ROTTERDAM HARBOUR POLICE

THE CONCEPTS OF OPENNESS AND CLOSENESS APPLIED TO WINDOW OPENINGS

ADAPTING 20TH CENTURY HERITAGE
VACANT POLICE REAL ESTATE

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ASSIGNMENT

NATIONAL POLICE REAL ESTATE

APPROXIMATELY 700.000m² WILL BE DIVESTED IN THE NEXT 10 YEARS

30% OF REAL ESTATE OBJECTS NEED TO BE REDEVELOPED


Rotterdam Doelwater Police Station. Source: Love 80's architecture


Haarlem Police Station. Source: Wikipedia


The Hague Police Station. Source: Wikipedia


Groningen centrum Police Station. Source: Flickr


Ijmuiden Police Station. Source: politie.nl


Witte de Wit straat Police Station. Source: vastgoedmarkt.nl


Eindhoven, Eenheidsbureau Police Station. Source: ed.nl


Middelburg Police Station. Source: politie.nl


Rotterdam Harbour Police Station. Source: Wikipedia


Huis Ter Velde Warnsveld. Source: Achterhoekpromotie


POLITIE

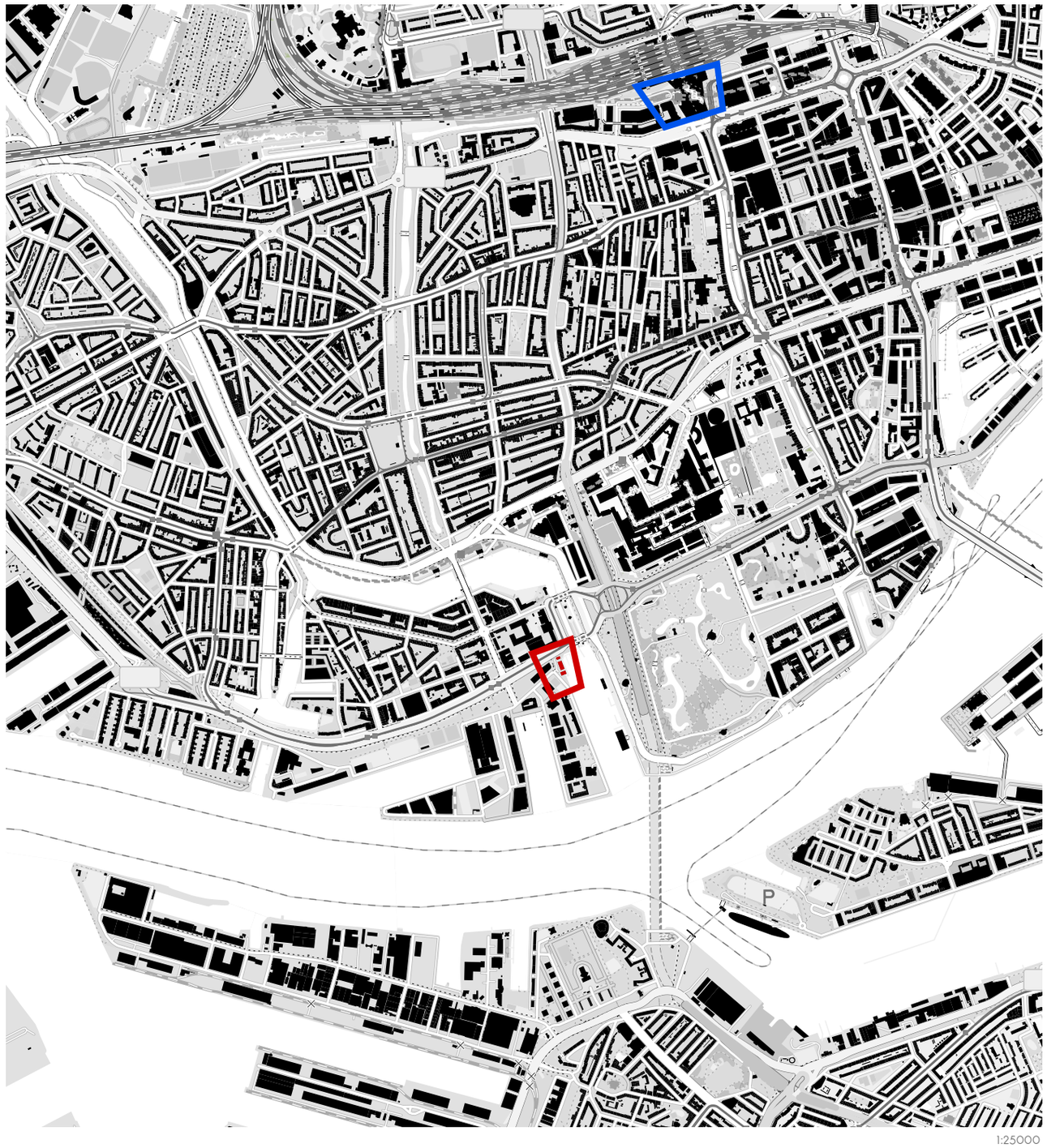

POLITIE
P49


POLITIE
P49


POLITIE

SITE

ROTTERDAM



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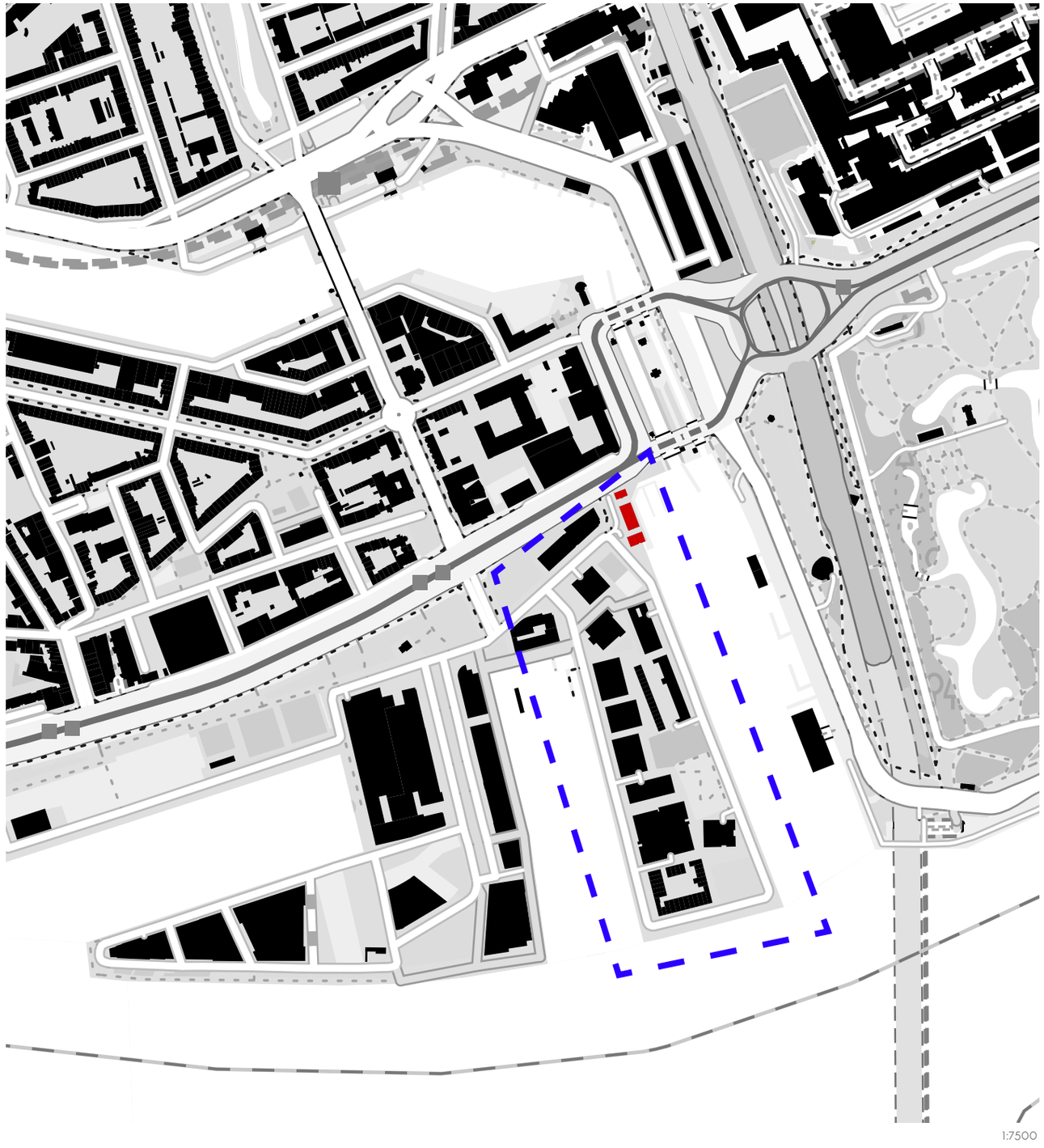
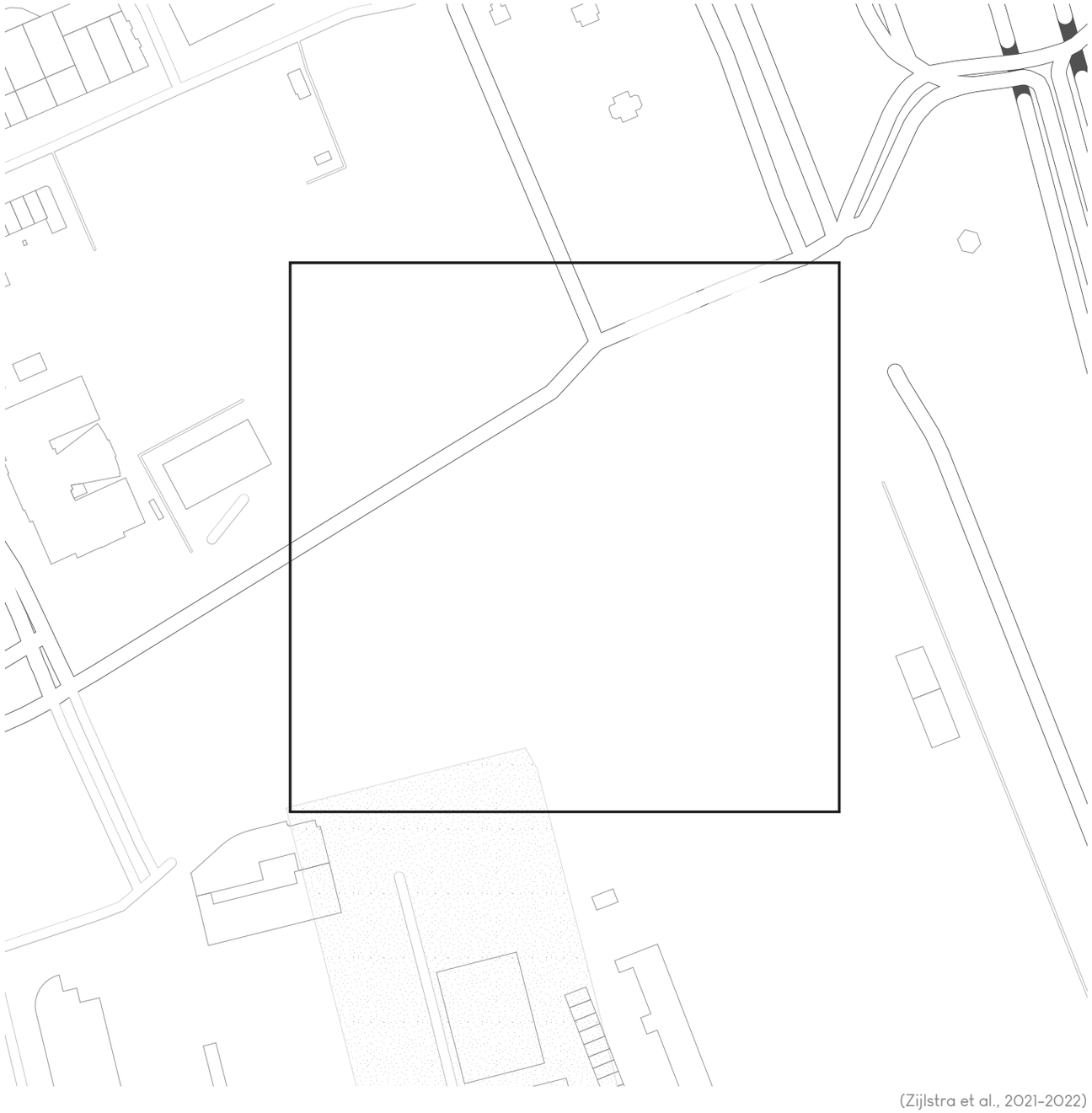
SITE

SCHIEMOND



HISTORICAL DEVELOPMENT

1850 -1910



(Zijlstra et al., 2021-2022)

HISTORICAL DEVELOPMENT

1911 -1932

(Zijlstra et al., 2021-2022)

HISTORICAL DEVELOPMENT

1933 -1993

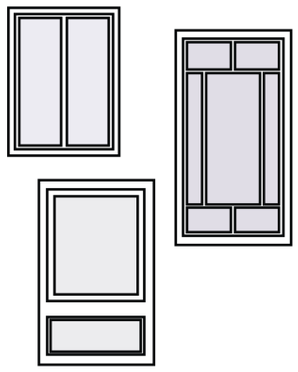
(Zijlstra et al., 2021-2022)

HISTORICAL DEVELOPMENT

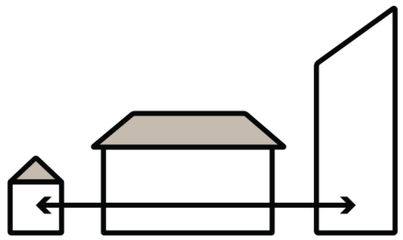
1994 - PRESENT

(Zijlstra et al., 2021-2022)

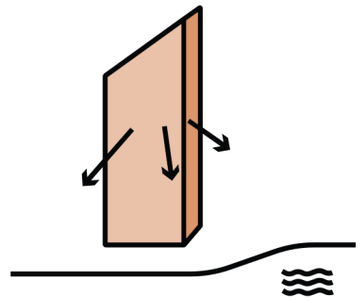
VALUE ASSESSMENT



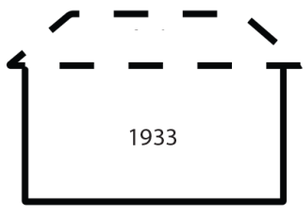
DIFFERENT STYLES



CONNECTION BETWEEN BUILDINGS



MONUMENTAL PRESENCE



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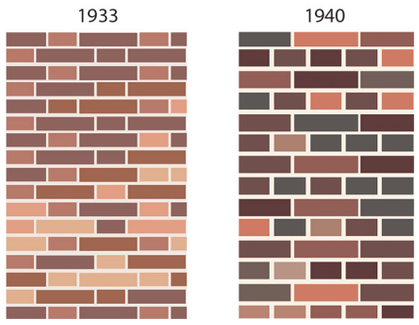
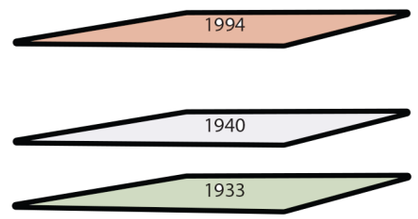


MATERIALITY & FACADES

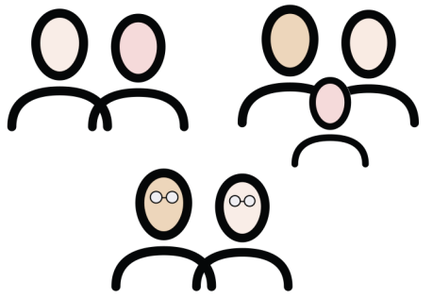


LAYERING OF TIME

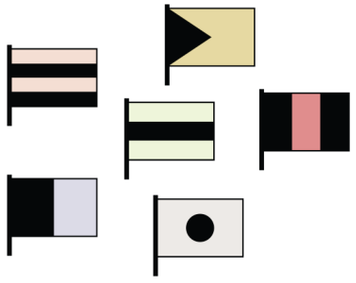
SITE ANALYSIS

GOOD ACCESSIBILITY

DEVELOPING CITY



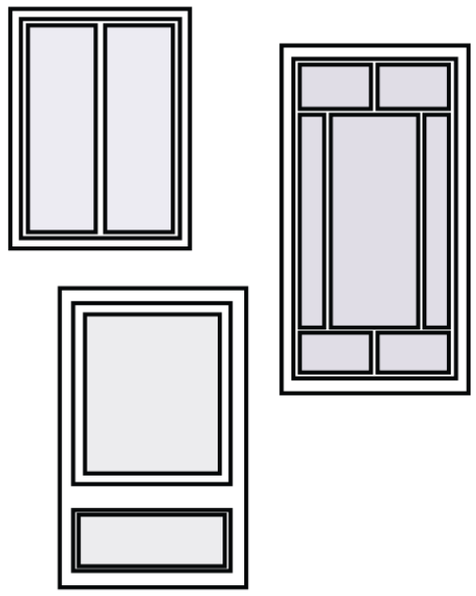
STUDENTS, YOUNG FAMILIES, ELDERLY



CULTURAL VARIETY

HARBOUR & WATER

RESEARCH

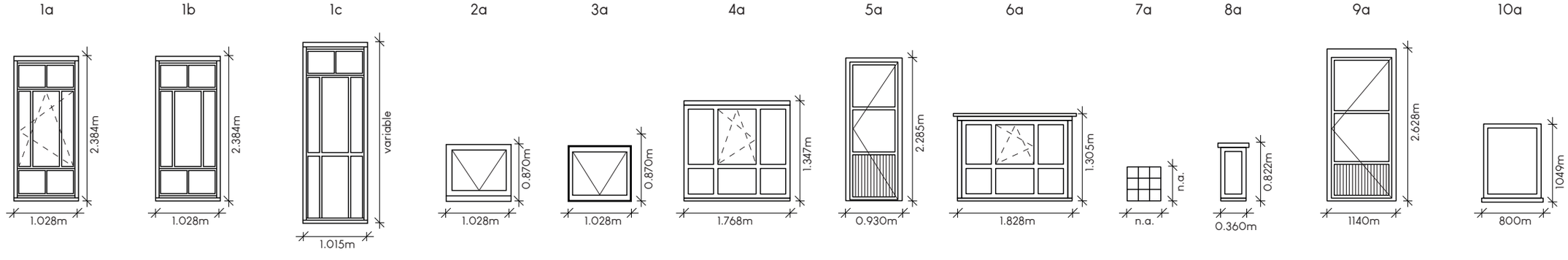


HOW DO WINDOW OPENINGS HELP DEFINE A BUILDING'S OPENNESS OR CLOSENESS TOWARDS THE SURROUNDINGS?

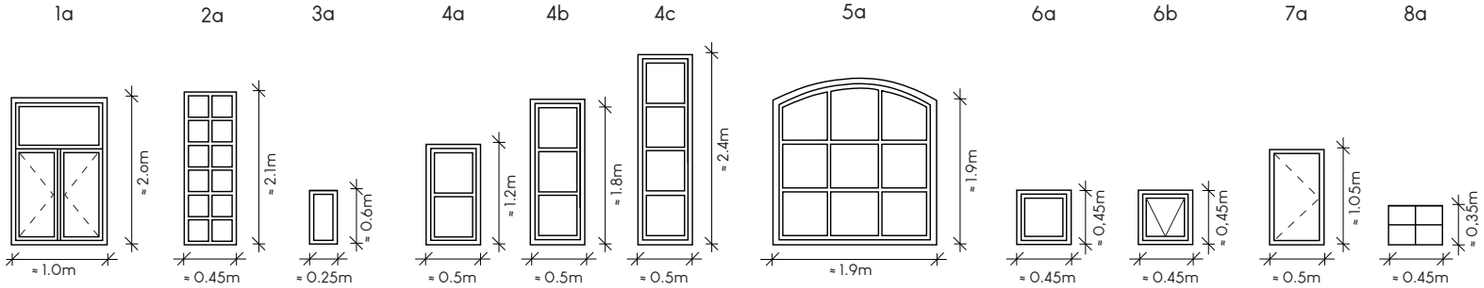
RESEARCH

WINDOW TYPOLOGIES

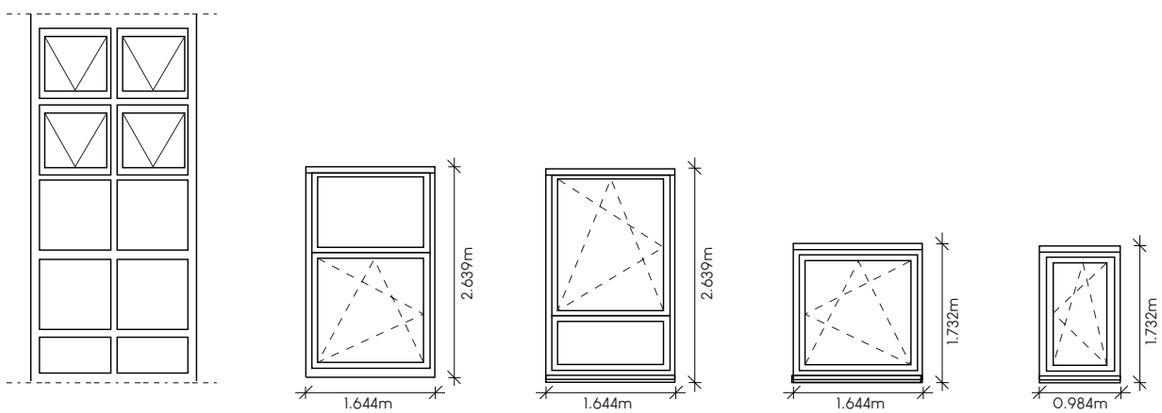
1933



1940



1994



RESEARCH

CONCEPTS OF OPENNESS AND CLOSENESS

“[..] Openness as an element of spatial and temporal articulation between an interior and an exterior. Openness is not only visual transparency, but it is related to all senses. It can be seen as the medium to regulate the functional needs (light, view, aeration and spatial and temporal articulation) between interior and exterior.”

