

An architectural rendering of a courtyard. The ground is paved with irregular, light-colored stone tiles. A large, leafy tree stands in the center. To the left, a man in a green shirt carries a young girl and a baby. To the right, a person with a backpack walks away. The background shows modern buildings with balconies and large windows. The overall atmosphere is bright and green.

P5

(E)CO HOUSING

Co-housing with like-minded people (ecological) of all ages - Living at the Apple Market inside the city belt of Amsterdam.

Mike de Lange
29-06-2017

INHOUD

Studio

Appeltjesmarkt

Relevantie

Onderzoeksvraag

Masterplan

Architectonisch ontwerp

Technisch ontwerp

Conclusie



INTRODUCTIE

STUDIO



LOCATIE

AMSTERDAM



LOCATIE

AMSTERDAM



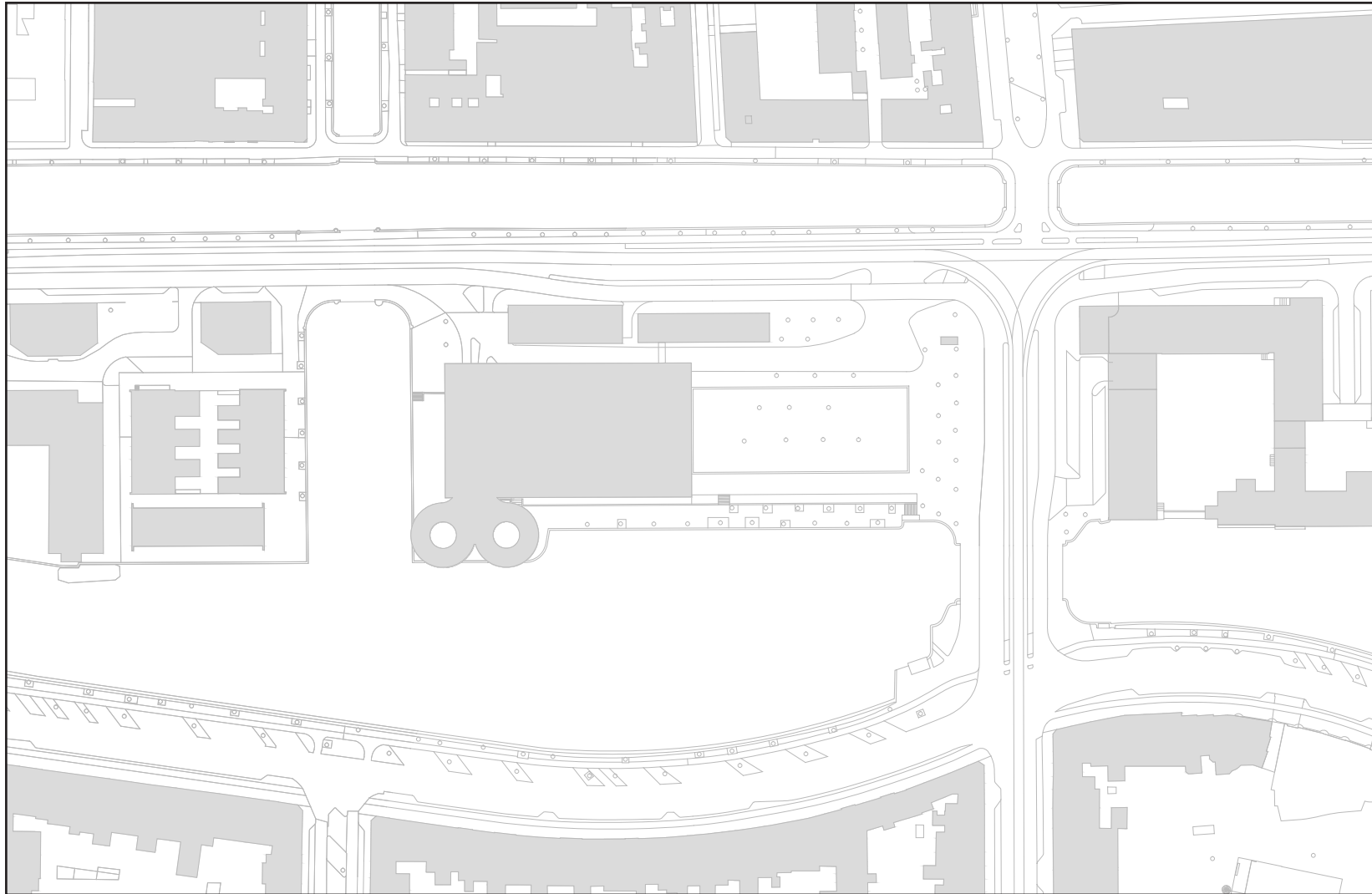
LOCATIE

AMSTERDAM



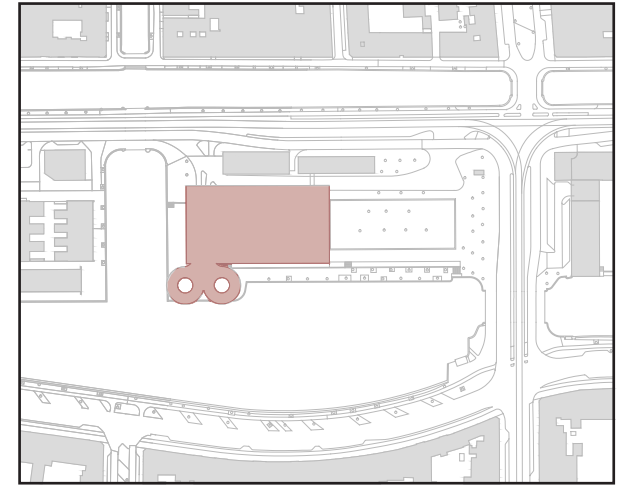
LOCATIE

APPELTJESMARKT



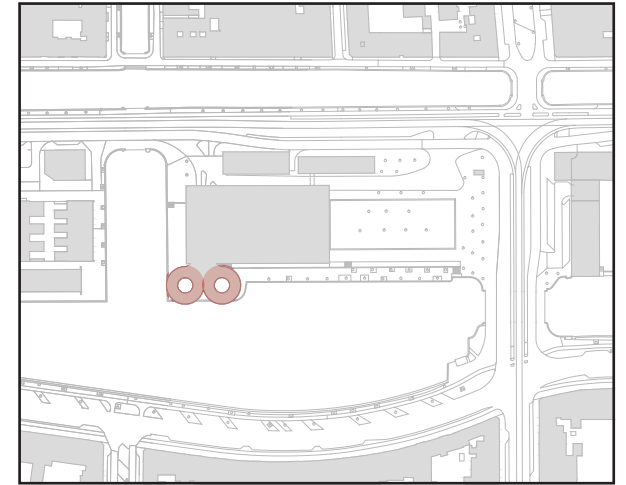
LOCATIE

Q PARK EUROPAPARKING



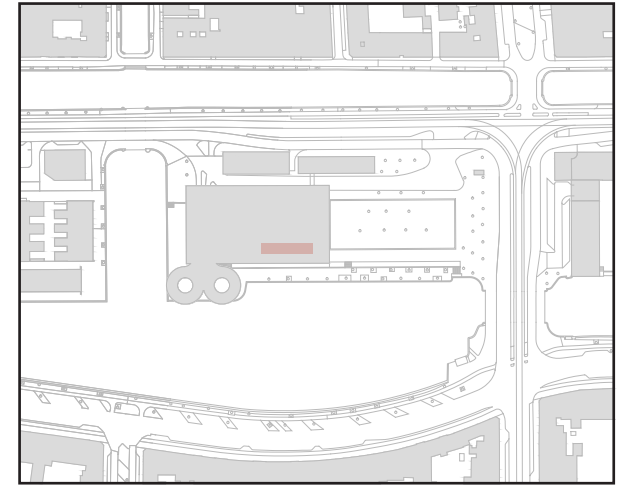
LOCATIE

CAFE DE WATERKANT



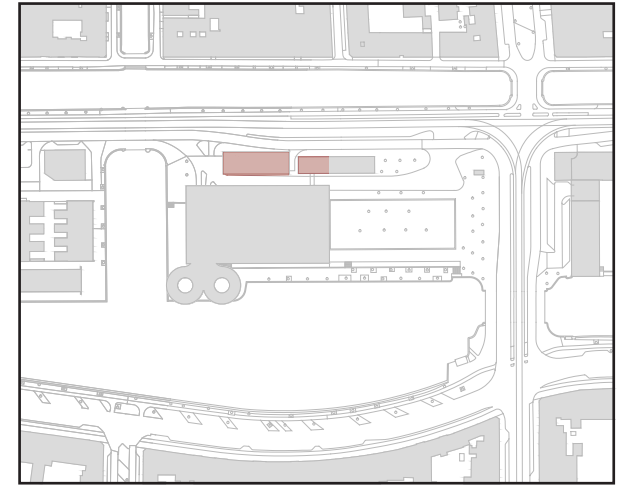
LOCATIE

STOELENPROJECT



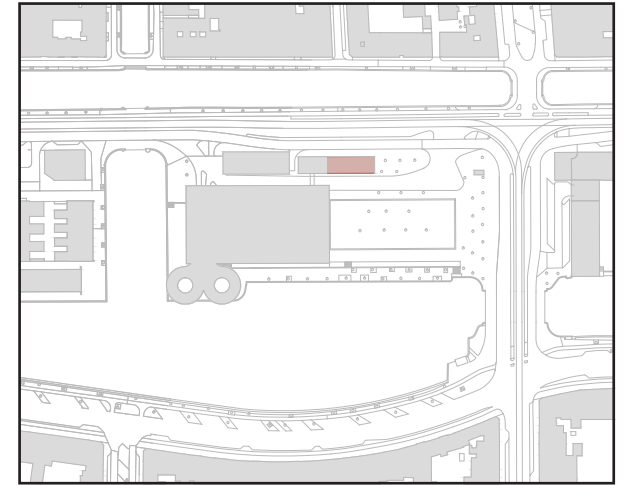
LOCATIE

TANKSTATION



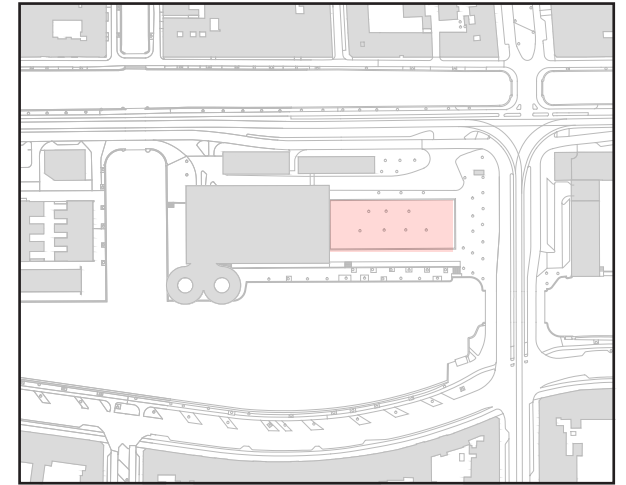
LOCATIE

CLAVIS PIANOSHOP



LOCATIE

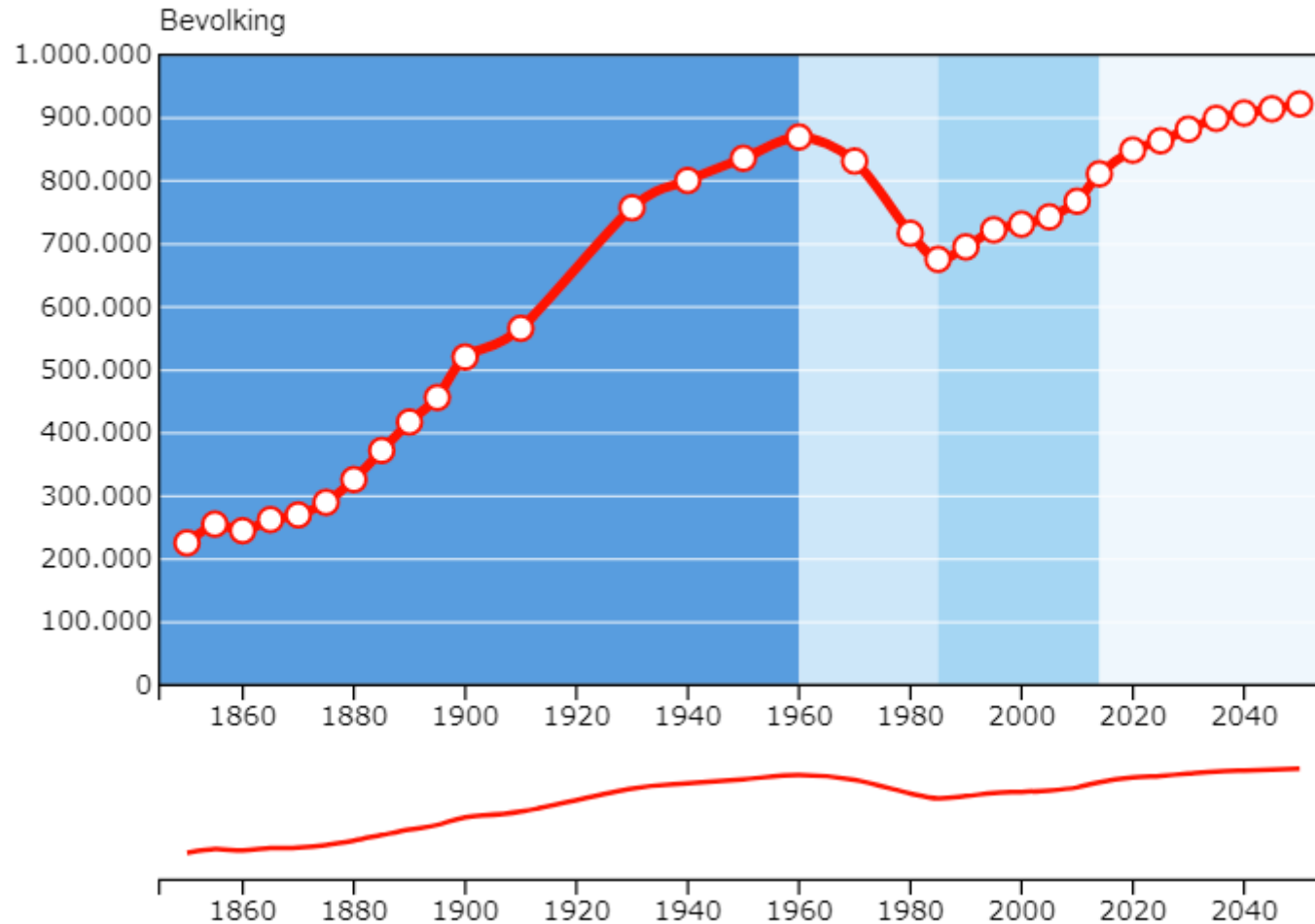
EVENEMENTENTERREIN



RELEVANTIE

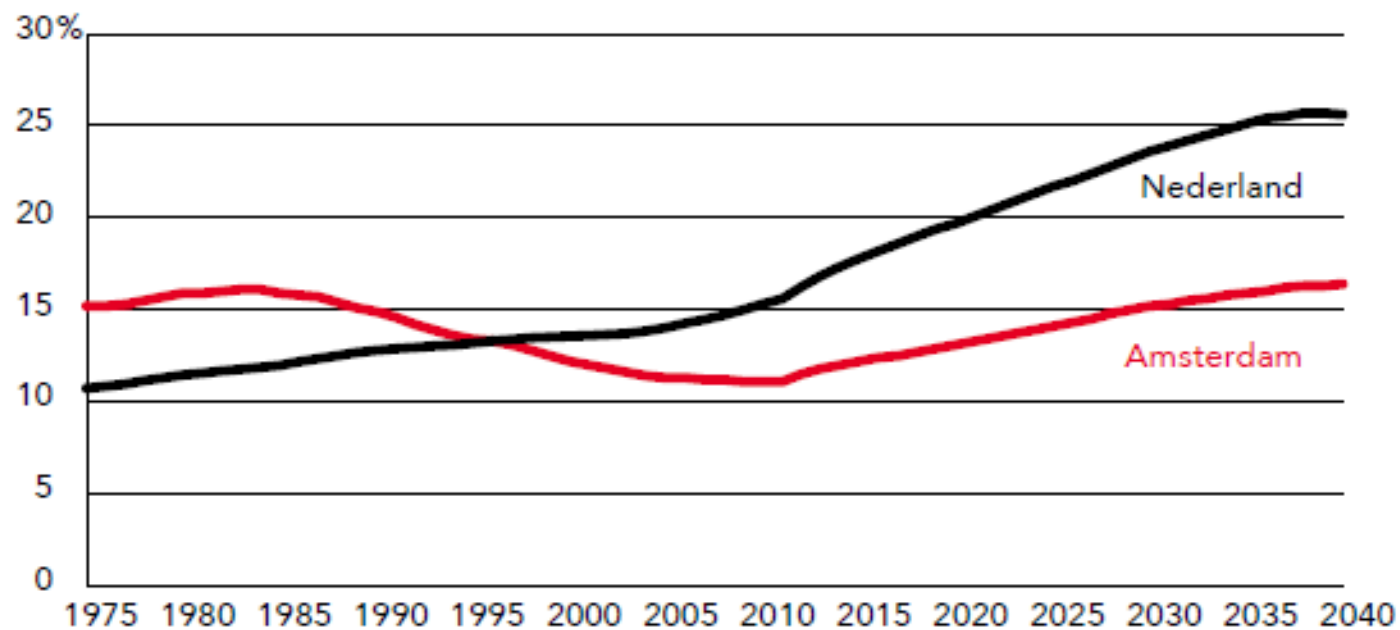
Stedelijke verdichting

Bevolkingsontwikkeling Amsterdam



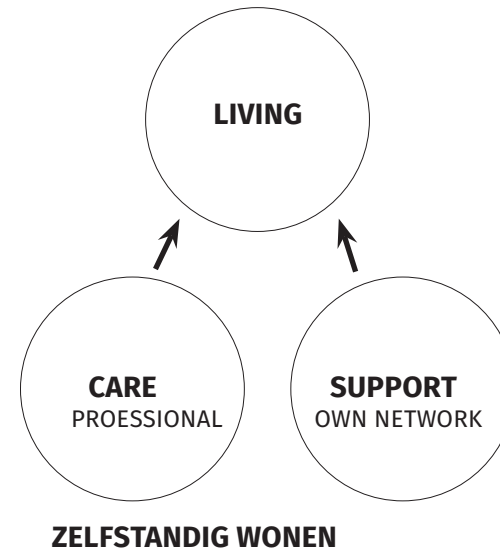
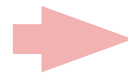
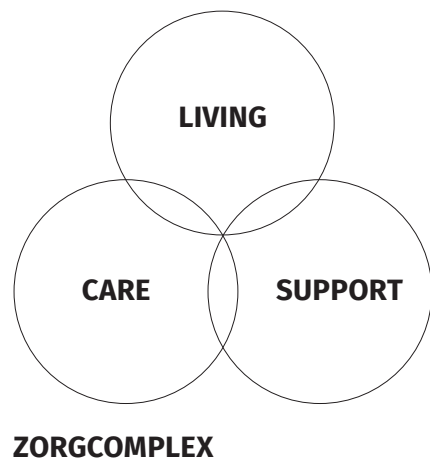
RELEVANTIE Vergrijzing

- Vergrijzingspiek in 2040
- 60.000 ouderen extra in 2040
- Zuiden en het centrum van Amsterdam neemt 65+ toe



RELEVANTIE Zorg

- Ontwikkelingen in de zorg
- Anders omgaan met de gevolgen van vergrijzing



RELEVANTIE

Duurzaamheid - Voedsel

- Ambitie Amsterdam: Top 5 gezondste steden van Europa in 2033
- De belasting op het milieu van voedsel is groot
- Bewustwording voedselproductie



ONDERZOEKSVRAAG

Hoe kan architectuur mensen van verschillende generaties met gelijke interesses voor duurzaamheid verenigen in één gebouw?

ONDERZOEKSVRAAG

Hoe kan architectuur **mensen van verschillende generaties** met gelijke interesses voor duurzaamheid verenigen in één gebouw?

Hoe zou het concept van een meergenerationenhaus kunnen worden gebruikt voor deze locatie in Nederland?

O Wat is een meergenerationenhaus?

