

Post war social housing in Vienna and Rotterdam

Governance and spatial lessons from two cities

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Introduction

Introduction

Methodology

Analysis

- Spatial
- Governance
- Social
- Financial

Pattern language

Design study

Conclusions



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Housing crisis

Shortage of affordable housing

Failing policy

Unsuccessful public discourse



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Historically a workers' city

More expensive

Rotterdamse Woonvisie

Growing tensions

Compelling case study



Image source: www.Indebuurt.nl

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Beacon of social housing

- Long history
- In popular media
- At first glance, great results



Post-World War II neighbourhoods

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Extensive damage to housing stock
Similar starting point

Study of development over time
Long term resilience



Post-World War II neighbourhoods

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Large scale developments
Whole neighbourhoods
In periphery



Source: own work. Background map of Rotterdam in 1940, Teprotides

Post-World War II neighbourhoods

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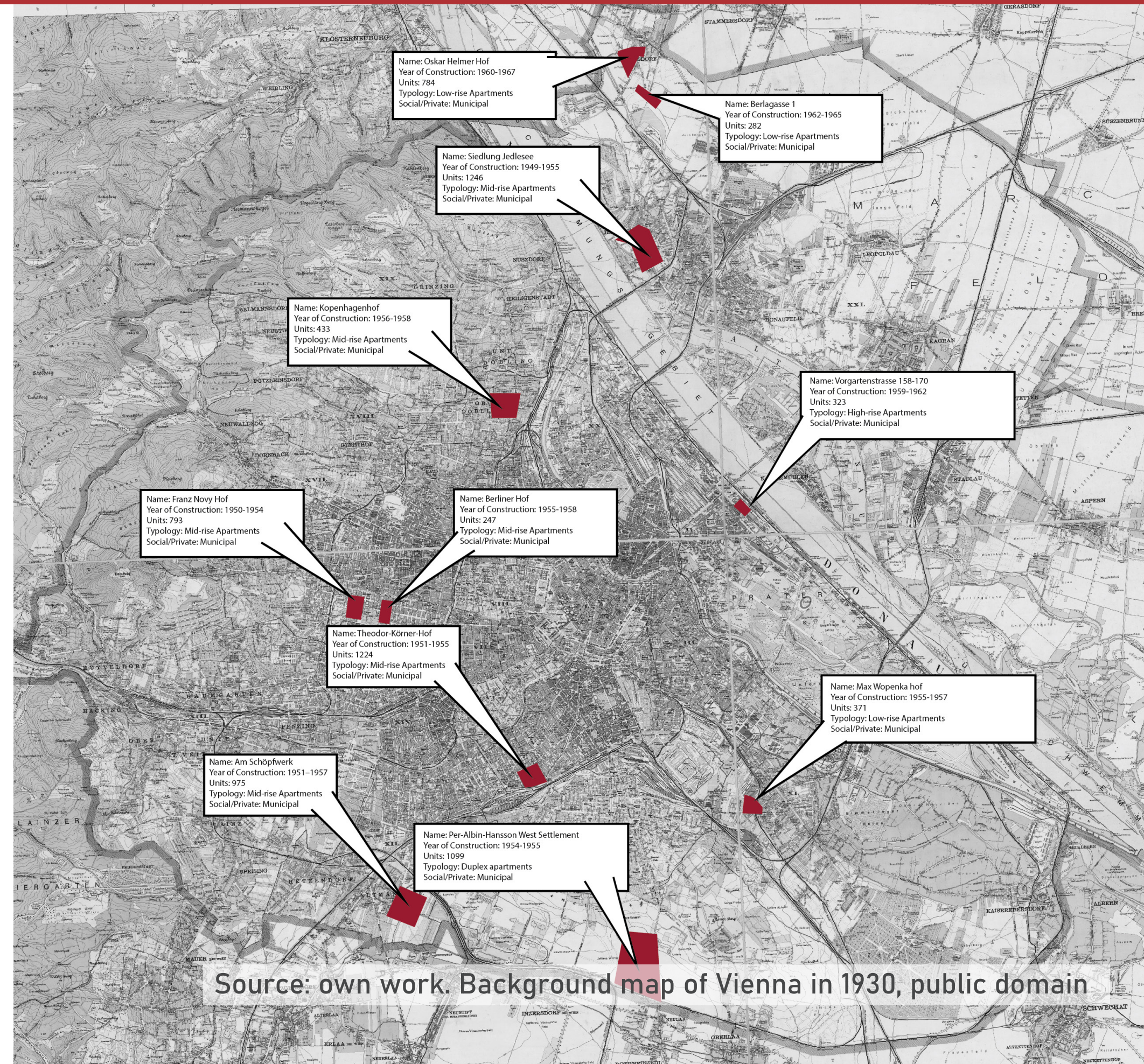
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Smaller developments
Integrated in existing
urban fabric



Source: own work. Background map of Vienna in 1930, public domain

Research question

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Main research question

How can lessons from the design and governance of post-war social housing Neighbourhoods in Vienna and Rotterdam support the future resilience of these Neighbourhoods in Rotterdam?

Theoretical framework

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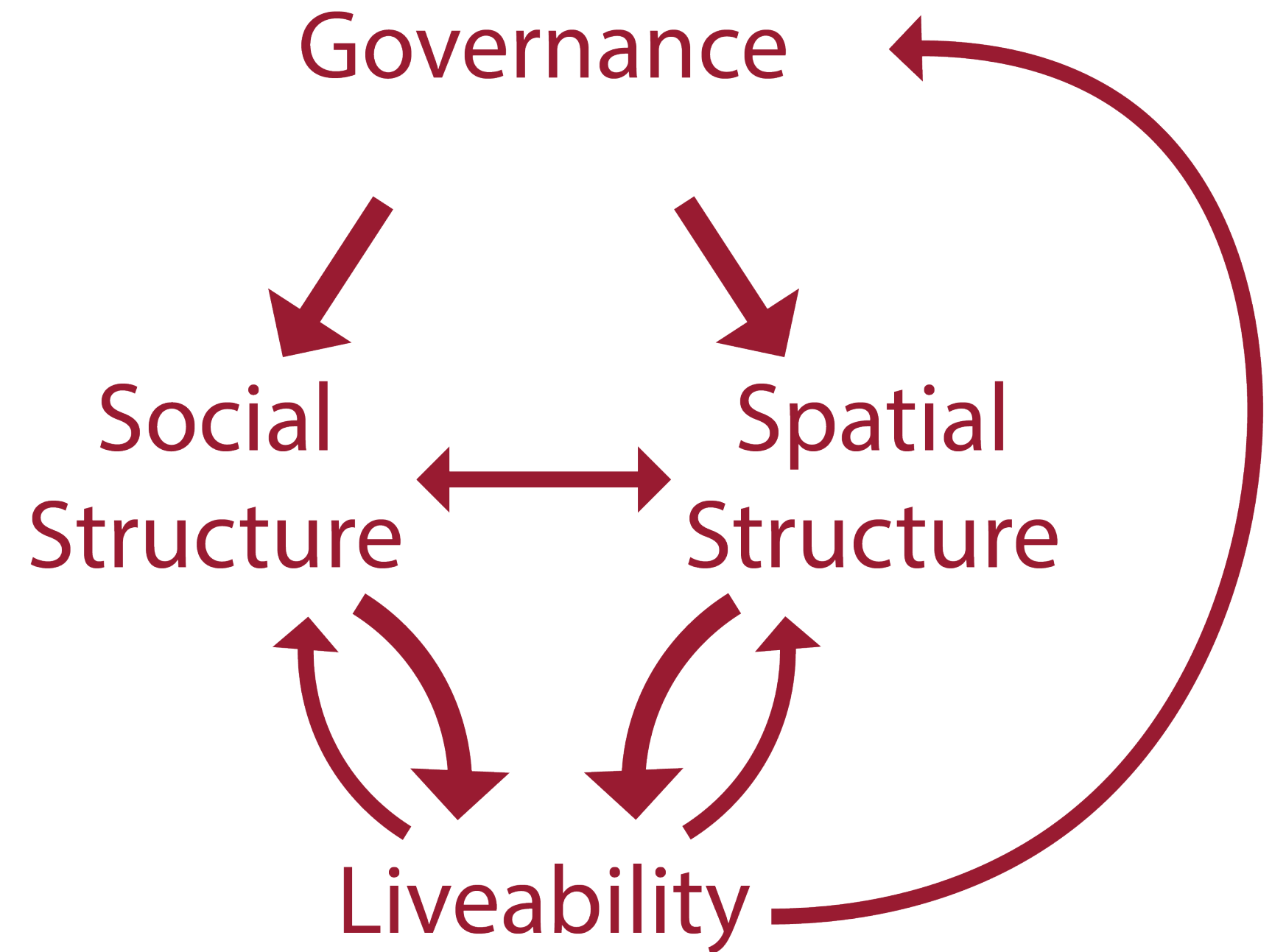
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Long term urban resilience

Interdependence of urban aspects

Liveability and availability is key



Research question

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Research questions

1: What governance structures influenced the design and subsequent development of post-war social housing neighbourhoods in Vienna and Rotterdam?