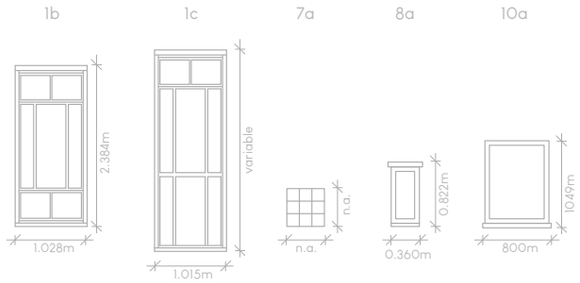
Ayoub & Koba Yashi (2001)

RESEARCH

OPENNESS AND CLOSENESS

1933

TYPOLOGY	SIGHT	HEARING	SMELL	TOUCH	OPENNESS/ CLOSENESS
1a	YES 10/10	YES 6/10	YES 6/10	YES 6/10	70% OPENNESS
1b	NO 0/10	NO 0/10	NO 0/10	NO 0/10	100% CLOSENESS
1c	YES 10/10	NO 0/10	NO 0/10	NO 0/10	75% CLOSENESS
2a	YES 10/10	YES 8/10	YES 8/10	YES 8/10	85% OPENNESS
3a	YES 10/10	YES 8/10	YES 8/10	YES 8/10	85% OPENNESS
4a	YES 10/10	YES 4/10	YES 4/10	YES 4/10	55% OPENNESS
5a	YES 8/10	YES 10/10	YES 10/10	YES 10/10	95% OPENNESS
6a	YES 10/10	YES 4/10	YES 4/10	YES 4/10	55% OPENNESS
7a	NO 0/10	NO 0/10	NO 0/10	NO 0/10	100% CLOSENESS
8a	YES 10/10	NO 0/10	NO 0/10	NO 0/10	75% CLOSENESS
9a	YES 8/10	YES 10/10	YES 10/10	YES 10/10	95% OPENNESS
10a	YES 10/10	NO 0/10	NO 0/10	NO 0/10	75% CLOSENESS



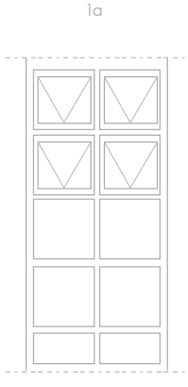
1940

TYPOLOGY	SIGHT	HEARING	SMELL	TOUCH	OPENNESS/ CLOSENESS
6a	YES 10/10	NO 0/10	NO 0/10	NO 0/10	75% CLOSENESS

1a	YES 10/10	YES 8/10	YES 8/10	YES 8/10	85% OPENNESS
2a	YES 10/10	NO 0/10	NO 0/10	NO 0/10	75% CLOSENESS
3a	YES 10/10	NO 0/10	NO 0/10	NO 0/10	75% CLOSENESS
6b	YES 10/10	YES 8/10	YES 8/10	YES 8/10	85% OPENNESS
7a	YES 10/10	YES 10/10	YES 10/10	YES 10/10	100% OPENNESS
8a	NO 0/10	NO 0/10	NO 0/10	NO 0/10	100% CLOSENESS

1994

TYPOLOGY	SIGHT	HEARING	SMELL	TOUCH	OPENNESS/ CLOSENESS
1a	YES 10/10	YES 1/10	YES 1/10	YES 1/10	67,5 CLOSENESS
2a	YES 10/10	YES 7/10	YES 7/10	YES 7/10	77,5% OPENNESS
3a	YES 10/10	YES 8/10	YES 8/10	YES 8/10	85% OPENNESS
4a	YES 10/10	YES 10/10	YES 10/10	YES 10/10	100% OPENNESS
5a	YES 10/10	YES 10/10	YES 10/10	YES 10/10	100% OPENNESS



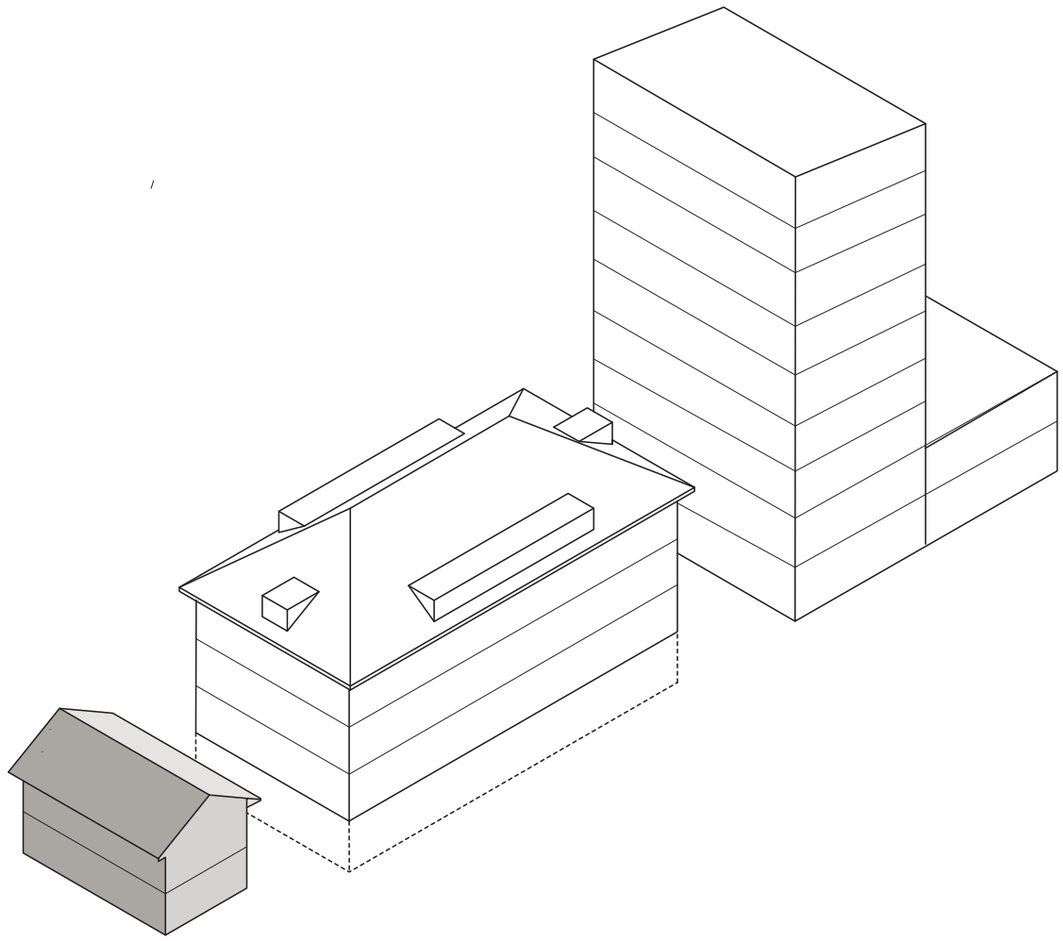
PROGRAM

PROGRAM

1940 BUILDING

RESTAURANT & CAFE

- Meeting space
- Beautiful location
- Very well accessible

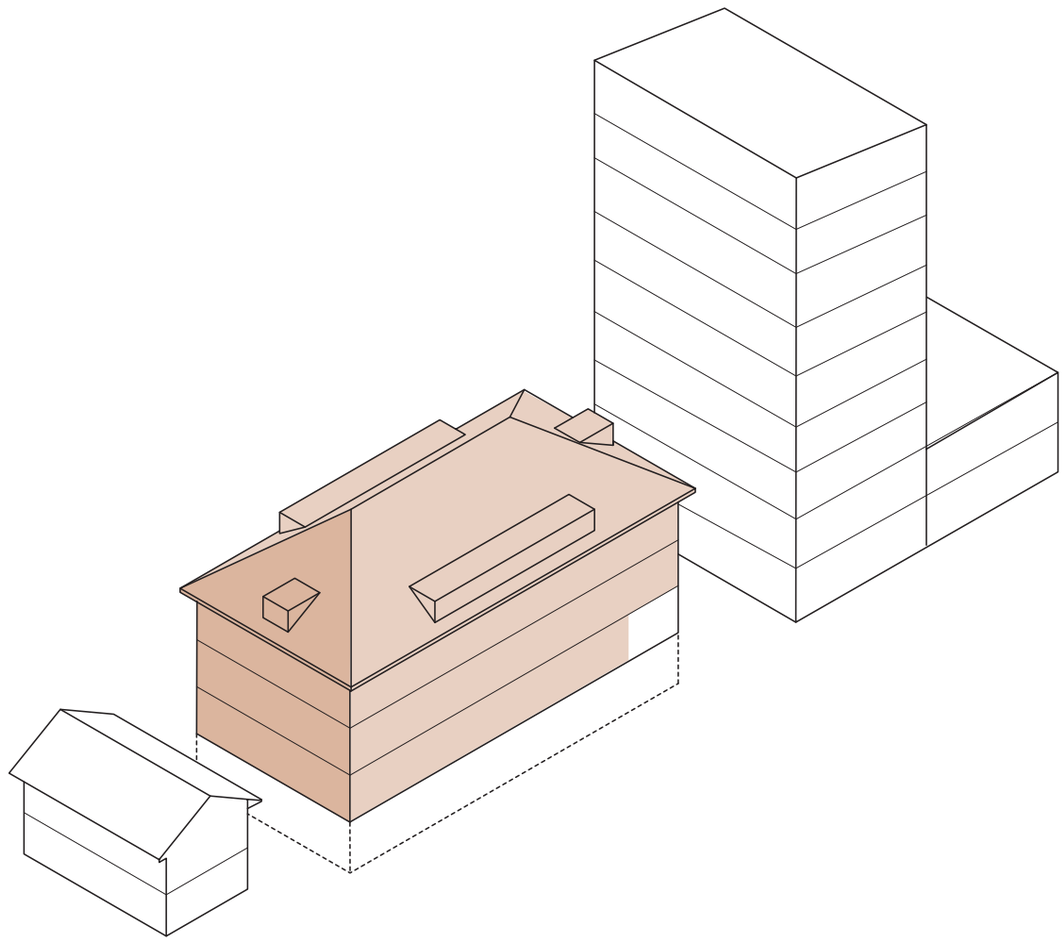


PROGRAM

1933 BUILDING

FLUID OFFICE SPACES

- Digitalization era
- New way of working
- Need of physical workspaces
- Smart working

