

# **THE FRAMEWORK FOR EDUCATION**

UNIFICATION, REVITALISATION, A FRAMEWORK, THE EDUCATIONAL CENTRE & EMBODIMENT  
OF EXPERIMENTAL NATURE AND PROCESS - FOR THE PUBLIC

P5 Presentation  
Public Building Graduation Studio 2023-2024  
Bart Ramakers - 5506948

# Index

Introduction

Research Overview

Context (thematic 1)

Program (thematic 2)

Design

Embedment in Context [City / Neighbourhood]

Building(s) / Ensemble

Building(s) / Spaces

Building(s) Parts

Conclusions

# Index

## Introduction

Research Overview

Context (thematic 1)

Program (thematic 2)

Design

Embedment in Context [City / Neighbourhood]

Building(s) / Ensemble

Building(s) / Spaces

Building(s) Parts

Conclusions

# Problem Statements - Limited Resources & Shifts in Demographics

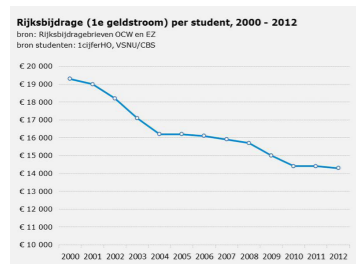
## Introduction

### Aantal nieuwe studenten op universiteiten zal komend jaar opnieuw toenemen

**Aanmeldingen** Voor het tweede jaar op rij stijgt het aantal studenten dat zich meldt voor een universitaire studie fors. Het tussenjaar is mogelijk minder populair.

NOS Nieuws • Vrijdag 8 september, 09:10

#### Toename internationale studenten in Nederland: stijging van 8000



Tuiclichting: dit is exclusief collegegeld, inclusief inflatiecorrectie 2012 (prijspeil CPI)

Nieuws

#### Weer meer internationale studenten: 'We moeten instroom gaan beheersen'

Aan de Nederlandse universiteiten studeren dit academische jaar 85.000 buitenlandse studenten. Dat komt neer op een toename van zo'n 7 procent. Hoewel de groei in vergelijking met eerdere jaren is afgevlakt, wil de minister ingrijpen.

Jesper Roelle 14 maart 2023, 09:13

■ ACHTERGROND

#### Uitpuilende collegezalen en ellenlange wachtlijsten: universiteiten willen niet meer groeien

**Onderwijs** Het aantal studenten verdubbelde de afgelopen twintig jaar van 170.000 in 2001 naar 340.000 nu.

Patricia Veldhuis, Frederiek Weeda • 4 september 2022 • Leestijd 5 minuten

Luisteren Leestijd

Nieuws

#### Kamer roept minister op toename internationale studenten af te remmen

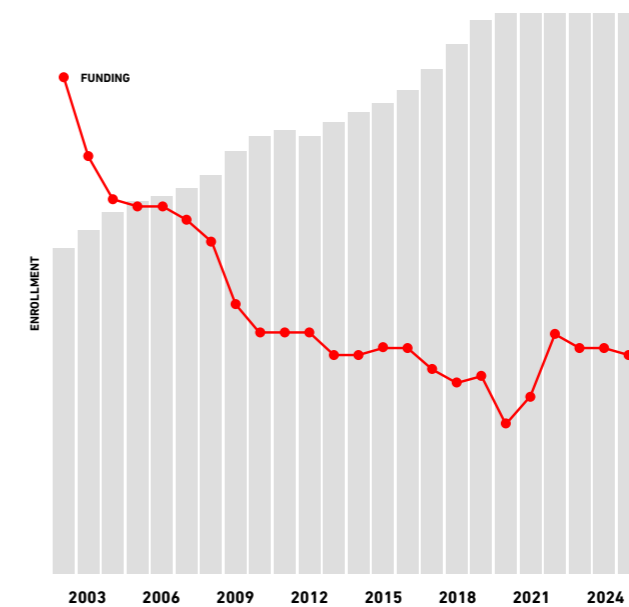
De Tweede Kamer vraagt minister Robbert Dijkgraaf (Wetenschap) meer te doen om de toestroom van internationale studenten te beperken. Meerdere moties die hiertoe oproepen krijgen steun van een meerderheid.

NOS Nieuws • Donderdag 4 november 2021, 11:25 • Aangepast donderdag 4 november 2021, 12:27

#### Universiteiten onder druk door recordaantal studenten

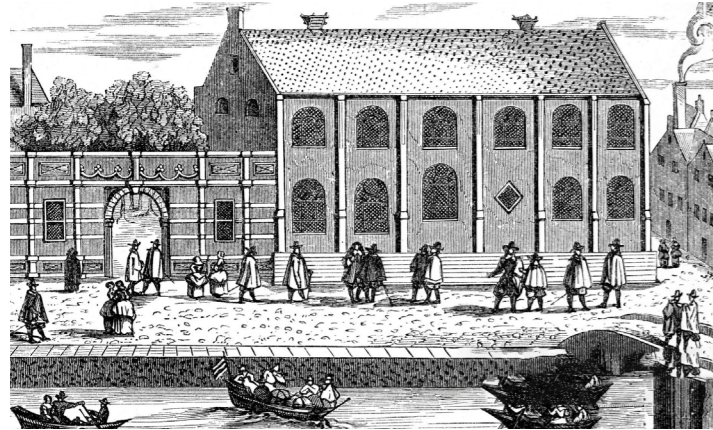
#### Bekostiging per student in het hbo en wo gaat dalen

Nieuws | de redactie



# Problem Statements - Campus-City Relationship Evolution

## Introduction



Buildings of the city of Leiden, blue marked are university buildings



Buildings of the city of Delft, blue marked are university buildings



Buildings of the city of Wageningen, blue marked are university buildings



Buildings of the city of The Hague, blue marked are university buildings



First Dutch universities, small scale, in historic centre



Post-war educational up-scaling, outside city



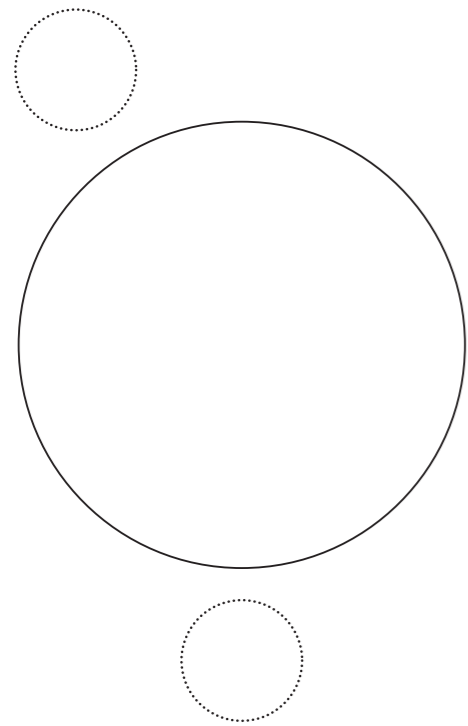
Further expansions, even further out the city



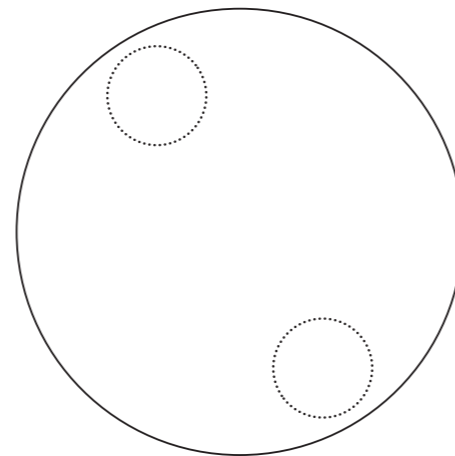
Contemporary campus re-integration

# Problem Statements - Past-Present-Future Campus-City Relationship

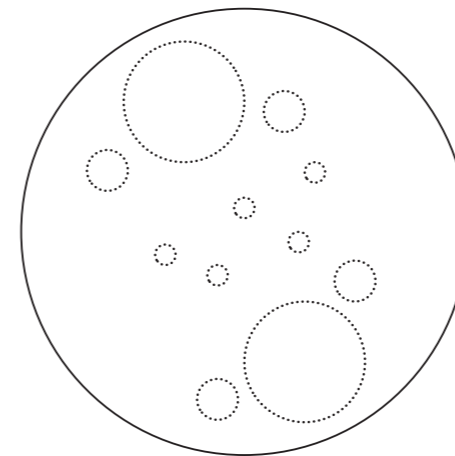
## Introduction



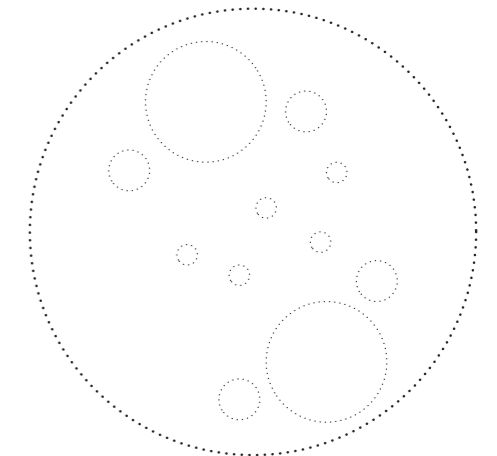
Campus outside of the city



Campus at the border of the city



Campus integrated in the city



The city as the campus

# Studio Assignment - A Hybrid Building

## Introduction



*'The Graduation Studio's assignment is to design a **hybrid building for higher education** in the center of **The Hague**. The design should facilitate and encourage **public interaction** between **citizens, businesses, governmental institutions**, and (with emphasis on) **university curricula**.'*

# Studio Assignment - A Hybrid Building

Introduction



*hybrid building for higher education*

# Studio Assignment - A Hybrid Building

Introduction



*public interaction*  
*between citizens, businesses, governmental institutions,*

# Studio Assignment - A Hybrid Building

Introduction



*university curricula.*

Introduction

**Initial Research**

Context (thematic 1)

Program (thematic 2)

Formalisation

Embedment in Context [City / Neighbourhood]

Building(s) / Ensemble

Building(s) / Spaces

Building(s) Parts

Conclusions

# Hybrids vs Social Condensers

Initial research

## DIFFERENCES **HYBRID** vs **SOCIAL CONDENSER**

1.	Diversity of uses, including residential Diversidad de usos, incluido el residencial	Residential buildings with a service programme associated to the dwellings Edificios residenciales con un programa de servicios asociado a las viviendas
2.	Different initiatives Diferentes iniciativas	Public initiative Iniciativa pública
3.	Insertion adapted to the urban fabric Inserción adaptada a la trama urbana	Isolated location in the urban fabric Situación aislada en la trama urbana
4.	Public uses Utilización pública	Exclusive use of the service programme by residents Utilización exclusiva del programa de servicios por parte de los residentes

### HYRBIDS VERSUS SOCIAL CONDENSERS

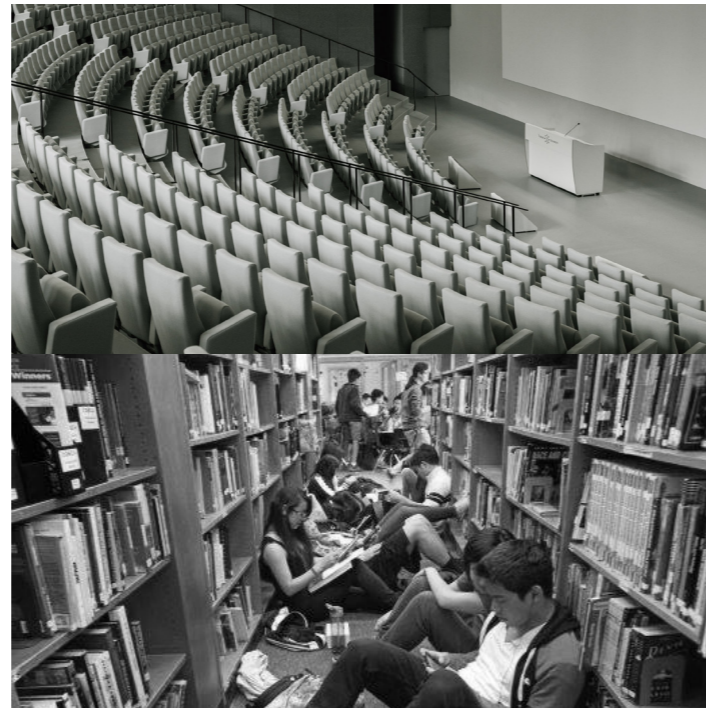
A differentiation between the social condenser and a hybrid building is explicitly noted. Whereas the social condenser aims to self-sufficiency and thus isolation from the conventional city. A hybrid building seems a more succesful model since it may 'revilaise its surroundings and improve living conditions through its multi-properties'.

# Building Stock & Limited Resources

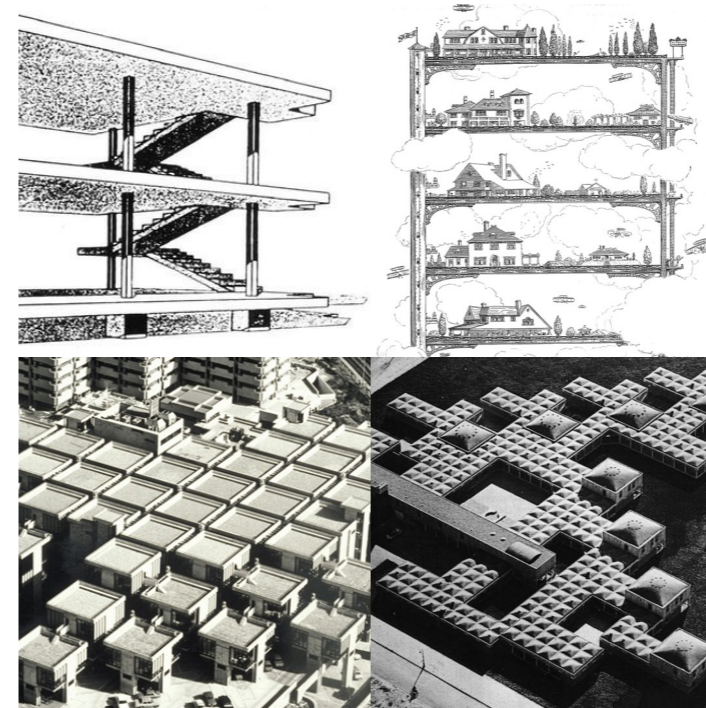
Initial research



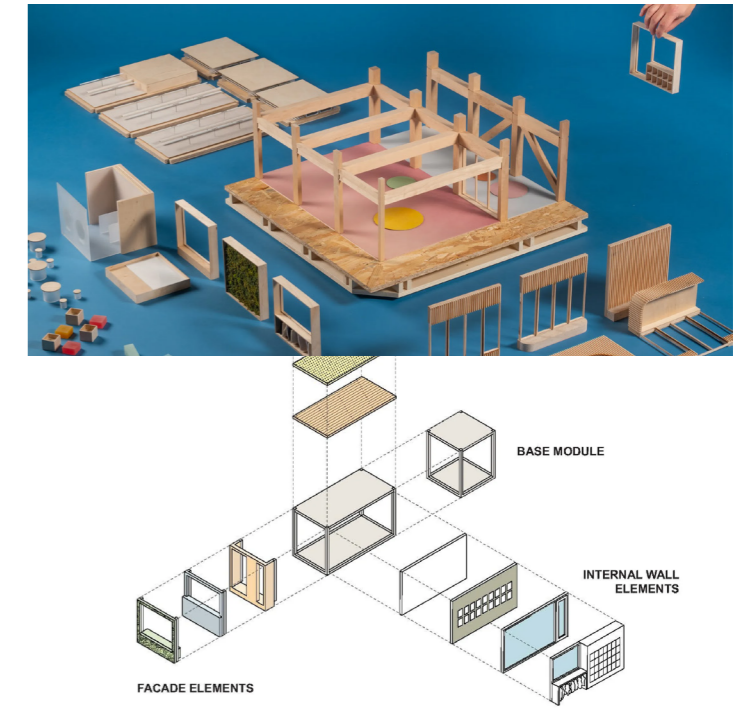
MINISTERIAL BUILDINGS INEFFICIENTLY OCCUPIED



UNIVERSITY BUILDINGS IRRAGULARLY OCCUPIED



LIMITED RESOURCES PUSH FOR ADAPTABILITY AND CRITICAL EVALUATION



RETHINKING SPATIAL QUALITIES FOR HYBRIDIZATION

## Quotes from Readings

Initial research

*On Multiplicity*

*"The framework, the order and the planned space for an unpredictable, unplanned for spontaneous process"*

*O.M. Ungers*

*On the public realm*

*"Incomplete form confronts the desire for fixicity; It asserts that the public realm is a process"*

*R. Sennet*

## Main Research Question

Initial research

*How to design a hybrid educational system and its corresponding spaces that is contextually and programmatically responsive?*

## Main Research Question

Initial Research

*How to design a **hybrid educational system** and its corresponding environment that is contextually and programmatically responsive?*

Introduction

Initial Research

**Context (thematic 1)**

Program (thematic 2)

Design

Embedment in Context [City / Neighbourhood]

