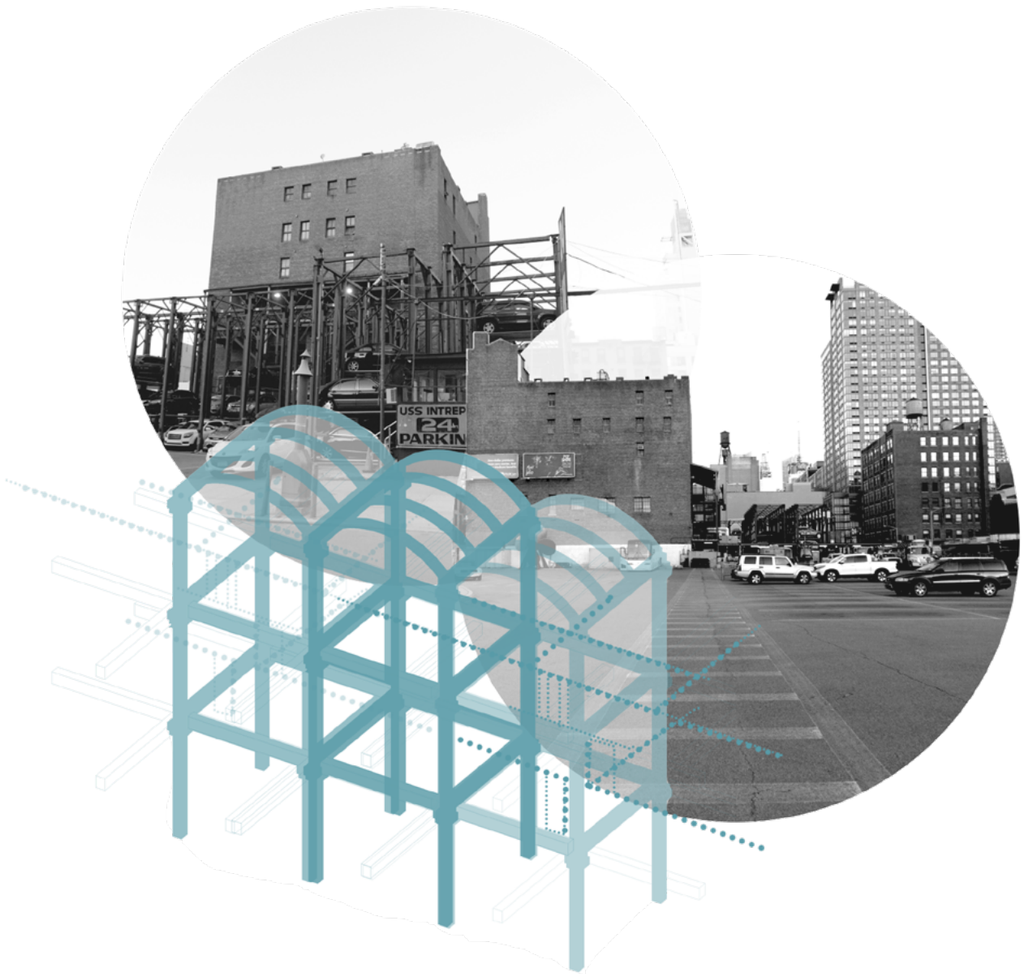
MADE IN MANHATTAN

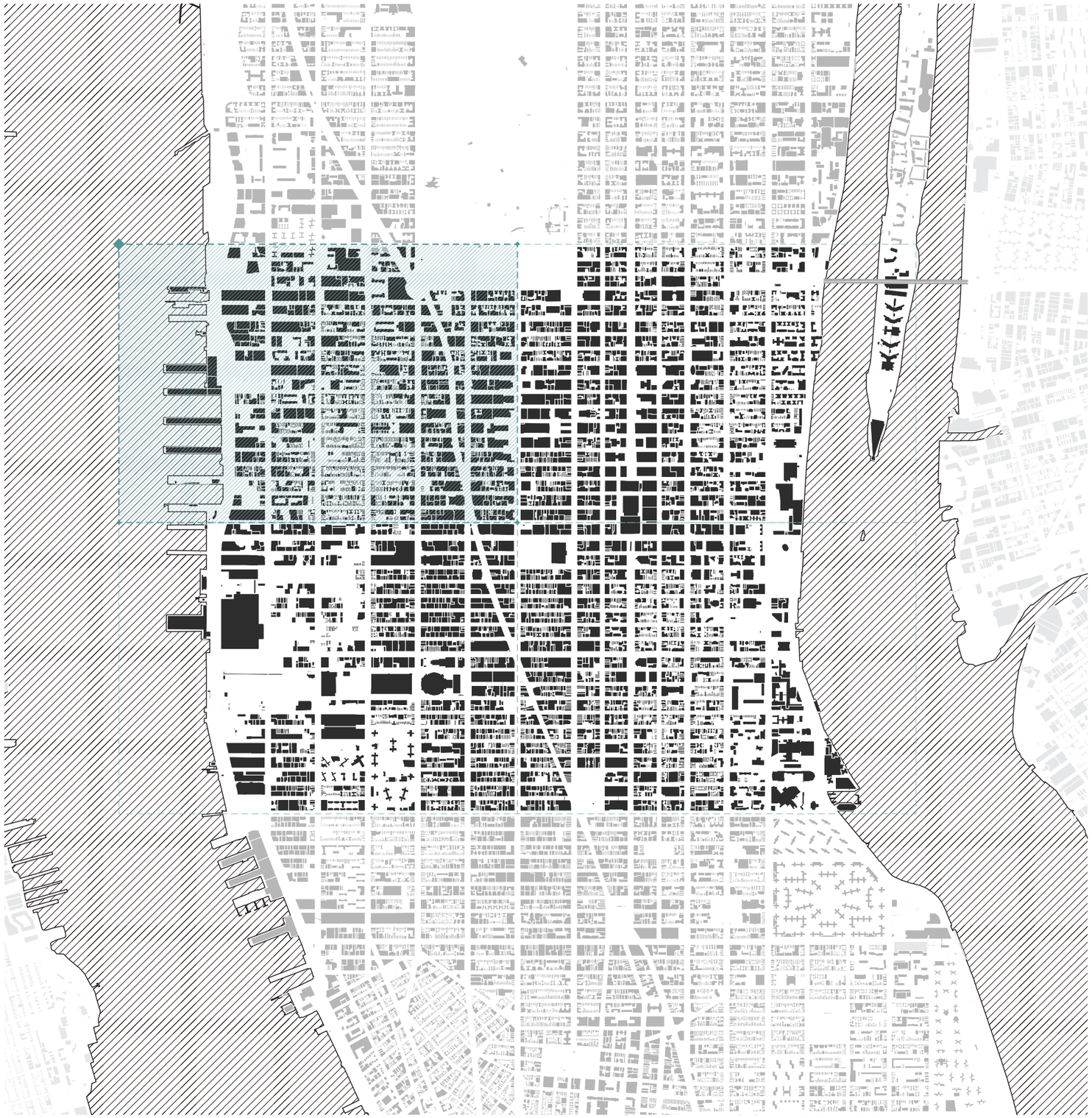
revitalizing community through the creative engine

· Hell’s Kitchen ·

Violeta Sánchez Sánchez | Graduation Project | Complex Projects | 2019-20 | TU Delft


USS INTREP
24
PARKIN

Group site

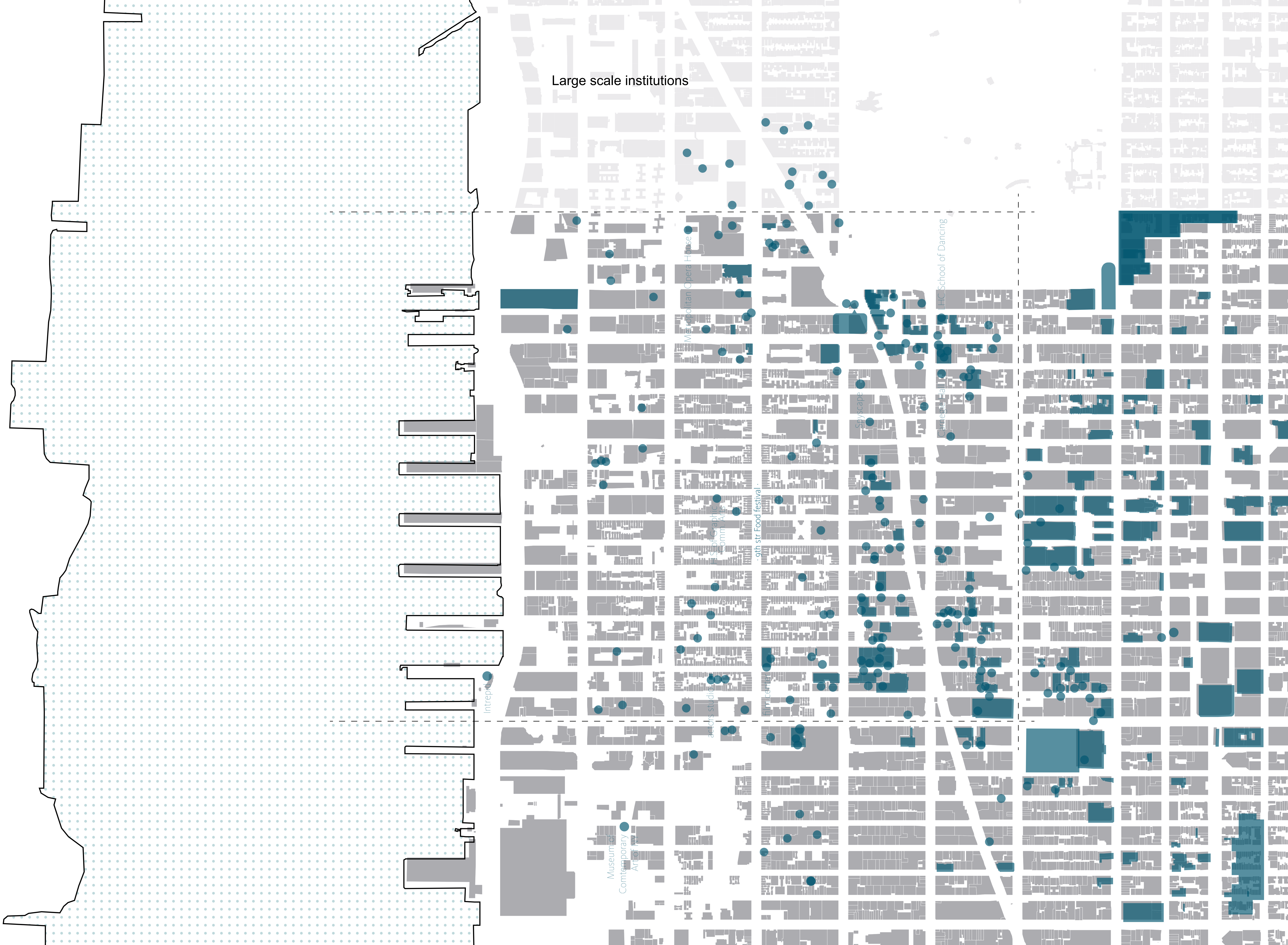


Identities

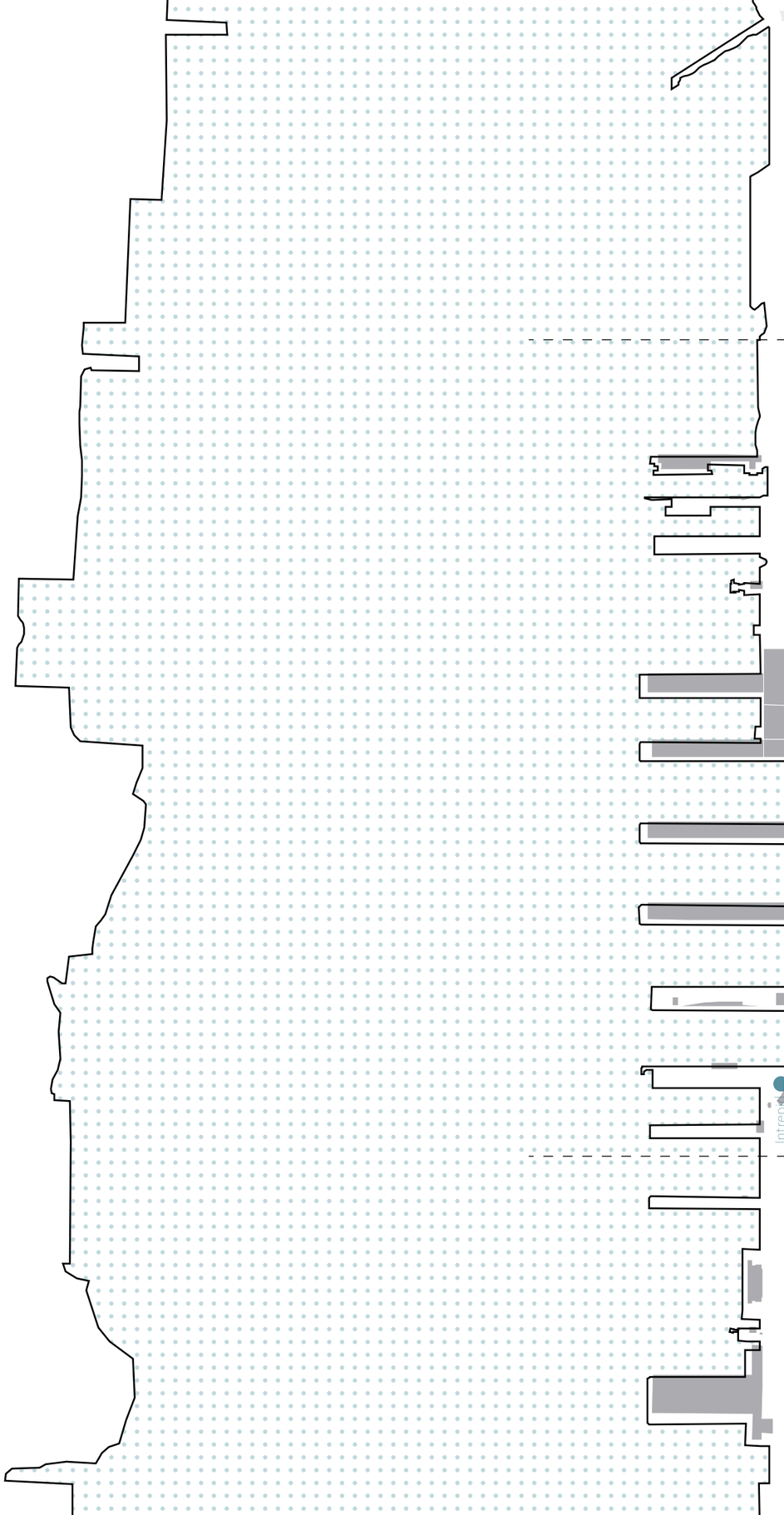
Clinton Piers

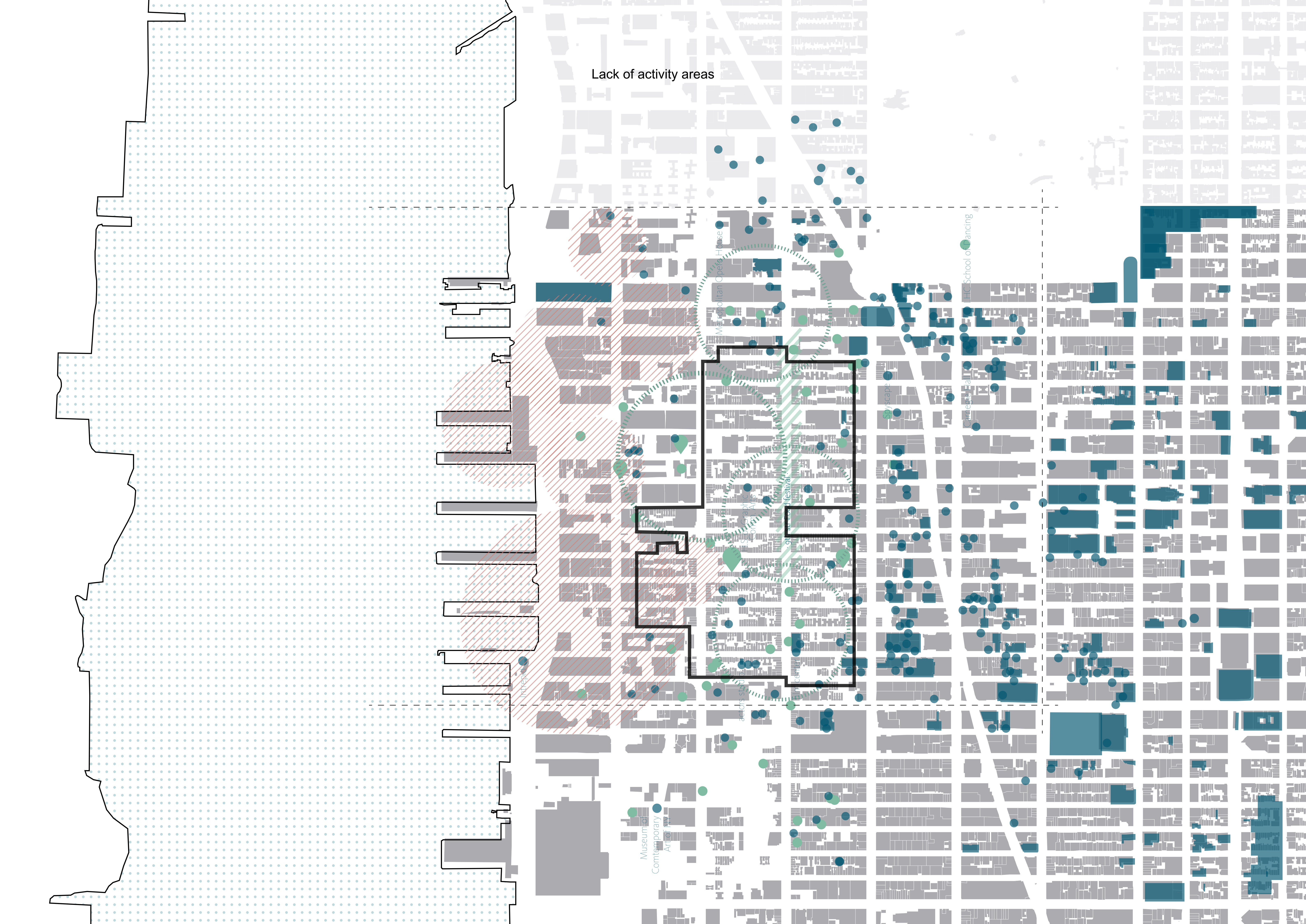
Hell's Kitchen

Midtown

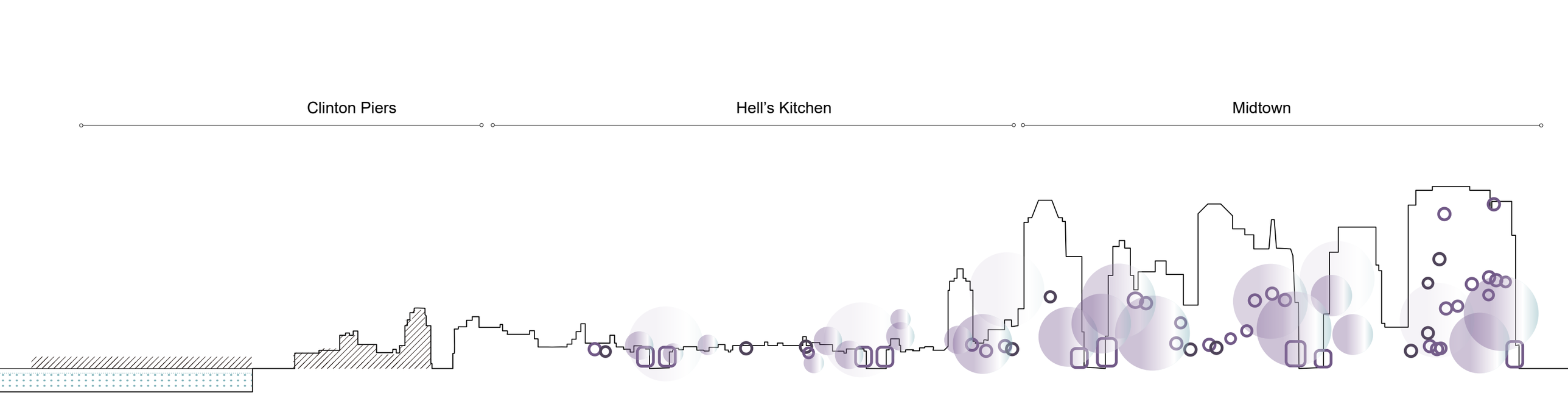

Large scale institutions
Metropolitan Opera House
HC School of Dancing
9th str Food festival
Intrepid

Large scale + Small scale/independent institutions

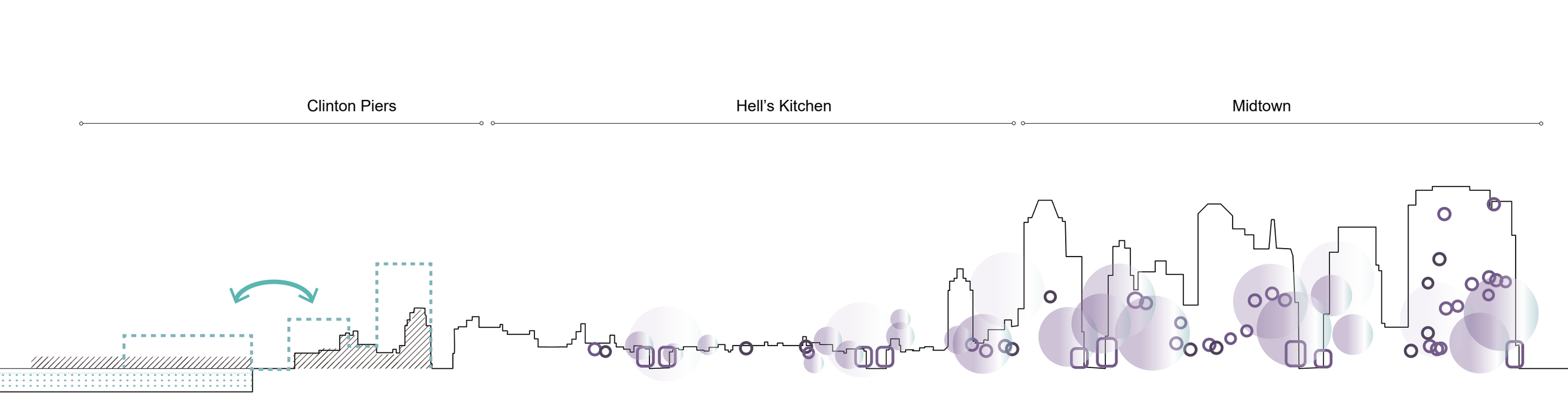



Lack of activity areas

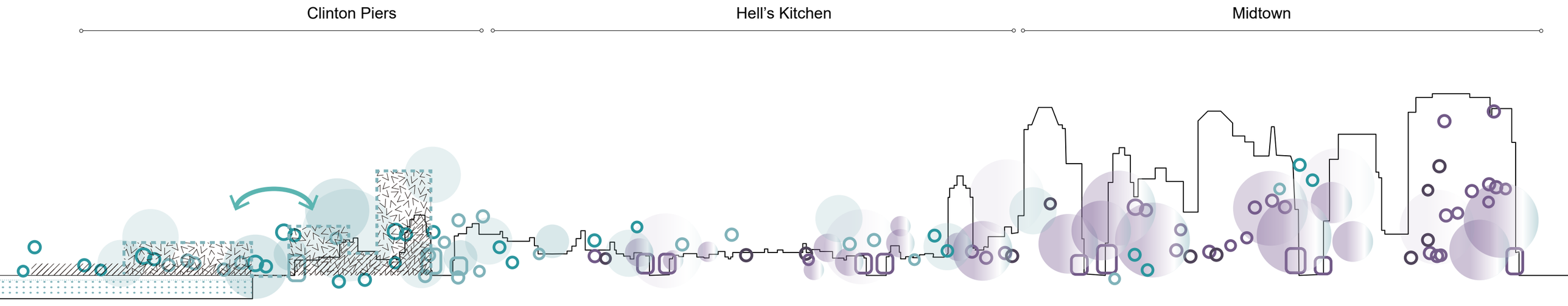
Current situation

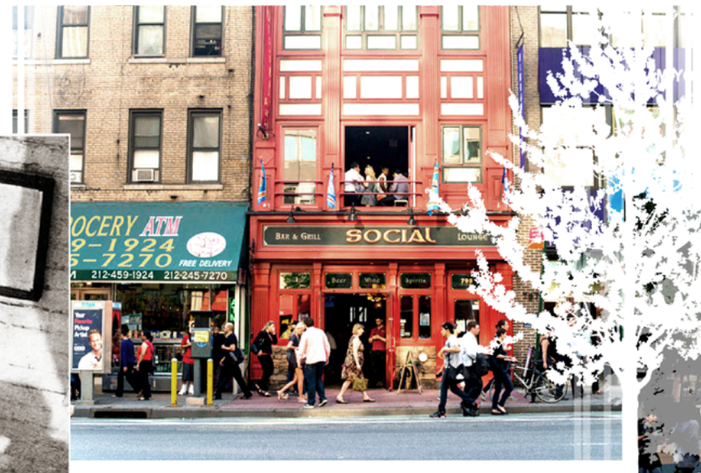


Group strategy



Group vision





Preexisting values in the area

artistic/cultural relevance

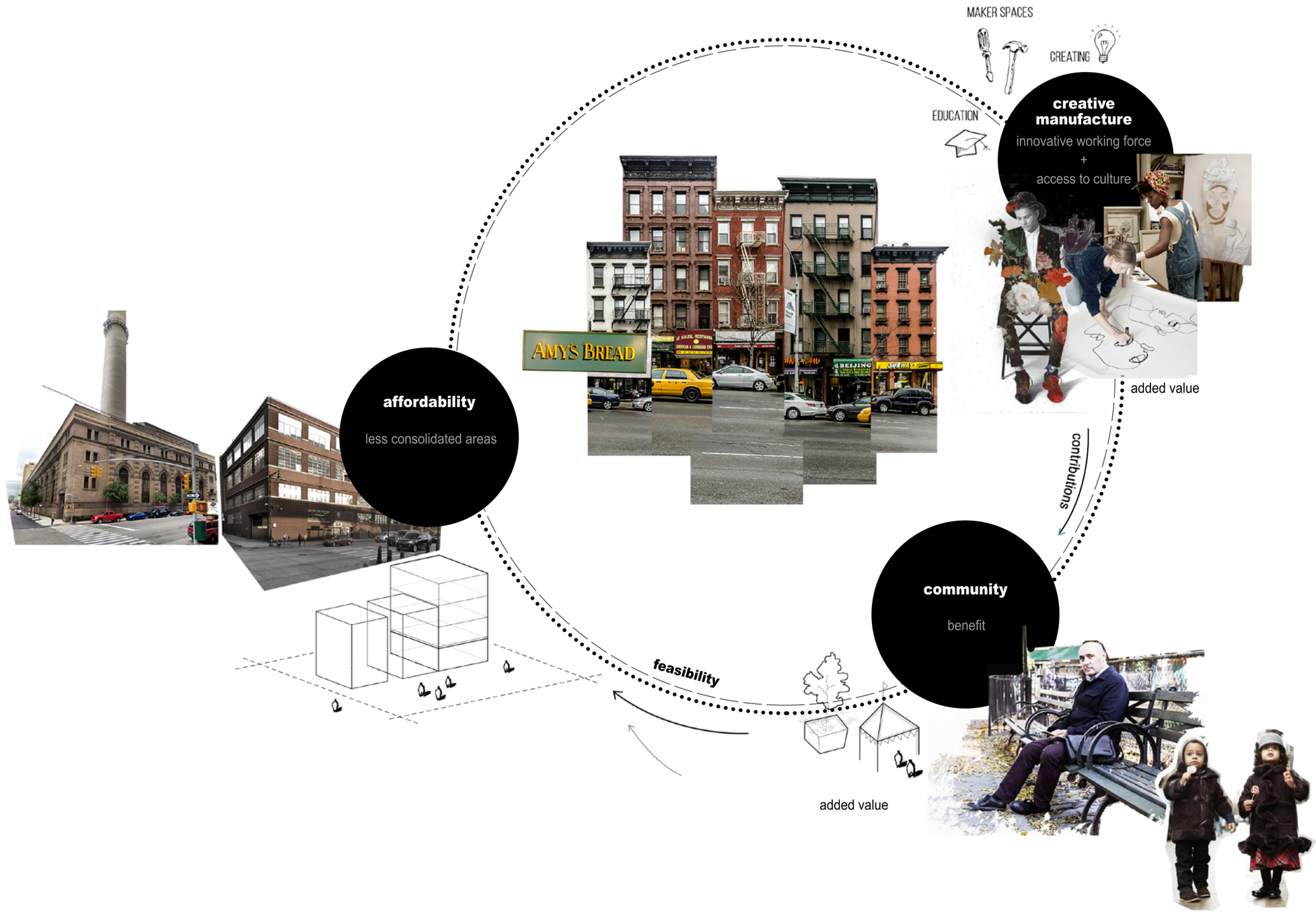
local commerces/character

industry

Hell’s Kitchen playground

mural expressing community relevance

willigness of local community


MAKER SPACES
CREATING
EDUCATION
creative manufacture
innovative working force
+
access to culture
added value
contributions
community
benefit
added value
feasibility
affordability
less consolidated areas
AMY'S BREAD

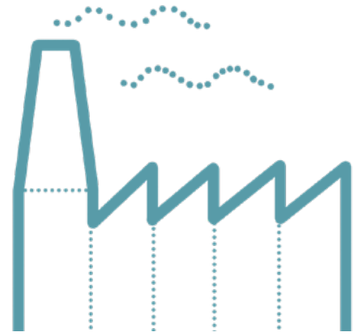
project aim

special mixed use district

encourage the development of productive and dynamic employment centers

unleash commercial and industrial growth and transform industrial district

creatives

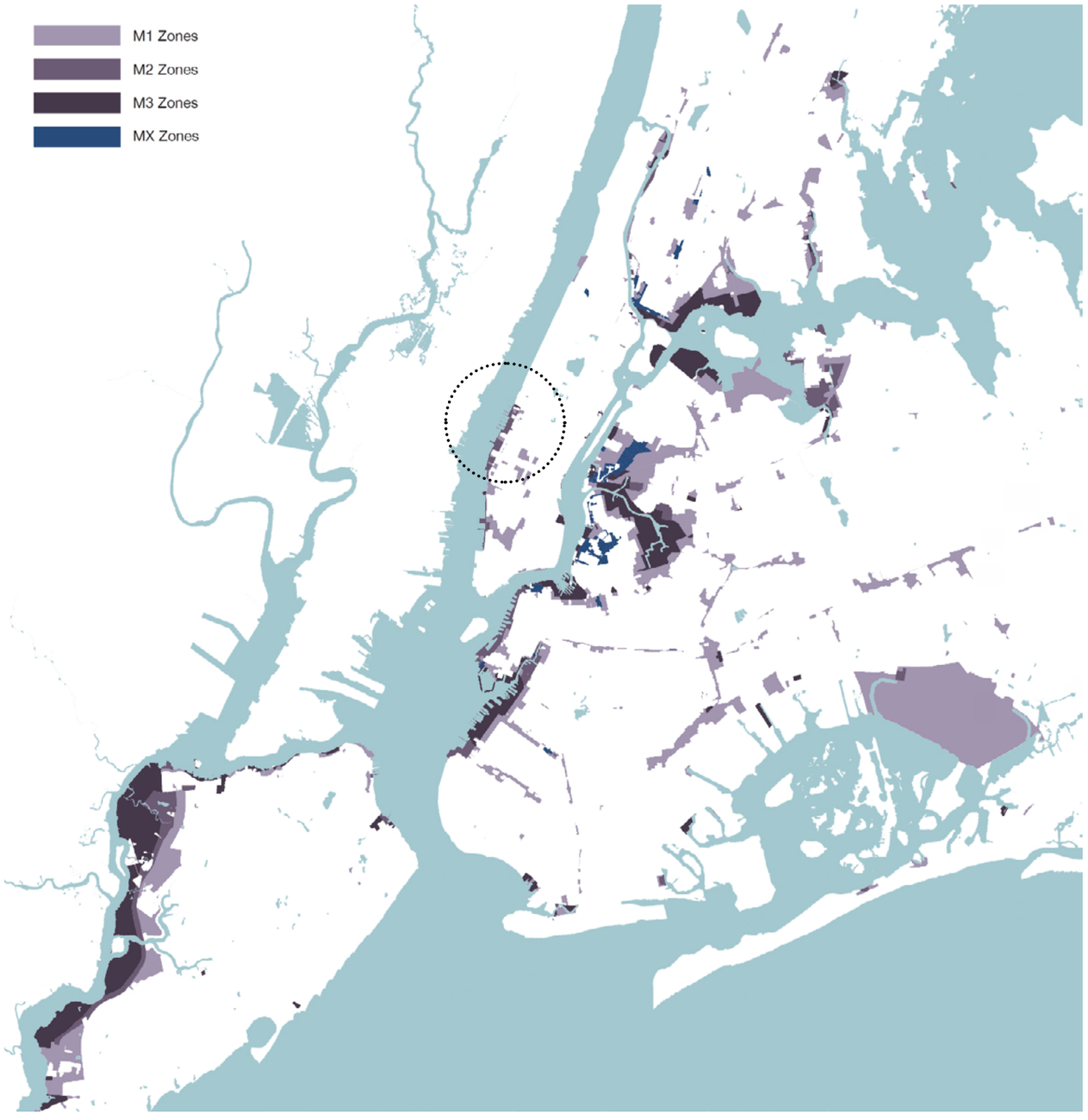


light manufacturing

Engines of Opportunity:

Reinvigorating New York City’s Manufacturing Zones for the 21st Century

The New York City Council



Manufacturing zones in NYC

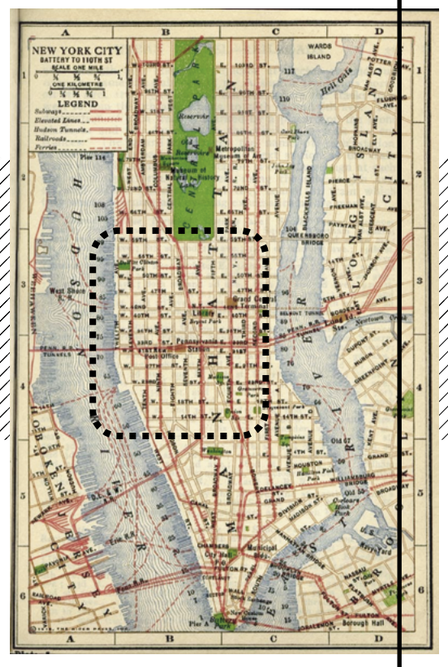
New York was a factory city

Research

Historical relevance of Industry in Manhattan

New York City = bastion of production

28% of the Tri-State region's workers engaged in blue-collar jobs



it was still the **largest manufacturing city** in America

Its industrial fame and economic dominance were largely based on its
extraordinary port and over 800-meter-long waterfront,
its vast infrastructure of shipping networks,
and its burgeoning /floreciente/ population.

Manhattan's factories south of Central Park engaged a workforce of
0,5 **million people**.

nowadays

A century earlier,
New York was the United States'

largest local market

and had the

widest global reach.

1860

nowadays

manufacturing was everywhere

- it was not relegated to a few districts
- it was not hidden
- it was integrated into urban life

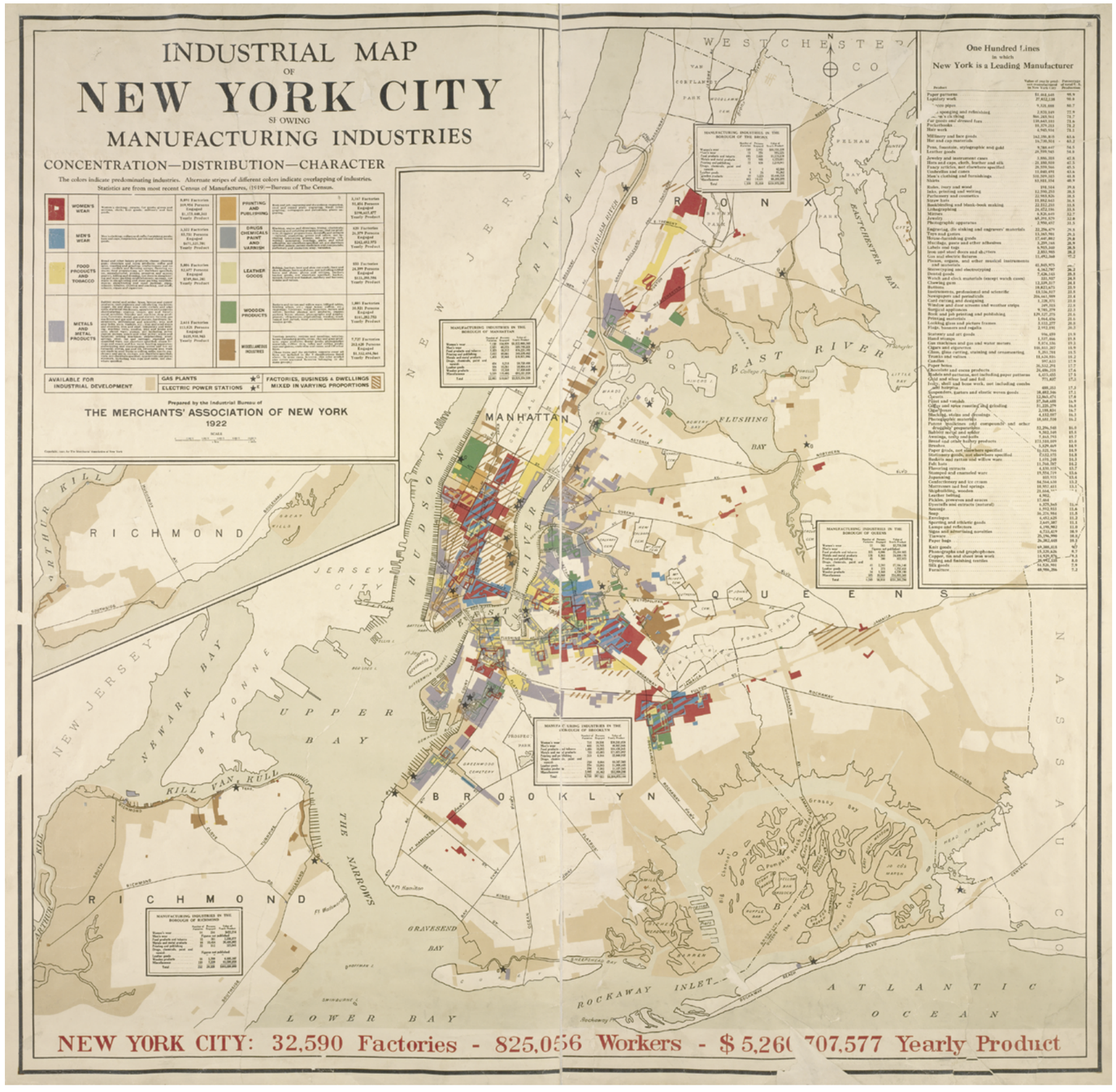
In Manhattan, where land was more expensive,

multistoried factories,
became the norm.

Industrial production
was enhanced with

clusters + informal networks

1890-1920s



nowadays

Food products

Breweries-sugar-molasses

women’s / men’s wear

boots-shoes-

hats and caps

printing + publishing

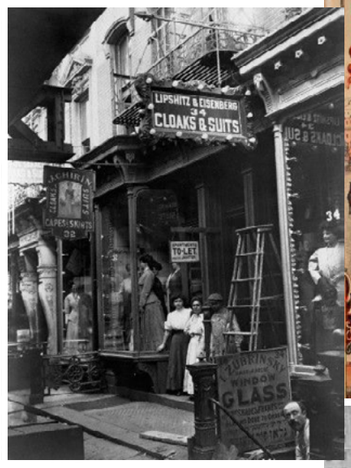
metals + metal products

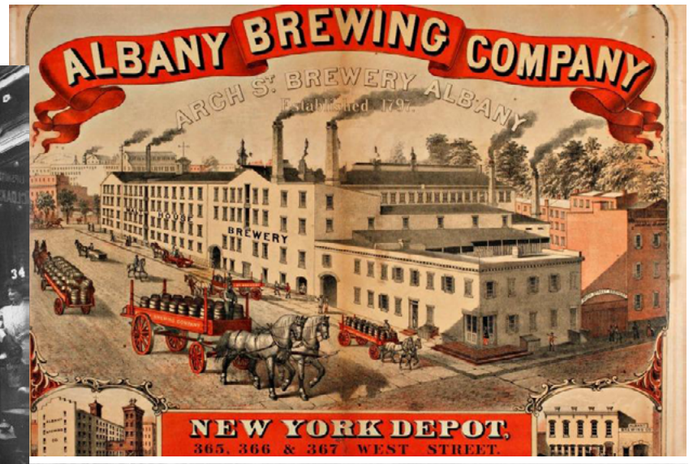
drugs-chemicals-paint and varnish

leather goods

wooden products

miscellaneous industries





1890-1920s

nowadays

heavy manufacturing declined in New York,

as in other American cities,

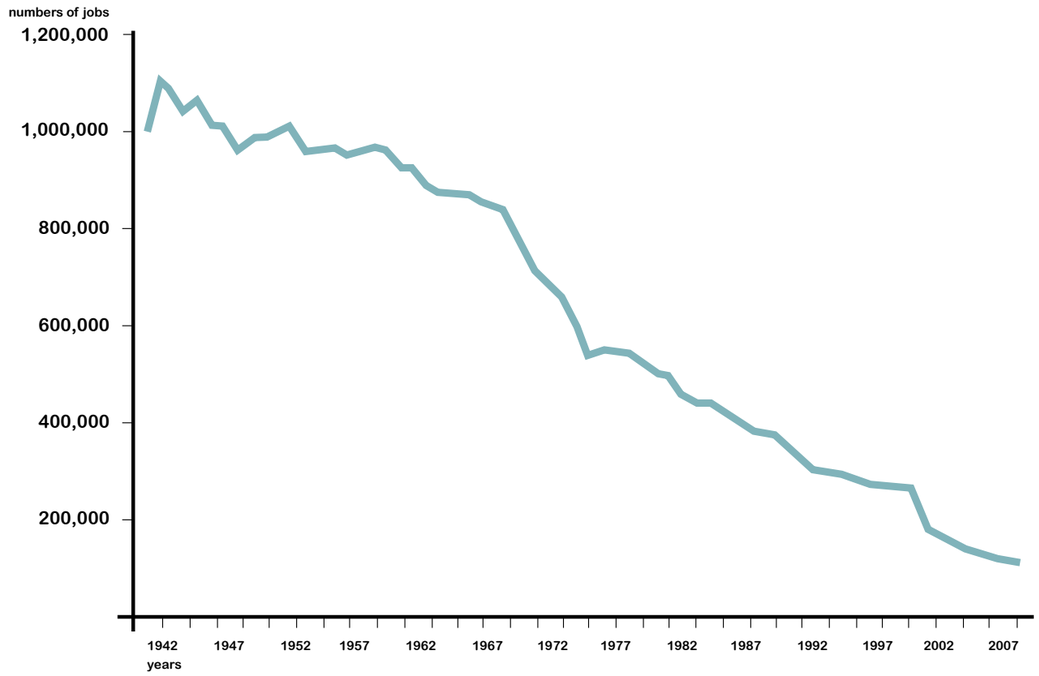
but there continued to be smaller, **light manufacturing**.

new technologies impact

the city planning agency’s vision did not accommodate the demand for industrial space and

continued to remove the potential for production

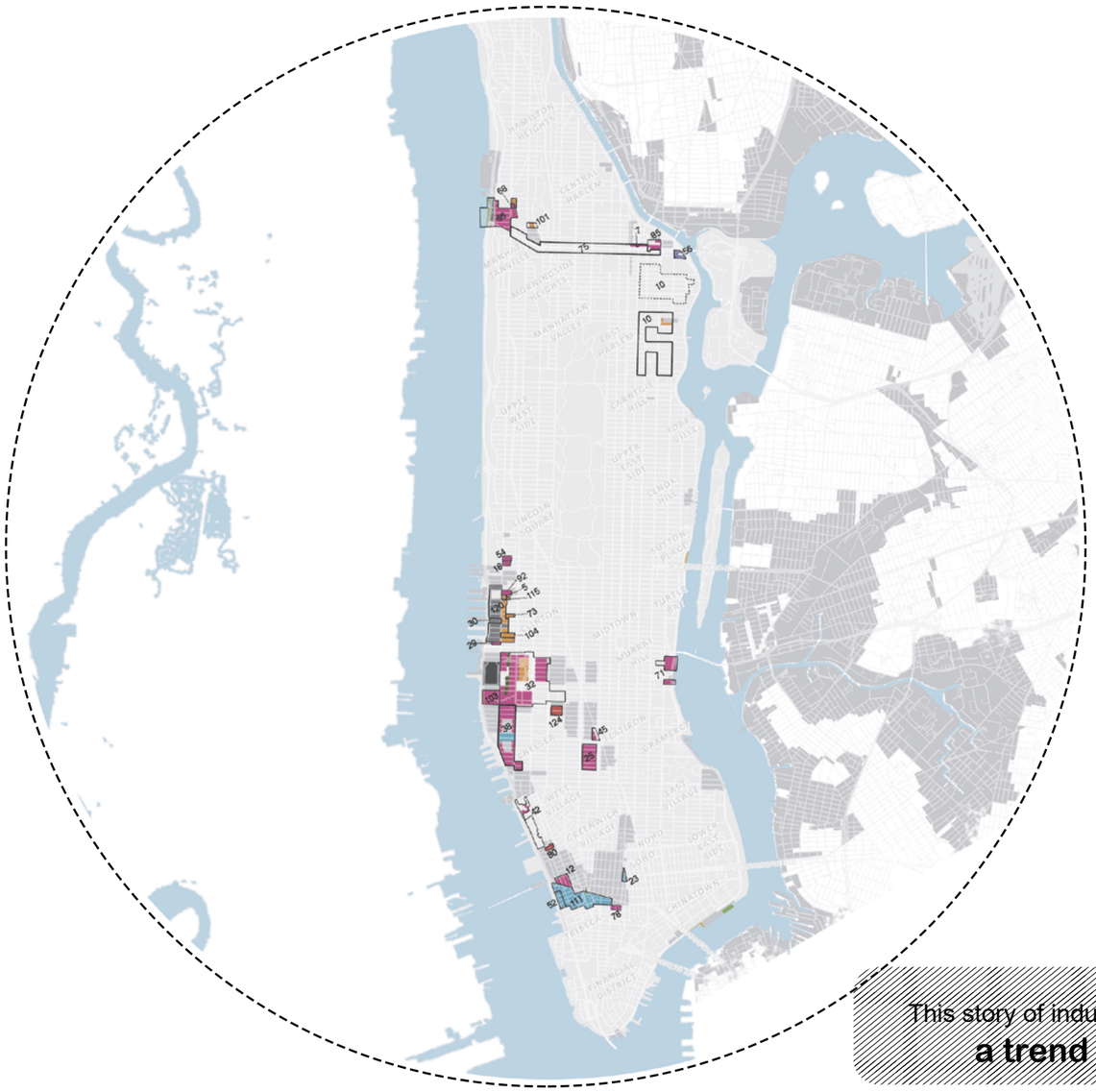
through limited industrial zoning



Decline of manufacture in New york since WWII

1950-1960

nowadays



Industrial zones 2012

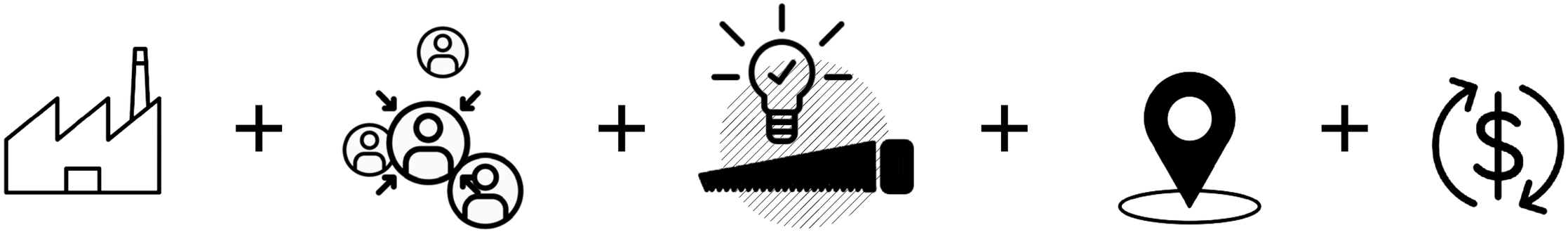
This story of industry's decline in the big city indicative of
a trend seen around the world.