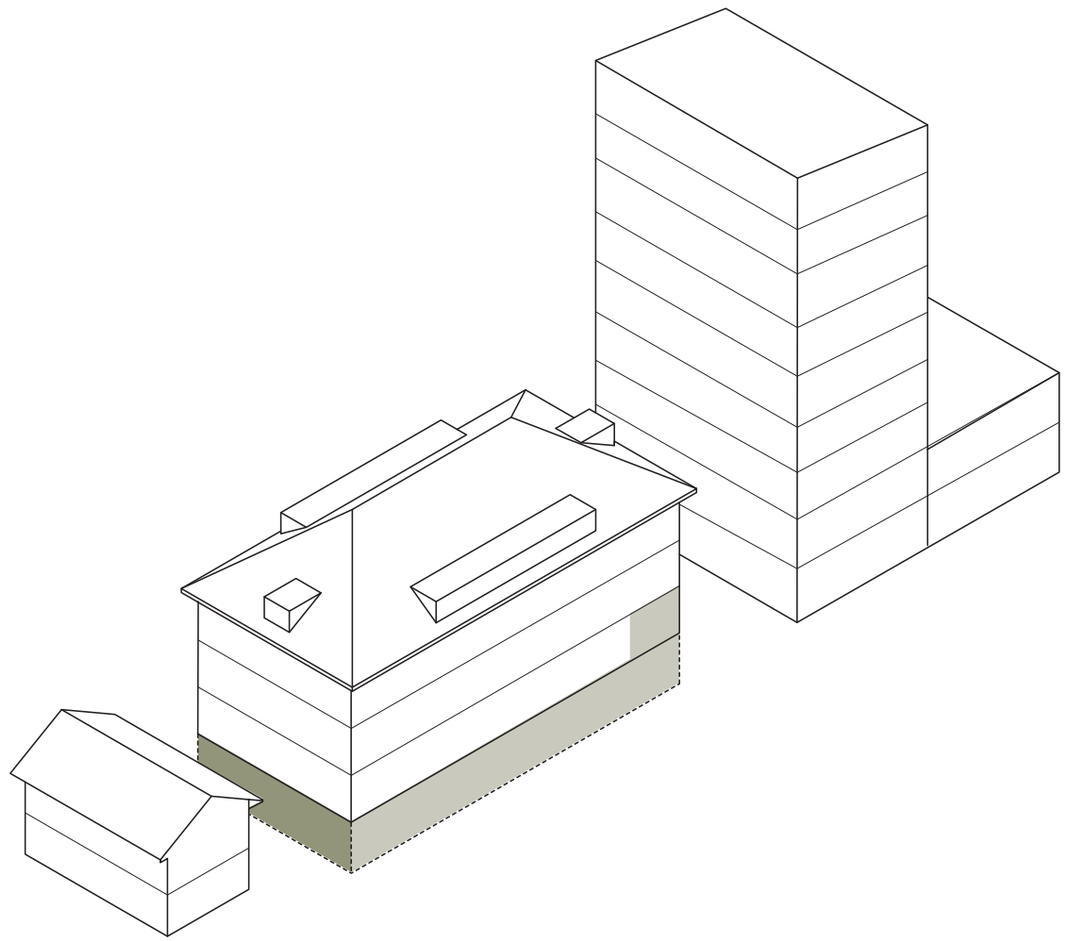


PROGRAM

1933 BUILDING

MAKERS SPACE

- Social interaction
- Connection
- New meeting point

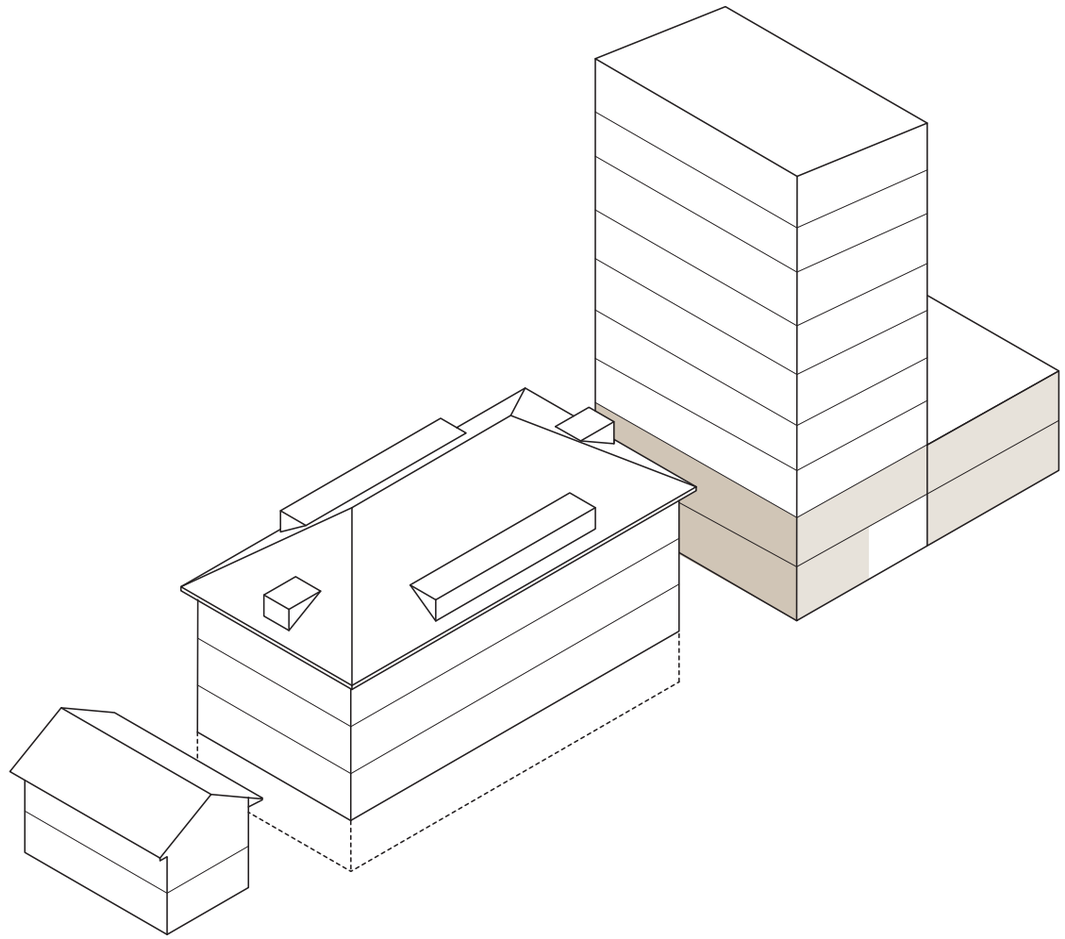


PROGRAM

1994 BUILDING

COMMUNITY CENTRE

- Upcoming new community
- Social interaction
- Pillar in the neighbourhood

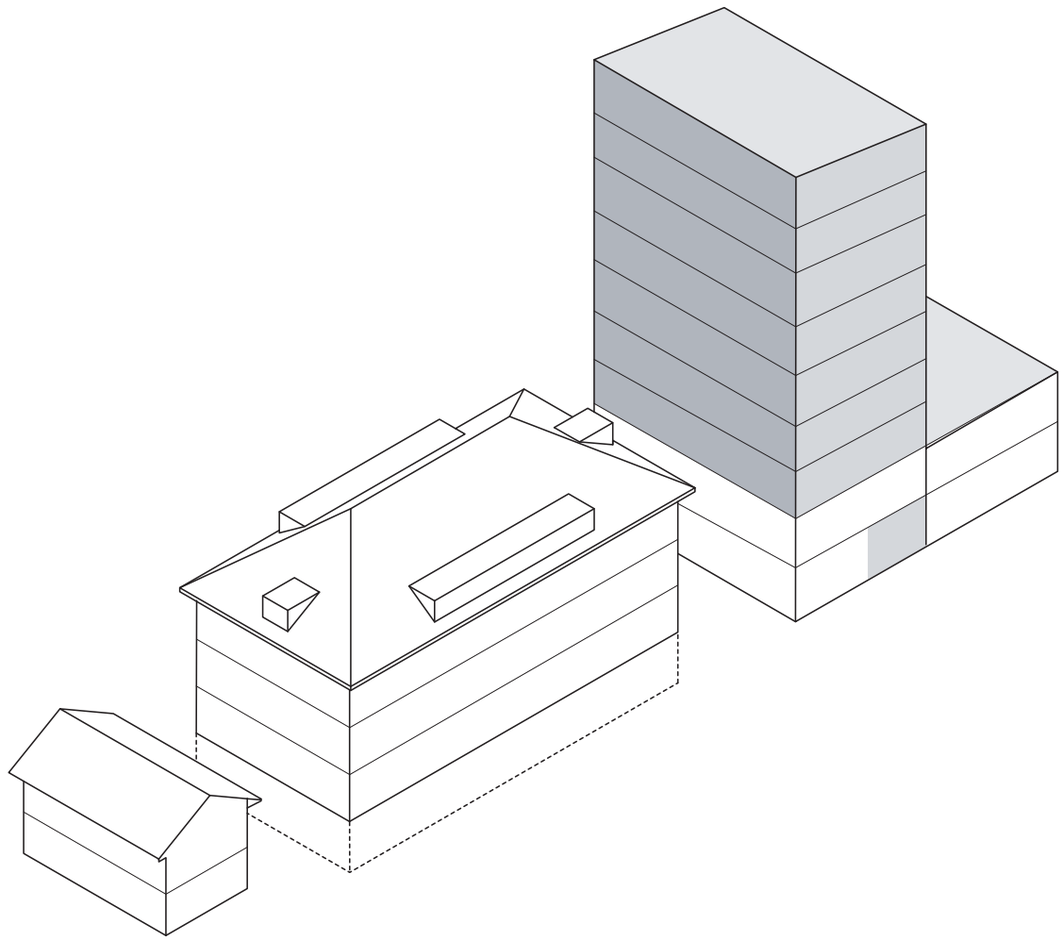


PROGRAM

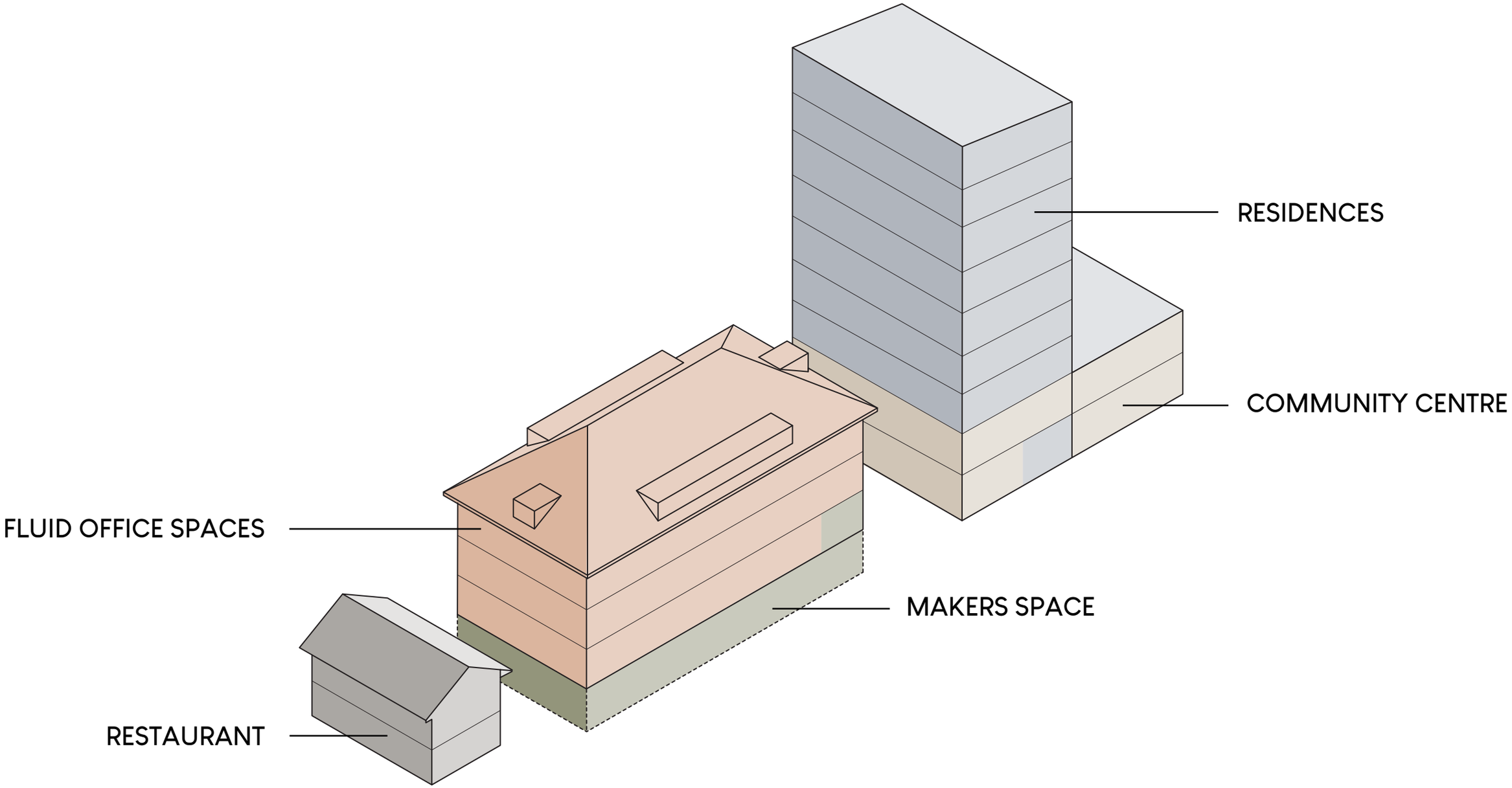
1994 BUILDING

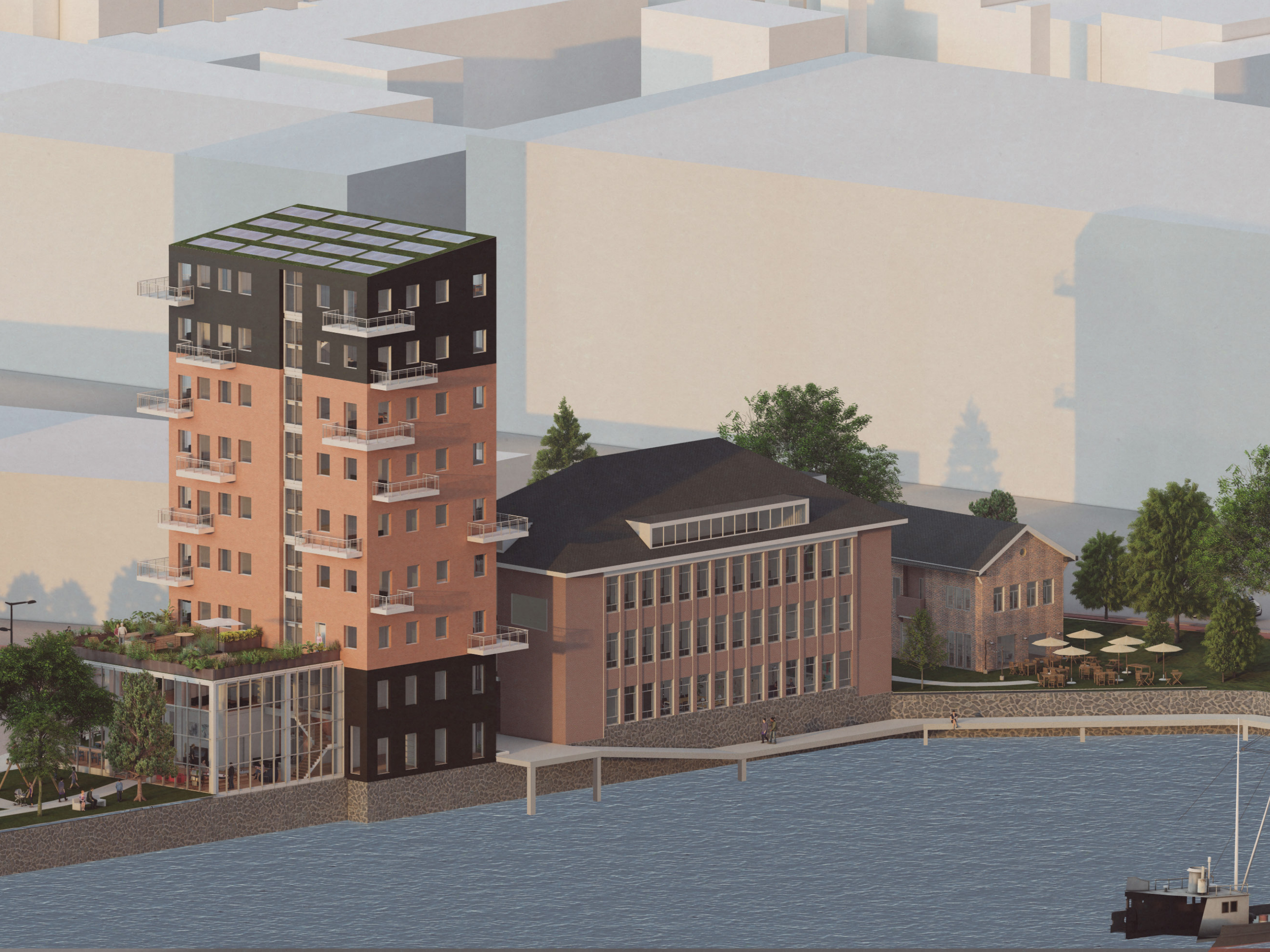
RESIDENCES

- National housing shortage
- Developing city
- Variety of target groups



PROGRAM


RESIDENCES
COMMUNITY CENTRE
FLUID OFFICE SPACES
MAKERS SPACE
RESTAURANT



INTERVENTIONS

ADDITION TO 1994 BUILDING

INTERVENTIONS

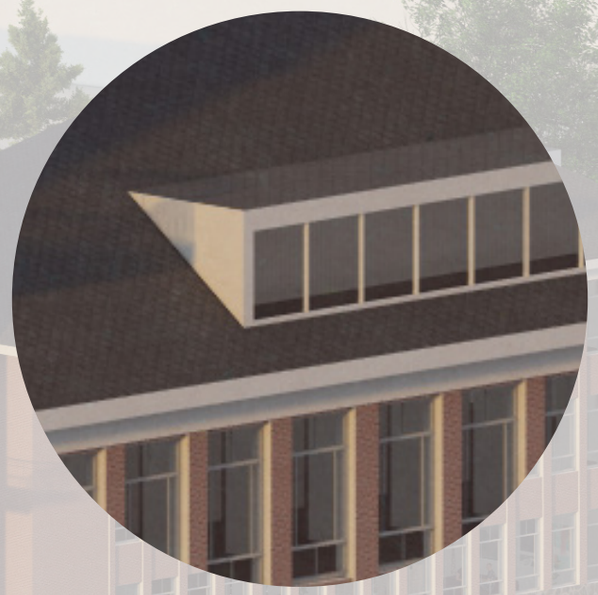
NEW ROOF

INTERVENTIONS

ADDITION OF BALCONIES

INTERVENTIONS

NEW DORMERS



INTERVENTIONS

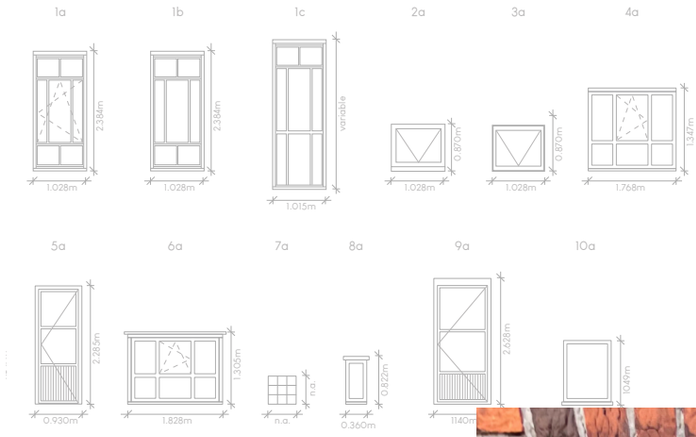
NEW WINDOWS

NEW METHOD

INTERVENTION NEEDED OR NOT?

1933

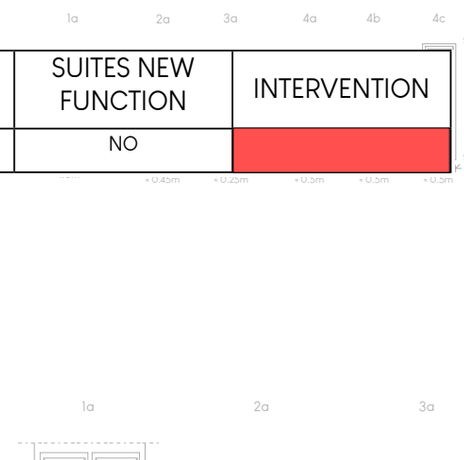
TYPOLOGY	OPENNESS/ CLOSENESS	ORIGINAL	FRAME NEEDS REPLACEMENT	GLAZING NEEDS REPLACEMENT	SUITES NEW FUNCTION	INTERVENTION
1a	70% OPENNESS	NO	NO	NO	YES	KEEP
1b	100% CLOSENESS	NO	NO	YES	NO (frosted glass)	
1c	75% CLOSENESS	NO	NO	NO	YES	KEEP
2a	85% OPENNESS	NO	YES	YES	YES	KEEP
3a	85% OPENNESS	NO	NO	NO	NO (to small)	
4a	55% OPENNESS	NO	NO	NO	YES	KEEP
5a	95% OPENNESS	NO	NO	NO	YES	KEEP
6a	55% OPENNESS	NO	NO	NO	YES	KEEP
7a	100% CLOSENESS	YES	NO	NO	NO	KEEP (original)
8a	75% CLOSENESS	NO	NO	NO	YES	KEEP
9a	95% OPENNESS	NO	NO	NO	YES	KEEP
10a	75% CLOSENESS	NO	NO	NO	YES	KEEP



1940

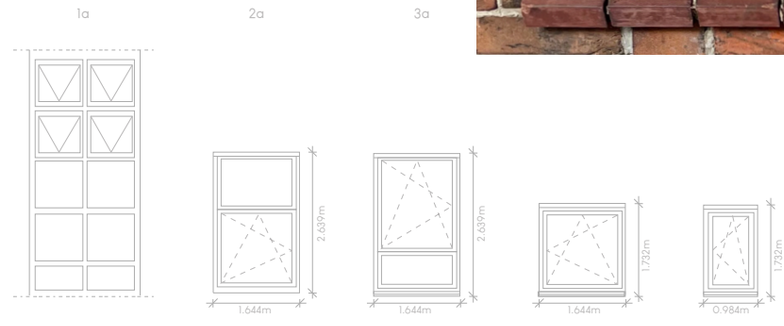
TYPOLOGY	OPENNESS/ CLOSENESS	ORIGINAL	FRAME NEEDS REPLACEMENT	GLAZING NEEDS REPLACEMENT	SUITES NEW FUNCTION	INTERVENTION
6a	75% CLOSENESS	YES	DOUBT	DOUBT	NO	

TYPOLOGY	OPENNESS/ CLOSENESS	ORIGINAL	FRAME NEEDS REPLACEMENT	GLAZING NEEDS REPLACEMENT	SUITES NEW FUNCTION	INTERVENTION
1a	85% OPENNESS	YES	YES	YES	NO	
2a	75% CLOSENESS	YES	YES	YES	NO	
3a	75% CLOSENESS	YES	YES	YES (single glazing)	YES (staircase)	
6a	75% CLOSENESS	YES	YES	YES	NO	
6b	85% OPENNESS	YES	YES	YES	NO	
7a	100% OPENNESS	YES	YES	YES	YES	
8a	100% CLOSENESS	YES	YES	YES	YES	



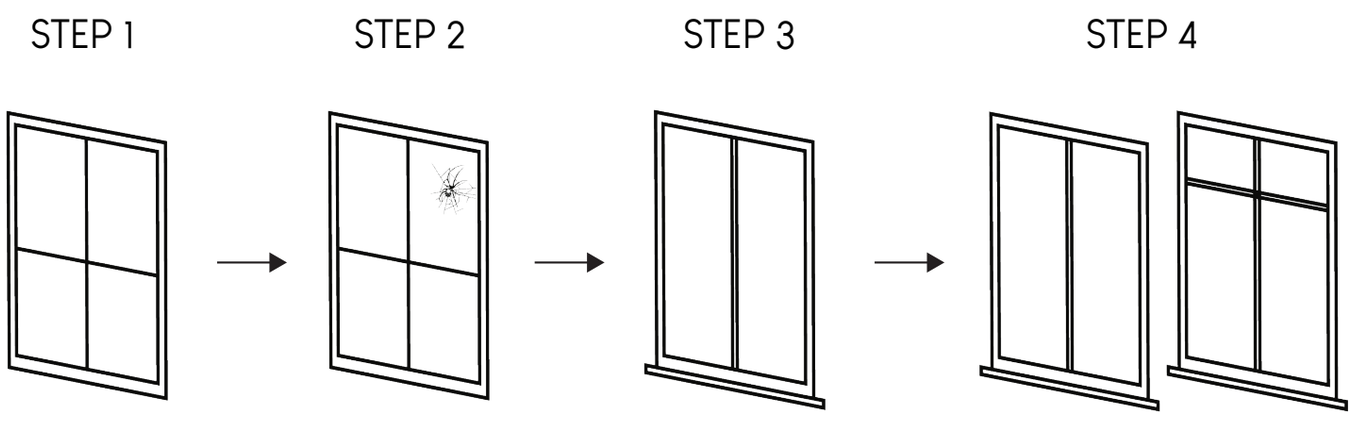
1994

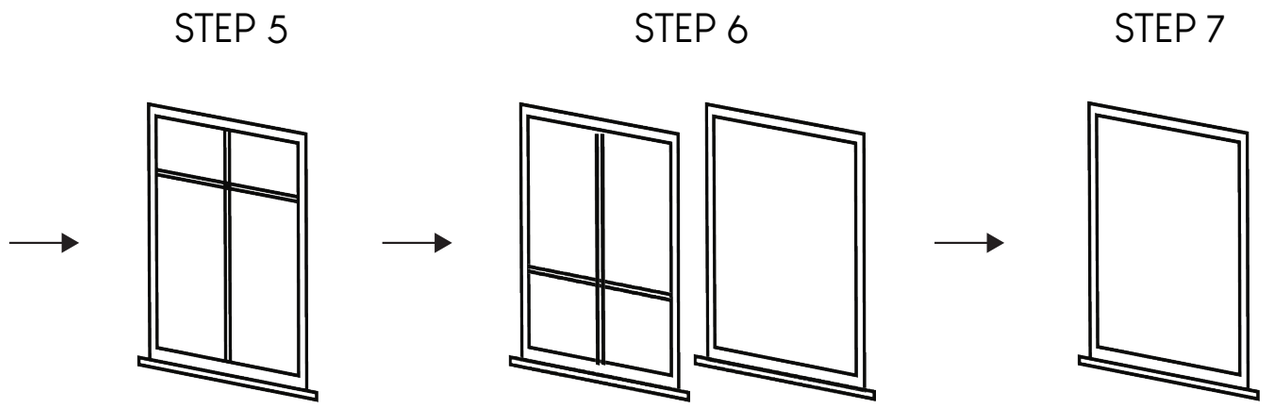
TYPOLOGY	OPENNESS/ CLOSENESS	ORIGINAL	FRAME NEEDS REPLACEMENT	GLAZING NEEDS REPLACEMENT	SUITES NEW FUNCTION	INTERVENTION
1a	67,5 CLOSENESS	YES	NO	NO	YES	KEEP
2a	77,5% OPENNESS	YES	NO	NO	NO	
3a	85% OPENNESS	YES	NO	NO	YES	KEEP
4a	100% OPENNESS	YES	NO	NO	NO	
5a	100% OPENNESS	YES	NO	NO	NO	



SYSTEMATIC APPROACH

SEVEN STEPS TO CHOOSE A SUITABLE WINDOW TYPOLOGY





DEFINE CURRENT WINDOW CHARACTERISTICS

STEP 1

CHARACTERISTICS

LOCATION: 1940 building

ORIENTATION: South facade

MEASUREMENTS: Approx. 50x50 cm

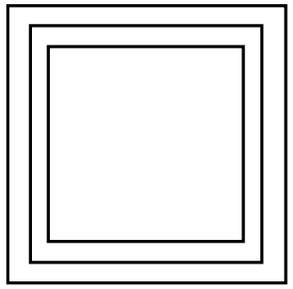
FRAME MATERIAL: Steel

GLAZING: Single

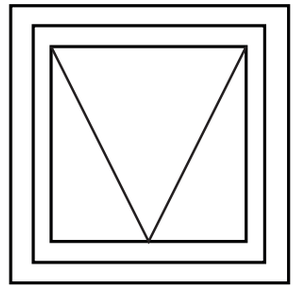
TYPOLOGY OPENING:

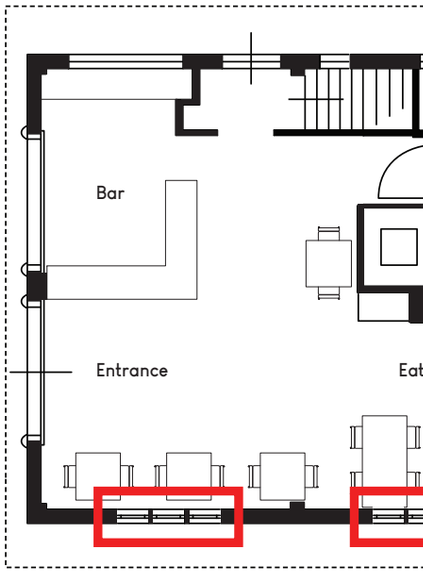
1. Fixed window (6a)
2. Awning window (6b)

6a



6b

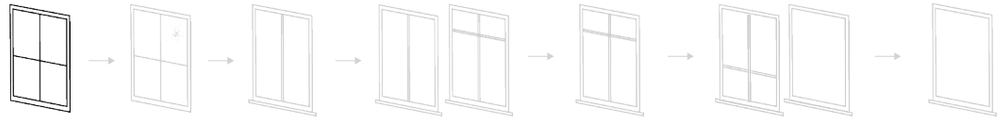




WEST

EAST

SOUTH



DEFINE WHY WINDOW NEEDS INTERVENTION

STEP 2

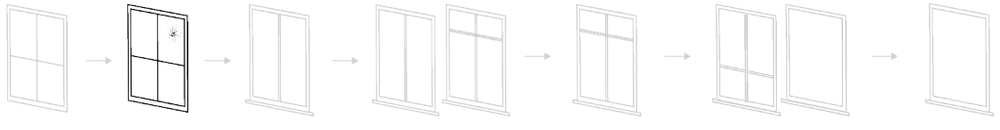
WHY?

6a:

1. Single glazing
2. Rusted frames
3. Does not suite building's new function (restaurant)
4. Not enough daylight passage
5. Not openable

6b:

1. Single glazing
2. Rusted frames
3. Does not suite building's new function (restaurant)
4. Not enough daylight passage
5. Partially openable



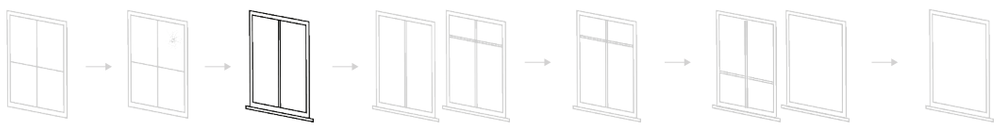
DEFINE NEW WINDOW CHARACTERISTICS

STEP 3

NEW WINDOW

CHARACTERISTICS:

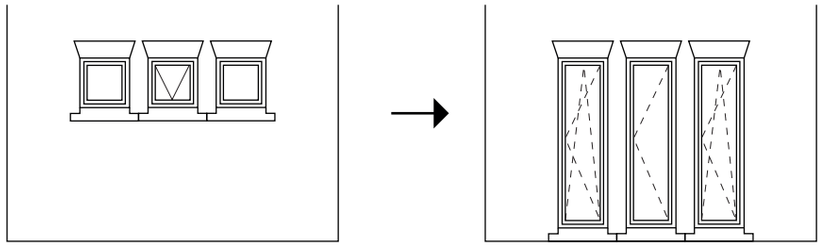
1. Fulfils thermal requirements
2. Allows enough light passage
3. Increase level of openness
4. Suites new function
5. Copes with existing values

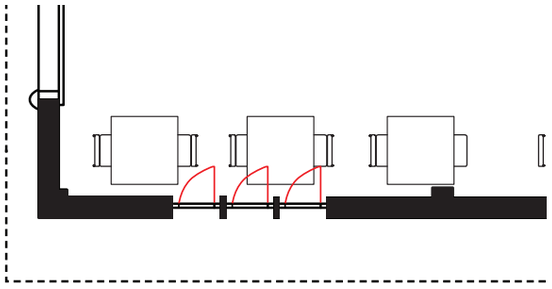


DEFINE POSSIBLE INTERVENTIONS

STEP 4

1. MAKE LARGER VERTICAL OPENINGS KEEPING EXISTING RHYTHM AND STYLE





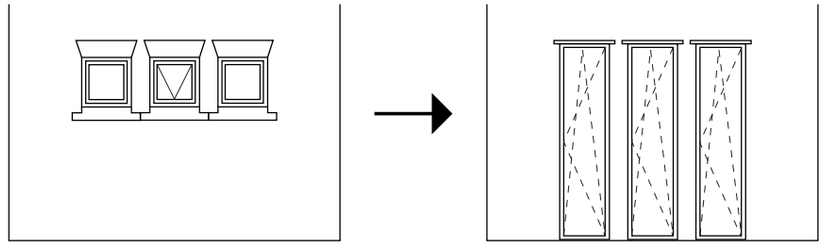
LIMITATIONS:

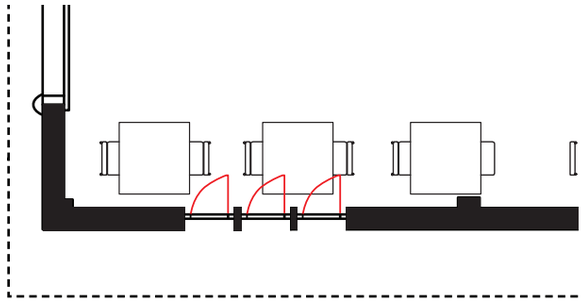
1. Openable windows would intersect with tables
2. Would not be able to open windows
3. Would not be used as passages

BENEFITS:

1. High amount of daylight passage
2. Increase of openness
3. Increase of internal life quality
4. Maintains existing lintel
5. Maintains existing rhythm

2. MAKE LARGER VERTICAL OPENINGS KEEPING EXISTING RHYTHM BUT CHANGING STYLE



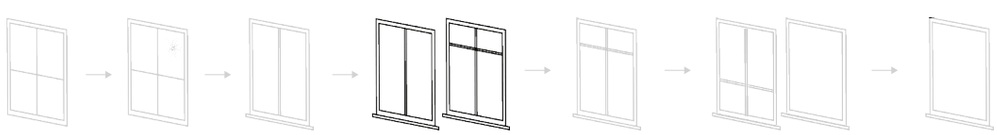


LIMITATIONS:

1. Openable windows would intersect with tables
2. Would not be able to open windows
3. Would not be used as passages
4. Does not maintain architecture style

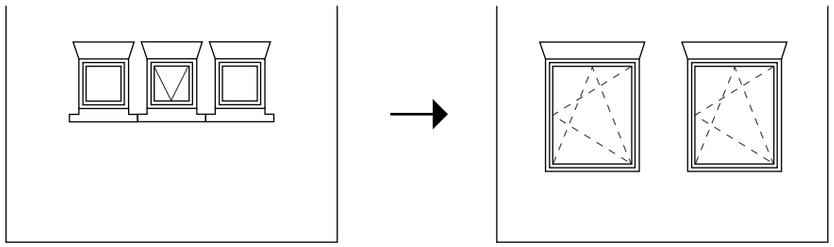
BENEFITS:

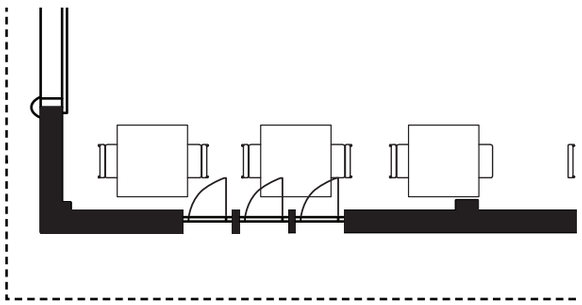
1. High amount of daylight passage
2. Increase of openness
3. Increase of internal life quality
4. Maintains existing lintel
5. Maintains existing rhythm



DEFINE POSSIBLE INTERVENTIONS

3. MAKE ONE OR MULTIPLE NEW LARGER OPENINGS





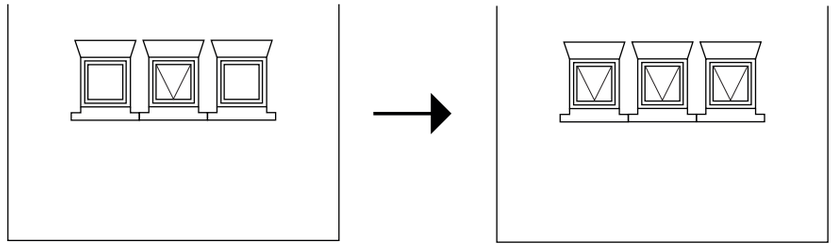
LIMITATIONS:

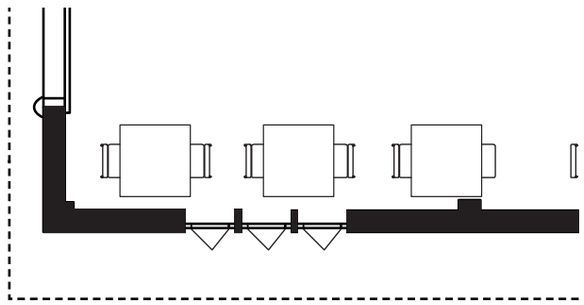
1. Not enough light passage
2. New lintel required

BENEFITS:

1. Does not interfere with tables
2. Increase of openness

4. KEEP EXISTING OPENINGS AND REPLACE EXISTING WINDOWS WITH NEW ONES



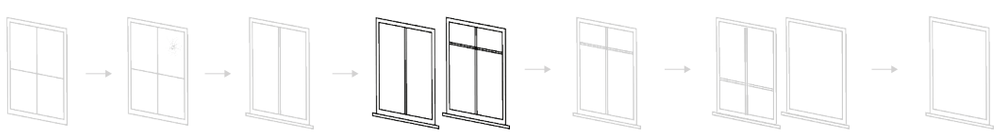


LIMITATIONS:

1. Low amount of natural light passage
2. No increase of openness

BENEFITS:

