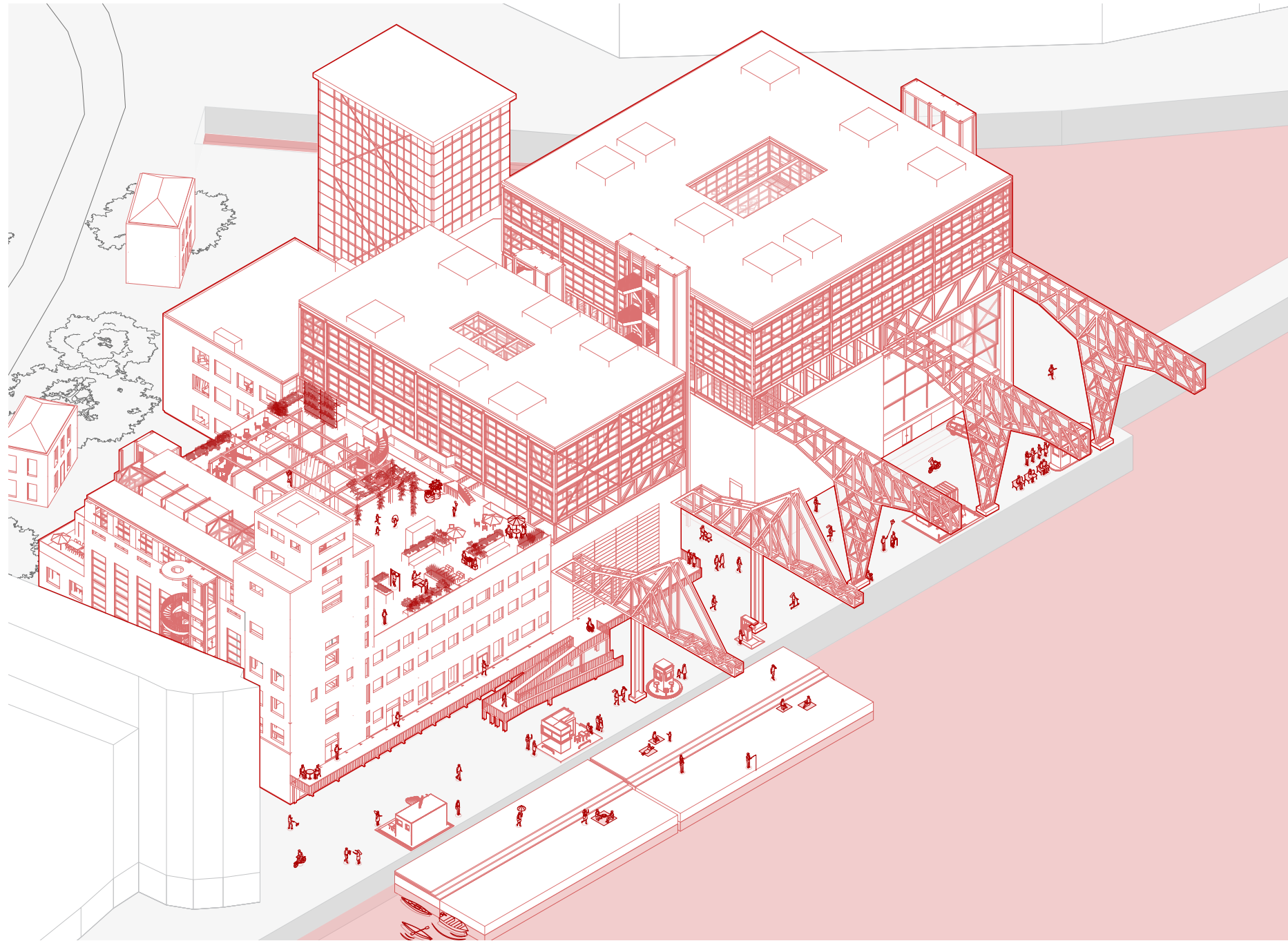




STRUCTURE OF FREE ZONES

COMMUNITY-ORIENTED
VACANT BUILDINGS ADAPTATION

CONTENTS

1. Introduction	03
2. Free zone of Landbouwbelang <i>context</i>	16
3. Power of self-organization and squatting communities <i>thematic research</i>	39
4. An operative method and transformations <i>project</i>	47
5. Details <i>and construction</i>	89
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INTRODUCTION

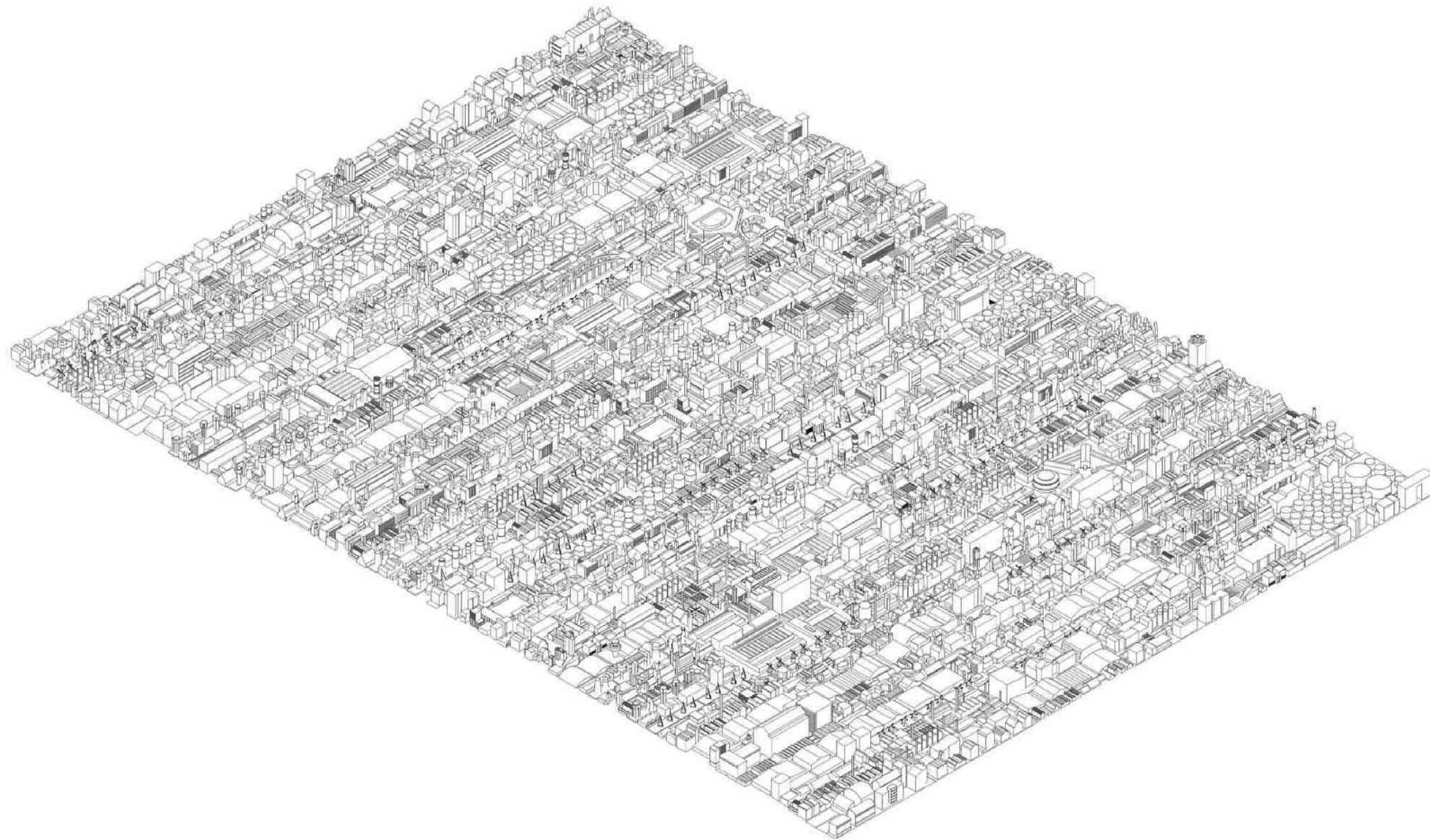
INTRODUCTION



Amsterdam, Haarlemmerdijk in 1900, 1971 & 2013
<https://exploring-and-observing-cities.org/wp-content/uploads/2016/01/haarlemmerdijk2.png>

CITIES TRANSFORM

INTRODUCTION



PROBLEM OF URBAN VACANCY

In the Netherlands solely, more than 10.000 governmentally-owned buildings remain vacant.

INTRODUCTION



EXISTING BUILDING STOCK

There is a rising interest in transformation of various existing typologies instead of demolition.

INTRODUCTION



EXISTING BUILDING STOCK

Once neglected, underinvested or low-income neighborhoods are redeveloped

INTRODUCTION



EXISTING BUILDING STOCK

Redeveloped for and by wealthier residents and businesses, resulting in displacing former activities, inhabitants and making cities homogenous and accessible only to limited group.

INTRODUCTION



INTRODUCTION



INVESTING IN COMMUNITIES

can improve well-being, sense of belonging and care for the surrounding that people inhabit.

INTRODUCTION



<https://rotterdamarchitectuurmaand.nl/en/programma/item/protest-in-the-city/>

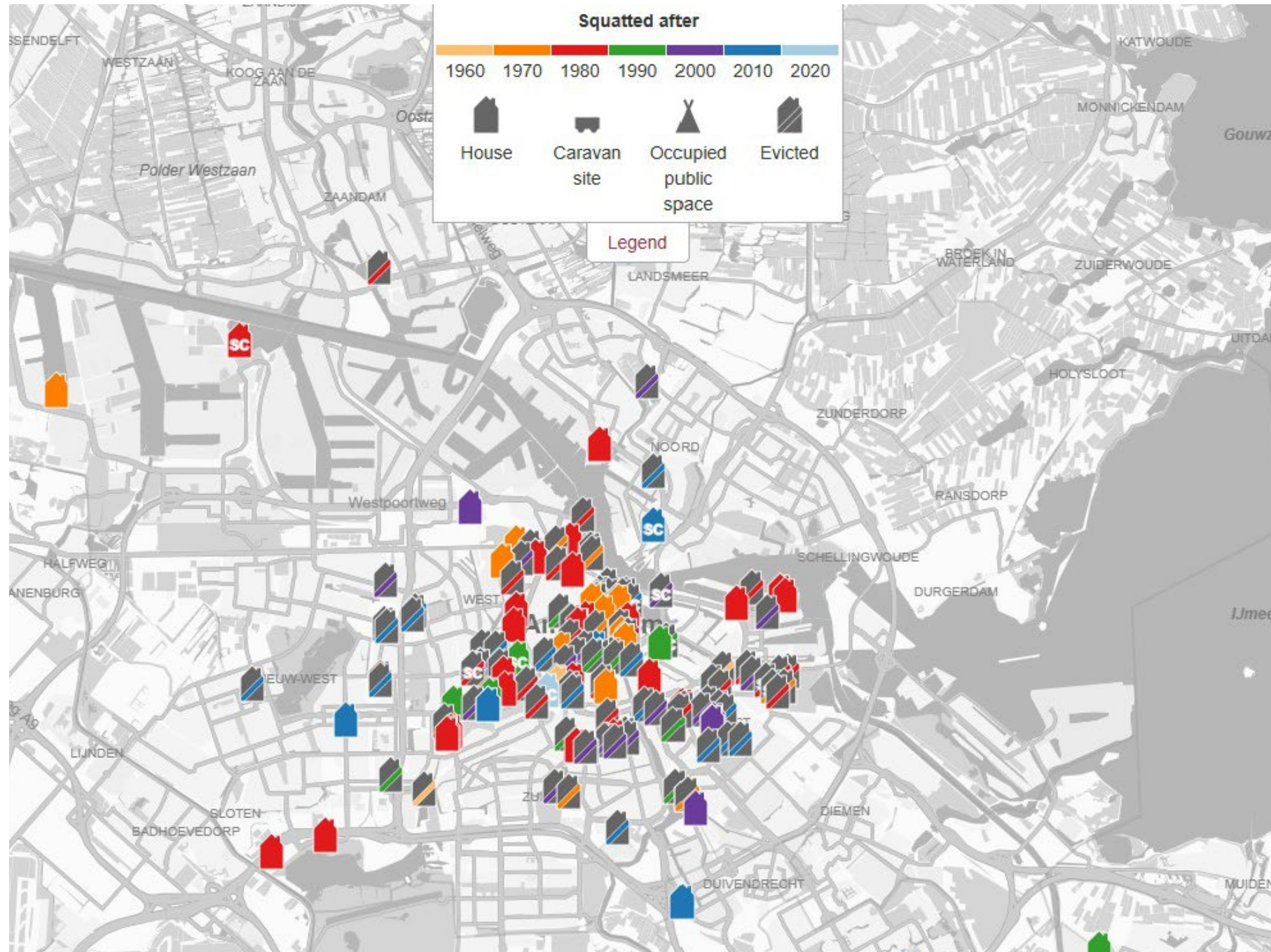
<https://dezwijger.nl/programma/de-gekraakte-stad>

<https://iisg.nl/staatsarchief/tentoonstellingen/eenvoet.php>

SPATIAL ACTIVISM

in many forms of protest , streetart and performances, or vacant buildings occupation resists challenges that real estate poses.

INTRODUCTION



<https://maps.squat.net/en/cities/amsterdam/squats>

VACANT BUILDINGS OCCUPATION

Even though squatting reveals potential of neglected buildings adaptations and rise of vibrant, self-organized communities, it remains illegal, or allowed temporarily, with many being evicted.

INTRODUCTION

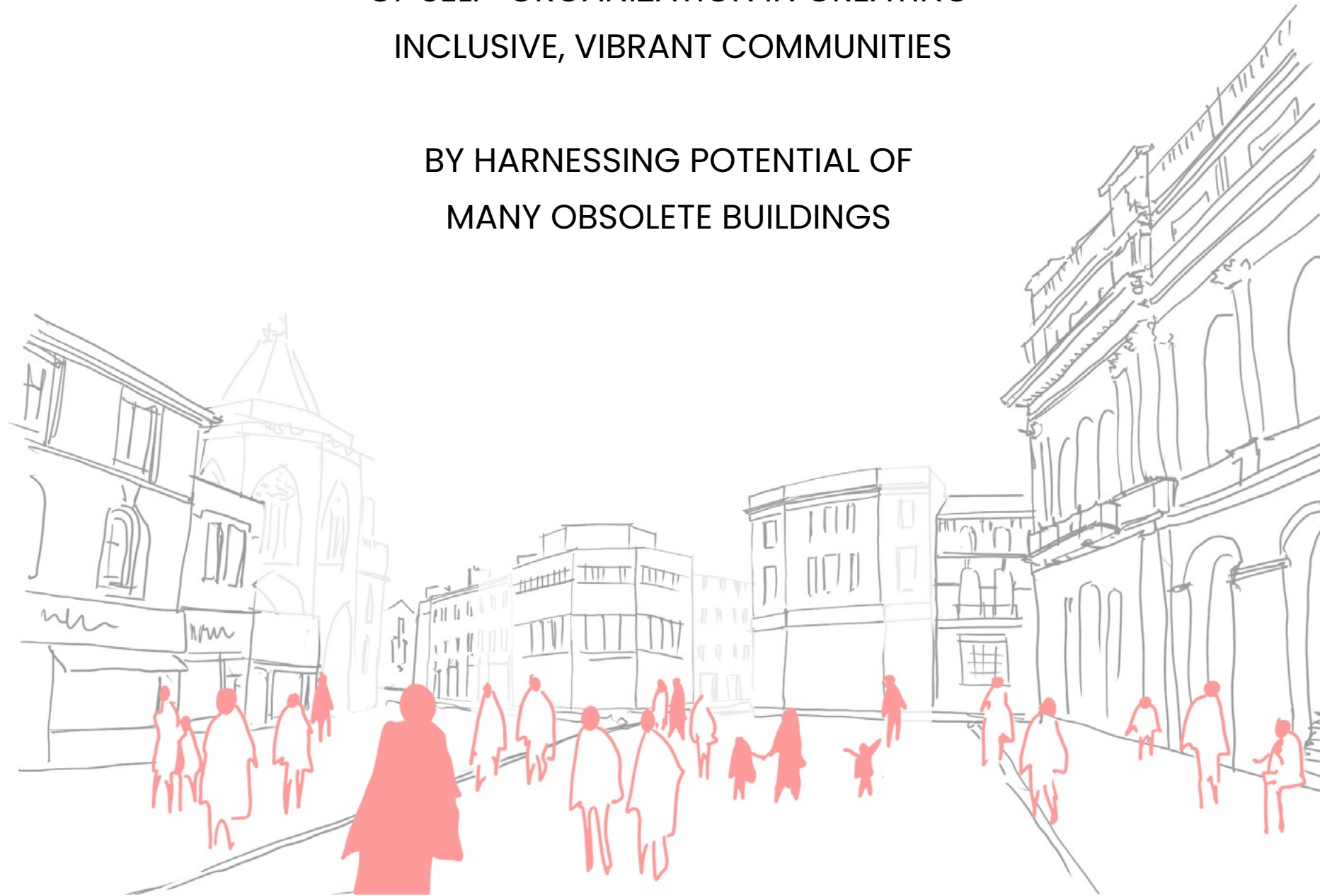
PROJECT THAT REFLECTS ON THE POWER
OF SELF-ORGANIZATION IN CREATING
INCLUSIVE, VIBRANT COMMUNITIES



INTRODUCTION

PROJECT THAT REFLECTS ON THE POWER
OF SELF-ORGANIZATION IN CREATING
INCLUSIVE, VIBRANT COMMUNITIES

BY HARNESSING POTENTIAL OF
MANY OBSOLETE BUILDINGS



PROJECT THAT REFLECTS ON THE POWER
OF SELF-ORGANIZATION IN CREATING
INCLUSIVE, VIBRANT COMMUNITIES

BY HARNESSING POTENTIAL OF
MANY OBSOLETE BUILDINGS

TO PROVIDE HIGHLY DEMANDED
AFFORDABLE LIVING AND
WORKING SPACE



CONTEXT

CONTEXT



<https://www.landbouwbelang.org/>

CULTURAL FREEZONE LANDBOUWBELANG

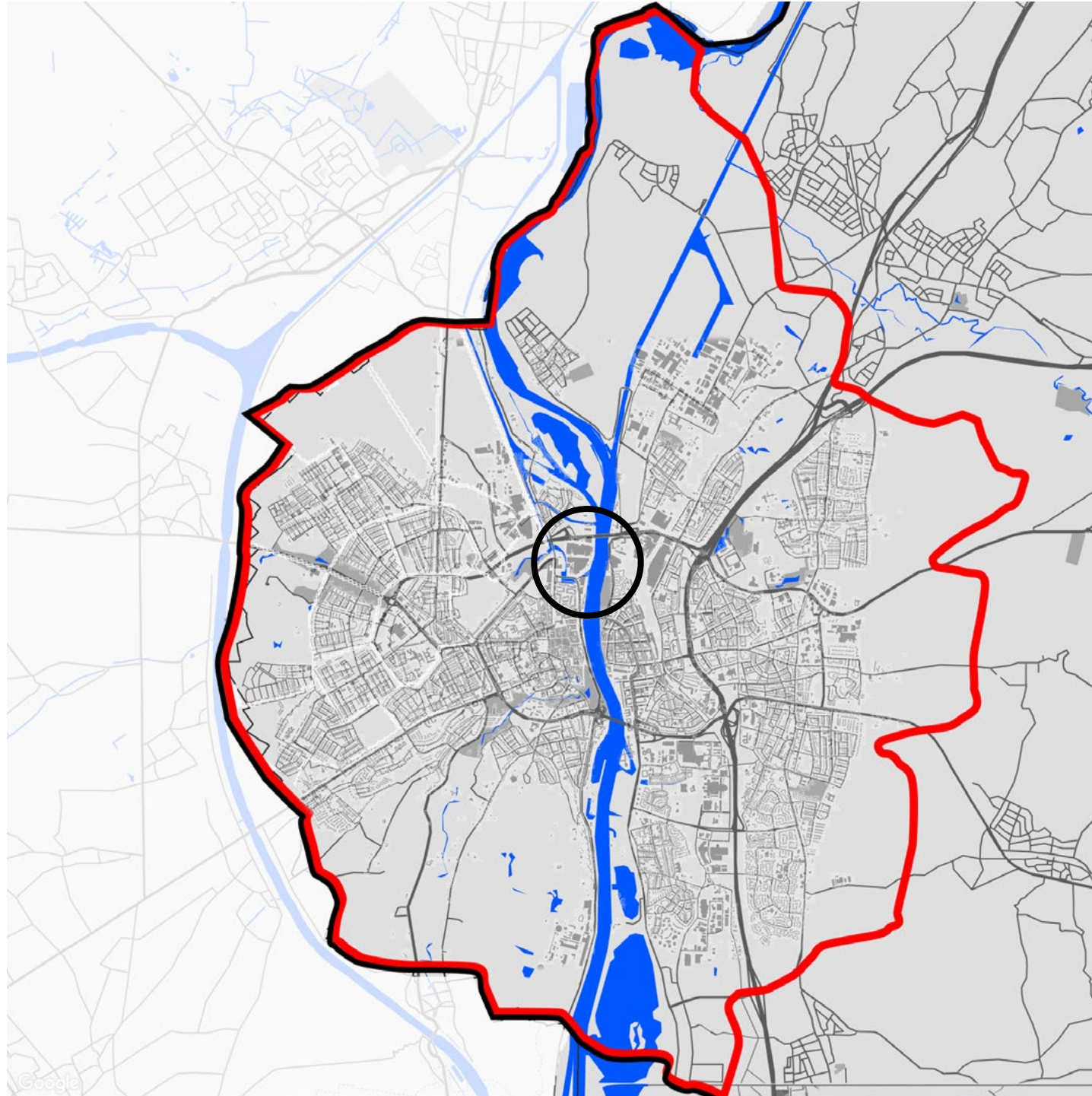
CONTEXT



MAASTRICHT

Situated in the southern periphery of the Netherlands, along the river Maas, it is home to approximately 125,000 inhabitants.

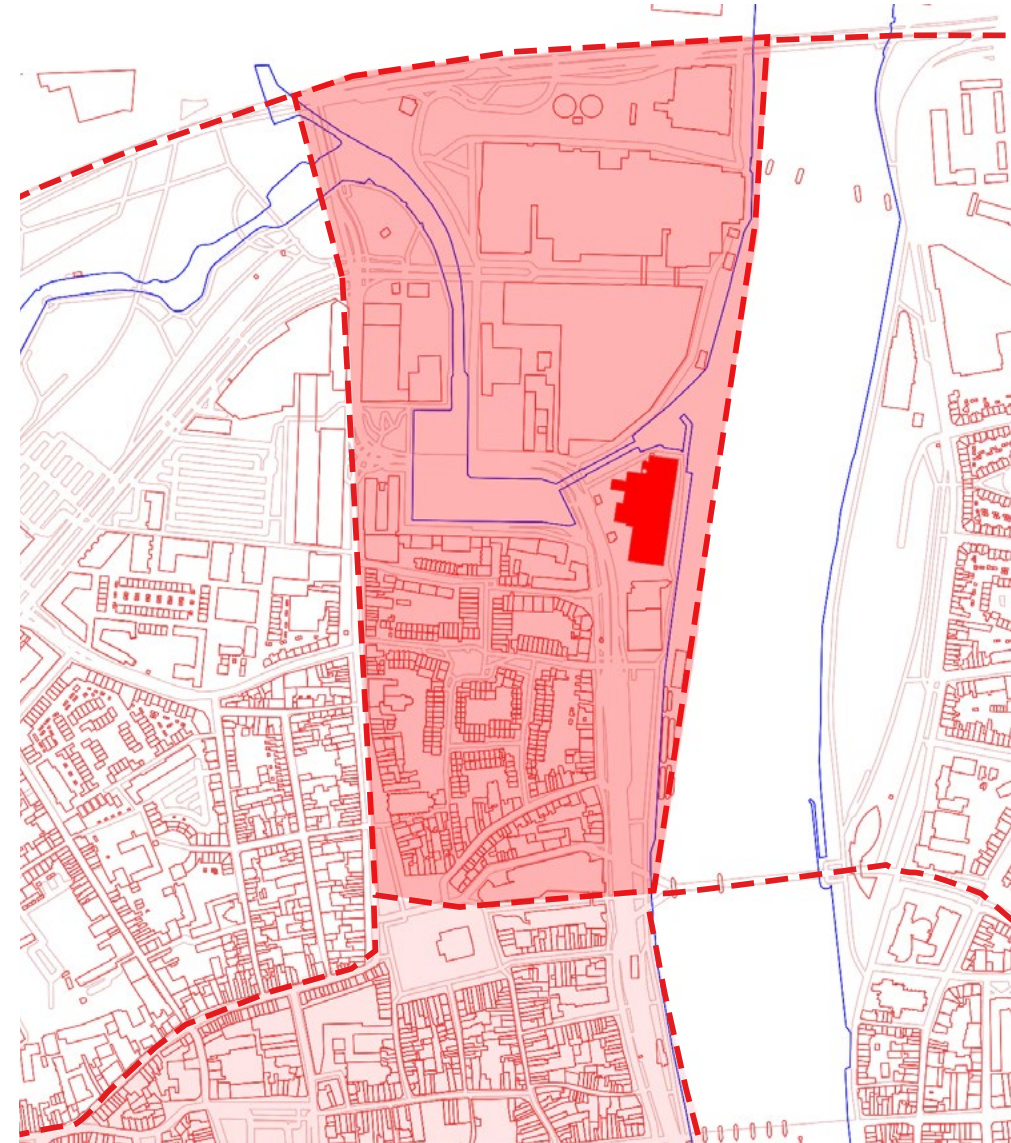
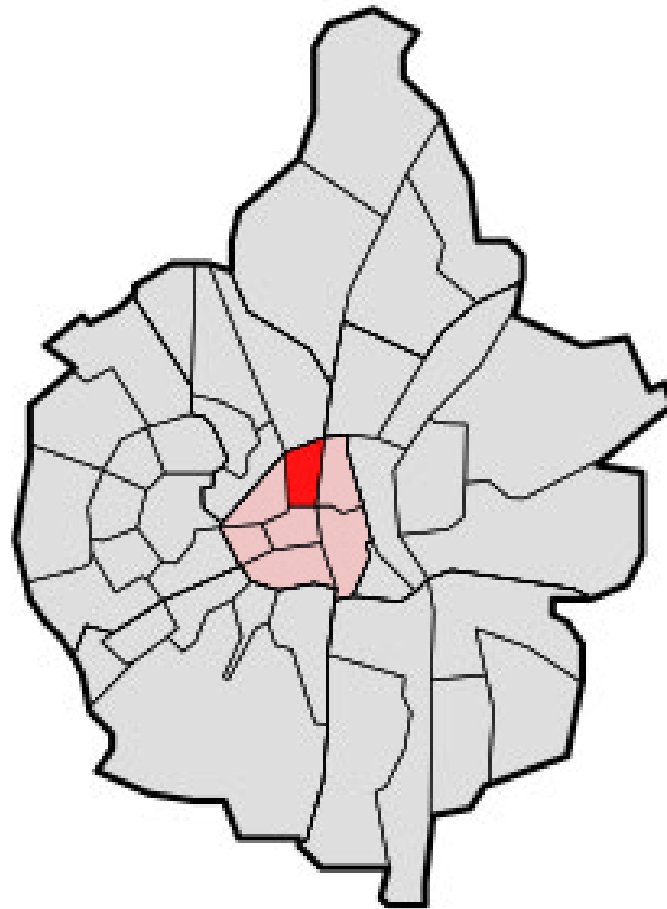
CONTEXT



BOSCHSTRAATKWARTIER

Transformation of industrial area into mixed-use district

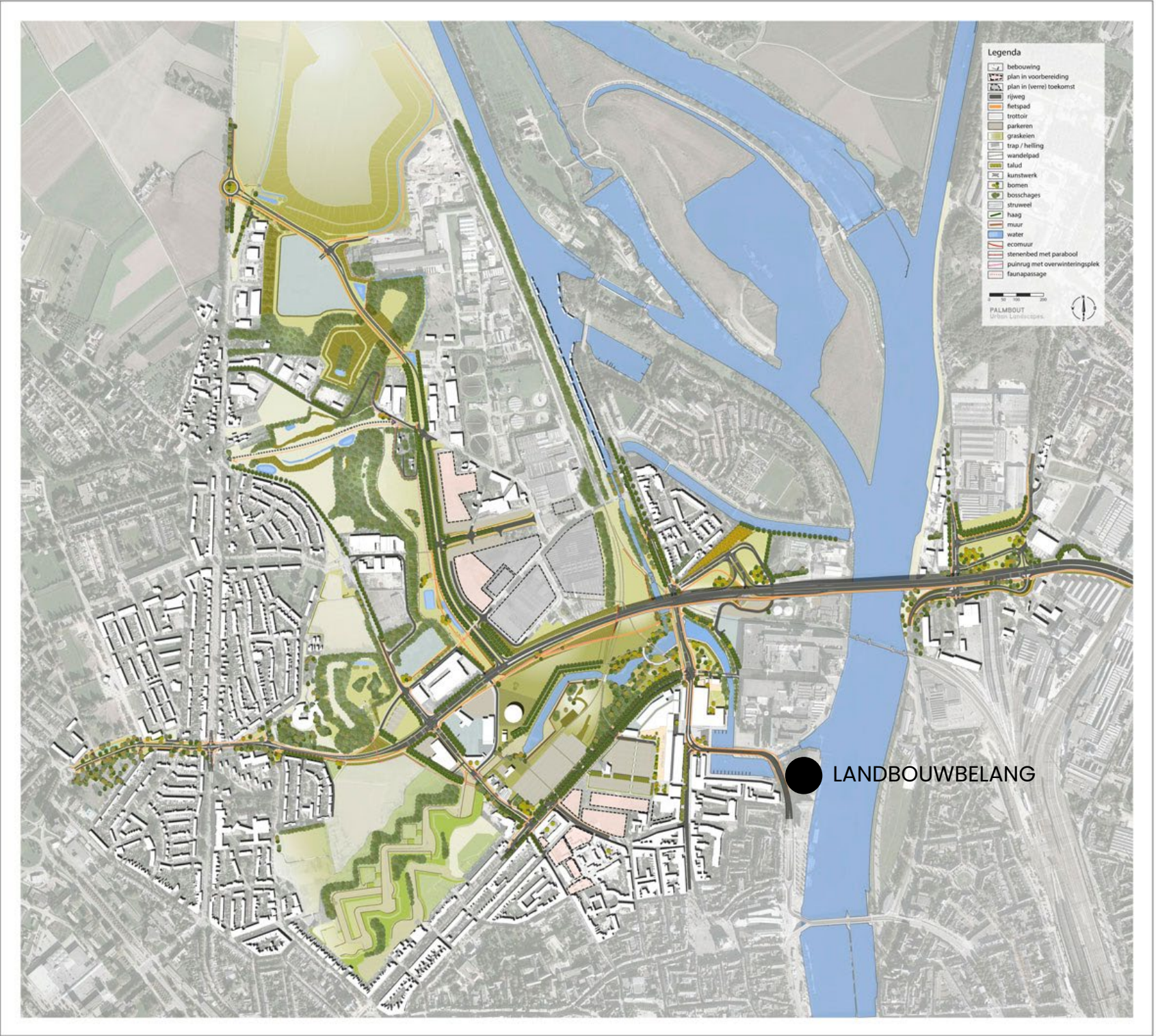
CONTEXT



BOSCHSTRAATKWARTIER

As the city expanded, Boschstraatkwartier became attractive location due to its proximity to the river and inner city center

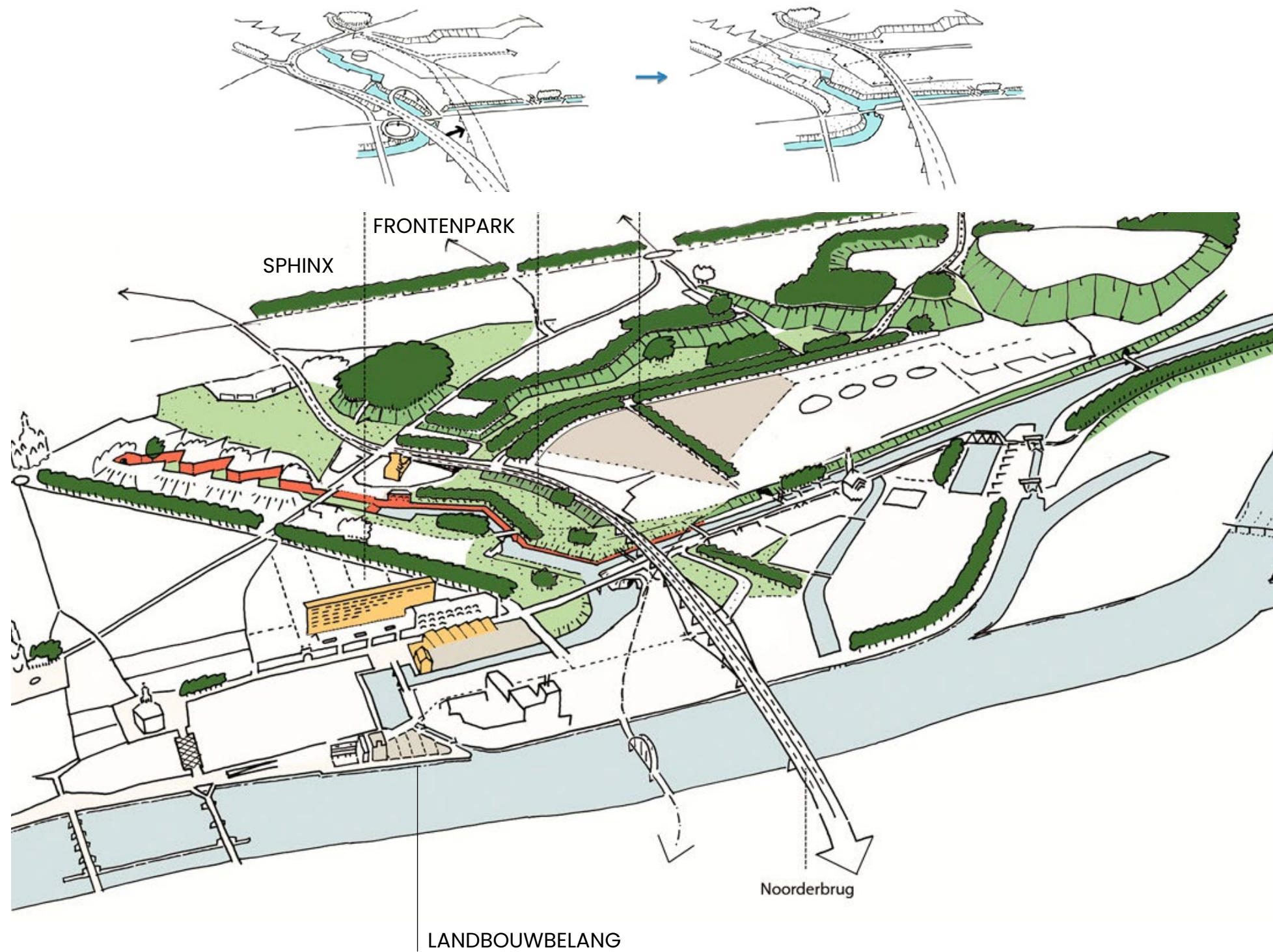
CONTEXT



MASTERPLAN BELVEDERE

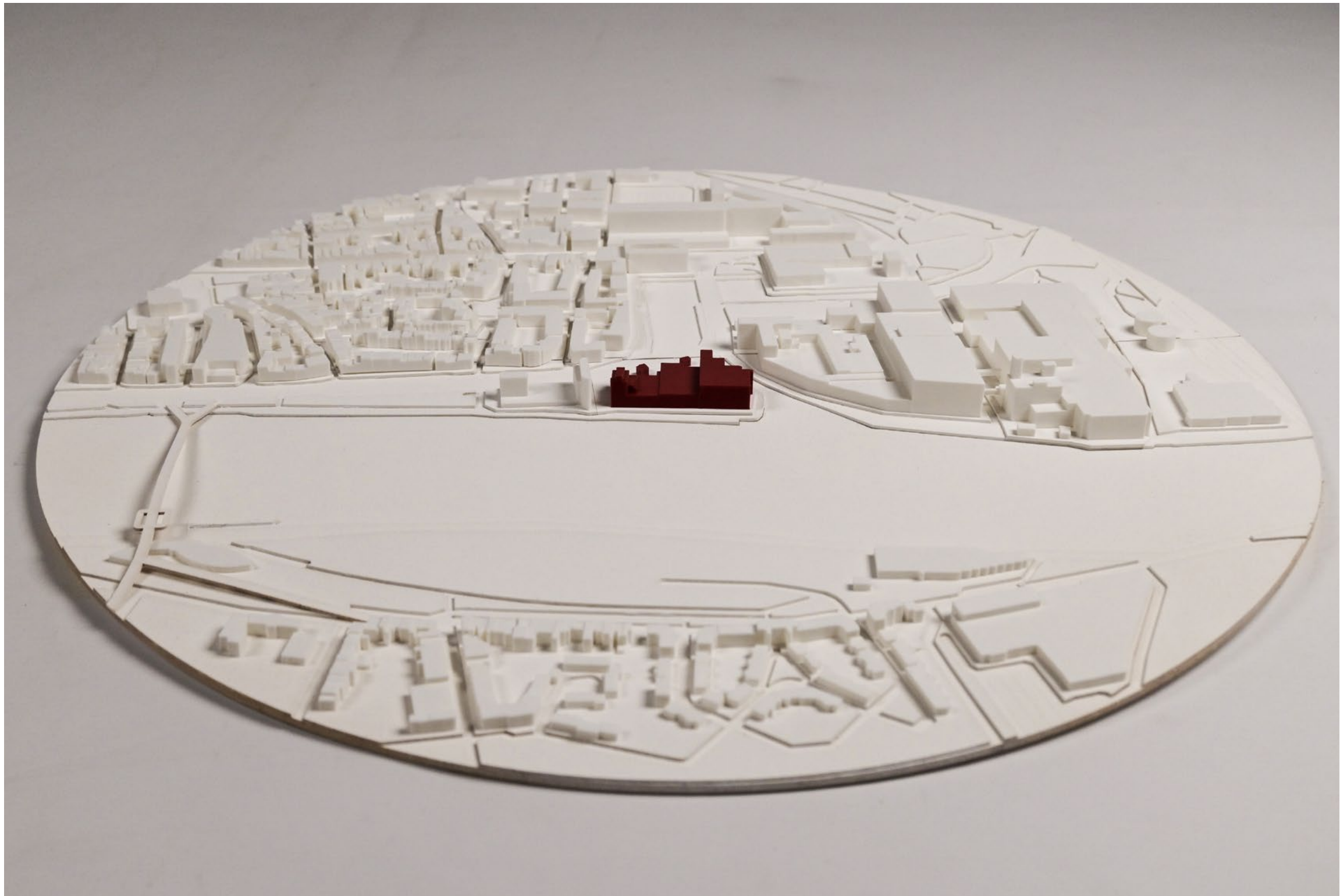
<https://palmhout.nl/cubeportfolio/belvedere-maastricht/>

CONTEXT



<https://palmhout.nl/cubeportfolio/belvedere-maastricht/>

CONTEXT



CONTEXT

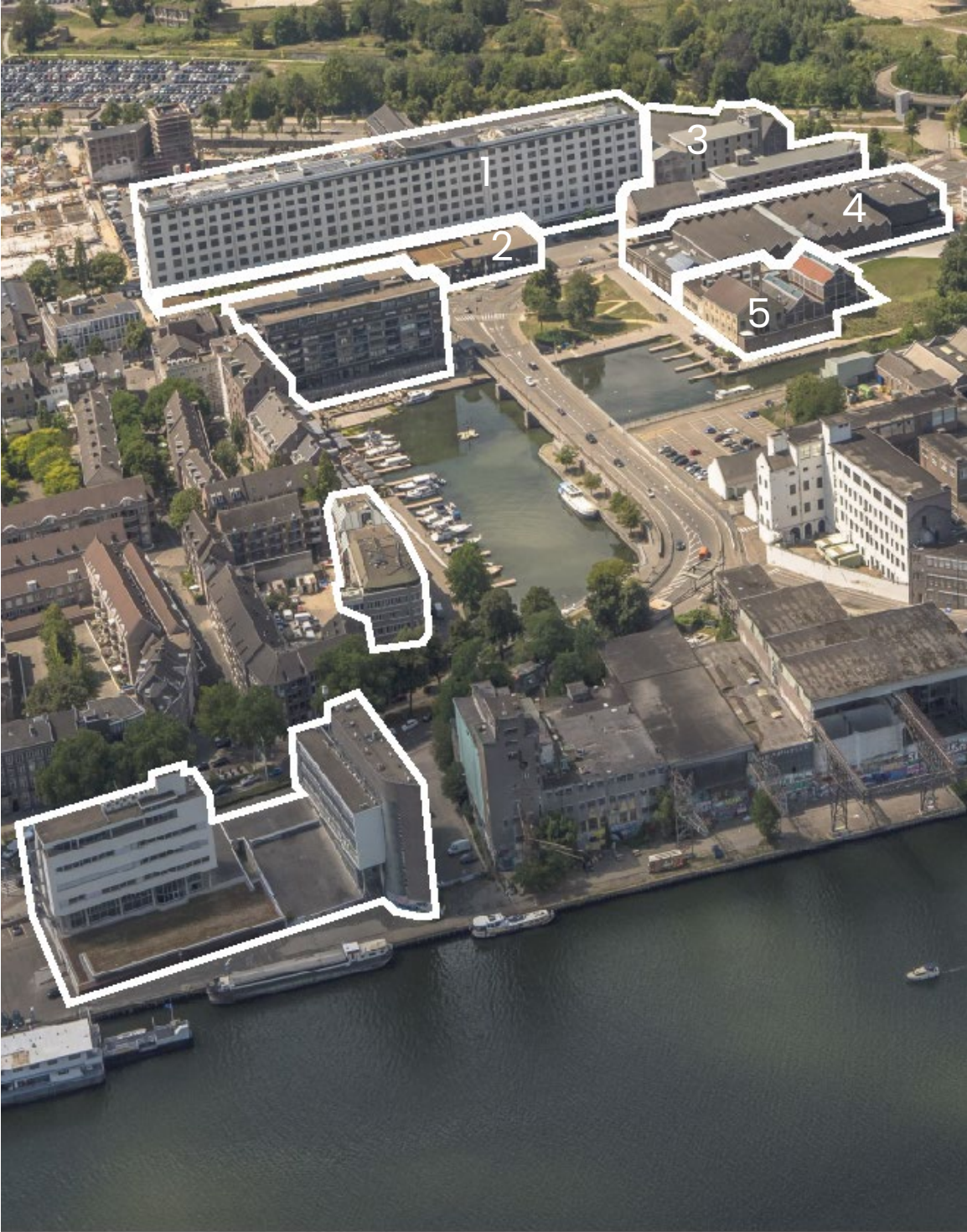


<https://www.belvedere-maastricht.nl/actueel/maastricht-zoekt-uniek-plan-voor-de-locatie-landbouwbelang>

BOSCHSTRAATKWARTIER

Transformation of industrial area into mixed-use district through cultural and commercial investments.