2: What spatial qualities—including the quality of relevant services—do the post-war neighbourhoods in Vienna and Rotterdam exhibit today?

3: What lessons regarding urban planning and management can be learned by examining the different ways in which the studied neighbourhoods in Rotterdam and Vienna have developed?

4: How could the lessons regarding affordability and liveability be implemented spatially in a neighbourhood in Rotterdam?

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Reflected in structure

Interrelated chapters

Pattern language as bridge

Theory and Methodology

Governance Analysis

Spatial Analysis

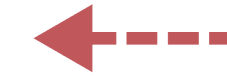
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Next step based on



Explicit back reference



Location of neighbourhoods

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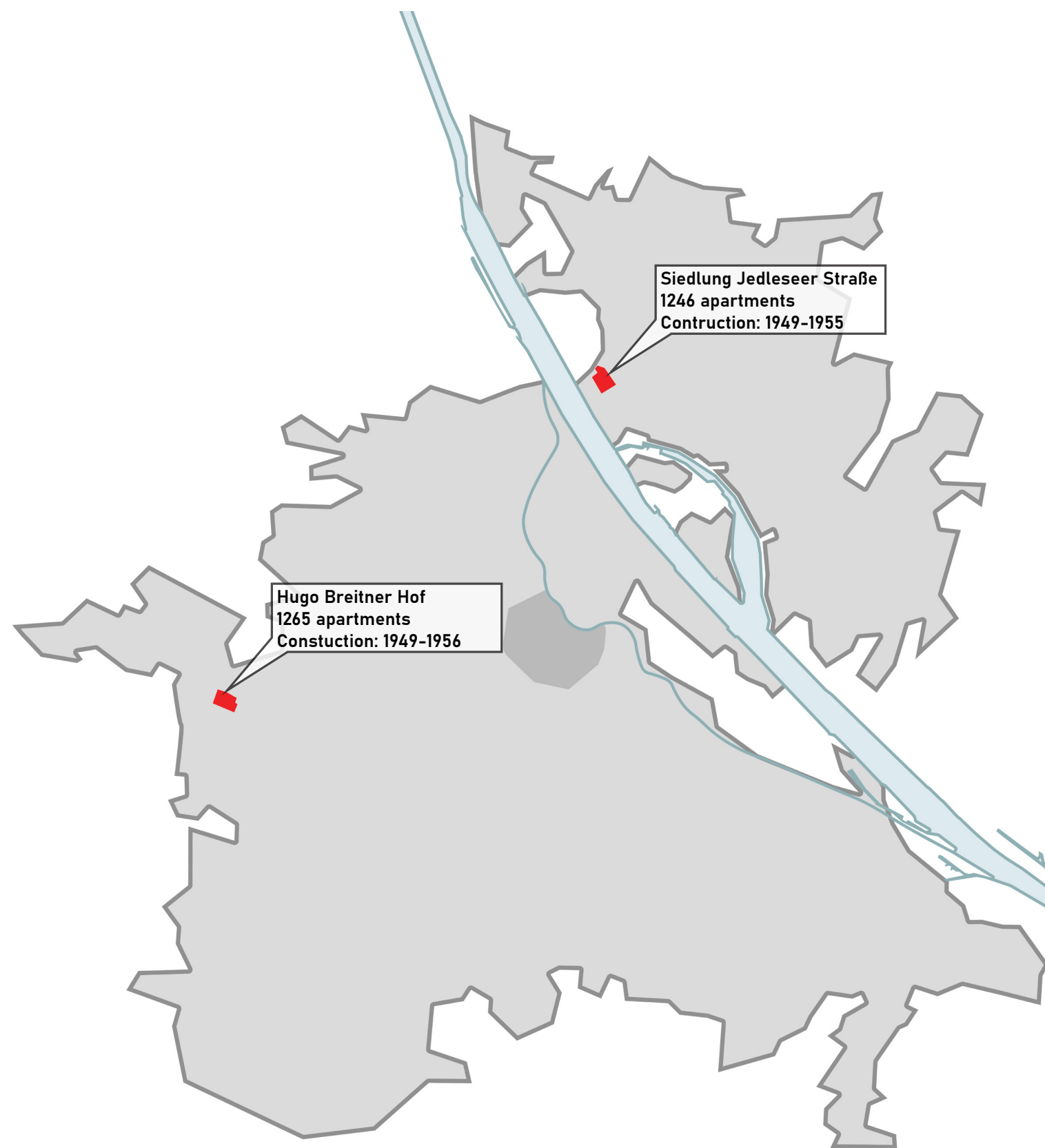
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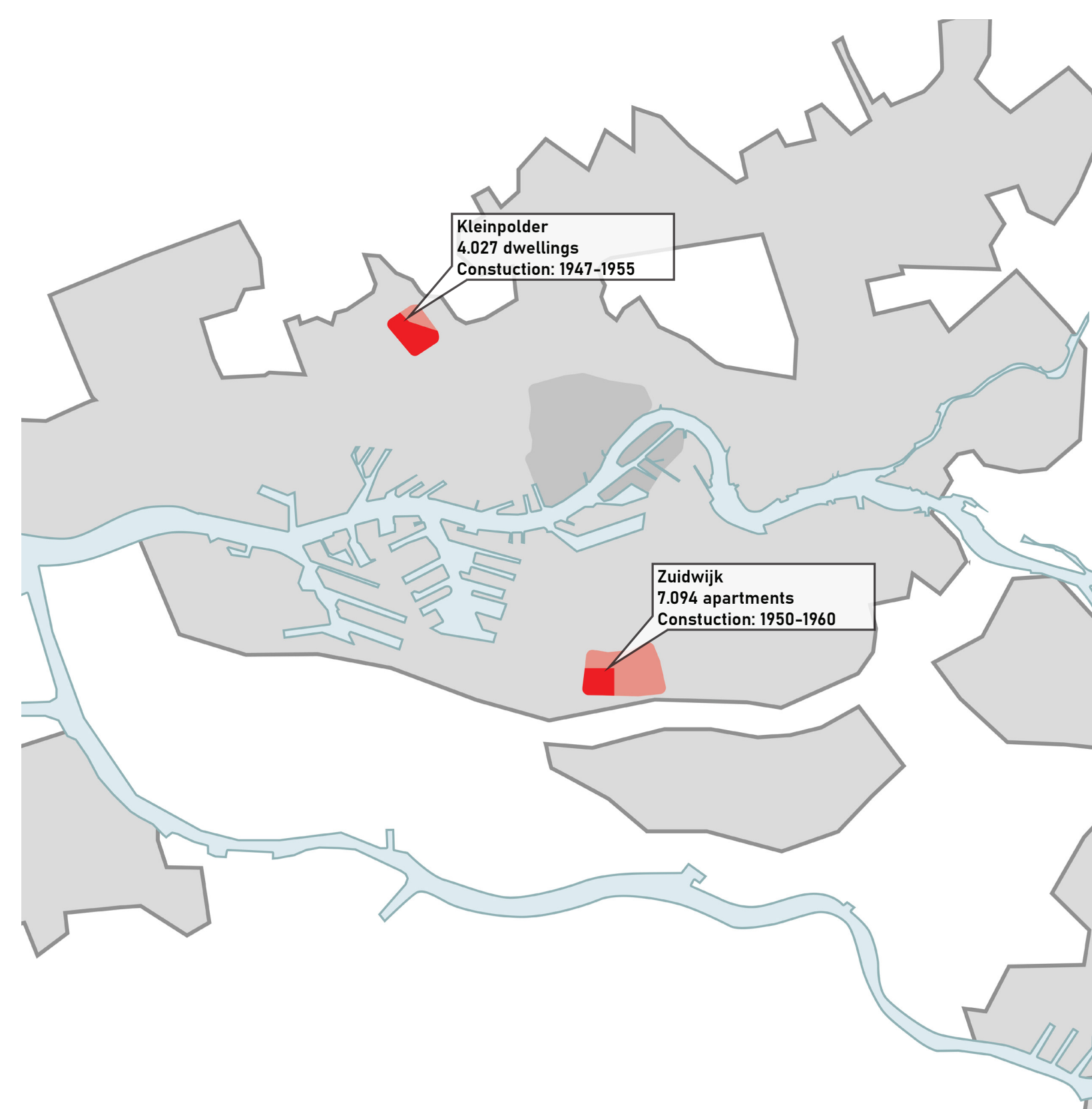
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Vienna