1. Maintains original style and rhythm
2.Maintains existing lintel

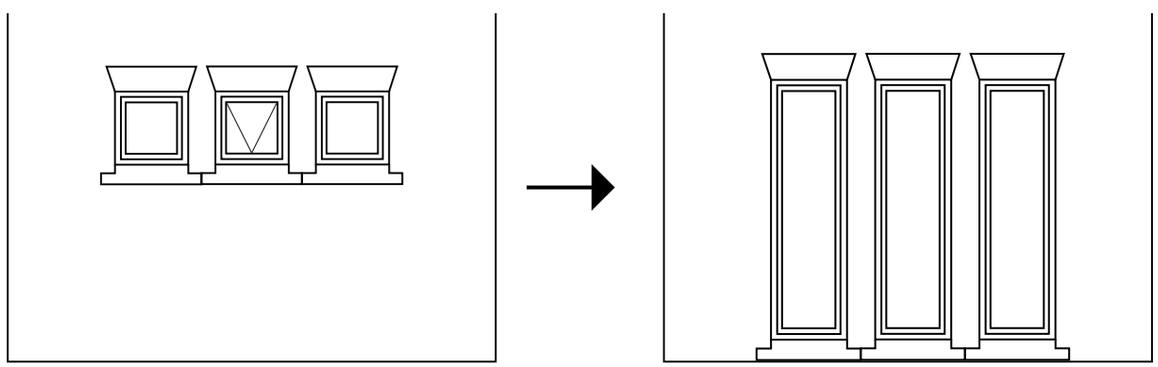


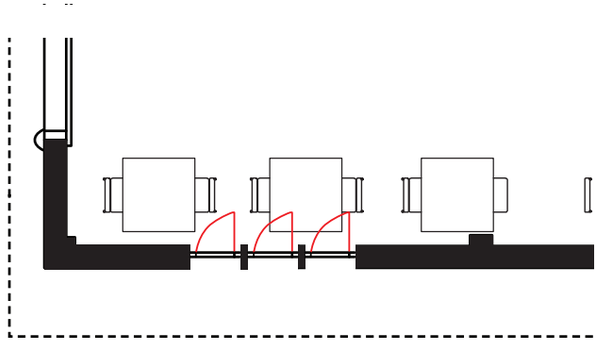
CHOOSE ONE INTERVENTION

STEP 5

CHOSEN INTERVENTION:

1. Make larger vertical openings keeping existing rhythm and style



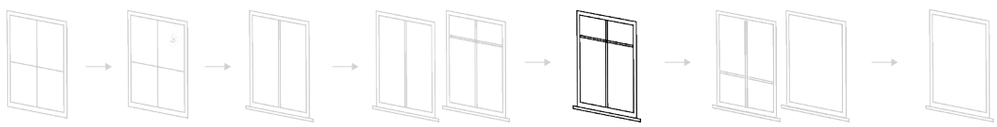


LIMITATIONS:

1. Openable windows would intersect with tables
2. Would not be able to open windows
3. Would not be used as passages

BENEFITS:

1. High amount of daylight passage
2. Increase of openness
3. Increase of internal thermal comfort
4. Maintains existing lintel
5. Maintains existing rhythm and style

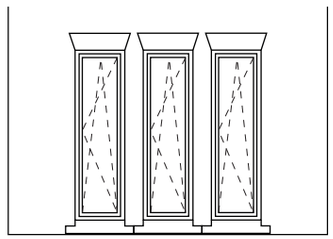


INVESTIGATE OPENING POSSIBILITIES

STEP 6

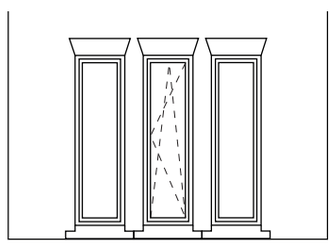
1. TILT AND TURN:

1. High amount of daylight passage
2. Considerable increase of openness
3. Increase of internal life quality
4. Intersects with internal function



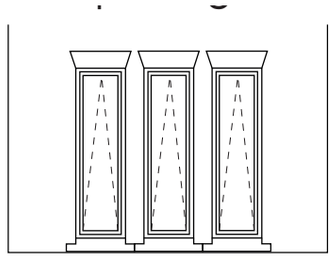
2. FIXED + TILT AND TURN:

1. High amount of daylight passage
2. Moderate increase of openness
3. Increase of internal life quality
4. Intersects with internal function



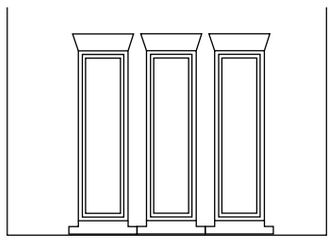
3. TOP HUNG ONLY:

1. High amount of daylight passage
2. Moderate increase of openness
3. Increase of internal life quality
4. Partially intersects with internal function



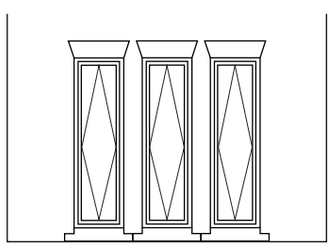
4. FIXED:

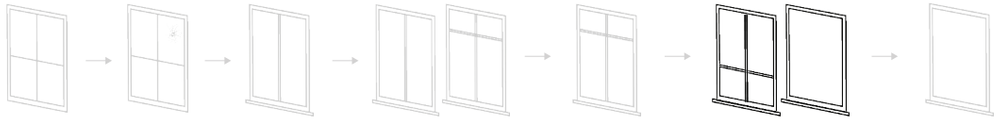
1. High amount of daylight passage
2. Low increases of openness
3. Increase of internal thermal comfort
4. Does not intersect with internal function



5. CENTRE PIVOT:

1. High amount of daylight passage
2. Moderate increase of openness
3. Increase of internal thermal comfort
4. Intersects with internal function



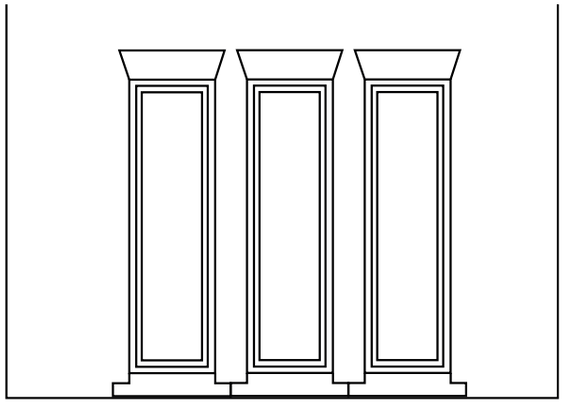


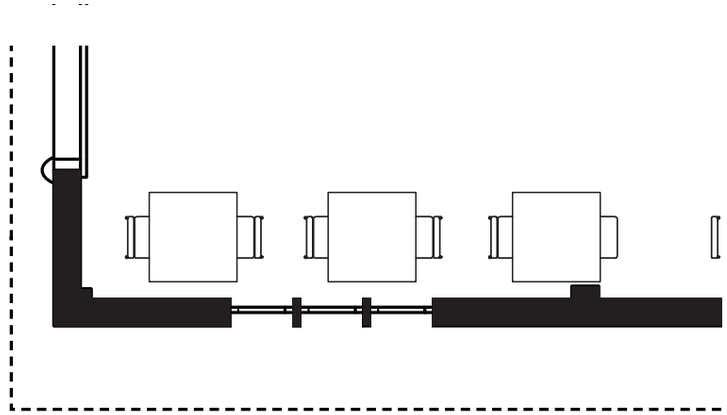
CHOOSE ONE OPENING POSSIBILITY

STEP 7

CHOSEN OPENING POSSIBILITY:

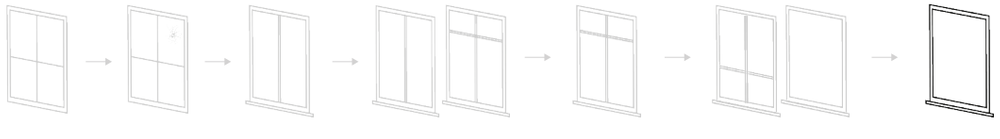
4. Fixed typology





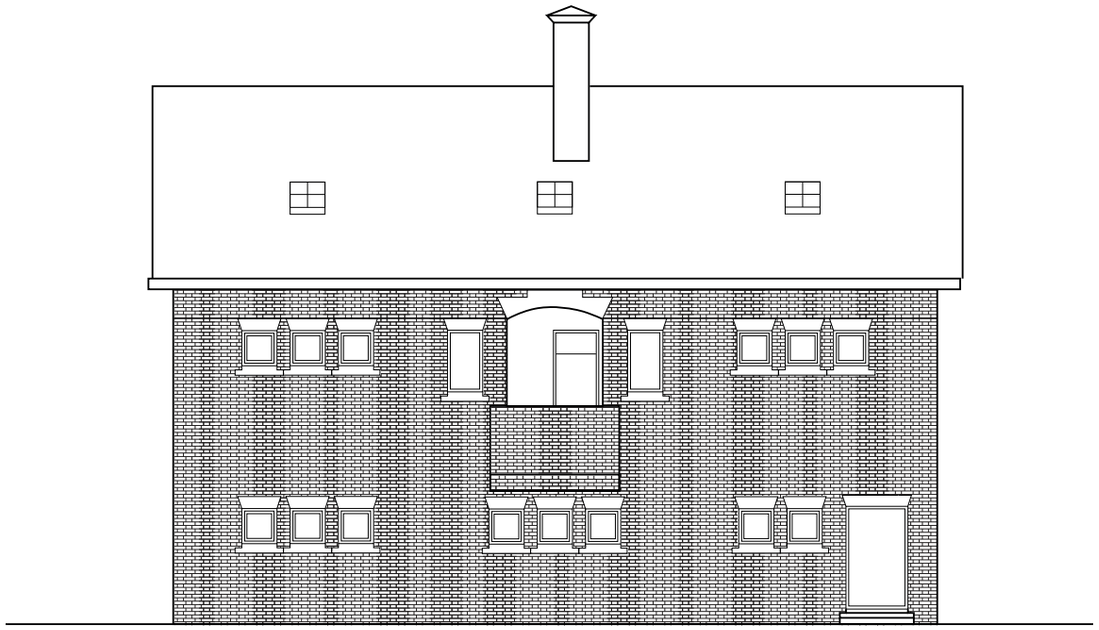
4. FIXED:

1. High amount of daylight passage
2. Low increases of openness
3. Increase of internal thermal comfort
4. Does not intersect with internal function

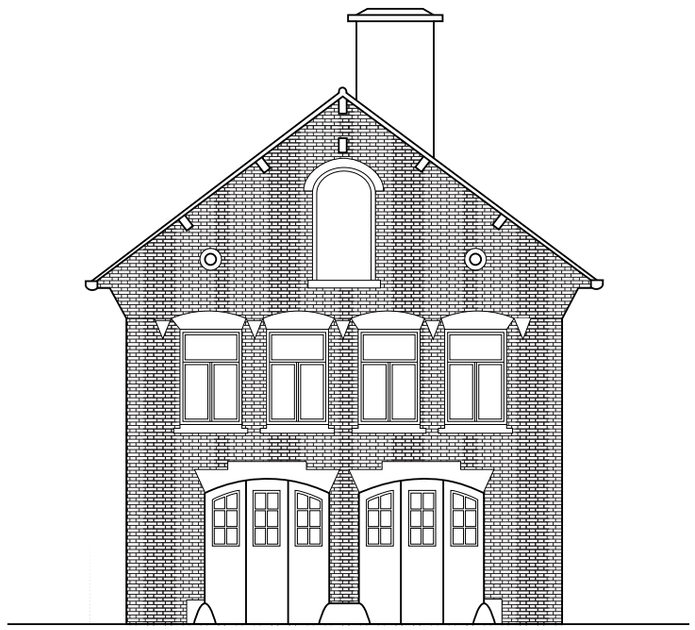


BEFORE AND AFTER

BEFORE

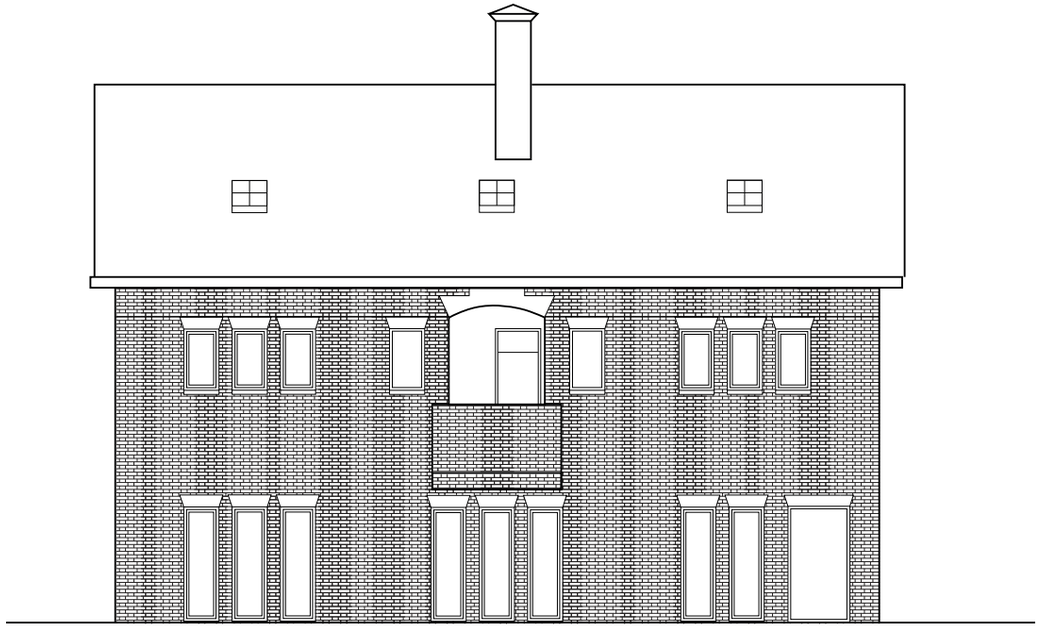


South



West

AFTER



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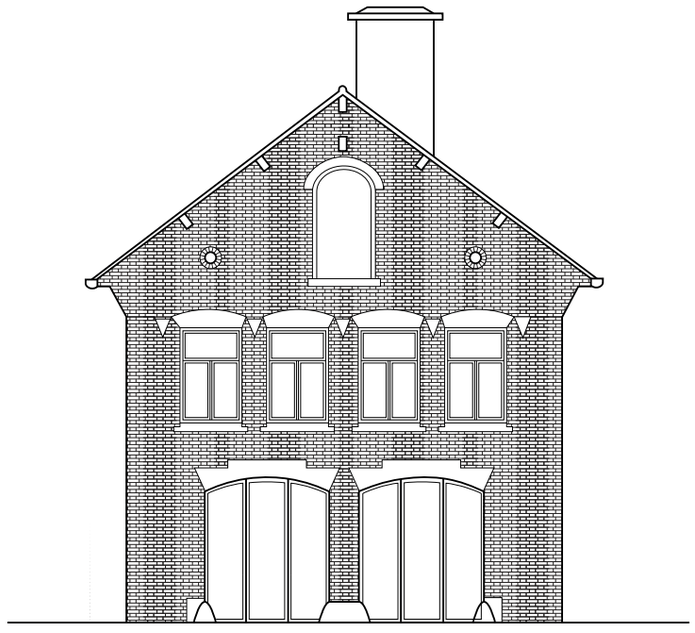
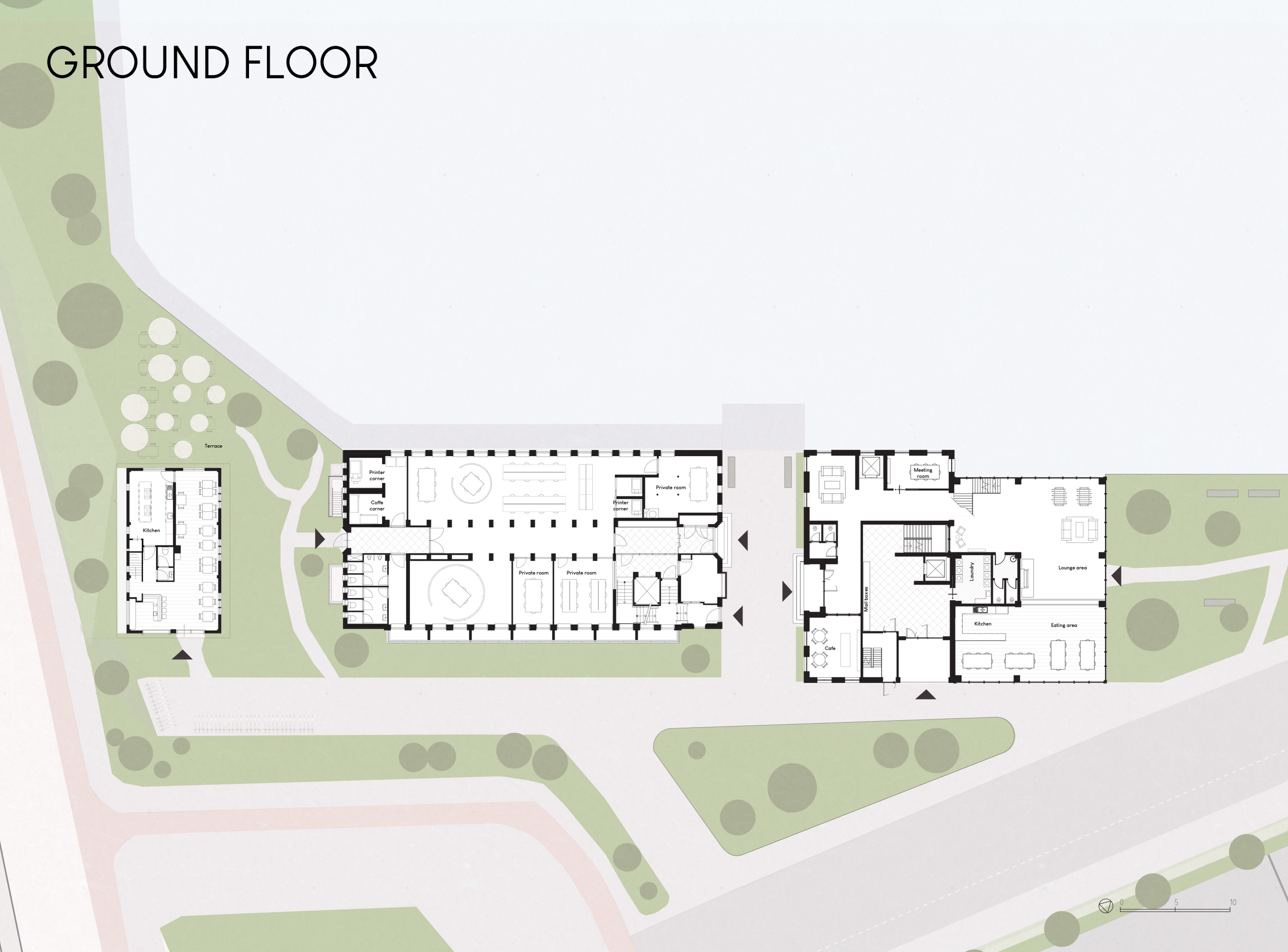
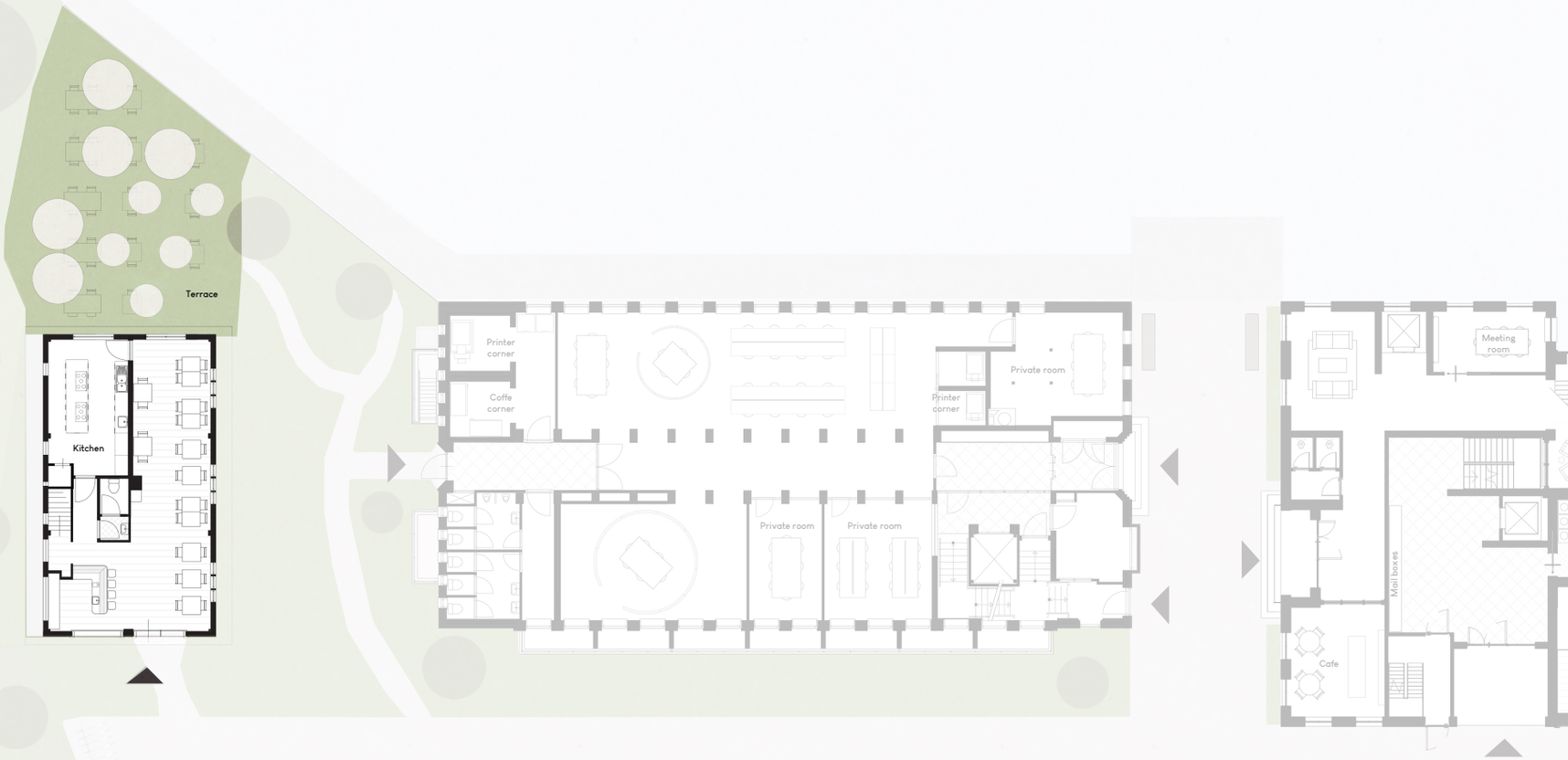


West

GROUND FLOOR

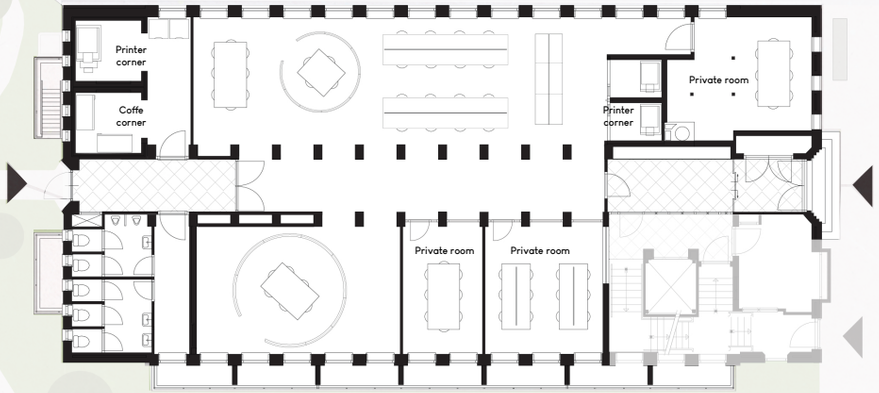


RESTAURANT


Terrace
Kitchen
Printer corner
Coffe corner
Private room
Printer corner
Private room
Private room
Meeting room
Lounge area
Laundry
Mail boxes
Kitchen
Eating area
Cafe
0
5
10

