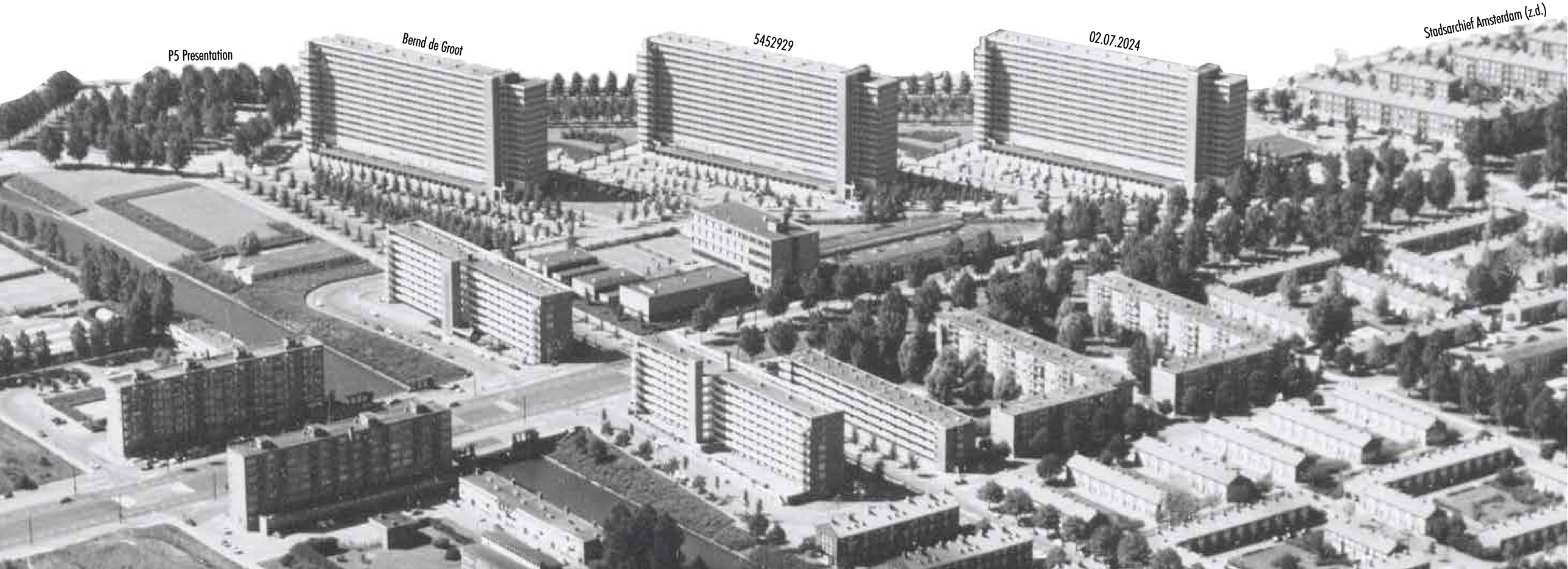
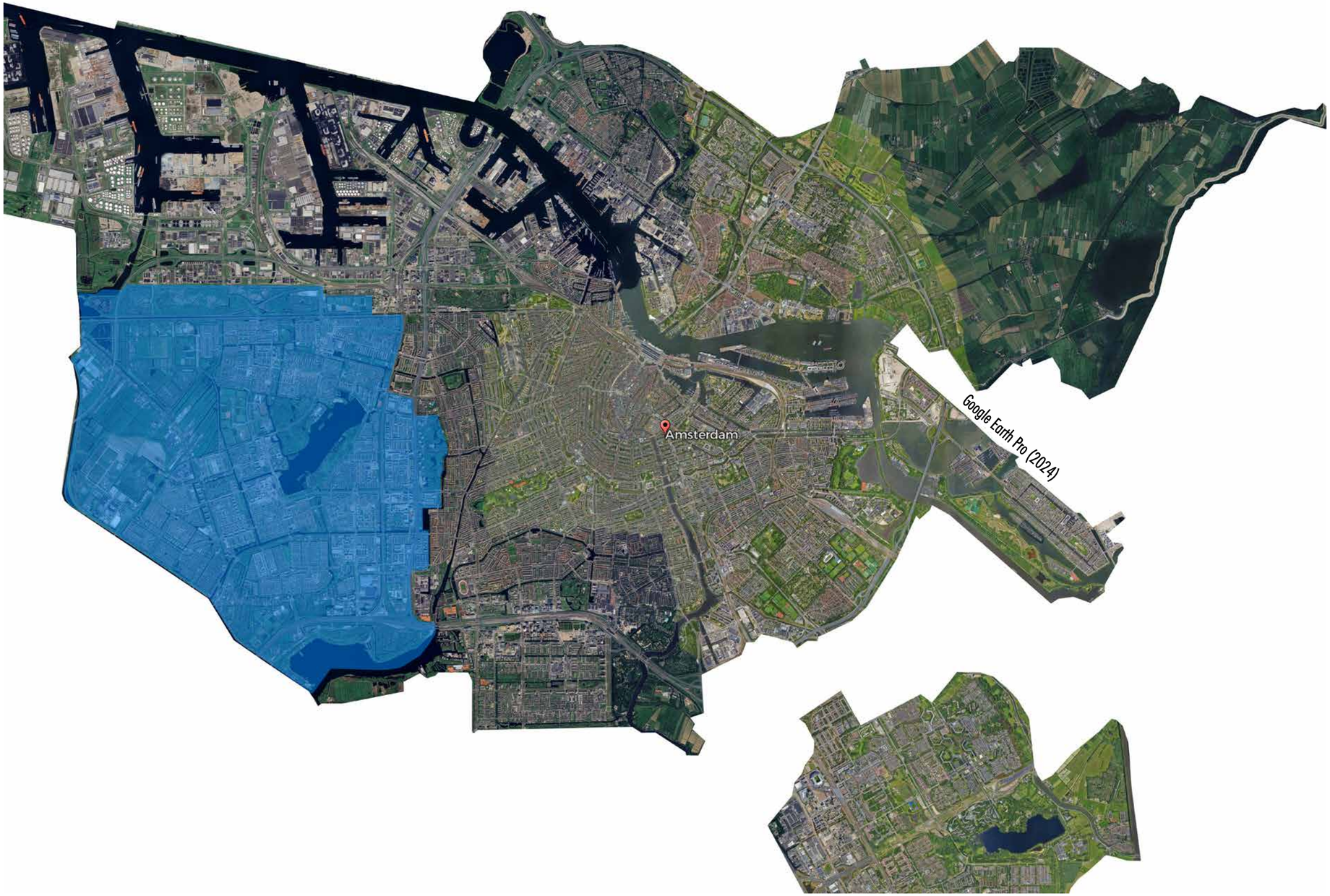
Towards Adaptable Post-War Housing

Architecture that uses change for greater significance.

P5 Presentation
Bernd de Groot
5452929
02.07.2024



City of Amsterdam



Western Garden Cities

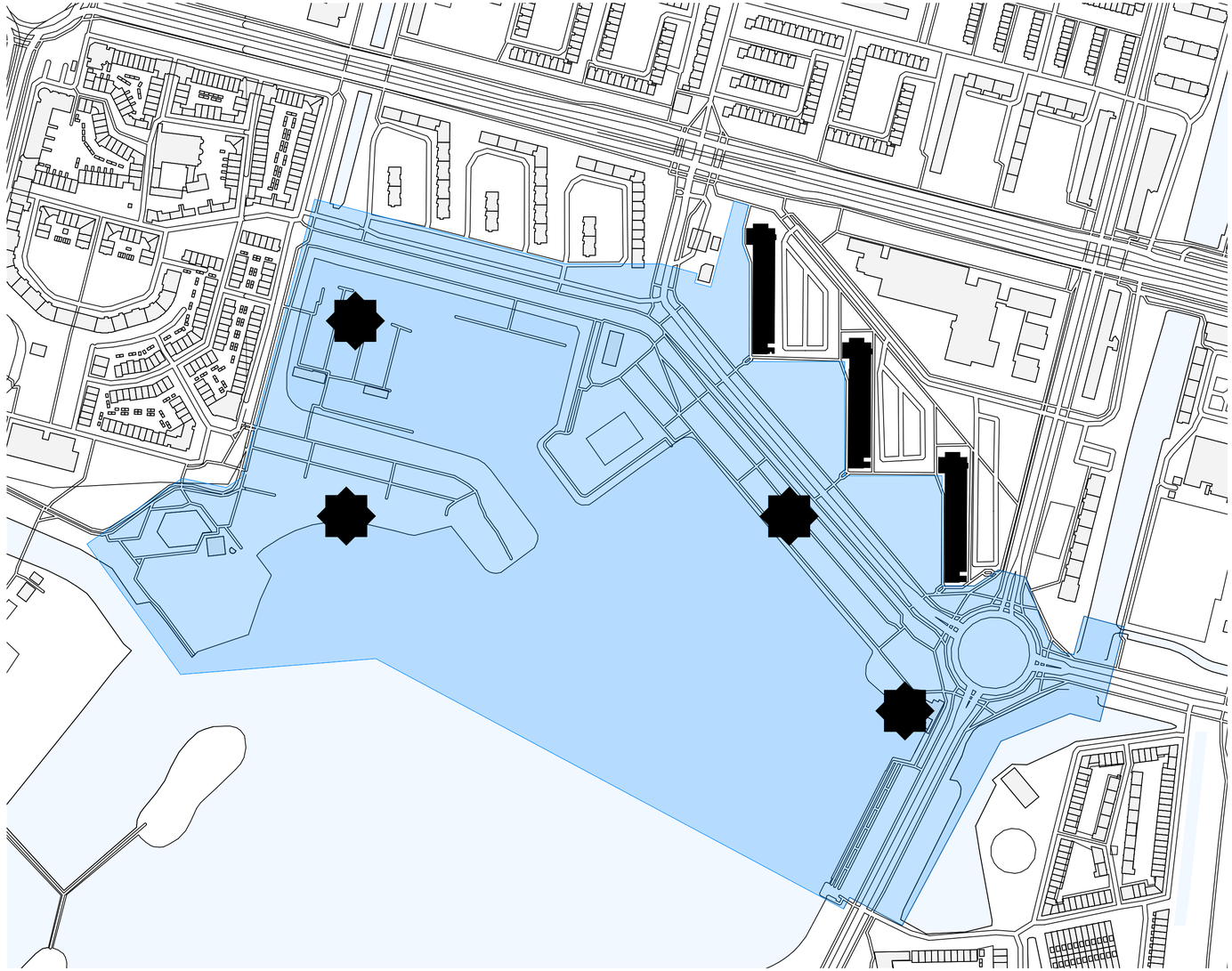
Google Earth Pro (2024)

Geuzenveld-Slotermeer

Northbank of Sloterplas

Google Earth Pro (2024)

Protected Cityscape



Marina

Funda (2024)

Embankment

Funda (2024)

Pavilion

Funda (2024)

Beach

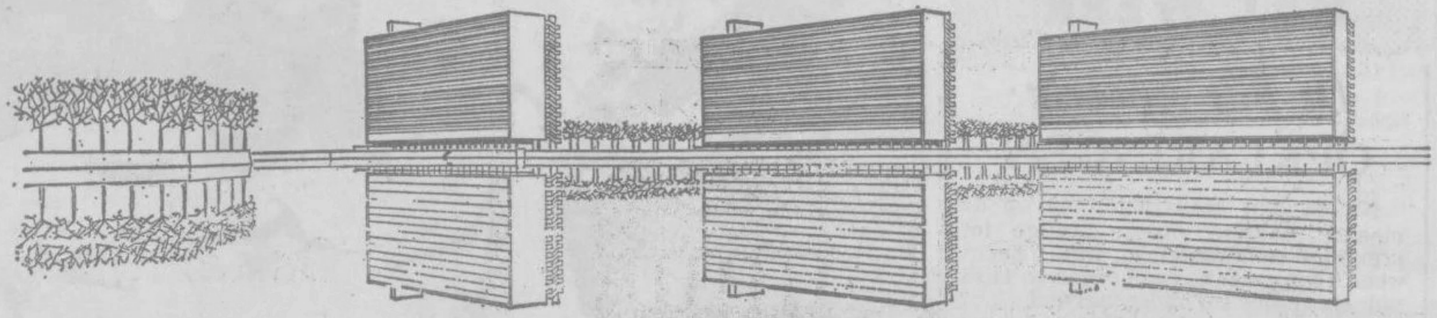
Funda (2024)

Green Structures

Funda (2024)

3 Apartment Blocks by Sloterplas

DRIE HOGE FLATGEBOUWEN AAN SLOTERPLAS



gieser/Potgieser—Smit/De Kamp 6—3 6—1; Veen/De Vette—Haak/Scholtz 6—1 6—0; Vis/Jelsma—Van Velzen/Offenbach 6—3 6—3; Roos/Holtrop—Ketelaar/Schonewelle 6—0 6—1; De Kort/Esmeijer—Pais/Prins 6—1 8—6; Bedorf/Bedorf—Hoskam/Hoskam 6—3 6—1; De Jong/Dirks—Vaarkamp /Visker 6—3 4—6 6—2; Brandes/Brandes—Manheim/Manheim 6—4 6—1; Keunen/Van Kuyk—Brouwer/Bödicker 1—6 6—1 8—6; Groetveld/Brugman—Van Vlijmen/v. d. Reis 6—1 6—3; Van Wijk/Van Wijk—Sanders/Schwebke 4—6 6—0 6—4; v. d. Tooren /Klokkemeier—Van Eeken/Tasma 6—2 6—2.

Vanmorgen heeft burgemeester mr. G. van Hall de eerste paal geslagen voor het eerste van de drie grote flatgebouwen, die onder architectuur van de heer Zanstra zullen worden gebouwd in Slotermeer aan de noordelijke oever van de Sloterplas.

Aan de zuidelijke oever staan reeds de vijf 9 verdiepingen hoge flatgebouwen, (architect Van Gool), die voor vijf woningbouwverenigingen zijn gebouwd en waarvan de vijfde bijna gereed is.

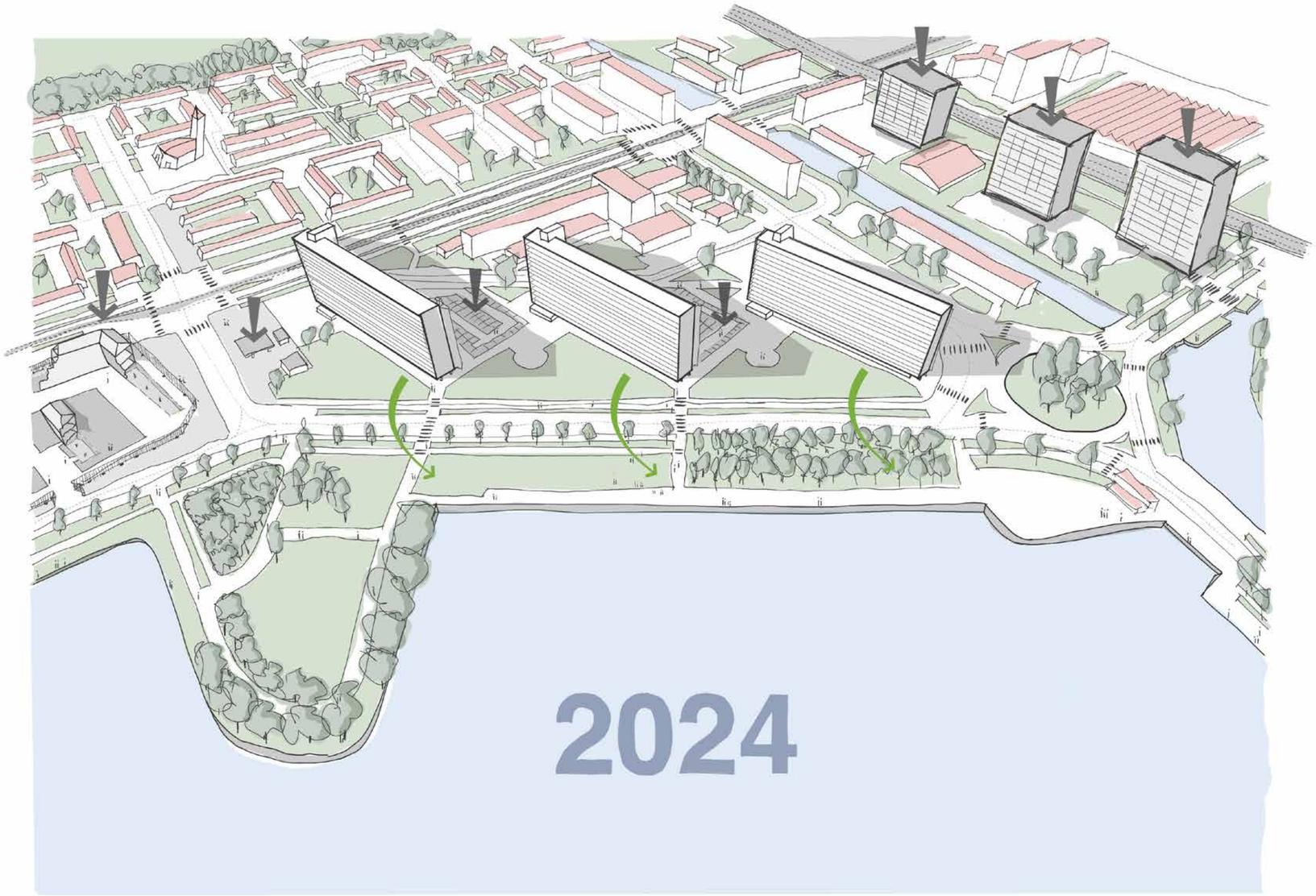
De drie flatgebouwen, die als afsluiting op de Noordoever worden gebouwd zullen hogfer worden, nl. 14 verdiepingen met in totaal 507 flats. Zij zullen tot de hoogste woonflatgebouwen in Nederland behoren.

Algemeen Handelsblad (1961)

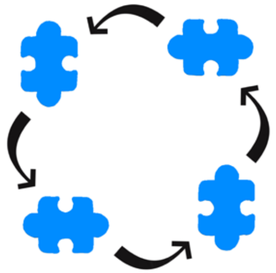
3 Apartment Blocks by Sloterplas

Funda (2024)

Existing Context



Adaptability

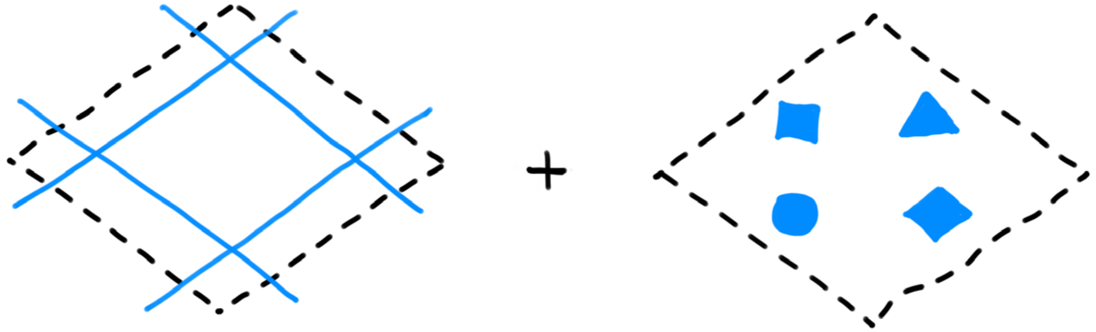


Accomodating Evolving Demands of Context

Maximising Value Through Life

Schmidt III and Austin (2016)