Rotterdam



Analysis

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A tale of two neighbourhoods

- Spatial development
- Governance causes
- Social results
- Financial implications



Context of neighbourhoods: Hugo Breitner Hof

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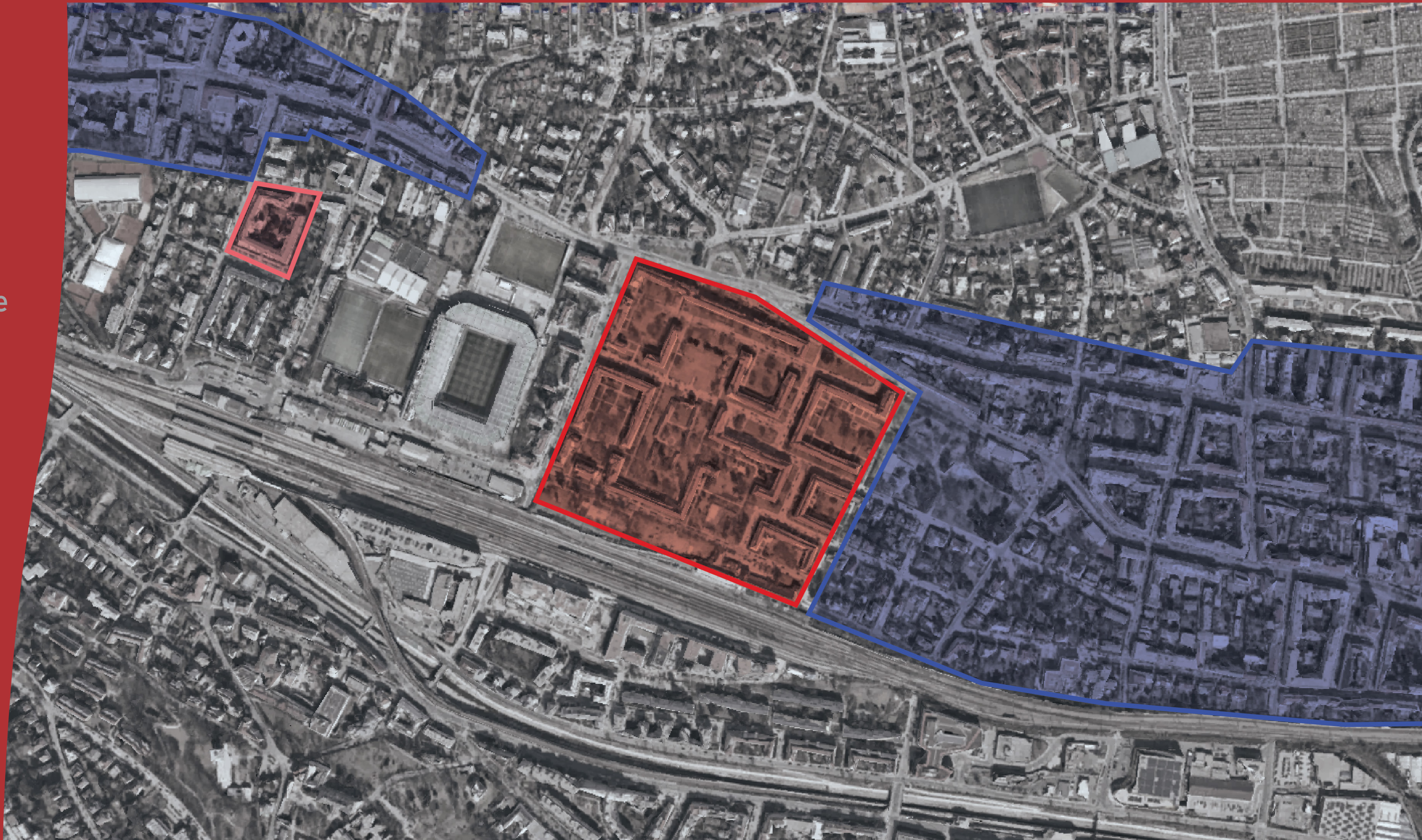
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Context of neighbourhoods: Kleinpolder

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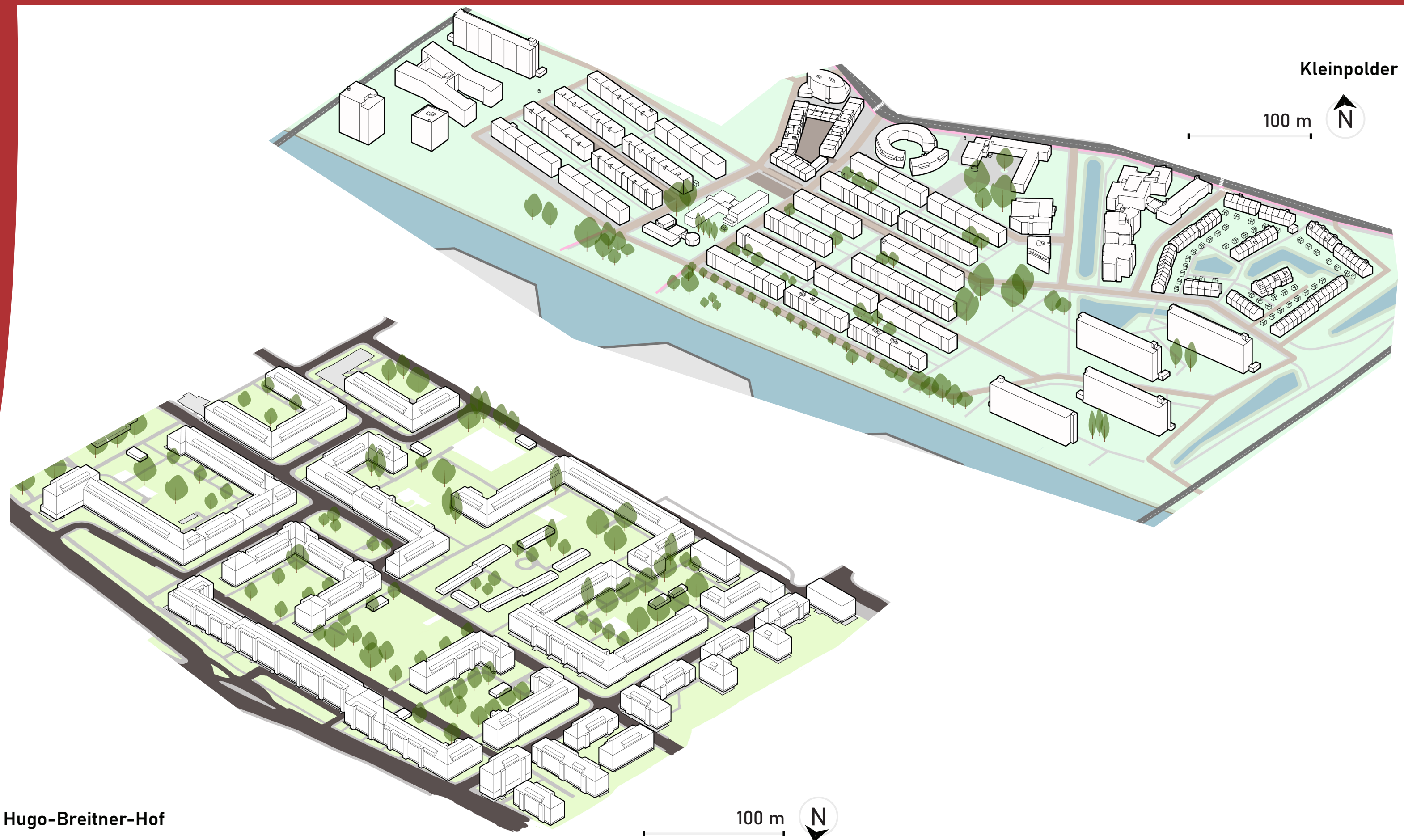
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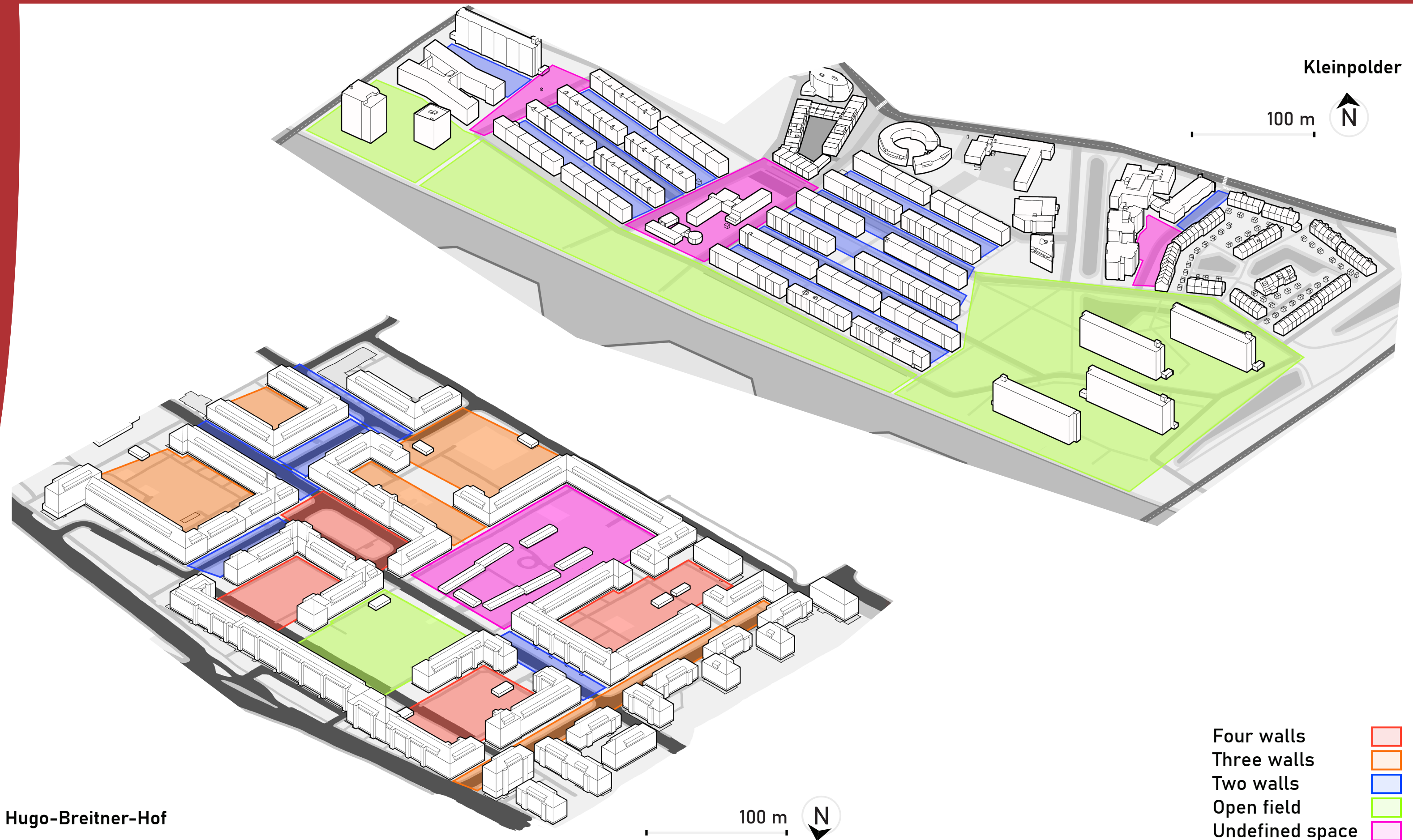
Neighborhoods zoomed in

