

P2 Presentation | Degrowth Architecture

Close loop reuse in 1960's social housing renovation projects



Fascination

Degrowth

- Reducing production & consumption
- Promote ecological & social values
- Shift from economic infinite growth

An Architecture of Degrowth

- ≠ less architecture
- Reuse existing materials
- Reuse existing buildings
- Improve social & ecological values
- Sharing



Case

Requirements

- Transformation project; need for renovation
- Lacking ecological & social values
- Representative

Klipperbuurt

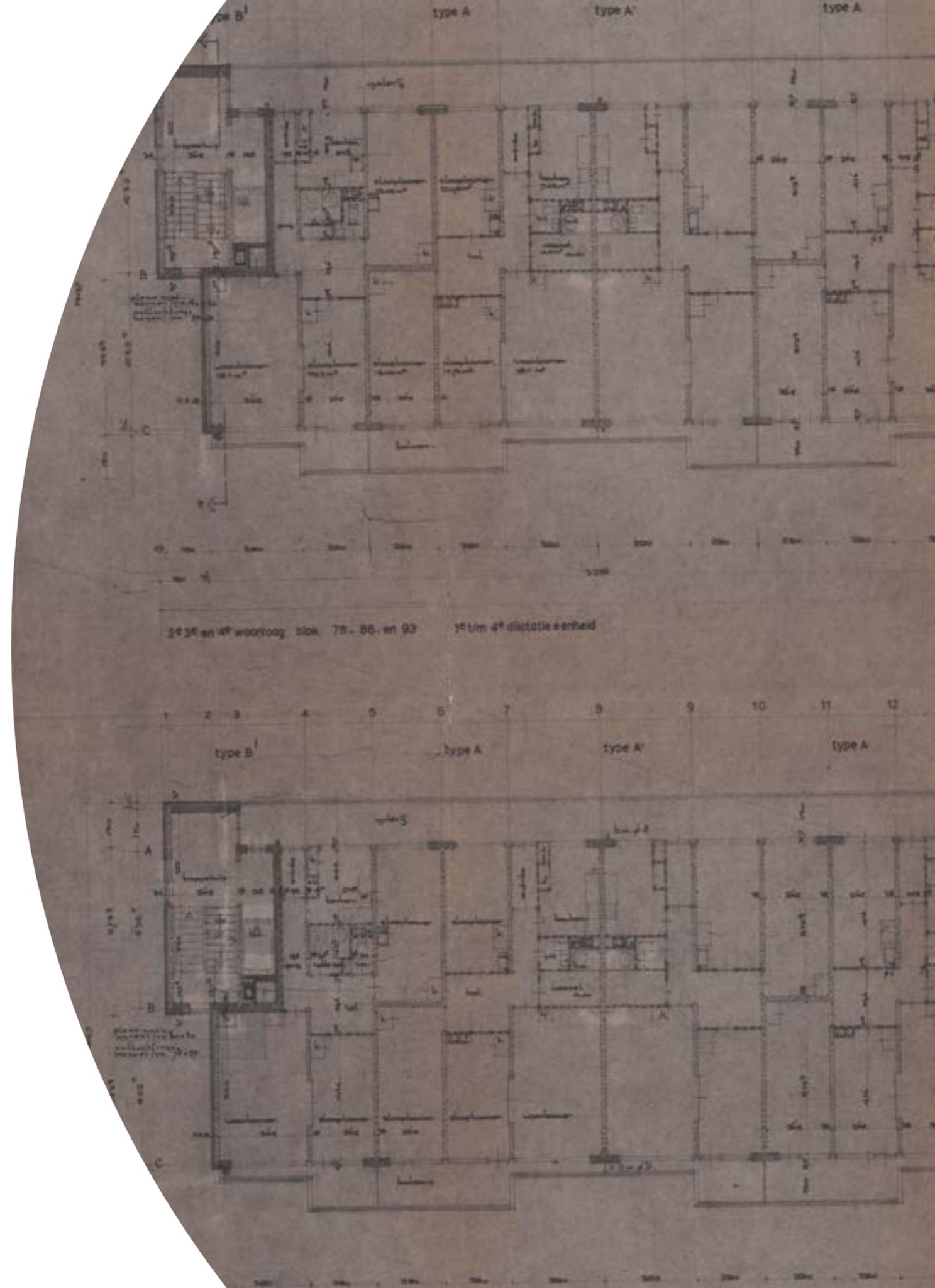
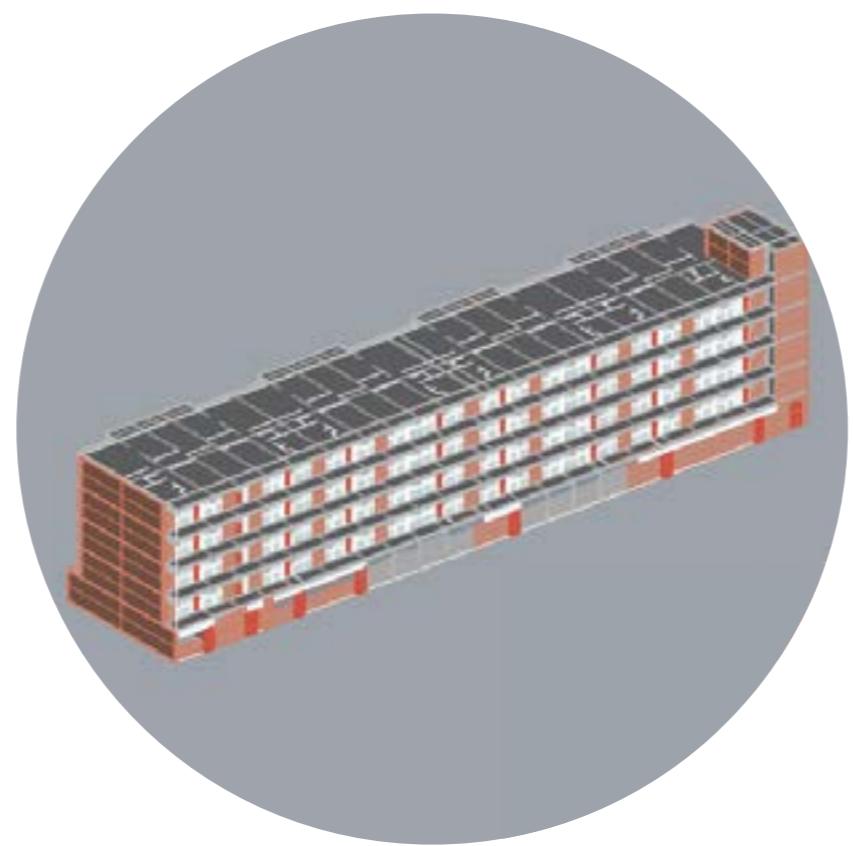
- 577 dwellings across 11 blocks
- 1968
- 5 layers
- Gallery
- Plans for thorough renovation.
- Lacking social qualities



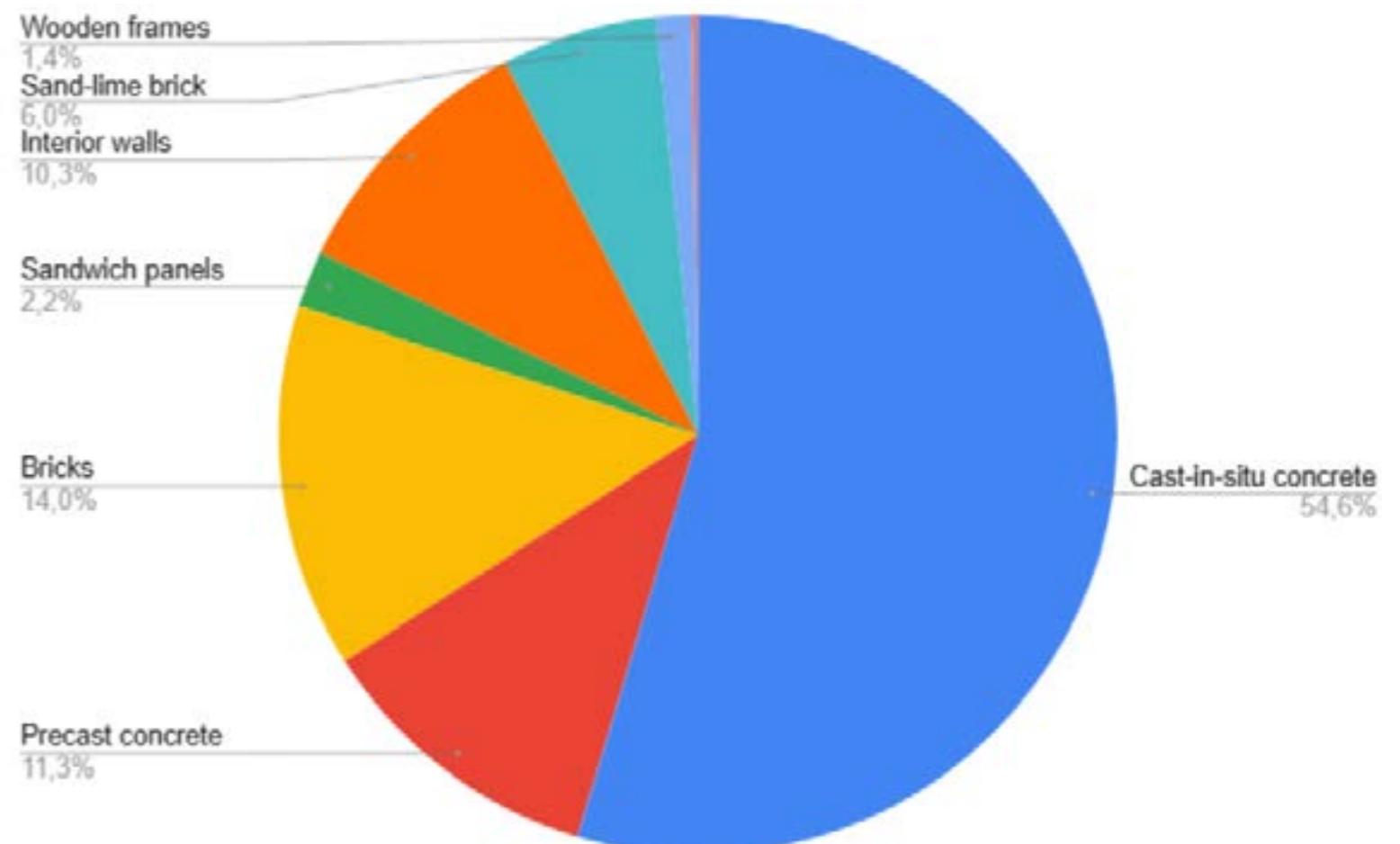
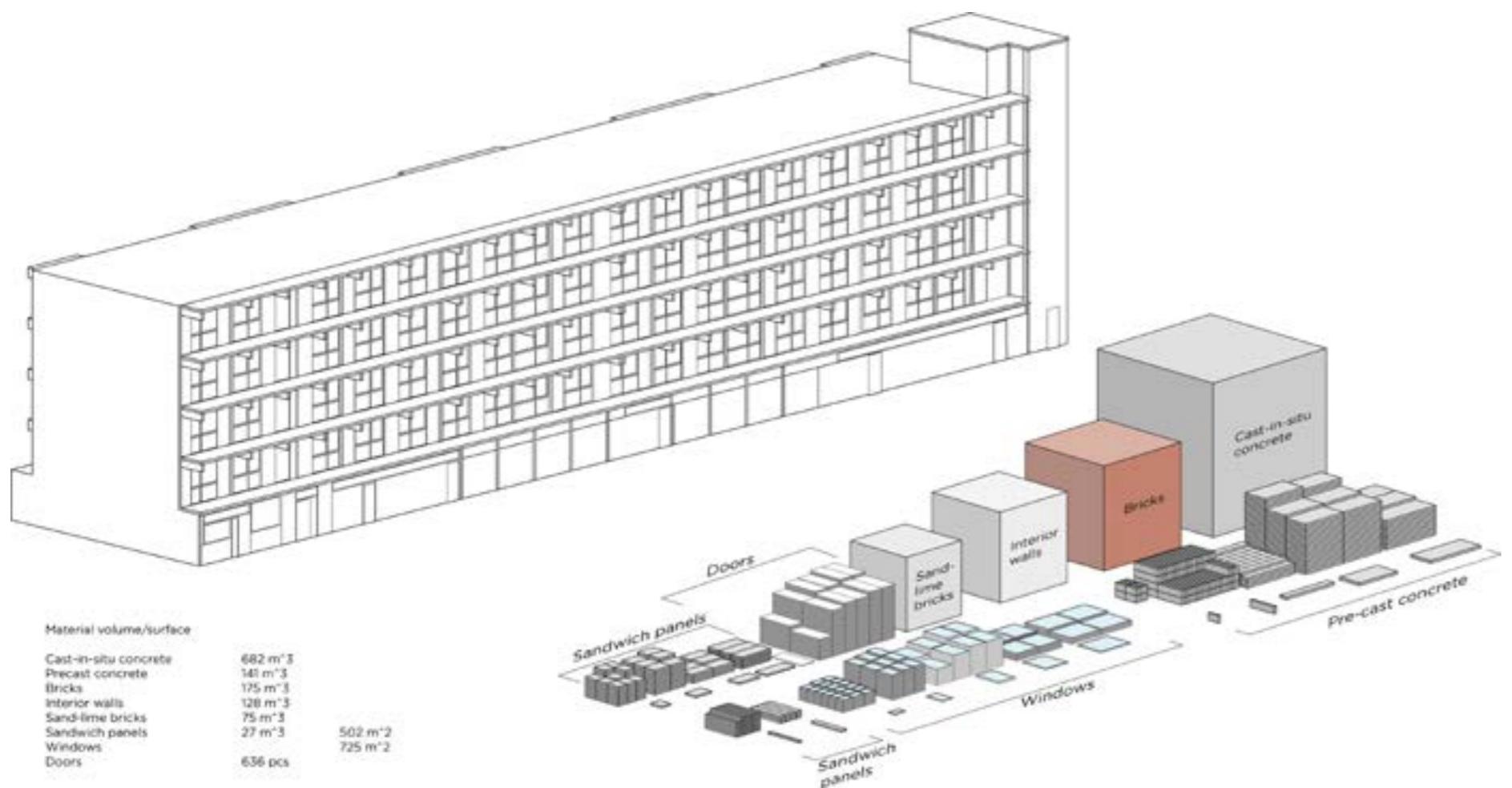
Research

Research topic

- Potential reuse of materials of 1960s social housing renovation projects
- Inventory
- Harvest
- Reuse