Guiding Theme

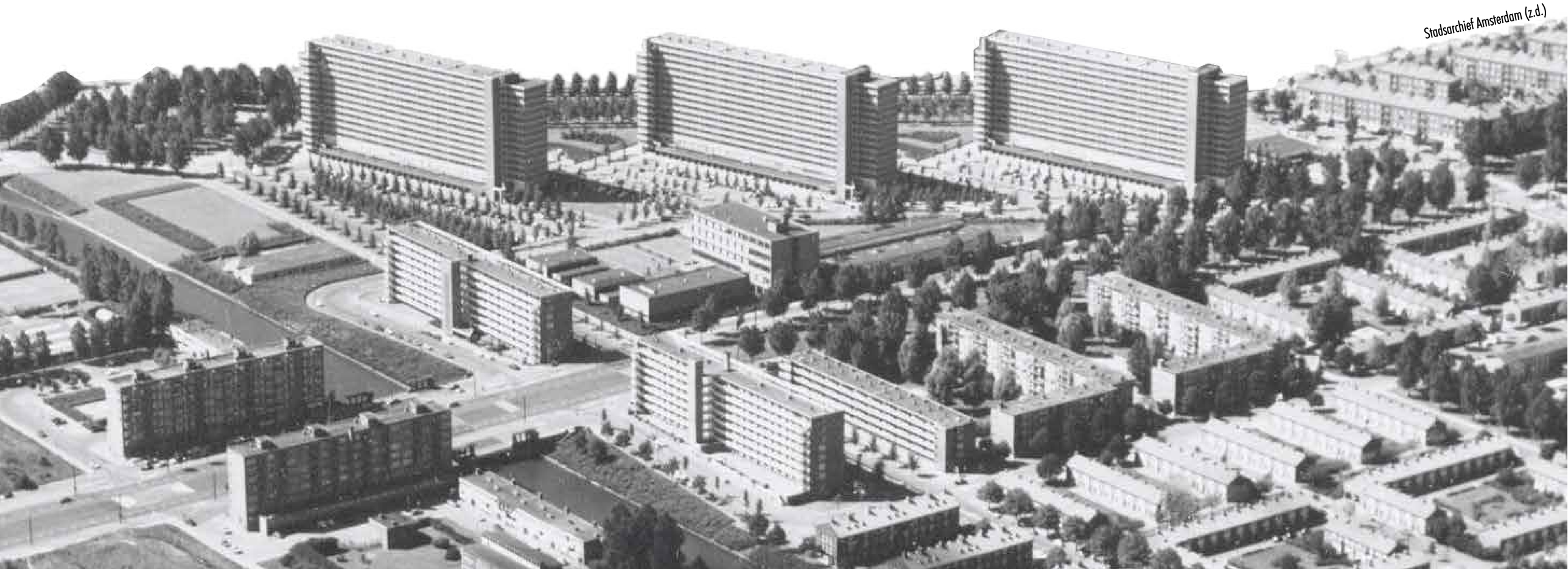


Continuity + Change

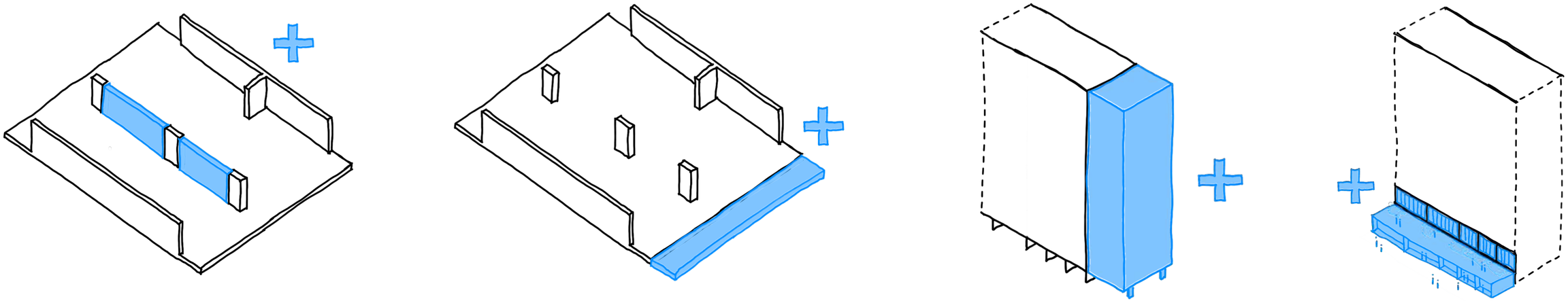
Future Context

Towards Adaptable Post-War Housing

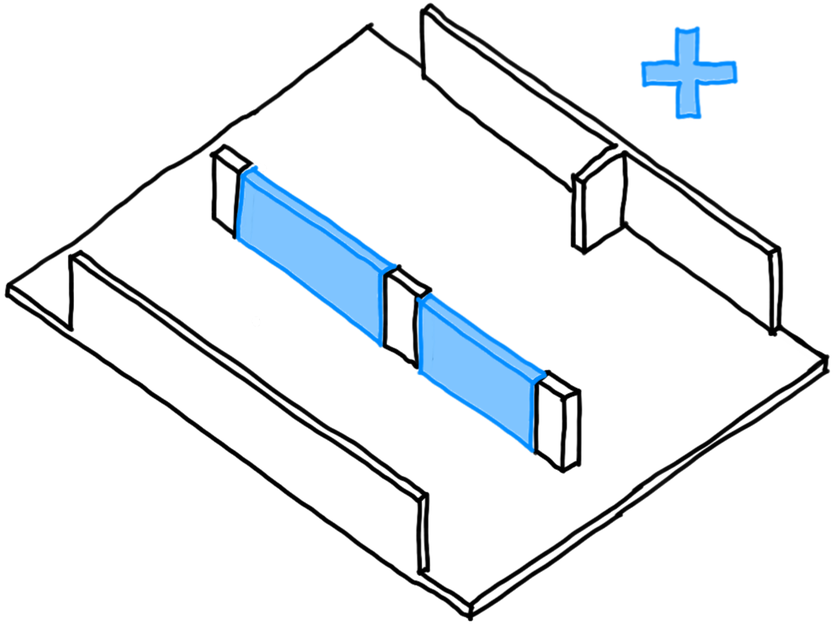
Architecture that uses change for greater significance.


Stadsarchief Amsterdam (z.d.)

4 Strategies: Splitting, Extending Addition and Inviting



Strategy 1: Splitting



Dependency Structure Matrix (DSM)

	A	B	C	D	E	F	G
A	■						
B		■		X			X
C			■				
D		X		■			X
E					■		
F						■	
G		X		X			■

X = Fixed Connection

\ = Semi-Fixed Connection

O = Loose Connection

Relationship between D and G

	A	B	C	D	E	F	G
A	■						
B		■		X		\	\
C			■	X			
D		X	X	■			O
E					■	O	O
F		\			O	■	
G		\		O	O		■

X = Fixed Connection

\ = Semi-Fixed Connection

O = Loose Connection

Relationship between D and G

X = Fixed Connection
(joint using chemical techniques)

\ = Semi-Fixed Connection
(dry-jointed, but infiltrated into other systems or components)

O = Loose Connection
(dry-jointed, no infiltration into other systems or components)

Dependency Structure Matrix (DSM)

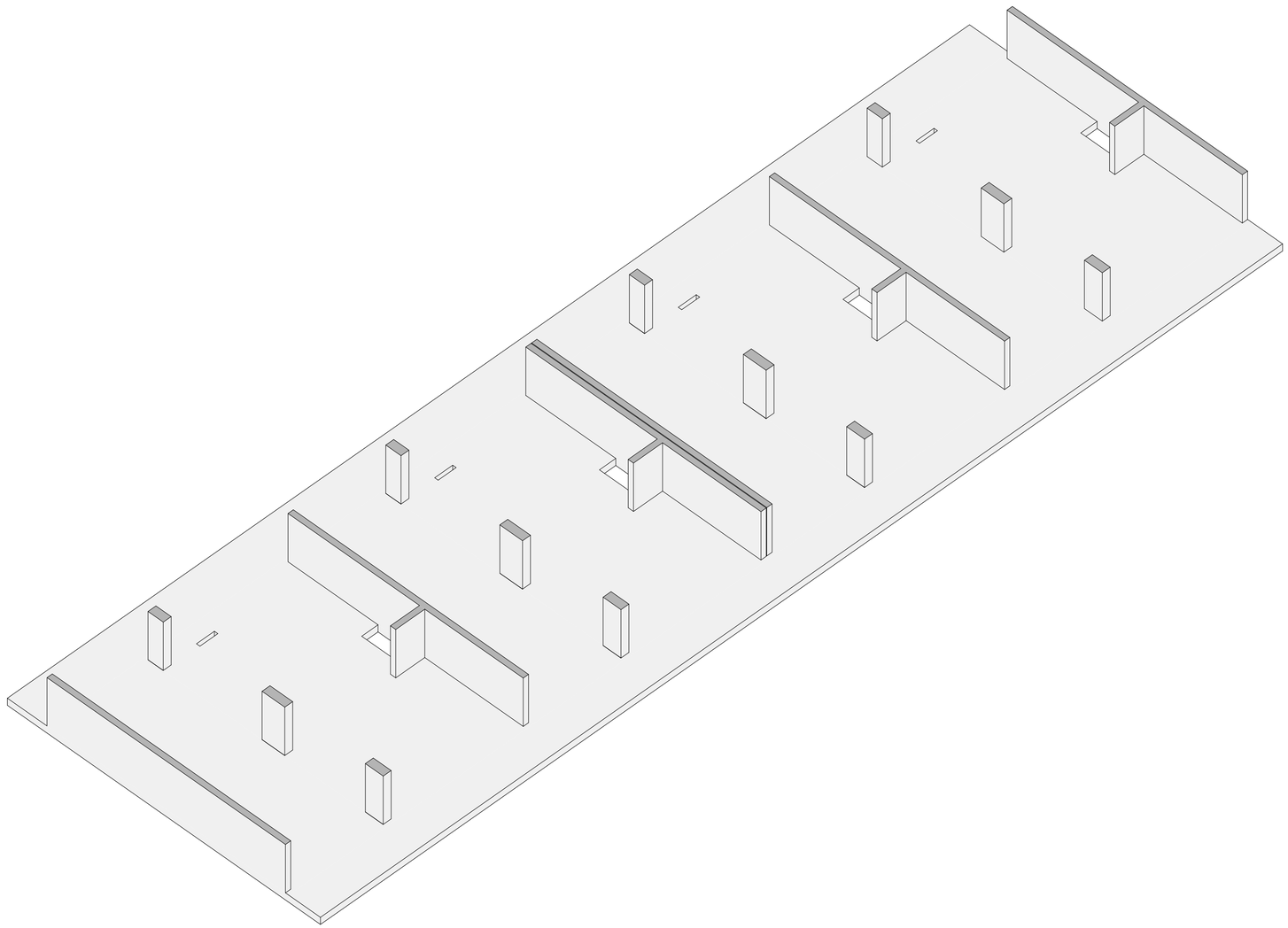
DSM

(Dependency Structure Matrix)

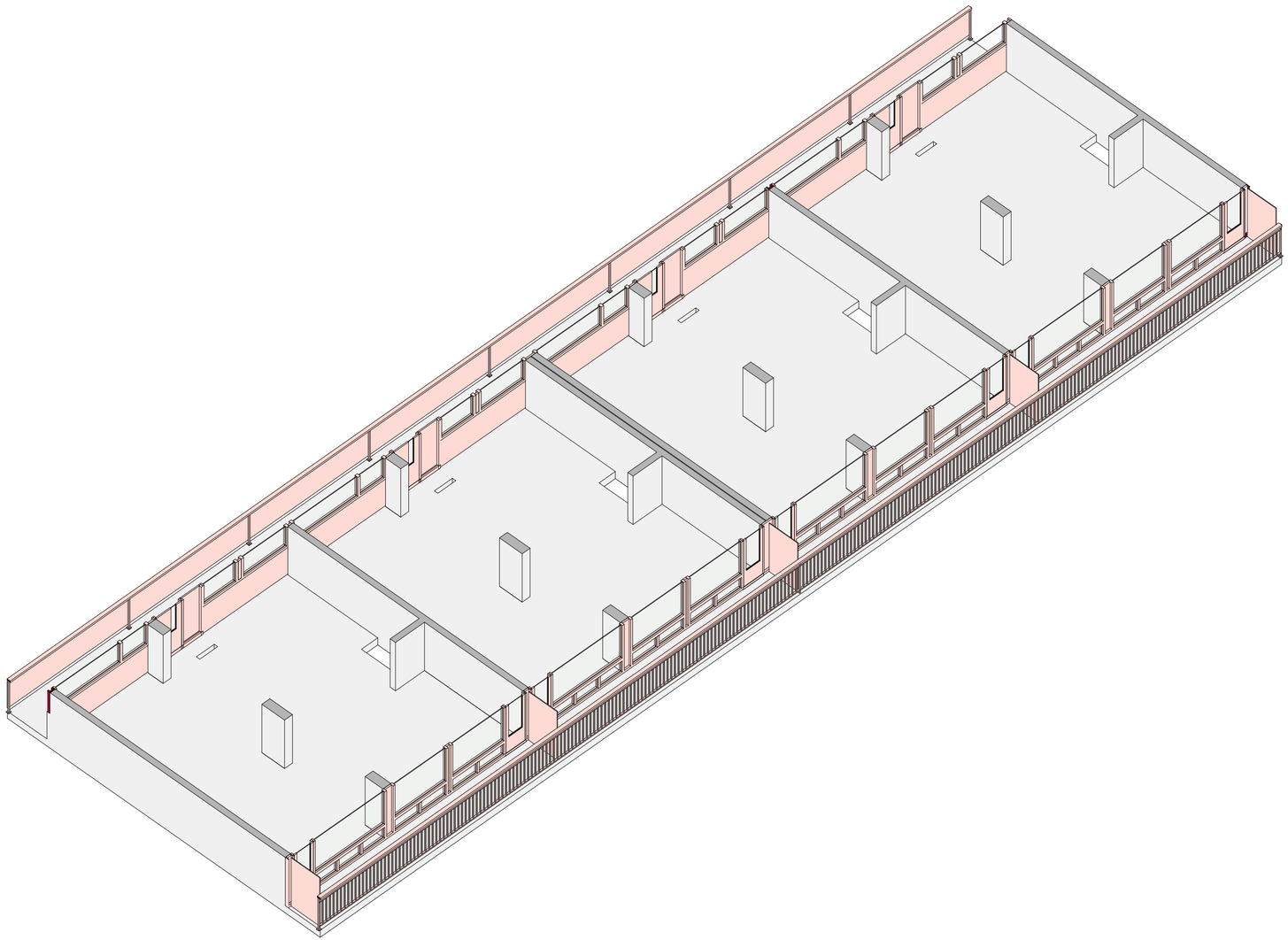
X = Fixed Connection
\ = Semi-Fixed Connection
O = Loose Connection

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)
(1)	Reinforced Concrete Foundation		X	X		X																O	O			X	X		X				O			O			O		O
(2)	Reinforced Concrete Party Walls	X		X		X				X	O	\		X	O	O	O	O								X	X		X											
(3)	Reinforced Concrete Bracing Walls	X	X		X	X				X	O			X	O	O										X	X		X											
(4)	Reinforced Concrete Beams			X											O	O		O				O	O																	
(5)	Reinforced Concrete Floors	X	X	X			\	X		X	O	X		X	O	O		O		O																				
(6)	Reinforced Concrete Balconies					\						X	O		O	O		O																				O		
(7)	Reinforced Concrete Stairs					X													O																					
(8)	Brick Parapets		X	X		X						X				O		O				O	O			X	X		X									O		X
(9)	Framing Parapets		O	O		O									\							O	O																	
(10)	Brick End Walls		\			X	X			X			O	X			O	O	O																					
(11)	Balustrades						O					O																												
(12)	Brick Walls (ground floor)		X	X		X						X						O														O								
(13)	Window Fronts (south)		O	O	O	O	O				\							\																						
(14)	Windows (north)		O	O	O	O	O			O								\																						
(15)	Windows (east)		O									O																												
(16)	Doors		O		O	O	O			O		O		O	\	\																								
(17)	Roof Floor							O				O								O	O																			
(18)	Elevator Shaft (windows)					O														O	O																			
(19)	Elevator Shaft (walls																			O	O																			
(20)	Interior Wall Partitions (Brick)		O		O					O	O												O	O		X	X		X							O				X
(21)	Interior Wall Partitions (Framing)		O		O					O	O											O		O		X	X		X											X
(22)	Interior Doors																					O	O																	
(23)	Elevators																															O								
(24)	Water Lines (hot)		X	X						X												X	X					O				O					O	O		O
(25)	Water Lines (cold)		X	X						X												X	X									O		O			O	O		
(26)	Ventilation (natural)																																							
(27)	Gas Lines		X	X						X												X	X			O											O			
(28)	Drainage																																							
(29)	Plumbing																																O				O		O	
(30)	Internet																															O								
(31)	Electrical Cables		O										O											O	O	O					O					O		O		
(32)	Toilets																									O			O											O
(33)	Floor Coverings		O																															O						
(34)	Kitchen Cabinets																					O												O	O					
(35)	Kitchen Appliances																									O	O					O			O					
(36)	Showers/Baths		O							O																O	O			O										O
(37)	Lighting (exterior)						O																									O								
(38)	Radiators		O																							O														
(39)	Tiling									X												X	X										O			O				