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- Concisions



Spatial structure

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Services

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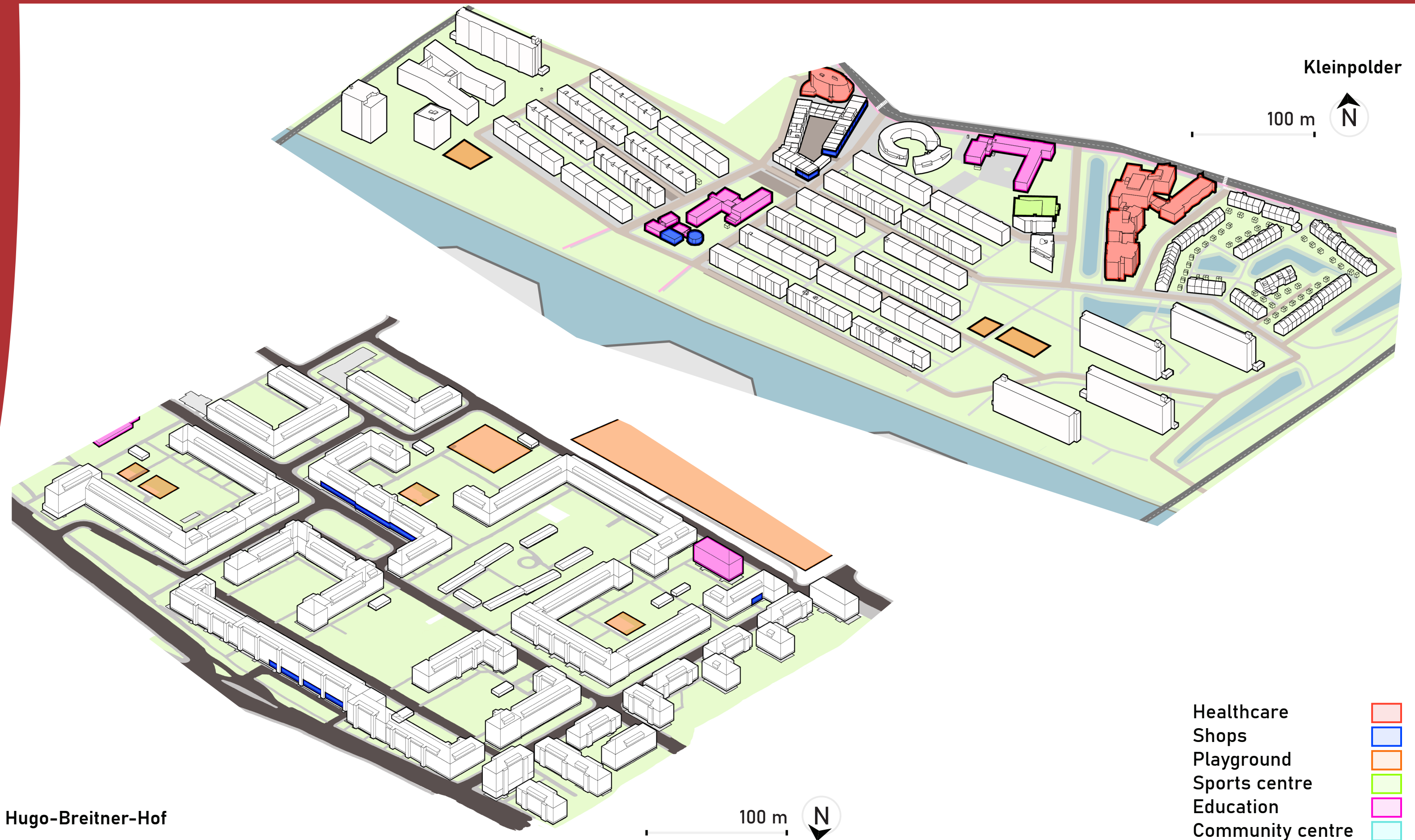
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Spatial structure and services come together