Building(s) / Ensemble

Building(s) / Spaces

Building(s) Parts

Conclusions



# Project location relative to The Hague

Context



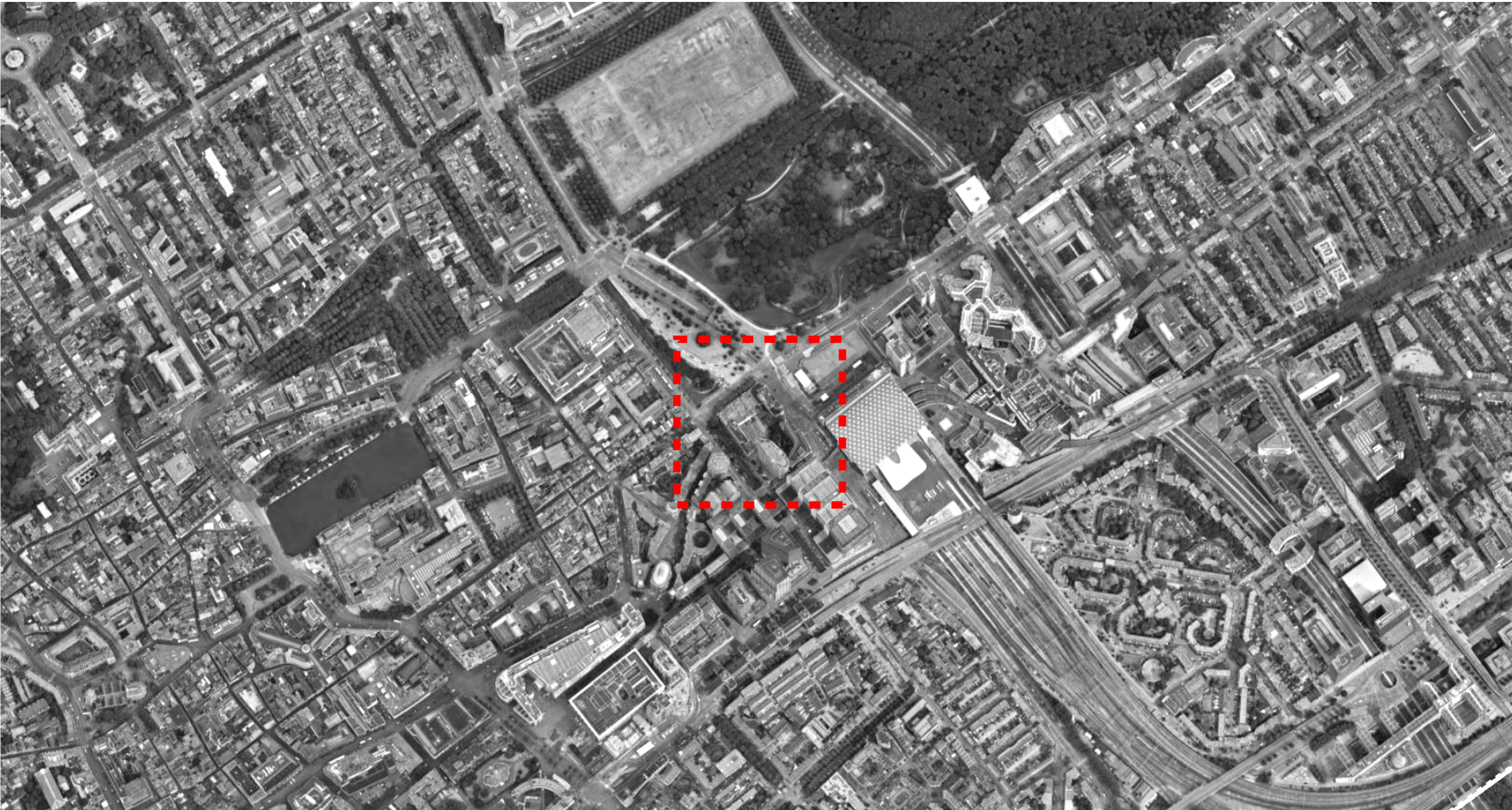
# Project location relative to it's district

Context



# Project location relative to it's district

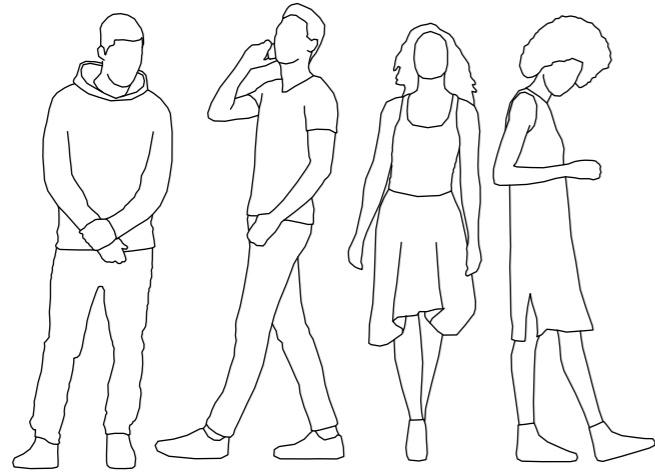
Context



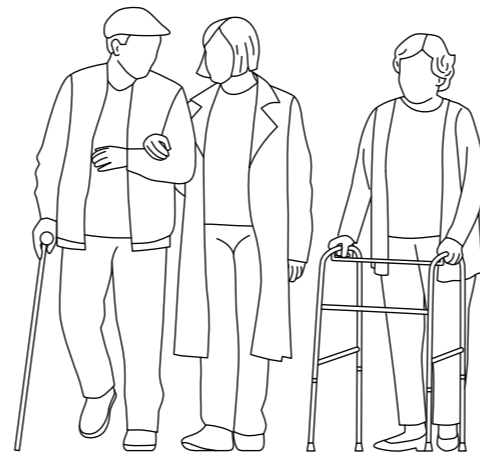
# Analysis - User Groups

Context

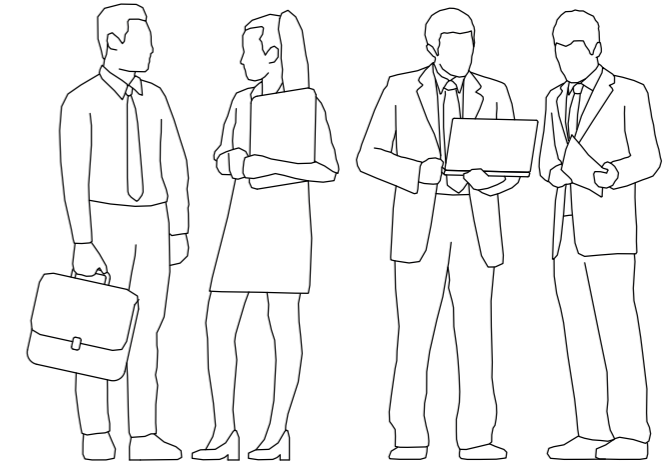
Students



Senior Citizens



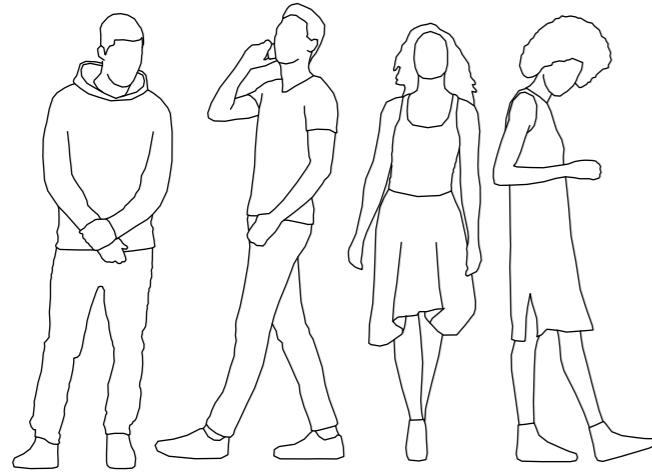
Employees



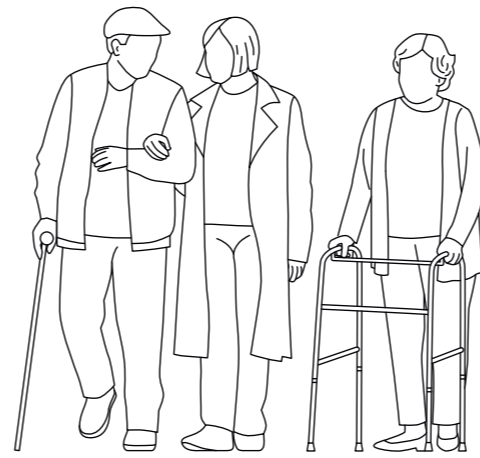
# Analysis - User Groups

Context

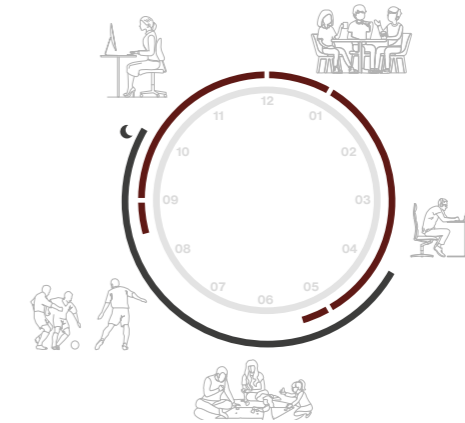
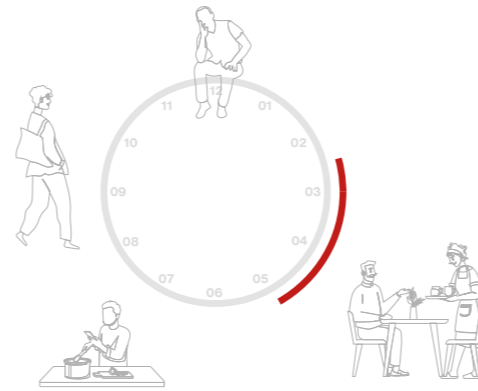
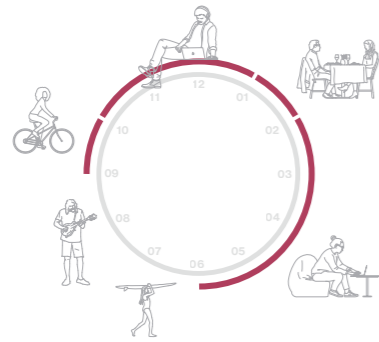
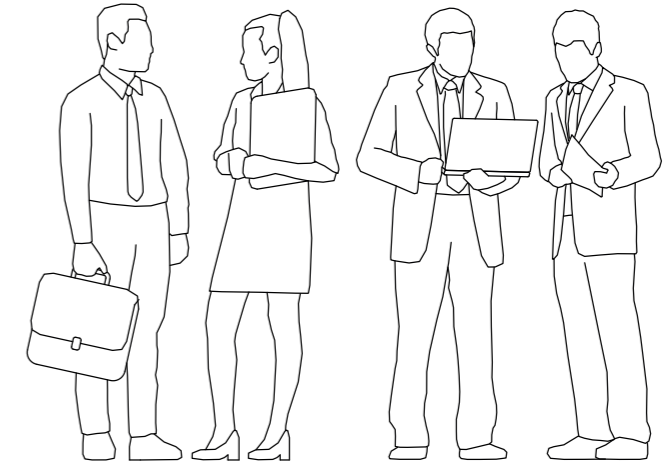
### Students



### Senior Citizens



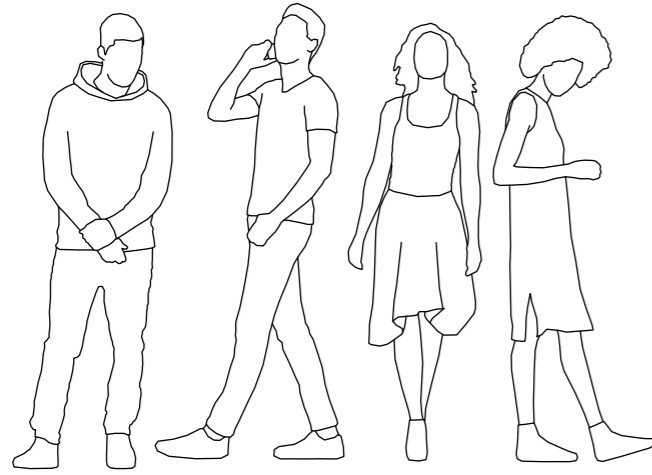
### Employees



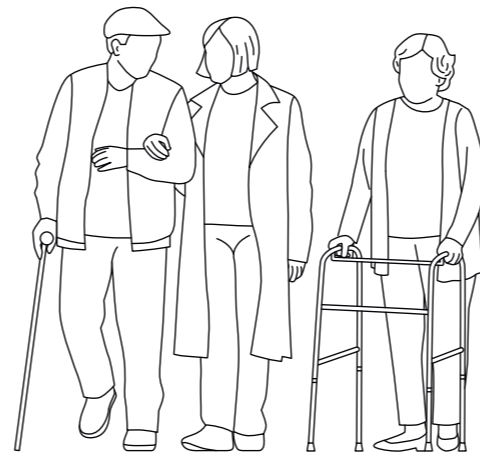
# Analysis - User Groups

Context

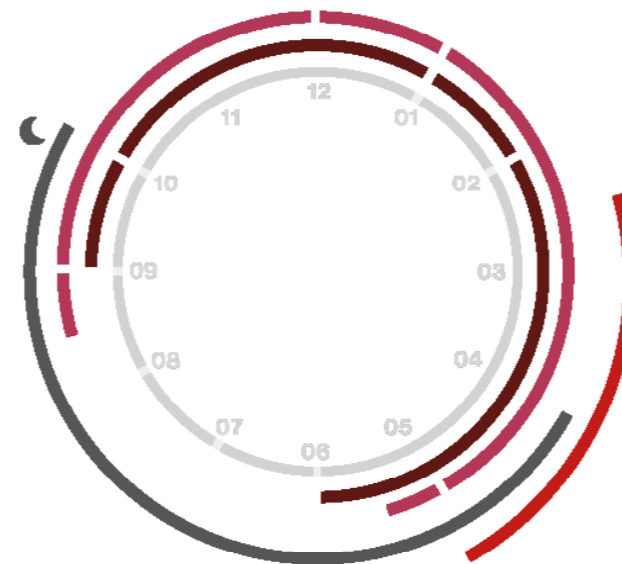
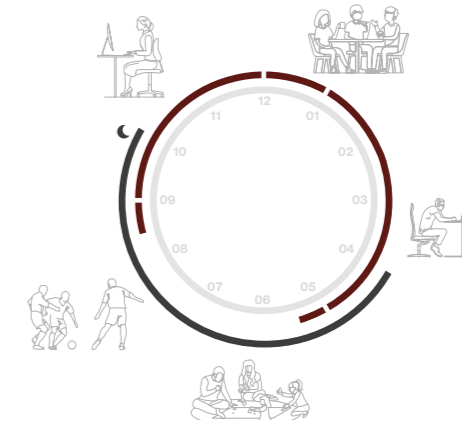
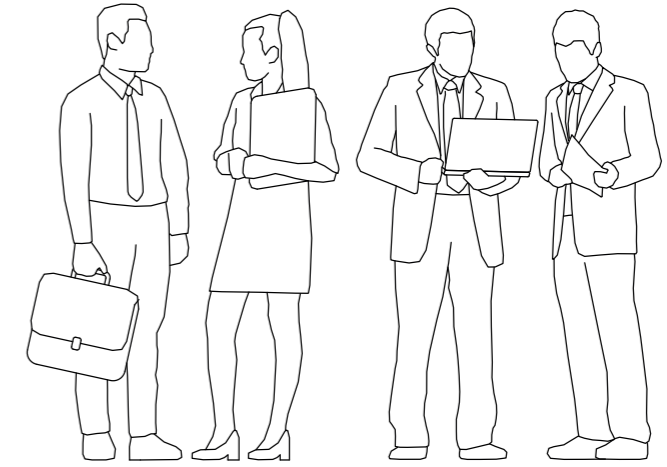
### Students