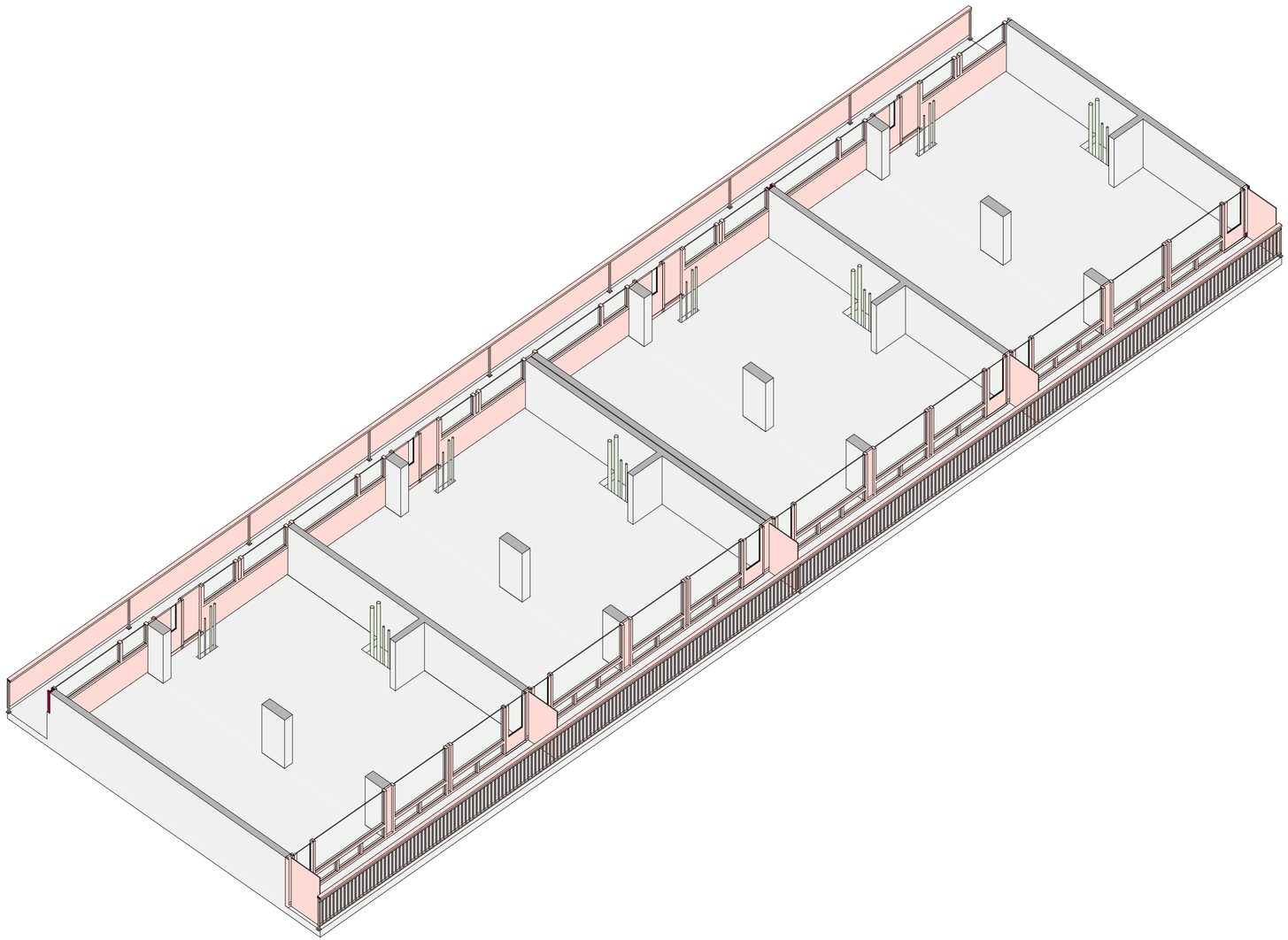
Structure



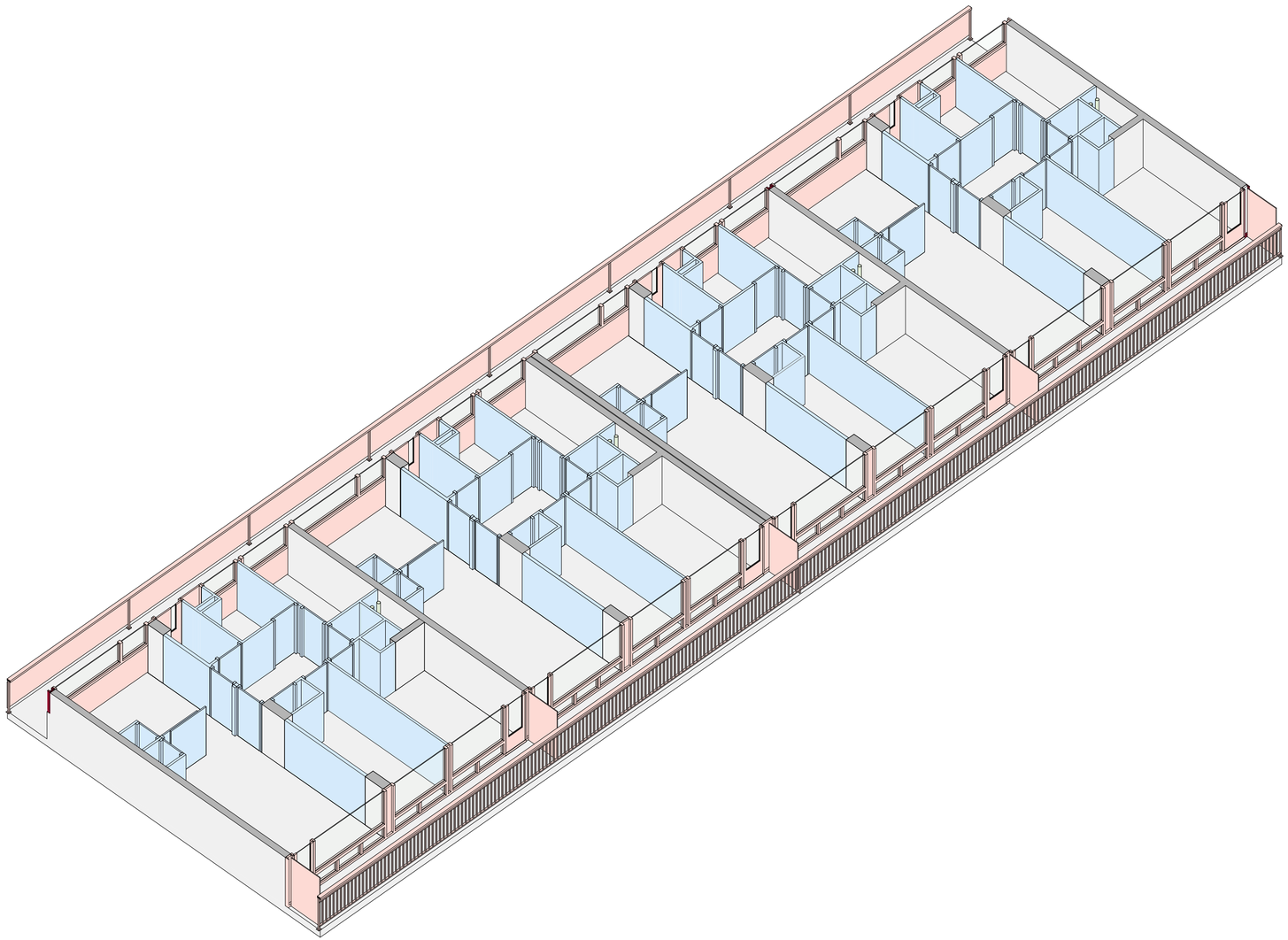
+ Skin



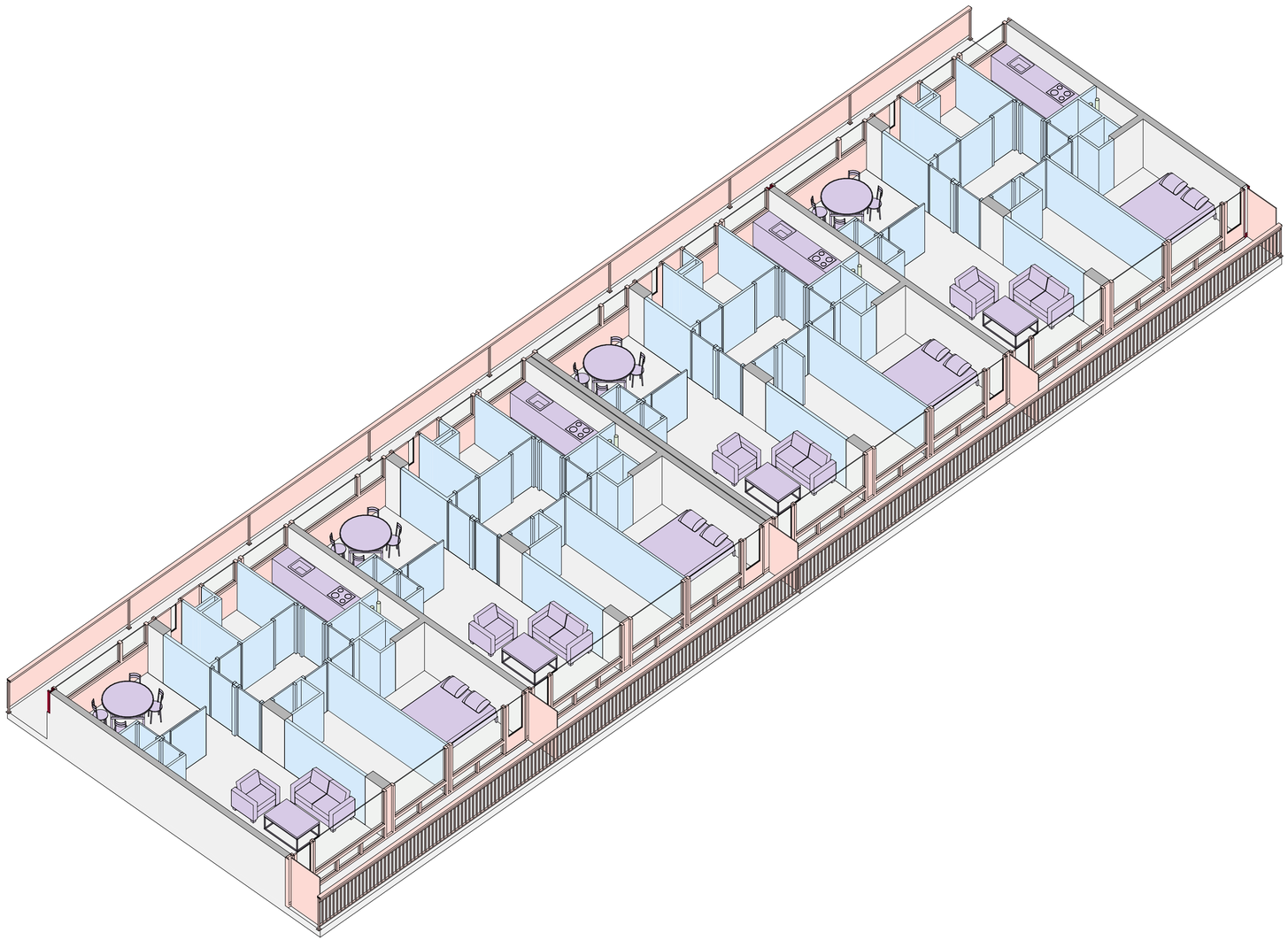
+ Services



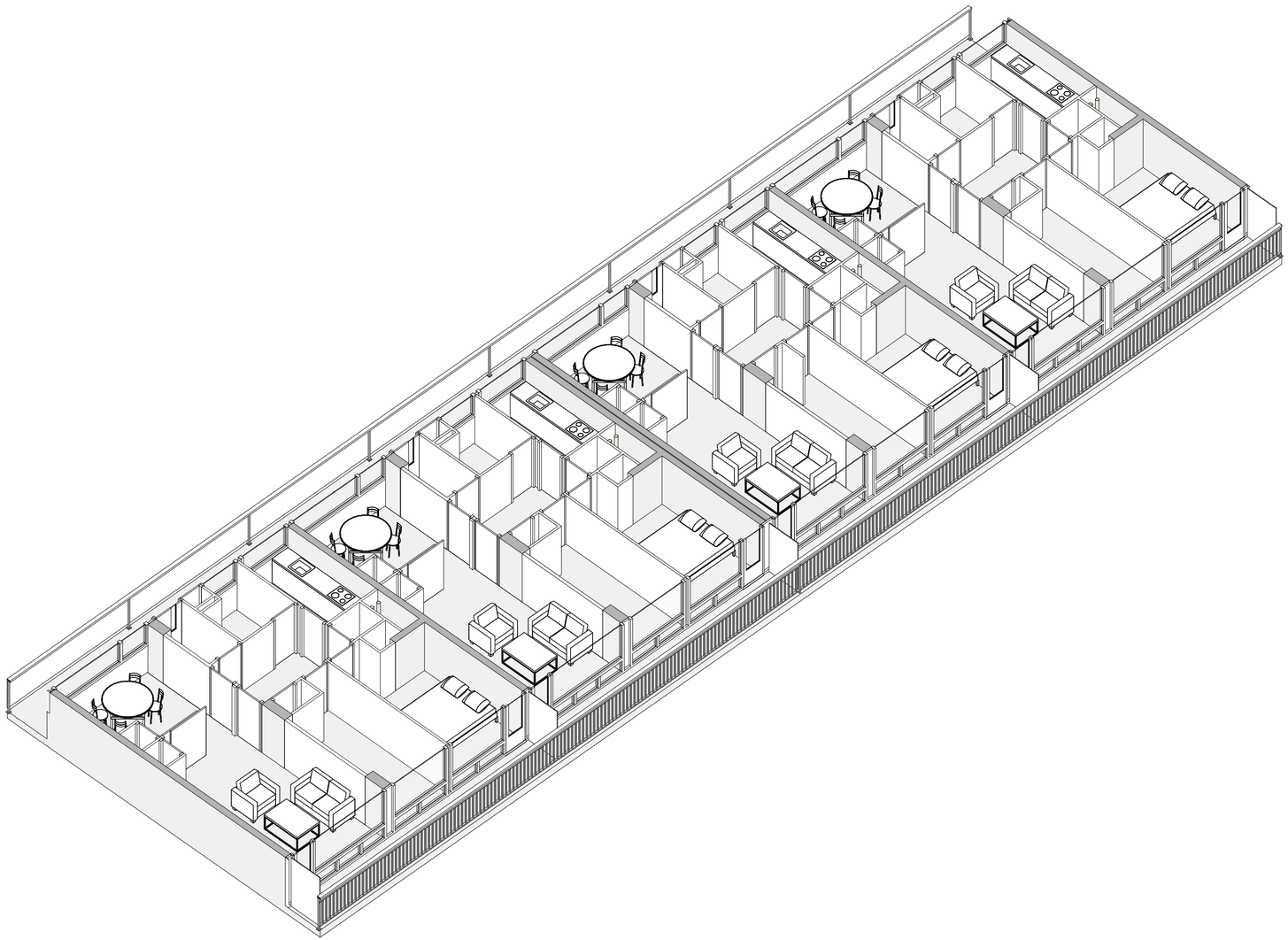
+ Space Plan



+ Stuff



Original Plan (1965)



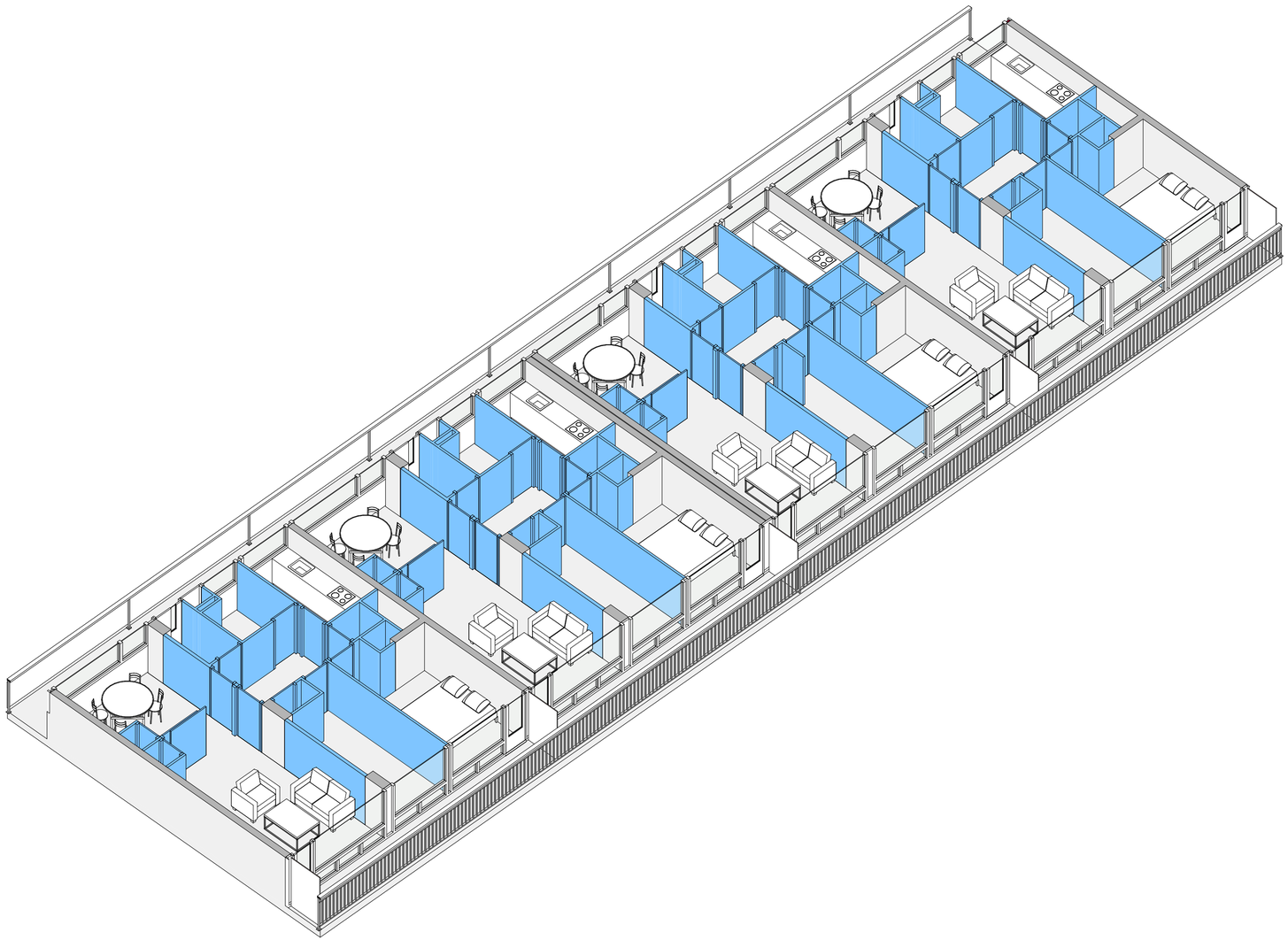
Impression (1965)

Funda (2024)

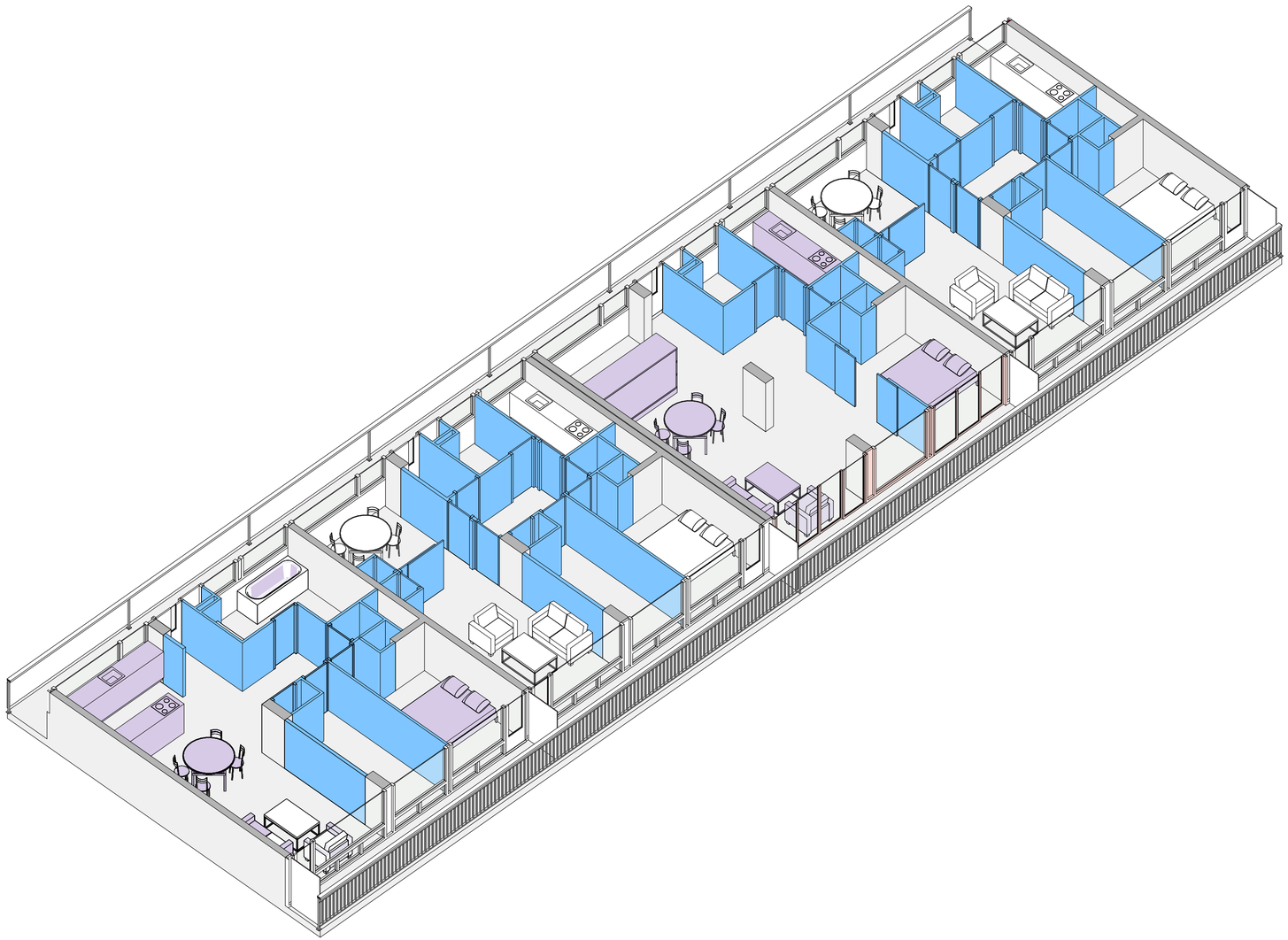
Impression (1965)

Funda (2024)