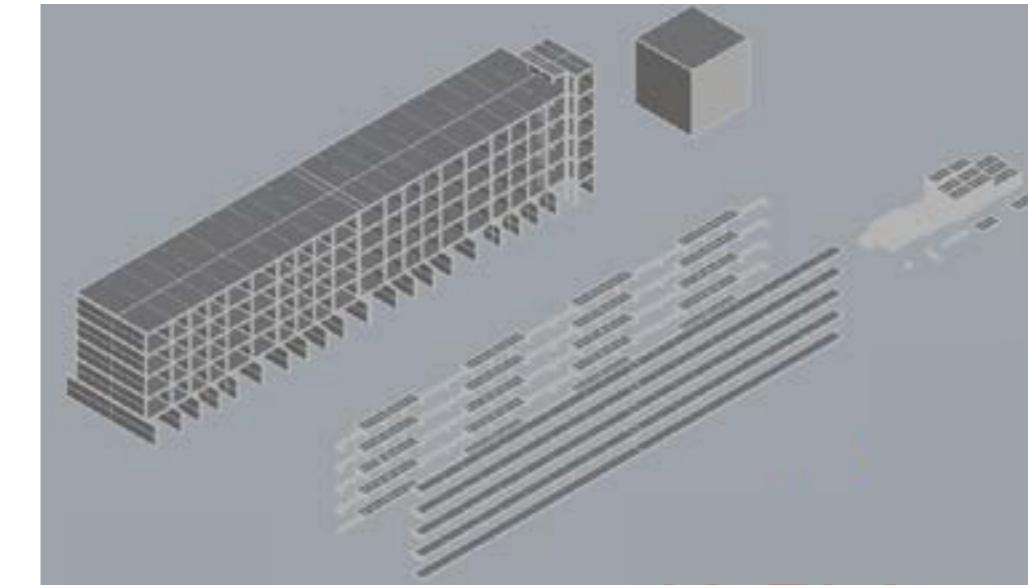
Material analysis



Material analysis - concrete



Cast-in-situ concrete
Precast concrete

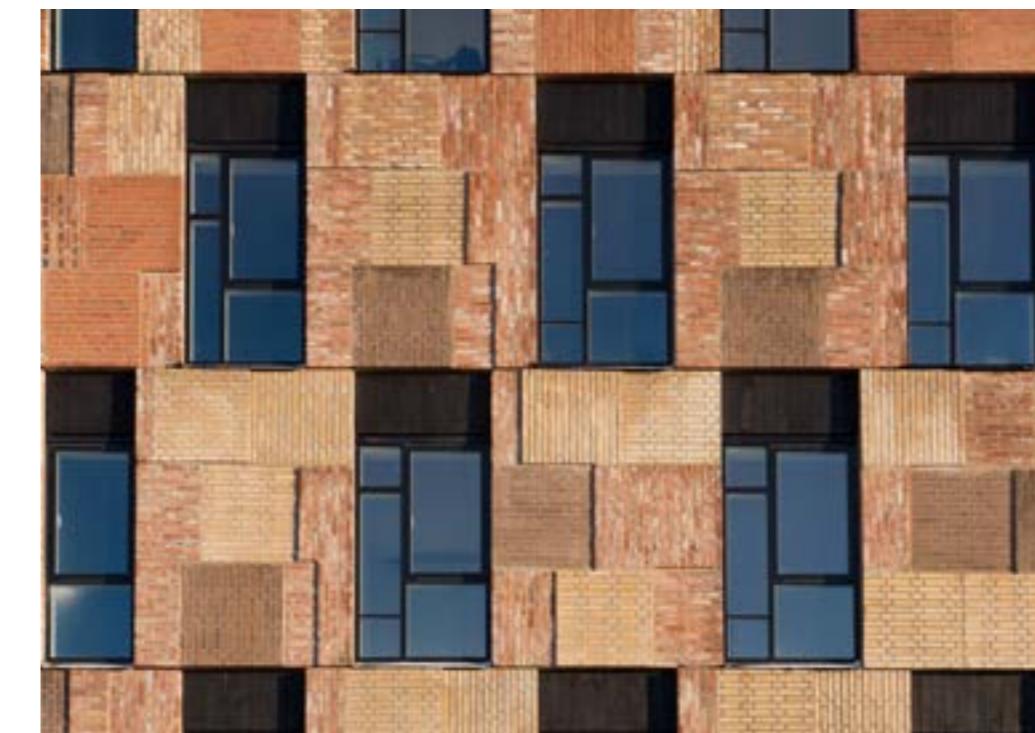
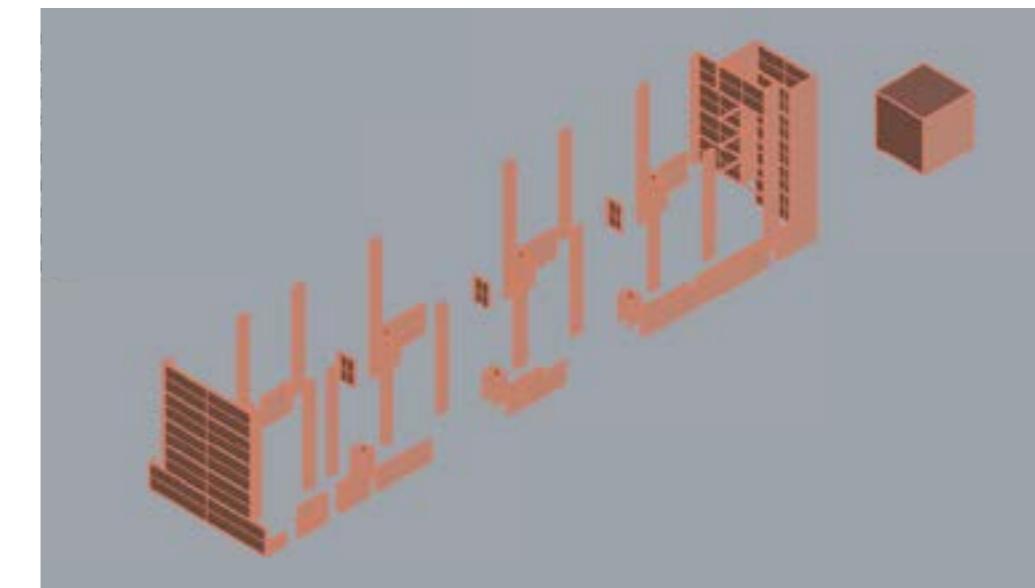


682 m³ 54,6%
141 m³ 11,3%

Material analysis - Bricks



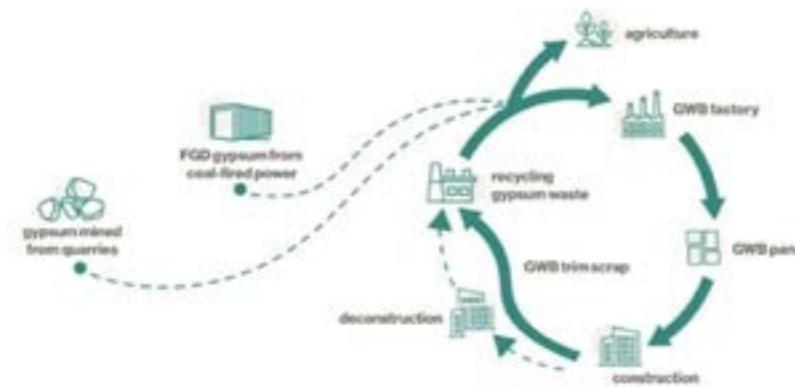
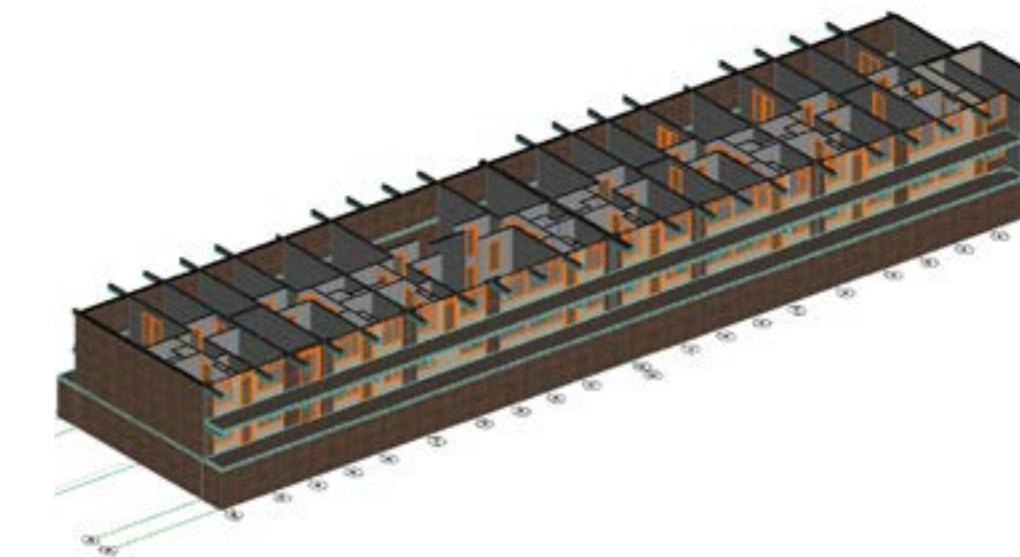
Bricks



175 m³

14%

Material analysis - Interior walls



Interior walls
Gypsum

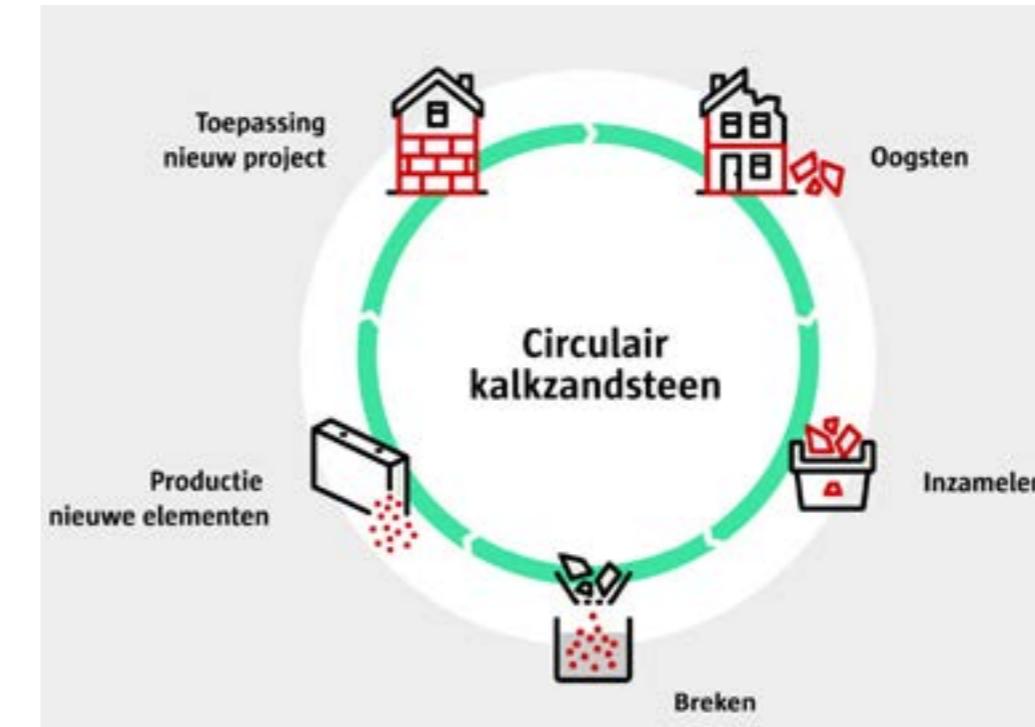
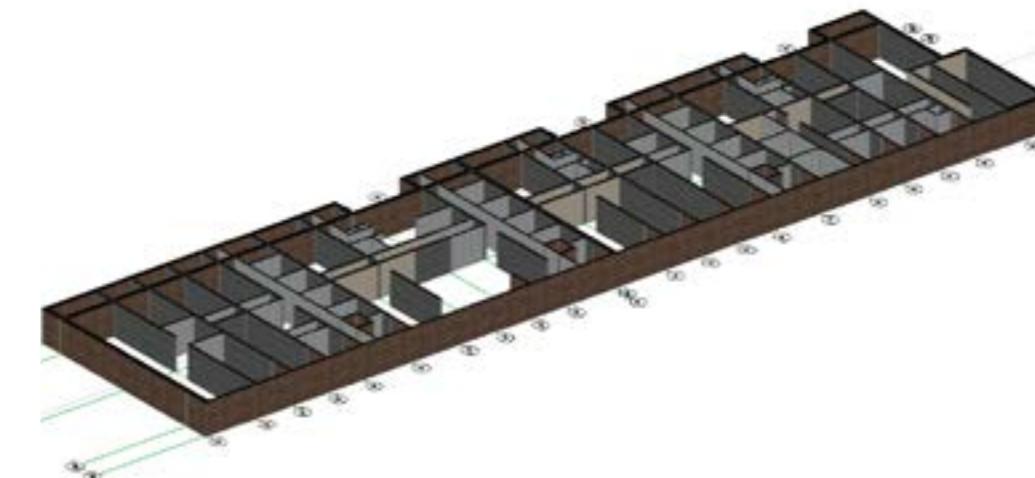
128 m³
42,6 m³

10,3%
3,4%

Material analysis - Interior walls



Sand-lime bricks

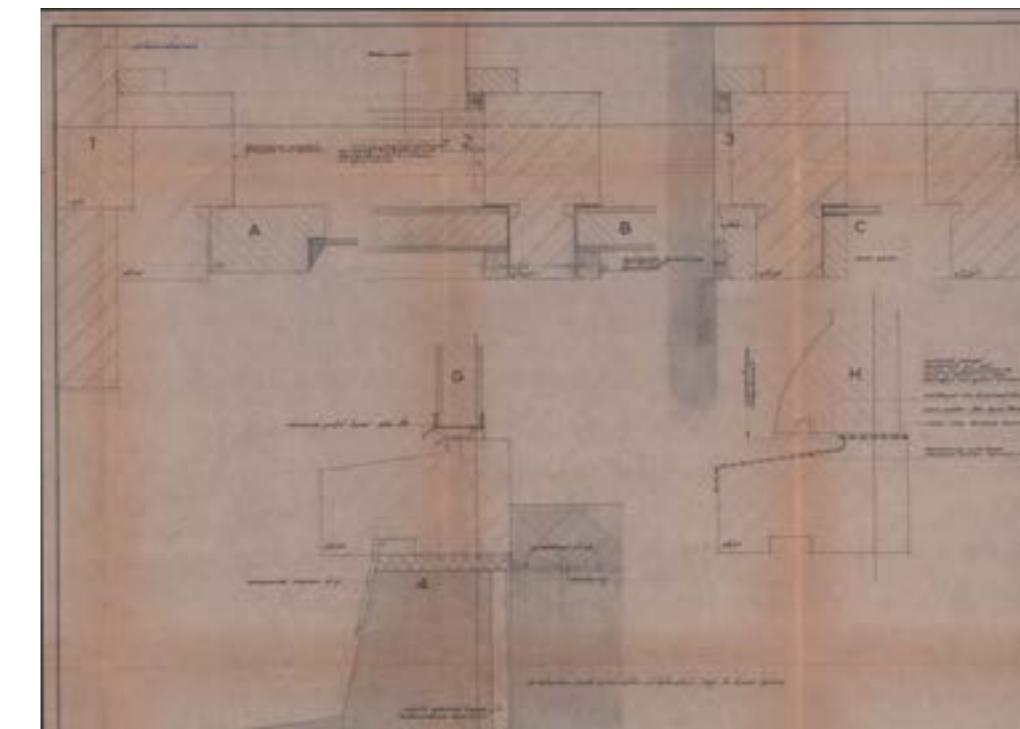
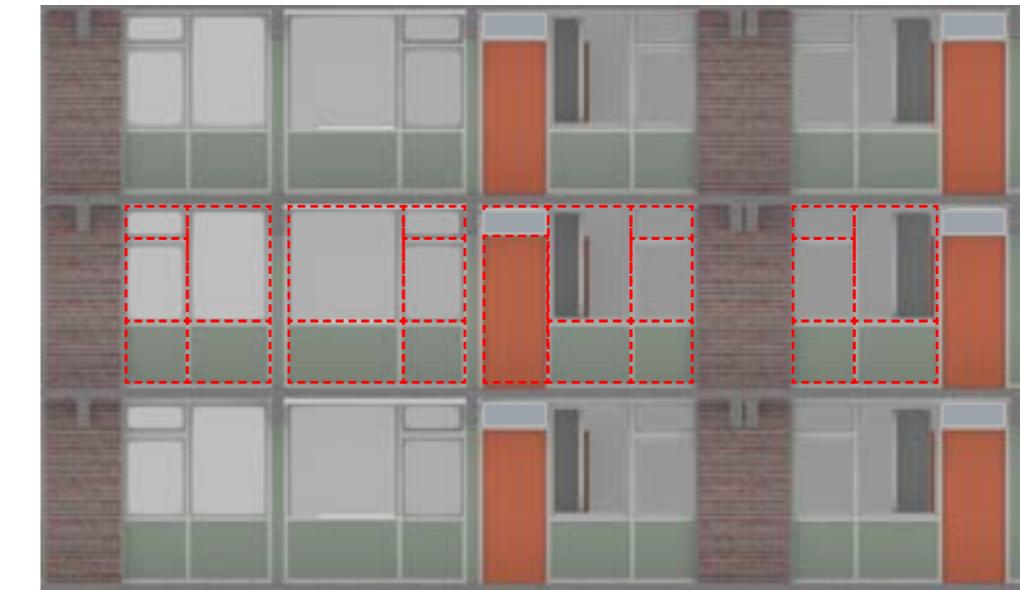