However, in places like Paris and New York,
manufacturing in 2014 is still evolving.

2010

nowadays

Why a city needs manufacture nowadays?



independence on low-wage countries

diversity of employment

a robust urban economy
requires a city that offers
space and support to a diversity
of economic activities and jobs

need to close the gap between thinkers and creators

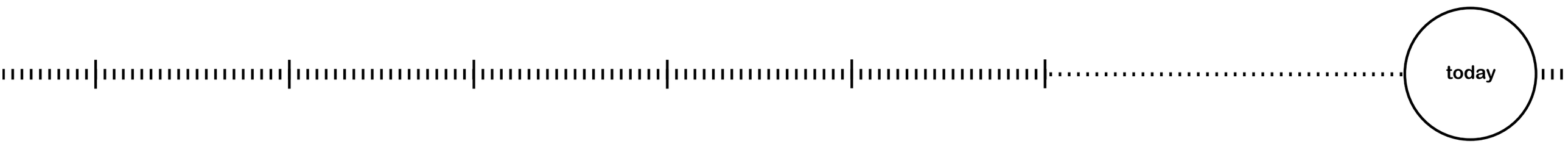
need to close the gap
between thinkers and creators

local quality and craft in demand

recognized value and quality
revaluation of handicrafts,
métier and trade
from re-use to recycle

promising circular economy

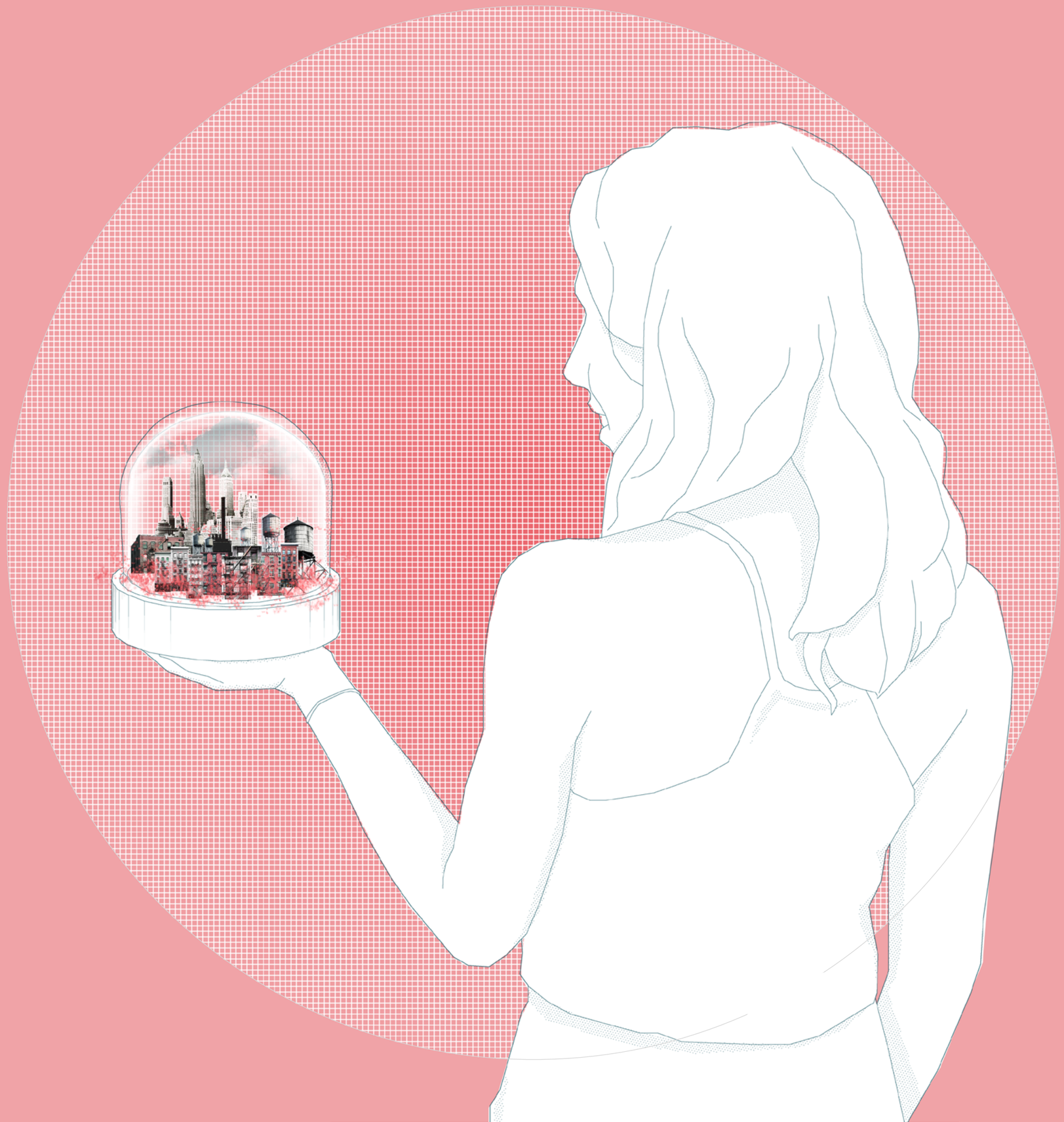
residuals and waste will need
to become the resources of
tomorrow's economy



How can the Creative Engine based on spaces of production create a stable community in Hell's Kitchen?

- research question -

context-based project



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IDENTITY

made in Manhattan brand

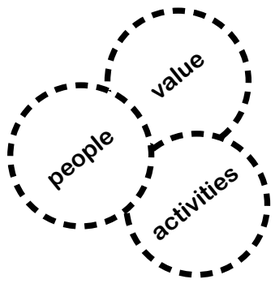
+

COMMUNITY-BASED

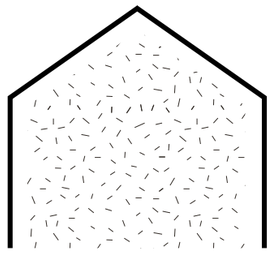
inclusionary -social befenits-

.

creative place

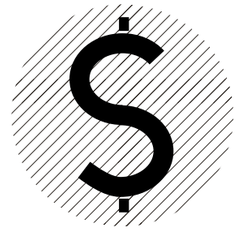


vibrancy



quality of space

attraction + retention
of talent



economic
development

Implementation in the area

How could this concept of building be feasible?

Metropolitan Opera House

HC School of Dancing

Skyscape

Museum of Contemporary Art

The site

buildings to demolish
and incorporate
in the proposal

= 5000 m2

empty spaces
currently parking lots

- 4282 m2
- 5785 m2

total floor area available

- 8489 m2
- 5785 m2

buildings to maintain

- industrial remaining
  buildings >1924

industrial use

mixed use

commercial use

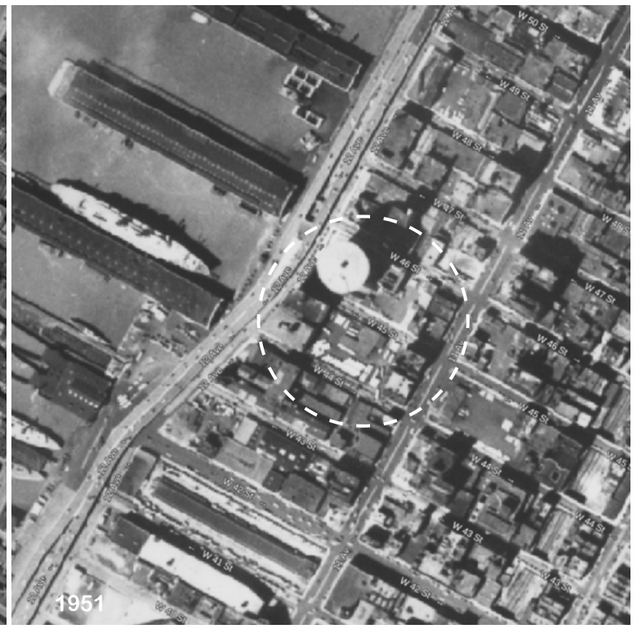
The site

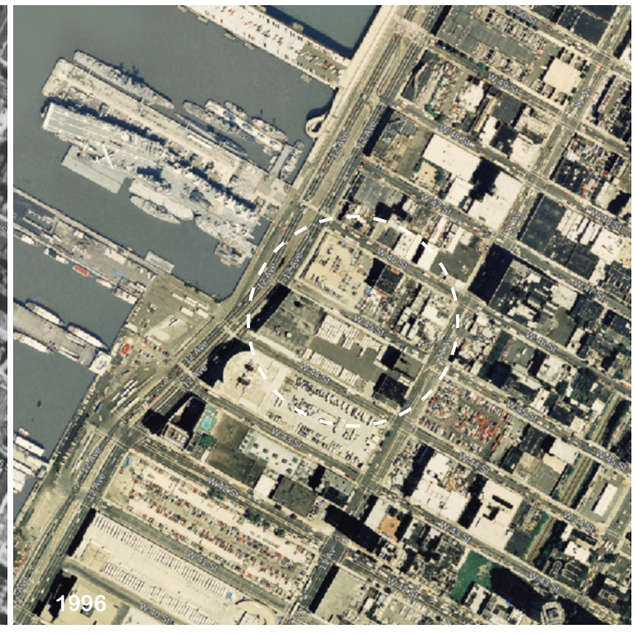
1927

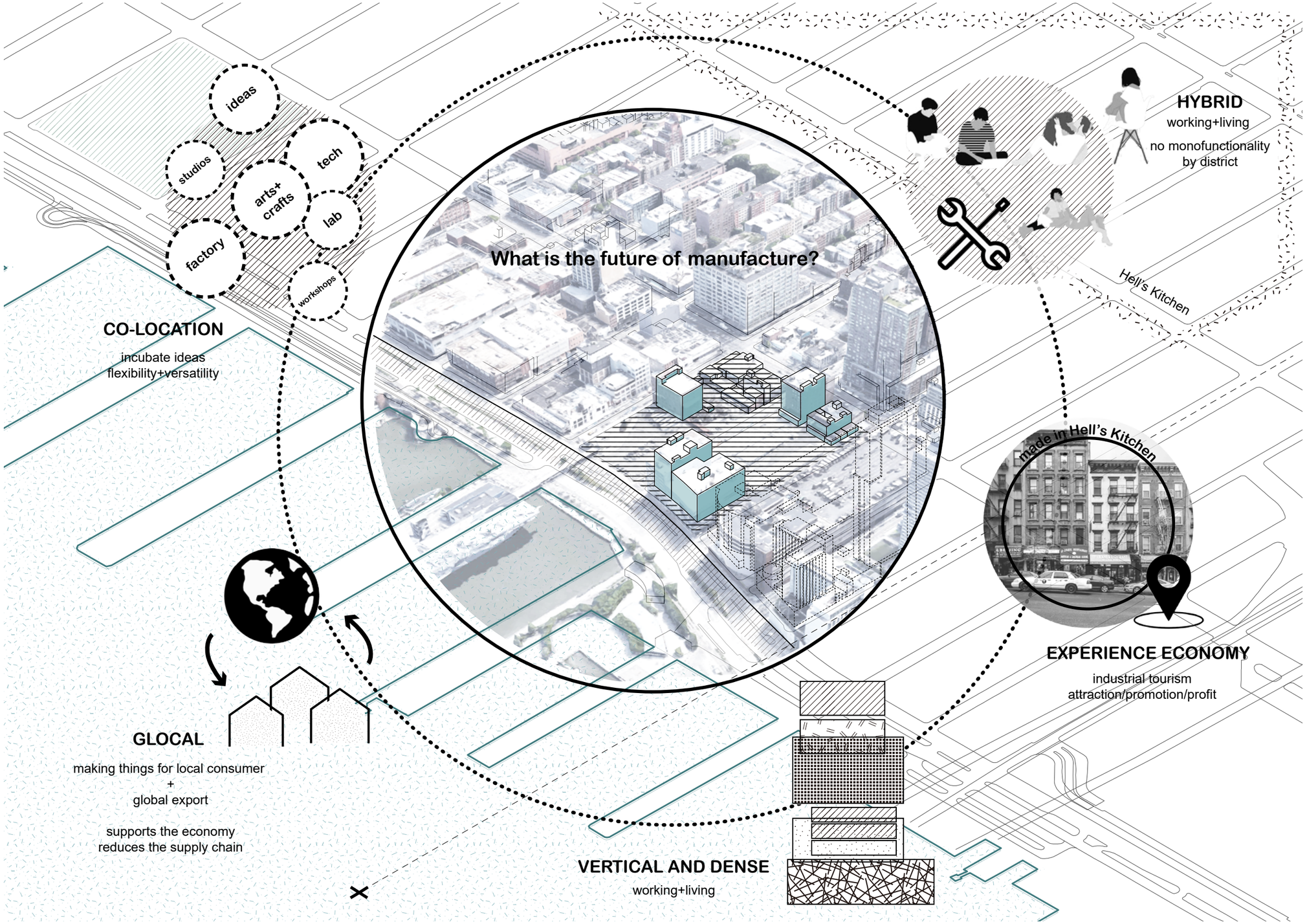
The site

1924

Evolution of the site






ideas
studios
tech
arts+ crafts
lab
factory
workshops
CO-LOCATION
incubate ideas
flexibility+versatility
What is the future of manufacture?
HYBRID
working+living
no monofunctionality by district
Hell's Kitchen
made in Hell's Kitchen
EXPERIENCE ECONOMY
industrial tourism
attraction/promotion/profit
GLOCAL
making things for local consumer
+
global export
supports the economy
reduces the supply chain
VERTICAL AND DENSE
working+living

future

design brief

Made in Manhattan District

program

spaces for

MAKERS

/laboratories/

/production + experimentation/

=

art + design

spaces for

COMMUNITY

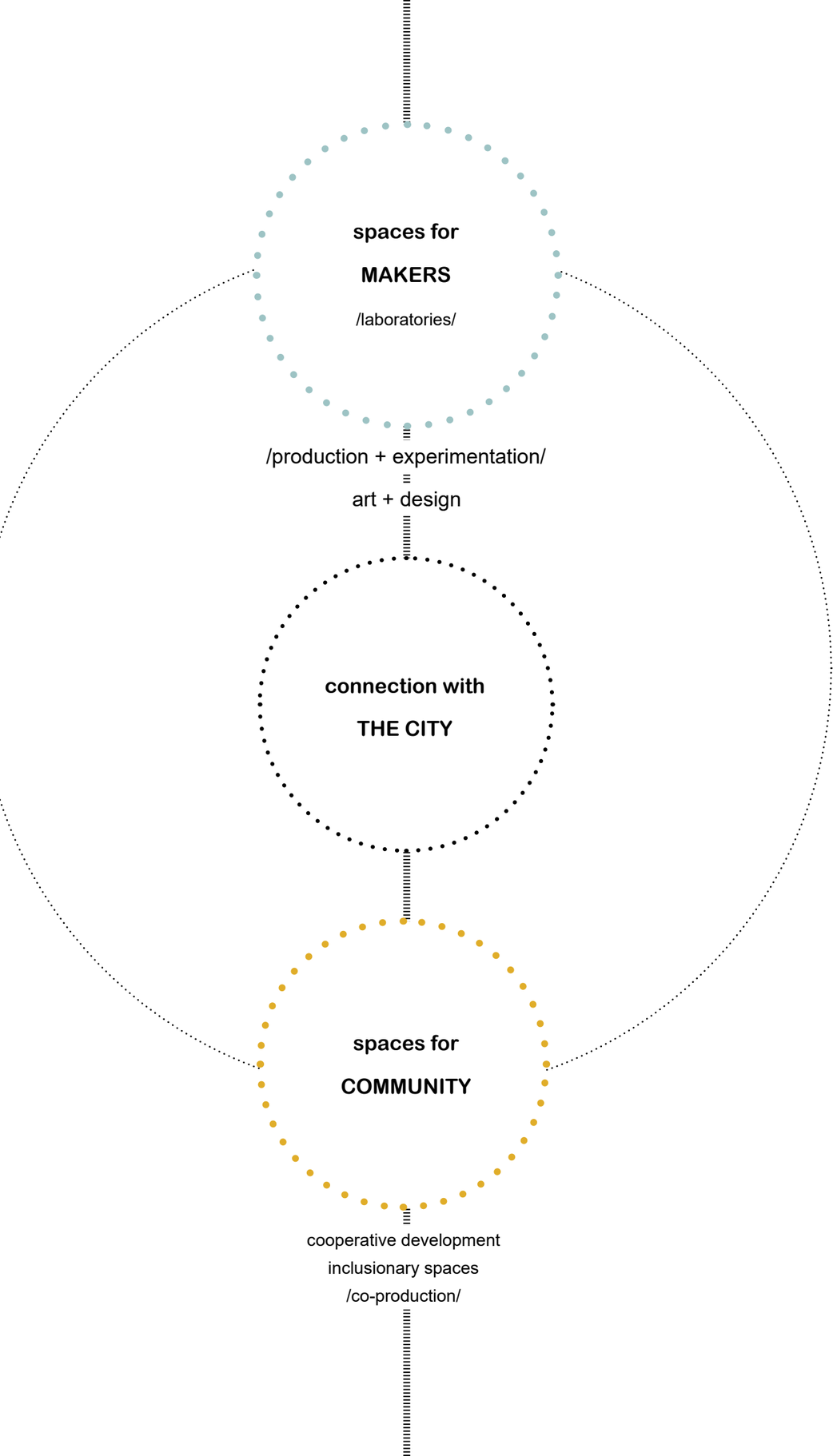
cooperative development

inclusionary spaces

/co-production/

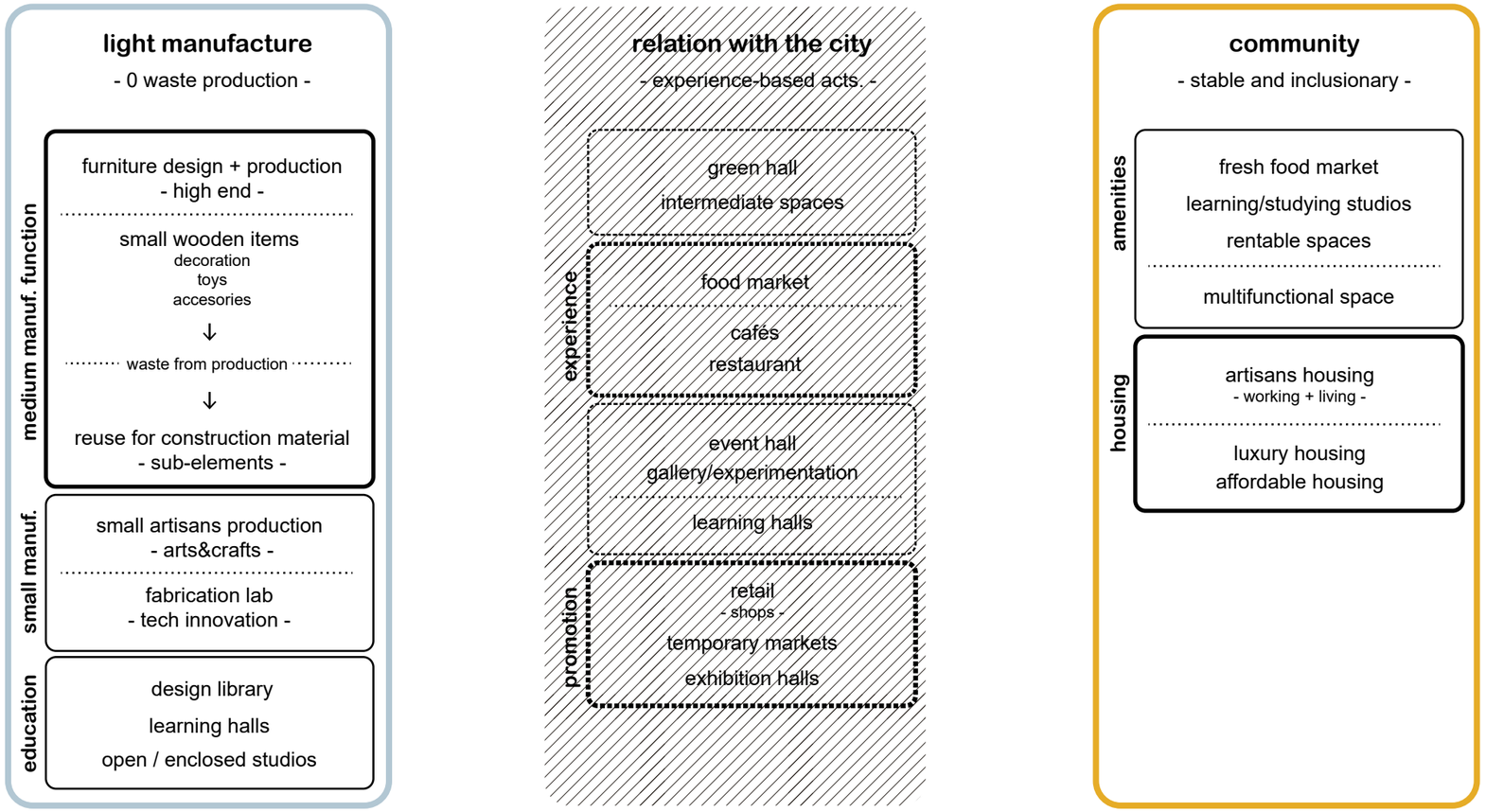
Made in Manhattan District

program



Made in Manhattan District

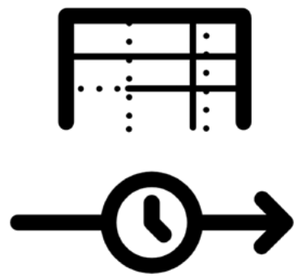
program



Ambitions

temporality

-transition-

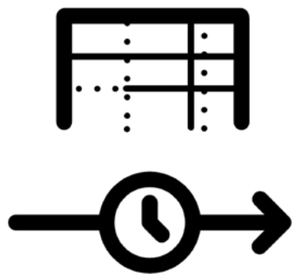


fixed + adaptable elements

Ambitions

temporality

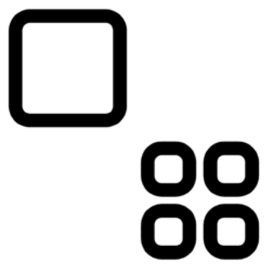
-transition-



fixed + adaptable elements

encouraging

interaction



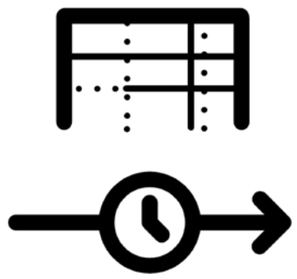
individual + collectivity

versatile spaces

Ambitions

temporality

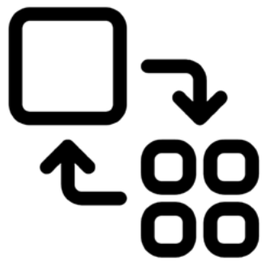
-transition-



fixed + adaptable elements

encouraging

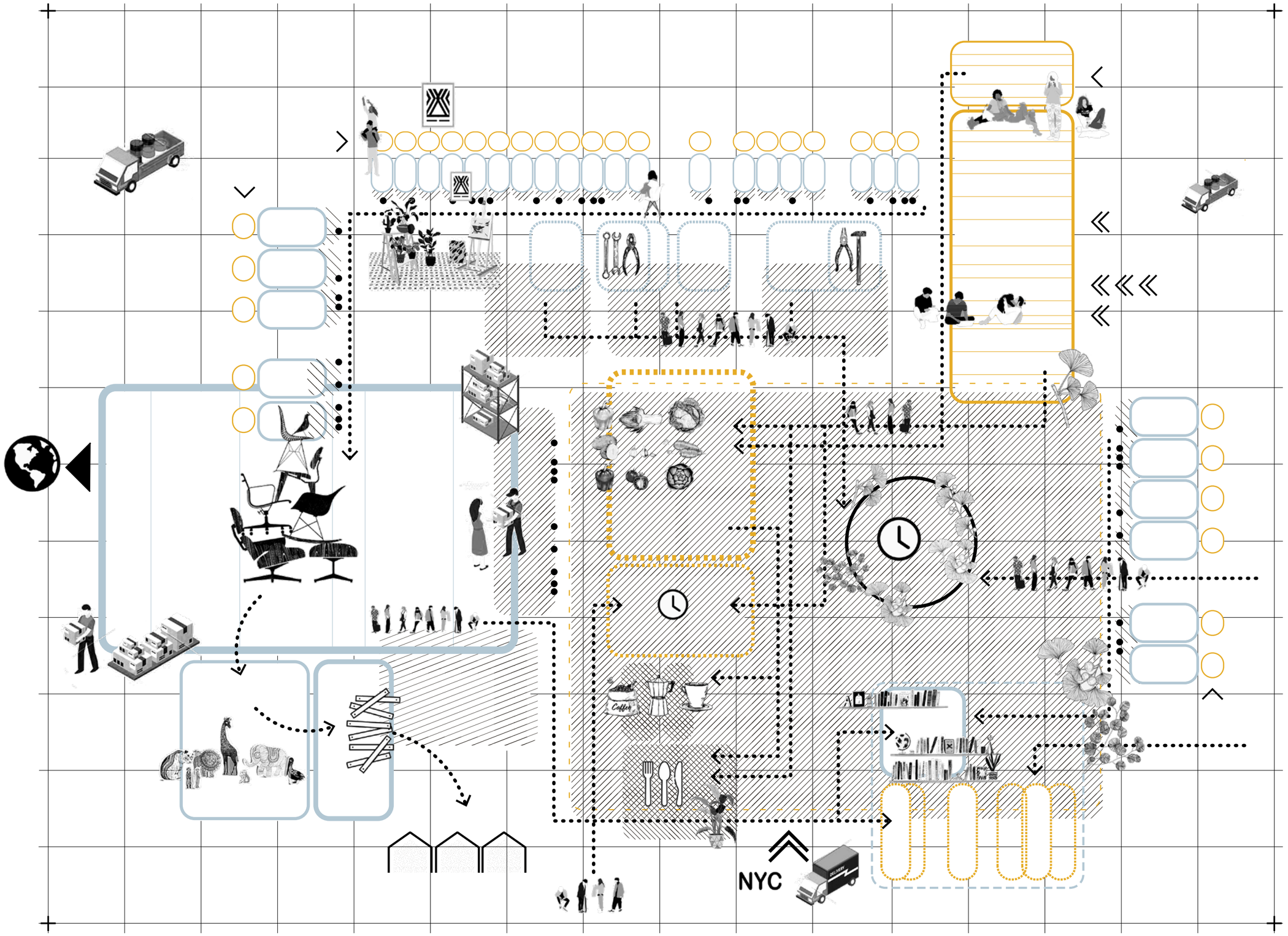
interaction



individual + collectivity

versatile spaces

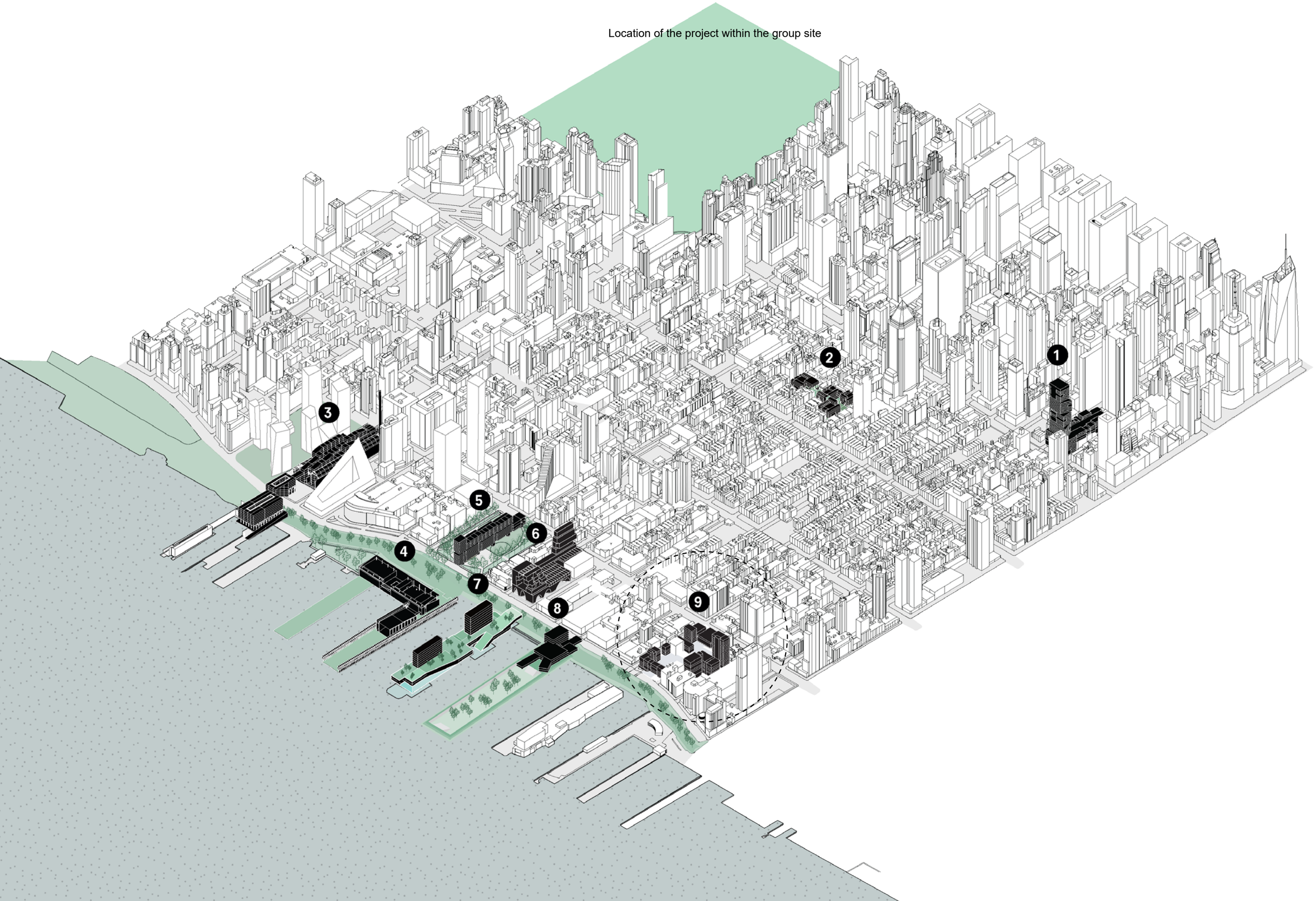
Connections in the District



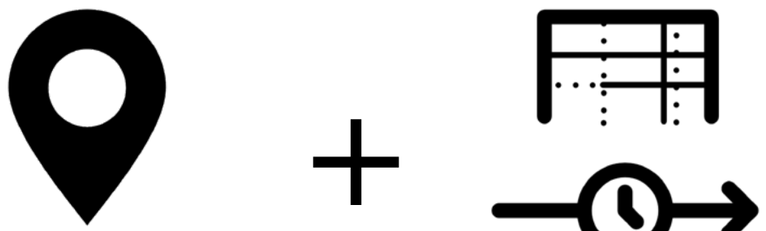
MADE IN MANHATTAN DISTRICT

Made in Manhattan cluster is a mixed-use group of buildings located in two chosen blocks where some remains from the industrial past, with strong character, are still present. Key elements of the proposed district are the manufacturing spaces (small-medium manufacture in combination with smaller crafts and experimental studios) in combination with public spaces for the community and city inhabitants (events, meeting spaces) as well as housing. This merge of uses is a result of the need for affordability, common spaces in the neighborhood and the attraction of a wider scope of people. While offering experiences, this mixture of users makes economically and socially feasible this concept of district having as crucial concept the idea of a generic system that brings flexibility enough to hold current needs for the transitory uses but also adapt to future options of use.

Location of the project within the group site



Concepts of design



response to the site

response to the transitory needs

Response to the site

- anchors -

Hill
reducement of impact of vehicles integrating open spaces in order to solve lack of public green spaces in the neighborhood

Waterfront + museum
reconnection with water in use and strenghten of the cultural relation with the existing museum

Waterfront

Intrepid museum

Highway > Hill

11th Avenue

industrial area

Residential area
Hell's Kitchen (with the relevance of its social values and community) is located in the east. Strenghten connections with the design

Industrial use
the use of the buildings between 11th and 12th Avenues is predominantly industrial (low-rise informal buildings)

W47th St

W46th St

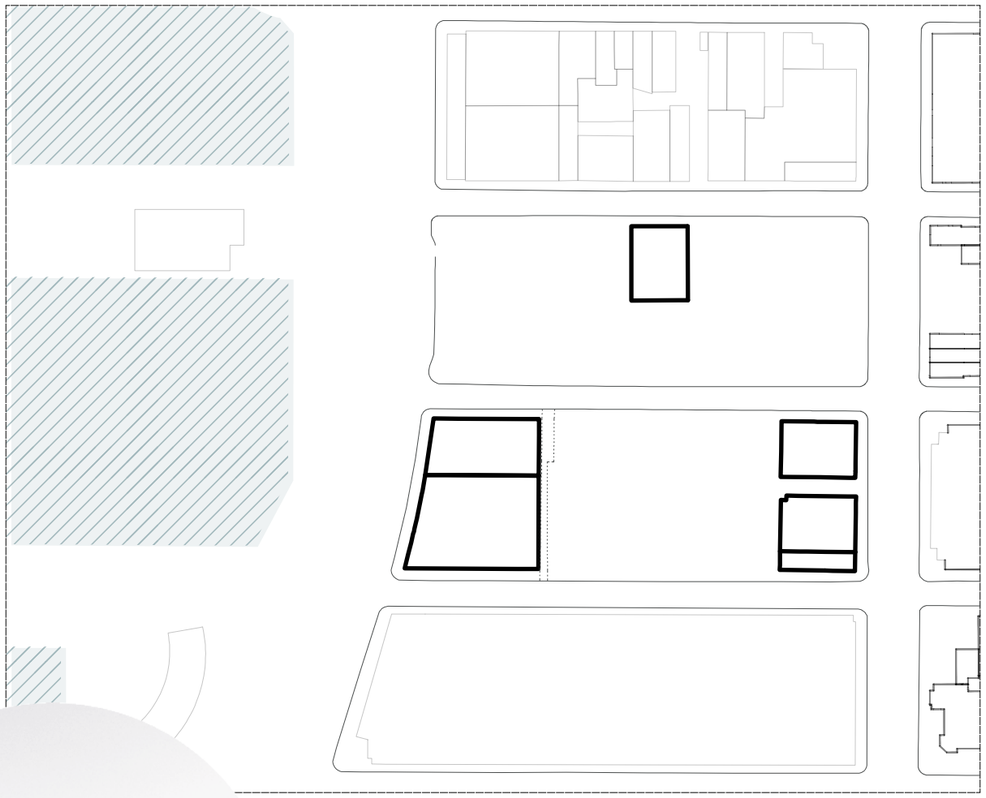
W45th St

11th Avenue
hetereogenic avenue with mix of high rise and low rise buildings, predominantly low rise (less than 3 storeys in this section)

High rise buildings
consideration of height in the design in order to don't creative a negative impact in the views to the water

