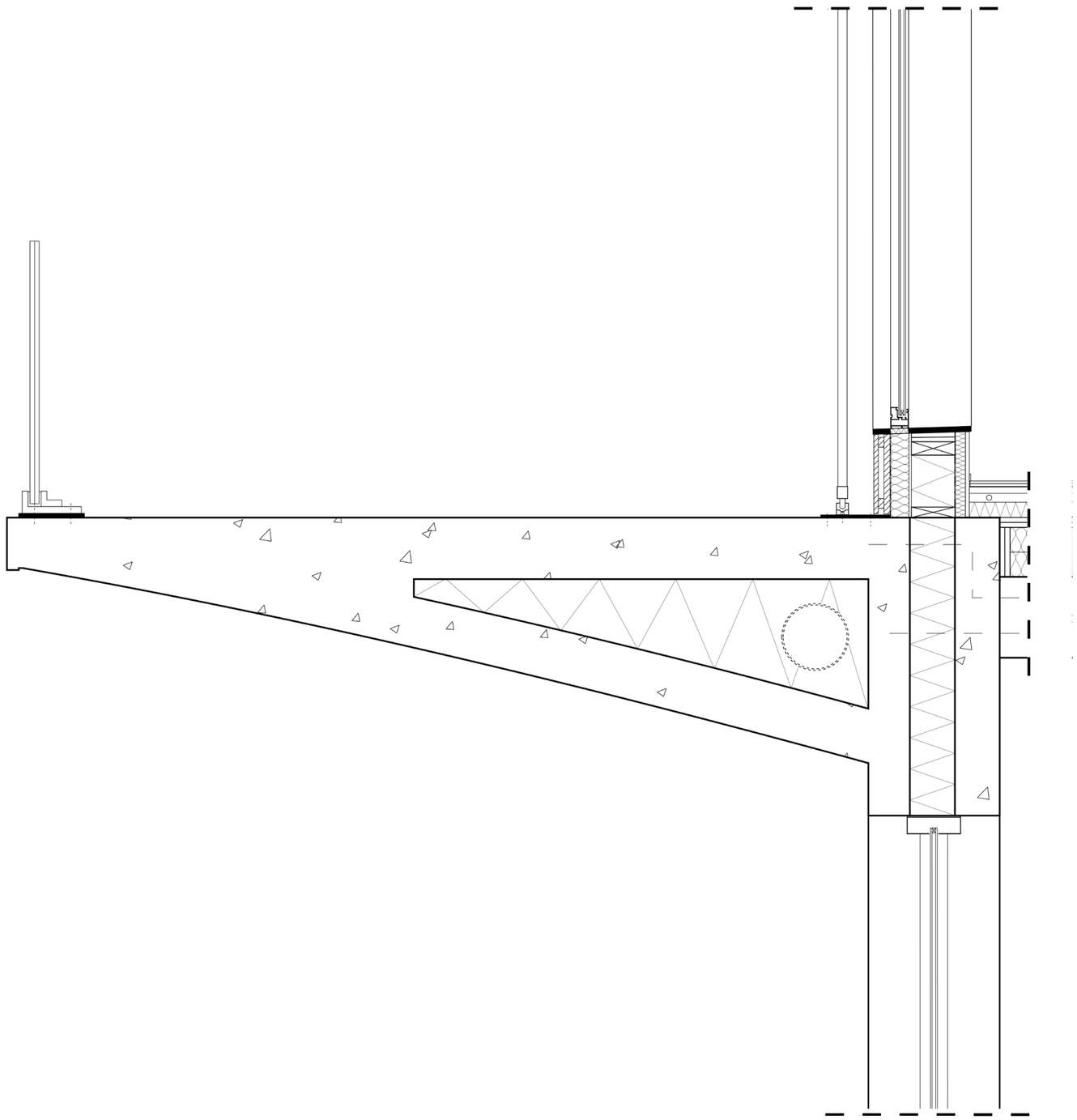
DETAIL #2



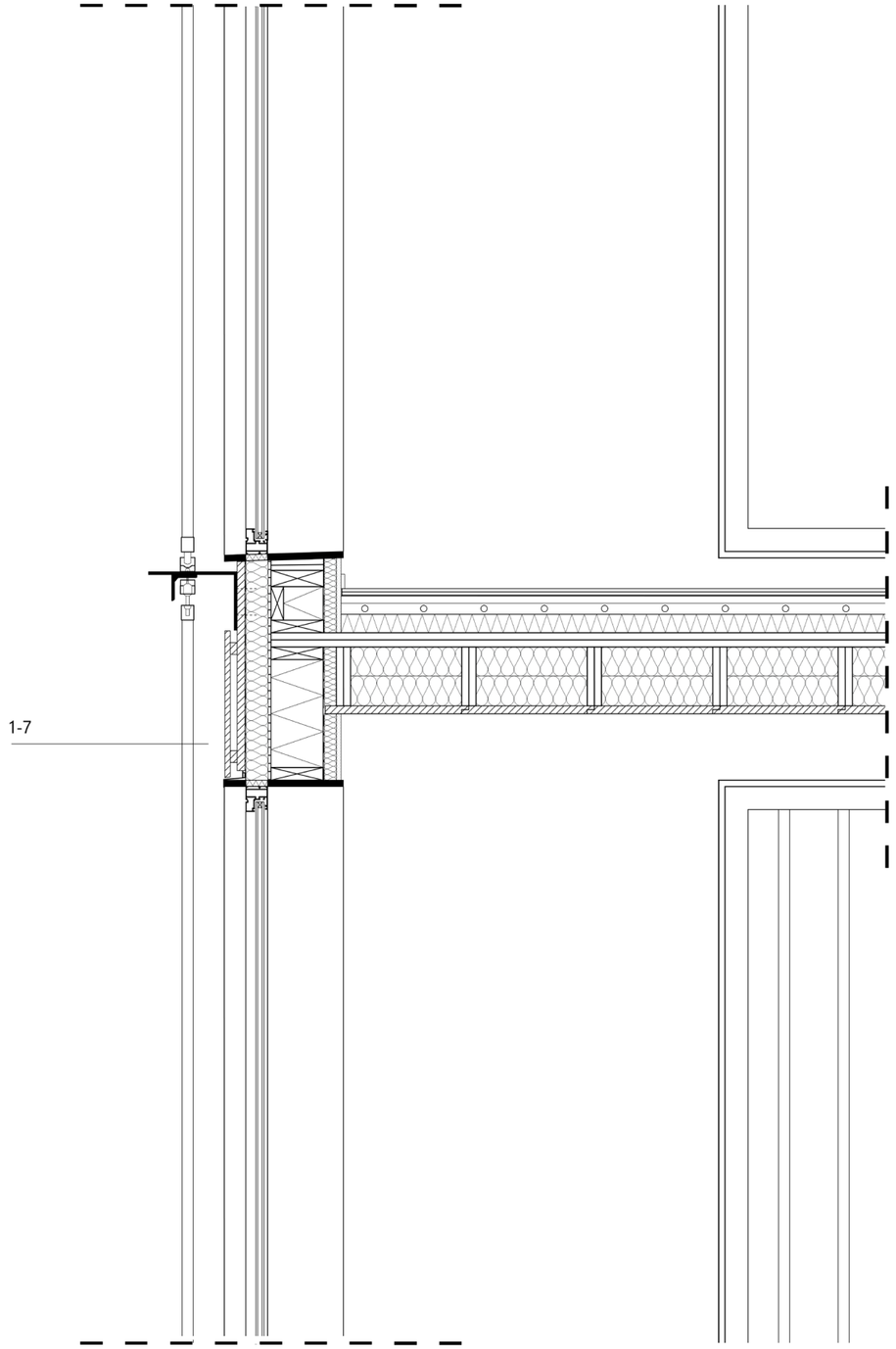
1. aluminium window frame with double glazing
2. timber shutters (pivoting and sliding) - 40 x 145 x 2900 mm
3. laminate timber floor finish 10 mm
4. foam pad
5. underfloor heating pipes at 150 mm
6. insulation board - 70 mm
7. glue-laminated timber floor - 50 mm
8. glue-laminated timber beams - 185 x 45 mm
