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P5 Presentation Slides

The Lasting Notion of Street : Vary, Adapt, Engage.

Transforming Eilandenbuurt Apartments

Chi Yi LIAO

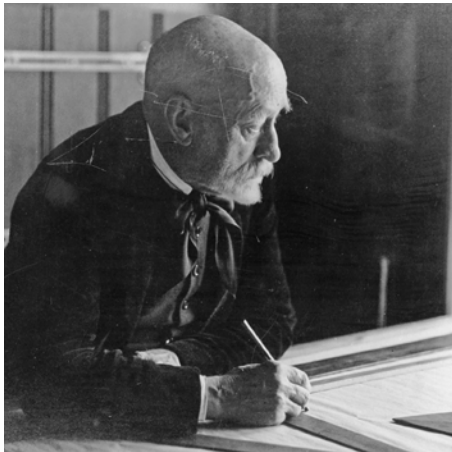
Studio: Transforming Housing Heritage,
Track: Heritage & Architecture (RMIT)

Tutor:
Ir. Lidwine Spoormans
Nicholas Clarke Pr. Arch.
External Examiner: Rein Have

Contact:
Chi Yi LIAO
c.liao.kw@gmail.com
Student No. 4249143
Delft University of Technology
Faculty of Architecture and Built Environment (Bouwkunde)

Influencers and Designers

Urban Ideology



H.P. Berlage

“street as public domain”
Influencer of Witteveen.

The planner



W.G. Witteveen

Head of Rotterdam city planning
1924-1945
City planner of Eilandenbuurt.

The architect



J.H. Van den Broek

Architect of Eilandenbuurt
housing projects 1939-1941.
Institutionized post-war re-
construction and housing
in Rotterdam

Architectural Ideology



Van den Broek & Bakma

Key architects in Dutch Modernism.

Influencers and Designers

Urban Ideology



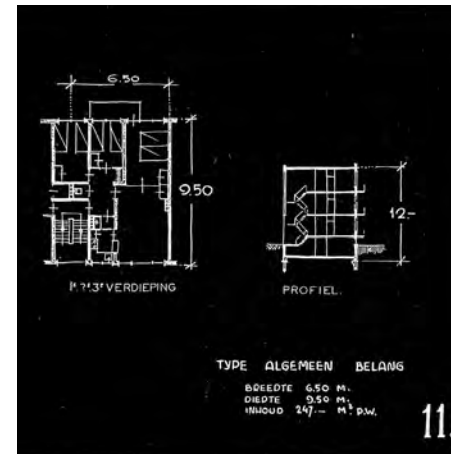
Berlage's visualization of plan for Amsterdam Zuid

The Plan



Witteveen's revised plan for Rotterdam Zuid 1926

The Architecture



Concept of Eilandenbuurt minimal housing 1938-40

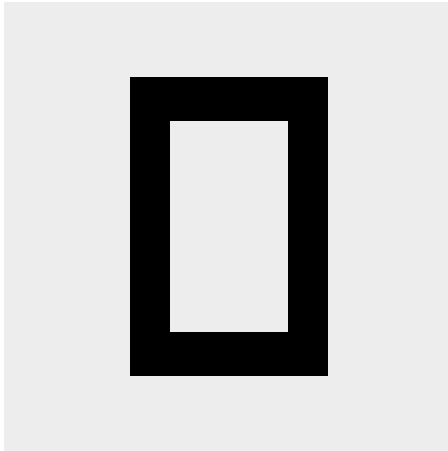
Architectural Ideology



Plan of Tarwewijk (part of Eilandenbuurt project 1940)

Influencers and Designers

Block



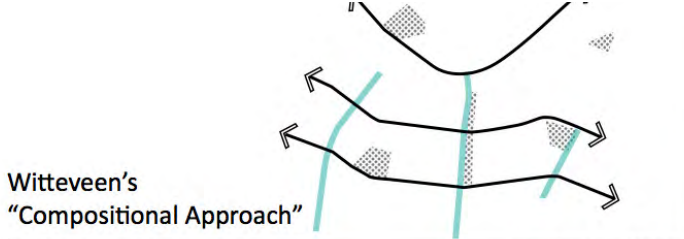
The planner



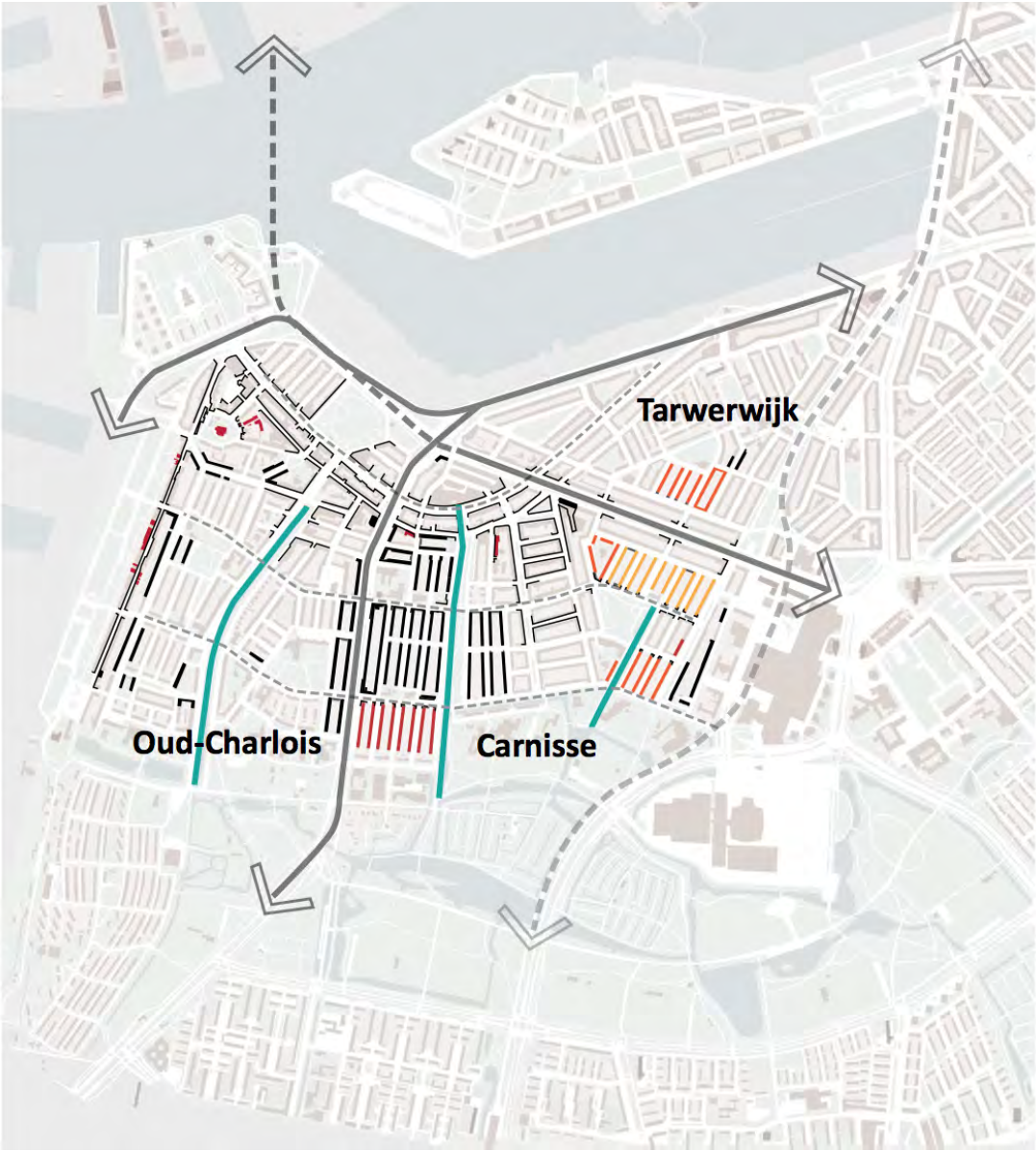
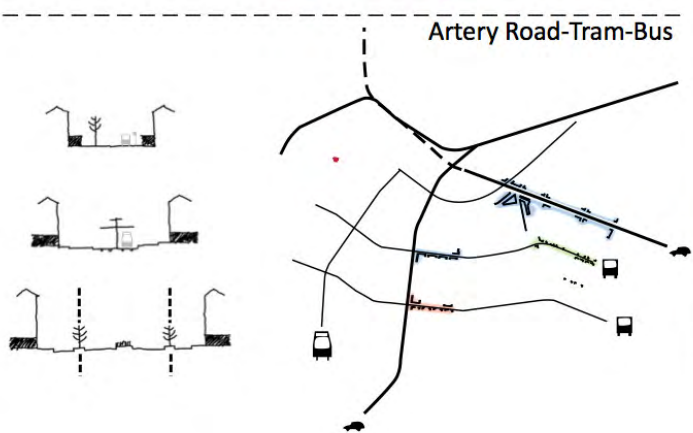
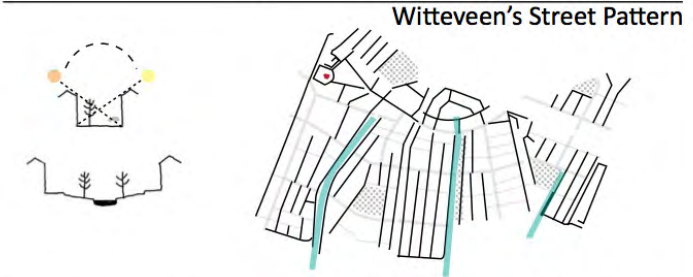
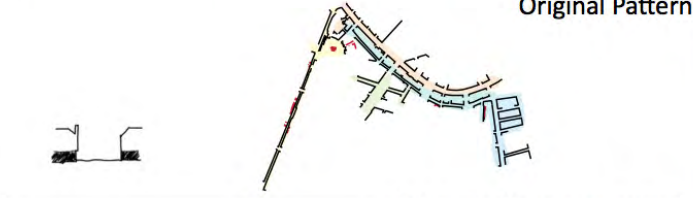
W.G. Witteveen

Head of Rotterdam city planning
1924-1945
City planner of Eilandenbuurt.

Compositional Approach Planning



Original Pattern



Influencers and Designers

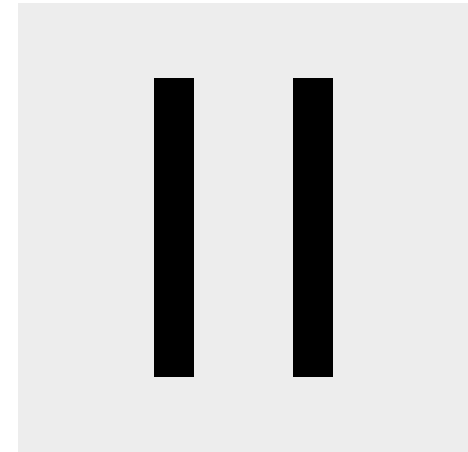
The architect



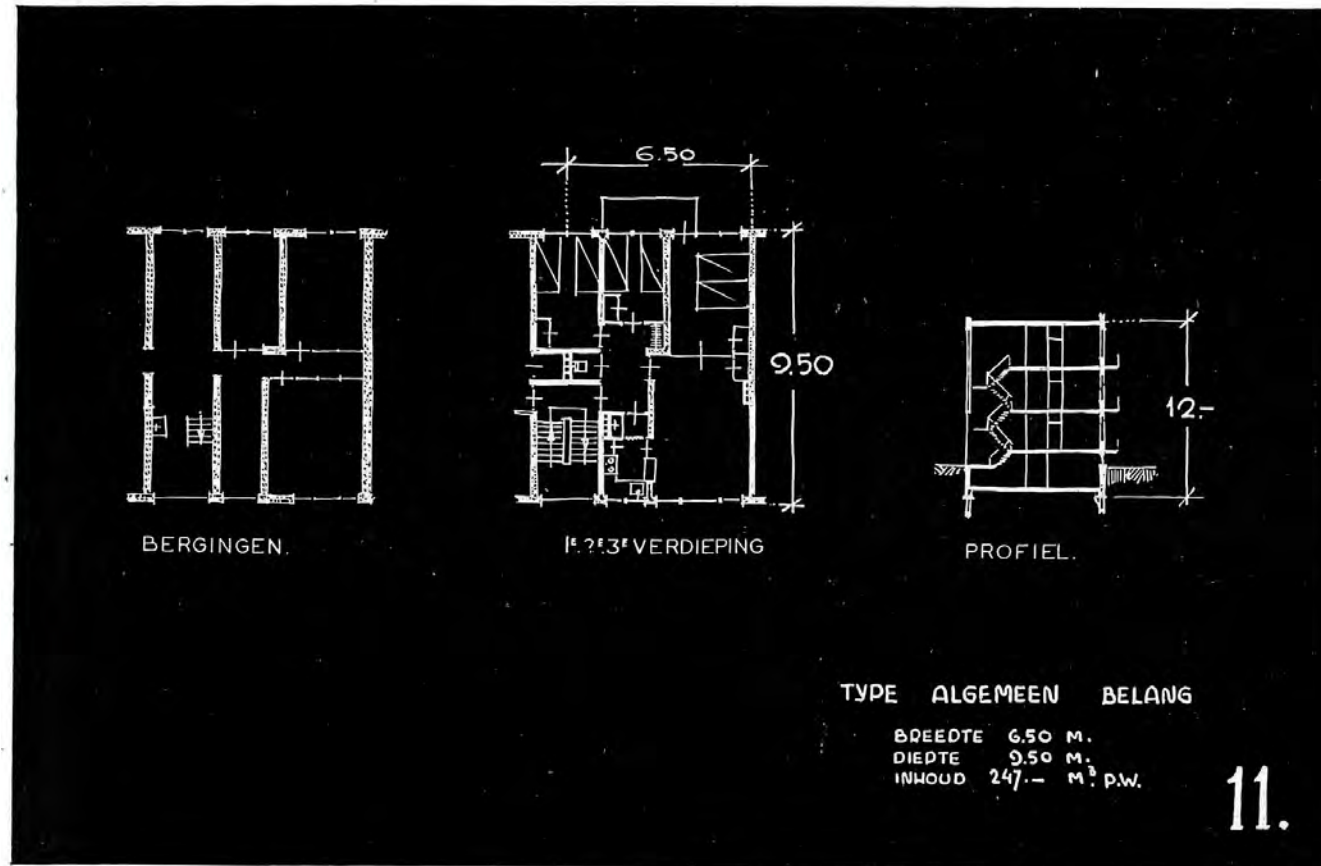
J.H. Van den Broek

Architect of Eilandenbuurt housing projects 1939-1941. Institutionalized post-war reconstruction and housing in Rotterdam

Stripe

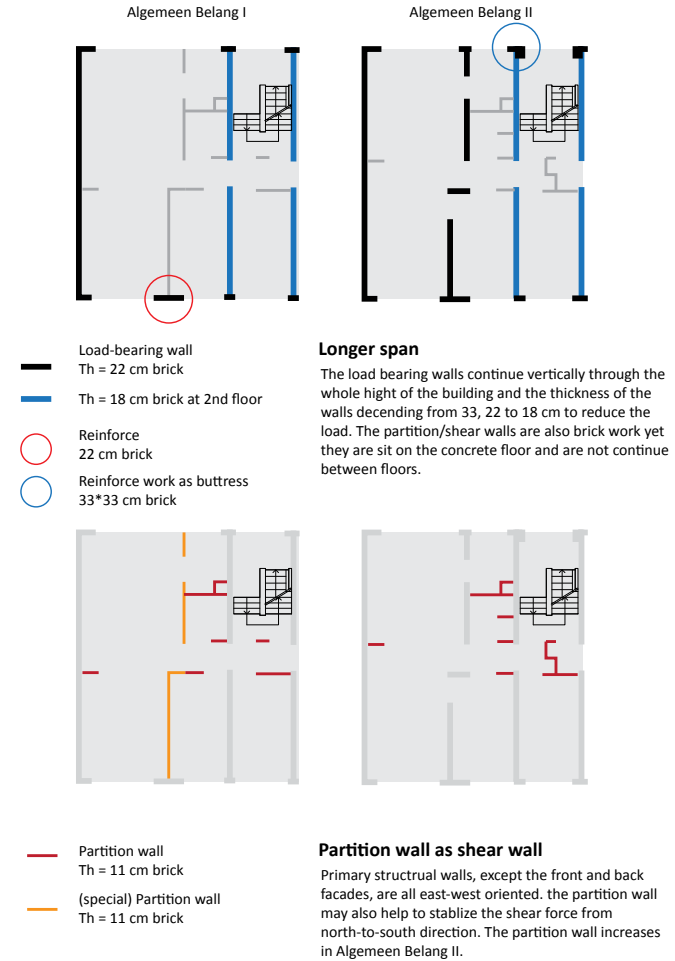
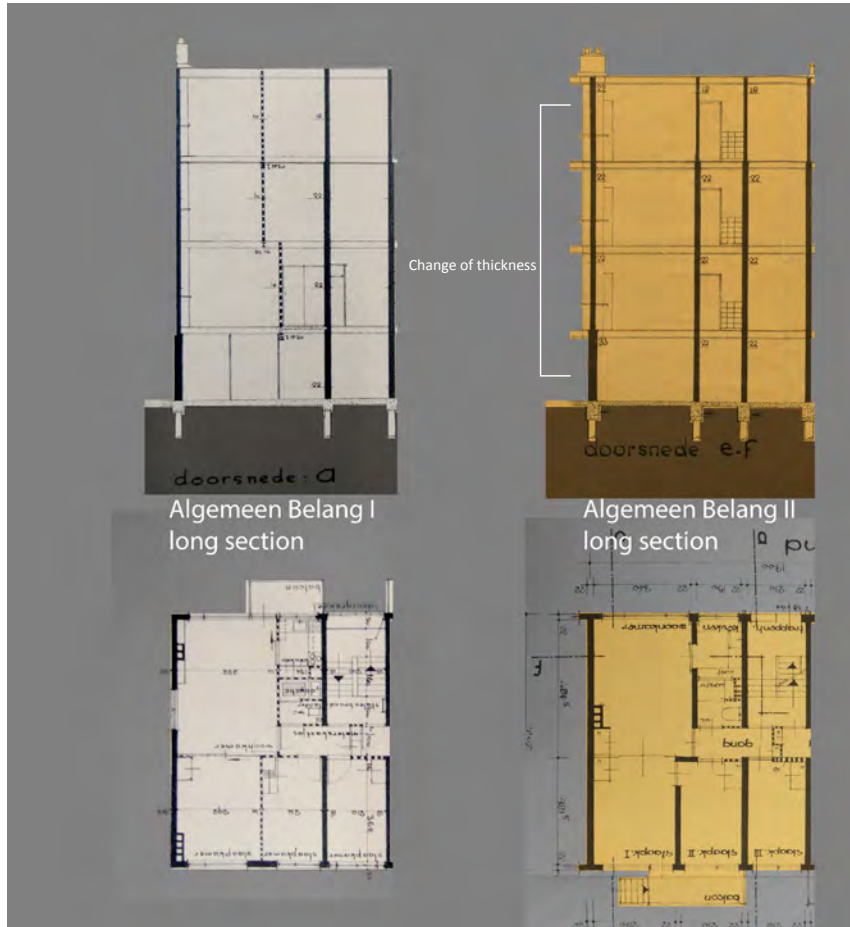


Standardize, Institutionalize



Van Tijen en Maaskant; Brinkman en van den Broek.
Woonmogelijkheden in het Nieuwe Rotterdam. 1941.