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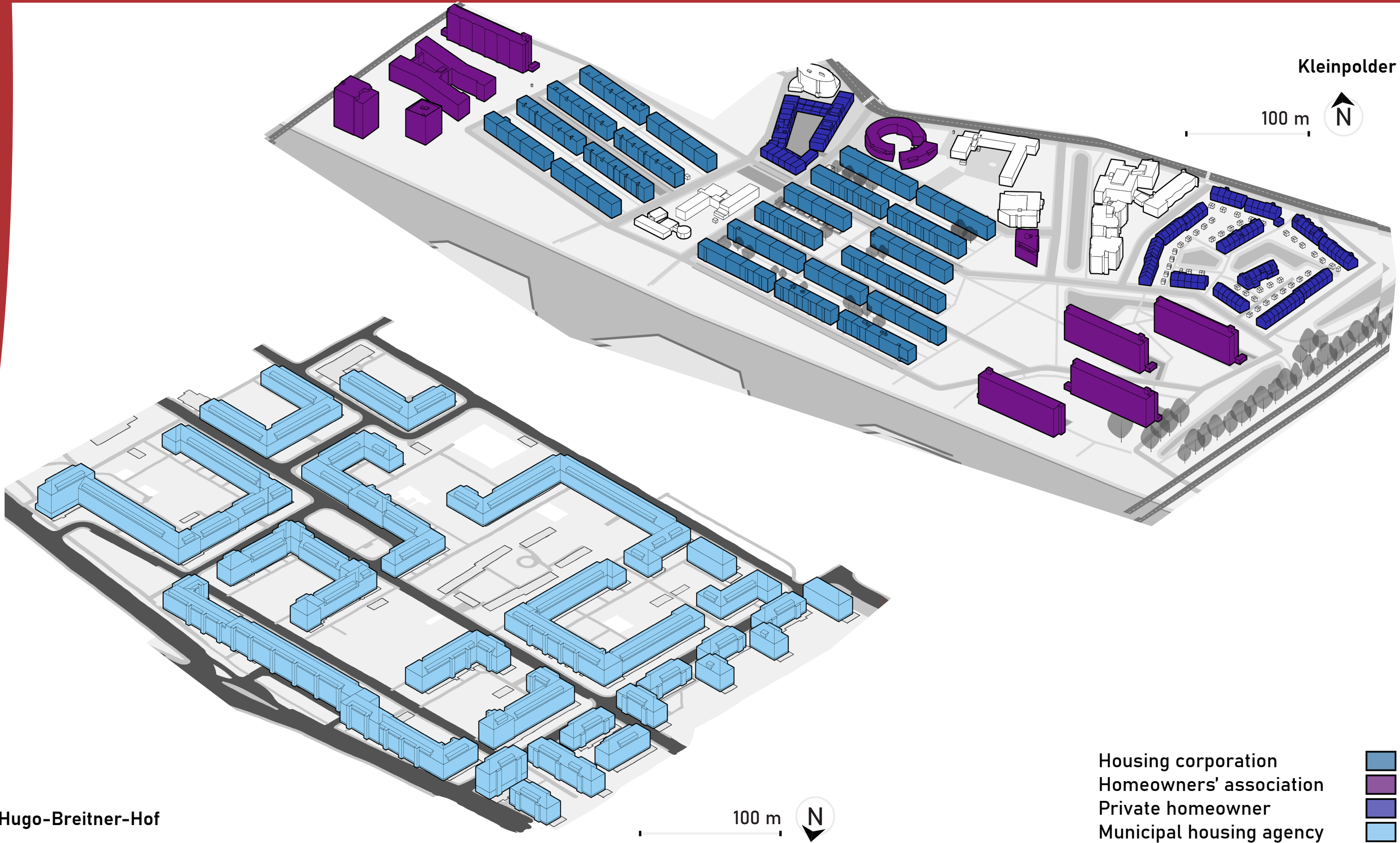
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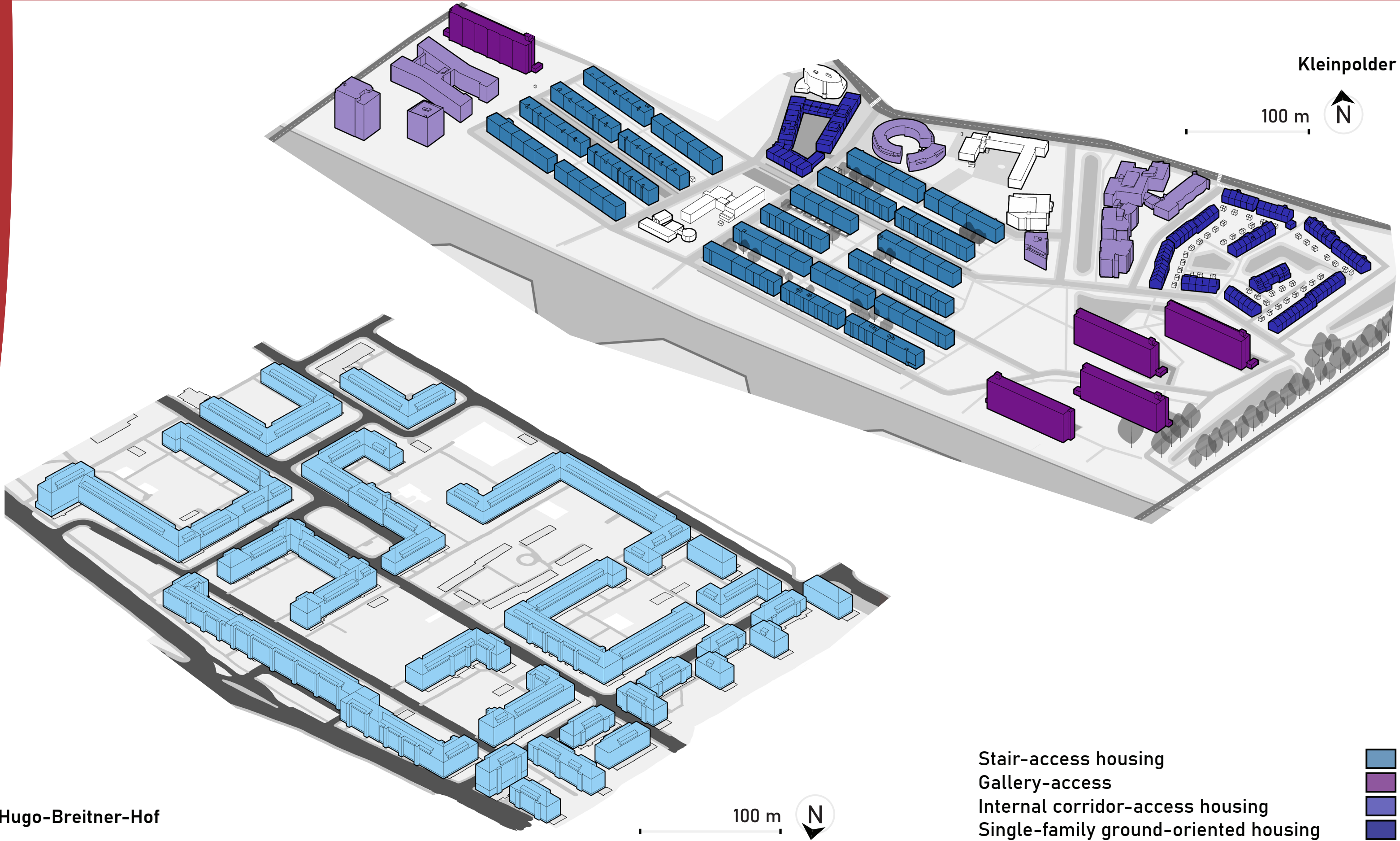
Ownership structures