CONTEXT



<https://www.swecogroup.com/portfolio/architecture/lumiere-cinema/> | <https://www.thesocialhub.co/maastricht/>
<https://loads5.nl/winkels/maastricht> | <https://muziekgieterij.nl/over/> | <https://business.pathe.nl/business/locations/pathe-maastricht>

BOSCHSTRAATKWARTIER

Transformation of industrial area into mixed-use district through cultural and commercial investments.

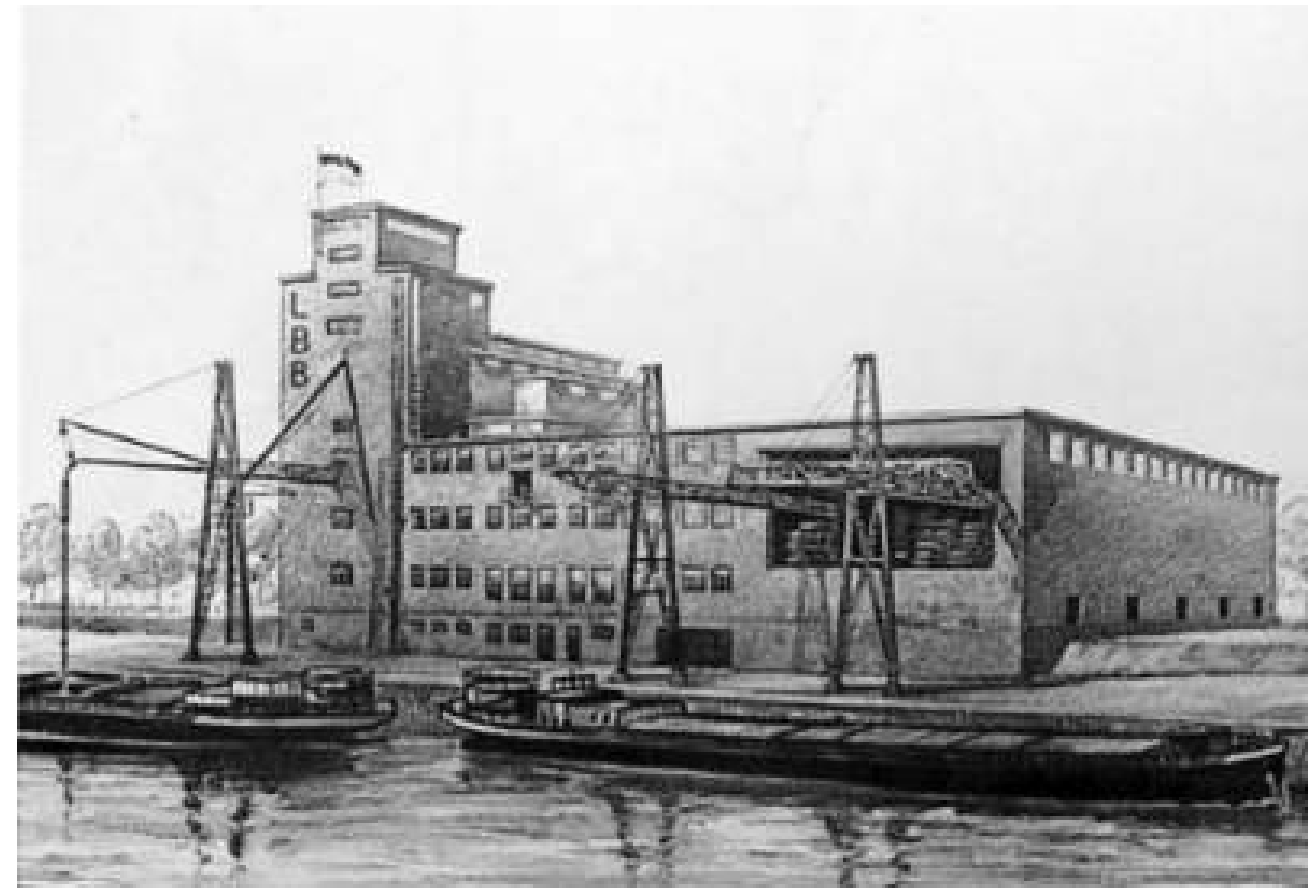
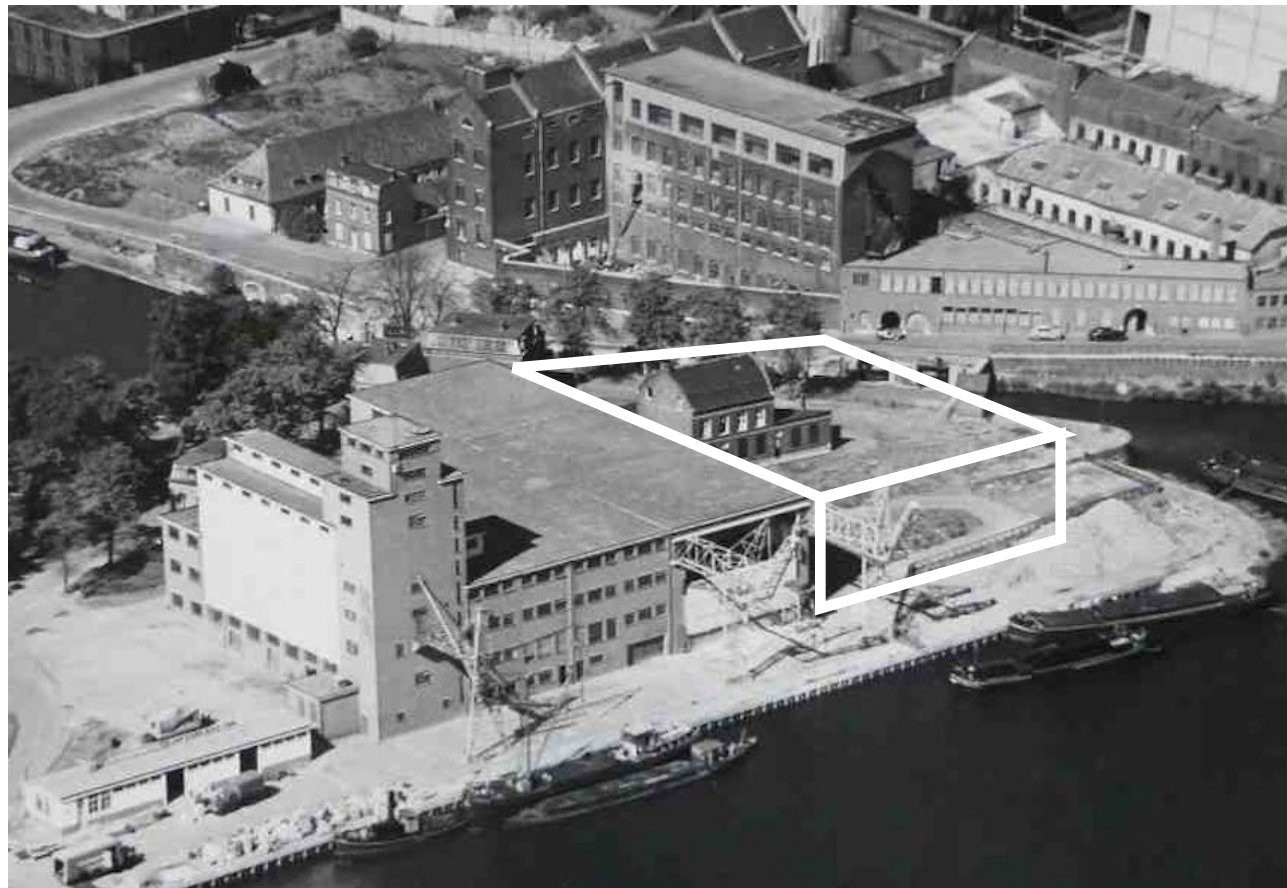
CONTEXT



BOSCHSTRAATKWARTIER

What will happen to the remaining sites?

CONTEXT



<https://mei-arch.eu/projecten/landbouwbelang/>

LANDBOUWBELANG

Grain silo was built in 1941 with adjacent clay storage and remained in use until 1970

CONTEXT

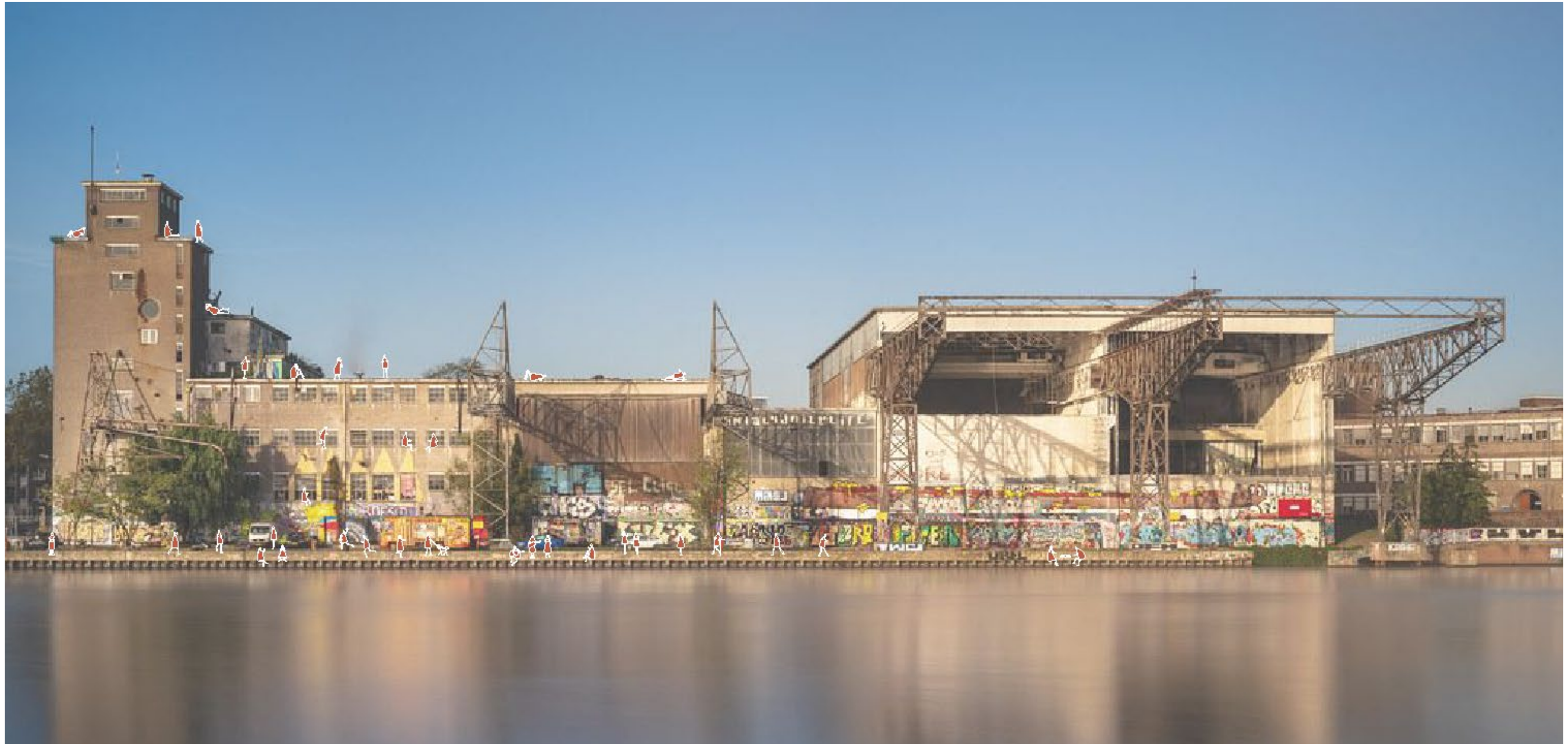


Fred Berghang, <https://www.belvedere-maastricht.nl/>

LANDBOUWBELANG

Sine 1970s it stood vacant and neglected

CONTEXT



LANDBOUWBELANG

Squatted in 2002, it gradually transformed into creative, inclusive and community-oriented space.

CONTEXT



PEOPLE OF LANDBOUWBELANG

<https://www.landbouwbelang.org/community>

CONTEXT



<https://bertjanssen.eu/>

ACTIVITIES AND HAPPENINGS IN LANDBOUWBELANG

include performances, exhibitions, workshops and foodbank cooking, among living and art-creating spaces

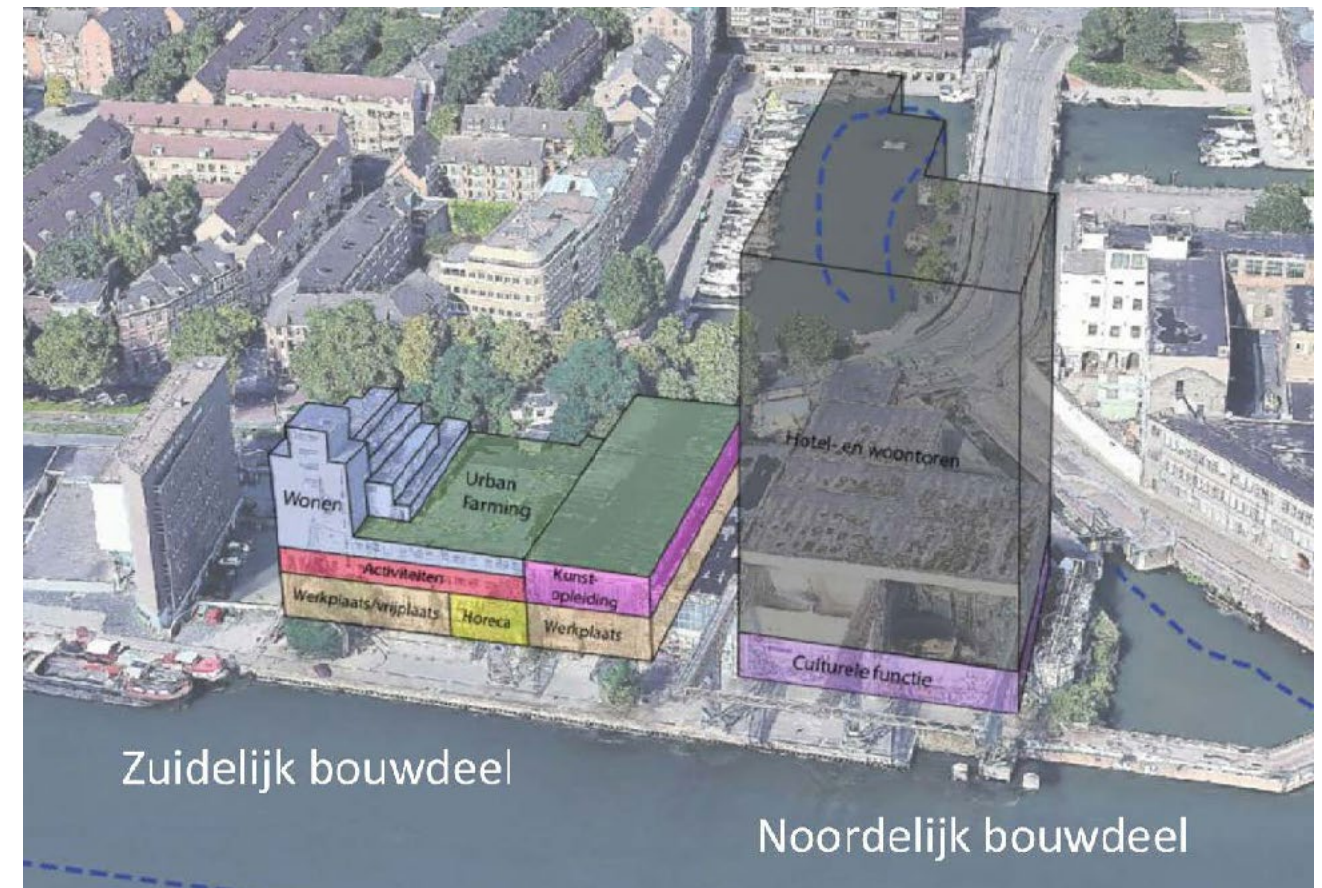
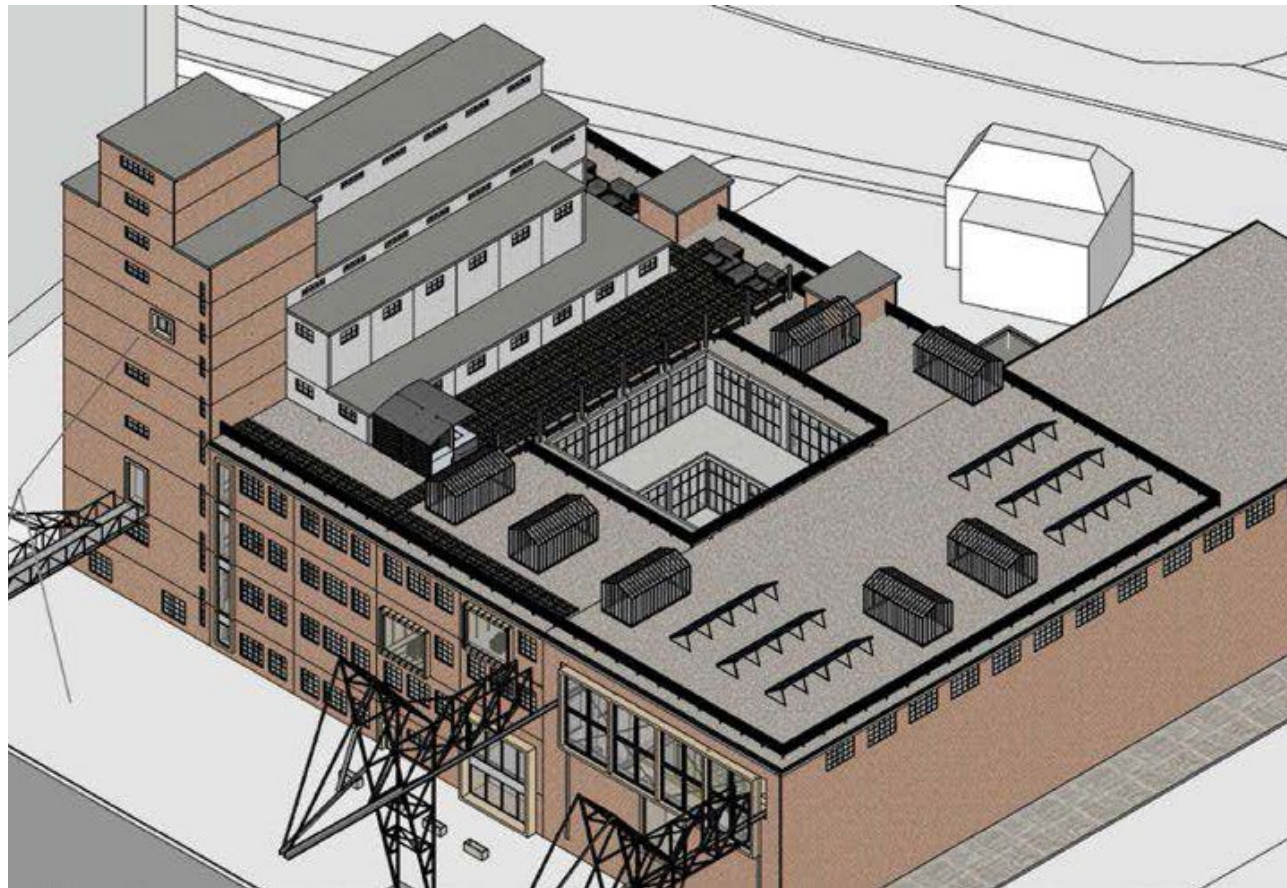
CONTEXT



SITE REDEVELOPMENT TENDER

Municipality announced a tender for Landbouwbelaag
redevelopemnt in 2019

CONTEXT



COMMUNITY'S PROPOSAL

Communities vision and proposal of site redevelopment with current activities remaining in place

CONTEXT



CONTEXT

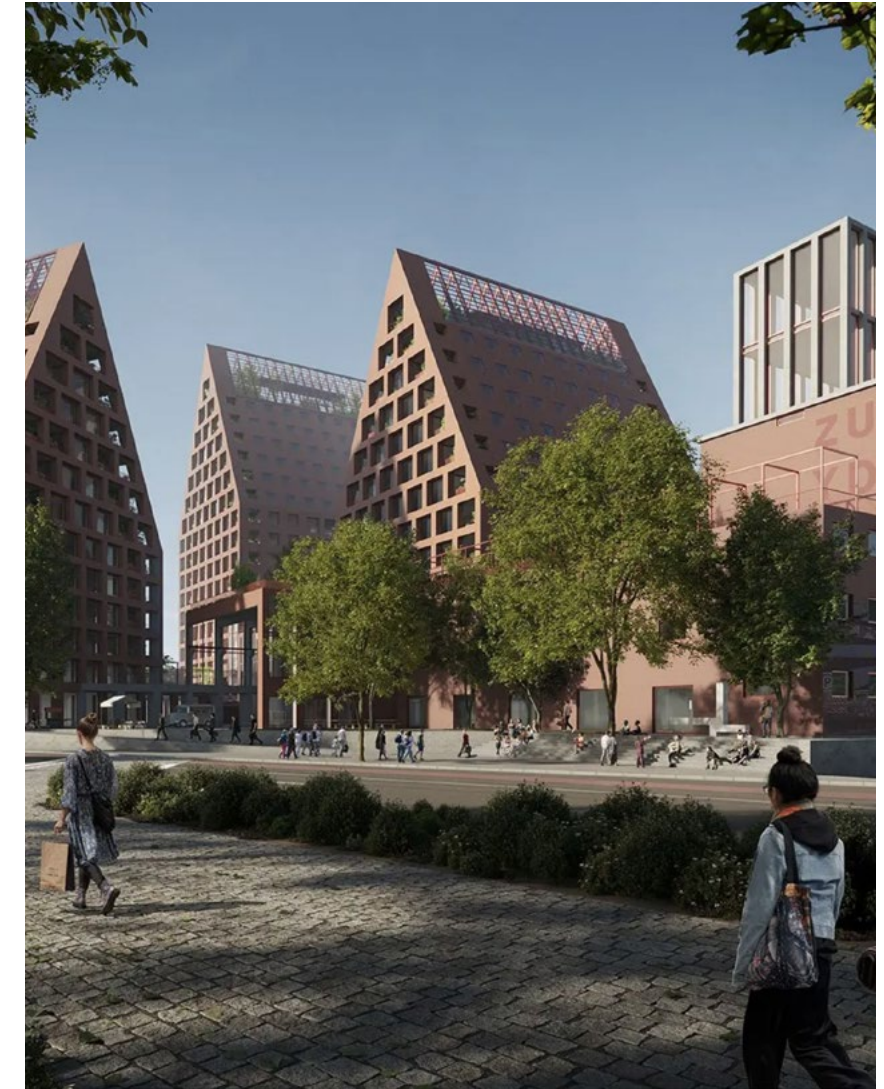
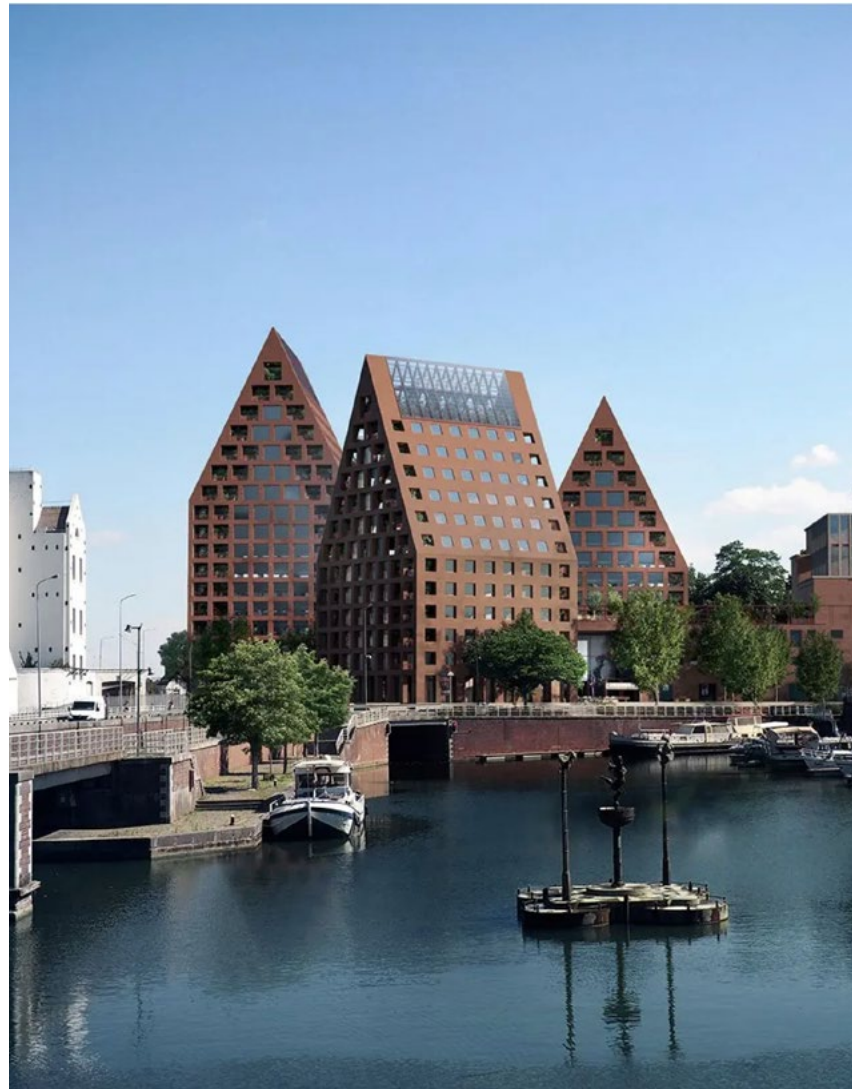


<https://arquitecturaviva.com/works/revitalizacion-del-area-de-landbouwbelang-en-maastricht>

WINNING PROJECT

awarded to the consortium of Maastricht developer RO group,
Belgian developer Vestio and Group Machiels.

CONTEXT



<https://arquitecturaviva.com/works/revitalizacion-del-area-de-landbouwbelang-en-maastricht>

WINNING PROJECT

30,000 m² of functions with 2/3 intended for residential use. The plan also provides space for catering and a function focused on sports & health.

CONTEXT



<https://arquitecturaviva.com/works/revitalizacion-del-area-de-landbouwbelang-en-maastricht>

WINNING PROJECT

The remaining m2 will be filled by the Theater Academy and the Conservatory of Zuyd University of Applied Sciences.

IS THERE AN ALTERNATIVE?

IS THERE AN ALTERNATIVE?

A SCENARIO WHERE ALREADY EXISTING COMMUNITY
REMAINS IN PLACE THEY CREATED AND CONTINUES THEIR
ACTIVITIES ?

THEMATIC RESEARCH



<https://raumlabor.net/bathing-culture/>

SELF-BUILDING AND SELF-ORGANIZATION

Self-building empowers people to meet their needs and shape their surroundings.

PROJECT
THEMATIC RESEARCH



<https://raumlabor.net/bathing-culture/>

SELF-BUILDING AND SELF-ORGANIZATION

While individuals often know how to build on a small scale,

THEMATIC RESEARCH

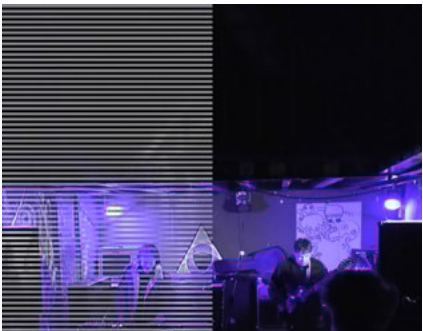
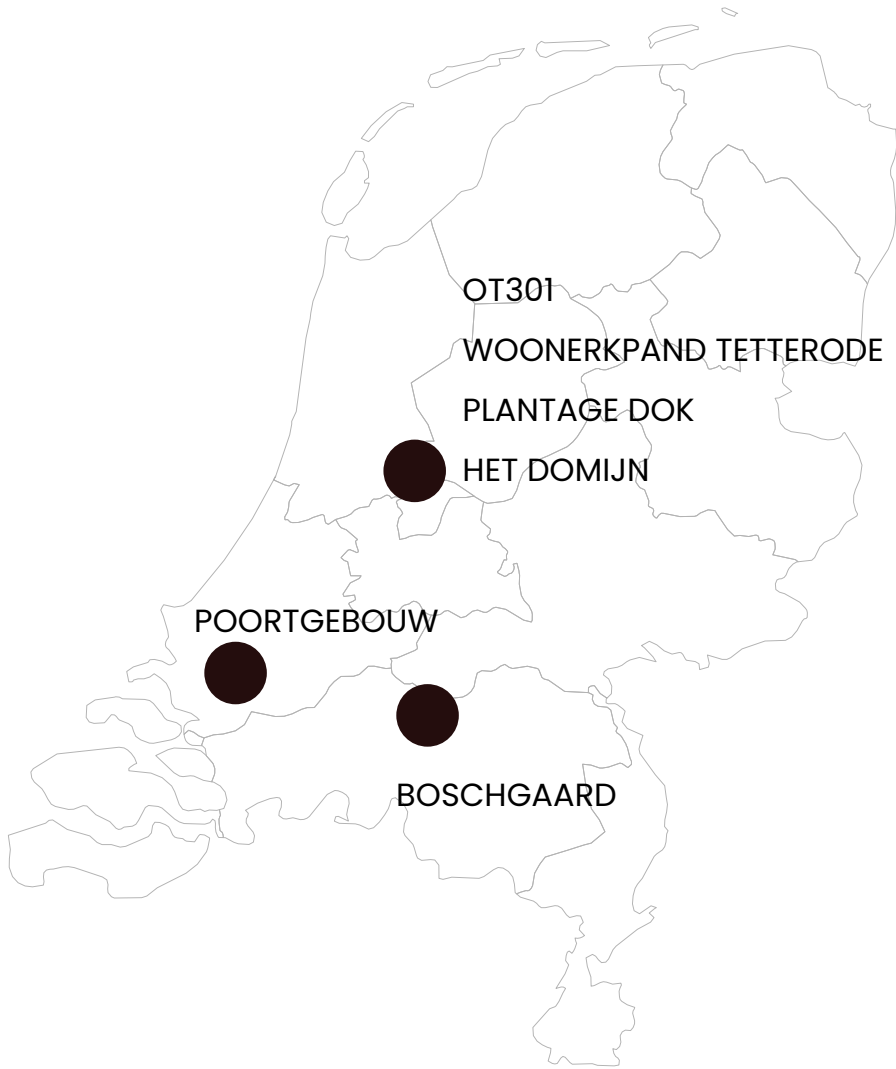


<https://raumlabor.net/bathing-culture/>

SELF-BUILDING AND SELF-ORGANIZATION

While individuals often know how to build on a small scale, challenges arise when self-built spaces grow and communities come together.

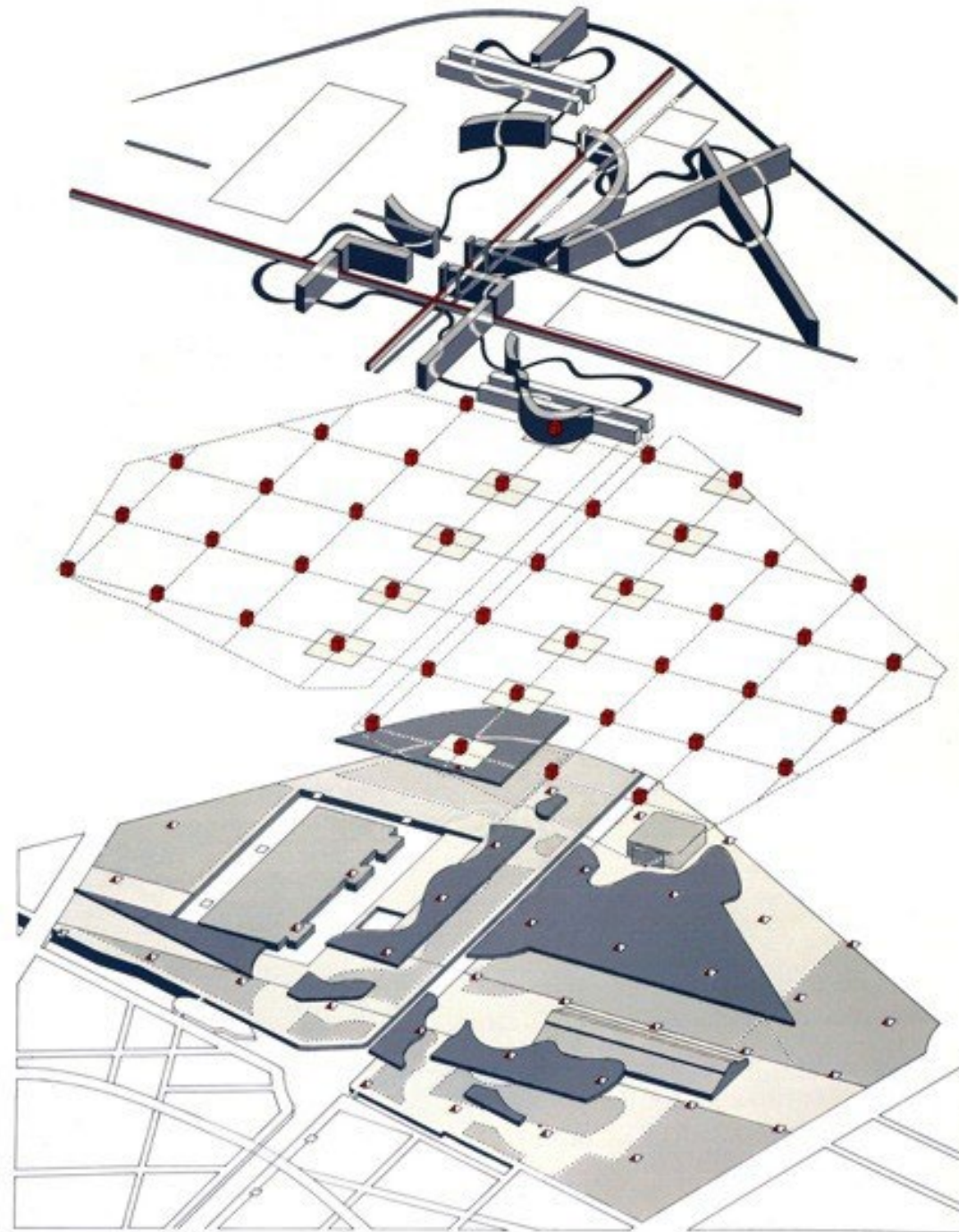
THEMATIC RESEARCH



CASE STUDIES

Research focused on legal and spatial transformations of formerly squatting communities that adapted to legal frameworks and remain vibrant, inclusive community hubs in the Netherlands.

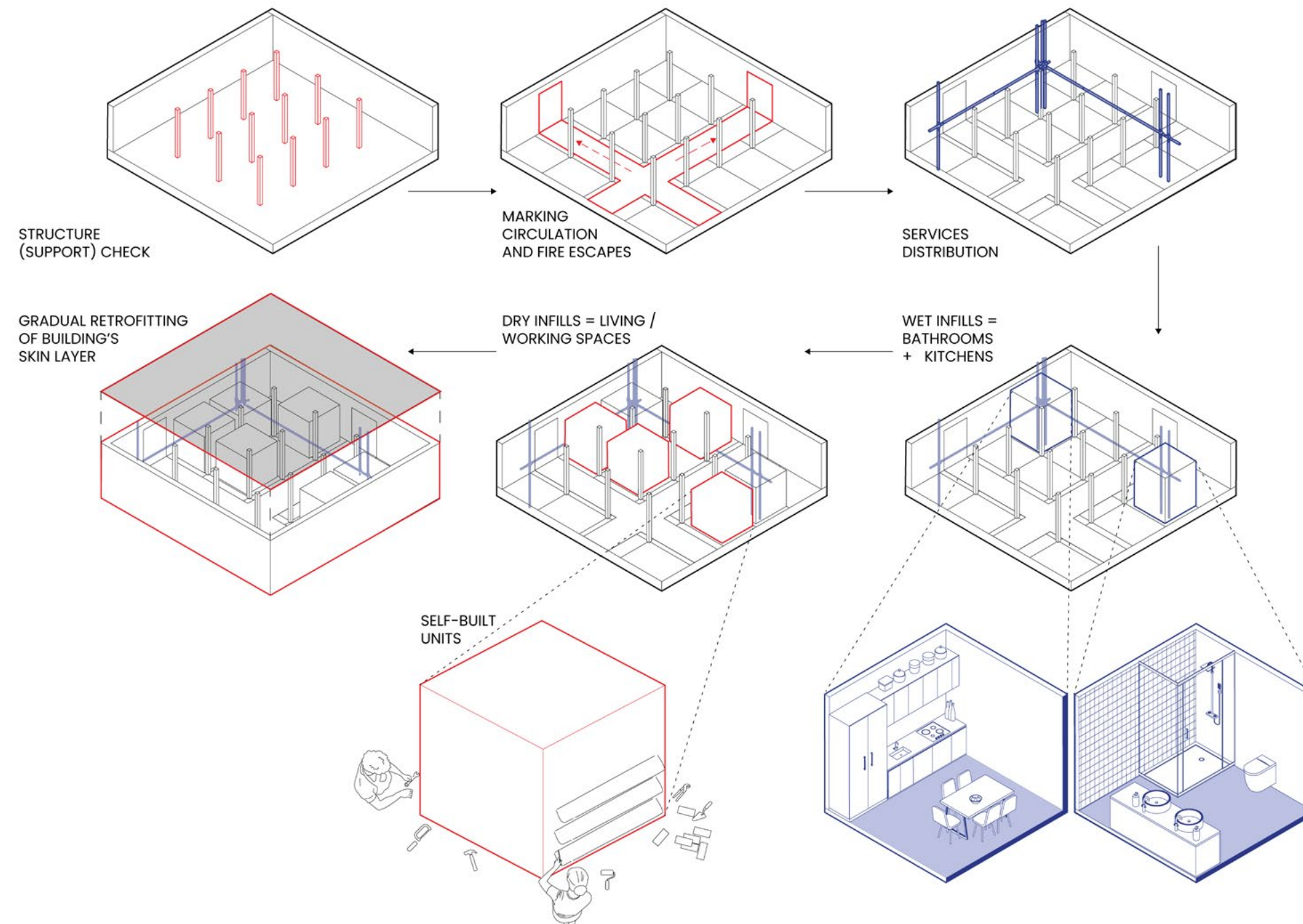
THEMATIC RESEARCH



URBAN PLANNING APPROACH

As an ongoing process rather than a finished product, self-building requires planning to meaningfully integrate diverse elements

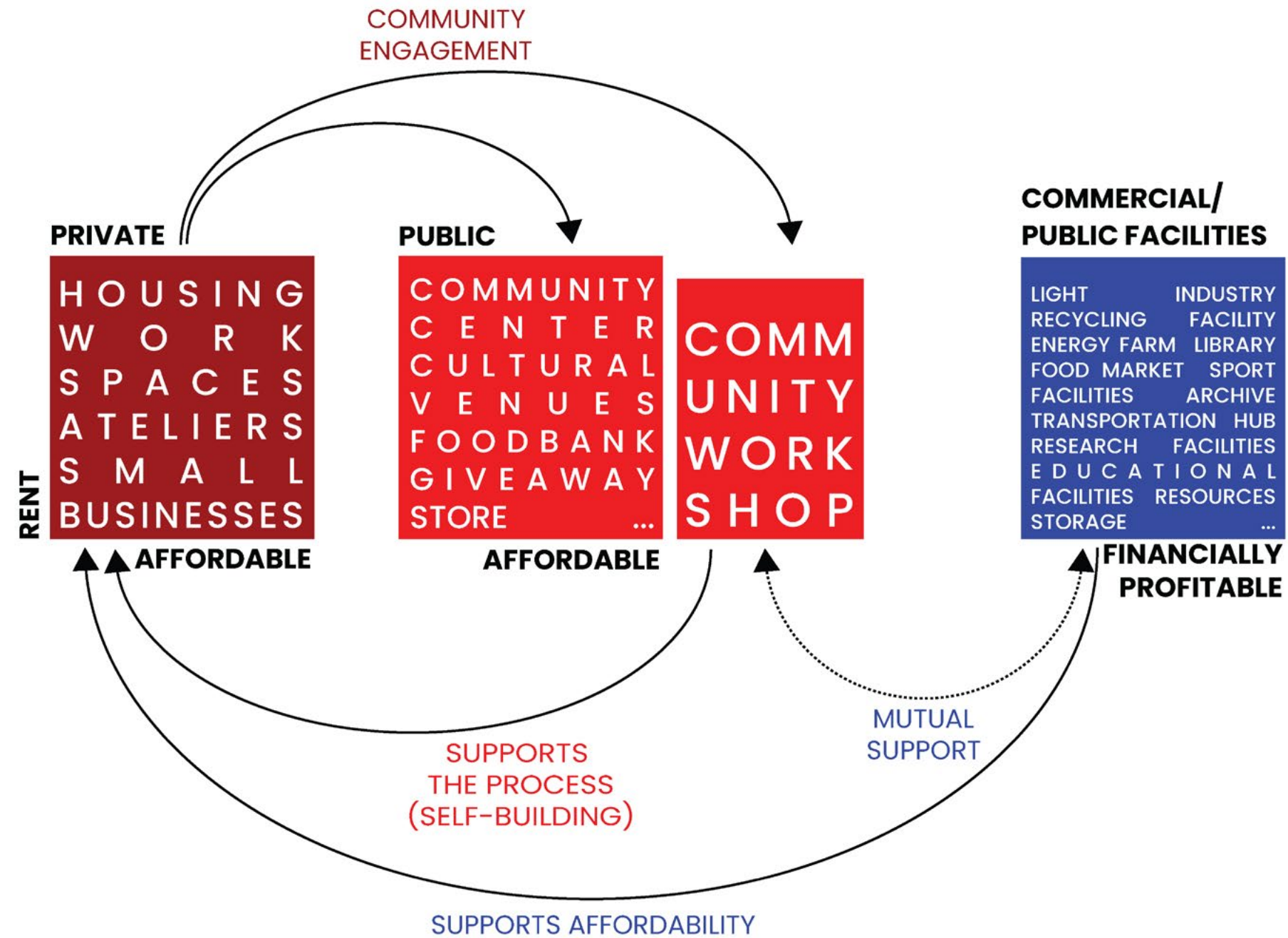
THEMATIC RESEARCH



BUILDING ADAPTATION STRATEGY

By providing basic organization, with circulation and utilities distribution it aims to create safe, well-orientated conditions for continued self-building of private spaces and envelope maintenance.