75 m³ 6%

Material analysis - Frames



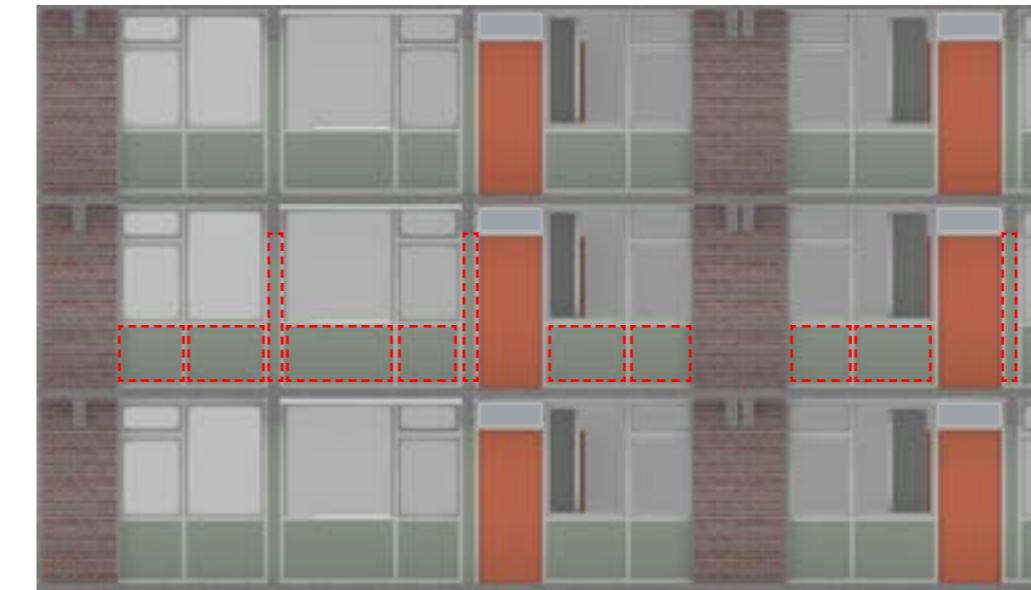
Wooden frames
Aluminum frames



17 m³
3 m³

1,4%
0,2%

Material analysis - Facade panels



Sandwich panels
% facade typical floor = 40%



27 m³ 2,2%

Material analysis - Windows



% facade typical floor = 50%

Material analysis - Doors

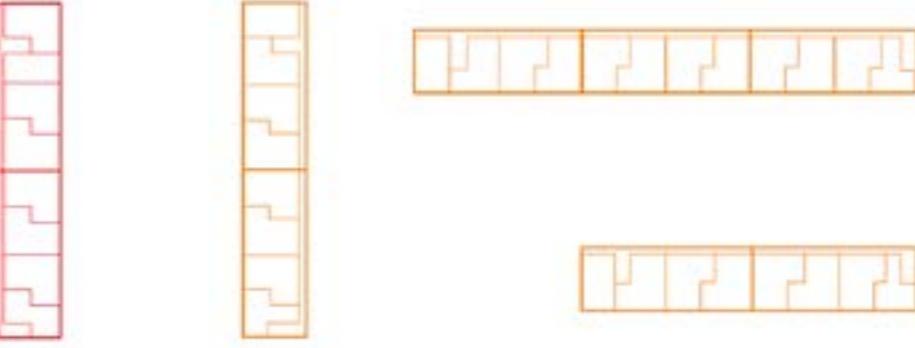
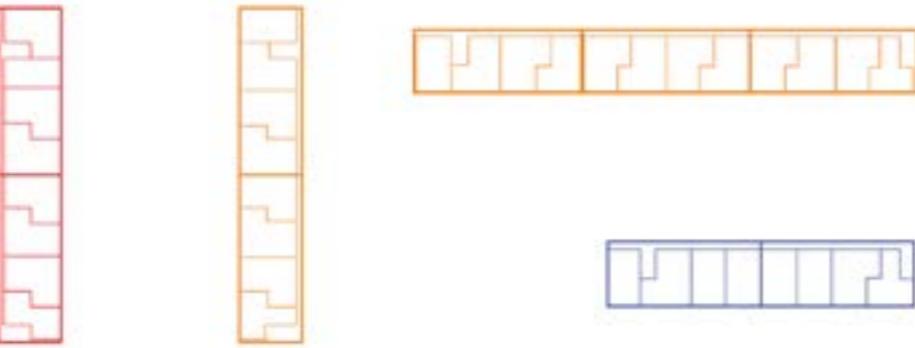


Doors



474 pcs

Material analysis - Repetetive elemenets

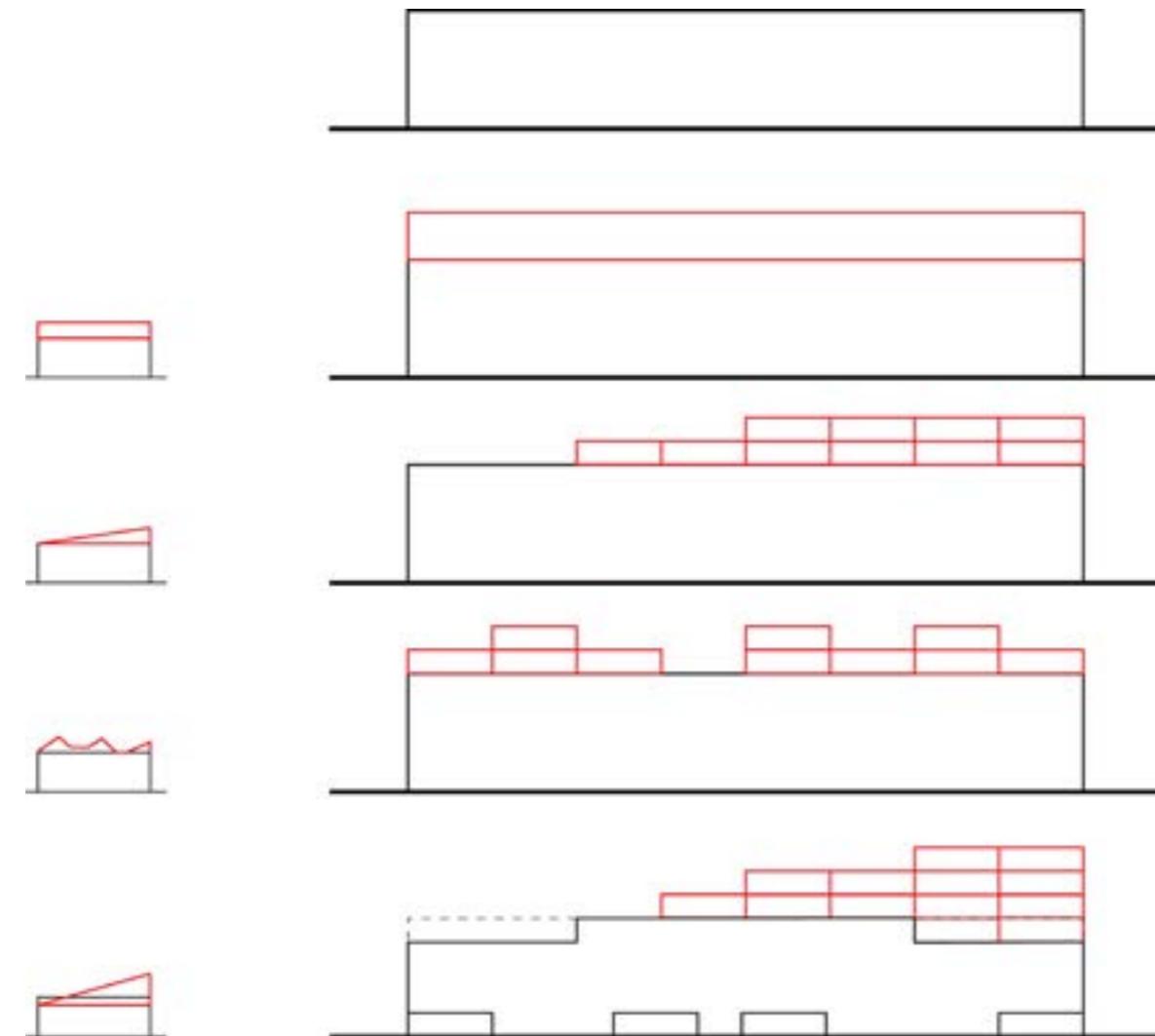


 Standard dwelling type

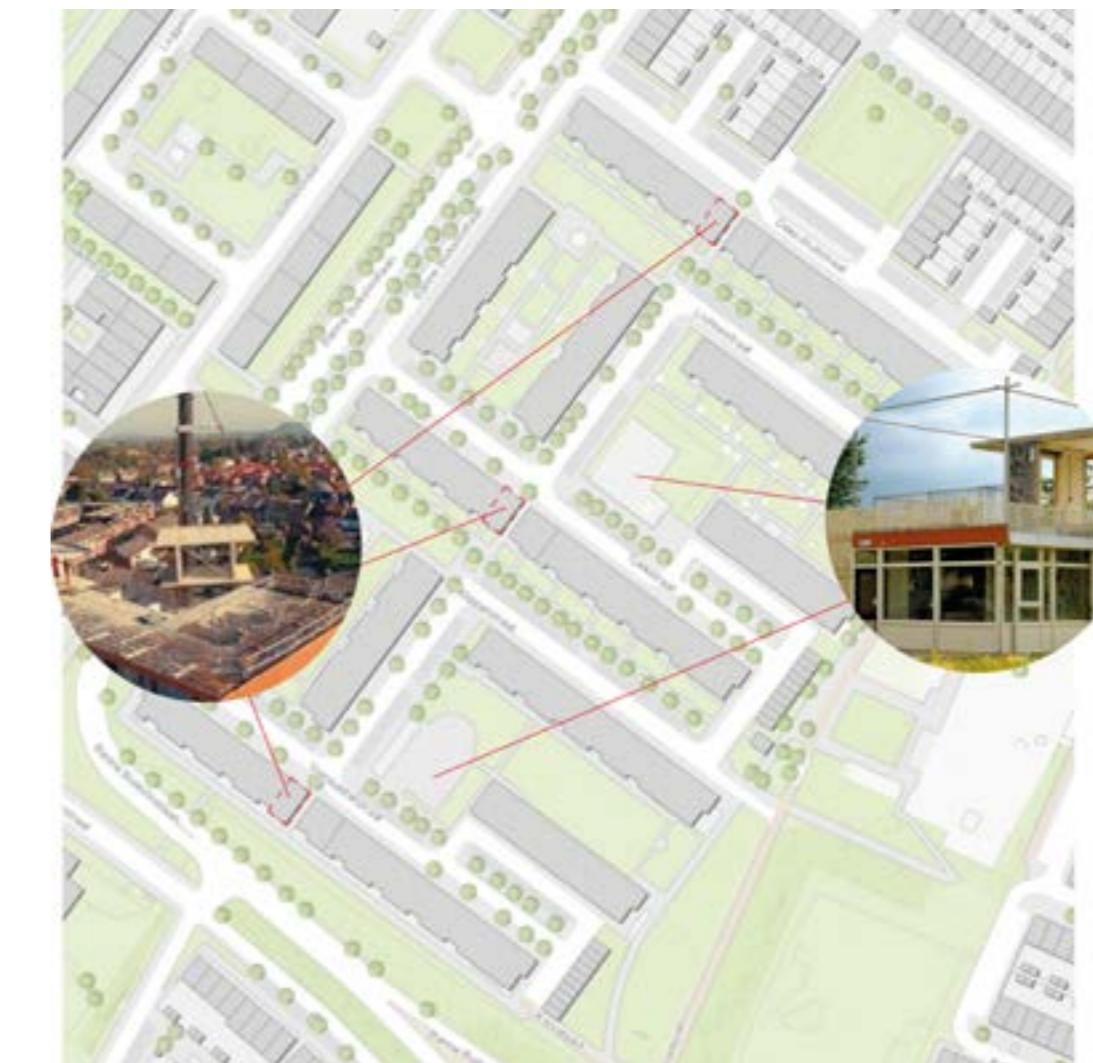
 Dwelling type corners



Ambition - structure



Maintain
Add layer

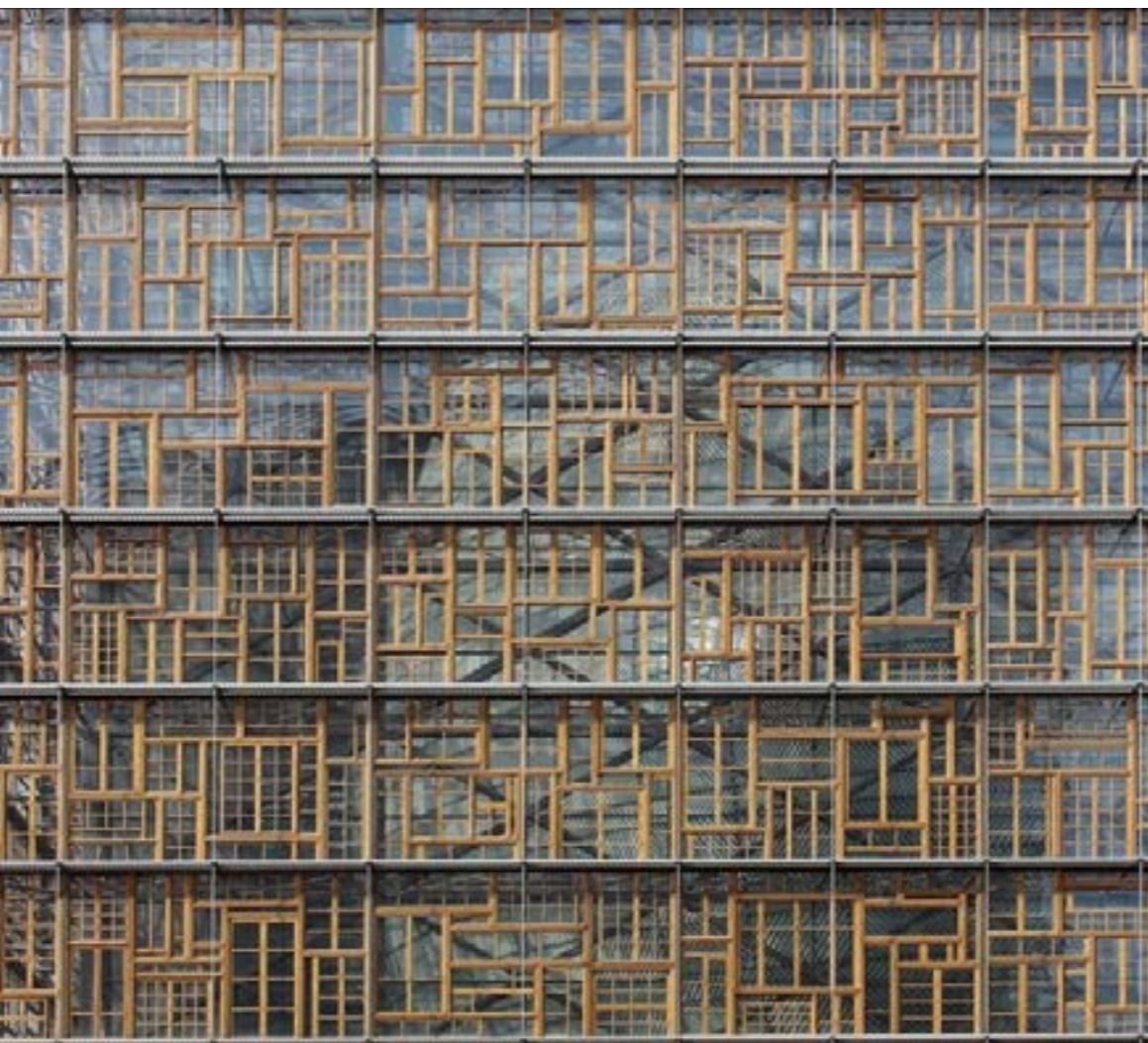


Ambition - skin



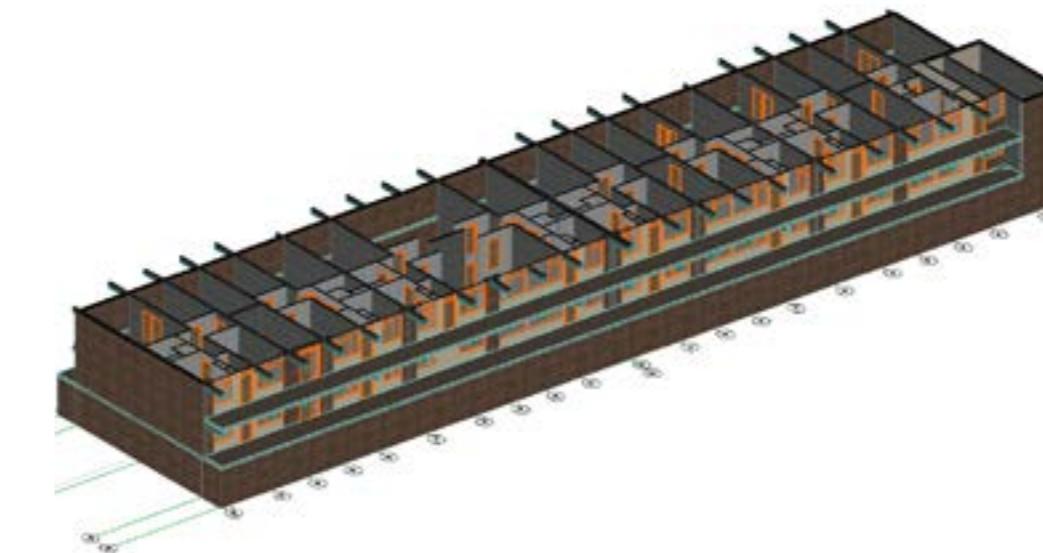
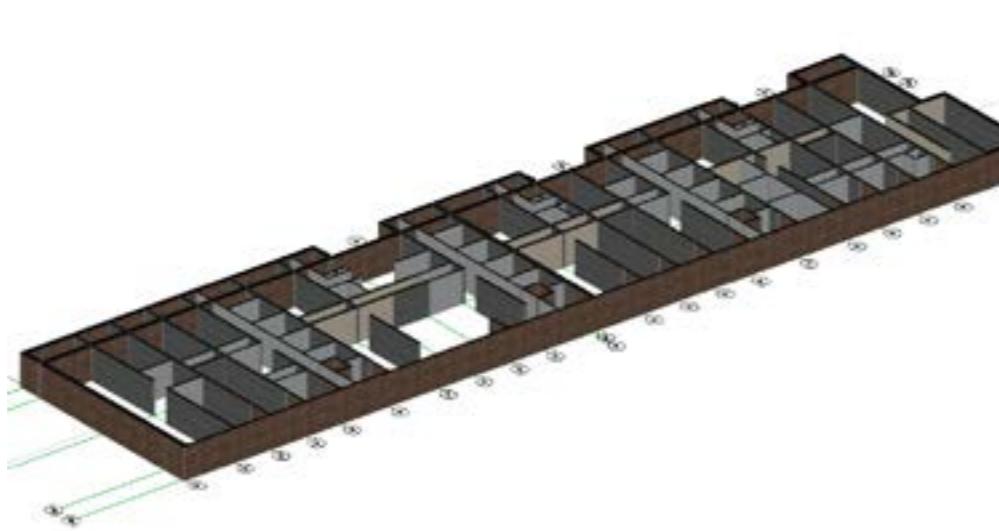
'Playful' facade - break with monotonous/repetitive character