Reversible floor plan



Experiment 1938 - 1941



P

Partition wall, align or not

In the first project one of the types the relation between balcony and kitchen is fixed, so the partition wall can not be aligned vertically. Partition wall between kitchen and living room are not load bearing. The technical difficulty is higher and it is not continued in the second project



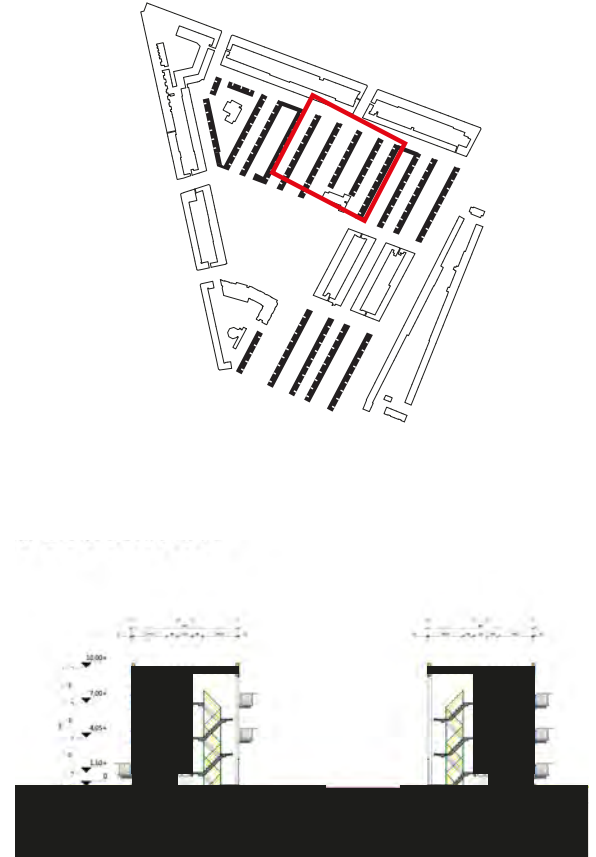
This part of wall is evident on the facade as yellowish stucco is applied.

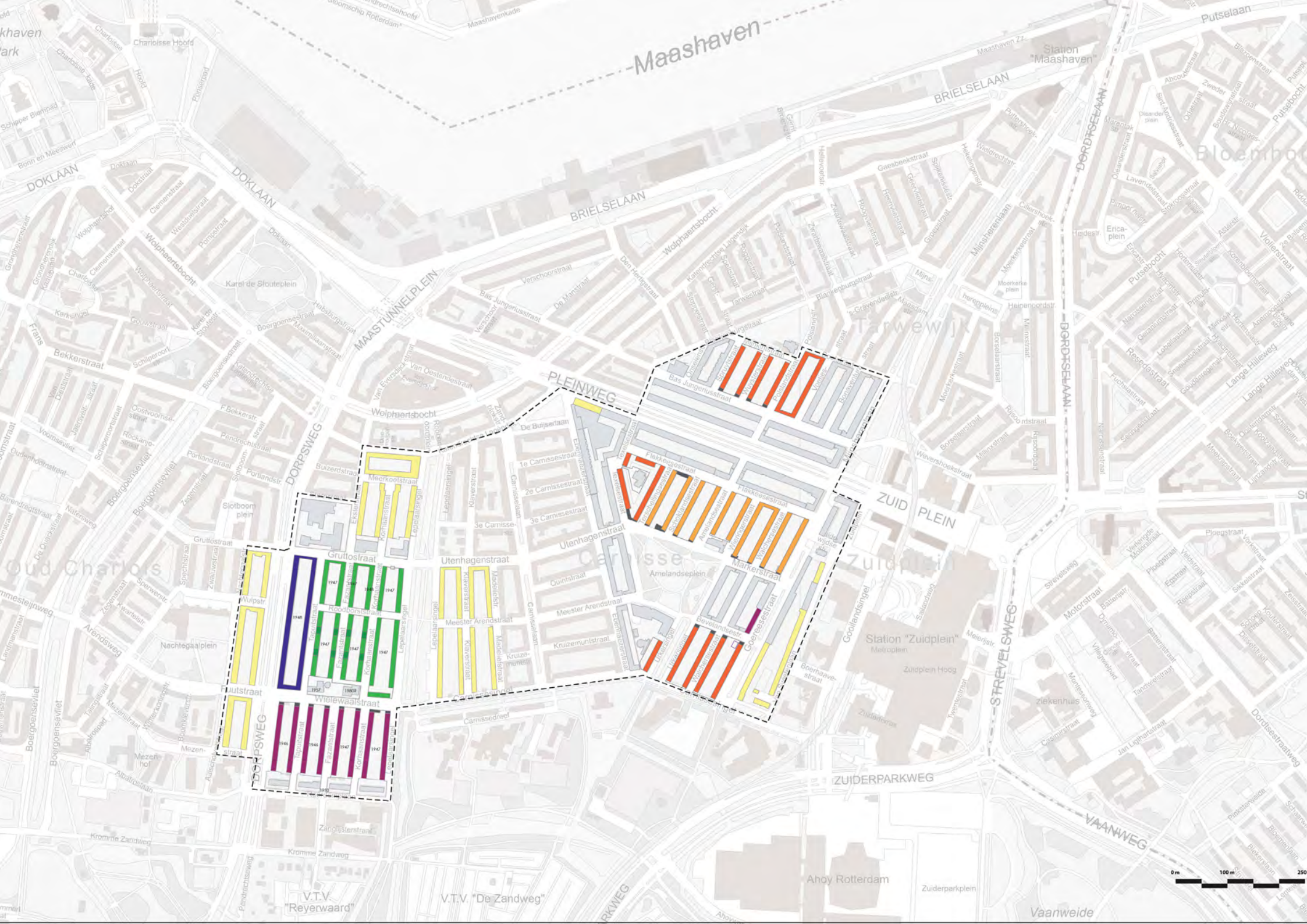


F

Fixed structure and mirrored layout

The relationship between balcony and kitchen are not fixed. The orientation of portiek staircase become the moving parts in response to the side of street. In these solution the two types share the same load bearing wall structure.





Maashaven

Station "Maashaven"

Bloemh...

Tarjewijk

khaven
ark

DOKLAAN

DOKLAAN

BRIELSELAAN

BRIELSELAAN

DORPSELAAN

MAASTUNNENPLEIN

PLEINWEG

DORPSWEG

ZUID PLEIN

DORPSELAAN

Oud Charlois

Charlois

Zuidplein

Station "Zuidplein"
Metropo...

ZUIDERPARKWEG

VAAANWEG

V.T.V.
"Reyerwaard"

V.T.V. "De Zandweg"

Ahoy Rotterdam

Vaanweide







Urban Ideology



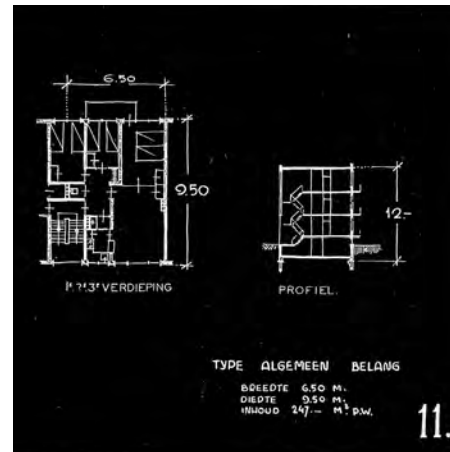
Berlage's visualization of plan for Amsterdam Zuid

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Plan of Tarwewijk (part of Eilandenbuurt project 1940)



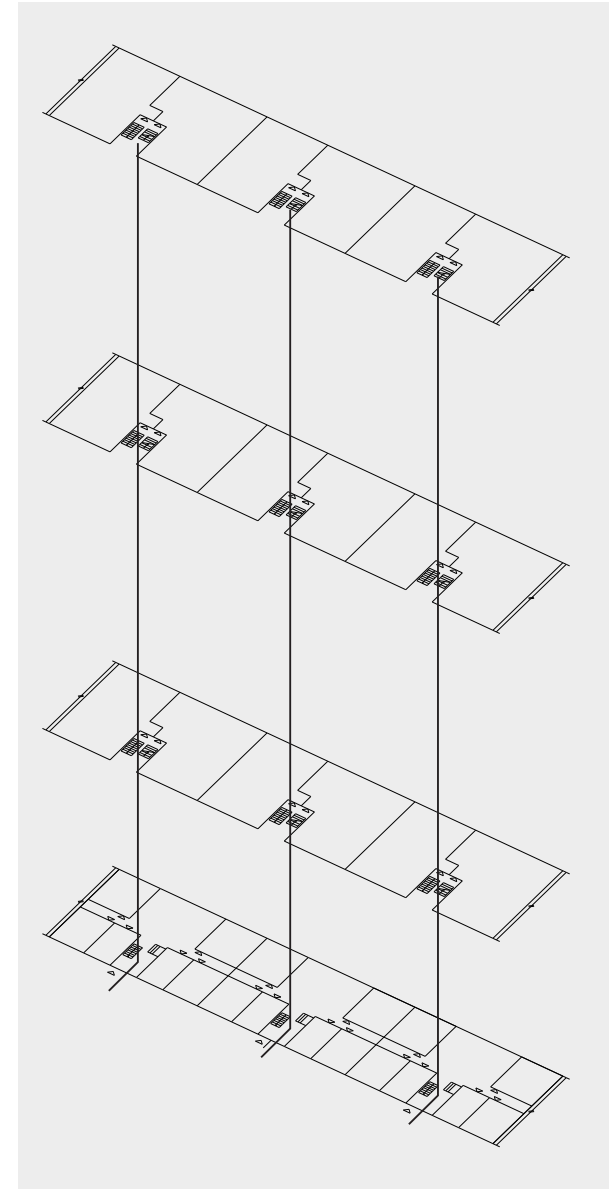
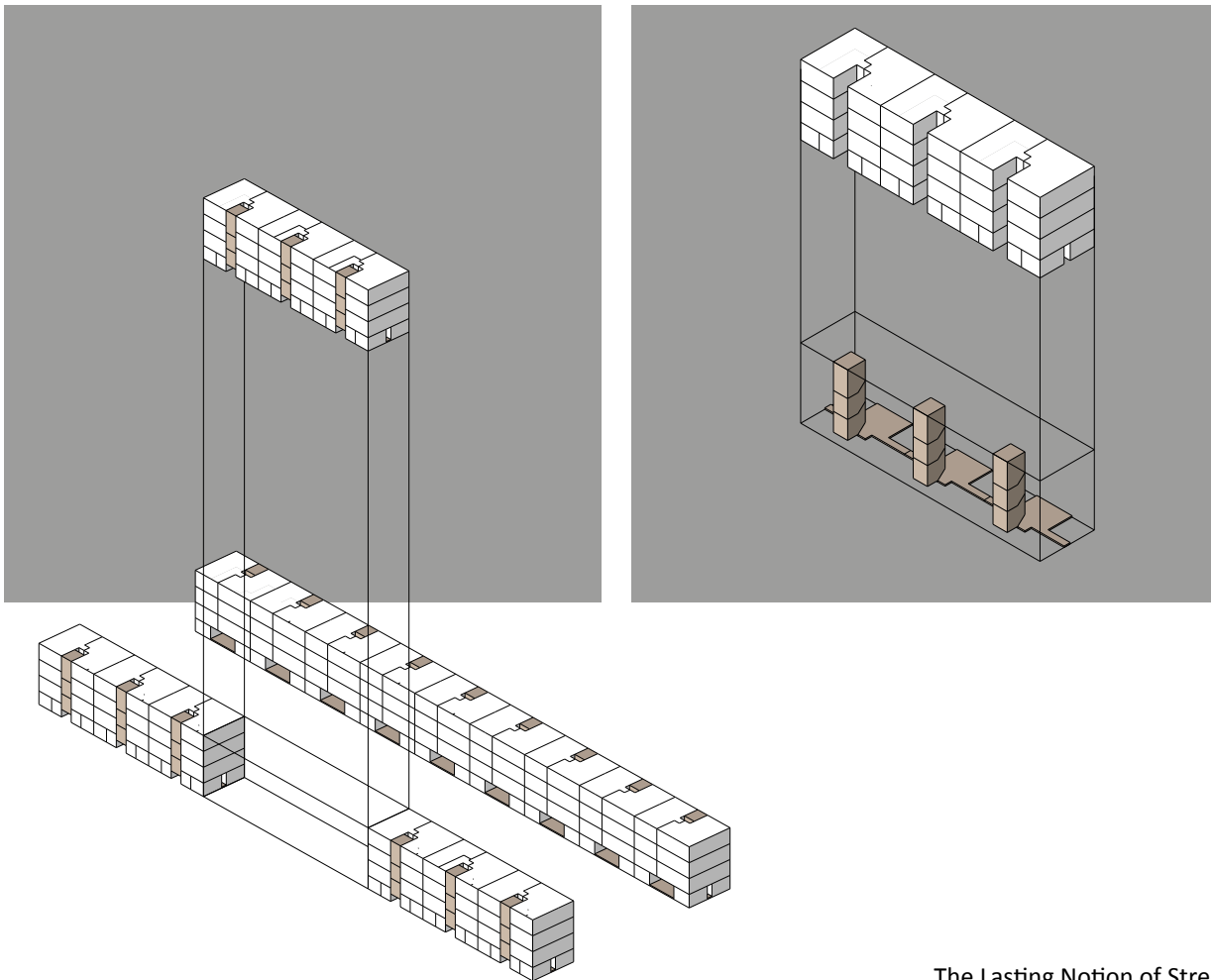


The Lasting Notion of Street : Vary, Adapt, Engage. Transforming Eilandenbuurt Apartments

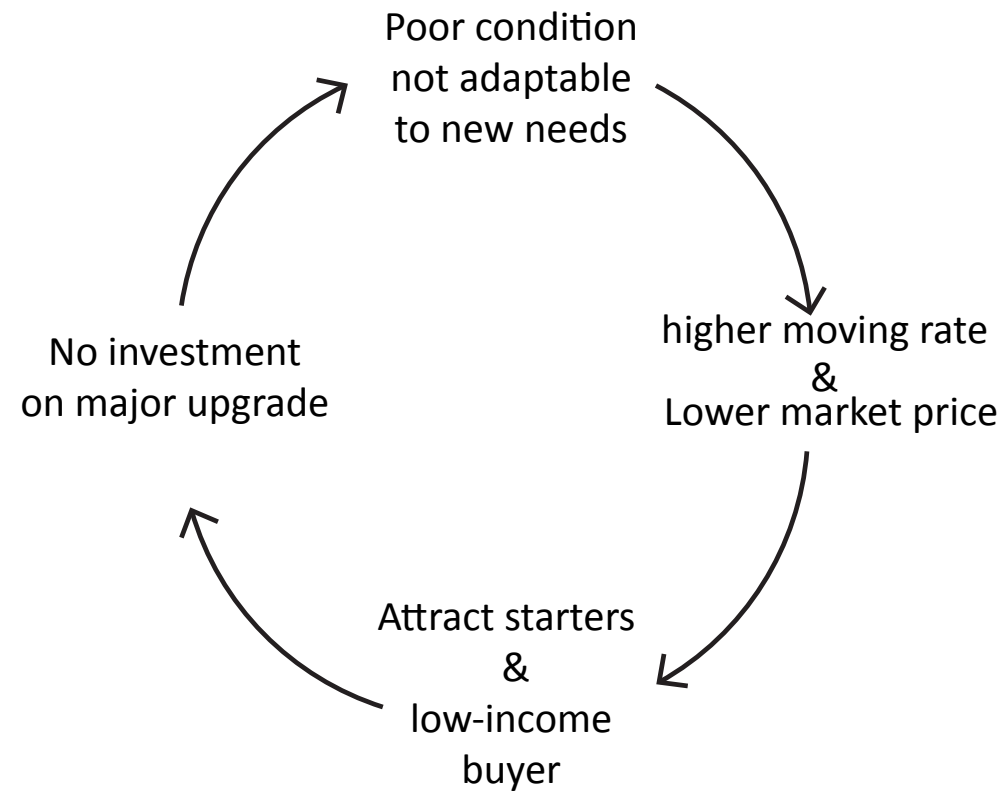


The Lasting Notion of Street : Vary, Adapt, Engage. Transforming Eilandenbuurt Apartments

1. Lack of Variety.
2. Low occupation rate
3. Lack in sense of a neighbourhood



Problem Loop



Design Goal: 3 actions

1. Vary

Can the block target not only the starters, but also singles and larger families?