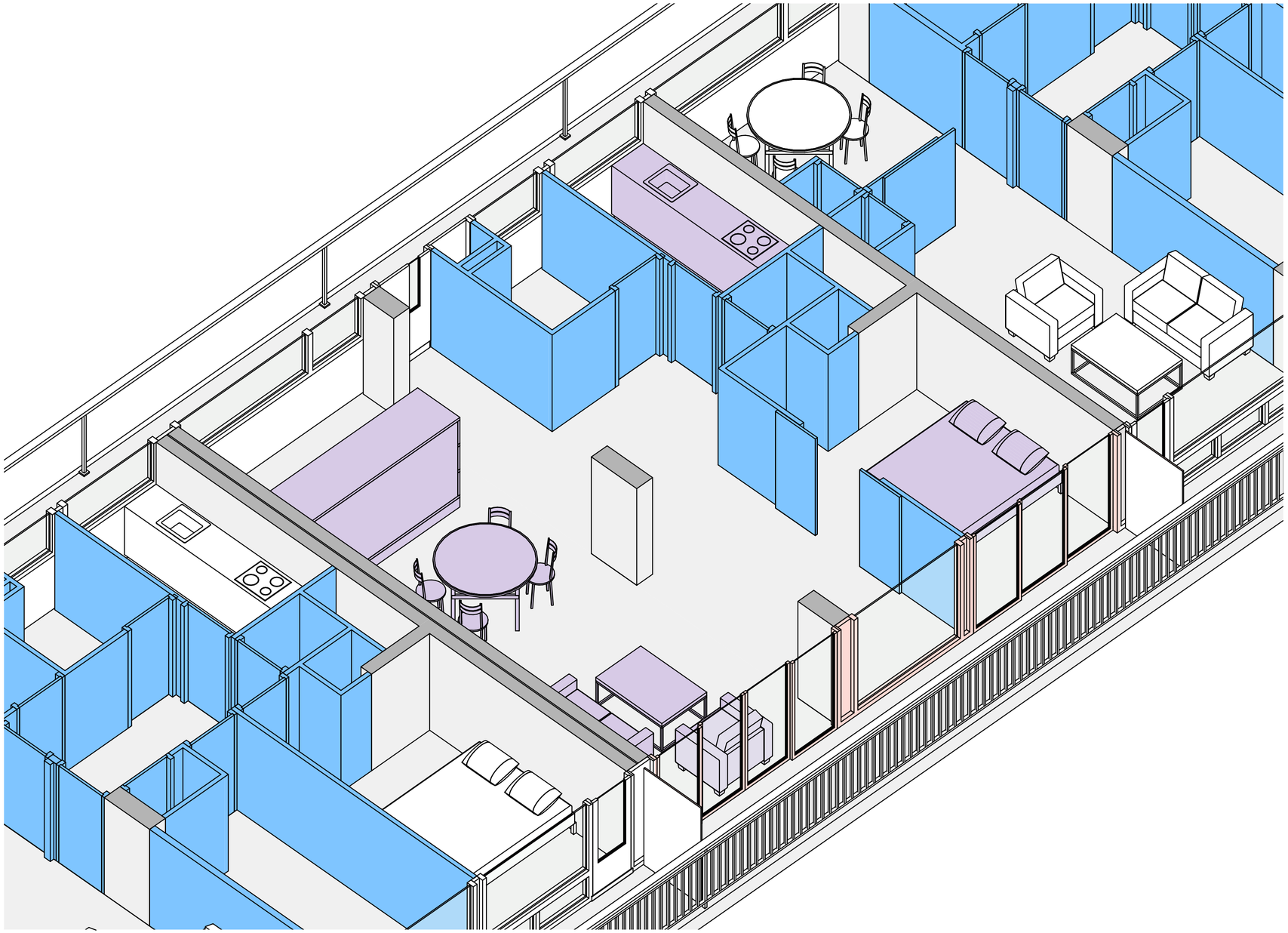
1965



2024



Nr. 879



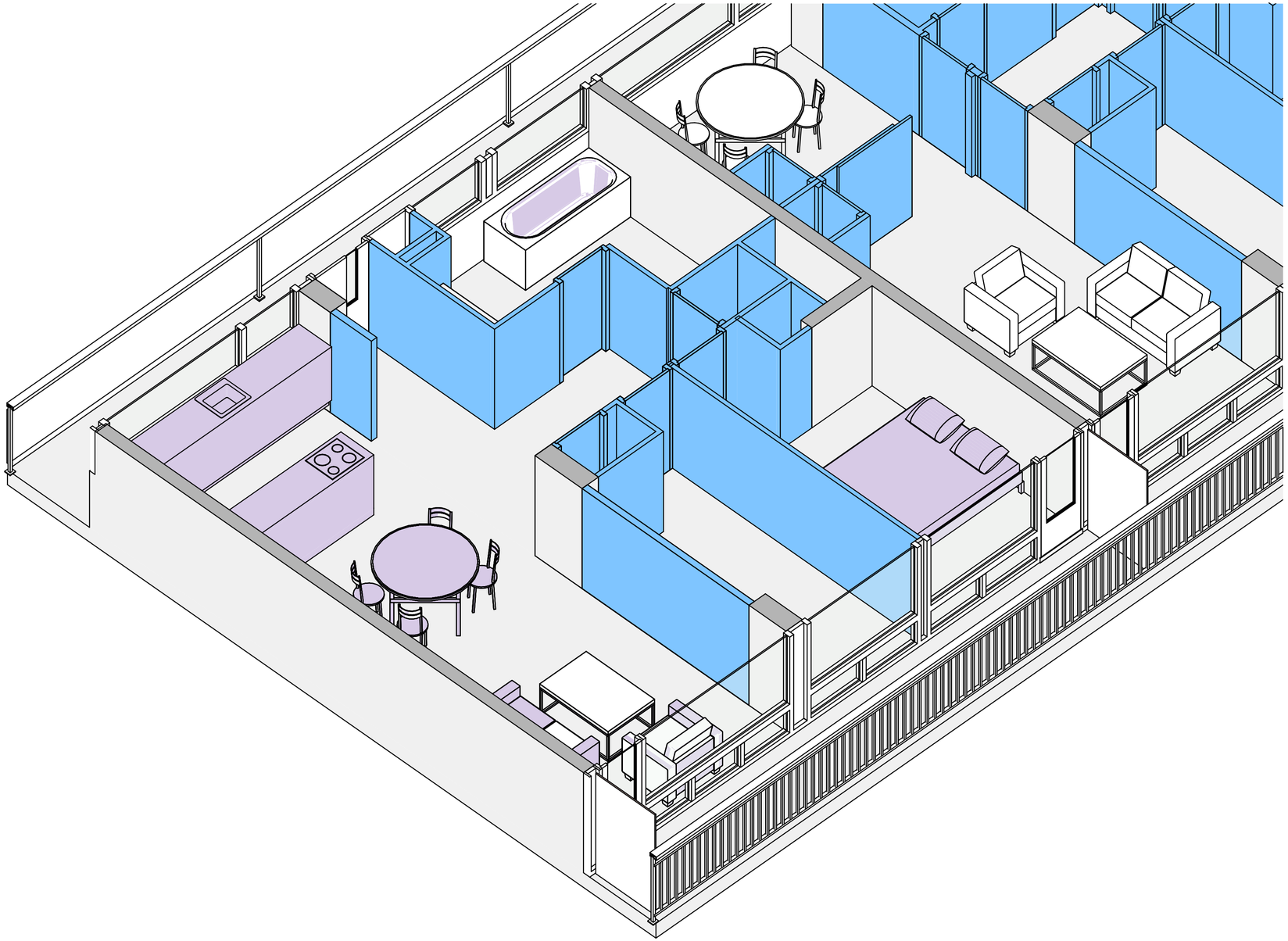
Open Plan

Funda (2024)

Relocating the Kitchen

Funda (2024)

Nr. 1046



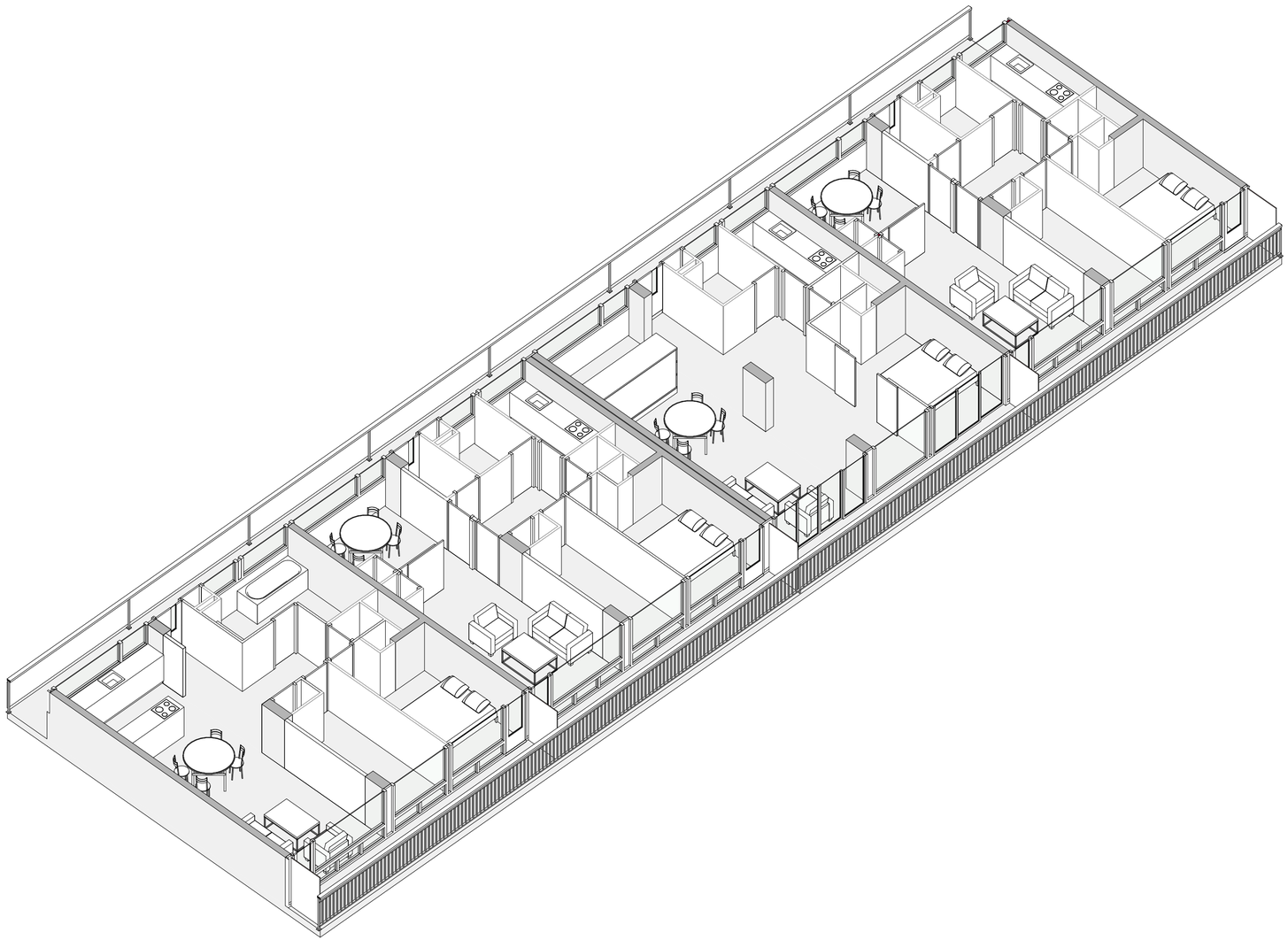
Removal of Bedroom

Funda (2024)

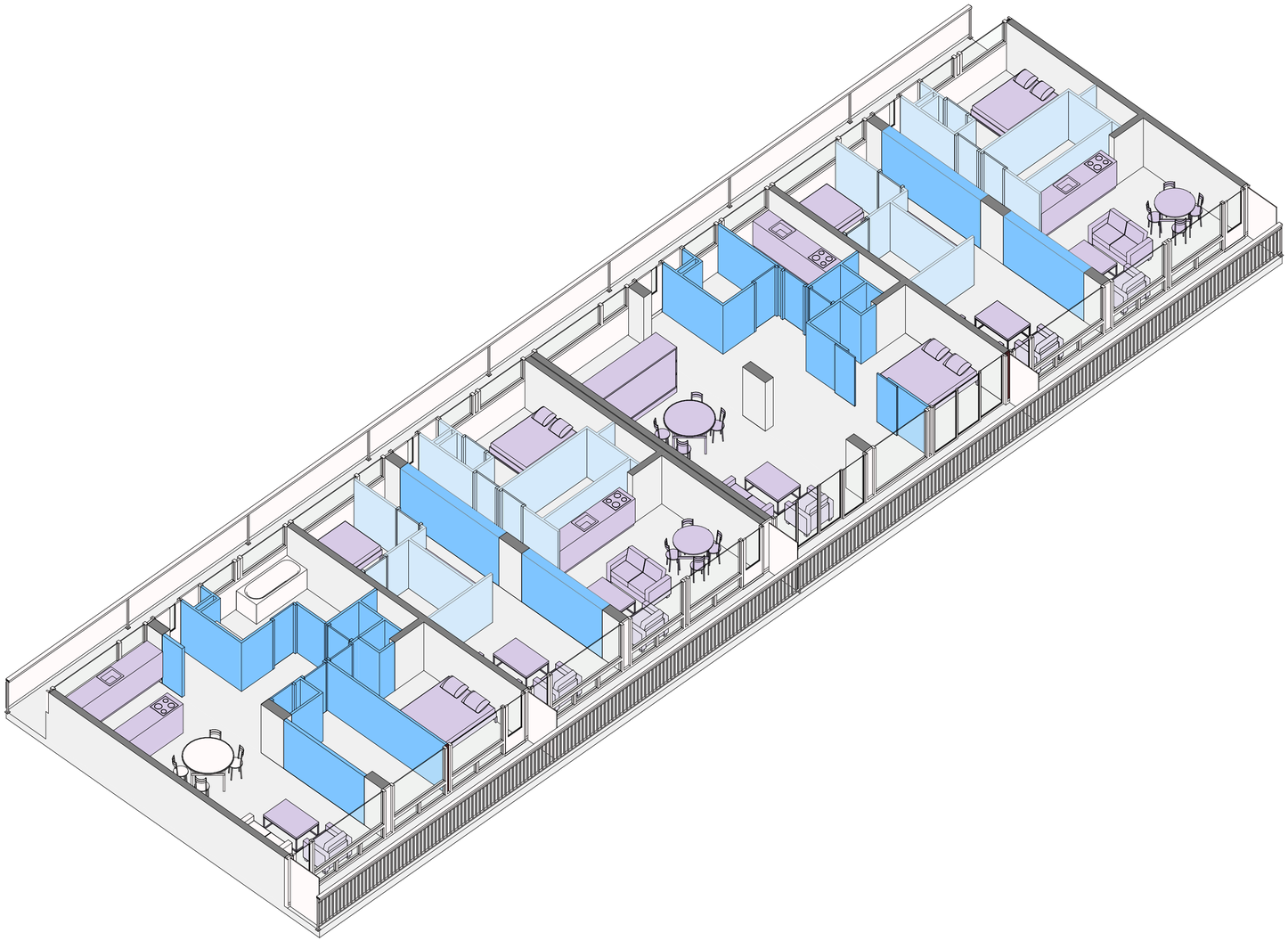
Open Plan

Funda (2024)

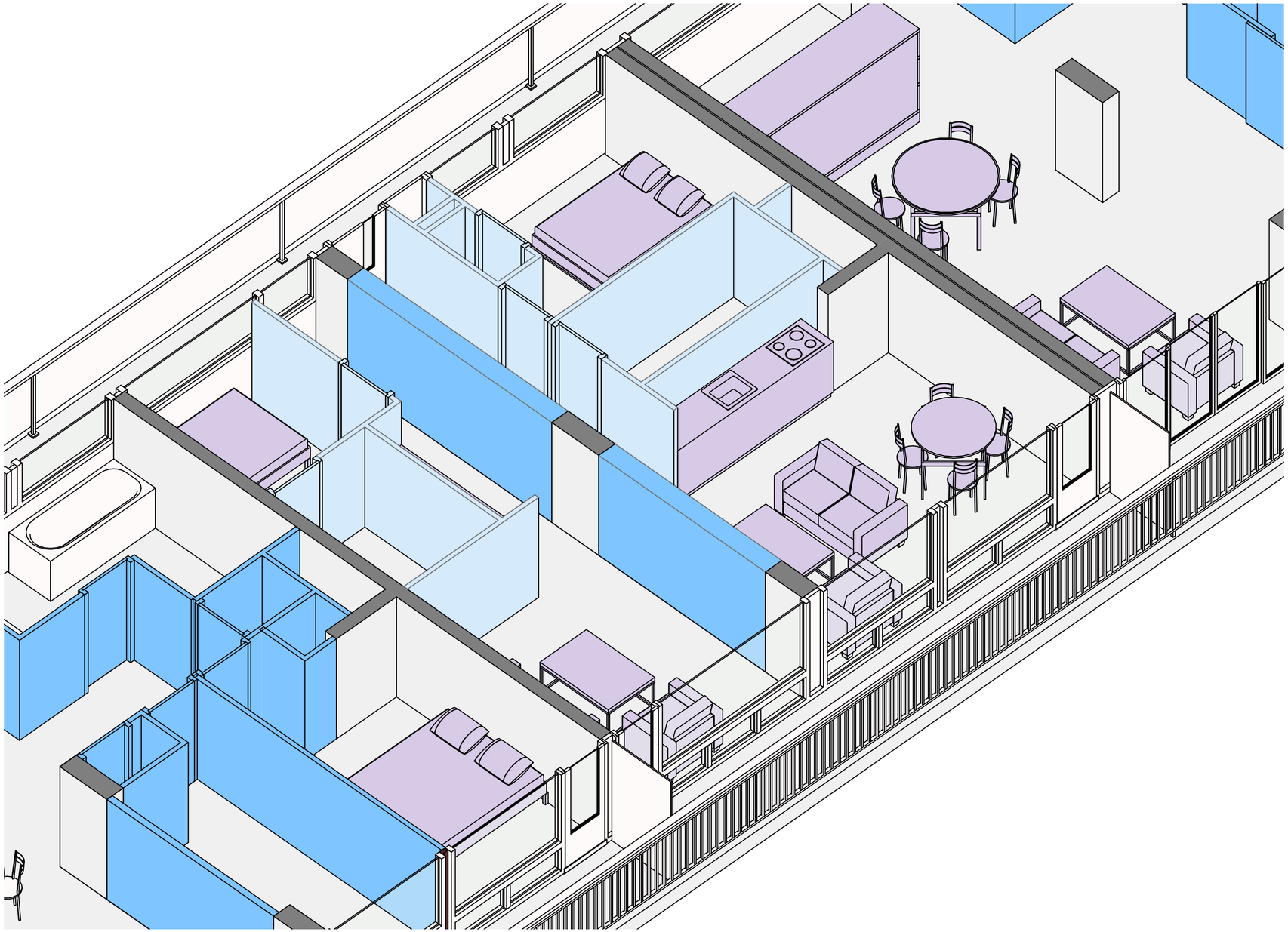
Current Apartment Layout (Funda, 2024)



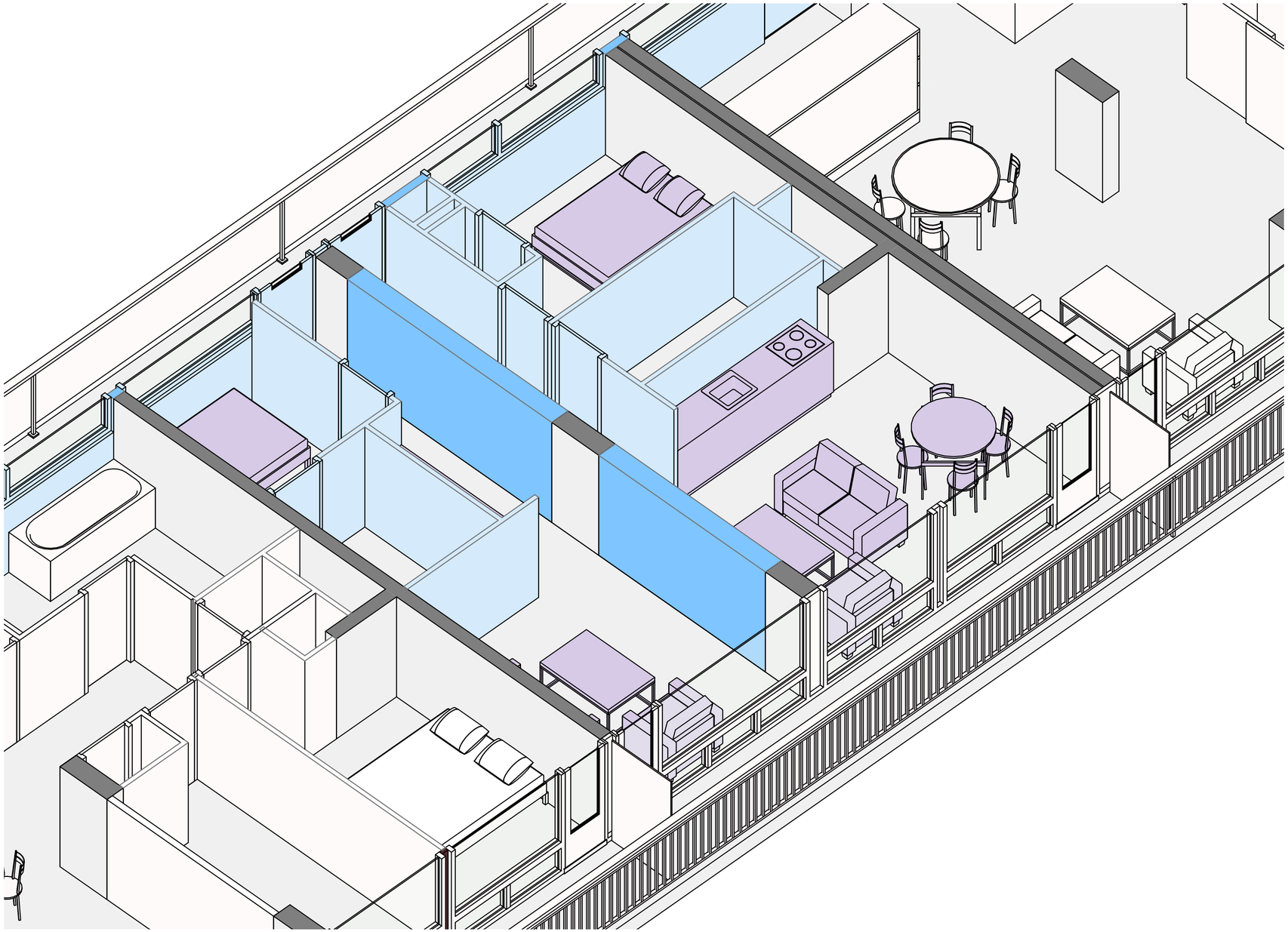
Splitting Apartments



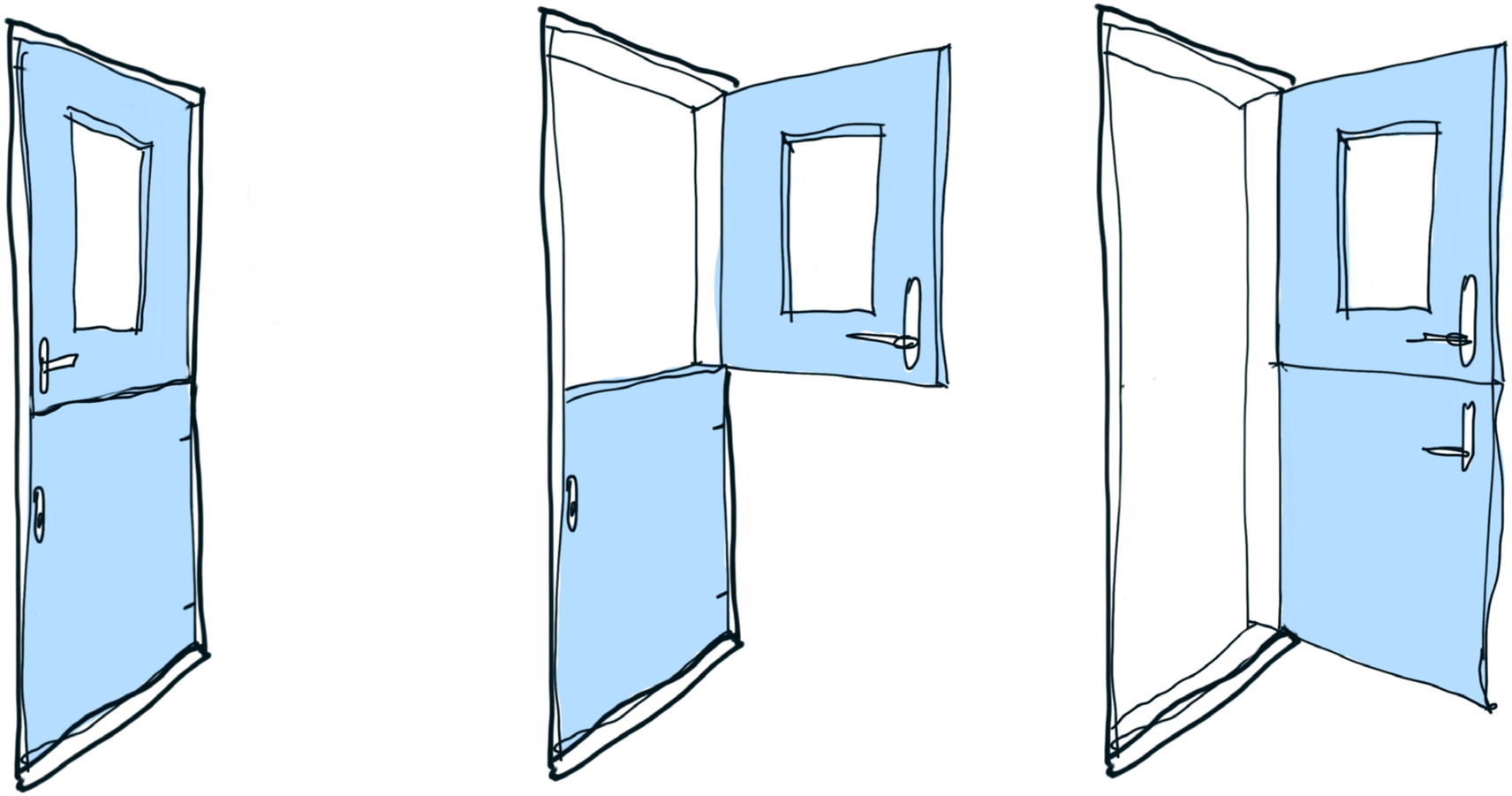
Splitting apartment & insulation east facade.