O Analyses van voorbeelden in Duitsland

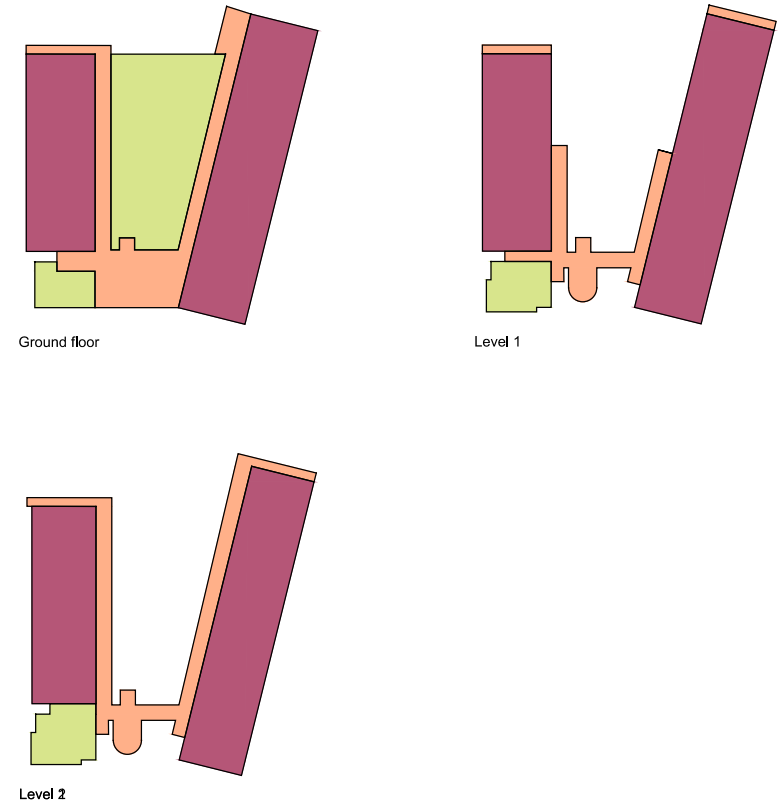
MEHRGENERATIONENHAUS

- circulation
- communal
- dwellings
- other

5. HAUS GUTENBURG PROGRAM LAYOUT



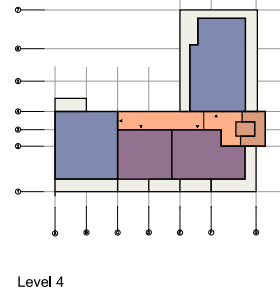
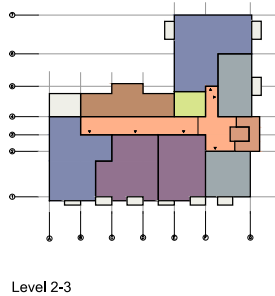
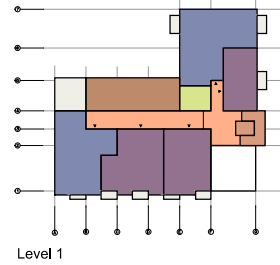
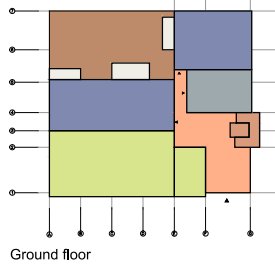
6. NACHBARSCHAFTLICHES WOHNPROJEKT PROGRAM LAYOUT



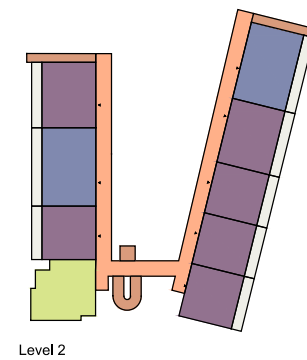
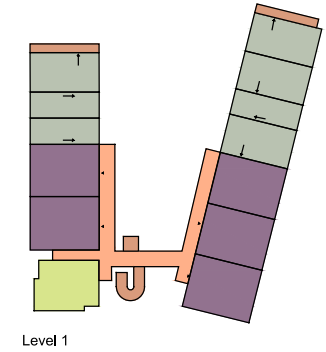
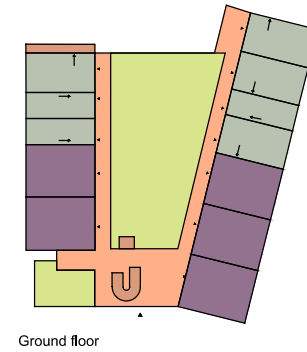
MEHRGENERATIONENHAUS

- verkeersruimte
- stijgpunt
- gemeenschappelijk
- woningtype 1
- woningtype 2
- woningtype 3
- woningtype 4
- buitenruimte
- balkon/terras

DWELLING LAYOUT



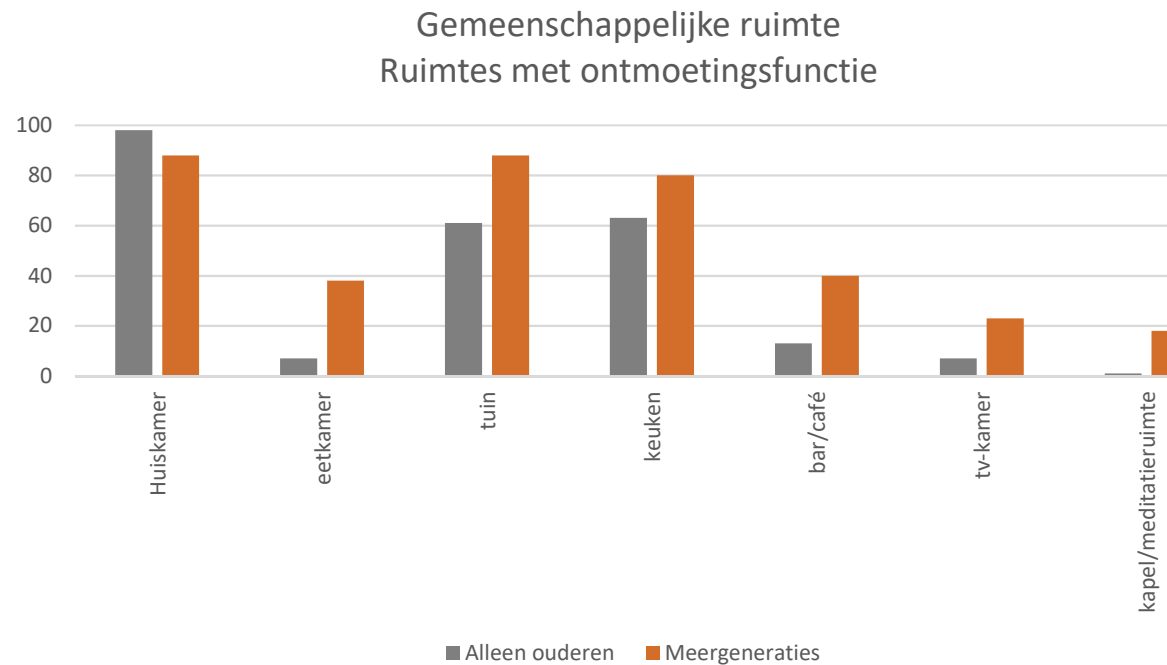
DWELLING LAYOUT



MEHRGENERATIONENHAUS

CONCLUSIE

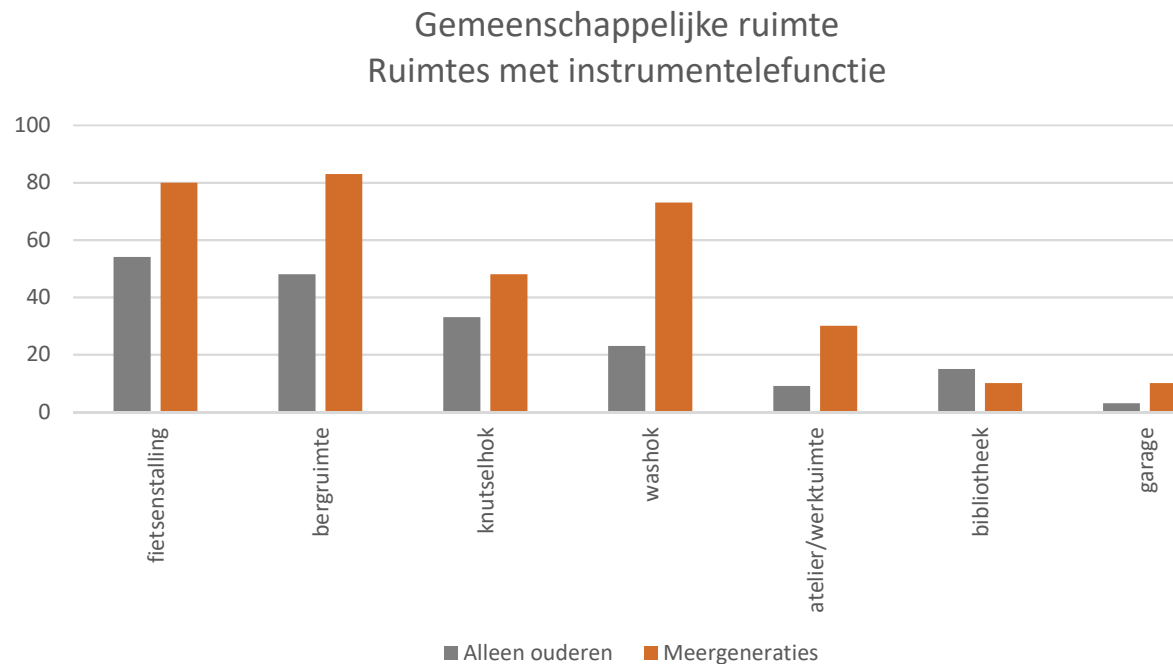
- Diverse doelgroep met een goede verhouding van de soorten van de bewoners
- Ruimtelijke opzet besloten
- Buitenruimte
- Gemeenschappelijke functies



MEHRGENERATIONENHAUS

CONCLUSIE

- Diverse doelgroep met een goede verhouding van de soorten van de bewoners
- Ruimtelijke opzet besloten
- Buitenruimte
- Gemeenschappelijke functies



ONDERZOEKSVRAAG

Hoe kan architectuur mensen van verschillende generaties met gelijke interesses voor duurzaamheid verenigen in één gebouw?

ONDERZOEKSVRAAG

Hoe kan architectuur mensen van verschillende generaties **met gelijke interesses voor duurzaamheid** verenigen in één gebouw?

Welke aspecten van duurzaamheid kunnen in het project gebruikt worden en is dit zichtbaar in de architectuur?

- Verschillende soorten duurzame maatregelen
- Analyses van referentieprojecten

DUURZAAMHEID

AGRICULTUUR

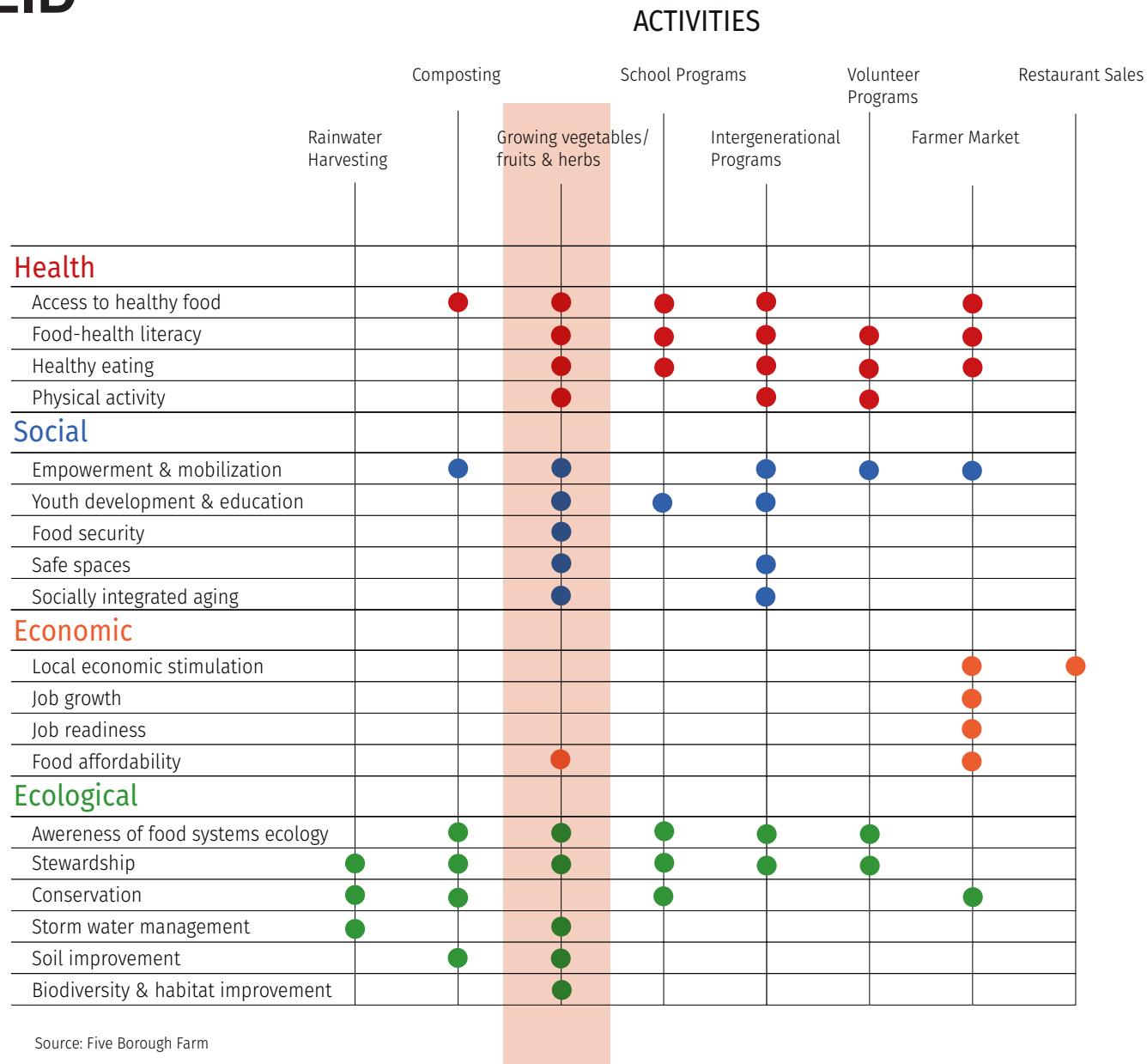
		ACTIVITIES				
		Rainwater Harvesting	Composting	School Programs	Volunteer Programs	Restaurant Sales
			Growing vegetables/ fruits & herbs	Intergenerational Programs	Farmer Market	
Health						
	Access to healthy food		●	●	●	●
	Food-health literacy		●	●	●	●
	Healthy eating		●	●	●	●
	Physical activity		●	●	●	
Social						
	Empowerment & mobilization		●	●	●	●
	Youth development & education		●	●	●	
	Food security		●			
	Safe spaces		●	●		
	Socially integrated aging		●	●		
Economic						
	Local economic stimulation					●
	Job growth					●
	Job readiness					●
	Food affordability		●			●
Ecological						
	Awareness of food systems ecology		●	●	●	●
	Stewardship	●	●	●	●	
	Conservation	●	●	●		●
	Storm water management	●	●			
	Soil improvement		●	●		
	Biodiversity & habitat improvement		●			

Source: Five Borough Farm

DUURZAAMHEID

AGRICULTUUR

BENEFITS

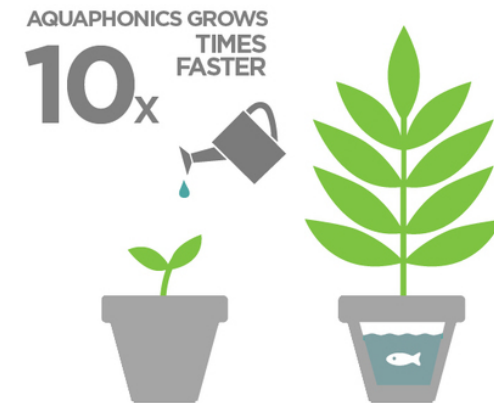
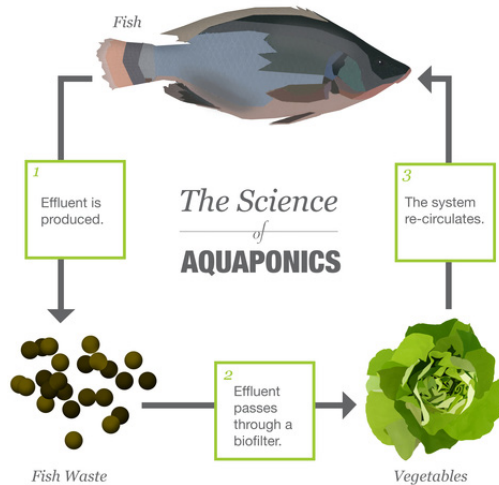


Source: Five Borough Farm

DUURZAAMHEID

AQUAPONICS

Combinatie van aquacultuur (visteelt) en hydroponics (planten groeien zonder grond)



Aquaponics have the capacity to increase yield tenfold compared to terrestrial farming - in the exact same footprint.

DUURZAAMHEID

VOORBEELDEN

-De Schilde, Den Haag

Production area: 1500m² + 400m²
 Annual production volume: 45 tons vegetable, 19 tons fish



-LokDepot, Basel

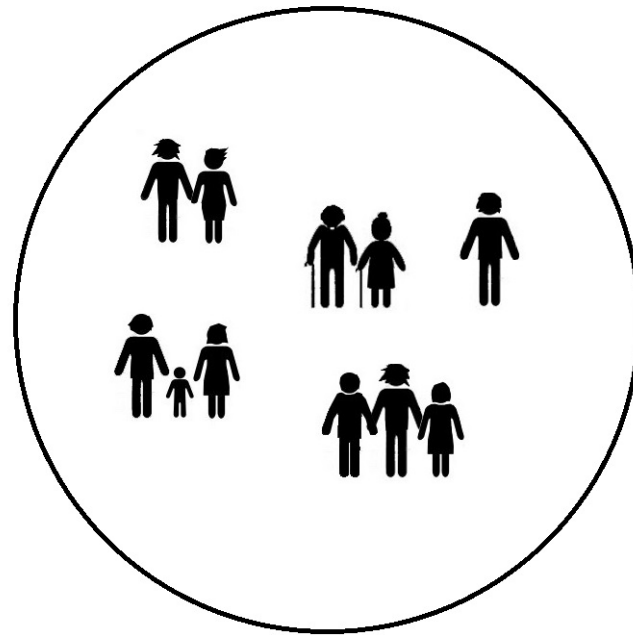
Production area: 250m² rooftop greenhouse
 Annual production volume: 5 tons vegetables, 0.85 tons fish





MASTERPLAN

- Co-housing
- Mensen met dezelfde leefstijl
- Ecologisch, bewust van het milieu, duurzaam

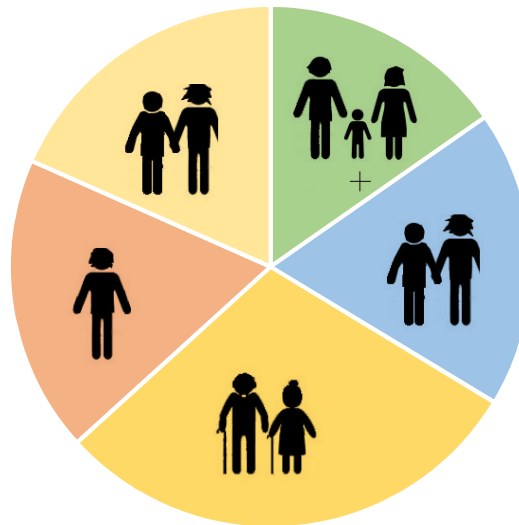


DOELGROEPEN

VERSCHEIDENHEID VAN INWONERS

Dit project brengt een verscheidenheid aan bewoners samen:

- 1/3 families and starters
- 1/3 ouderen
- 1/3 alleenstaanden en koppels



DOELGROEPEN

STEDELIJKE FAMILIES



- Twee ouders
- Leeftijd 25 - 40
- Één of twee kinderen
- Één of beide ouders werken

- 4-kamer appartement / maisonnette
- ±100 m²



STARTERS



- Leeftijd: 20 - 30
- Één of tweepersoons huishouden
- Werken

- 2-kamer appartement
- ±50 m²



DOELGROEPEN

OUDEREN



- Leeftijd: 55+
 - Twee-persoonshuishouden
 - Zelfstandig
 - Werken / Gepensioneerd
-
- 2-/3-kamer appartement
 - ±60 - 70 m²



DOELGROEPEN

ALLEENSTAANDEN



- Leeftijd: tussen de 30 - 75 jaar
- Éénpersoonshuishouden
- 1-/ 2- kamer appartement
- <math>< 50 \text{ m}^2</math>



KOPPELS



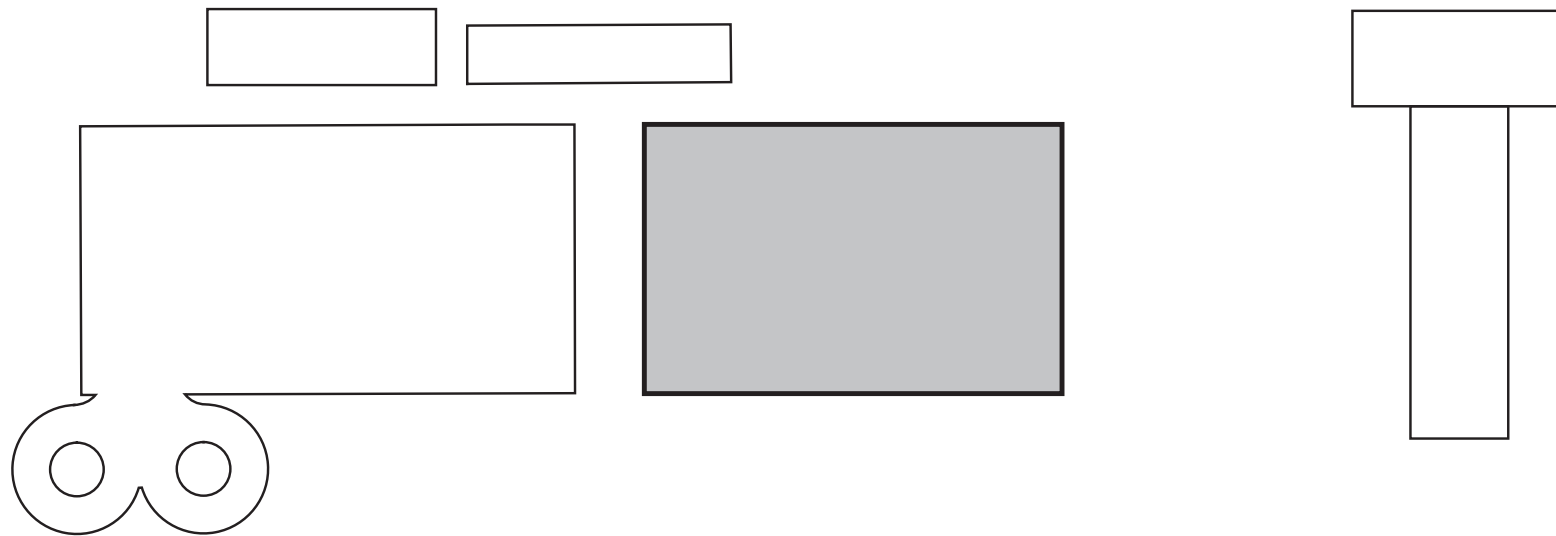
- Leeftijd: tussen de 30 - 65 jaar
- Tweepersoonshuishouden
- 3-kamer appartement
- 70 - 80 m²