2. Adapt

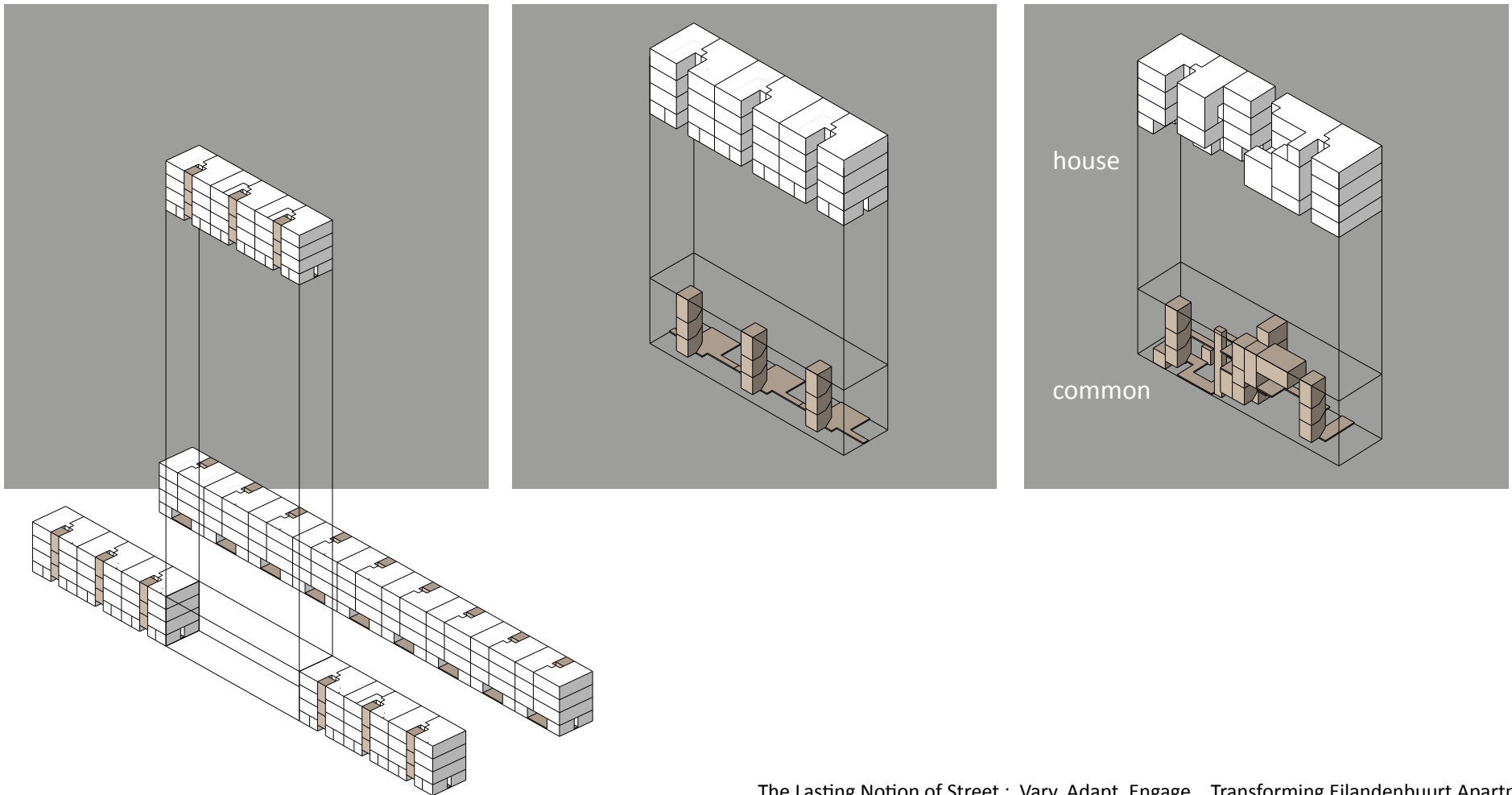
Can the occupation rate remain high during the building's lifespan, by changing the proportion of small and large typologies?

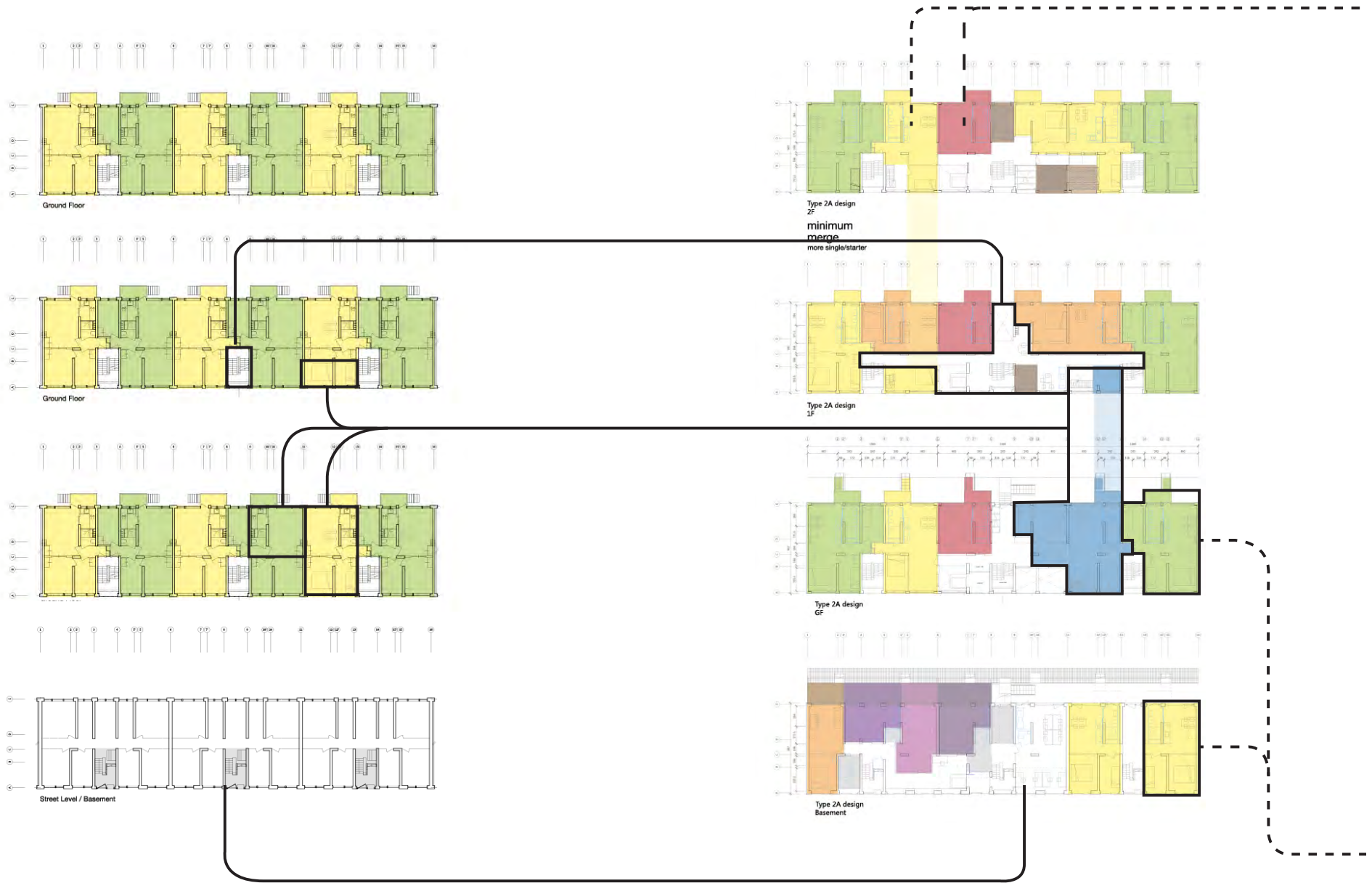
3. Engage

Can we increase the individual residents' sense of belonging to a community in the apartment?



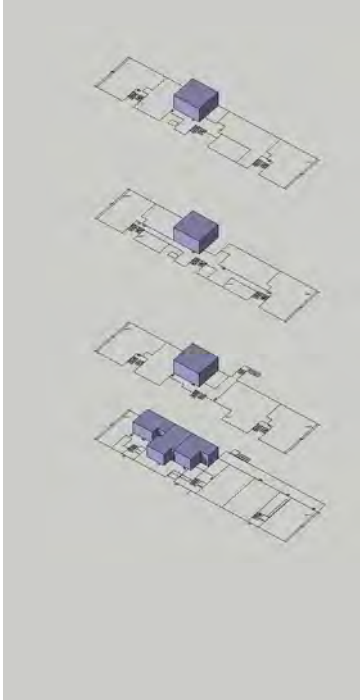
Vary





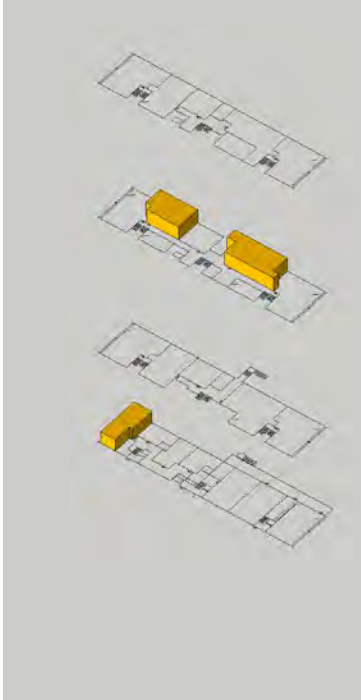
Housing Typologies & Users

Studio



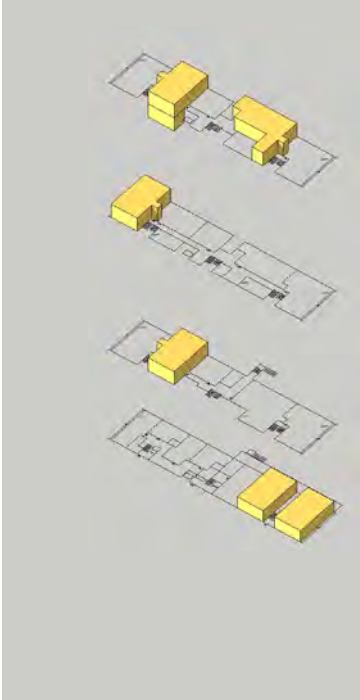
Icons representing a kitchen (fork, knife, spoon) and a living area (chair, table).
User icon: a single person silhouette.
Price icon: a document with a slash and 'M', and a document with '€=' and '€'.

Single



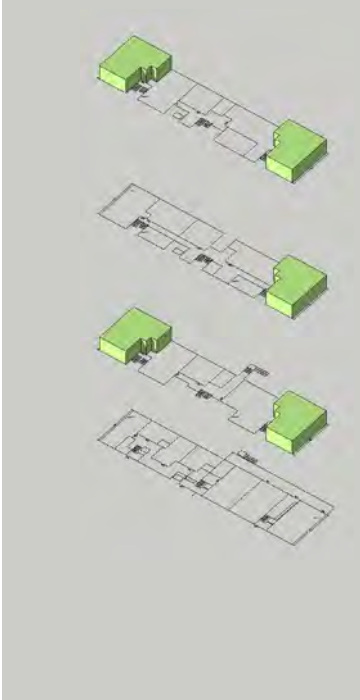
Icons representing a kitchen (fork, knife, spoon) and a living area (chair, table).
User icon: two person silhouettes.
Price icon: a document with '€=' and '€'.

Starter



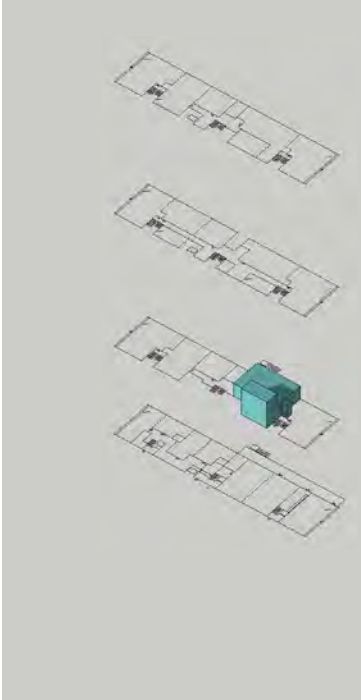
Icons representing a kitchen (fork, knife, spoon), a living area (chair, table), and a bedroom (bed).
User icon: three person silhouettes (two adults, one child).
Price icon: a document with '€=' and '€'.

Minimal



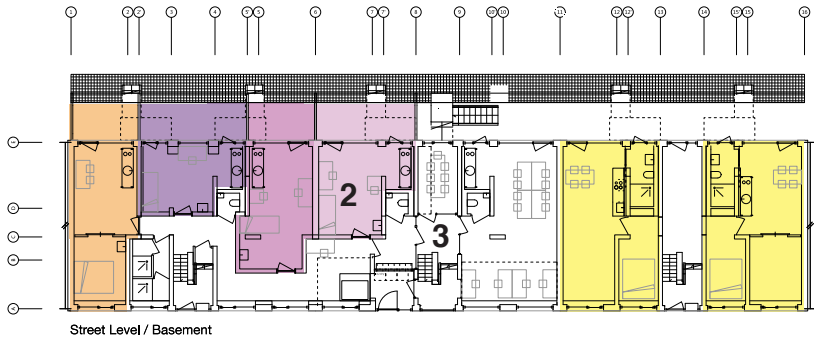
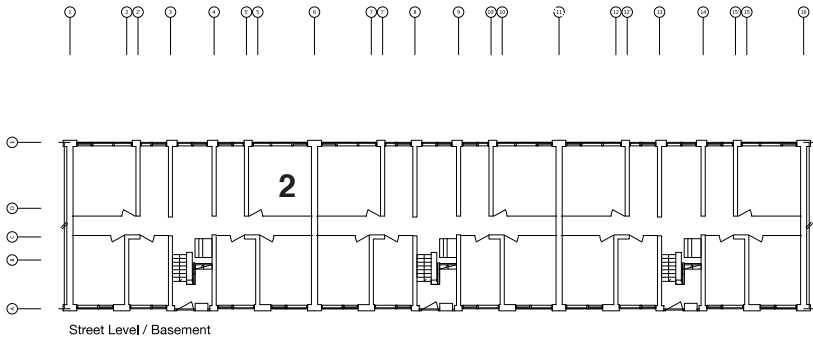
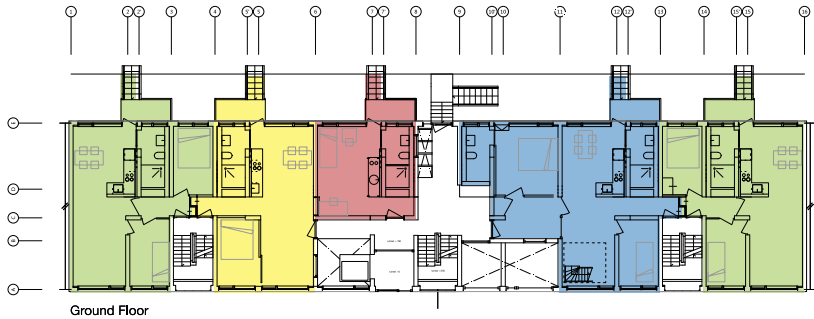
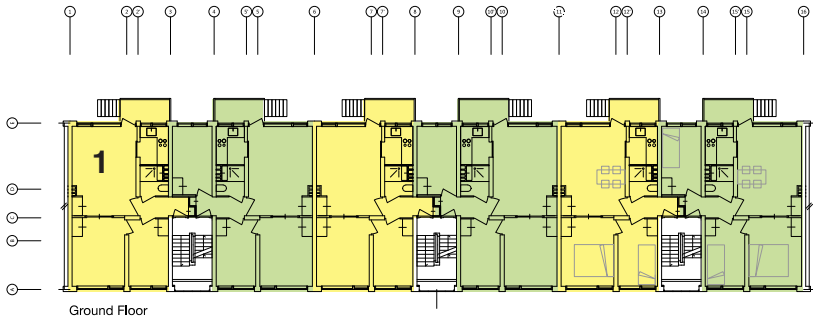
Icons representing a kitchen (fork, knife, spoon), a living area (chair, table), a bedroom (bed), and a bathroom (toilet, sink).
User icon: three person silhouettes (two adults, one child).
Price icon: a document with '€=' and '€'.

Standard

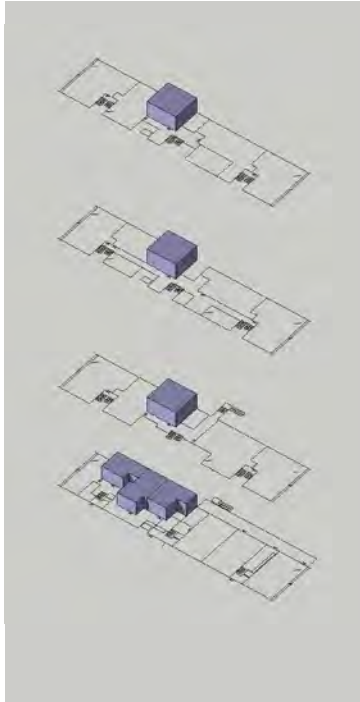


Icons representing a kitchen (fork, knife, spoon), a living area (chair, table), a bedroom (bed), a bathroom (toilet, sink), and a storage area (wardrobe).
User icon: four person silhouettes (two adults, two children).
Price icon: a document with '€'.