THEMATIC RESEARCH



MIXED-USE FUNCTIONAL PROPOSAL

combining affordable housing and workspaces with financially profitable partnerships, next to cultural and community oriented spaces.

PROJECT IMAGINES A SCENARIO WHERE
THE LANDBOUWBELANG COMMUNITY REMAINS
IN THE BUILDING

AND EXPLORES HOW THE SPACE COULD
GRADUALLY TRANSFORM OVER TIME

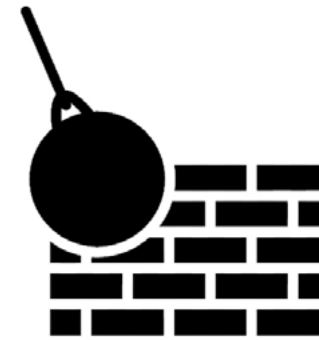
PROJECT



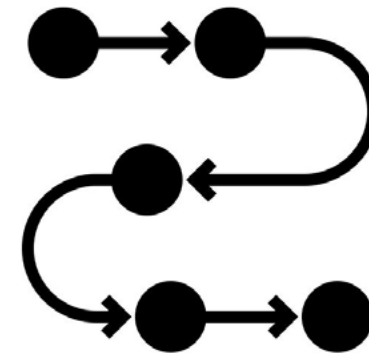
industrial heritage



existing social initiatives



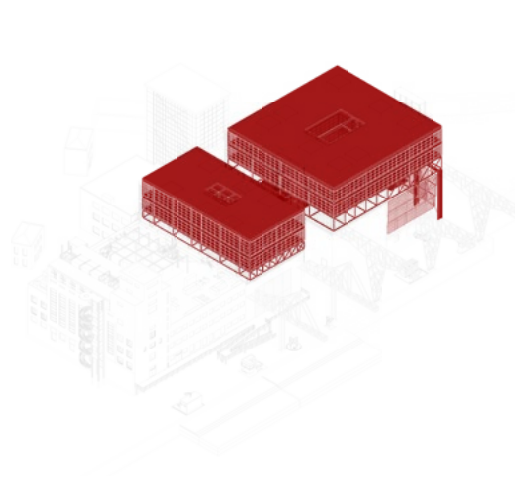
little demolishing



incrementality

STARTING POINT FOR DESIGN PROPOSAL

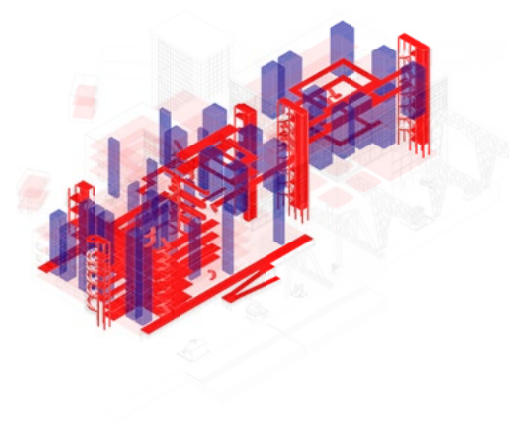
PROJECT



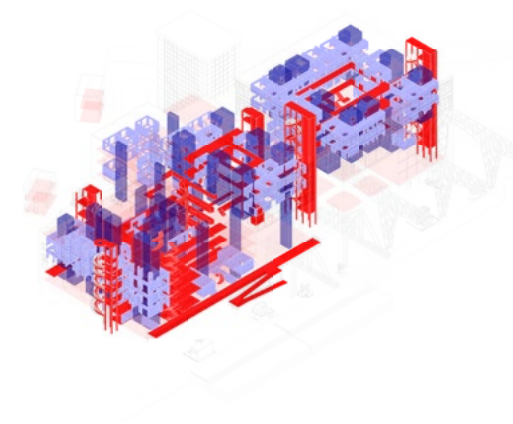
extension of space



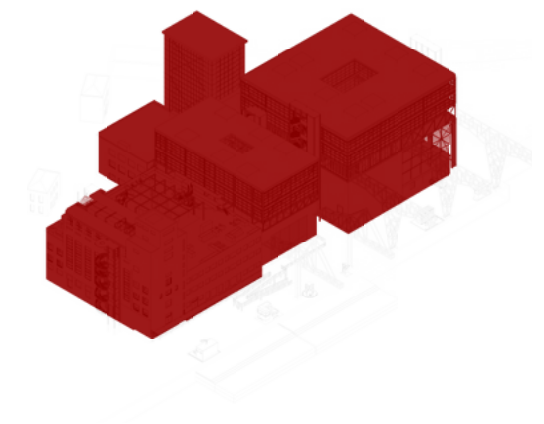
public waterfront



grid of circulation and utilities



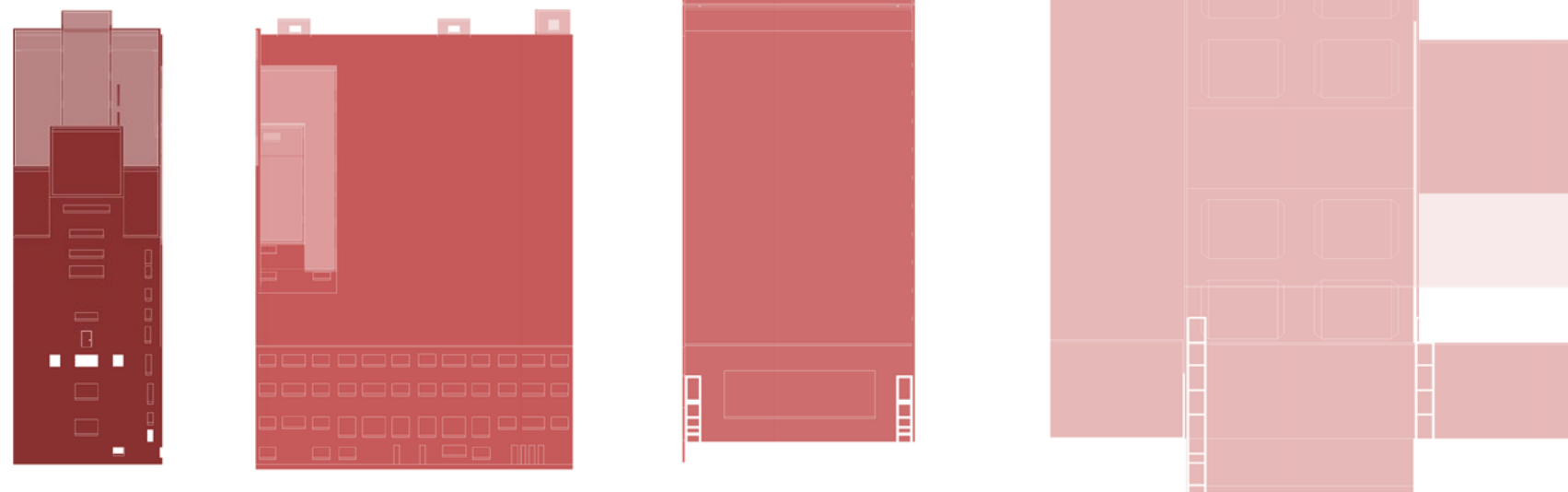
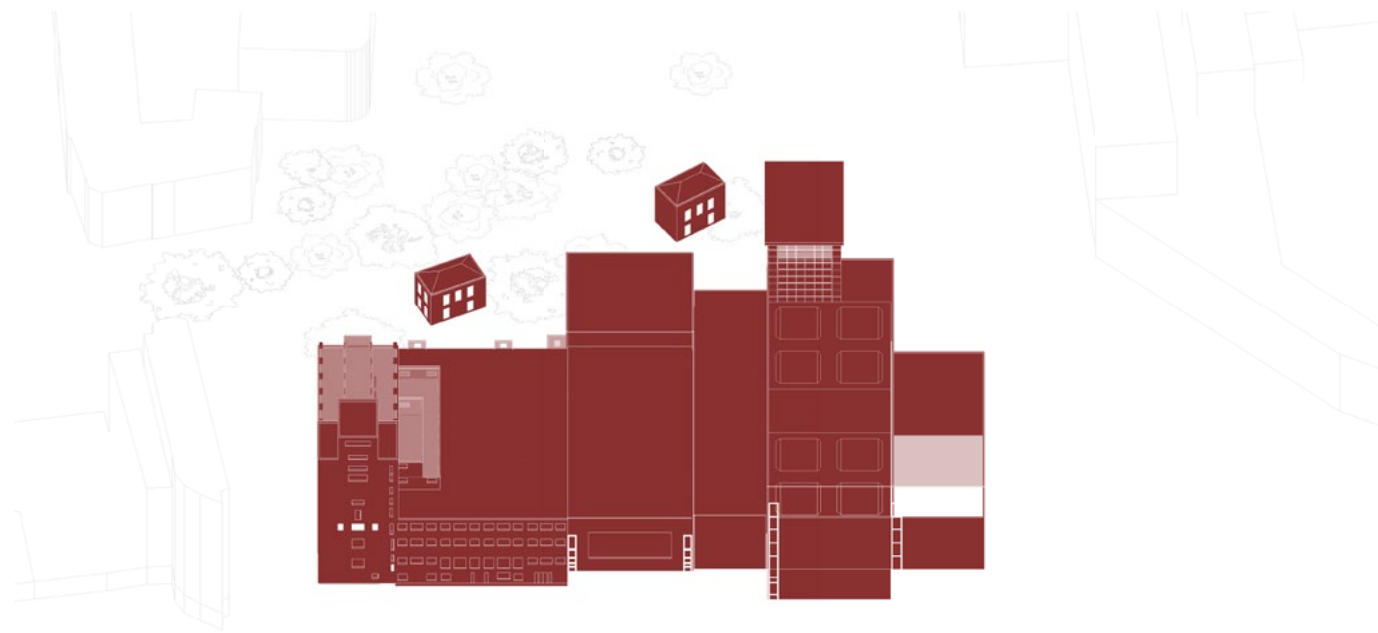
conditions for self-building
infill introduction



bio-conditioned oriented
changes in the building

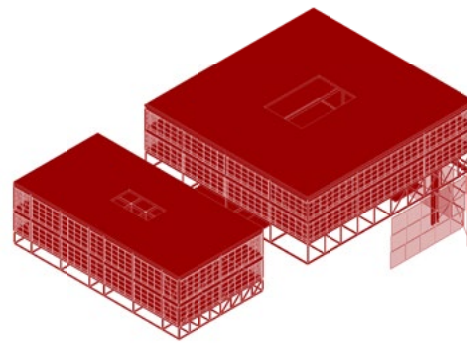
INTERVENTIONS

PROJECT



COMPONENTS OF THE COMPLEX

The complex consists of several different units, each of which shapes space differently and offers varied spatial potential.



extension

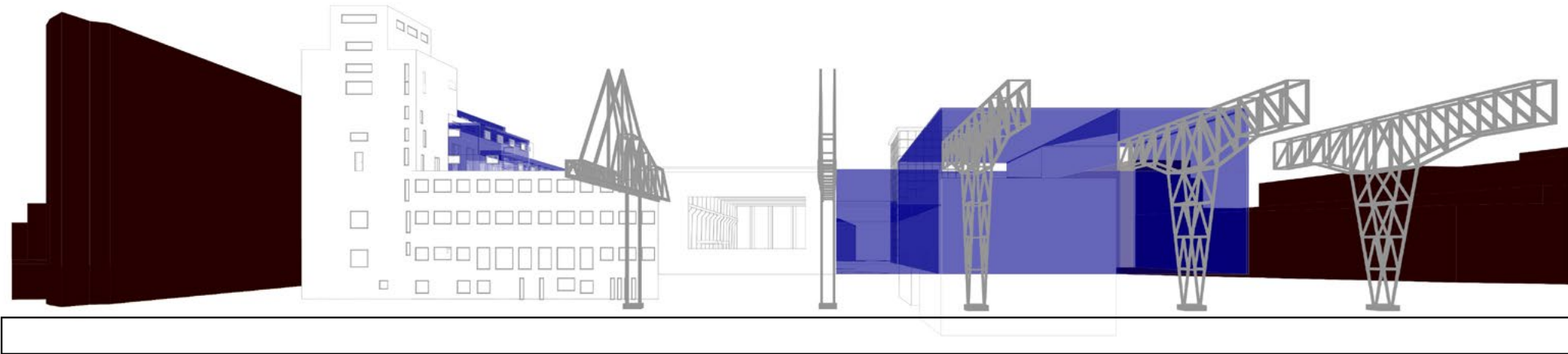
PROJECT



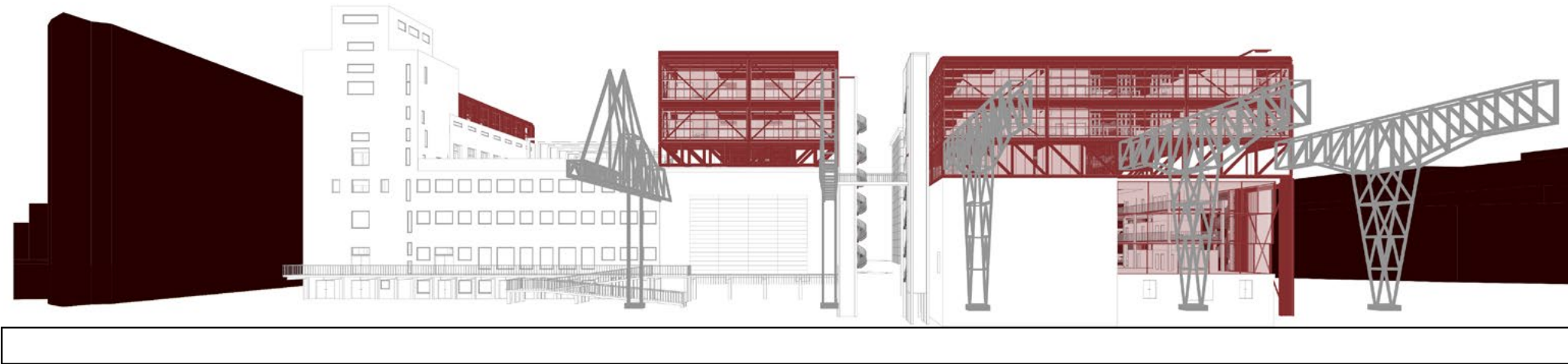
INDUSTRIAL HERITAGE

reflected in its silhouette, waterfront cranes, robust storage silos—used for grain (tower) and clay (cubicles), open spaces and raw character.

PROJECT



demolished

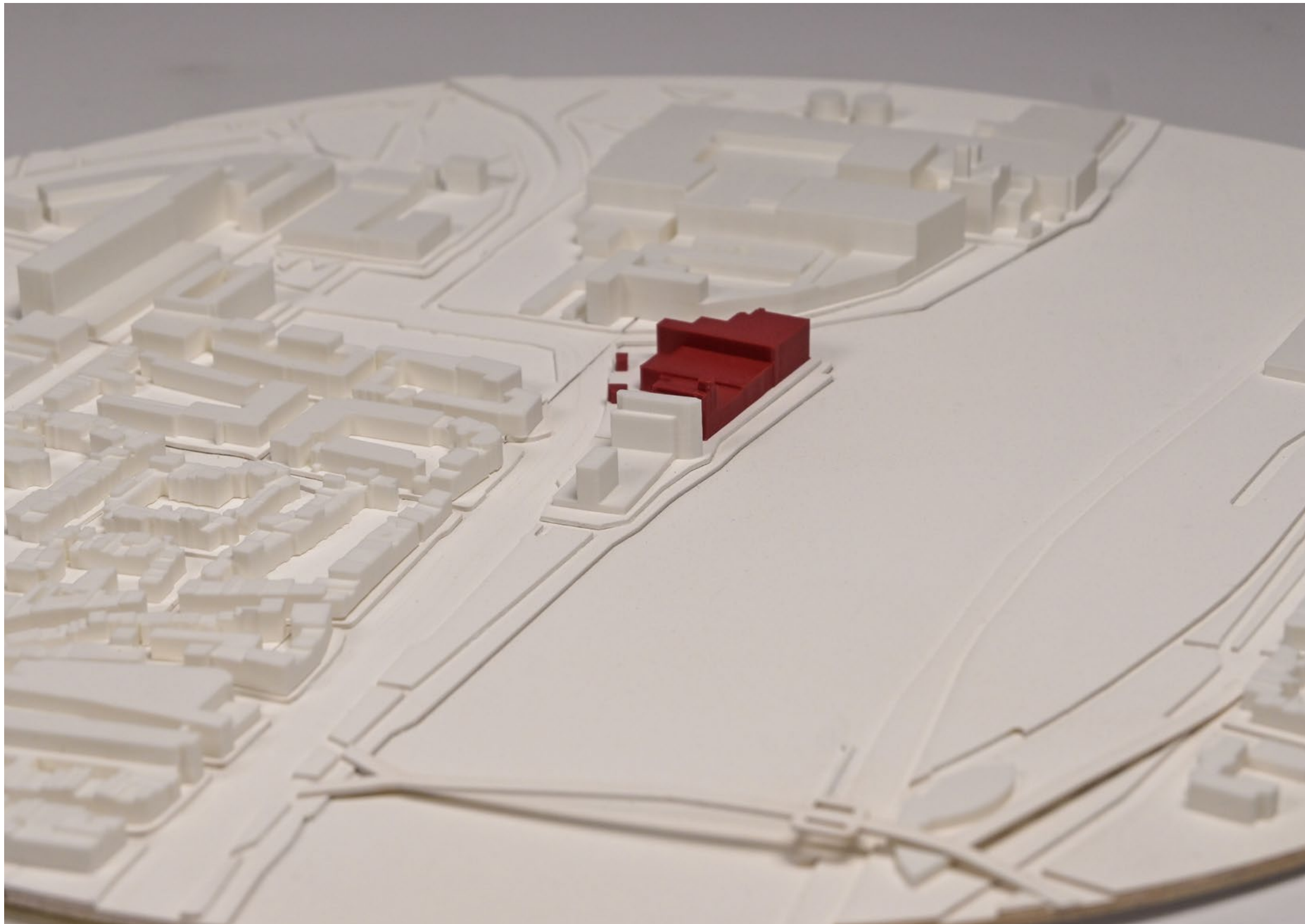


new construction

CHANGES IN MASS

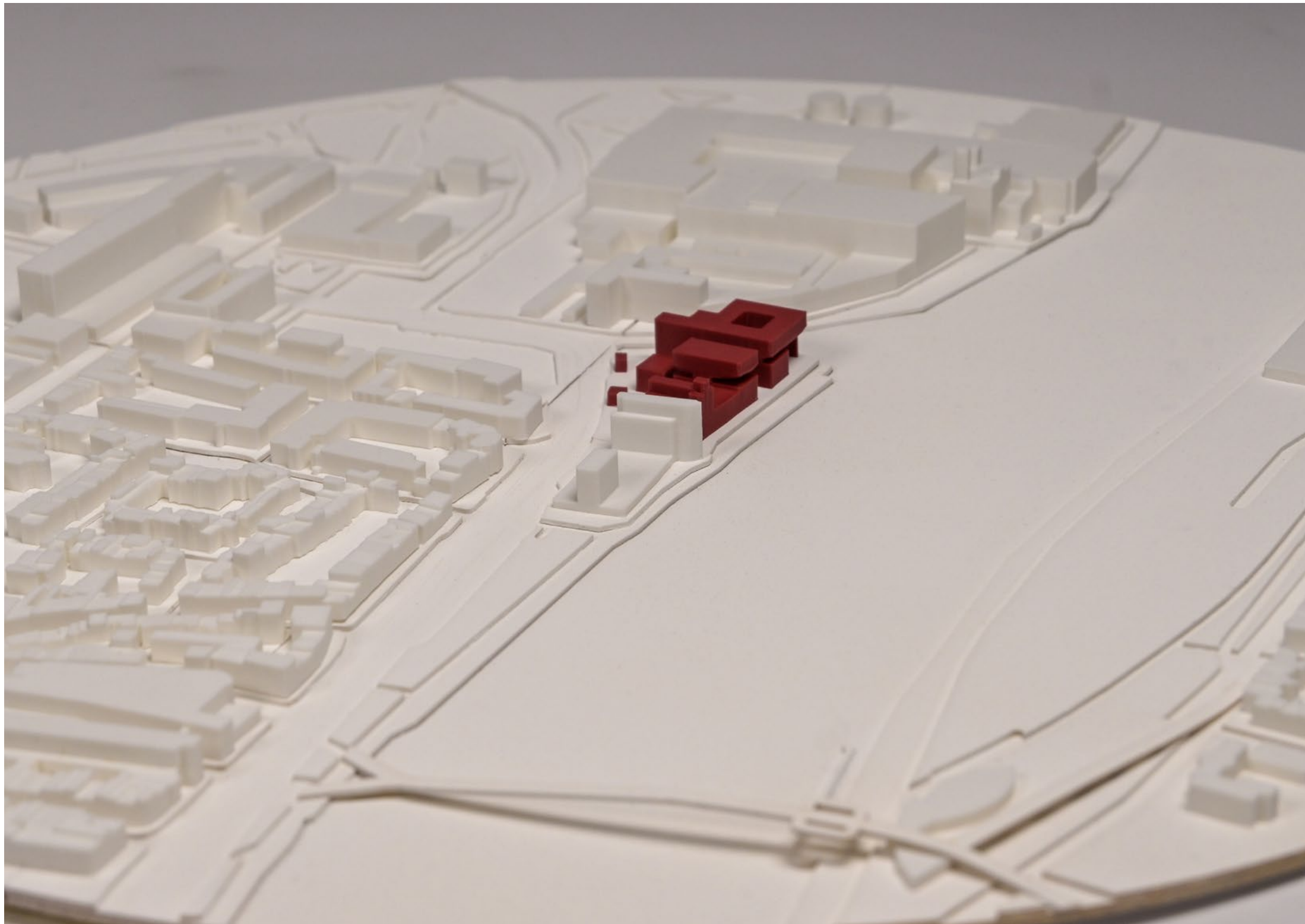
Extension in heigh of the tower, new added extensions over the middle hall and cubical silos.

PROJECT



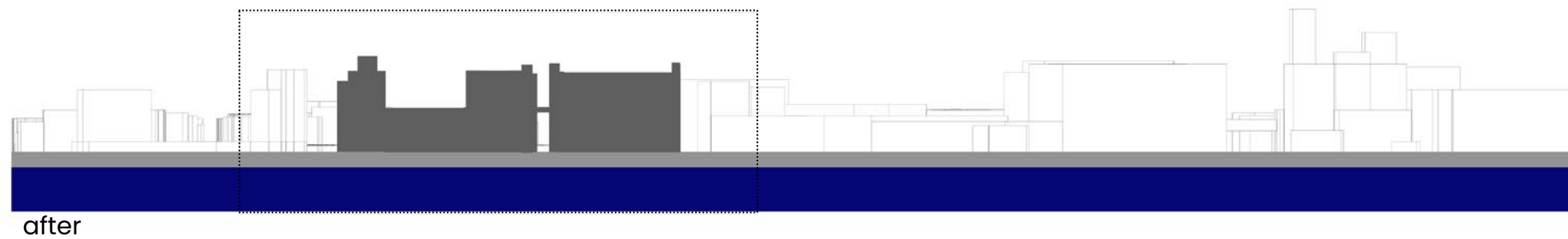
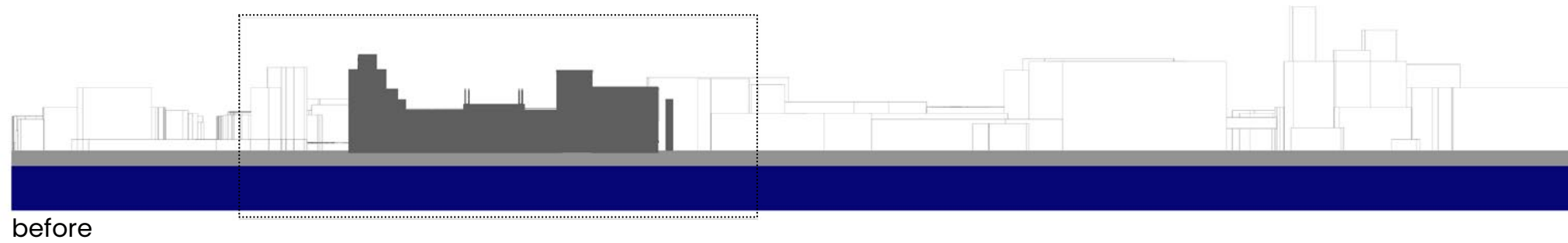
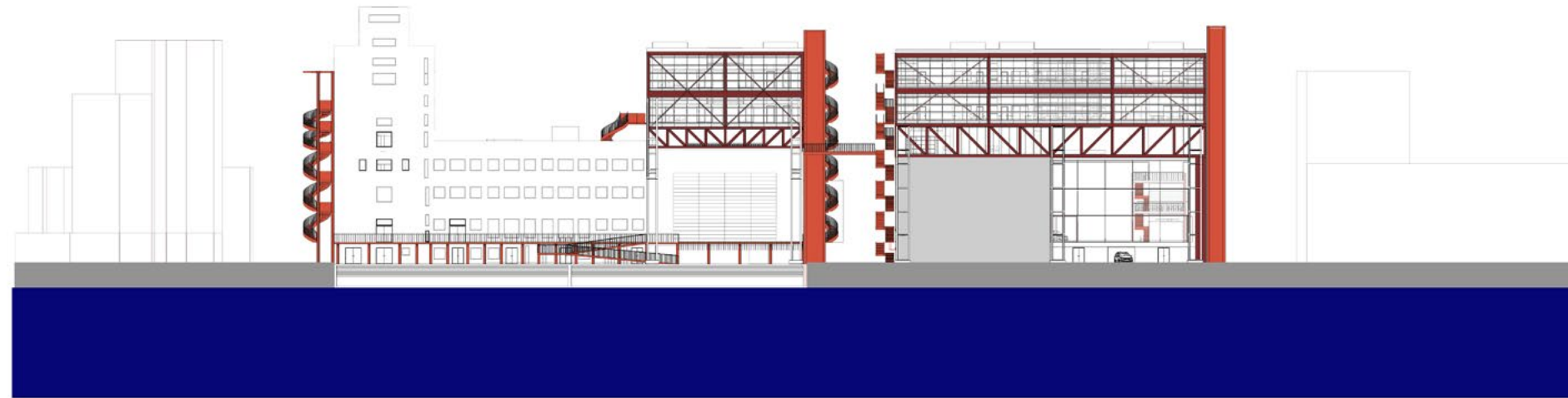
EXISTING MASS

PROJECT



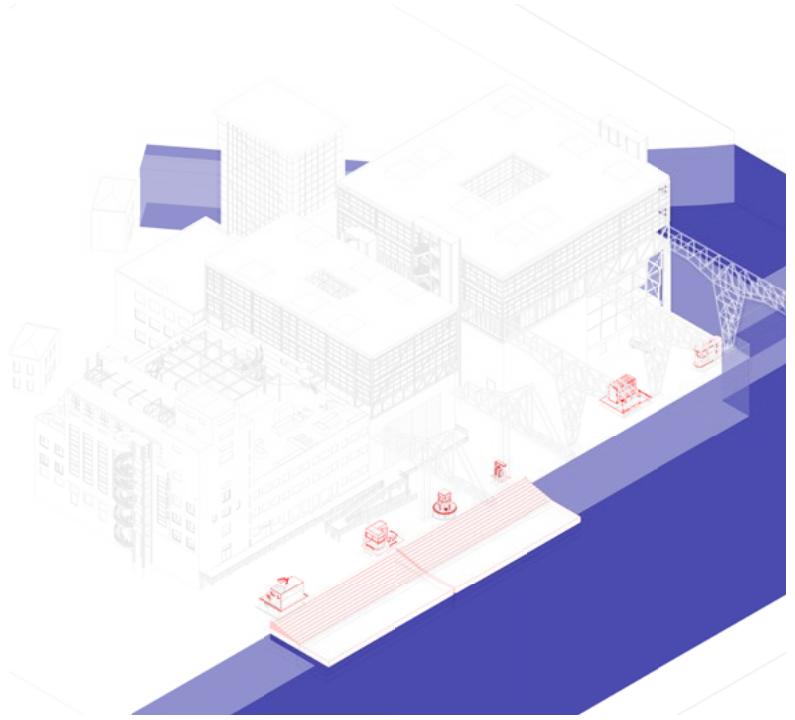
CHANGES IN MASS

PROJECT



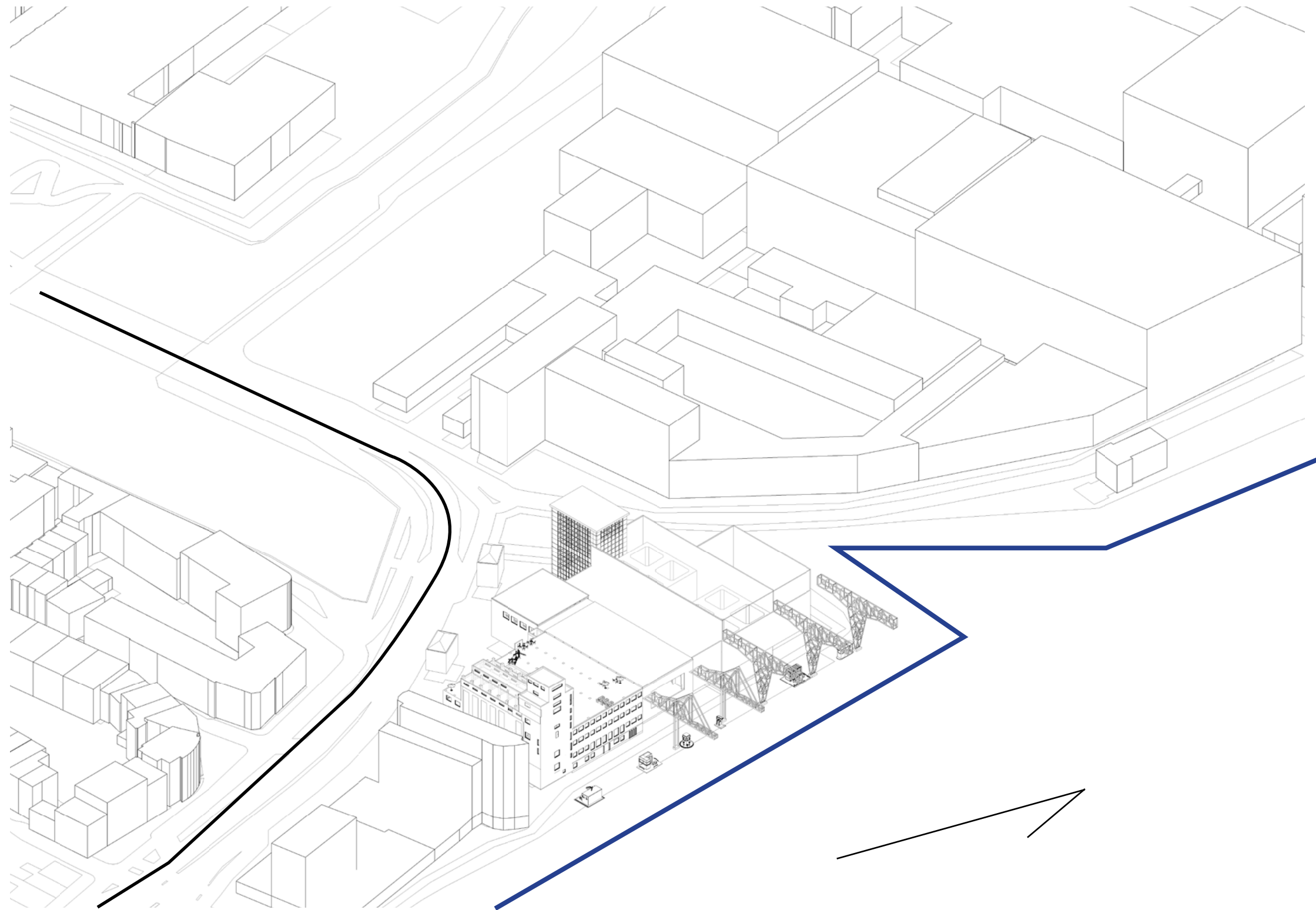
MASS CHANGES AND SURROUNDING

Extension in height of the tower, new added extensions over the middle hall and cubical silos.



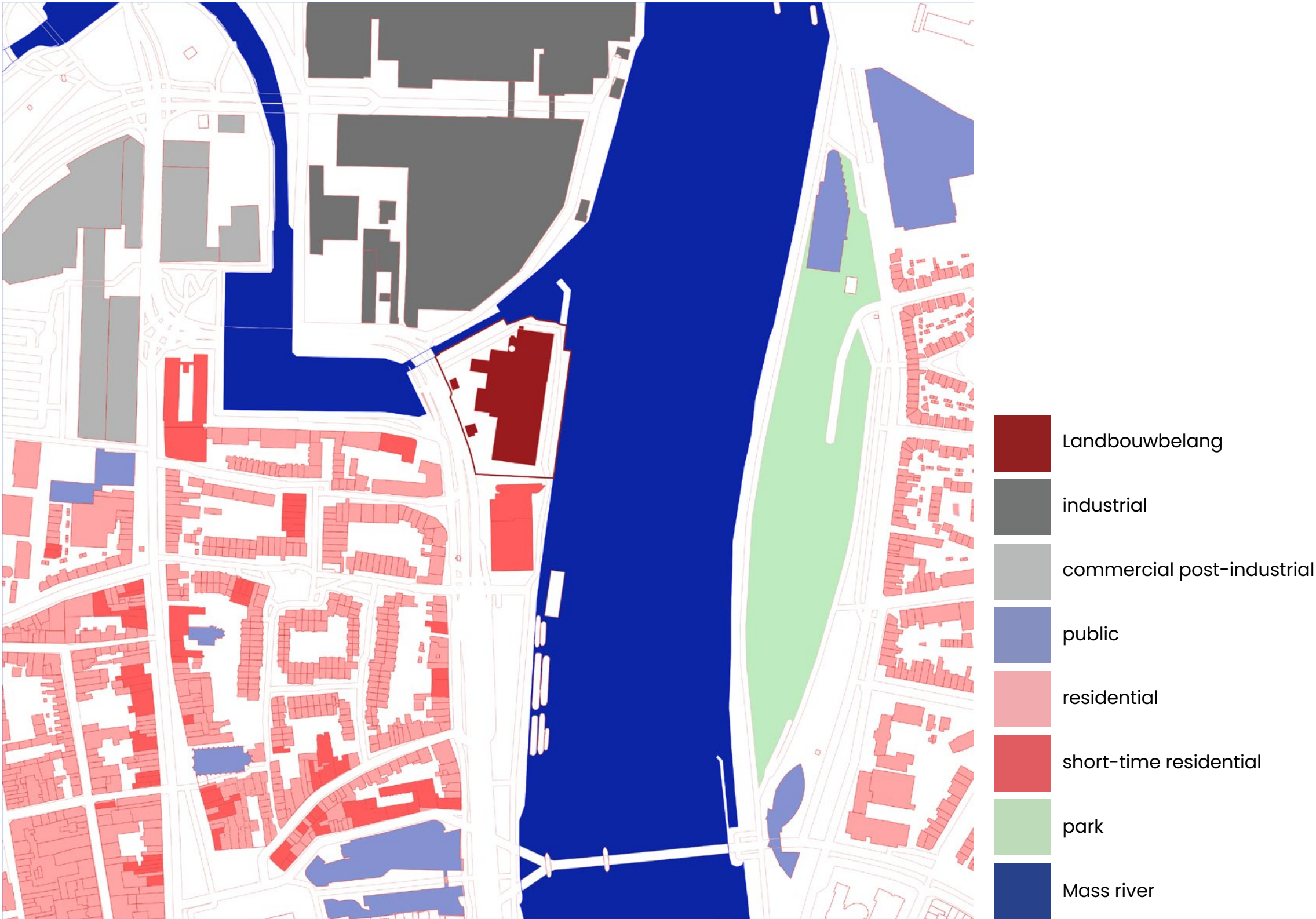
public waterfront

PROJECT



CONNECTION TO SURROUNDINGS

PROJECT



PROJECT



BUILDING AND SURROUNDINGS

By opening up the building more entrances to the waterfront are created, providing also more entrances to the site from various sides.