STEDENBOUWKUNDIG ONTWERP

CONCEPT

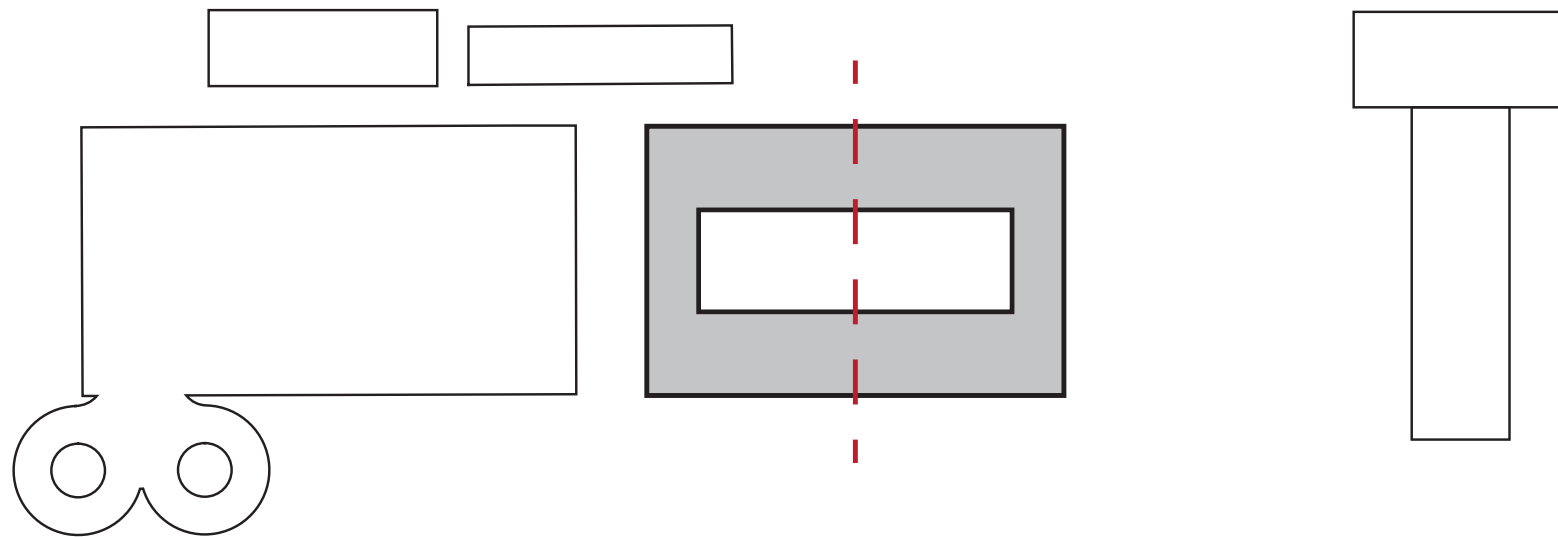
1. Massa



STEDENBOUWKUNDIG ONTWERP

CONCEPT

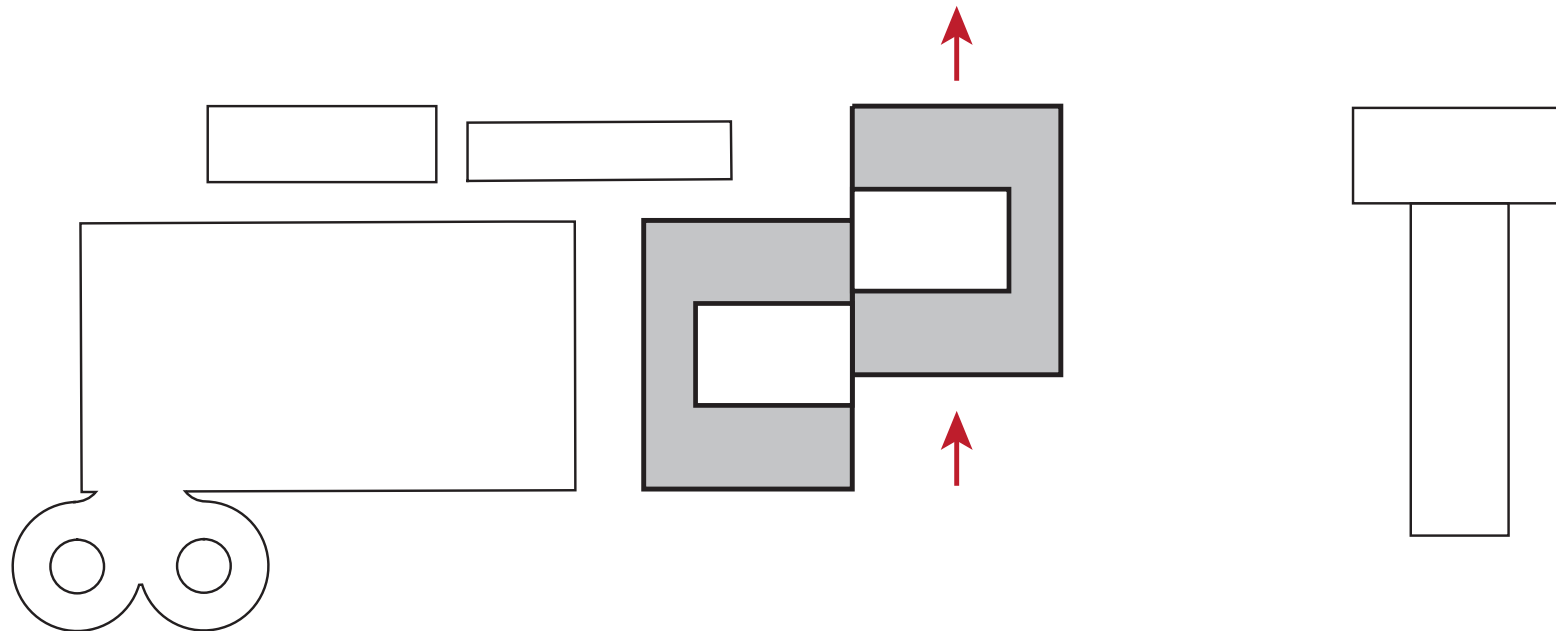
2. Gesloten bouwblok verdeeld in twee delen