1939 vs. Stage1



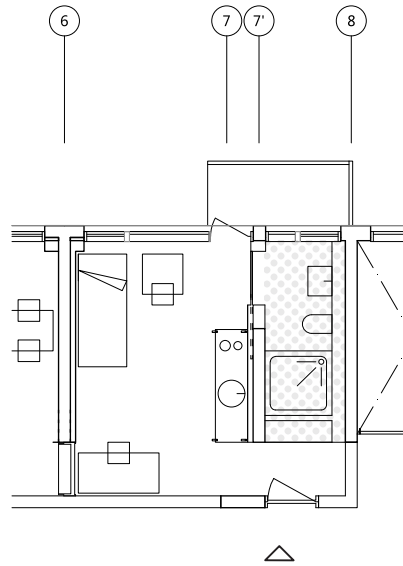
Type: Studio



student/bachelor

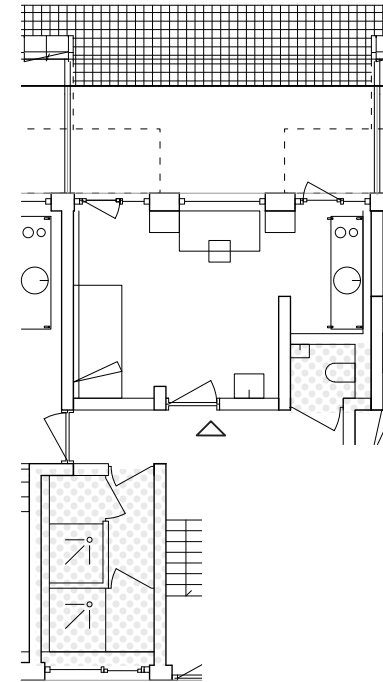
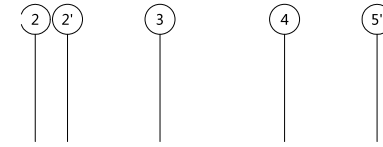


corporation
rental



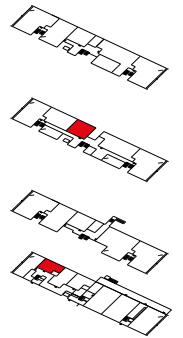
studio
privat shower & toilet

x3



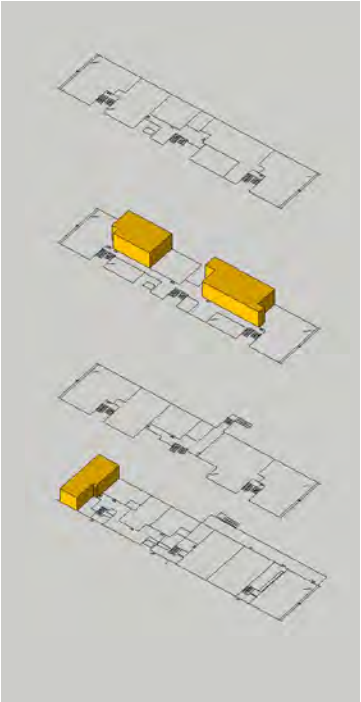
studio
shared shower & toilet

x3



x6

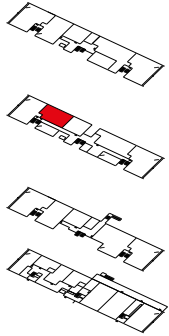
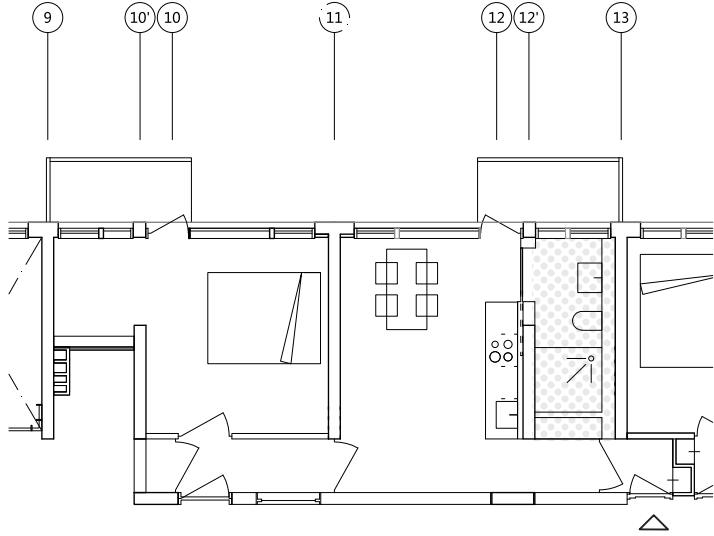
Type: Single Apartment



single/couple



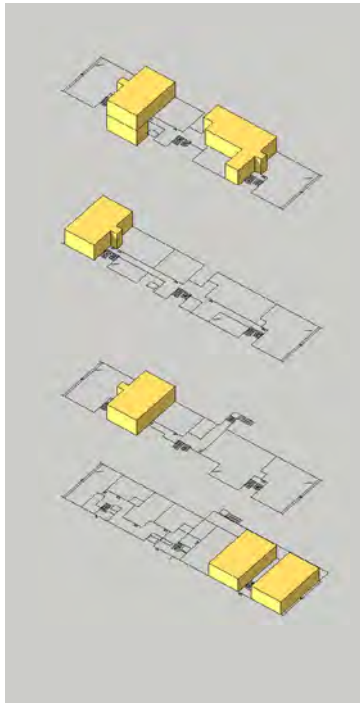
corporation buy-back.



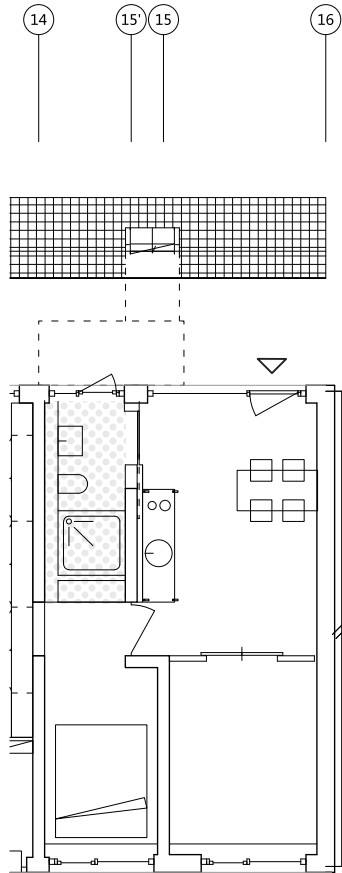
1 bedroom

x3

Type: Starter Apartment



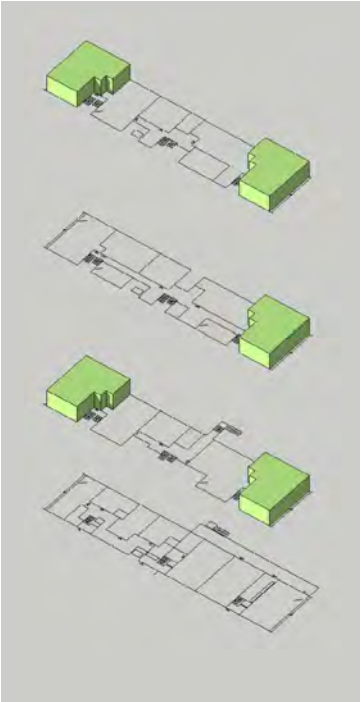
starter family
empty nesters



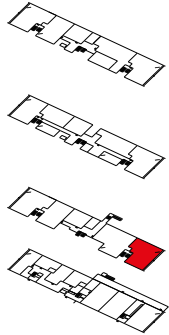
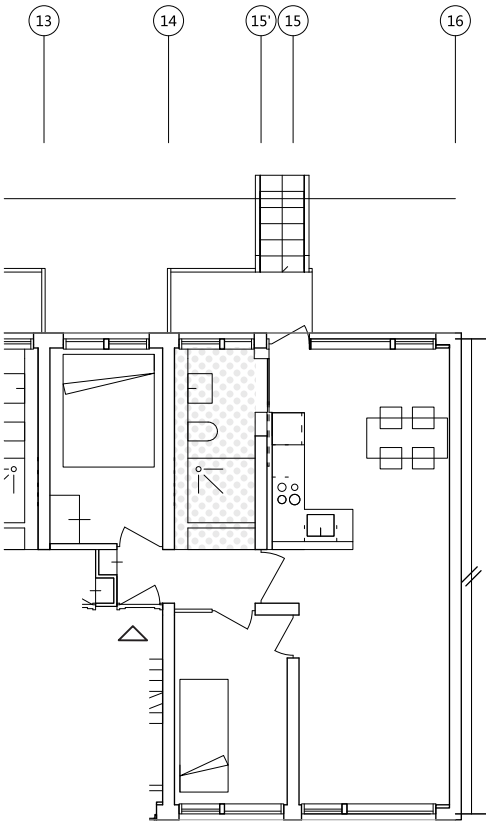
  
1.5 bedrooms

x6

Type: Minimal Apartment



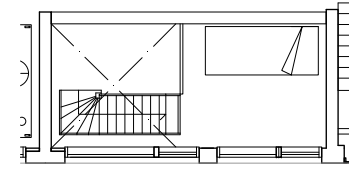
nuclear family



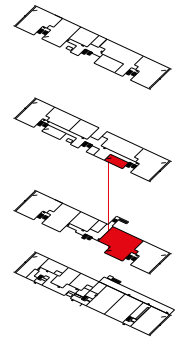
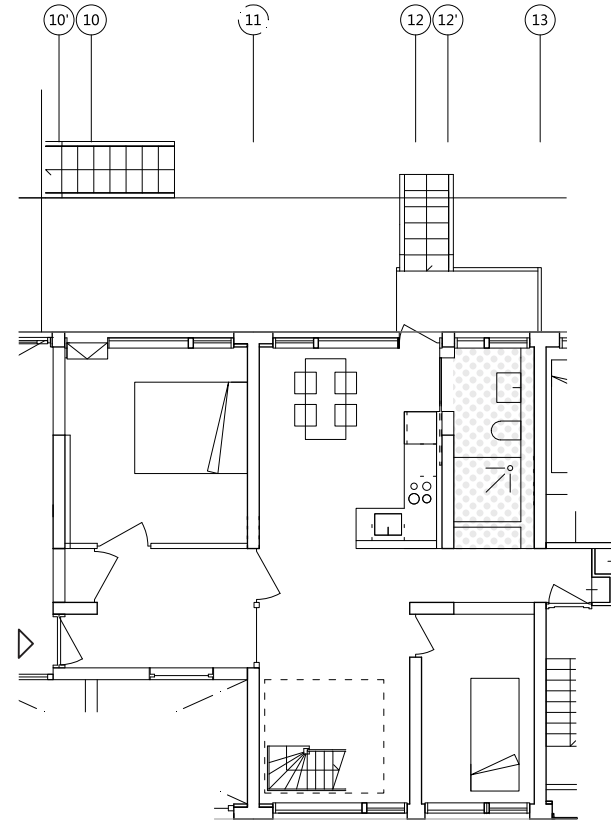
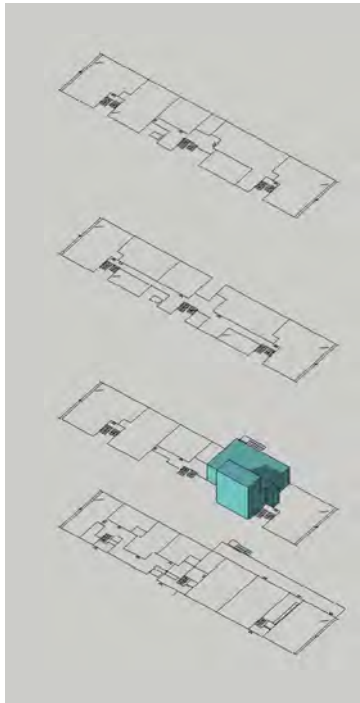
2 bedrooms,
full dining & living room

x5

Type: Standard Apartment



level 2



level 1

x1



larger family

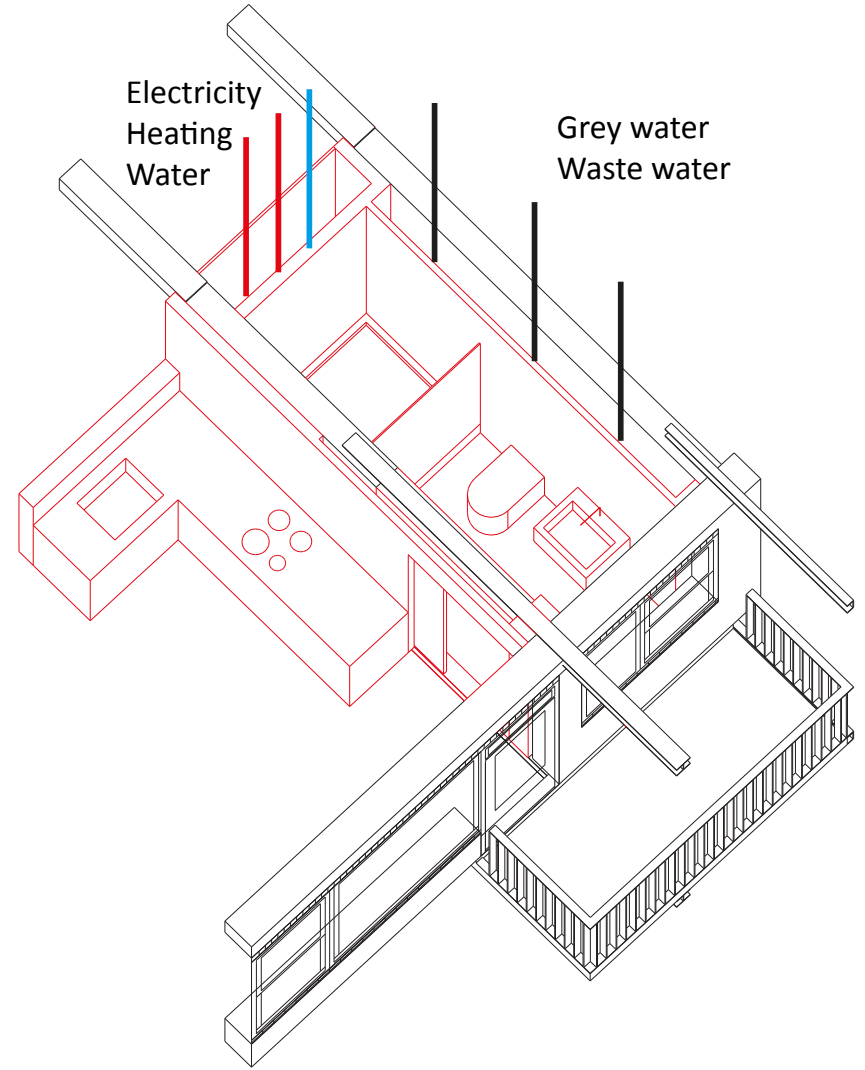
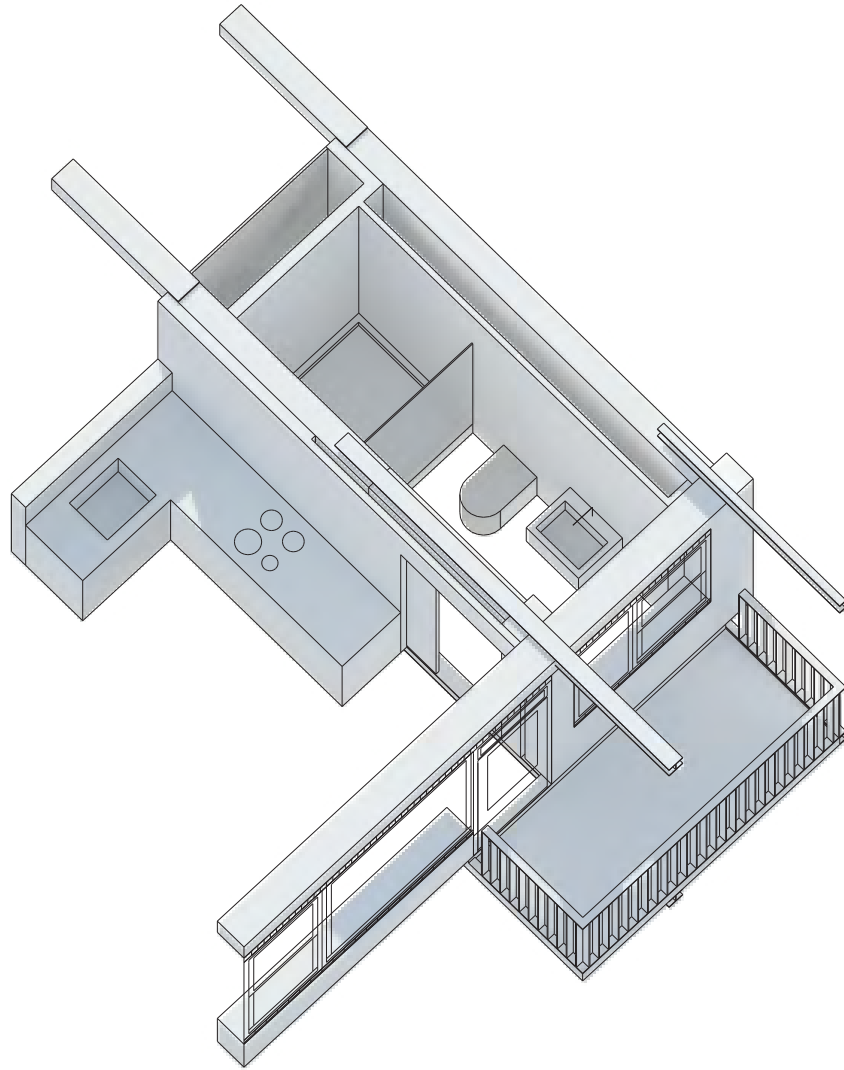