Ambition - Windows



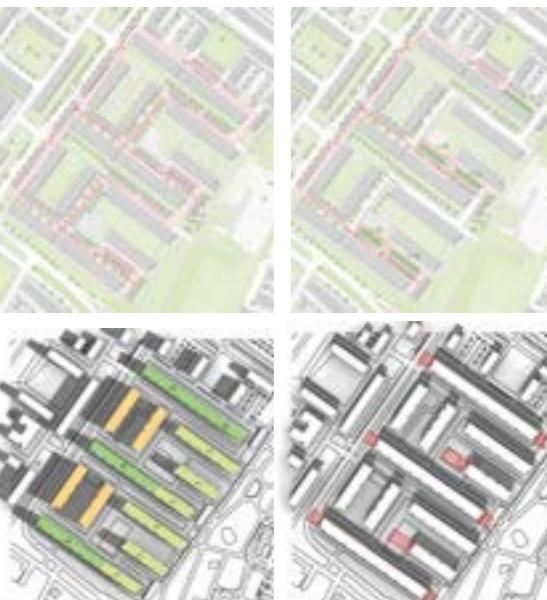
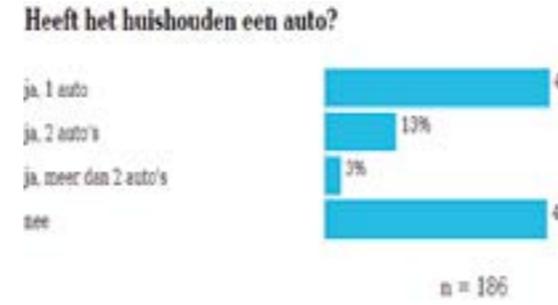
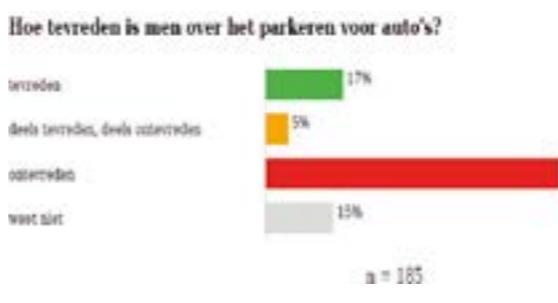
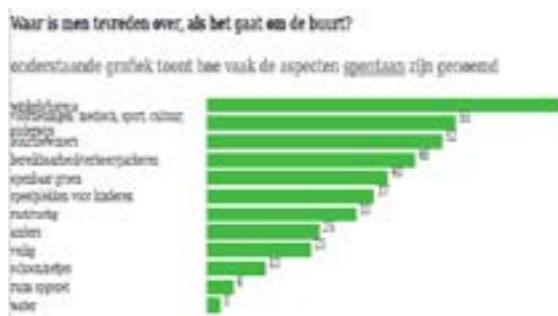
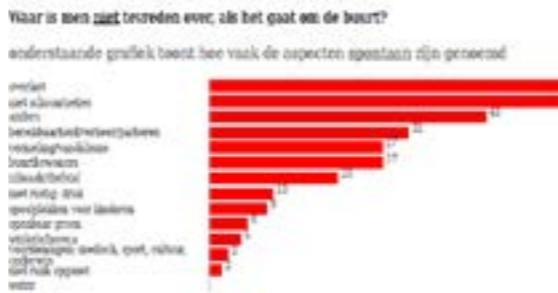
Second skin on gallery
Second skin combined with balconies..?