### Senior Citizens

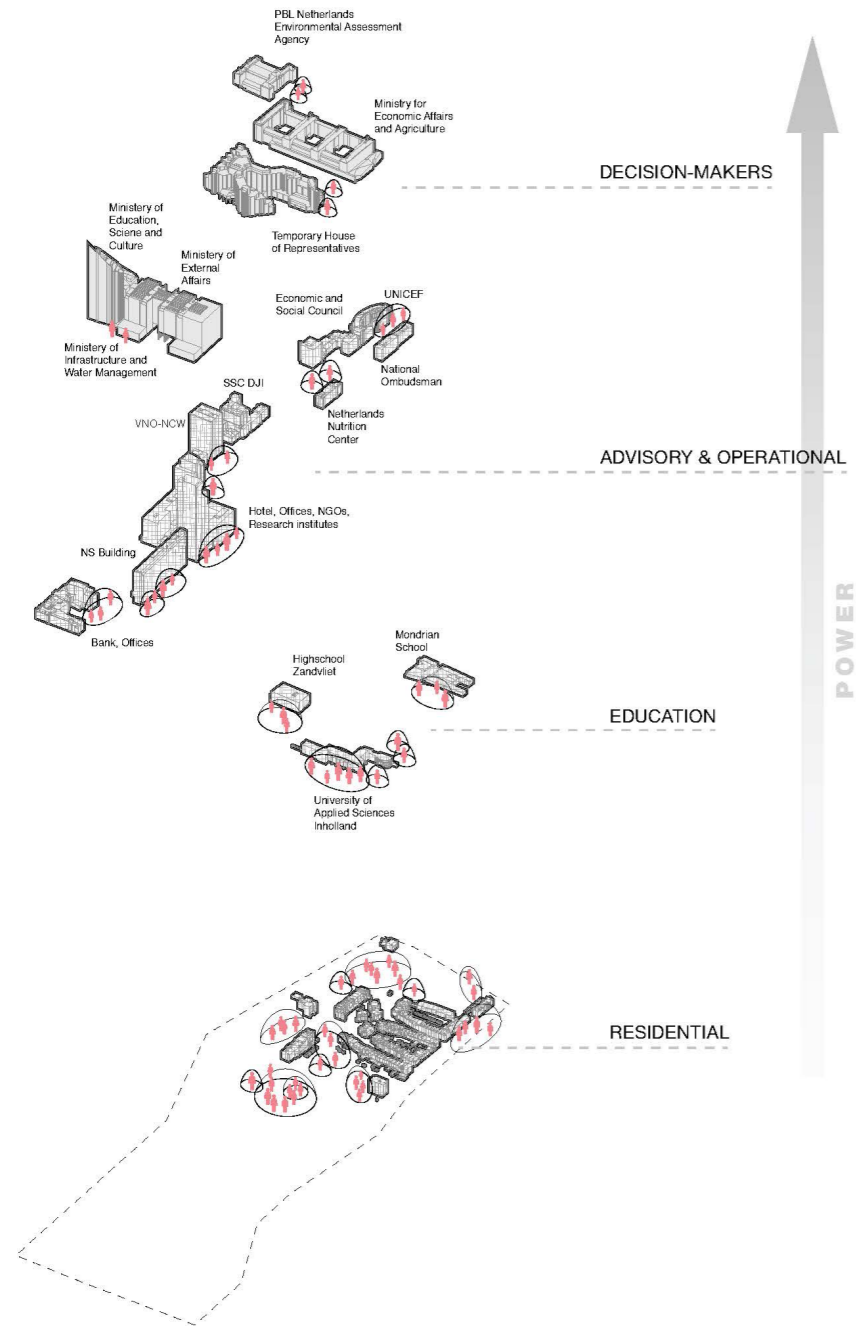


### Employees



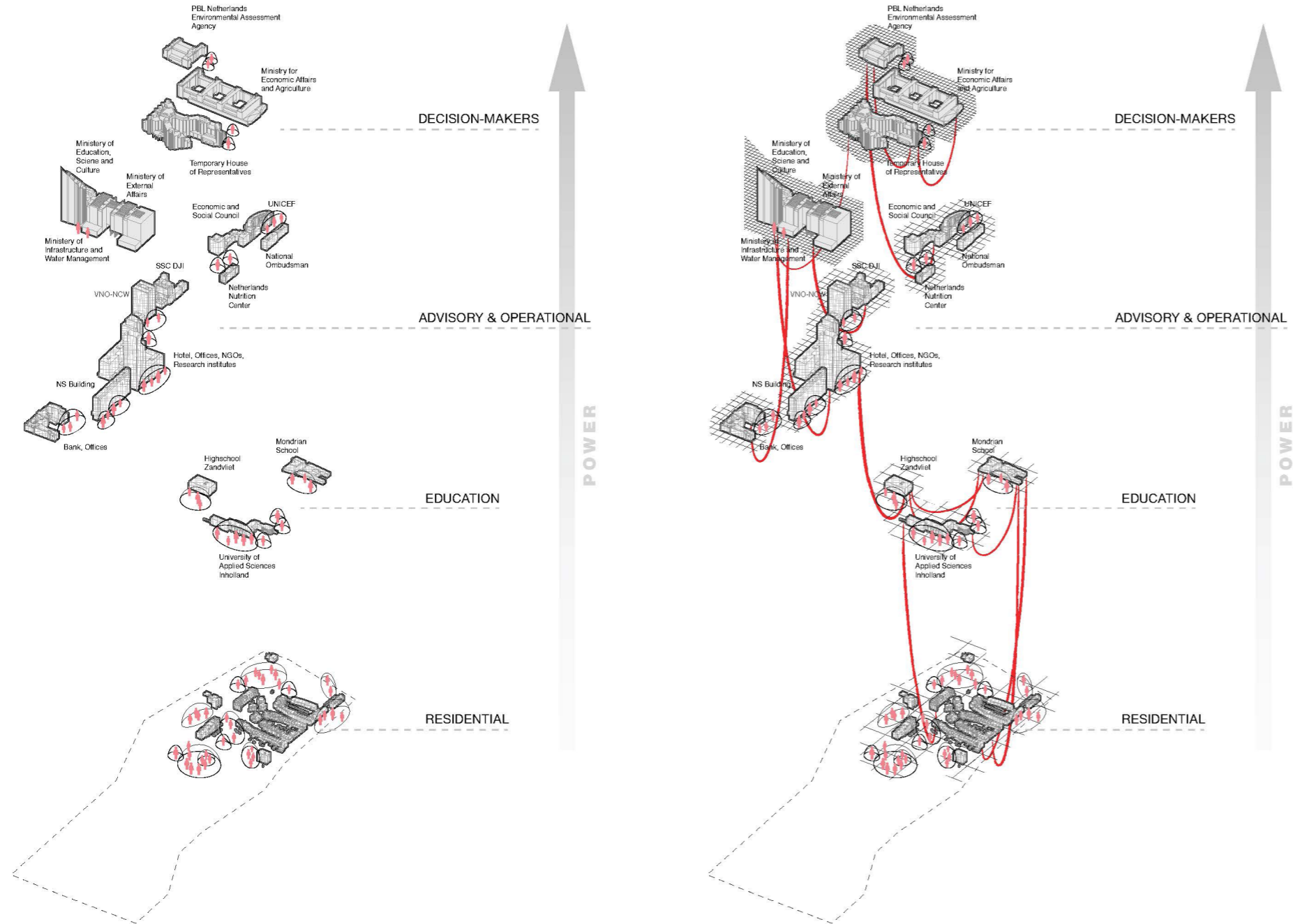
# Analysis - Institutionalisation leads to power clusters

Context



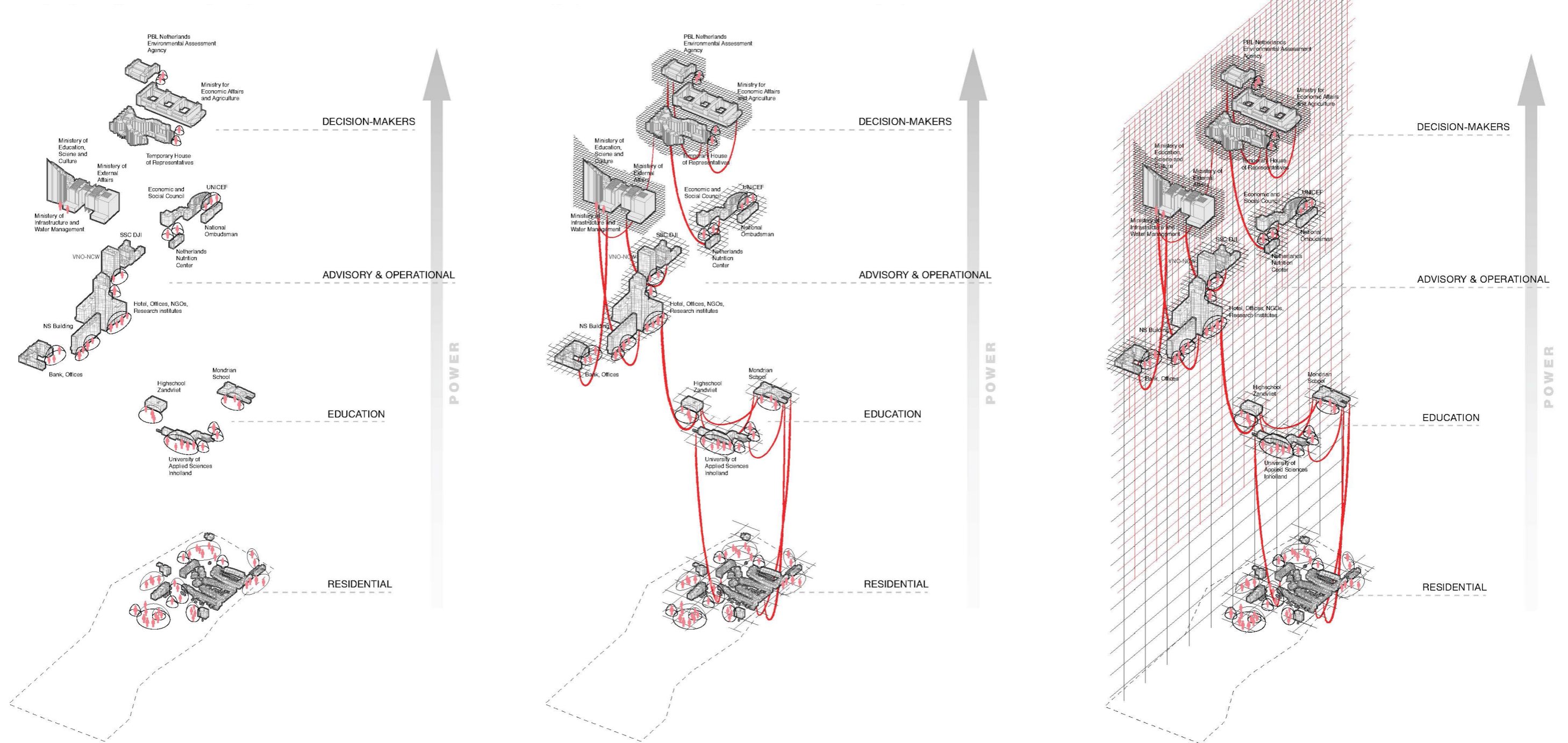
# Analysis - Institutionalisation leads to power clusters

Context



# Analysis - Institutionalisation leads to power clusters

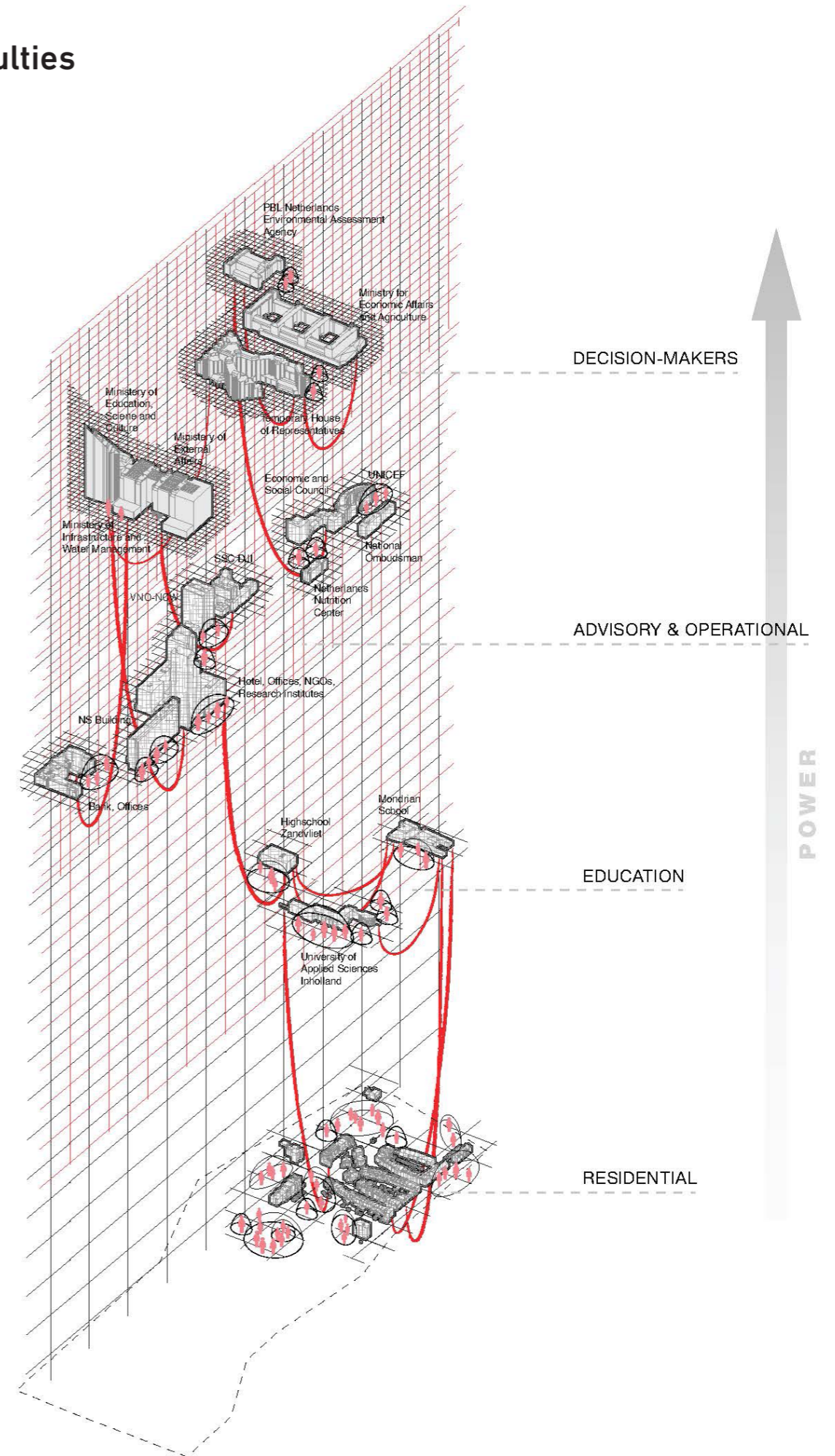
Context



# Analysis - Identified difficulties

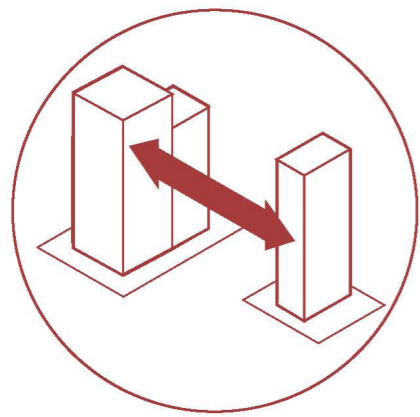
Context

- ... TO INTERACT AND EXCHANGE
- ... TO GENERATE AND SHARE KNOWLEDGE
- ... TO STAY AND APPROPRIATE
- ... TO MOVE THREE-Dimensionally