PROJECT



PROJECT



EXISTING STATE

PROJECT



EXISTING STATE

PROJECT



PROJECT



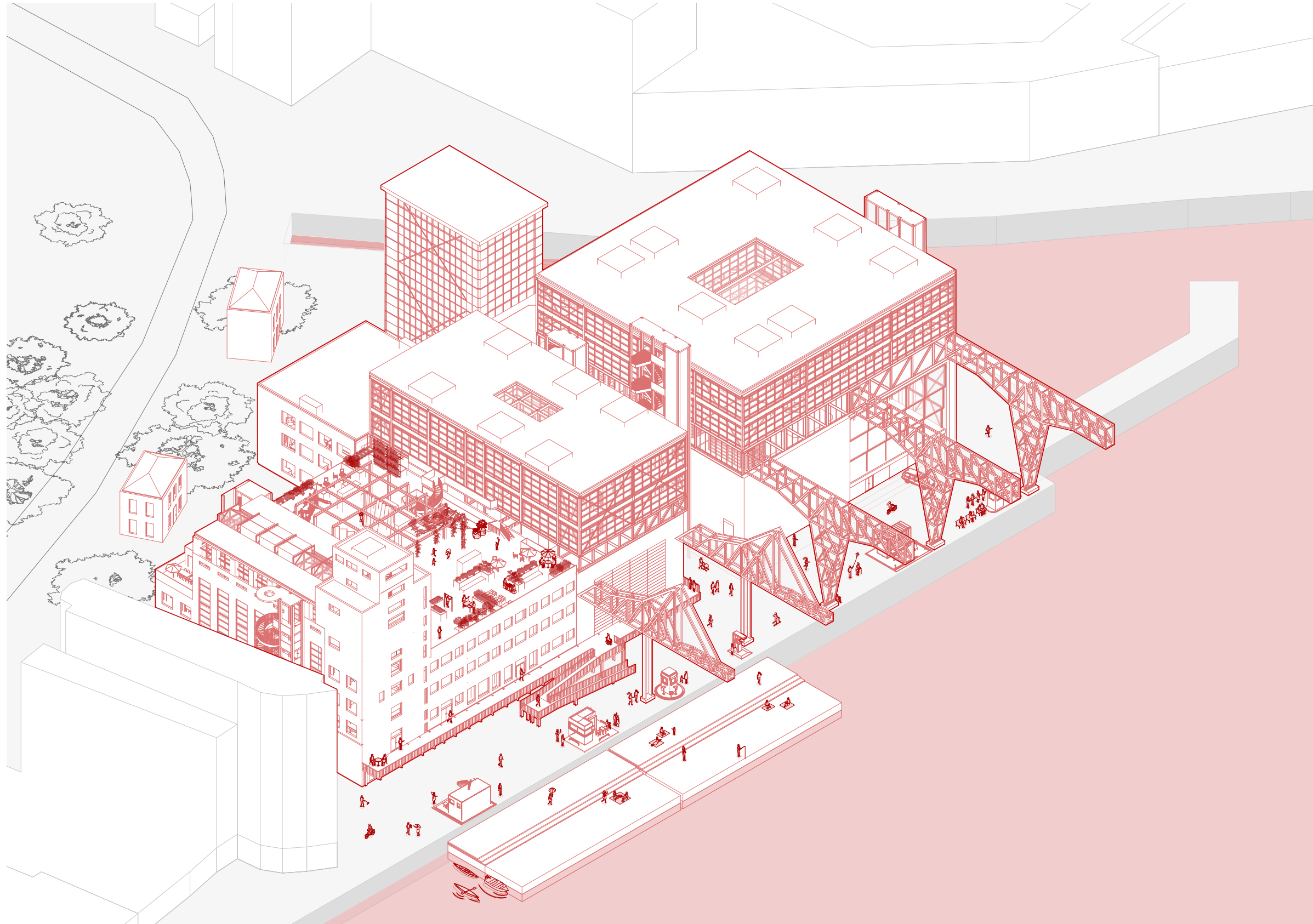
PROJECT



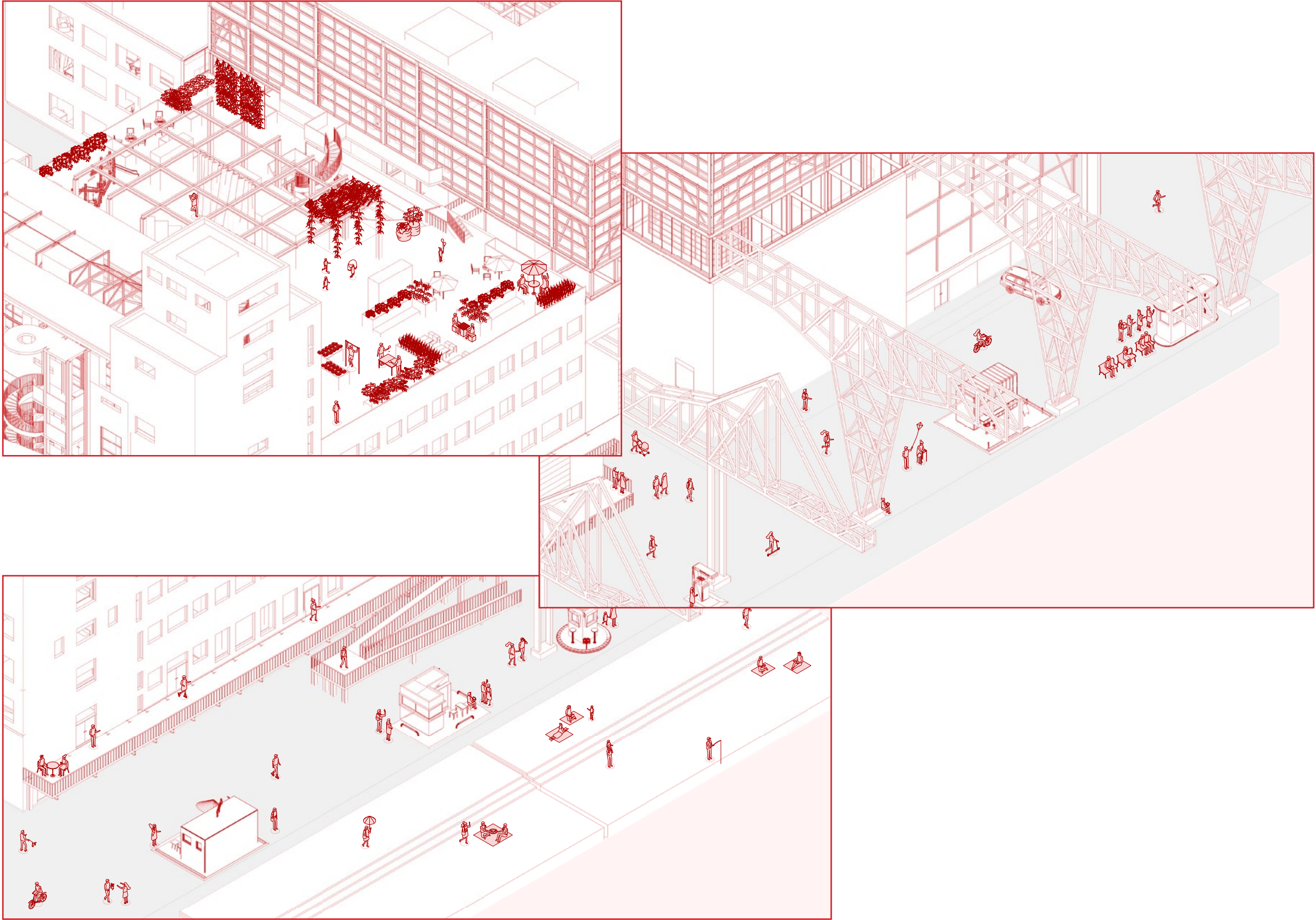
PROJECT



PROJECT



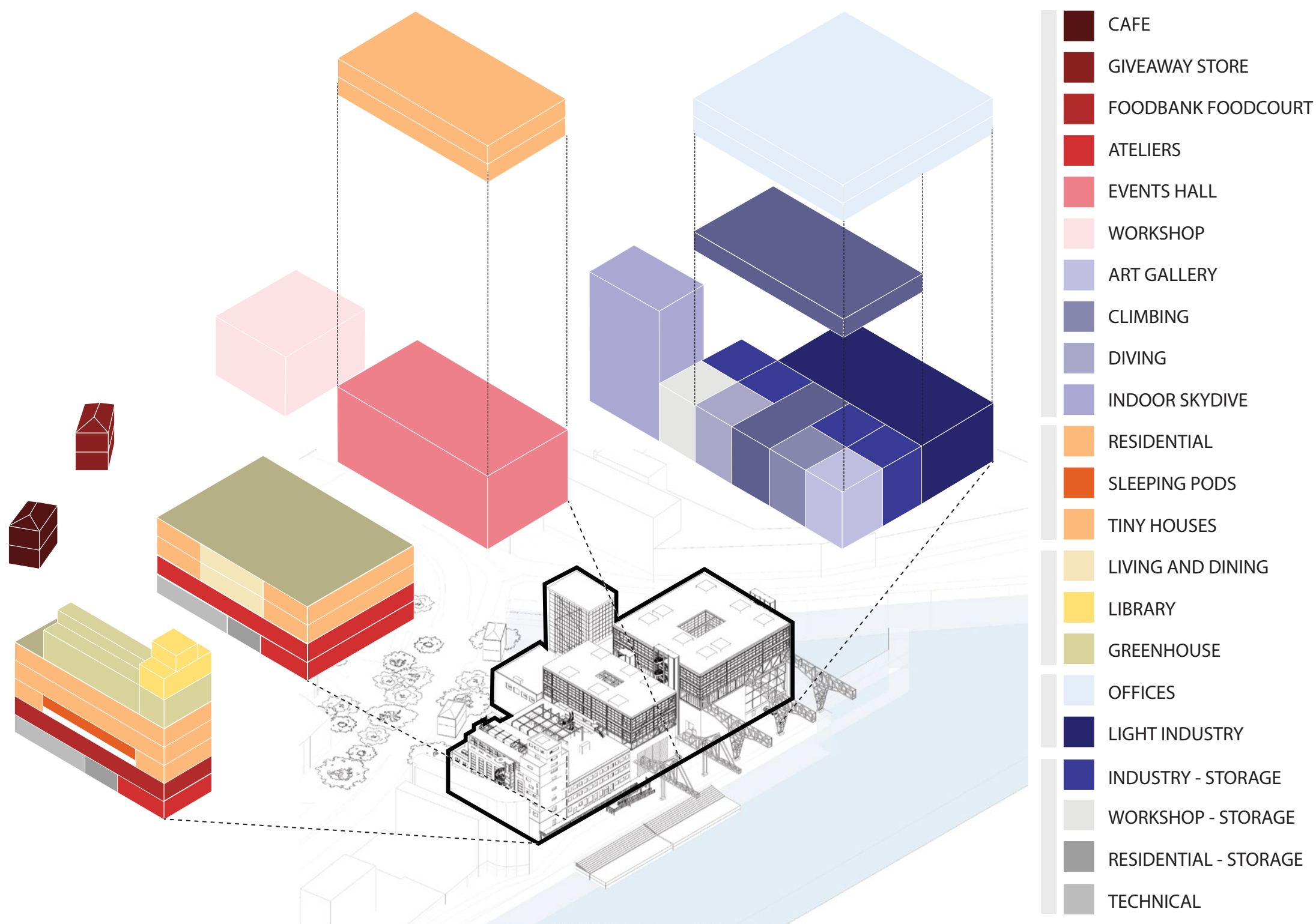
PROJECT



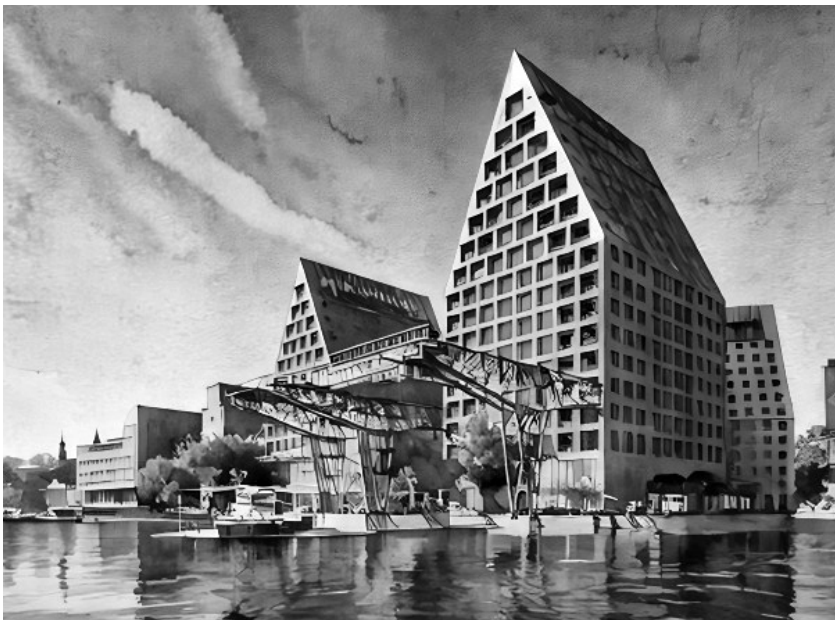
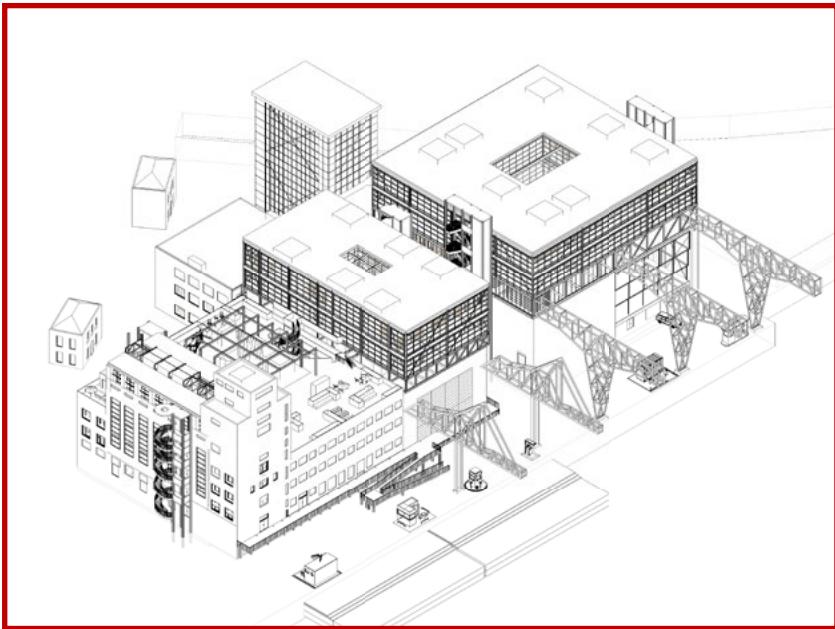
LEVELS OF PRIVACY

Variety of spaces for public use, communal shared amenities and private spaces with different degree of privacy.

PROJECT



PROJECT



6500 m²	
coffee bar (public)	400
coffee bar (working area)	240
restaurant	400
event venue	350
workshops-meeting-other spaces	850
working spaces (flexwork)	850
working spaces (project modules)	100
exposition space	40
workshops-meetings, and other spaces	850
shared space (one company)	1.200
inner garden	
roof garden	+/- 200
	+/- 1200

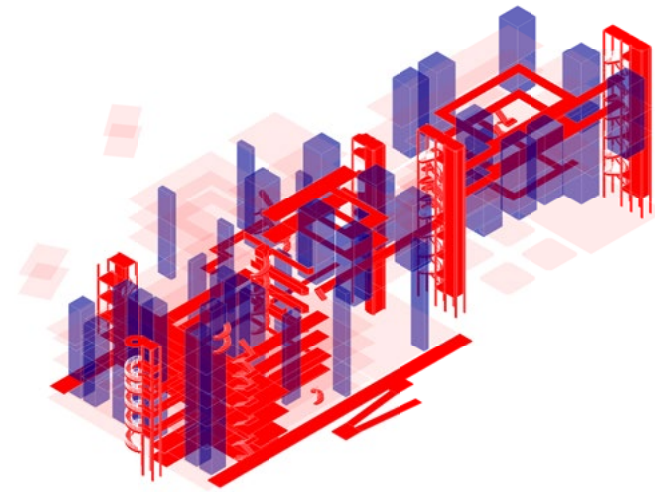
17 000m²	
small businesses/private workshops	750
event venue/exhibition/art gallery	1.400
foodhall (foodbank) + cafe	400
give-away store	100
workshop	950
light industry (tiny house factory)	1.200
offices	1.500
diving/climbing/vertical garden	1.200
temporary residential - tiny houses	750
temporary residential - sleeping pods	100
residential - silo	500
residential - extension	800
community open space	400
community greenhouse	300
community library	140

30.000m²	
residential:	20.000
- 120 apartments	
- 80 student studios	
cultural and recreational:	10.000
- workhouse of the Institute of Performative Arts	
- Zuyd University of Applied Sciences	
- facilities for sports and recreation	

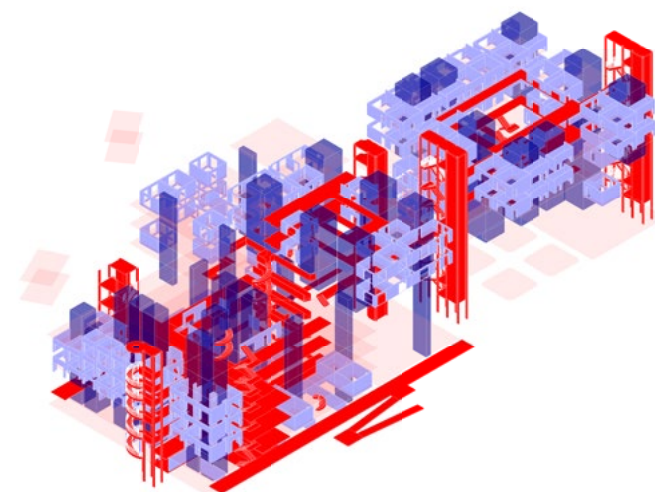
FUNCTIONAL PROPOSAL

Proposed functional program is a compromise between scenario created by the LBB community in 2019 and tender winning project.

PROJECT

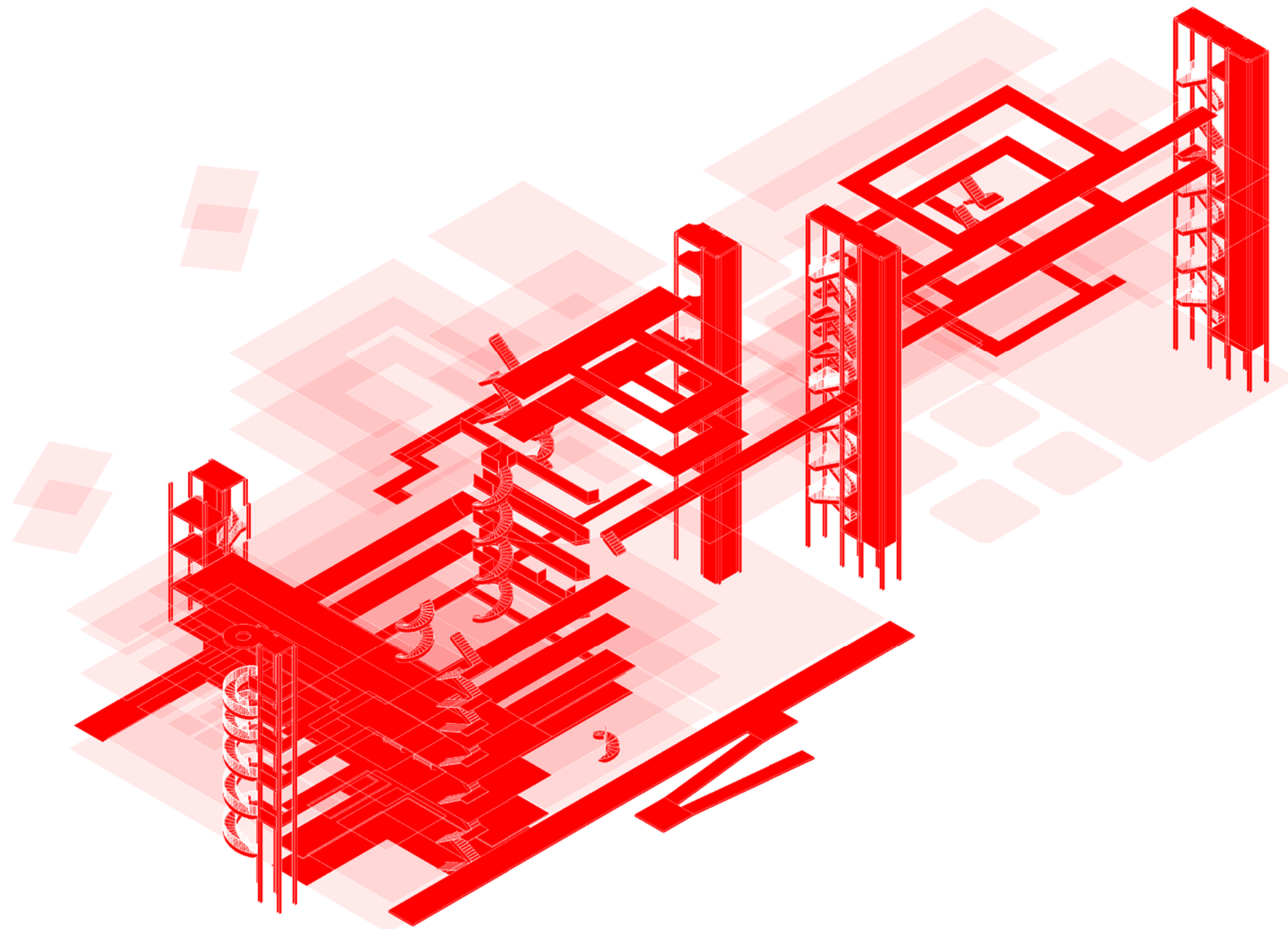


grid of circulation and utilities



conditions for self-building
infills introduction

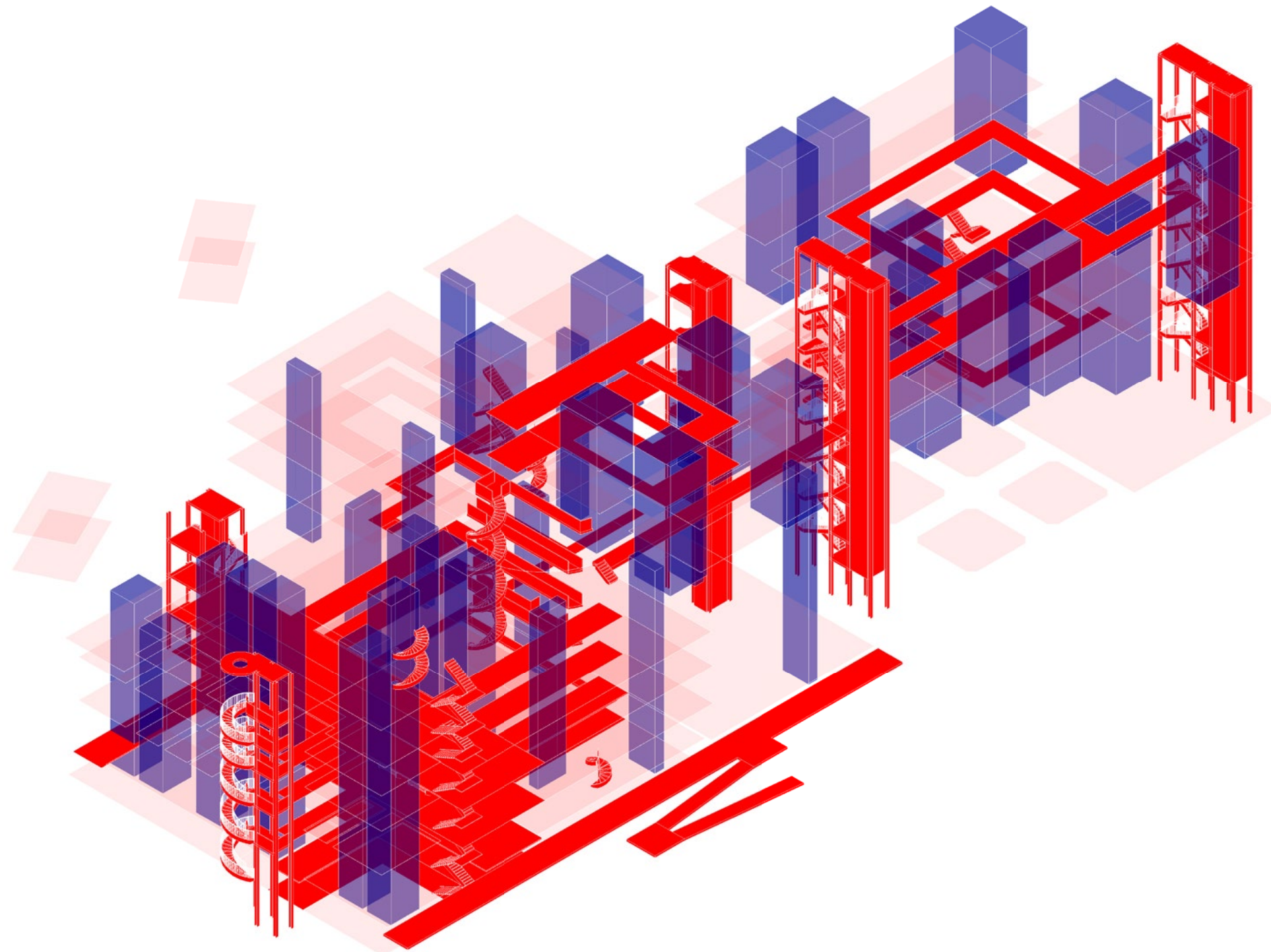
PROJECT



ORGANIZATIONAL CIRCULATION GRID

establishes main circulation with horizontal and vertical routes
dividing spaces into fire-safety compartments

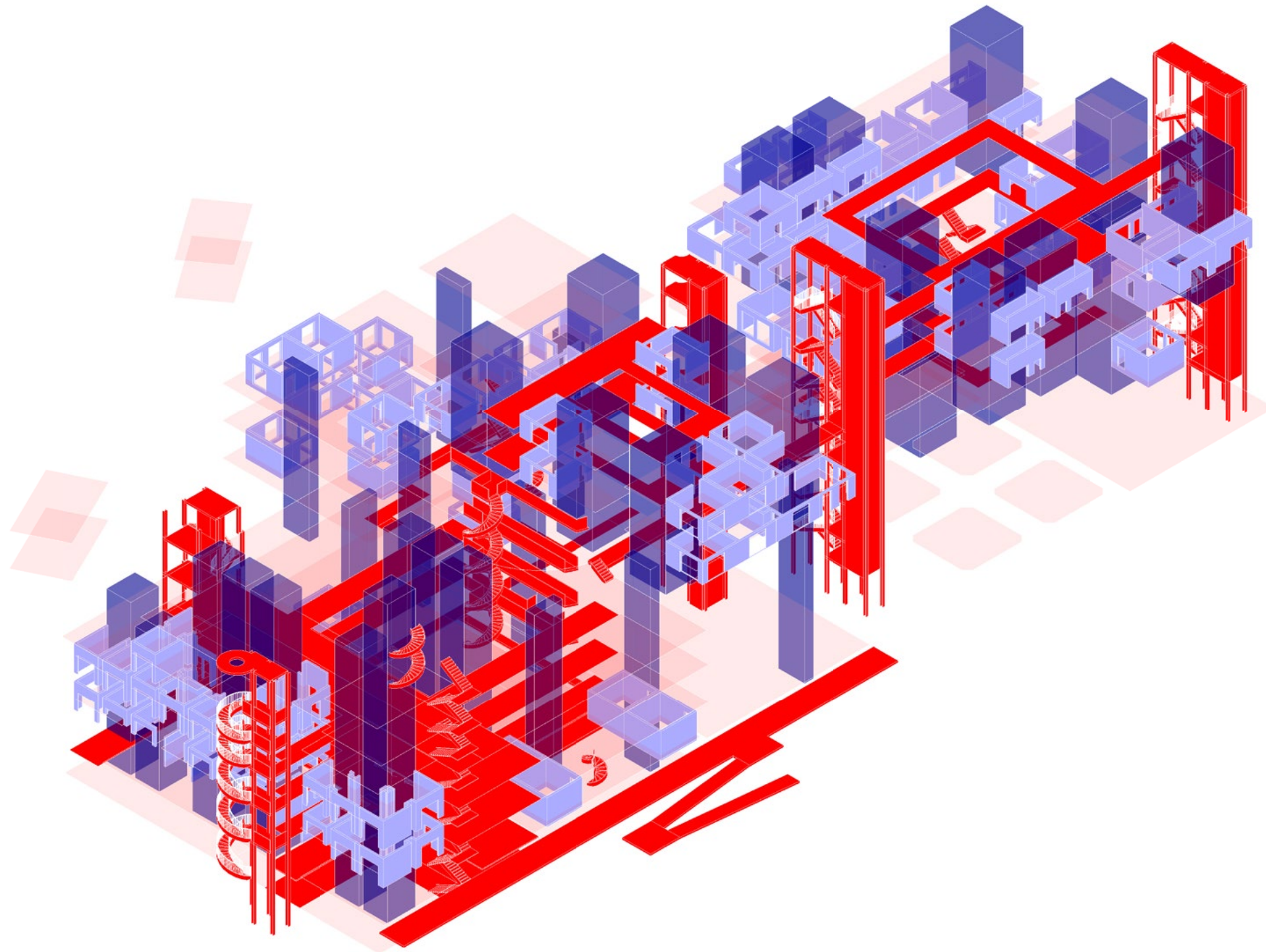
PROJECT



UTILITIES DISTRIBUTION

throughout the building through vertical wet cores which could house wet rooms or allow to connect to the services

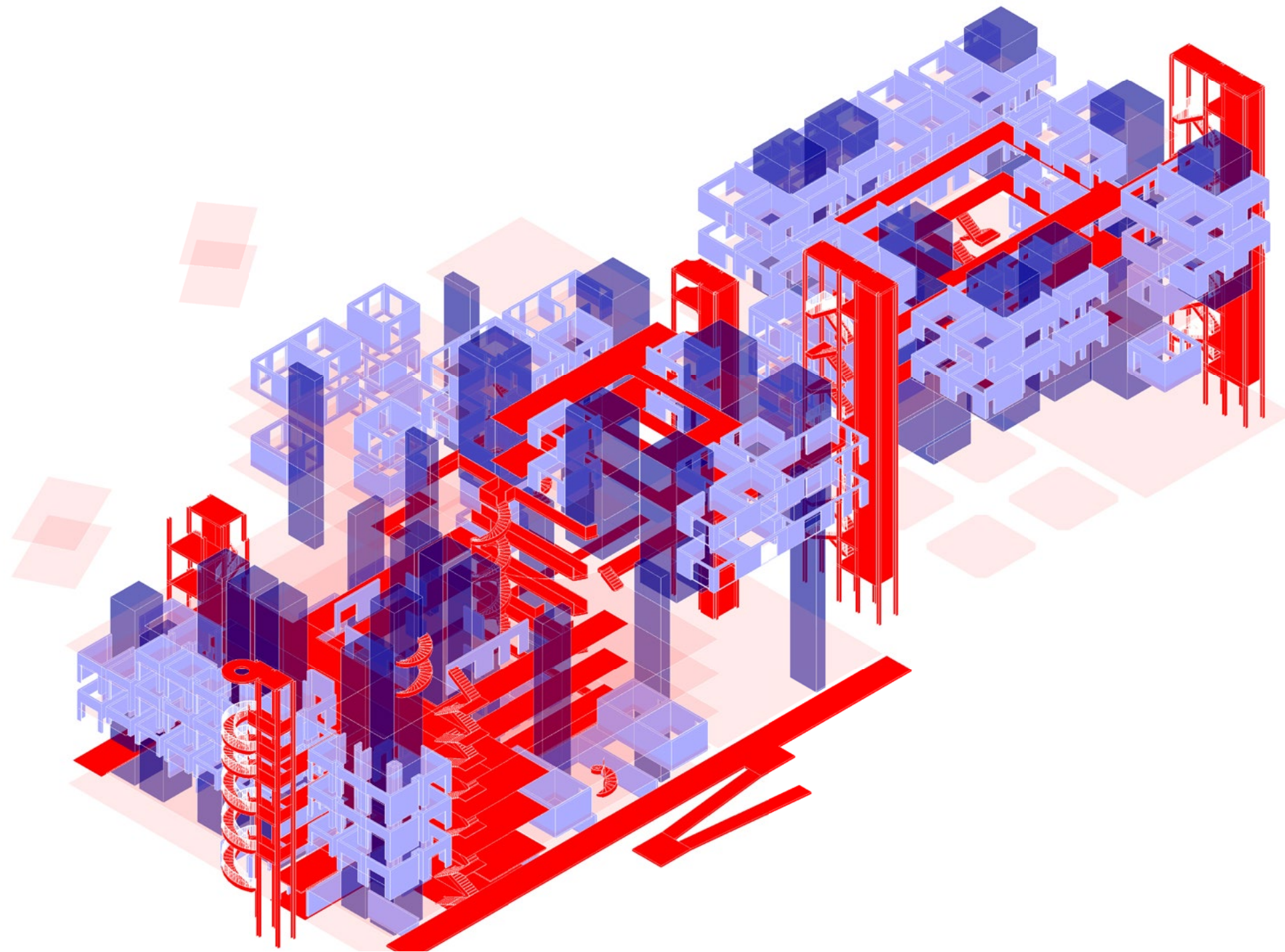
PROJECT



SELF-BUILT INFILLS

added gradually inside the building around wet cores, with dry living and working spaces.

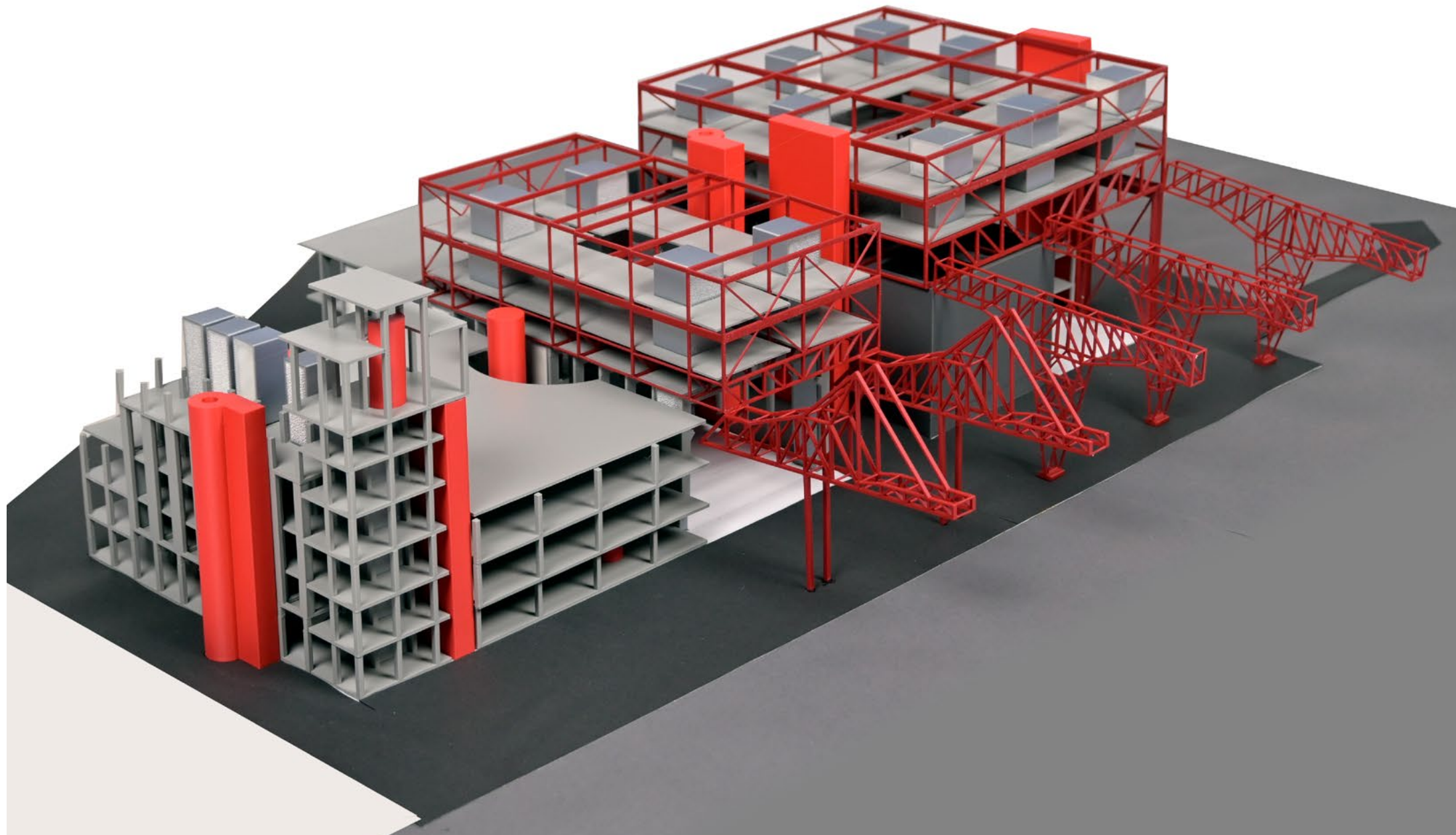
PROJECT



SELF-BUILT INFILLS

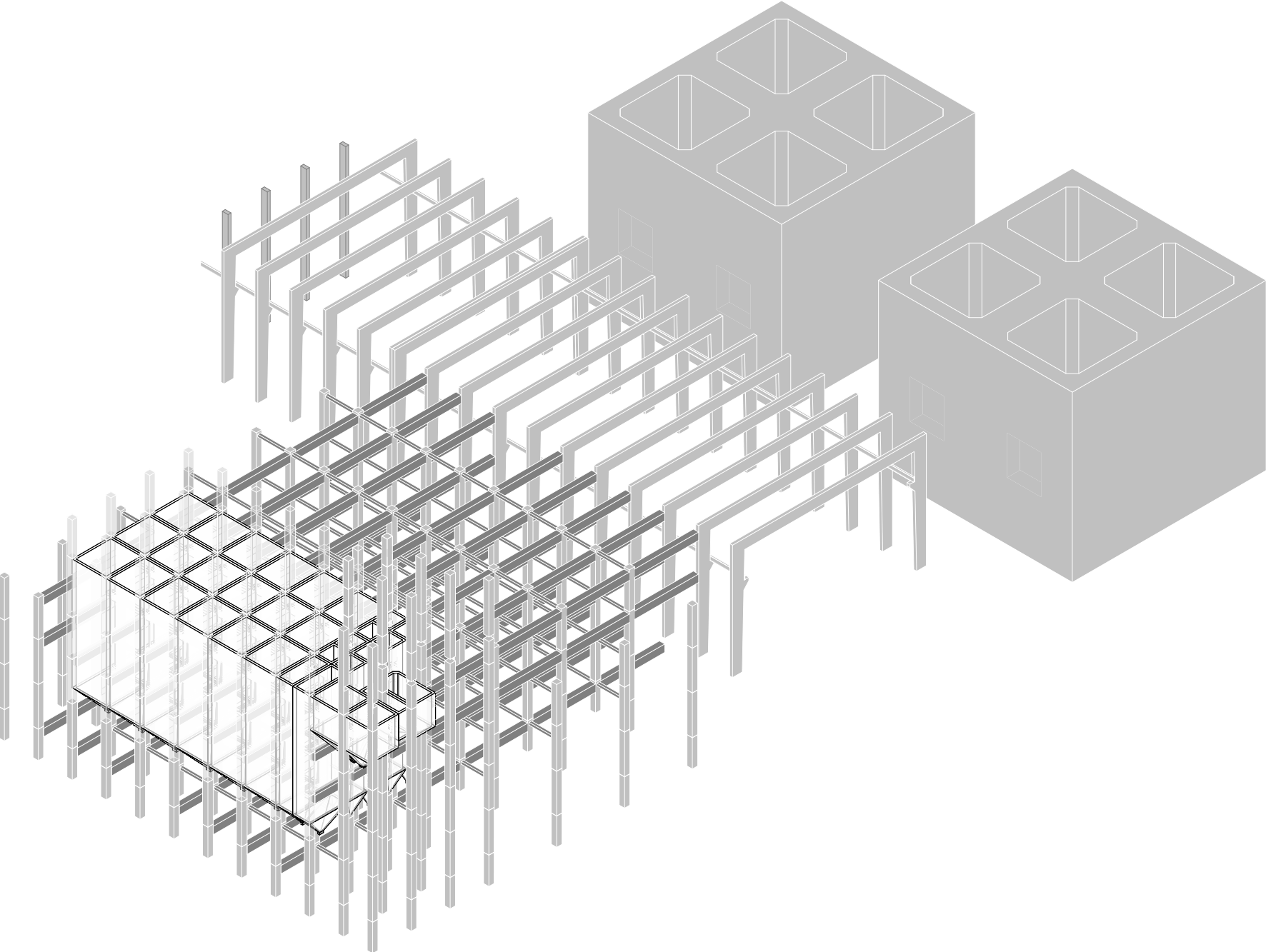
added gradually inside the building around wet cores, with dry living and working spaces.