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Building typologies

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Renovation Vienna

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Renovations in 2006

Whole neighborhood

Extra floor in roof

Elevator access

Solar panels



Renovation Rotterdam

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No densification

Only part was renovated

New assisted living

Diversification of apartments

New community center



Demolition and privatization

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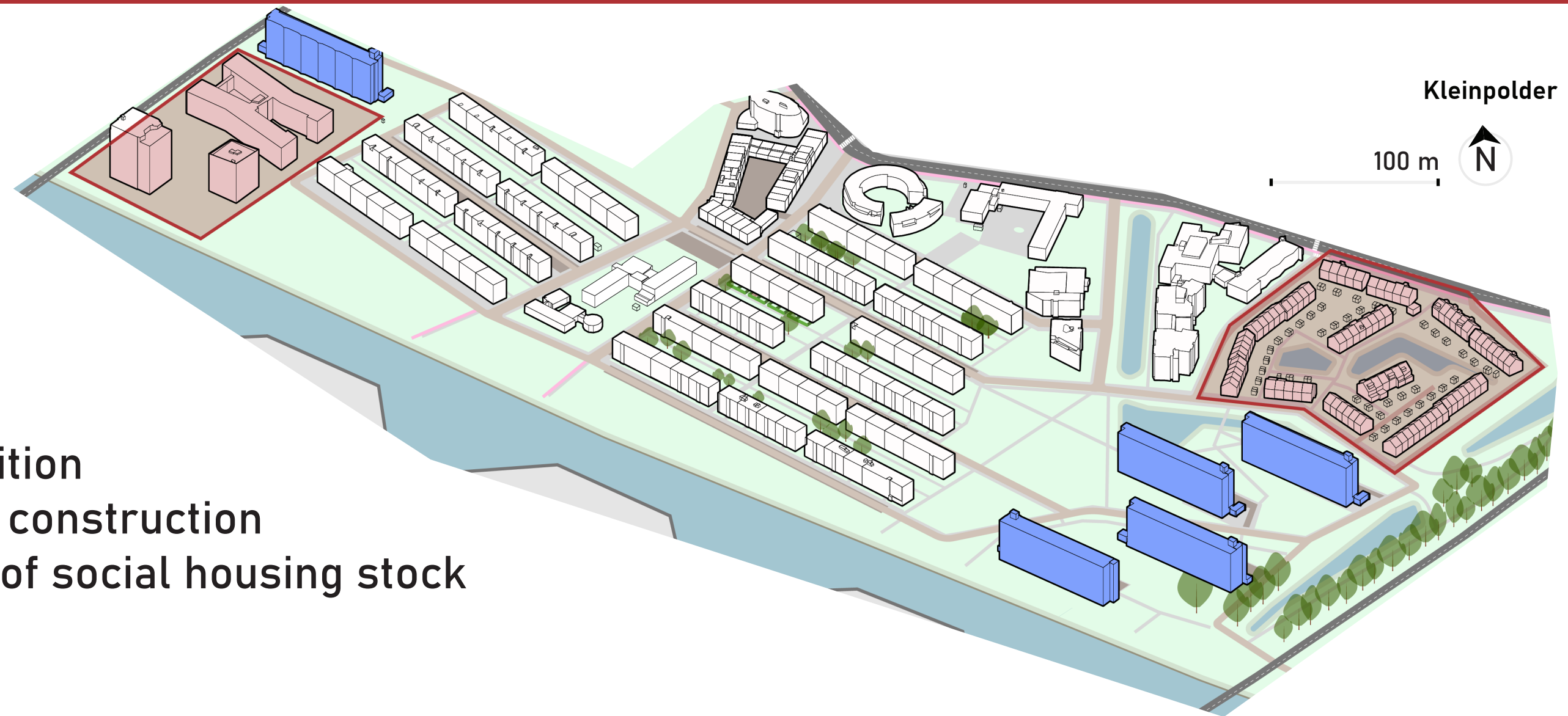
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Mayor demolition
Single family construction
Privatization of social housing stock

Governance Rotterdam

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Conclusions

43% eligibility form 2011
EU state aid compliance
50% social housing at 2011
“Suction effect”
35% social housing
Diversification
Demolition and privatization

Sources: Tweede Kamer der Staten-Generaal, 2010. CBS, 2011.
Interview, policy expert, Municipality of Rotterdam.



Governance Vienna

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Conclusions

75% eligibility

No sell policy

Argues for broad target group

No need for diversification

Sources: City of Vienna, 2025. Amann et al., 2024.
Interview, Wolfgang Amman.

Slide 27



Source: Photo by author

Social implications

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Conclusions

Vienna: 15% of tenants = poorest 20%.

Netherlands: 40% of tenants = poorest 20%.

Dutch system is more targeted.

Sources: Litschauer & Friesenecker, 2022.
Elsinga & Wassenberg, 2014



Financial implications Rotterdam

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Low rents for high quality
€0.66 loss per €1 invested
Persistent shortfall in construction

Sources: Ortec Finance, 2025. Inspectie
Leefomgeving en Transport, 2025



Financial implications Vienna

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Pattern language

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Conclusions

New construction mainly by LPHA's

No loss or a profit on projects

Rents are set before construction

Rents lowered after investment repayment

Sources: Amann et al., 2024



Pattern language

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Pattern Language

Categorize design interventions

Show relation between interventions

Different use case

Including management and social domain

Research tool

A Pattern Language

Towns · Buildings · Construction



Christopher Alexander

Sara Ishikawa · Murray Silverstein

WITH

Max Jacobson · Ingrid Fiksdahl-King

Shlomo Angel

Pattern language

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M	14: No/limited loss on new construction	C
		S

Description: New construction by Social housing associations could be more financially sustainable in order to stimulate new construction by social housing agency.



Achieved by: Rent caps for new construction build by social housing associations could be set higher. The rent can be lowered once the investment loans are paid of.

Related to: 2: Cohesion between policy and financing
8: Higher rent social/no profit segment

Source: Own work, source: Financial structure chapter Rotterdam and Vienna case

S	18: Distinct first floor layer	C
		S

Description: Buildings could have a clearly visible first layer, especially when that layer houses a different function than the rest of the building. It is also in line with tripartite theory, improving public space by giving buildings a more harmonious design.



Achieved by: Different materials for façade composition could be used for the first floor layer of a building.

Related to:

Source: Own work, Source: Hugo Breitner Hof, Vienna – Roof type page

S	19: Hof-like plazas	C
		S

Description: When designing the built volumes of a residential neighbourhood, buildings could be arranged in such a way that courtyards emerge between them. These courtyards function as focal points and, due to their enclosed nature, form very safe spaces (eyes on the street).



Achieved by: When adding new housing to the neighbourhood, it could be placed in locations that shape the space in such a way that new, enclosed areas are created.

Related to: 24. Places for young to play on their own;
21. Meeting places

Source: Own work, Source: Booth locations in Vienna – Types of public spaces page

Design

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Design to test pattern language

Design goals

- Long term
- Liveability
- Availability
- Each stage a improvement

Short Term (5 Years):
Community gardens
Playgrounds

Medium Term (20 Years):
Relocation of the school
Major renovations buildings

Long Term (40 Years):
Reconstruction of the urban fabric
Further densification

Design Short term

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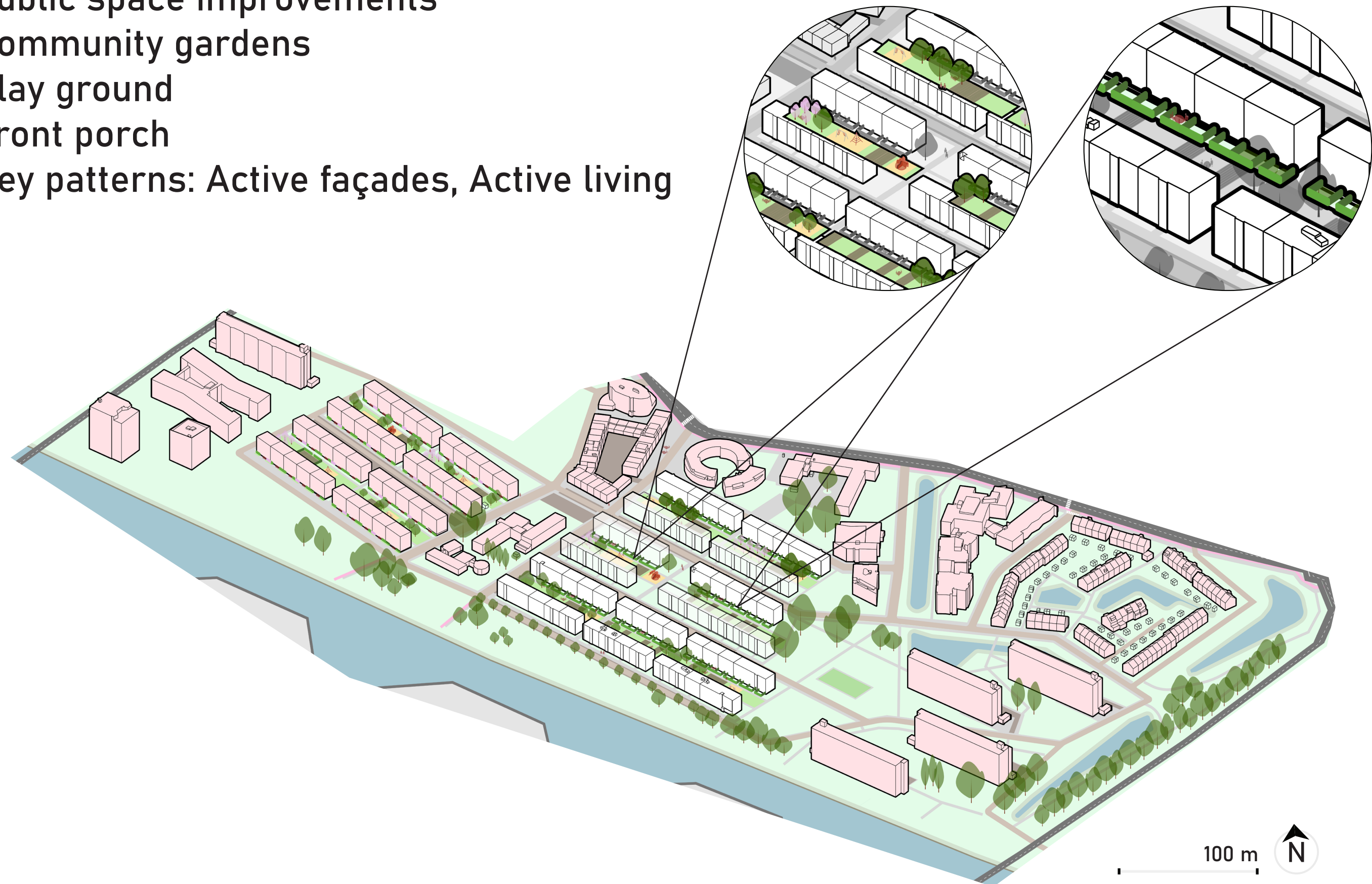
Public space improvements