private owned



3 or more bedrooms

Bathroom Module

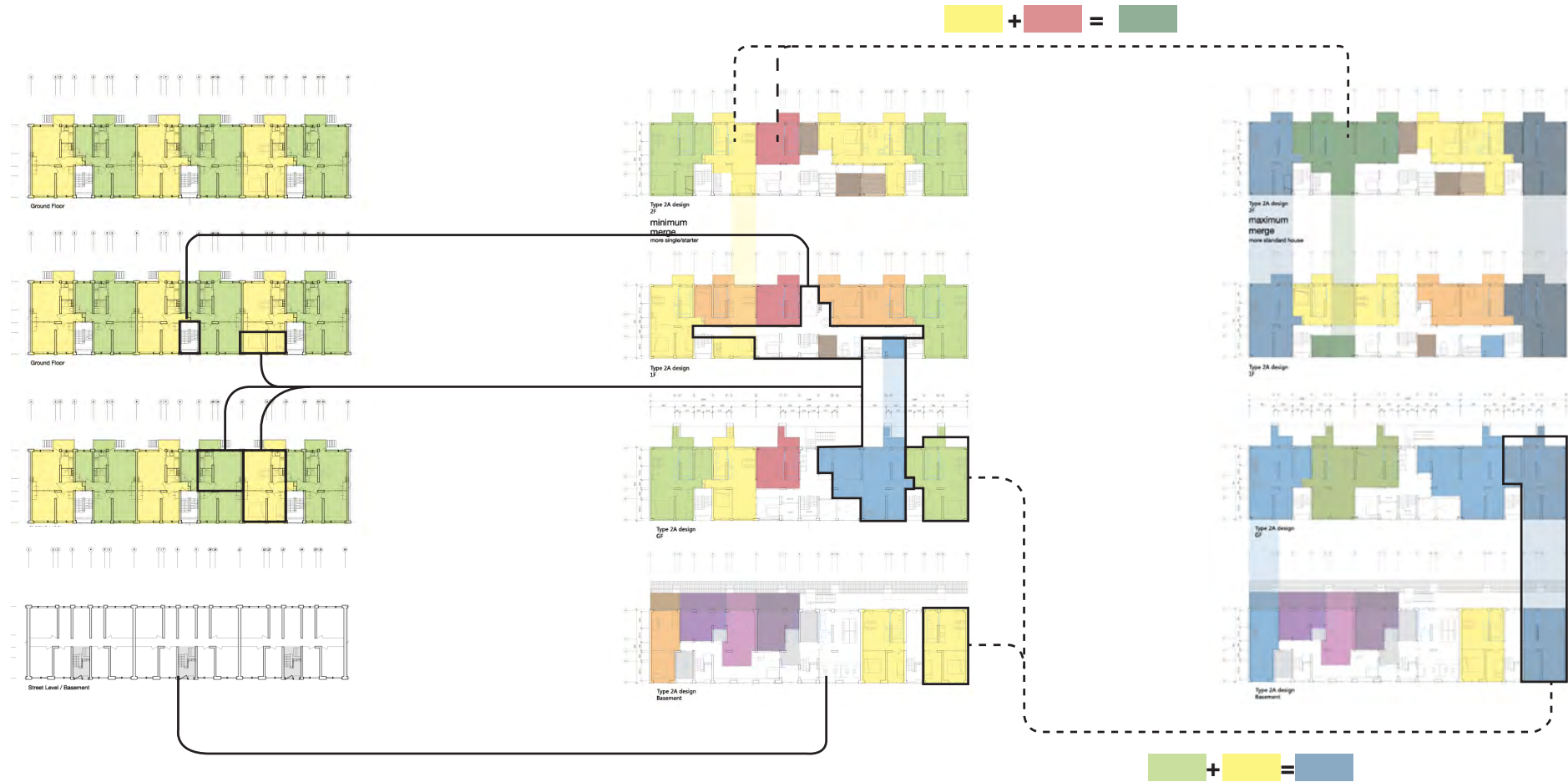


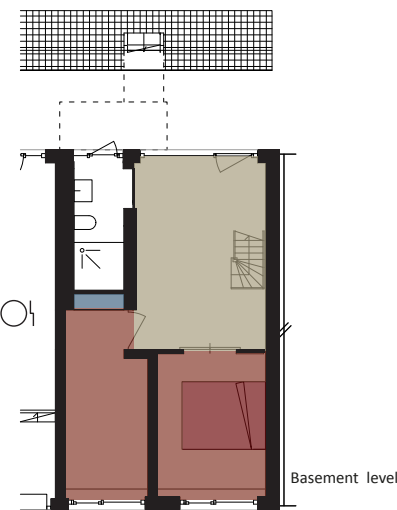
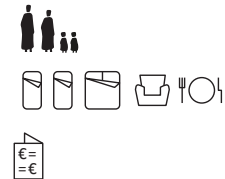
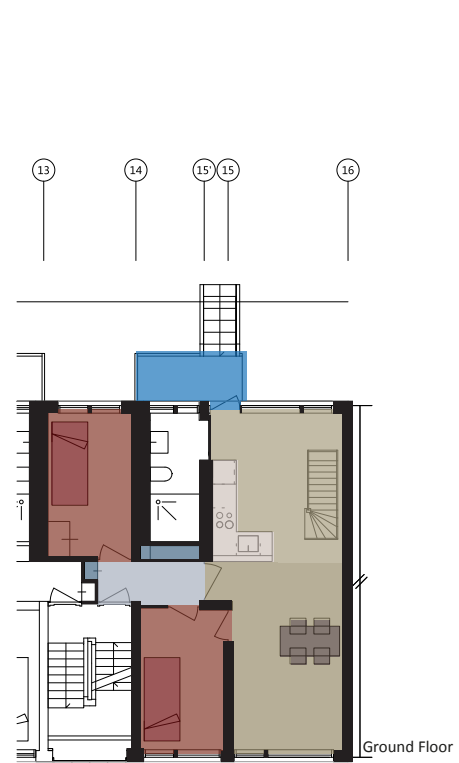
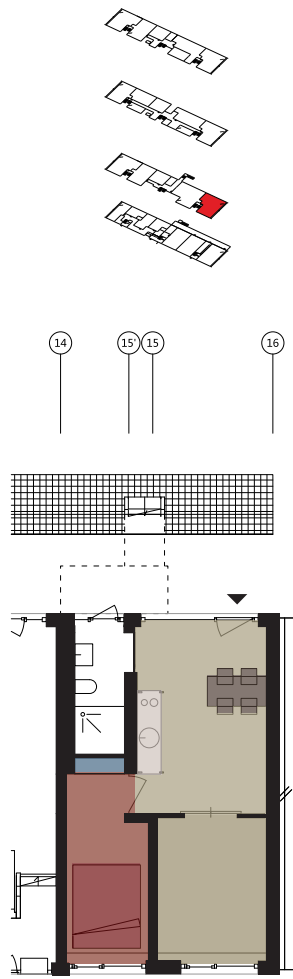
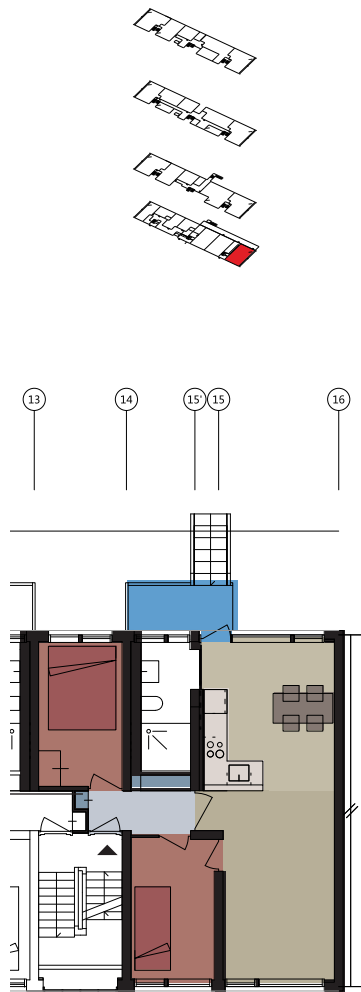
Stage 1 to Stage 2

1939

Vary

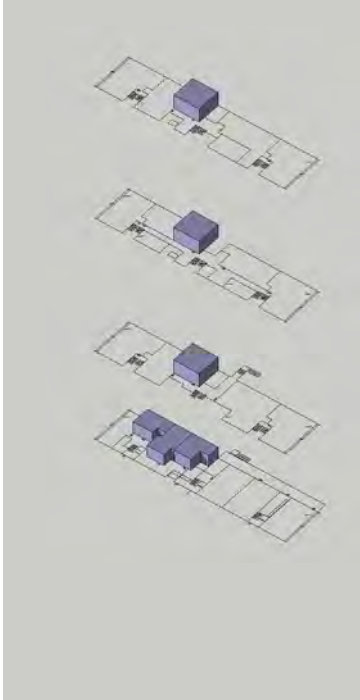
Adapt





Housing Typologies & Users

Studio

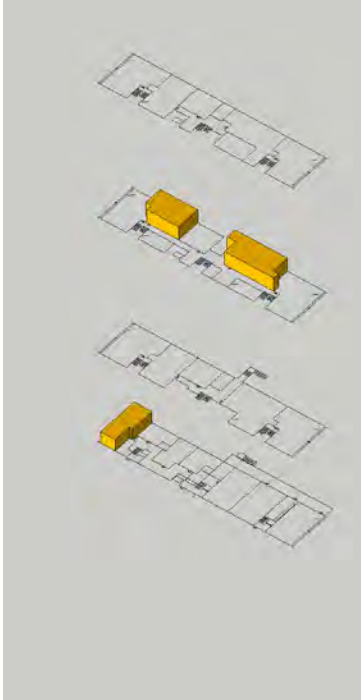


Icons representing a kitchen, a bathroom, and a living area.

Icon of a single person silhouette.

Icons representing rent: € / M and € = €.

Single

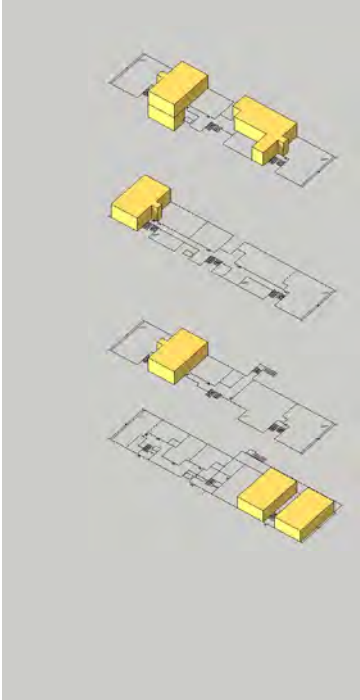


Icons representing a kitchen, a bathroom, and a bedroom.

Icon of two person silhouettes.

Icon representing rent: € = €.

Starter

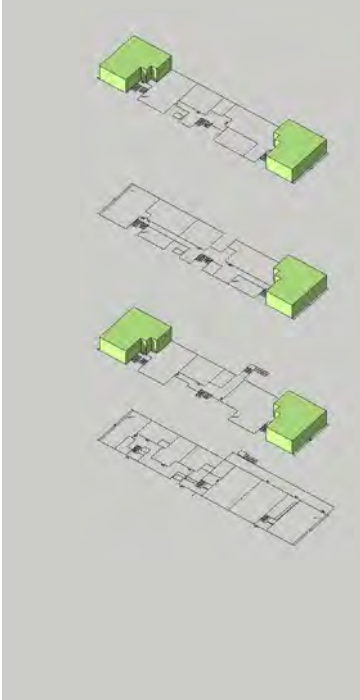


Icons representing a kitchen, a living area, a bathroom, and a bedroom.

Icon of three person silhouettes (two adults and one child).

Icon representing rent: € = €.

Minimal

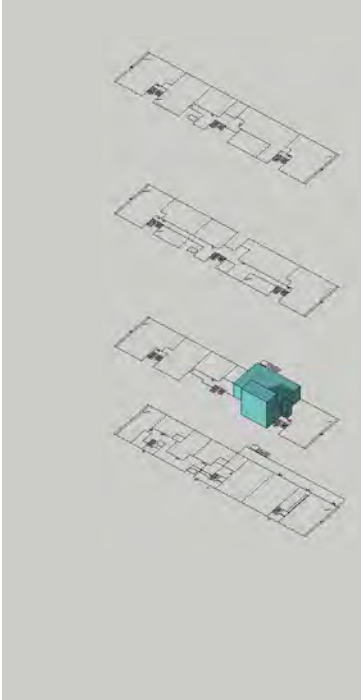


Icons representing a kitchen, a living area, a bedroom, a bathroom, and a storage unit.

Icon of three person silhouettes (two adults and one child).

Icon representing rent: € = €.

Standard



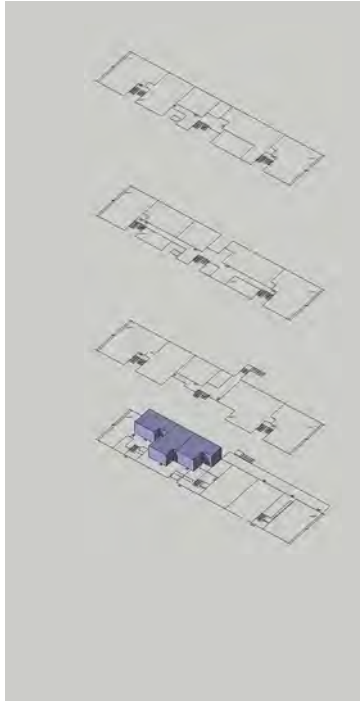
Icons representing a kitchen, a living area, a bedroom, a bathroom, a storage unit, and a second bedroom.

Icon of four person silhouettes (two adults and two children).

Icon representing rent: €.

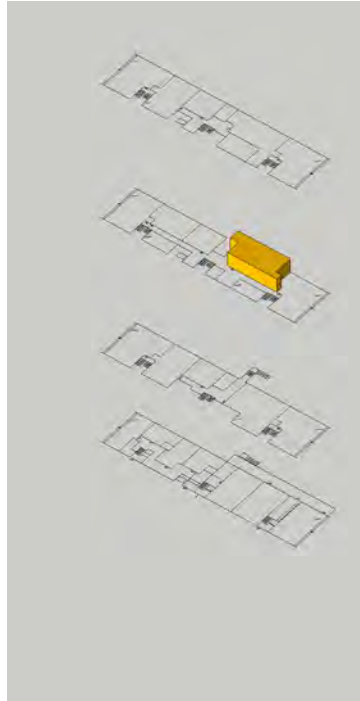
Housing Typologies & Users

Studio



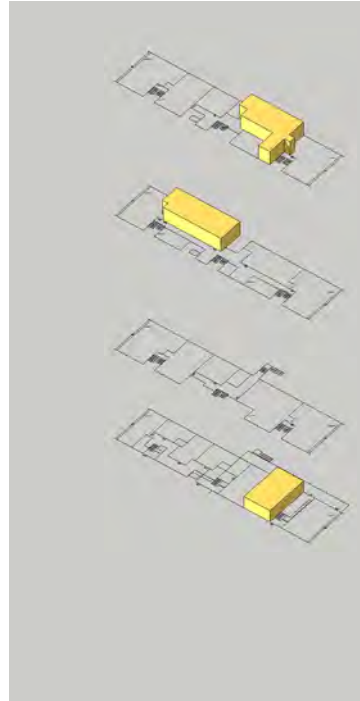
Icon set for Studio: a crossed-out fork and knife, a crossed-out chair, and a crossed-out bed. Below are icons for one person, two documents with '€' and 'M' symbols, and two documents with '€=' symbols.

Single



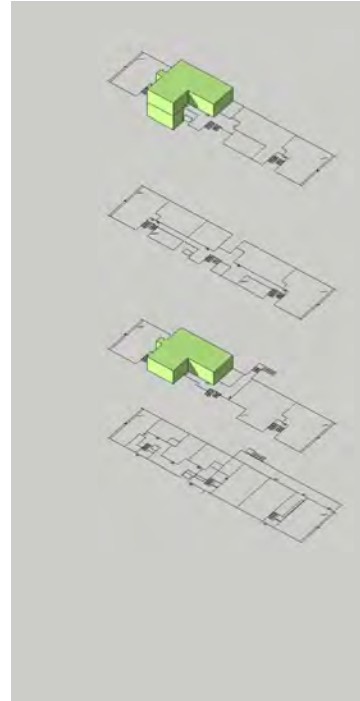
Icon set for Single: a crossed-out fork and knife, a crossed-out chair, and a bed. Below are icons for two people, one document with '€=' symbol, and one document with '€' symbol.

Starter



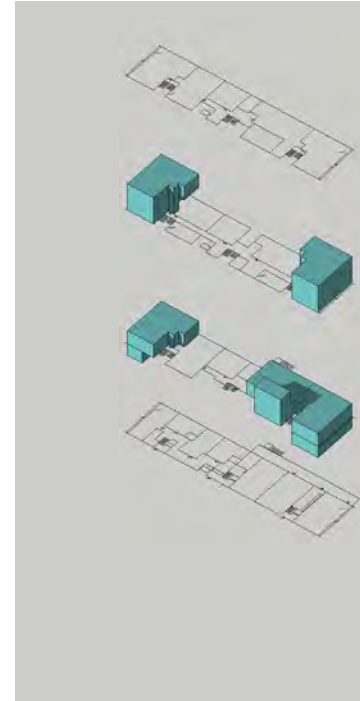
Icon set for Starter: a fork and knife, a chair, a crossed-out bed, and a bed. Below are icons for three people, one document with '€=' symbol, and one document with '€' symbol.

Minimal



Icon set for Minimal: a fork and knife, a chair, a bed, a crossed-out bed, and a bed. Below are icons for three people, one document with '€=' symbol, and one document with '€' symbol.

Standard



Icon set for Standard: a fork and knife, a chair, a bed, a crossed-out bed, a bed, and a bed. Below are icons for four people, one document with '€' symbol, and one document with '€' symbol.