Splitting apartment & insulation east facade.

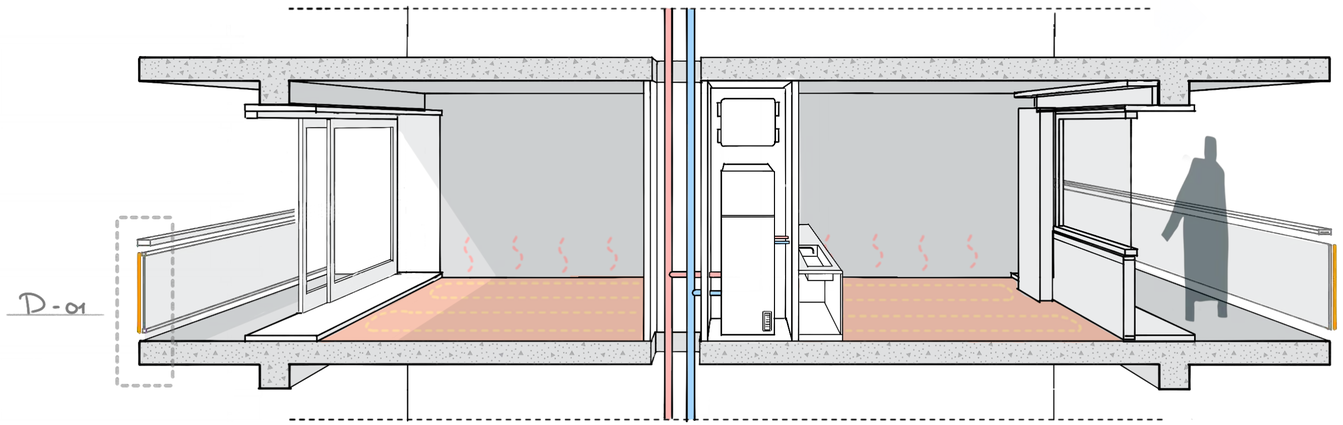


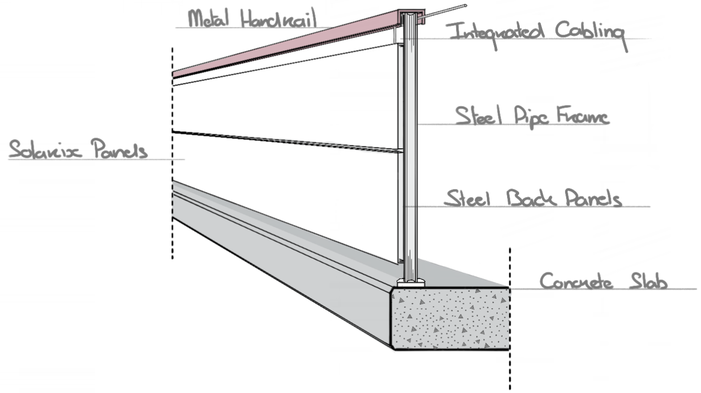
Introducing, the Dutch Door!

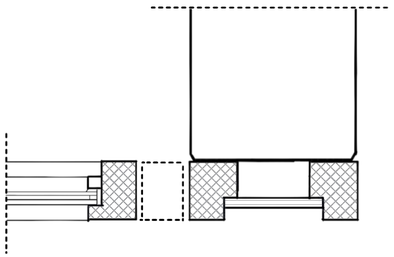


Climate Concept

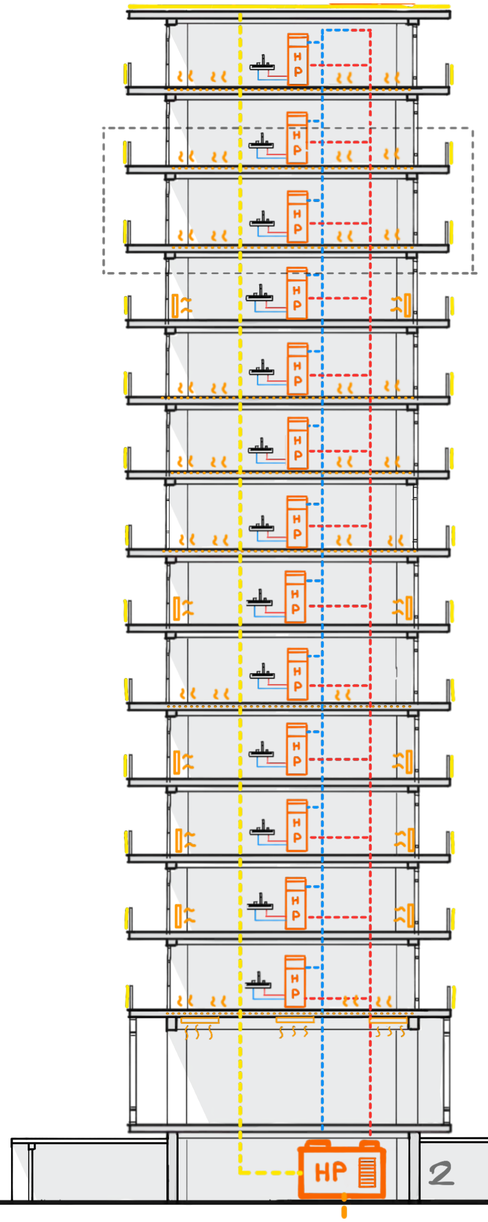
Apartment: Perspective Section







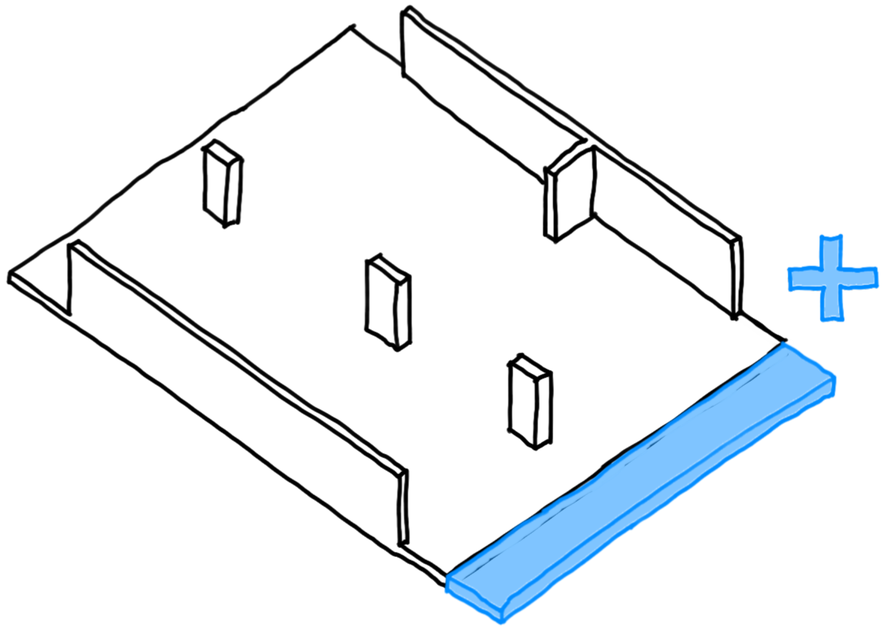
Detail 01: Solar Balustrade
White solar facade panels
by: Solarix



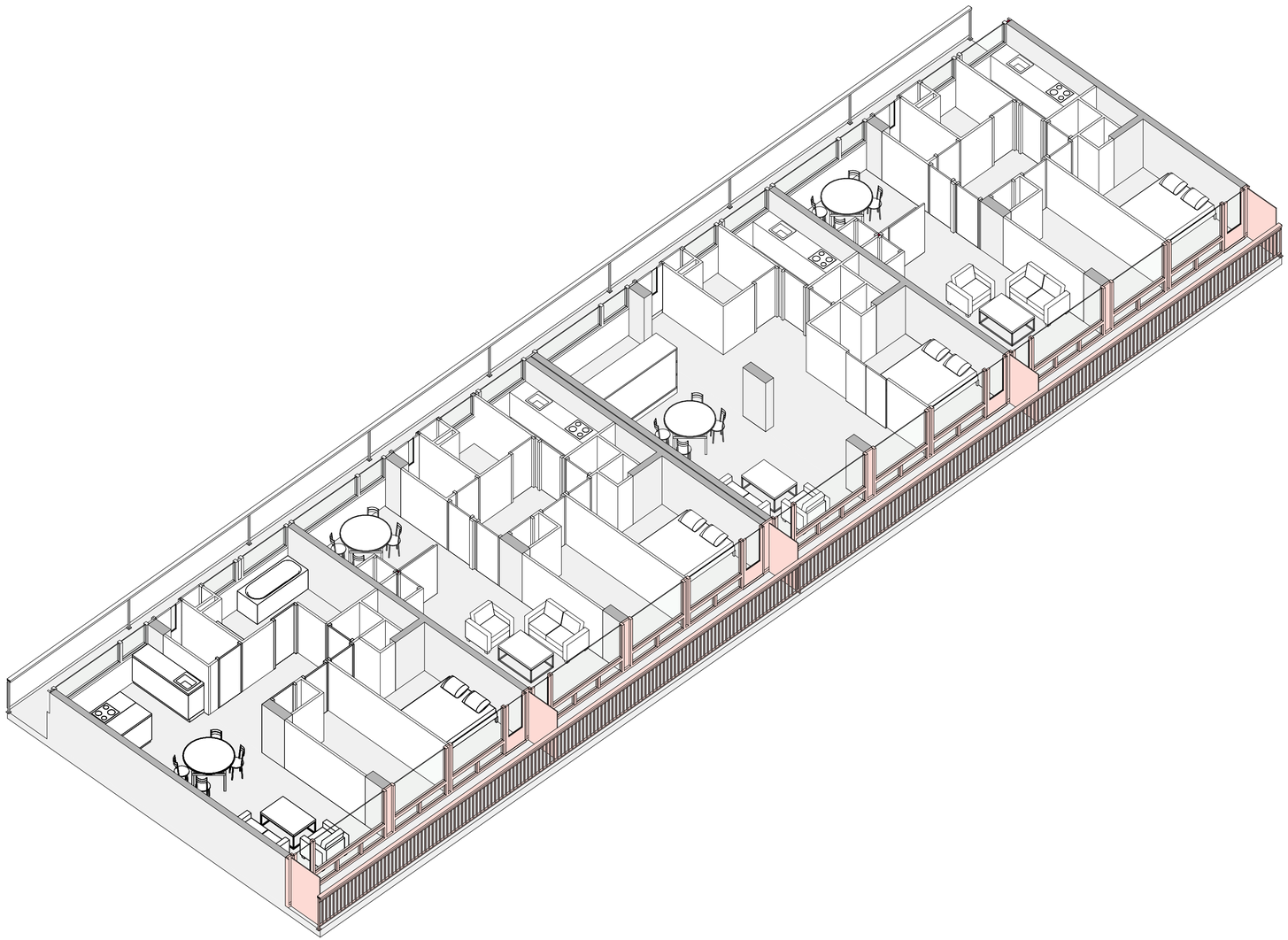
2024

GIF

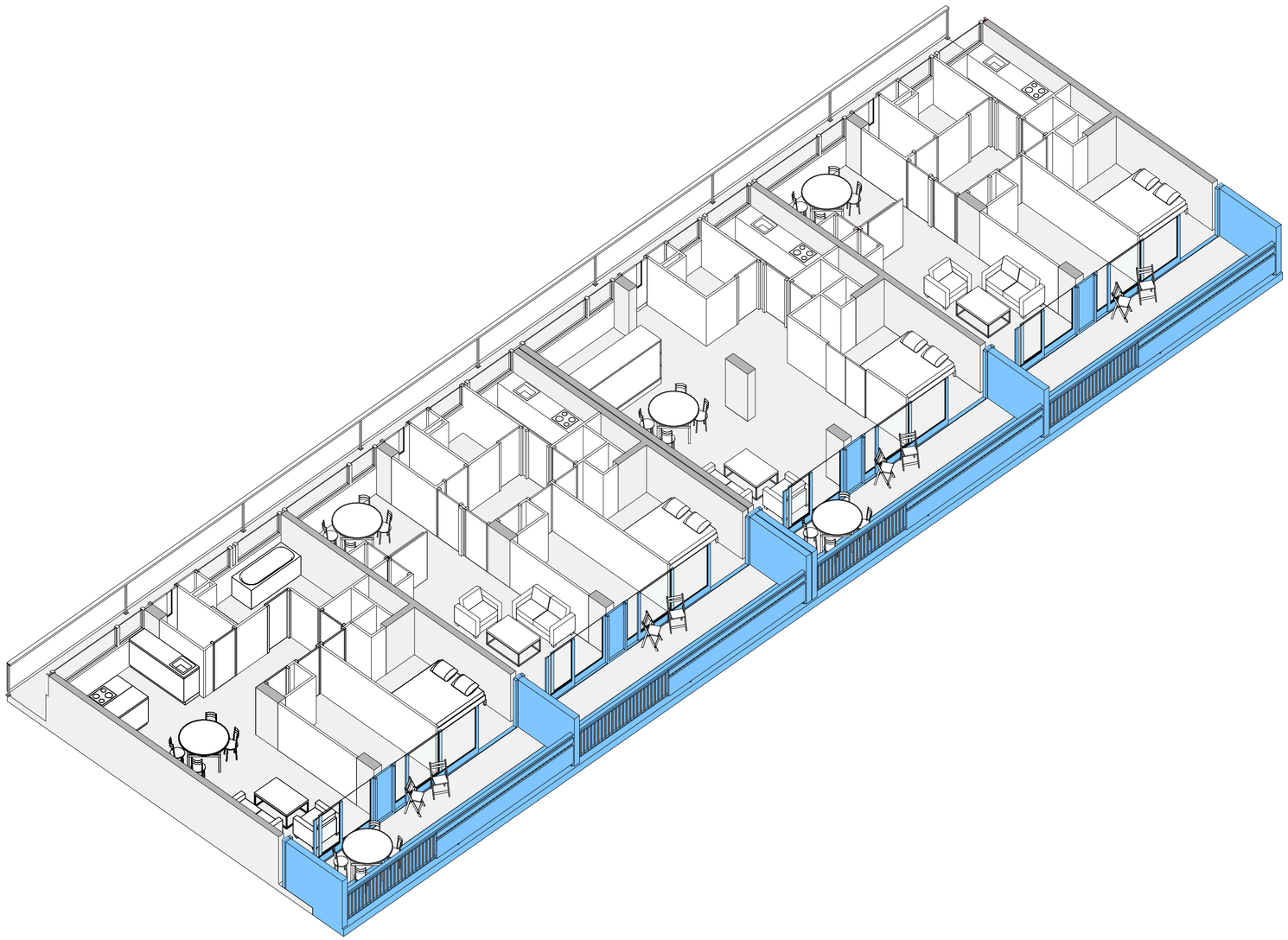
Strategy 2: Extension



- West Facing Windows + Balcony

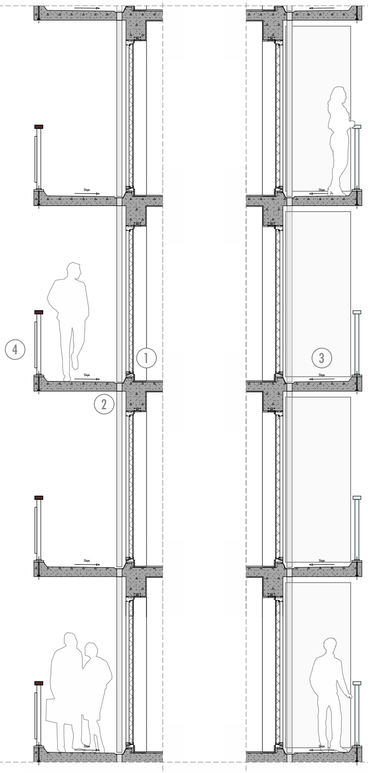


+ New Windows & Balconies

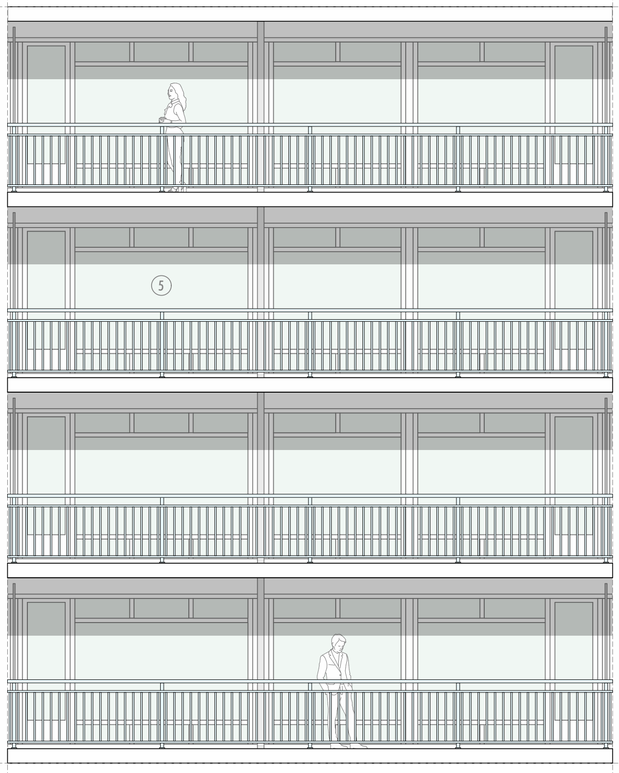


East Facade

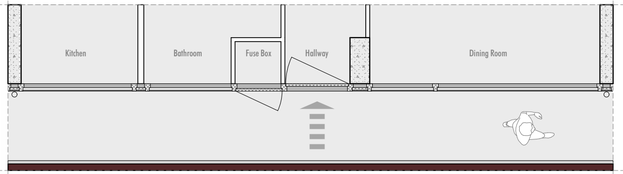
Vertical Section



West Facade



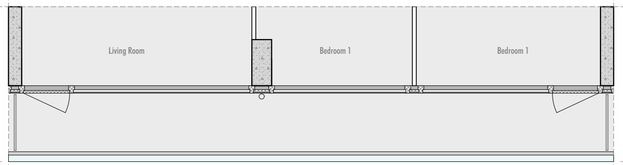
East Floorplan



Problems

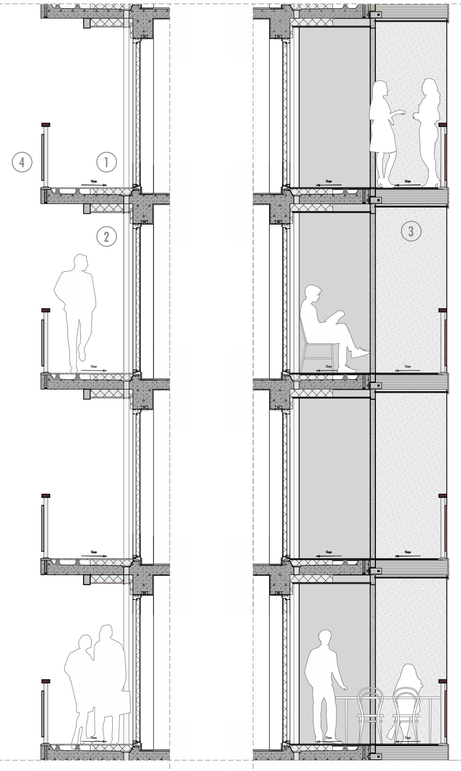
1. Poor Accessibility
2. Thermal Bridging
3. Balcony Width (1200 mm)
4. Zero Sustainable Energy
5. Cluttered Façade Composition