PROJECT



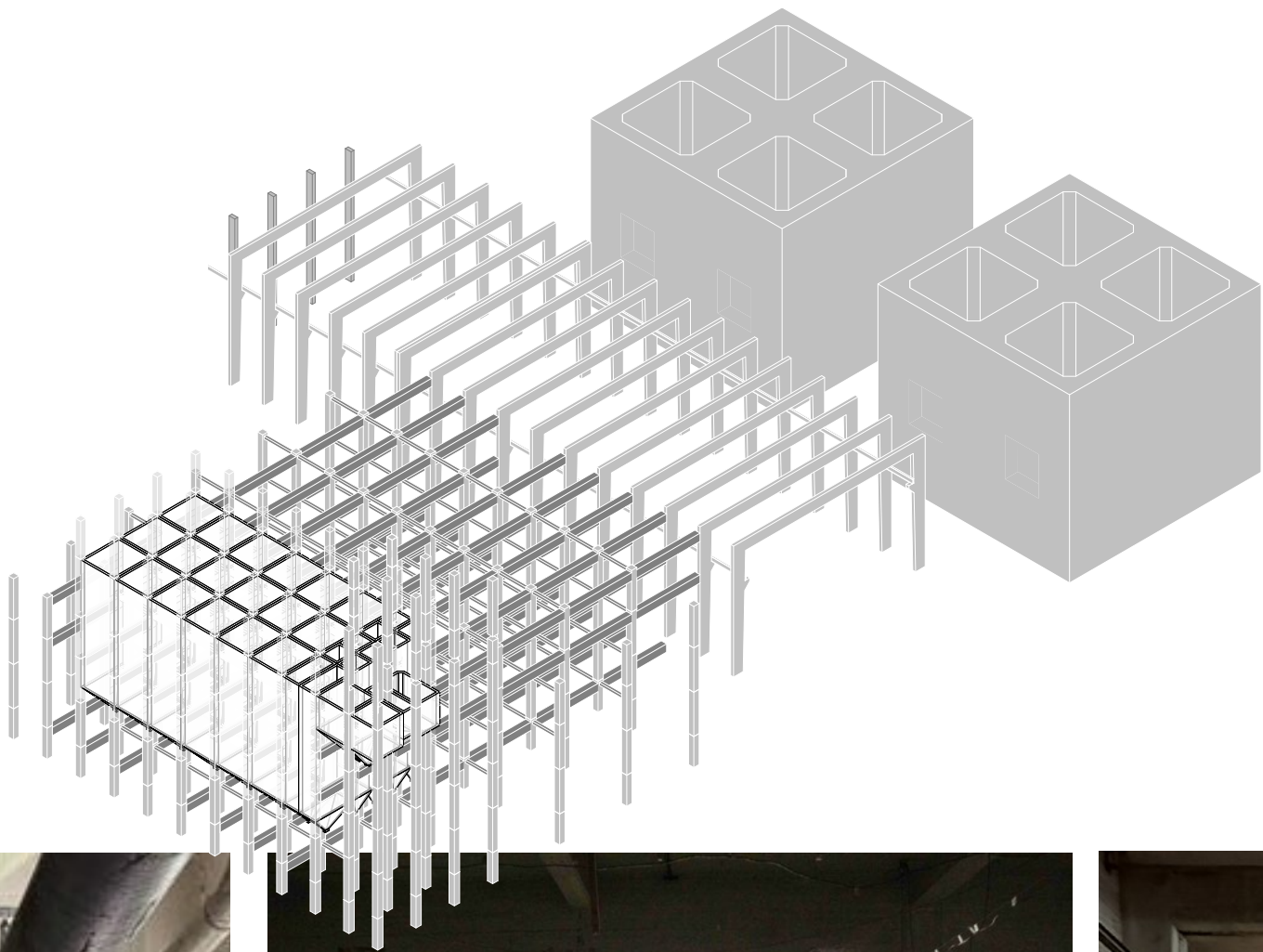
PROVIDED ORGANIZATION

PROJECT



EXISTING STRUCTURE OF THE COMPLEX

PROJECT

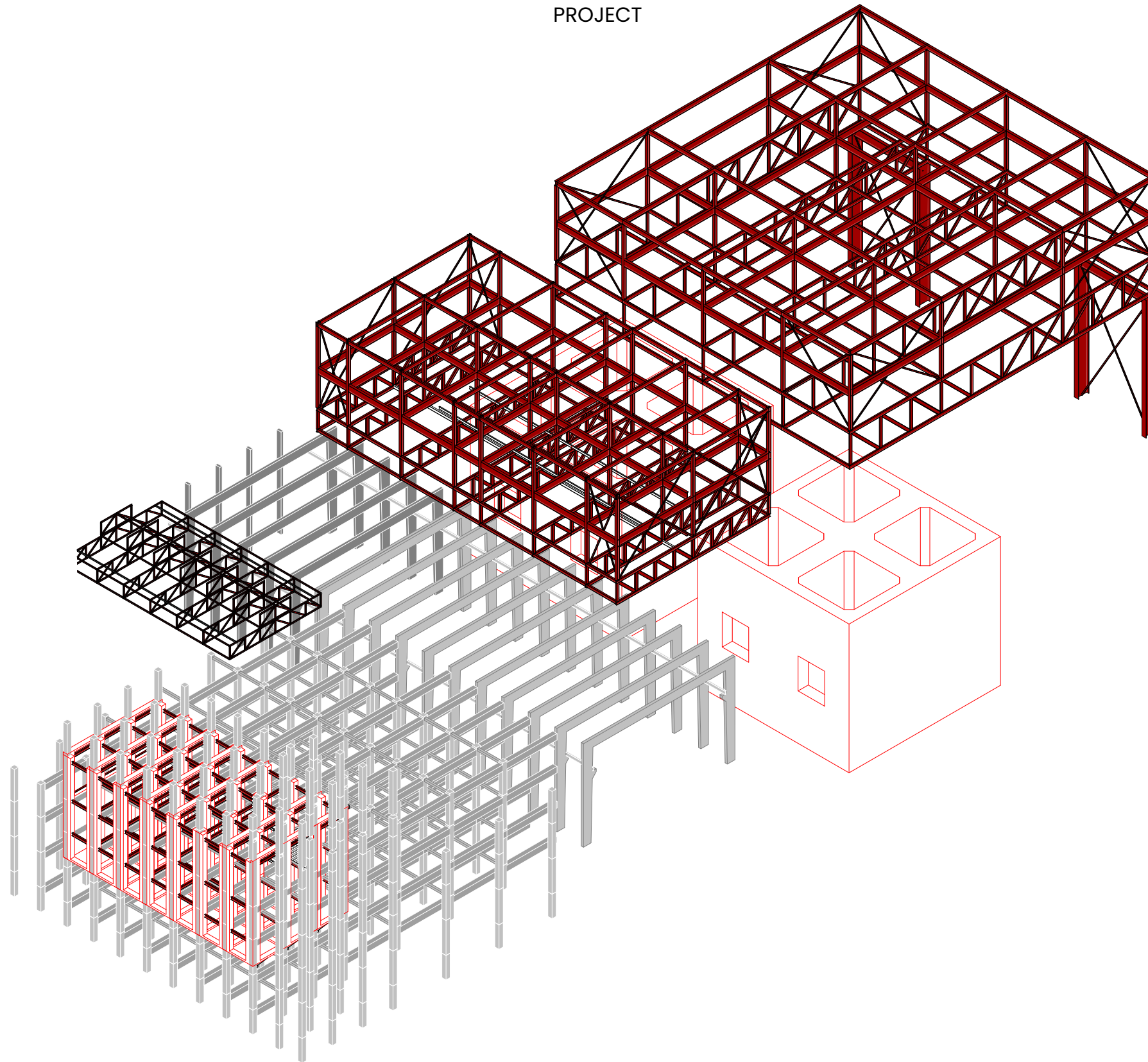


Vineet Dhall, <https://repository.tudelft.nl/record/uuid:7bf625ef-93e6-4d92-80c8-8fc742507d7c>



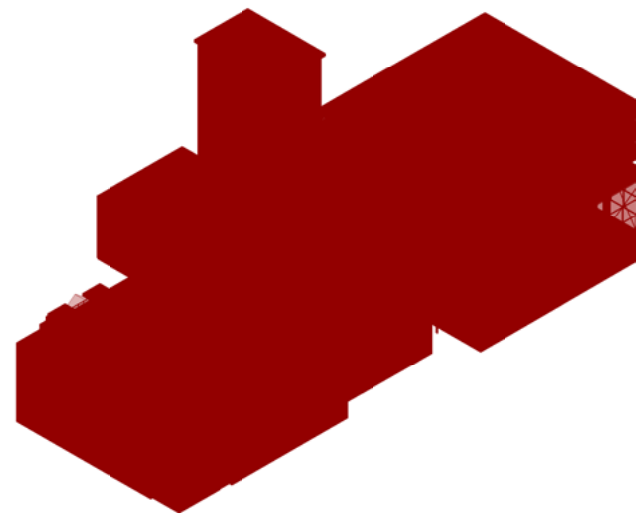
EXISTING STRUCTURE OF THE COMPLEX

PROJECT



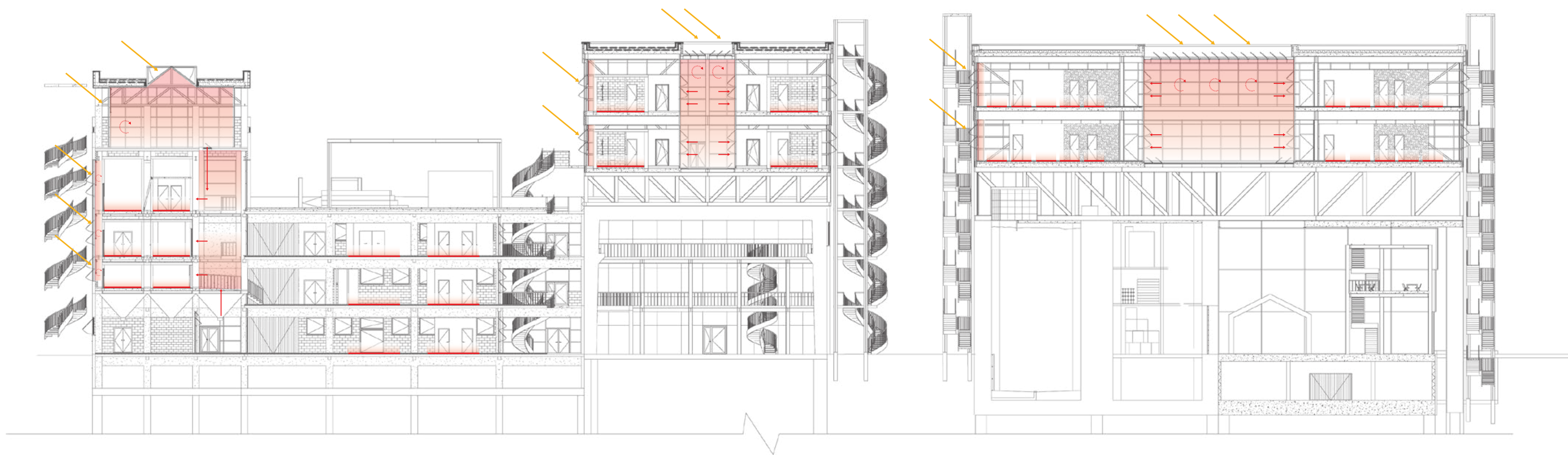
NEW STRUCTURE AND CHANGES OF THE COMPLEX

PROJECT



bio-conditioned oriented
changes in the building for
climate

PROJECT

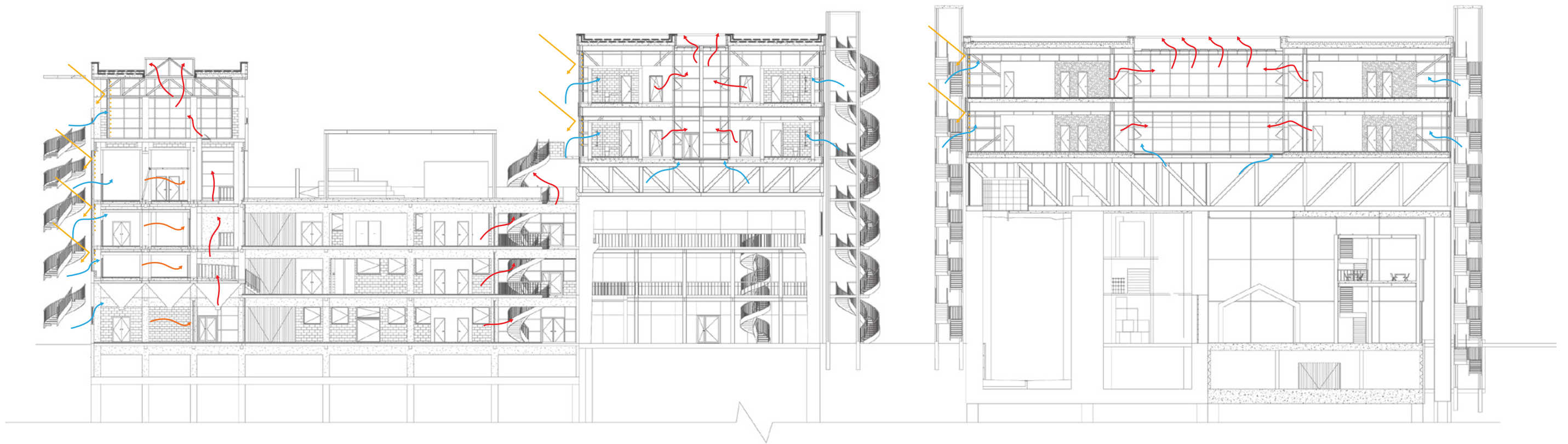


winter

CLIMATE AS STRATEGY

Bioconditioned climate inside the building through envelope control regulated by opening and closing it. Additional heating provided by floor heating supported by heat gains and warm air movement.

PROJECT

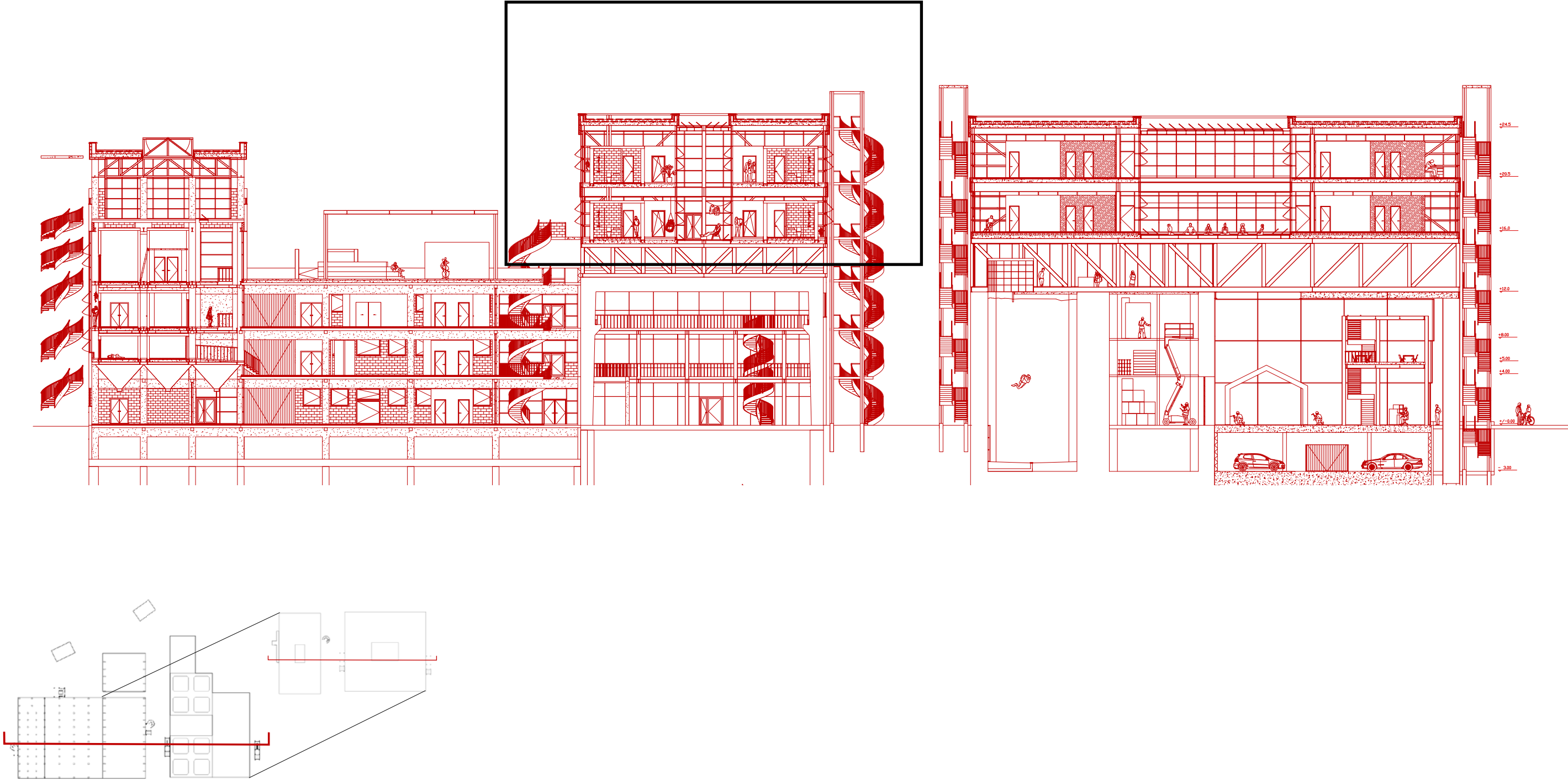


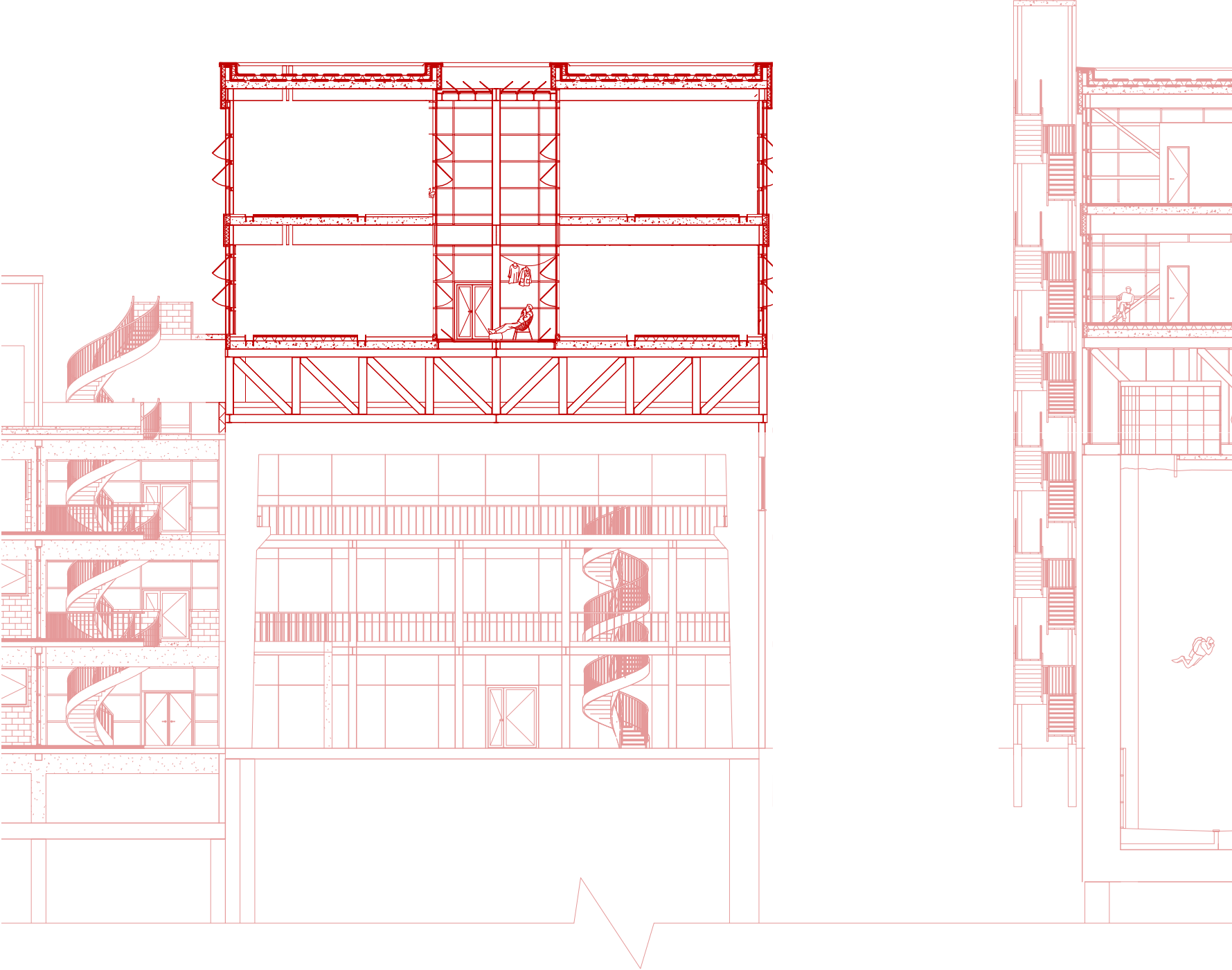
summer

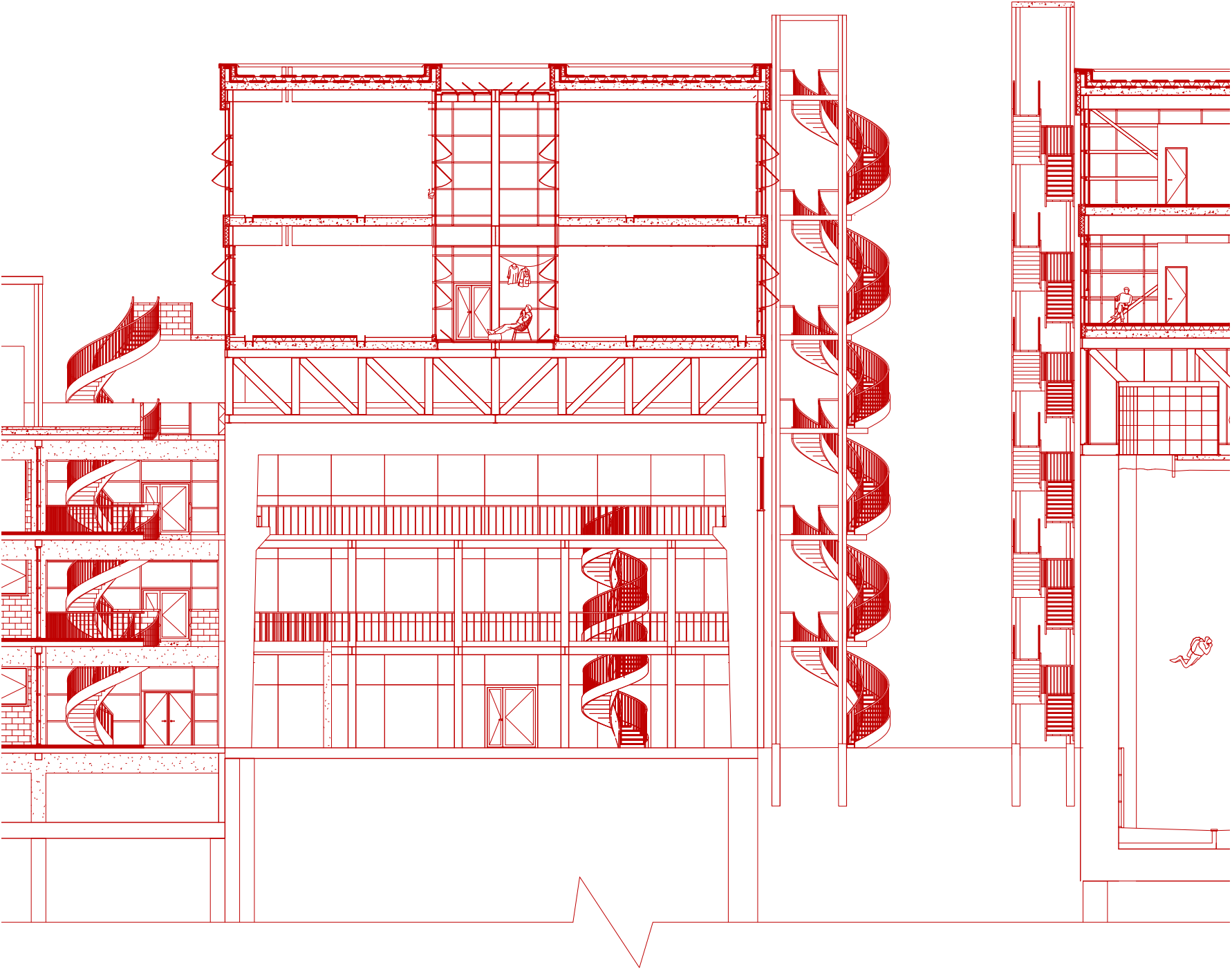
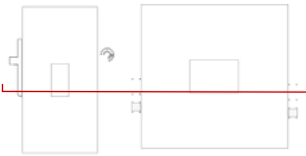
CLIMATE AS STRATEGY

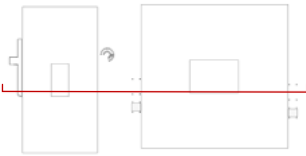
Cooling by cross-ventilation and natural air movement when the facade and atriums are open. Additional shading helps to prevent overheating.

PROJECT

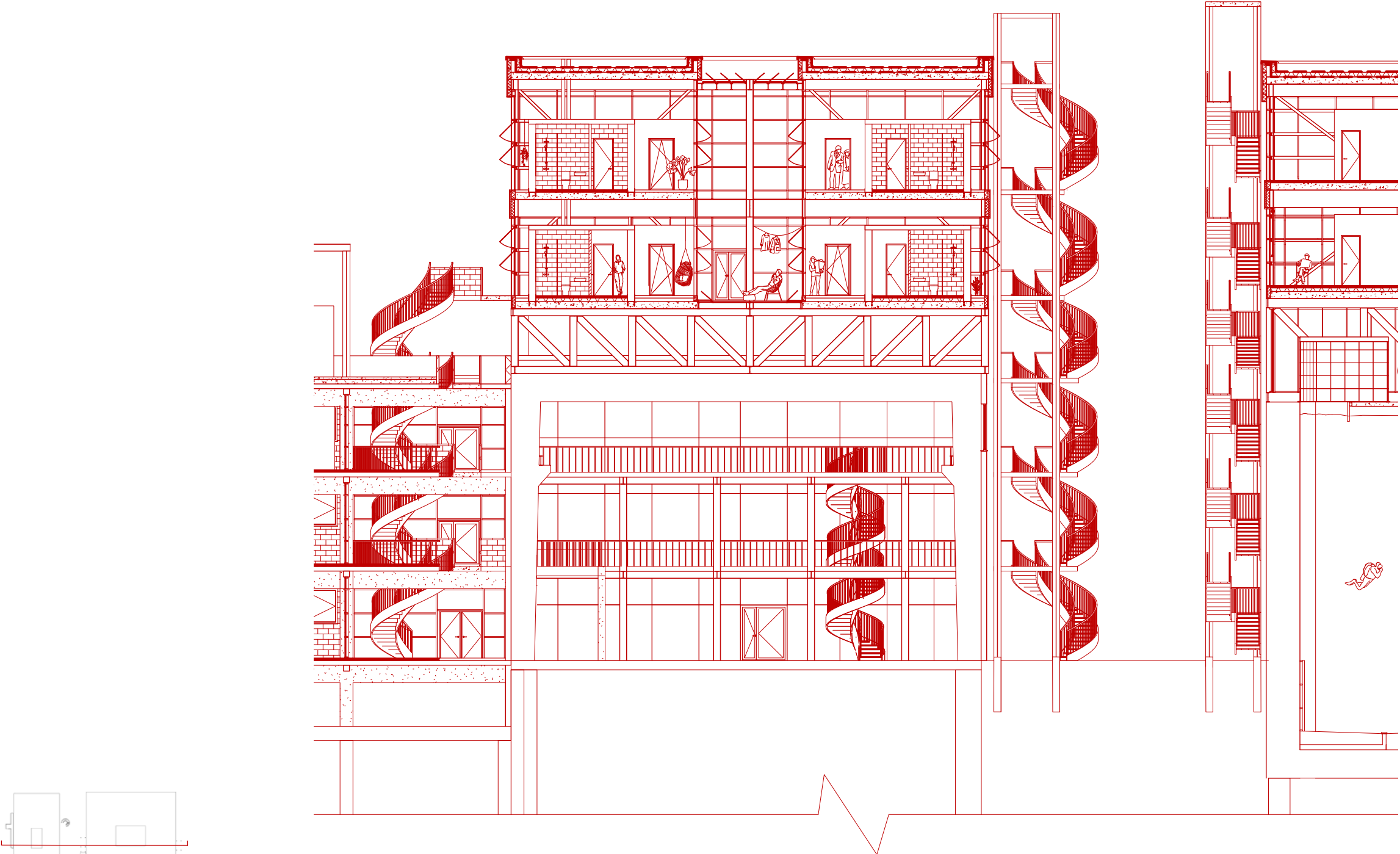




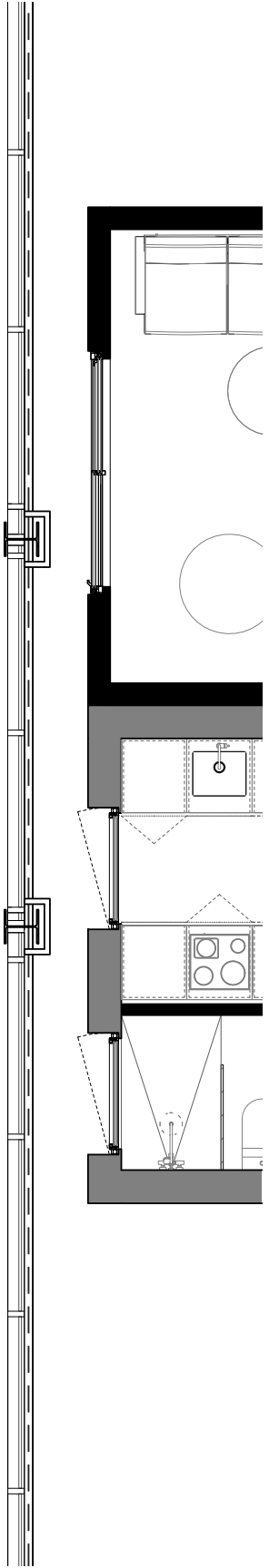
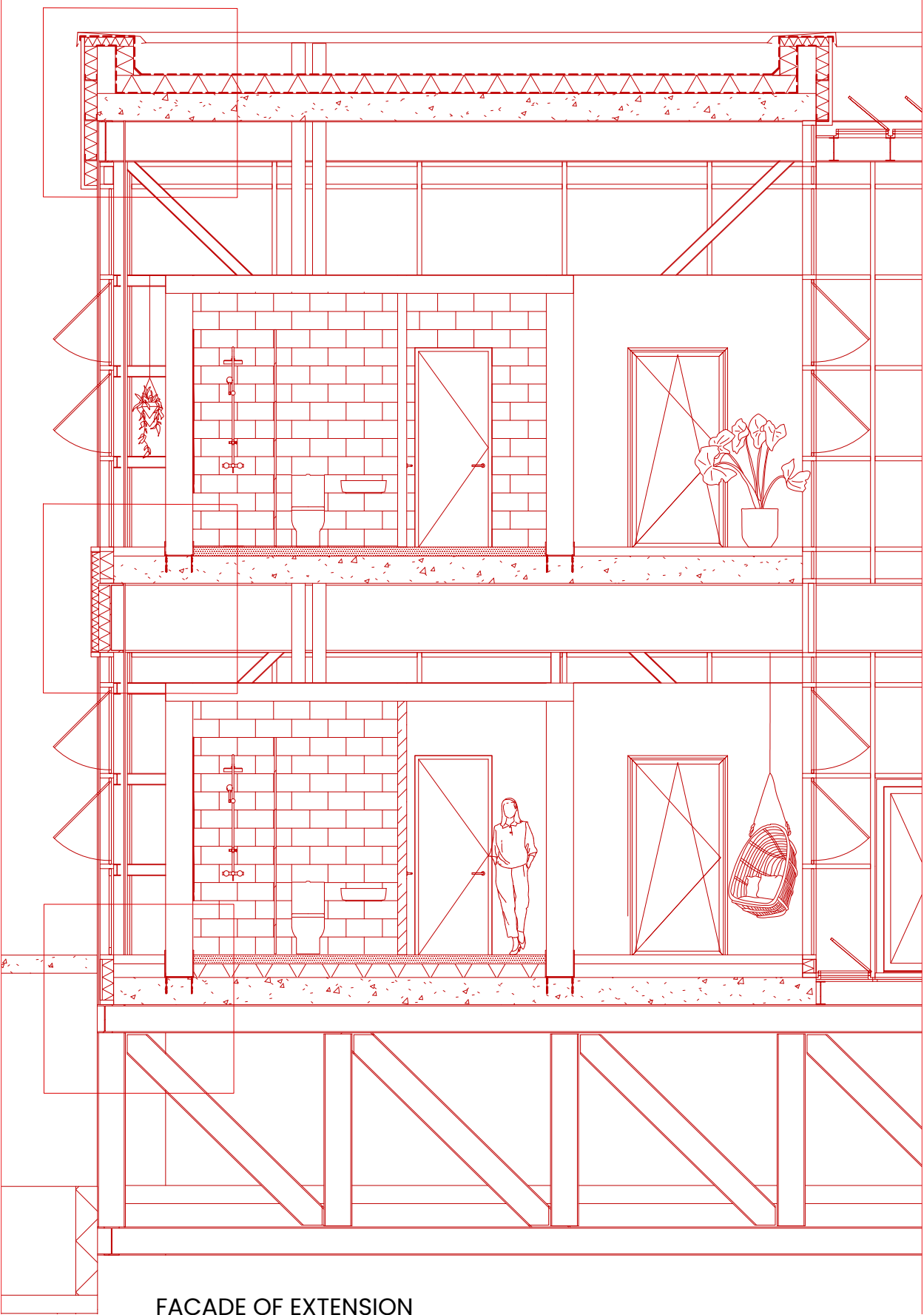
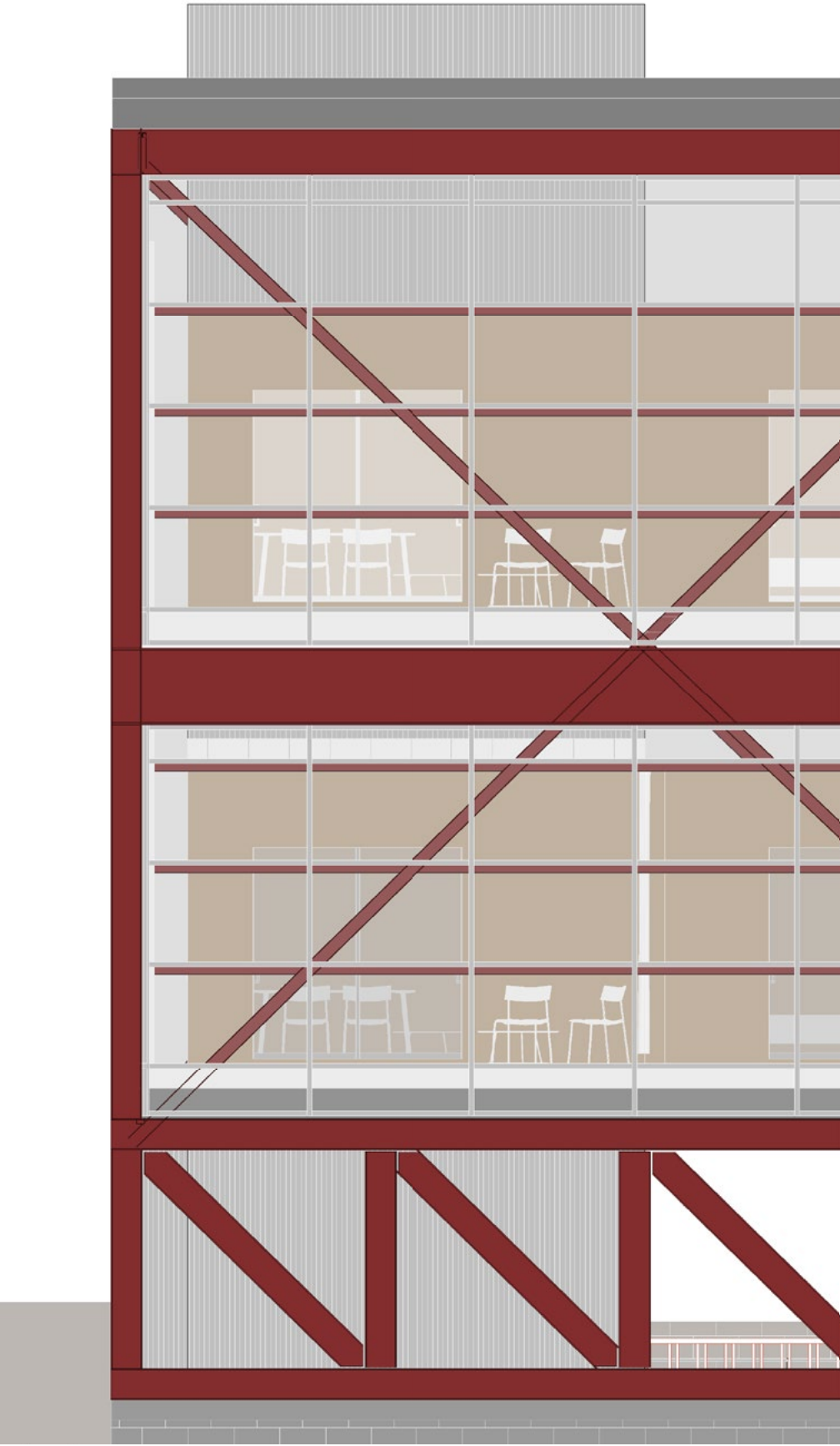




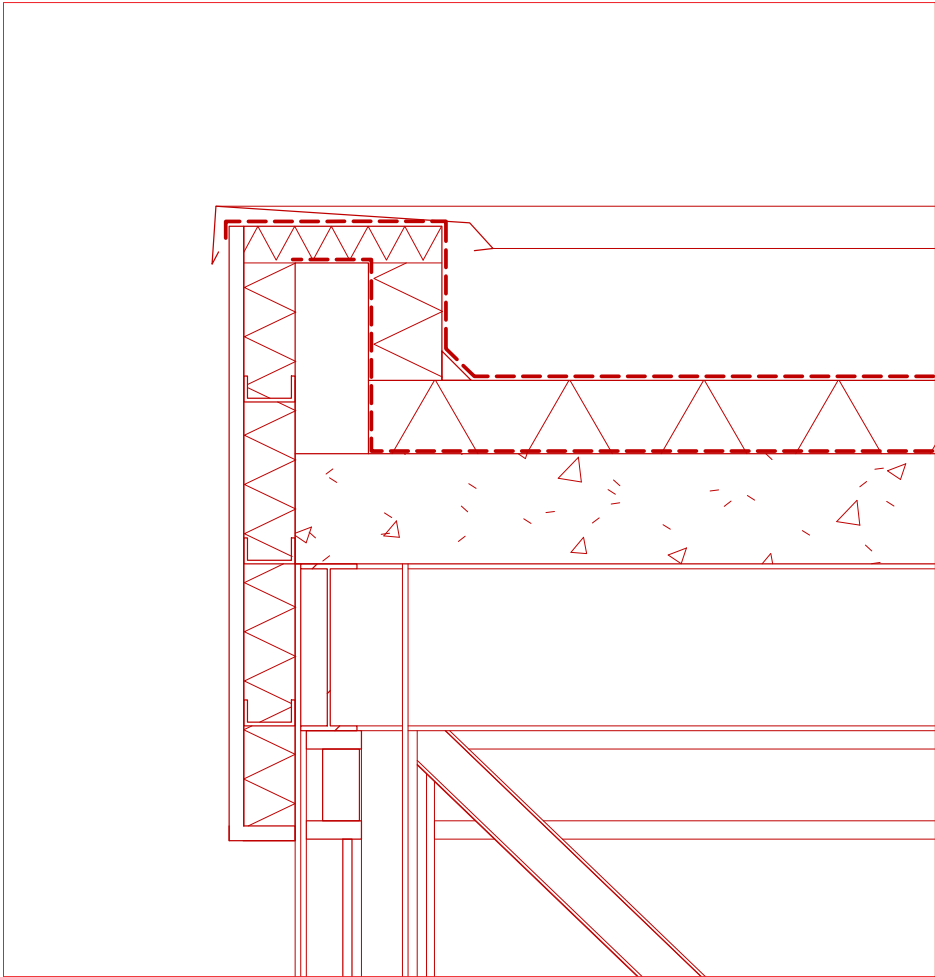
PROJECT



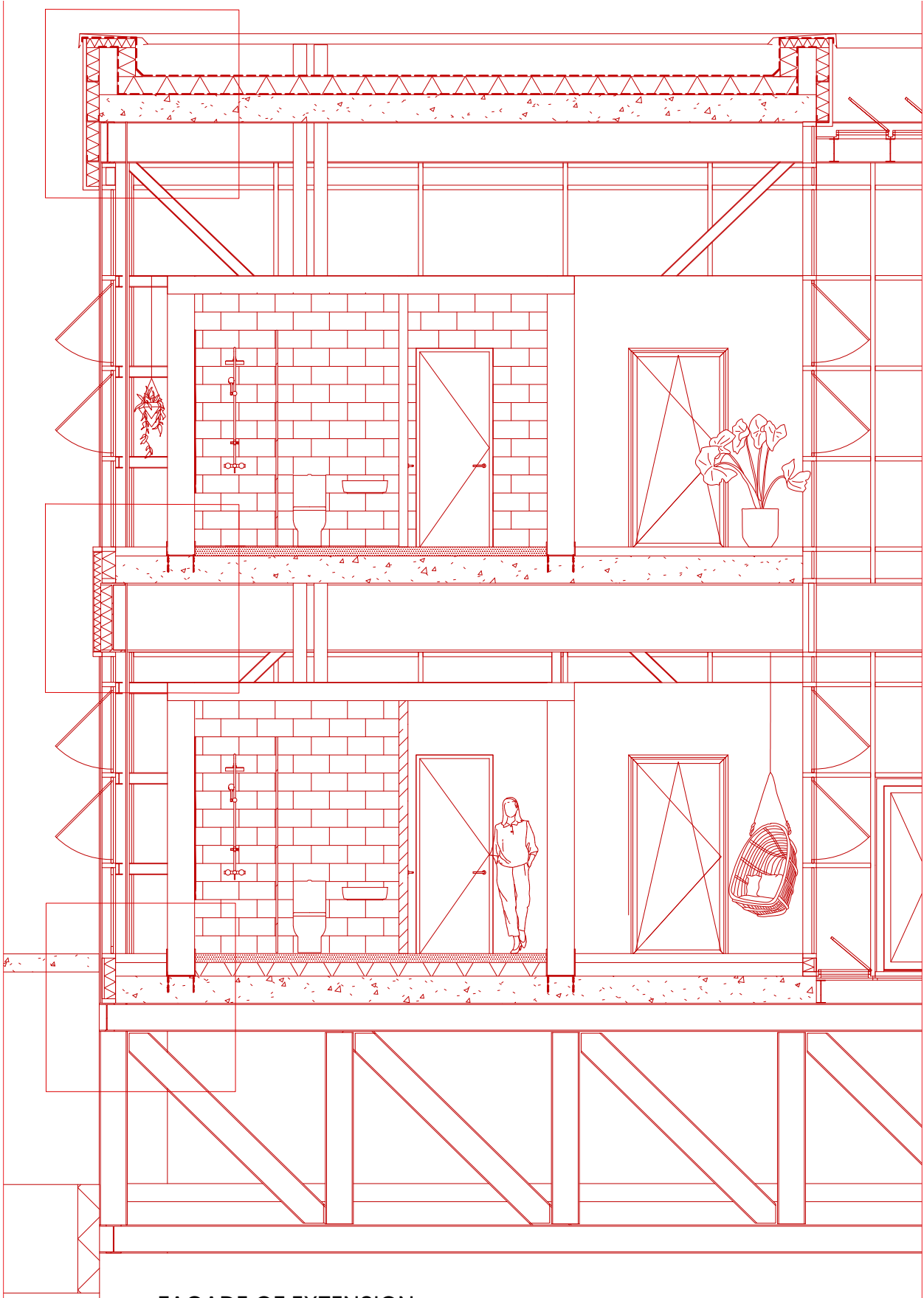
DETAILS AND CONSTRUCTION



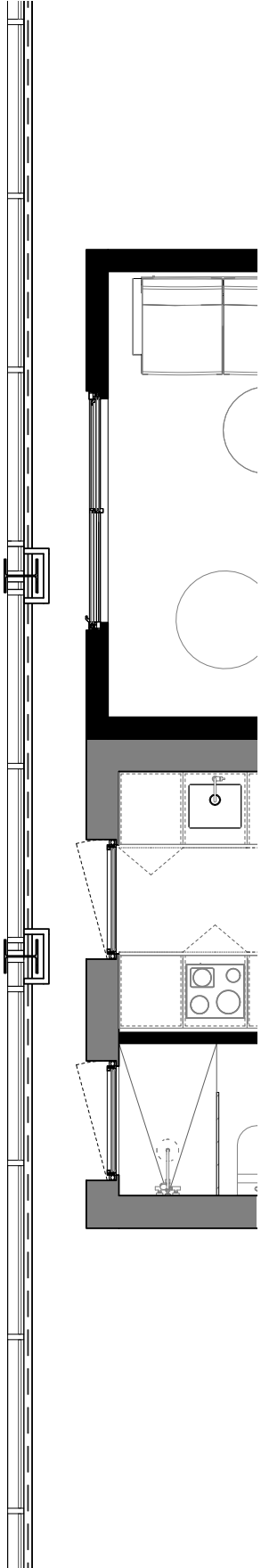
DETAILS AND CONSTRUCTION



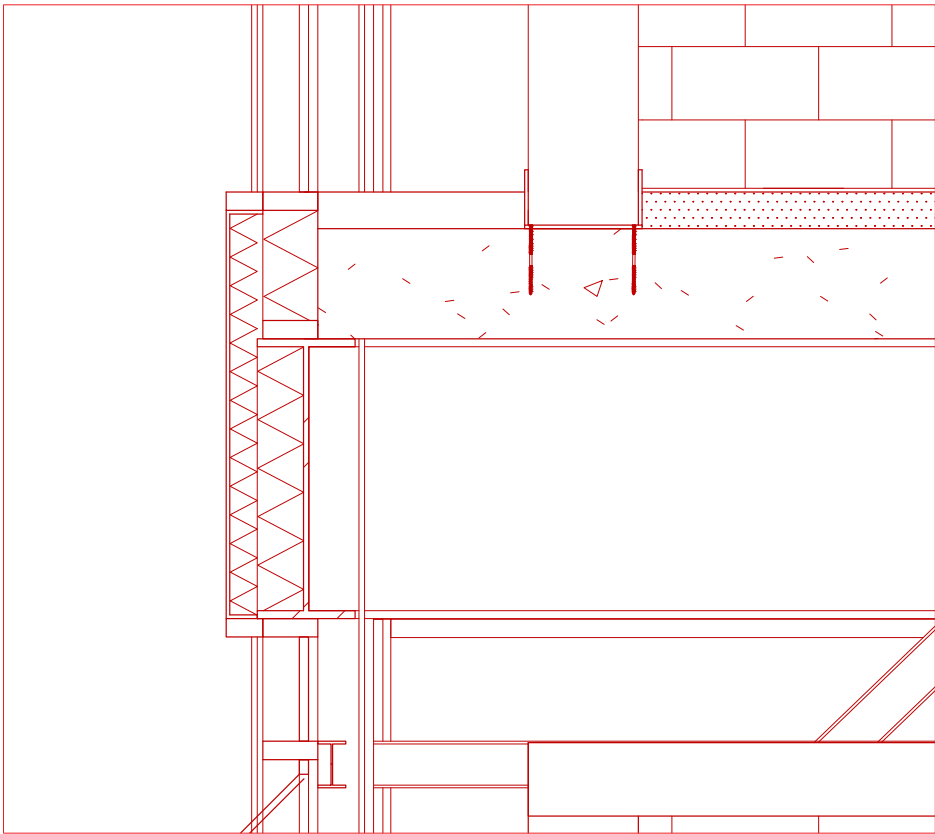
ROOF: bituminous sealing
waterproof membrane
rigid insulation 140 2% slope
waterproof membrane
concrete slab 300