9. prefabricated concrete panels - 160 mm, 170 mm; sandwiched DPM, insulation - 170 mm, vapour barrier
10. ancors
11. reinforced in-situ concrete floor - 300 mm
12. aluminium window frame with double glazing



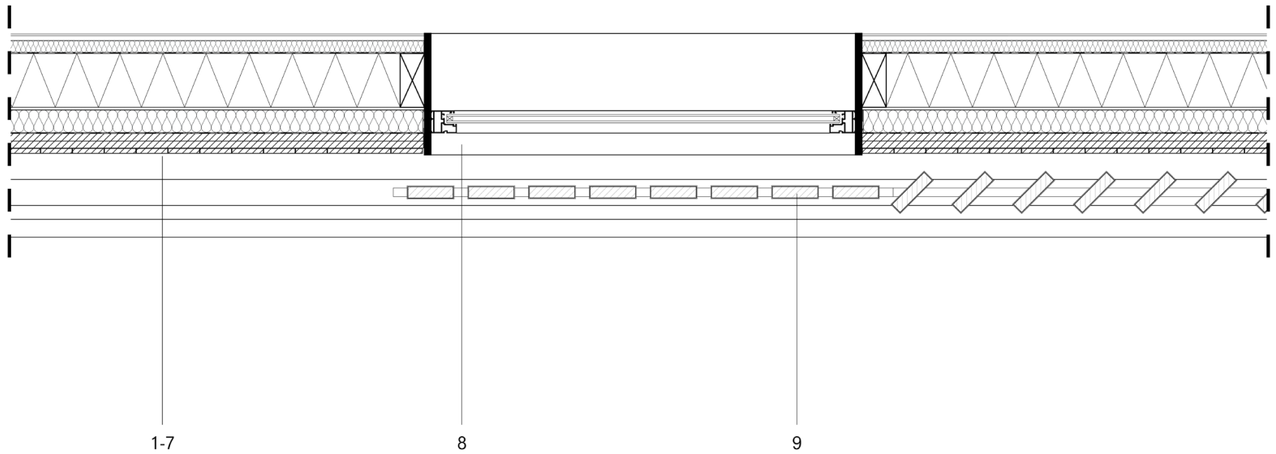
1. concrete surface
2. DPM
3. insulation - 30 mm
4. vapour barrier
5. metal plates, bolted
6. insulation - 50 mm
7. ACCOYA hardwood beam with cuts for services - 165 x 80 mm
8. insulation - 165 mm
9. reinforced in-situ concrete floor - 300 mm