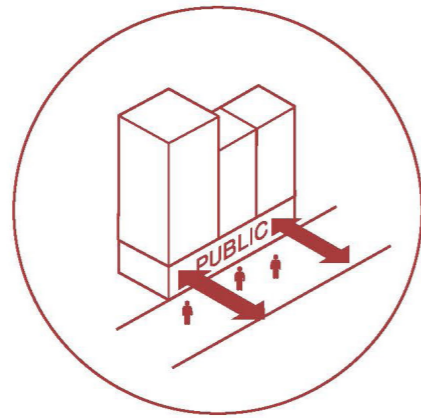


# Conclusions as project drivers

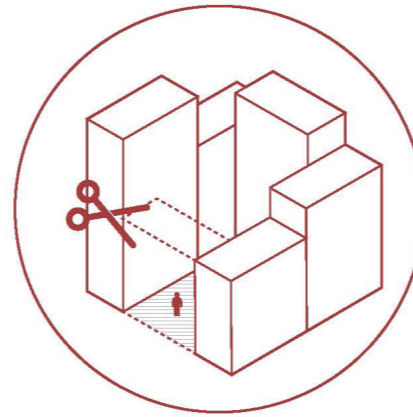
Context



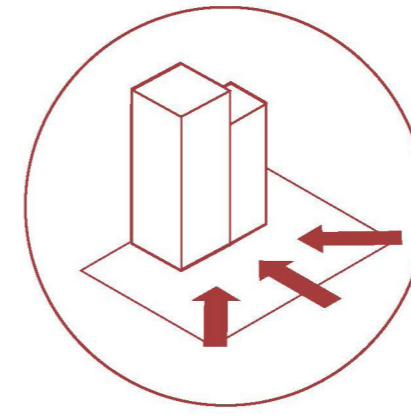
1. open up and connect



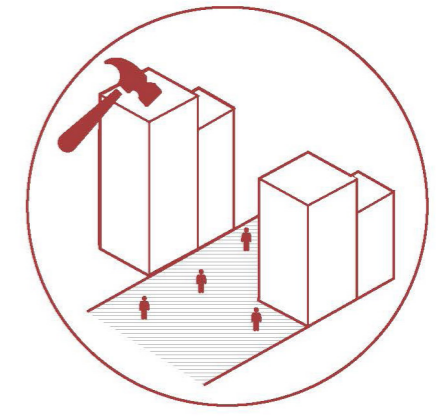
2. active plinth for public



3. new urban courtyards



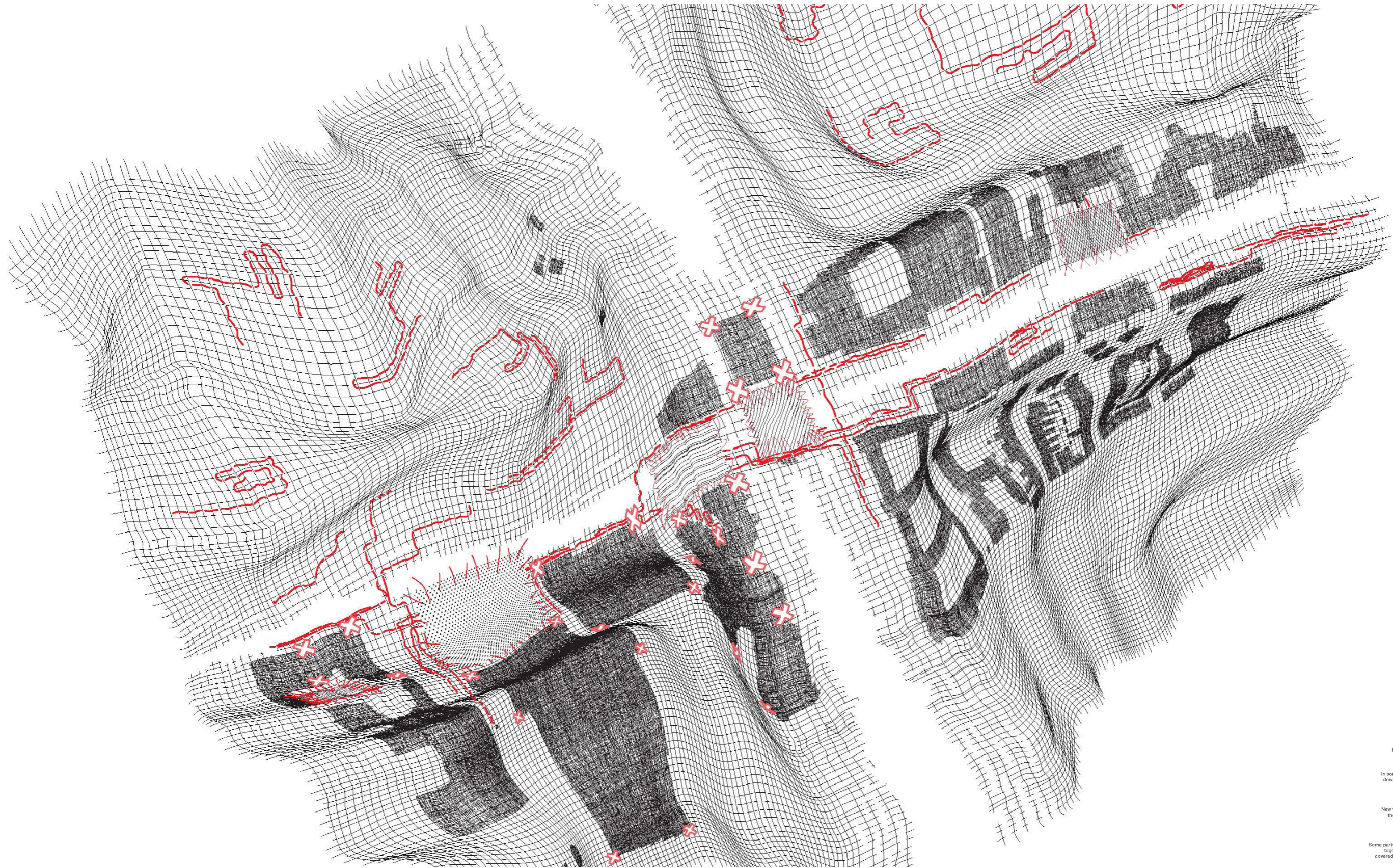
4. establish accessibility and new axes



5. make spaces in-between spaces

# Psychogeographical map

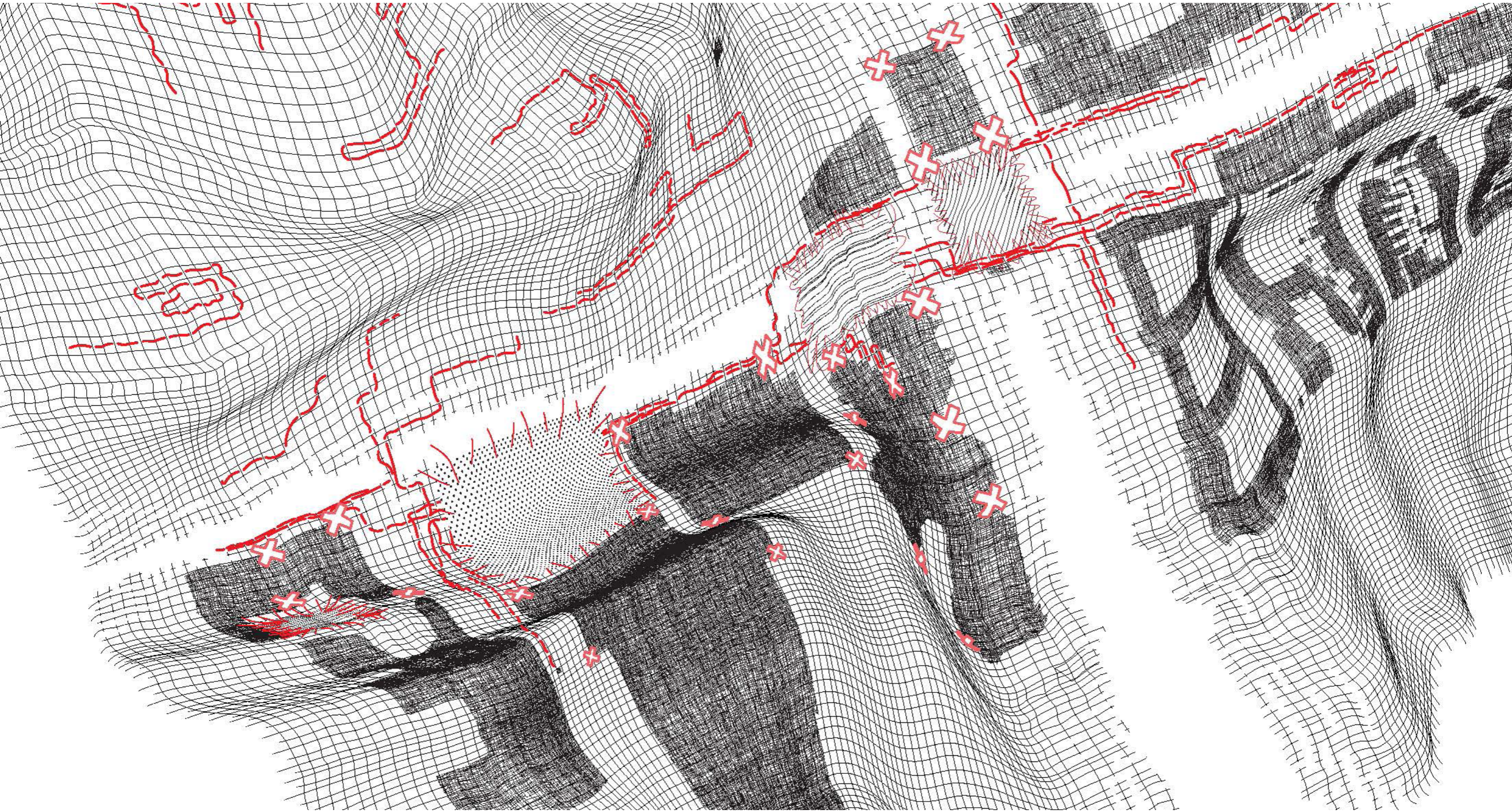
Context



- Tearing**  
Certain parts of the fabric are torn apart. These tears represent the intensity of physical & visual borders.
- Pinning**  
In some places the fabric has been pinned down. These parts aren't going anywhere and serve as a means of wayfinding.
- Weaving**  
New threads have been woven throughout the fabric. These represent how people have appropriated the public space.
- Patching**  
Some parts are so far gone that weaving it back together will no longer suffice. These are covered up by entirely new patches of fabric.

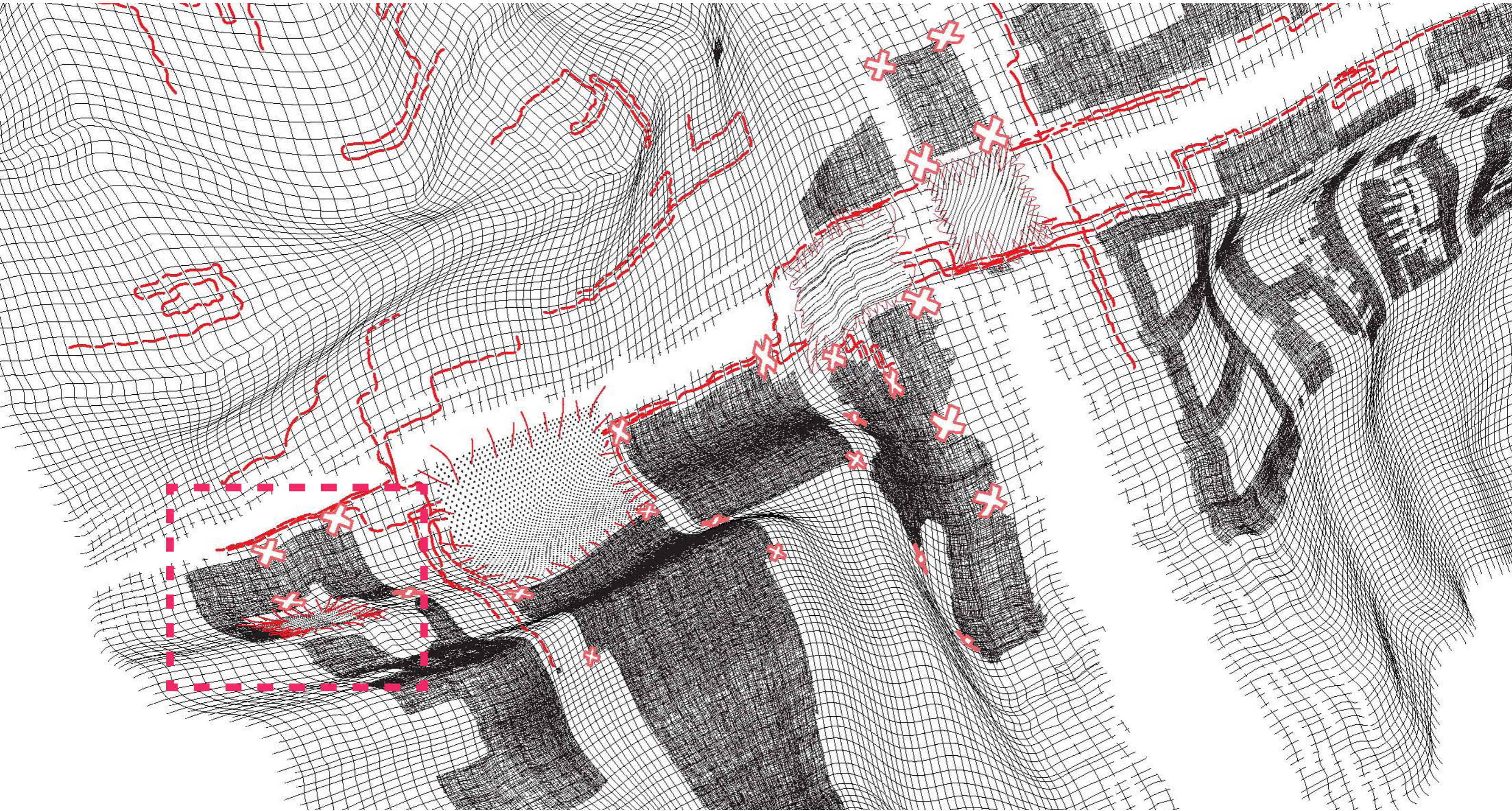
# Project Location

Context



# Project Location

Context



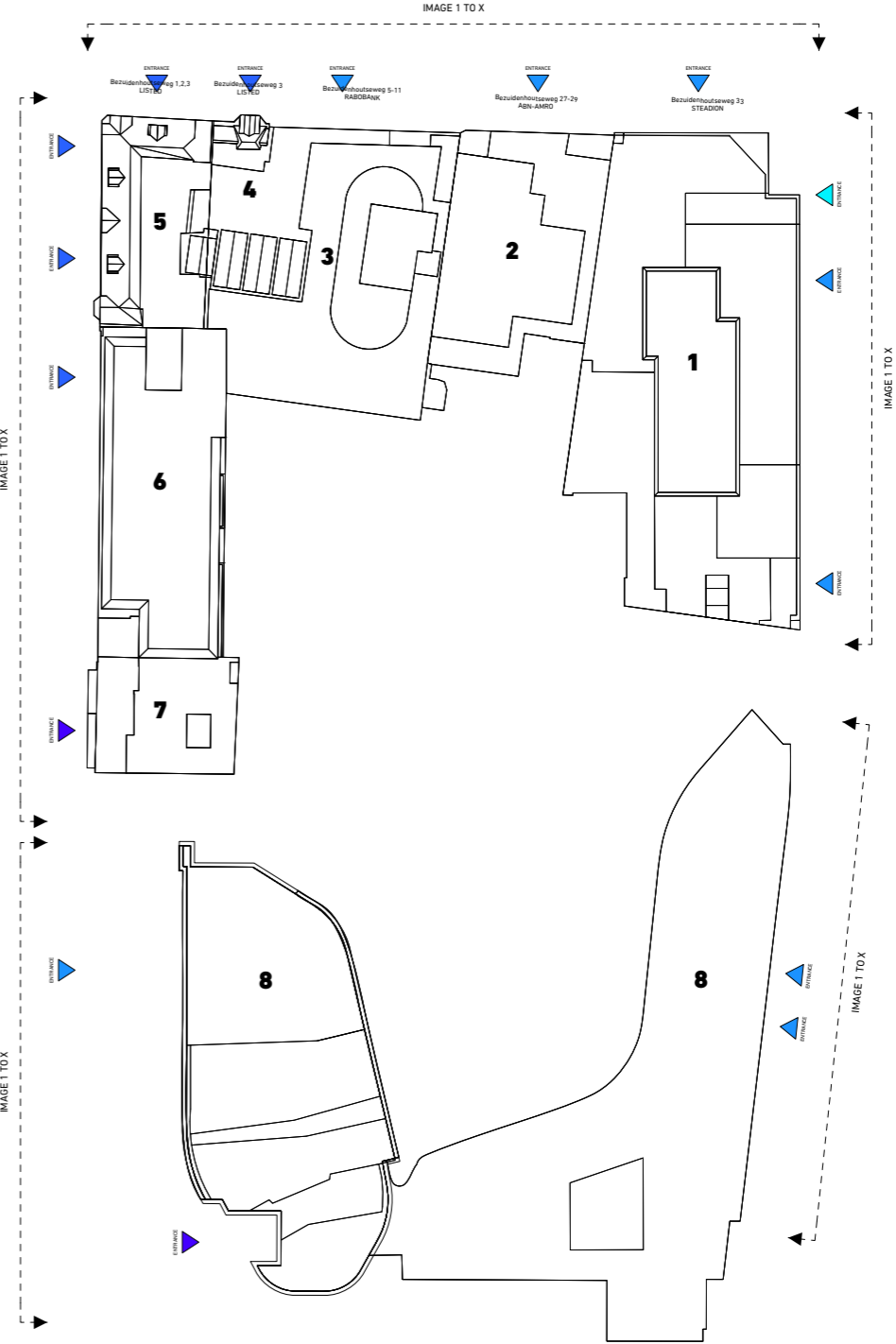
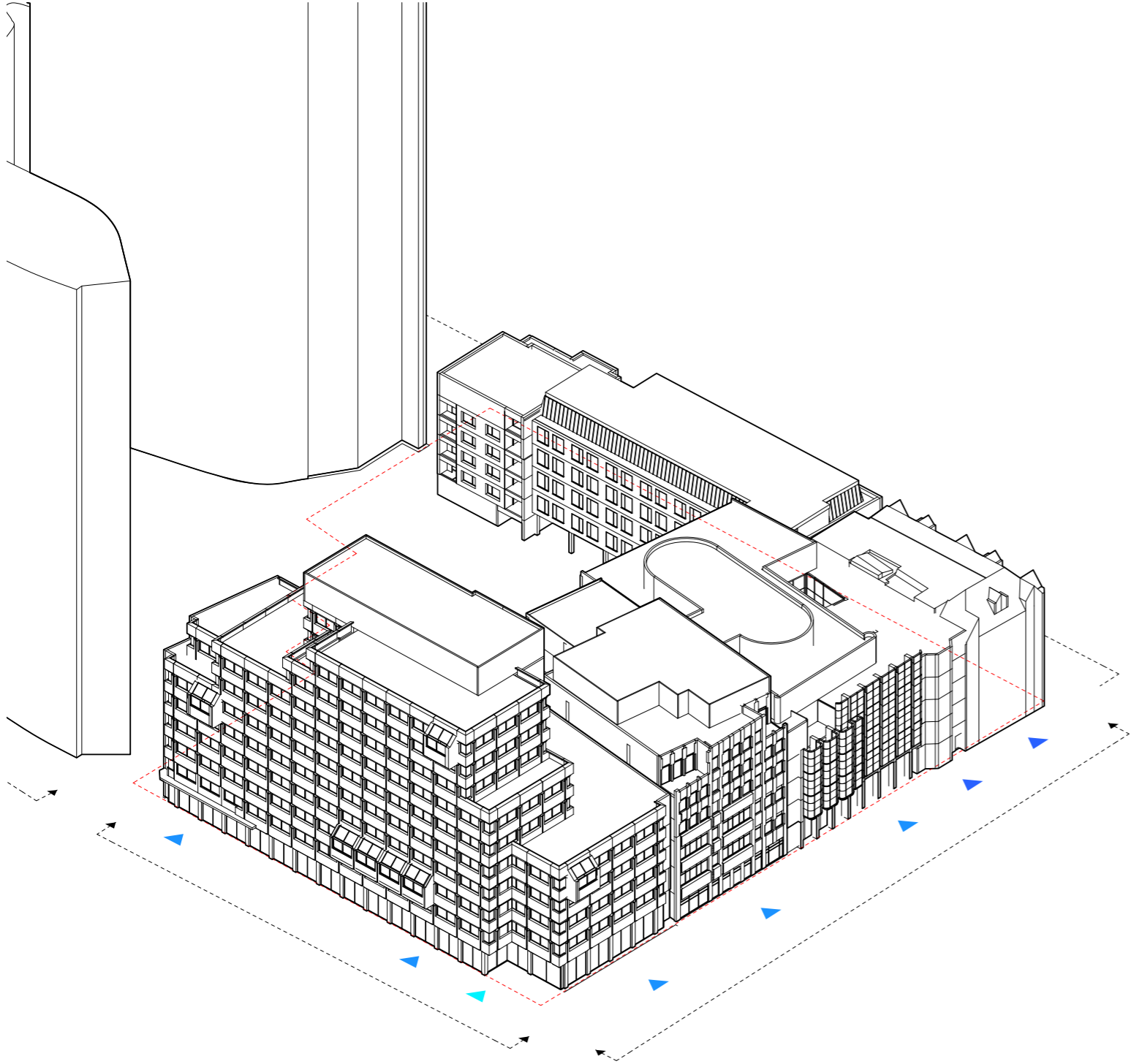
# Aerial photograph of the site

Context



# Plot Overview

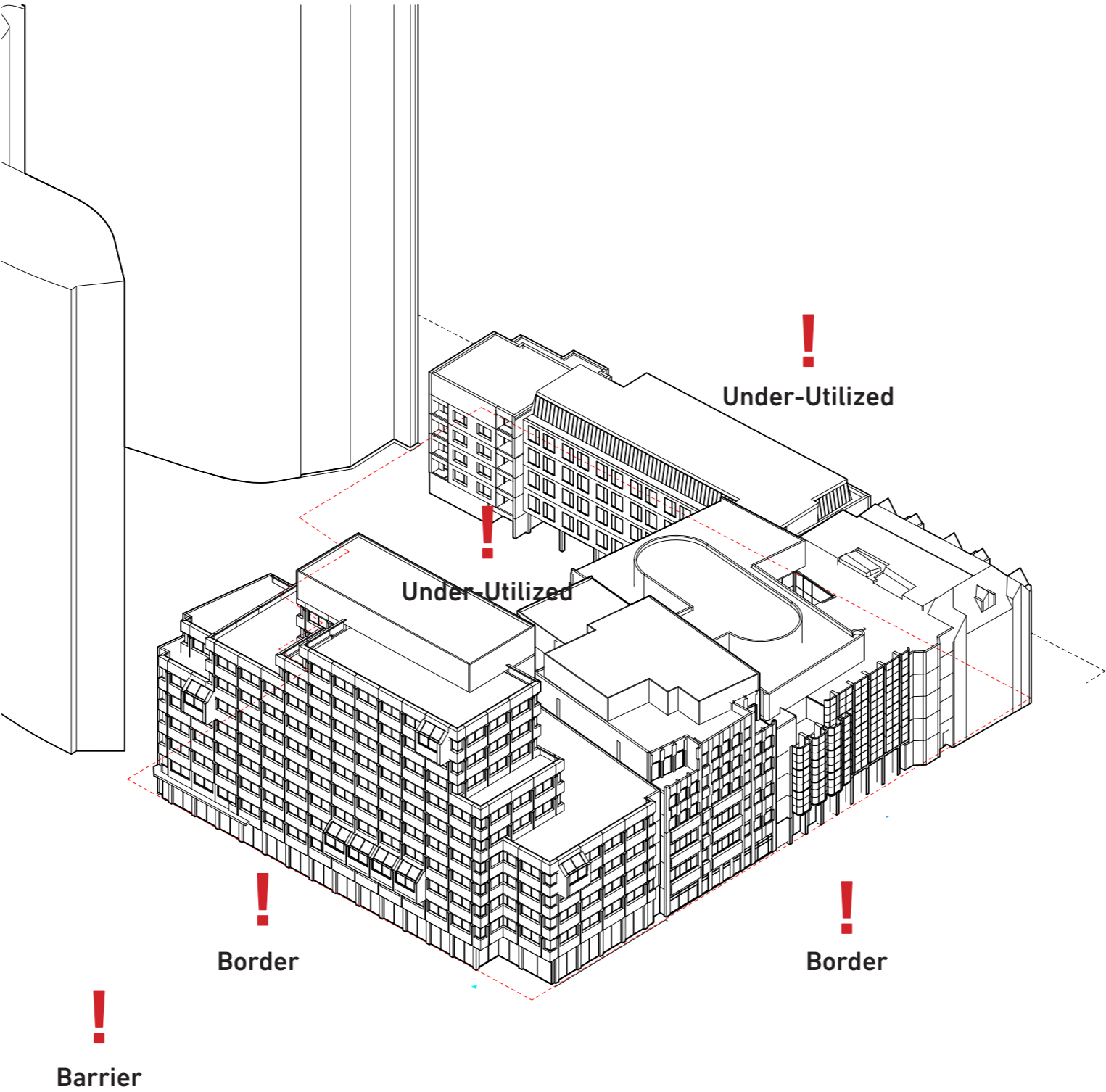
Context



- PROGRAM**
  - MINISTRY
  - OFFICE
  - RETAIL
  - RESIDENTIAL
  - OTHER
  - PUBLICLY ACCESSIBLE**
  - PUBLIC
  - SEMI PUBLIC
  - SEMI PRIVATE
  - PRIVATE
  - ACCESSIBILITY TYPES**
  - ENTRANCE
  - FACADE ELEVATION IMAGERY
- ENTITIES ON BLOCK**
  - 1 Bezuidehouthweg 33 - STEADION
  - 2 Bezuidehouthweg 27-29 - ABN-AMRO
  - 3 Bezuidehouthweg 5-11 - RABOBANK
  - 4 Bezuidehouthweg 3 - LISTED
  - 5 Bezuidehouthweg 1,2,3 - LISTED
  - 6 Oranjestraatsingel
  - 7 Oranjestraatsingel
  - 8 Hofstede - Ministry of Education, Culture and Science