Typologies in Proportion

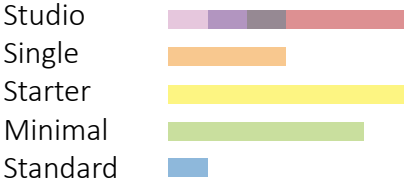
1939

total 18 households



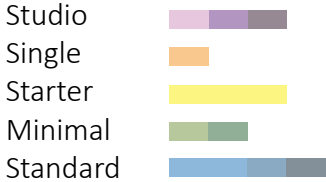
Vary

total 21 households



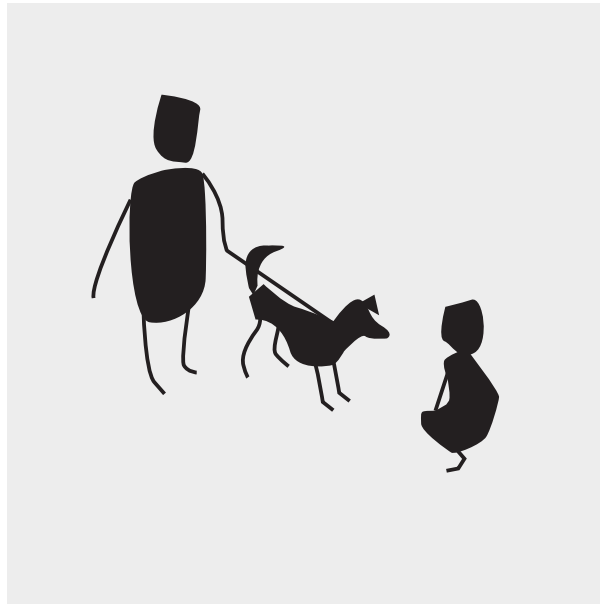
Adapt

total 13 households

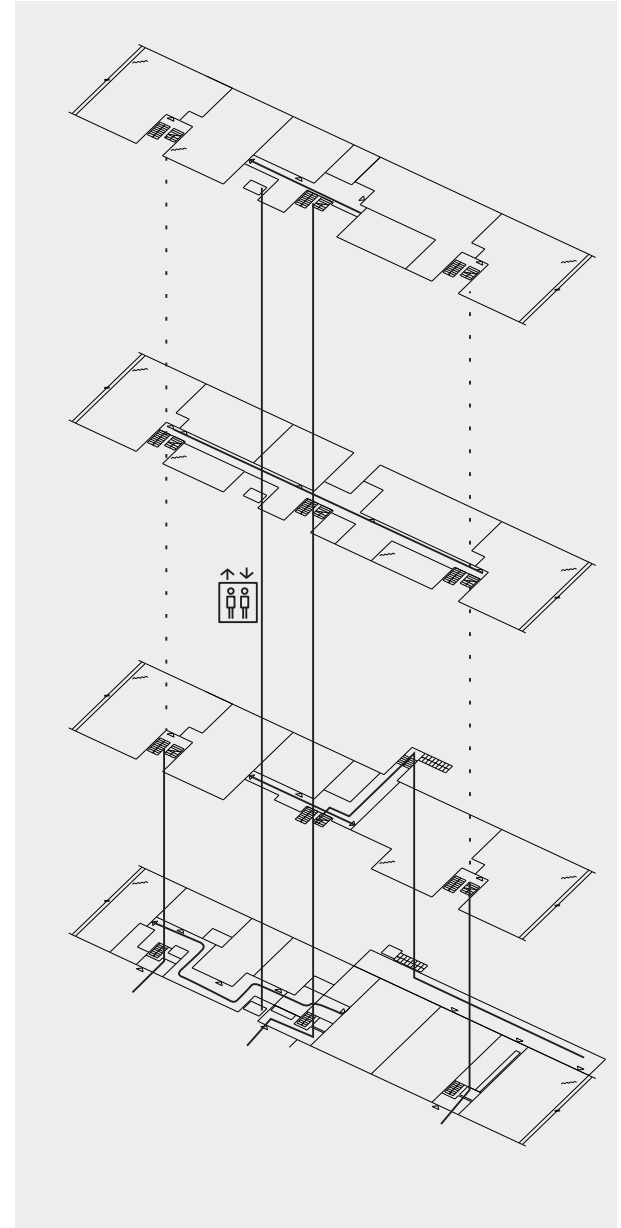
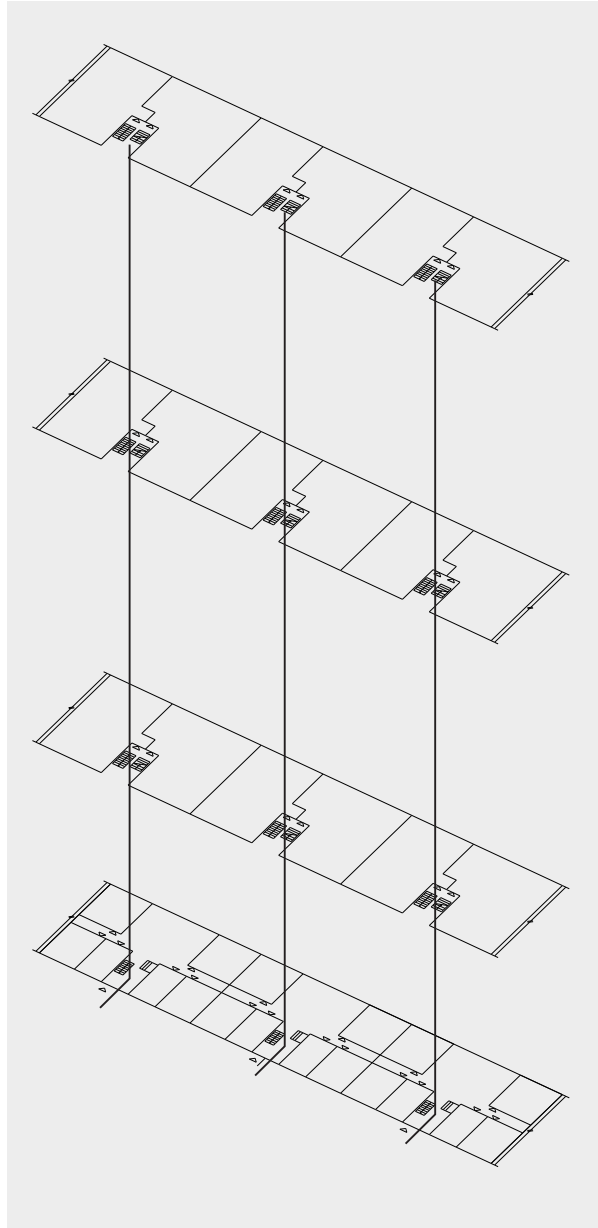