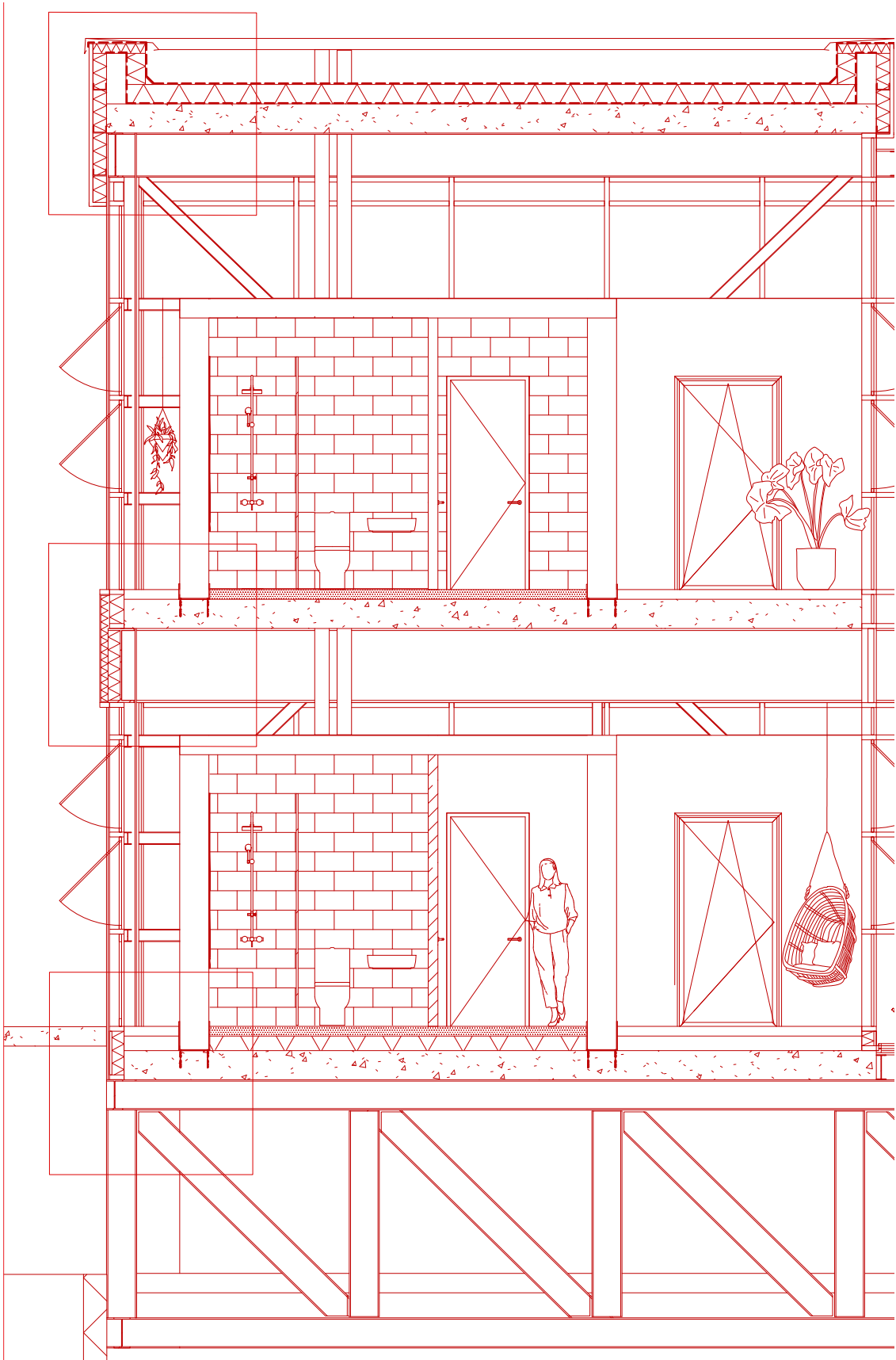
FACADE OF EXTENSION



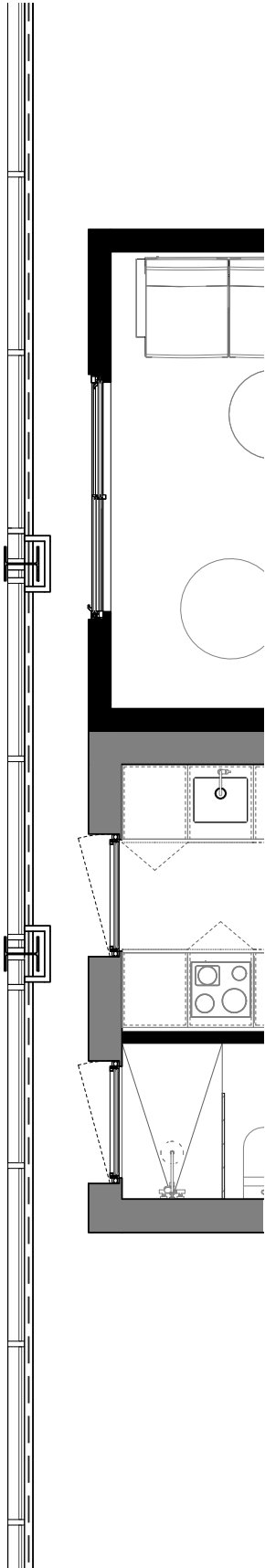
DETAILS AND CONSTRUCTION



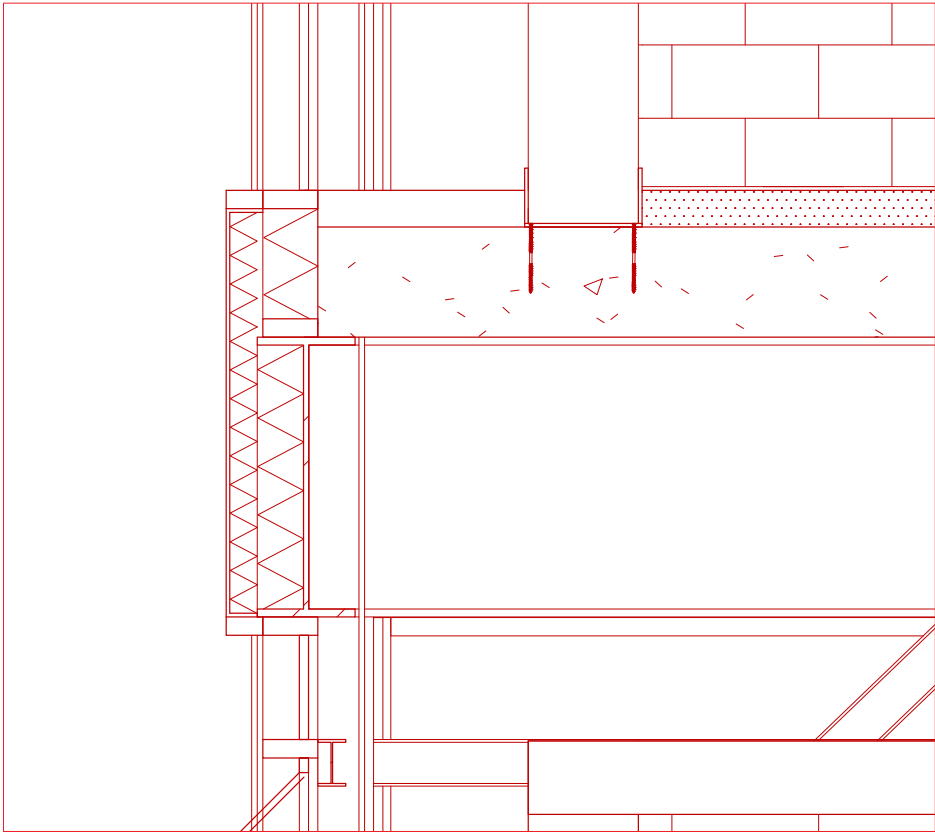
INTERNAL floor heating in polished screed 100
FLOOR: concrete slab 300



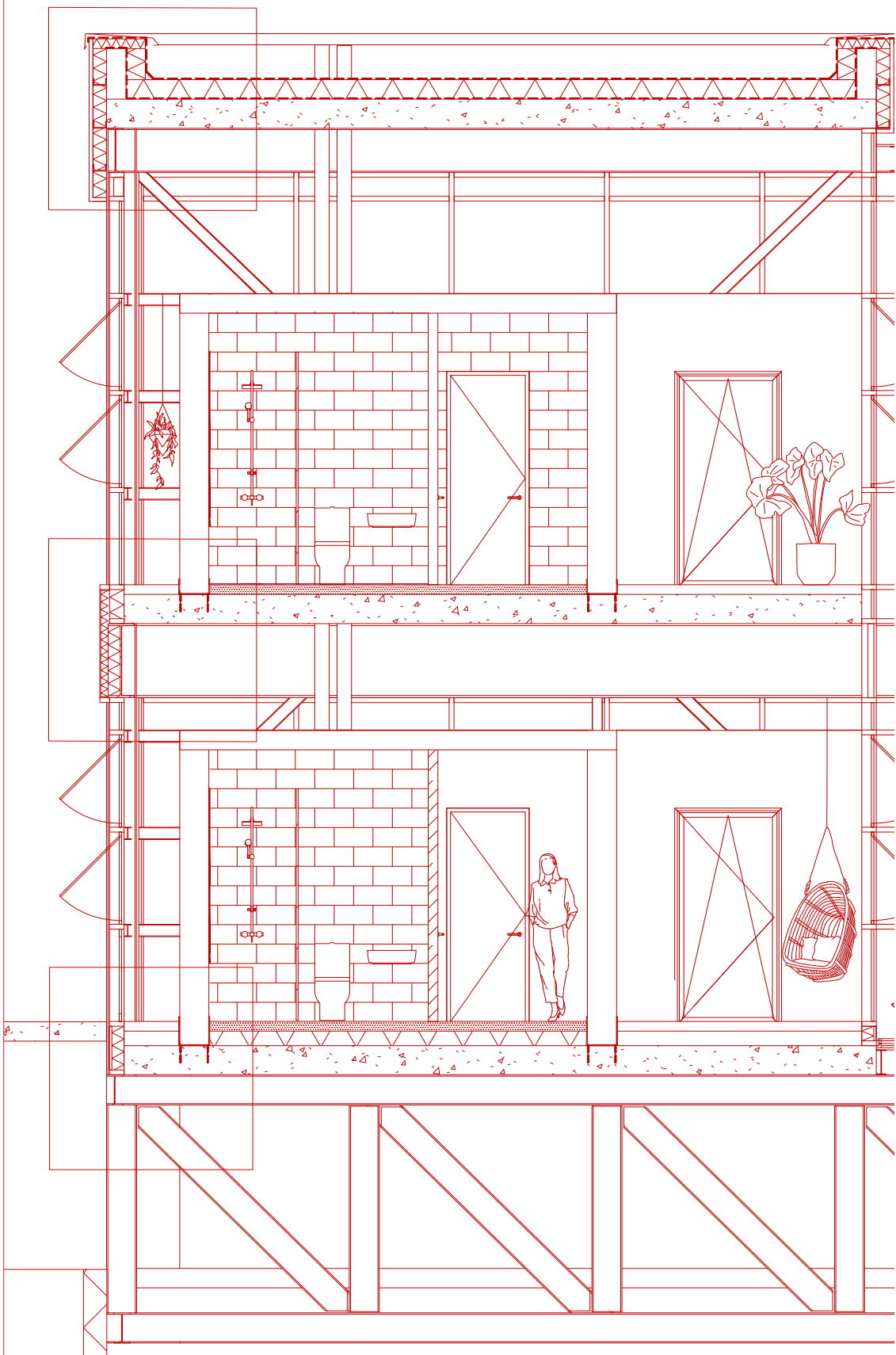
FACADE OF EXTENSION



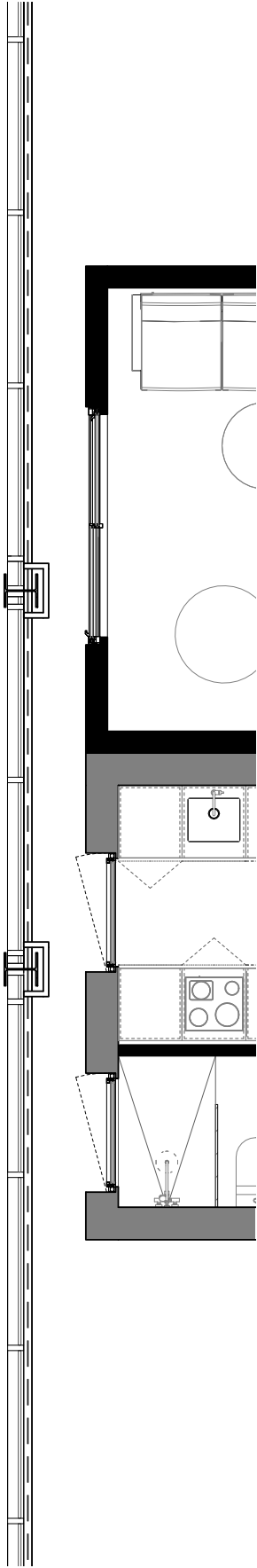
DETAILS AND CONSTRUCTION



FLOOR: floor heating in polished screed 100
rigid insulation 140
concrete slab 300



FACADE OF EXTENSION



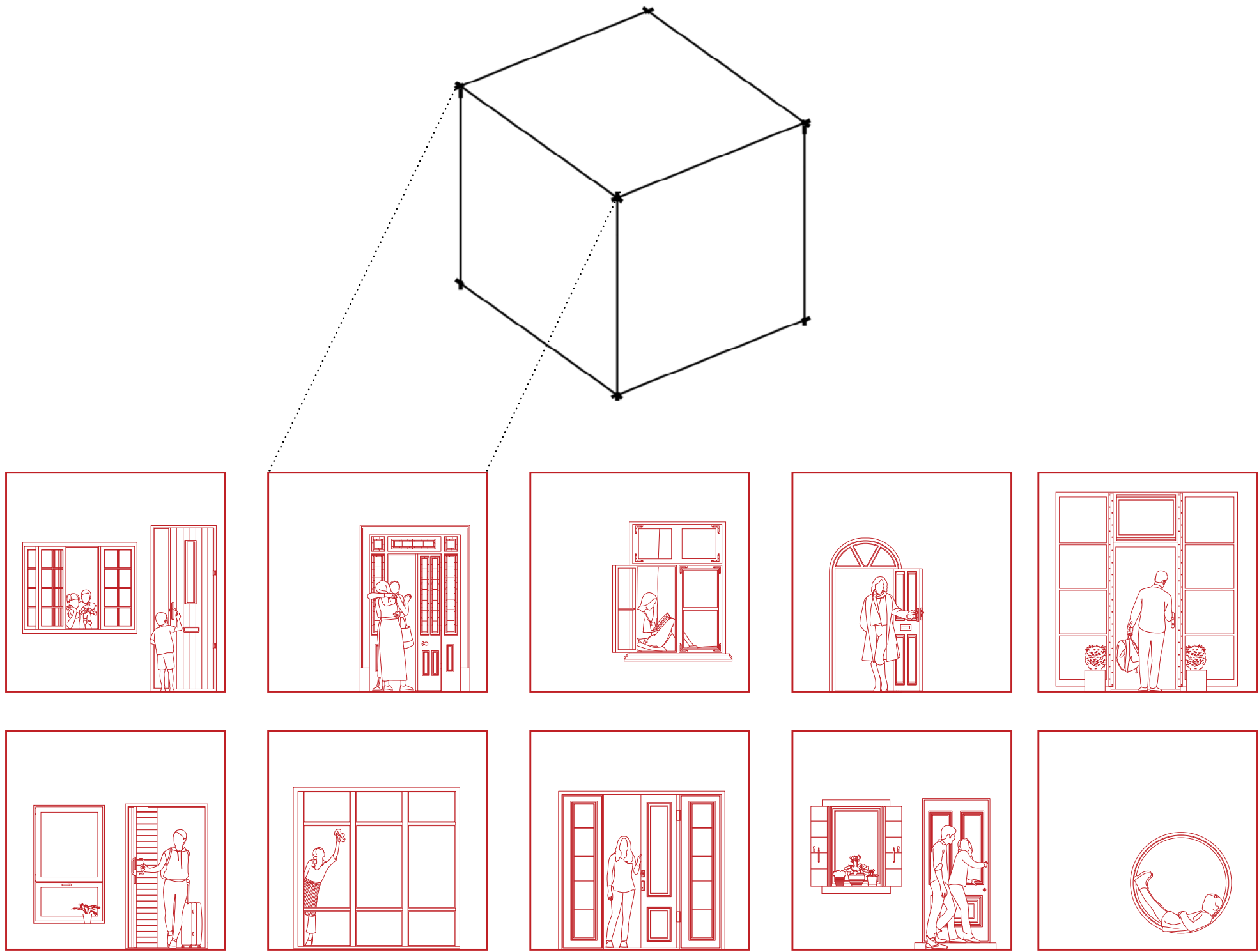
DETAILS AND CONSTRUCTION



DETAILS AND CONSTRUCTION



DETAILS AND CONSTRUCTION



INFILL

DETAILS AND CONSTRUCTION

ROOF:

- structural plywood 12
- rigid insulation 100
- wood floor joist 60x100 (mineral wool)
- structural plywood 12

WALL:

- structural plywood 12
- furring strips 20x30
- wooden columns 60x100 (mineral wool)
- waterproof membrane
- ducts and pipes in mineral wool 150
- waterproof membrane
- furring strips 20x30
- ceramic tiles on cork 20

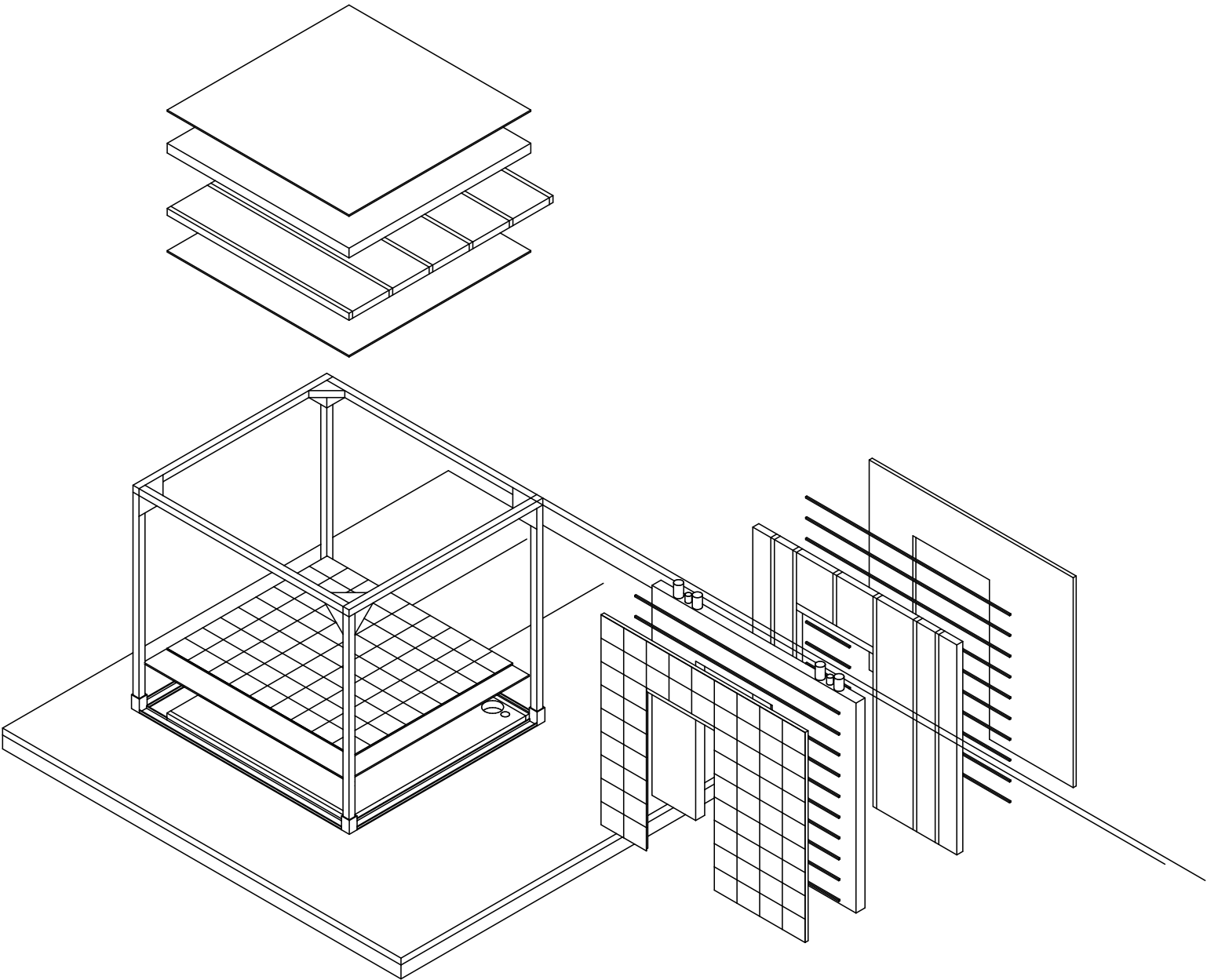
FLOOR:

- tiles on cork panels 20
- waterproof membrane

floor heating in polished screed

STRUCTURE

- timber frame beams and columns 100x100 in steel profiles mounted to the concrete floor



WET INFILL

DETAILS AND CONSTRUCTION

ROOF:

structural plywood 12
rigid insulation 100
wooden joist 60x100 (mineral wool)
structural plywood 12

WALL:

structural plywood/finishing panel 12
furring strips 20x30
wooden columns 60x100
(mineral wool)
structural plywood 12

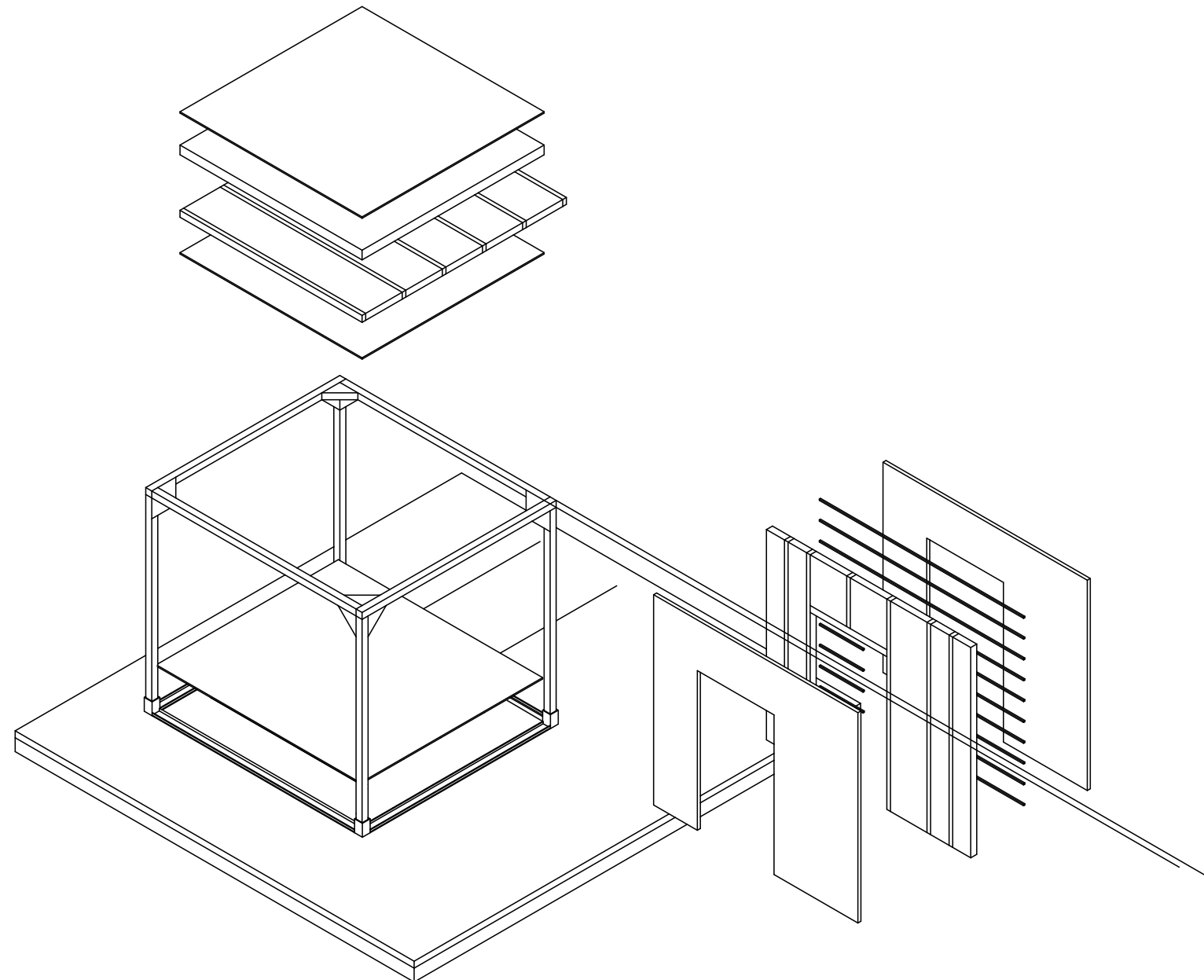
FLOOR:

alternative additional floor finishing

floor heating in polished screed

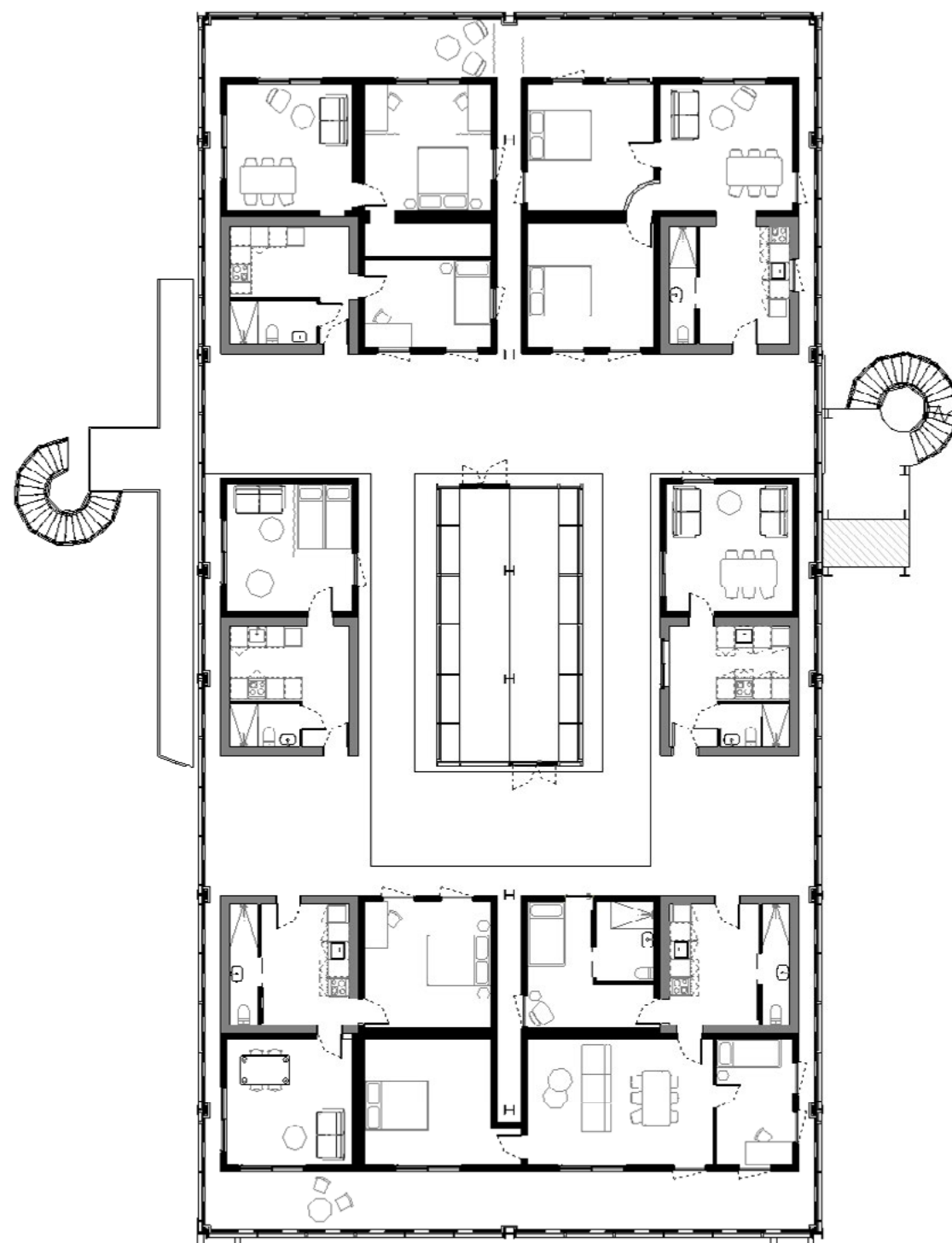
STRUCTURE

timber frame beams and columns
100x100 in steel profiles mounted to the
concrete floor