STEDENBOUWKUNDIG ONTWERP

CONCEPT

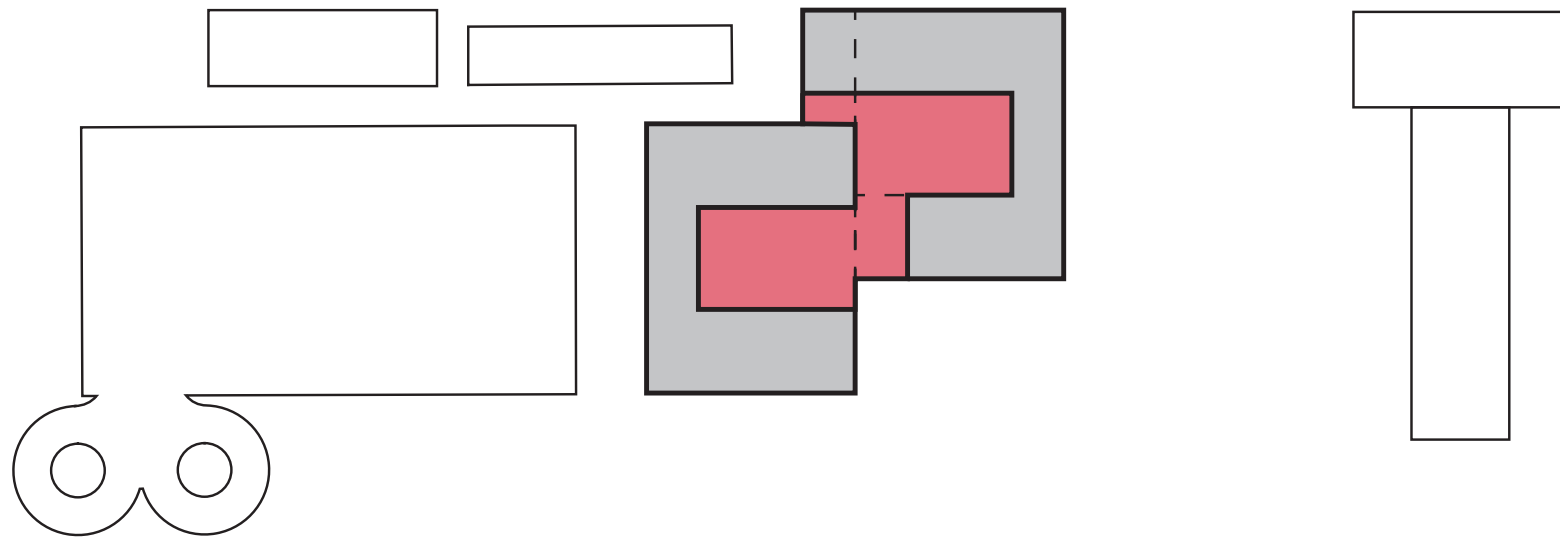
3. Openbreken gesloten bouwblok



STEDENBOUWKUNDIG ONTWERP

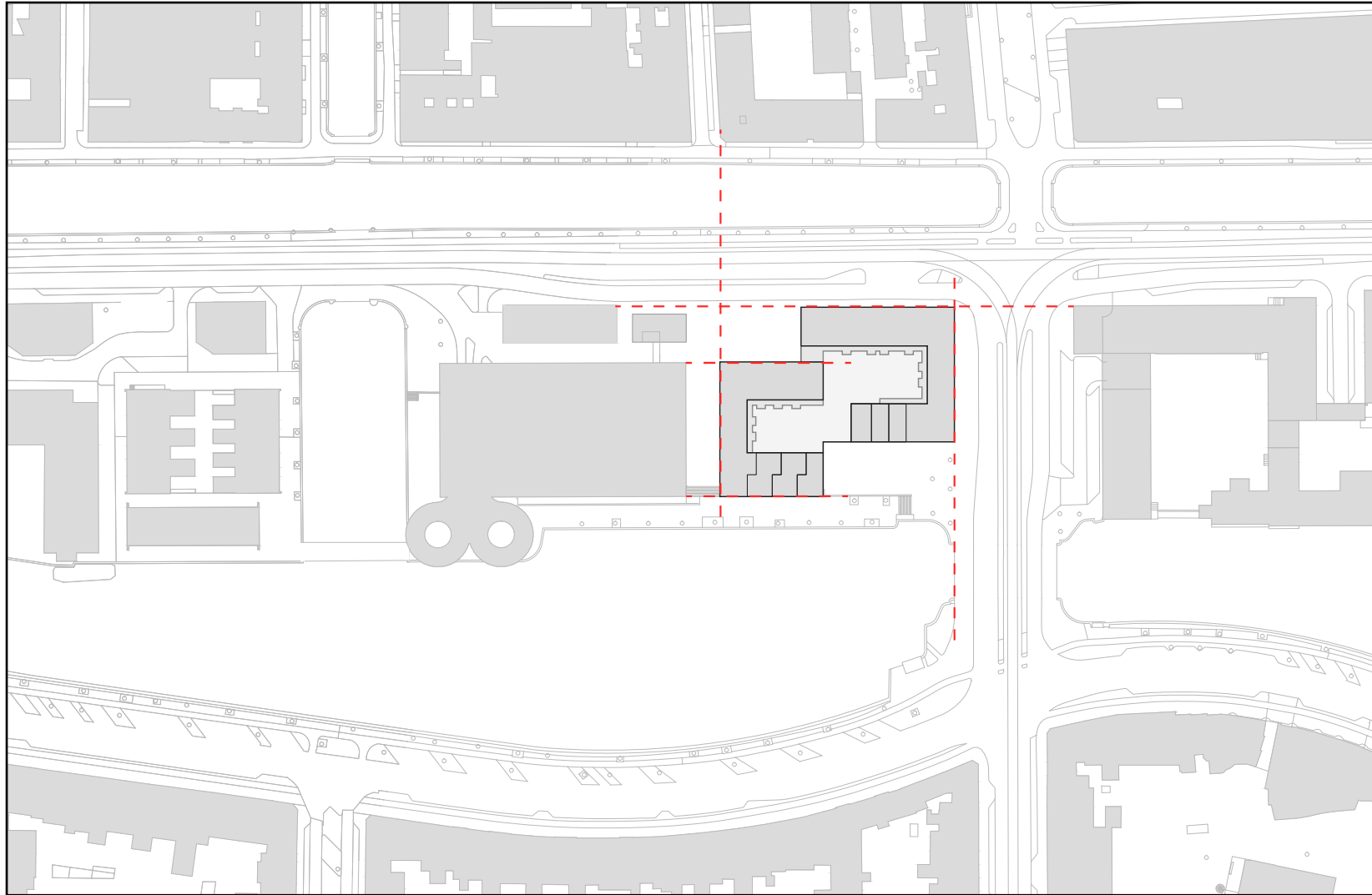
CONCEPT

4. Verbinden binnenruimte



STEDENBOUWKUNDIG ONTWERP

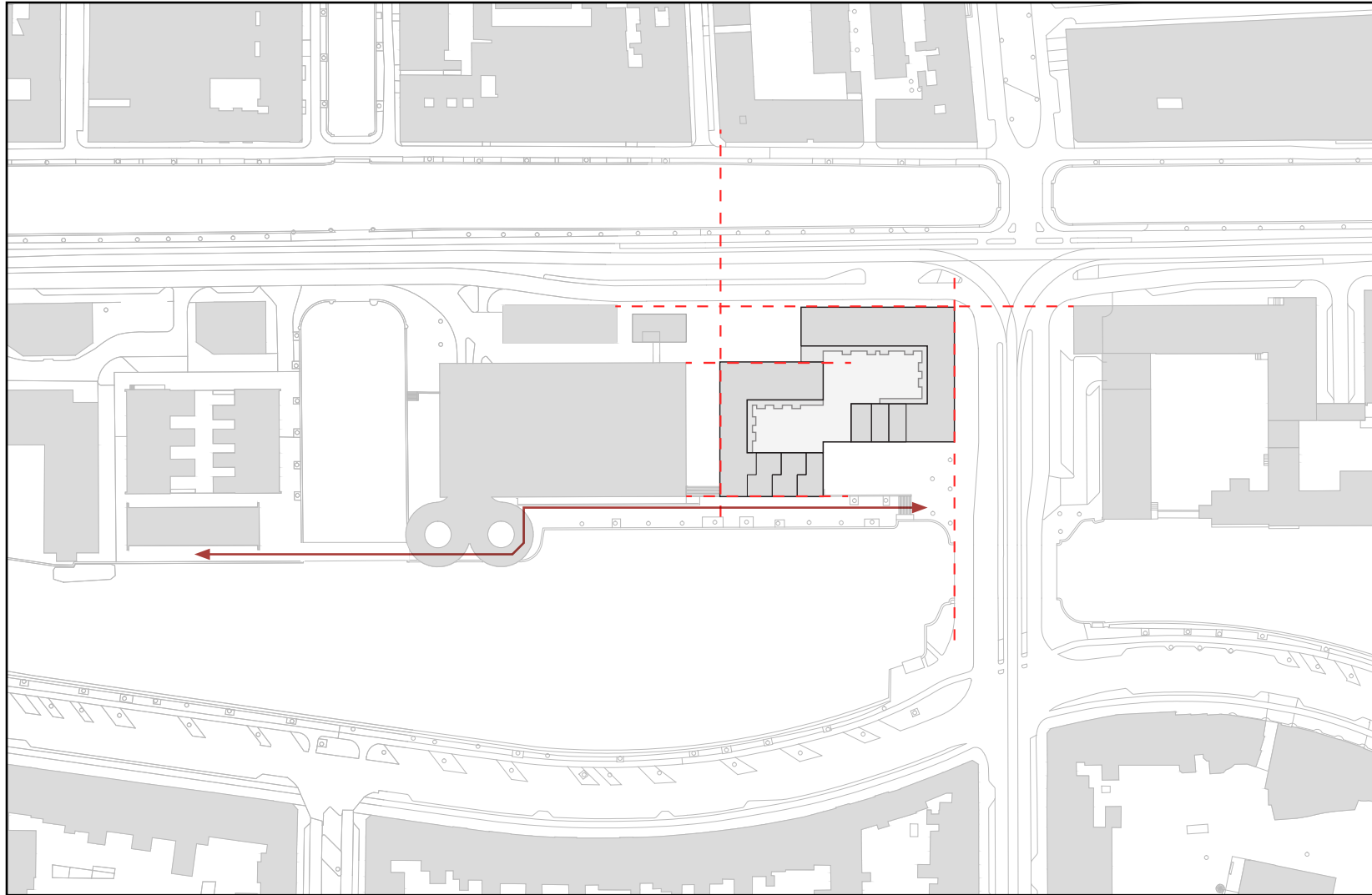
NIEUWE SITUATIE



MASTERPLAN

STEDENBOUWKUNDIG ONTWERP

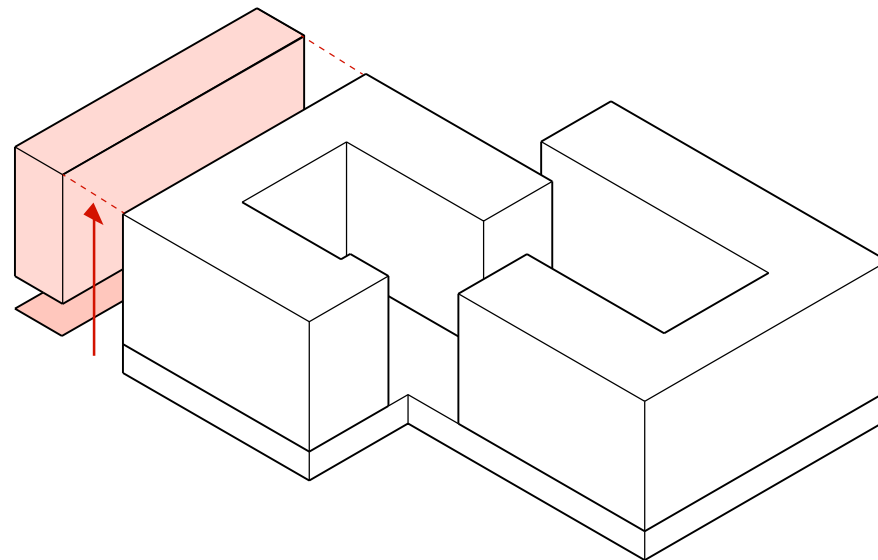
BOULEVARD



MASTERPLAN

GEBOUW VOLUME

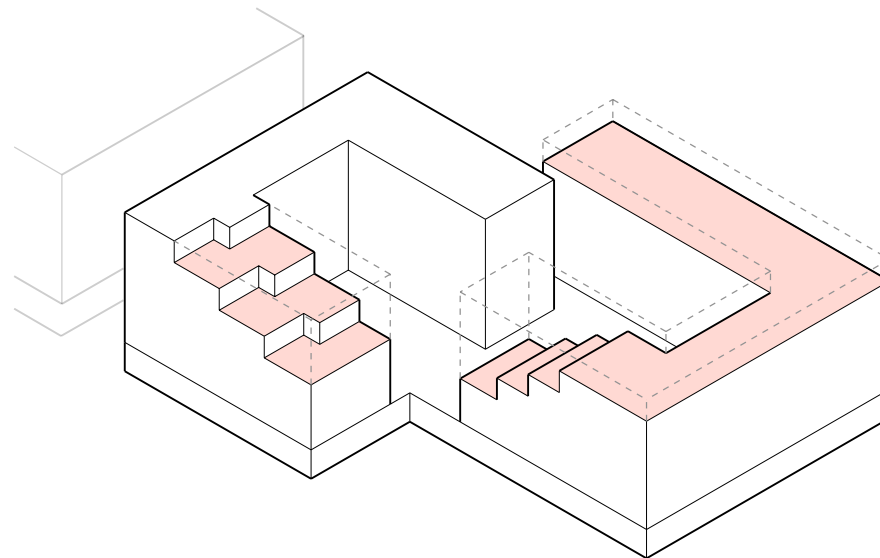
HOOGTE



BOUWBLOK IN LIJN MET DE PARKEERGARAGE

GEBOUW VOLUME

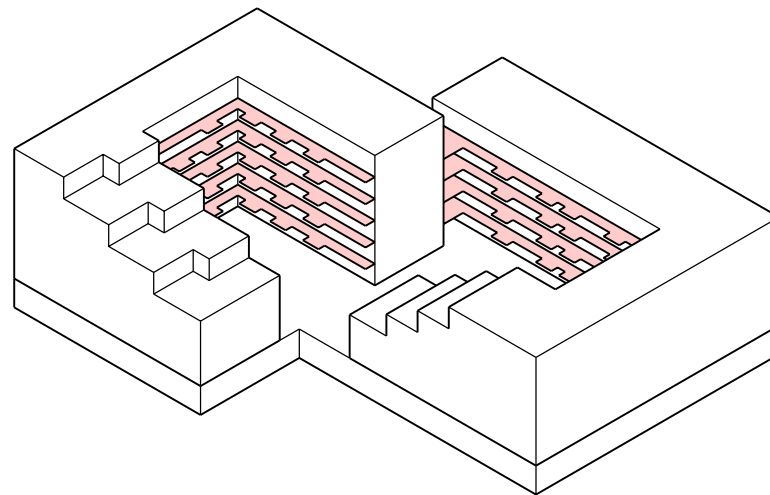
HOOGTE



AANPASSEN HOOGTE EN BOUBLOK OPENEN

GEBOUW VOLUME

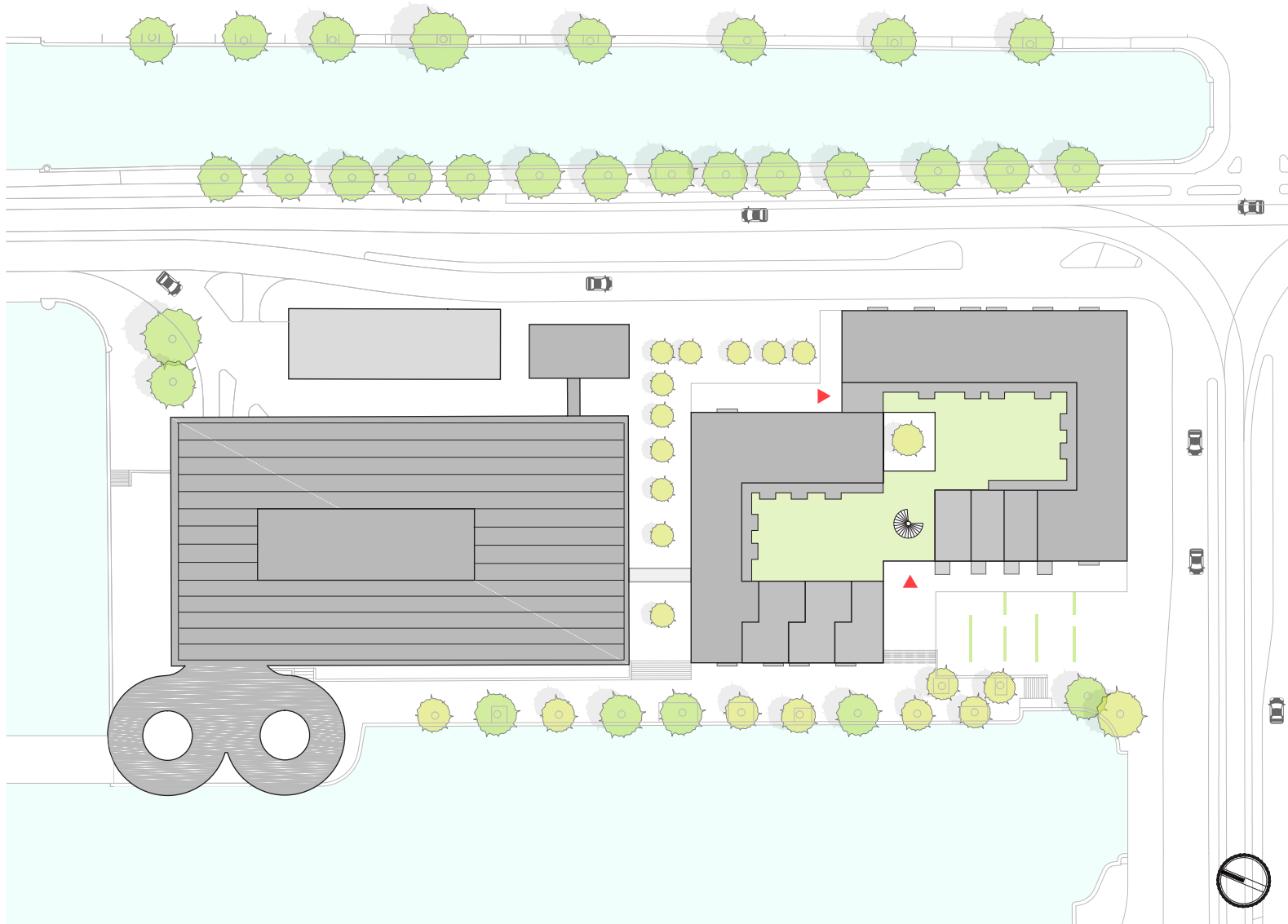
CIRCULATIE



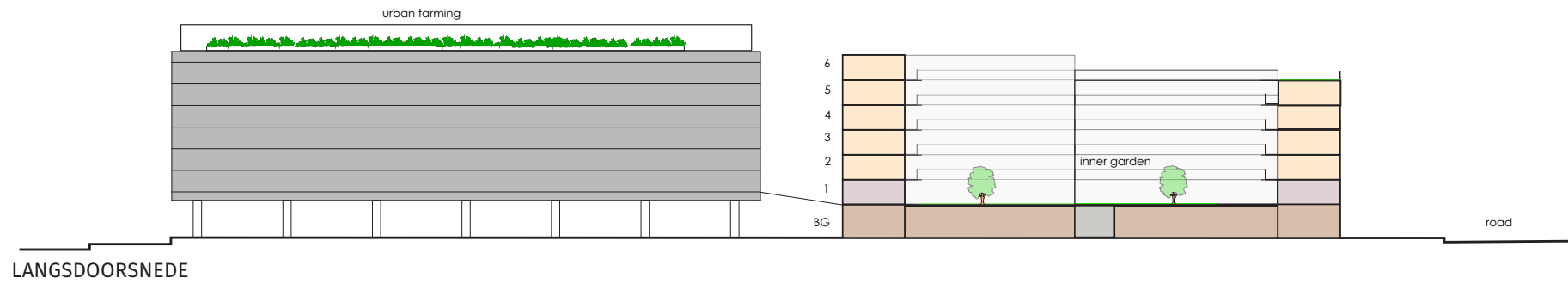
GALERIJ IN HET BOUWBLOK

PLAN

MASTERPLAN



DOORSNEDE



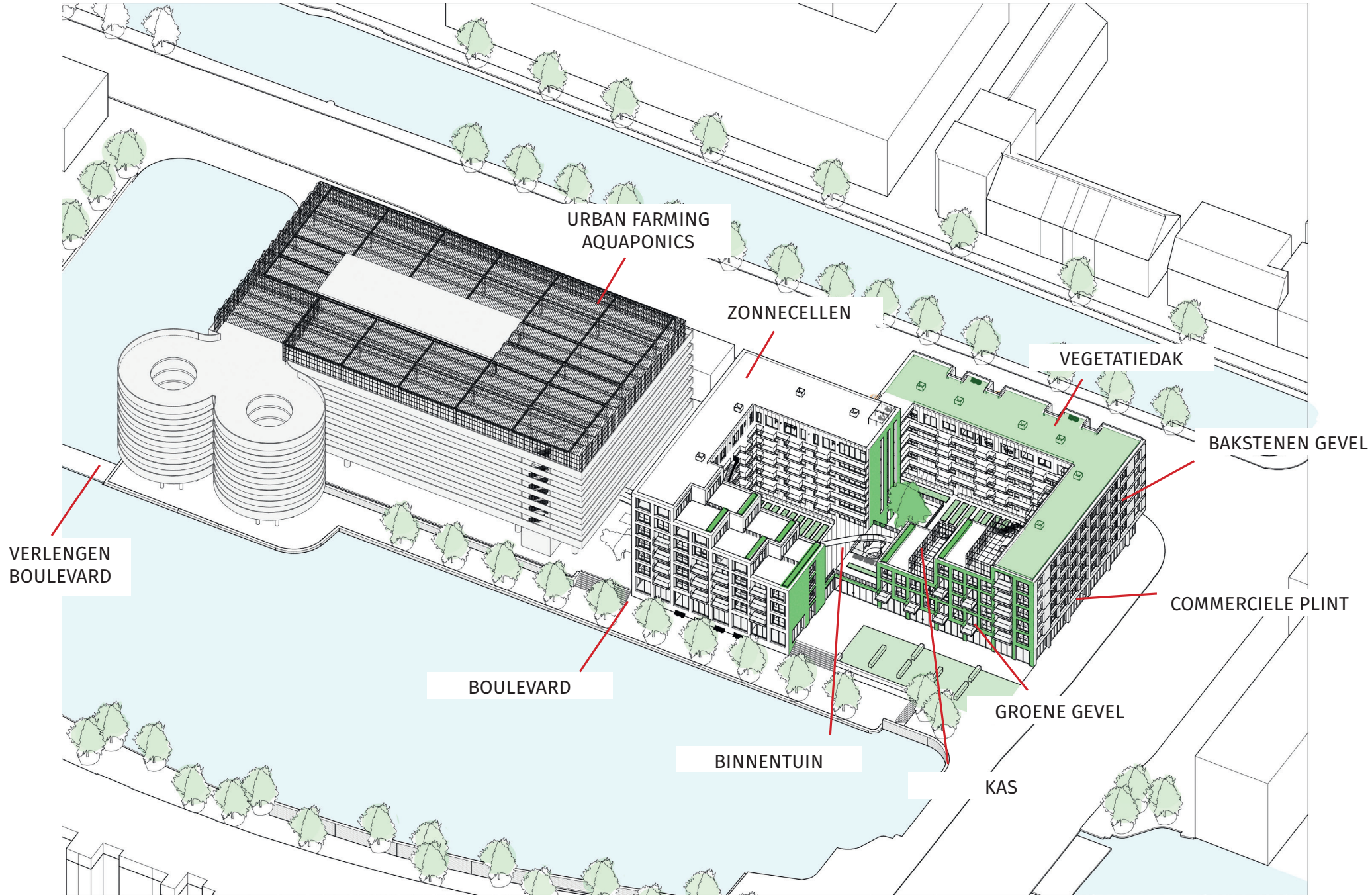
LANGSDOORSNEDE



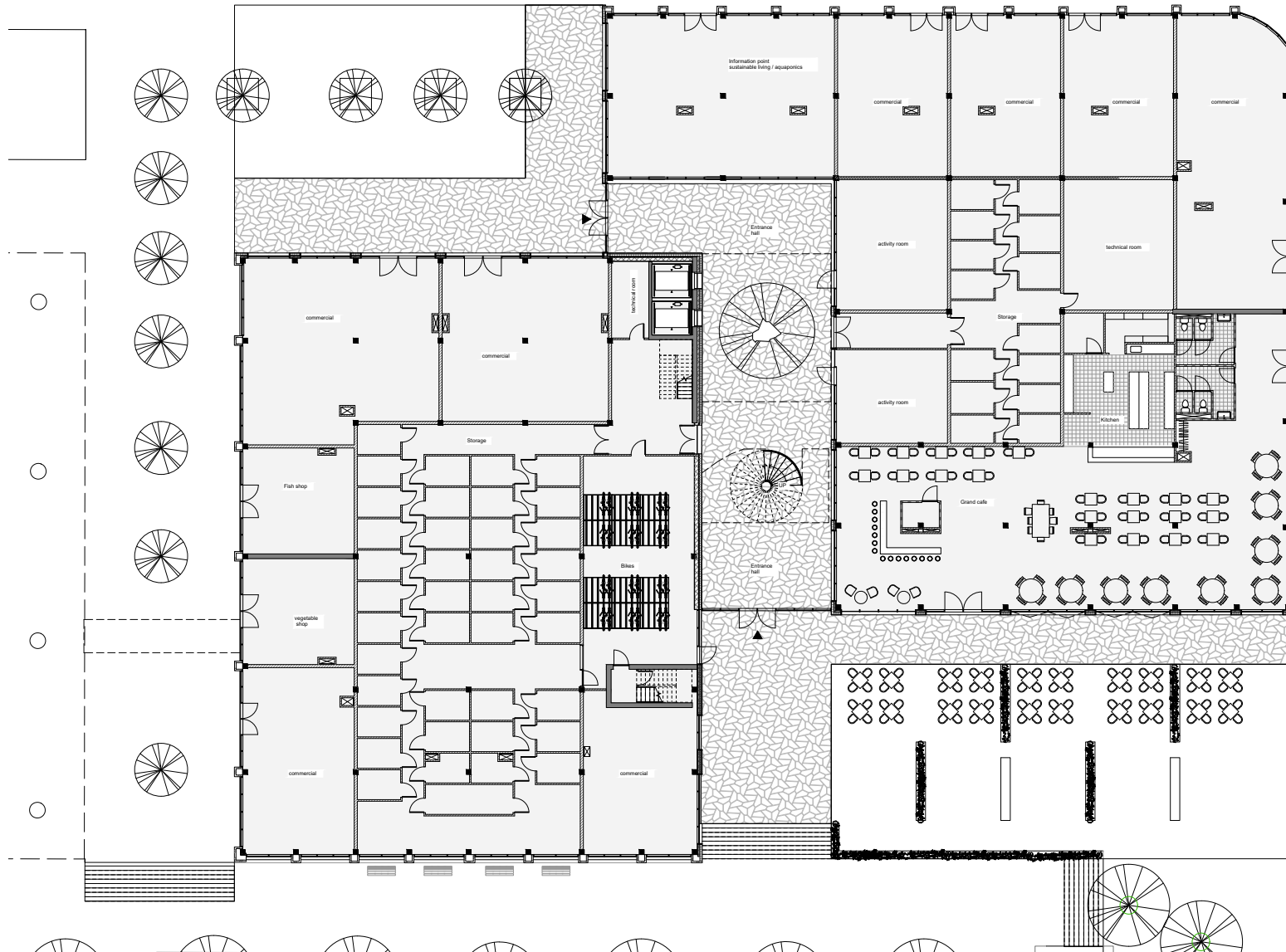
REFERENTIE BINNENTUIN



ARCHITECTONISCH ONTWERP

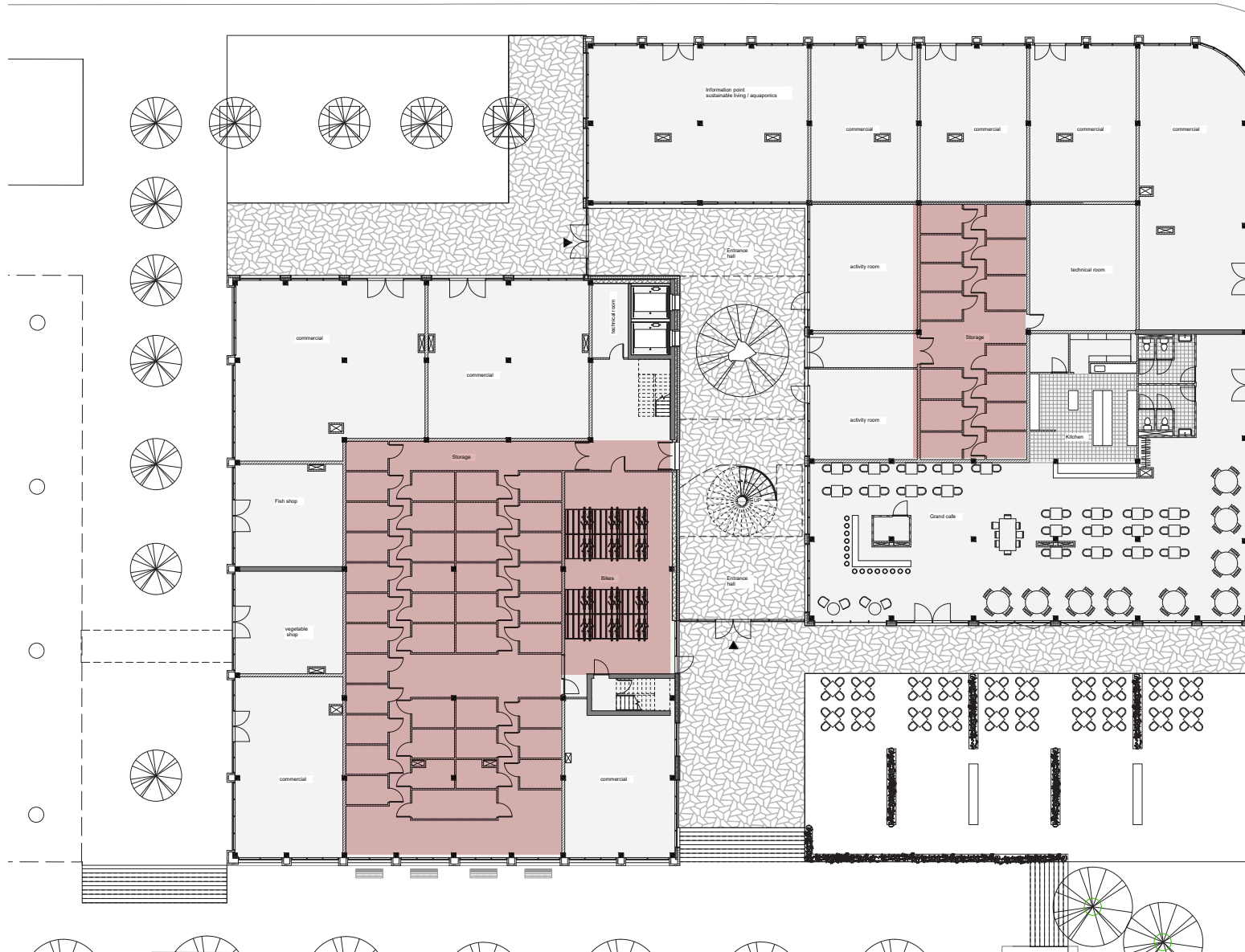


BEGANE GROND



BEGANE GROND

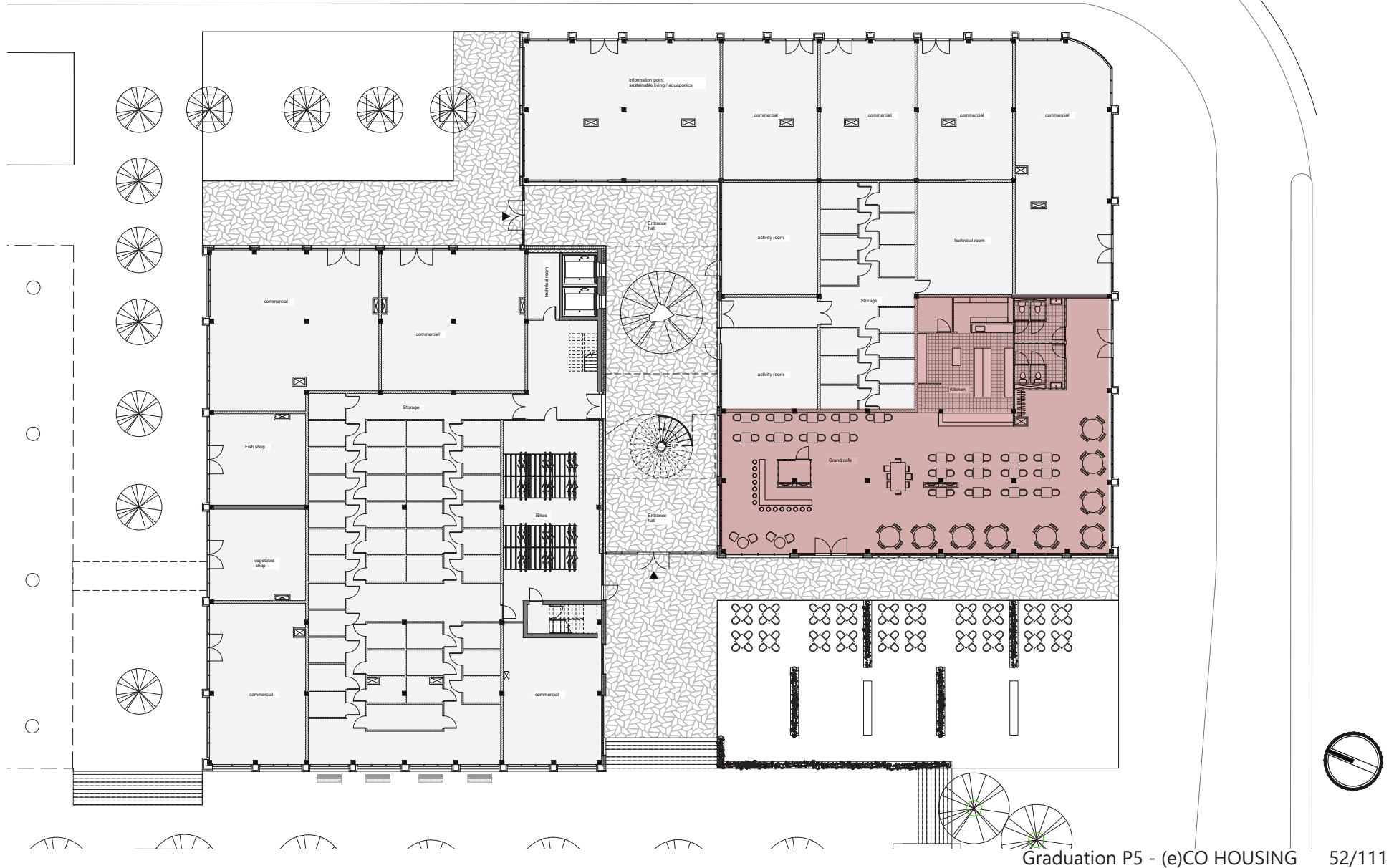
BERGING & FIETSENSTALLING



BEGANE GROND

RESTAURANT

ARCHITECTONISCH ONTWERP



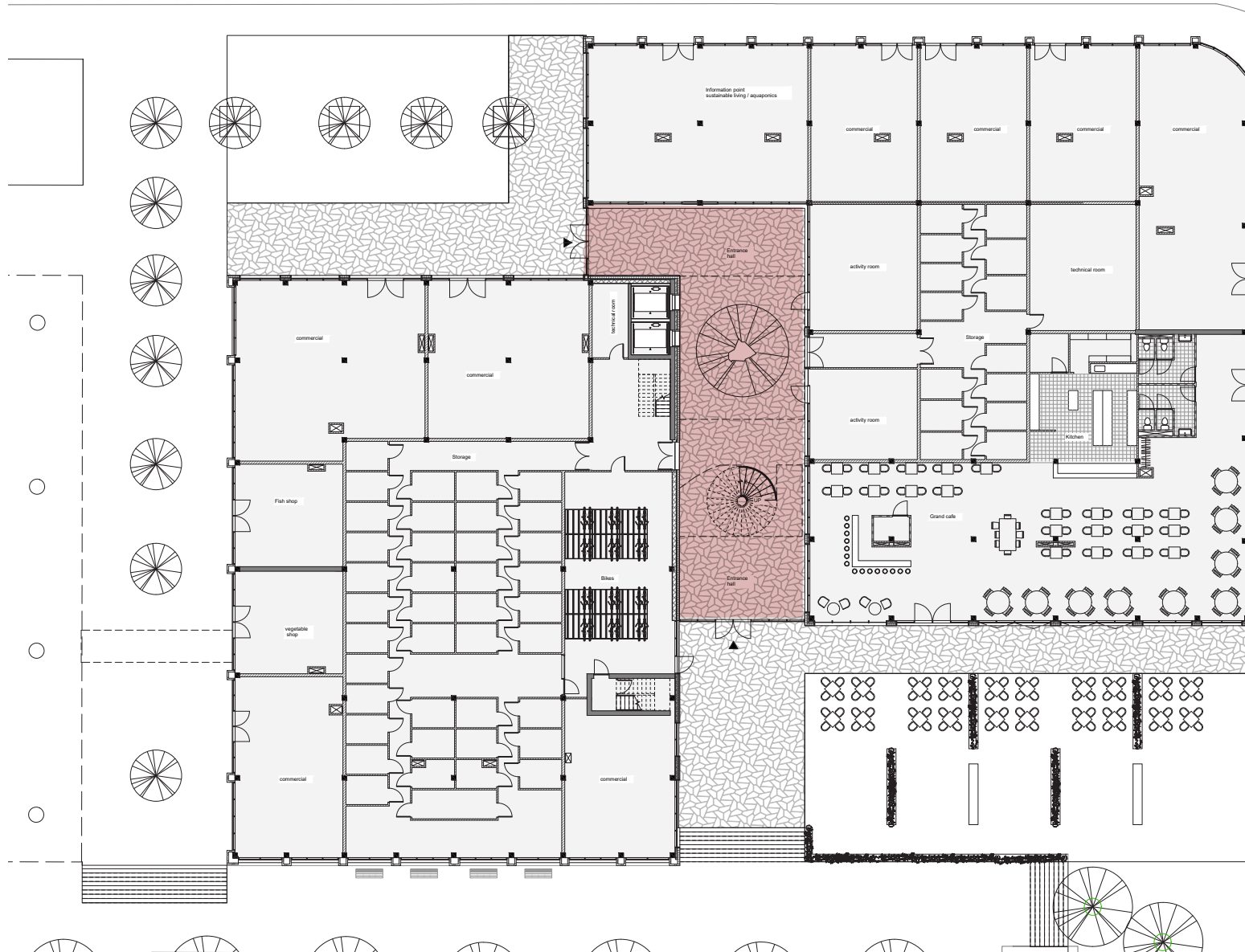
IMPRESSIE

RESTAURANT

BEGANE GROND

ENTREEHAL

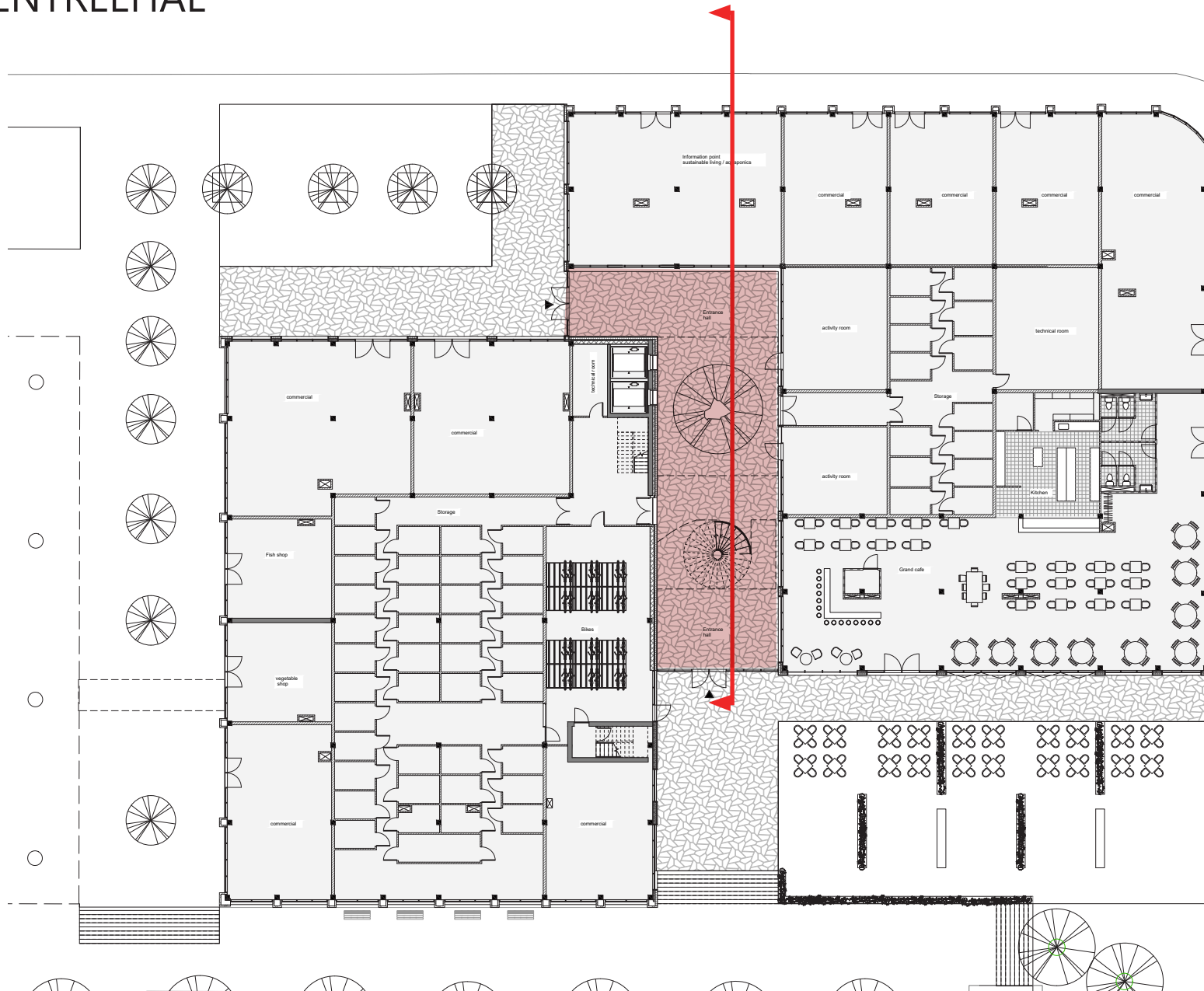
ARCHITECTONISCH ONTWERP



BEGANE GROND

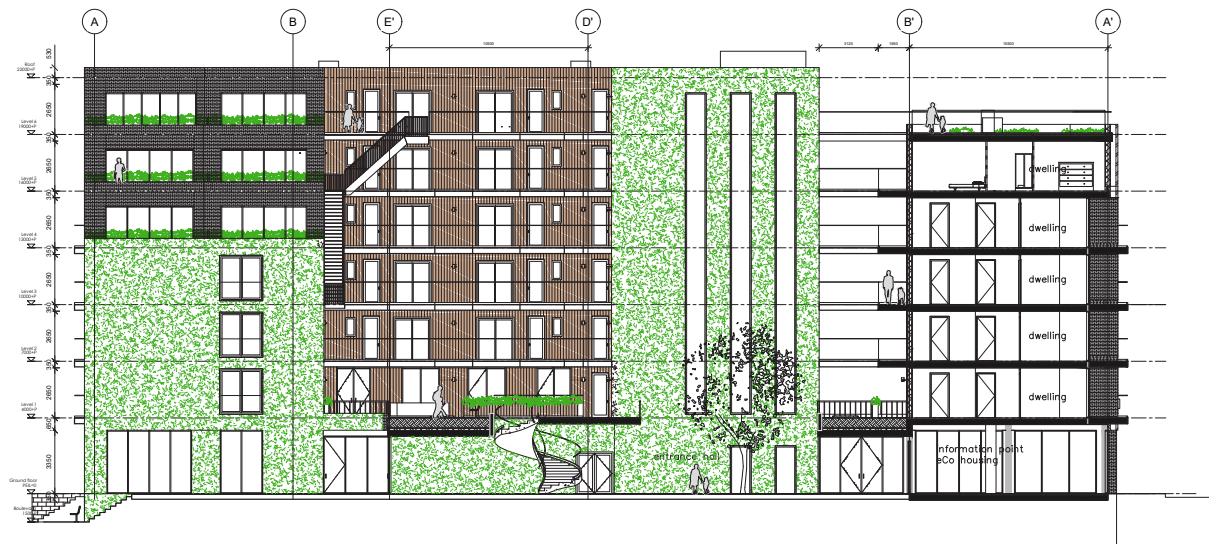
ENTREEHAL

ARCHITECTONISCH ONTWERP



DOORSNEDE

ENTREEHAL



SECTION FF - ENTRANCE

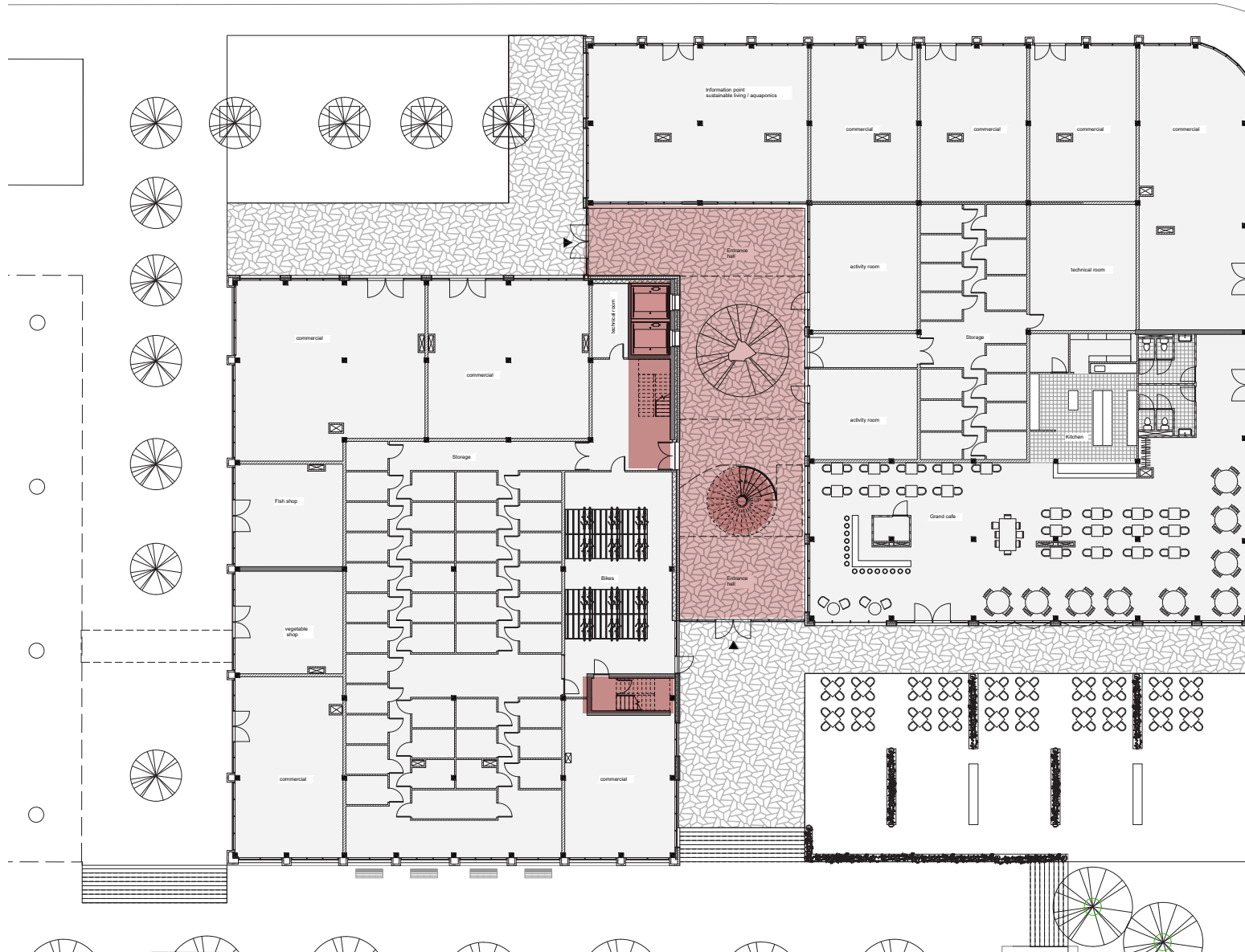
IMPRESSIE



GEZAMELIJKE ENTREEHAL BEWONERS

BEGANE GROND

STIJGPUNTEN



LEVEL 1

STIJGPUNTEN



LEVEL 1

BINNENTUIN



LEVEL 1

BINNENTUIN



LEVEL 1

BINNENTUIN



LEVEL 1

BINNENTUIN



LEVEL 1

BINNENTUIN



LEVEL 1

BINNENTUIN



DOORSNEDE



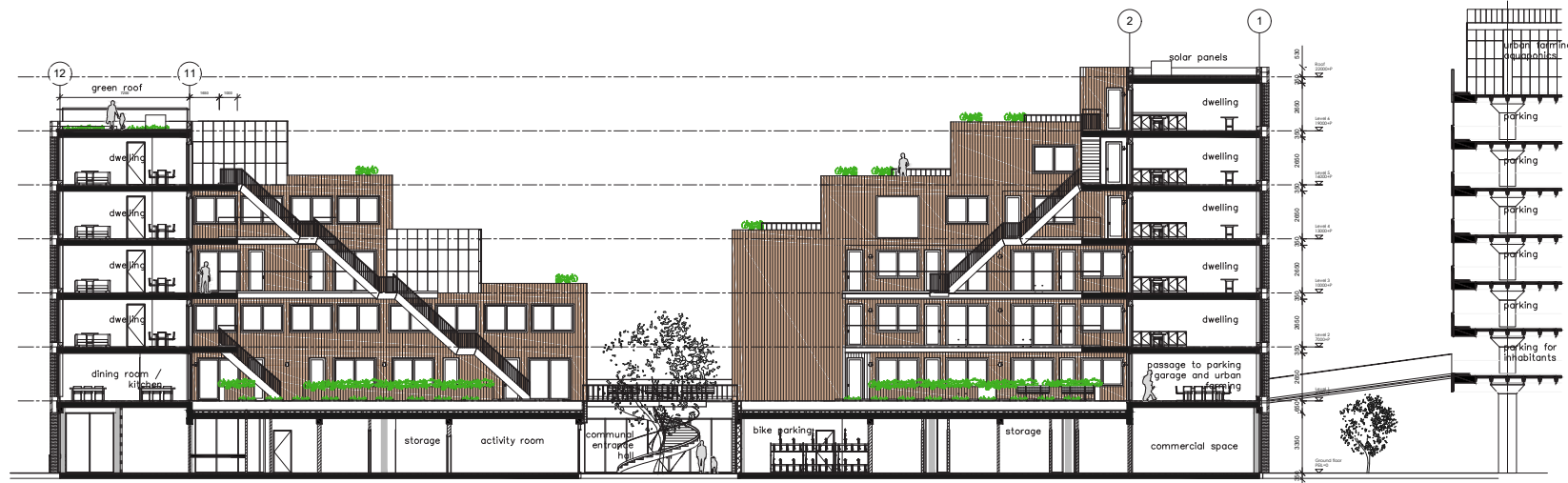