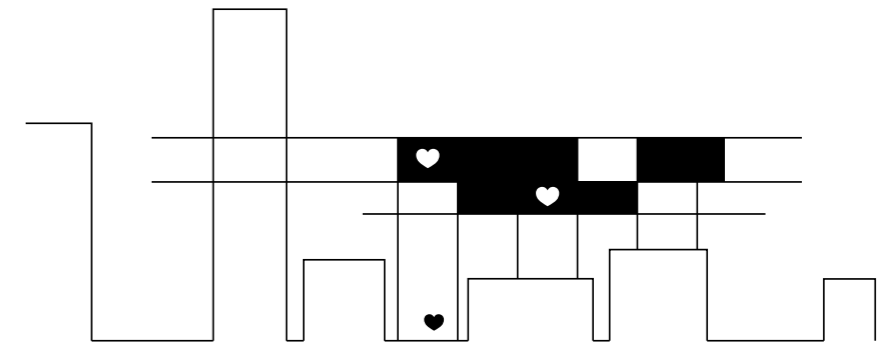
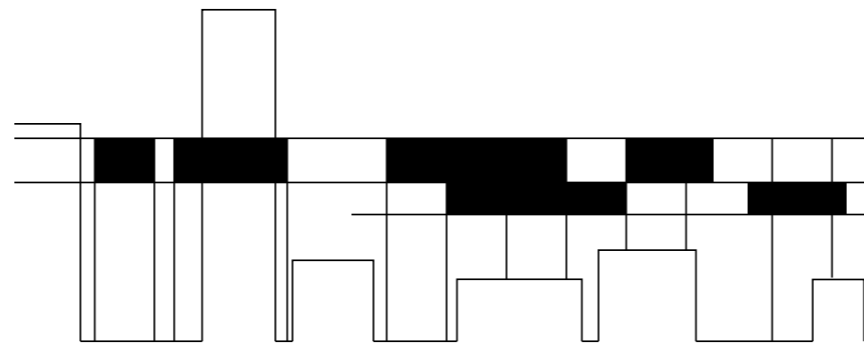
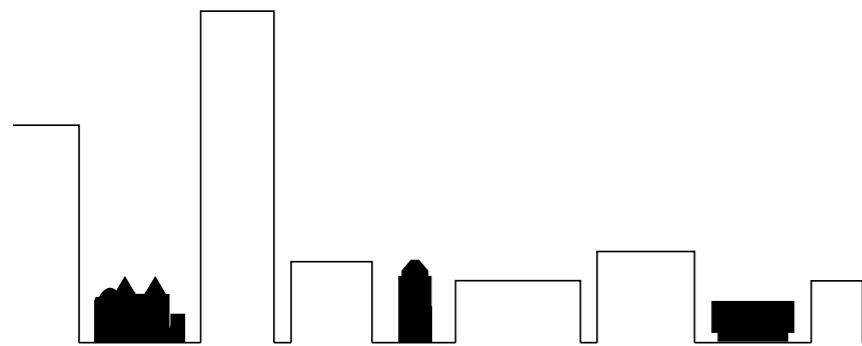
# Plot Overview - Problems

Context



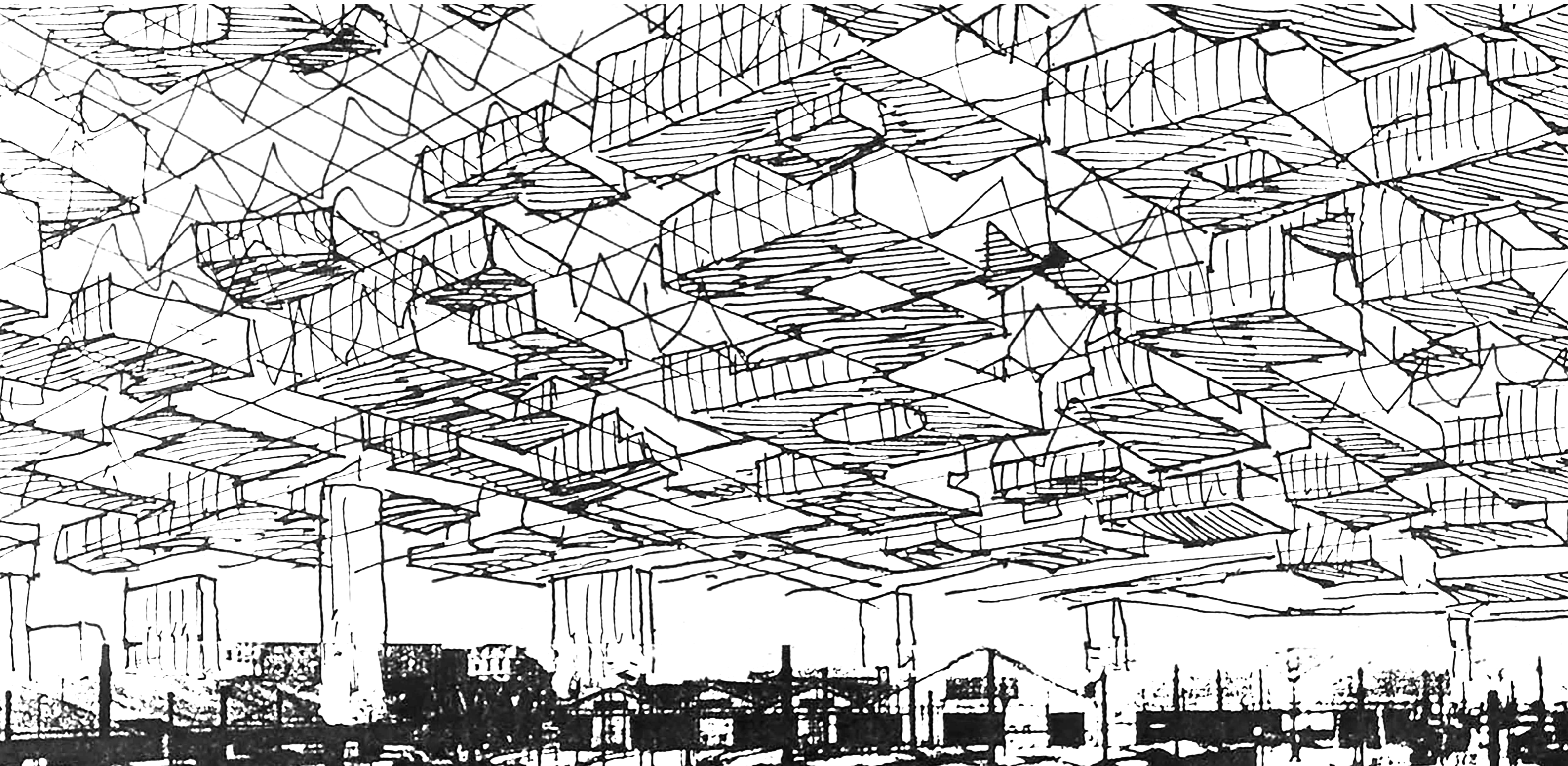
# Three-dimensionality for the urban realm

Context



# Friedman's Spatial City

Context



Introduction

Initial Research

Context (thematic 1)

**Program (thematic 2)**

Design

Embedment in Context [City / Neighbourhood]

Building(s) / Ensemble

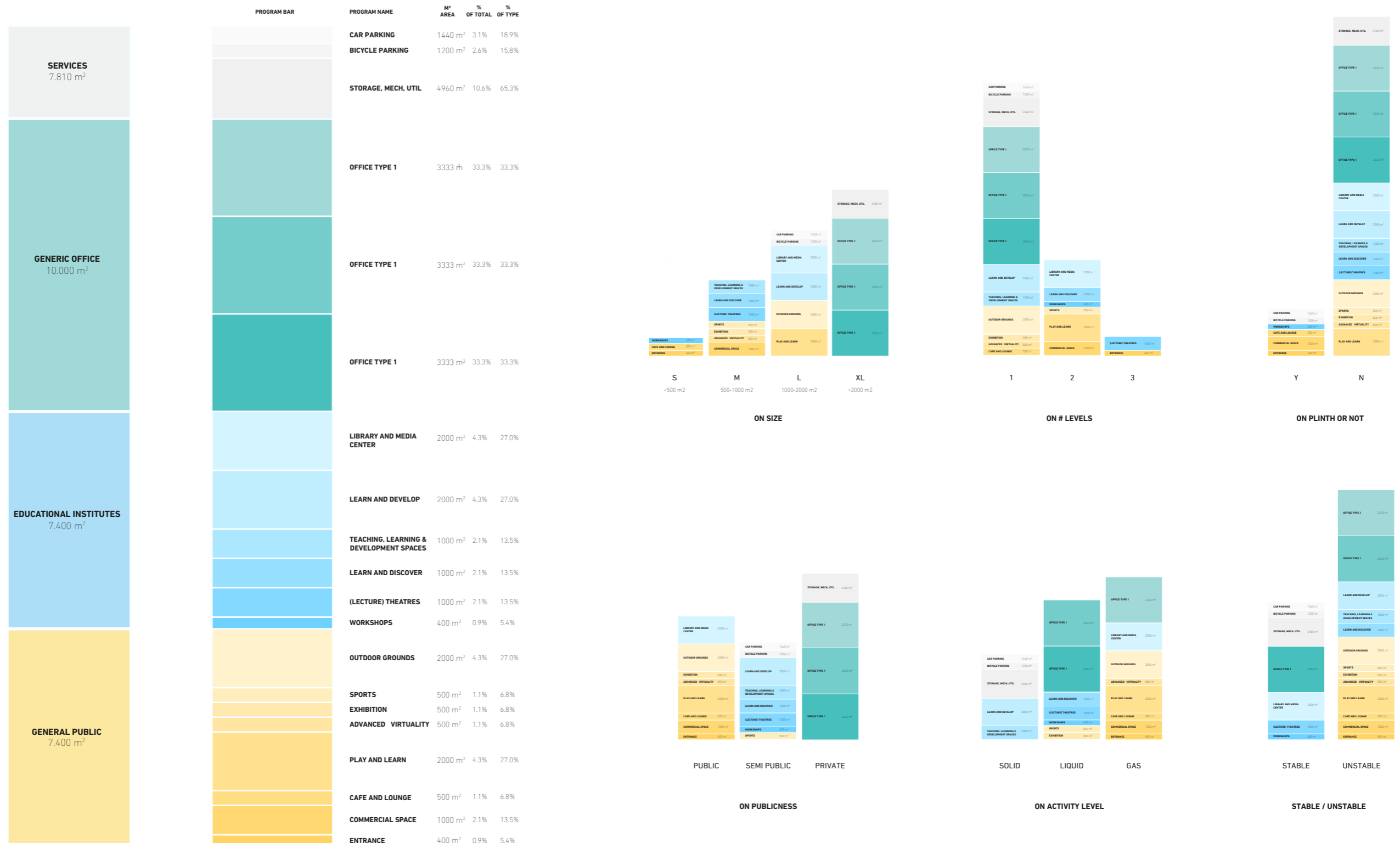
Building(s) / Spaces

Building(s) Parts

Conclusions

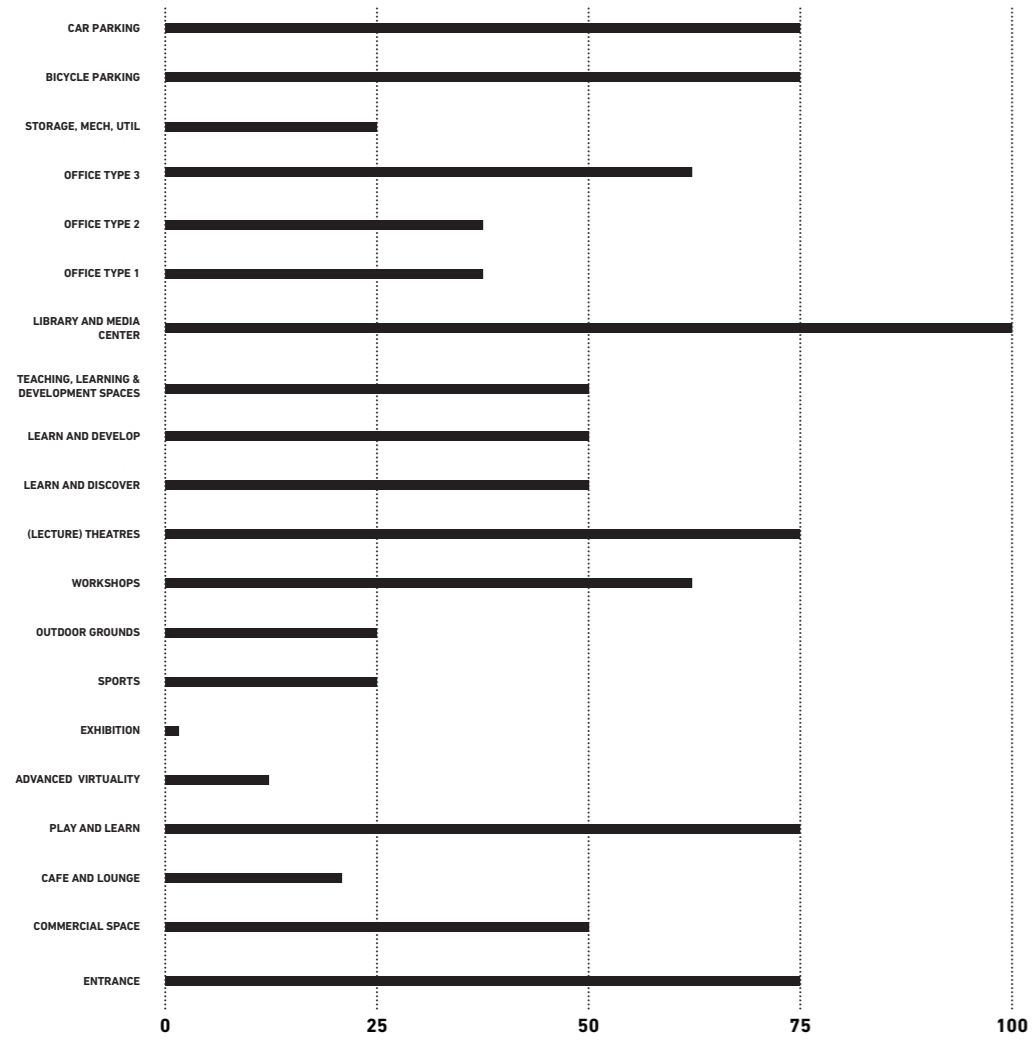
# Overview and endless ways of sorting

## Program



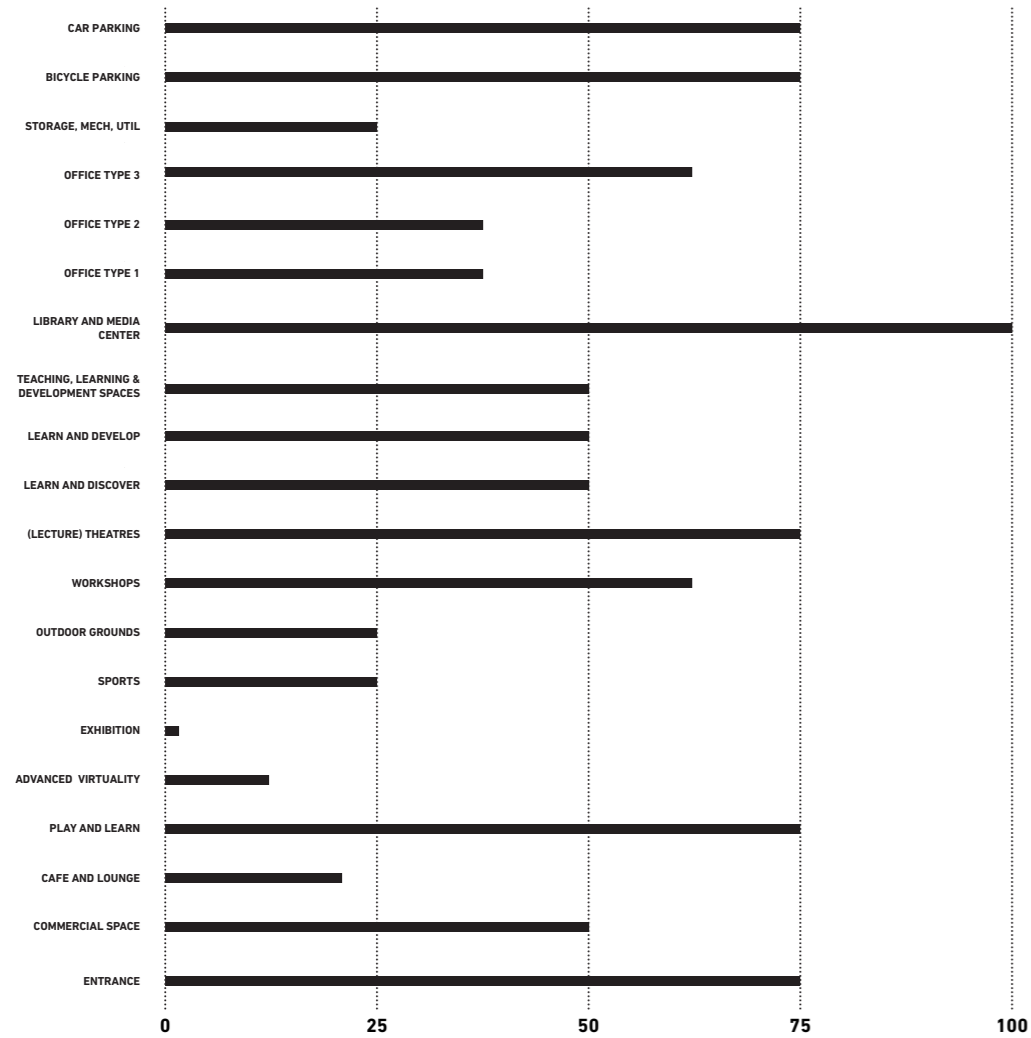
# Life-expectancy as organisational principle