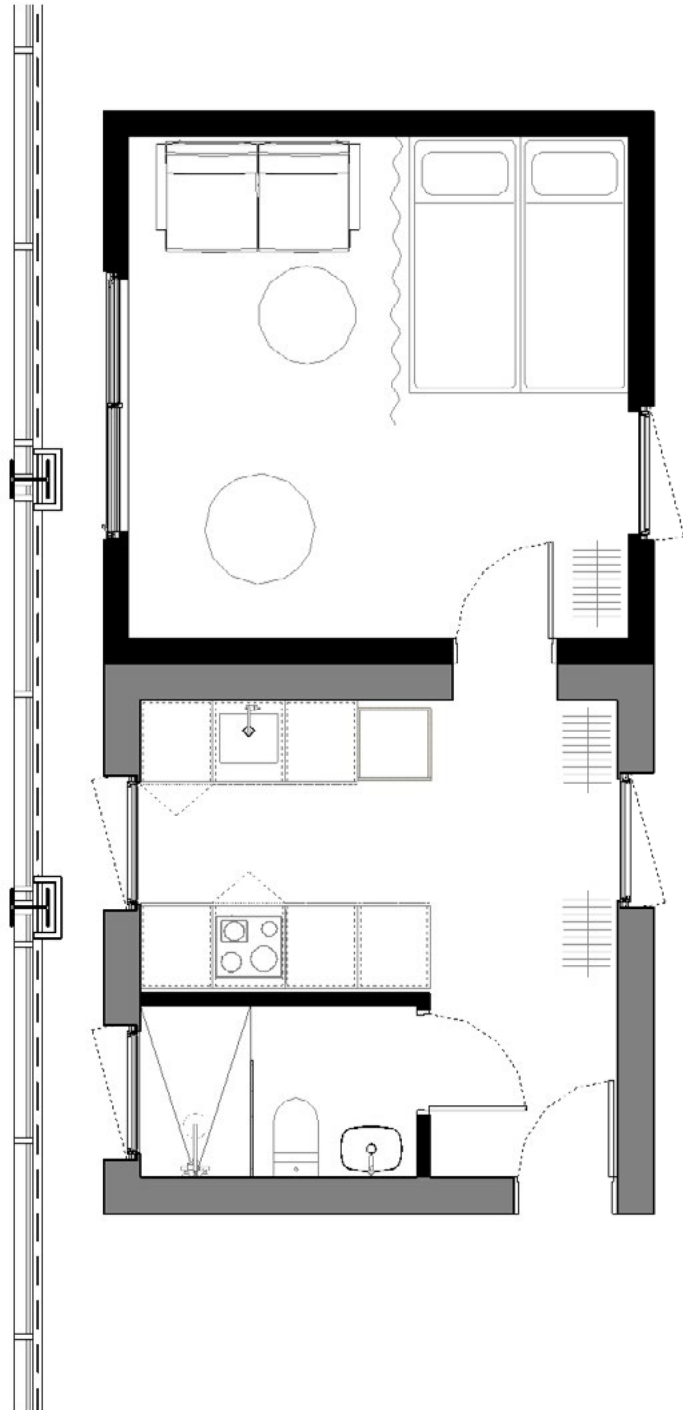


DRY INFILL

DETAILS AND CONSTRUCTION

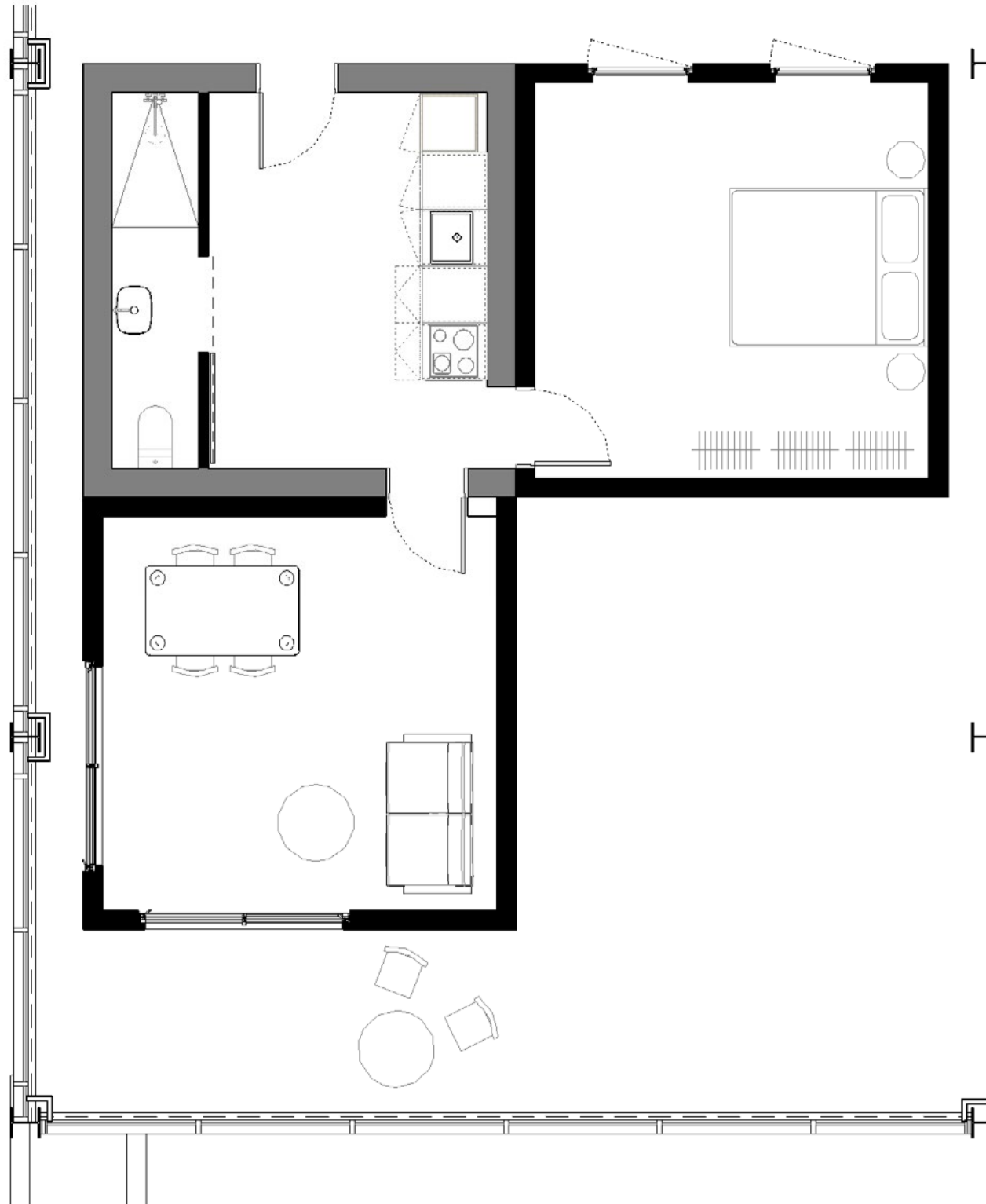


DETAILS AND CONSTRUCTION



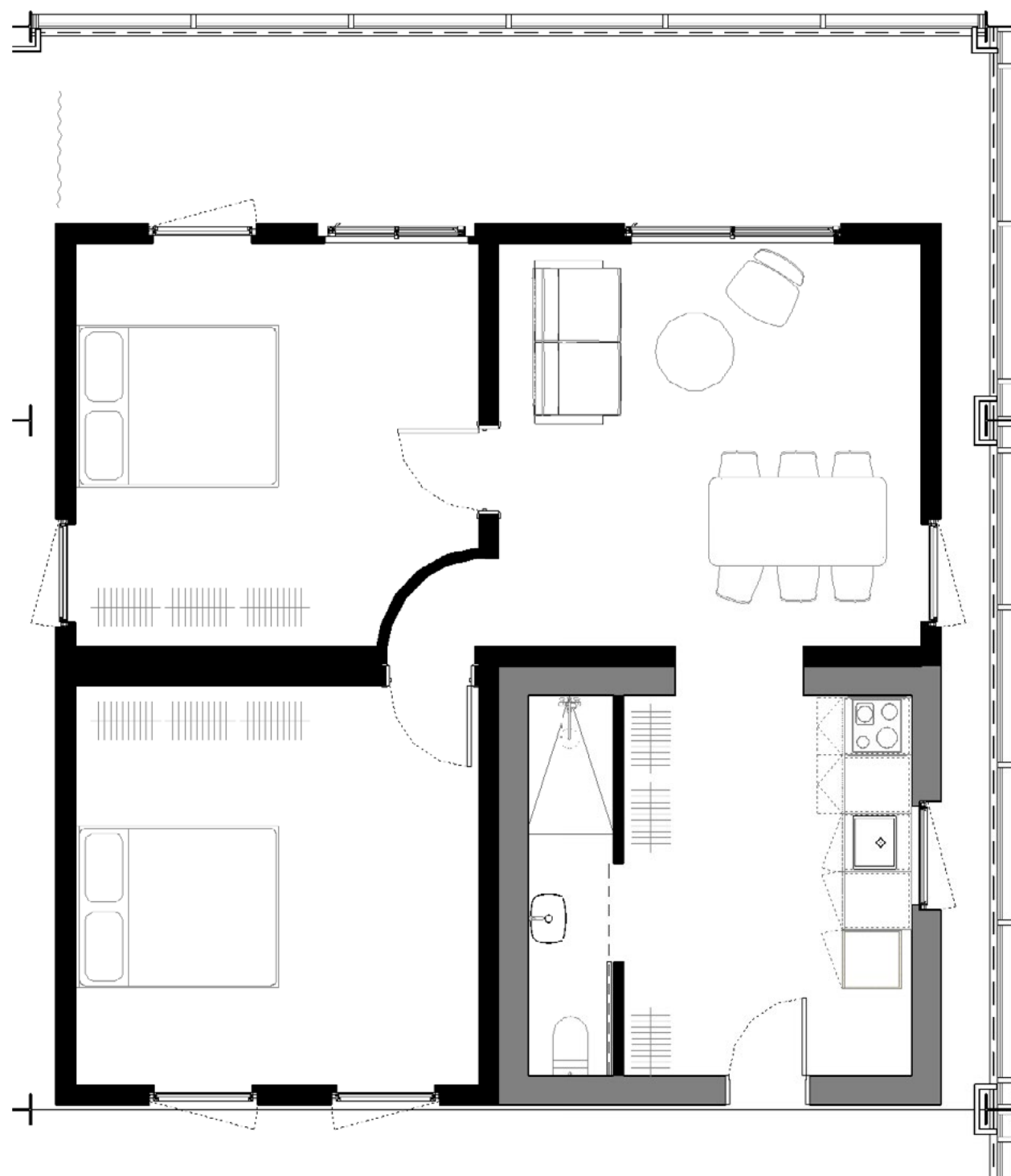
36 sqm

DETAILS AND CONSTRUCTION



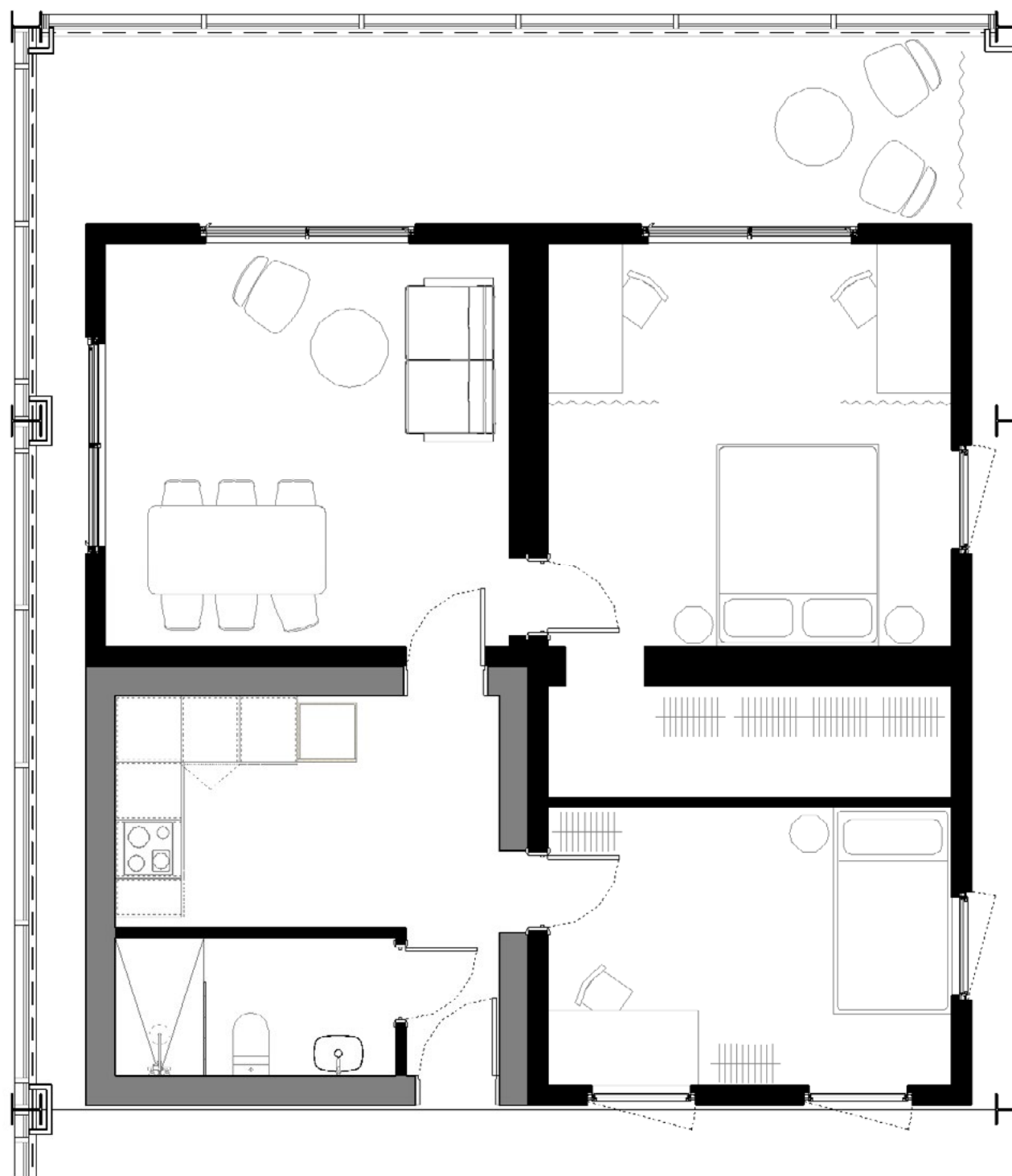
55 sqm

DETAILS AND CONSTRUCTION



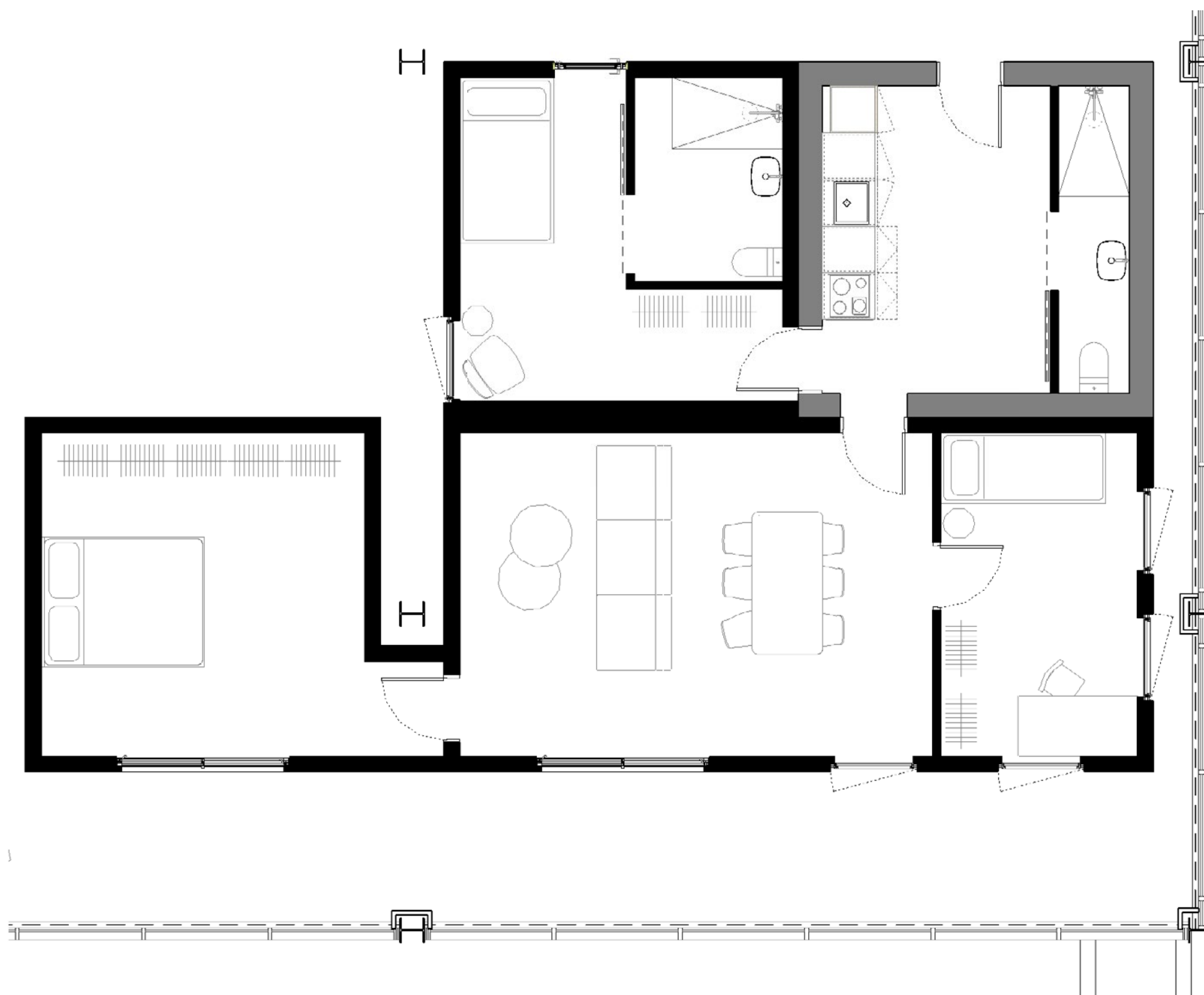
74 sqm

DETAILS AND CONSTRUCTION



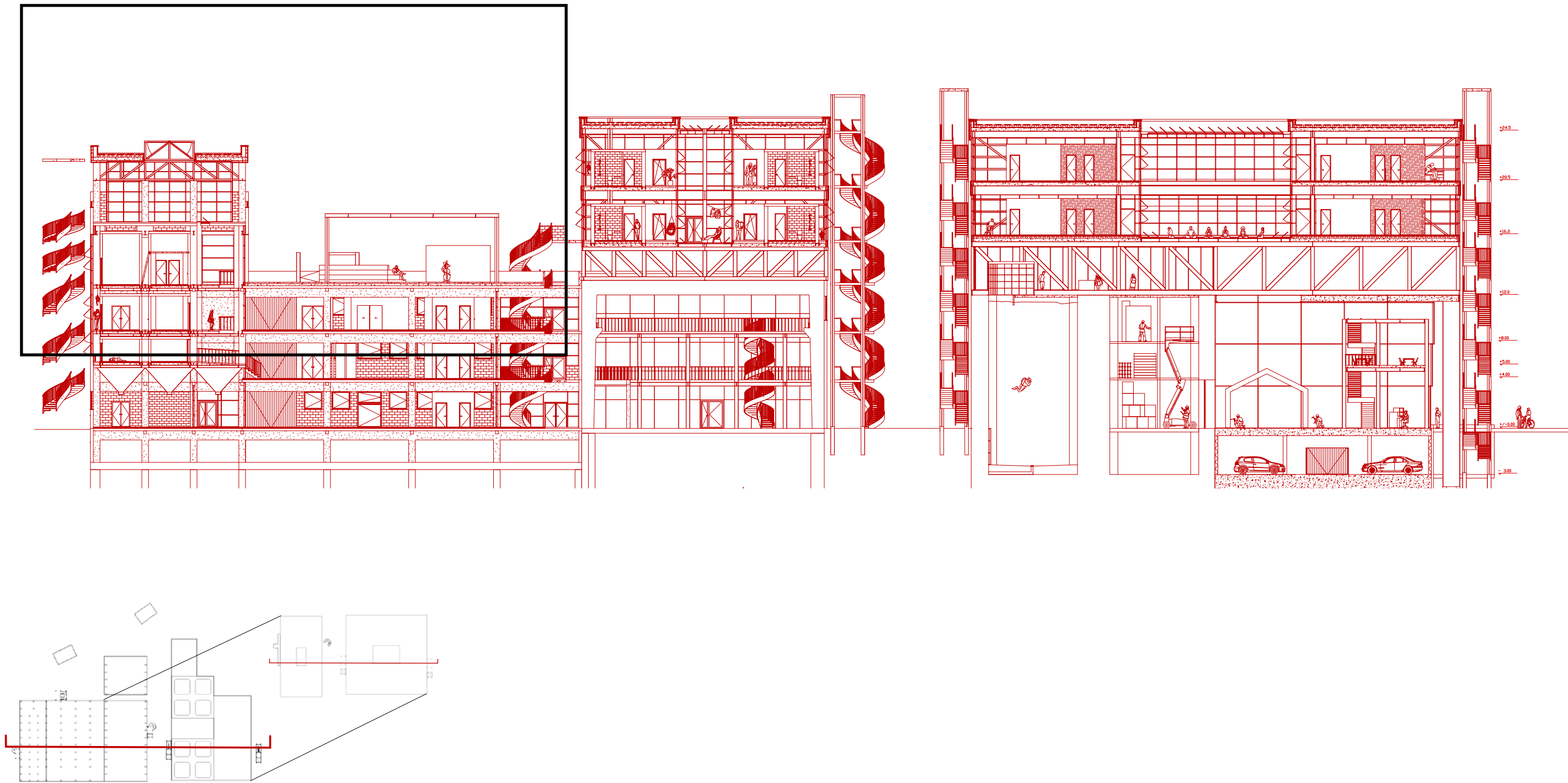
74 sqm

DETAILS AND CONSTRUCTION



94 sqm

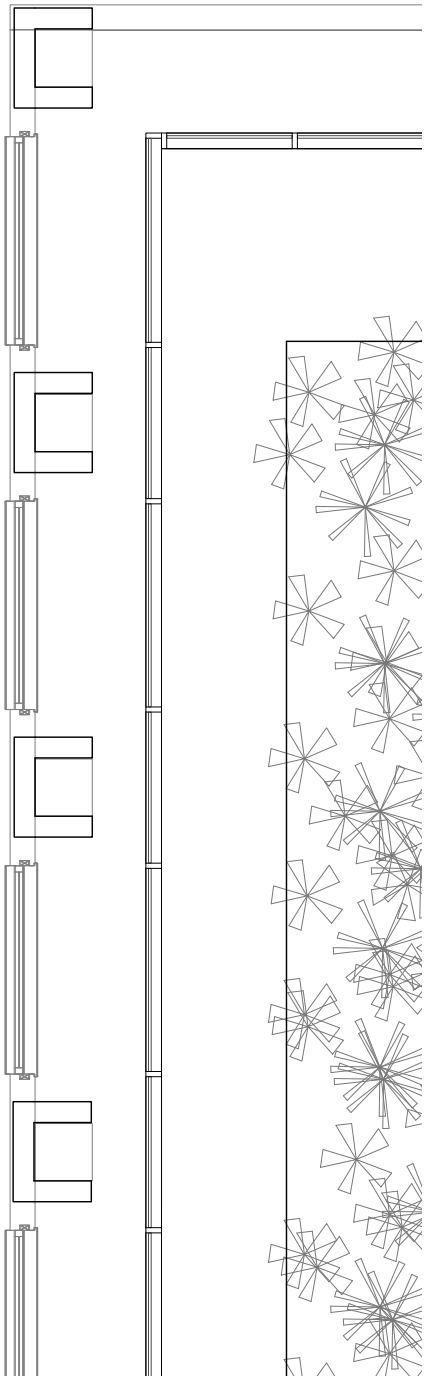
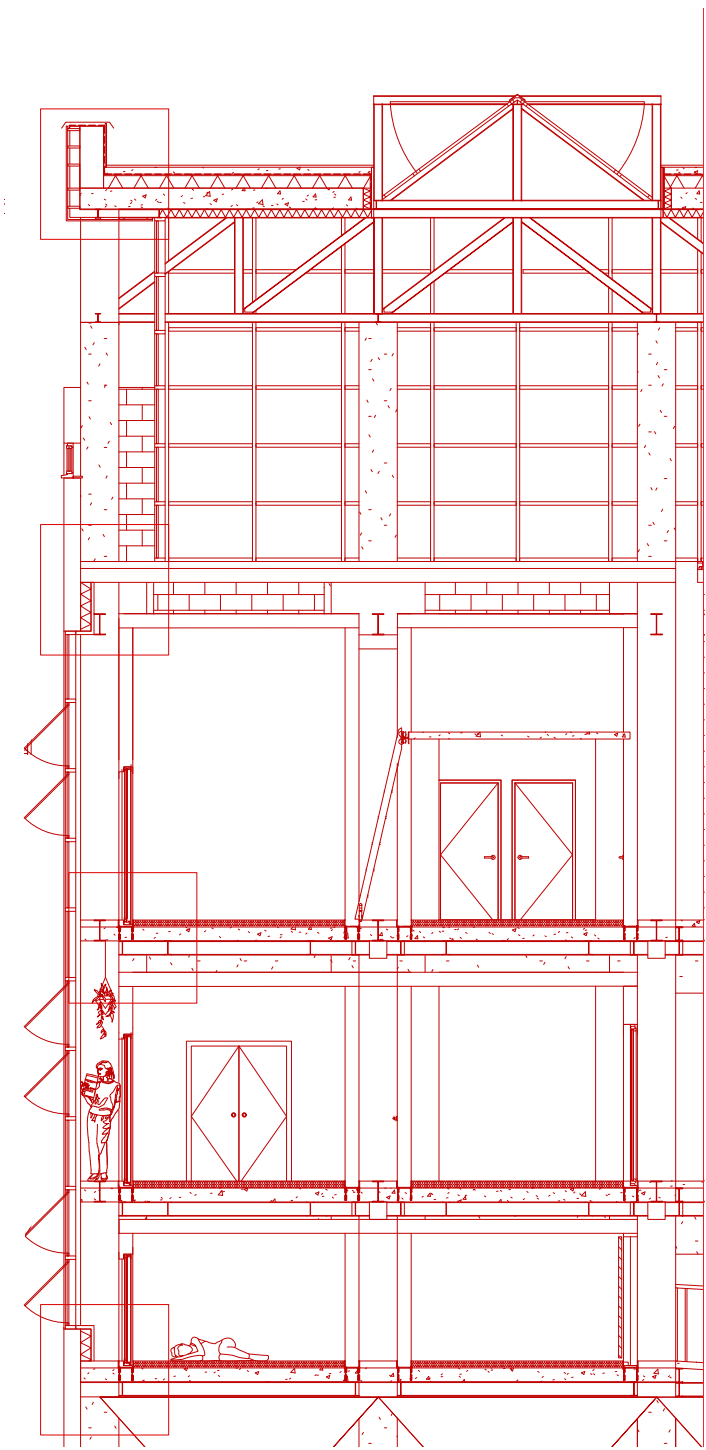
DETAILS AND CONSTRUCTION



DETAILS AND CONSTRUCTION

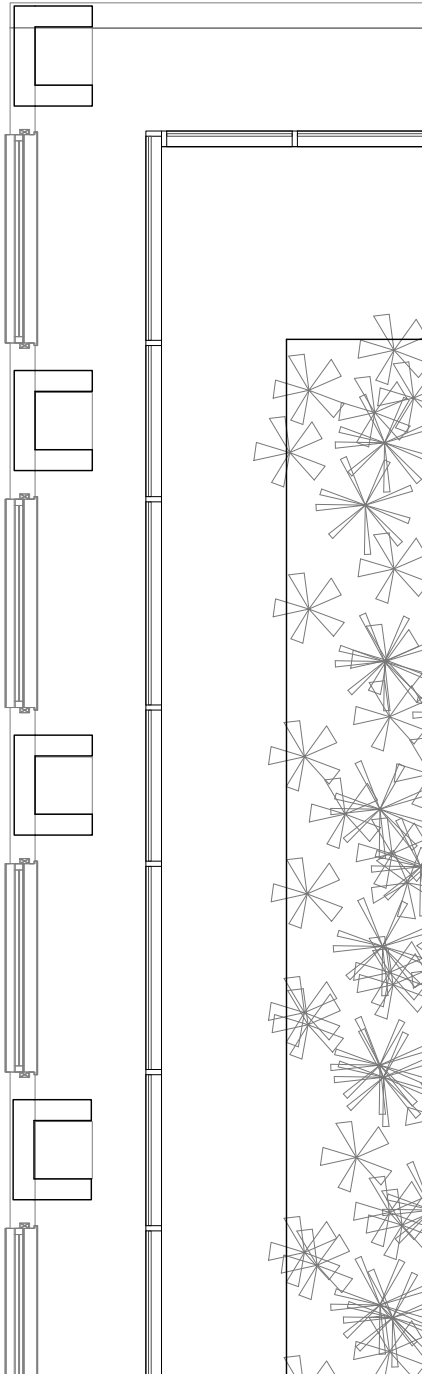
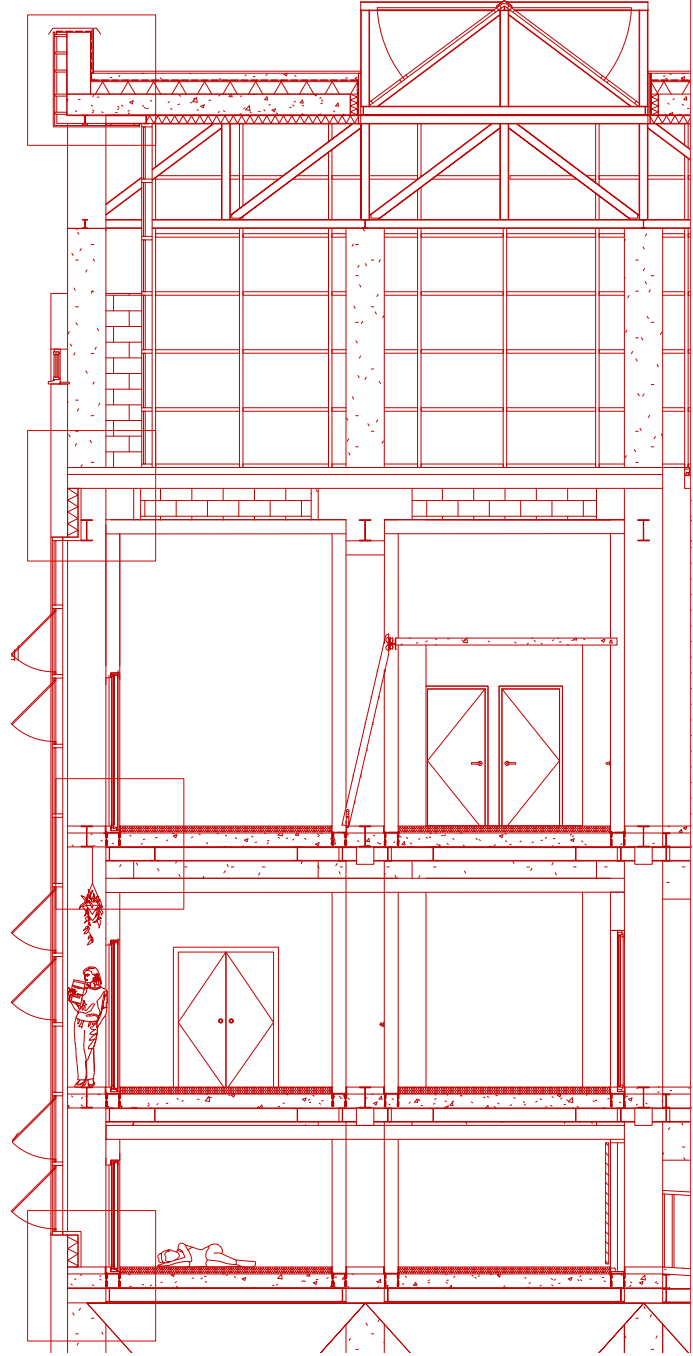
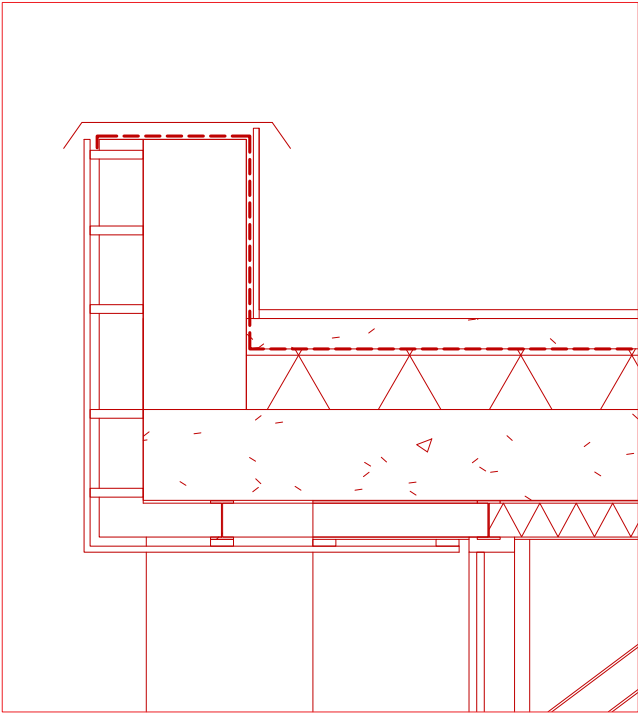


DETAILS AND CONSTRUCTION



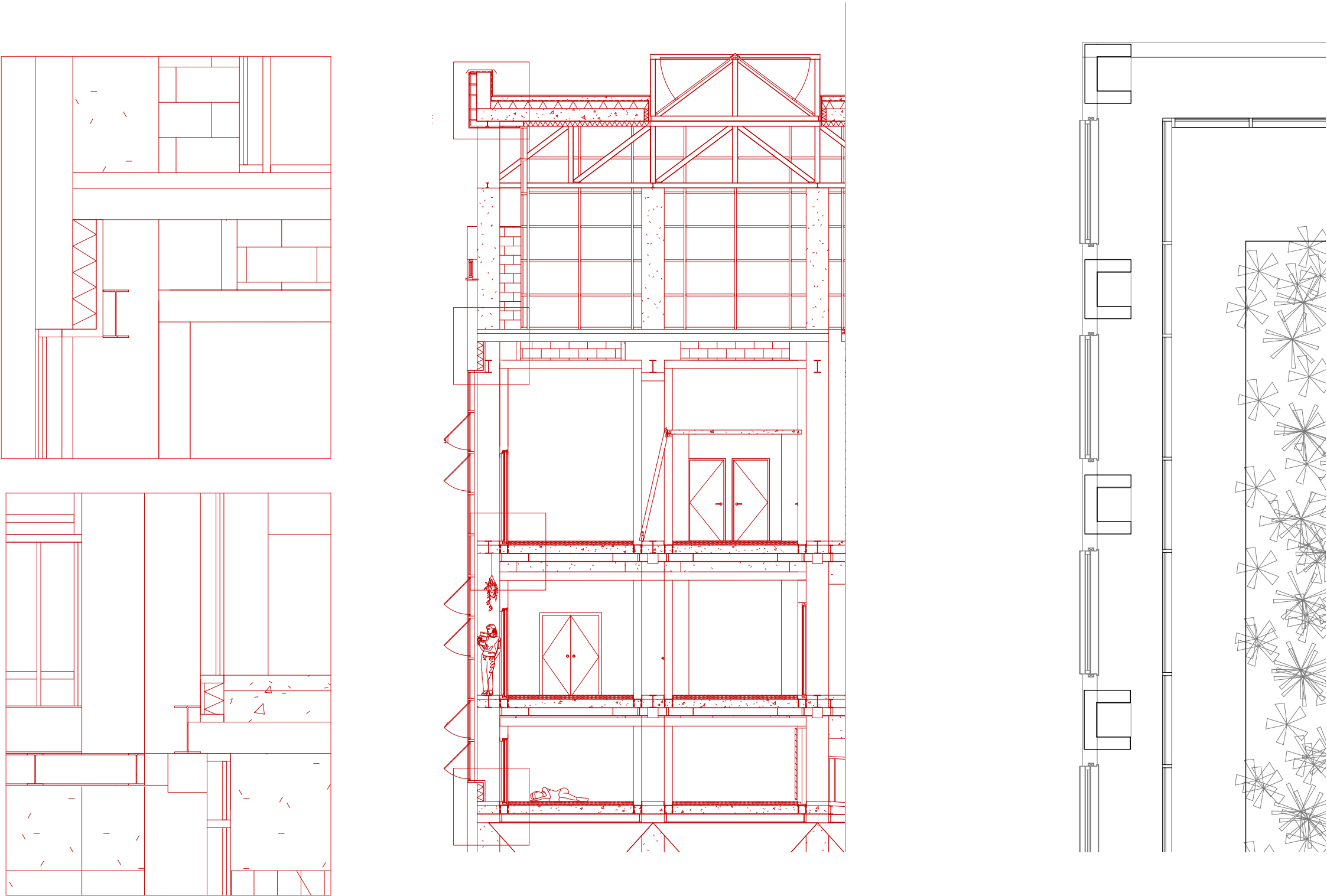
EXISTING FACADE

DETAILS AND CONSTRUCTION



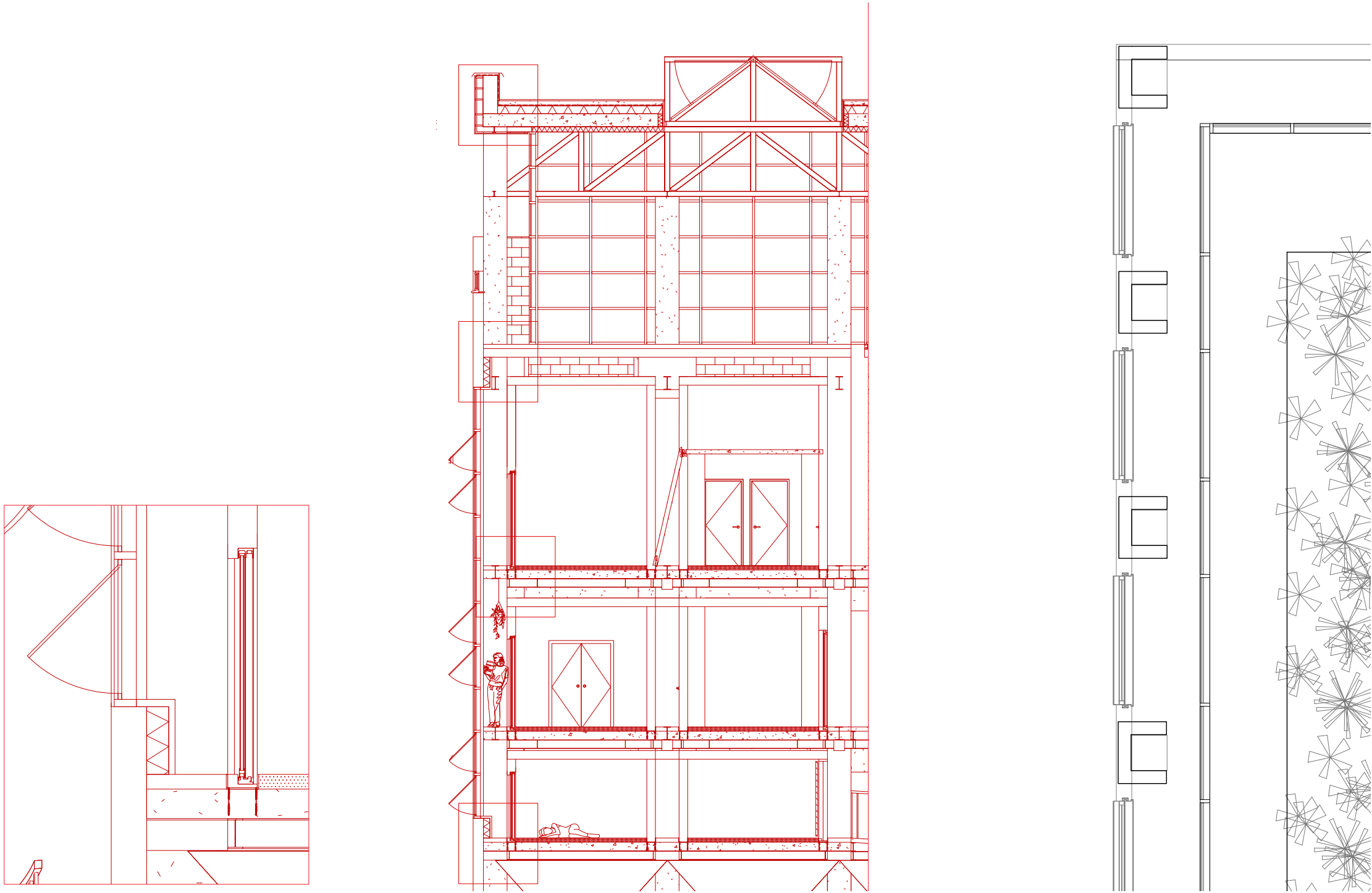
EXISTING FACADE

DETAILS AND CONSTRUCTION



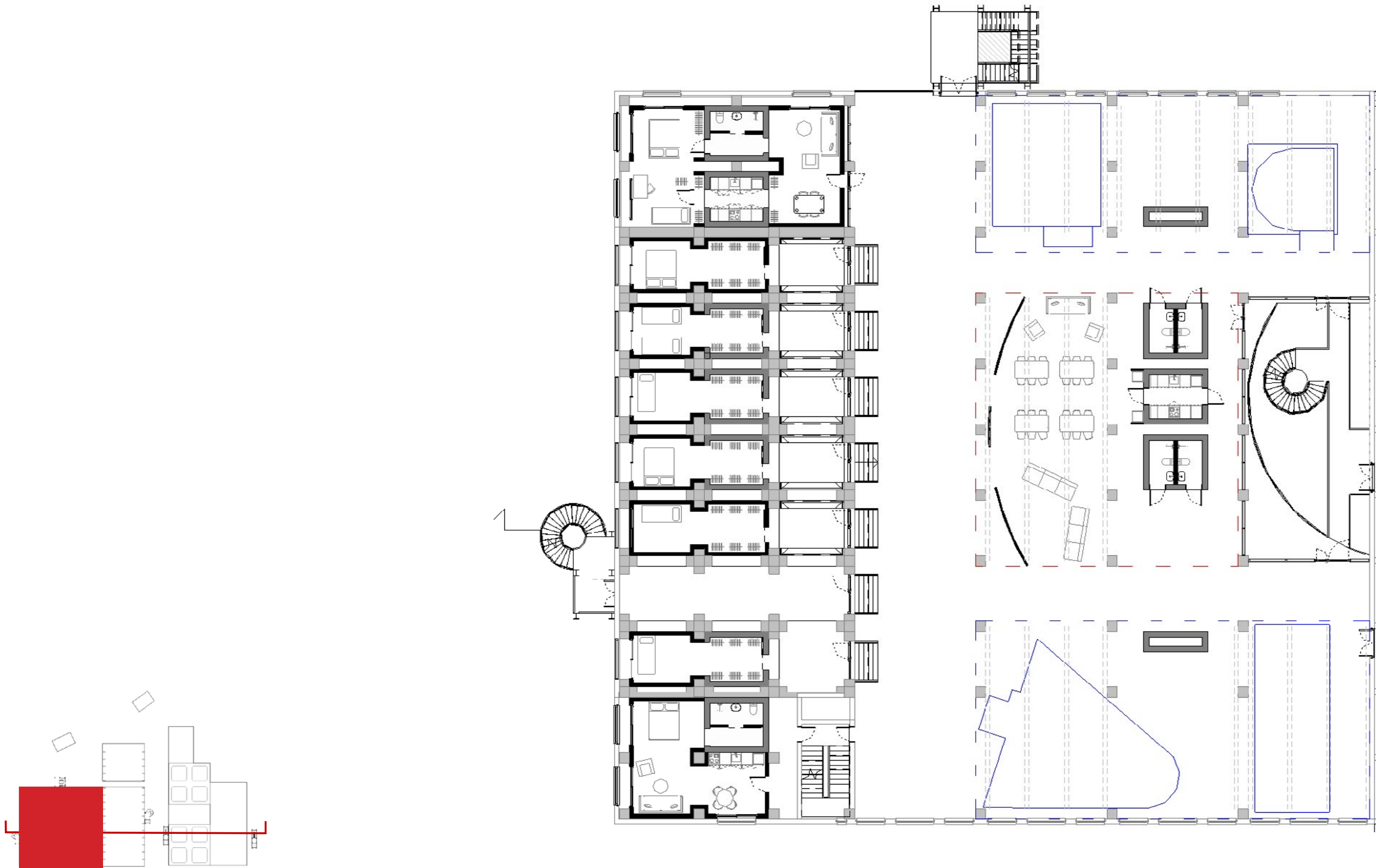
EXISTING FACADE

DETAILS AND CONSTRUCTION

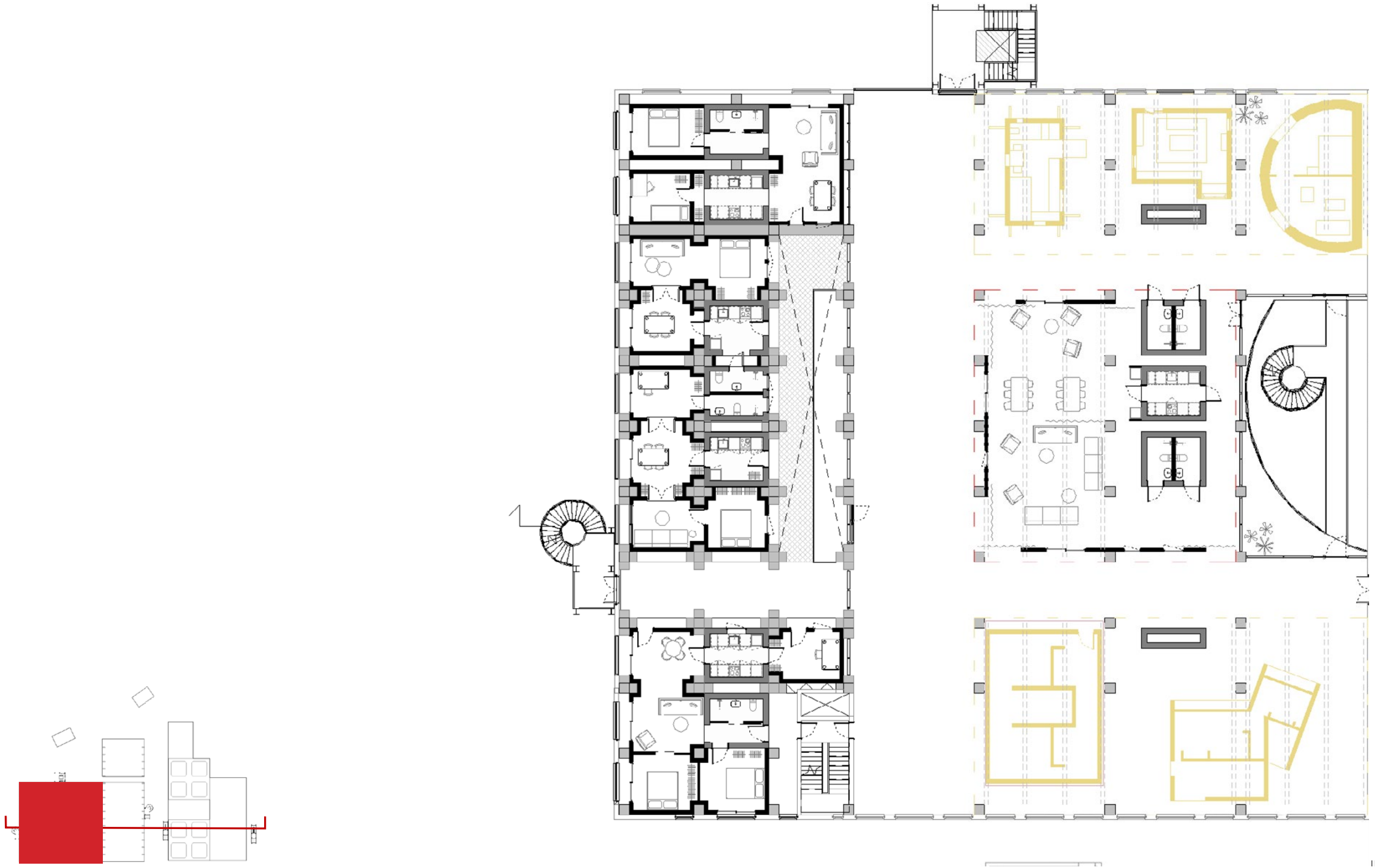


EXISTING FACADE

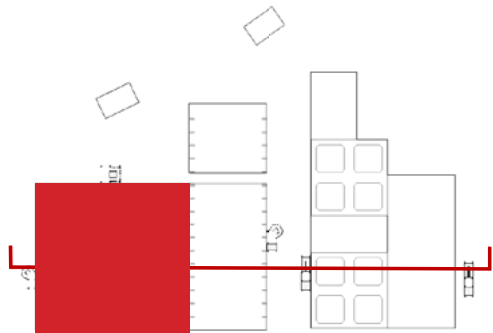
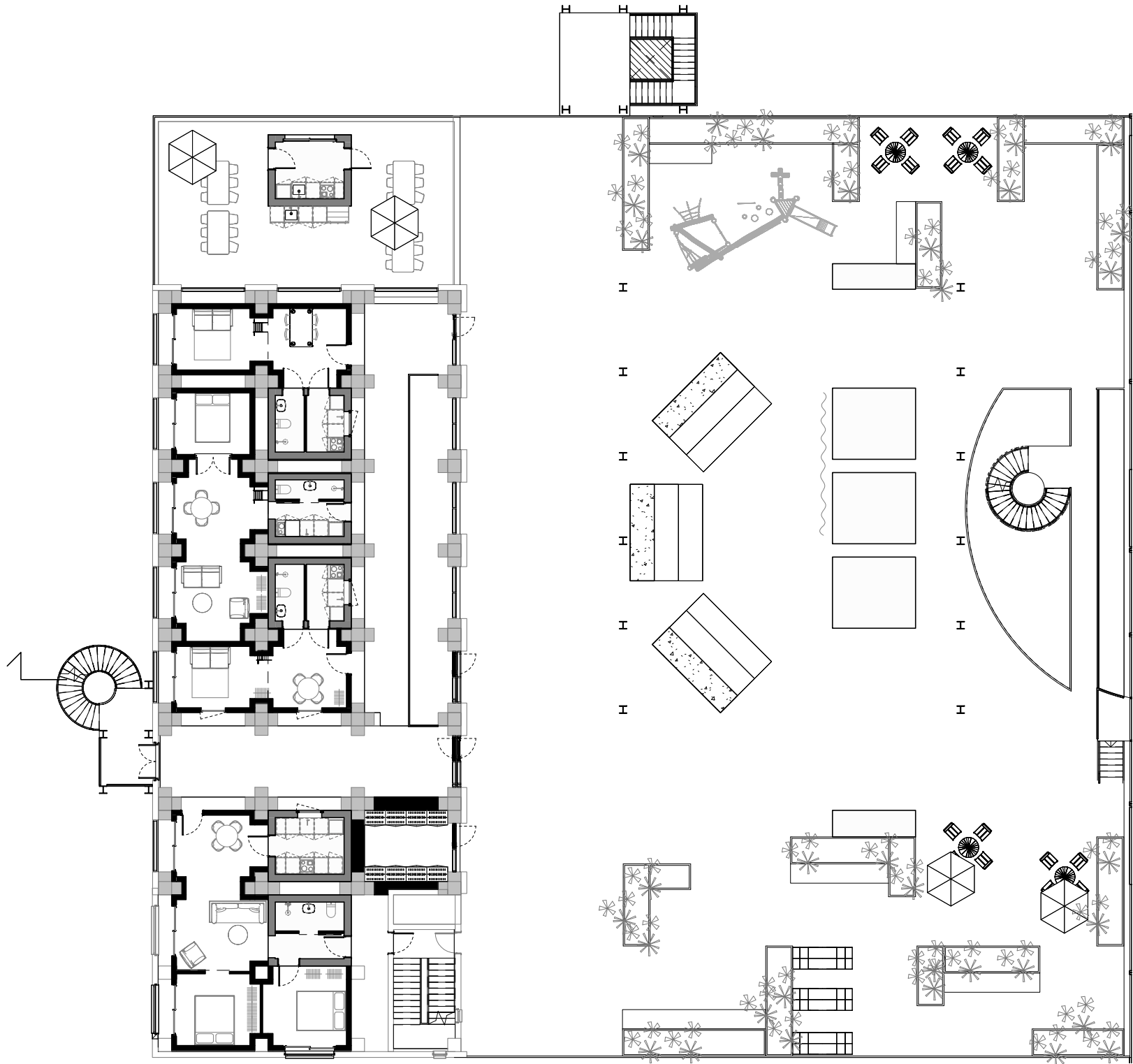
DETAILS AND CONSTRUCTION