SECTION CC

LEVEL 1

BINNENTUIN



SECTION



SECTION DD

IMPRESSIE



INSIDE THE COURTYARD

IMPRESSIE



INSIDE THE COURTYARD

LEVEL 1

WONINGEN



LEVEL 1

STIJGPUNTEN



LEVEL 2

STIJGPUNTEN

ARCHITECTONISCH ONTWERP



LEVEL 2

CIRCULATIE

ARCHITECTONISCH ONTWERP



LEVEL 2

WONINGEN

ARCHITECTONISCH ONTWERP



LEVEL 2

WONINGEN - TYPE A



DOORSNEDE



SECTION AA

WONING TYPES

Type	Building	Floor							Dwellings per Type
		1e	2e	3e	4e	5e	6e		
A	Elderly	a	3	3	3	-	-	-	9
A	Elderly	b	5	5	5	5	-	-	20
B	Couple	a	2	2	2	2	1	1	10
B	Couple	b	2	2	2	2	-	-	8
C	Starters	a	3	3	3	3	3	3	18
D	Single	a	-	2	2	2	2	2	10
D	Single	b	-	2	2	2	2	-	8
E	Family	a	4	-	2	-	-	-	6
F	Family	a	-	-	-	-	4	-	4
G	Family	a	-	-	-	2	2	1	5
Total			19	19	21	18	14	7	98

Area (m²)	Total (m²)
65	585
65	1300
75	750
75	600
50	900
47	470
47	376
100	600
100	400
90	450
	6.431

Costs (€) per type	
5.000	€/m²
325.000	2.925.000
325.000	6.500.000
375.000	3.750.000
375.000	3.000.000
250.000	4.500.000
235.000	2.350.000
235.000	1.880.000
500.000	3.000.000
500.000	2.000.000
450.000	2.250.000
	32.155.000

Building - a	62
Building - b	36

Total dwellings < 50m²
Total dwellings > 50m²

	a	b
36		
62	34	28

Type	Amount	%	
Family	15	15%	Family
2 person household	29	30%	Couples
2 person household	18	18%	Couples
2 person household	18	18%	Starter
1 person household	18	18%	Single
Total	98	100%	

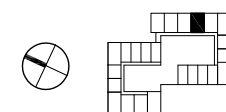
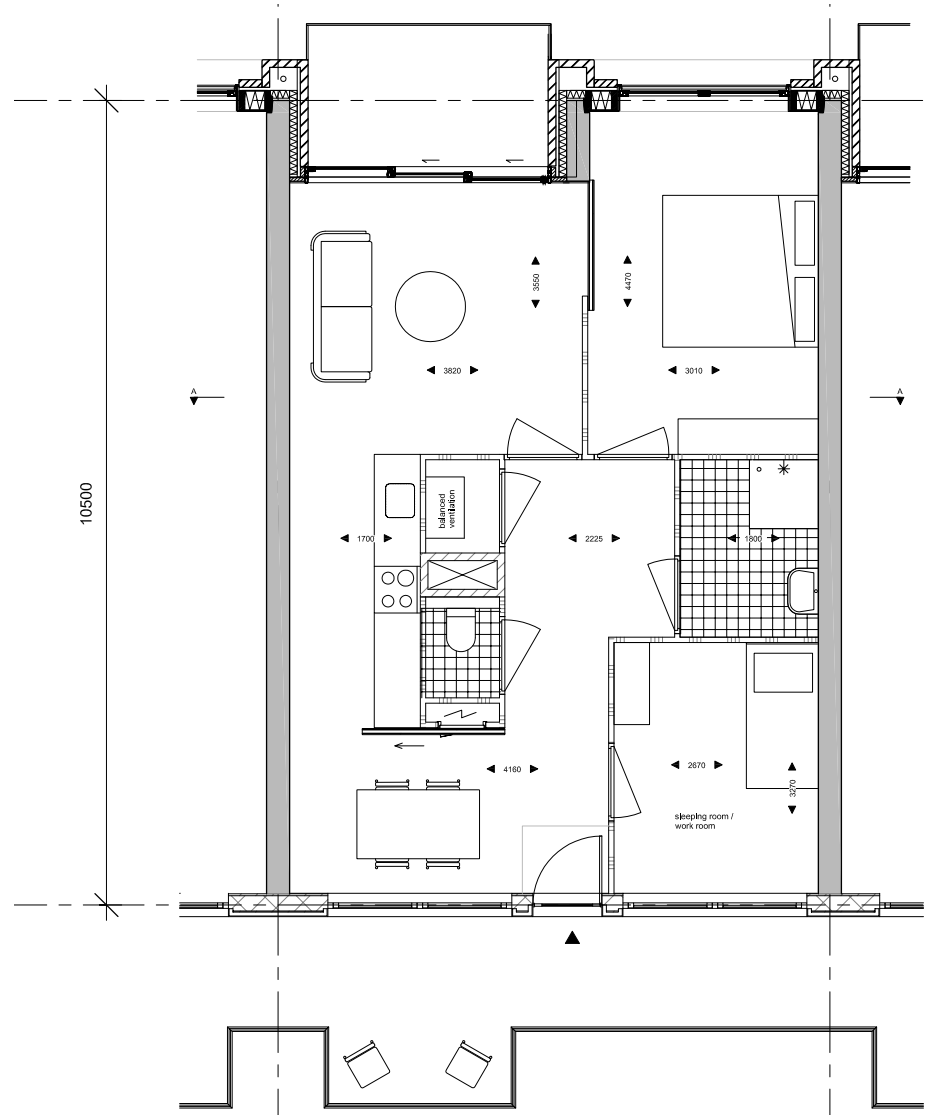
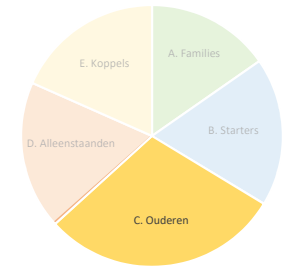
WONINGTYPE

TYPE A - OUDEREN

AANTAL: 29 STUKS

2 / 3 - KAMER APPARTEMENT

65 M²



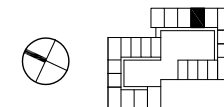
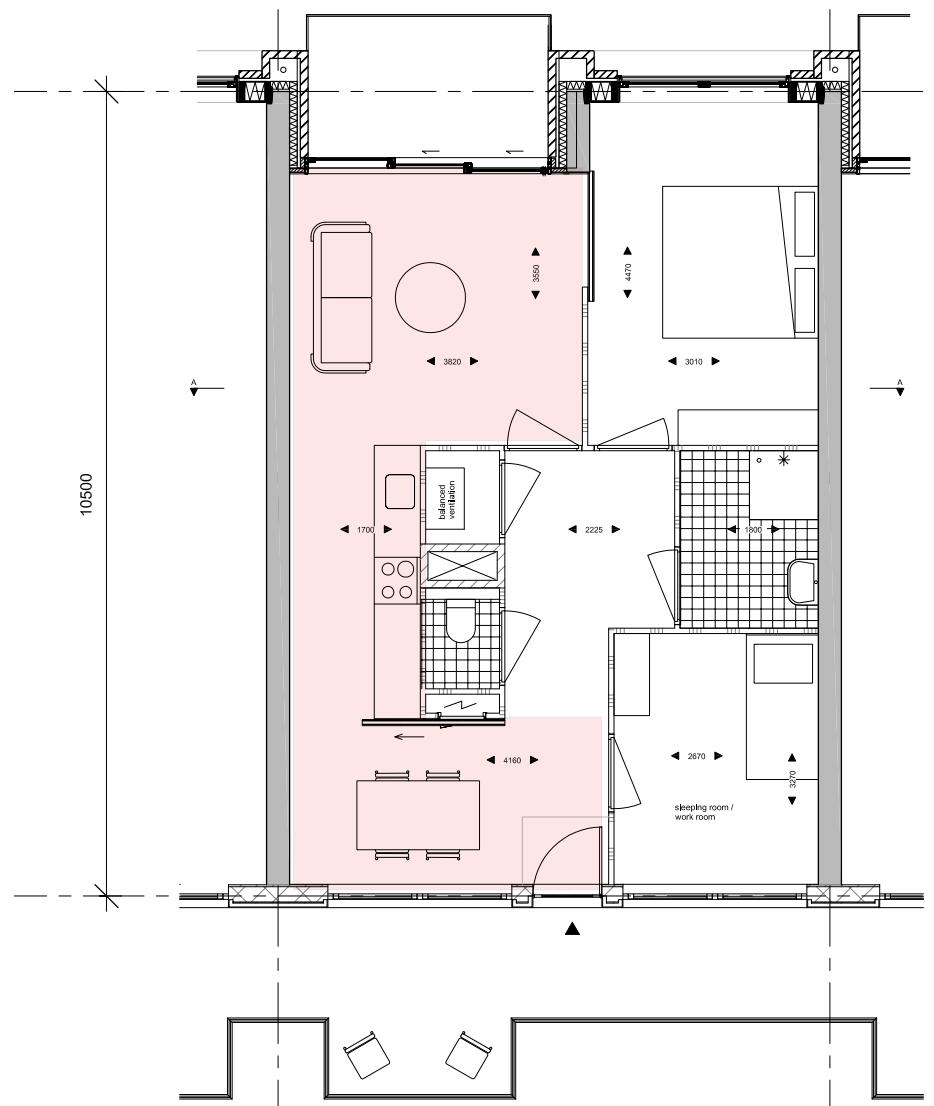
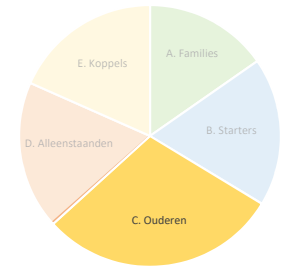
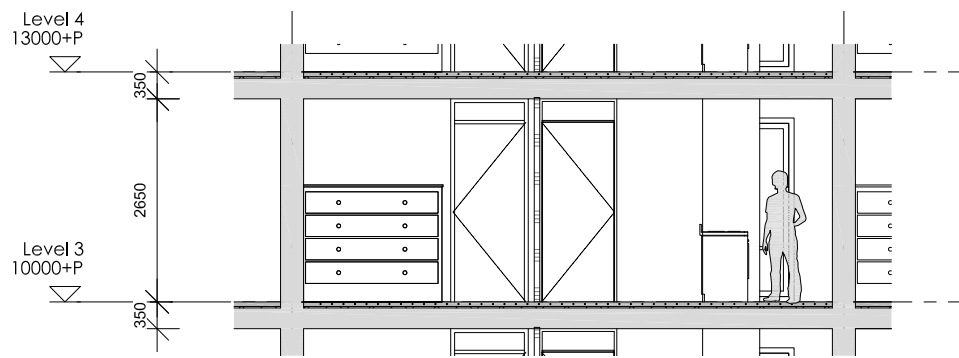
WONINGTYPE