Response to the site

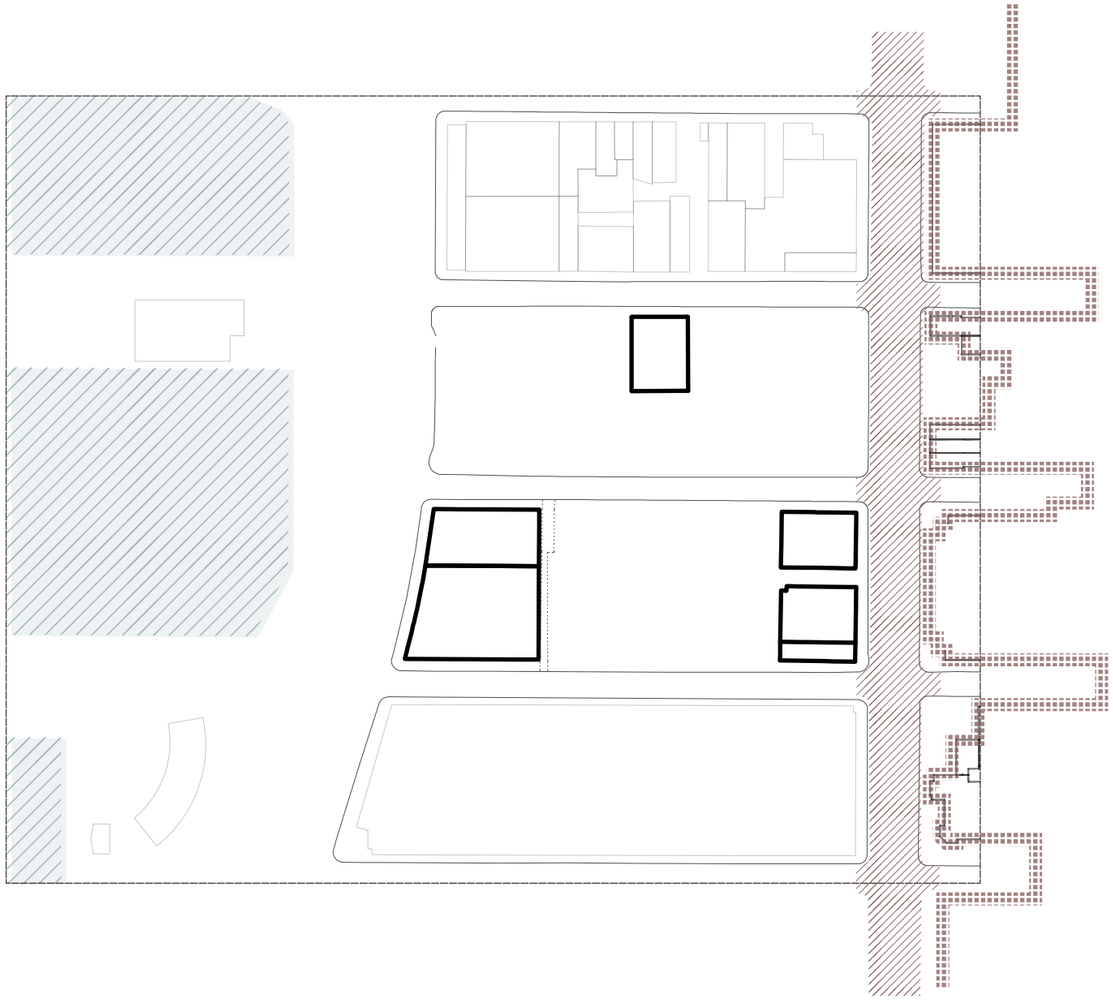
- anchors -



Preexisting industrial buildings

Response to the site

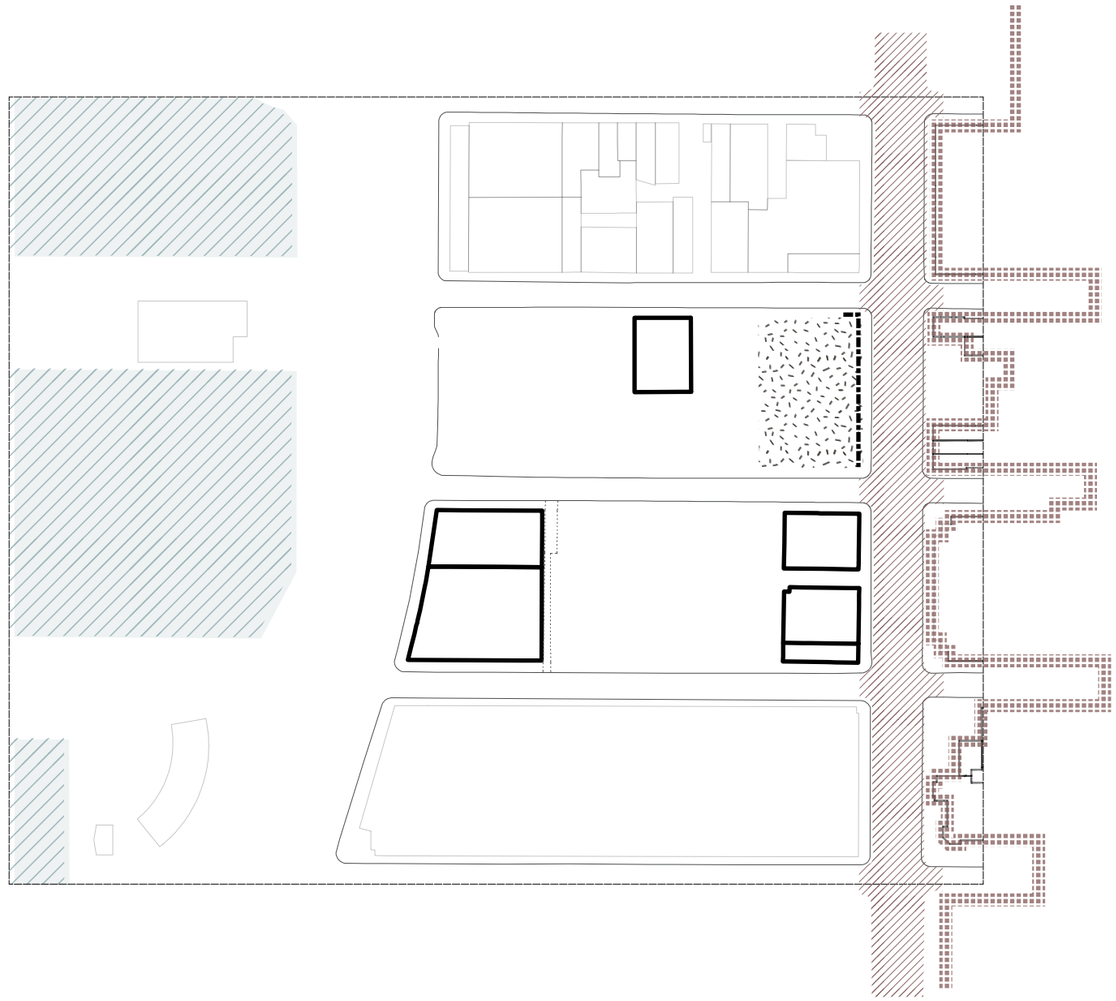
- anchors -



The city and Hell’s Kitchen

Response to the site

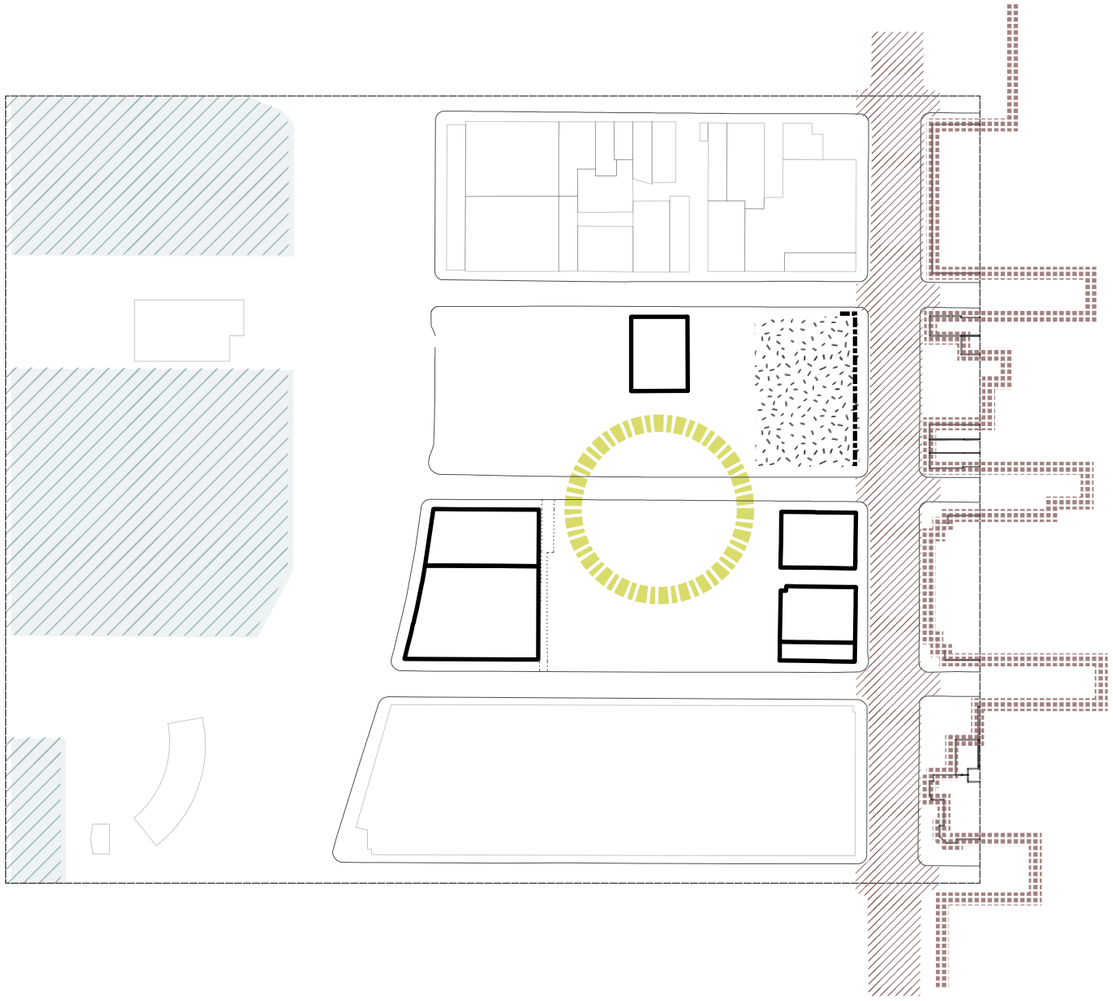
- anchors -



The city and Hell’s Kitchen

Response to the site

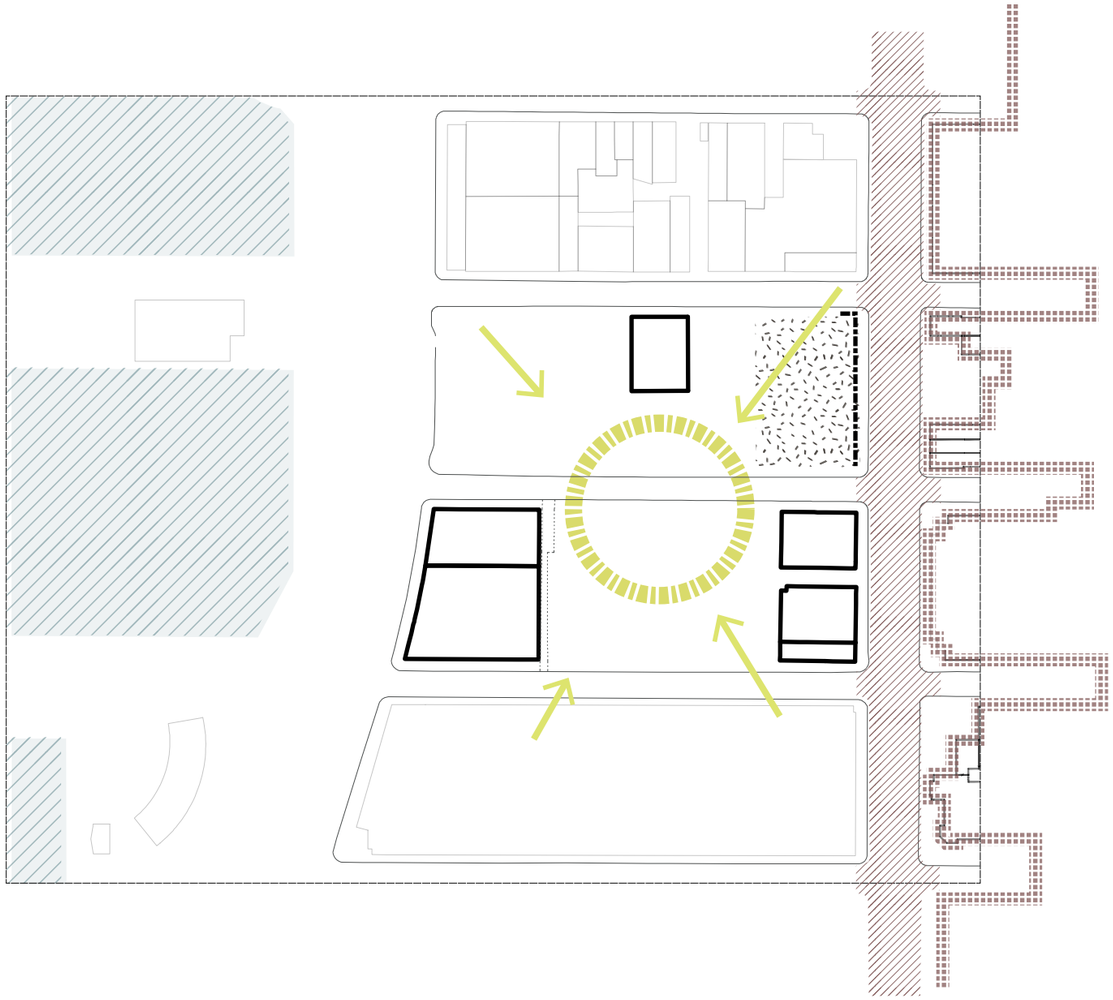
- anchors -



The courtyard

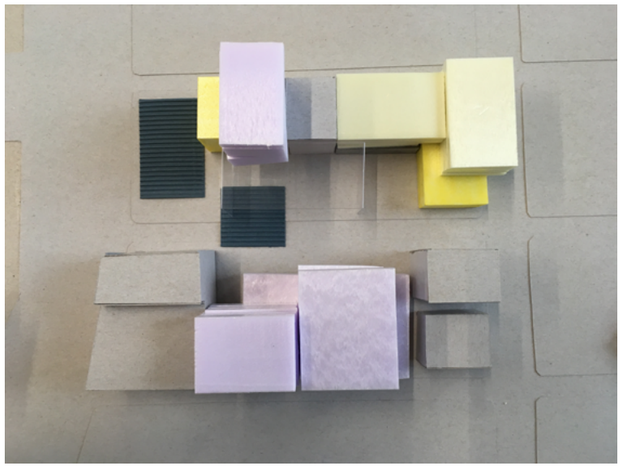
Response to the site

- anchors -

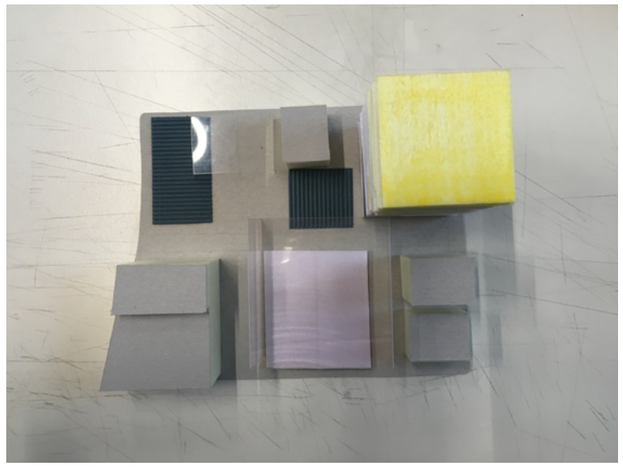


The courtyard

Different possibilities of development around the anchors



1



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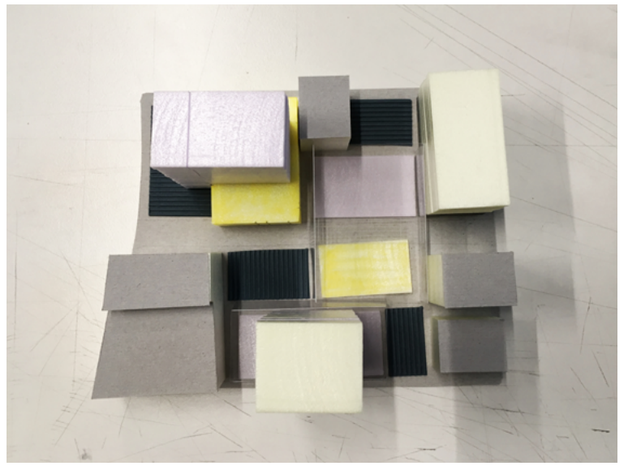

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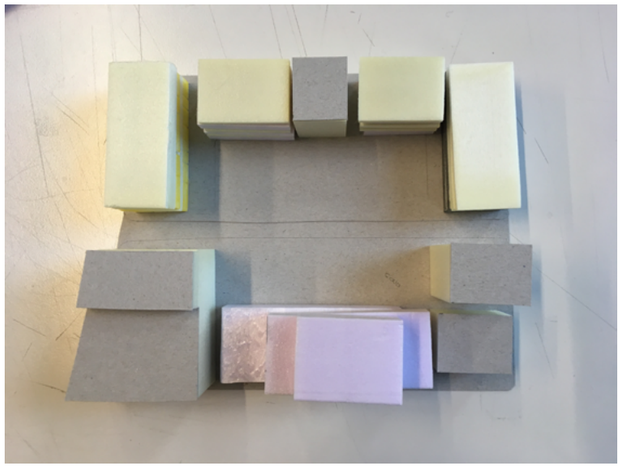

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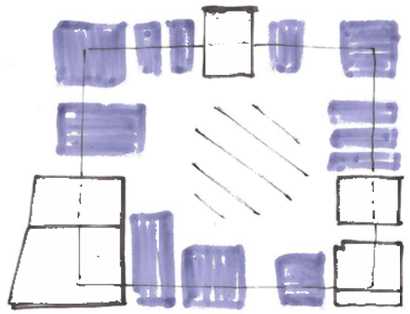
District arrangement

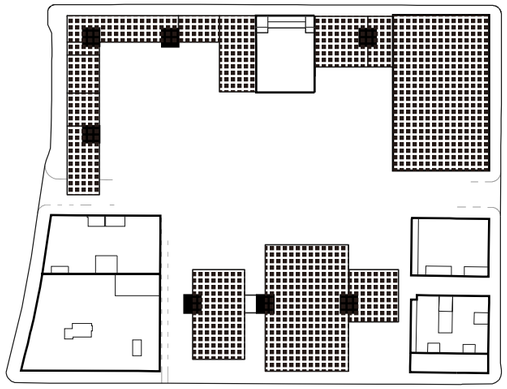


flexible process of development in relation to the anchors

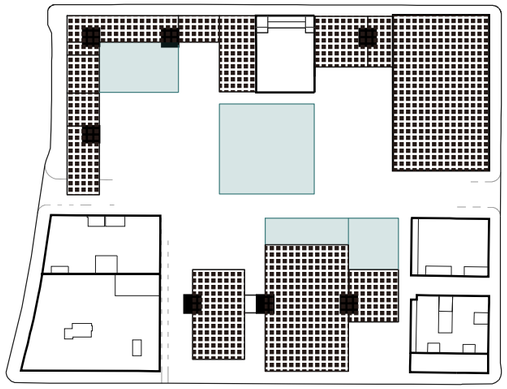
no fixed sizes but a comprehension of needs in the specific moment of development

(market conditions)

Design of the district



building arrangement

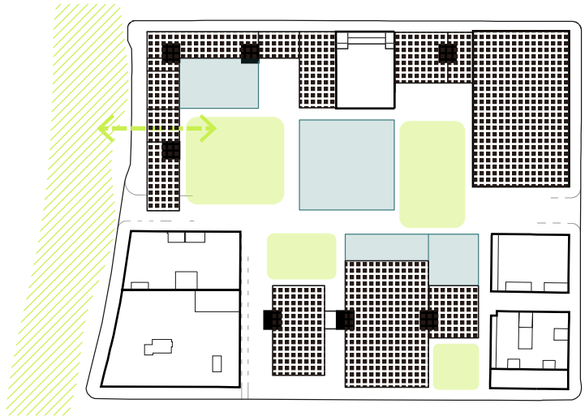


meeting space in central courtyard

- mix between manufacture and community -

+

elevation of public space



sequence of open spaces

Specific uses the District

small manufacture
administration
makers collectives
temporary spaces -exhibition-

housing
community spaces

community spaces
cafe+restaurants

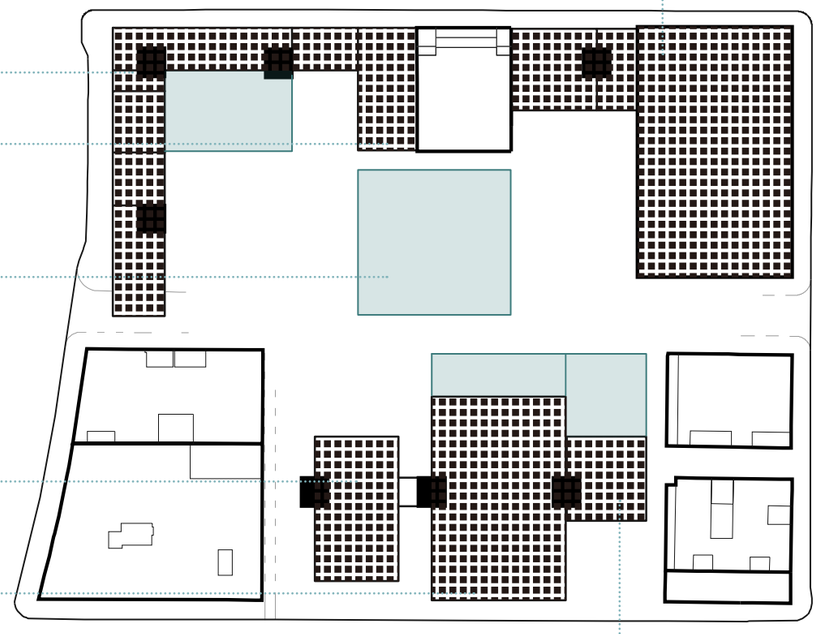
market
-retail+exhibition-

food market

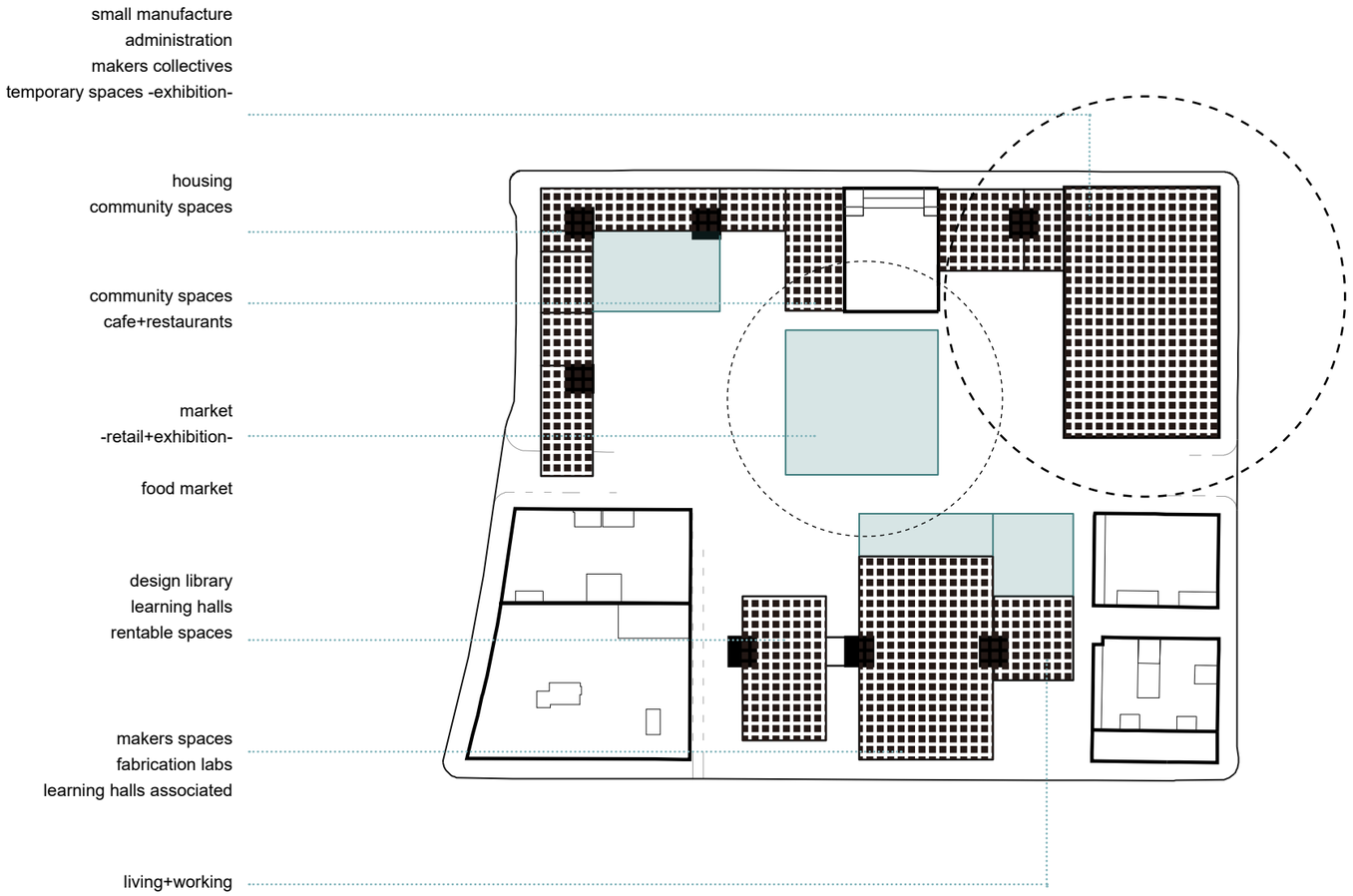
design library
learning halls
rentable spaces

makers spaces
fabrication labs
learning halls associated

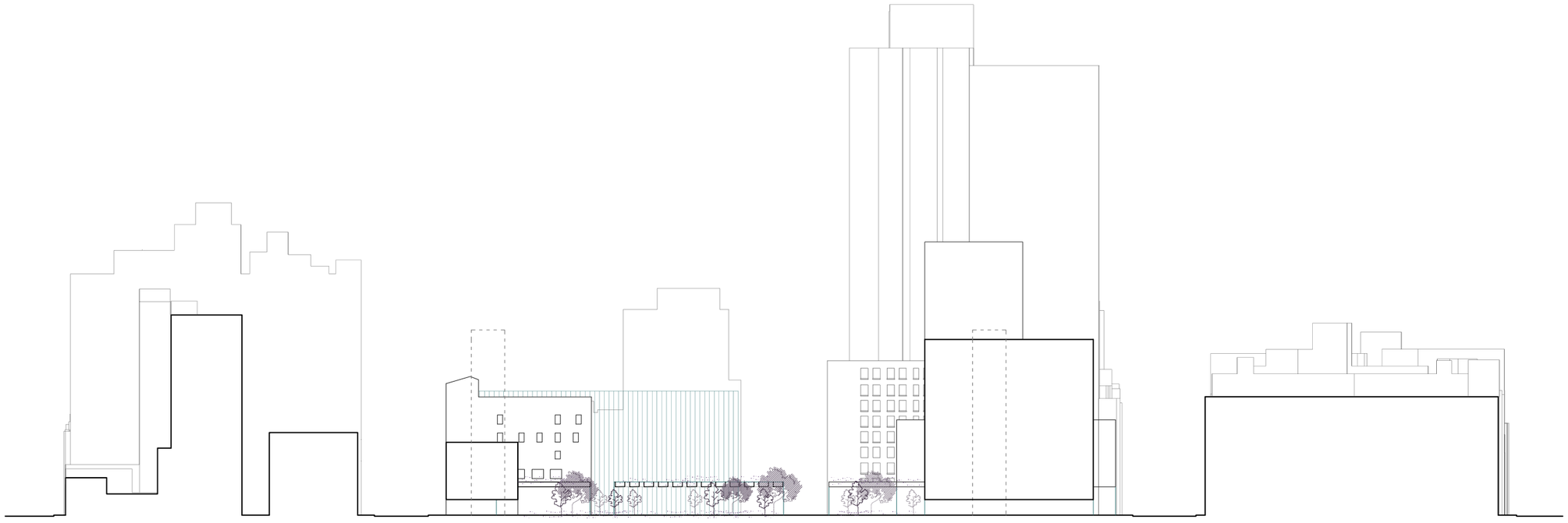
living+working



Specific uses the District

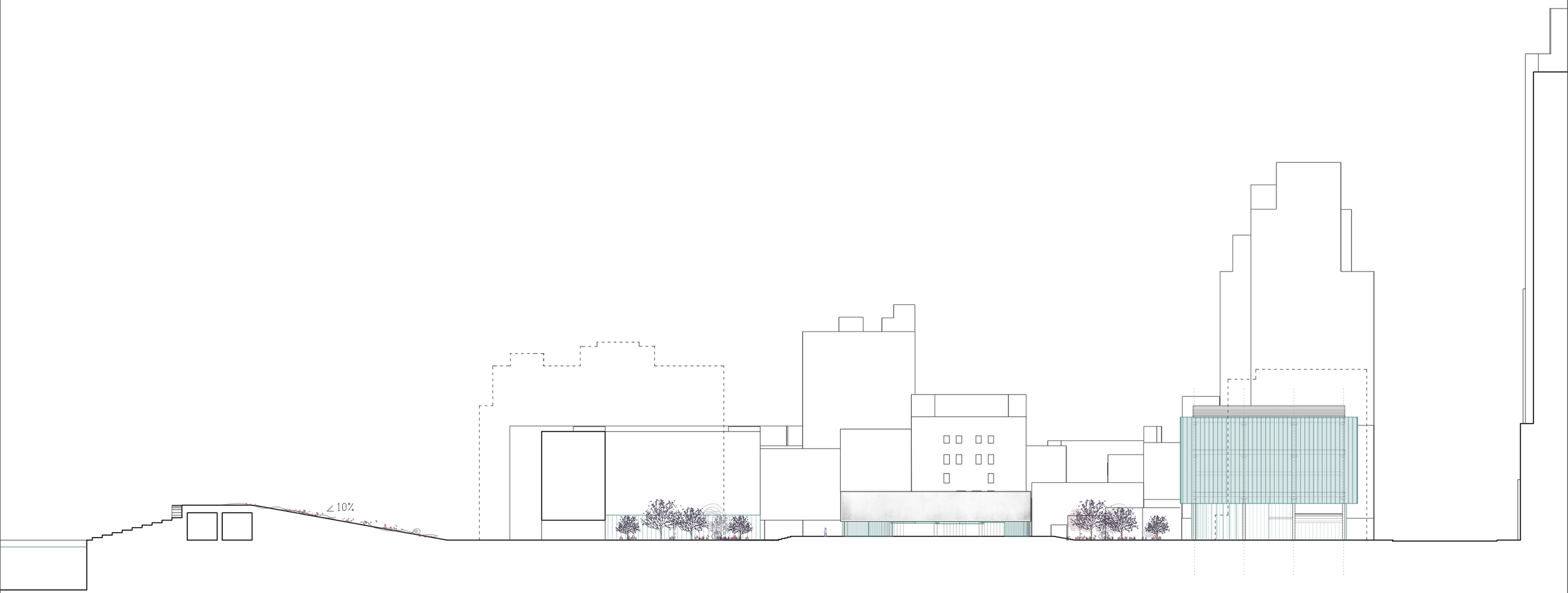


Section of the District

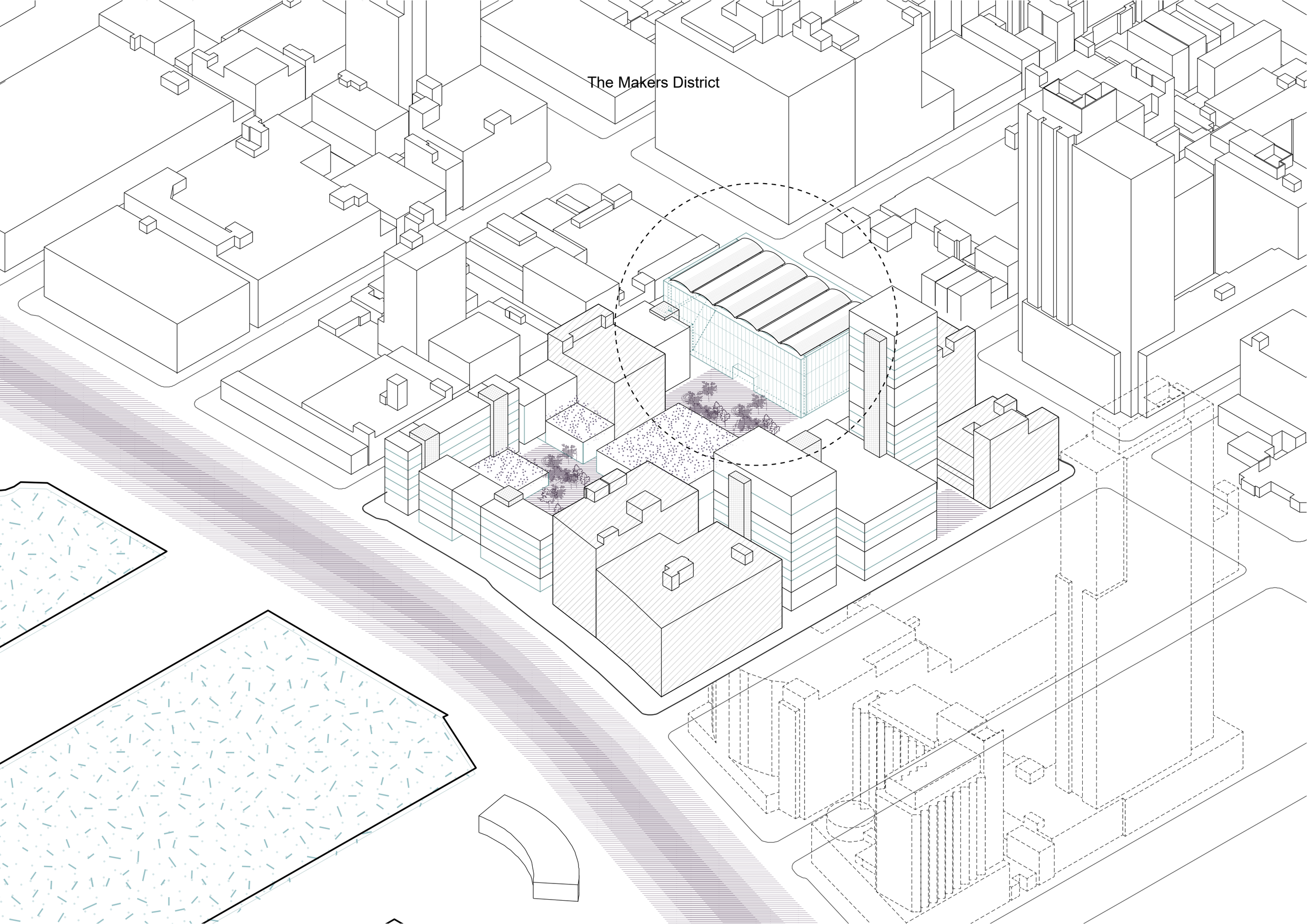


Rooftop plan

Urban section - courtyard



The Makers District



The building

adaptability + efficiency

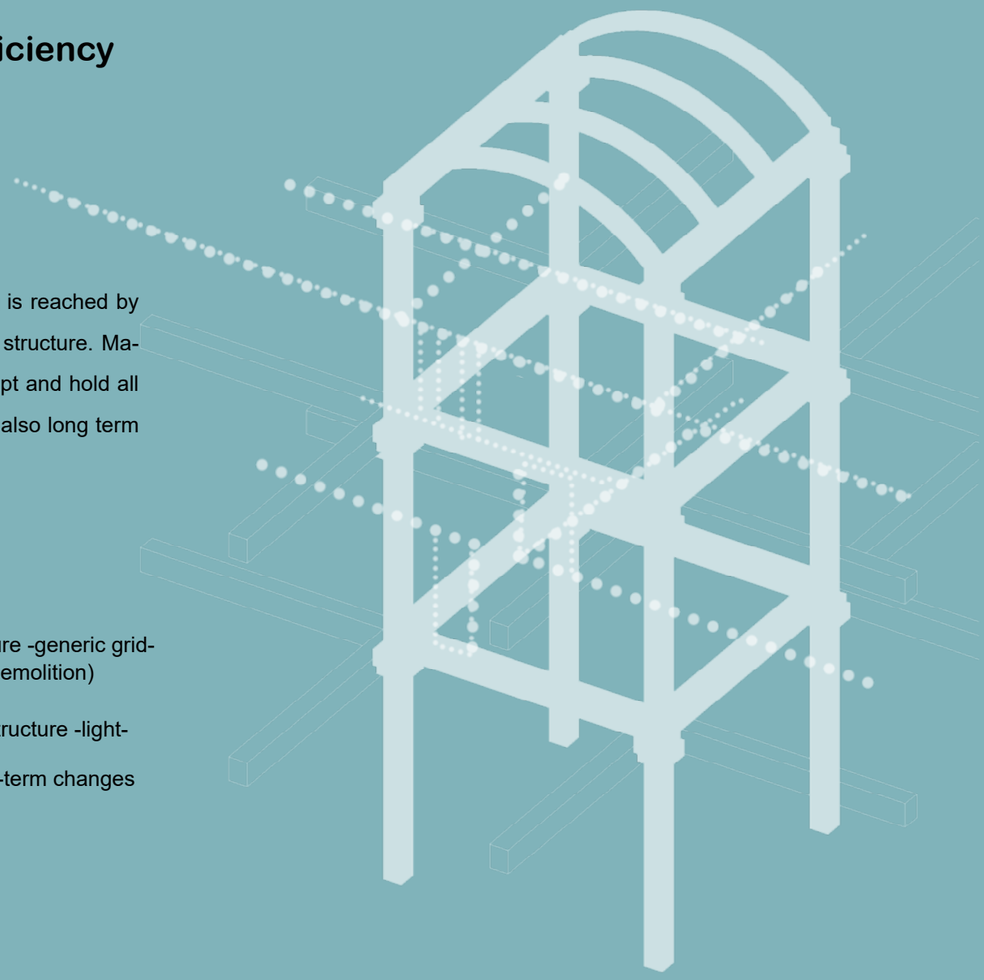
The adaptability of the building is reached by the incorporation of 2 types of structure. Making the spaces be able to adapt and hold all kinds of uses in short term but also long term perspective.

structural system

> main-permanent structure -generic grid- (avoiding need of future demolition)

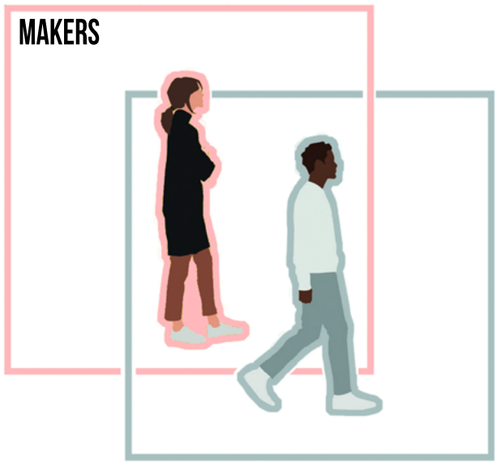
> secondary-temporary structure -light-

easily adaptable for short-term changes

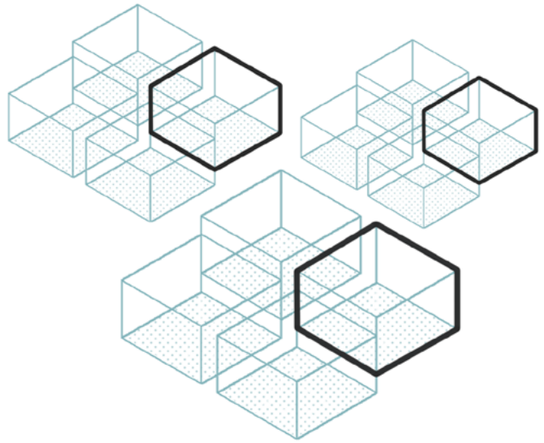


spaces + organization

Uses required



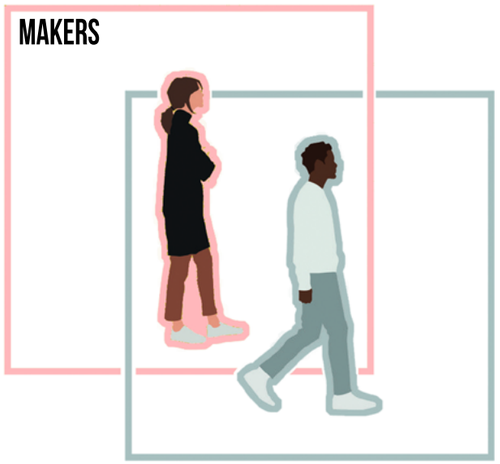
Uses required



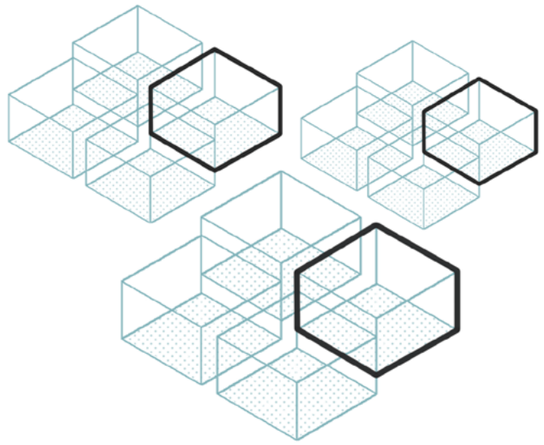
MAKERS SPACES
production

collectives
rentable spaces

benefits:
co-location
feasibility



Uses required



MAKERS SPACES
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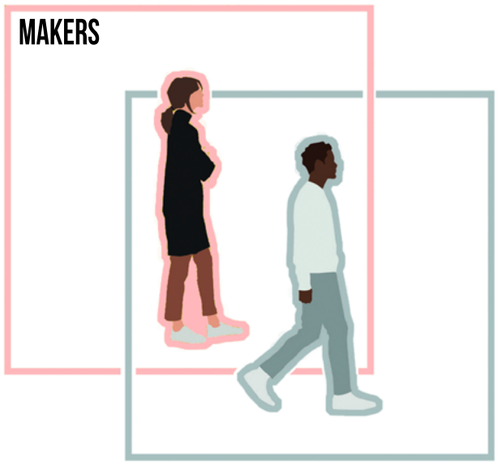
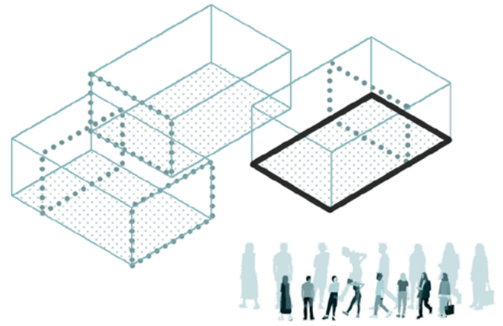


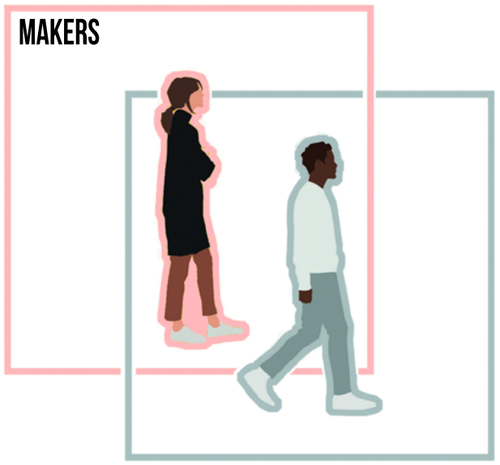


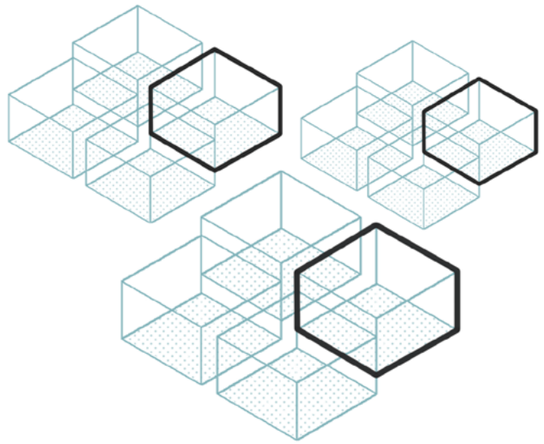
LEARNING + MEETING HALLS

rentable spaces
education

benefits:
economic income
relationship with externals
social benefits (well-being)

Uses required

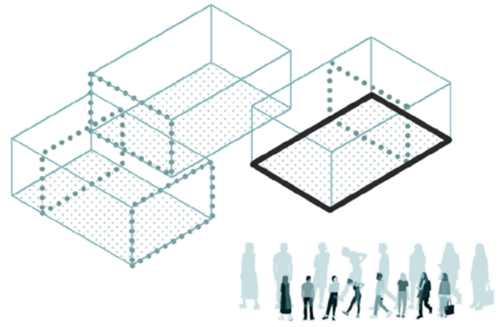




MAKERS SPACES
production

collectives
rentable spaces

benefits:
co-location
feasibility



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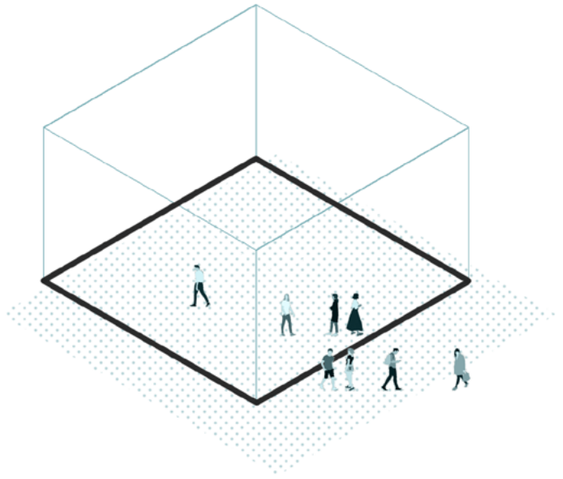


PROMOTION OF THE PRODUCED MATERIAL

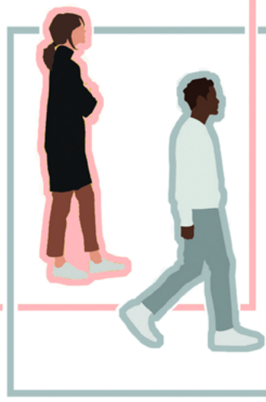
showcases + exhibition + shop

benefits:
creation of a bran “Made in Manhattan”
income to sustain the project

Uses required

vertical connection

MAKERS



circulation of workers

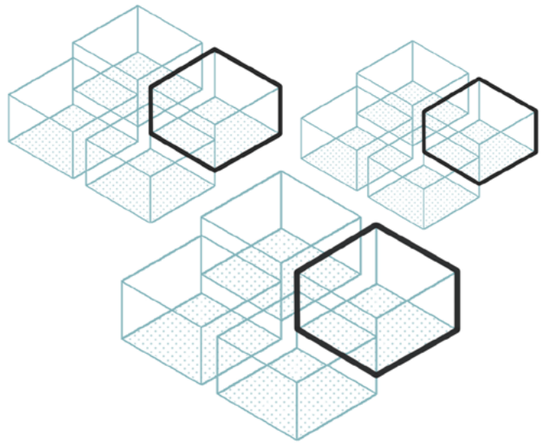
lockers

facility room
restrooms

circulation of cgoods and materials

MATERIAL PROVIDER

storage of material + production
bikes parking

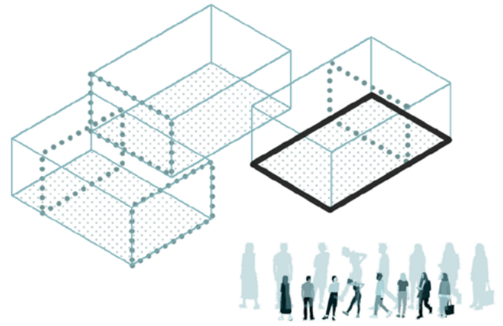


MAKERS SPACES

production

collectives
rentable spaces

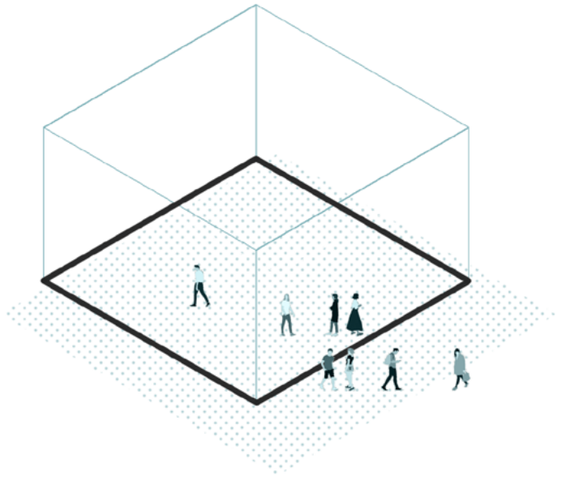
benefits:
co-location
feasibility



LEARNING + MEETING HALLS

rentable spaces
education

benefits:
economic income
relationship with externals
social benefits (well-being)



PROMOTION OF THE PRODUCED MATERIAL

showcases + exhibition + shop

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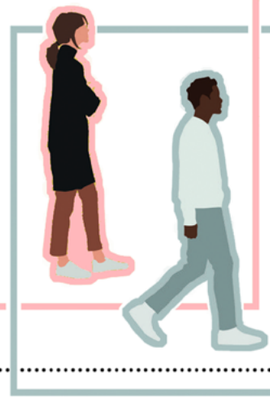
income to sustain the project

Uses required

vertical connection

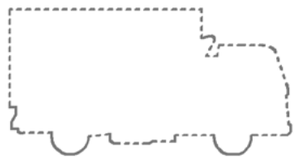
MAKERS



circulation of workers

lockers

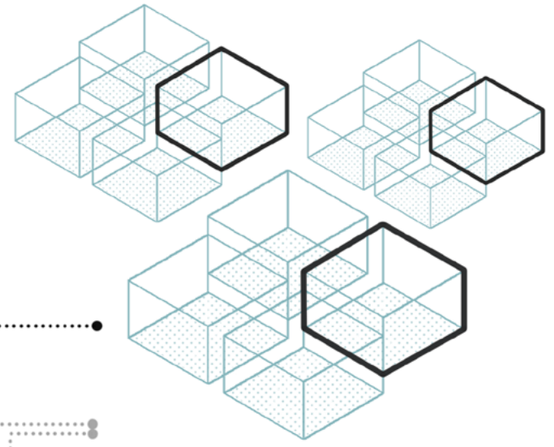
facility room
restrooms



circulation of cgoods and materials

MATERIAL PROVIDER

storage of material + production
bikes parking



MAKERS SPACES

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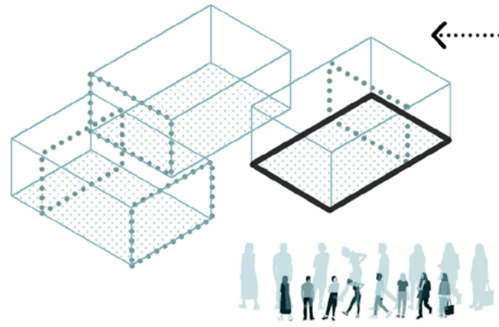

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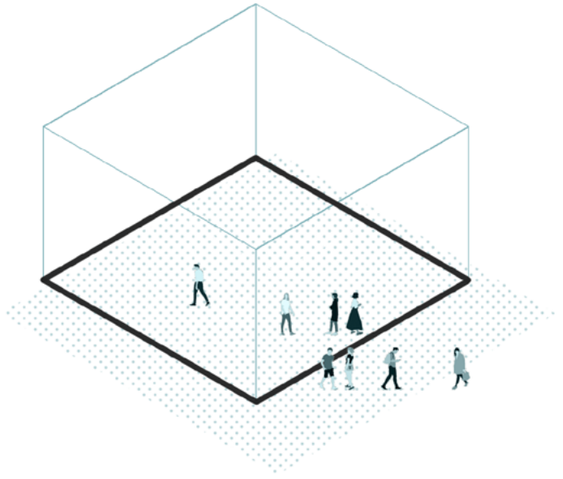

PROMOTION OF THE PRODUCED MATERIAL

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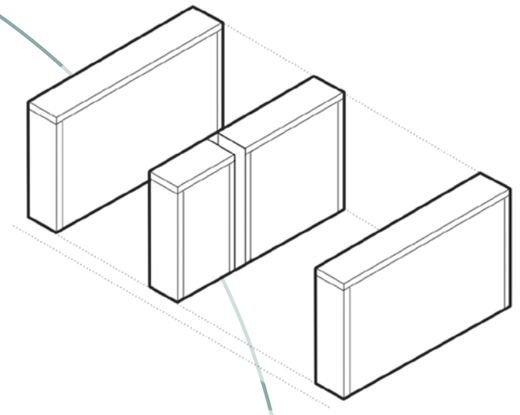
Types of spaces

Types of spaces

SMALL MANUFACTURE

PRODUCTION

spaces



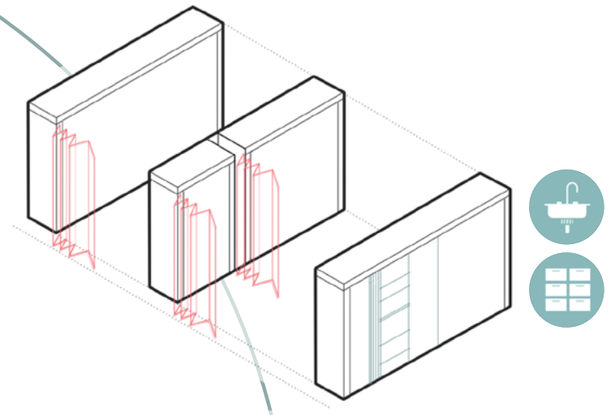
CLT panels boxes - structural and organizational system
integrating adaptable elements + basic requirements

Types of spaces

SMALL MANUFACTURE

PRODUCTION

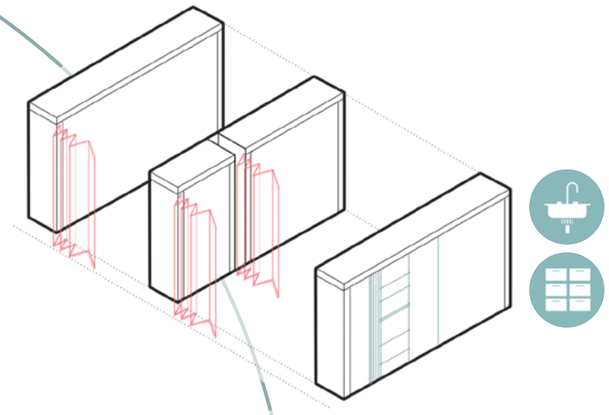
spaces



CLT panels boxes - structural and organizational system
integrating adaptable elements + basic requirements