Ambition - Space plan



Revise dwelling layout

Value Assessment



Location visit

-

Survey

-

Data

-

Drawings

Ambition

Focus on social values like sharing & community building

Human scale

Liveliness

Nature inclusive

Climate-adaptive

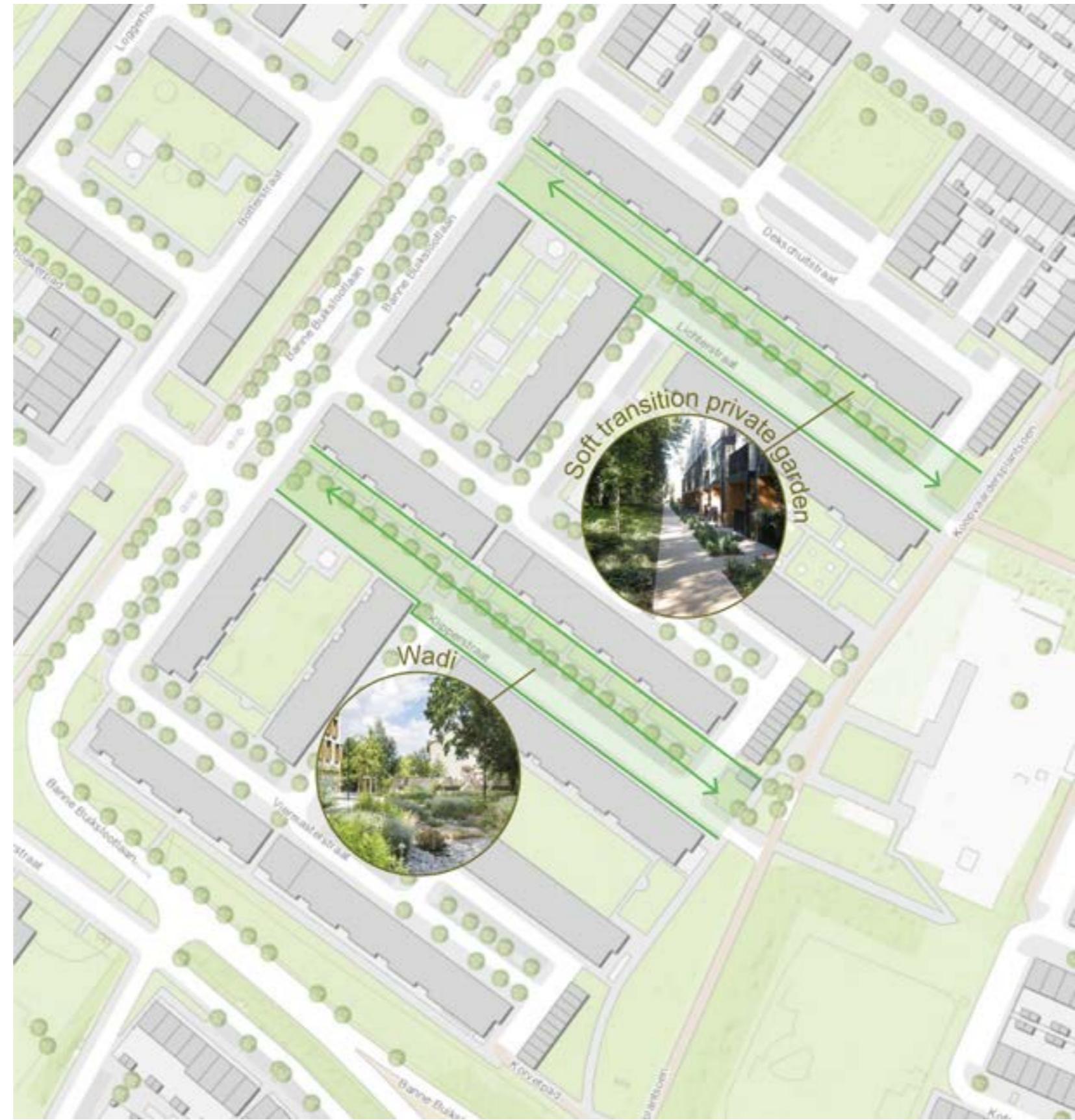
Location



Ambition



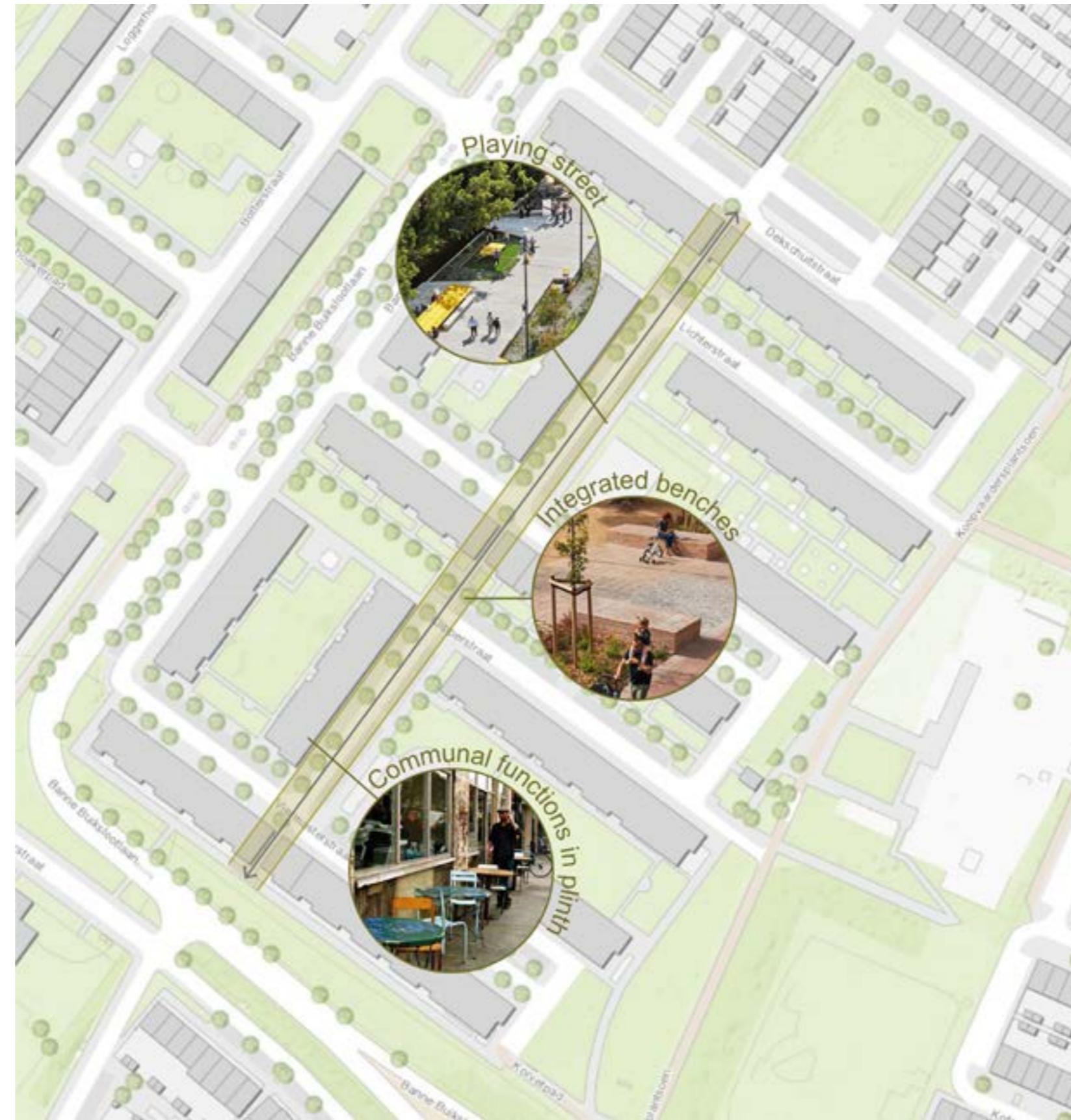
Ambition



Ambition



Ambition



Ambition



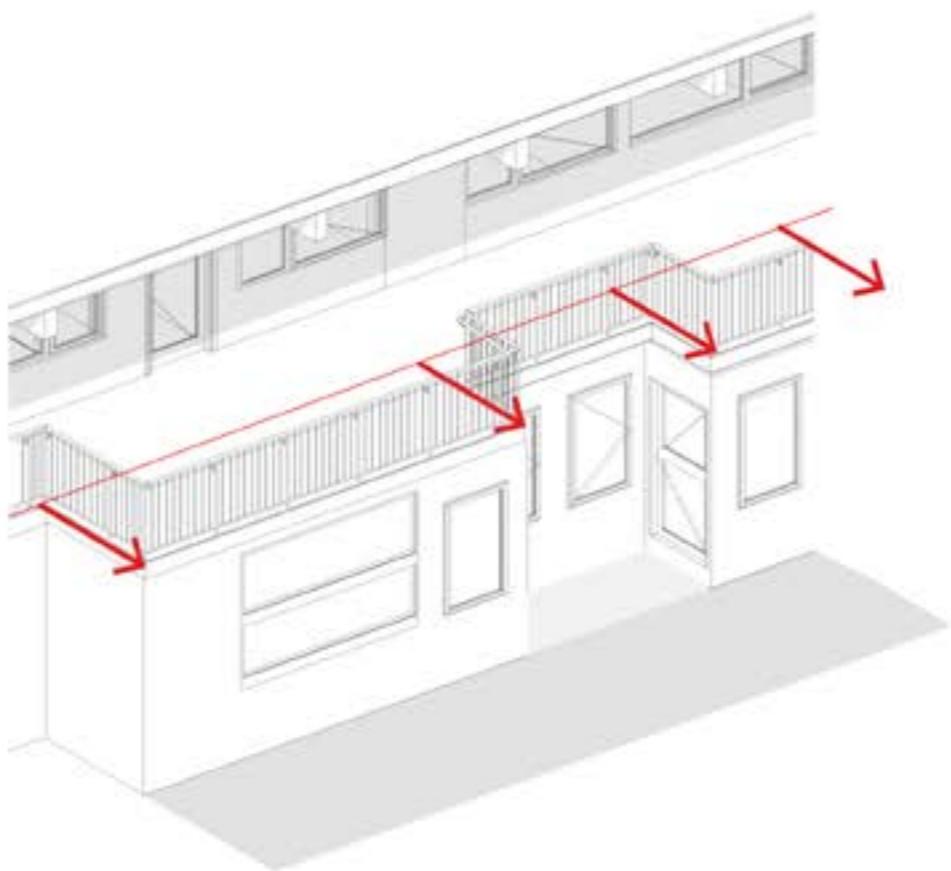
Ambition



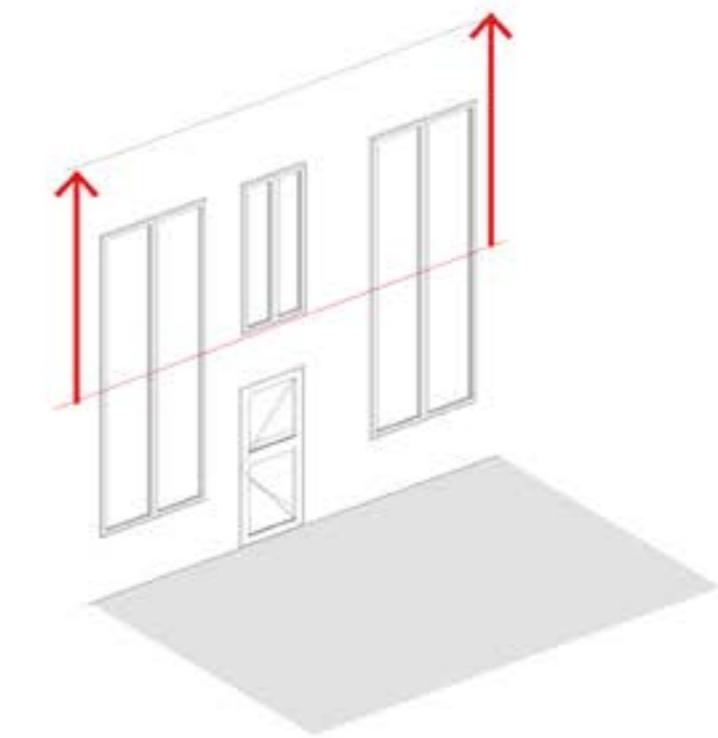
Ambition Plinth



Situation



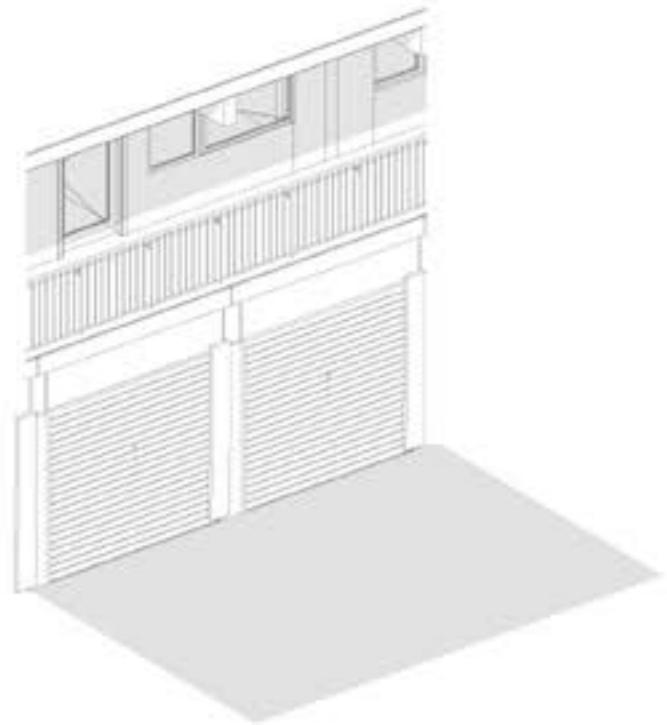
Enlarged plinth



Double layered plinth

Open Plinth
Human scale

Ambition Plinth



Situation

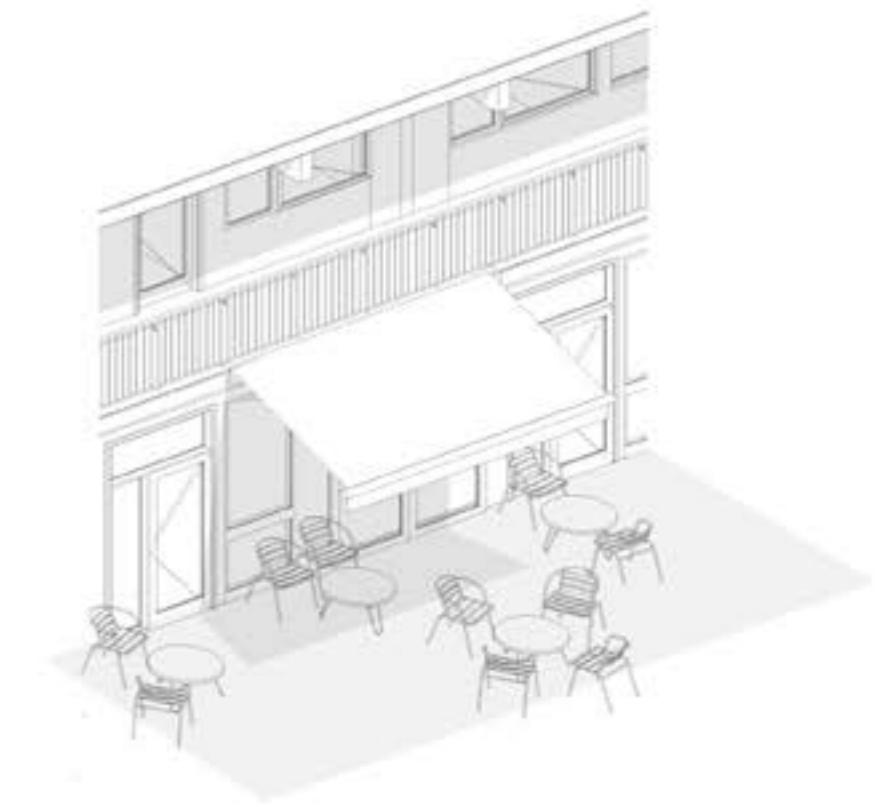
Safety & Liveliness



Semi-private pavement