TYPE A - OUDEREN

AANTAL: 29 STUKS

2 / 3 - KAMER APPARTEMENT

65 M²



LEVEL 2

WONINGEN - TYPE B

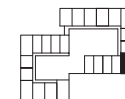
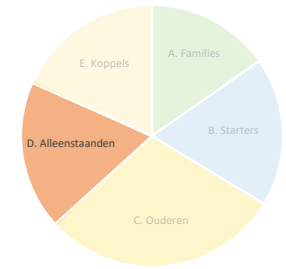
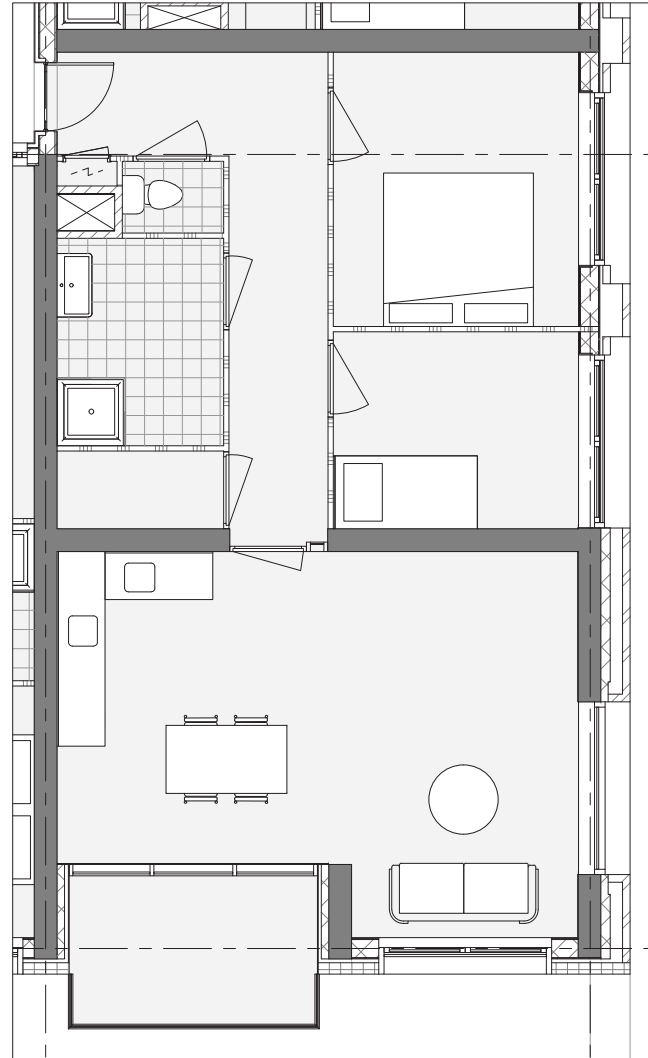
ARCHITECTONISCH ONTWERP



WONINGTYPE

TYPE B - KOPPELS

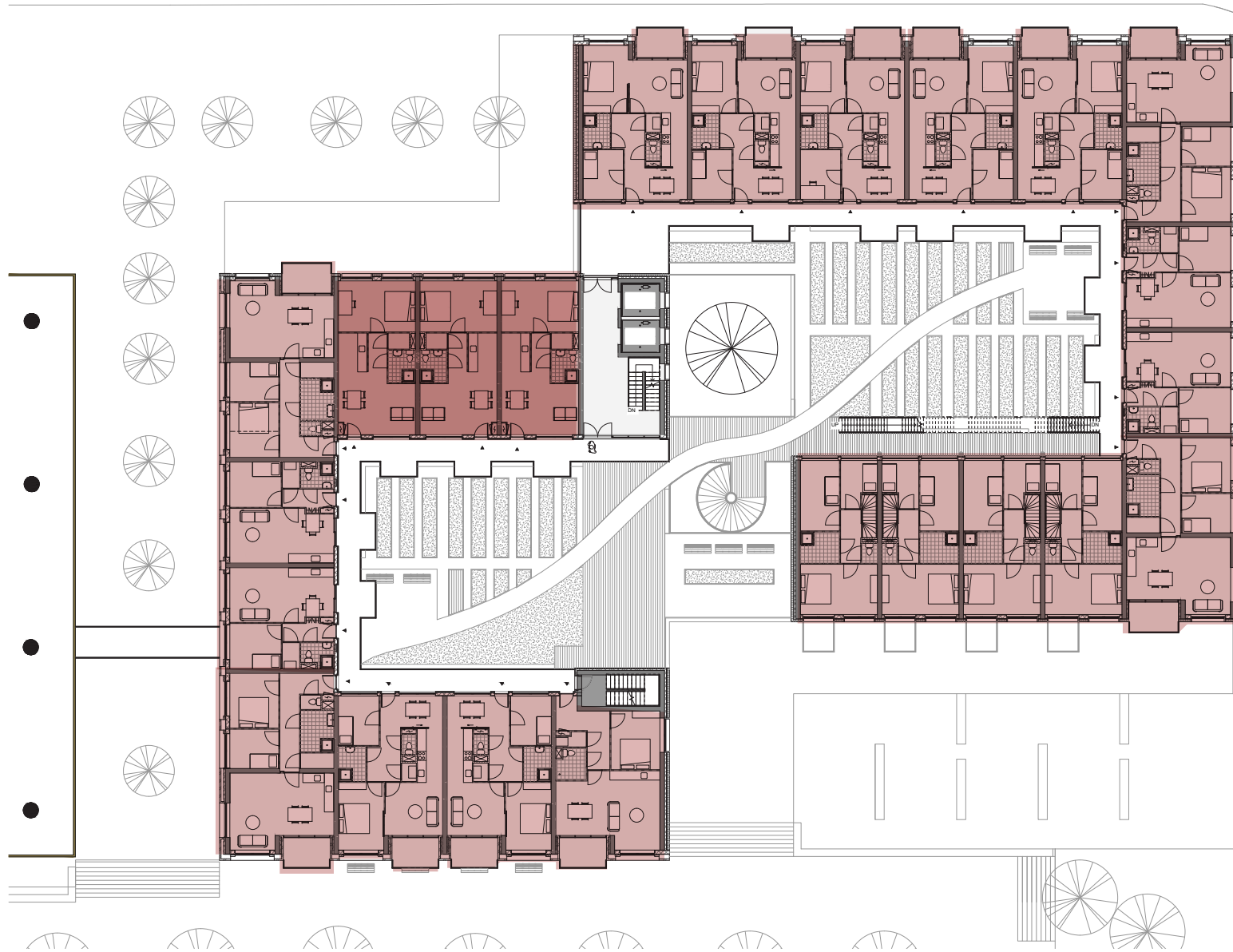
AANTAL: 18 STUKS
3 - KAMER APPARTEMENT
75 M²



LEVEL 2

WONINGEN - TYPE C

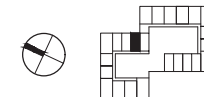
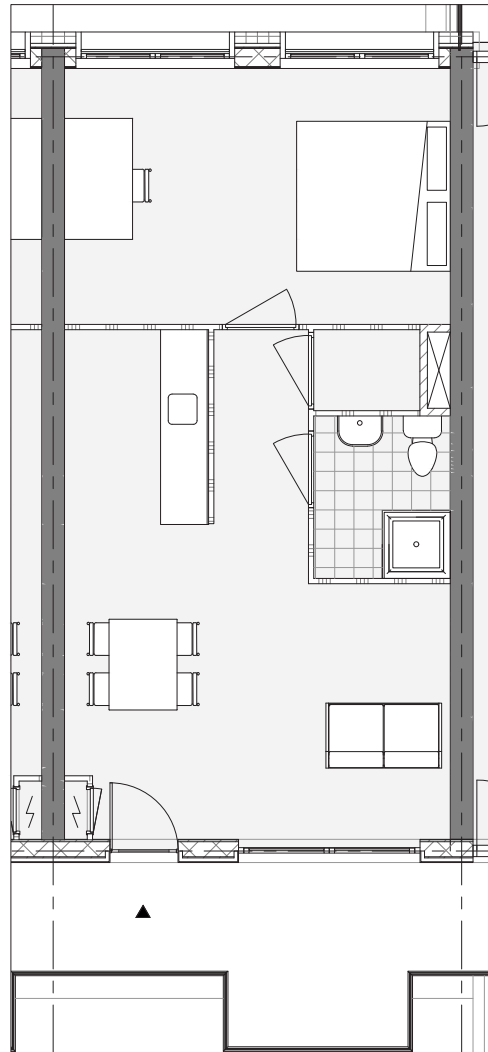
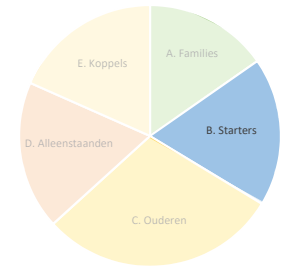
ARCHITECTONISCH ONTWERP



WONINGTYPE

TYPE C - STARTERS

AANTAL: 18 STUKS
2 - KAMER APPARTEMENT
49 M²



LEVEL 2

WONINGEN - TYPE D

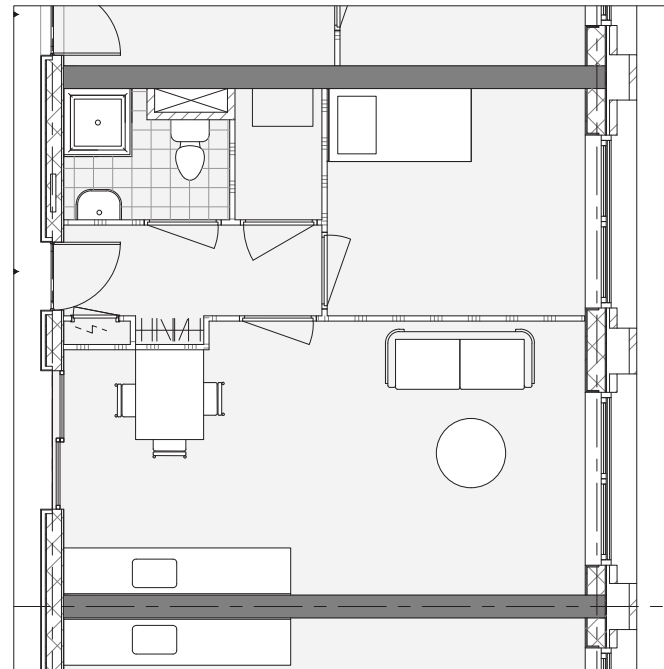
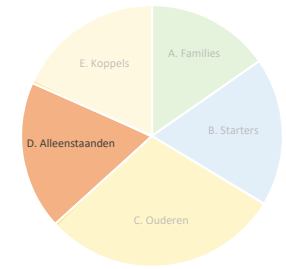
ARCHITECTONISCH ONTWERP



WONINGTYPE

TYPE D - SINGLES

AANTAL: 18 STUKS
2 - KAMER APPARTEMENT
47 M²



LEVEL 2

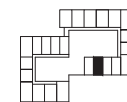
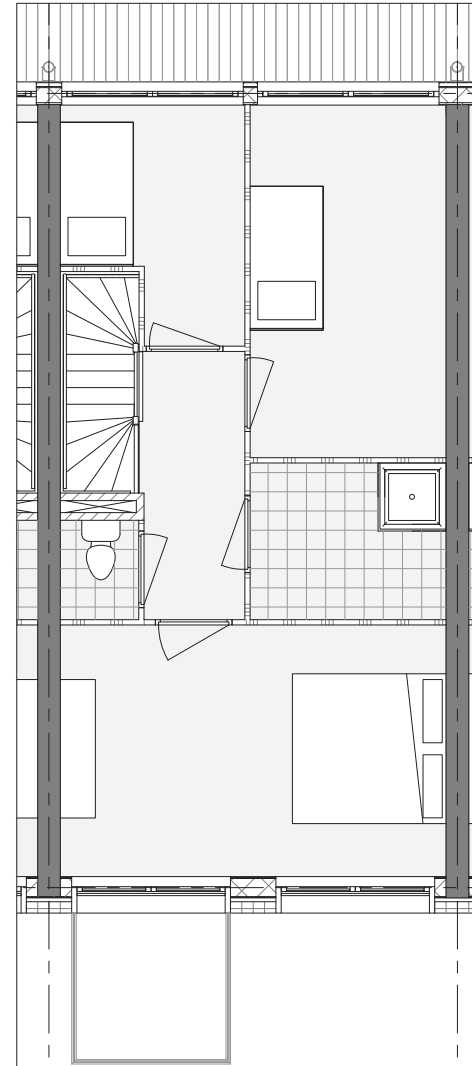
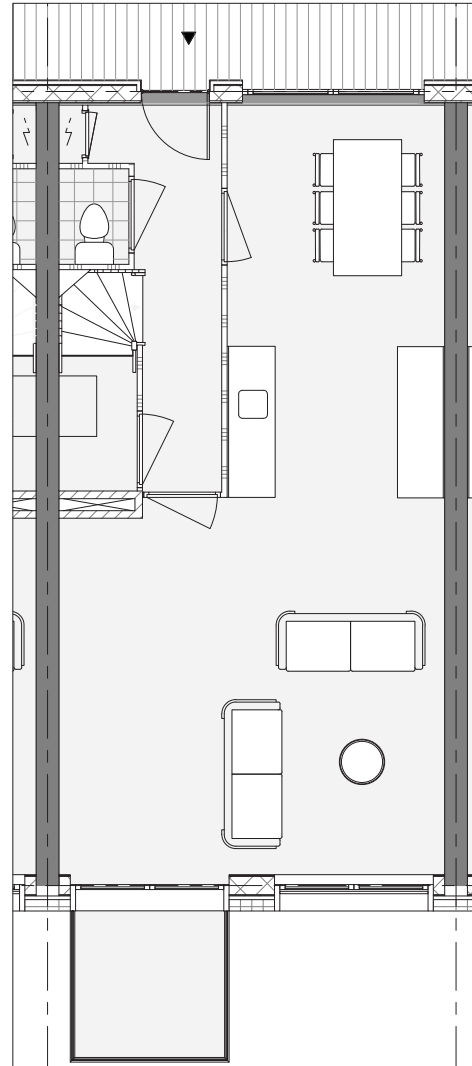
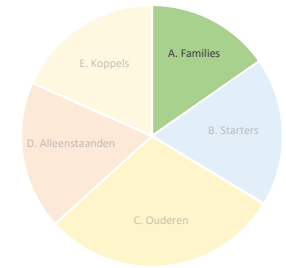
WONINGEN - TYPE E



WONINGTYPE

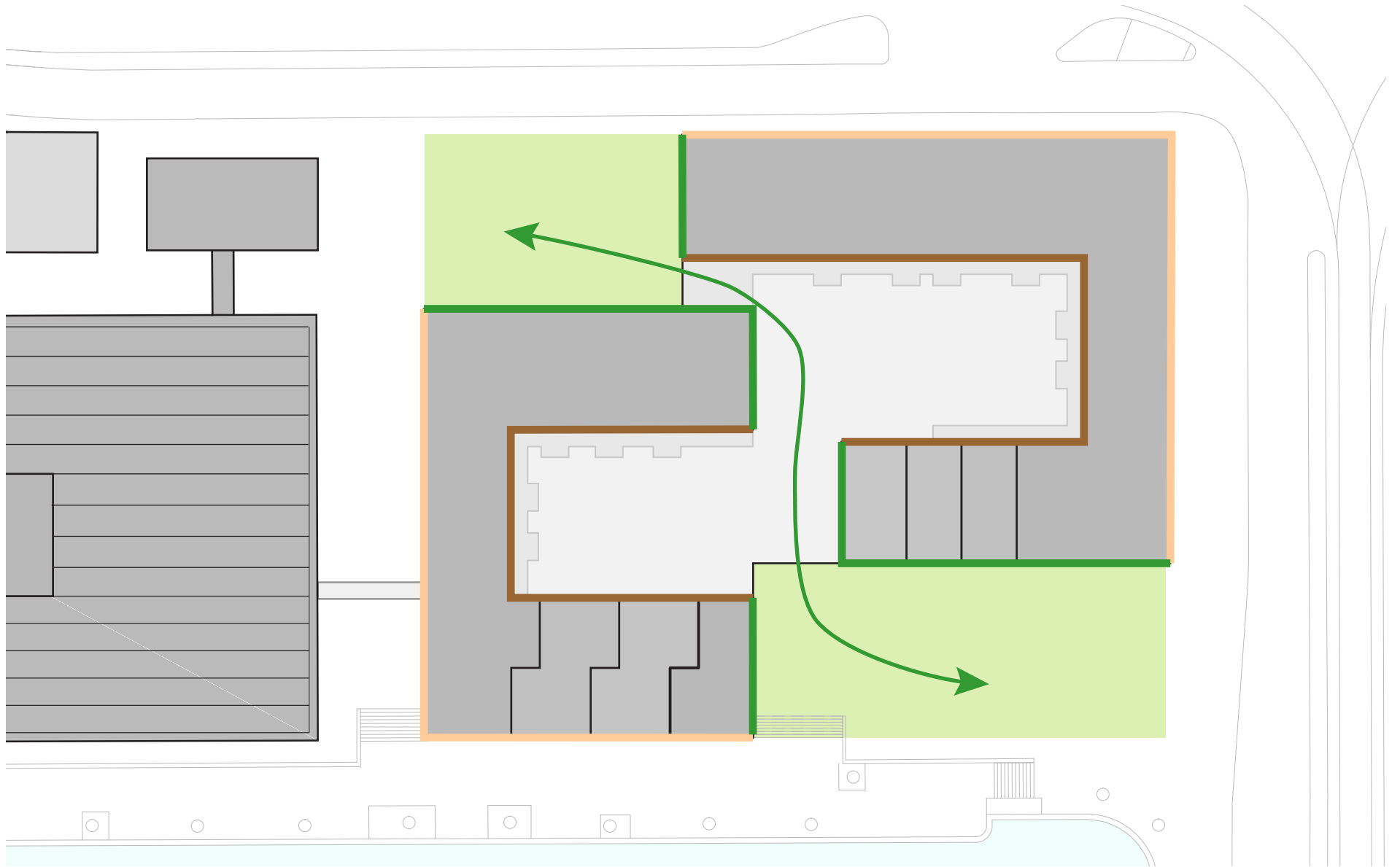
WONINGEN - TYPE E

AANTAL: 29 STUKS
4 - KAMER MAISONNETTE
100 M²



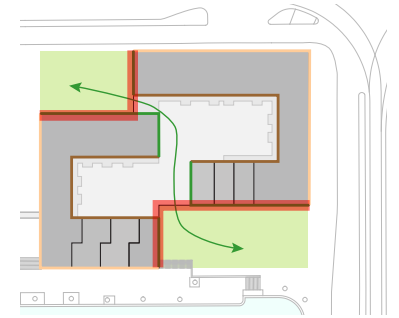
GEVEL

ARCHITECTONISCH ONTWERP



MATERIALEN

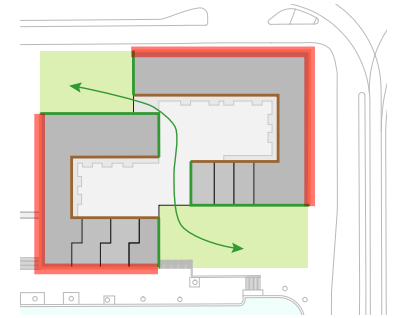
REFERENTIES



GROENE GEVEL
ENECO - ROTTERDAM

MATERIALEN

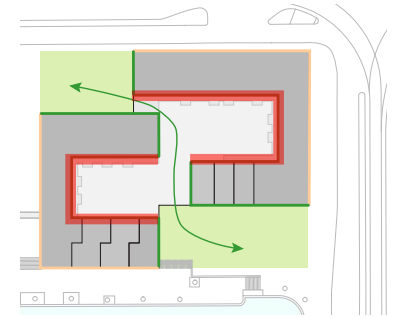
REFERENTIES



BAKSTENEN GEVEL
TURNMILL - LONDON

MATERIALEN

REFERENTIES



HOUT

GEVEL

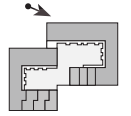


NORTH FACADE
NOORD



OOST

IMPRESSIE



ARCHITECTONISCH ONTWERP



STRAATZIJDE - MARNIXSTRAAT - NOORDGEVEL

GEVEL



GEVEL

PLANT SCHEMA

Uitgangspunt:

- Gevel het hele jaar door groen & 100% bedekt.
- Bloeiende planten die seizoensgebonden ervaring leveren

NOORD



Luzula sylvatica



Lonicera nitida 'Maigrun'



Geranium 'Blokovo'



Spiraea cinerea 'Grefshelm'



Persicaria amplexicaulis 'Speciosa'

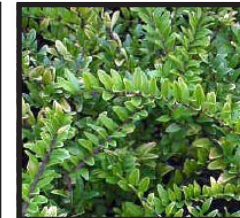


Alchemilla mollis

ZUID



Sesleria caerulea



Lonicera nitida 'Maigrun'



Geranium 'Blokovo'



Geranium 'Rozanne'



Persicaria amplexicaulis 'Speciosa'