DETAIL #3



1. timber cladding (redwood) - 15 x 96 mm; battens - 20 x 37 mm
2. cellulose insulation - 70 mm
3.OSB - 20 mm
4. DPM
5. insulation - 166 mm
6.vapour barrier
7. plasterboard - 15 mm



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2. cellulose insulation - 70 mm
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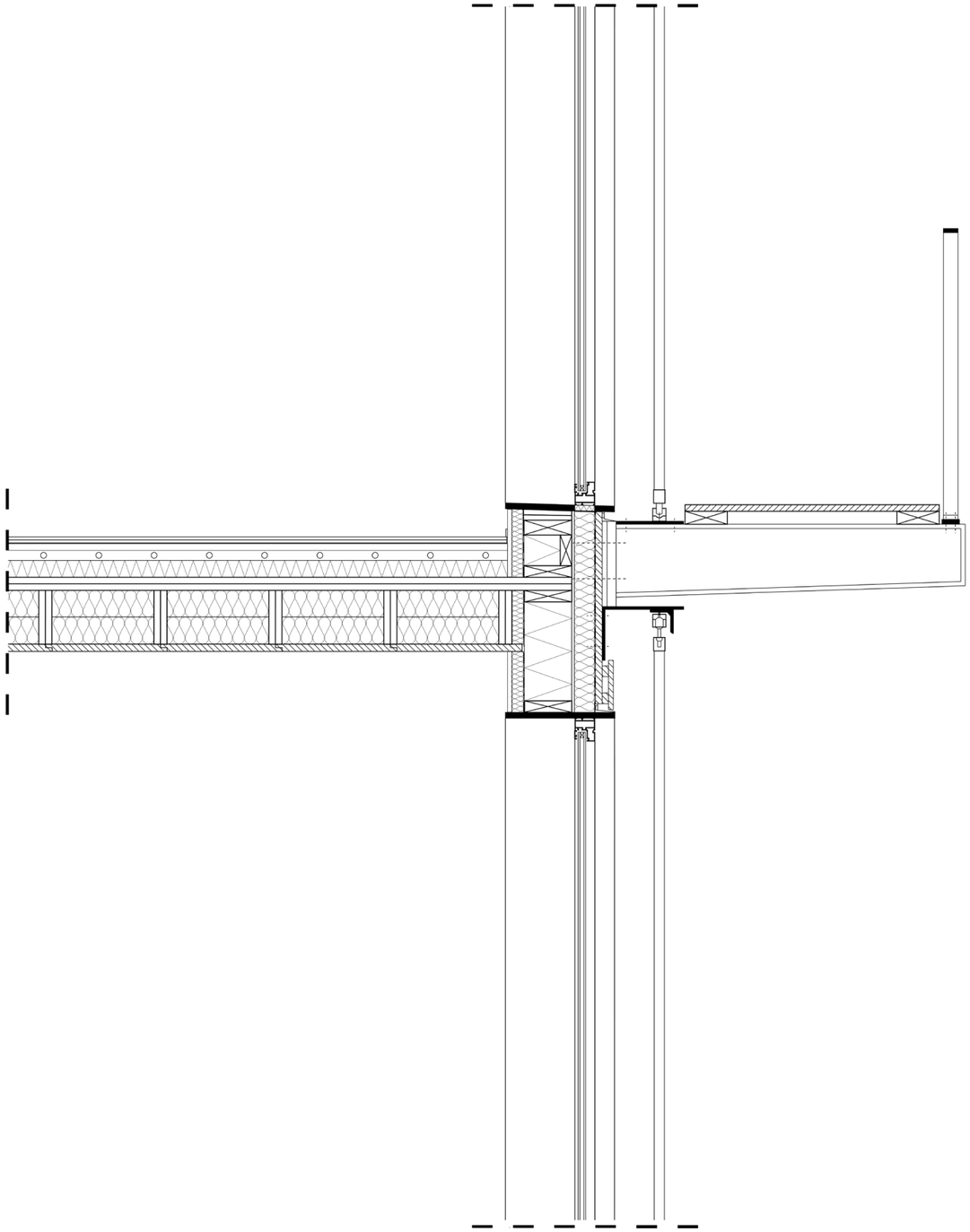
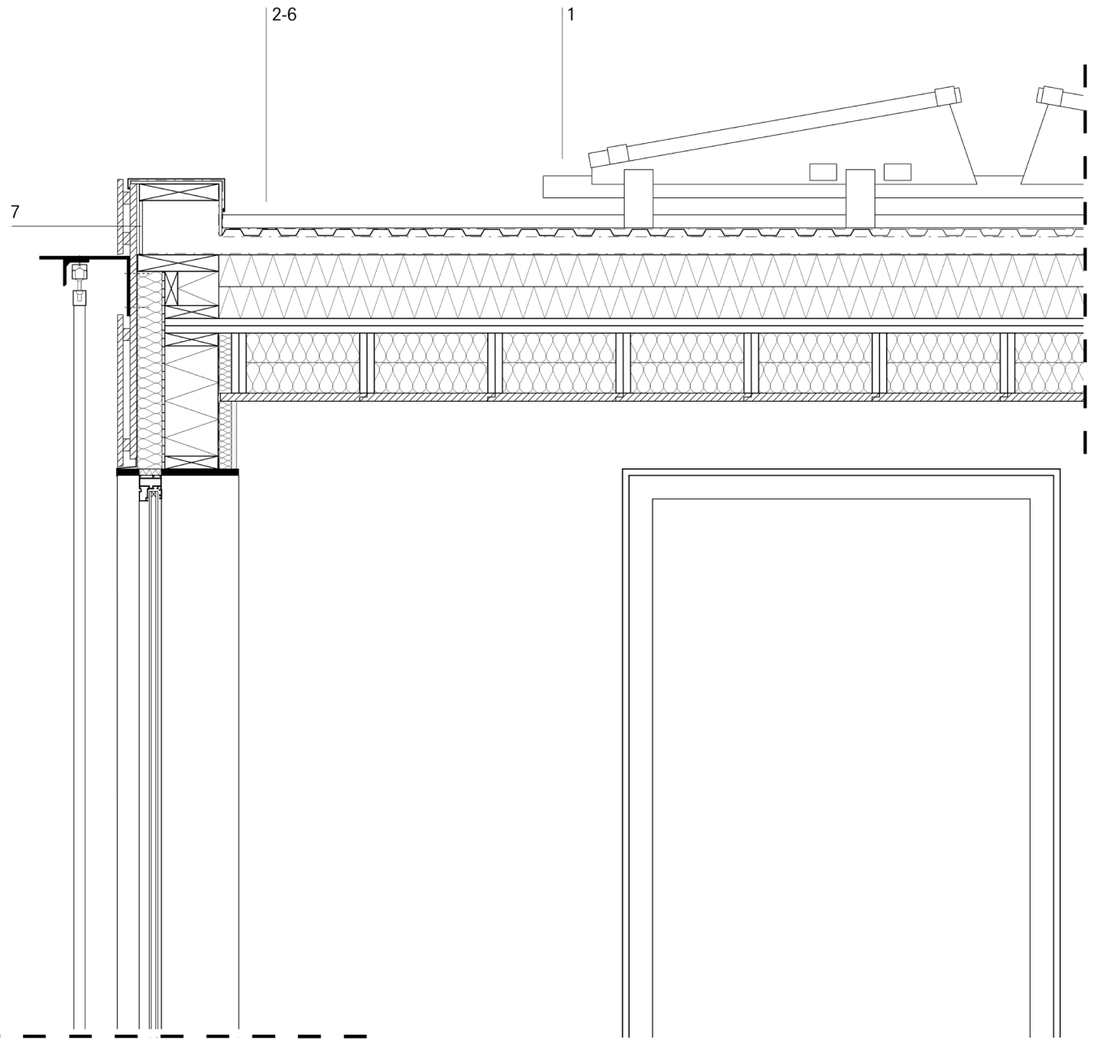
4. DPM
5. insulation - 166 mm
6.vapour barrier
7. plasterboard - 15 mm
8. aluminium window frame with double glazing
9. timber shutters (pivoting and sliding) - 40 x 145 x 2900 mm