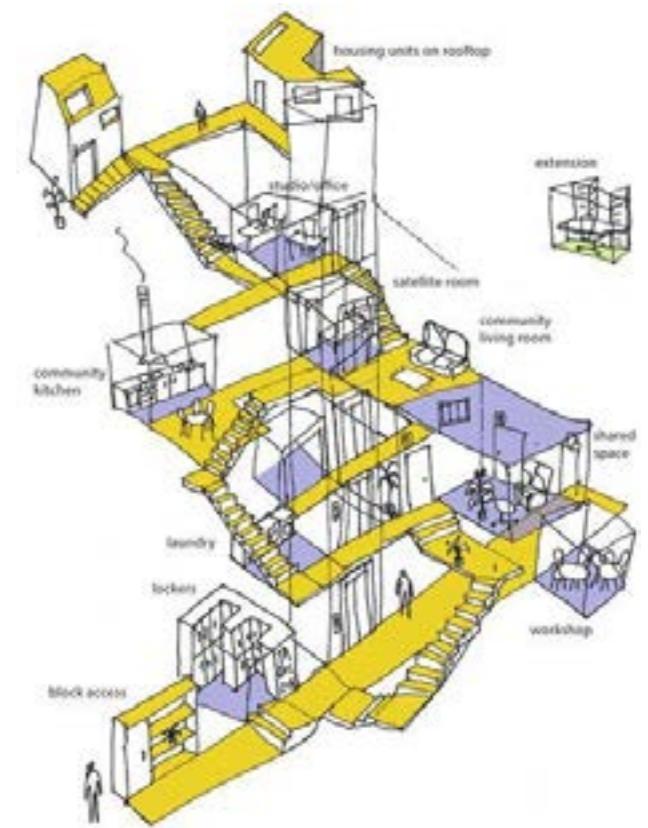


Semi-private garden



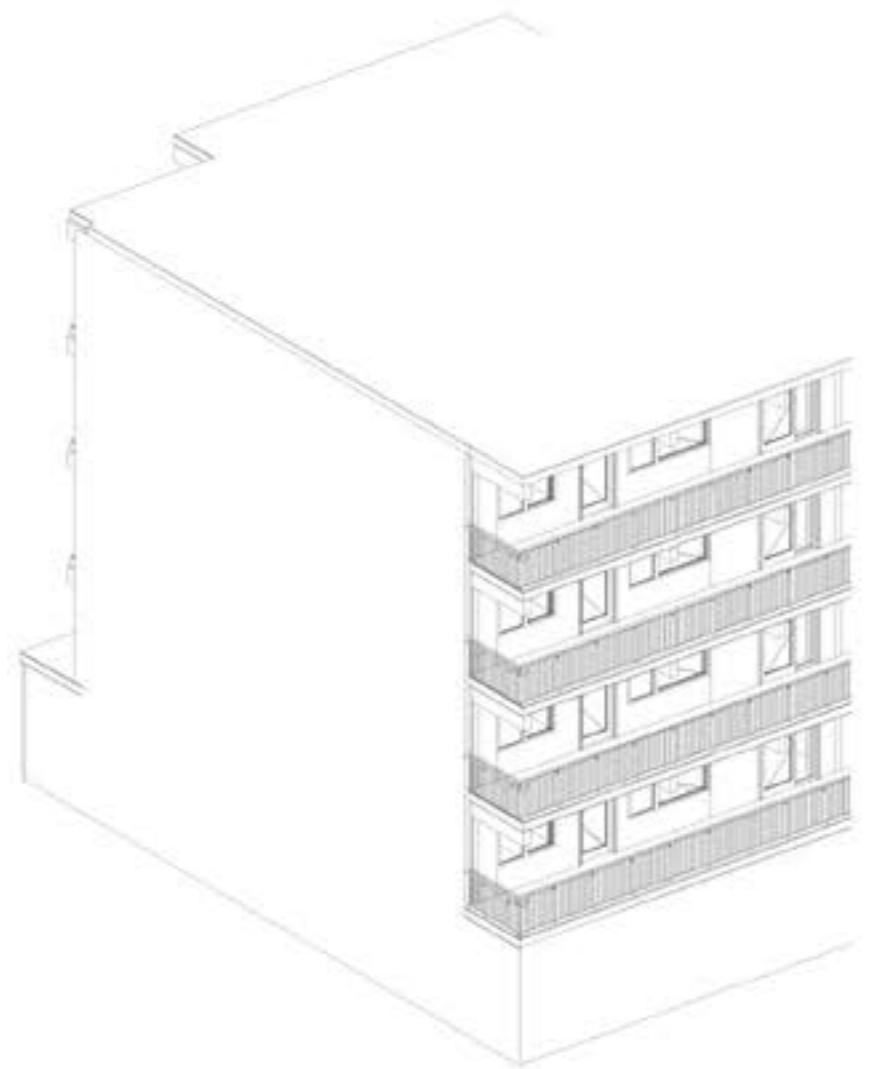
Public function

Ambition Floors

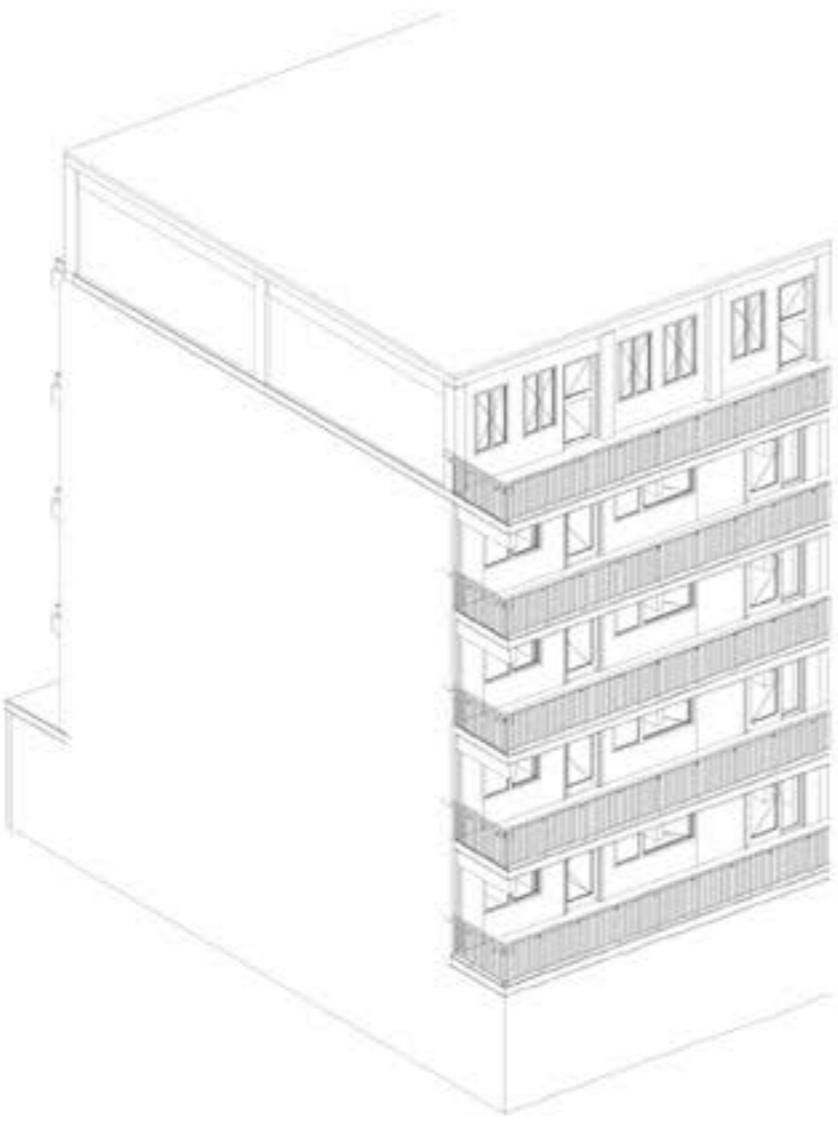


Shared spaces & living gallery

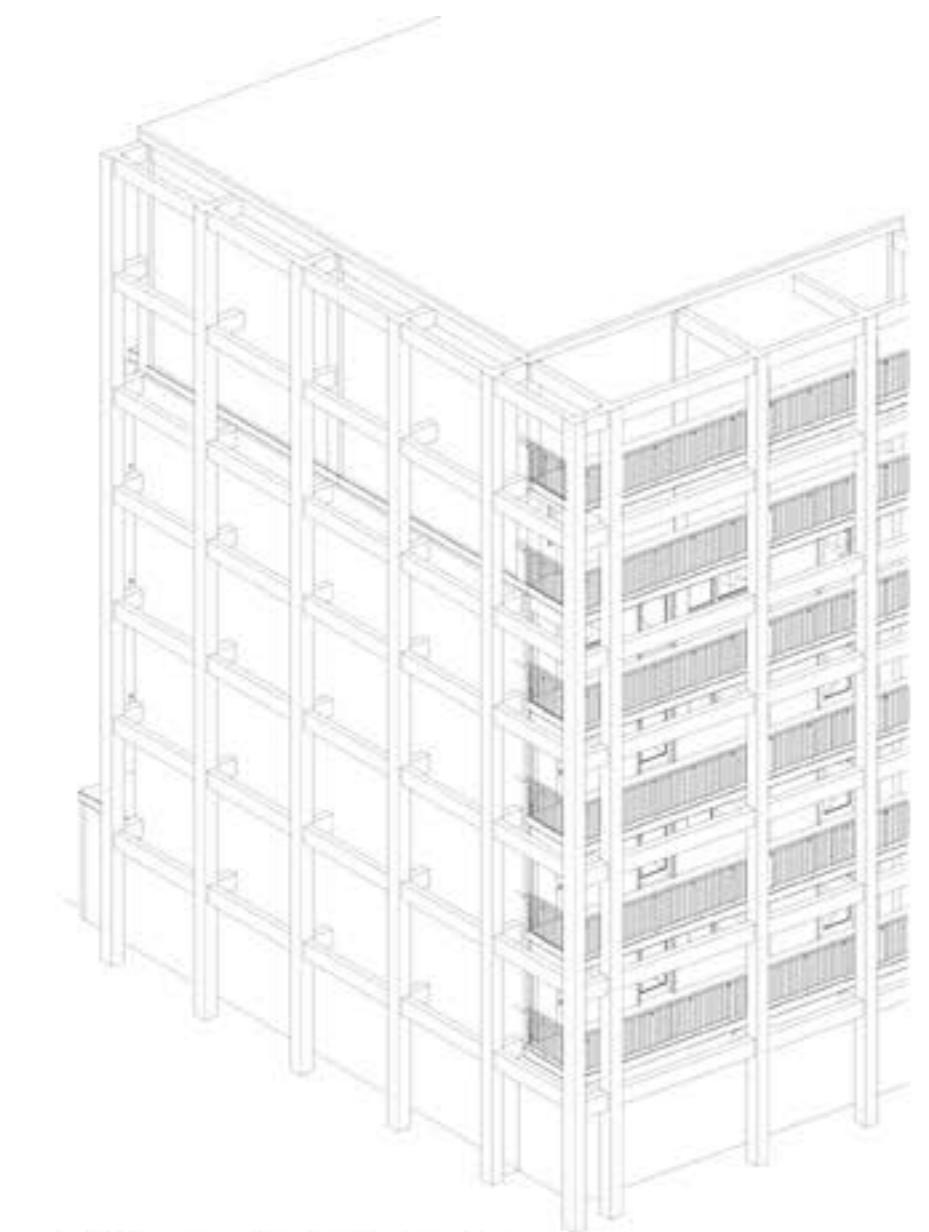
Ambition optop



Situation

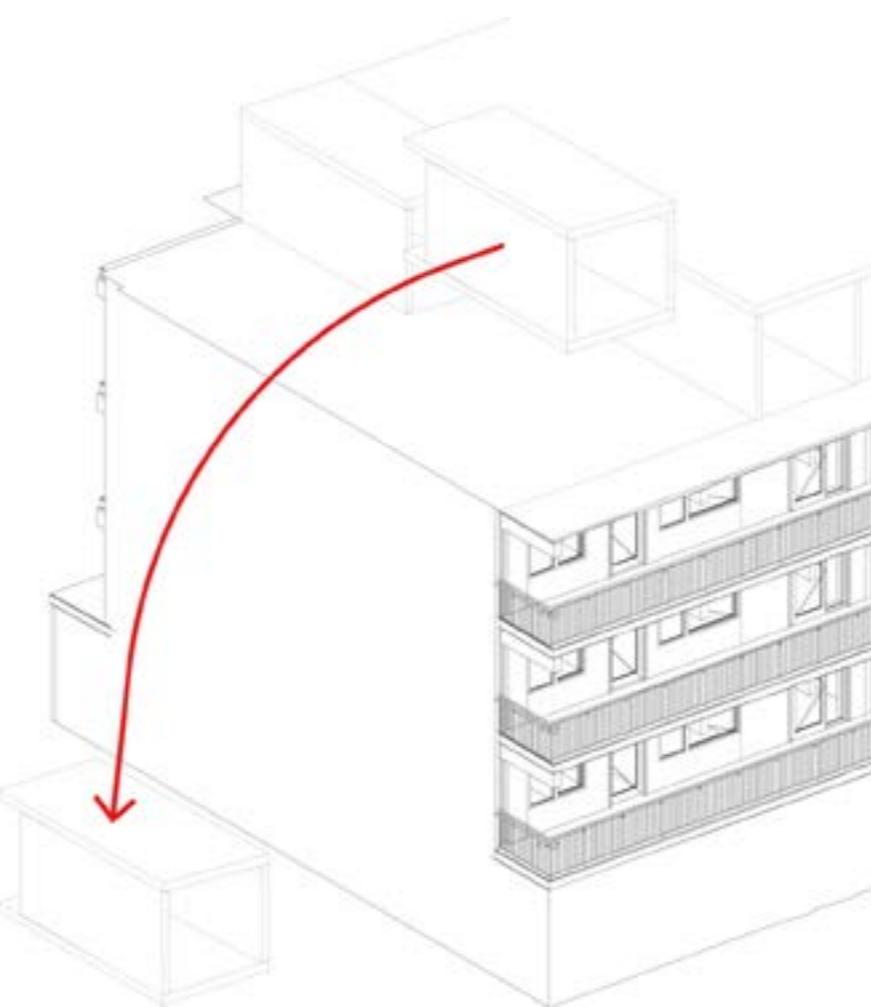


+ 1 layer

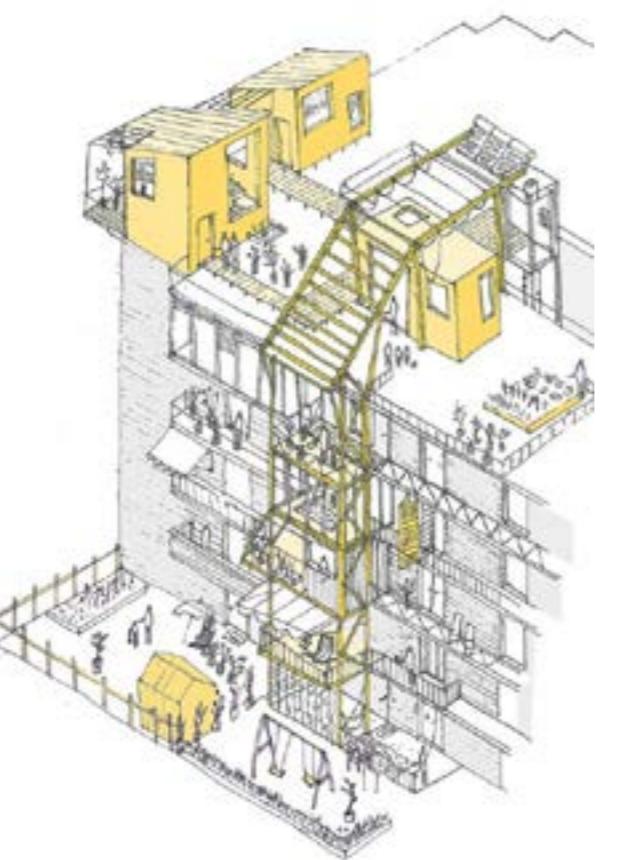


+ 2 layers + added structure

Ambition optop

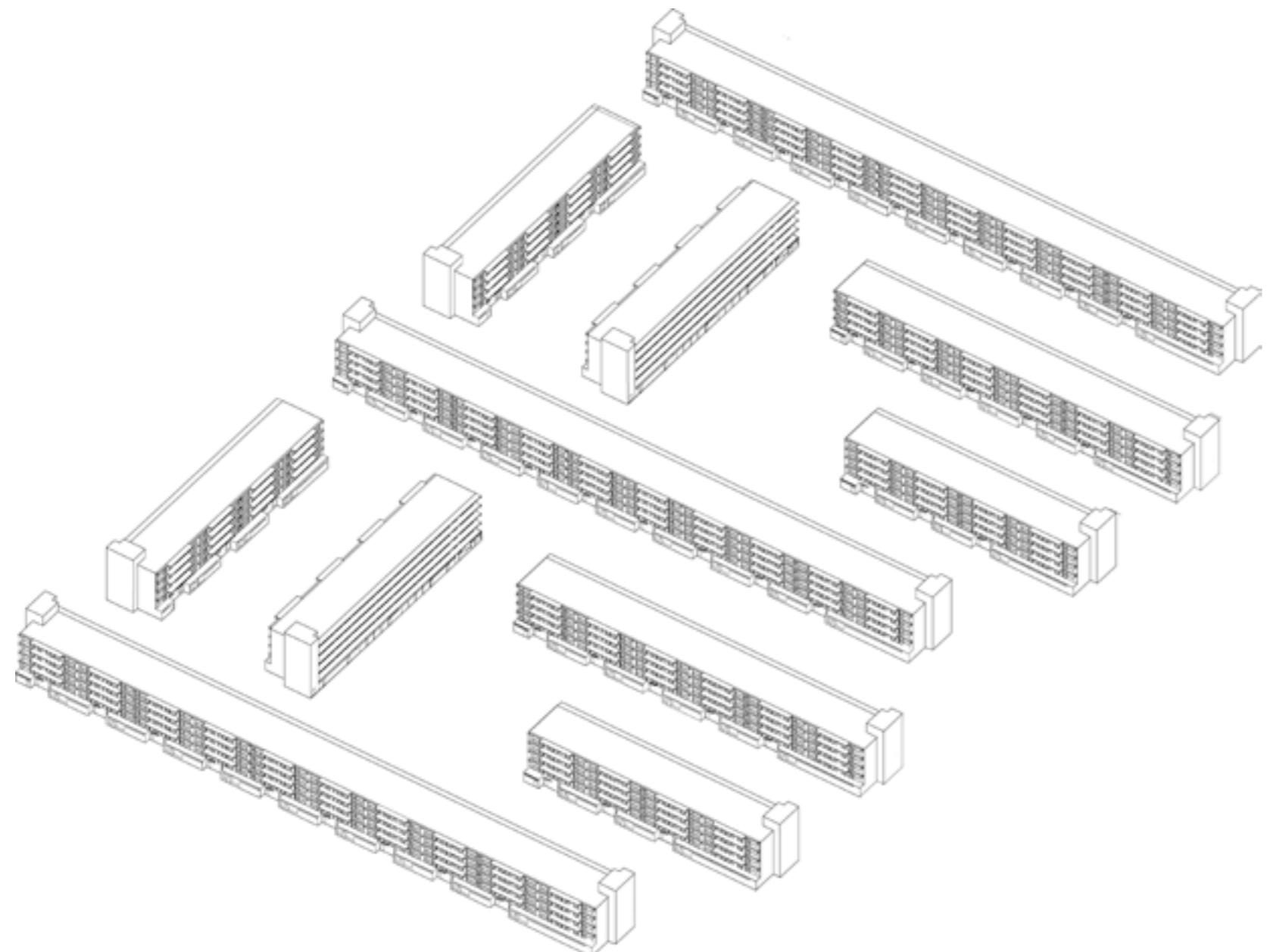


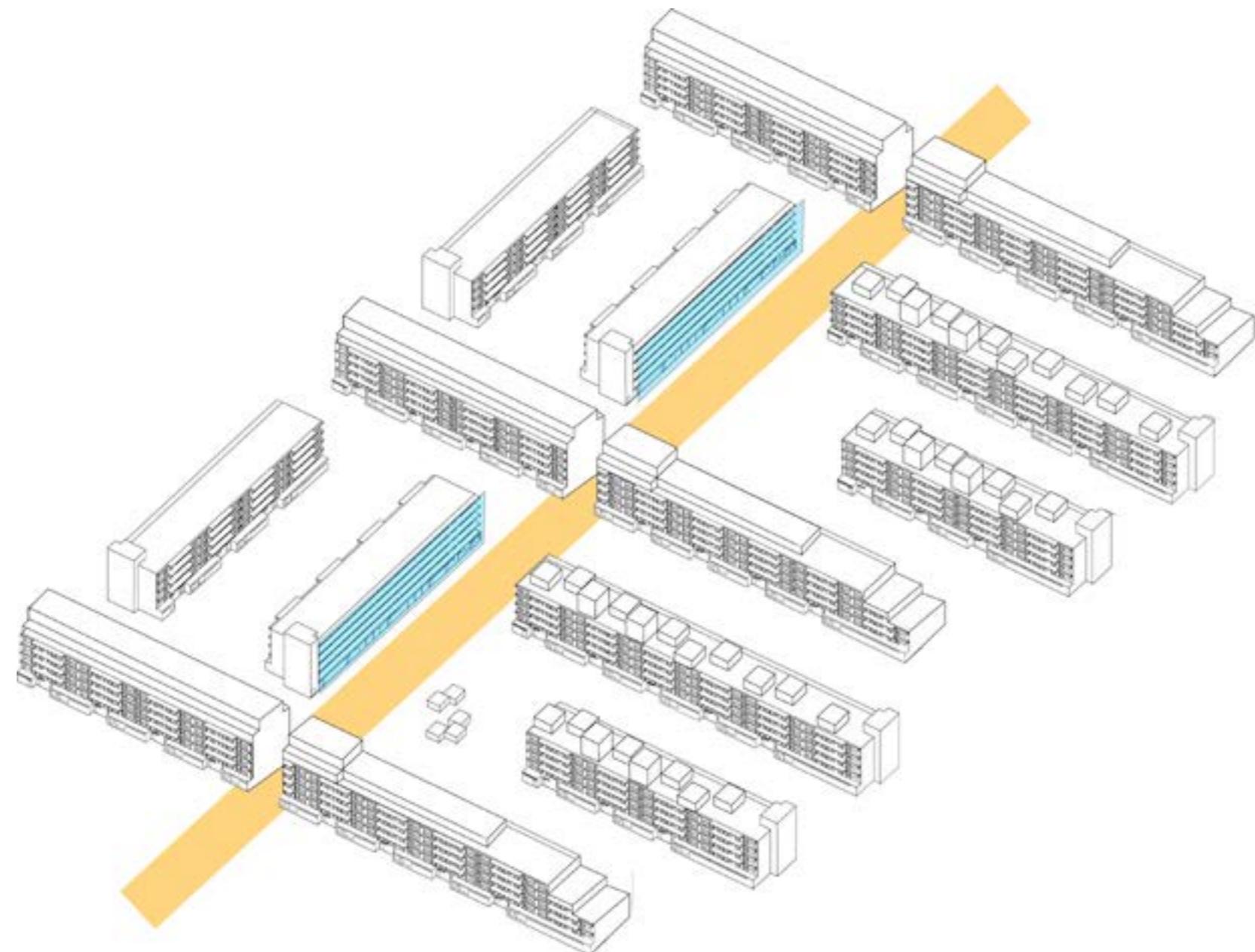
Ambition optop

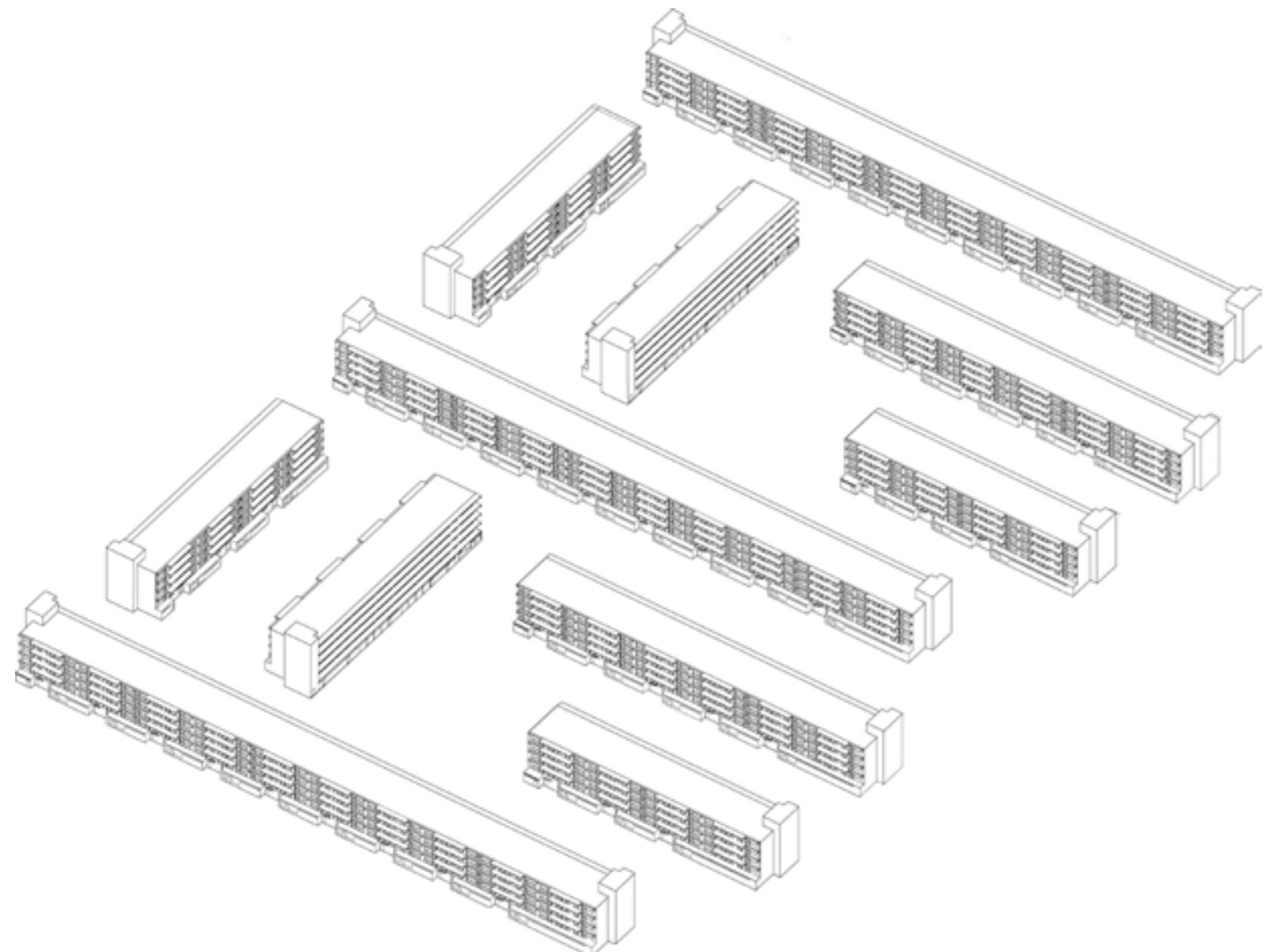


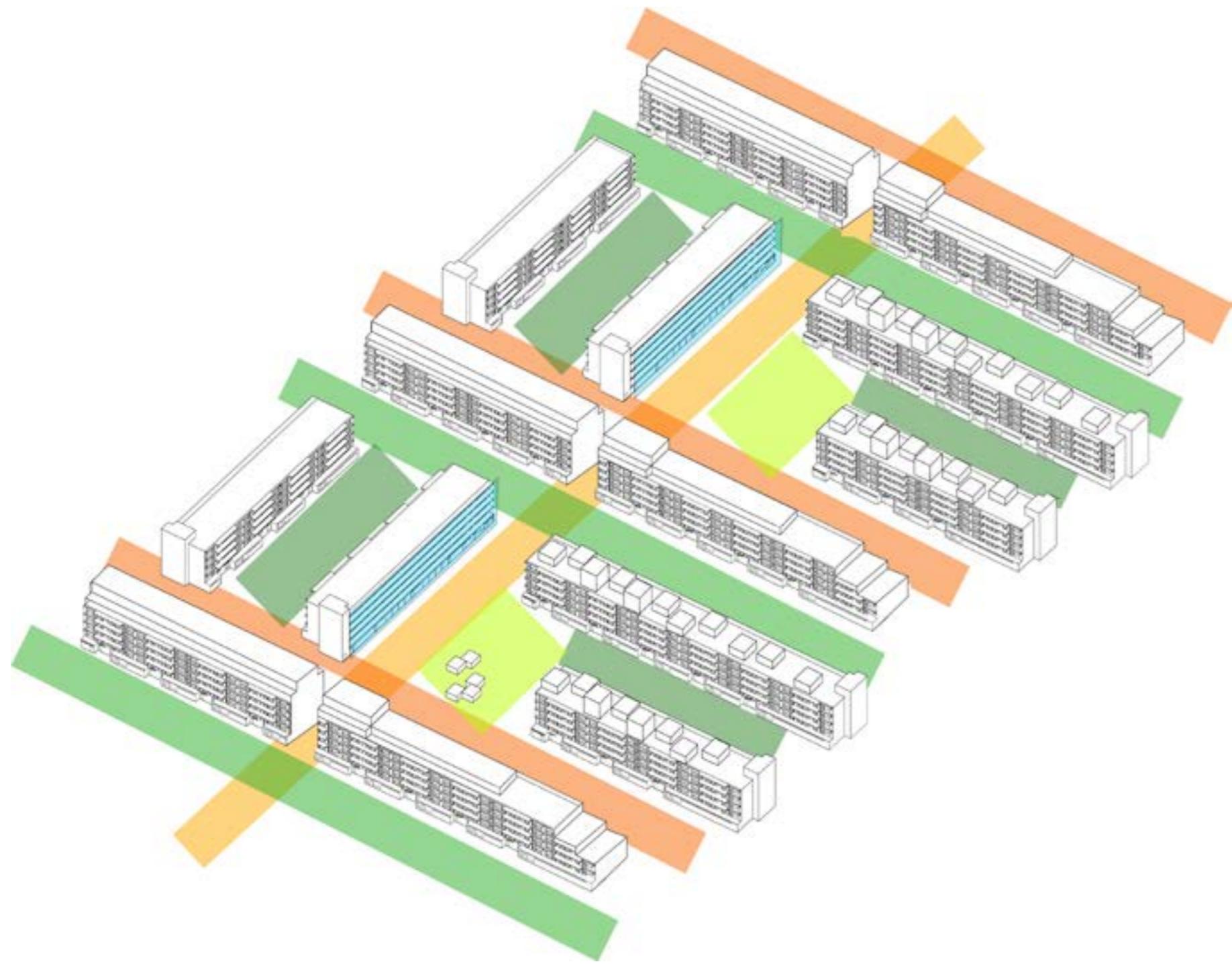
Mix of dwelling types

- + Smaller dwellings for Starters & Single-person households
- + Combined dwellings for Co-housing
- Family homes
- Flexibility!