West Floorplan

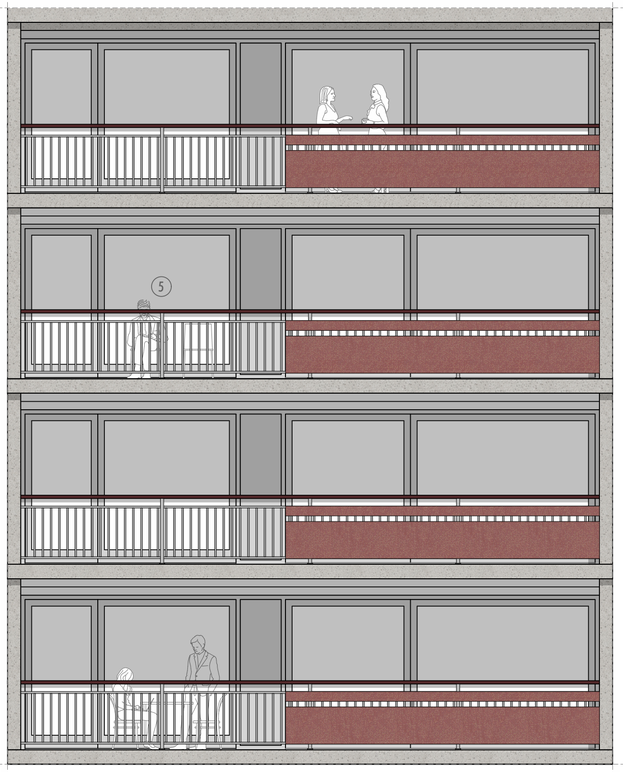


East Facade

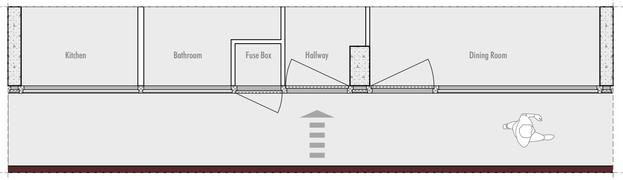
Vertical Section



West Facade



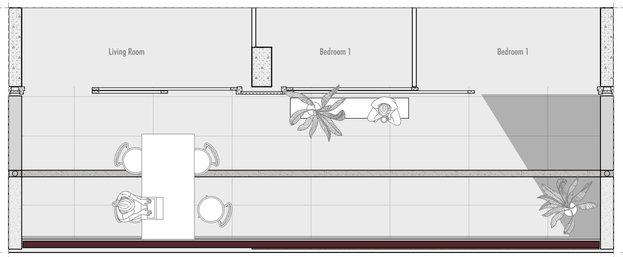
East Floorplan



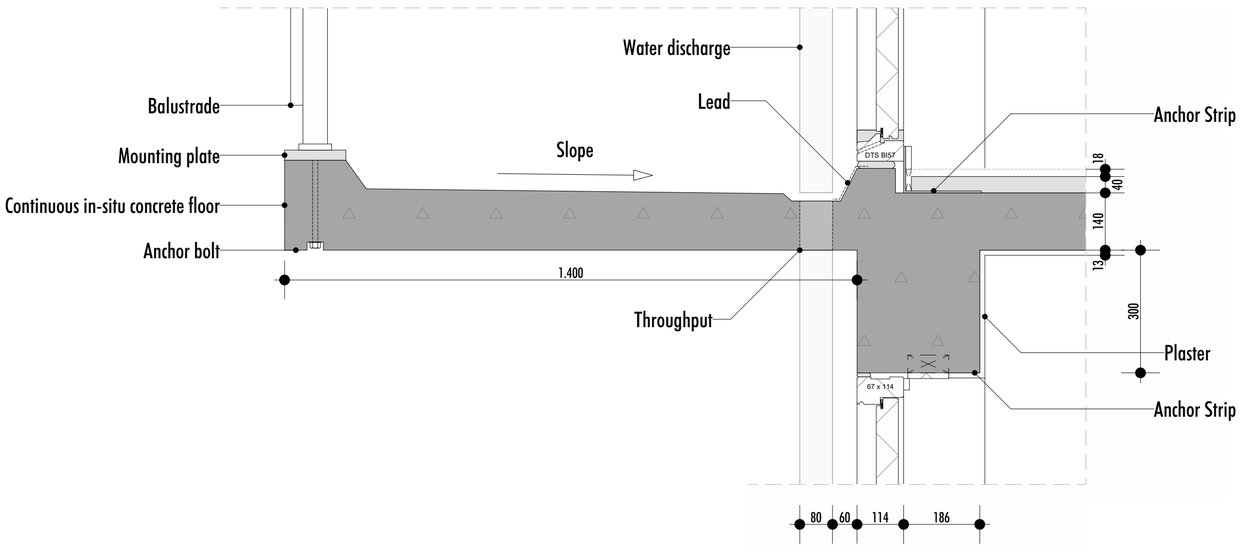
Solutions

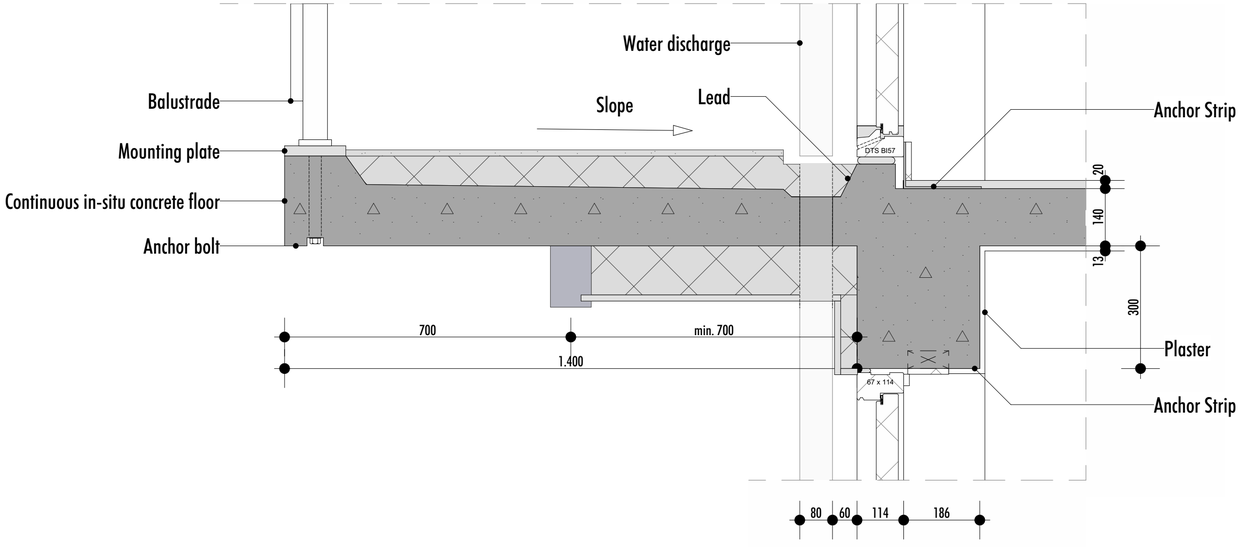
1. Raised galleryfloor
2. Galleryfloor insulation
3. Balcony Extension
4. Building Integrated PV
5. Clean Façade Composition

West Floorplan

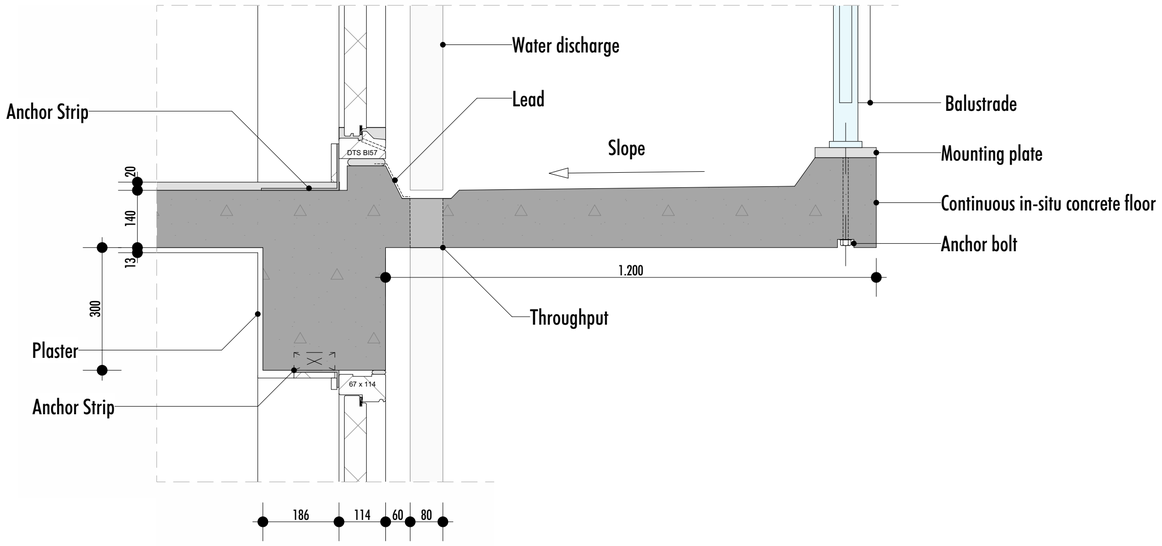


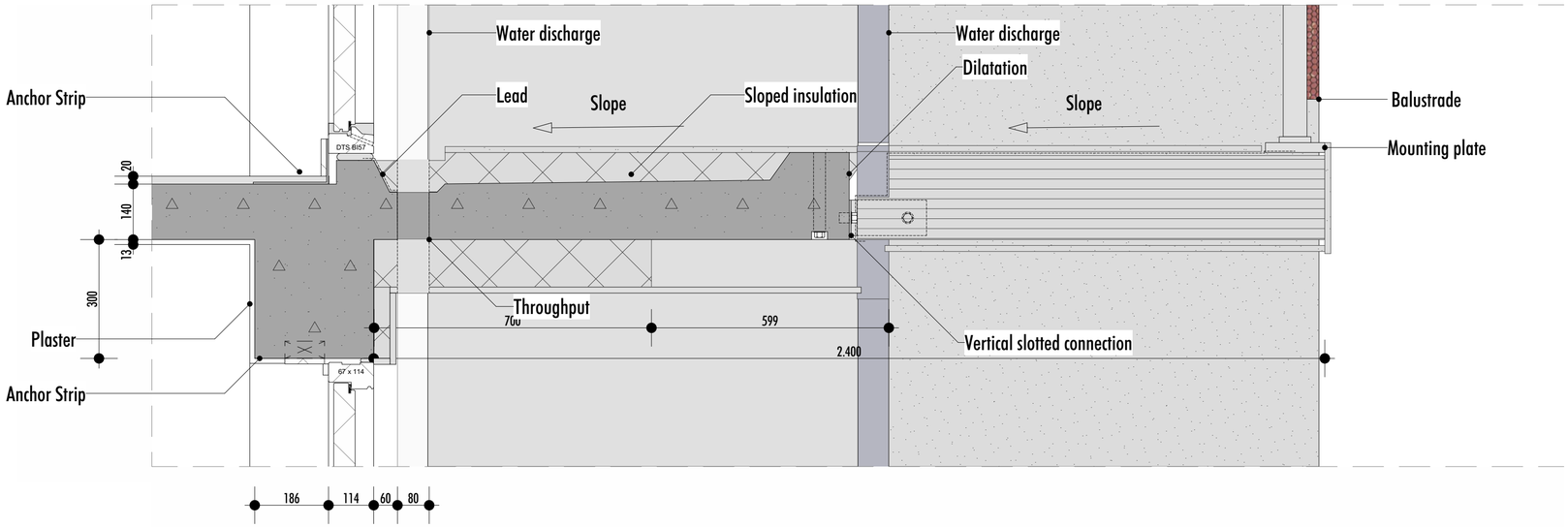
Detailing Gallery





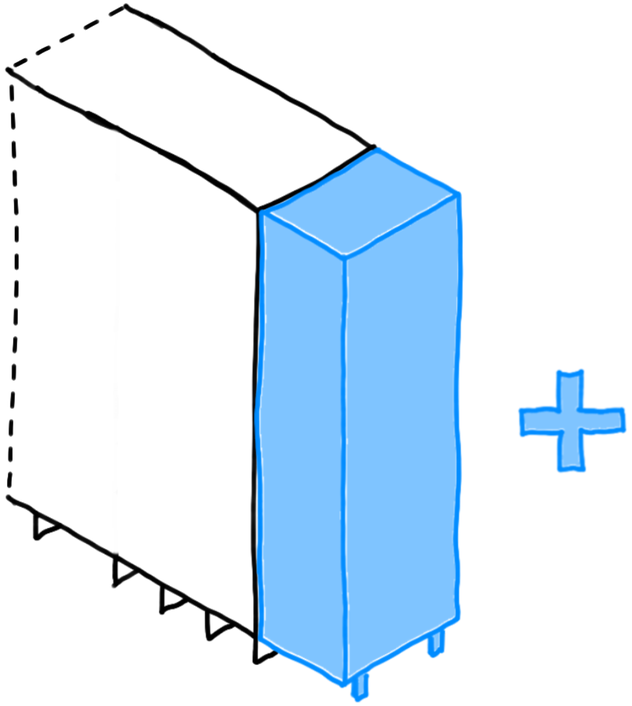
Detailing Balcony






PIZZA
PIZZA

Strategy 3: Addition



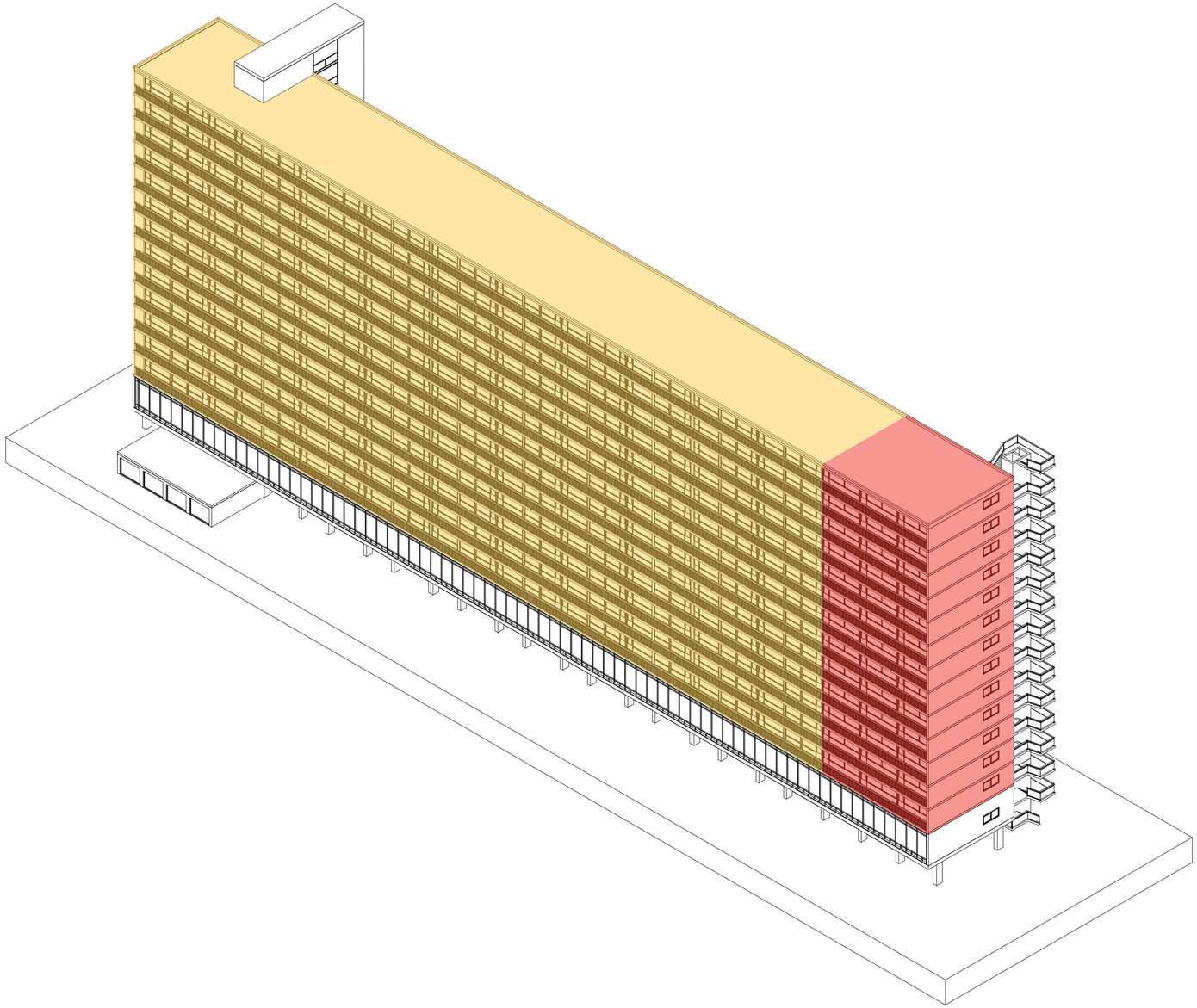
Blind facades.

Funda (2024)

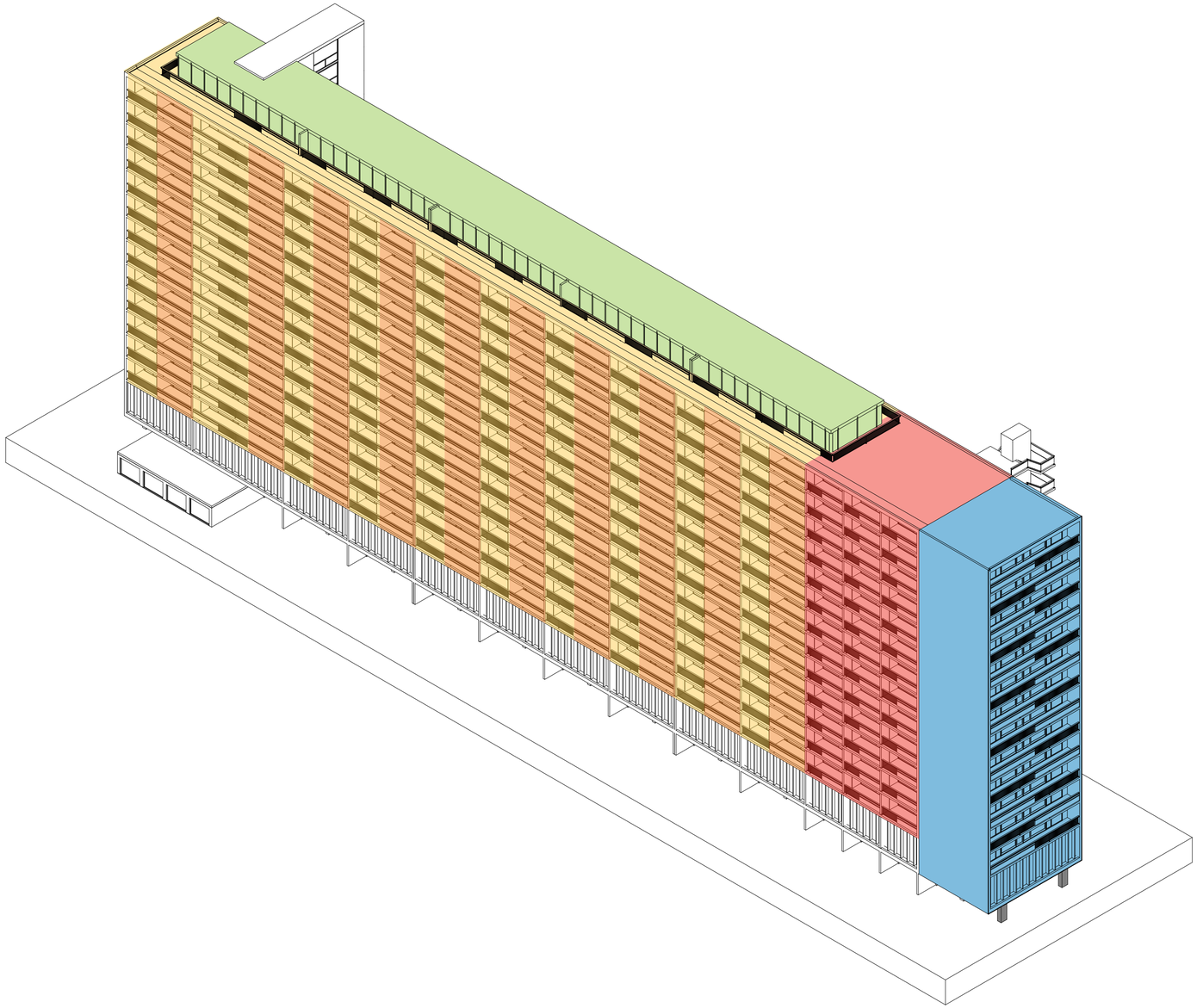
Views across existing green structures and the Sloterplas.