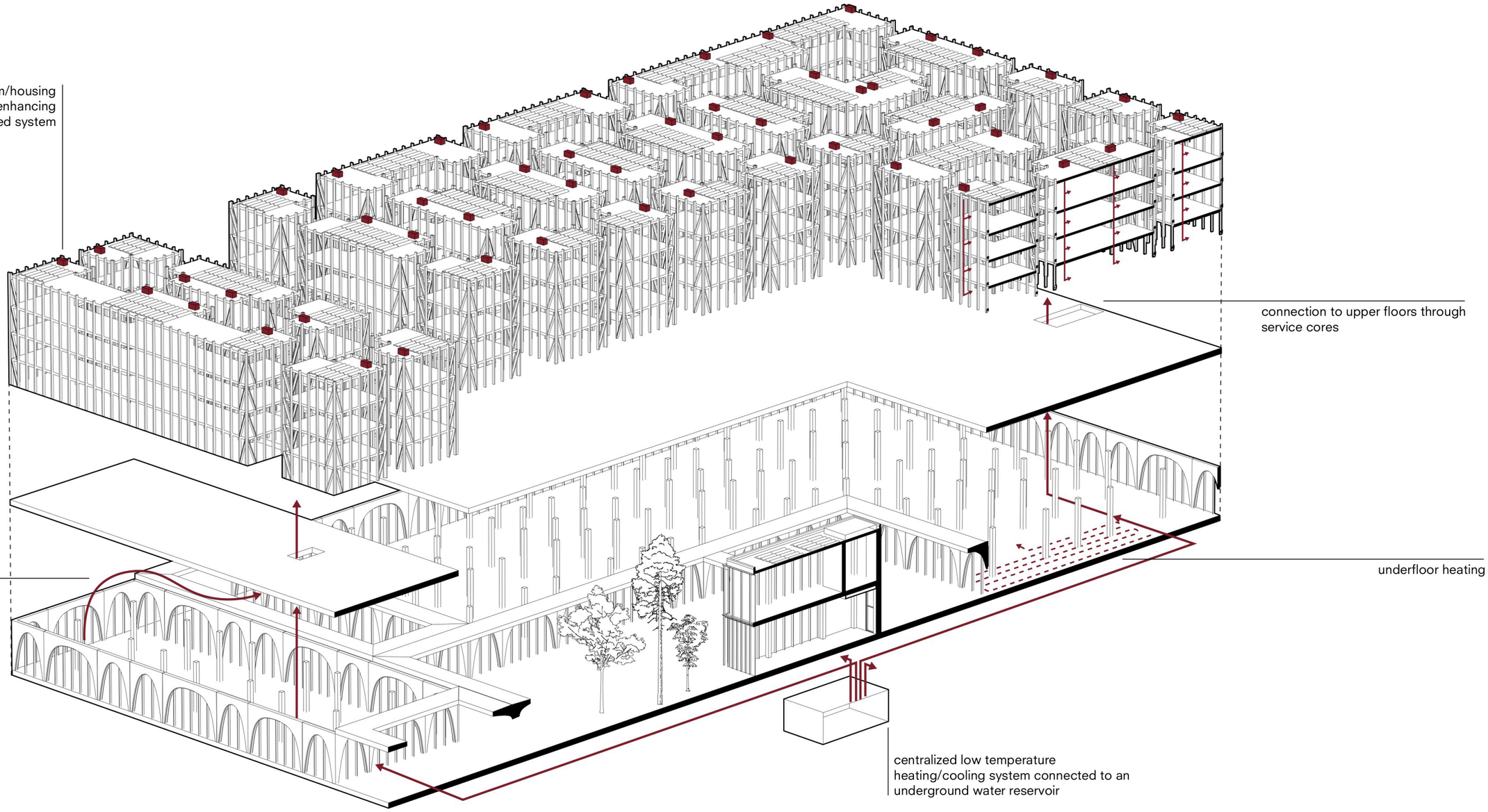


DETAIL #4

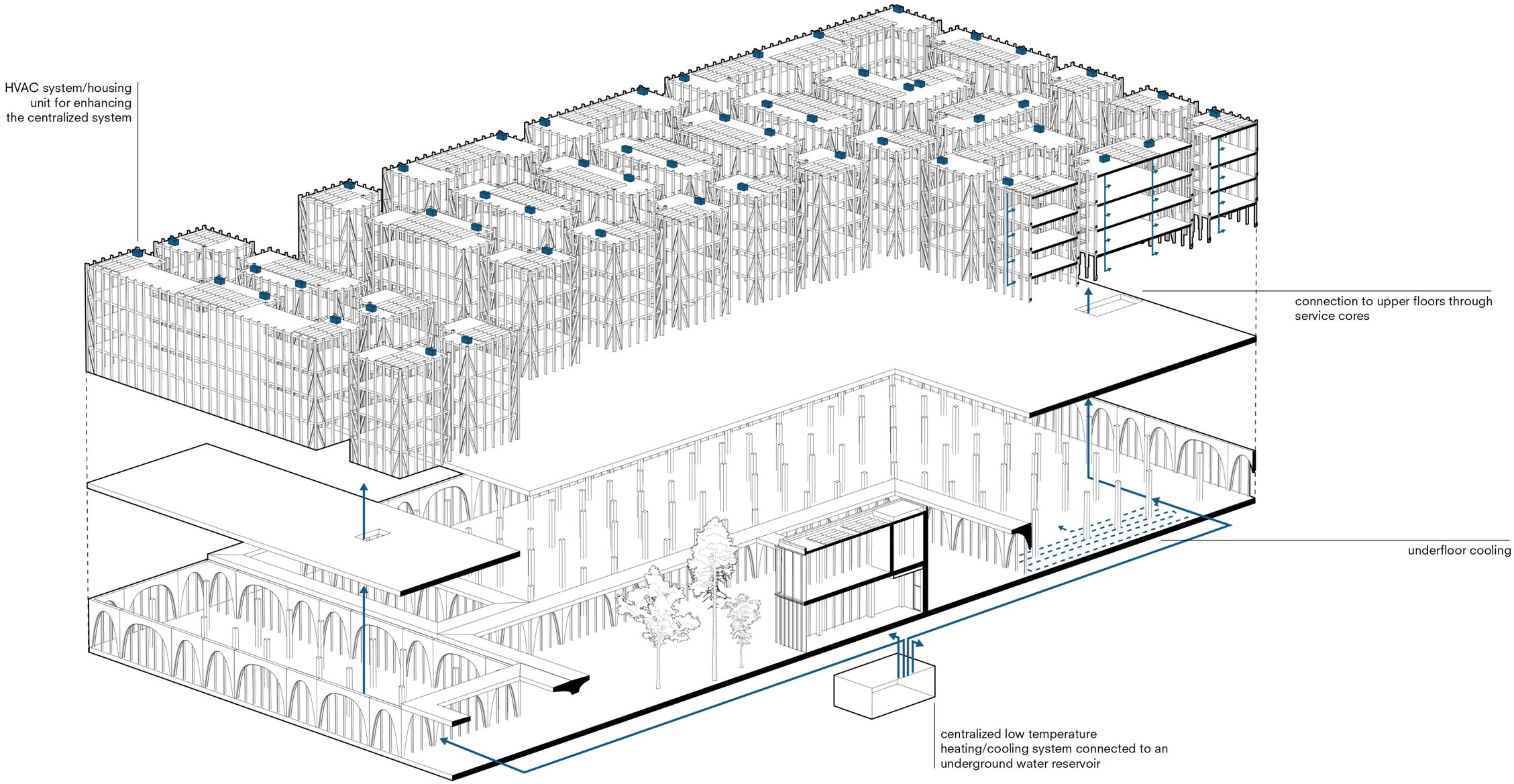


1. PV panels
2. vegetation - 60 mm
3. filter cloth
4. root barrier
5. ventilation void - 70 mm
6. DPM
7. wind block

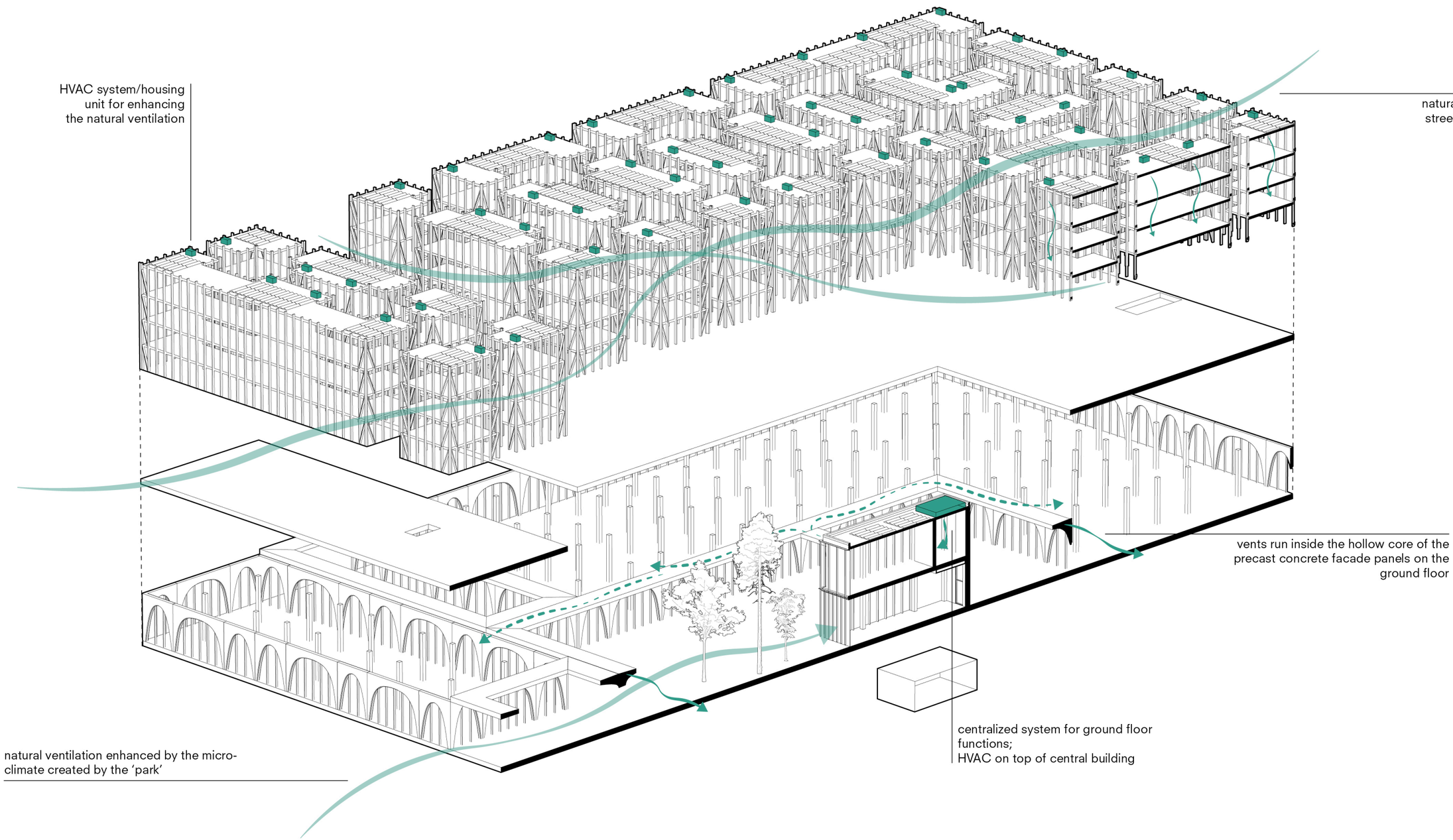
CLIMATE STRATEGY - HEATING



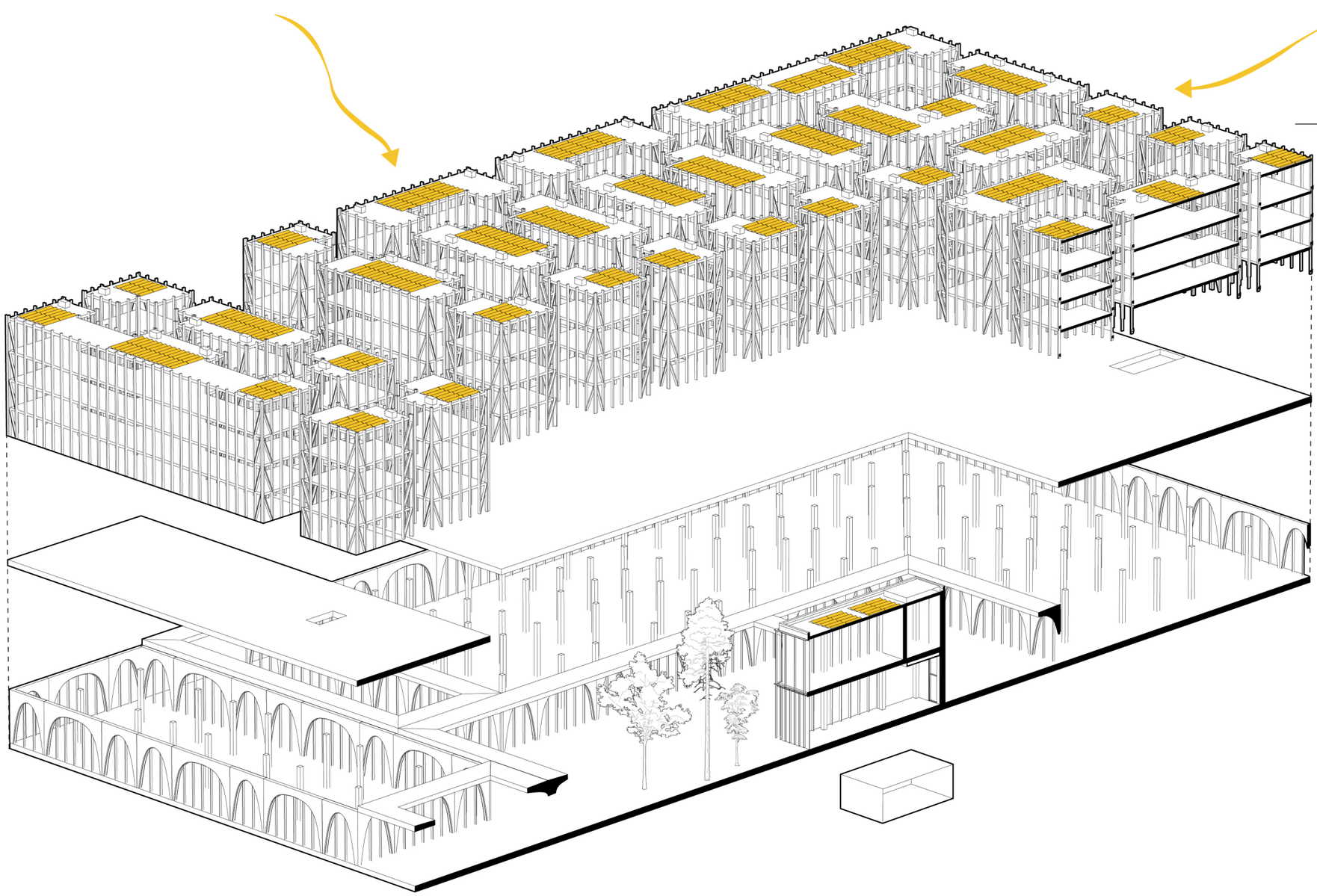
CLIMATE STRATEGY - COOLING



CLIMATE STRATEGY - VENTILATION