Program

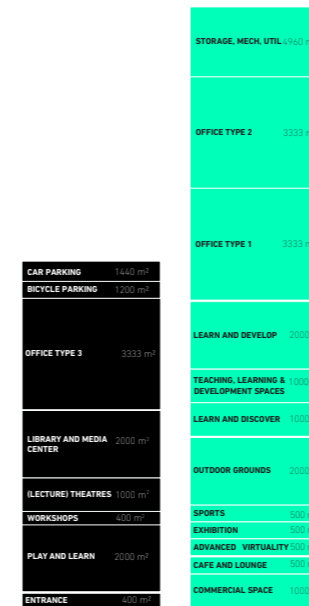


# Life-expectancy as organisational principle

Program



CAR PARKING	1440 m²
BICYCLE PARKING	1200 m²
STORAGE, MECH, UTIL	4960 m²
OFFICE TYPE 1	3333 m²
OFFICE TYPE 1	3333 m²
OFFICE TYPE 1	3333 m²
LIBRARY AND MEDIA CENTER	2000 m²
LEARN AND DEVELOP	2000 m²
TEACHING, LEARNING & DEVELOPMENT SPACES	1000 m²
LEARN AND DISCOVER	1000 m²
(LECTURE) THEATRES	1000 m²
WORKSHOPS	400 m²
OUTDOOR GROUNDS	2000 m²
SPORTS	500 m²
EXHIBITION	500 m²
ADVANCED VIRTUALITY	500 m²
PLAY AND LEARN	2000 m²
CAFE AND LOUNGE	500 m²
COMMERCIAL SPACE	1000 m²
ENTRANCE	400 m²



LASTING

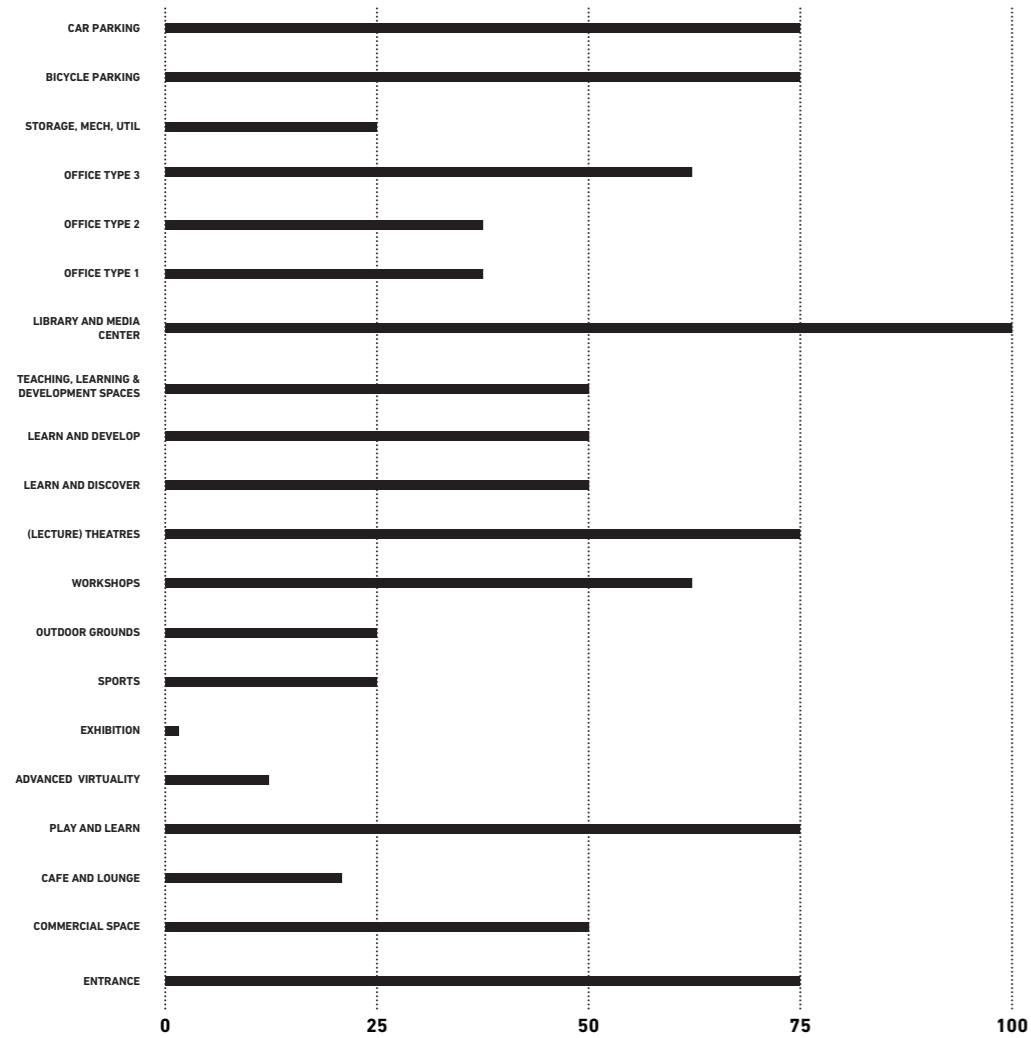
CHANGING

GIVEN PROGRAM

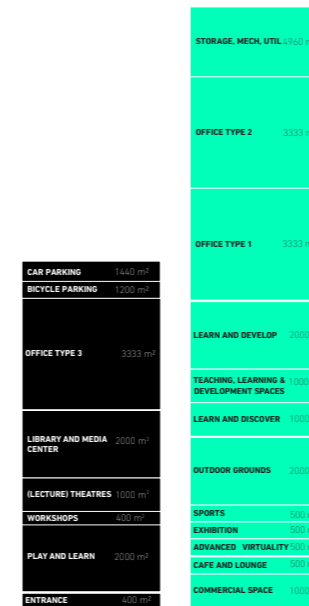
LONG LIFE EXPECTANCY / SHORT LIFE EXPENTANCY

# Life-expectancy as organisational principle

Program



CAR PARKING	1440 m²
BICYCLE PARKING	1200 m²
STORAGE, MECH, UTIL	4960 m²
OFFICE TYPE 1	3333 m²
OFFICE TYPE 1	3333 m²
OFFICE TYPE 1	3333 m²
LIBRARY AND MEDIA CENTER	2000 m²
LEARN AND DEVELOP	2000 m²
TEACHING, LEARNING & DEVELOPMENT SPACES	1000 m²
LEARN AND DISCOVER	1000 m²
(LECTURE) THEATRES	1000 m²
WORKSHOPS	400 m²
OUTDOOR GROUNDS	2000 m²
SPORTS	500 m²
EXHIBITION	500 m²
ADVANCED VIRTUALITY	500 m²
PLAY AND LEARN	2000 m²
CAFE AND LOUNGE	500 m²
COMMERCIAL SPACE	1000 m²
ENTRANCE	400 m²



LASTING

CHANGING

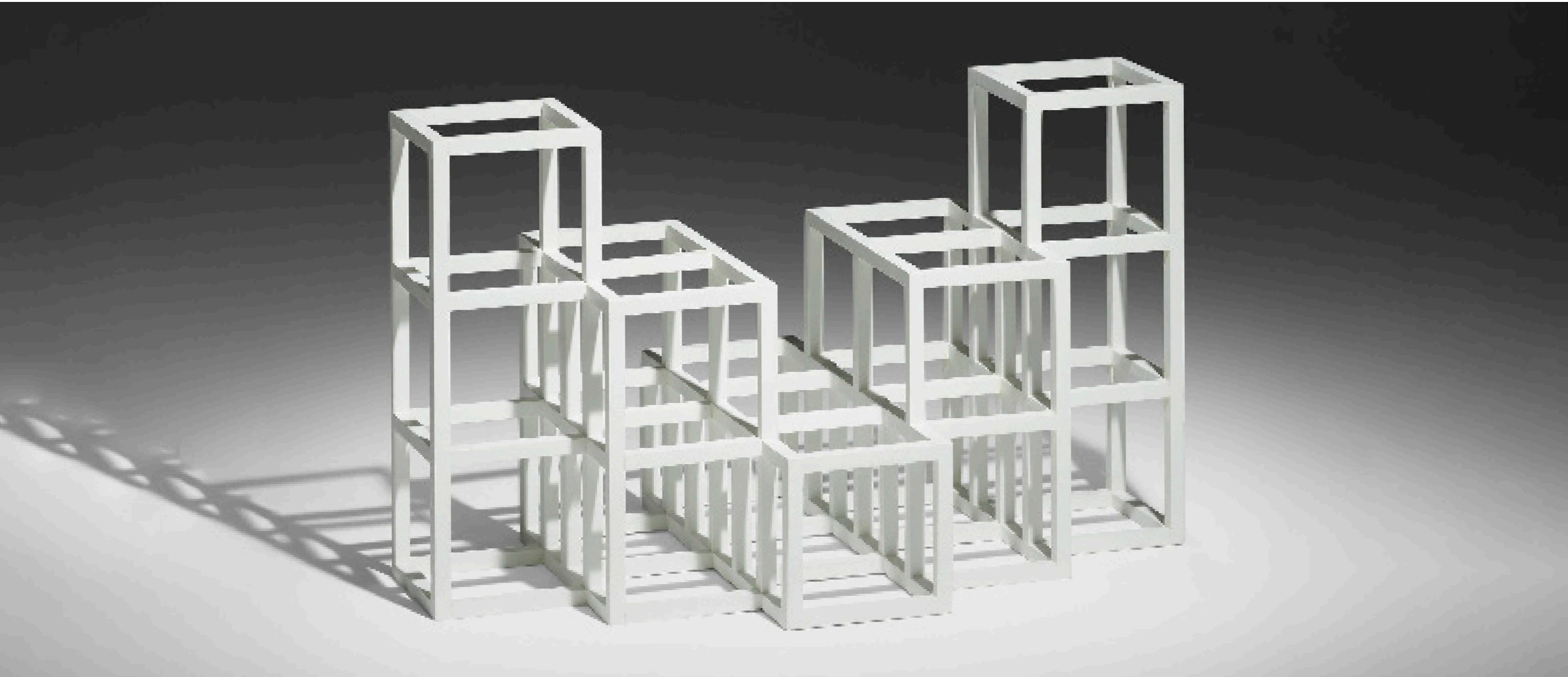
GIVEN PROGRAM

LONG LIFE EXPECTANCY / SHORT LIFE EXPENTANCY

Library & Media Centre  
 (Lecture) Theatres  
 Workshops  
 Play & Learn  
 Entrance