Casual Meet-up



Traffic



Meet-up Places

Opened Floor

Elevator

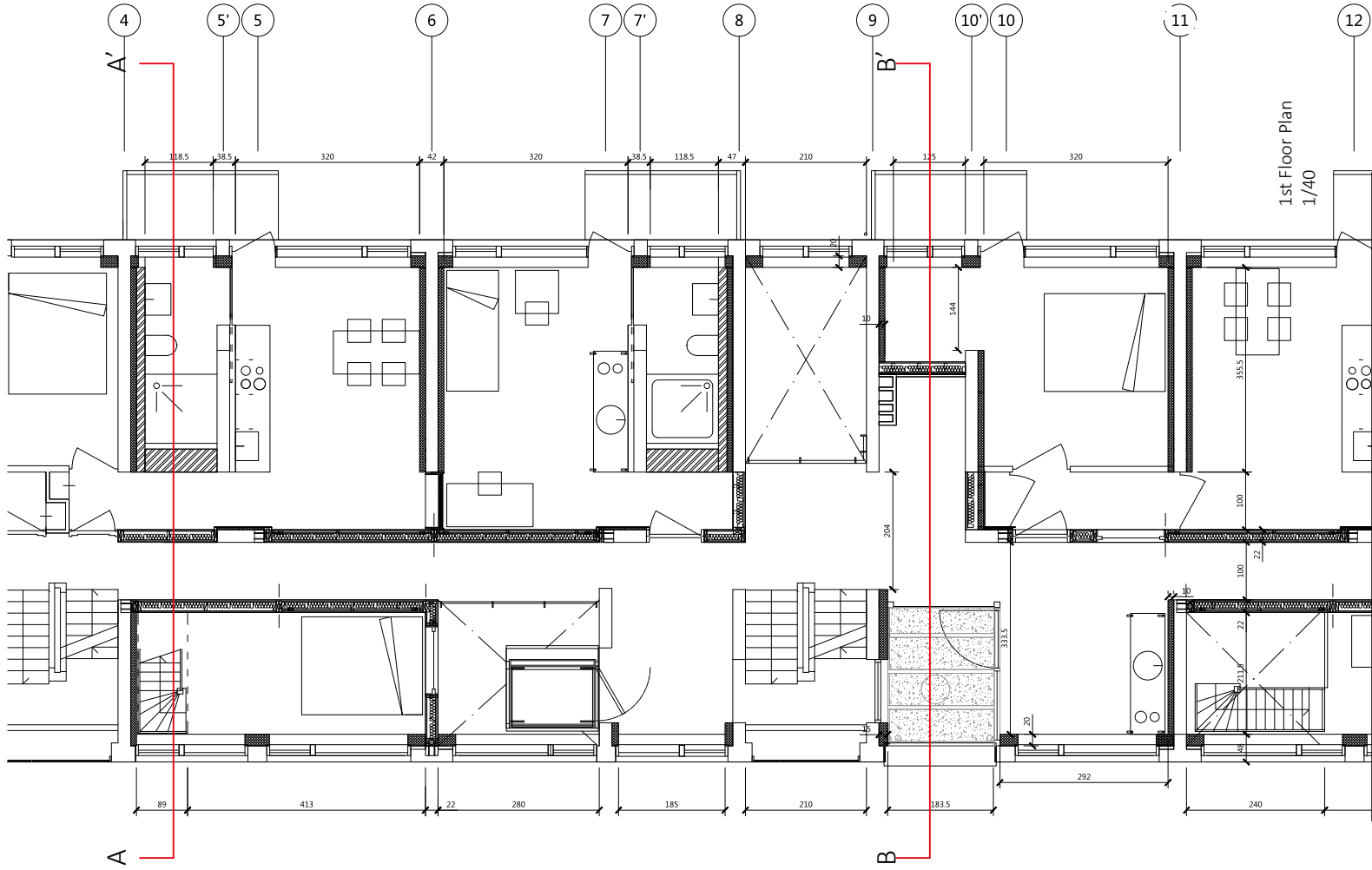
Open Corner



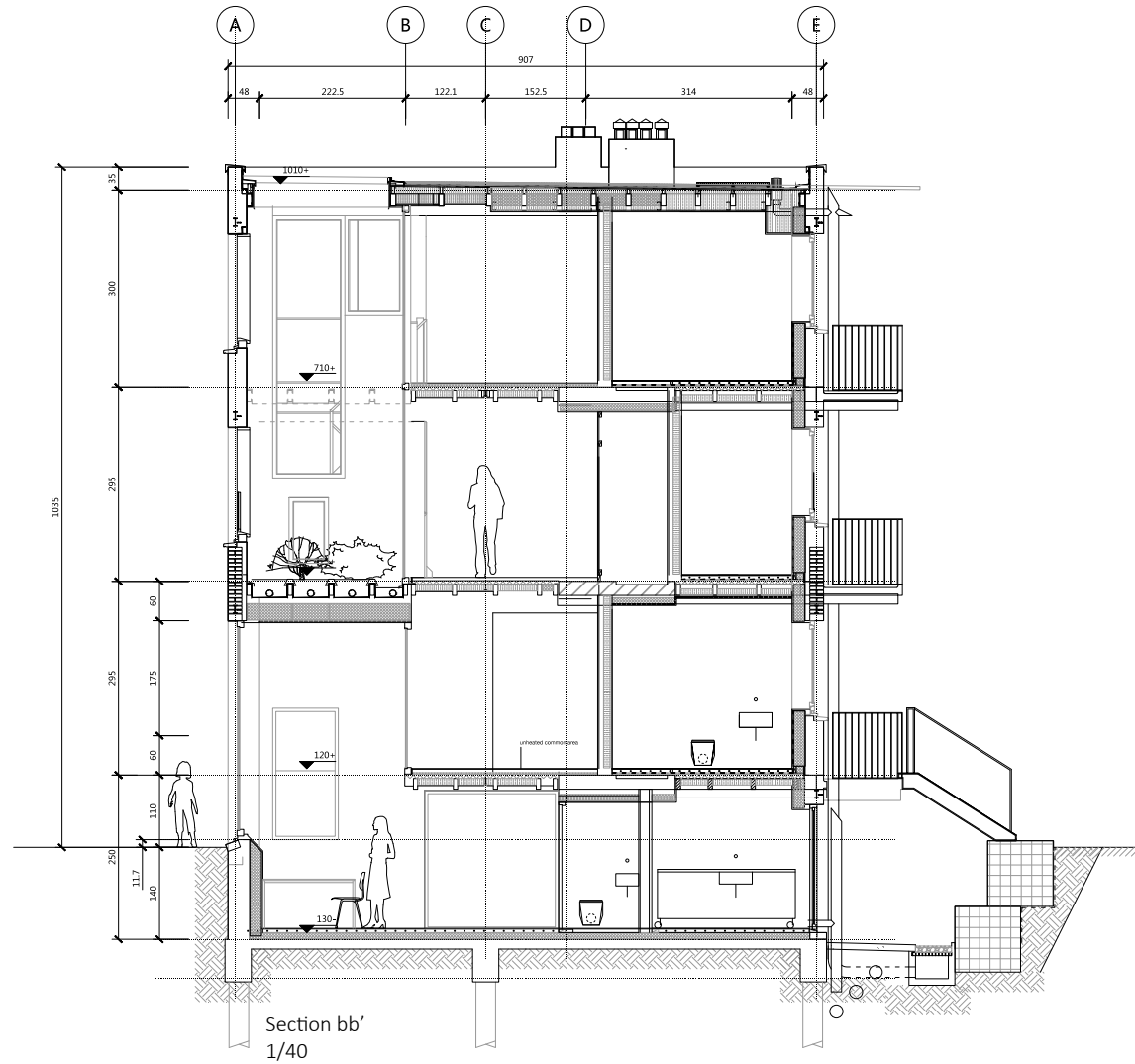
Patio

Entrepreneur office

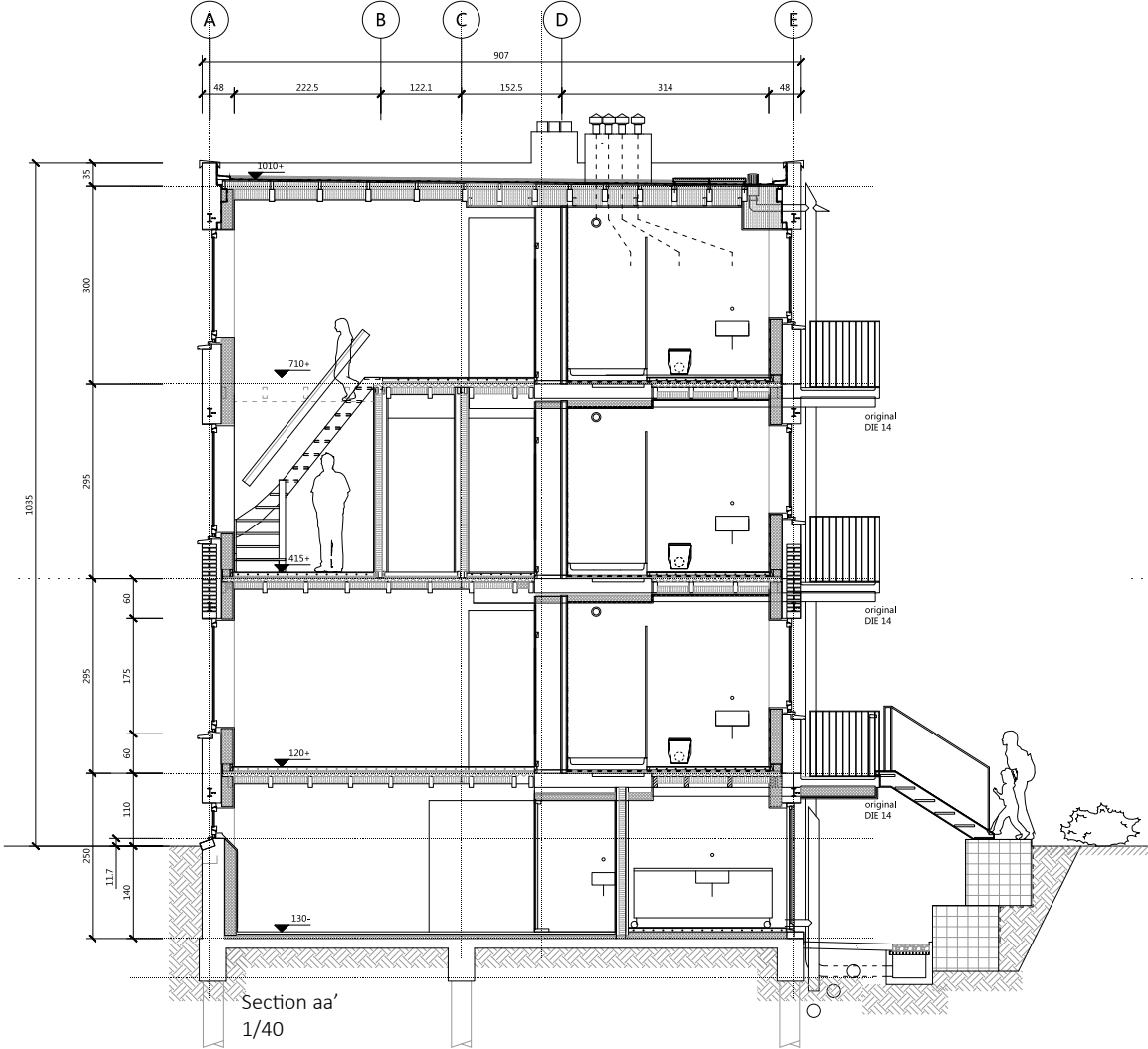
Yyy



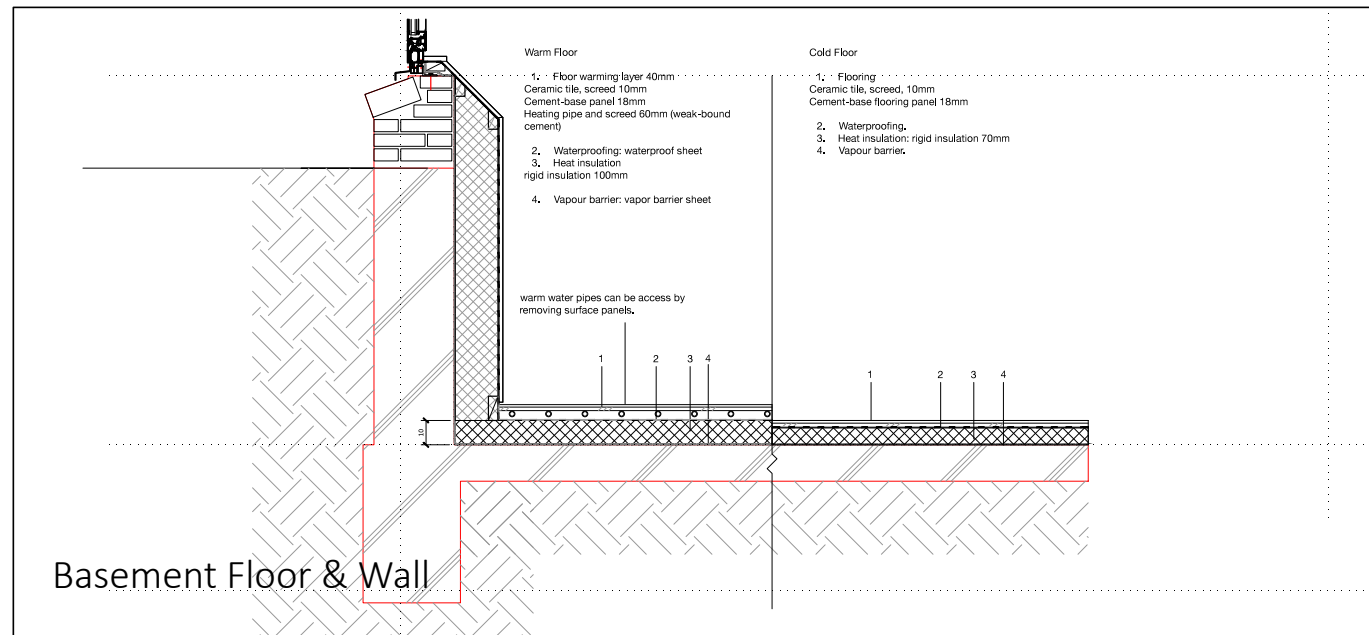
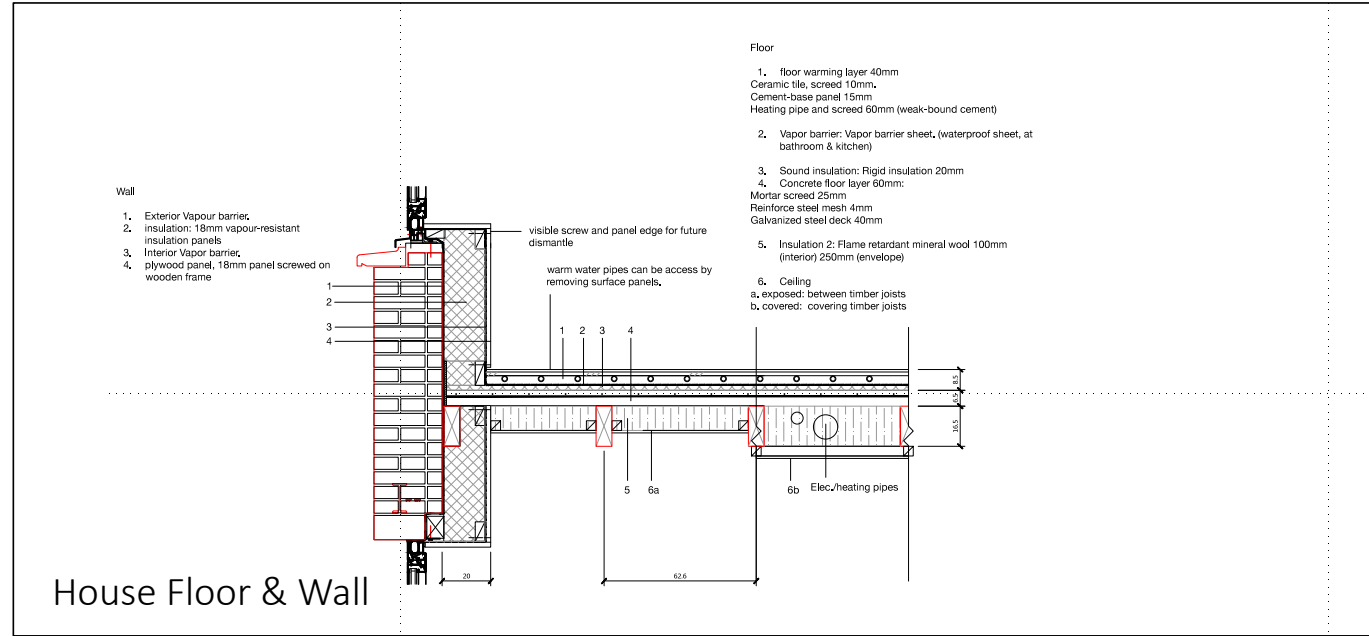
Section BB'



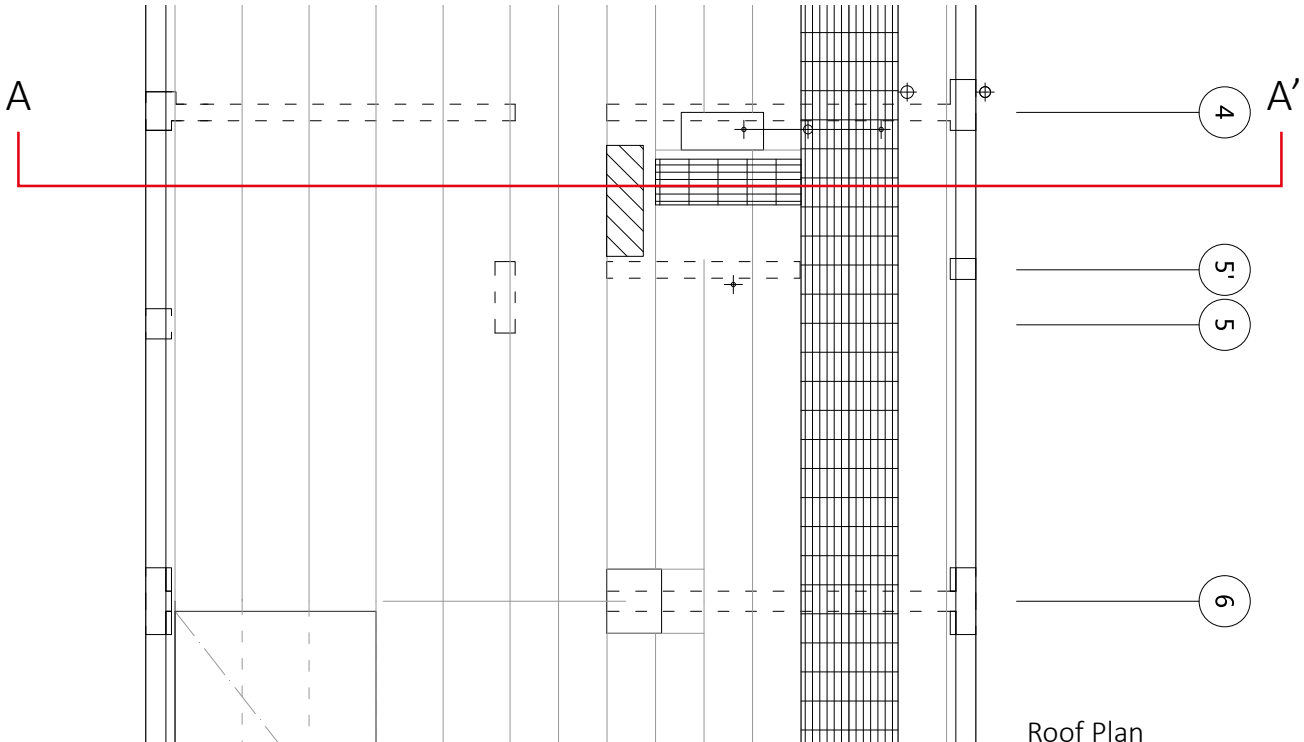
Section AA'



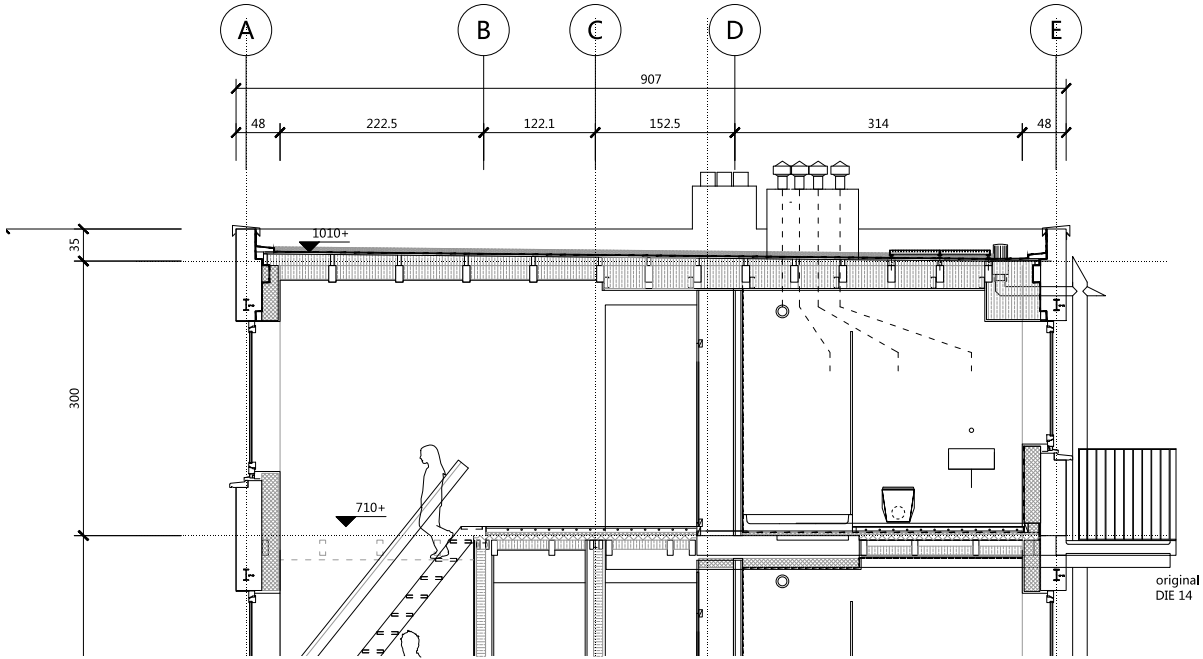
Sustainability



Roof



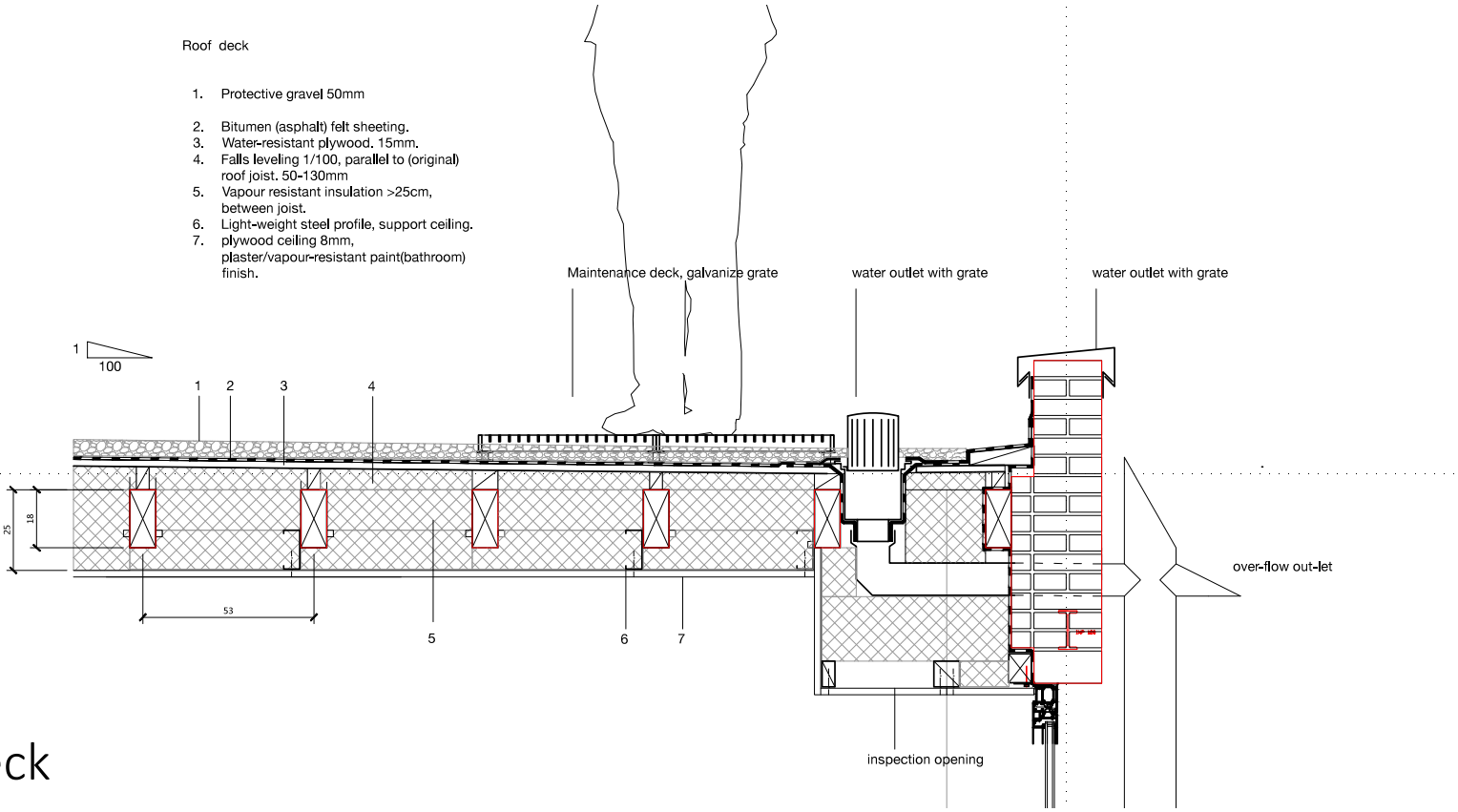
Roof Plan
1/40



Roof

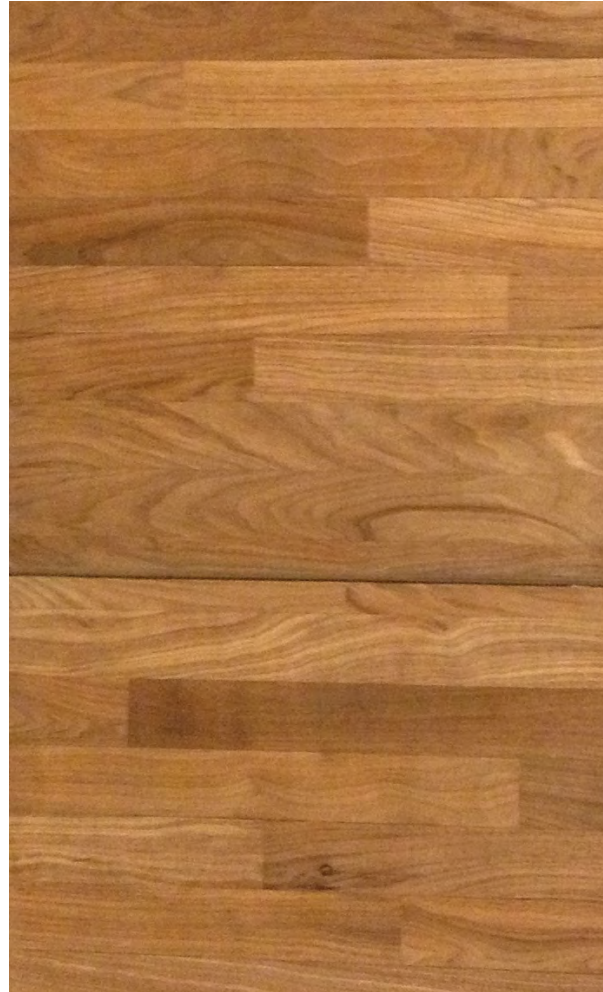
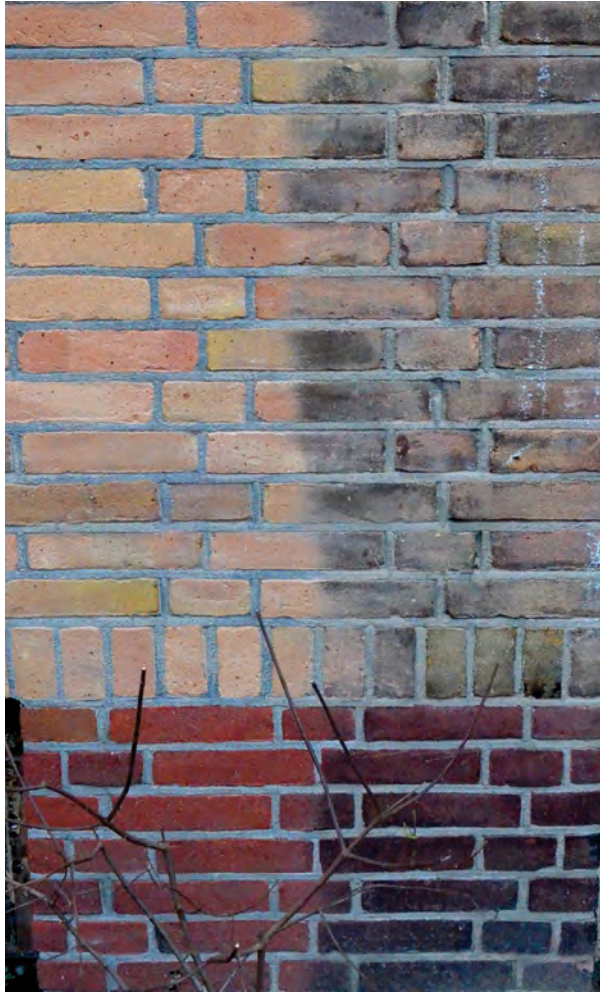
Roof deck

- 1. Protective gravel 50mm
- 2. Bitumen (asphalt) felt sheeting.
- 3. Water-resistant plywood, 15mm.
- 4. Falls leveling 1/100, parallel to (original) roof joist. 50-130mm
- 5. Vapour resistant insulation >25cm, between joist.
- 6. Light-weight steel profile, support ceiling.
- 7. plywood ceiling 8mm, plaster/vapour-resistant paint(bathroom) finish.