Types of spaces

PRODUCTION
spaces



CLT panels boxes - structural and organizational system
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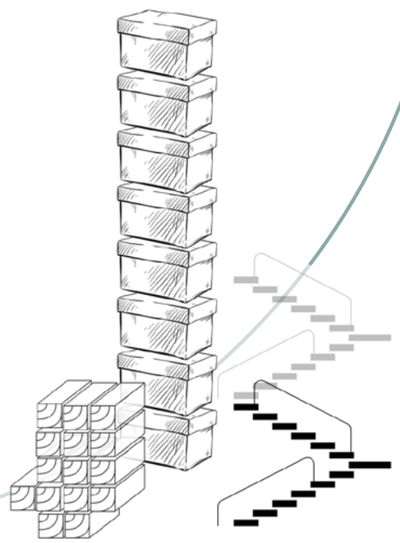
SMALL MANUFACTURE

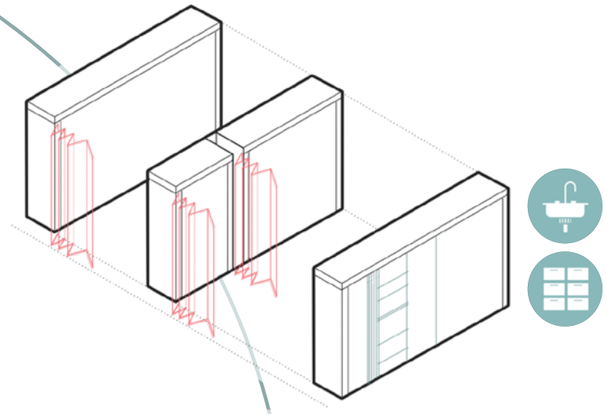


ANCILLARY
spaces

storage /materials + produced objects/
facilities + circulation

Types of spaces

PRODUCTION
spaces



CLT panels boxes - structural and organizational system
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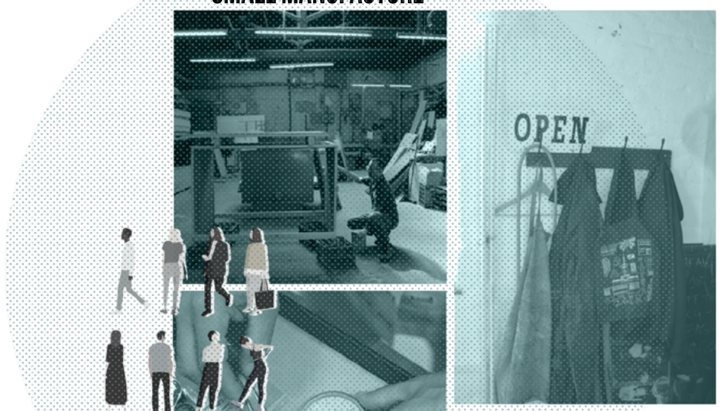
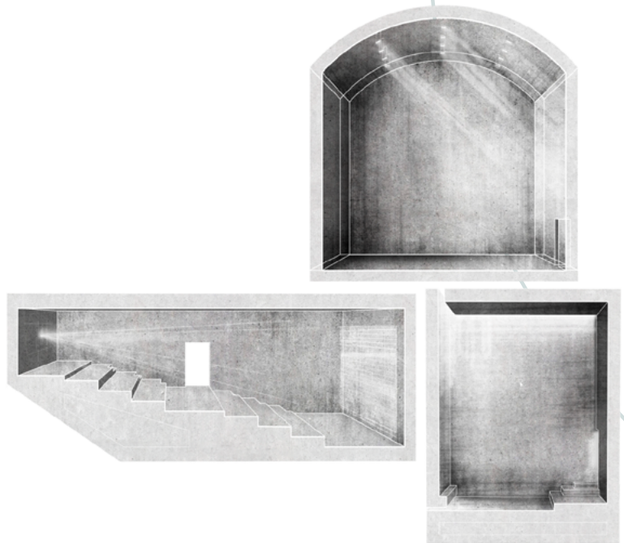
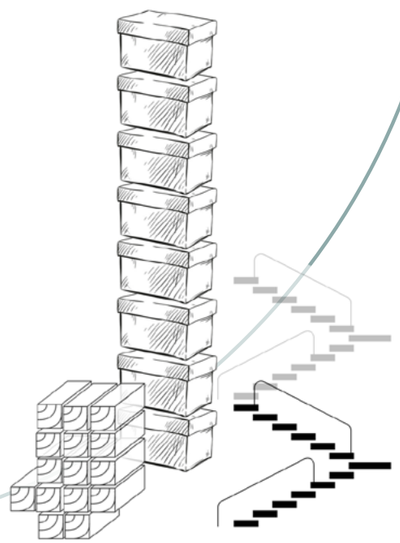


PROMOTION
spaces





ANCILLARY
spaces

storage /materials + produced objects/
facilities + circulation

Distribution of uses

- options of future arrangement of productive activity -

level 2.1

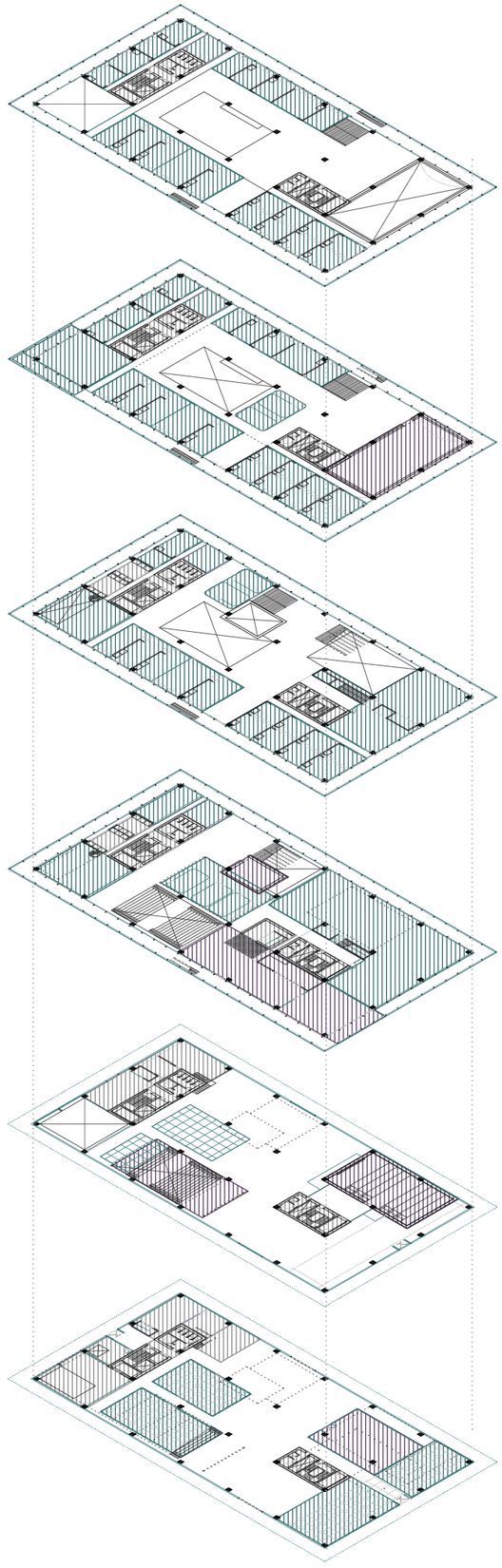
level 2.0

level 1.1

level 1.0

level 0.1

level 0.0



Opt.1 current proposal

42% production spaces

37% promotion/common spaces

21% ancillary spaces

Opt..2 intensive production

61% production spaces

18% promotion/common spaces

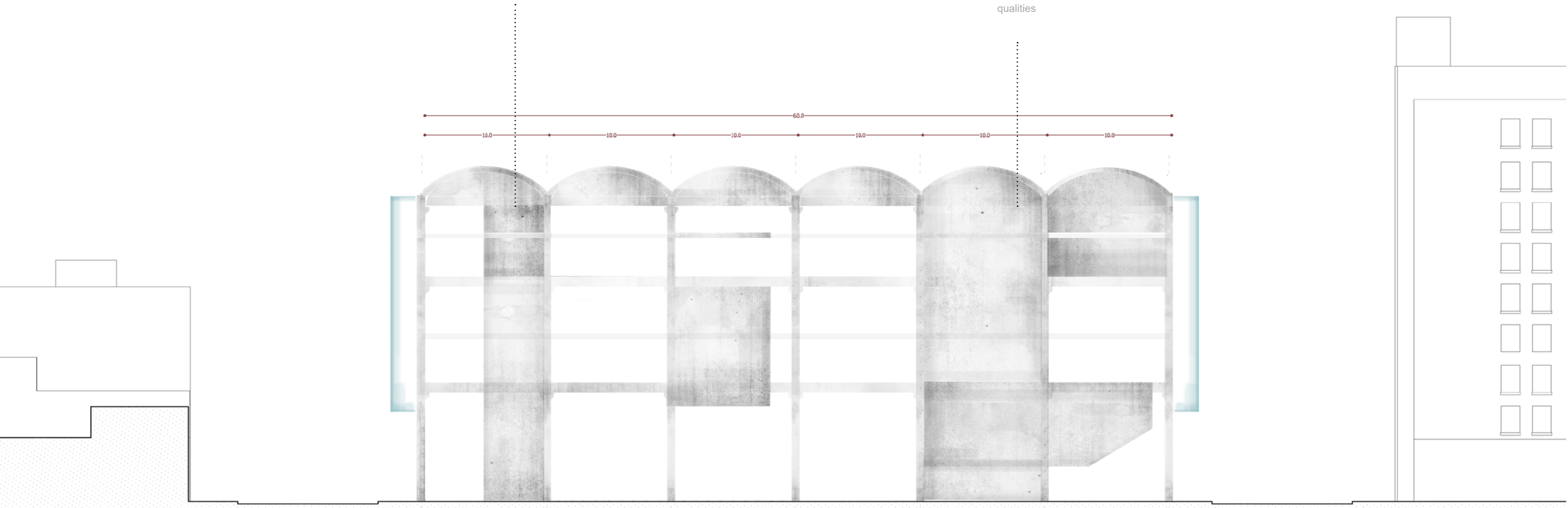
21% ancillary spaces

Conceptual section

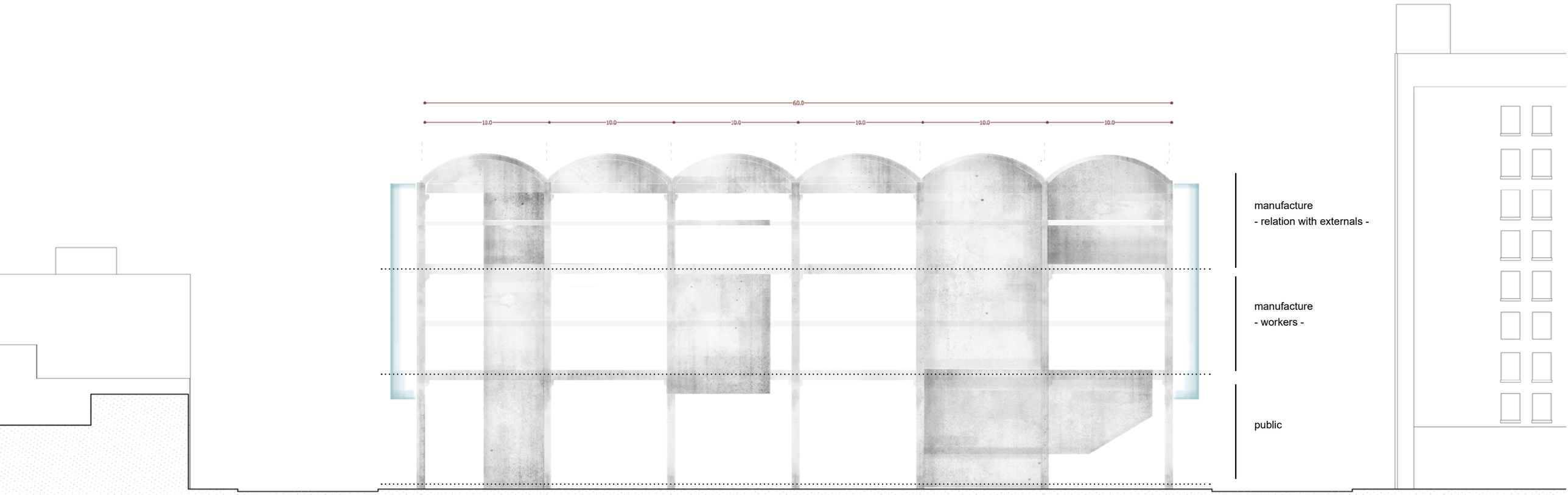
Cores

vertical core 1
/ service-workers /

vertical core 2
/ public-workers /
attached spaces with special qualities

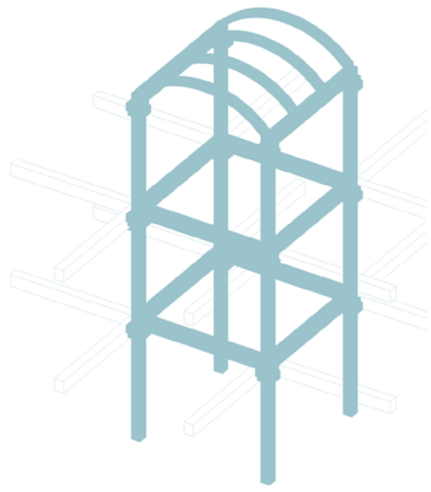


Organization of public-private spaces



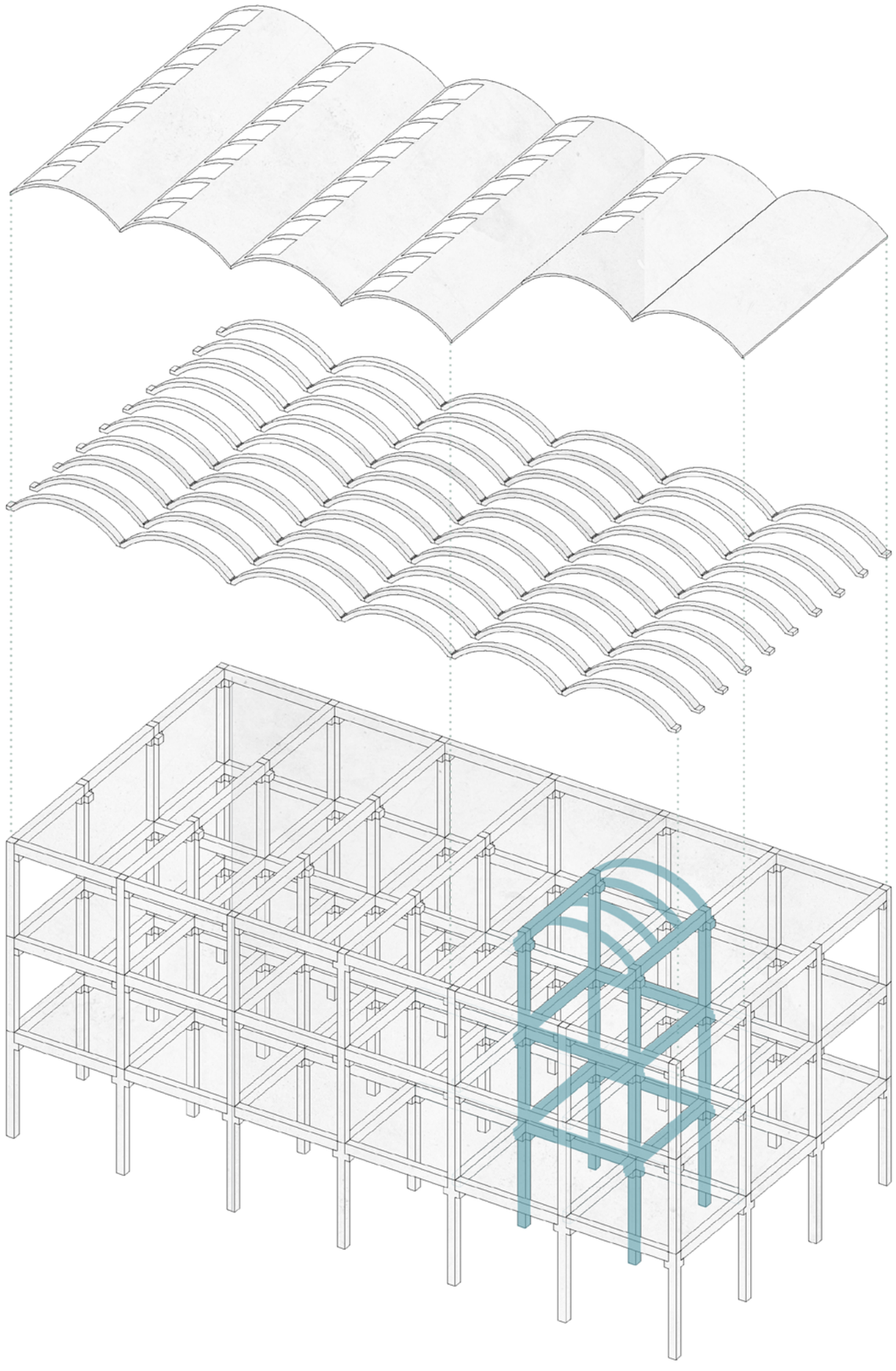
Structural system

Module 10x10 meters



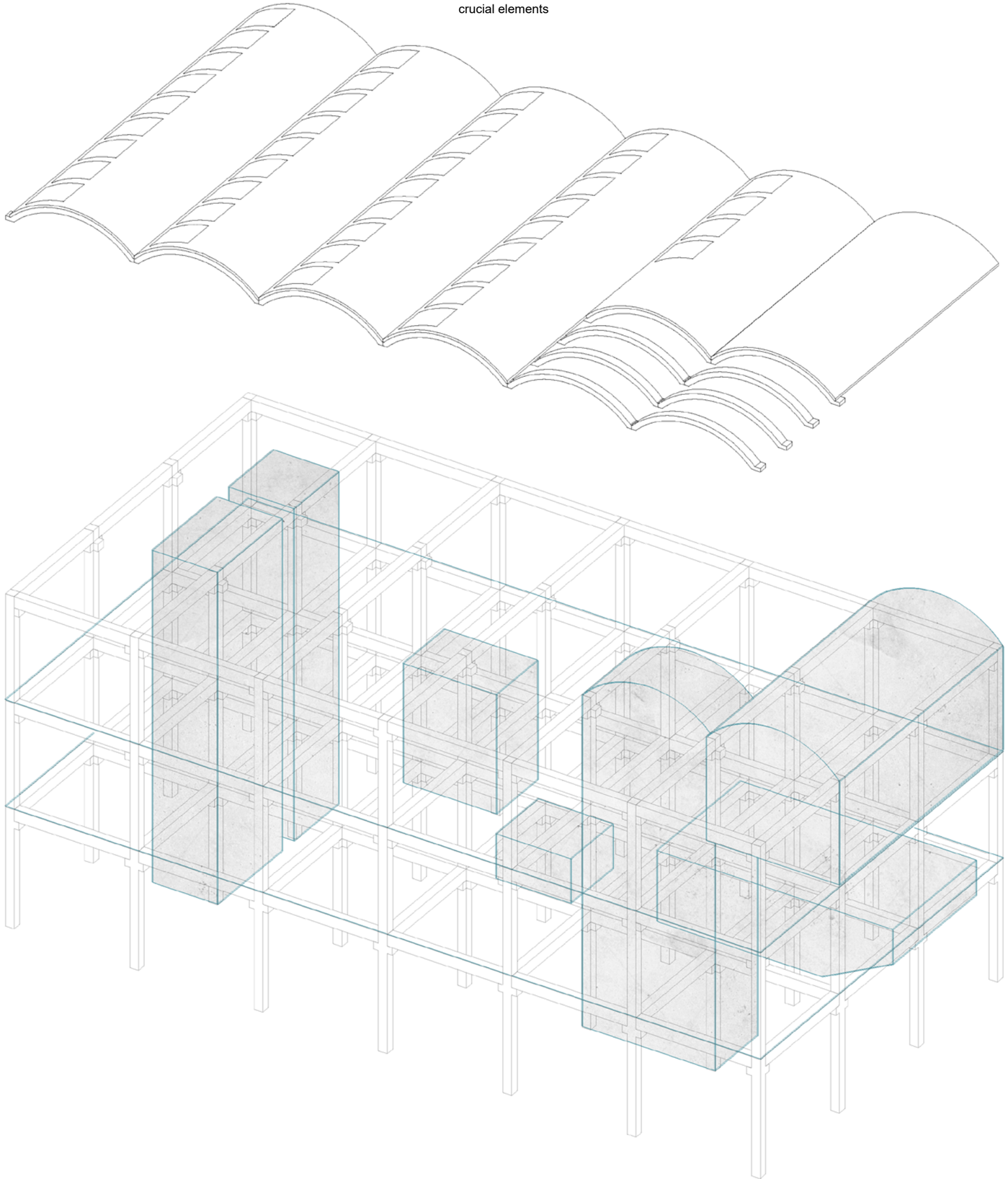
Structural system

genericity



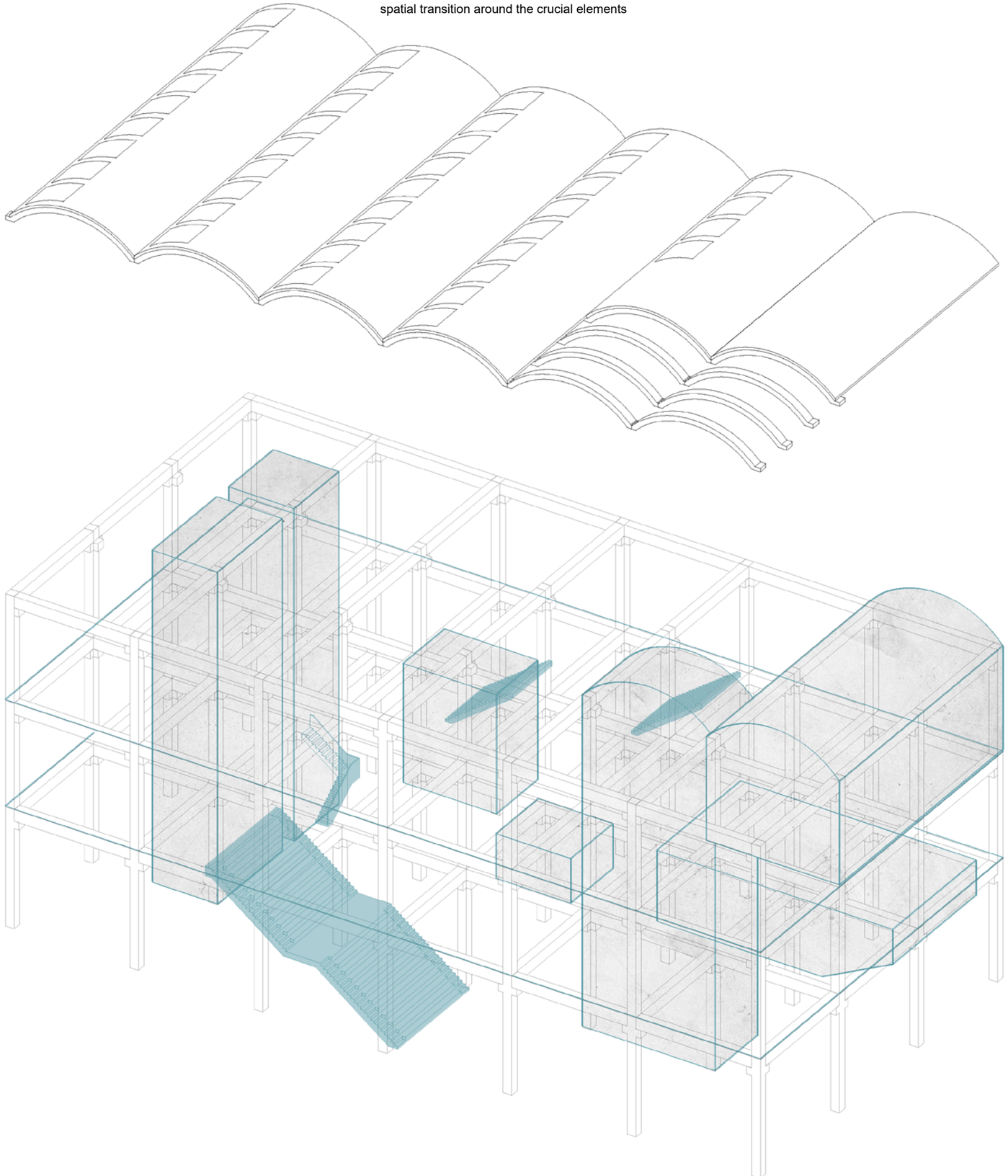
Structural system

crucial elements



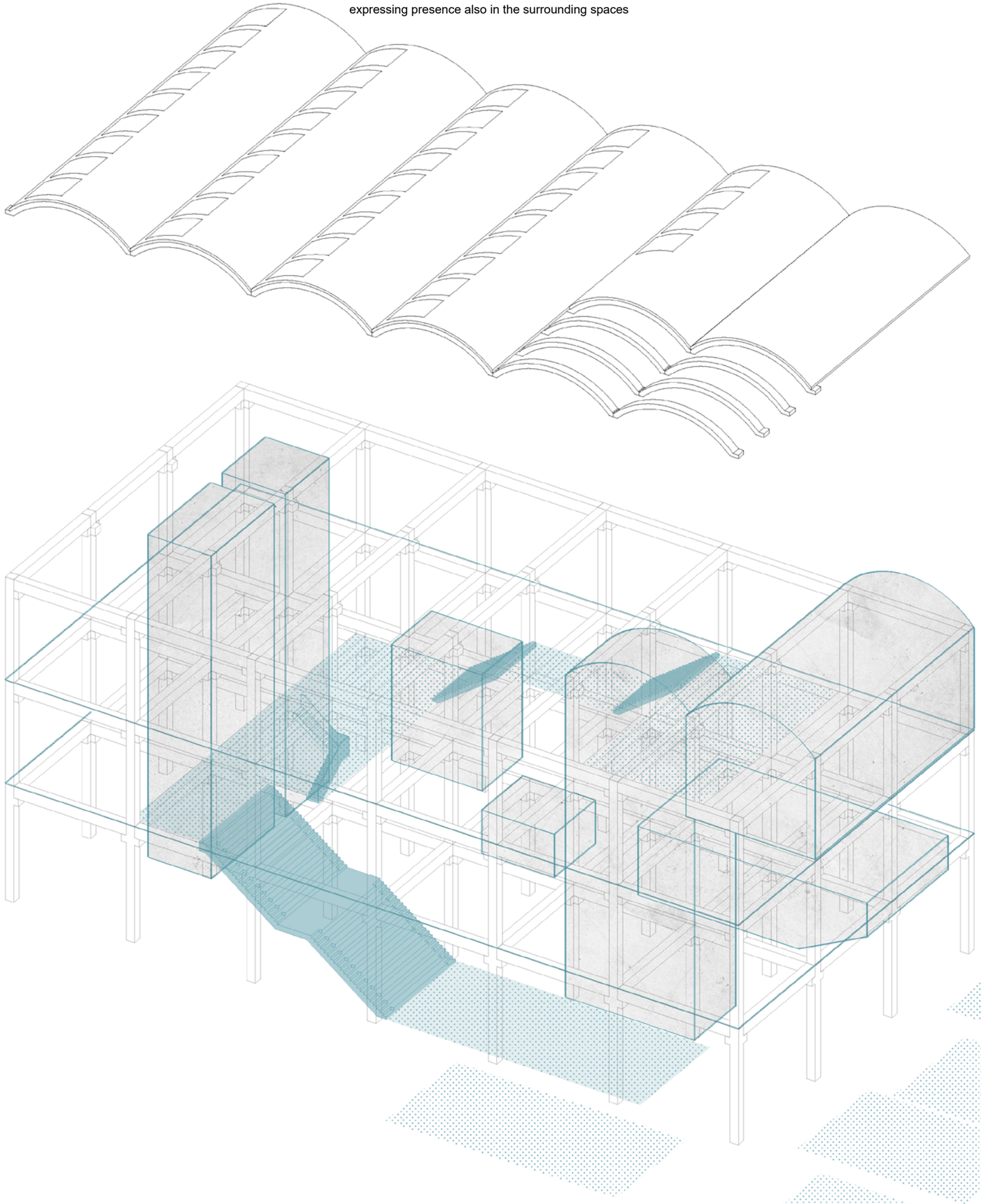
Structural system

spatial transition around the crucial elements

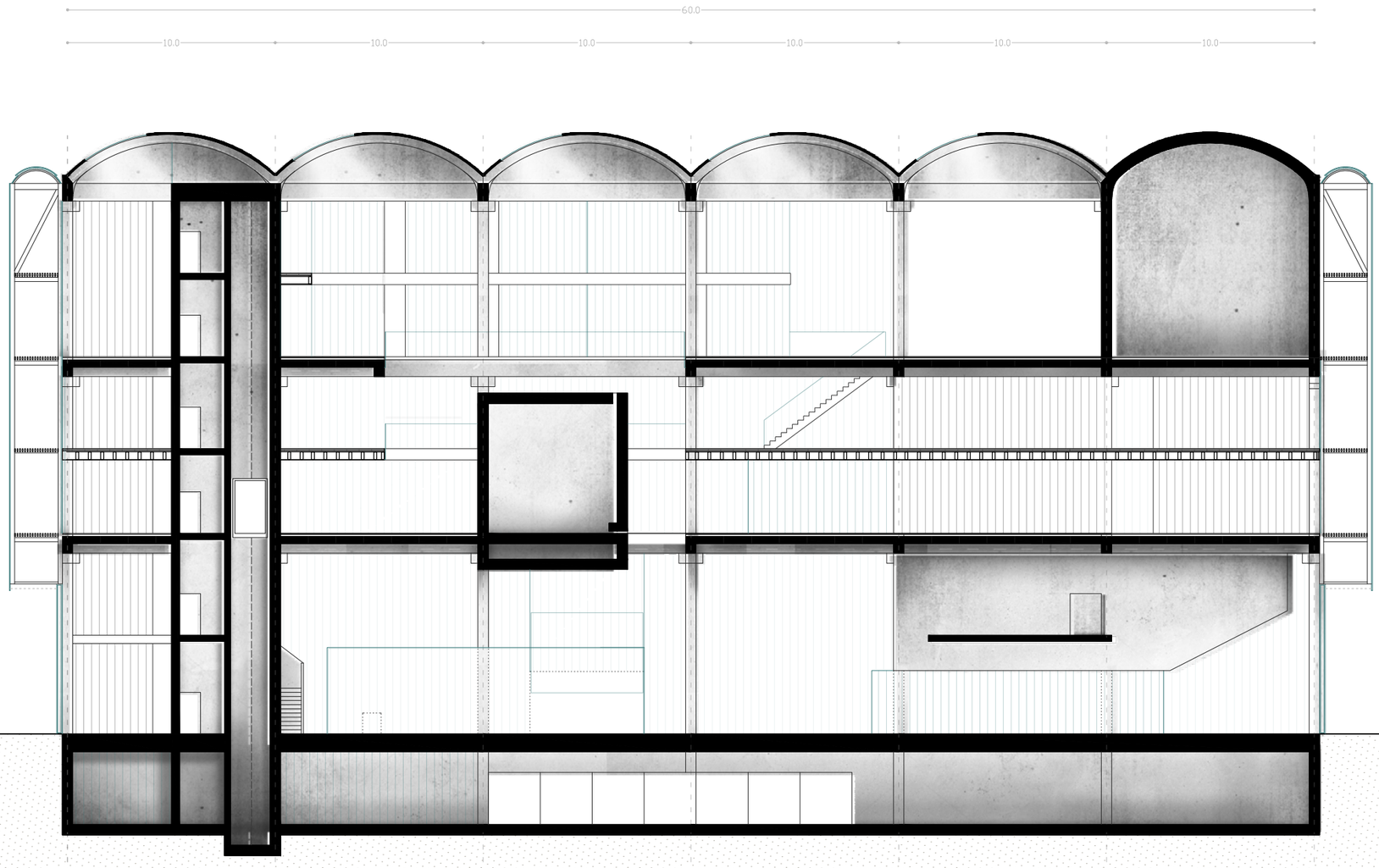


Structural system

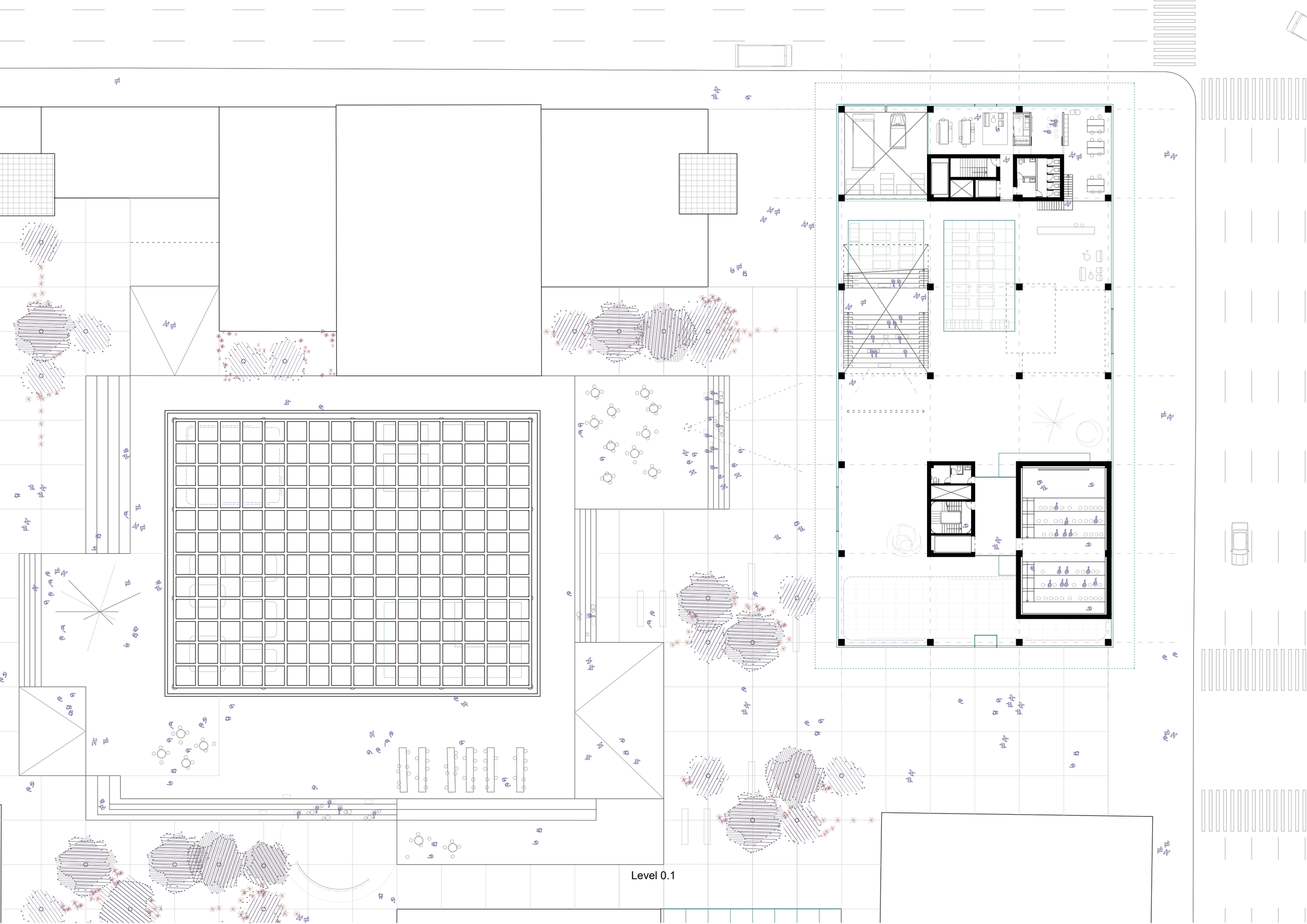
expressing presence also in the surrounding spaces