## Theory & Delineation - Concept for program

Program

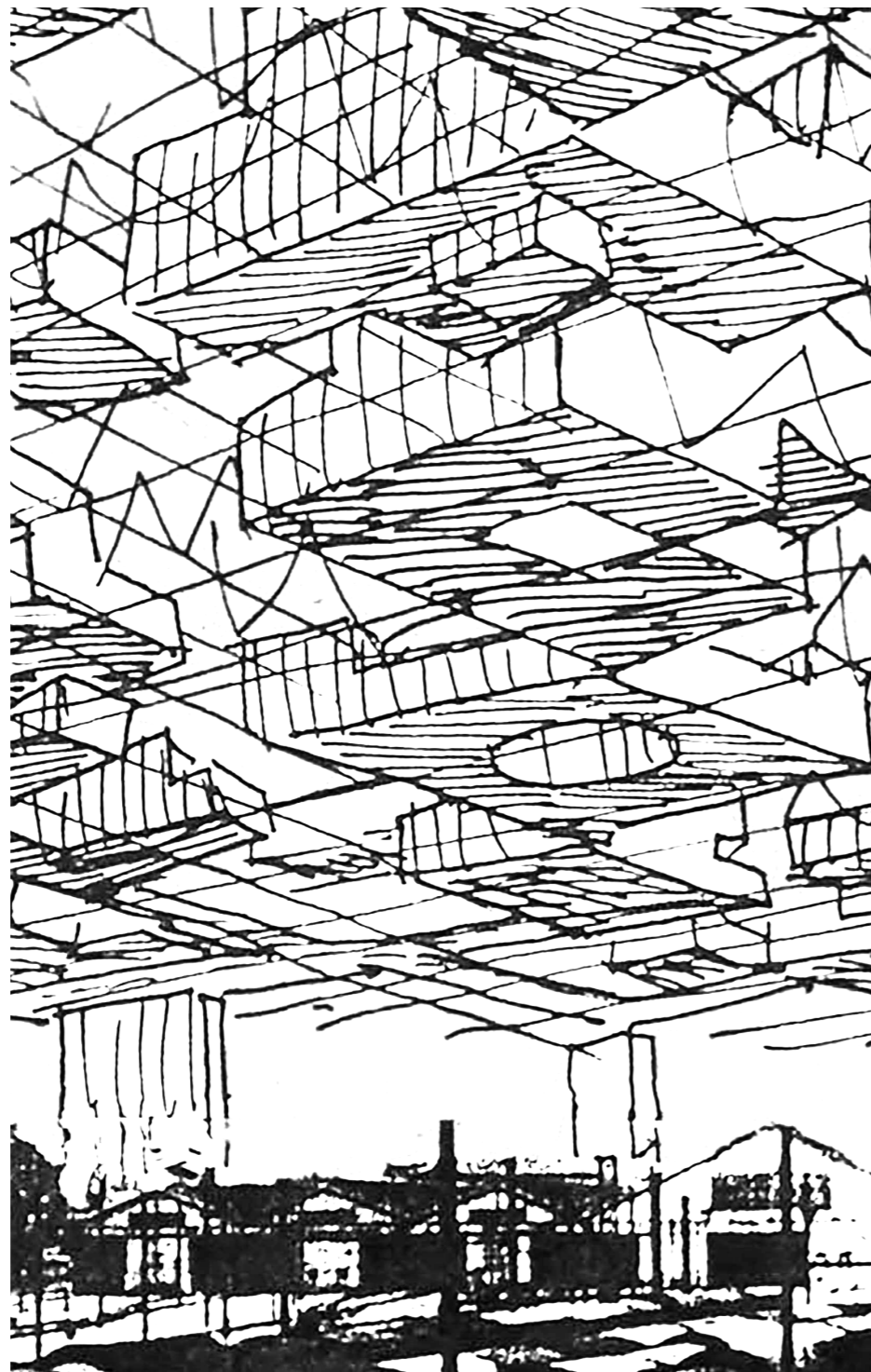


*"The idea becomes the machine that makes the art"*

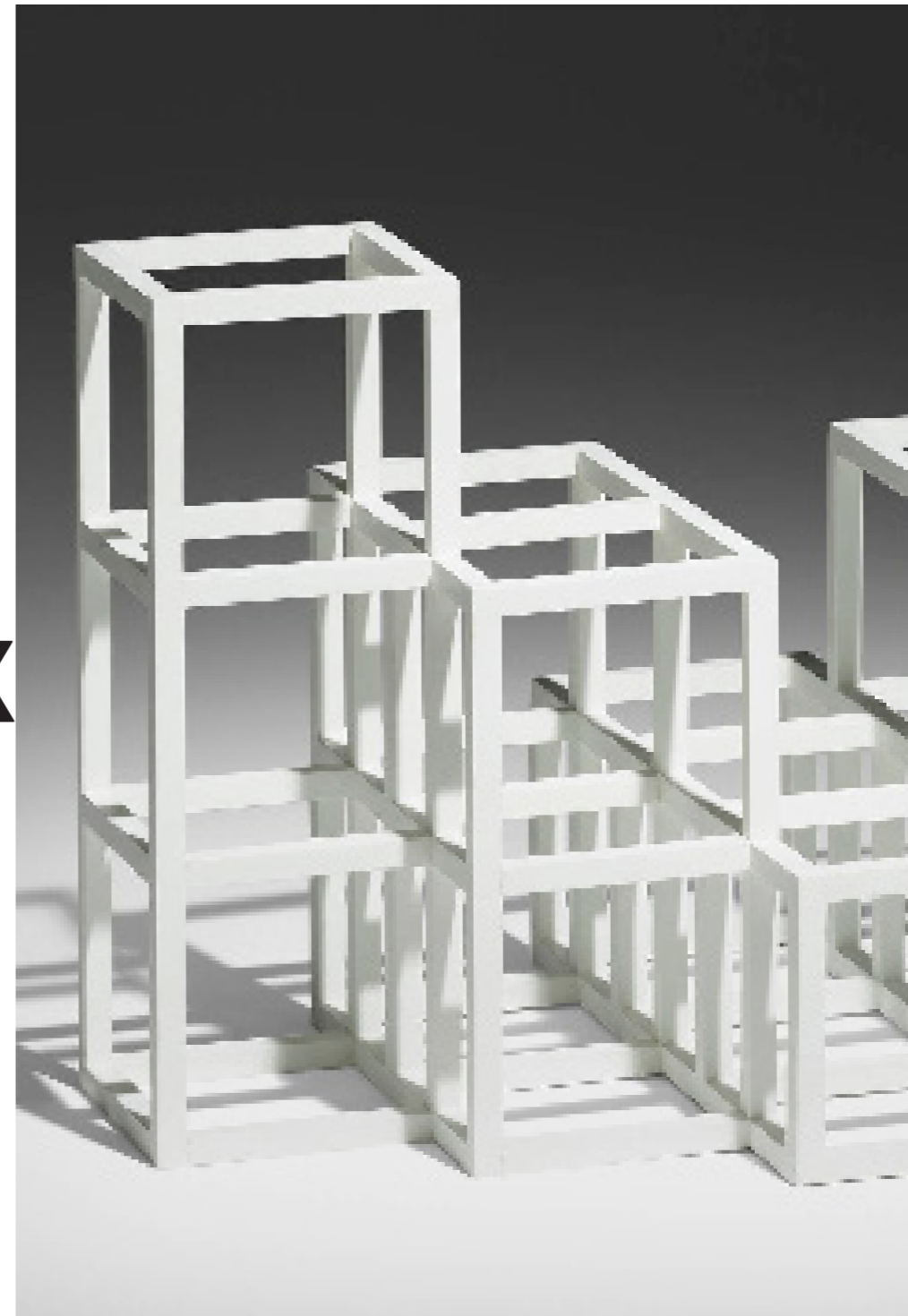
*Sol Lewitt*

# Theory & Delineation - Hybrid of notions

Program

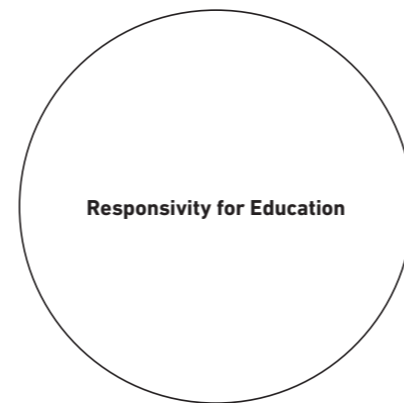


X



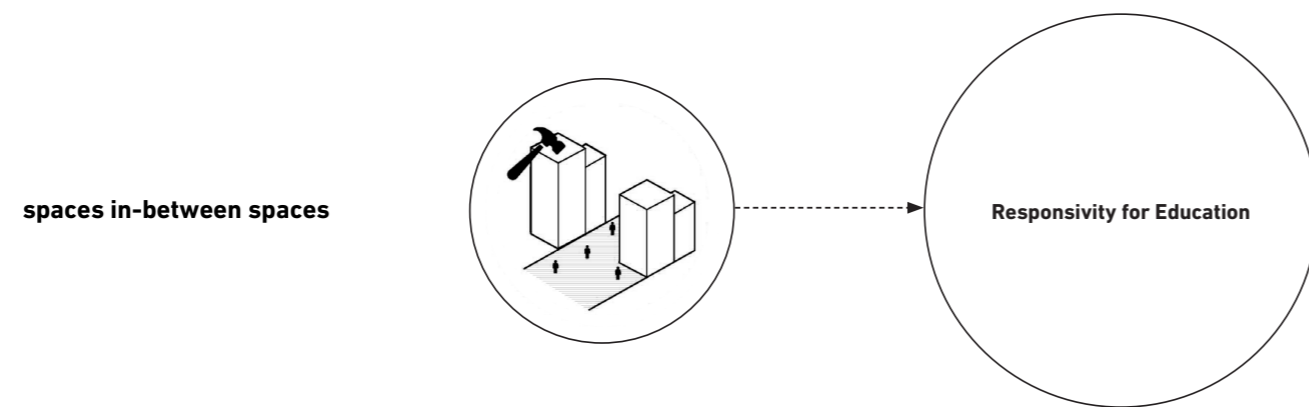
# Strategies

Conclusions as project strategies



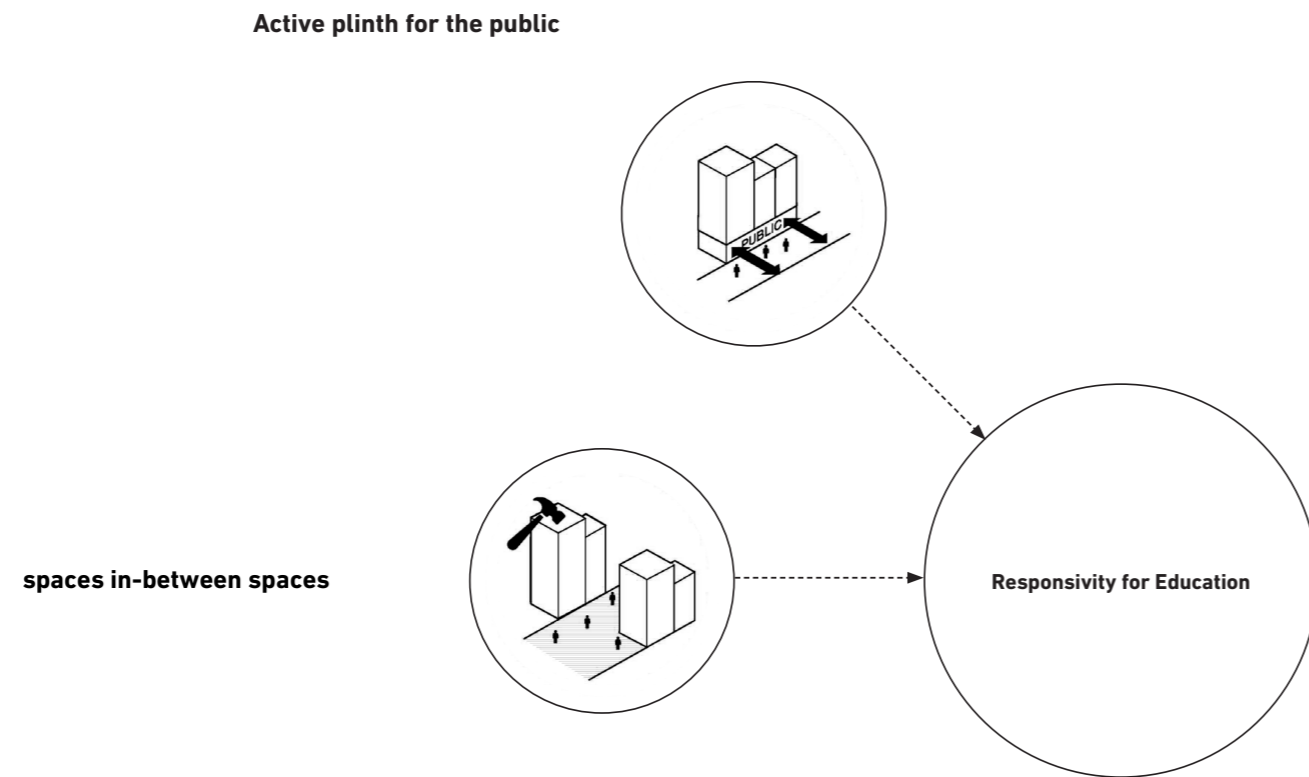
# Strategies

Conclusions as project strategies



# Strategies

Conclusions as project strategies

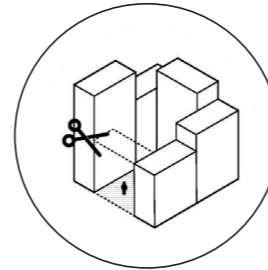
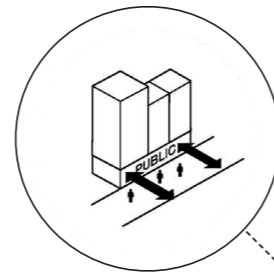