Roof Deck

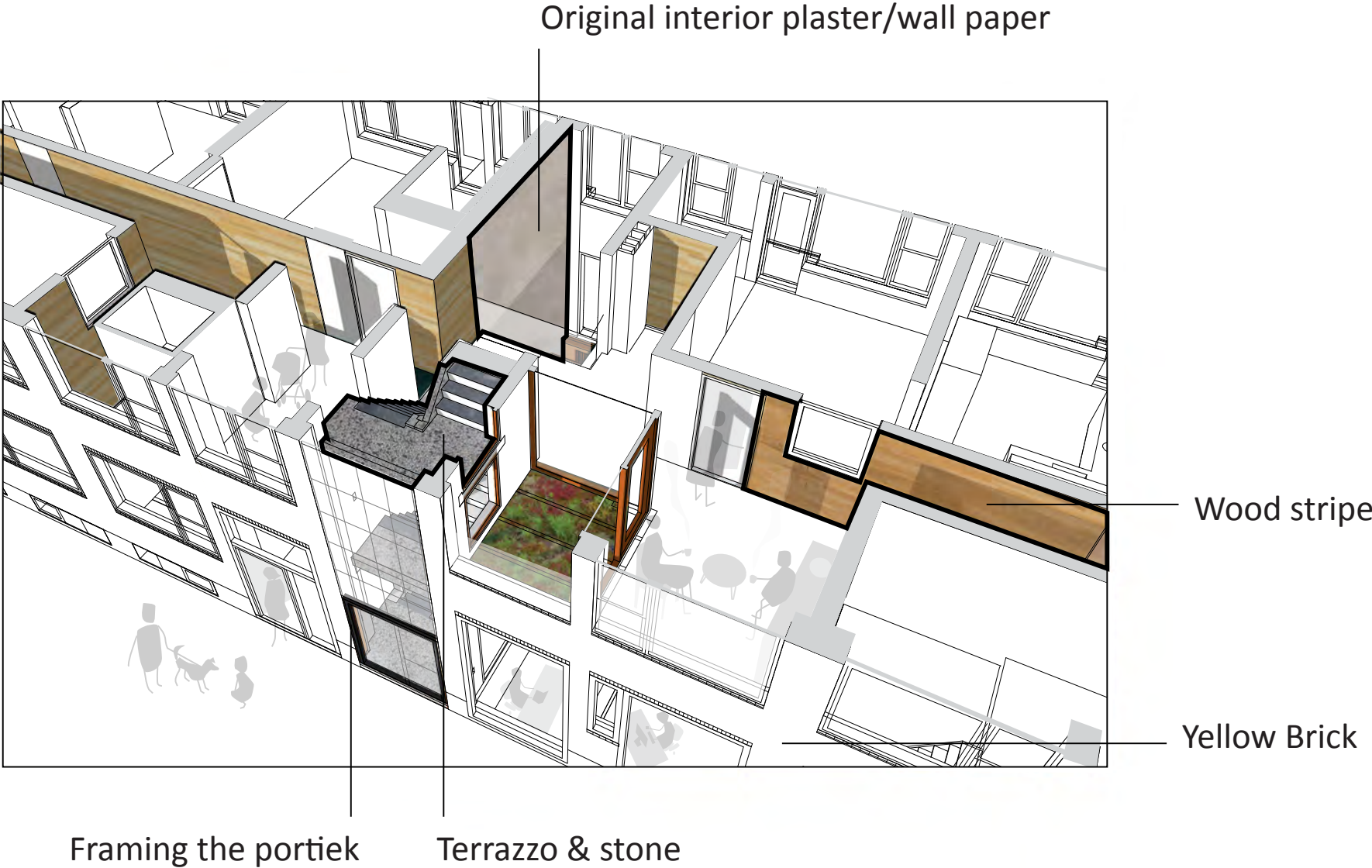
Old / New



Memory / History



Materialization



Facade



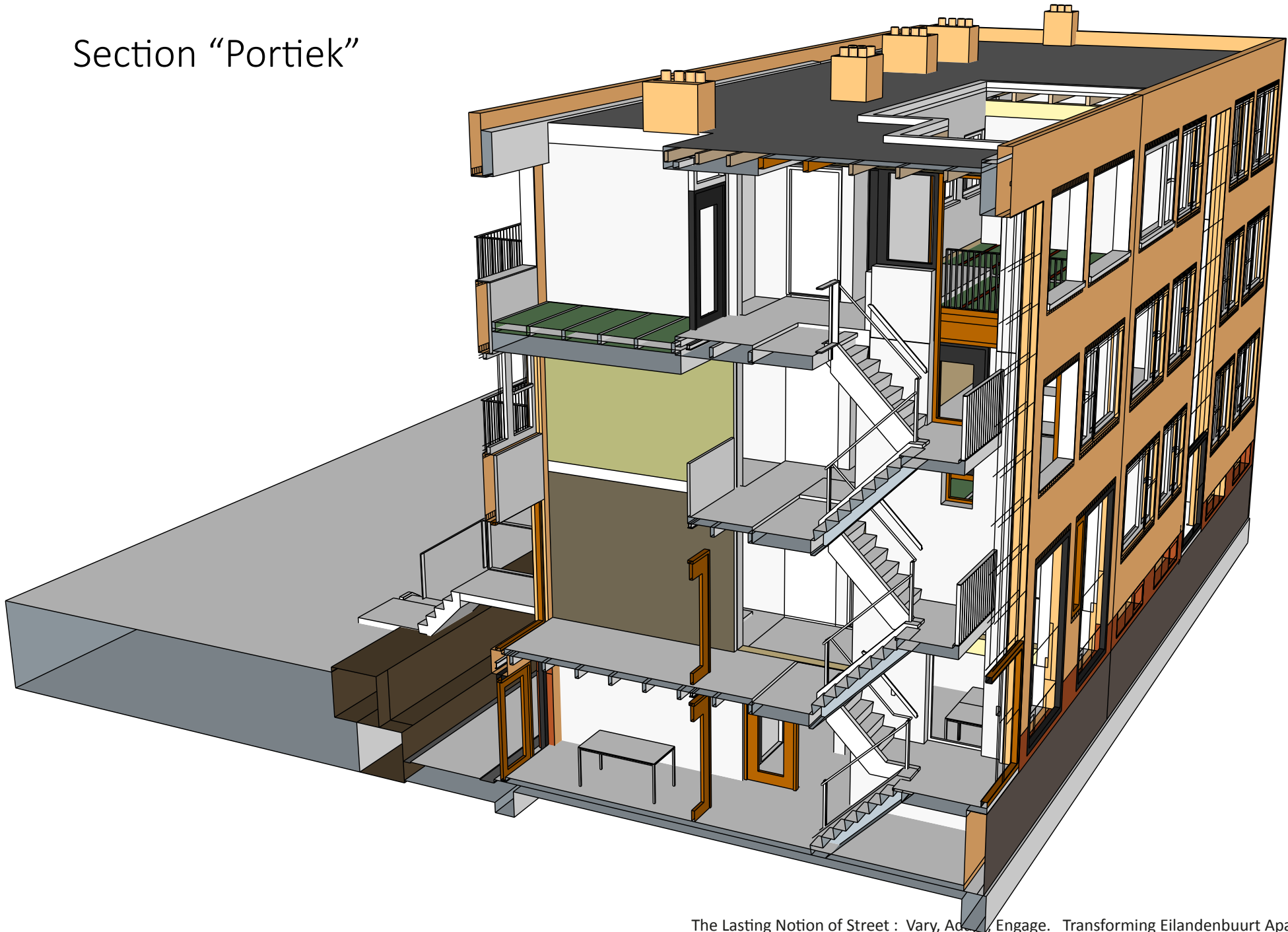
Back Facade



Back Facade Basement



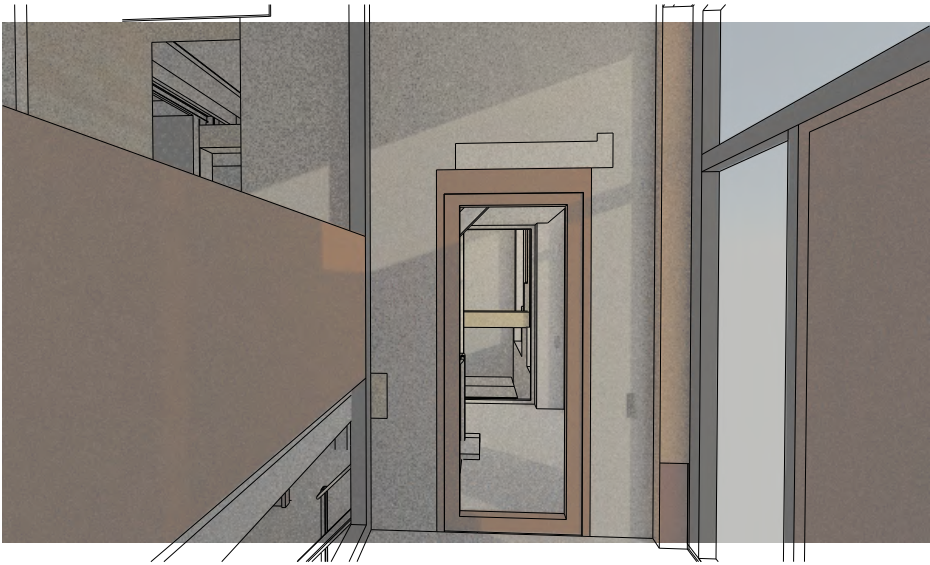
Section "Portiek"



New Entrance

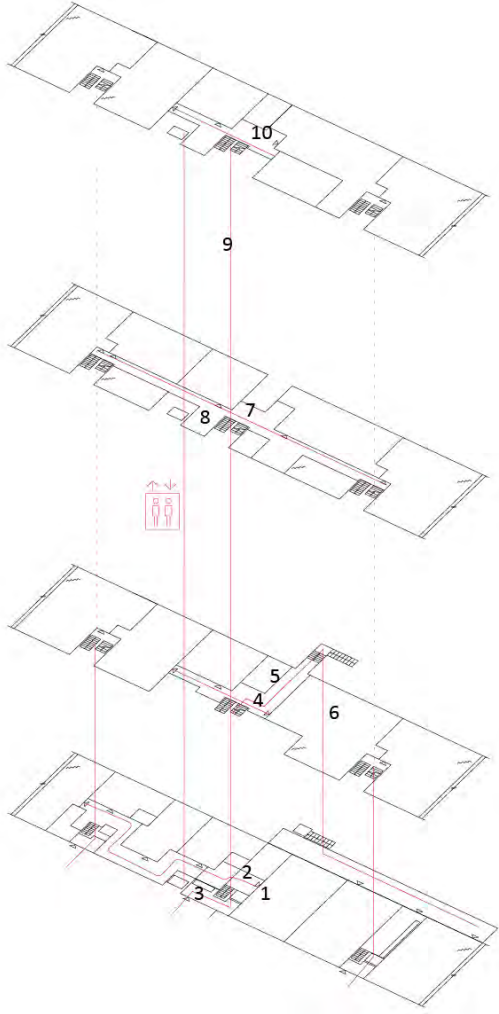


Spatial Sequence

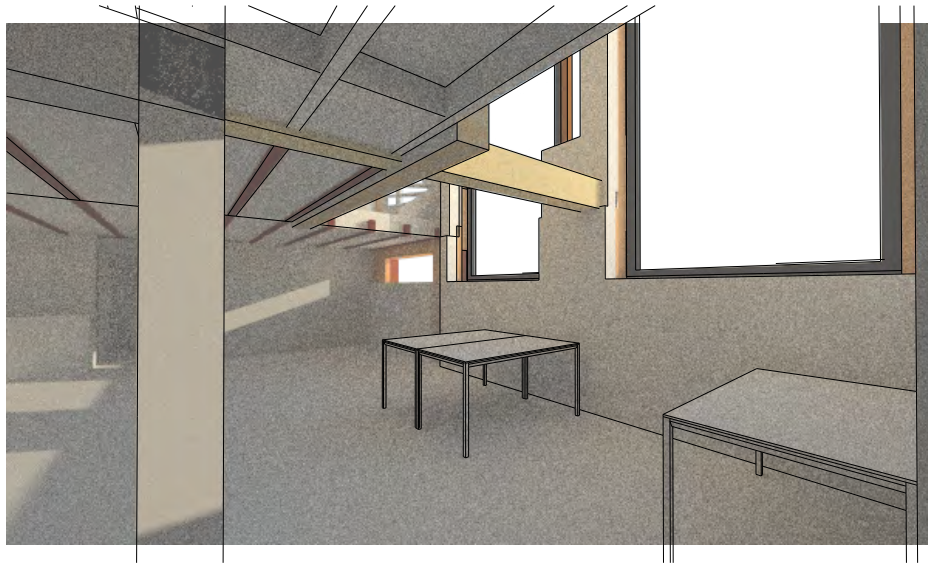
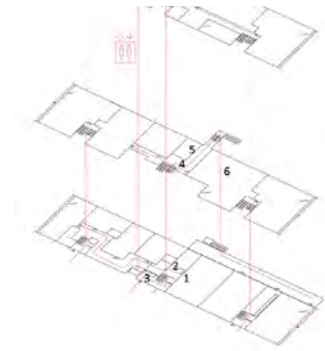


Entrance Hall & Mailbox
Street Level

3

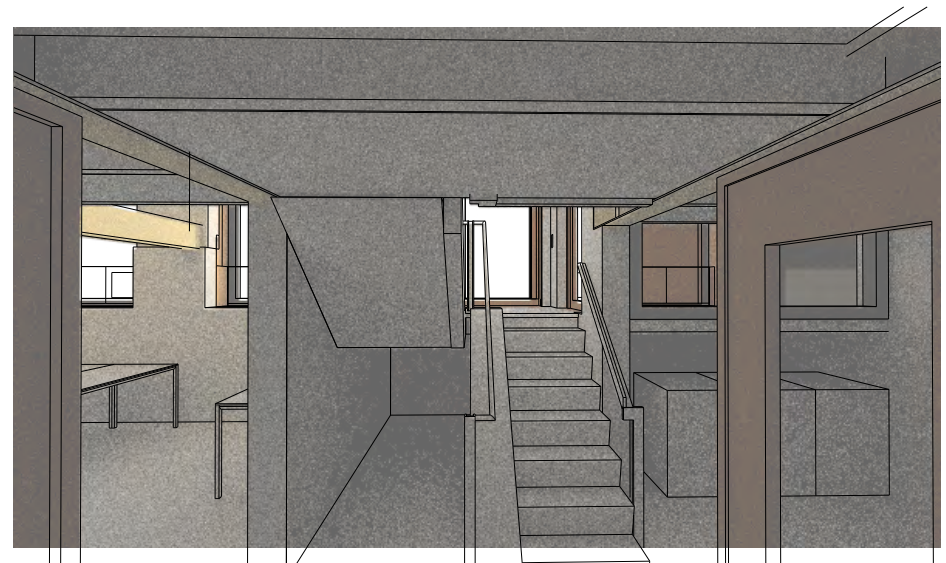


Spatial Sequence



Start-up Office
Basement

1



Portiek, Office & Laundry Room
Basement

2

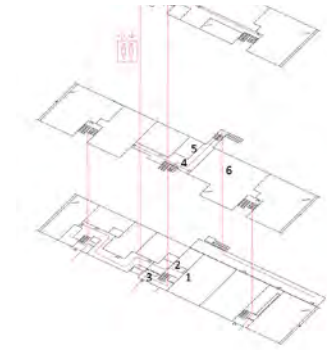
Spatial Sequence



Type Standard Apartment
Ground Floor to 1st Floor

6

Spatial Sequence



1st Floor "Portiek" & Patio

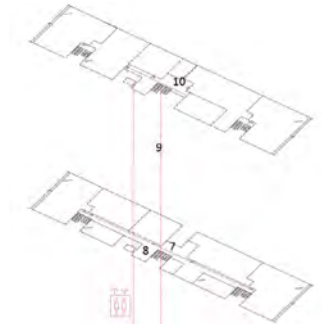
7



Elevator Hall

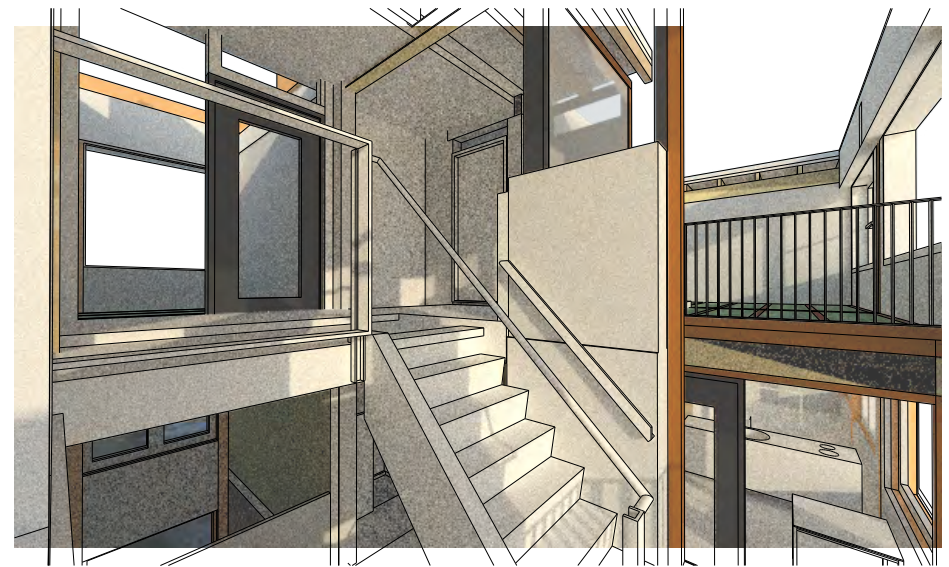
8

Spatial Sequence: Patio



2nd Floor Patios

10



"Portiek" toward Patios

9