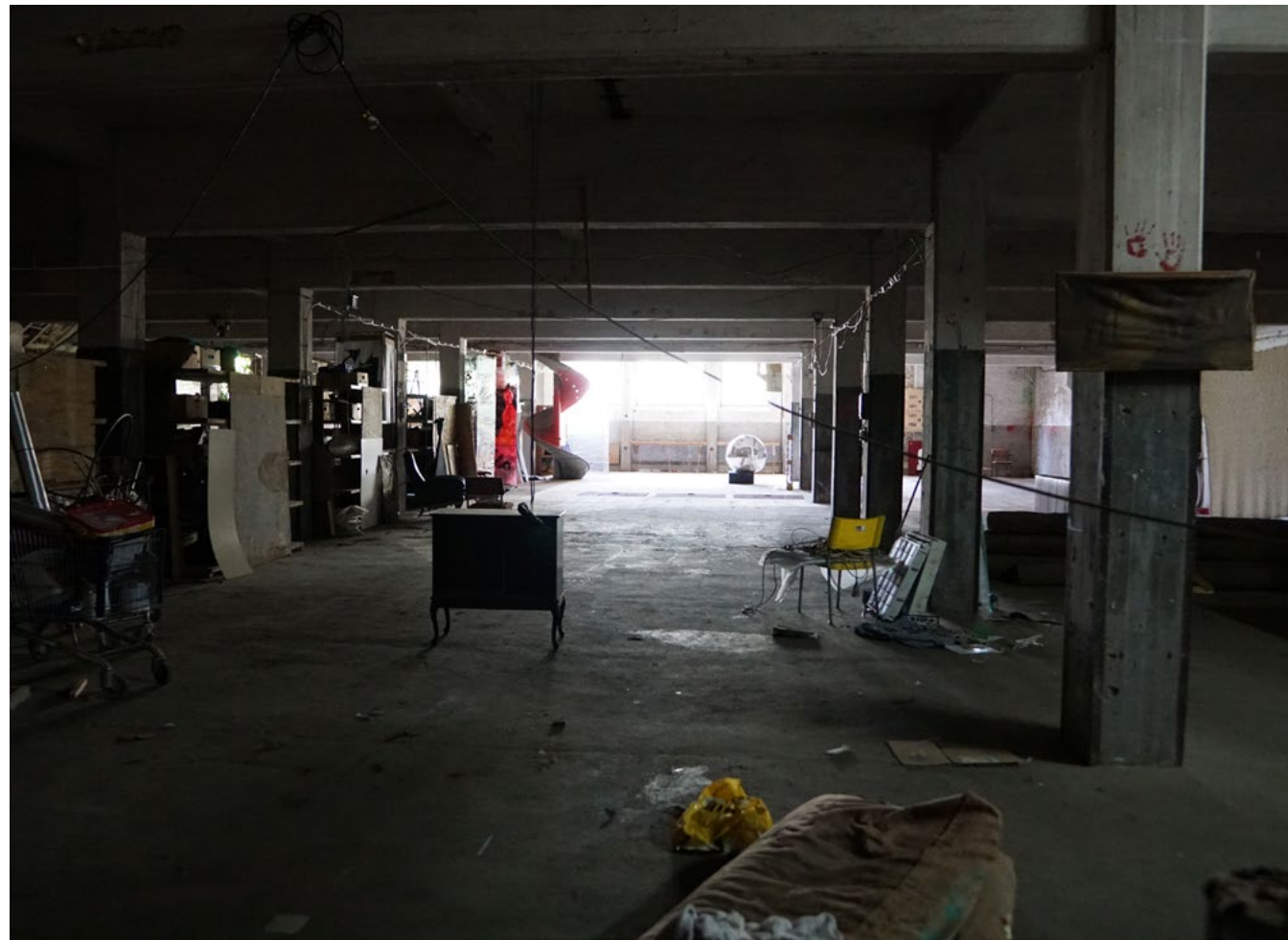
DETAILS AND CONSTRUCTION



DETAILS AND CONSTRUCTION



PROJECT



EXISTING STATE

PROJECT



EXISTING STATE

PROJECT



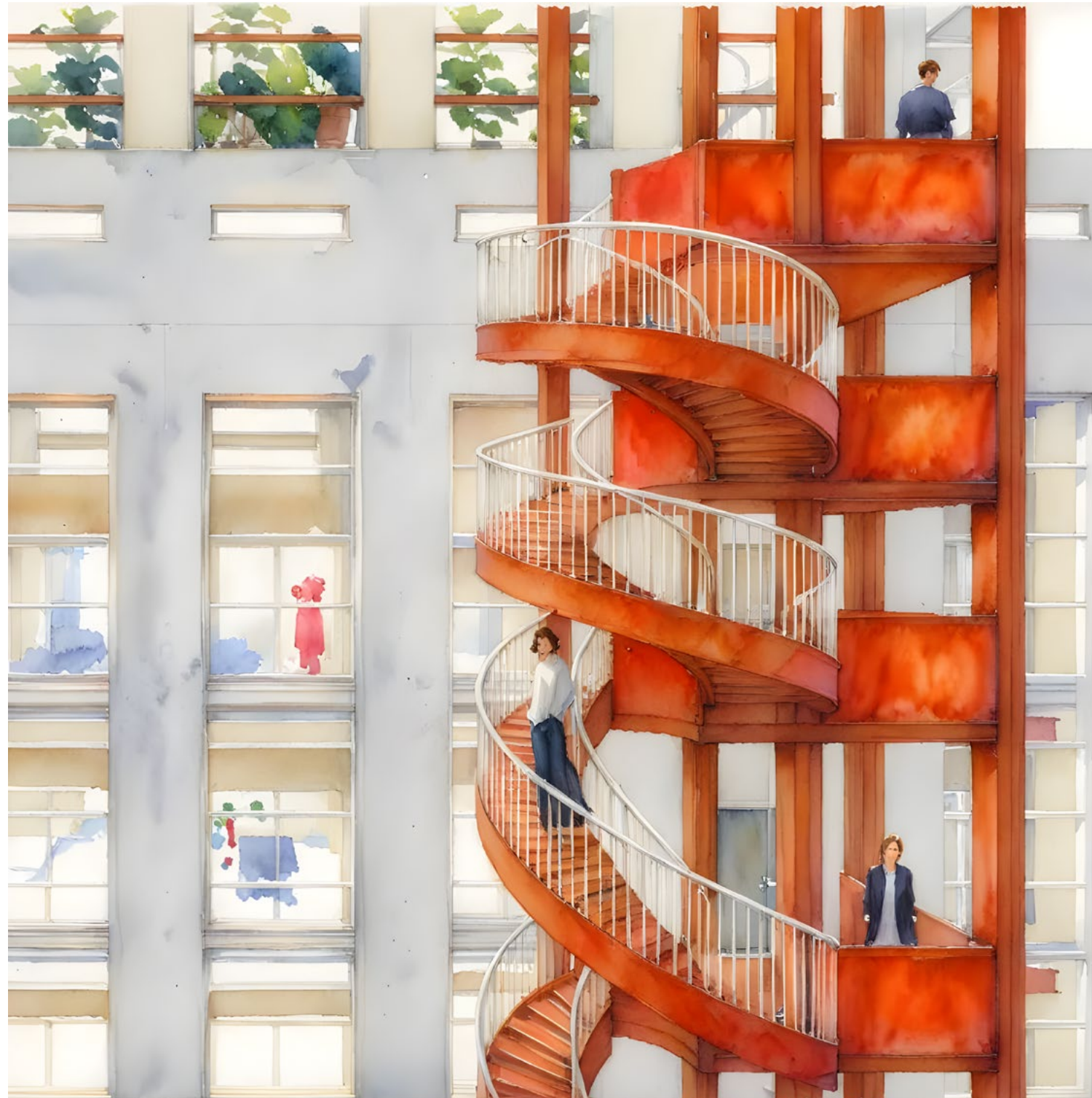
EXISTING STATE



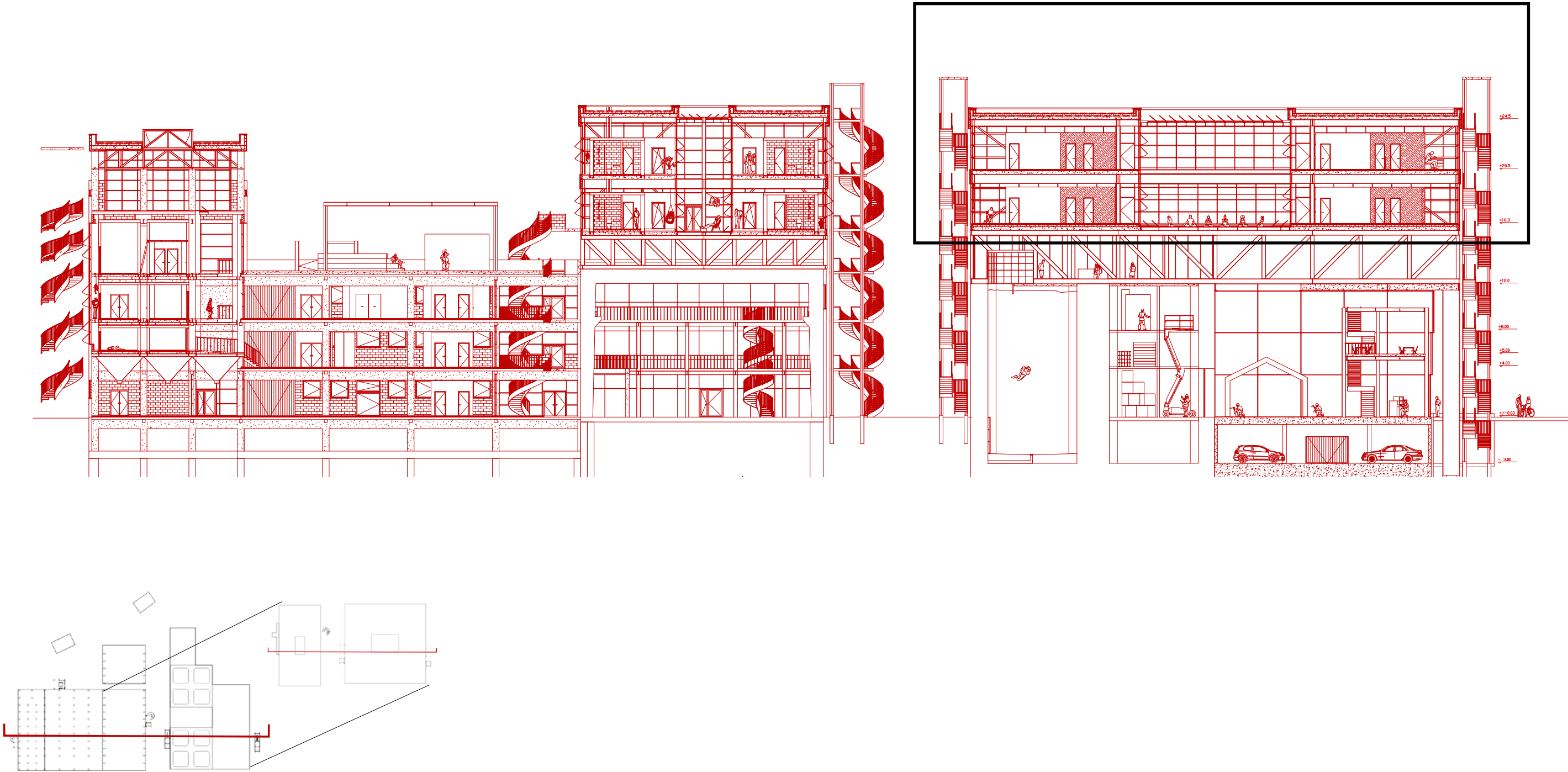
DETAILS AND CONSTRUCTION



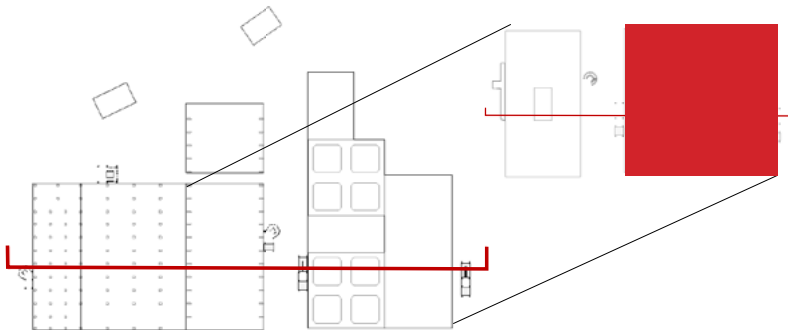
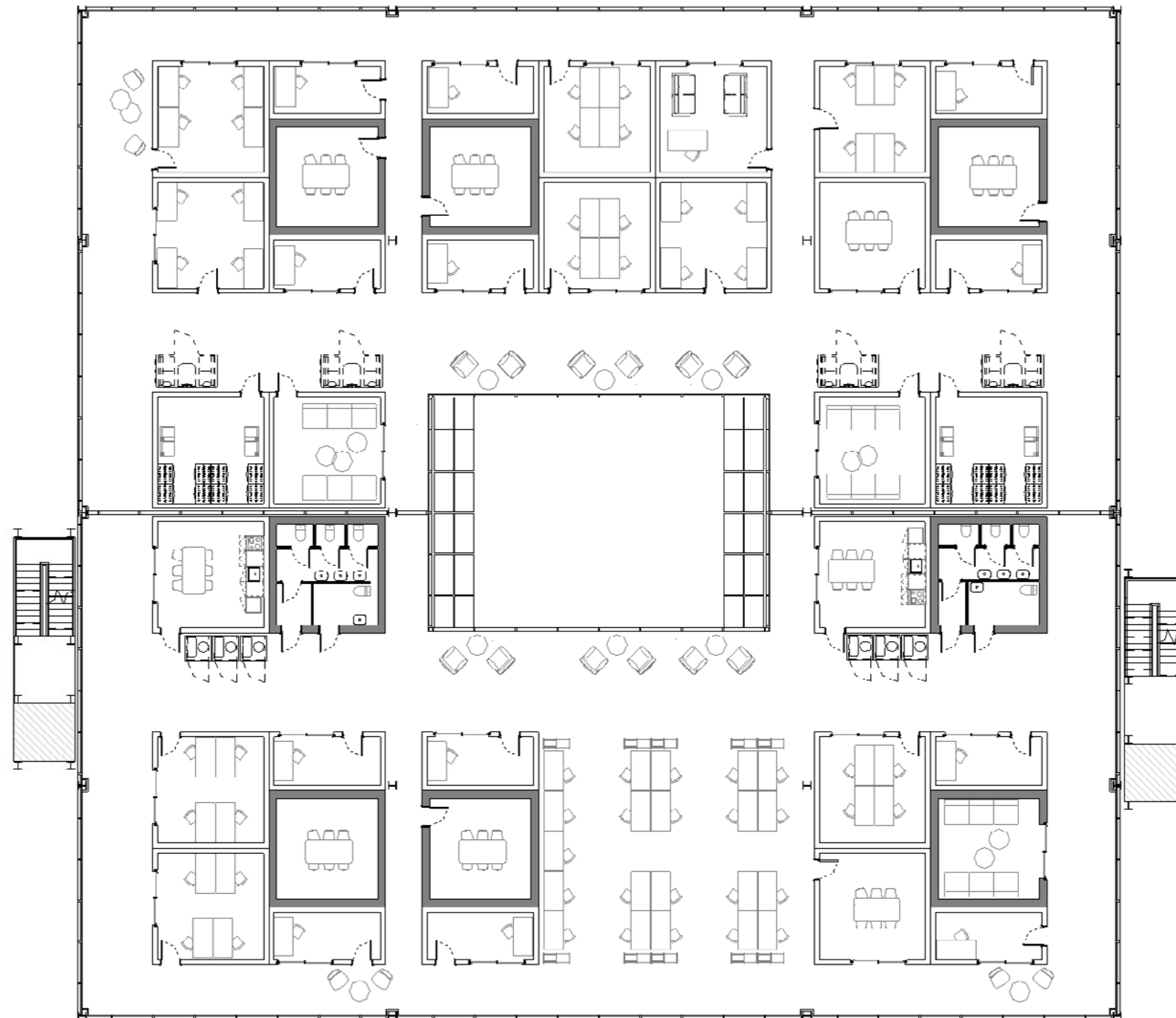
DETAILS AND CONSTRUCTION



PROJECT



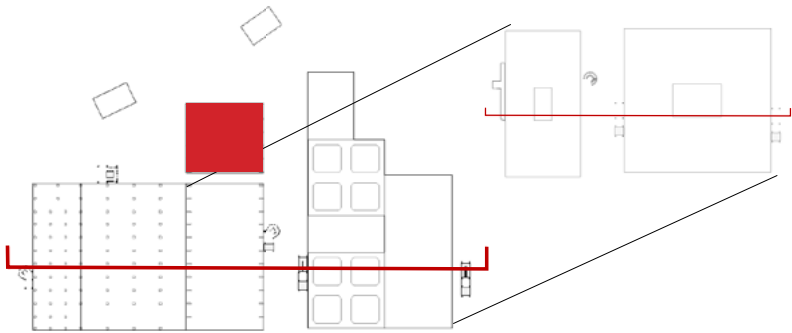
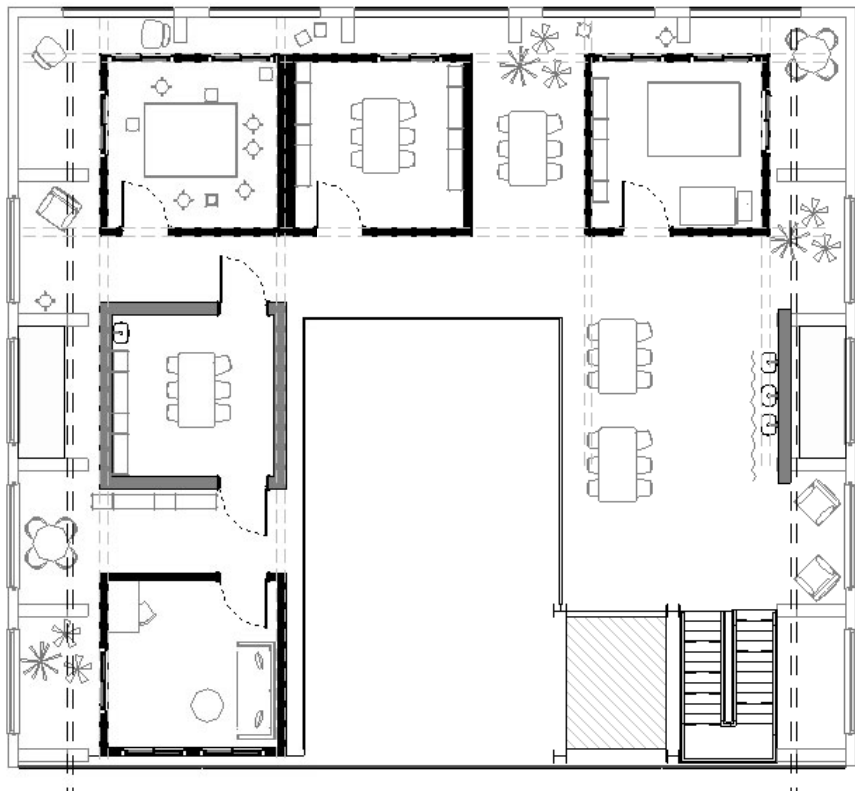
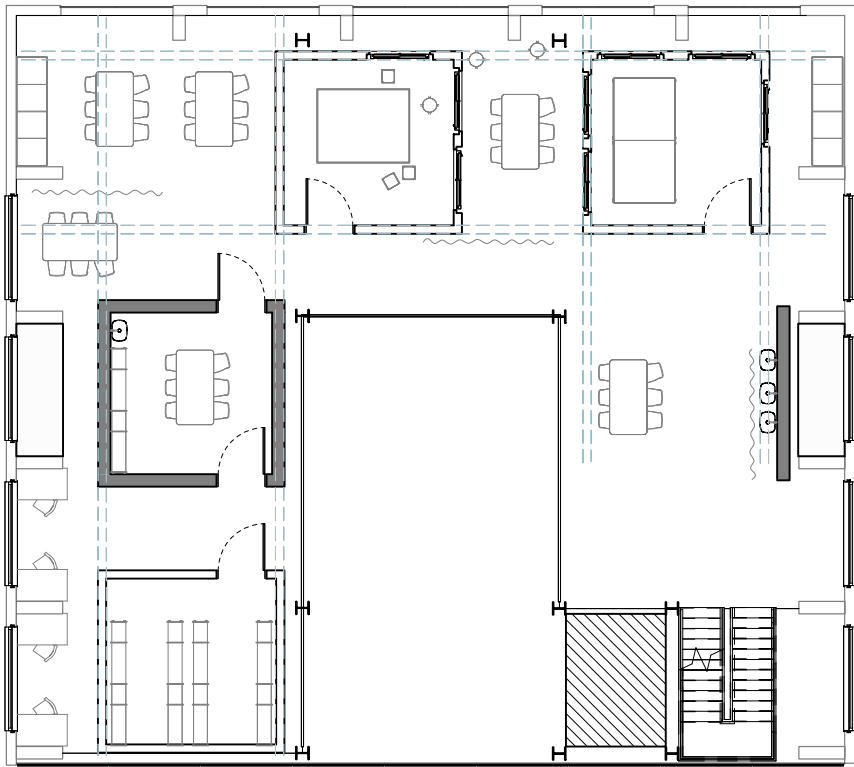
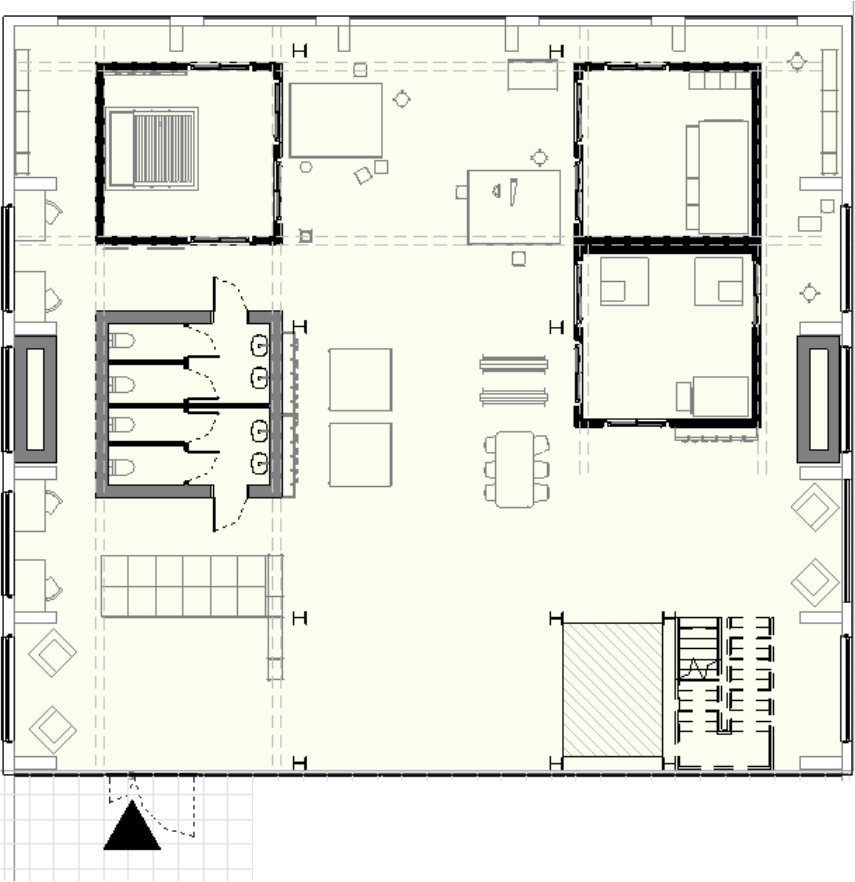
PROJECT



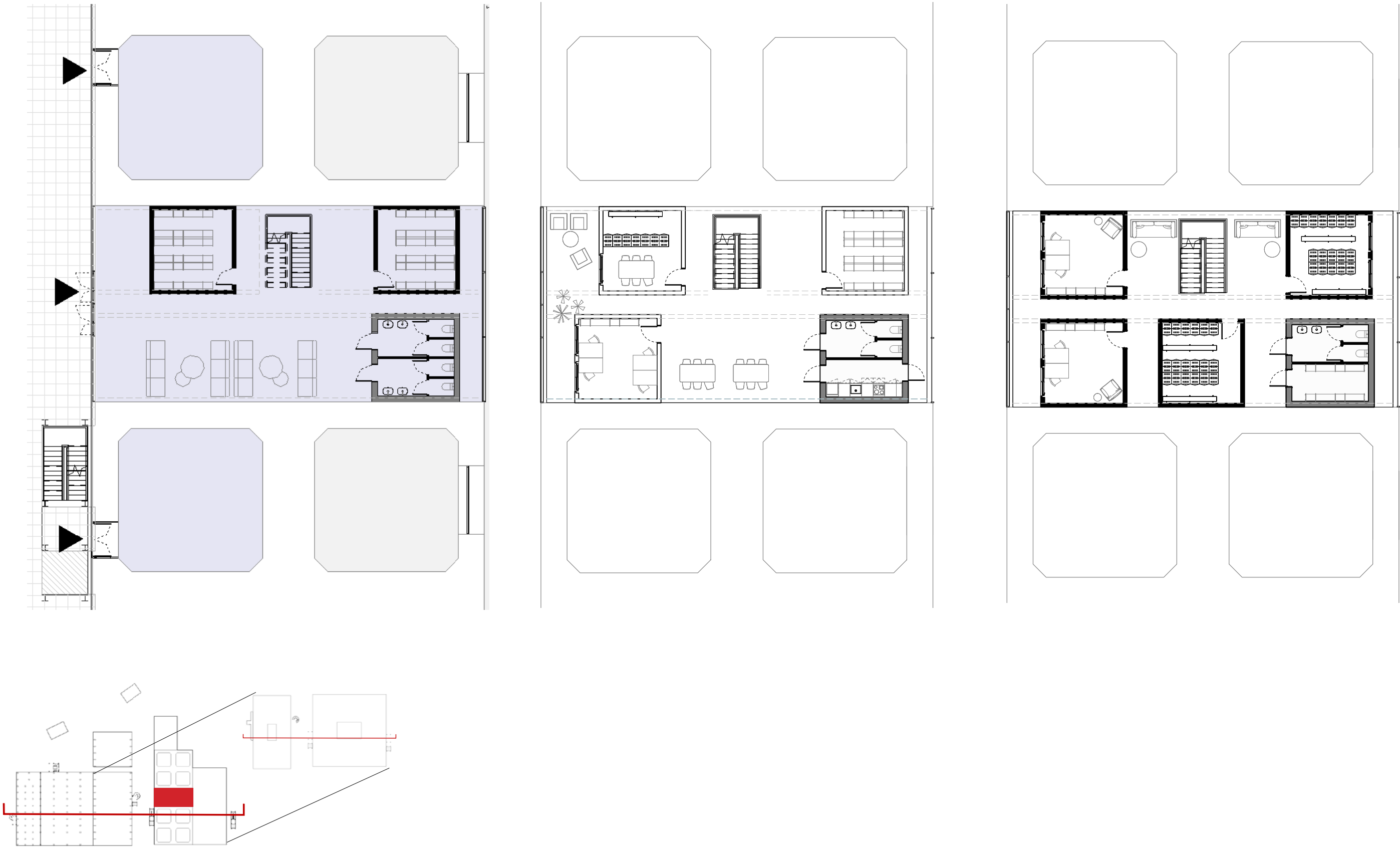
DETAILS AND CONSTRUCTION



PROJECT



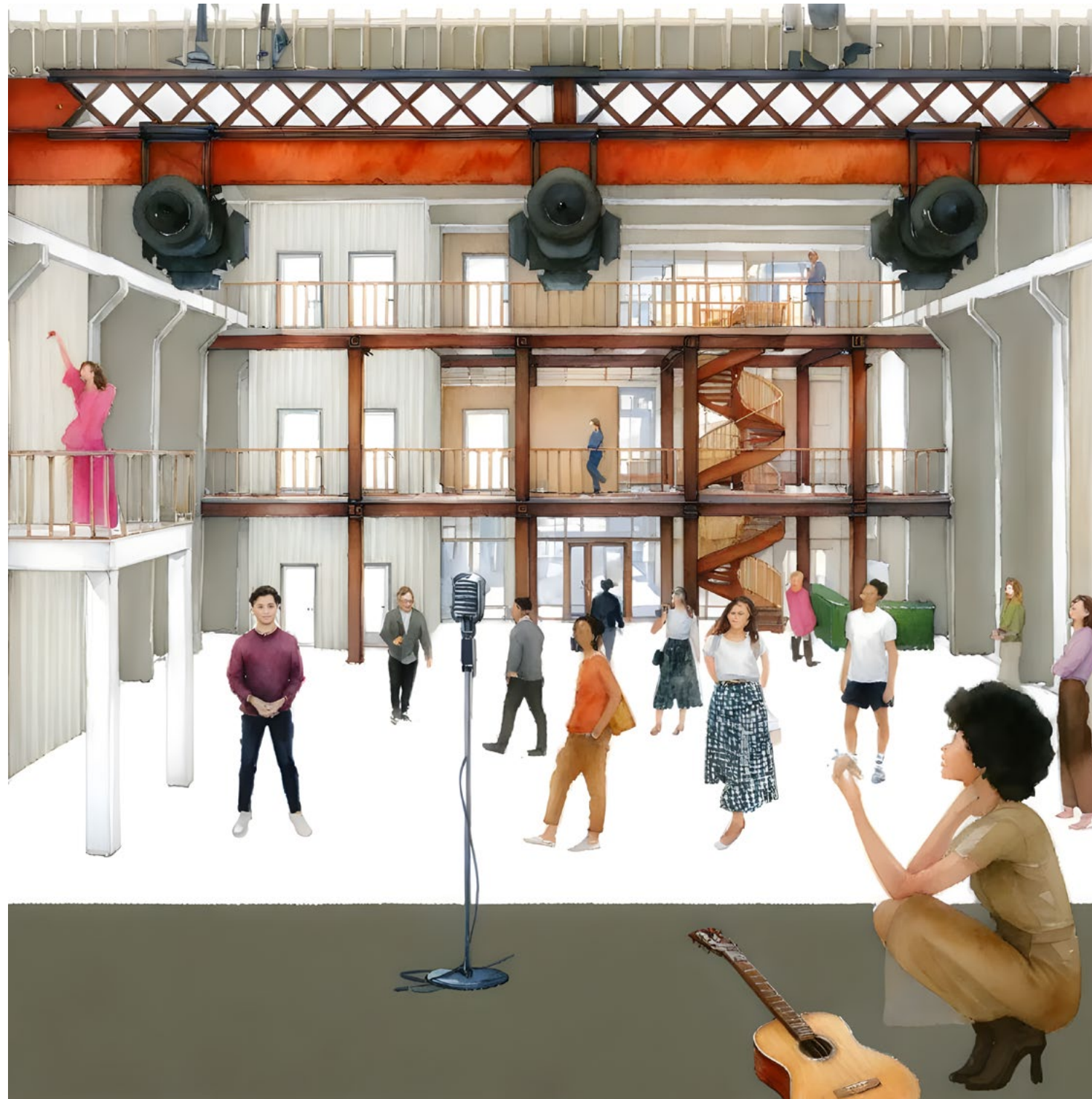
PROJECT

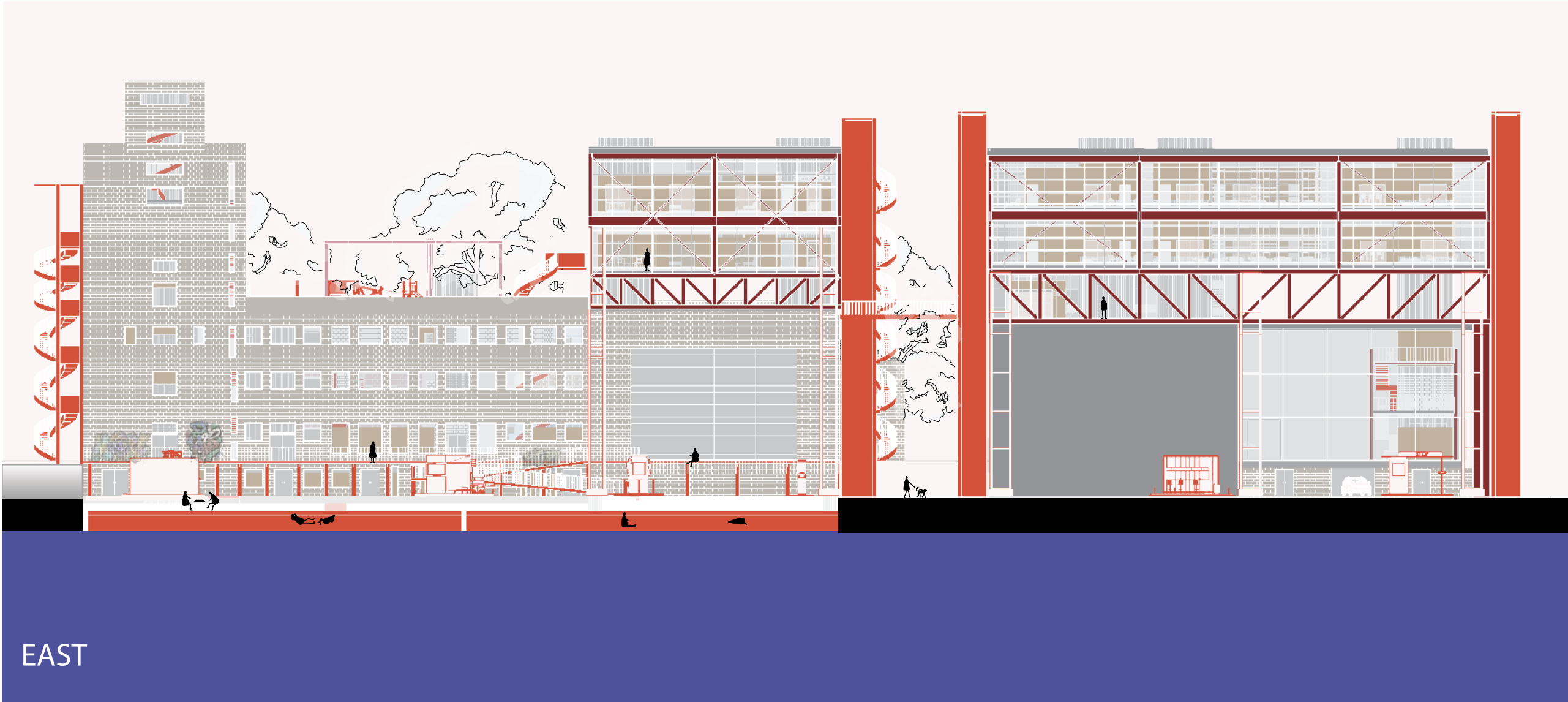


DETAILS AND CONSTRUCTION



DETAILS AND CONSTRUCTION





EAST FACADE



SOUTH FACADE



WEST FACADE



NORTH FACADE

CONCLUSIONS

INCREMENTALITY

INCREMENTALITY

FLEXIBILITY

INCREMENTALITY

FLEXIBILITY

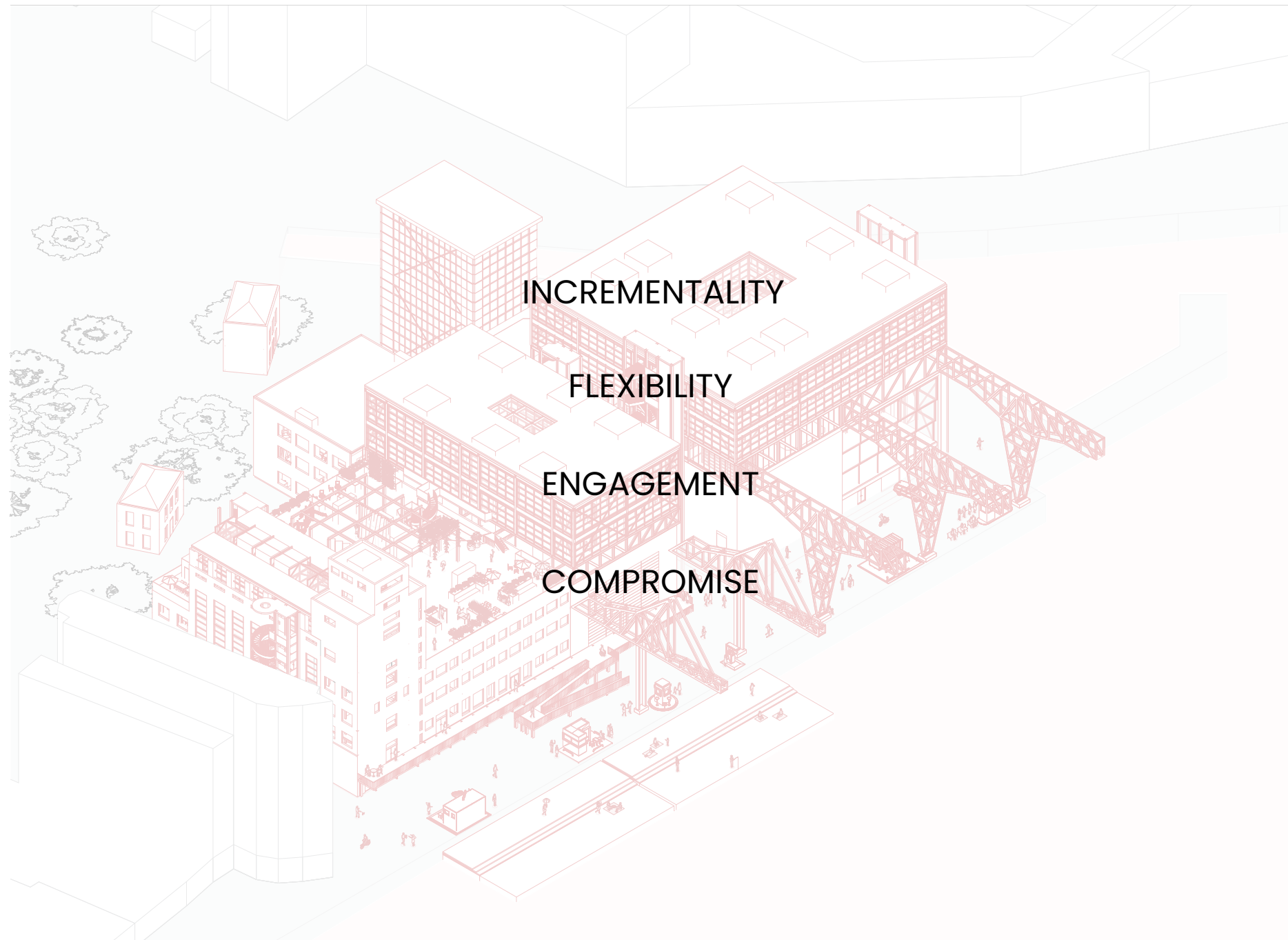
ENGAGEMENT

INCREMENTALITY

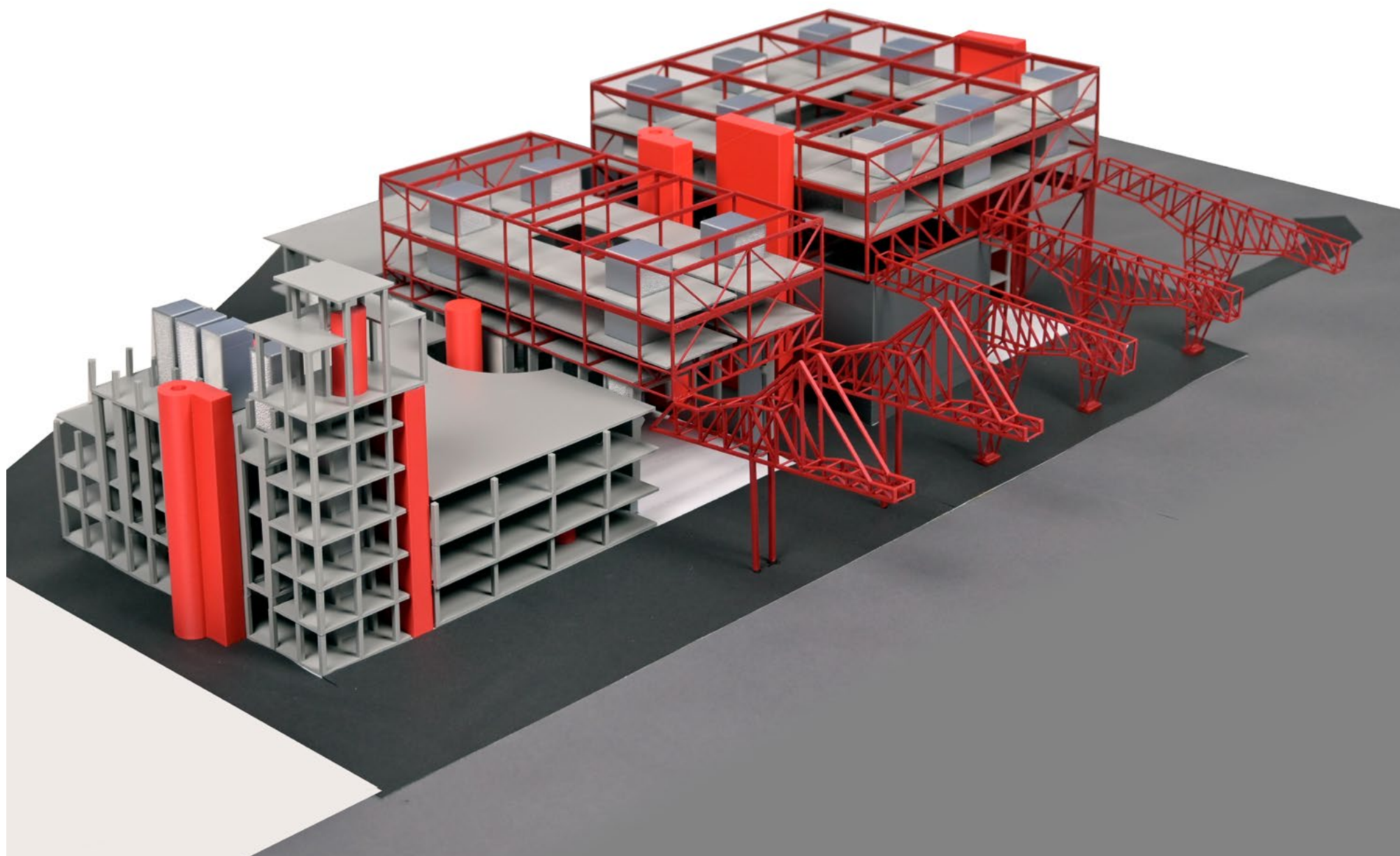
FLEXIBILITY

ENGAGEMENT

COMPROMISE



INCLUSIVE, VIBRANT
COMMUNITY-ORIENTED ENVIRONMENTS



THANK YOU