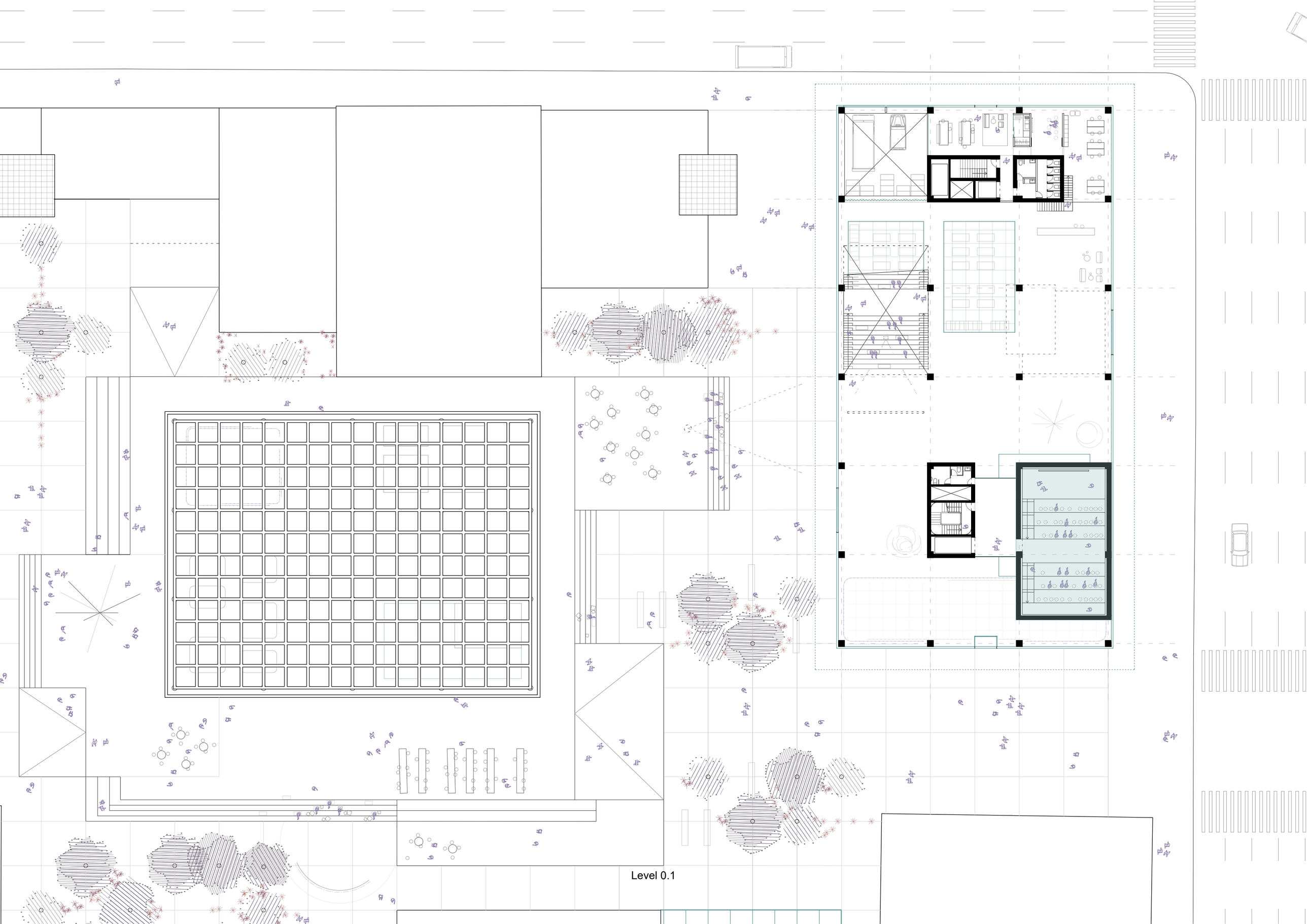
Section



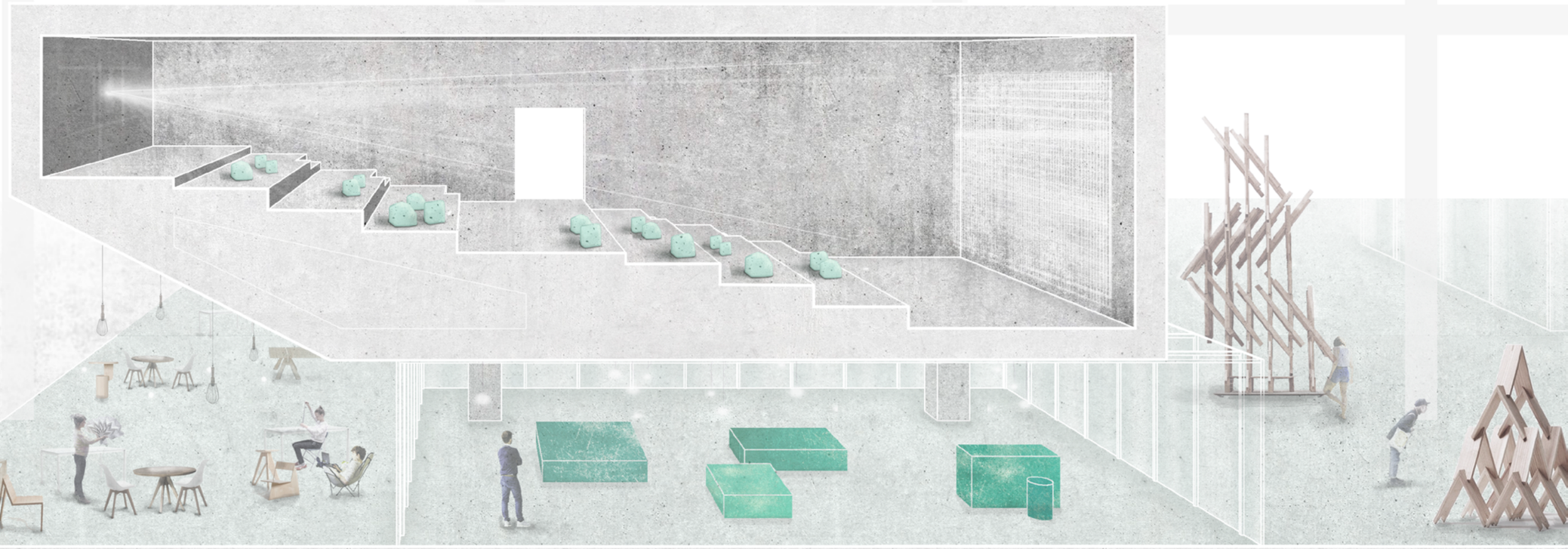
Level 0.0



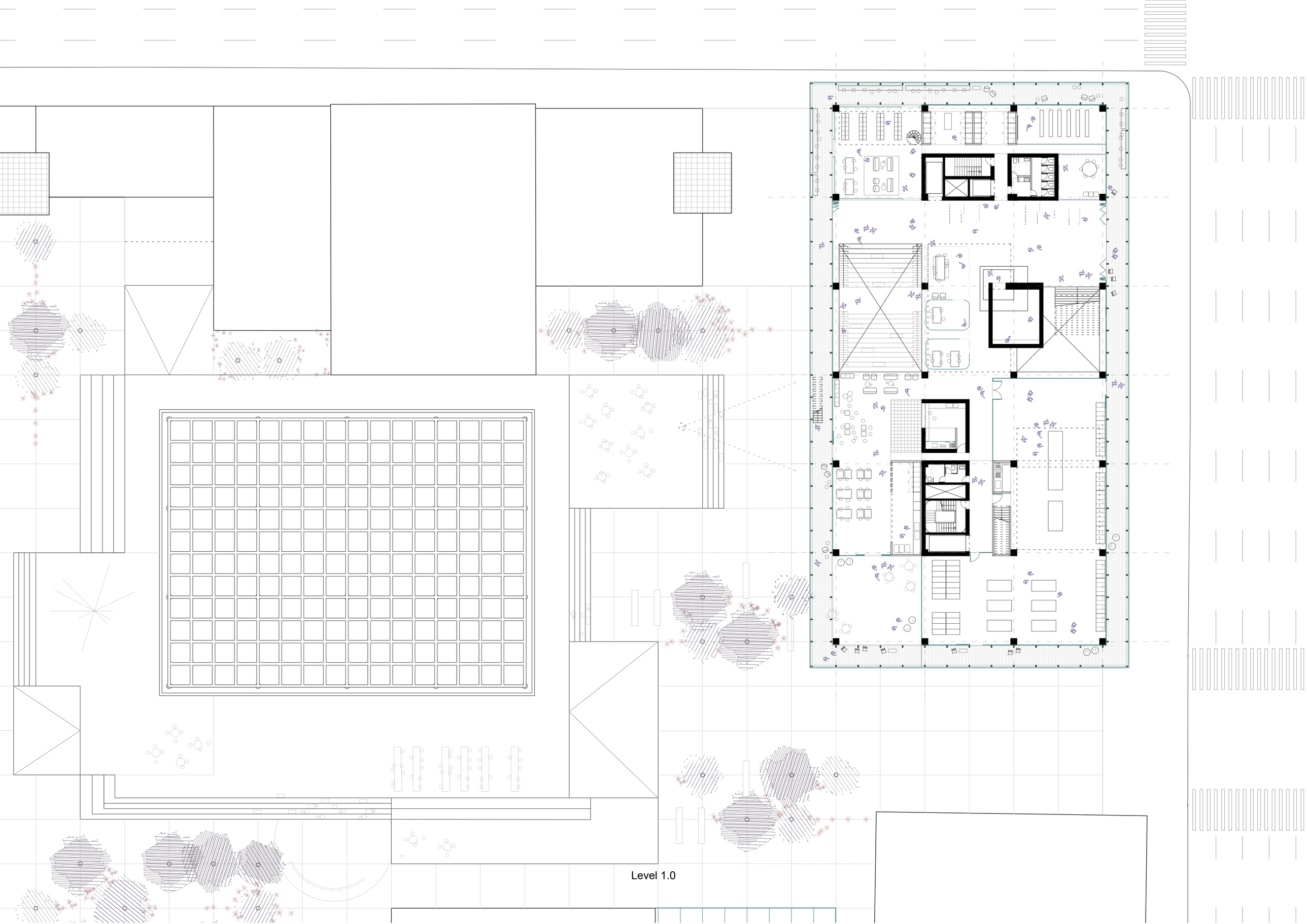
Level 0.1



Level 0.1



Flexible auditorium, shop and public productive space

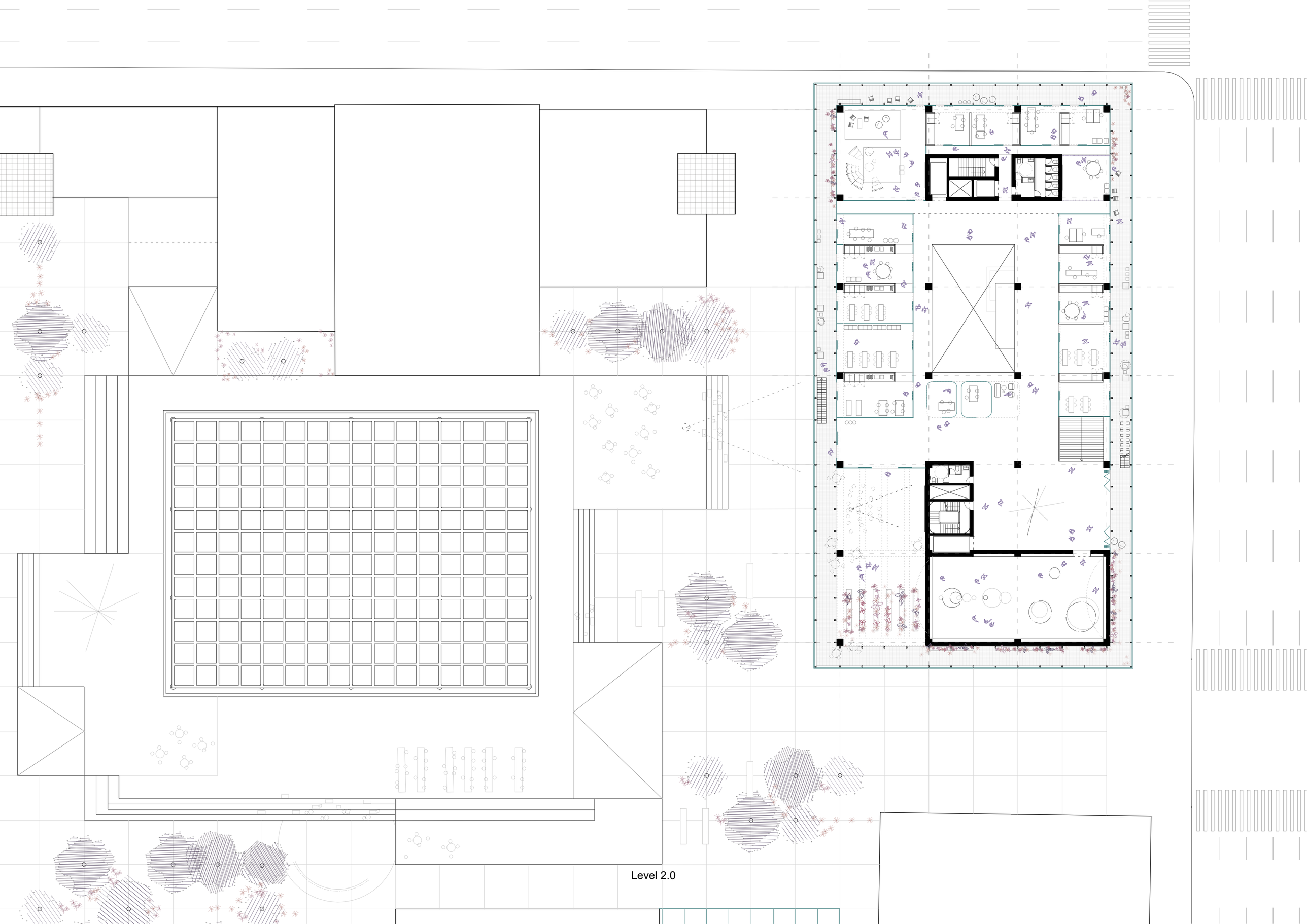


Level 1.0

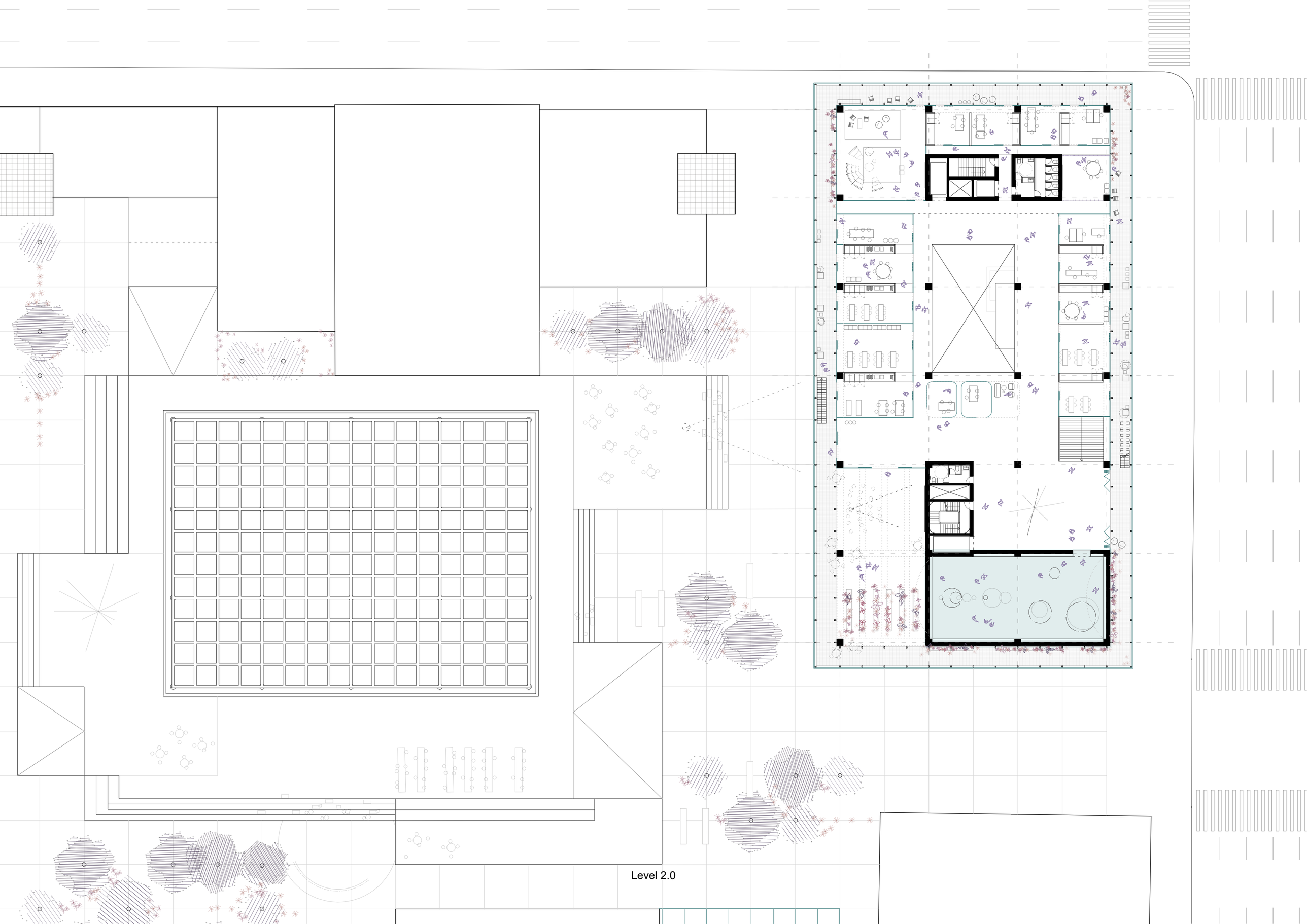
Level 1.0

Space of exhibition - promotion -

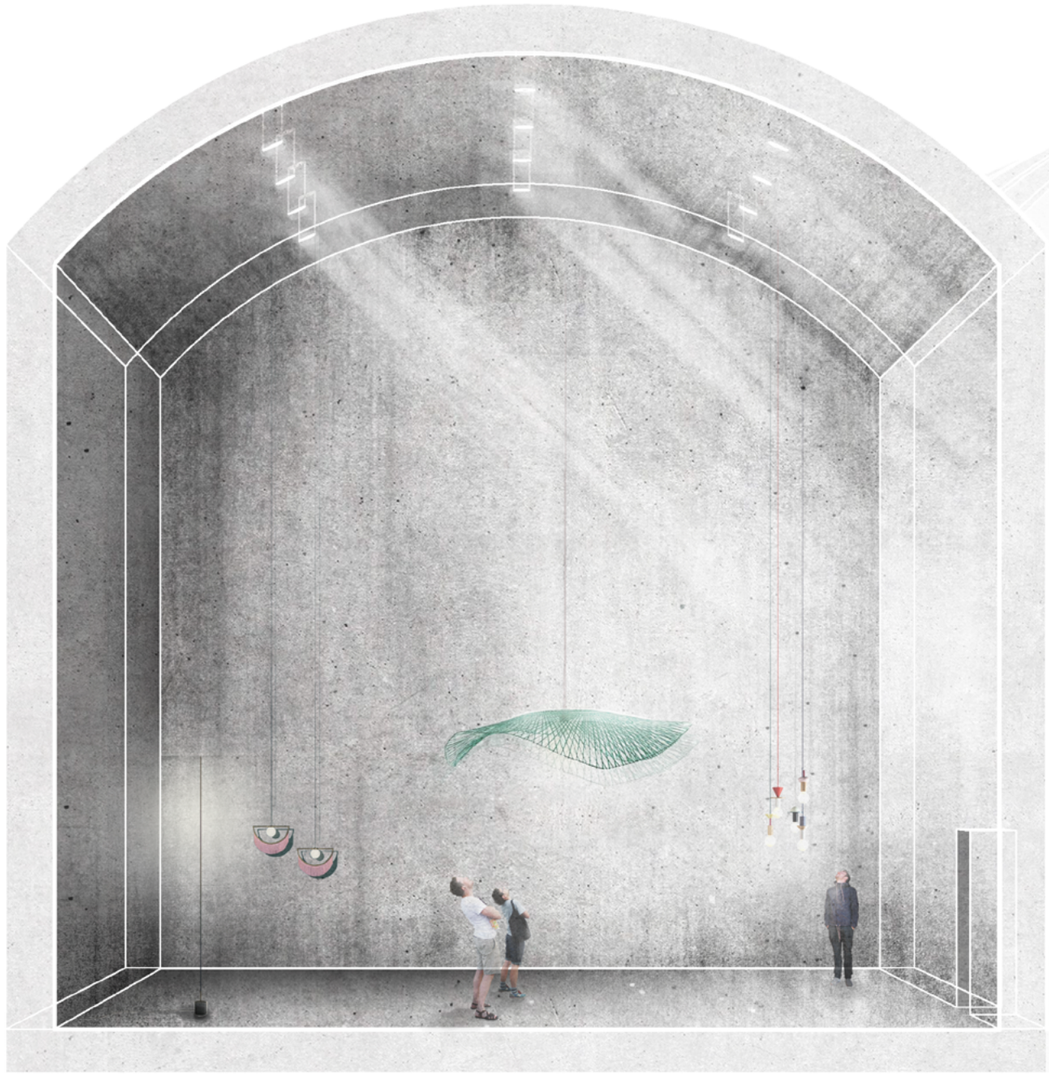
Level 1.1



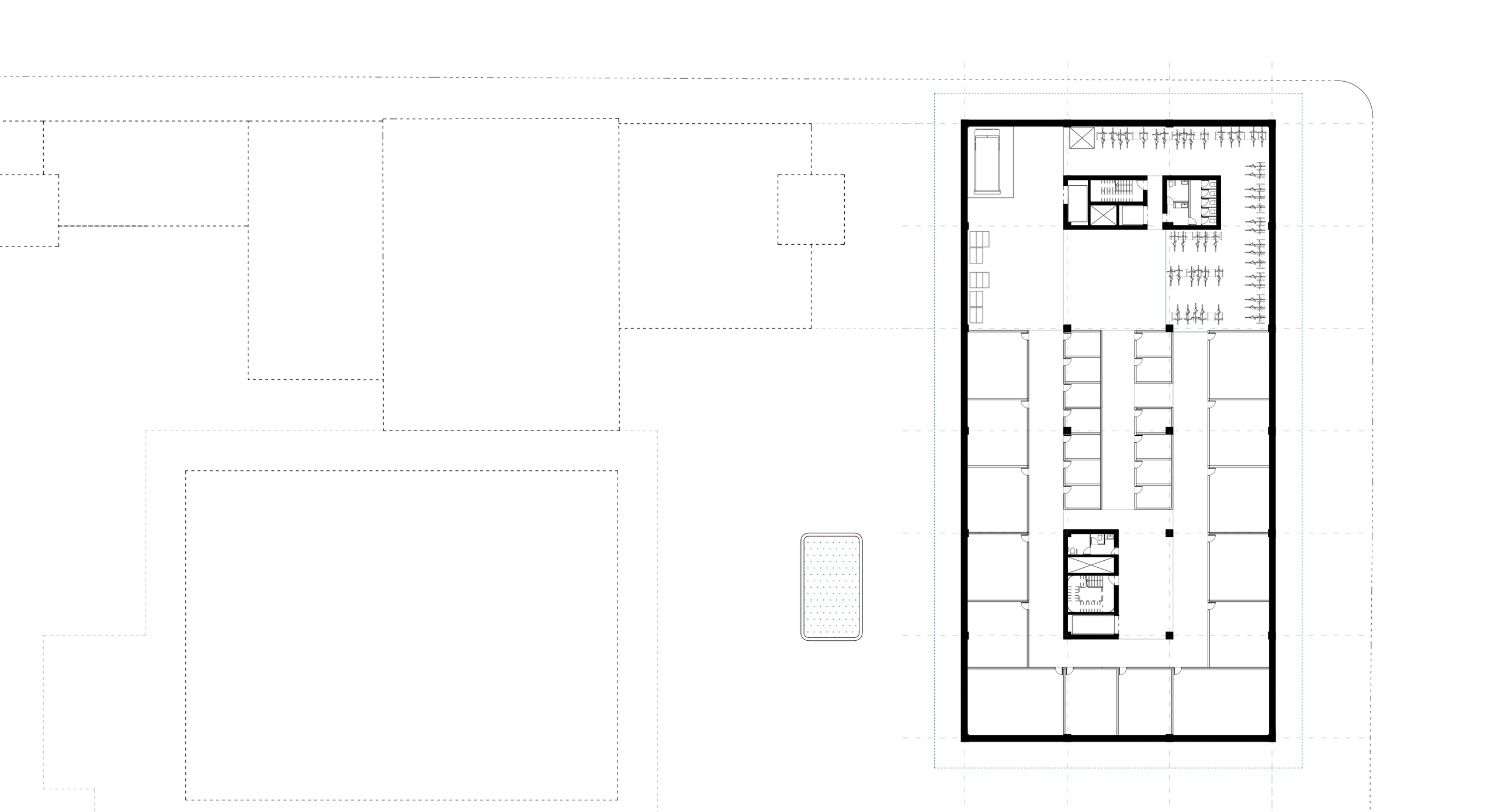
Level 2.0



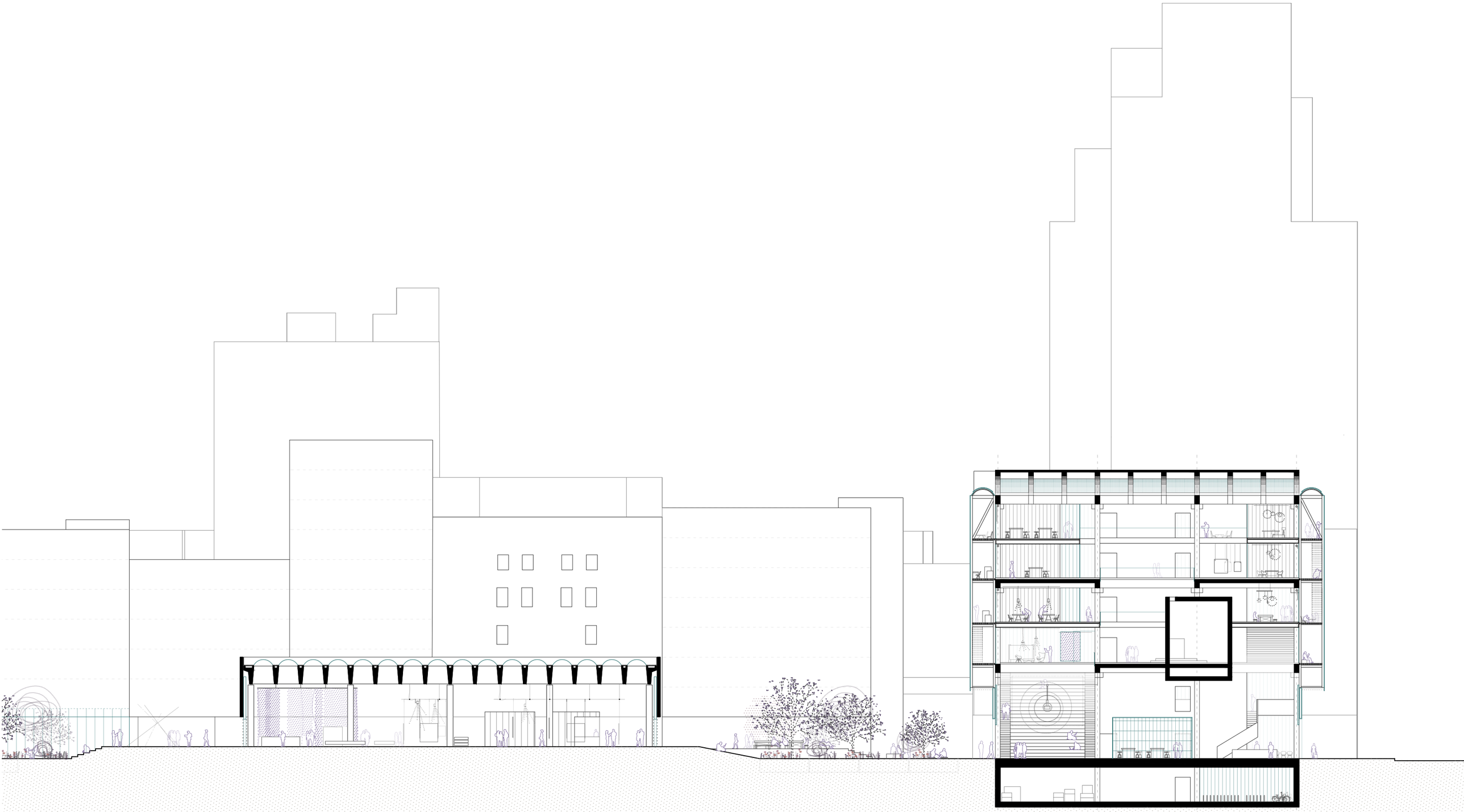
Level 2.0



Space of exhibition - promotion -



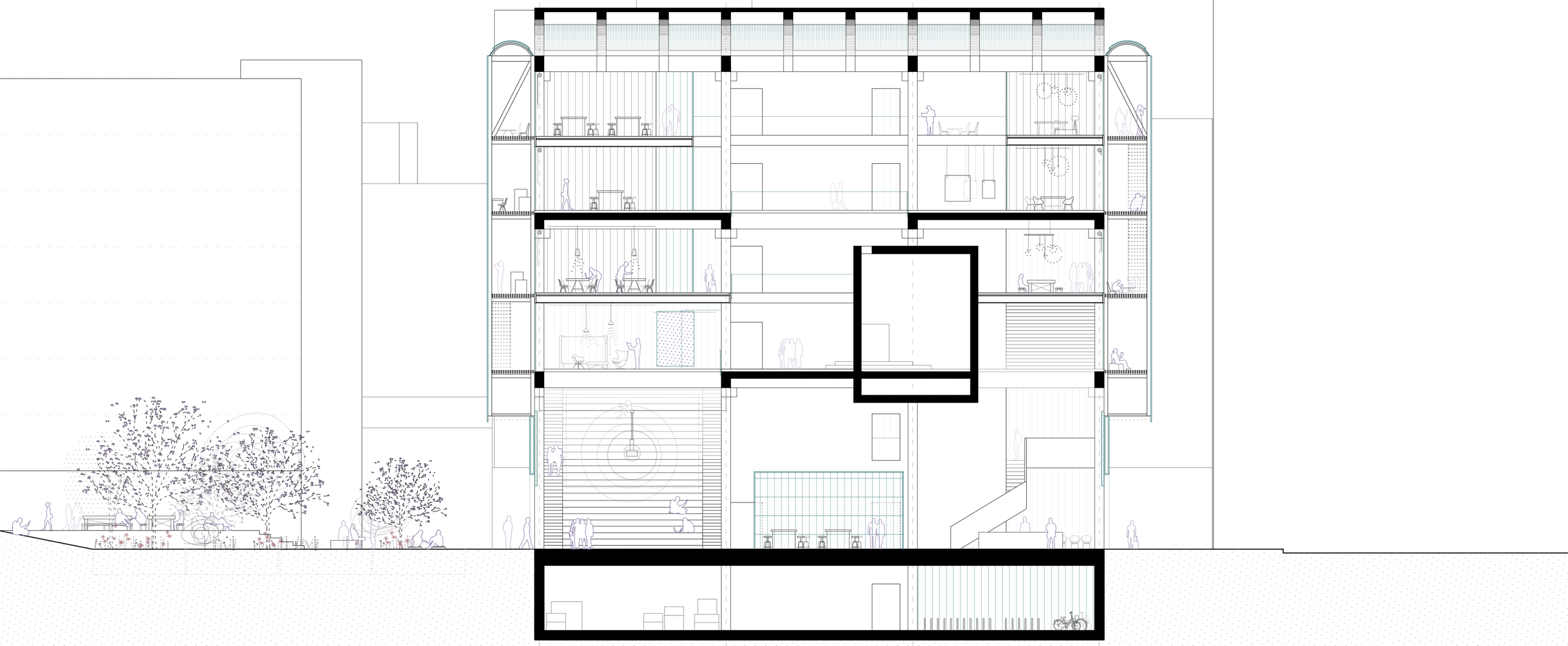
Basement



Section - the courtyard as element of connection

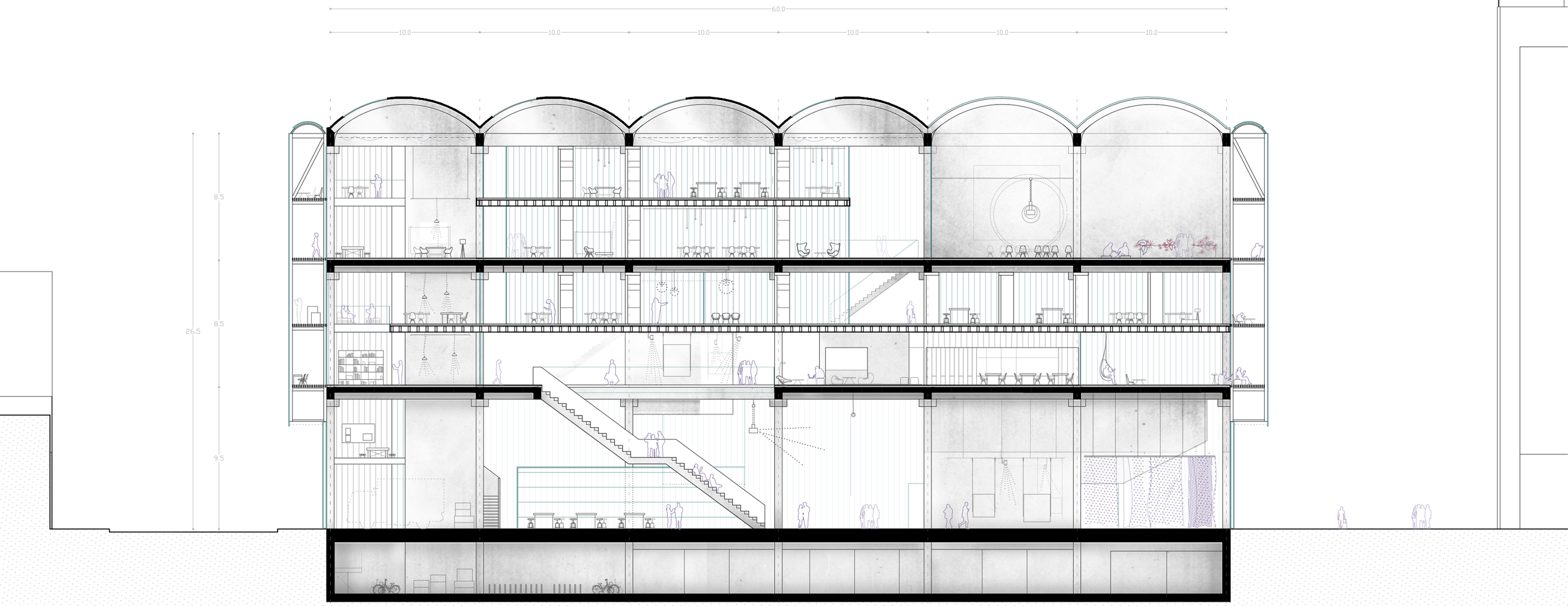
Central courtyard

Central building - creating relations with the City -



Longitudinal section

Entrance hall

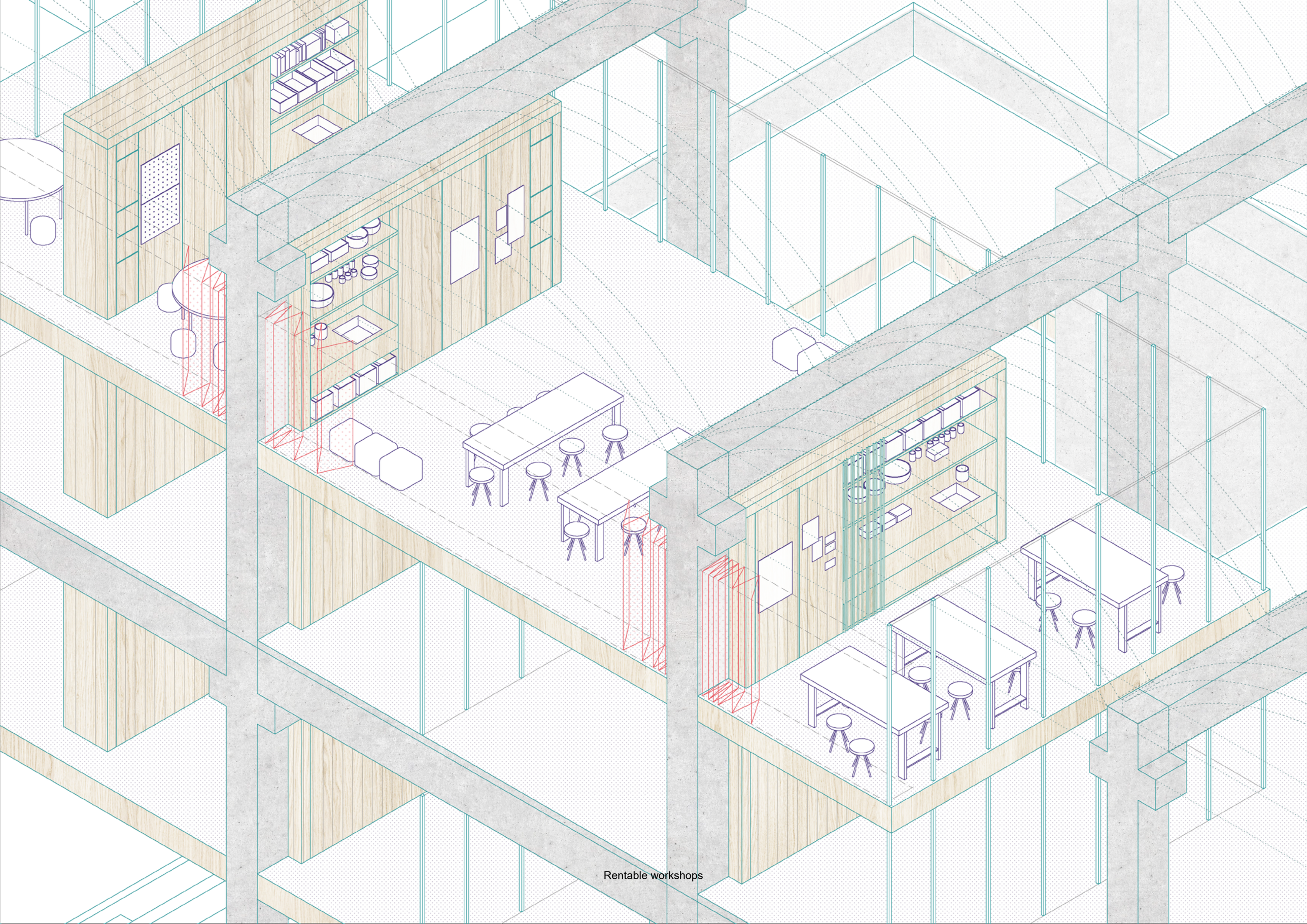


Longitudinal section

Top floor - workshops

Main load-bearing structure

Secondary structure



Rentable workshops

Rentable workshops and its connection with the showrooms - walkways -

Building Technology

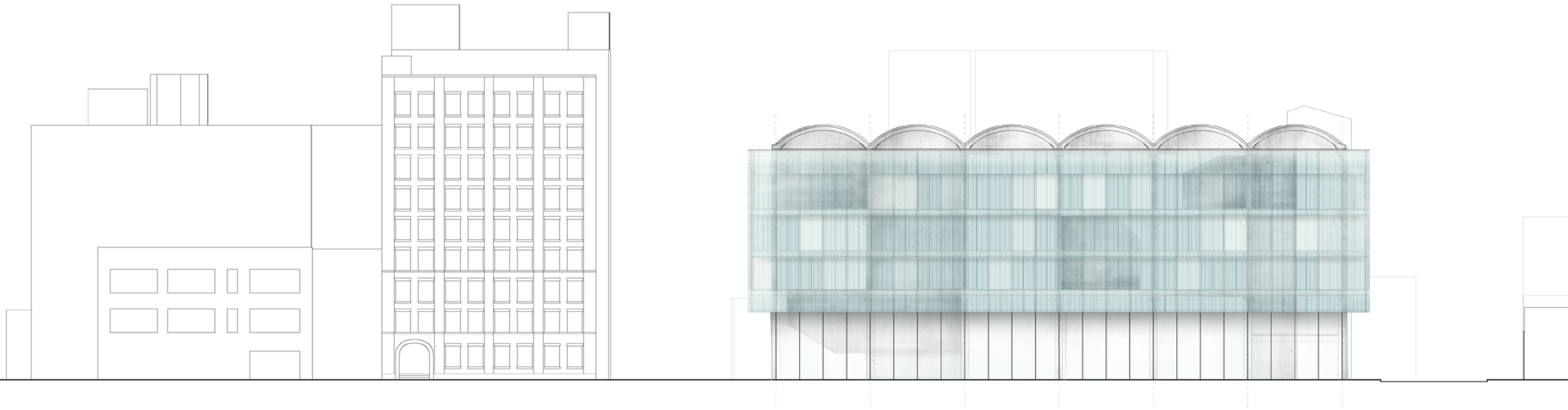
definition

facade

expression to the public environment

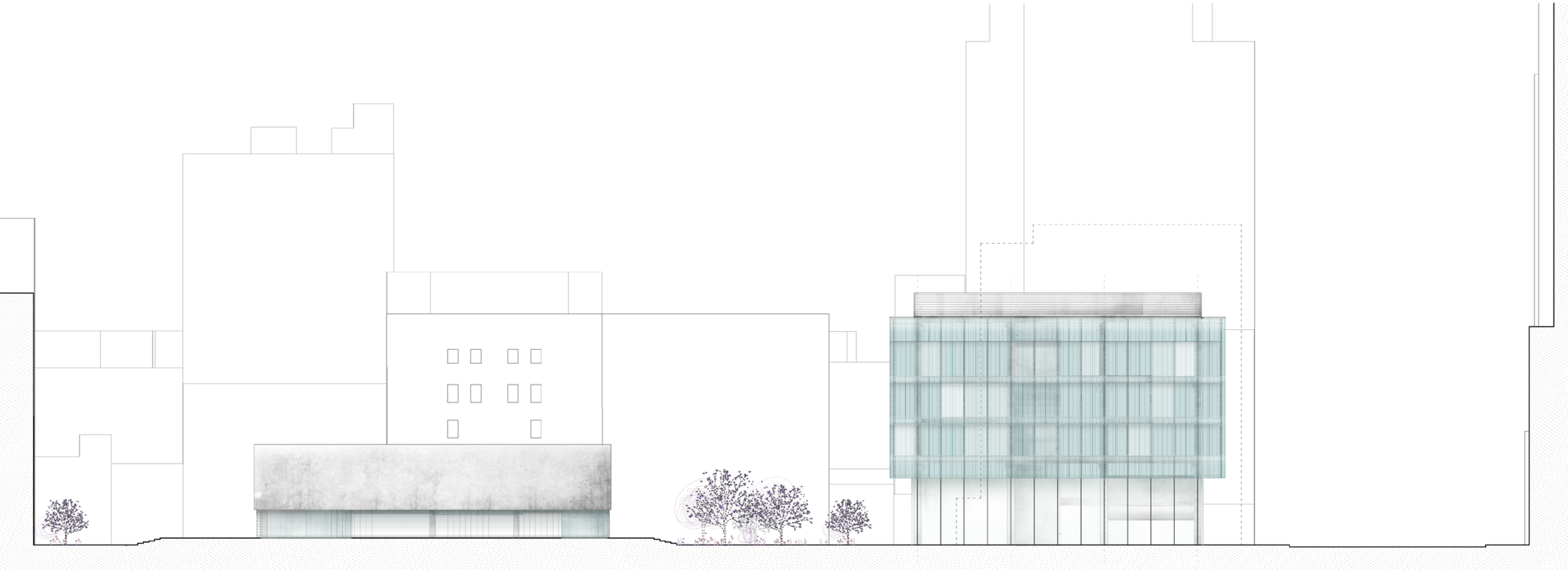
Elevation

urban setting



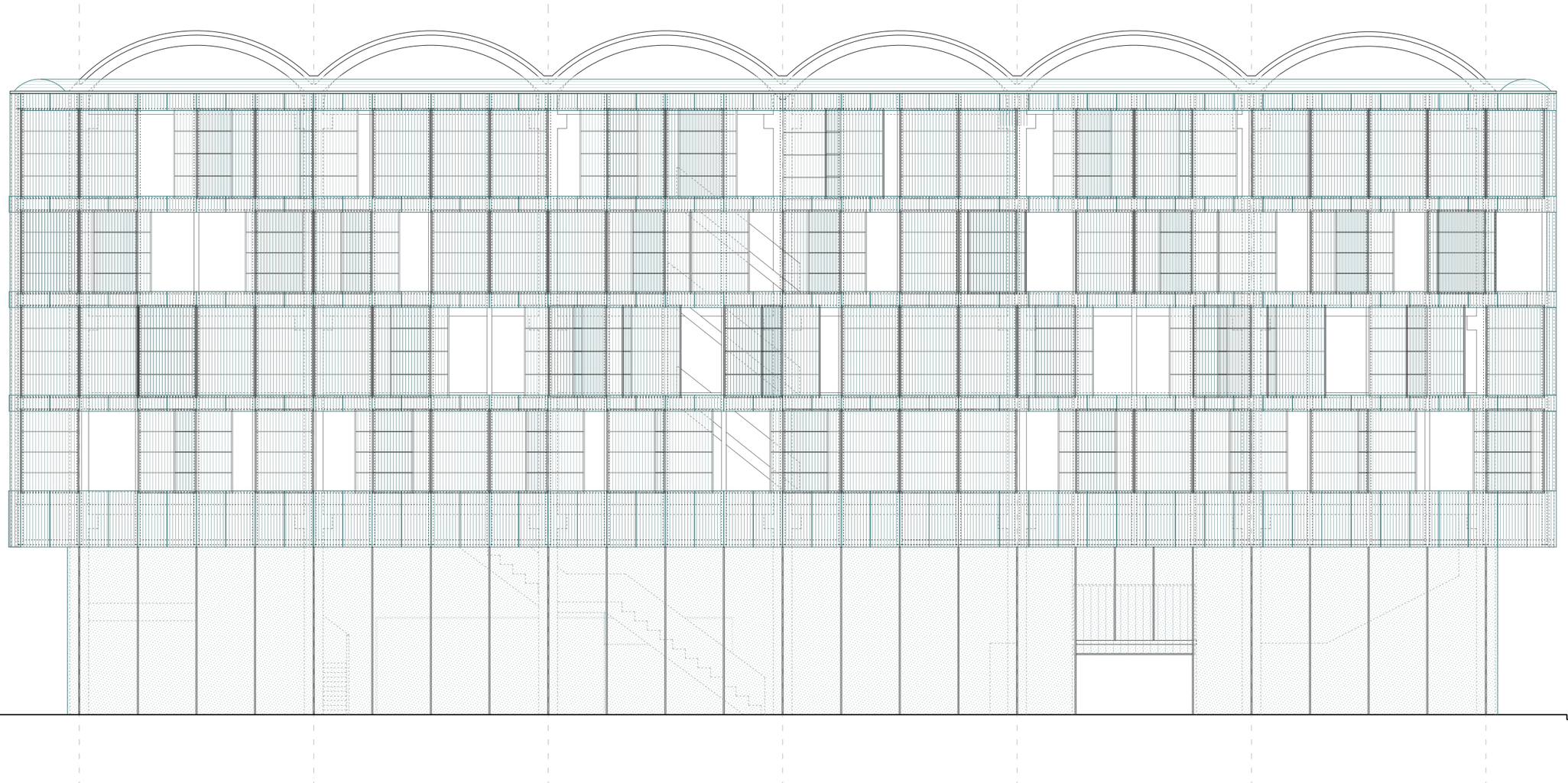
Elevation