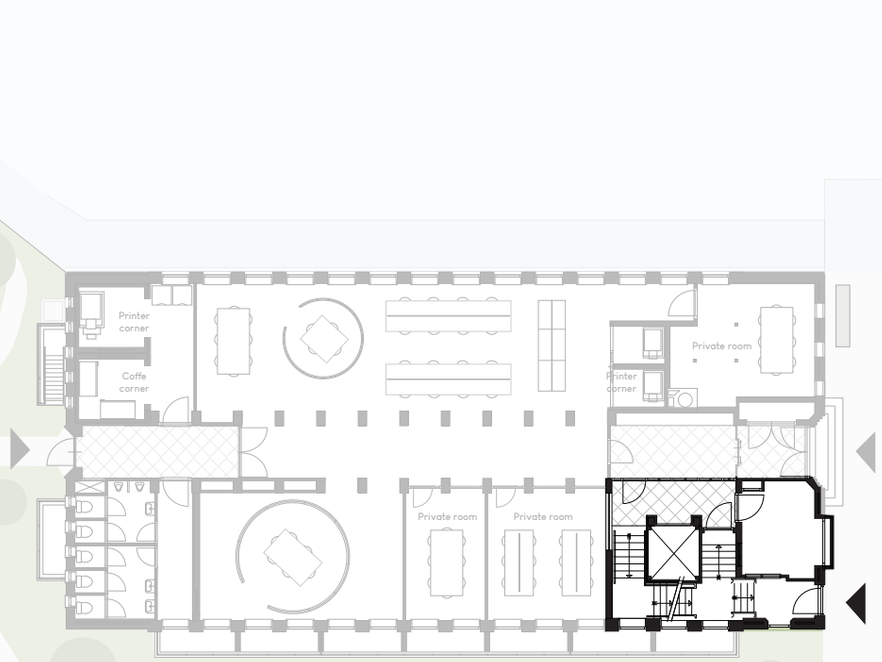
RESTAURANT

FLUID OFFICE SPACES

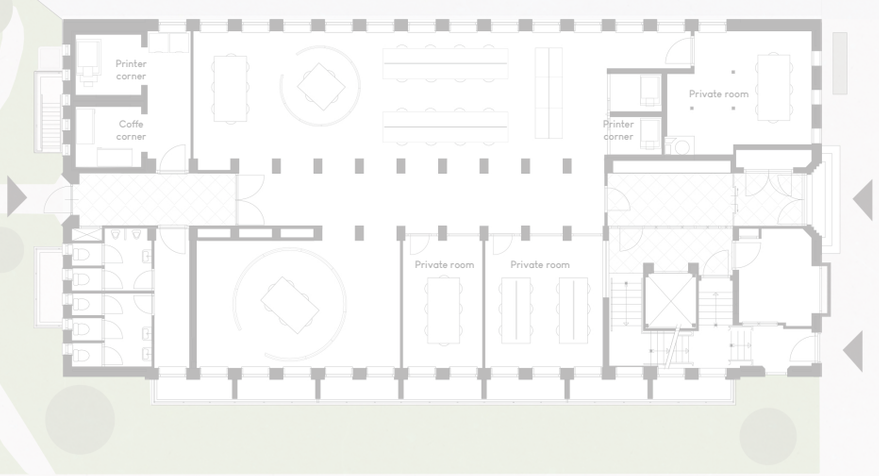


FLUID OFFICE SPACES

MAKERS SPACE



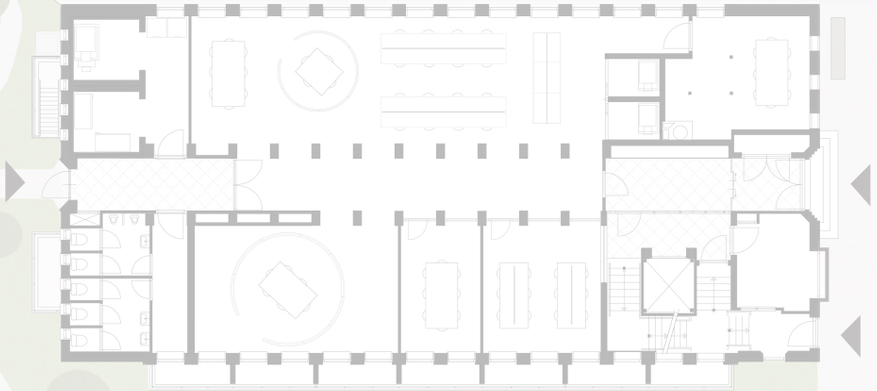
COMMUNITY CENTRE



0 5 10

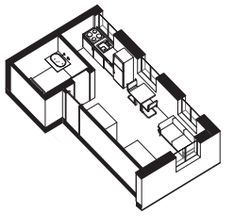
COMMUNITY CENTRE

RESIDENCES



RESIDENCES

20 APARTMENTS



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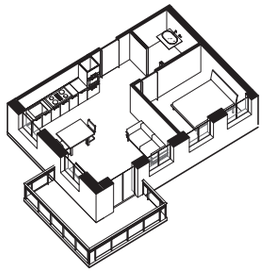

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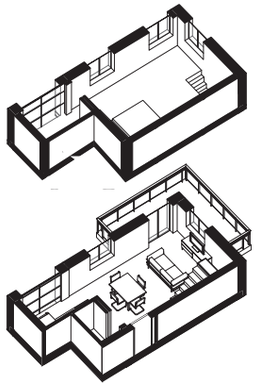

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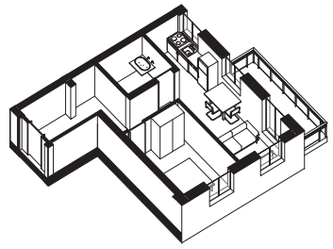

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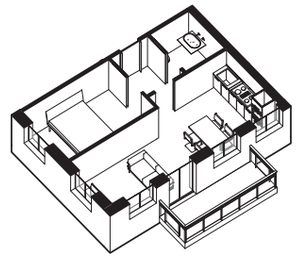

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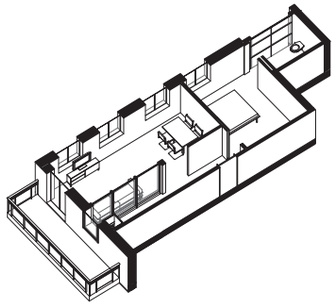

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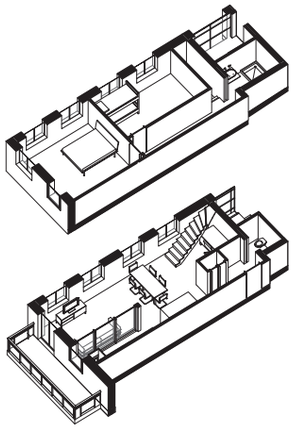

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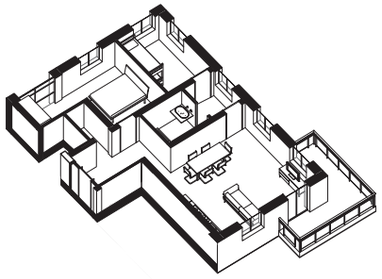

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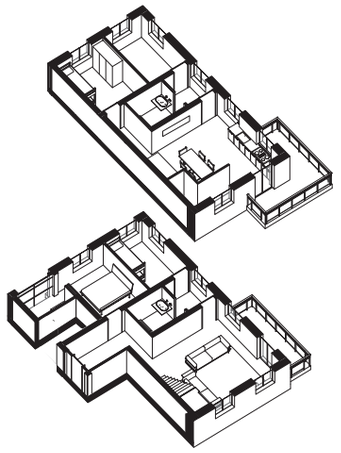

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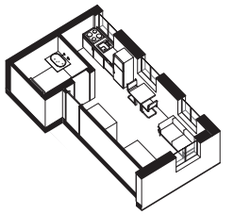
RESIDENCES

STUDIO



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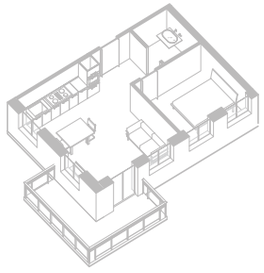

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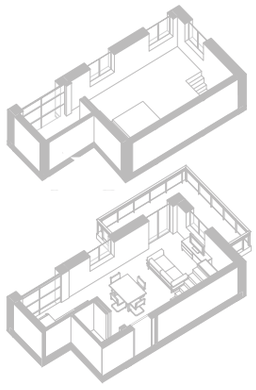

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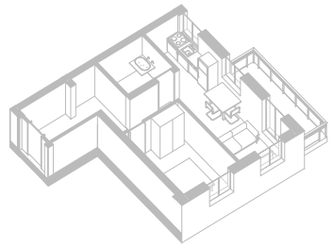

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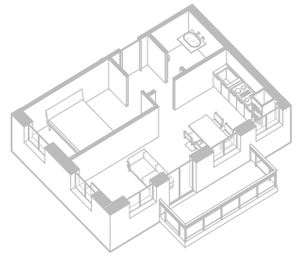

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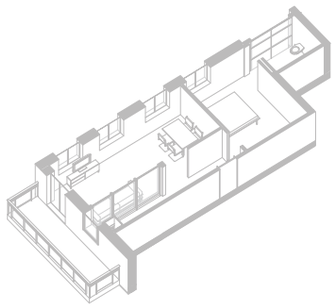

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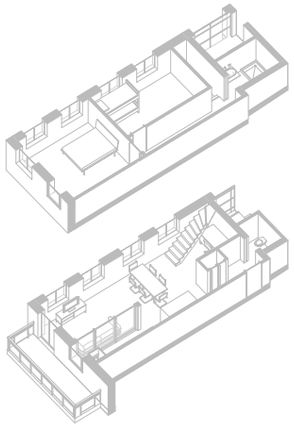

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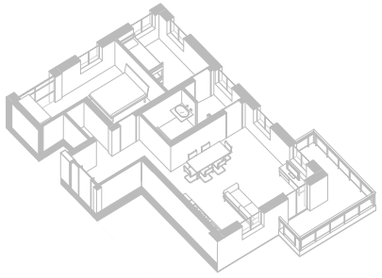

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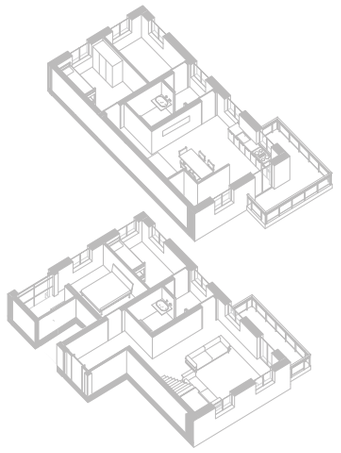

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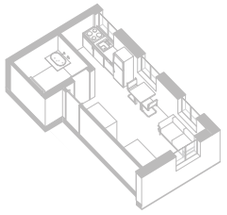
RESIDENCES

ONE BEDROOM



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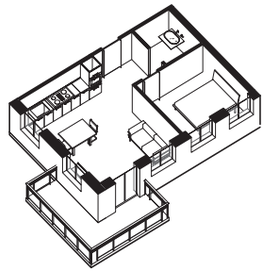

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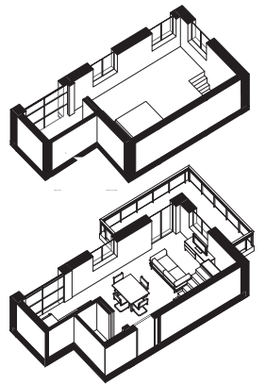

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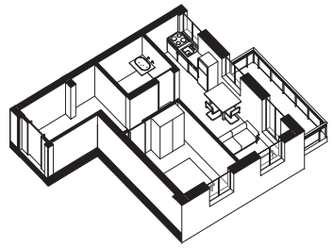

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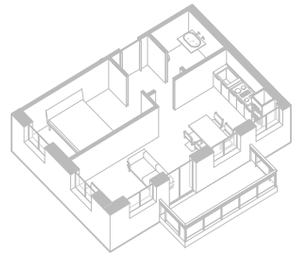

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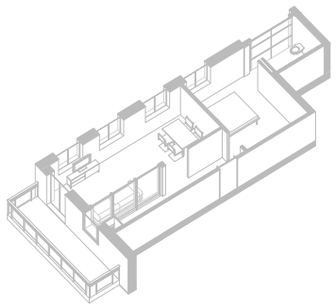

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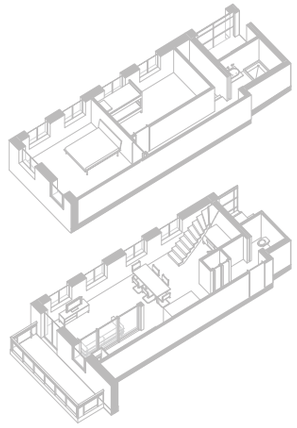

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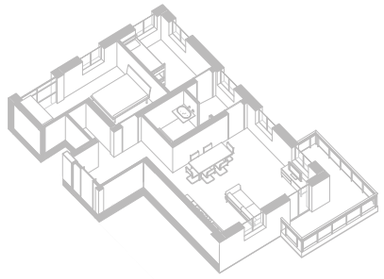

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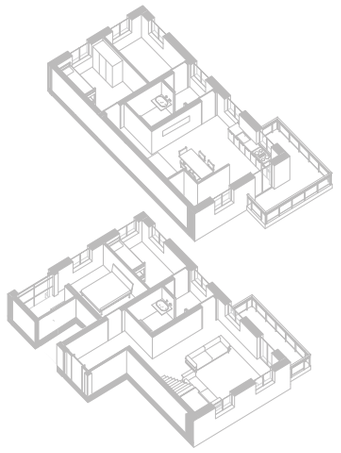

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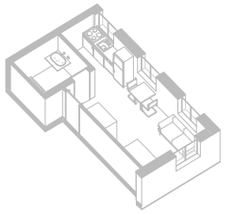
RESIDENCES

TWO BEDROOM



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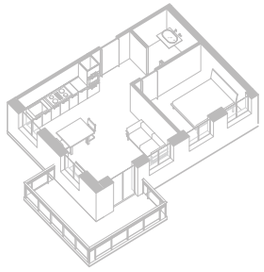

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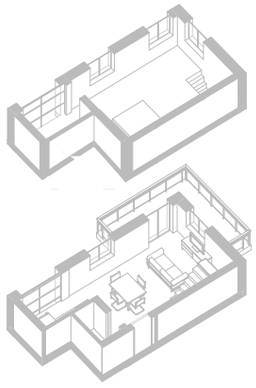

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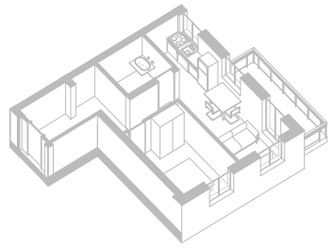

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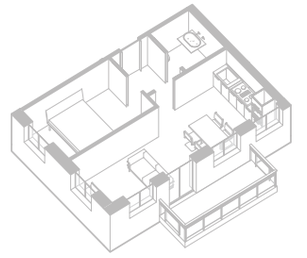

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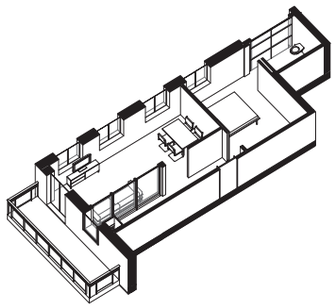

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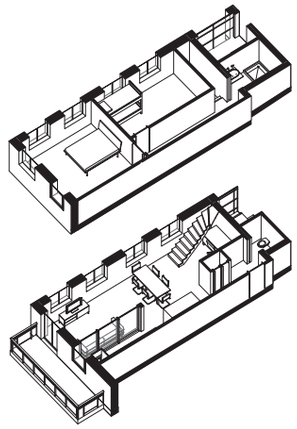

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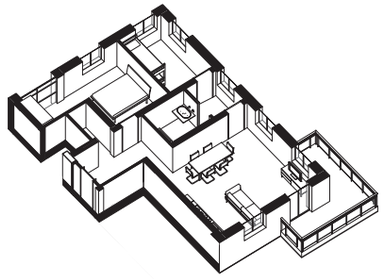

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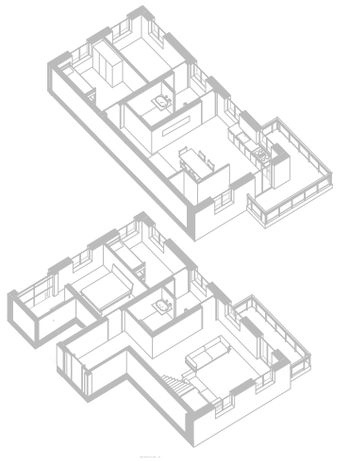

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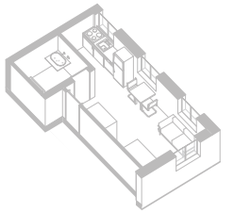
RESIDENCES

THREE BEDROOM



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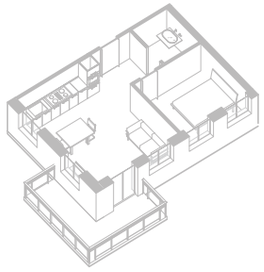

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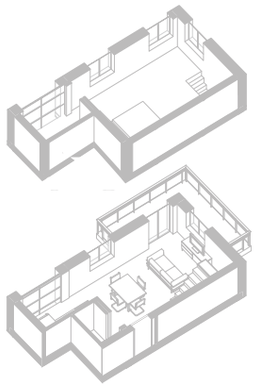

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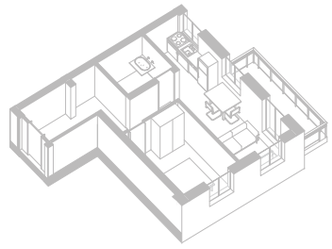

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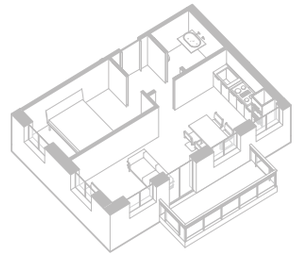

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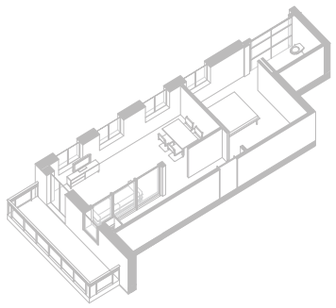

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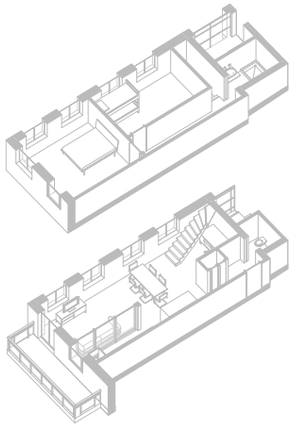

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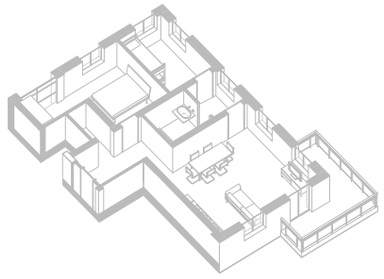

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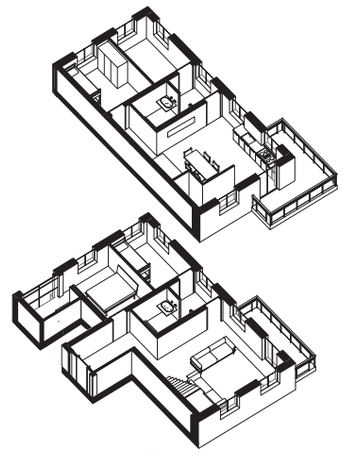

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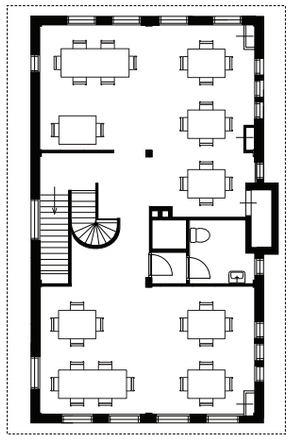
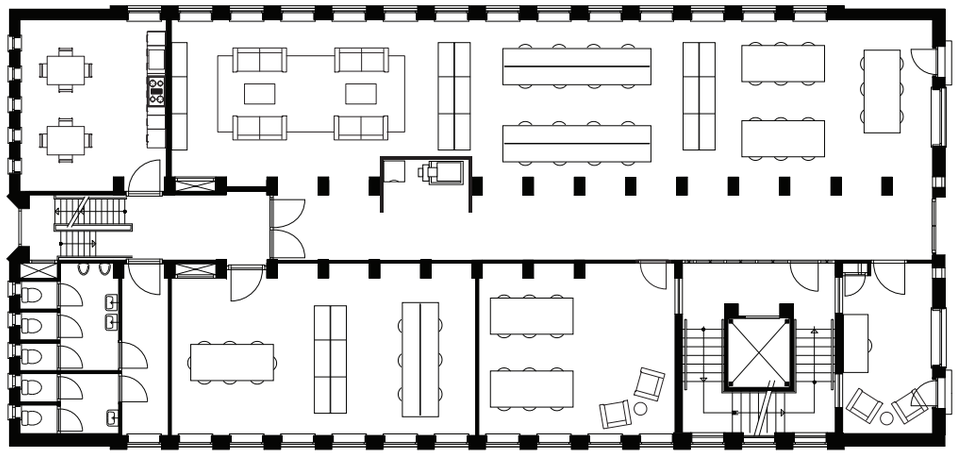
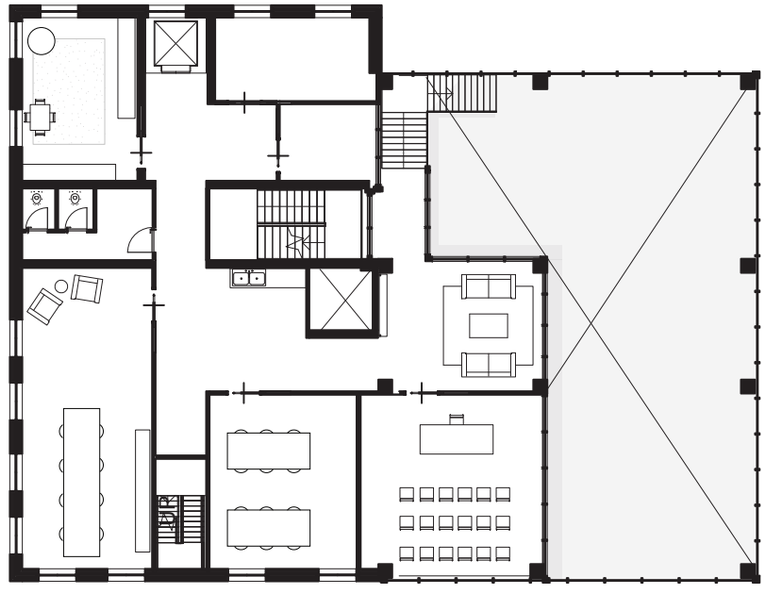
FIRST FLOOR