Community gardens

Play ground

Front porch

Key patterns: Active façades, Active living



Design Medium term

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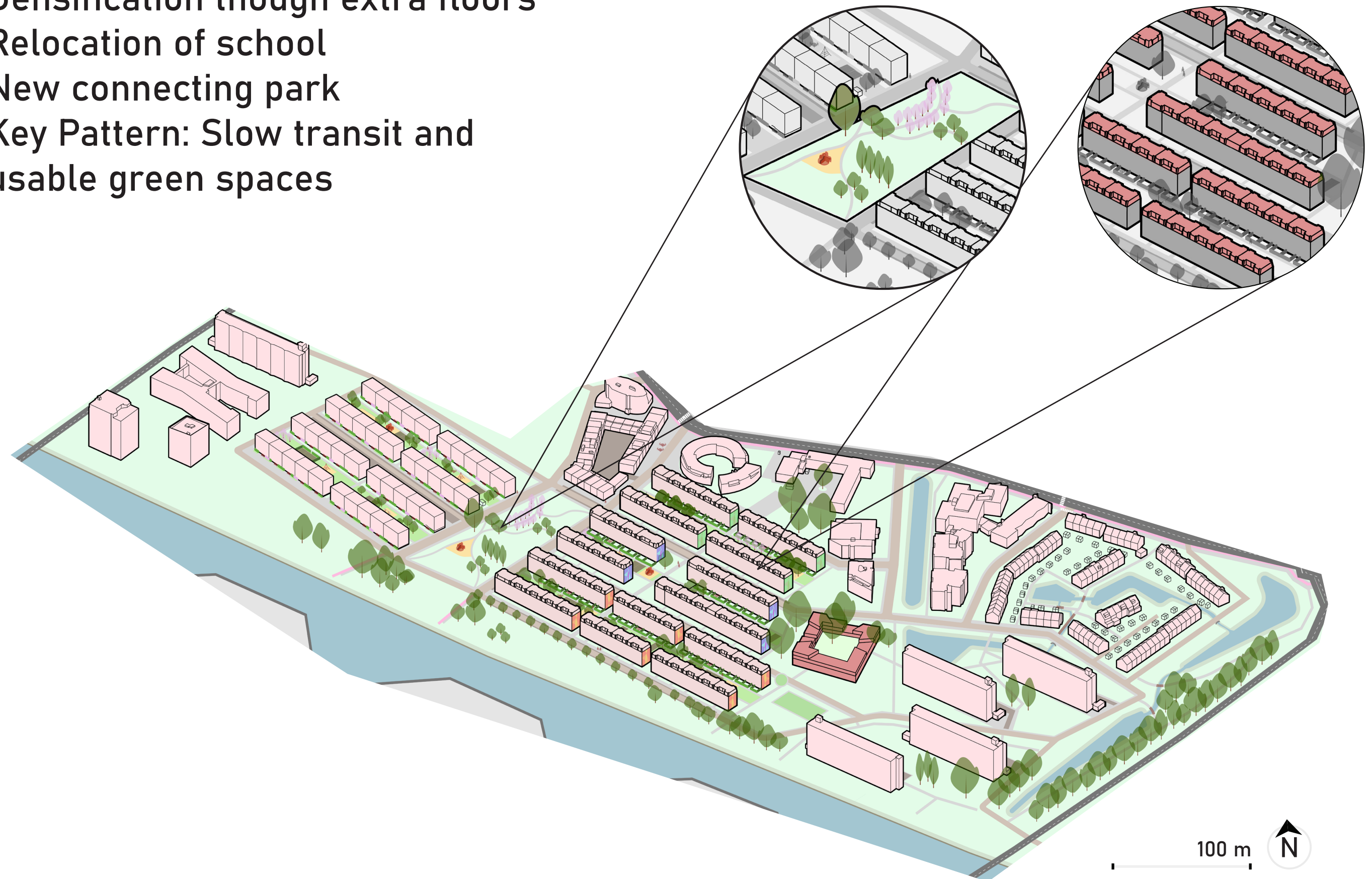
Conclusions

Densification through extra floors

Relocation of school

New connecting park

Key Pattern: Slow transit and usable green spaces



Design Medium term

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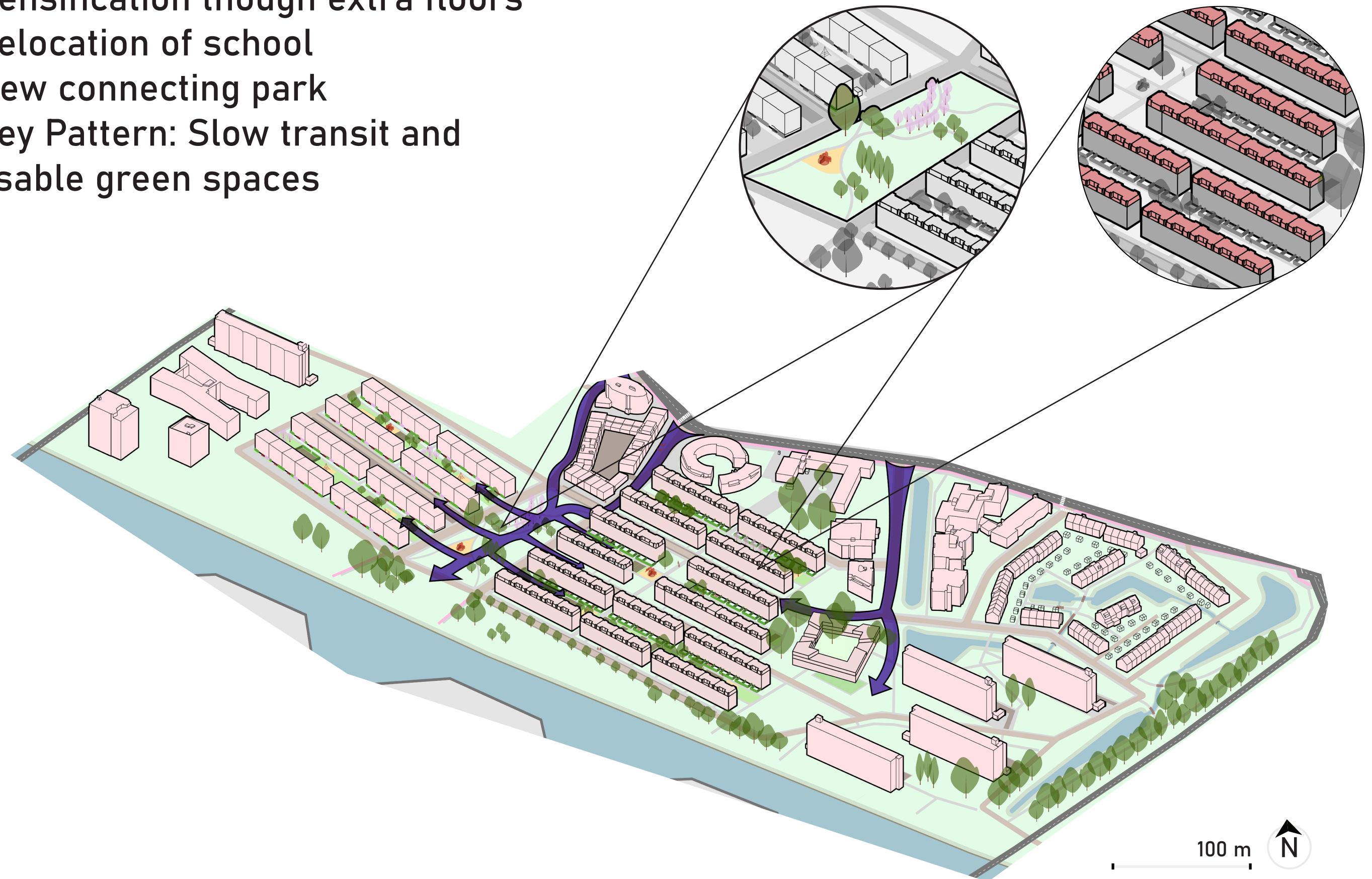
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Design Long term