Funda (2024)

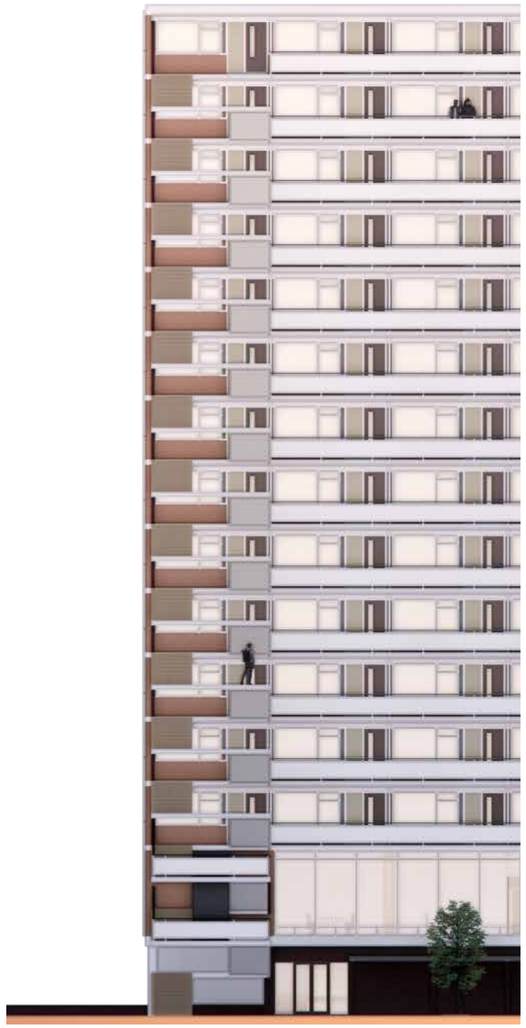
2 Apartment Typologies



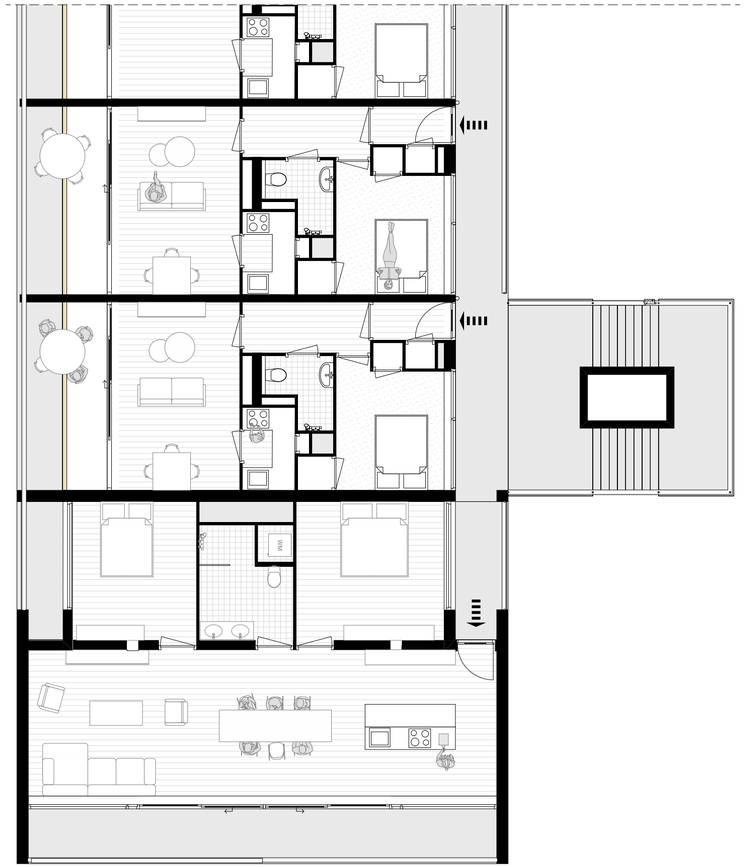
5 Apartment Typologies

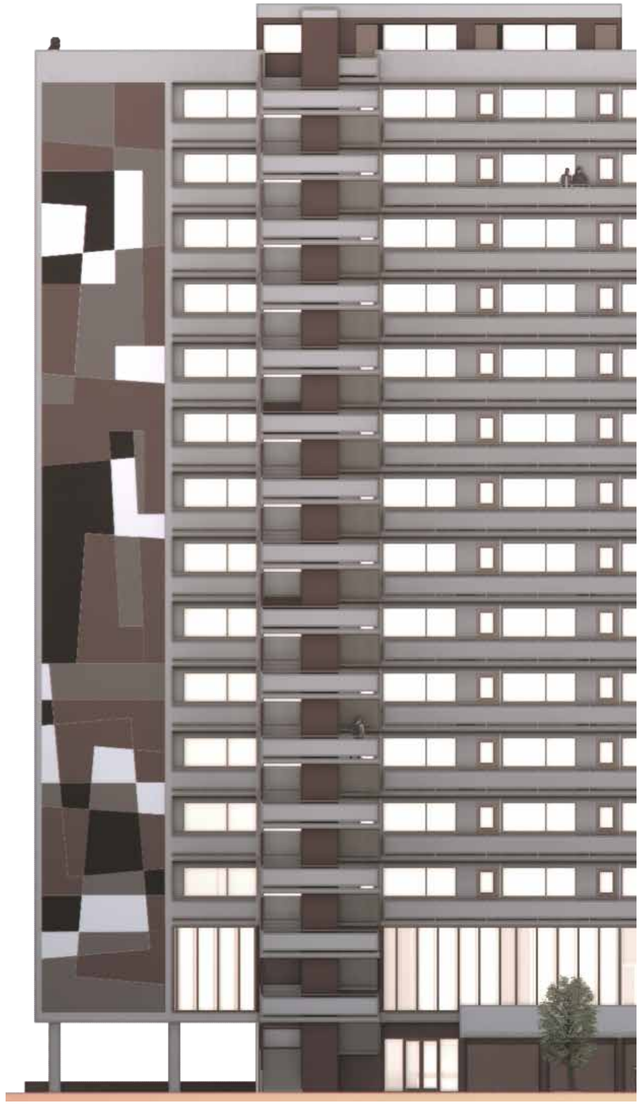


Addition Facades (before)

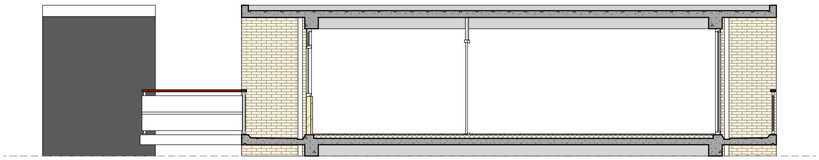


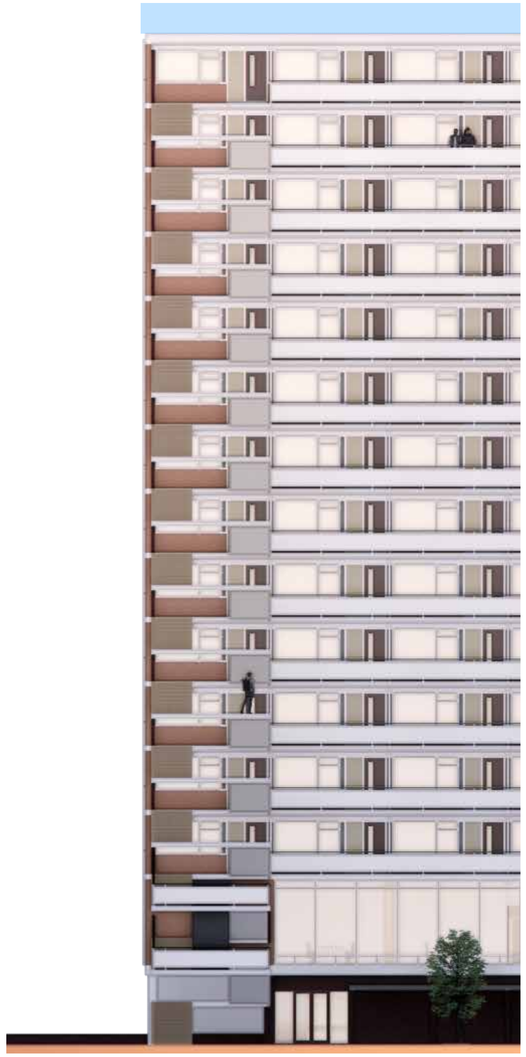
Addition Facades (after)



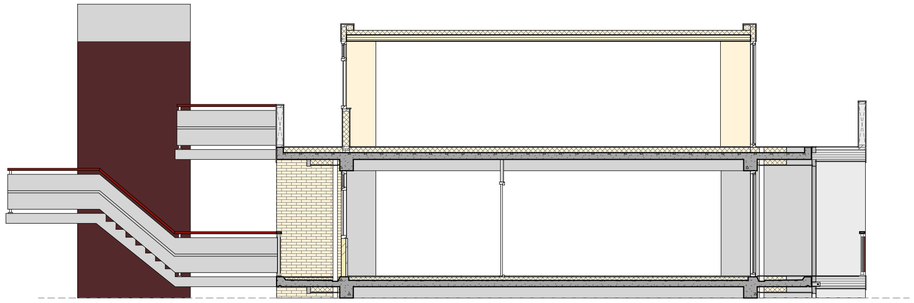


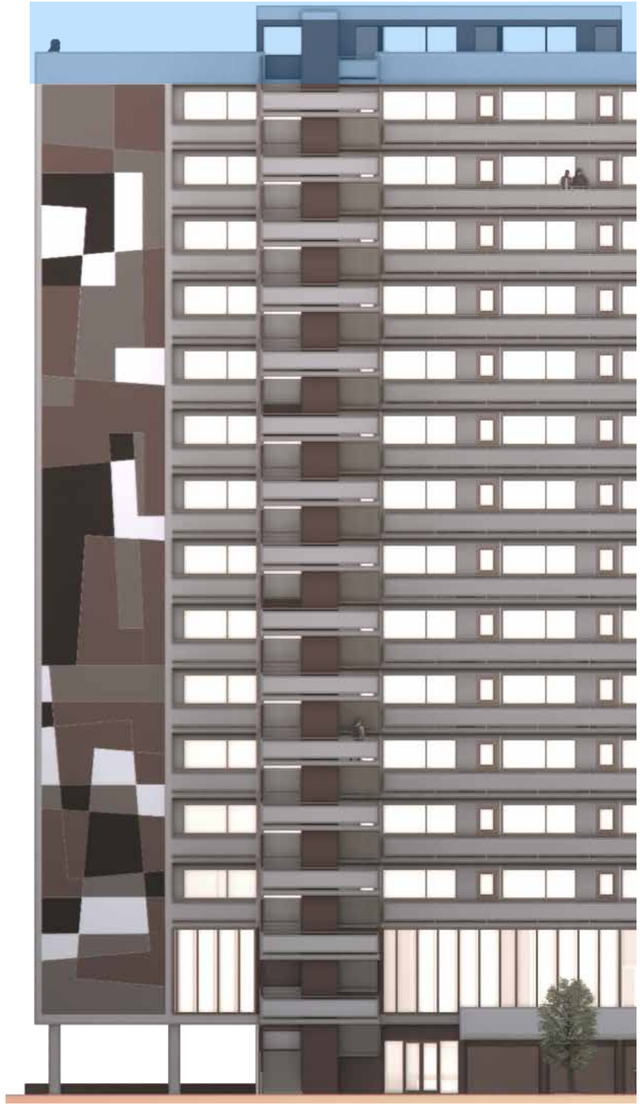
Addition Penthouses (before)





Addition Penthouses (after)

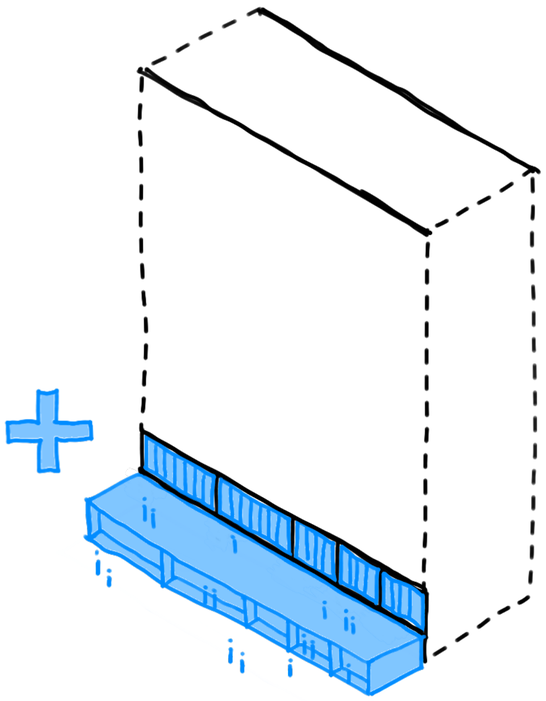




Douglas Herbert Courtenay Auburn (1916 - 2000)

A collection of 10 geometric abstract oil on board panels.
620 x 620mm

Strategy 4: Inviting



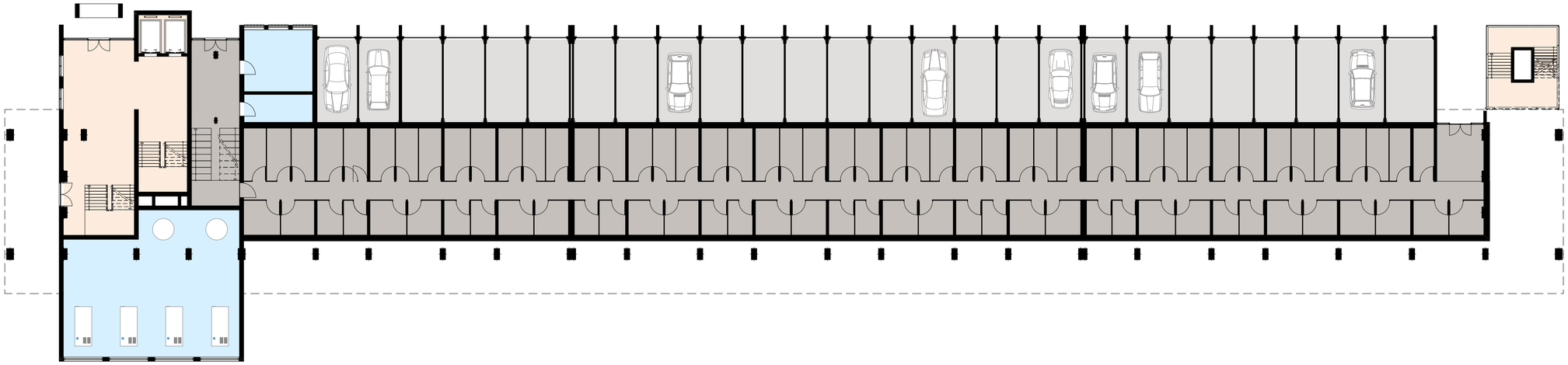
Closed-off Appearance of Groud Floor (west)

Funda (2024)

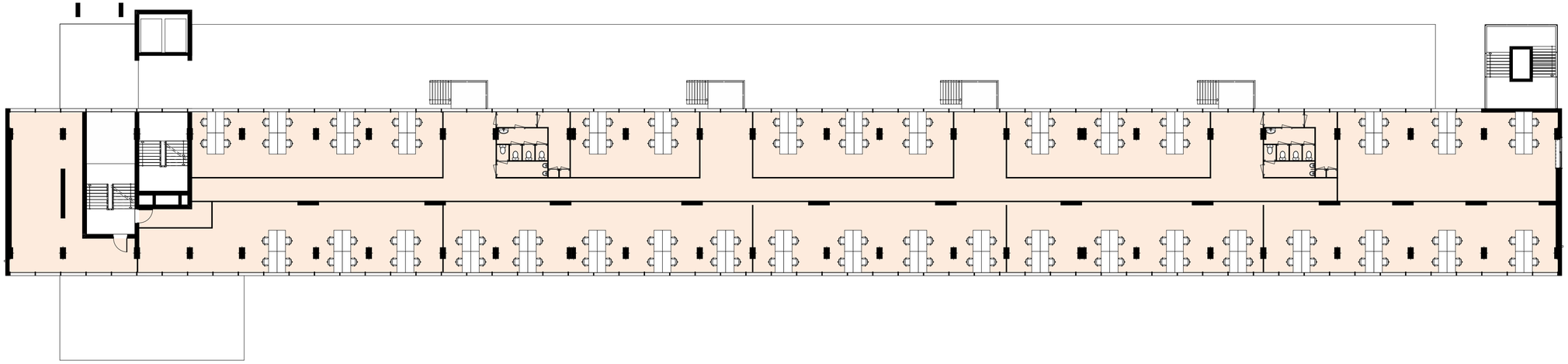
Closed-off Appearance of Groud Floor (east)

Funda (2024)

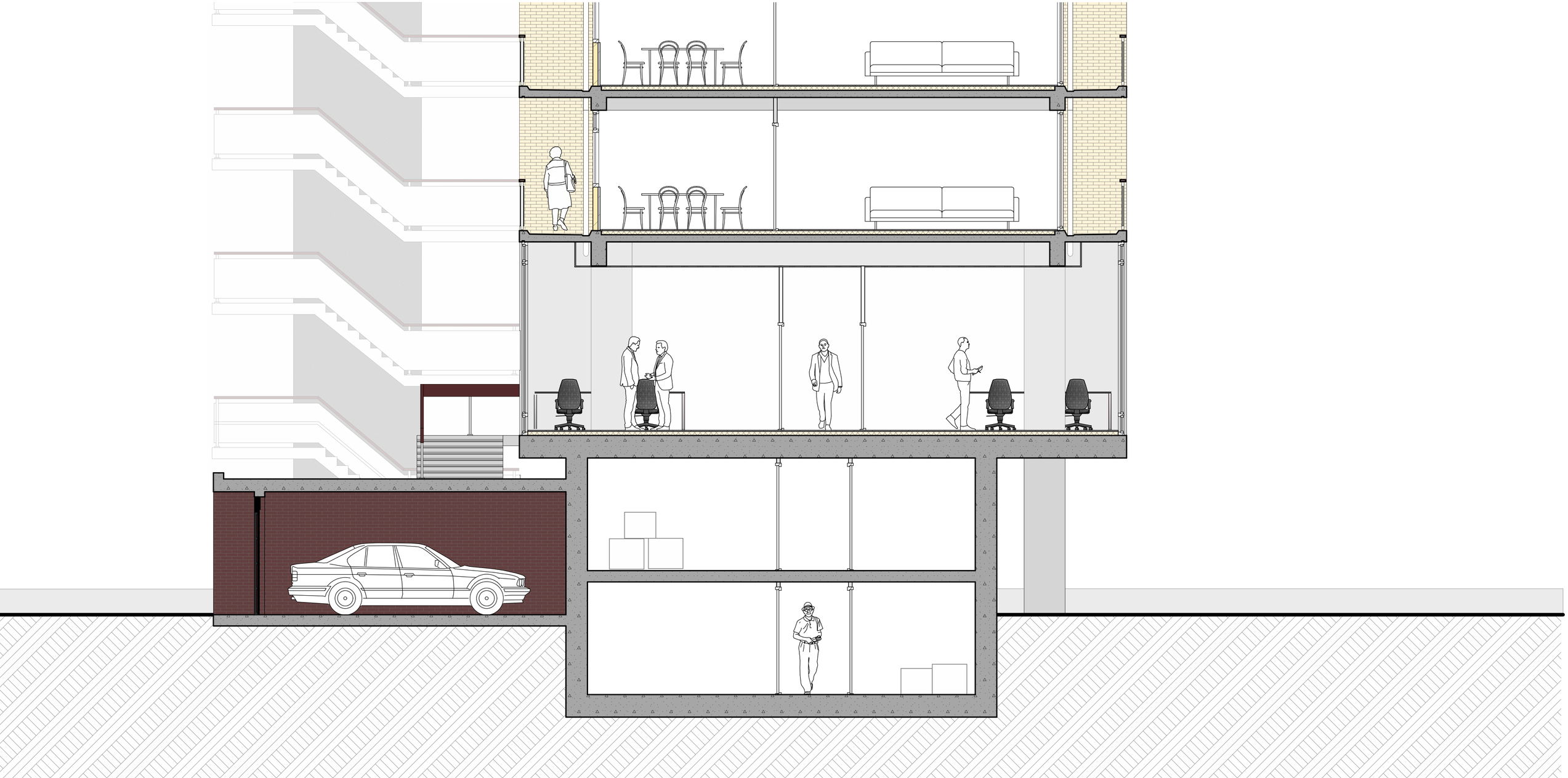
Ground Floor (before)



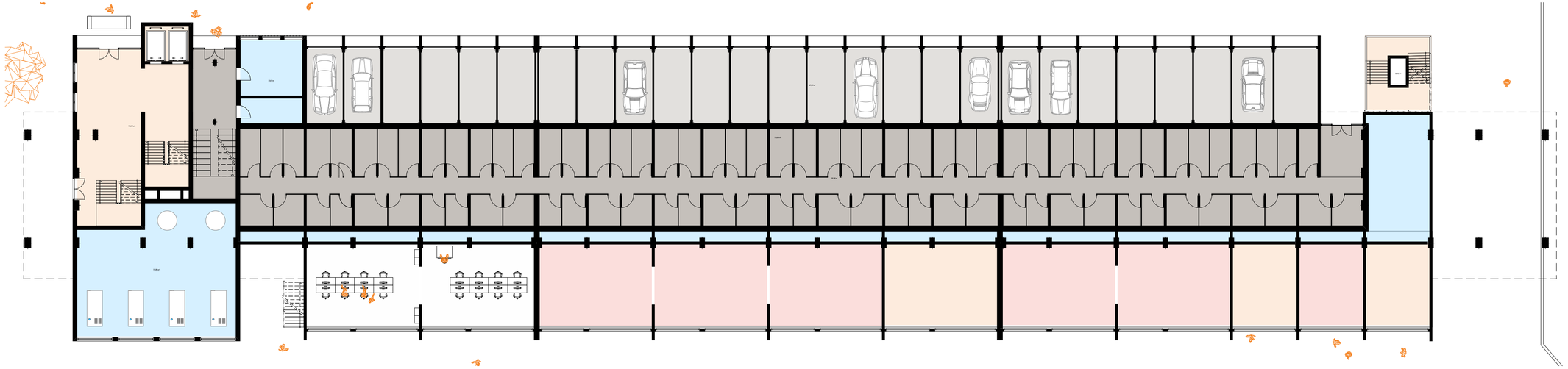
First Floor (before)