urban setting



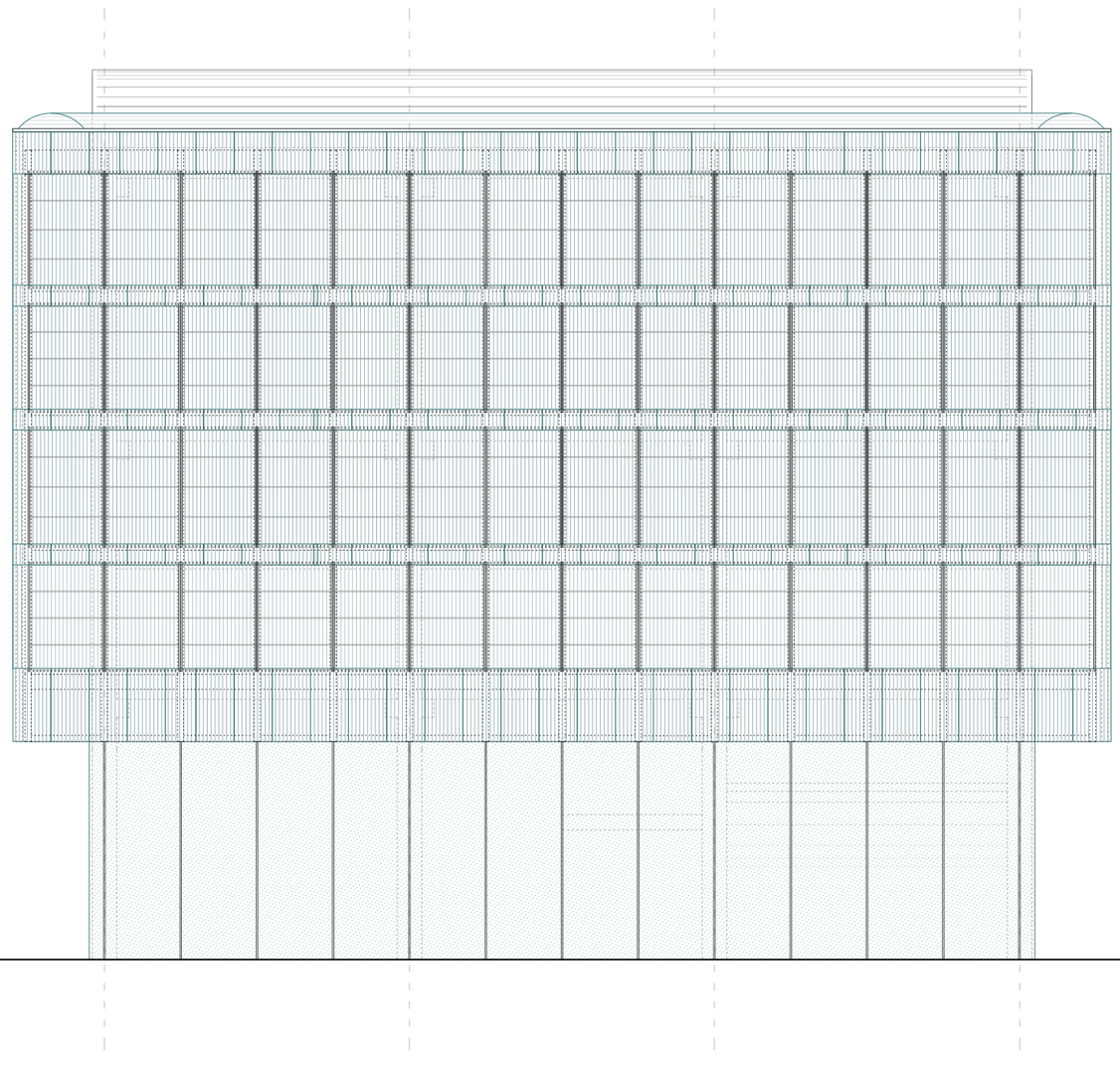
Elevation

system of facade

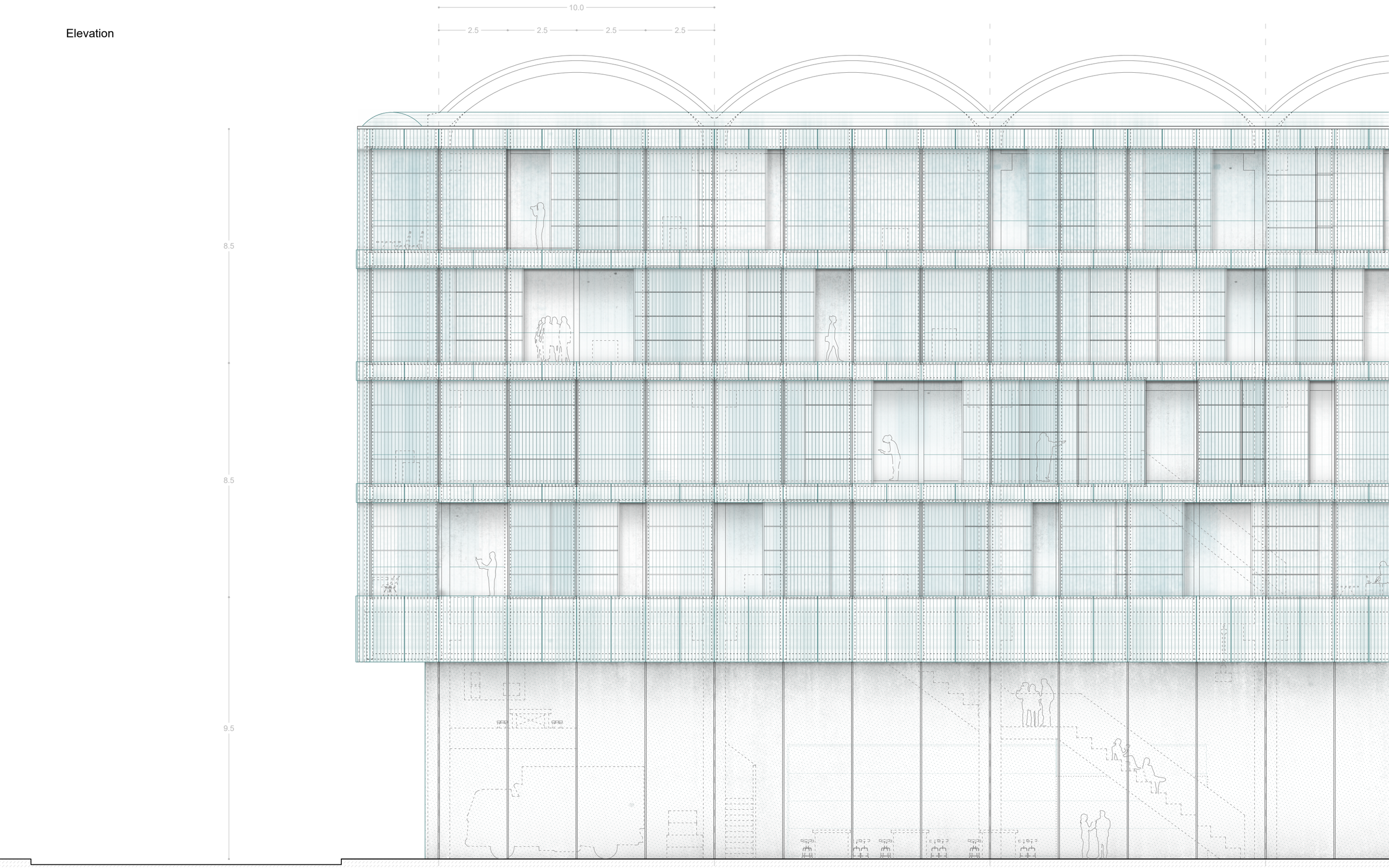


Elevation

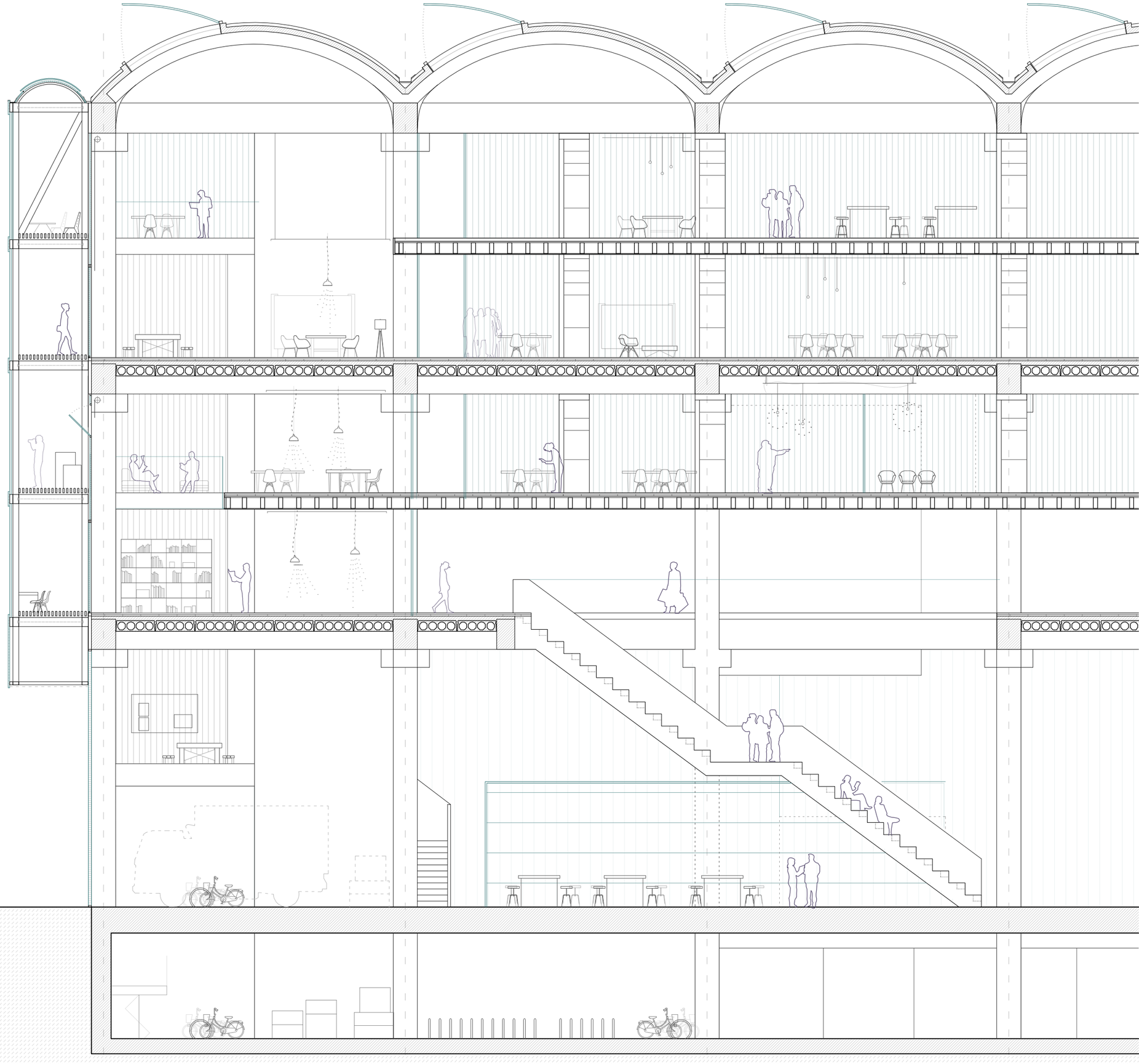
system of facade



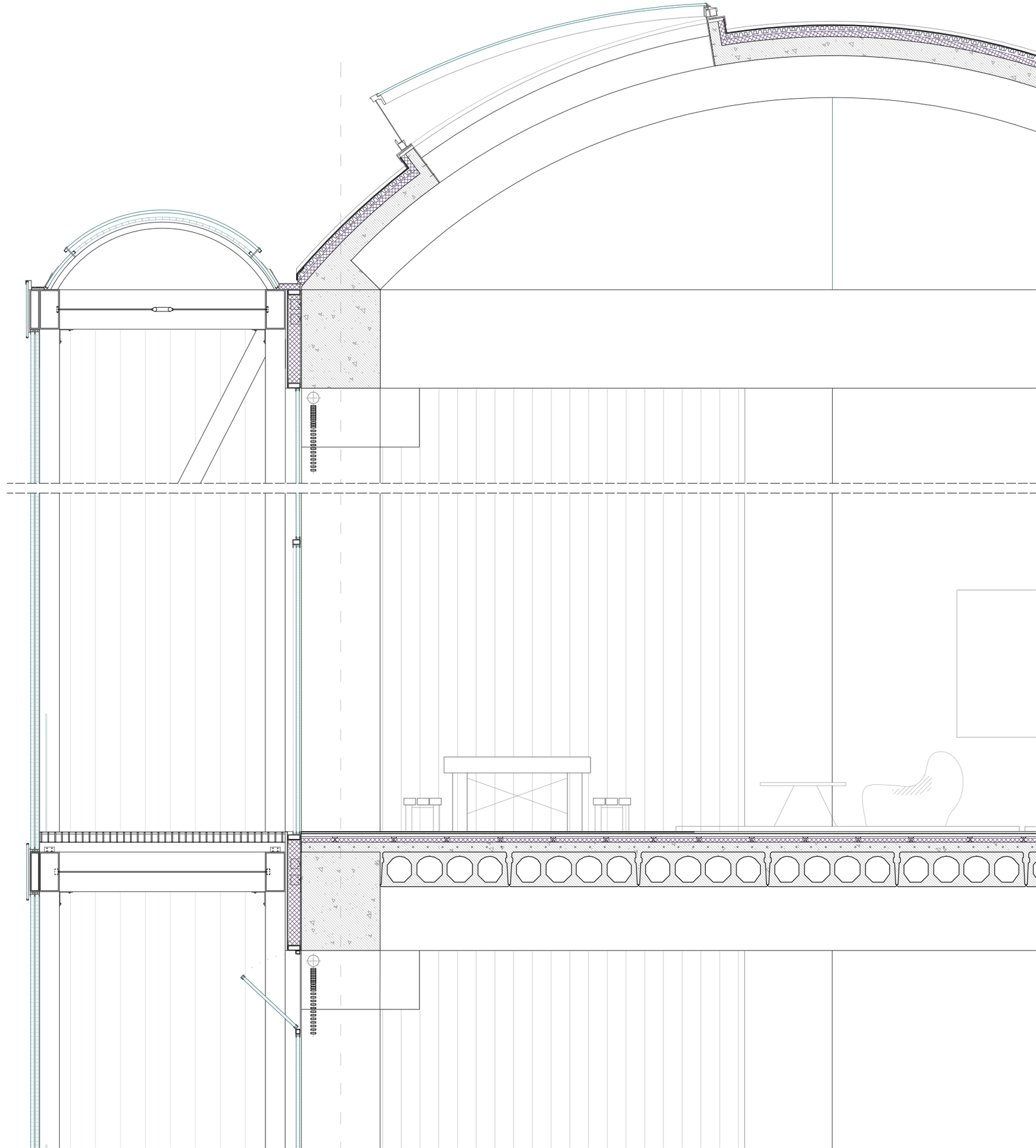
Elevation



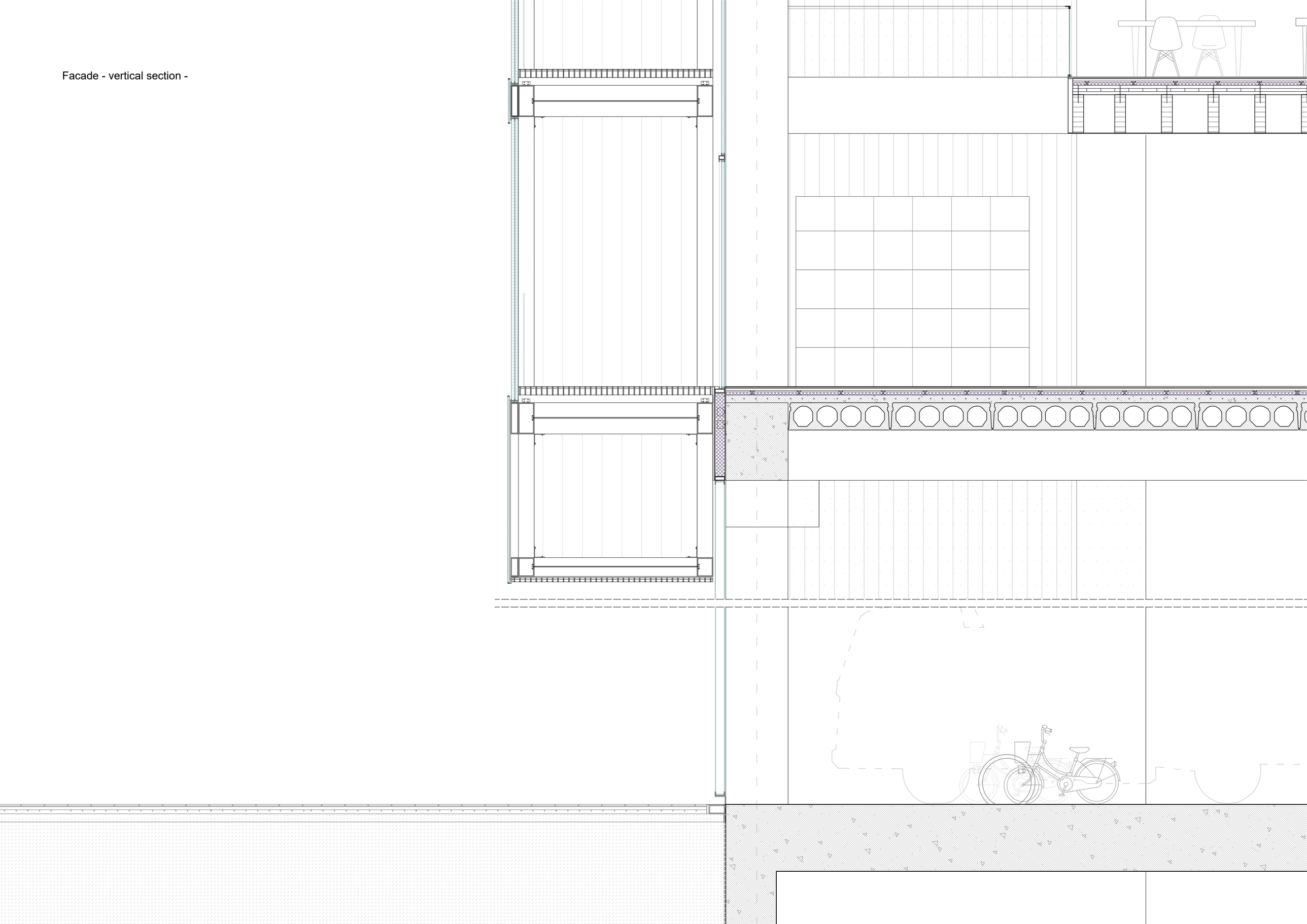
Section



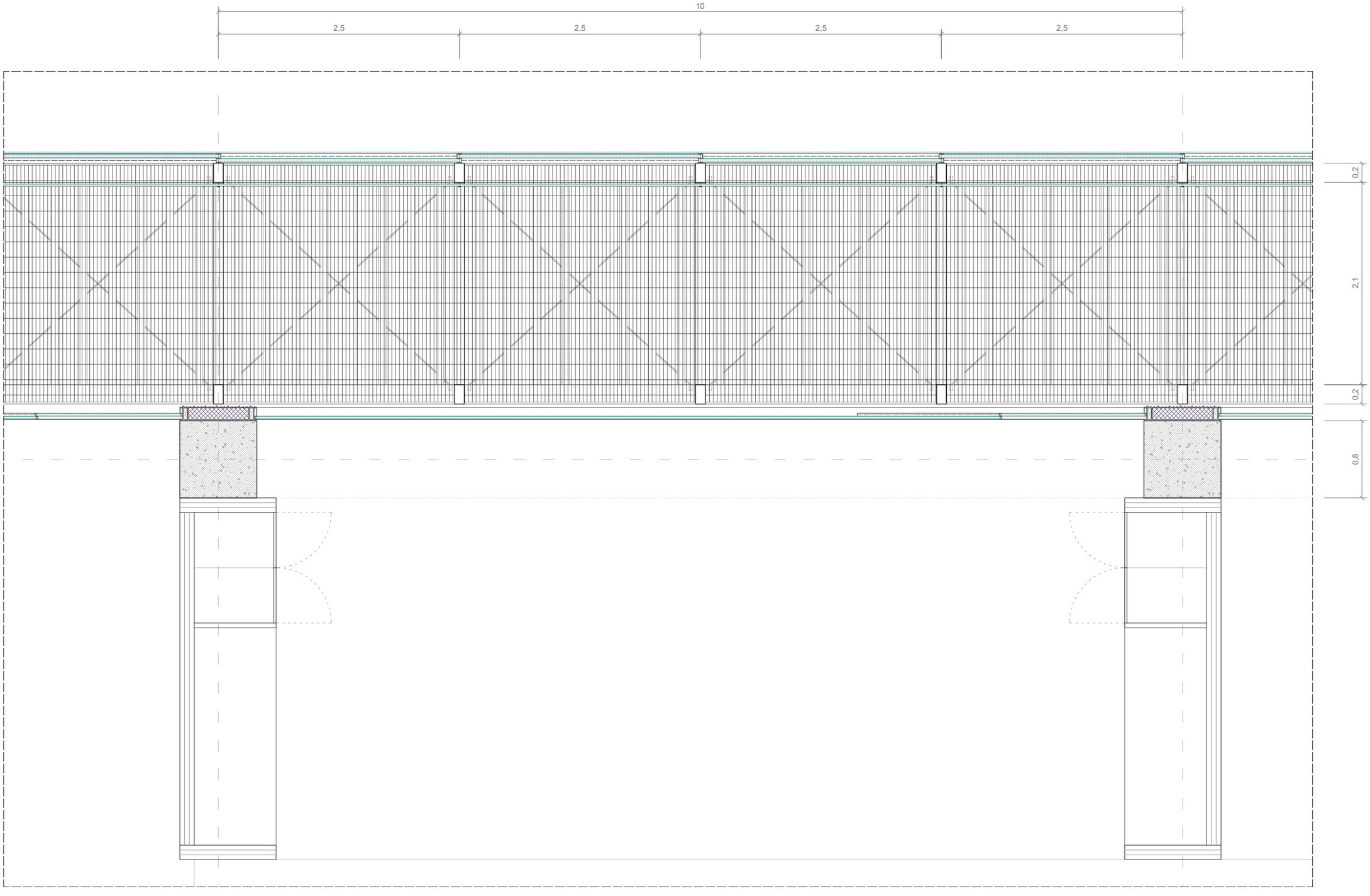
Facade - vertical section -

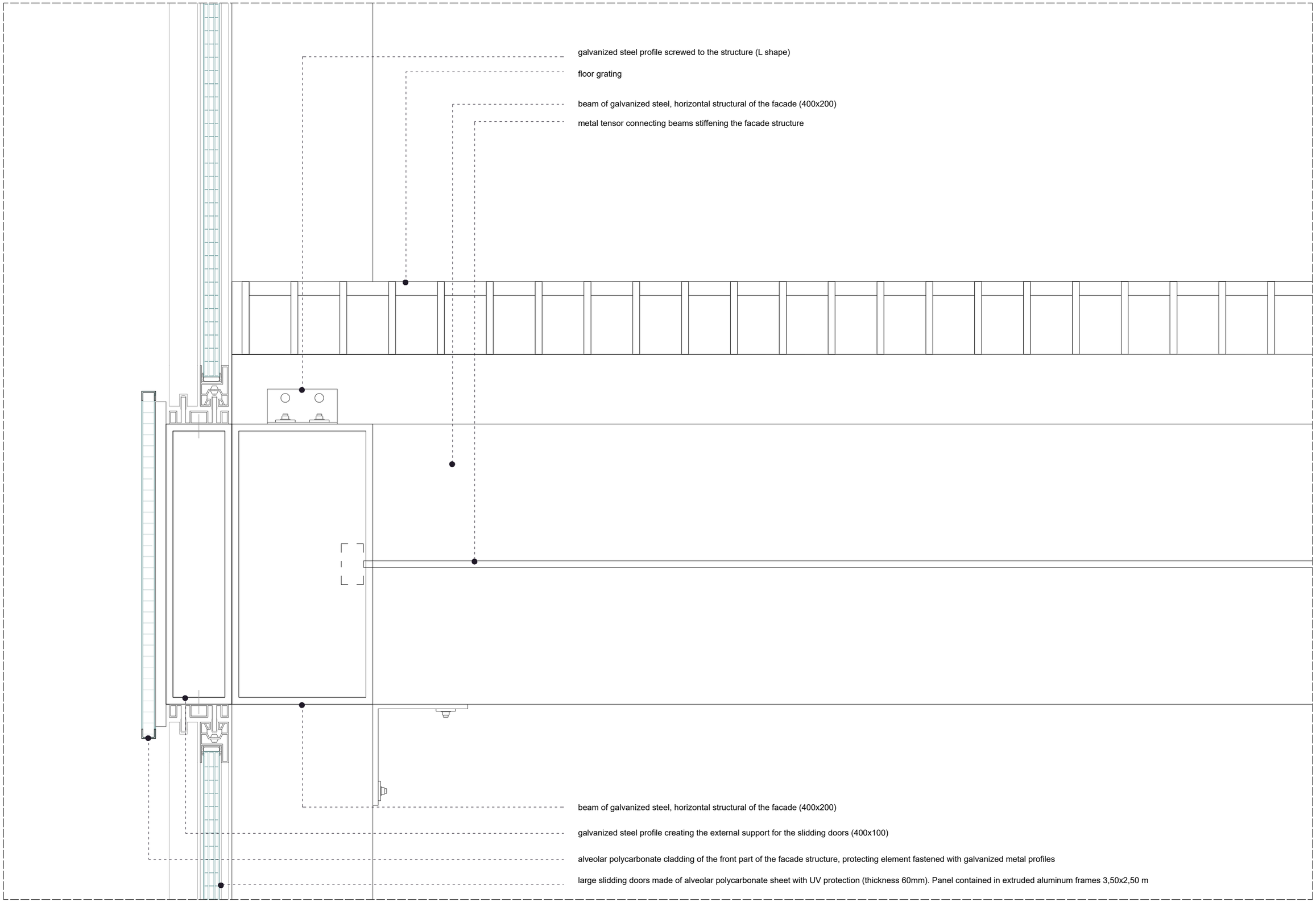


Facade - vertical section -

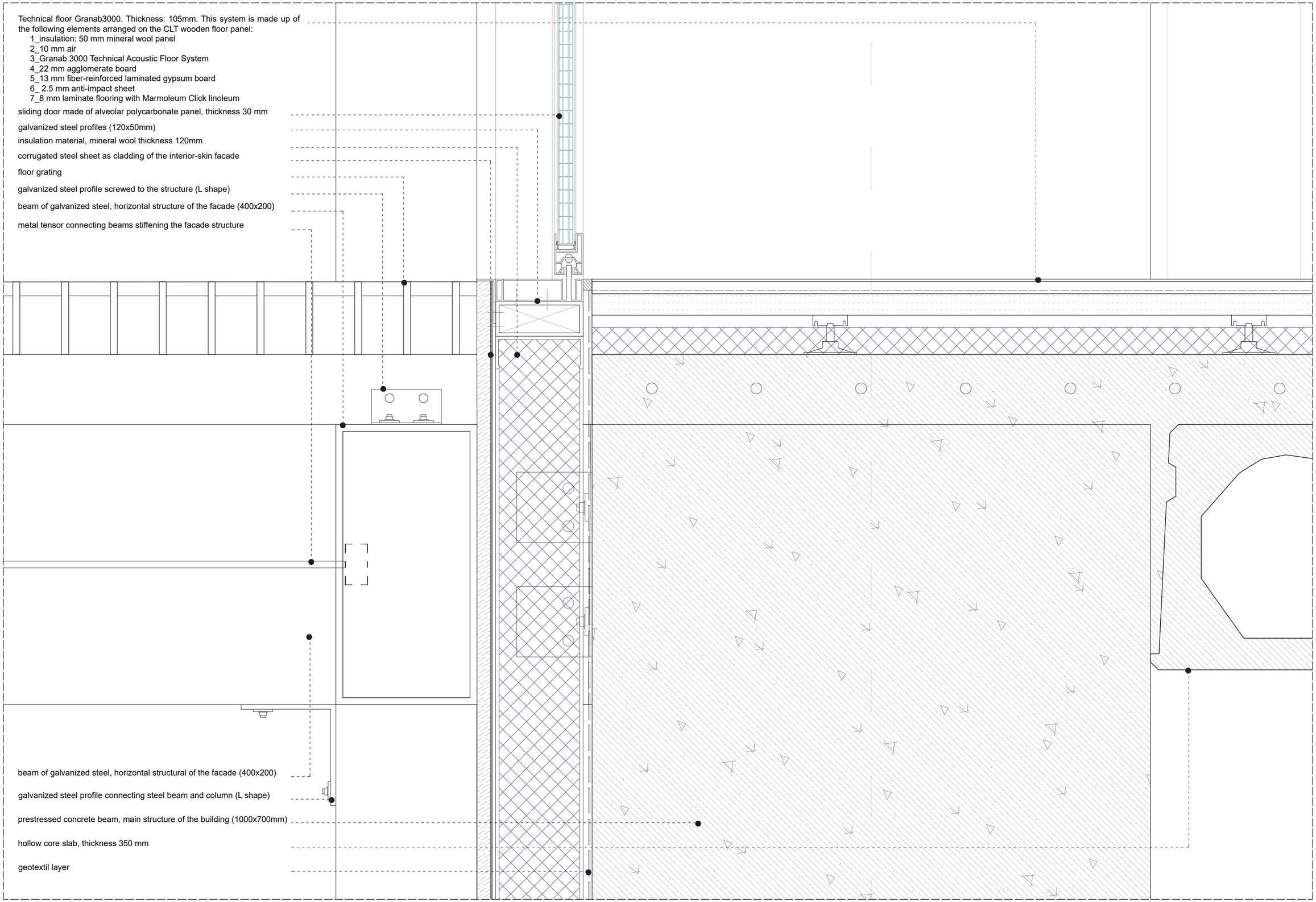


Facade - horizontal section -

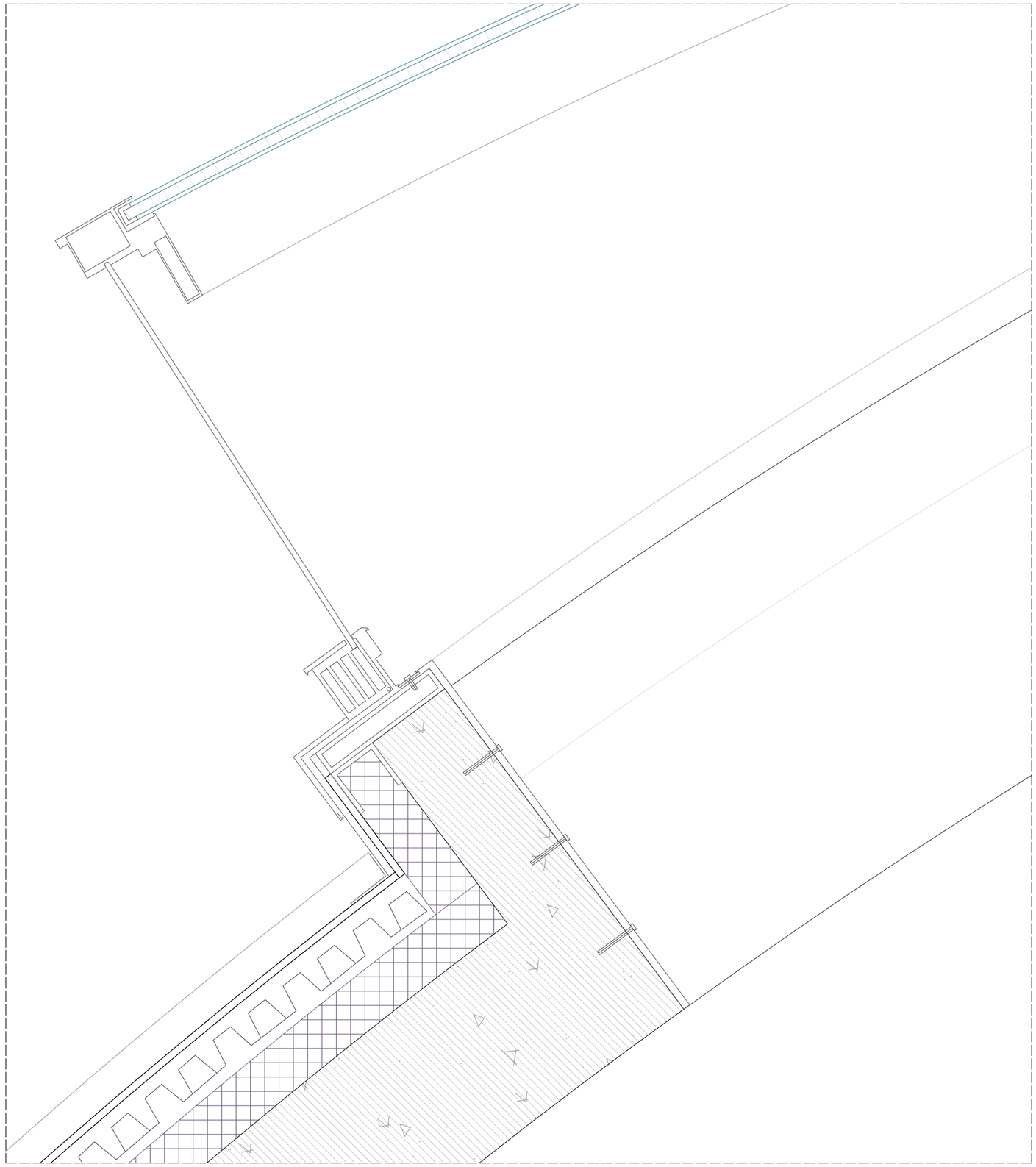


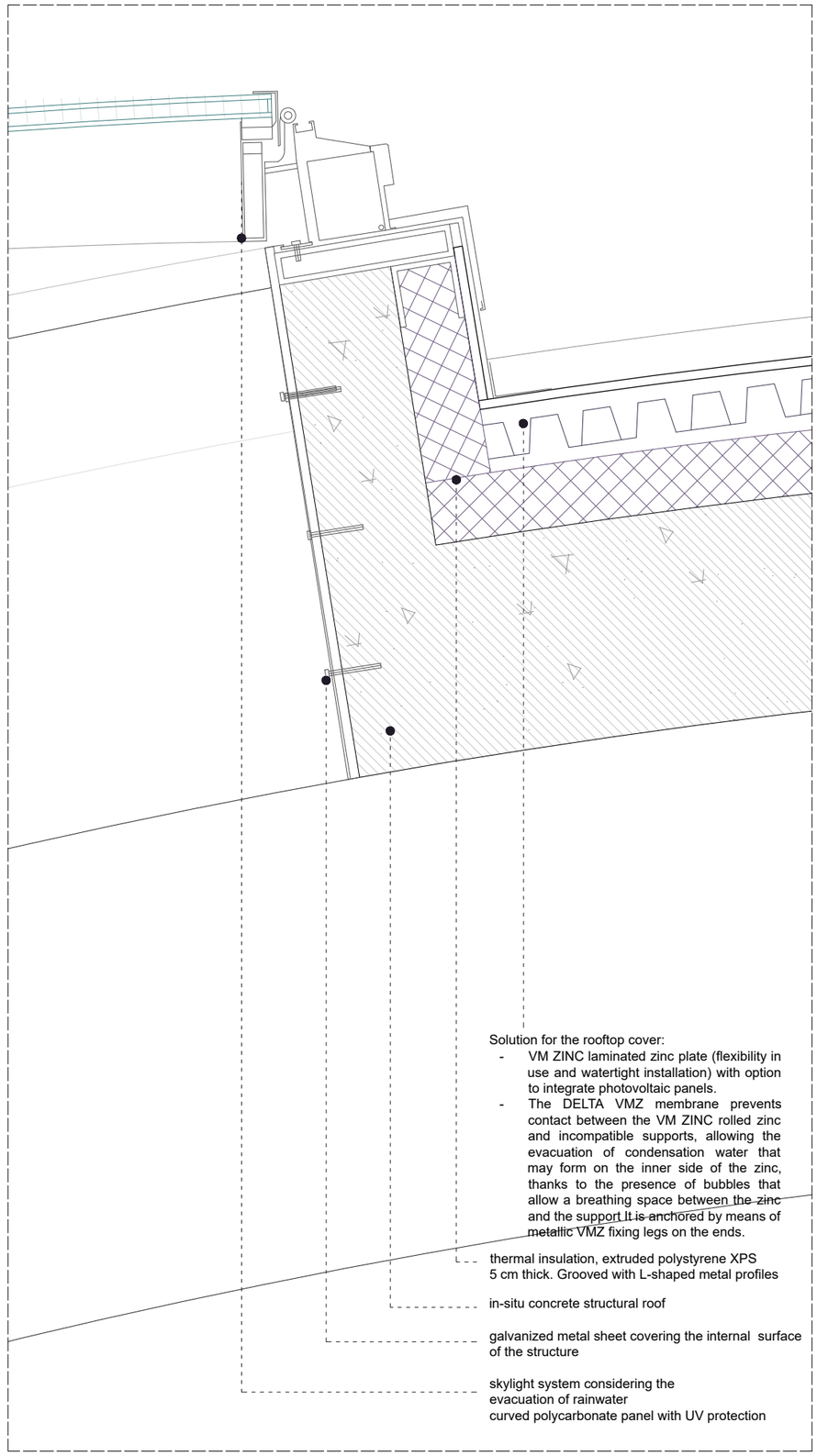


Facade - outer skin -

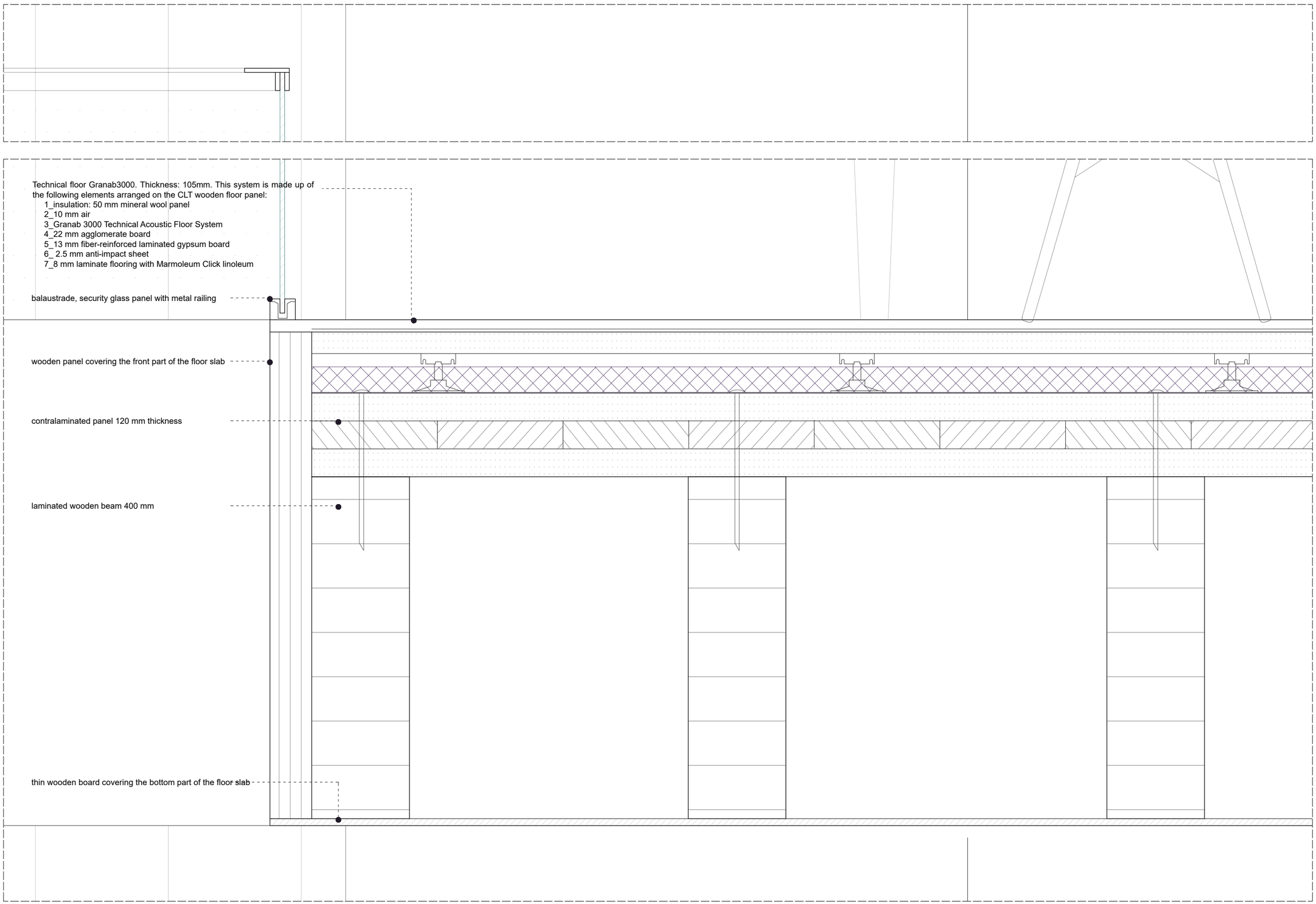


Facade - inner skin-





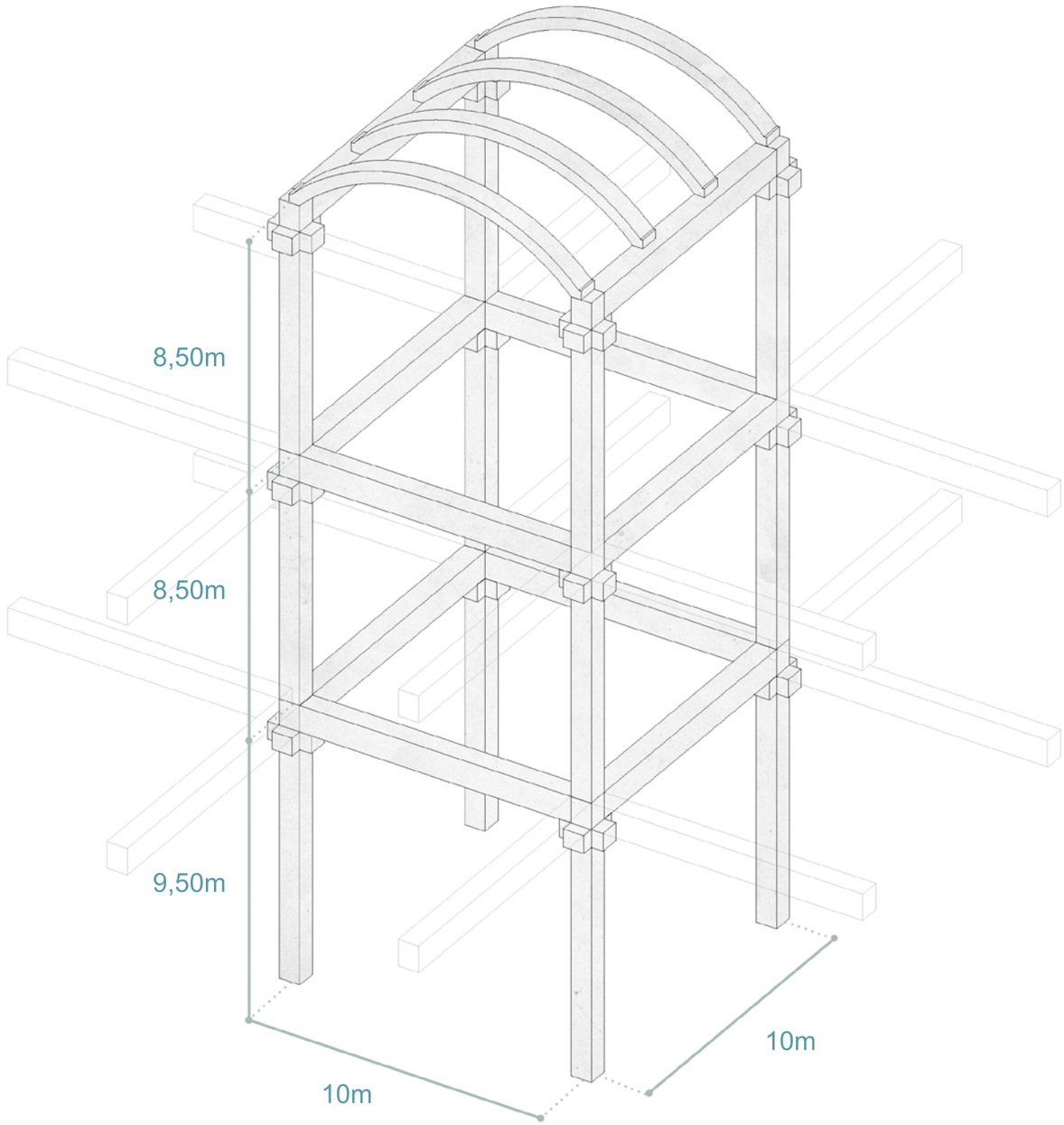
Rooftop skylight



Secondary structure - timber elements -

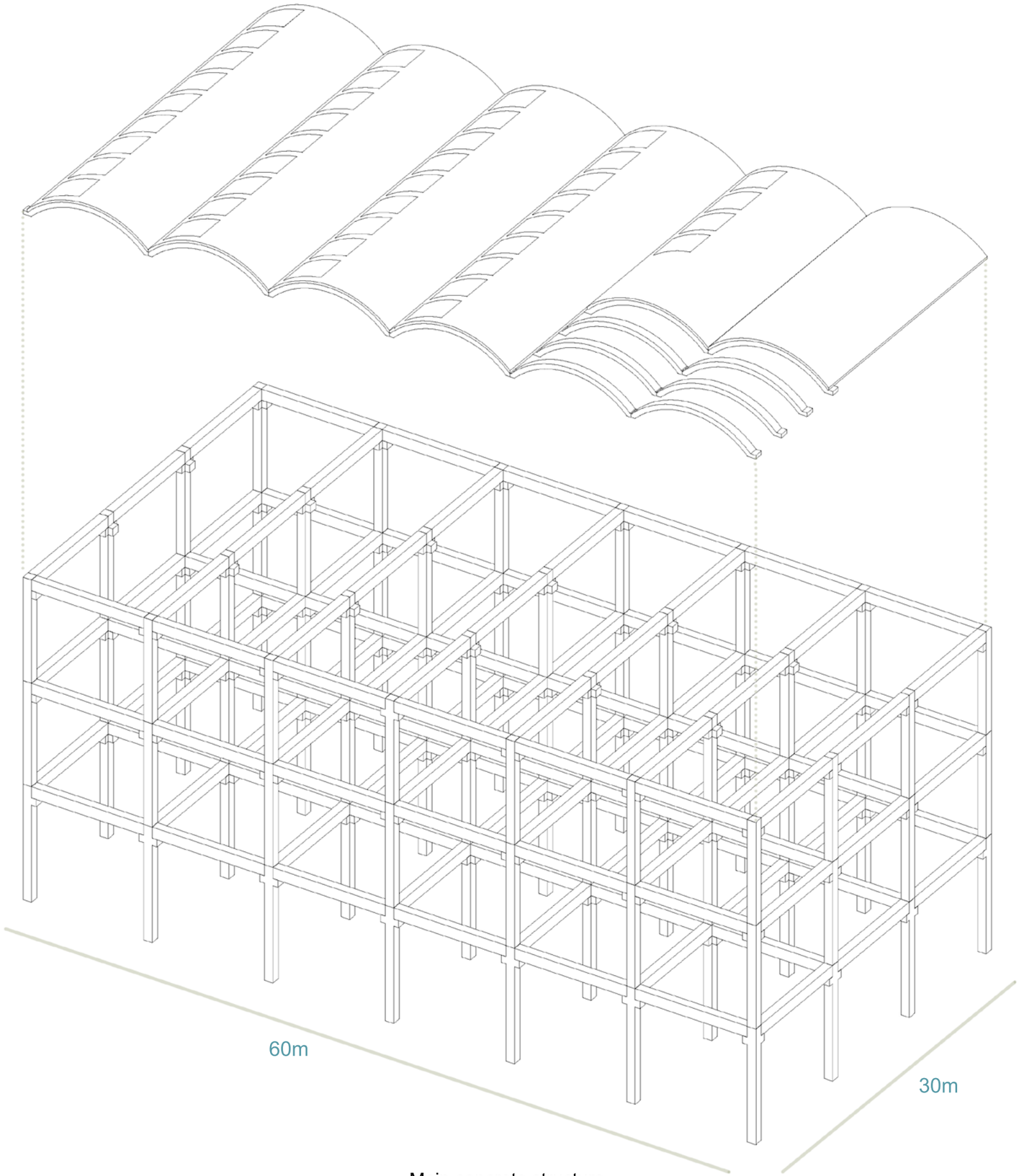
structural system

adaptative genericity to be inhabited

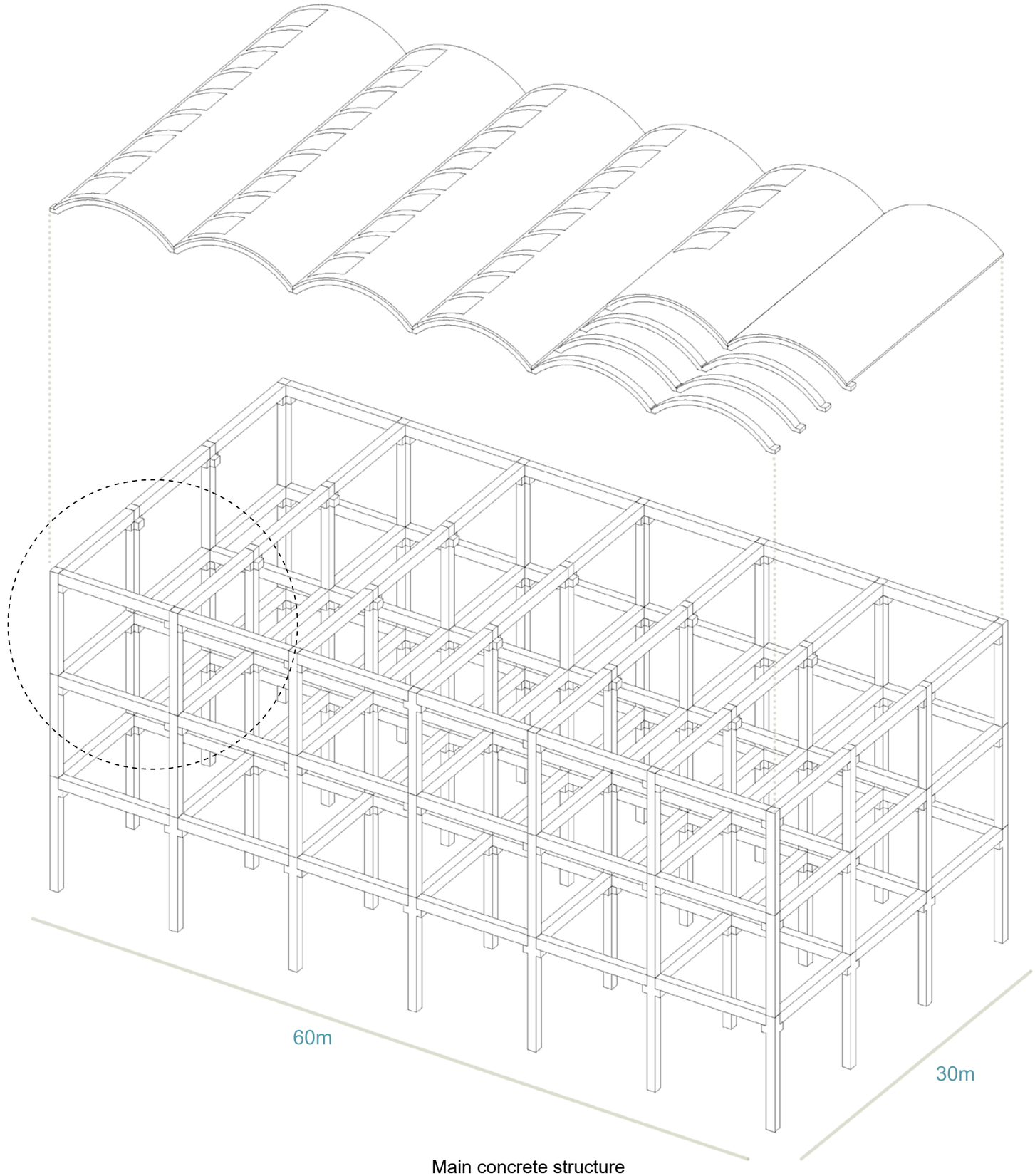


Main concrete structure

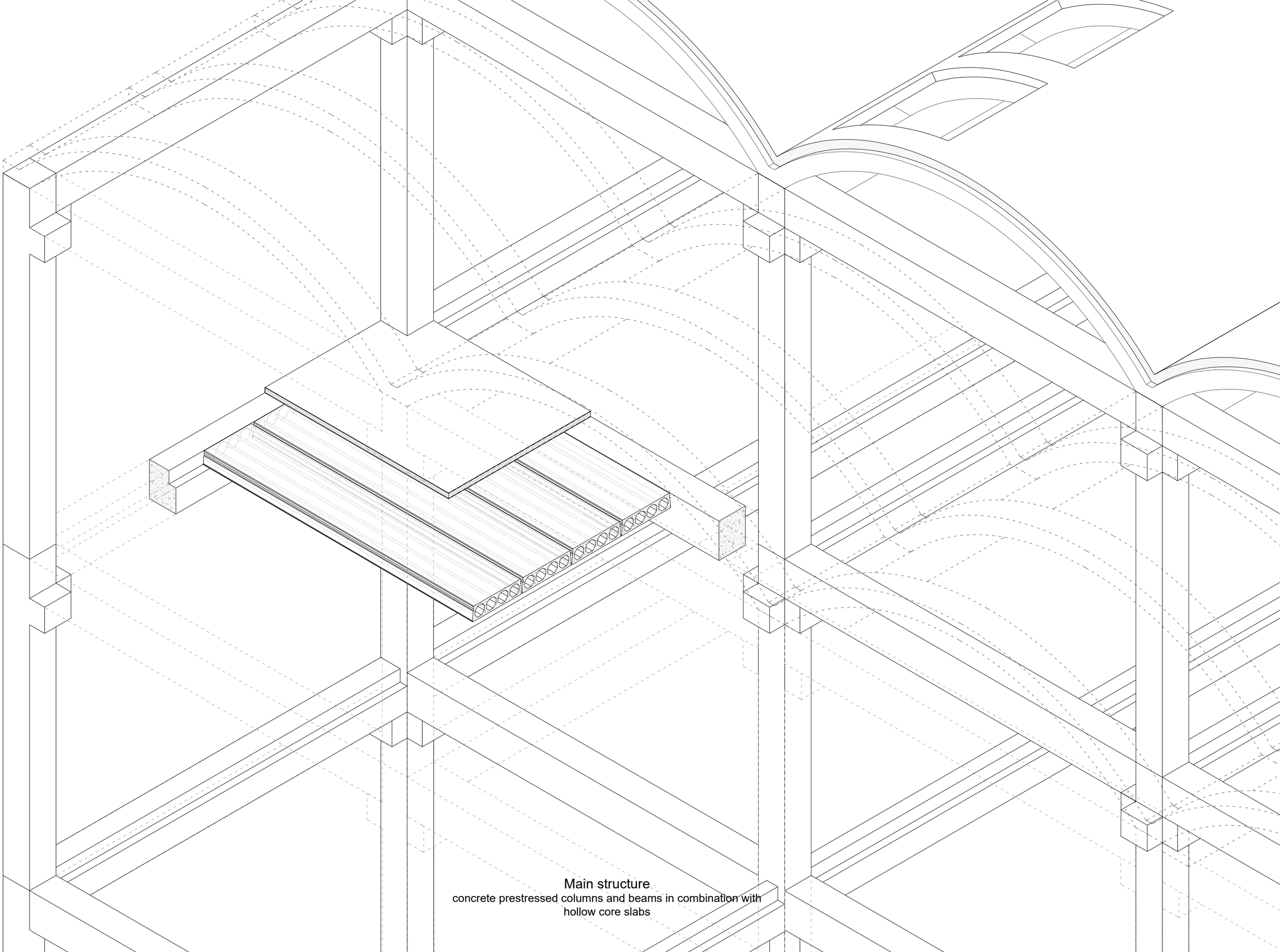
- module -



Main concrete structure

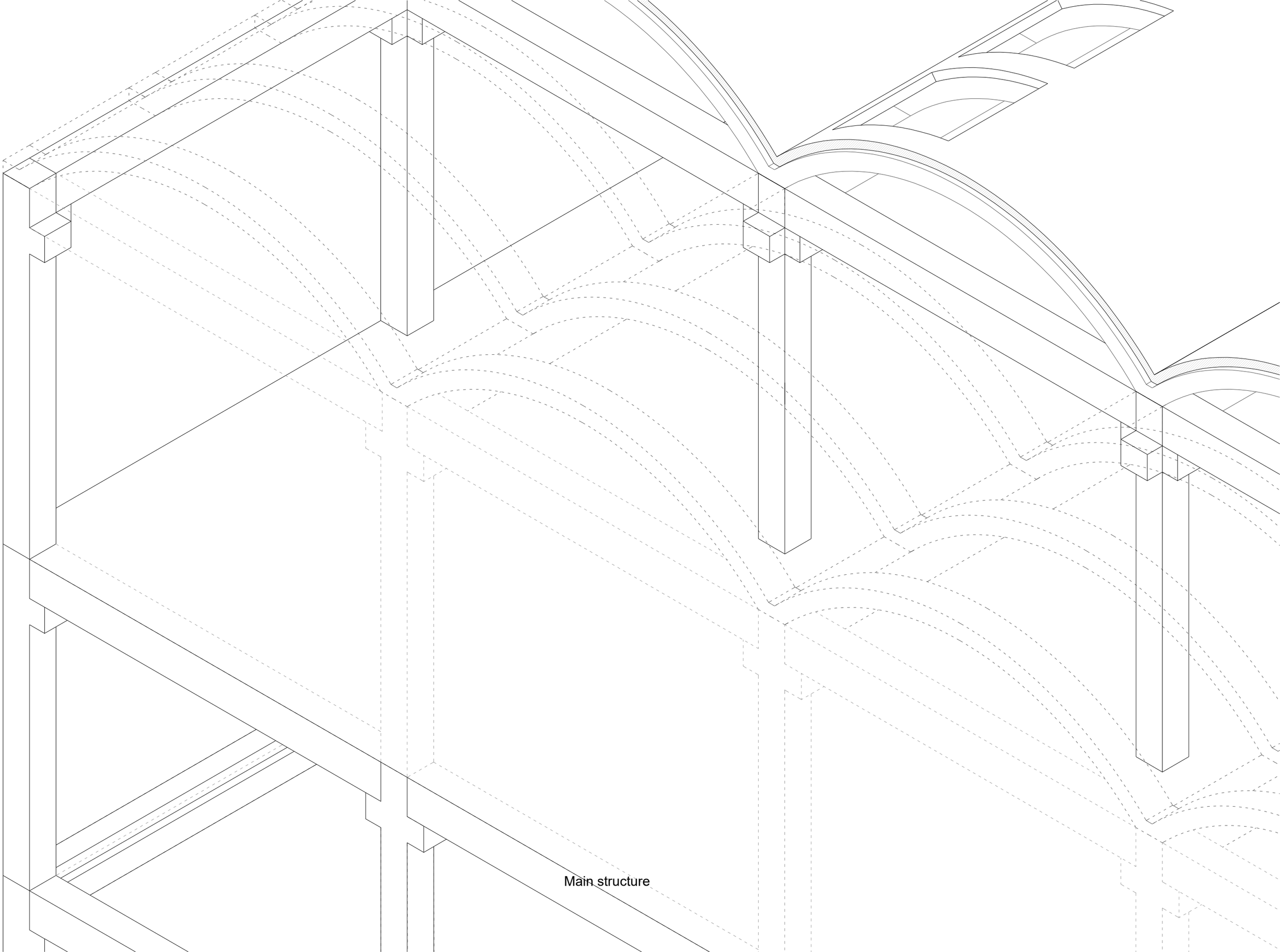


Main concrete structure

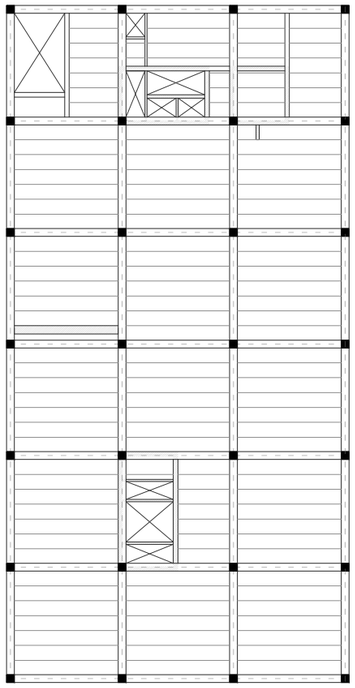


Main structure

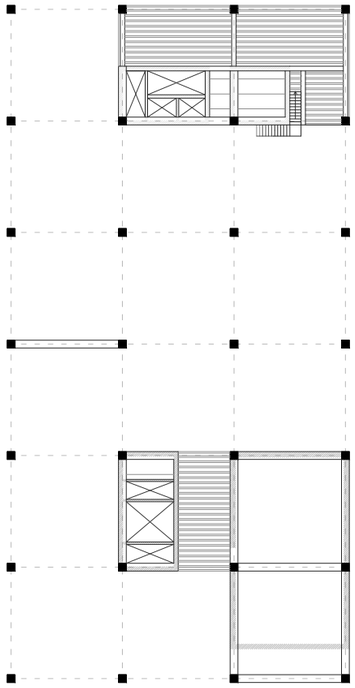
concrete prestressed columns and beams in combination with hollow core slabs