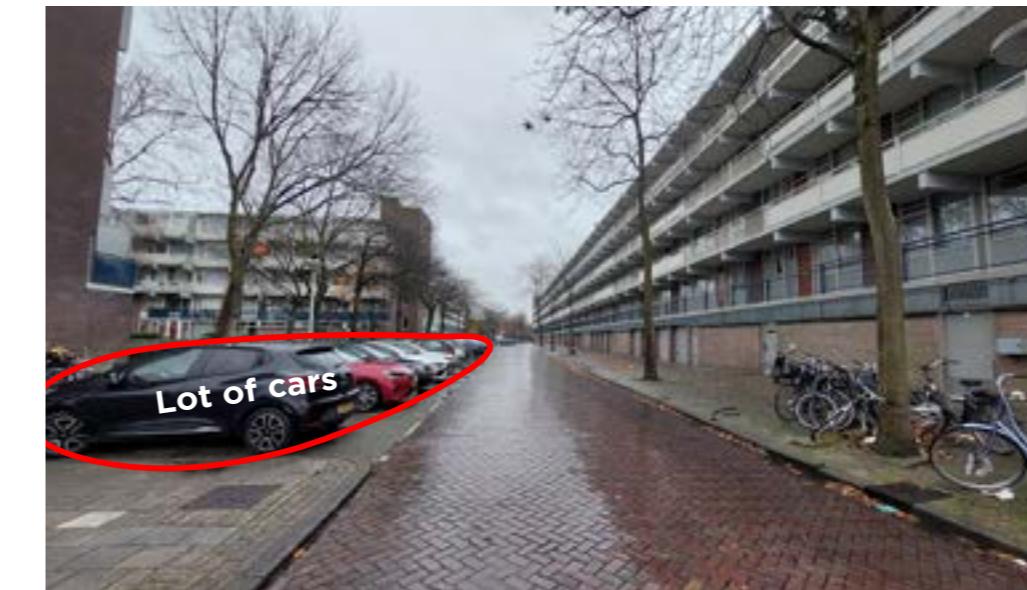




Site visit



Site visit



Safety

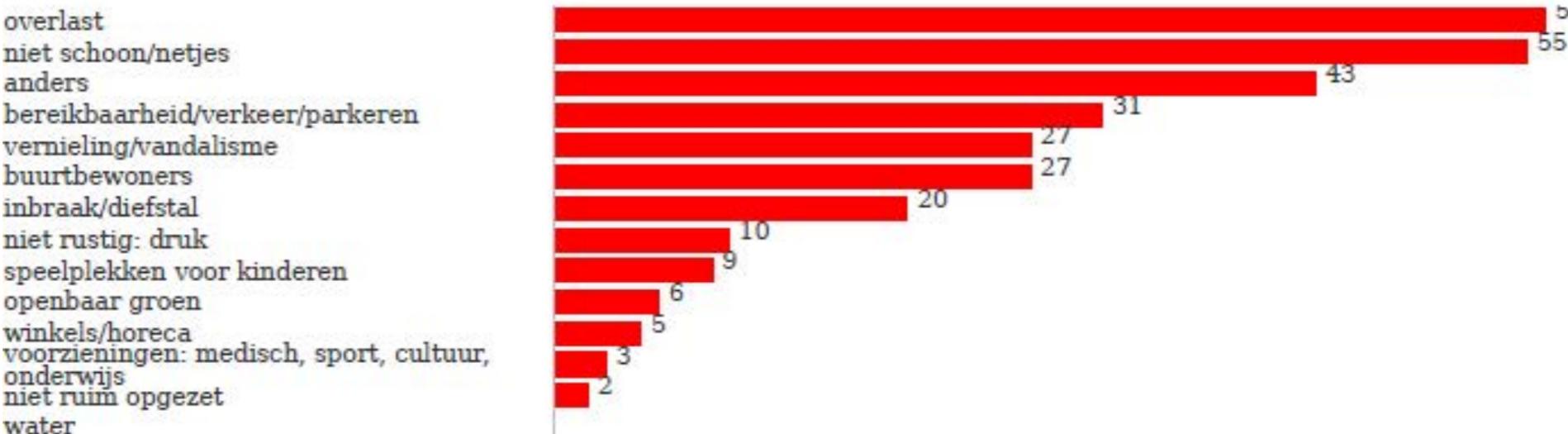


'In De Banne, the perception of insecurity among residents is primarily caused by youth disturbance, a lack of social cohesion, crime, and urban decay.'

Survey

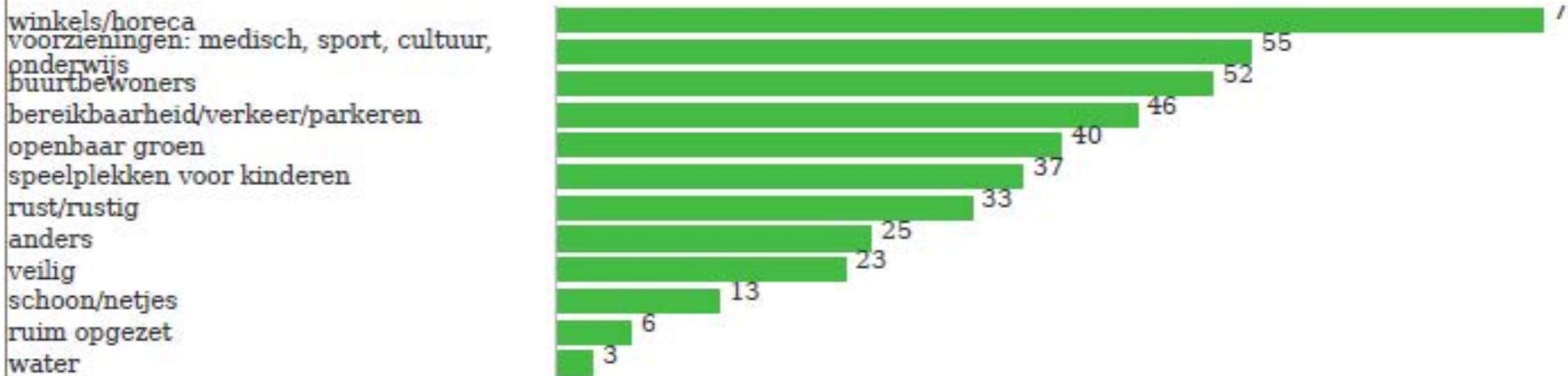
Waar is men **niet** tevreden over, als het gaat om de buurt?

onderstaande grafiek toont hoe vaak de aspecten spontaan zijn genoemd

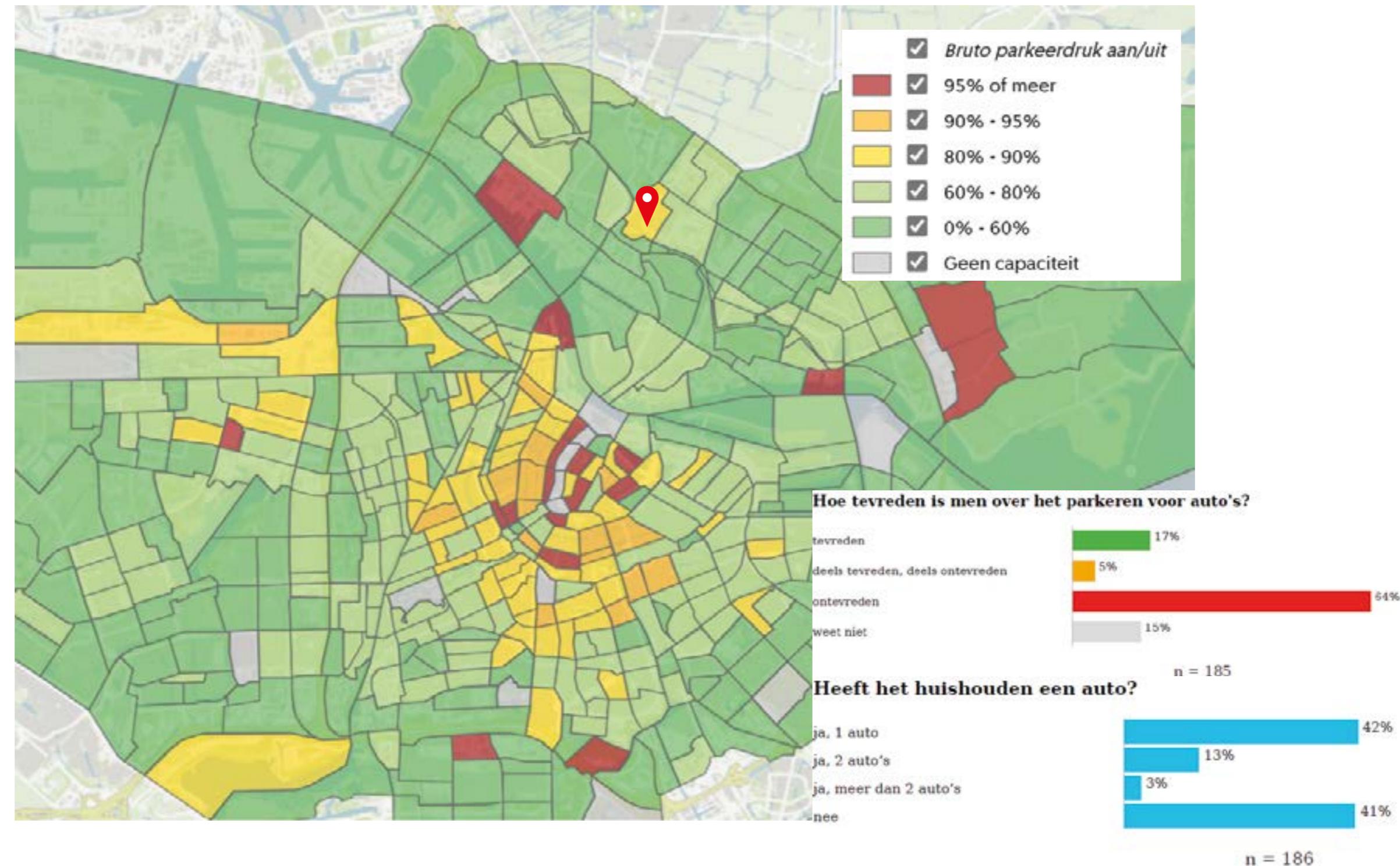


Waar is men tevreden over, als het gaat om de buurt?

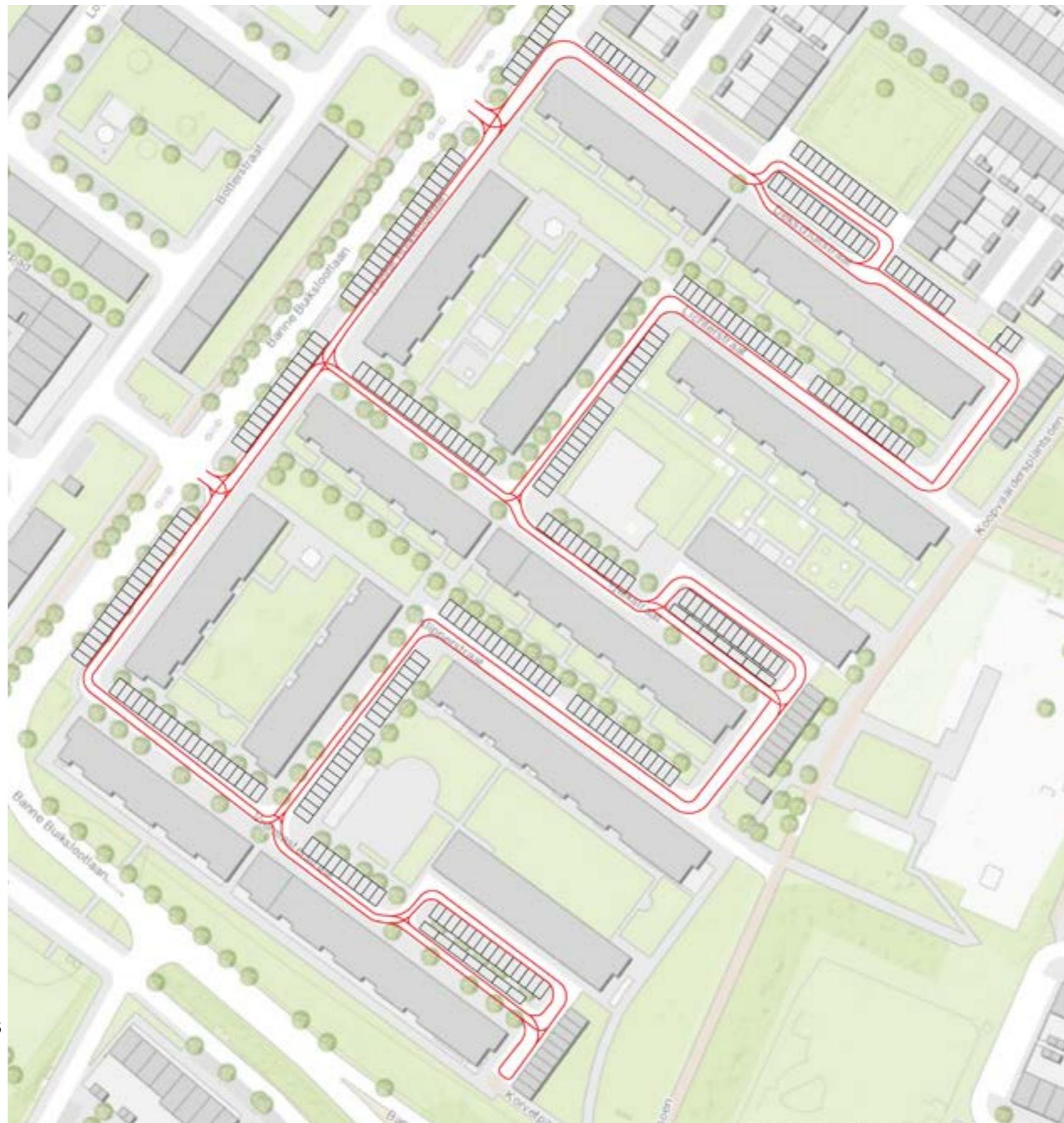
onderstaande grafiek toont hoe vaak de aspecten spontaan zijn genoemd



Parking



Parking



366 parking places
577 dwellings
0,63 p/dw

Parking



- 118



+65

total parking = 323

28 shared cars - 295 private

23 shared cars - 300 private

Parking

Aantal geciteerde en maximaal toegestane parkeerplaatsen per woning	A-locaties		B-locaties		C-locaties	
	Minimum-parkeernorm	Maximum-parkeernorm	Minimum-parkeernorm	Maximum-parkeernorm	Minimum-parkeernorm	Maximum-parkeernorm
Vrije sector						
-Woningen tot 30 m ² bvo	geen	1	0,1 ²	1		
-Woningen tussen 30 m ² en 60 m ² bvo	geen	1	0,3	1	Maatwerk	Maatwerk
-Woningen boven de 60 m ² bvo	geen	1	0,6	1		
Sociale huur		geen	1	geen	1	Maatwerk
					Maatwerk	Maatwerk

Tabel: Parkeernorm bij nieuwbouwwoningen per type woning, voor bewoners (exclusief bezoek). Bewoners worden uitgesloten van parkeervergunningverlening. Bvo = bruto vloeroppervlak.