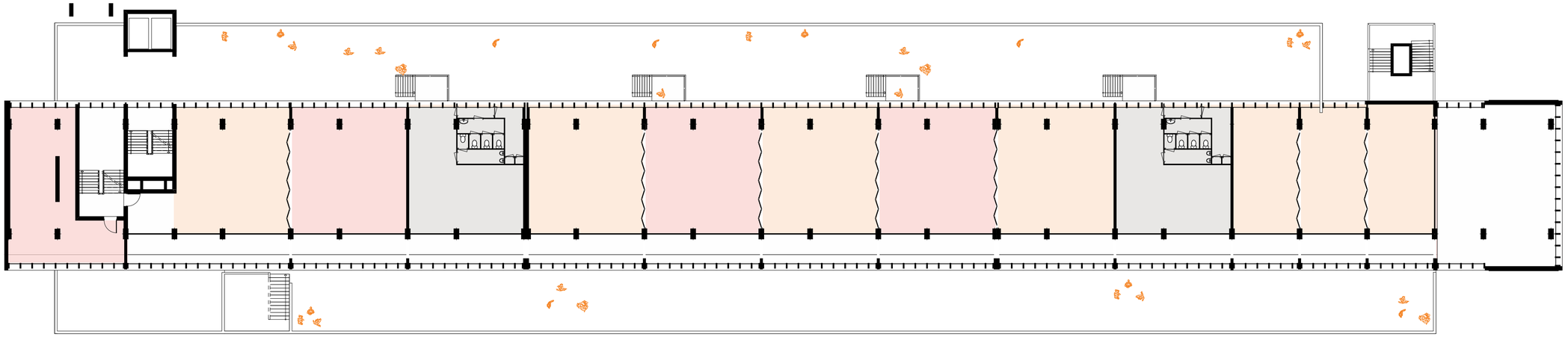
Section (before)



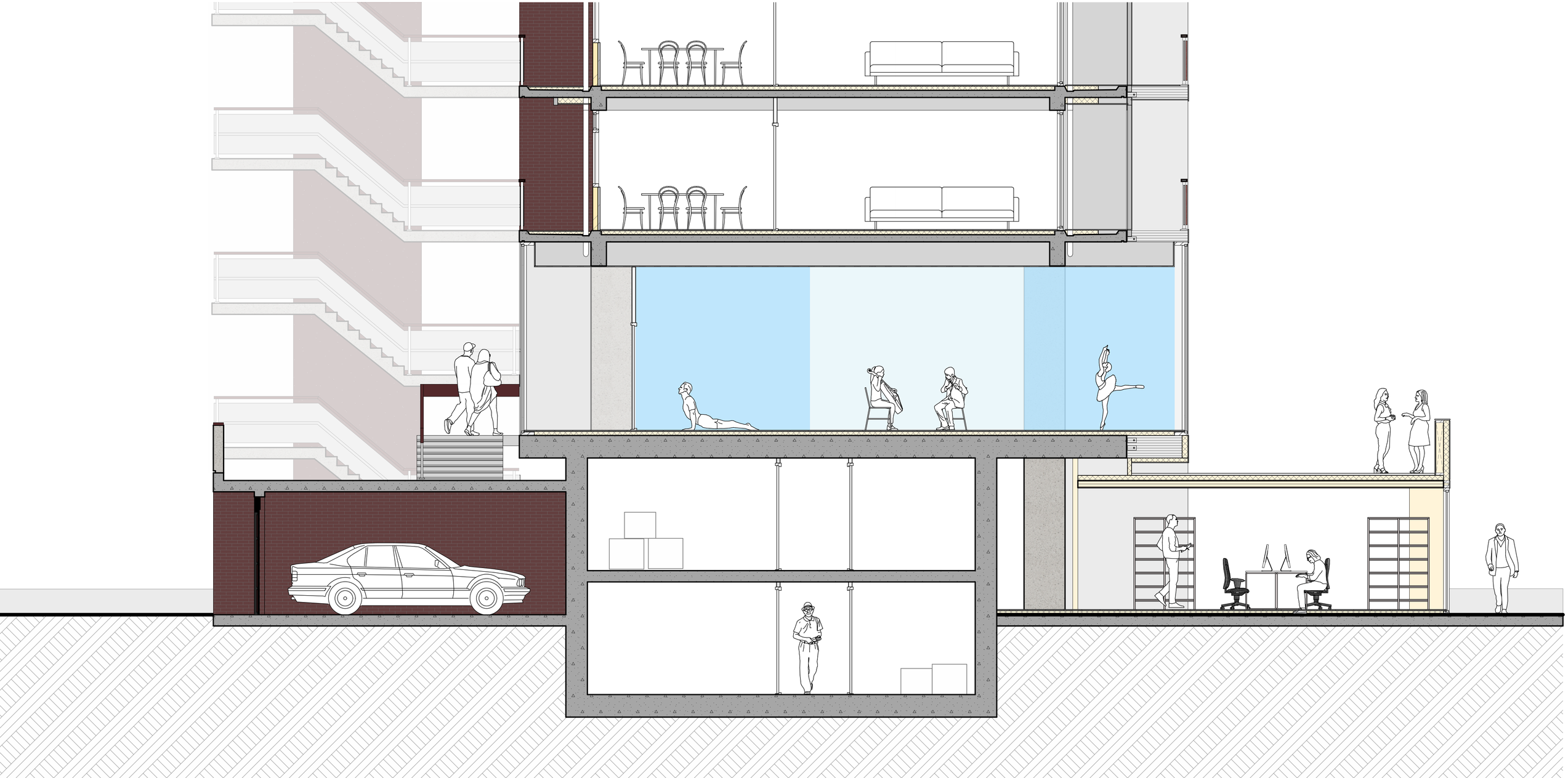
Ground Floor (after)



First Floor (after)



Section (after)



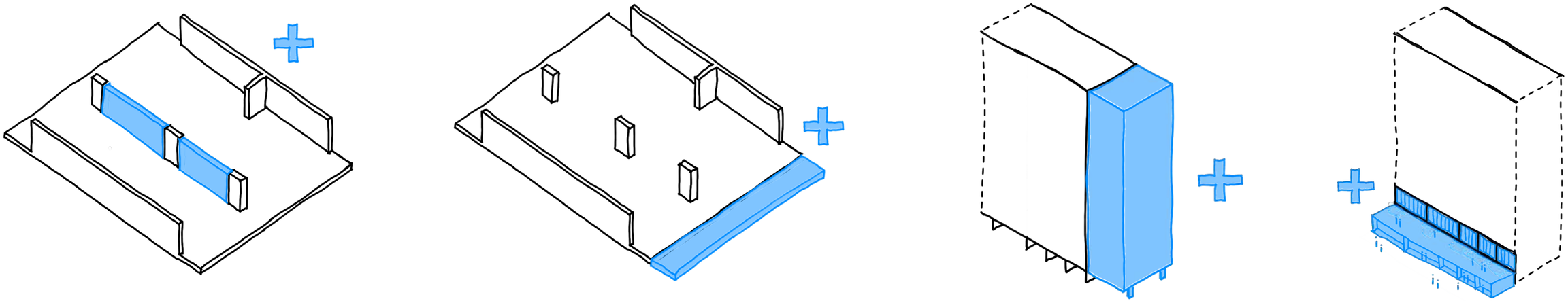
Impression (before)

Impression (after)

GIF

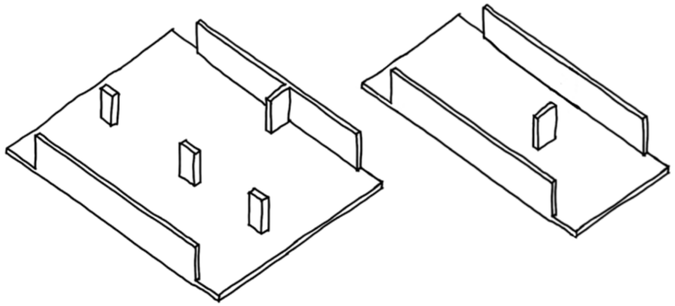
In conclusion:

4 Strategies: Splitting, Extending Addition and Inviting

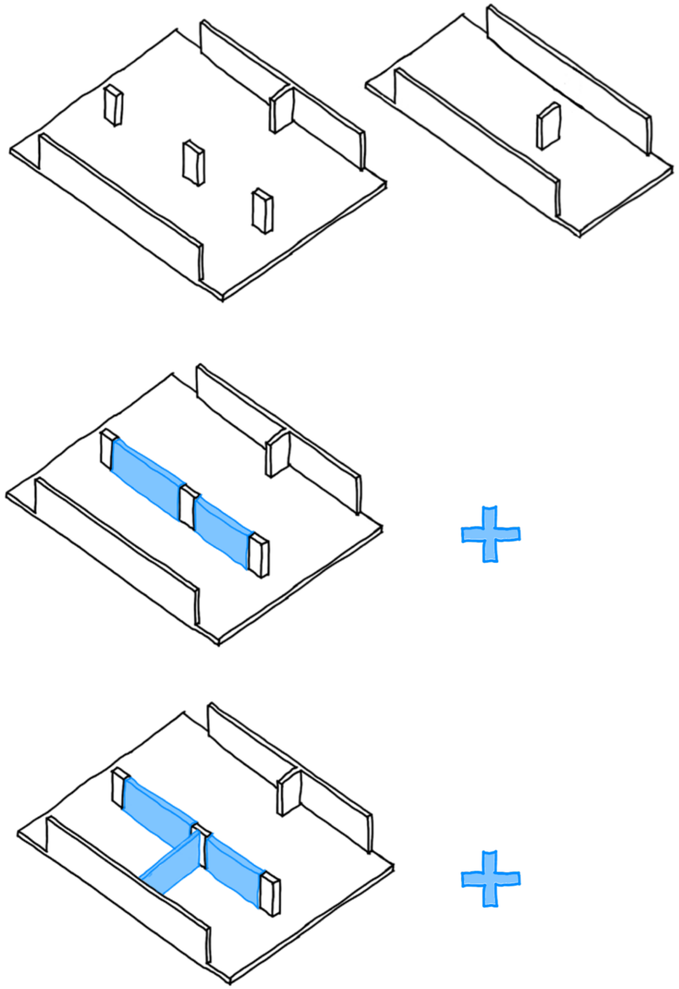


Diversity in Apartment Tupologies

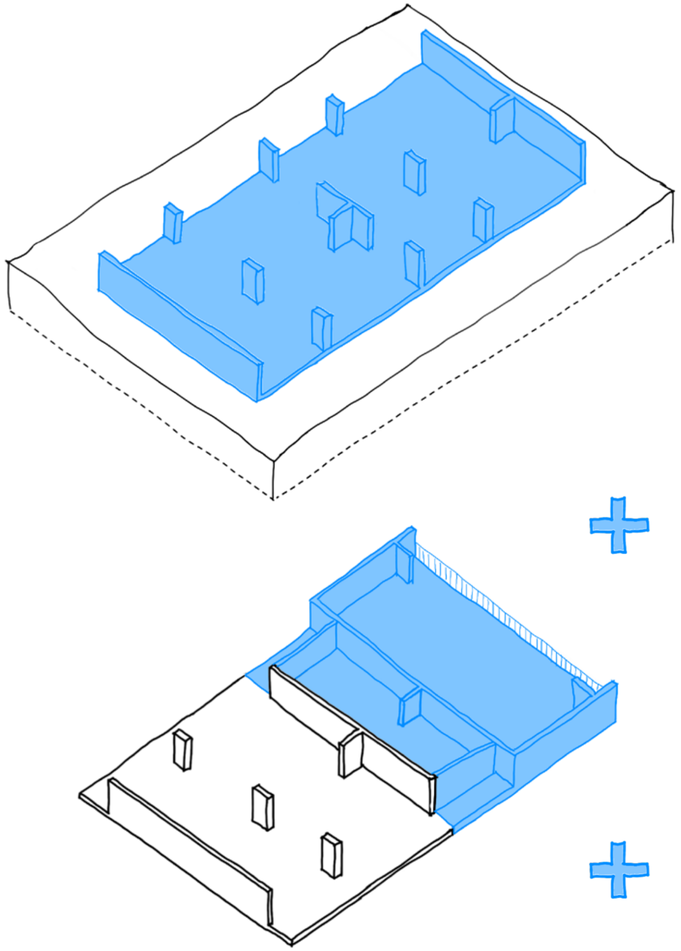
Existing



Adapted

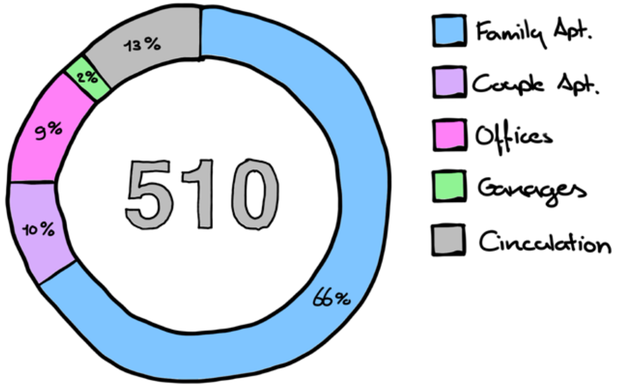


New

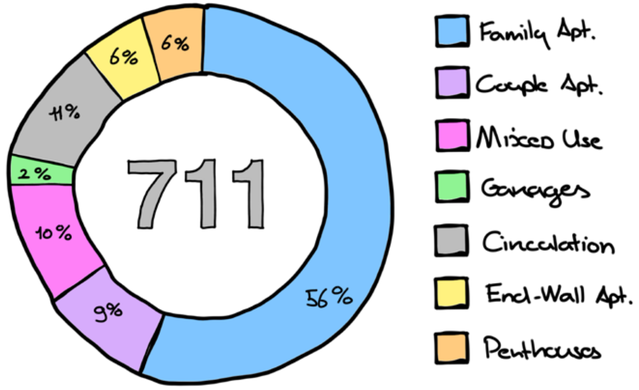


Case Study: Alt Erlaa, Vienna

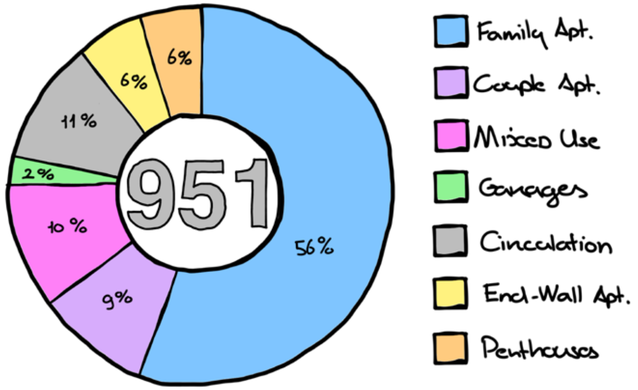
Range of Density



0 %



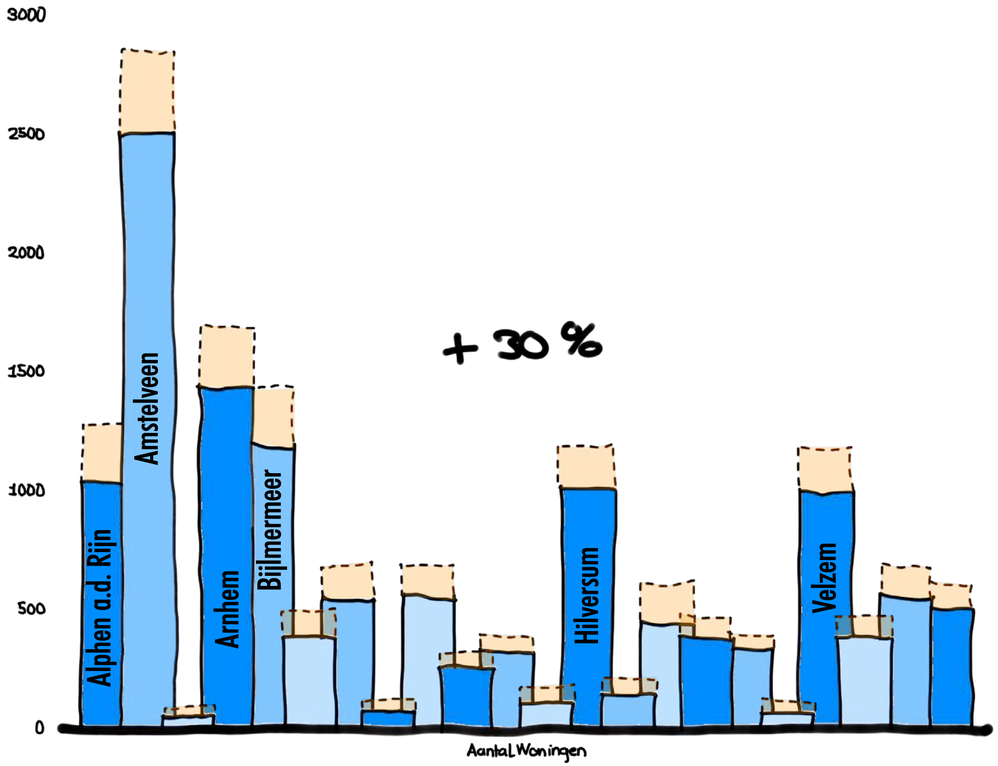
30 %



100 %

Spread of EBA blocks in The Netherlands

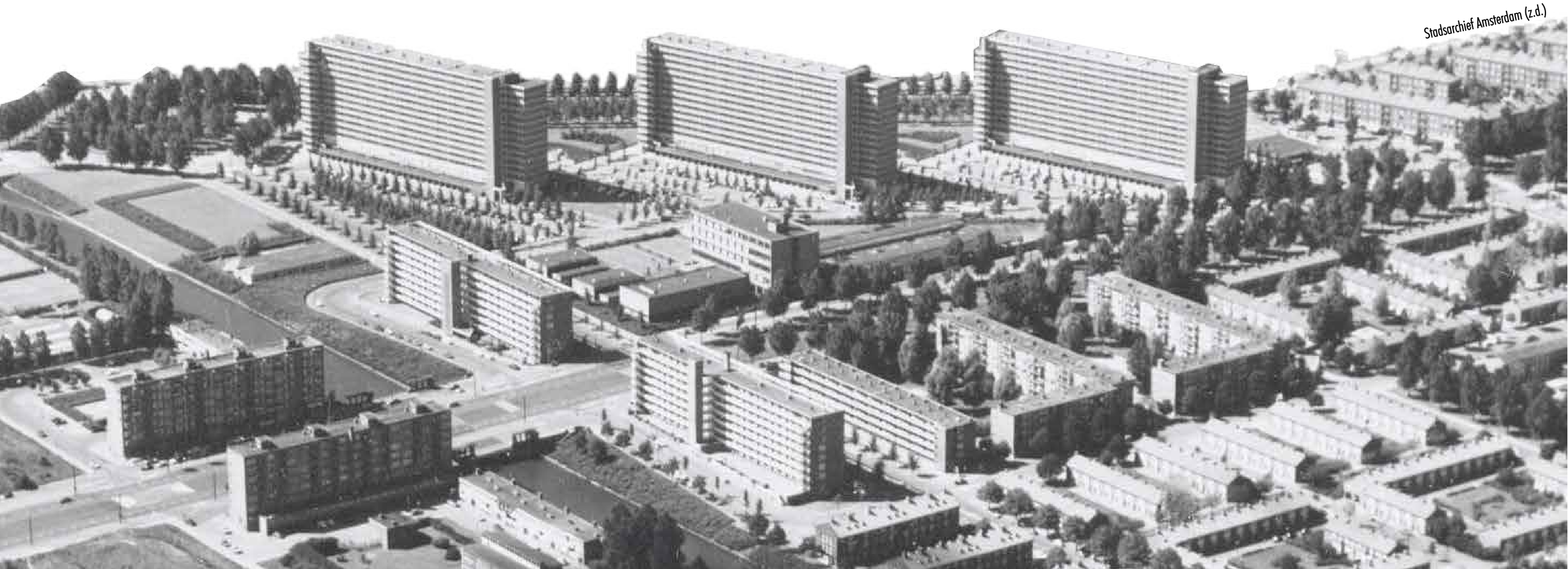
Extrapolating Stategies



13.500 → 18.200

Towards Adaptable Post-War Housing

Architecture that uses change for greater significance.


Stadsarchief Amsterdam (z.d.)

Reflection

How did your graduation project influence you personally, as a future architect?

Research & Design

Research Methods (Funda)

Academic Attitude
(perseverance, self reflection and working hard)


Thank
you!