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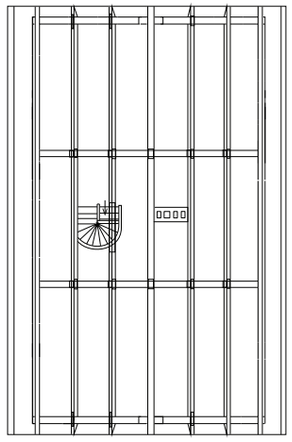
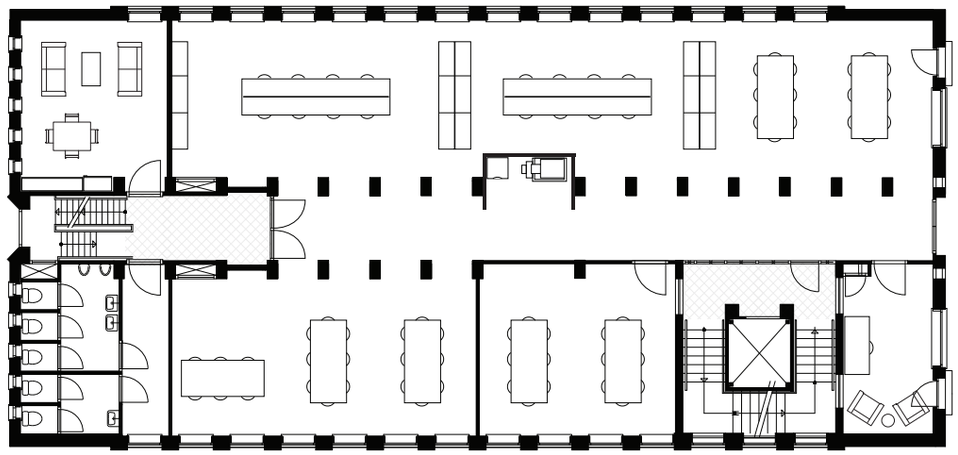
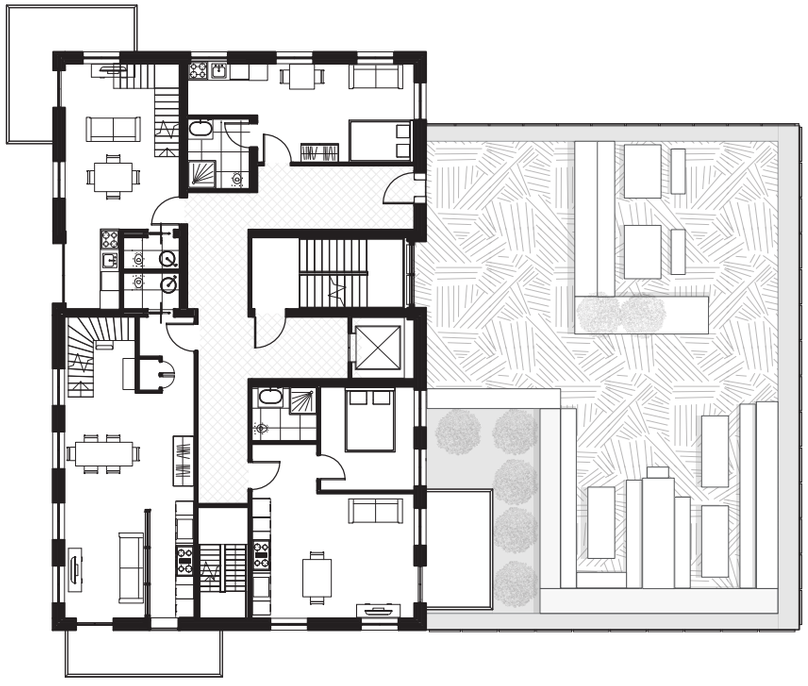
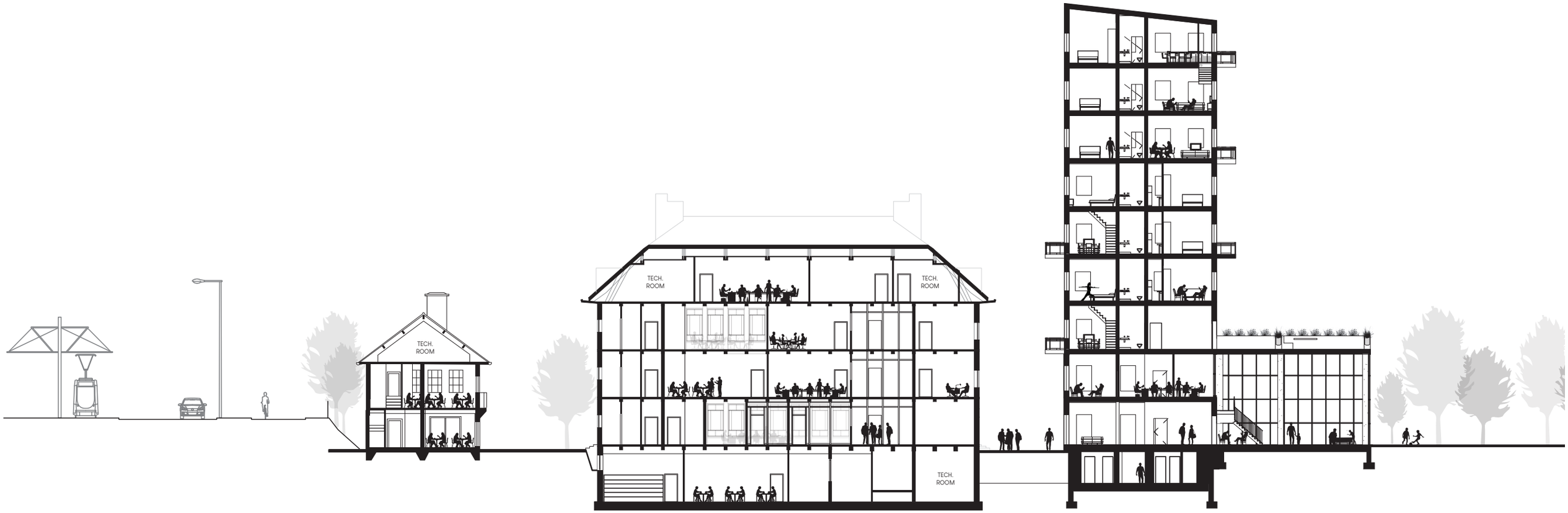




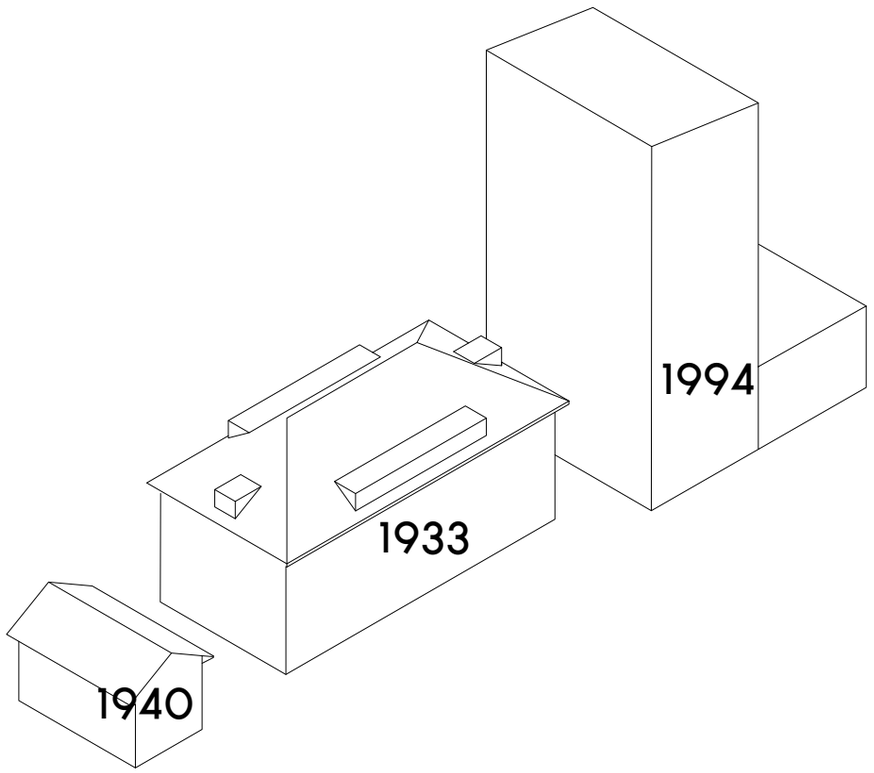


SECTION AA’



WEST ELEVATION

CLIMATE INTERVENTIONS



1940

CLIMATE INTERVENTIONS

- Insulation of roof
- Insulation of floors
- Insulation of walls (from interior to conserve original facade)
- New openable aluminum window frames with HR++ glass (same style as original)
- New fixed aluminum window frames with HR++ glass

HEATING / COOLING

- Wooden floor with floor heating and cooling
- Air cooling

VENTILATION

- Hybrid ventilation system

1933

CLIMATE INTERVENTIONS

- Insulation of roof
- Insulation of floors
- Insulation of walls (from interior to conserve original facade)
- New openable aluminum window frames with HR++ glass (same style as original)
- New fixed aluminum window frames with HR++ glass

HEATING / COOLING

- LT radiators
- Air cooling

VENTILATION

- Hybrid ventilation system

1994

CLIMATE INTERVENTIONS

- Insulation of roof
- Insulation of floors
- Insulation of walls (from interior to conserve original facade)
- New openable aluminum window frames with HR++ glass (same style as original)
- New fixed aluminum window frames with HR++ glass

HEATING / COOLING

- LT radiators
- Air cooling

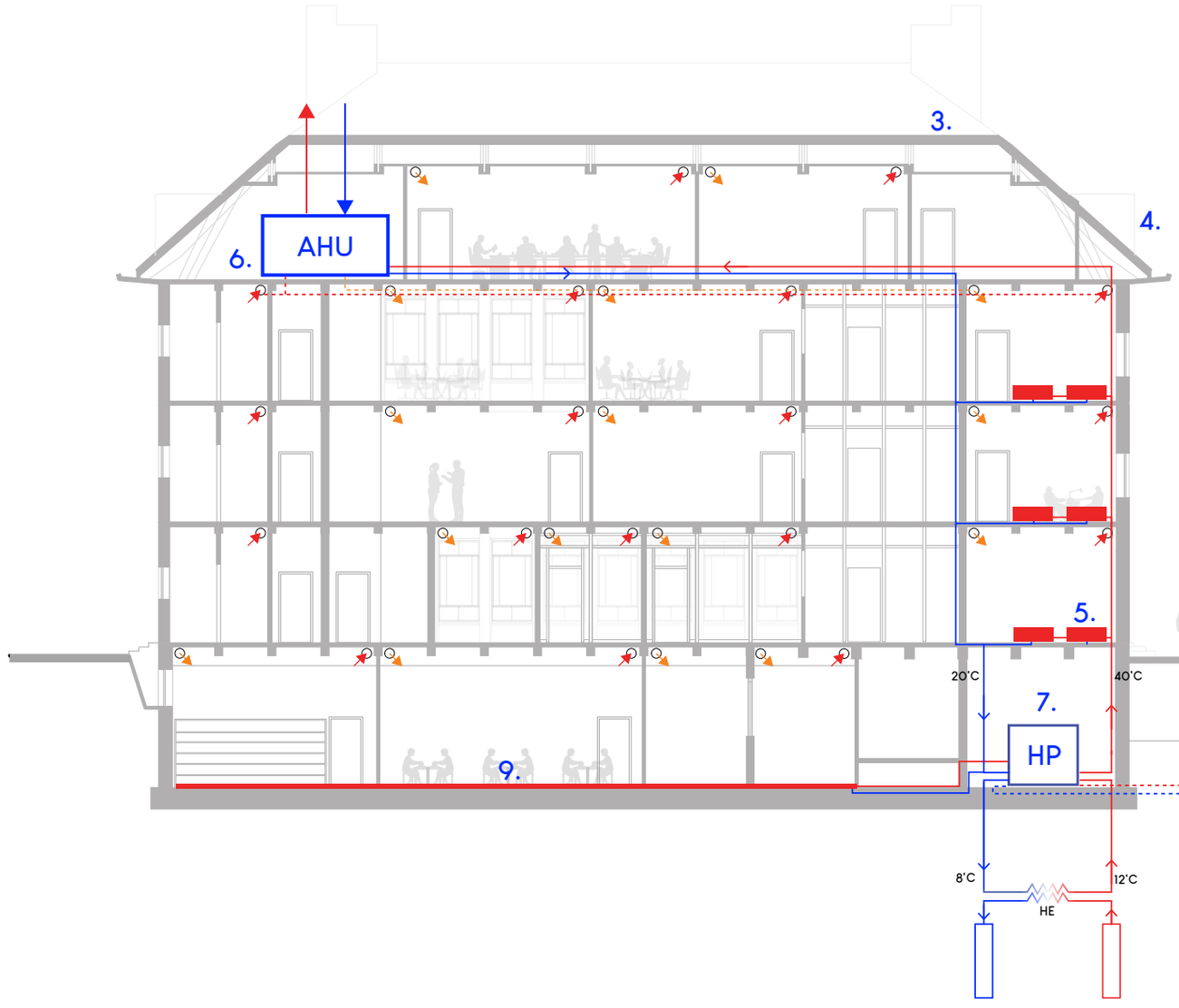
VENTILATION

- Hybrid ventilation system

CLIMATE INTERVENTIONS

WINTER SITUATION

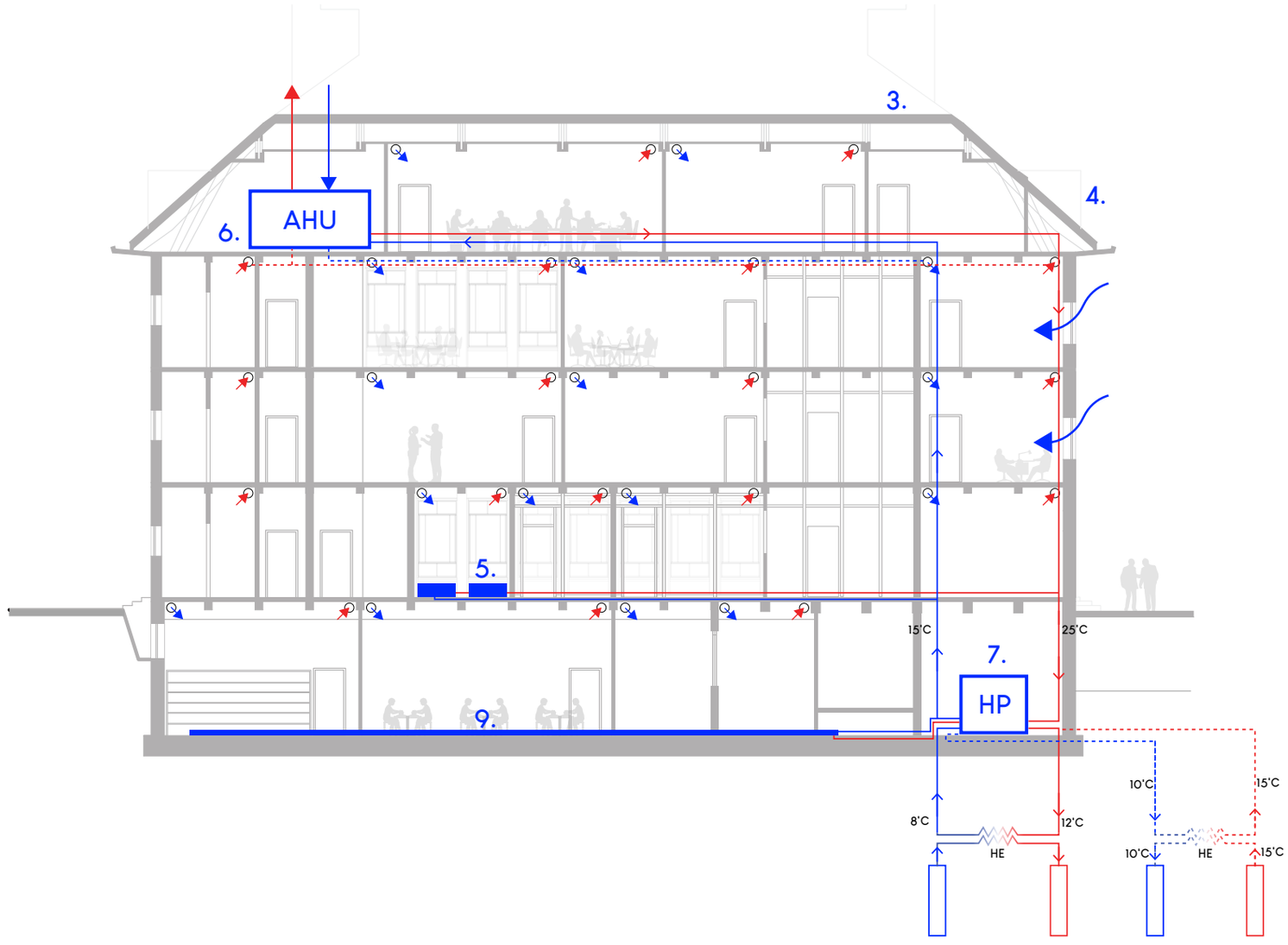
1. Mechanical ventilation, hybrid system
2. New aluminium double glazed windows, HR++
3. Thermal insulated roof
4. New dormes with new double glazed, openable windows
5. Heating from radiators
6. AHU system
7. Open ground source heat pump
8. Insulated ground fioor
9. Floor heating (LT) and cooling
10. Insulated interior and exterior walls (ext. +90cm, Wint. +80cm)
11. Automatic sunscreens on South, West, and East facade
12. PV panels to generate electricity for HP
13. Sedum substrate roof (prevent heat island effect)
14. New thermal insulated roof



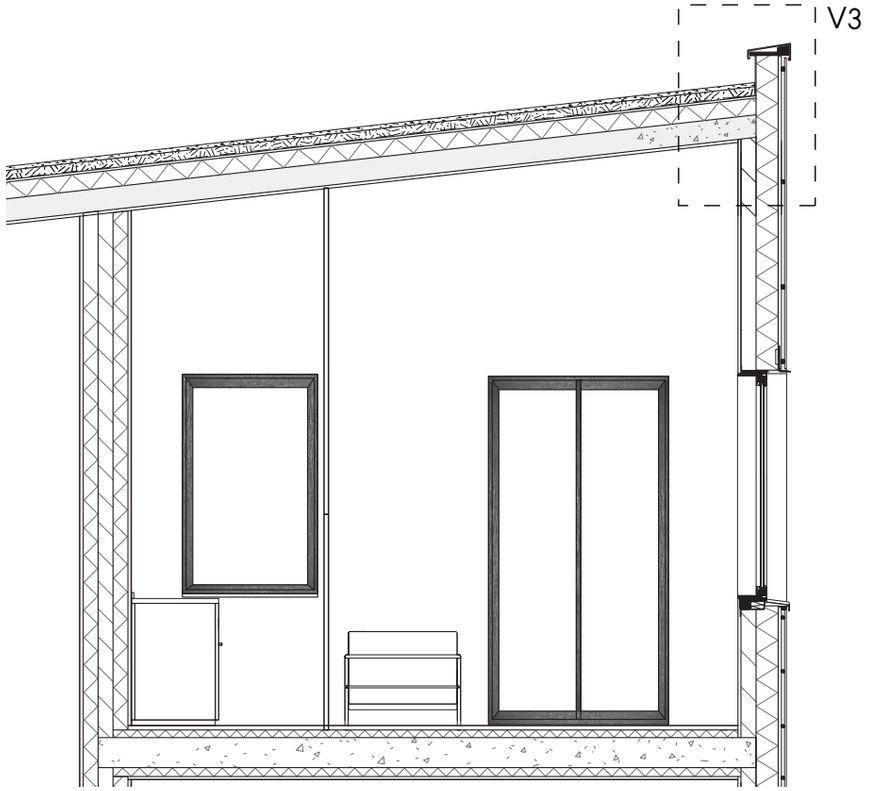
CLIMATE INTERVENTIONS

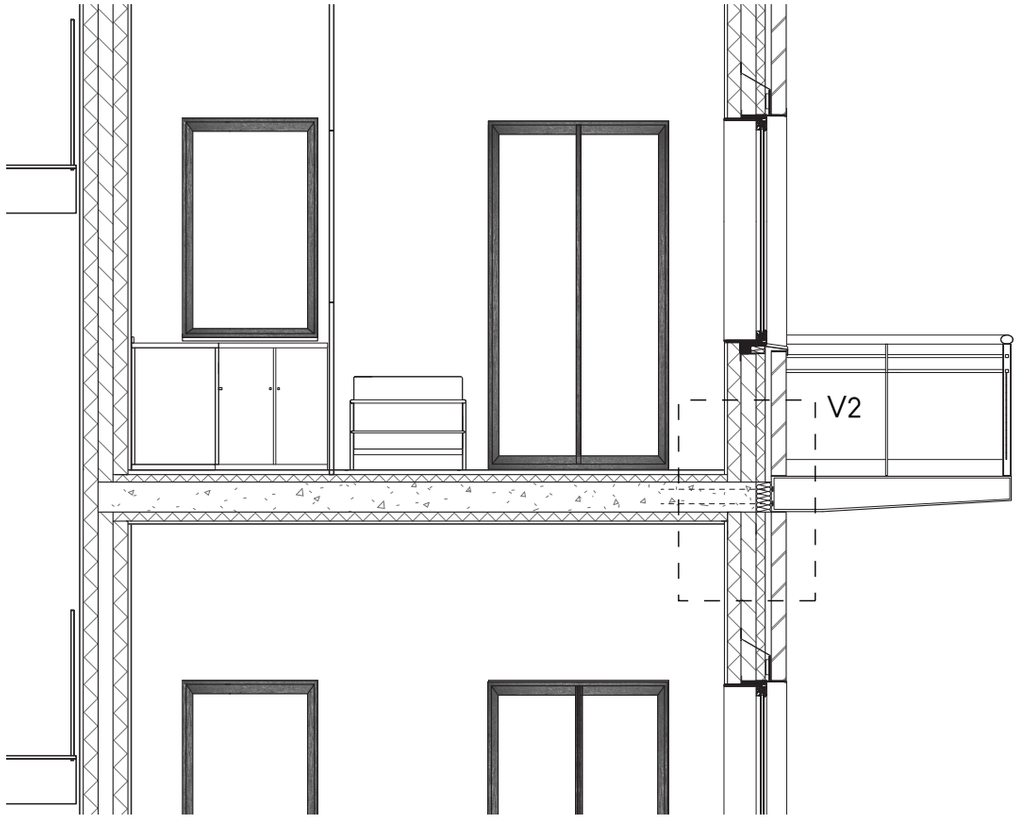
SUMMER SITUATION

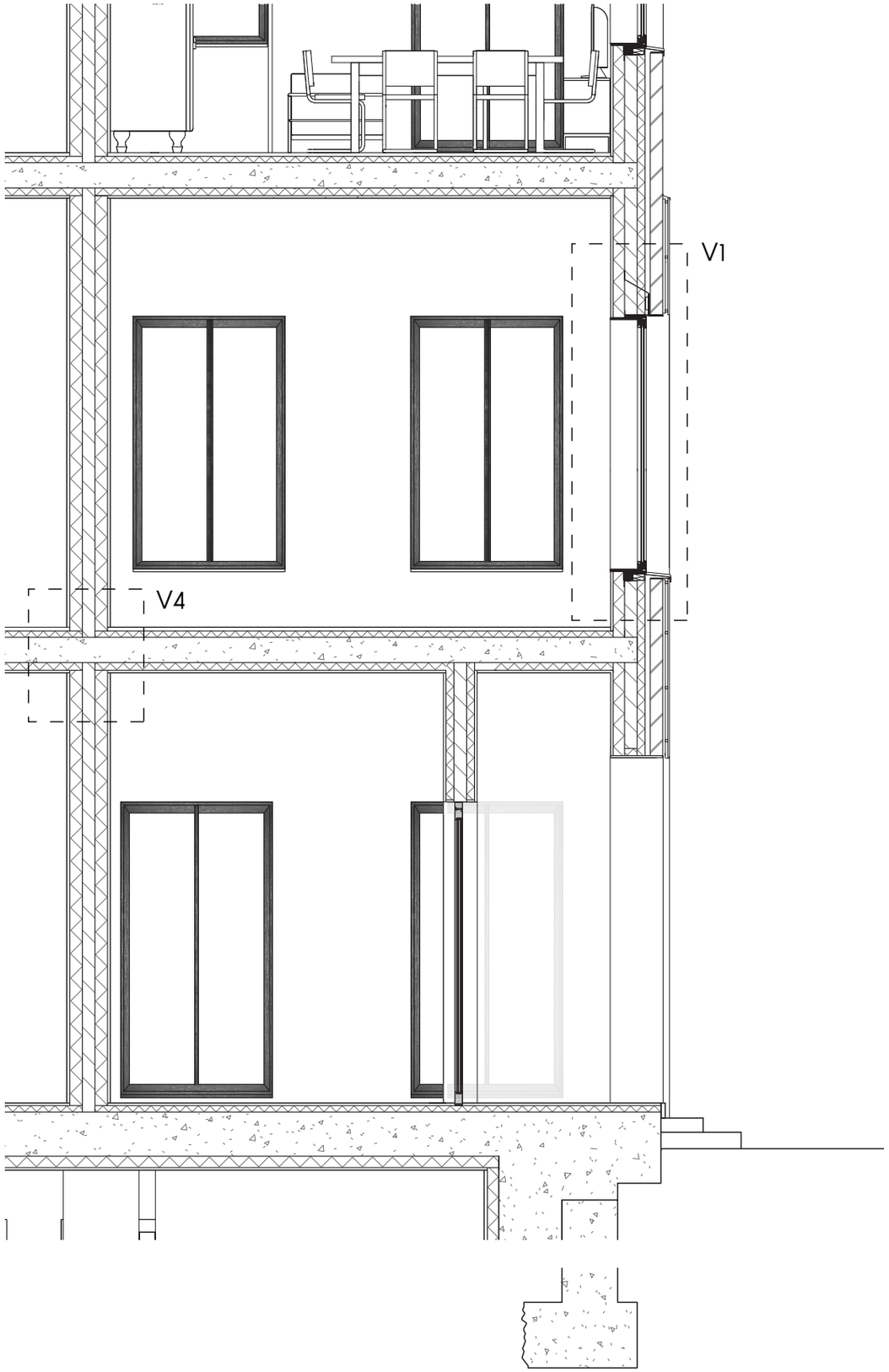
1. Mechanical ventilation, hybrid system
2. New aluminium double glazed windows, HR++
3. Thermal insulated roof
4. New dormes with new double glazed, openable windows
5. Heating from radiators
6. AHU system
7. Open ground source heat pump
8. Insulated ground fioor
9. Floor heating (LT) and cooling
10. Insulated interior and exterior walls (ext. +90cm, Wint. +80cm)
11. Automatic sunscreens on South, West, and East facade
12. PV panels to generate electricity for HP
13. Sedum substrate roof (prevent heat island effect)
14. New thermal insulated roof