Main structure

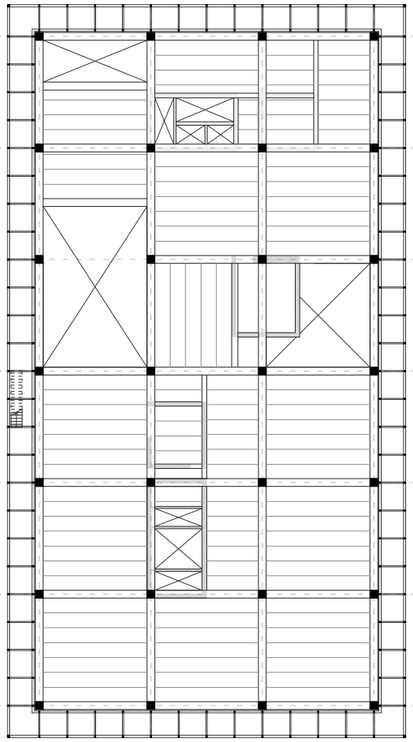
Secondary structure
laminated wooden beam and cross-laminated panels
- option of disassemble -



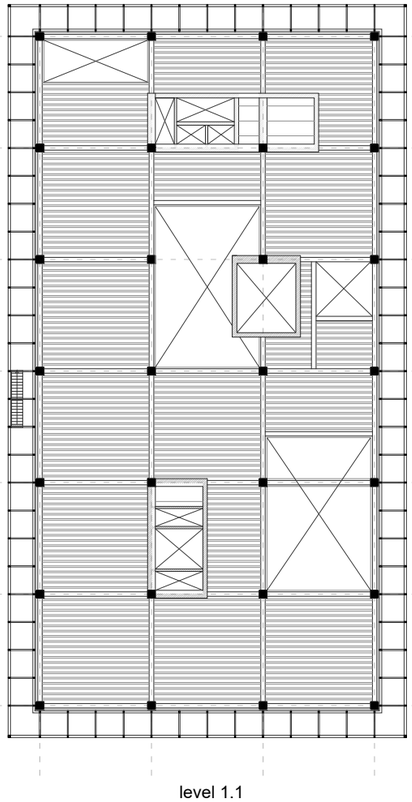
level 0.0



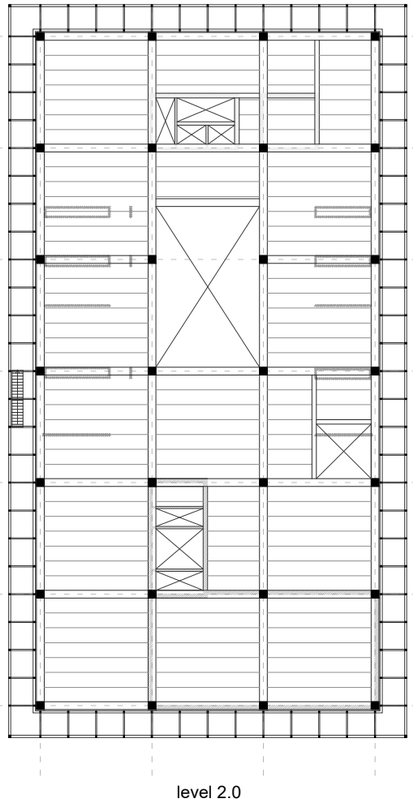
level 0.1



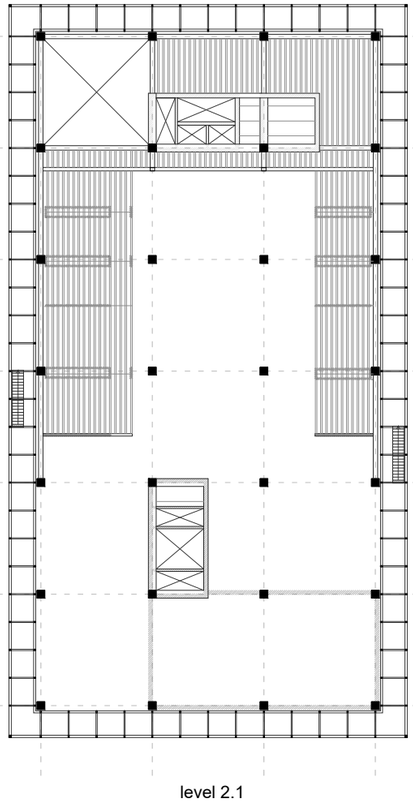
level 1.0



level 1.1

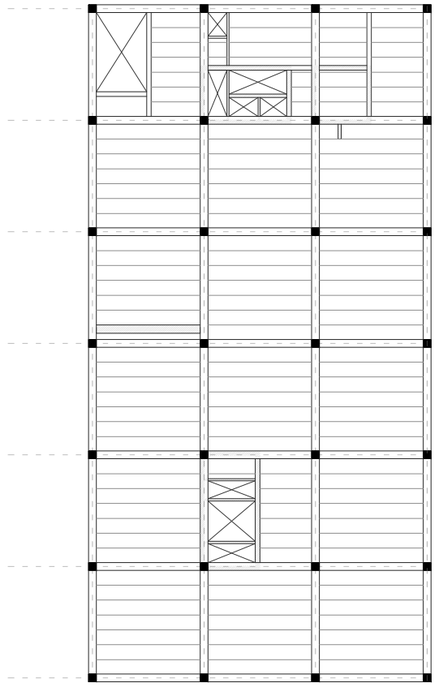


level 2.0



level 2.1

Structural development



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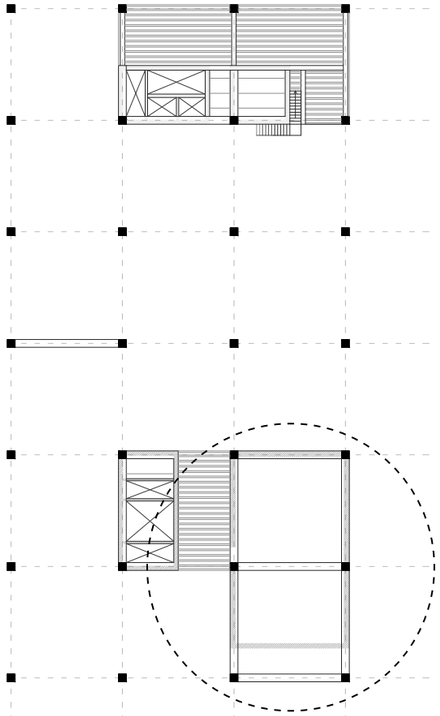

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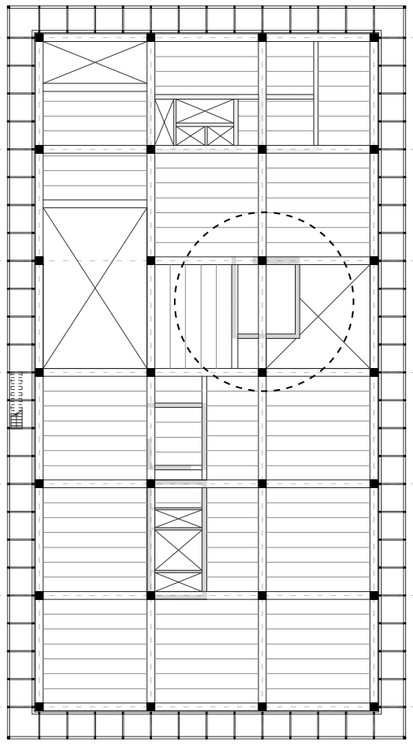

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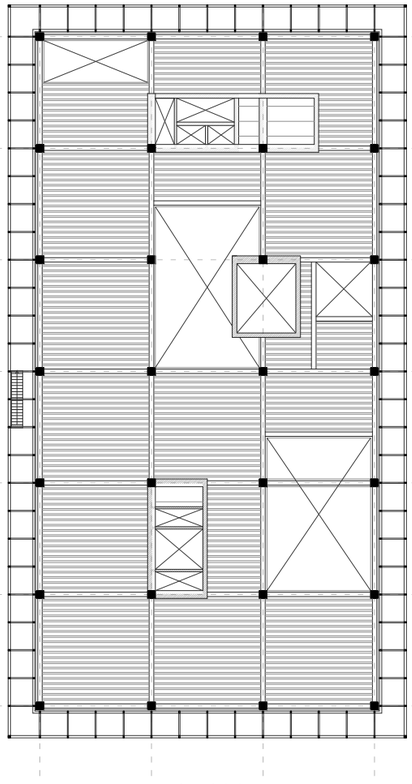
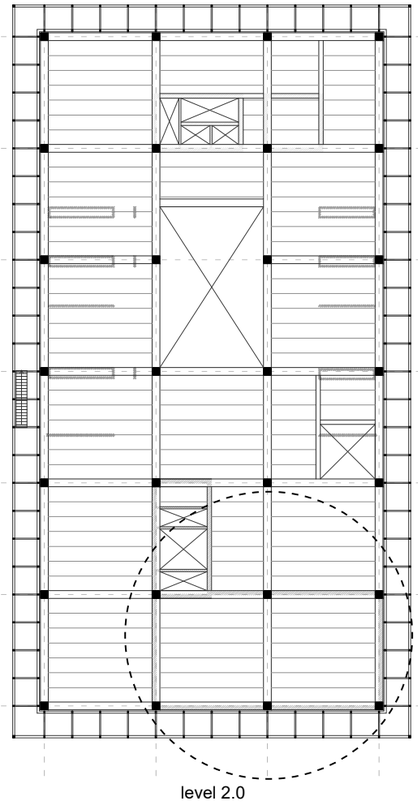
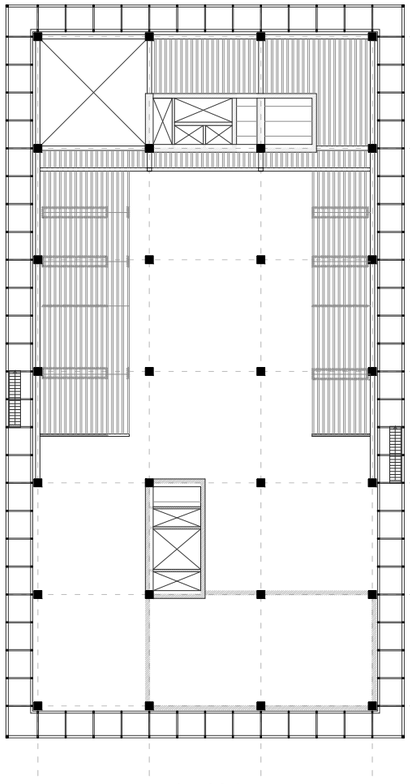


level 1.1

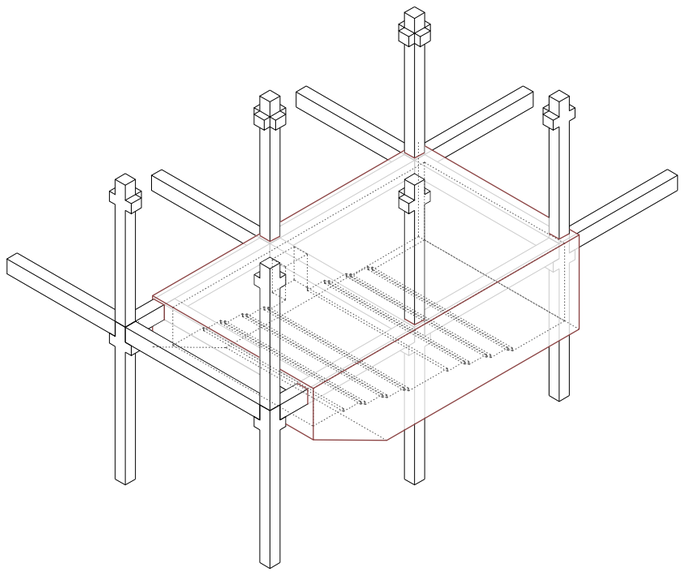


level 2.0

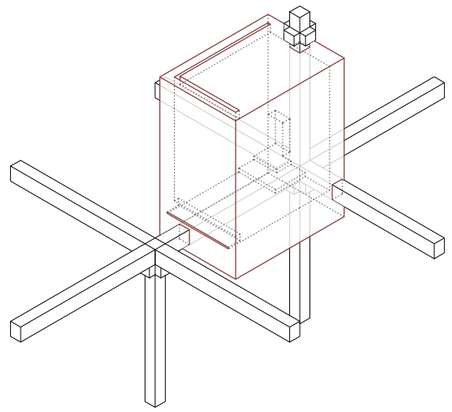


level 2.1

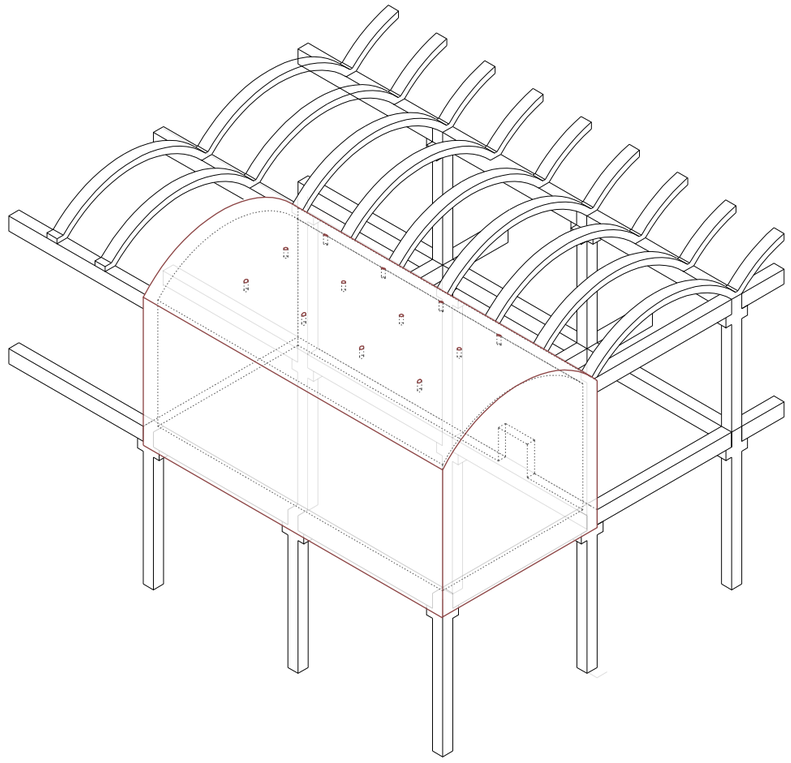
Structural development



Flexible auditorium
level 0.1

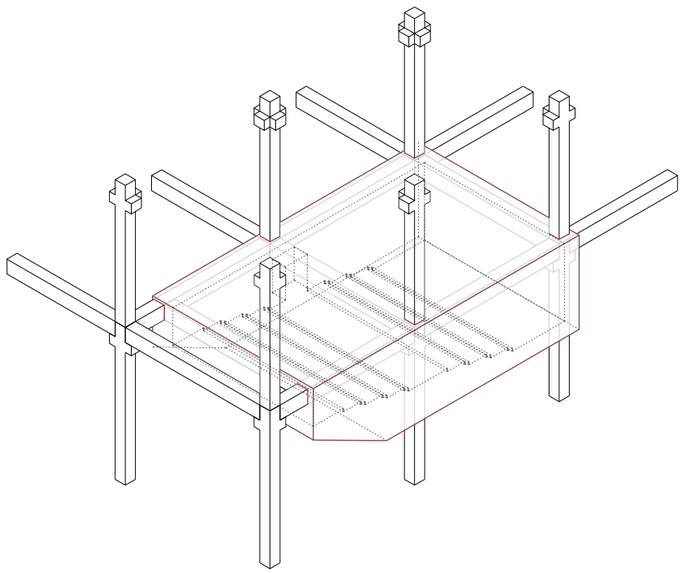


Exhibition
level 1.1

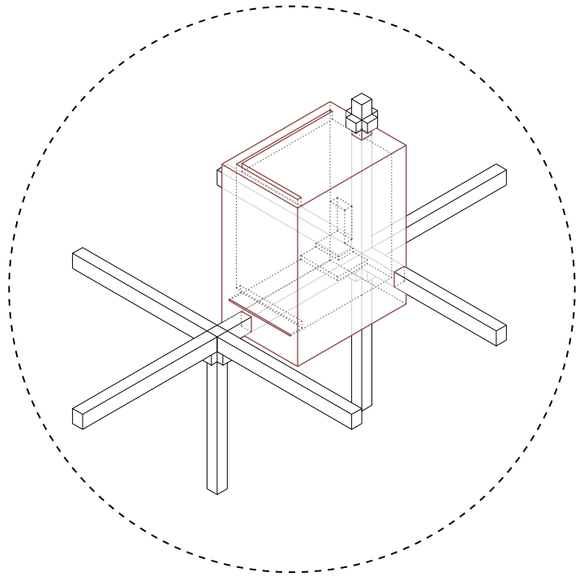


Exhibition
level 2.1

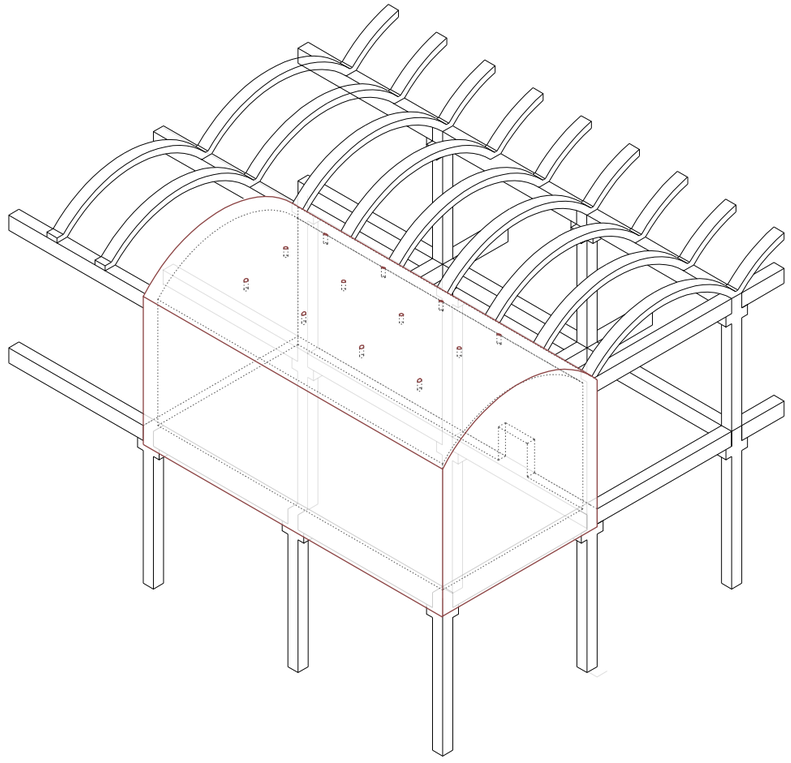
Crucial elements of the structure
massive volumes



Flexible auditorium
level 0.1

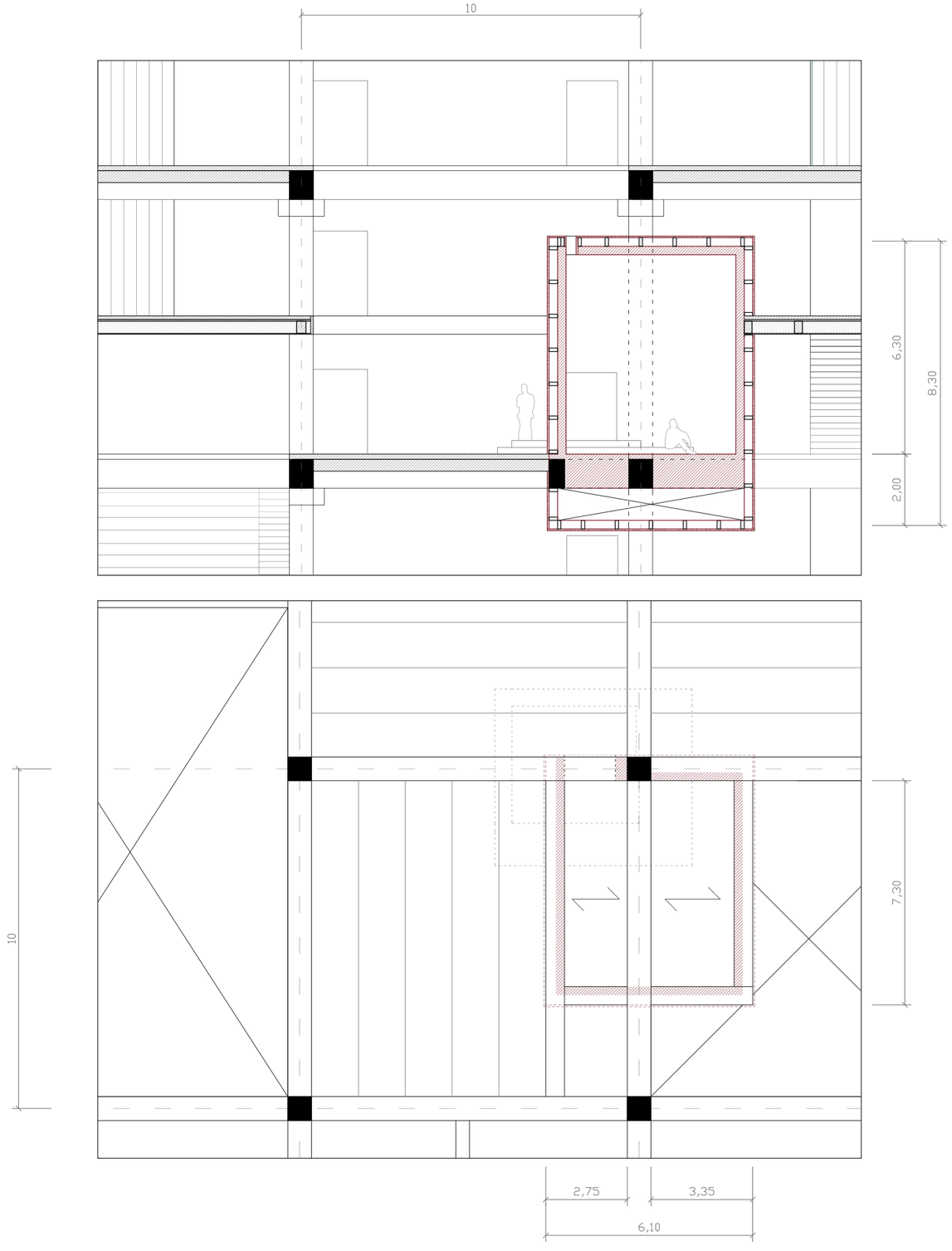


Exhibition
level 1.1



Exhibition
level 2.1

Crucial elements of the structure
massive volumes



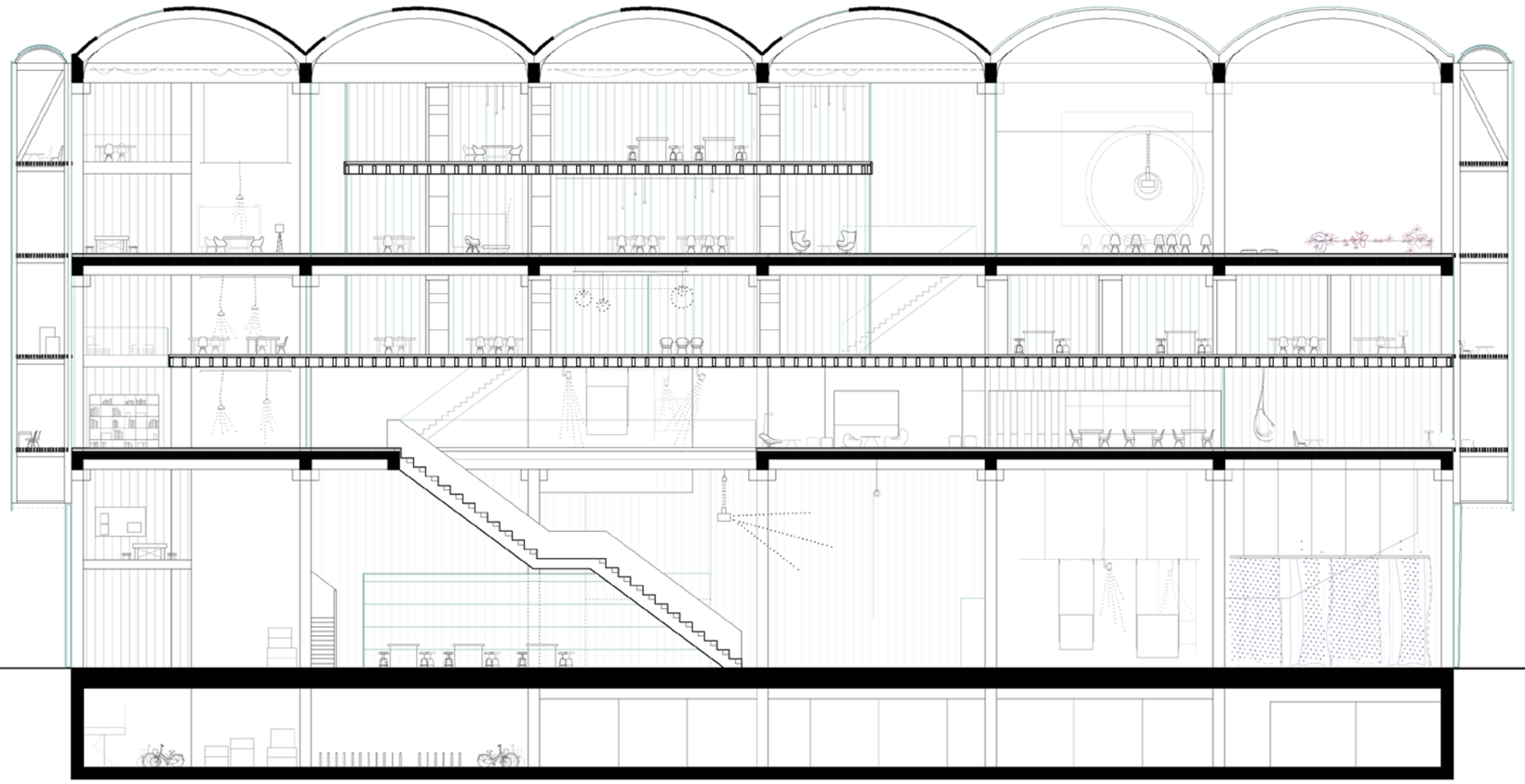
Massive volume -promotion space

level 1.0 - 1.1

sustainability

integrated design

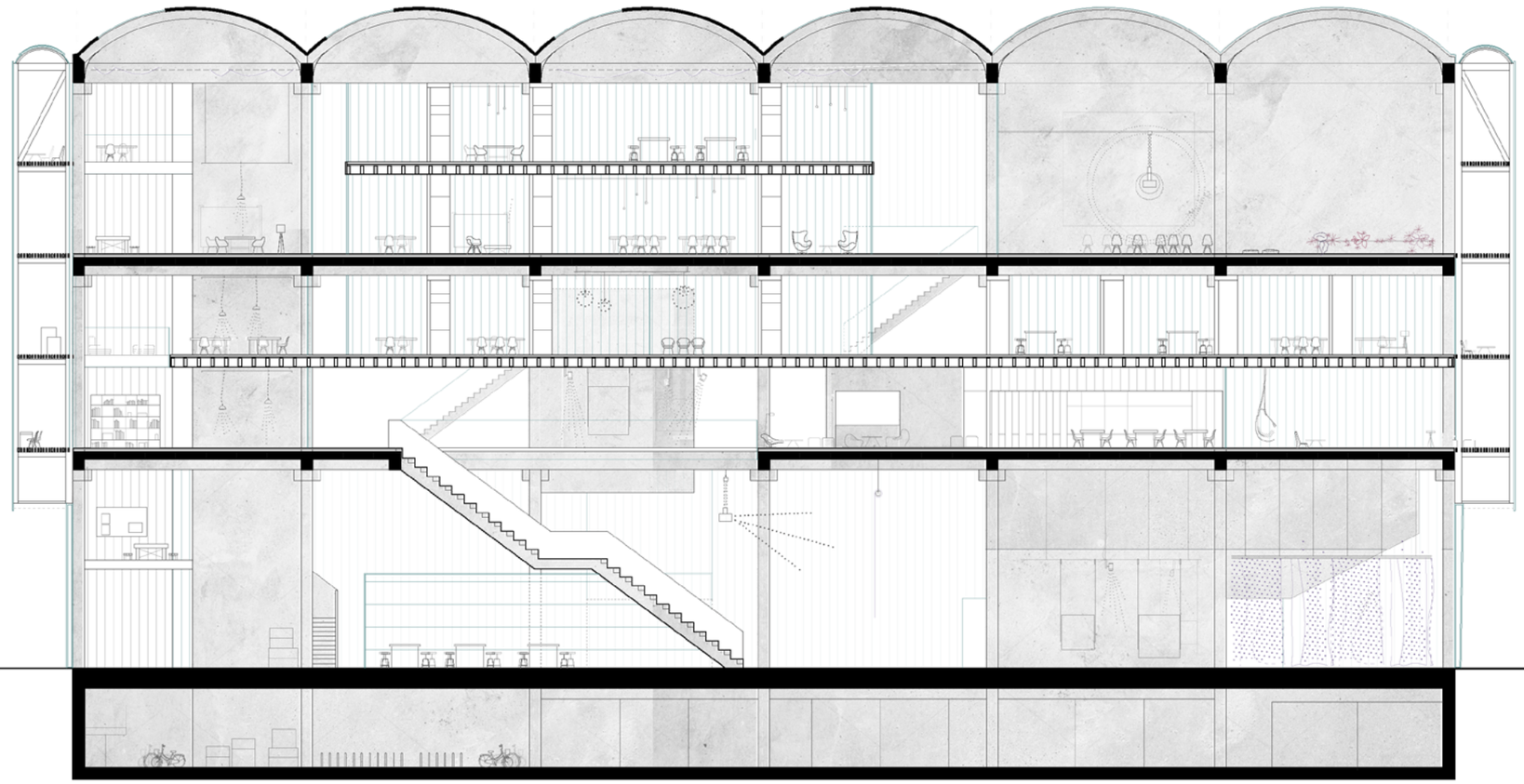
Principles of sustainability



Principles of sustainability

Fix structure - avoiding future demolition -

with space enough to make it adaptable for future uses



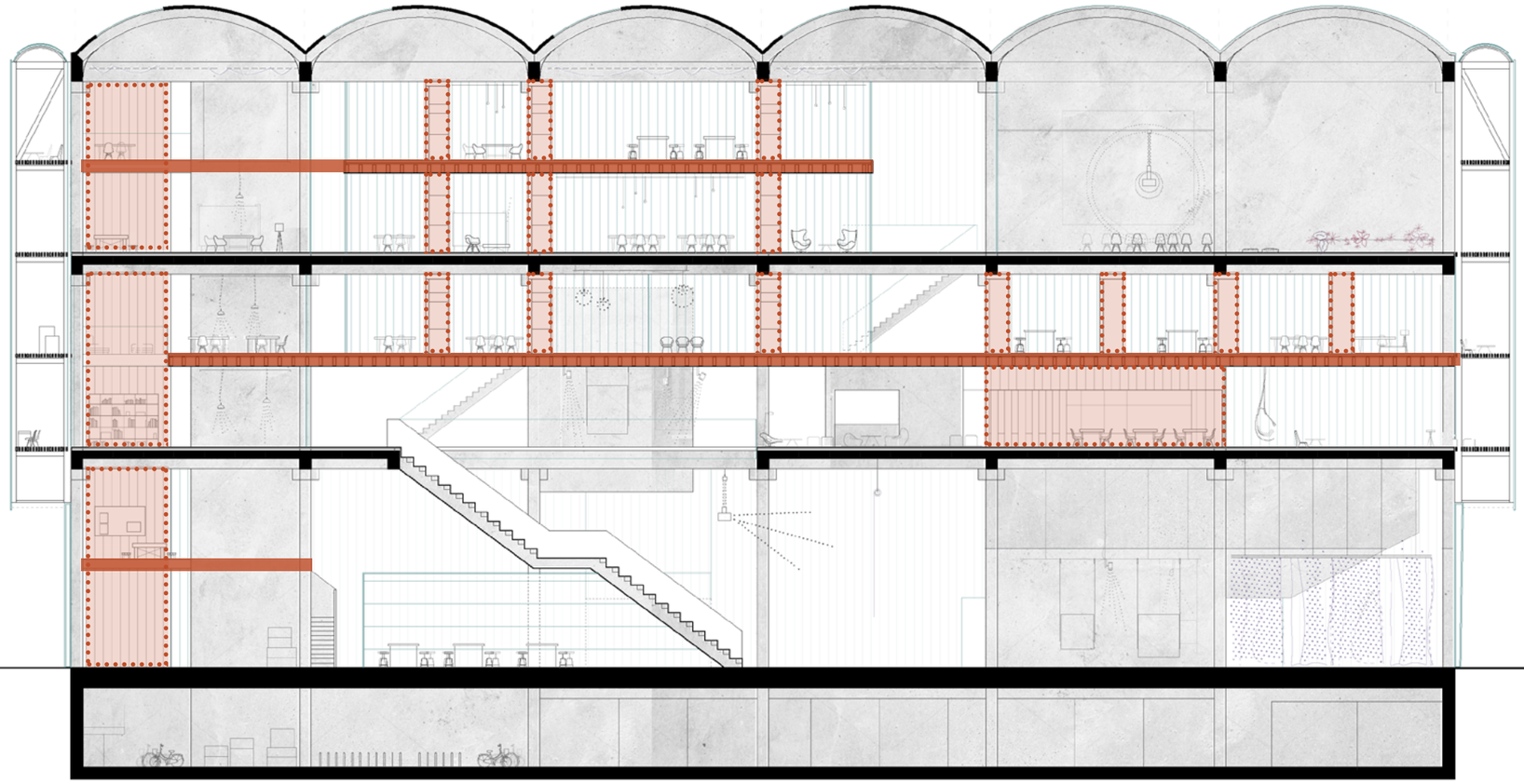
Partition boxes

adaptable to changes in use

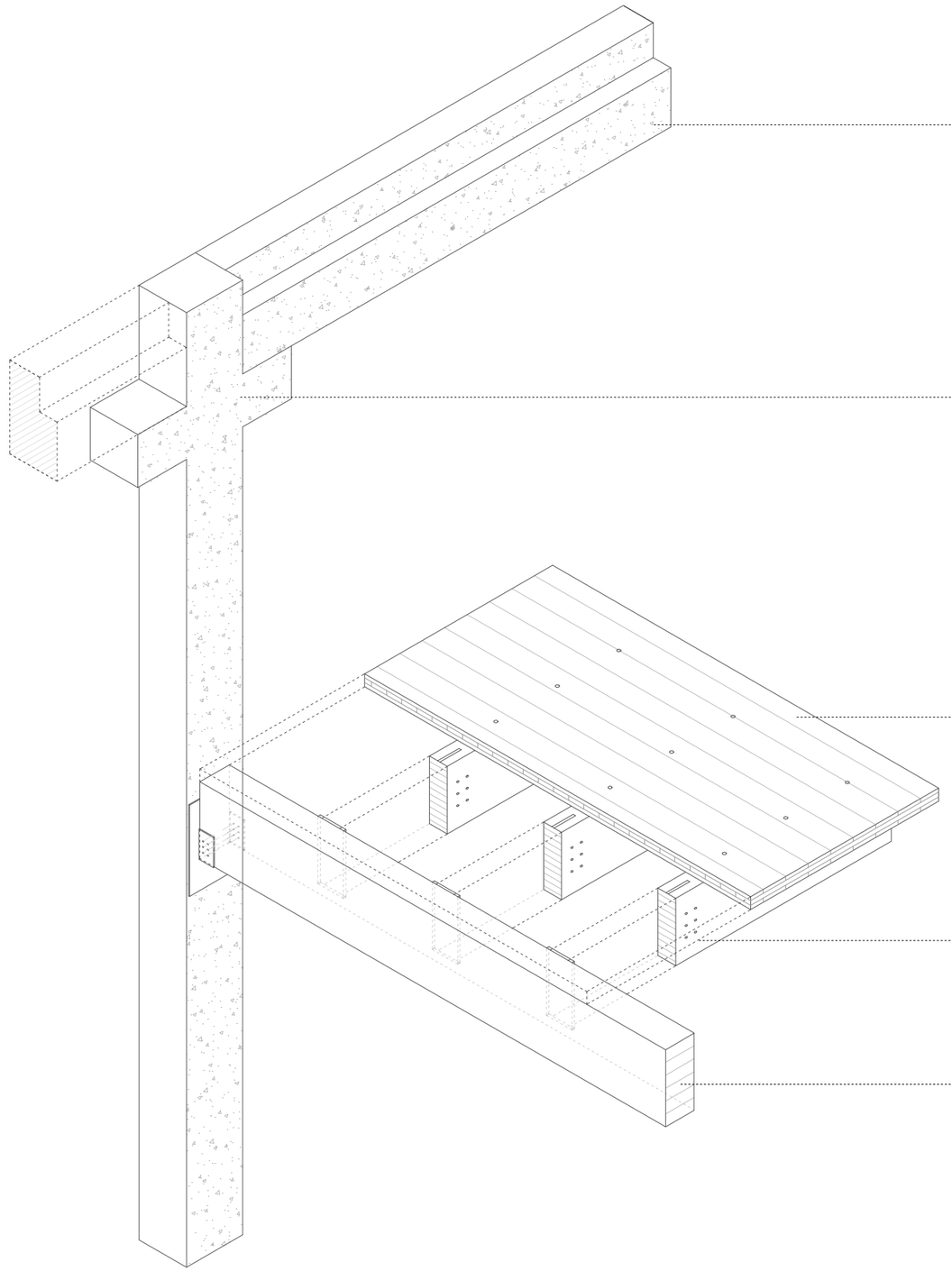
reusable elements and materials

with sustainable benefits /cross laminated timber panels/

self-supporting panels + additional functional use = individual storage + pass ducts for individual uses



Prefabricated systems



prestressed concrete beam - supporting element for the hollowcore slab of the main structure

prestressed concrete column - following a dosposition in grid of 10x10 meters

secondary structure - option of future disassemble

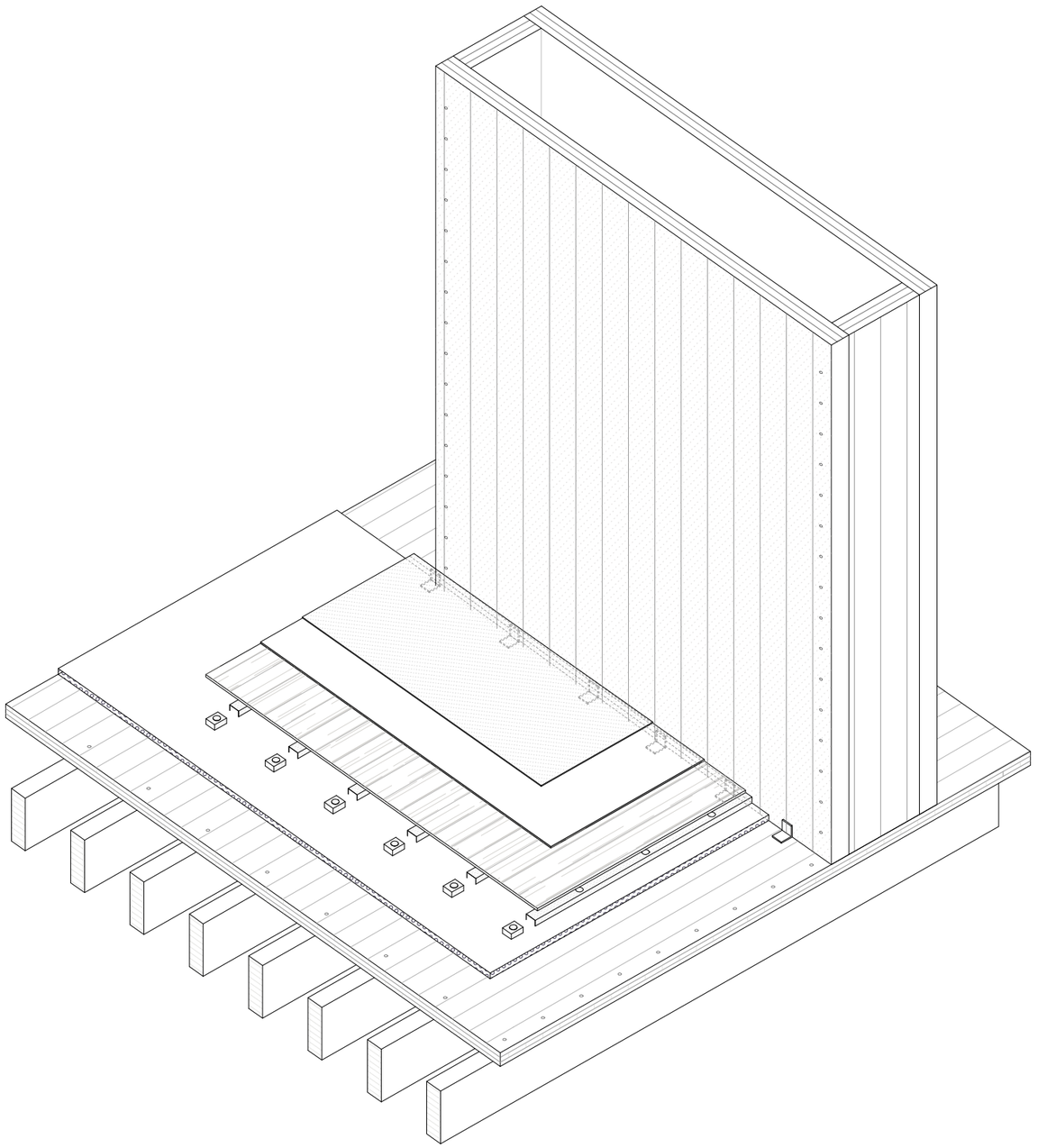
CLT wooden panels as horizontal loadbearing element - cross laminated timber

laminated beams (second order) each 1 meter mechanically connected to the main timber beams

laminated beams (first order) mechanically connected tothe concrete structure with galvanized steel sheet and bolts

combination of fixed precast concrete elements and timber in specific parts of the structure