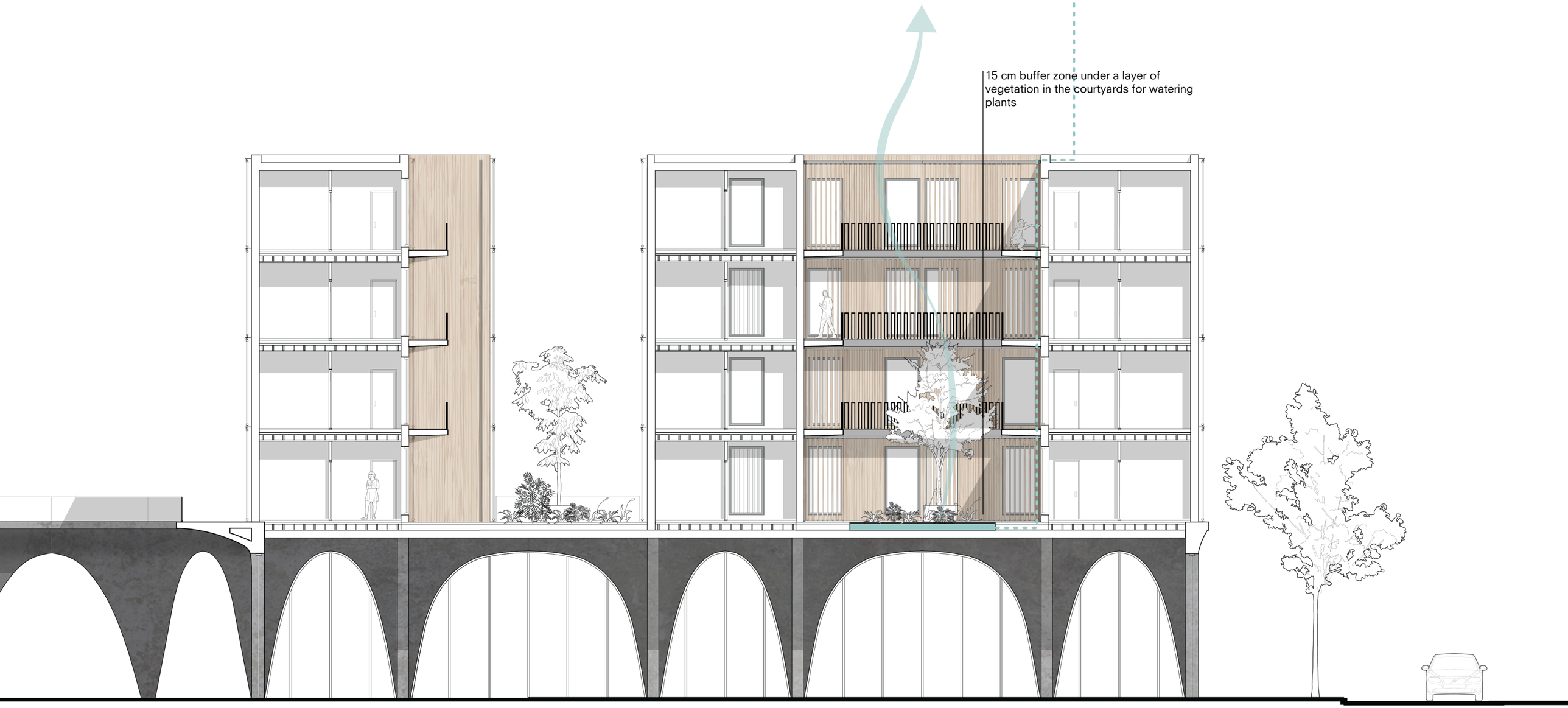


CLIMATE STRATEGY - SOLAR



East-West oriented PV panels
offset from the edges of the roof to avoid
overheating

15 cm buffer zone under a layer of vegetation in the courtyards for watering plants



VI. Conclusion

Can the process of increasing socio-spatial segregation be reduced through **a new collective and collaborative housing typology** that shifts the power relationships between the elites and lower middle-class people towards a **more equitable** arrangement?

AIMS TO POINT OUT THE IMPORTANCE OF IMPLEMENTING **MORE SOCIALLY CONSCIOUS** DESIGNS IN AMSTERDAM

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CREATES OPPORTUNITIES FOR **MUTUALLY BENEFICIAL** LIVING ARRANGEMENTS BETWEEN ELITES AND LOWER MIDDLE-CLASSES

AIMS TO POINT OUT THE IMPORTANCE OF IMPLEMENTING **MORE SOCIALLY CONSCIOUS** DESIGNS IN AMSTERDAM

CREATES OPPORTUNITIES FOR **MUTUALLY BENEFICIAL** LIVING ARRANGEMENTS BETWEEN ELITES AND LOWER MIDDLE-CLASSES

QUESTIONS THE SOCIALLY SEGREGATED HOUSING SOLUTIONS OF TODAY, AND PROPOSES AN ALTERNATIVE THAT PUTS THE SOCIAL PROCESS OF INTEGRATION AT THE FOREFRONT IN ORDER TO ACHIEVE **SOCIAL AND ECONOMICAL SUSTAINABILITY**