1:50 SECTION





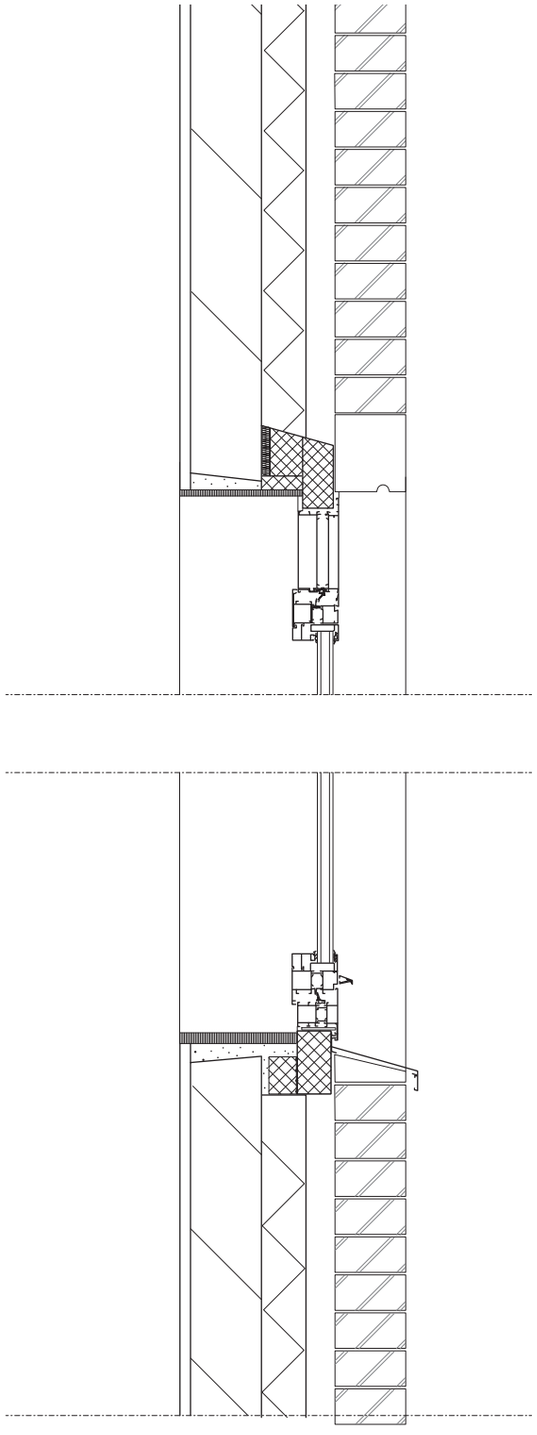

V1
V4

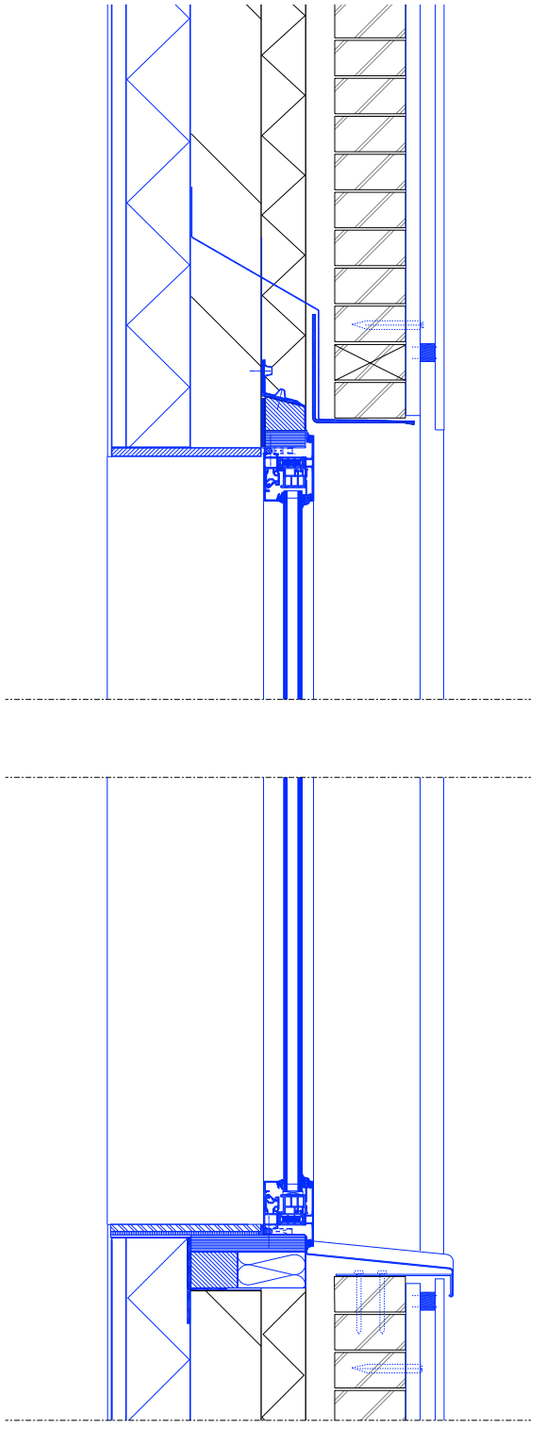
V1

DETAIL 1:5

WALL:

1. Metal cladding (15mm)
2. Horizontal battens (25mm)
3. Vertical battens (25mm)
4. Prefab concrete (100mm)
5. Brick (210x100x50mm)
6. Air cavity
7. Insulation (60mm)
8. Prefab concrete (100mm)
9. Insulation (90mm)
10. Plaster (20mm)



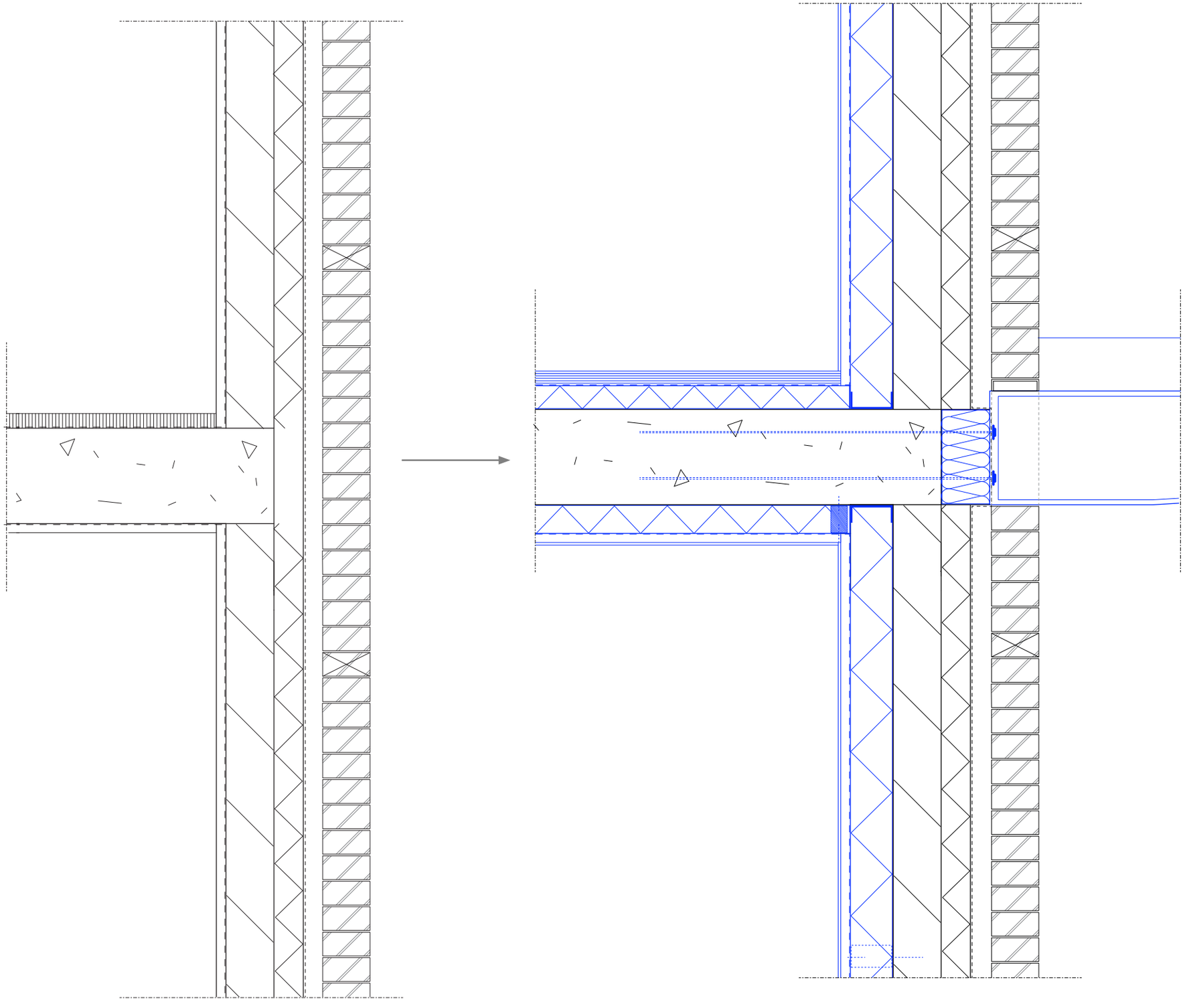


V2

DETAIL 1:5

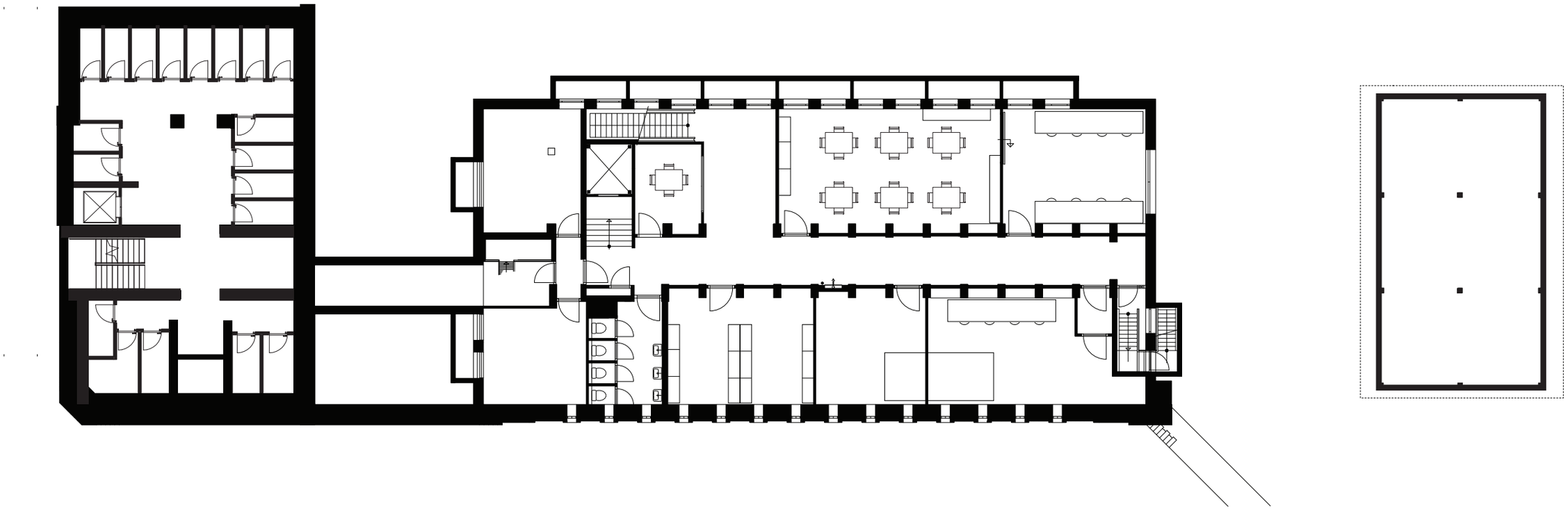
WALL:

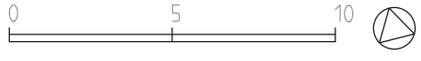
1. Brick (210x100x50mm)
2. Air cavity
3. Insulation (60mm)
4. Prefab concrete (100mm)
5. Insulation (90mm)
6. Plaster (20mm)



THANK YOU.

BASEMENT





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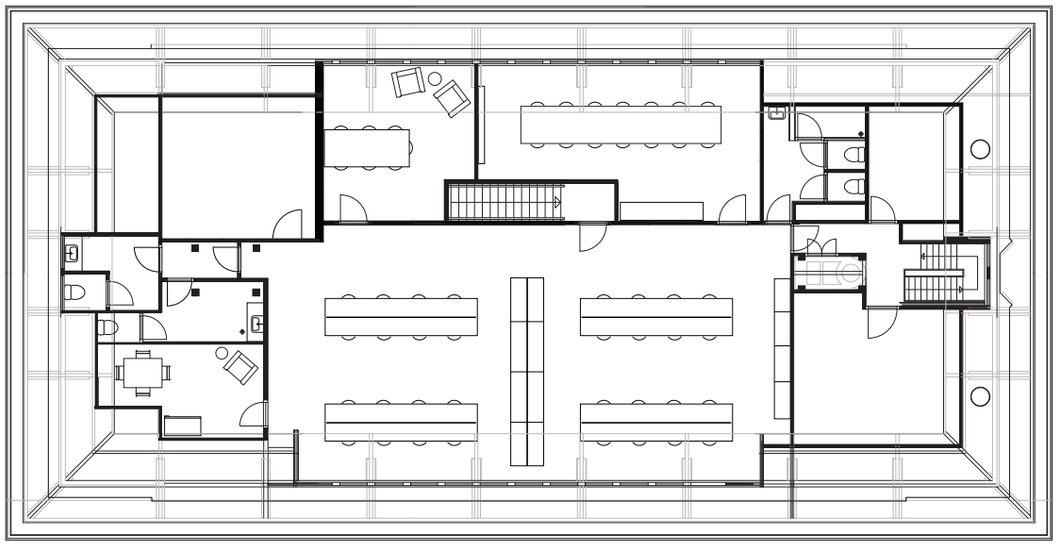

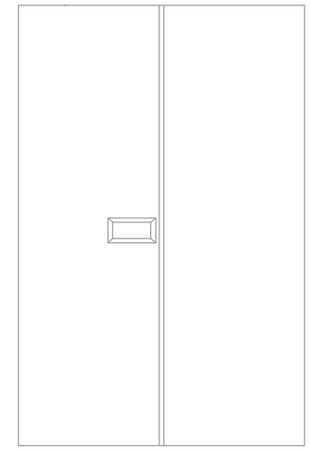

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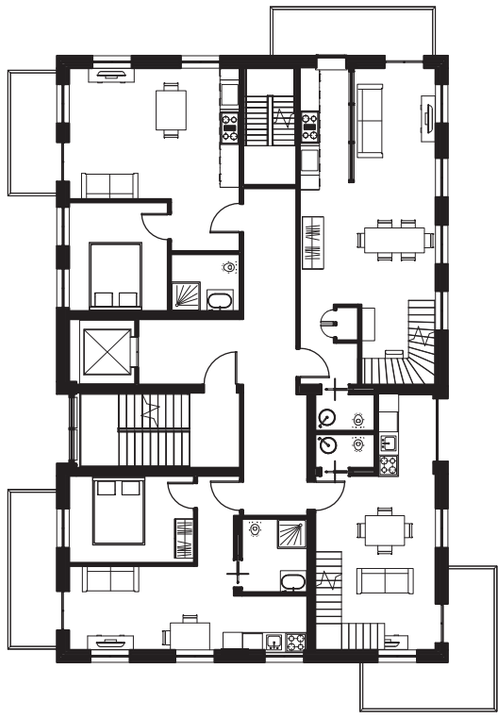

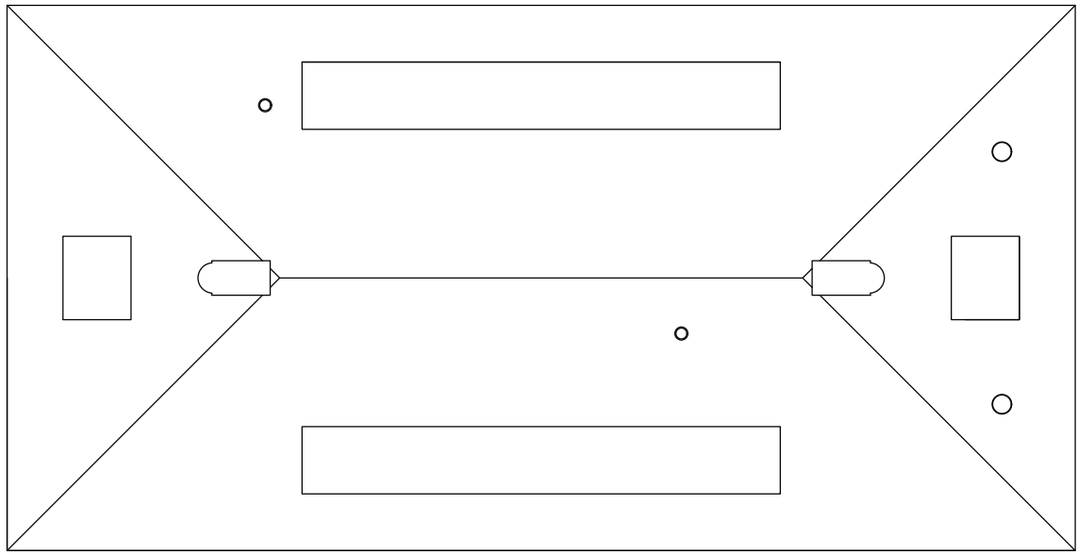

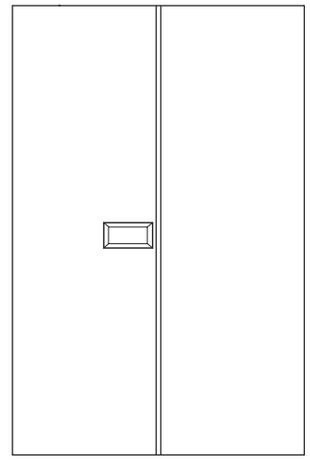

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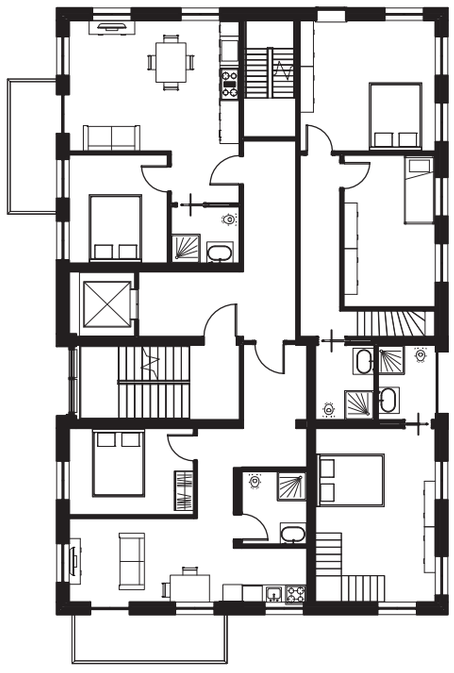