500 cars for 577 dwellings + visitors

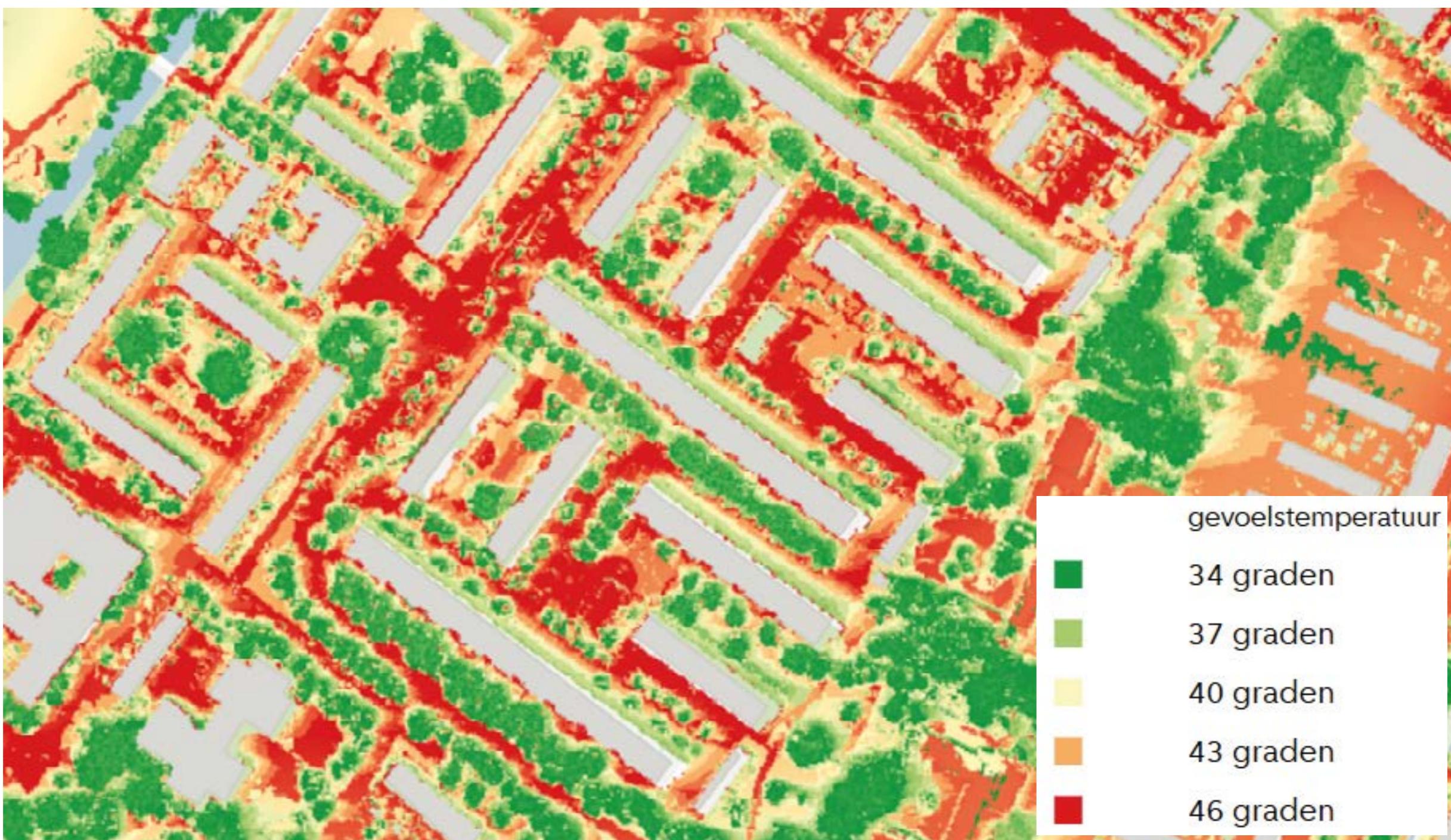
New carparks +/- 25 = 525

366 - 525 = -159 cars

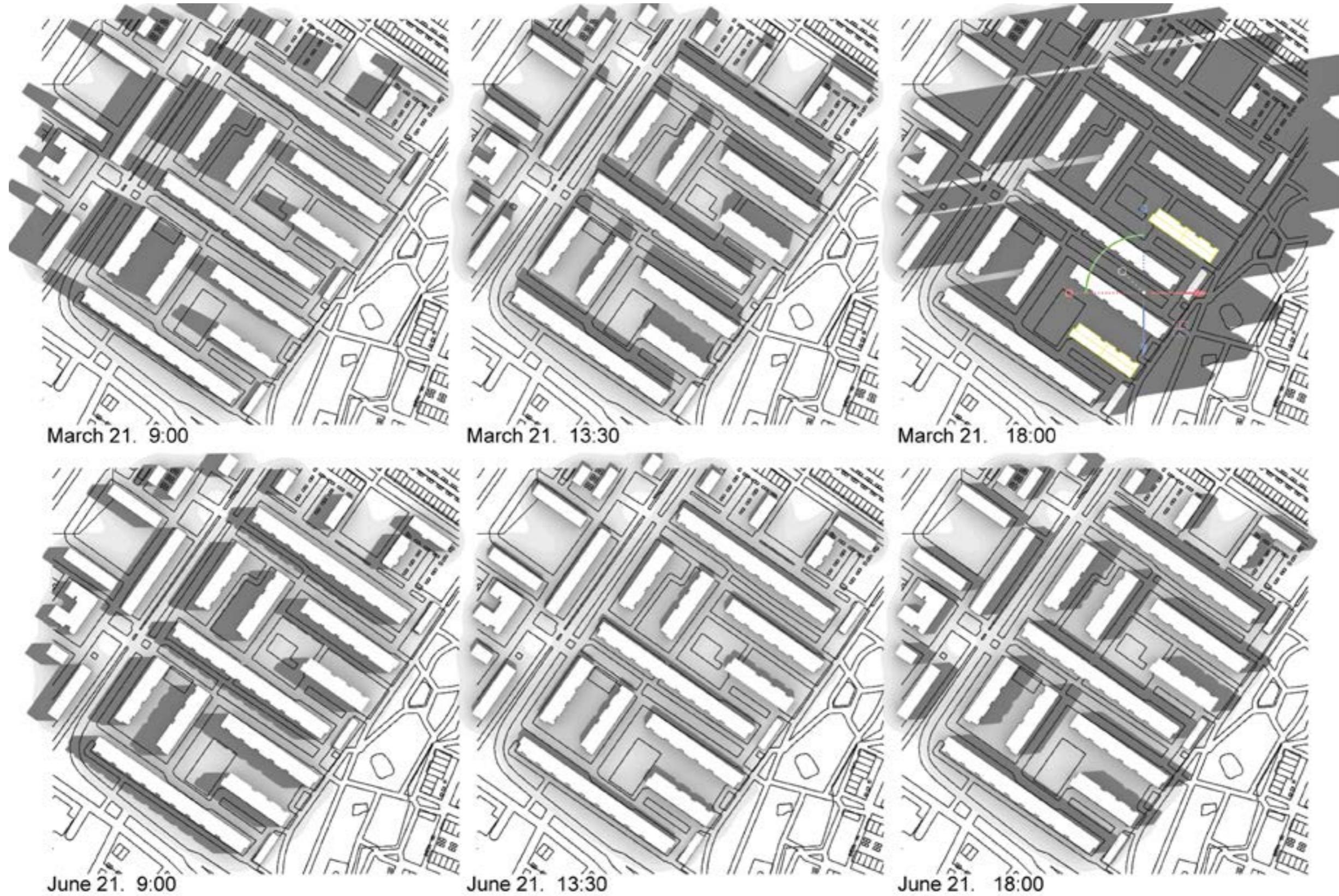
1 shared car = 8 - 13 private cars

13 - 21 shared cars needed

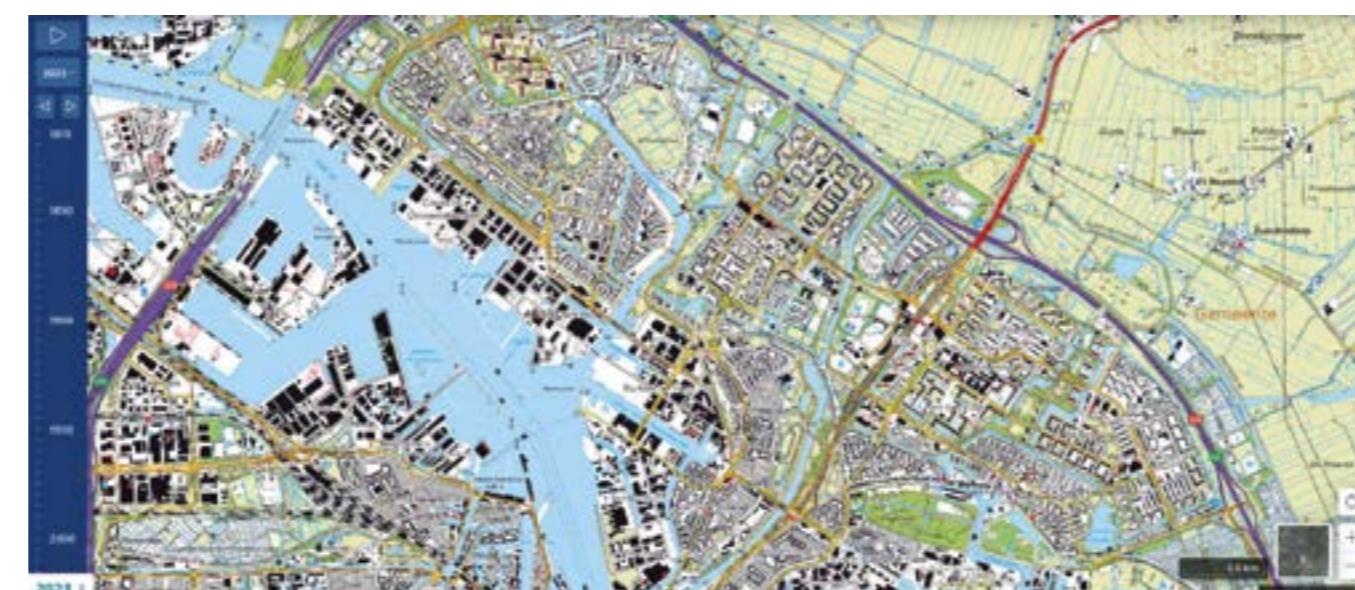
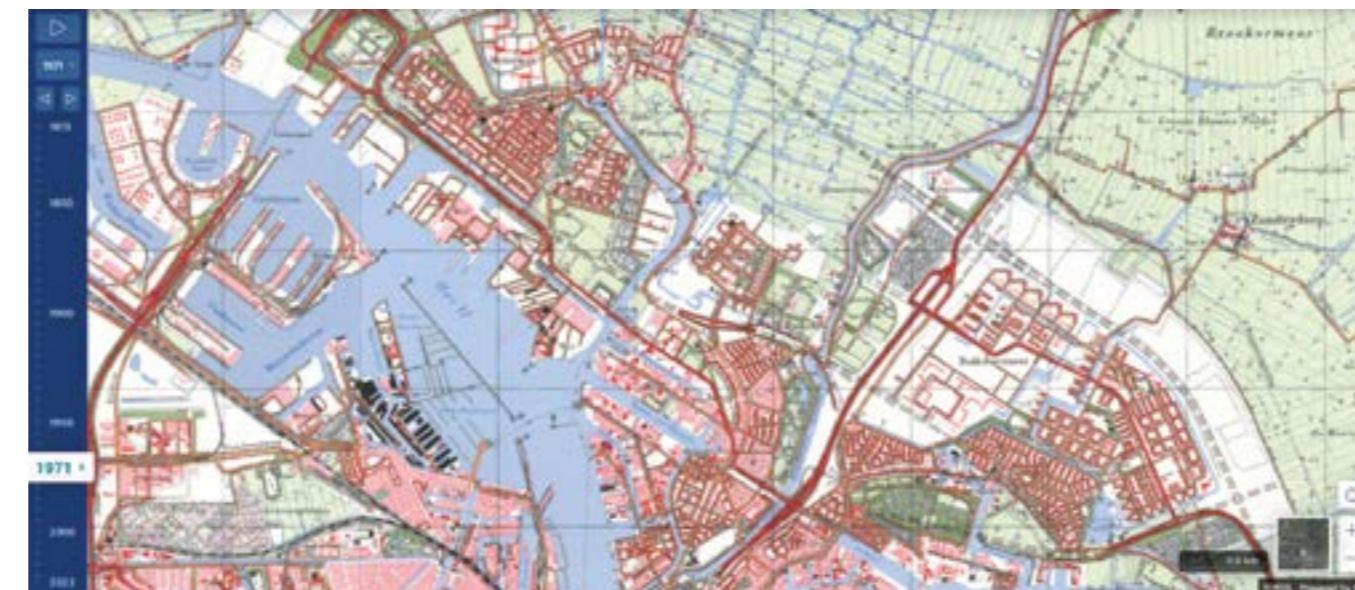
Urban Heat



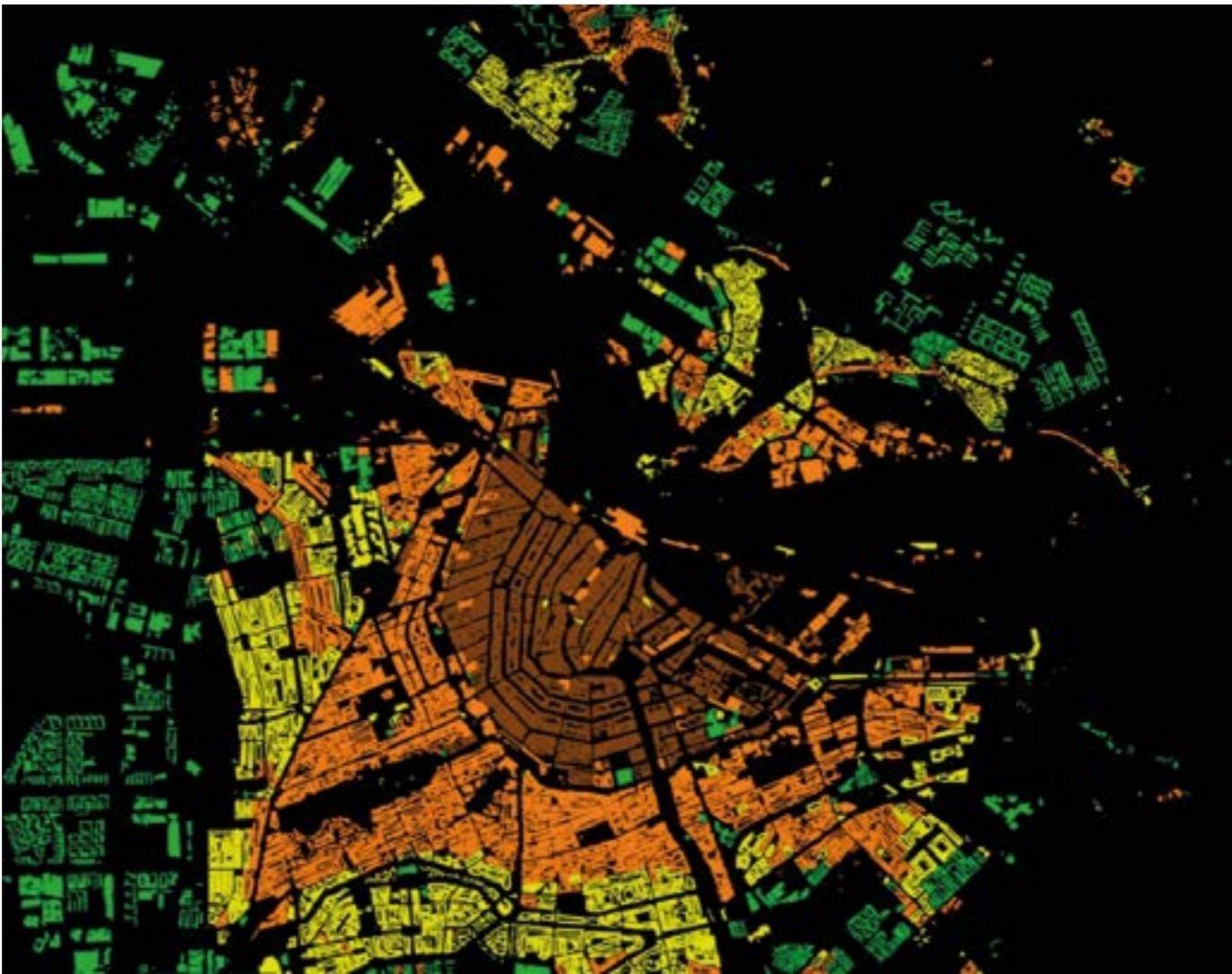
Sun Analysis



Urban development



Urban development



- Voor 1860 (Binnenstad en Grachtengordel)
- 1860-1919 (19de-eeuwse Ring)
- 1920-1939 (Gordel '20-'40)
- 1940-1969 (Algemeen UitbreidingsPlan)
- 1970-1985
- 1986-1999
- 2000-2019
- Vanaf 2020