Euphorbia cyparissias

GEVEL



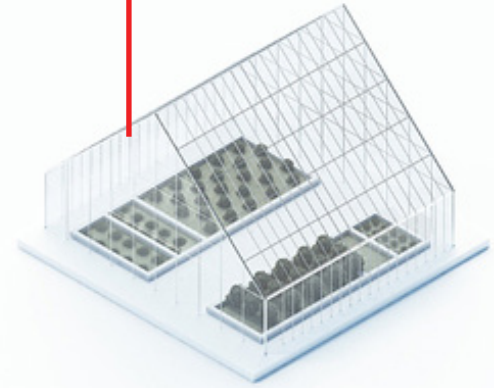
ZUID



AQUAPONICS



SEIZOENS TUIN



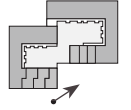
KAS

GEVEL



REFERENTIE AQUAPONICS

IMPRESSIE

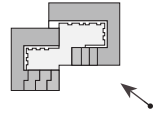


ARCHITECTONISCH ONTWERP



WATERKANT - BOULEVARD - ZUIDGEVEL

IMPRESSIE



ARCHITECTONISCH ONTWERP

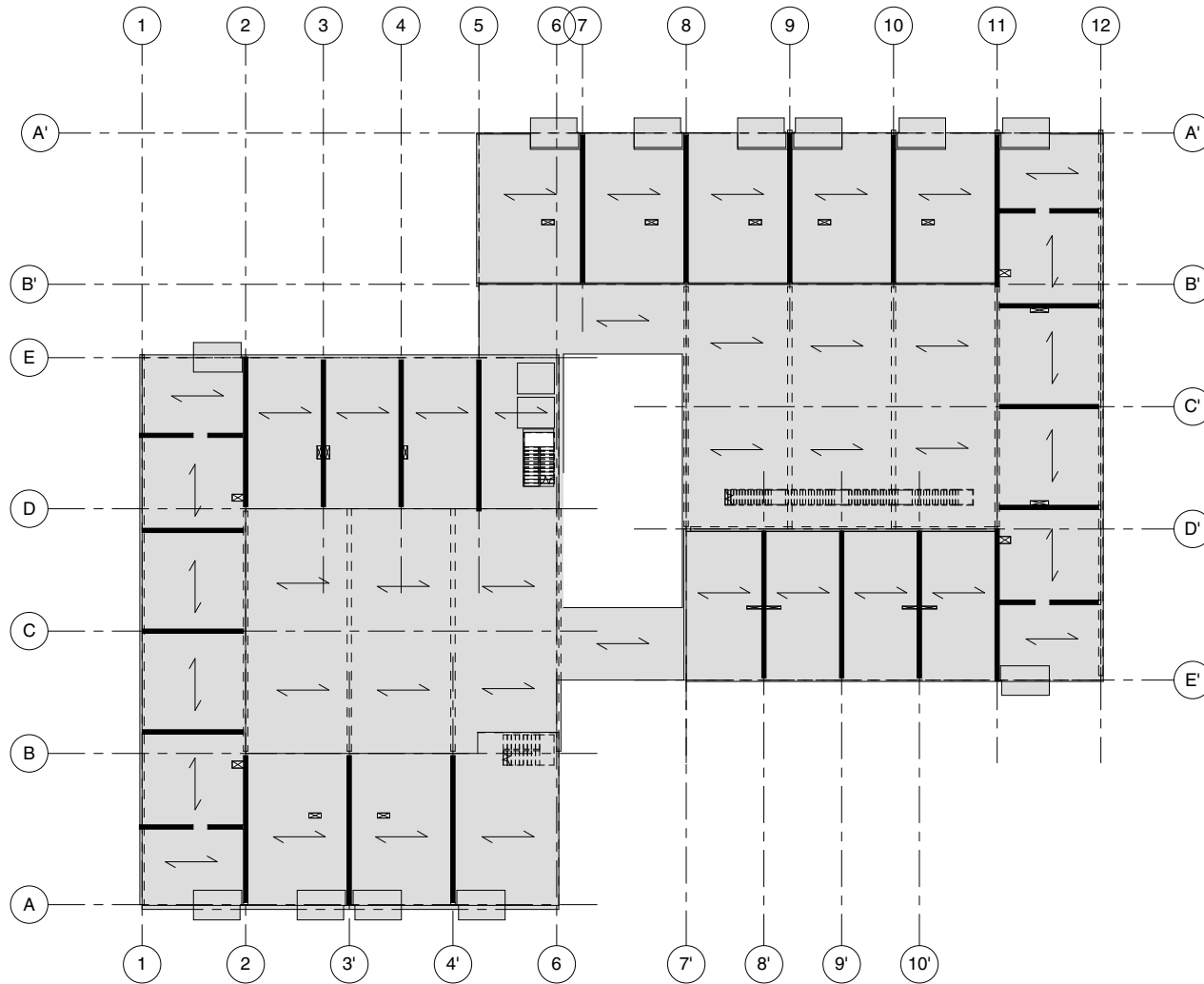


WATERKANT - ELANDSGRACHT - ZUIDGEVEL

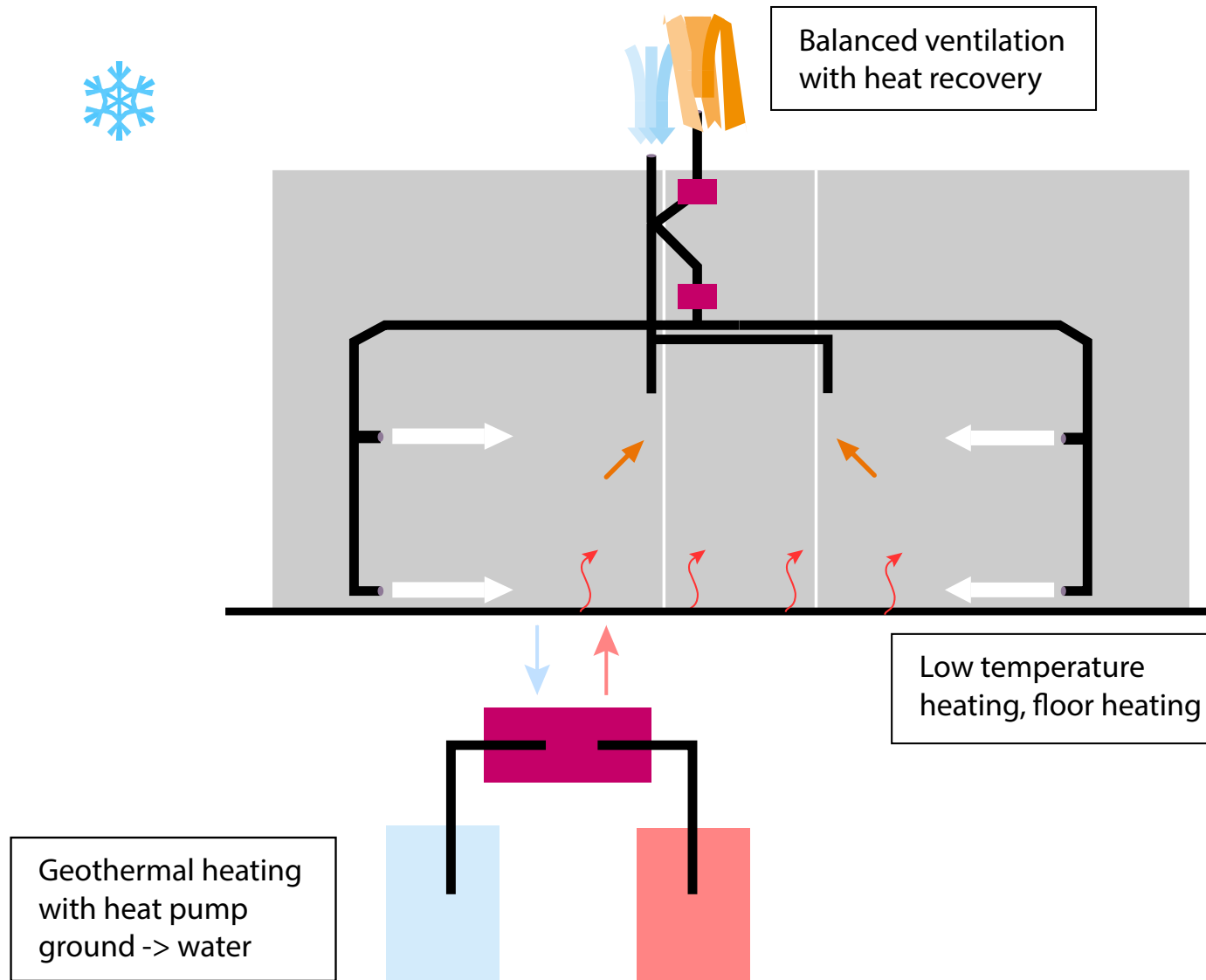
A grayscale aerial photograph of a city grid, showing a dense pattern of streets and buildings. The image is slightly faded and serves as a background for the title text.

TECHNISCH ONTWERP

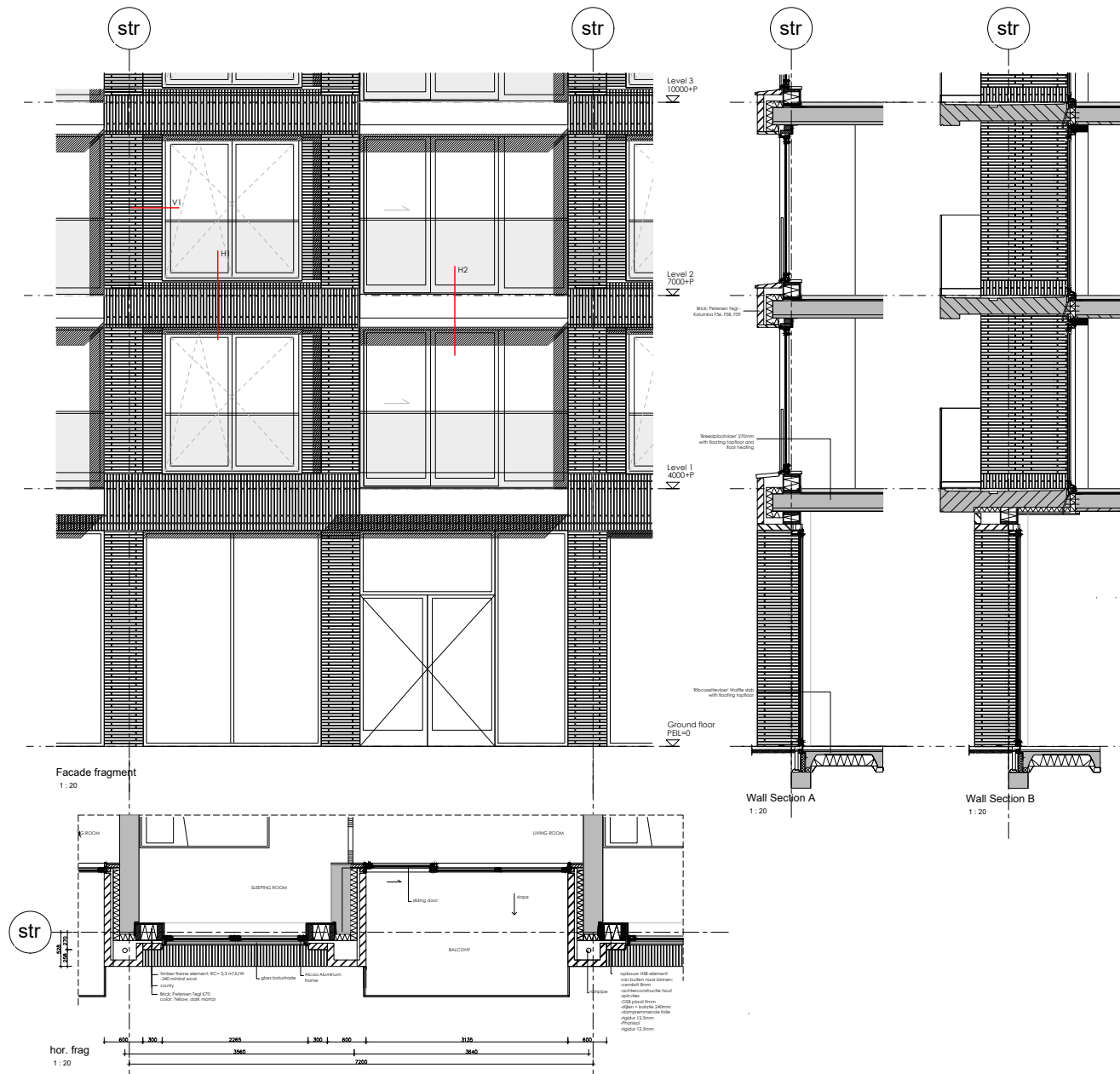
CONSTRUCTIE



KLIMAAT

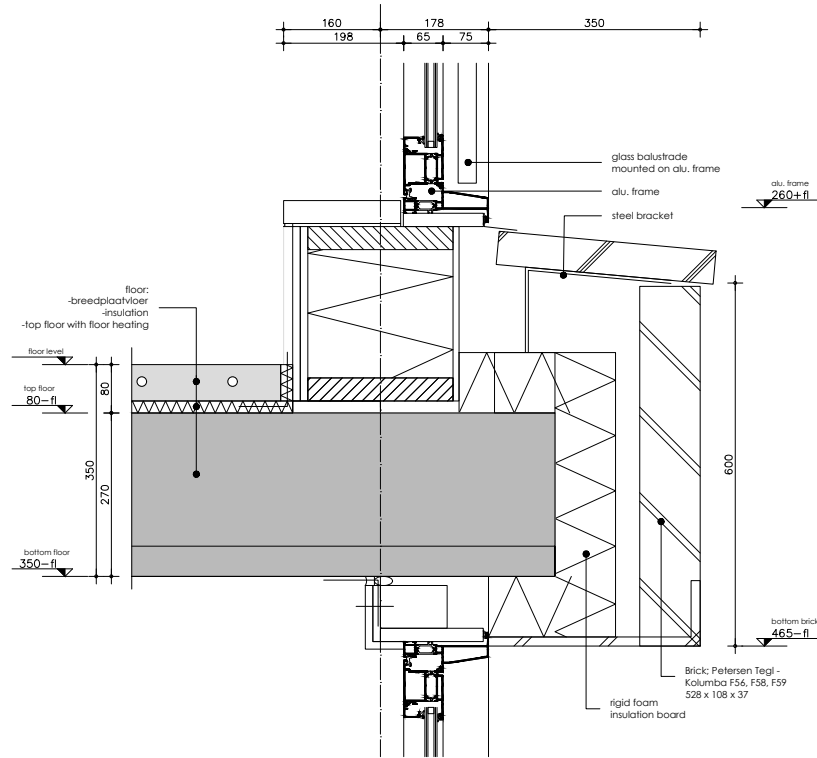


BAKSTENEN GEVEL

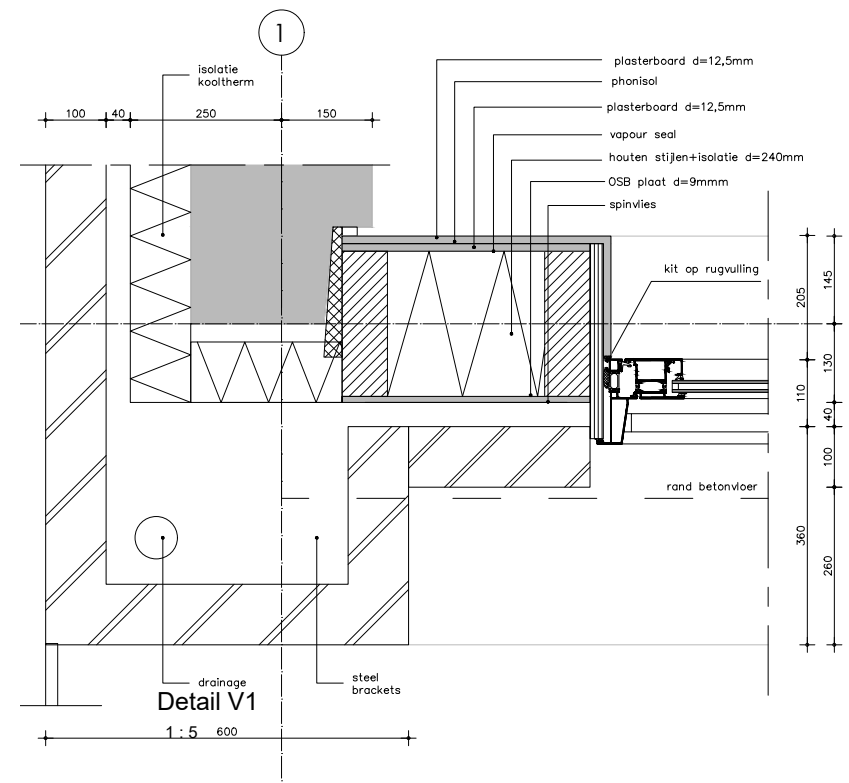


BAKSTENEN GEVEL

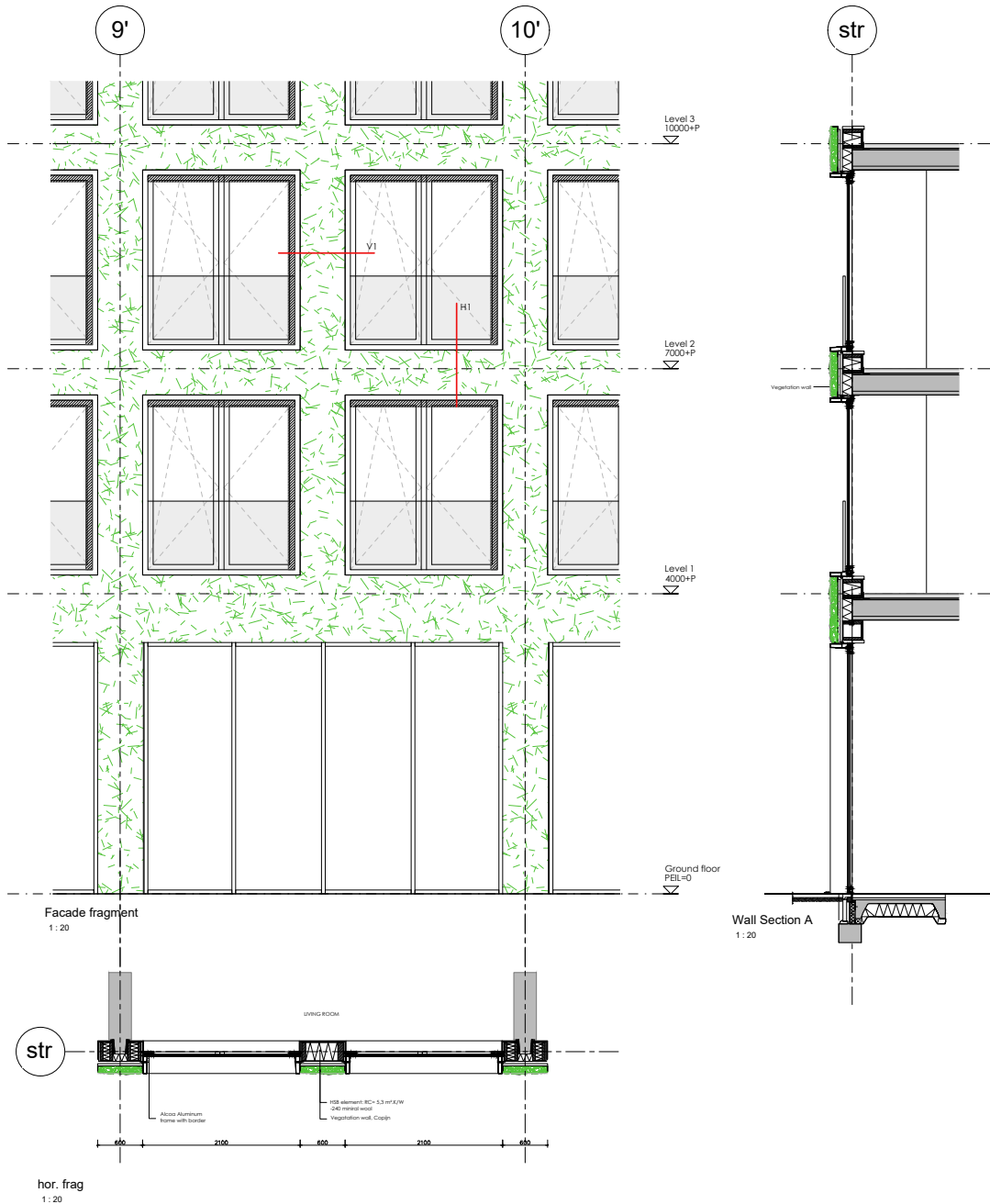
DETAIL



Detail H1

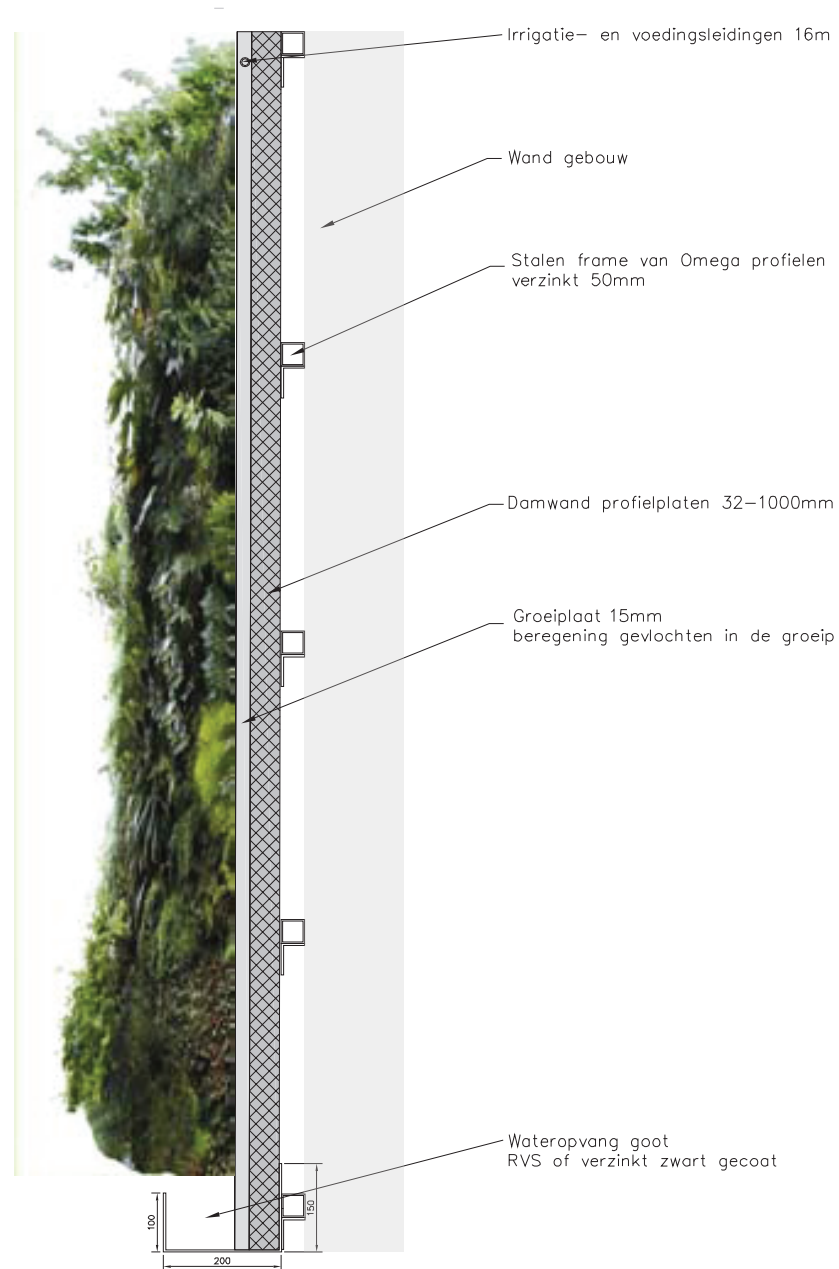


GROENE GEVEL



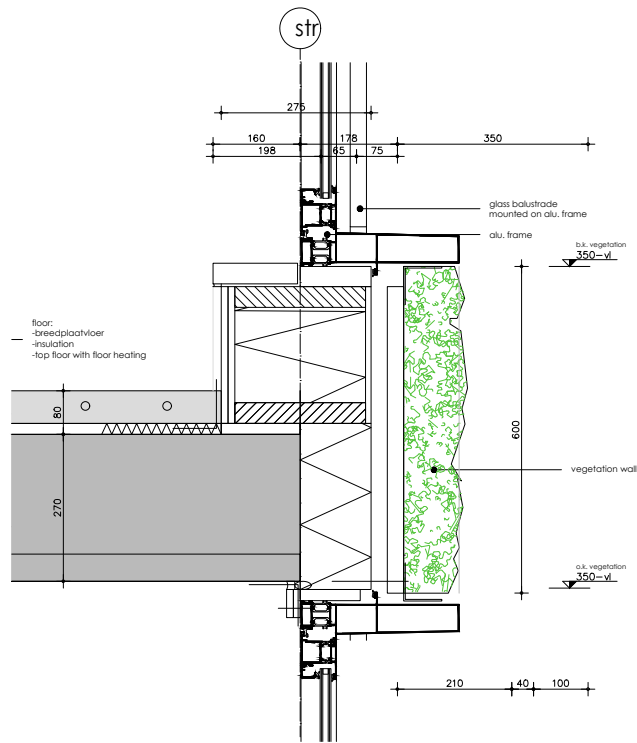
GROENE GEVEL

OPBOUW

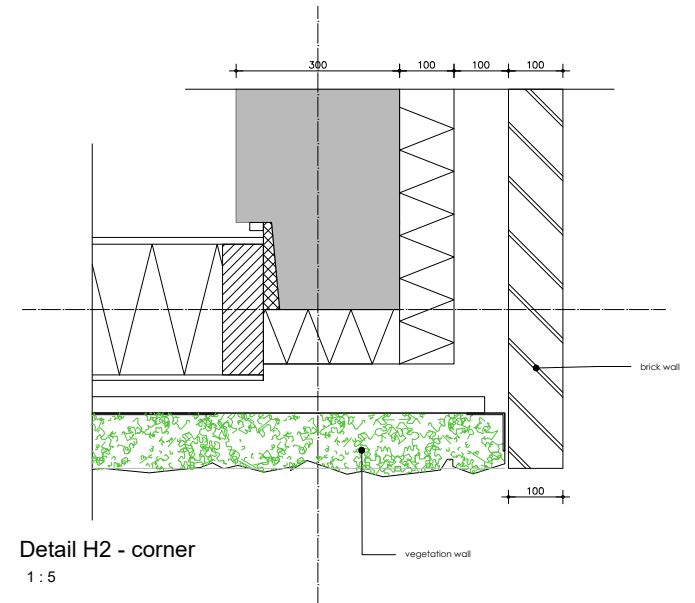
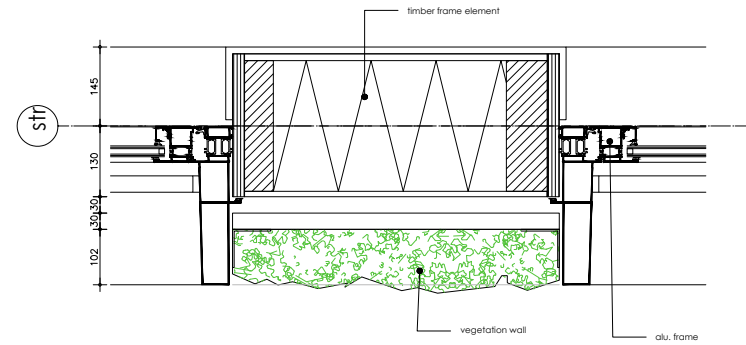