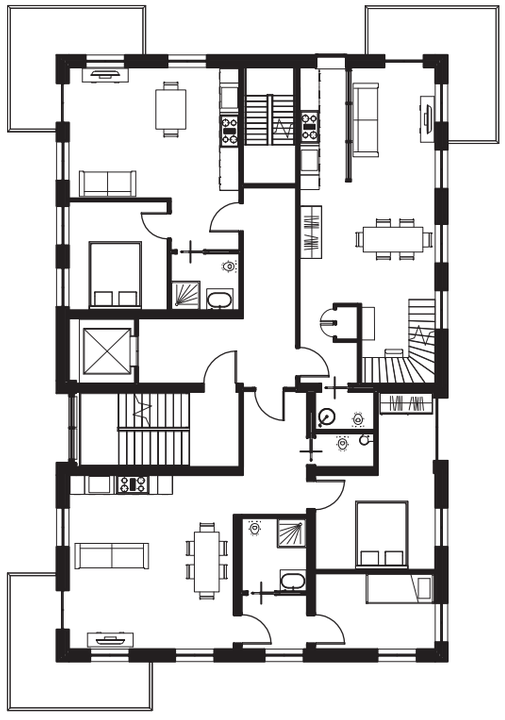

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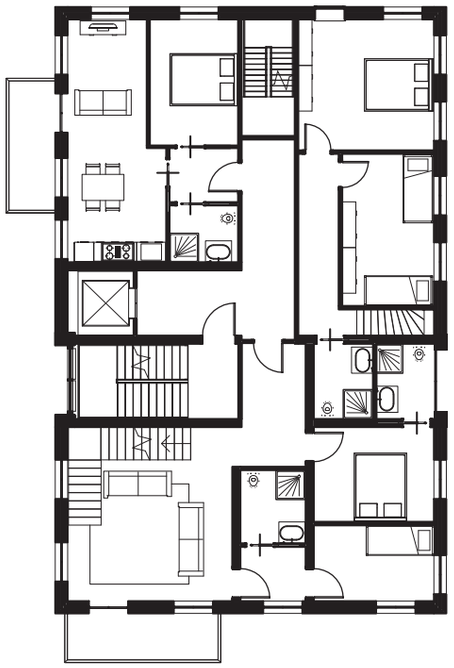
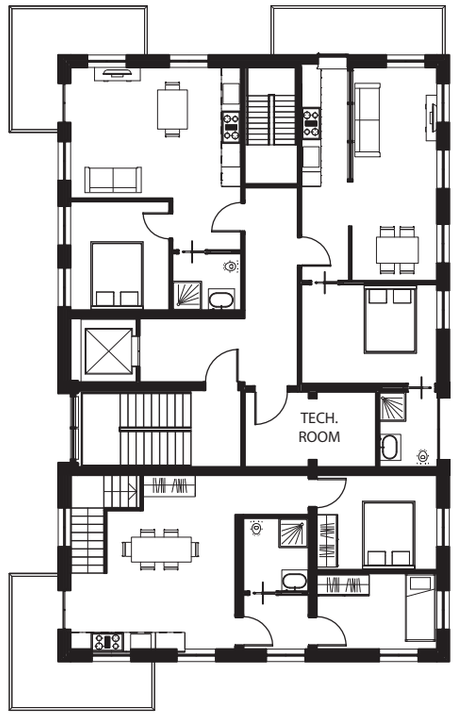
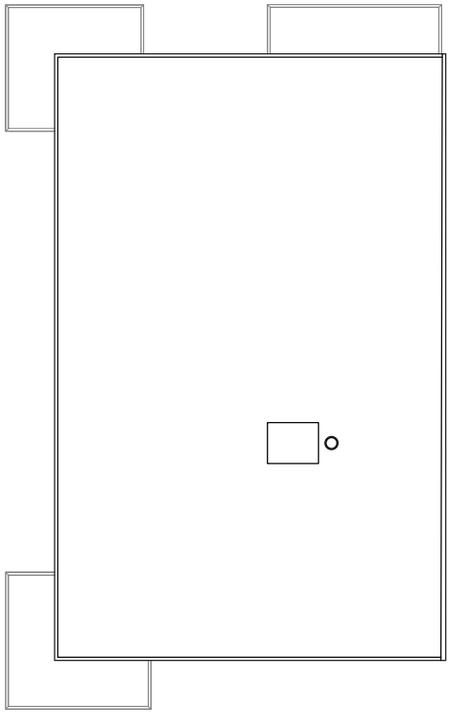
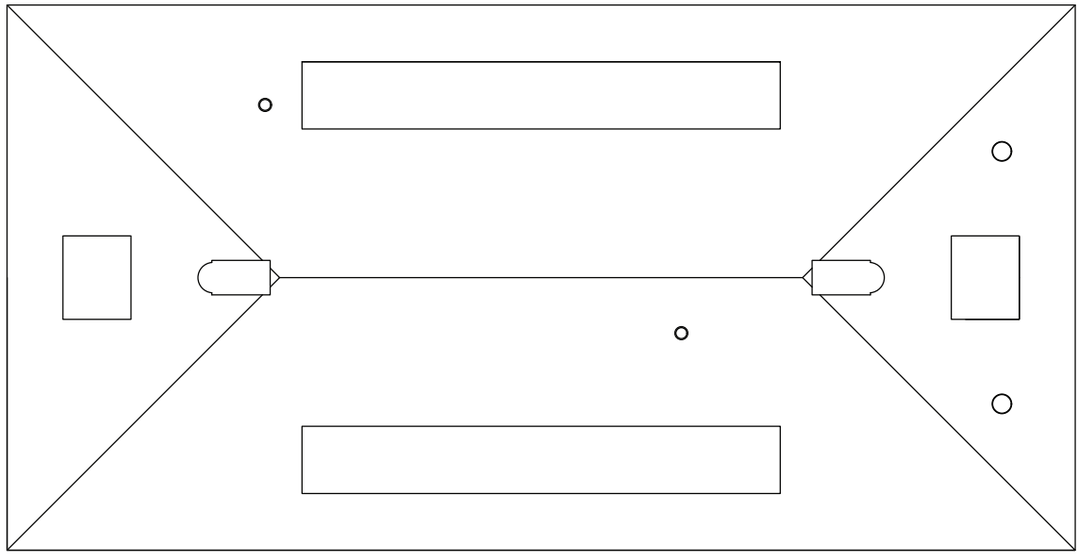
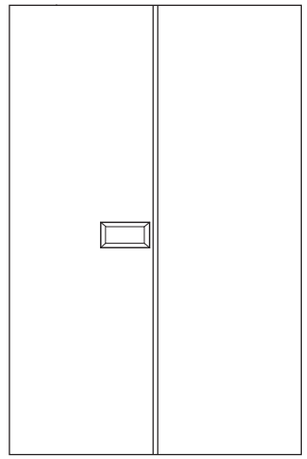




ROOF





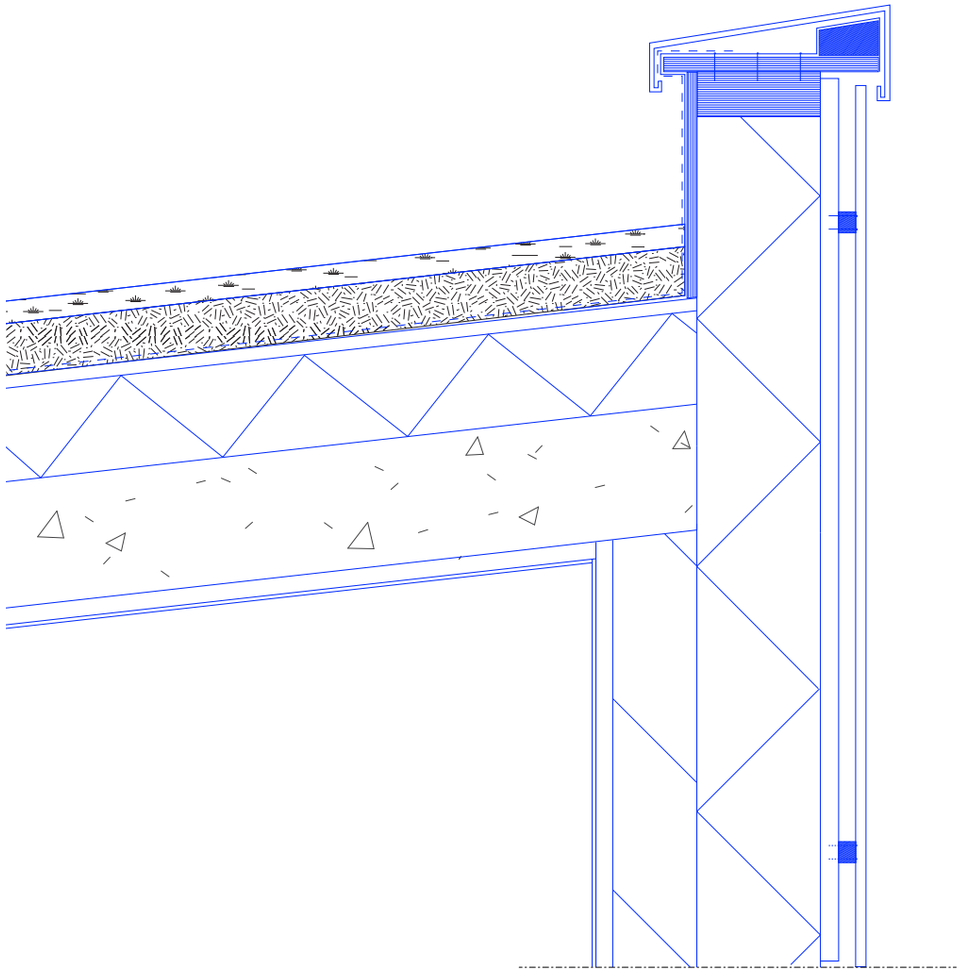


V3

DETAIL 1:5

ROOF:

1. Vegetation (grass) (40mm)
2. Vegetation layer (75mm)
3. Bitumen (25mm)
4. Kingspan Insulation (130mm)
5. Prefab concrete (150mm)
6. Ceiling finish (30mm)



V4

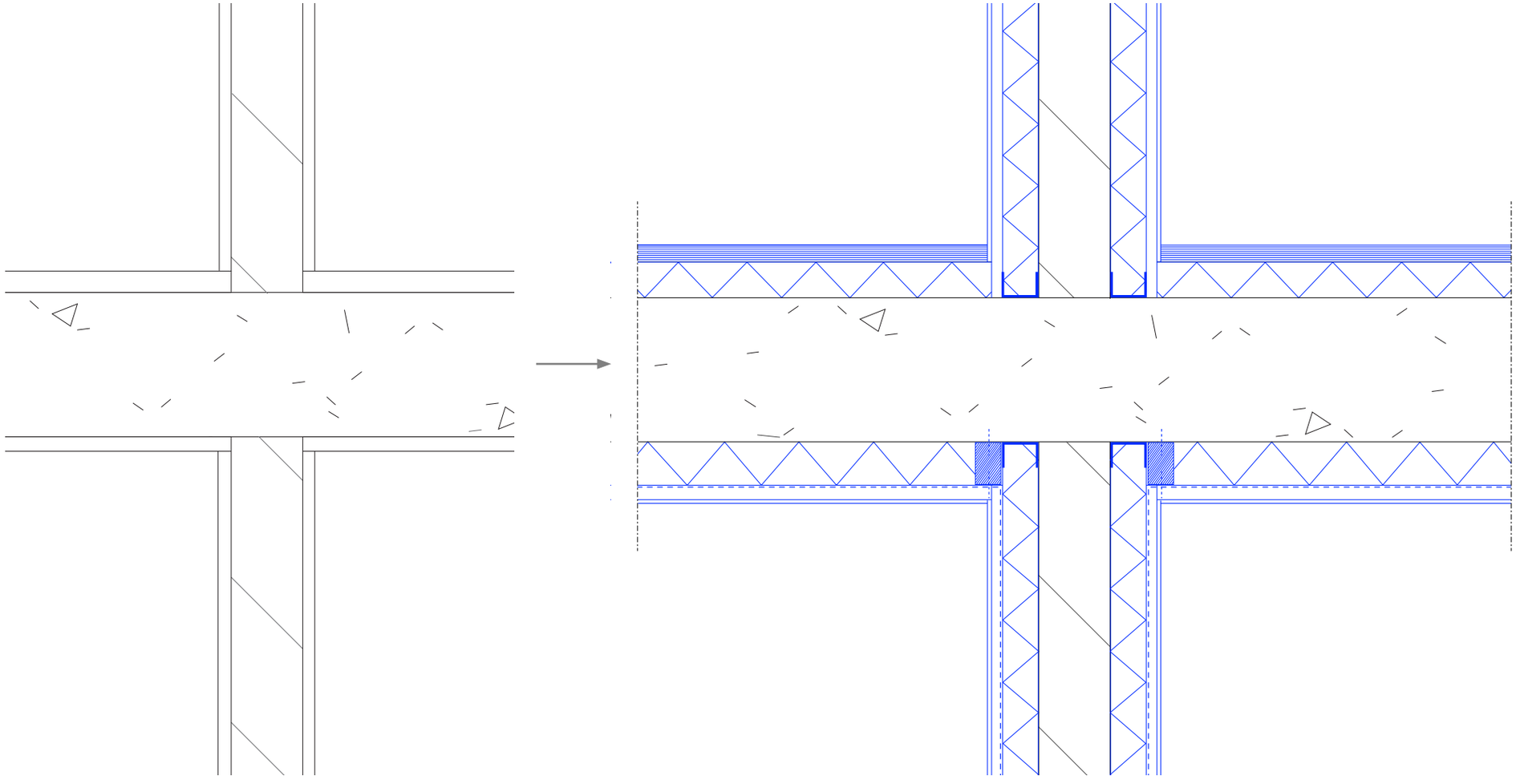
DETAIL 1:5

FLOOR:

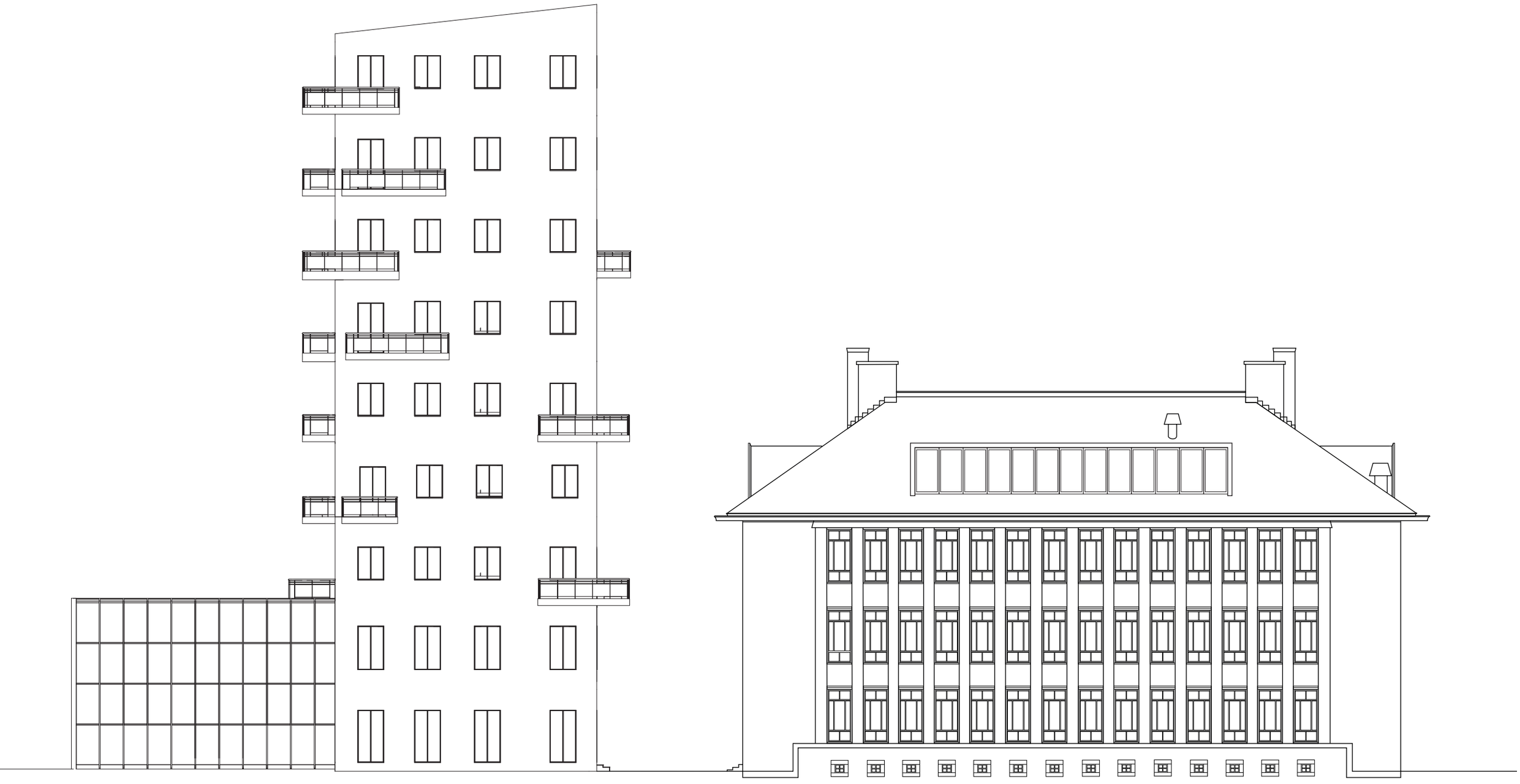
1. Floor finish (30mm)
2. Insulation (60mm)
3. Prefabconcrete (200mm)
4. Insulation (60mm)
5. Ceiling finish (30mm)

WALL:

1. Plaster (20mm)
2. Insulation (50mm)
3. Sand-lime bricks (100mm)
4. Insulation (50mm)
5. Plaster (20mm)

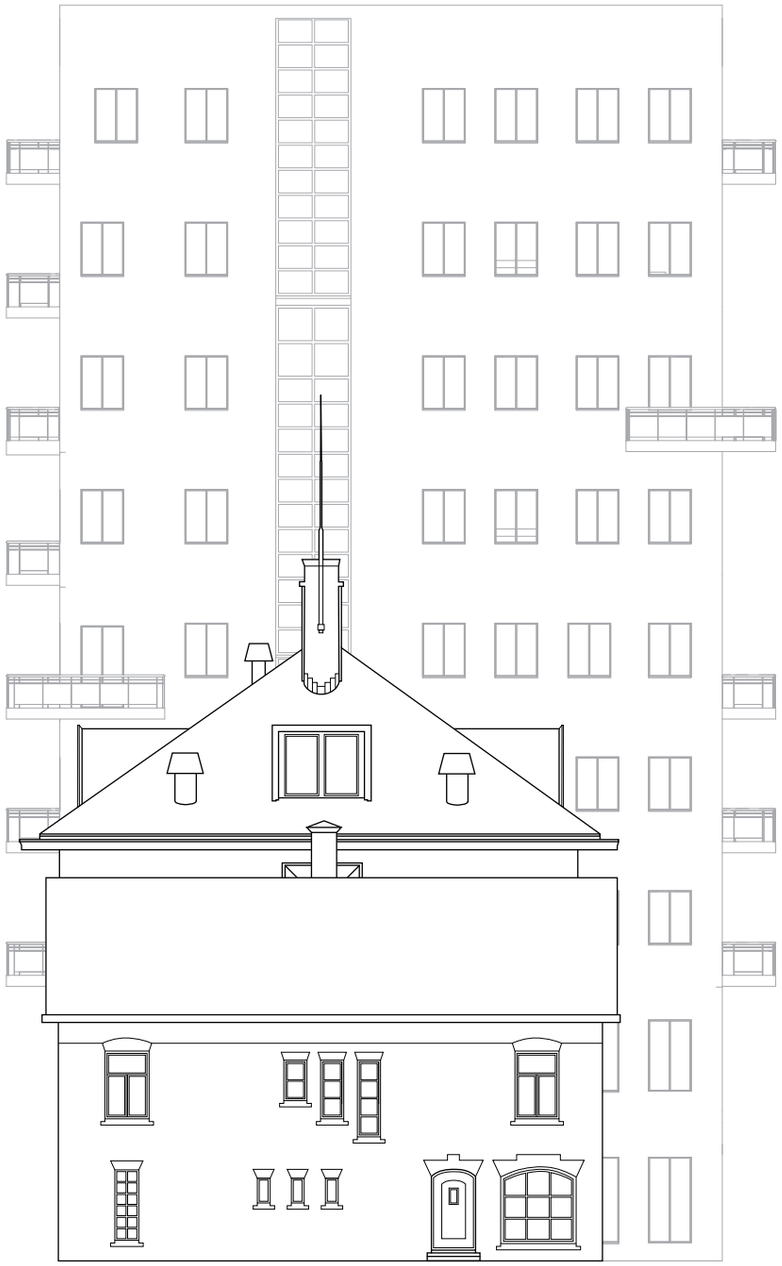


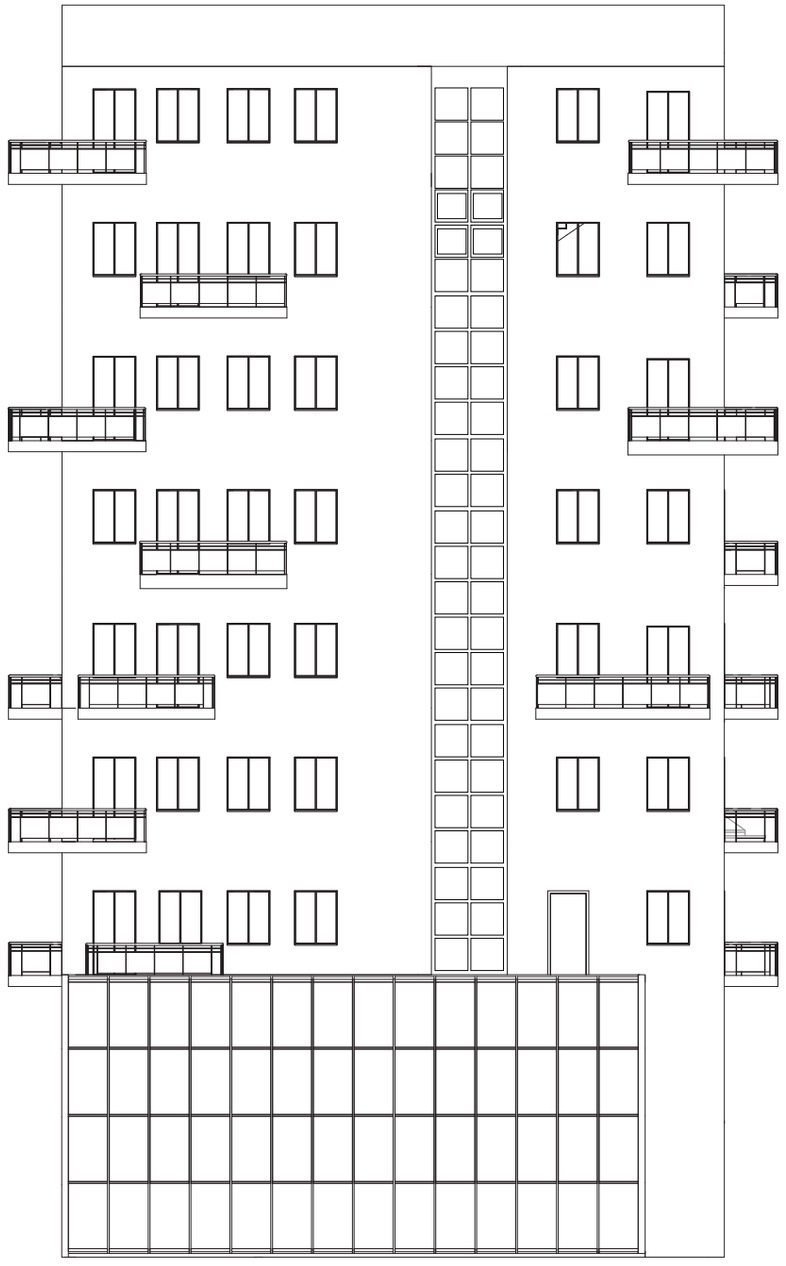
EAST FACADE 1:200



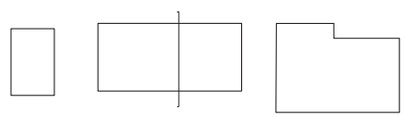
EAST ELEVATION

NORTH AND SOUTH ELEVATIONS





SECTION BB’



VALUE ASSESSMENT

	Age value	Historical value	Intentional commemo-rative value	Non-intended commemora-tive value	Use value	Newness value	(relative) Art value	Rarity value	Other relevant values
Surrounding/ setting	First harbour activities since+/- 1850	The setting involves in different layers of time		The Delfshaven district was left untouched during the bombing of 1940	There are various ways to access the area. It forms a gateway towards the Mullerpier.	The Mullerpier has been developed into a residential area recently.			The demography at the site is diverse and has cultural variety. Also, there are several similar (monumental) buildings in the area.
Site	Site is used by the former River Police since 1911.	The site is close to the former center of the Port of Rotterdam.			There is a strong relation with the water, as well as with the city center.			The little distance between the buildings and the water is unique.	All sorts of functions are close-by.
Skin (exterior)	The exterior consist of the original materials.				The openings on the south facade face the River Maas.	The materiality and style form a reflection of the construction periods. The central glass zone is a continuation of the existing.	The 1933 and 1940 buildings reflect traditional Dutch brick architecture, incl. the use of natural stone, rhythmic material, light, wooden doors, high steel window frames and elegant fences.		The buildings are designed by architects of Municipal Works.
Structure	The buildings were built in 1933, 1940 and 1994.				Form follows function in the 1933 and 1940 building. The one from 1994 has flexibility of space.		The 1933 has a high tiled pitched roof with gable ends, which refiects the traditional architecture.	The 1940 building consists of a concrete roof.	
Space plan		The construction (of the 1933 building) comprise the built-in cells.		During WWII, the cells and attic were used as prison by the German Sicherheitspolizei.	The buildings have a corridor structure. Also, there is flexibility of space through columns.		The floorplans of all three buildings are based on rhythmic grids.	Even though the three buildings are detached, the incorporate one function.	
Surfaces (interior)							The 1933 and 1994 building have light tiles in the hallways. The first also has an artwork in the staircase.		
Services		The 1940 and 1933 have conventional chimneys.			The 1994 building has an elevator to provide accessibility for all.			The 1994 building has swallow roof tiles.	
Stuff				When the Harbour Police was taken over by Germans, the prisoners made a wood carving.					The building is decorated with police signs and boards.
Spirit of place	In 1962 the Port of Rotterdam became the largest in the world.	Rotterdam became the first to act against crime and theft on land and water since 1895.	It was said that they deserved a building that fitted their use and character (1933).				The buildings are perceived as formal, autonomous, businesslike, no superfiuous luxury and light.		

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