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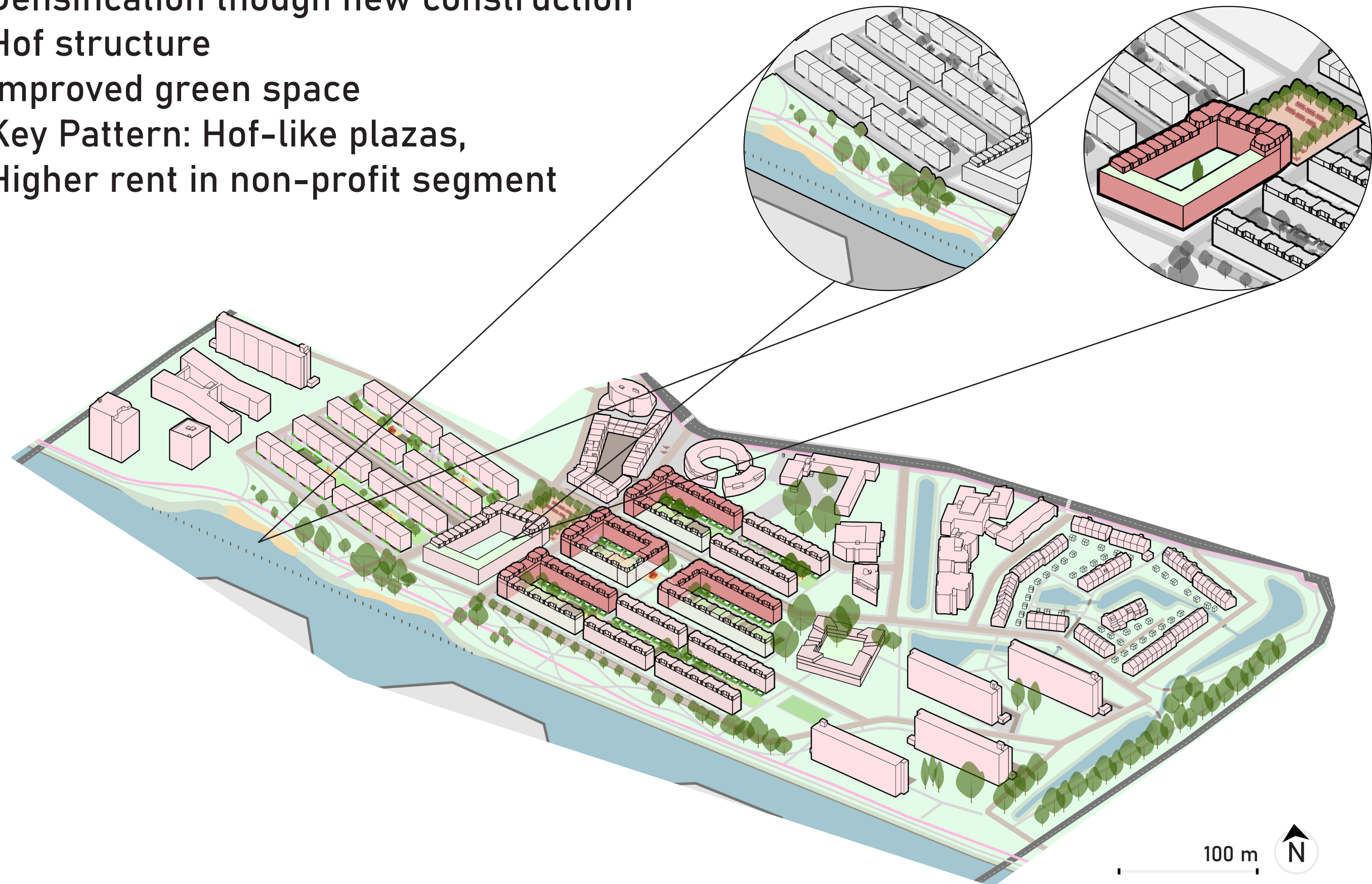
Conclusions

Densification through new construction

Hof structure

Improved green space

Key Pattern: Hof-like plazas,
Higher rent in non-profit segment



Design Long term

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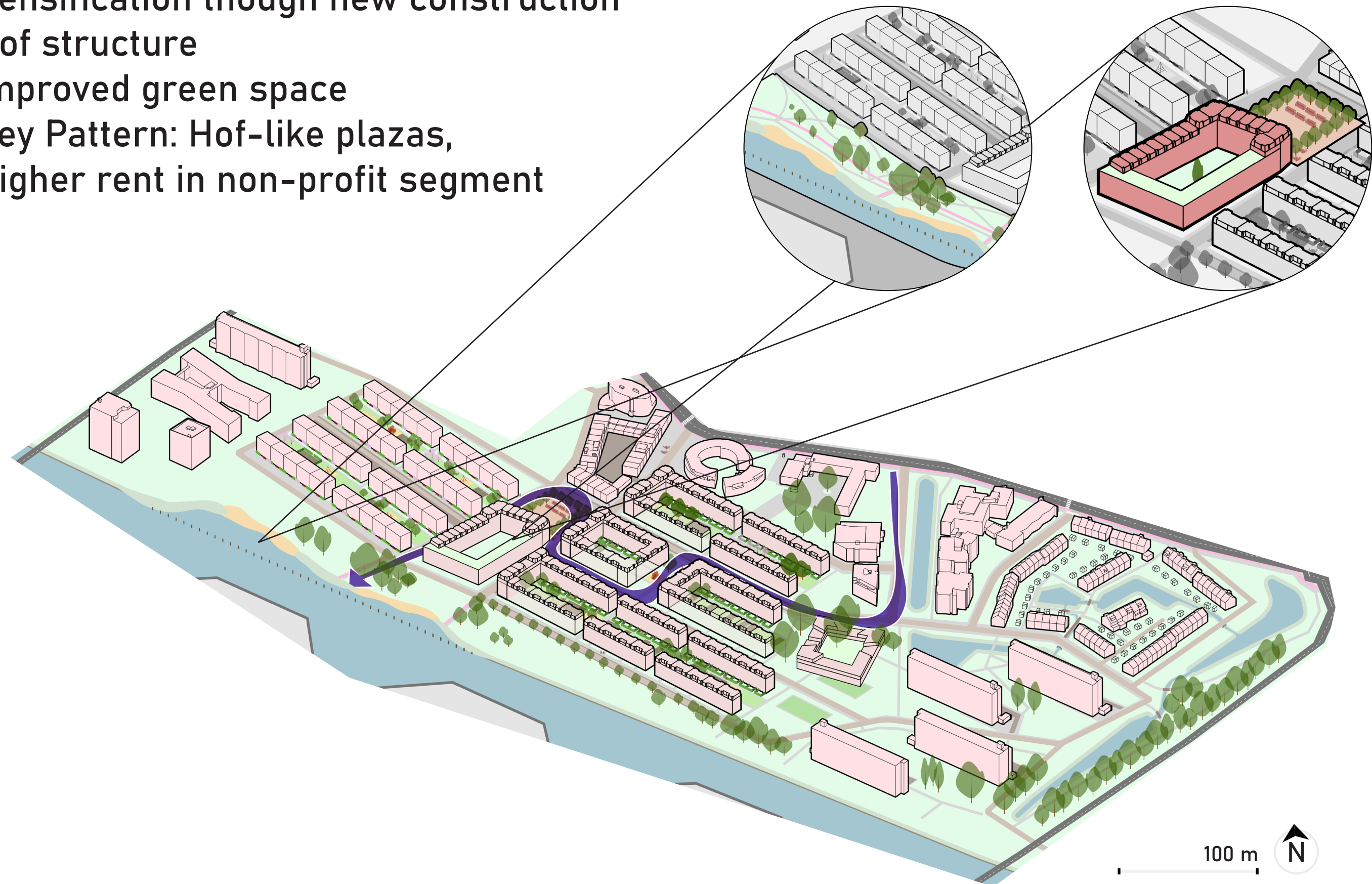
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Densification through new construction

Hof structure

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Conclusions

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	Vienna	Rotterdam
Q1: Governance structures	Centralized governance and strict no-sell policy	Decentralized changing/ adaptive governance
Q2: Spatial qualities	Traditional design with strong spatial coherence	Redeveloped areas show great variety in housing and services.
Q3: lessons in urban planning and management	Broad target group excludes most vulnerable	Demolition due to national policy change.
Q3: Application of lessons		Small changes can improve public space Larger governance changes needed for term affordability

Thanks for your attention

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Image sources: Archdaily.com, Dirk Verwoerd