GROENE GEVEL

DETAIL

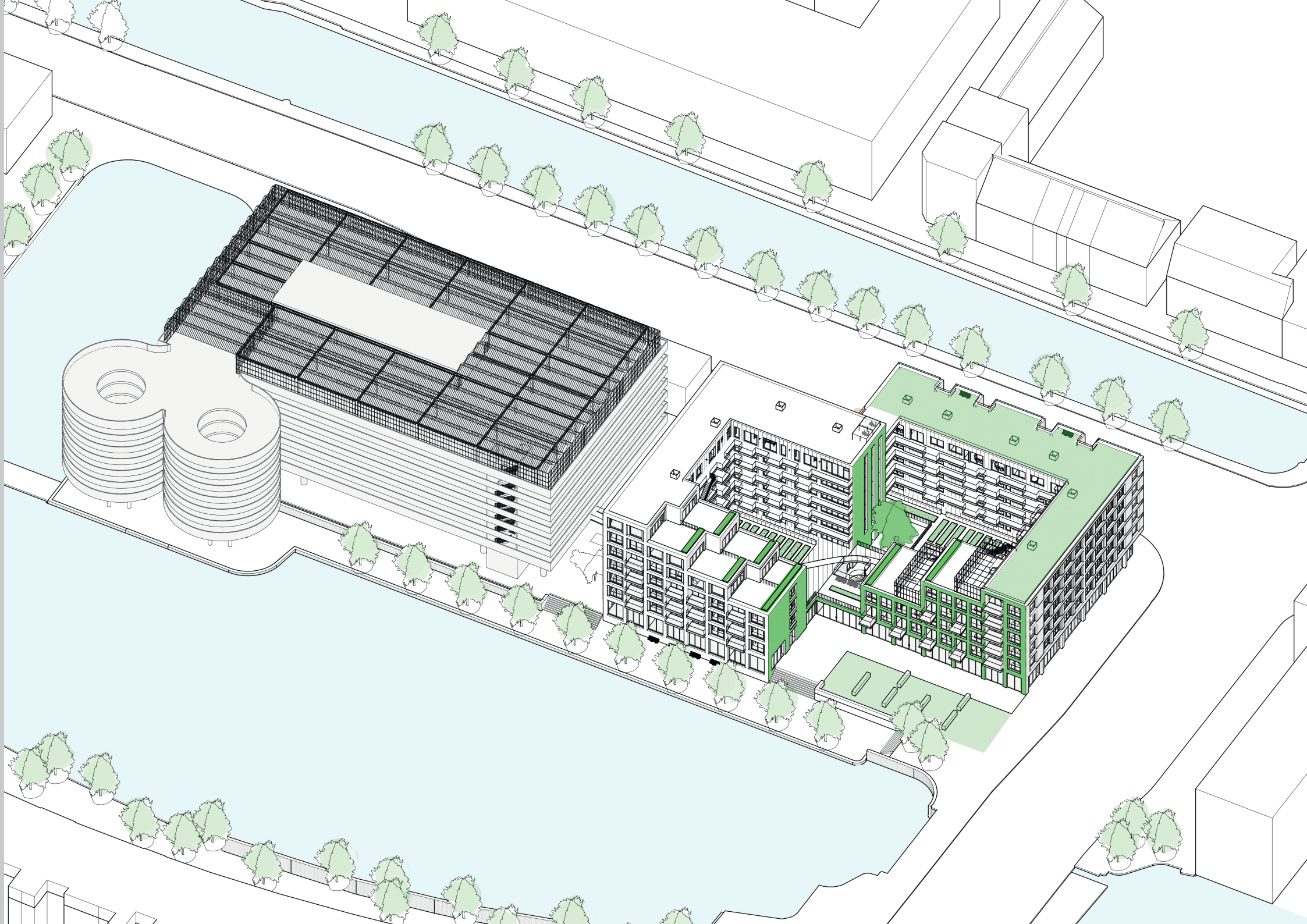


Detail V1
1:5



Detail H2 - corner
1:5

BINNENTUIN

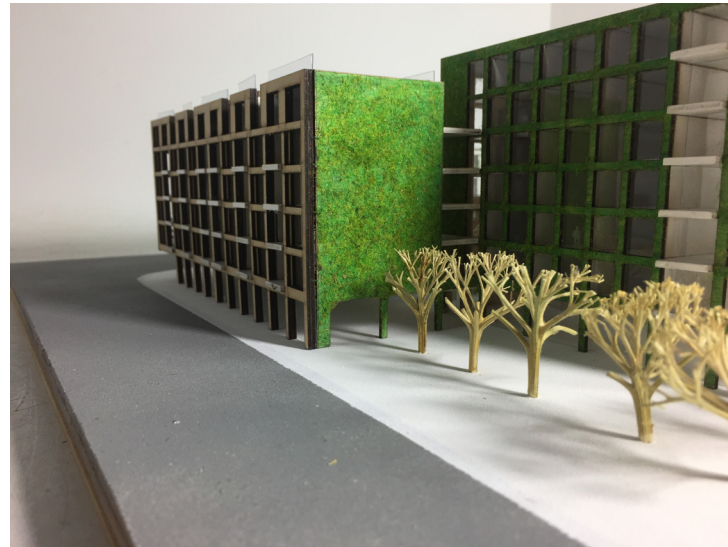




BEDANKT

MAQUETTE

IN PROGRESS

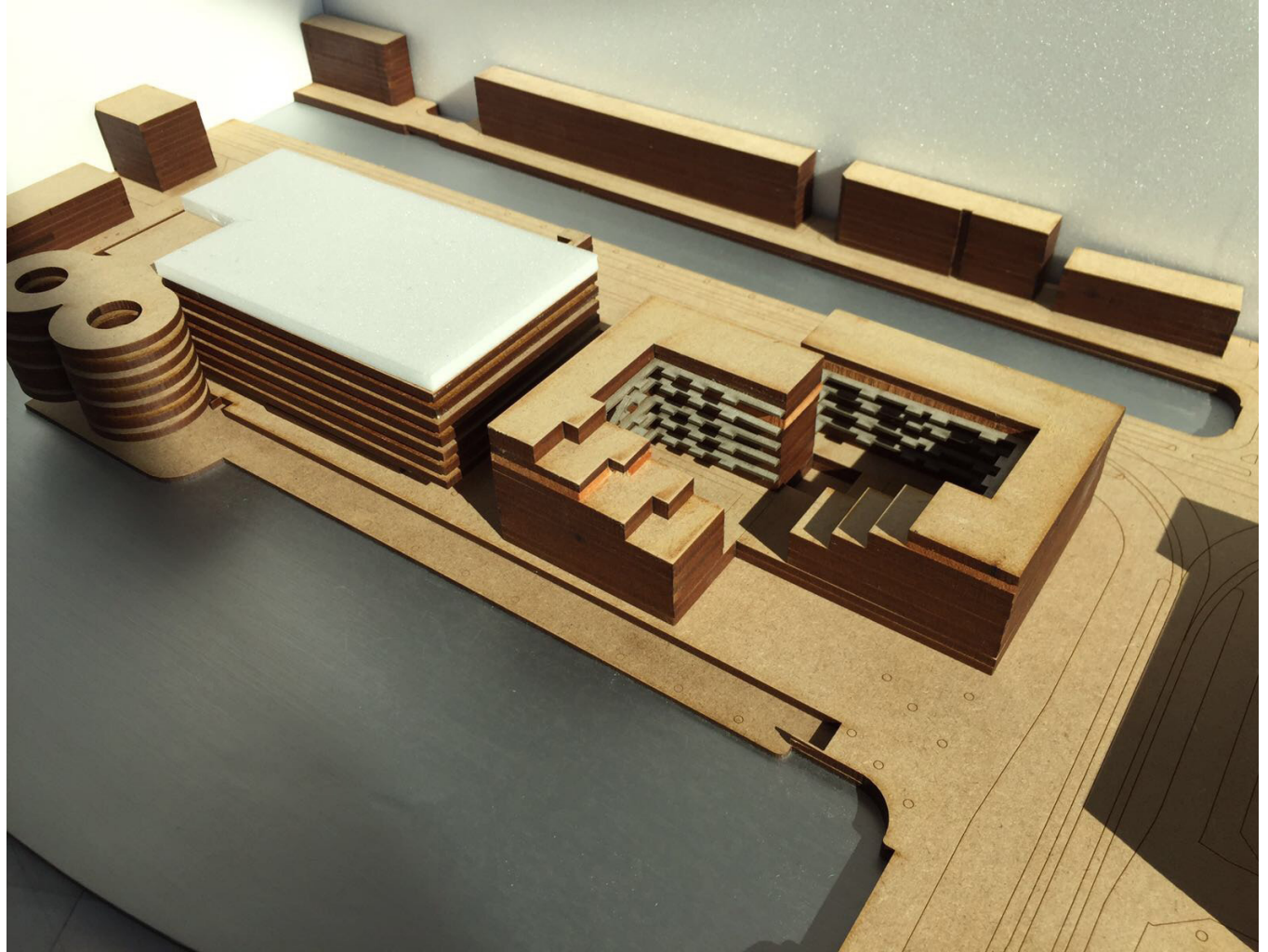
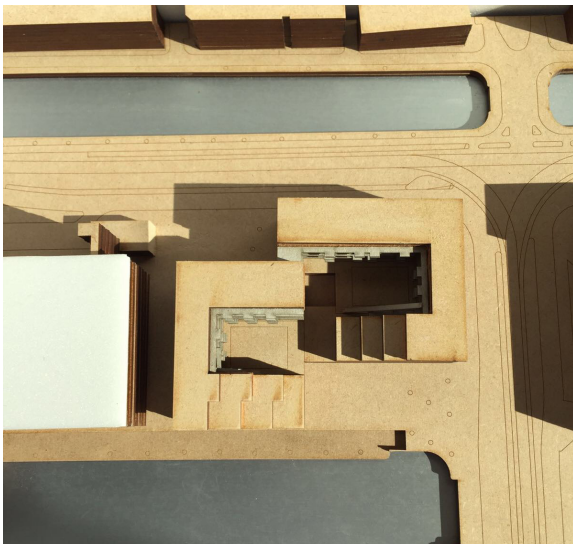
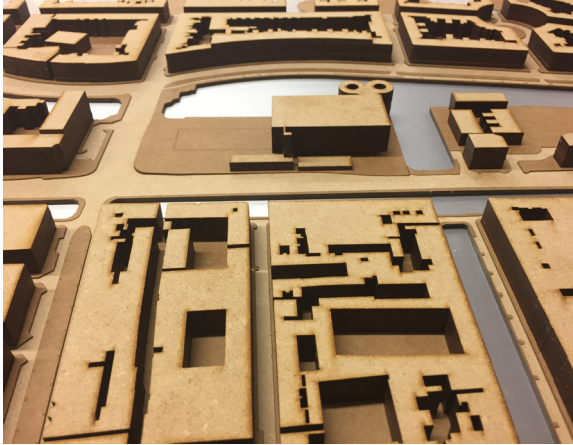


ADDITIONAL

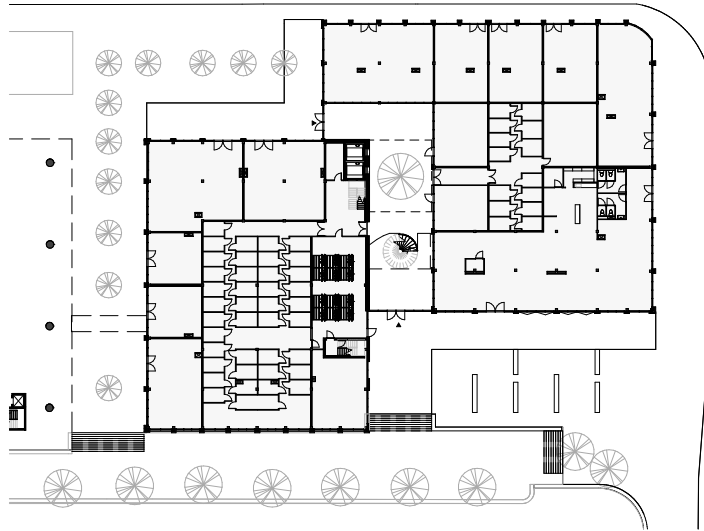
MAQUETTE

STEDENBOUWKUNDIGE SITUATIE

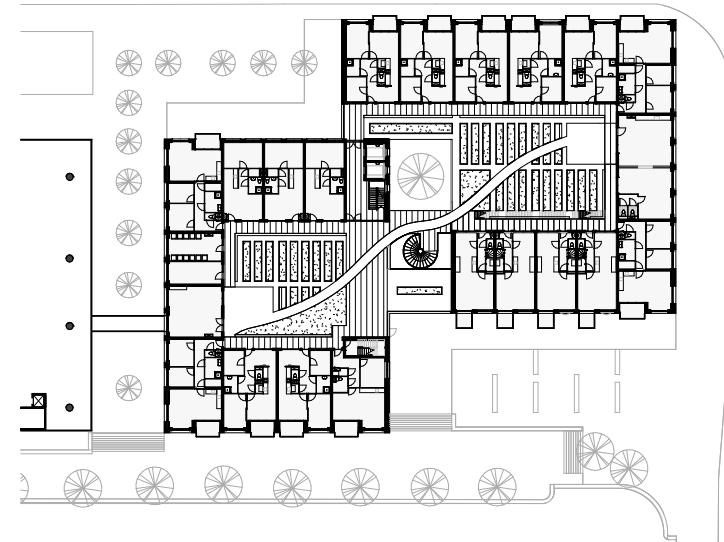
ADDITIONAL



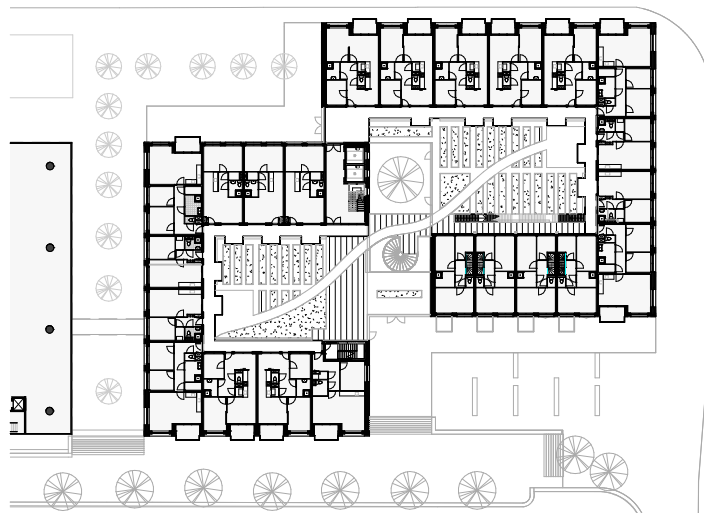
PLATTEGRONDEN



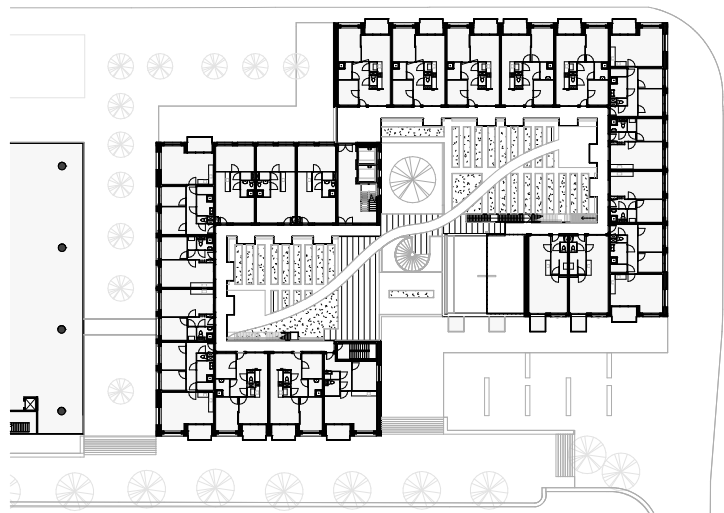
Ground floor



Level 1



Level 2

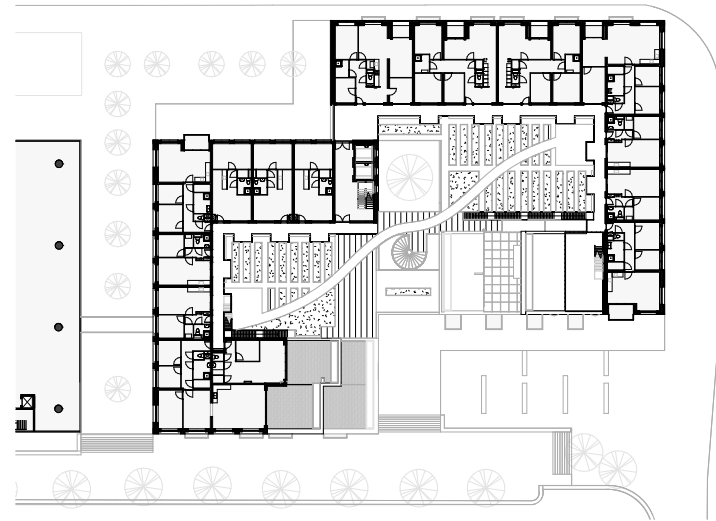


Level 3

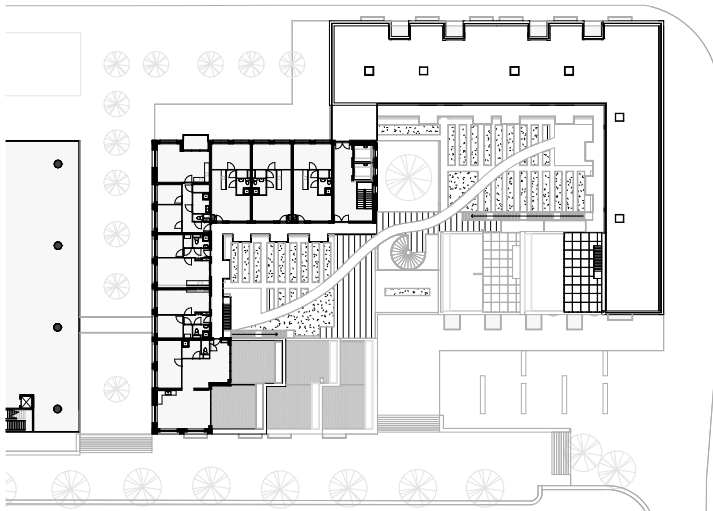
PLATTEGRONDEN



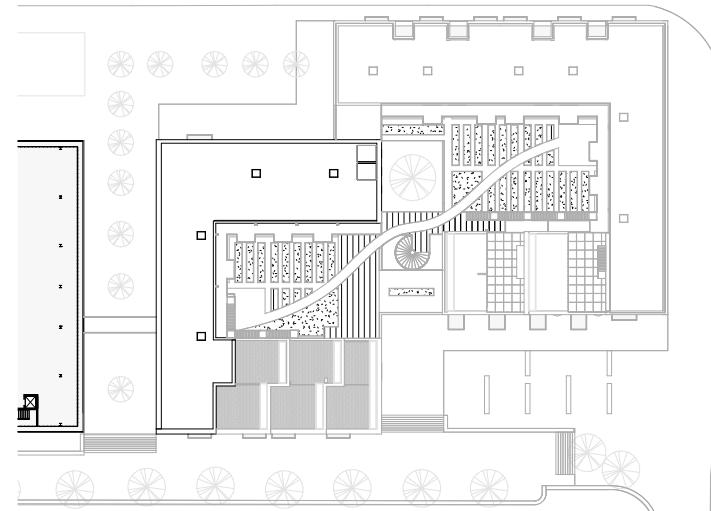
Level 4



Level 5



Level 6



Roof