Prefabricated systems



internal division of spaces + technical floor
crosslaminated timber panels




use of lightest materials which are easy to assemble and disassemble
with option of later reuse creating more kind and inviting spaces

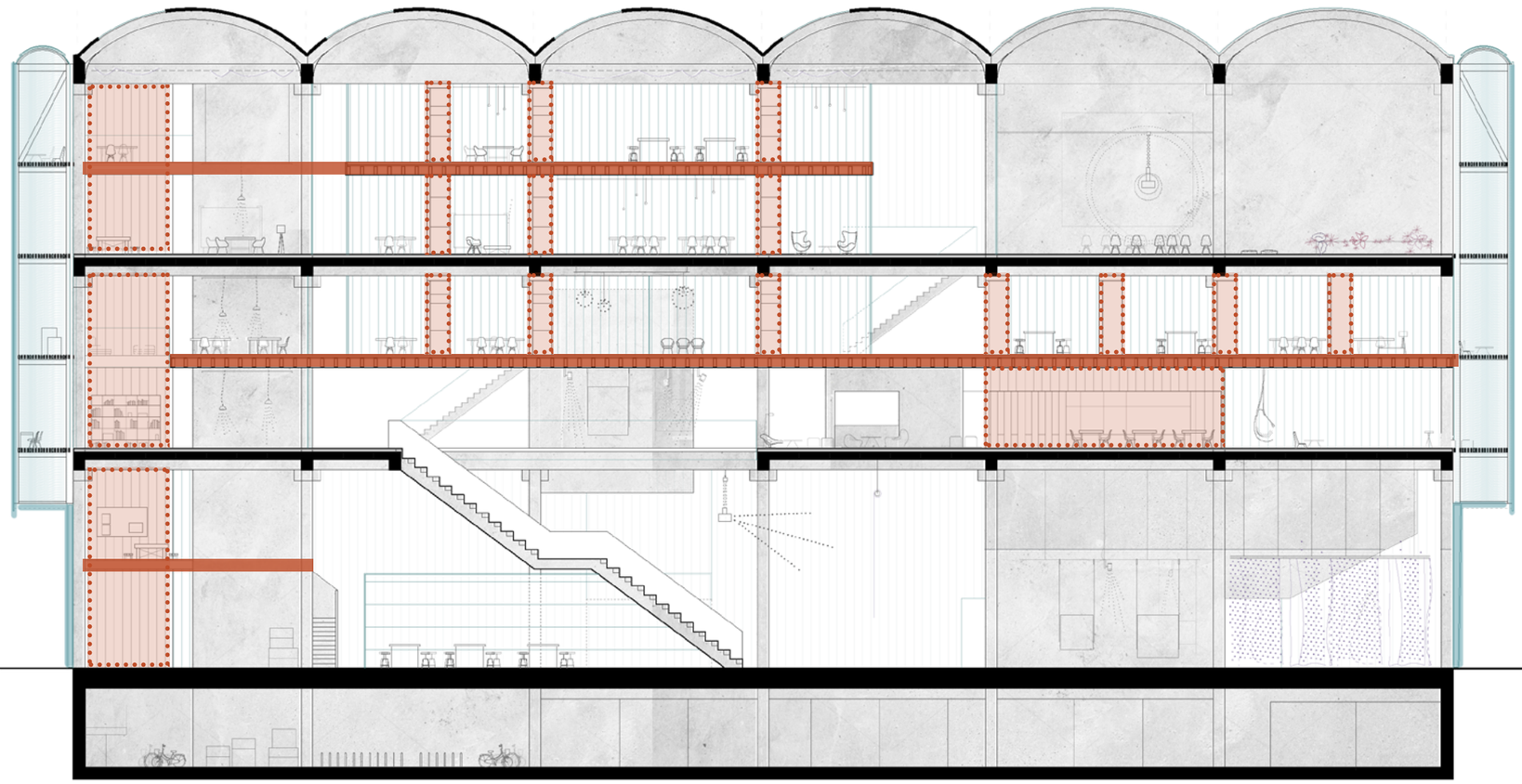
Sustainable benefits of the facade

double skin facade

control of cross natural ventilation

sun protection

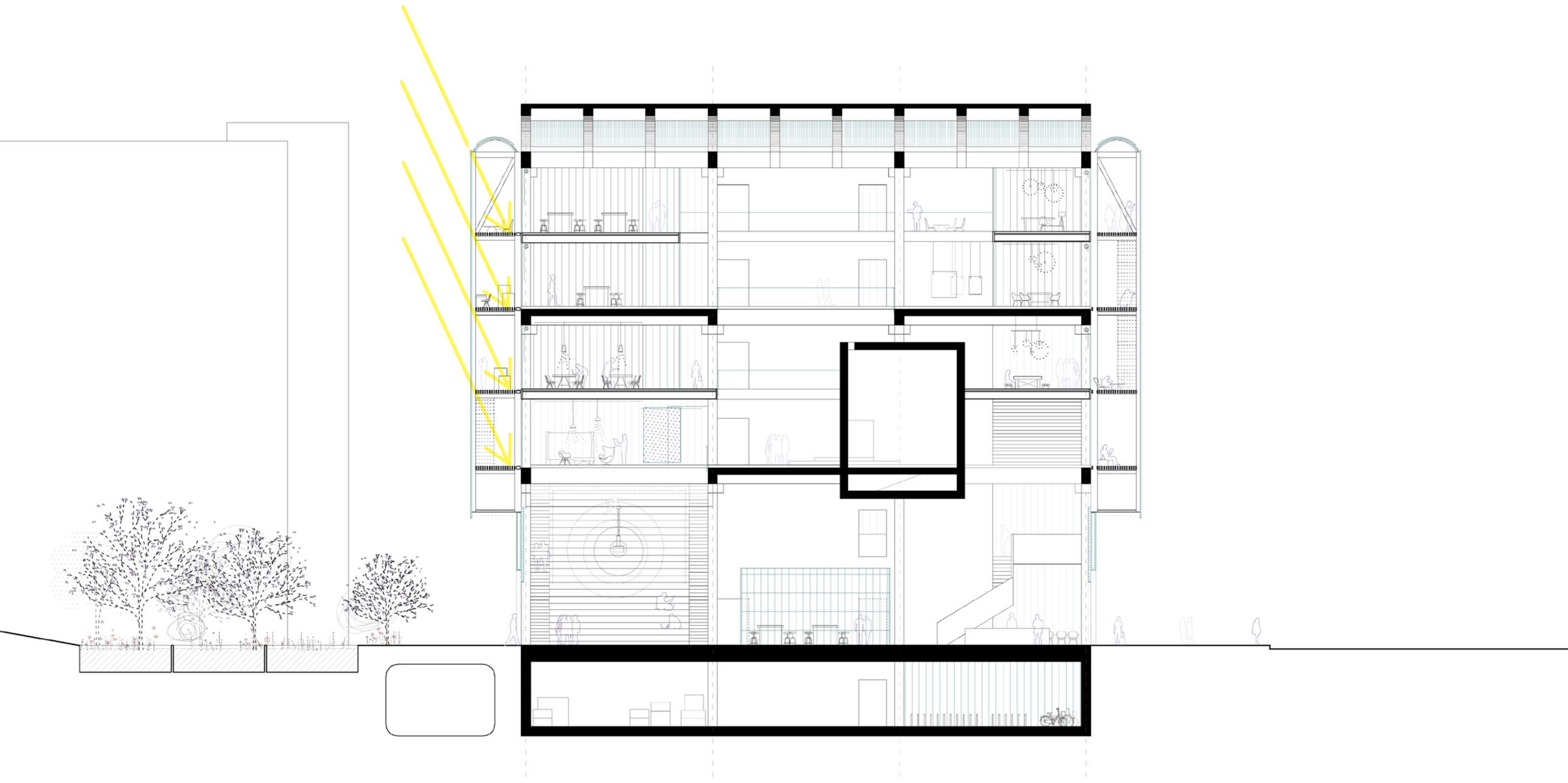
extra functional qualities



Wide facade - summer

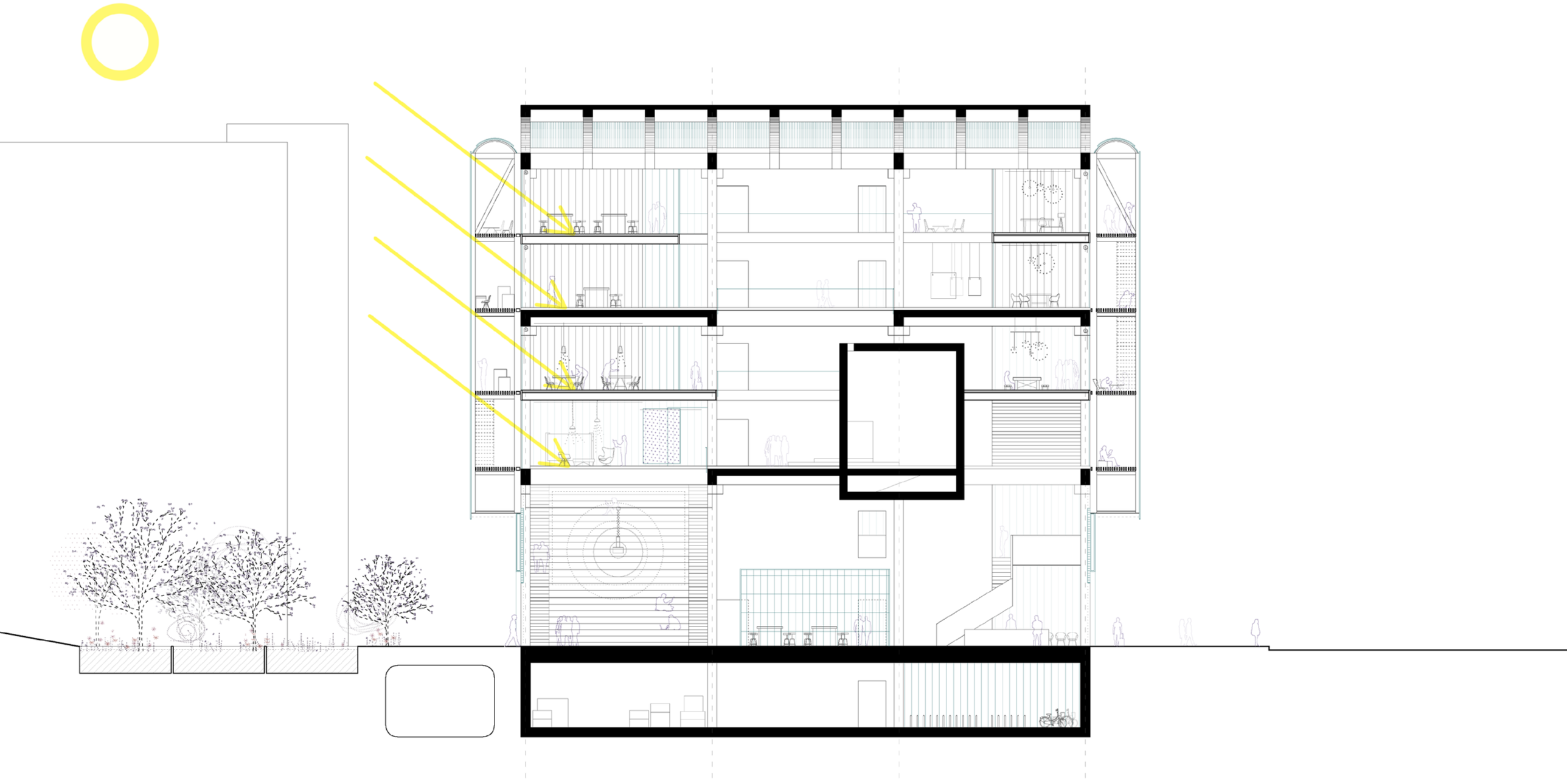
sun exposure of the building

protection from high radiation



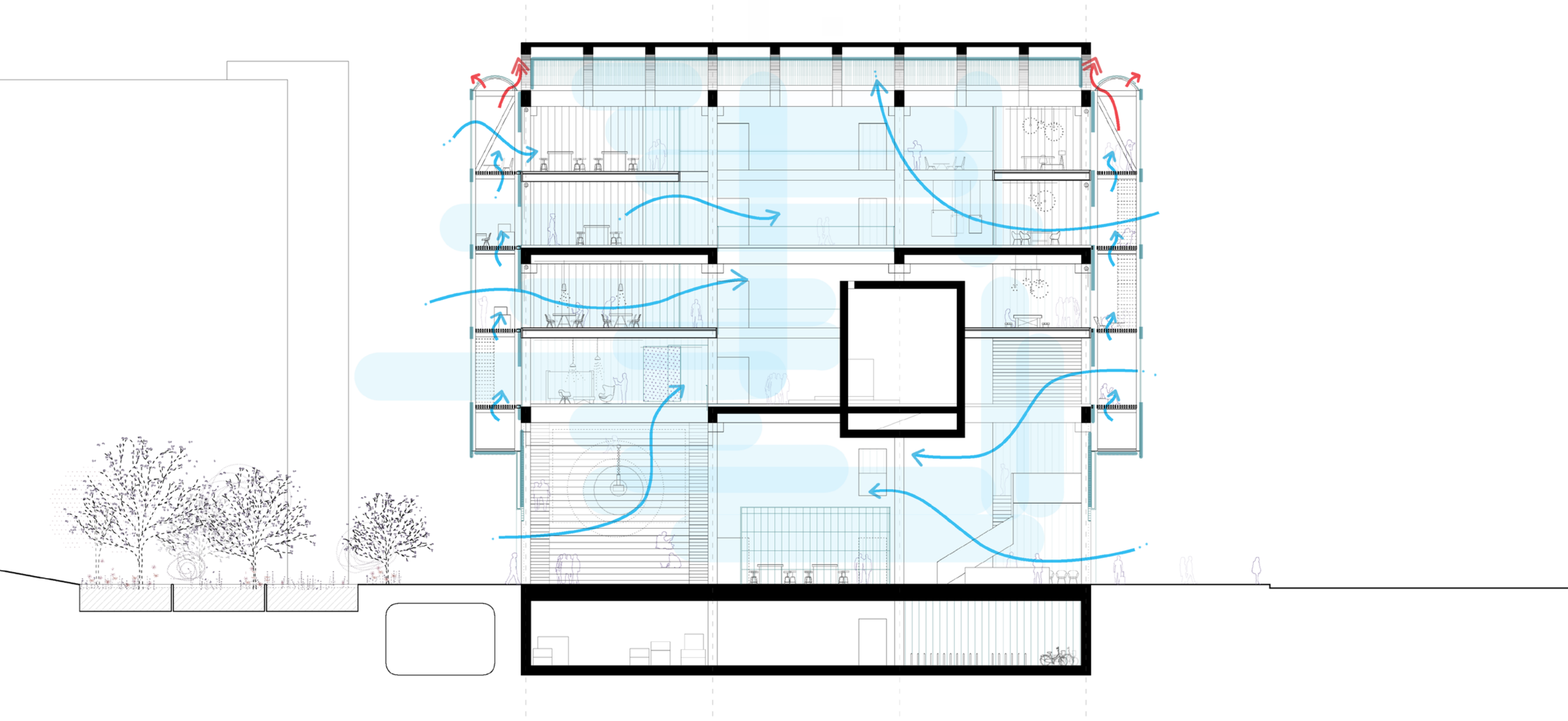
Wide facade - winter

sun exposure of the building



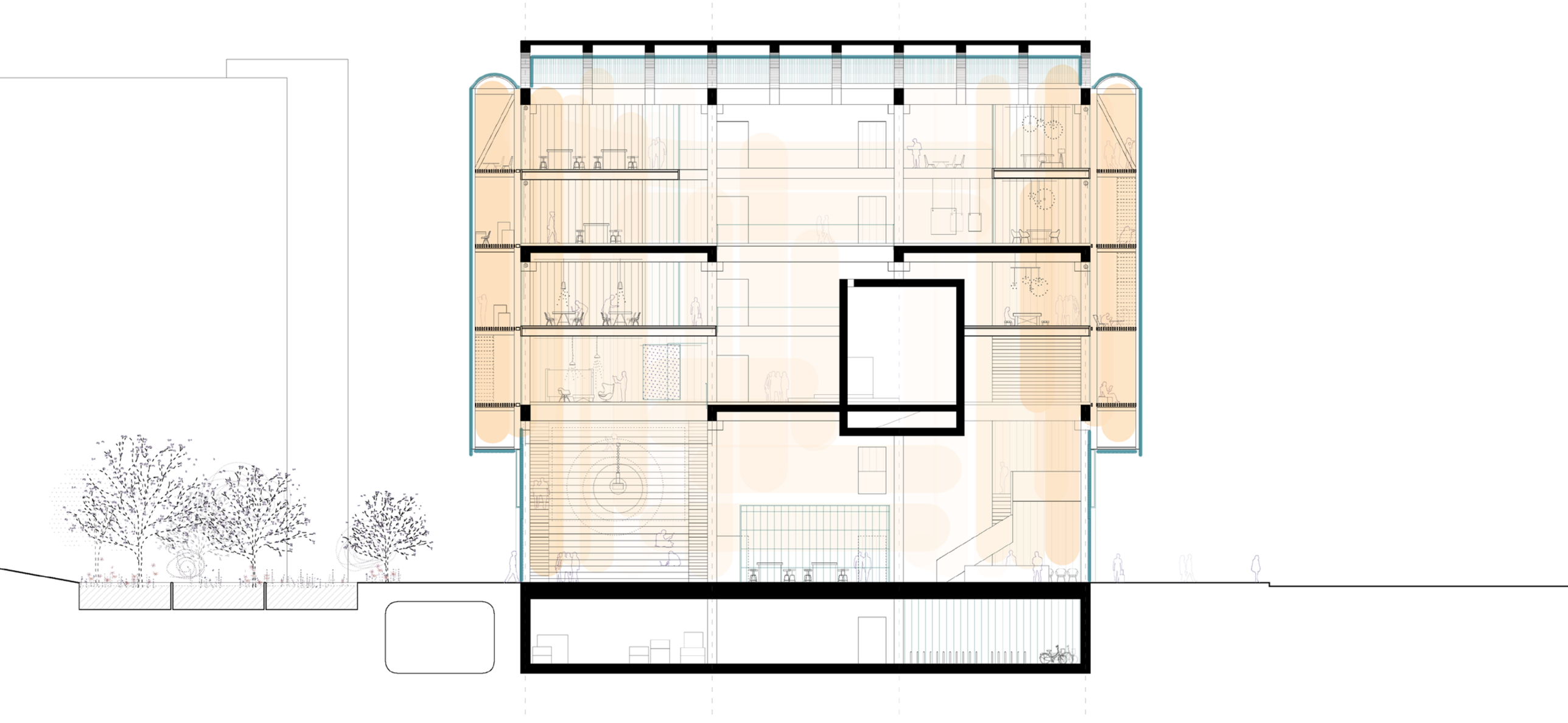
Facade with openable doors - natural cross ventilation

passive cooling system

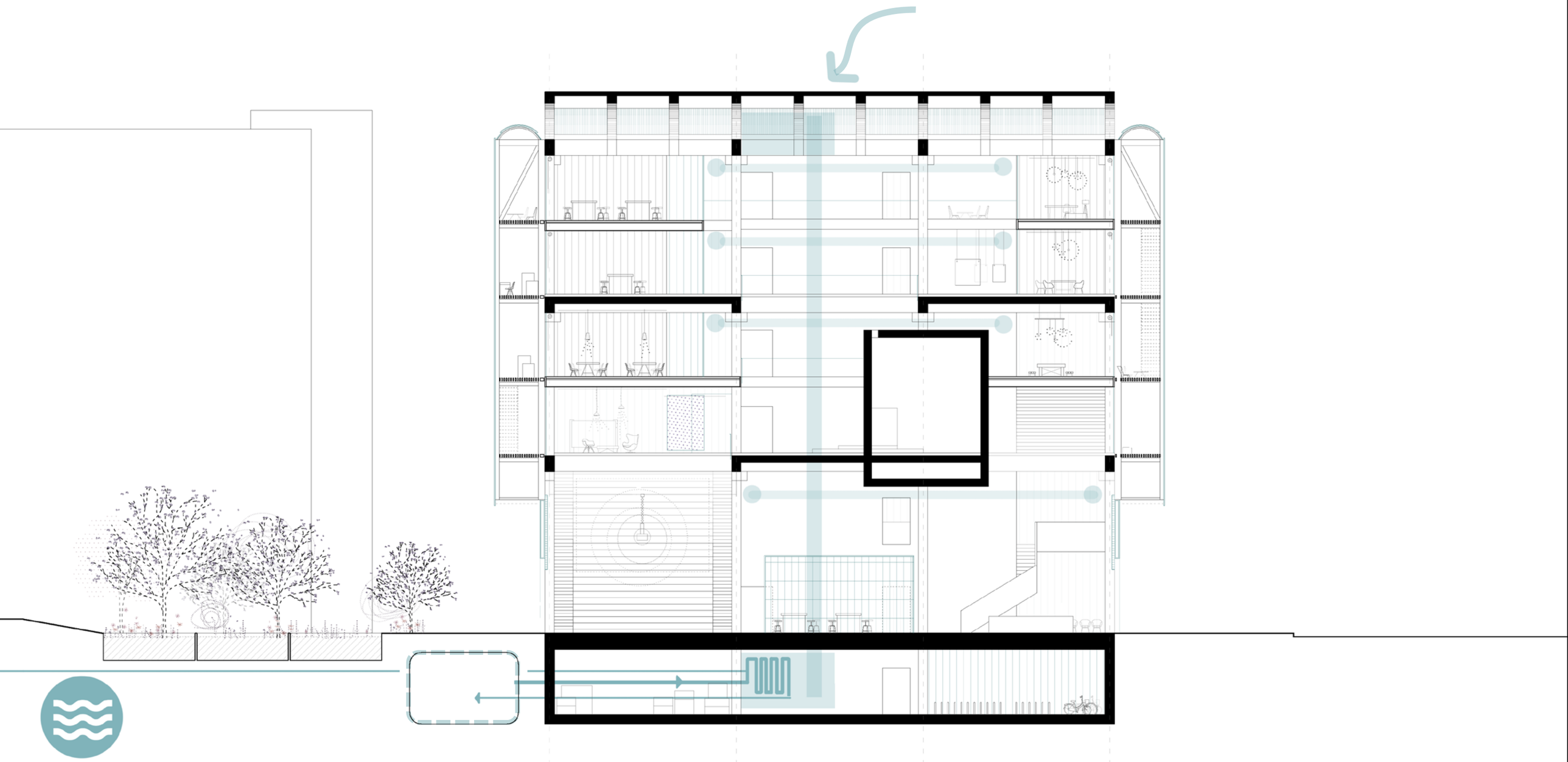


Facade of polycarbonate - green house effect

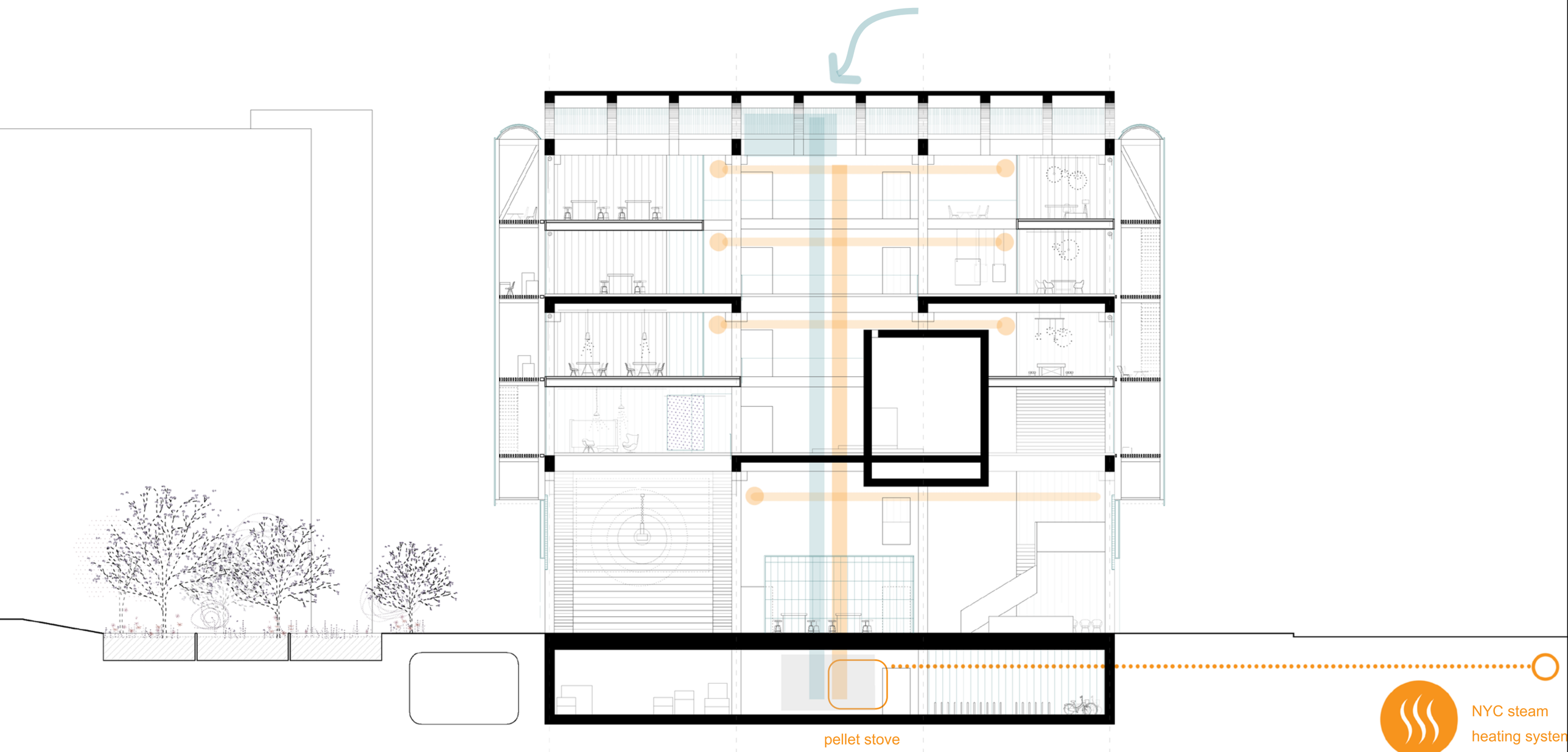
passive heating system



Mechanic cooling system



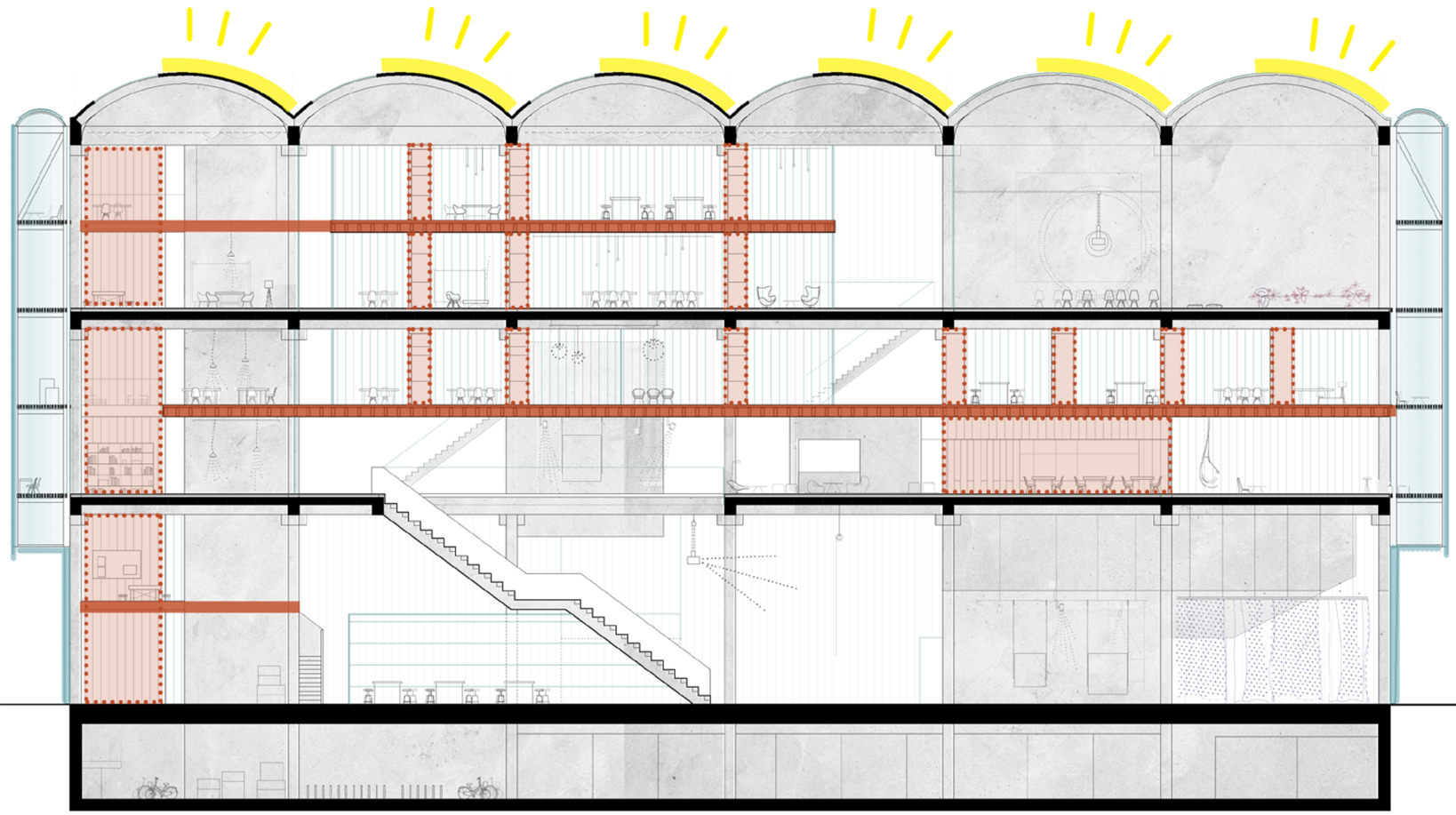
Mechanic heating system



Integration of solar energy in roof

inclination for the panels

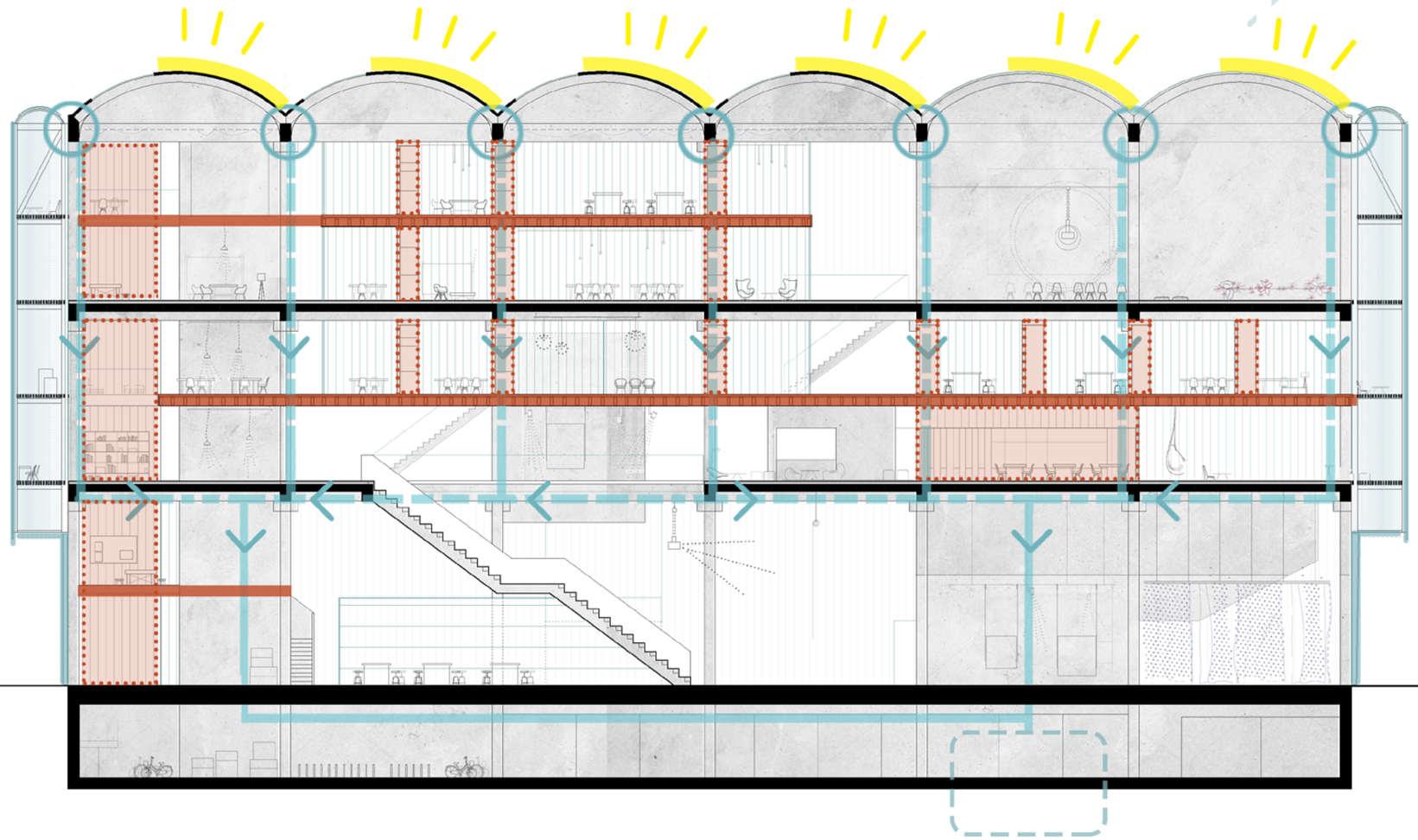
rooftop made of zinc sheets with directly integrated photovoltaic panels



Collection of rainwater

ducts circulation through the facade vertically

rainwater is collected in a deposit in the basement for later reuse after treatment



Collection of rainwater

ducts circulation through the facade vertically
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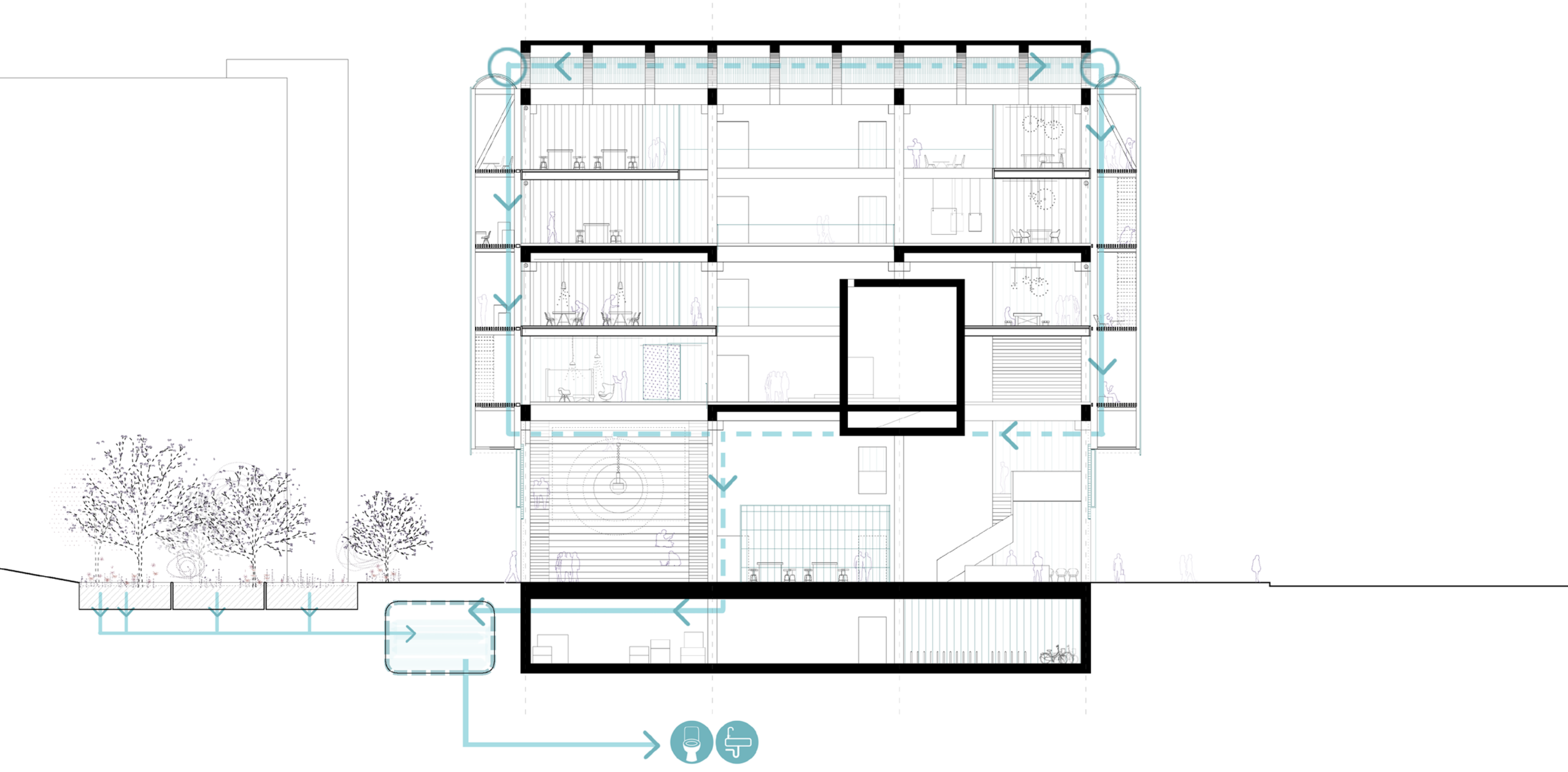

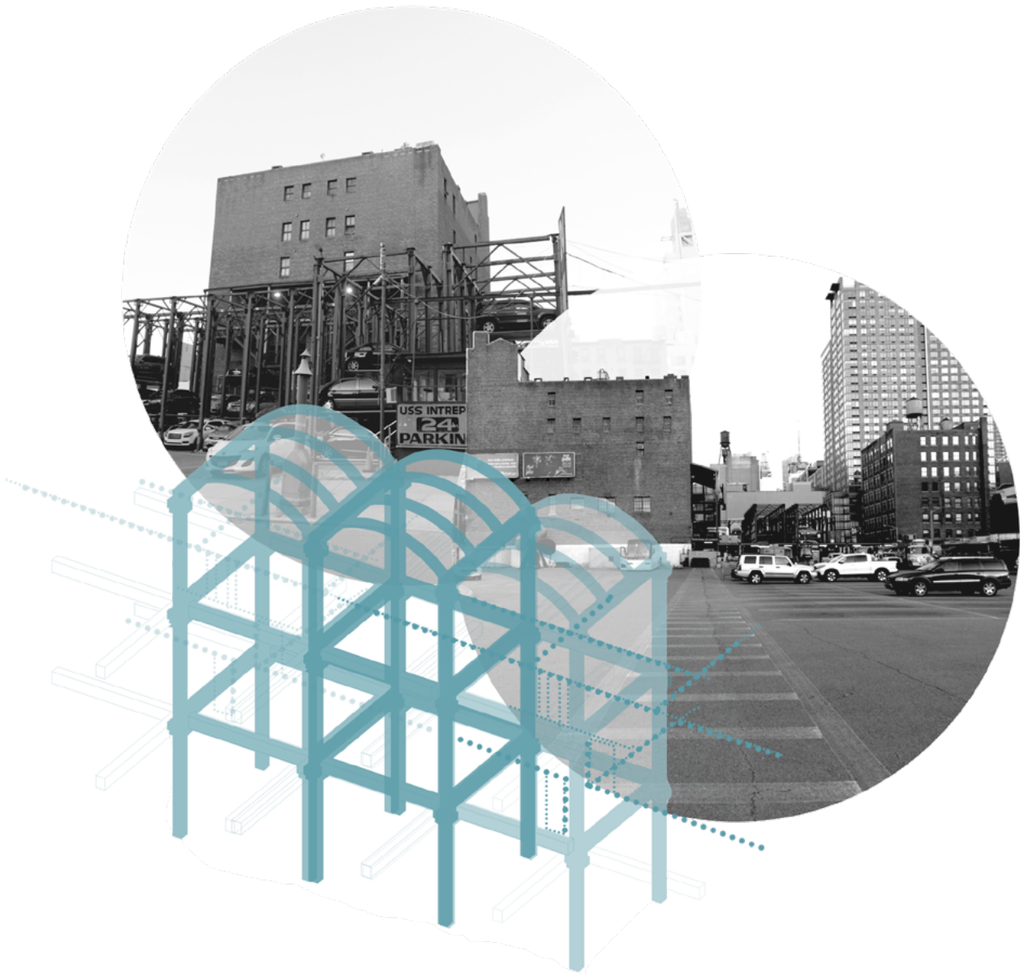
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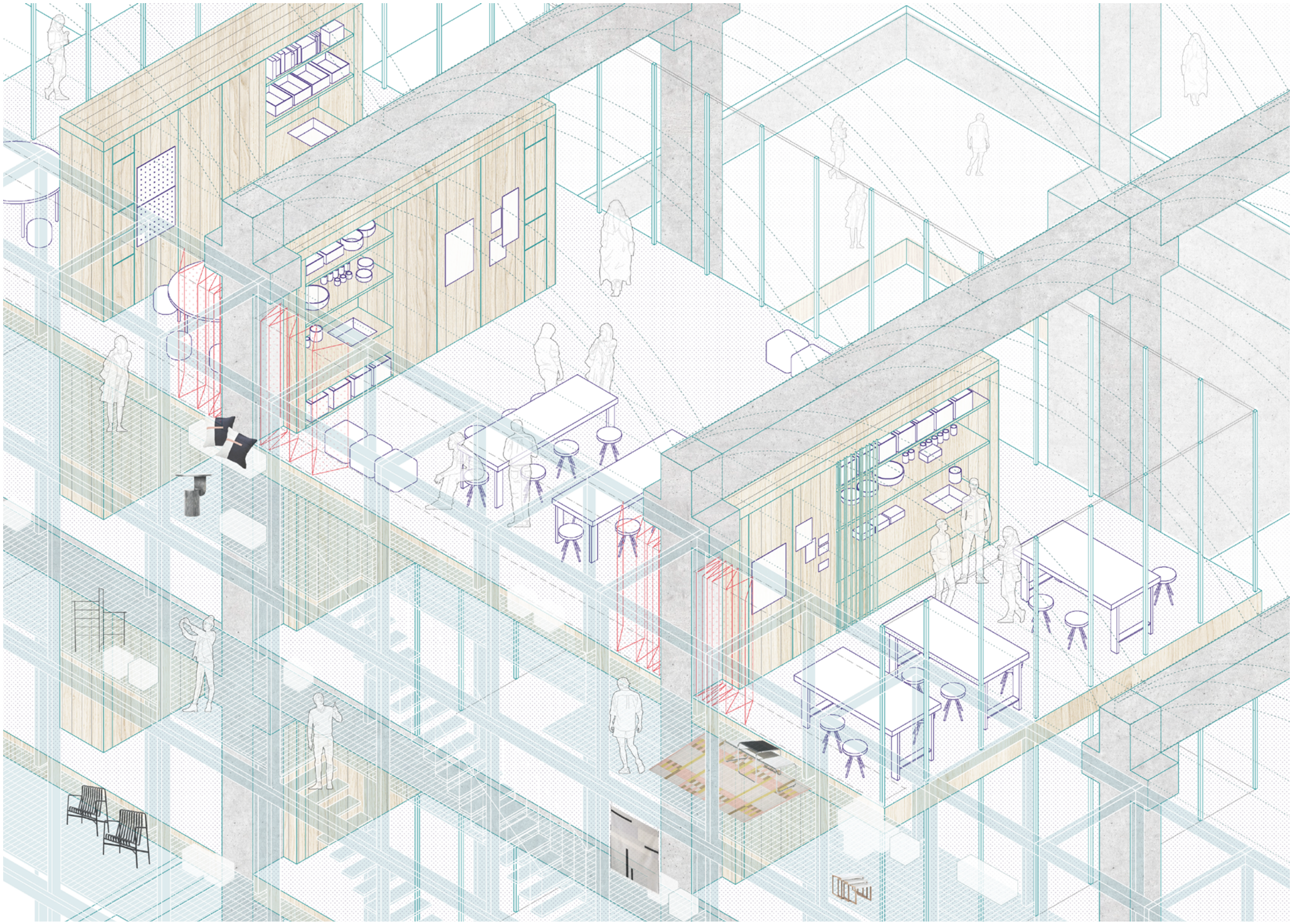
PARKIN



Thank you !