# Strategies

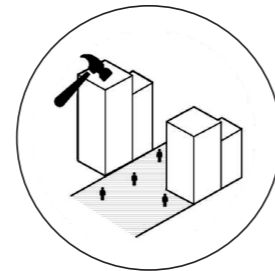
Conclusions as project strategies

**New urban courtyards**

**Active plinth for the public**



**spaces in-between spaces**



**Responsivity for Education**

# Strategies

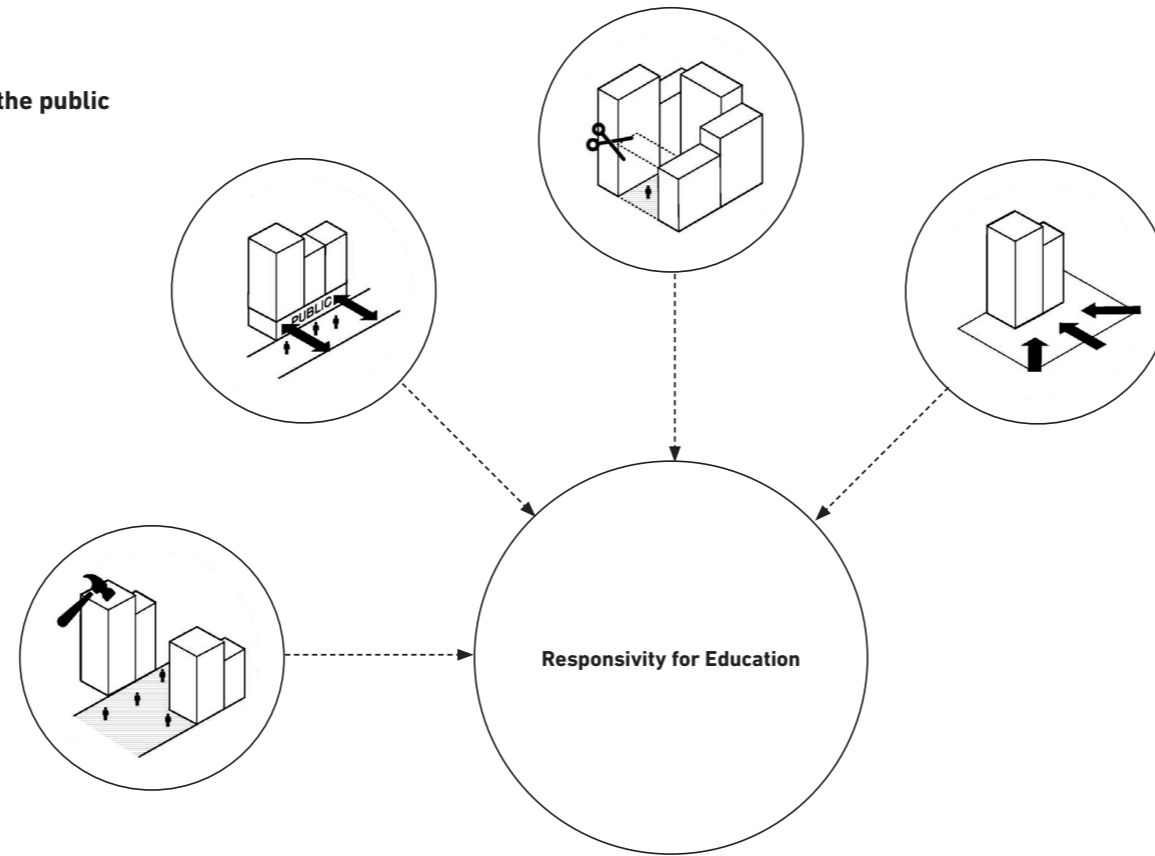
Conclusions as project strategies

**New urban courtyards**

**Active plinth for the public**

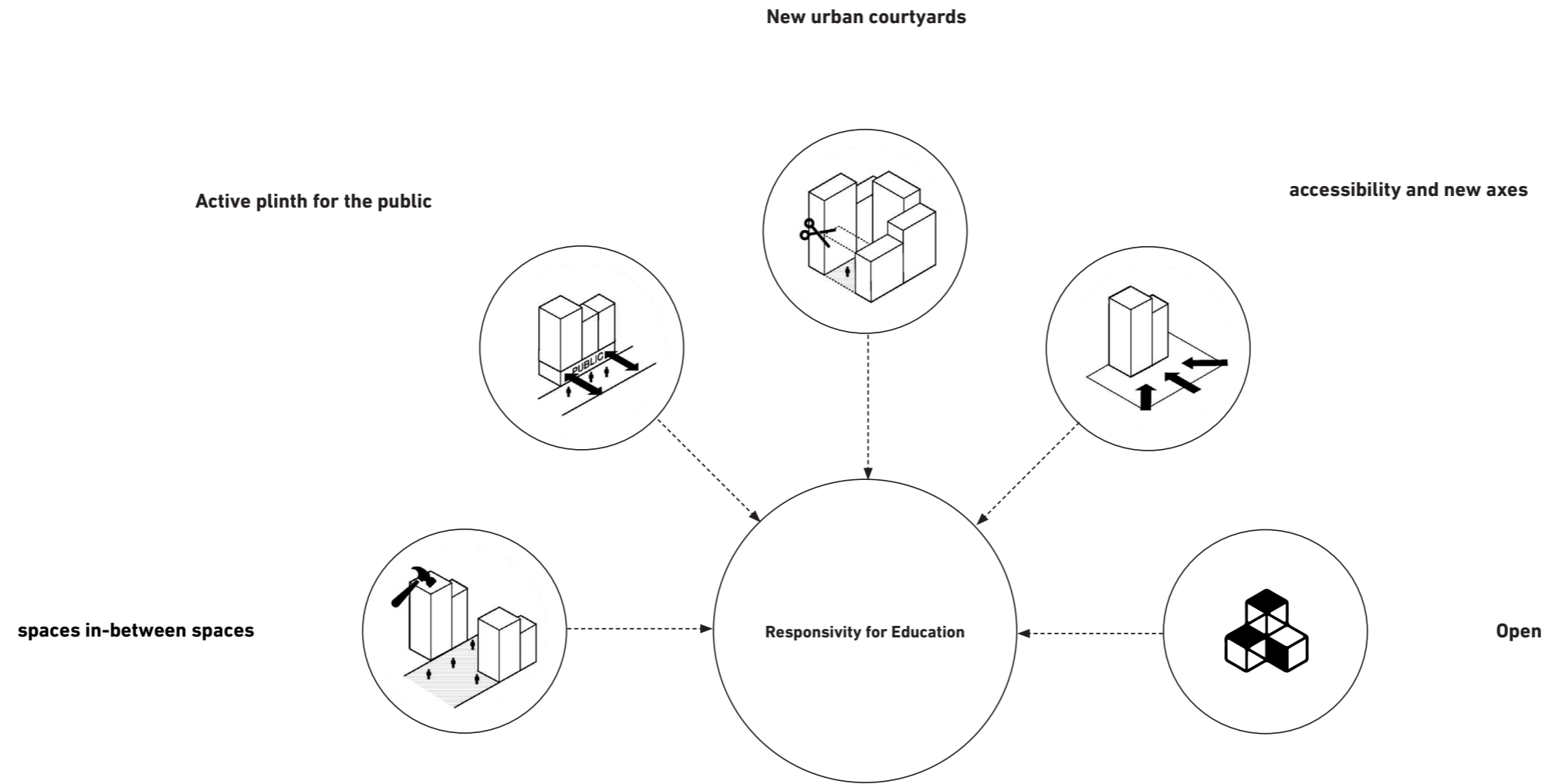
**accessibility and new axes**

**spaces in-between spaces**



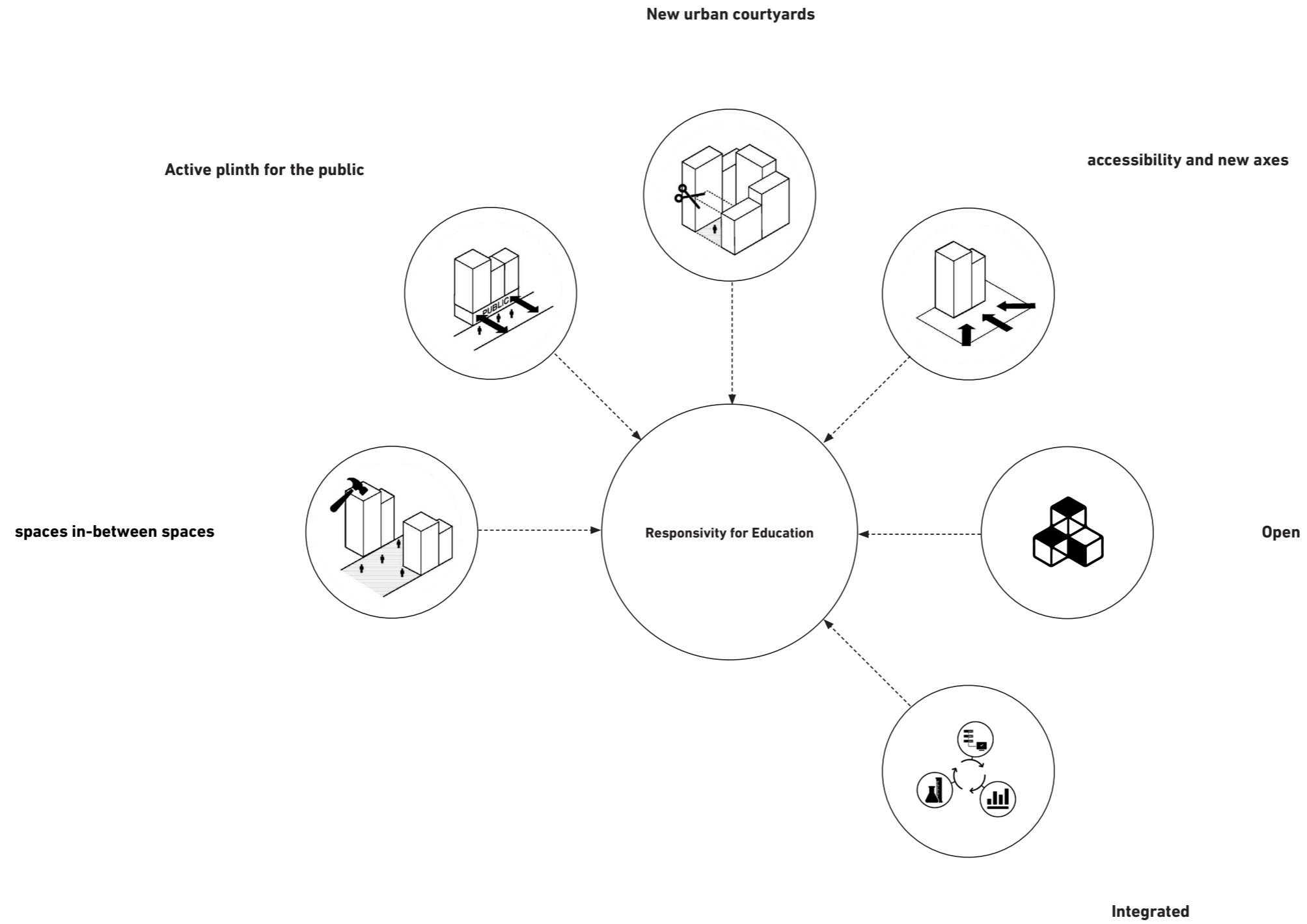
# Strategies

Conclusions as project strategies



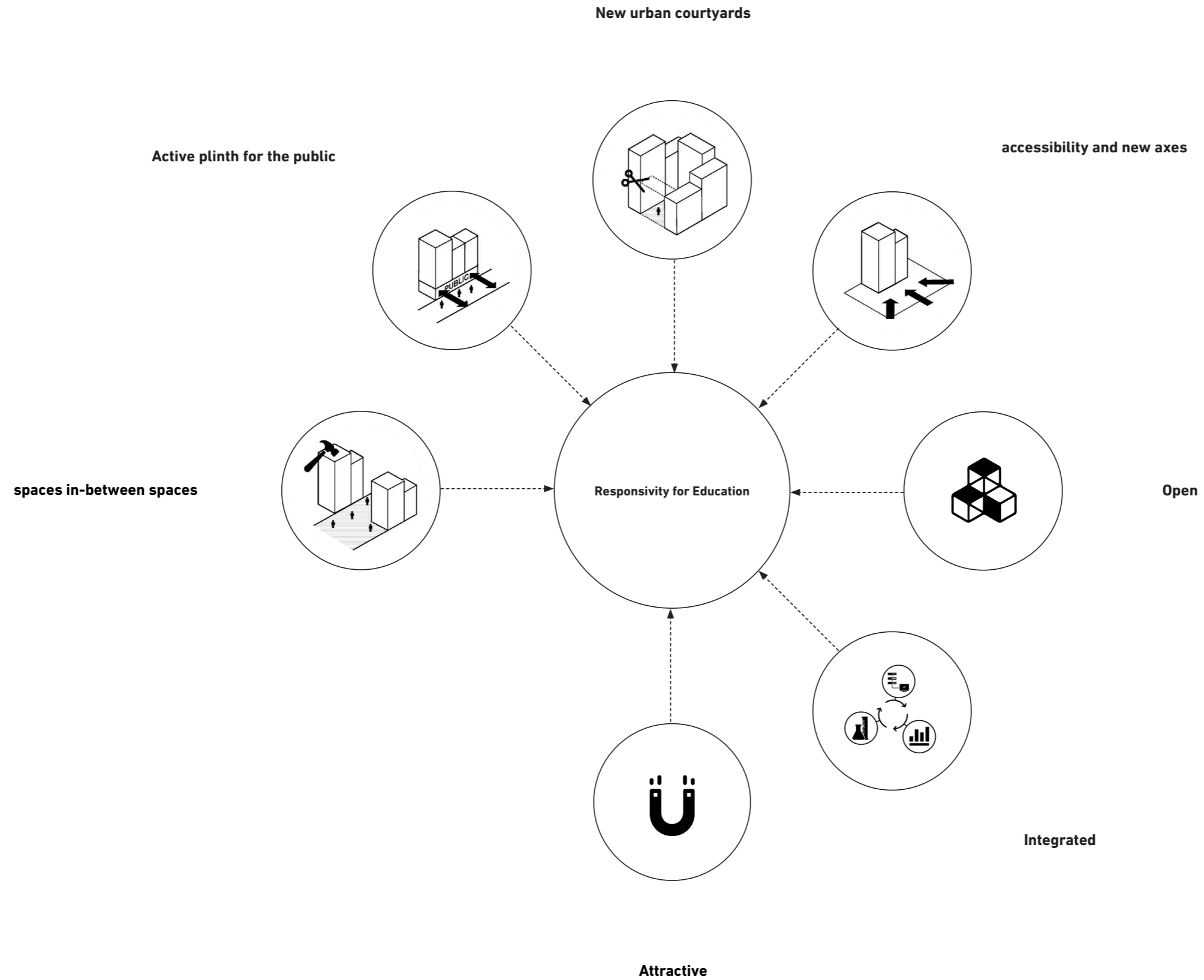
# Strategies

Conclusions as project strategies



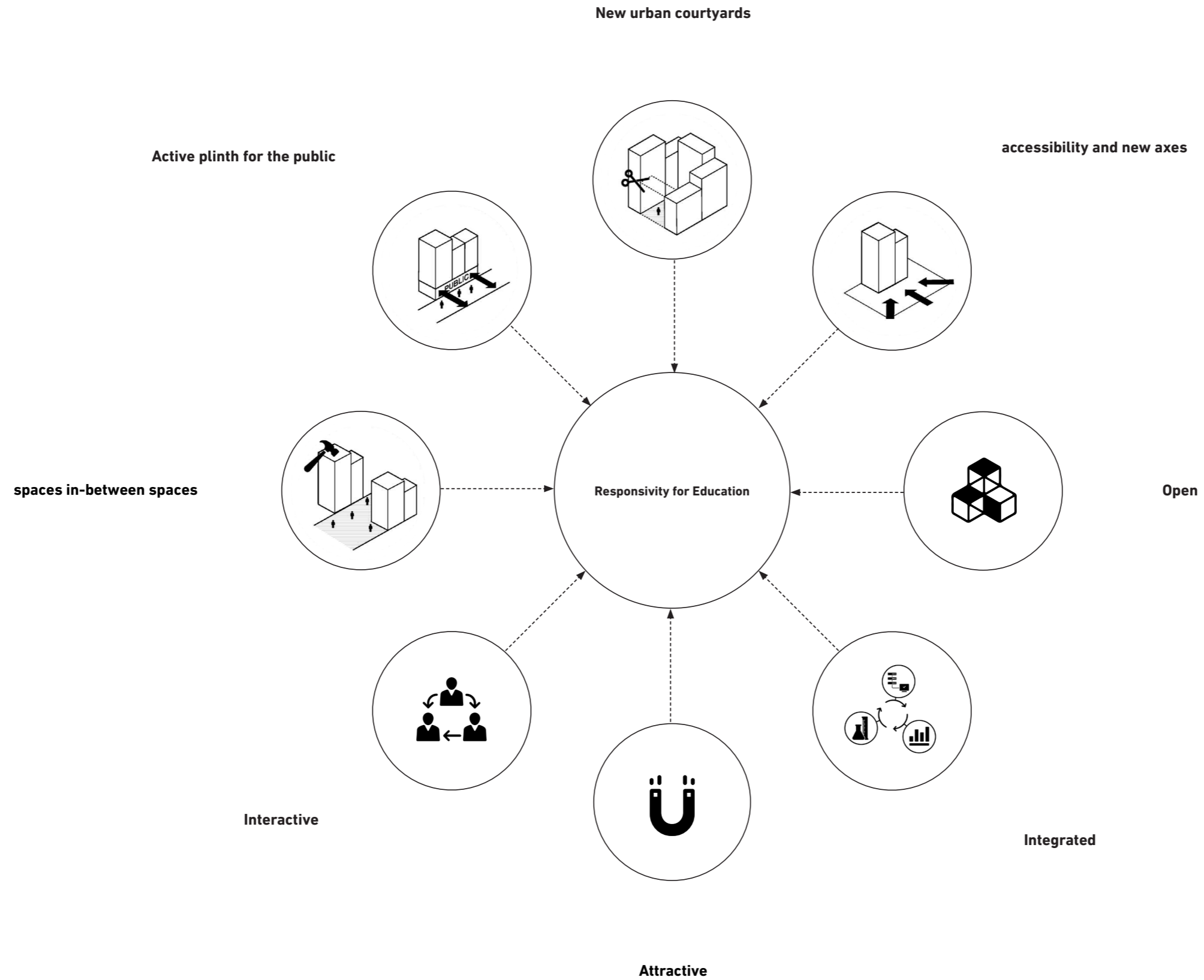
# Strategies

Conclusions as project strategies



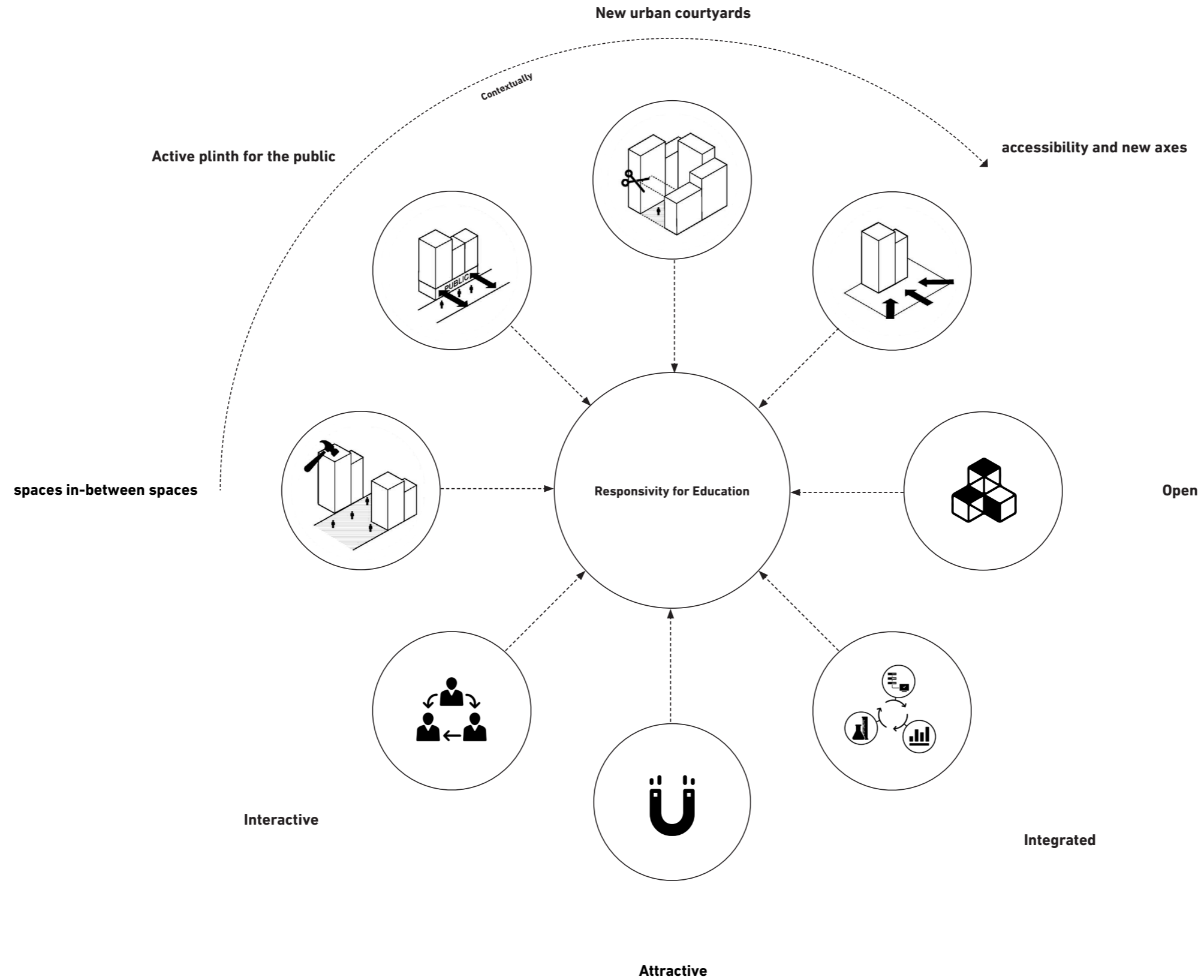
# Strategies

Conclusions as project strategies



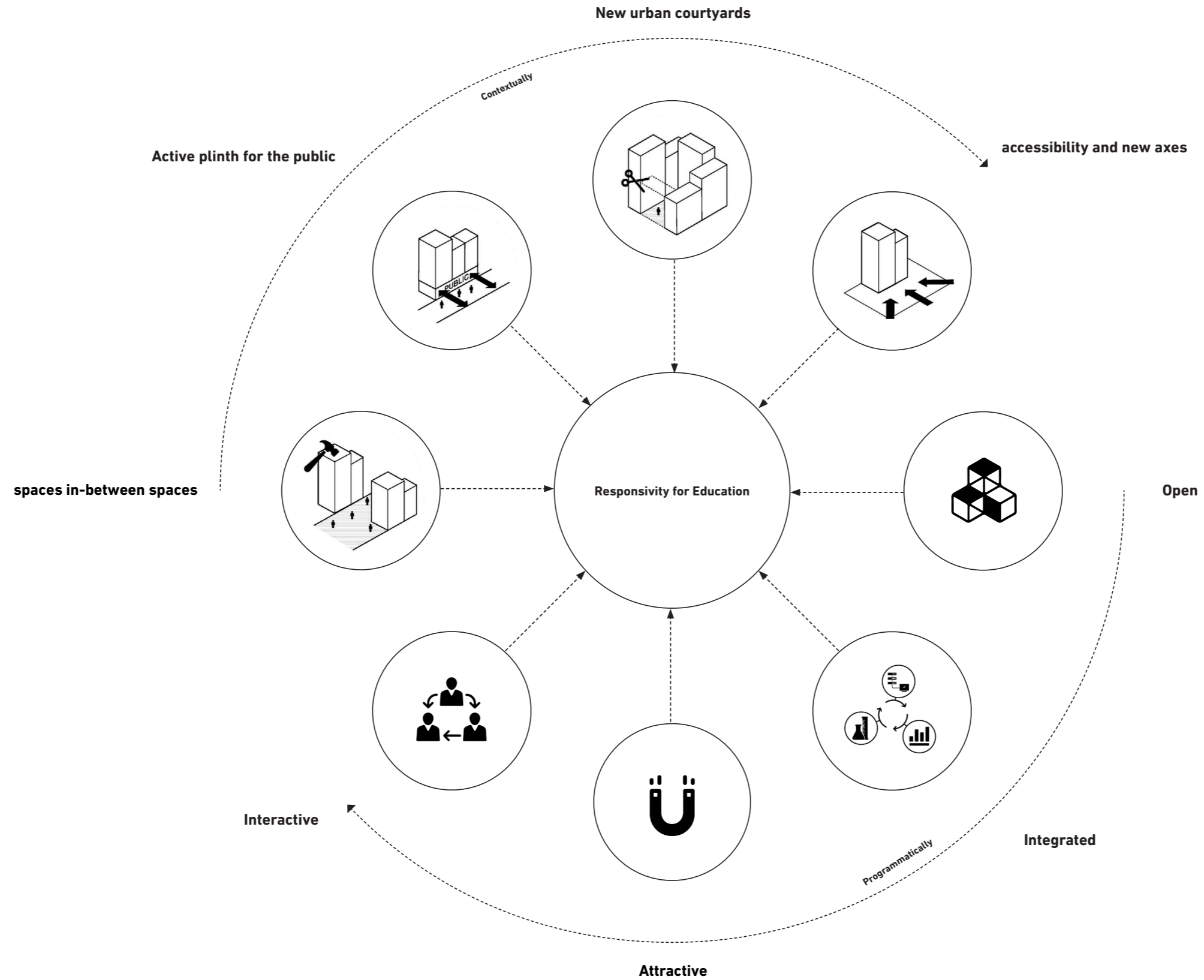
# Strategies

Conclusions as project strategies



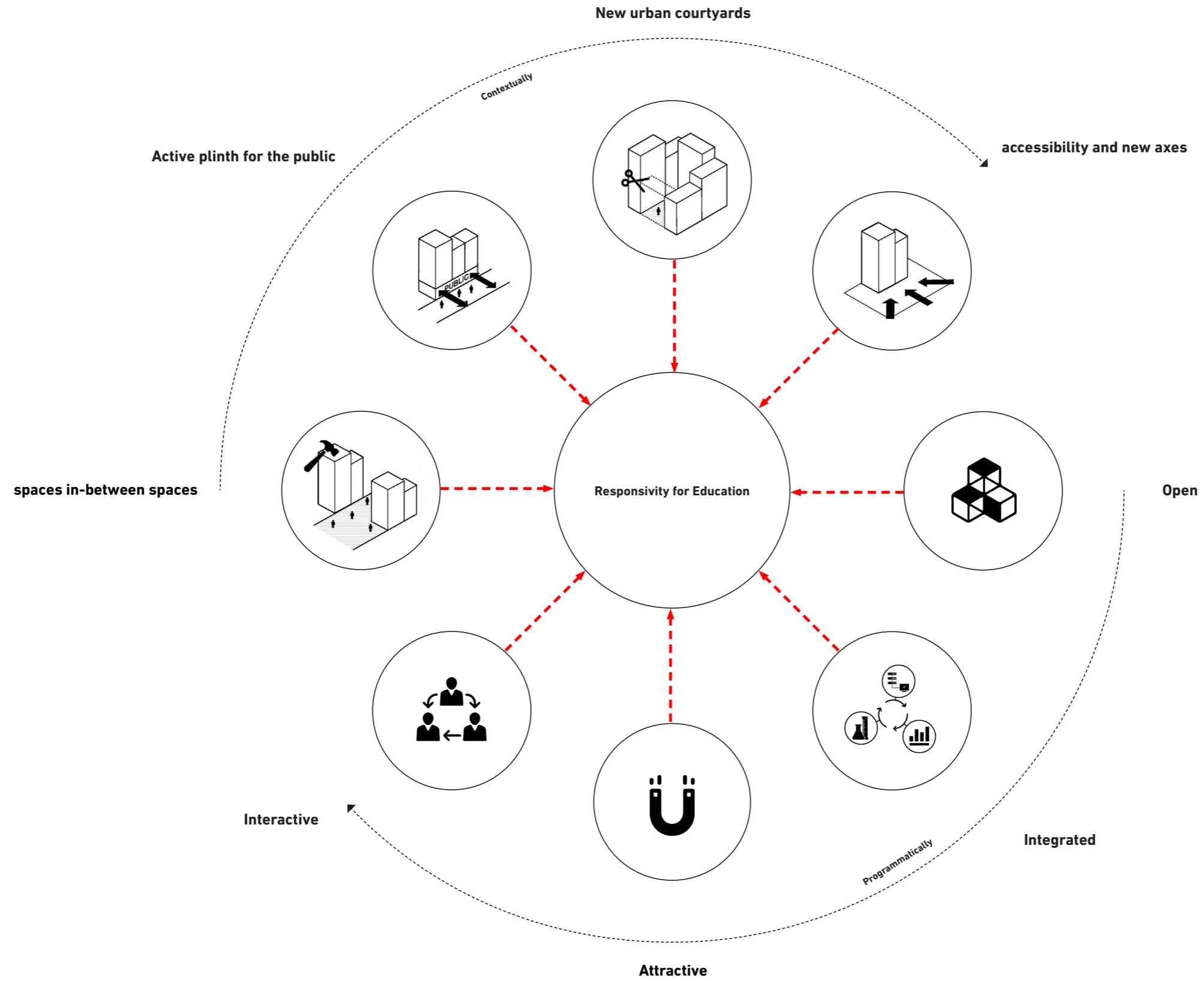
# Strategies

Conclusions as project strategies



# Strategies

Conclusions as project strategies



Introduction

Initial Research

Context (thematic 1)

Program (thematic 2)

## **Design**

Embedment in Context [City / Neighbourhood]

Building(s) / Ensemble

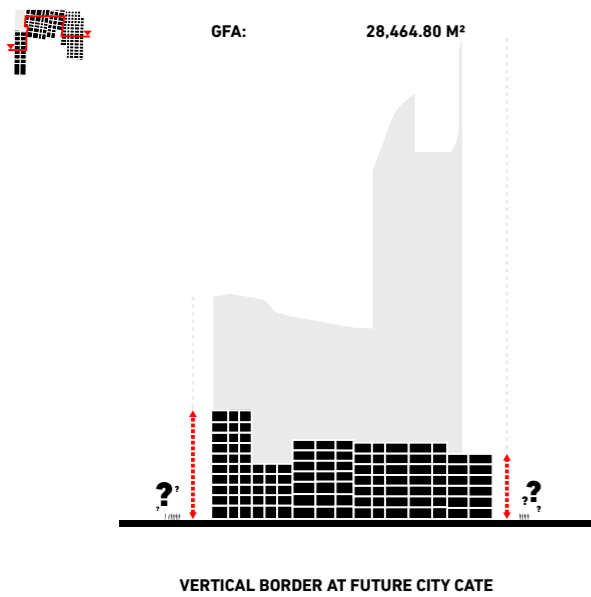
Building(s) / Spaces

Building(s) Parts

Conclusions

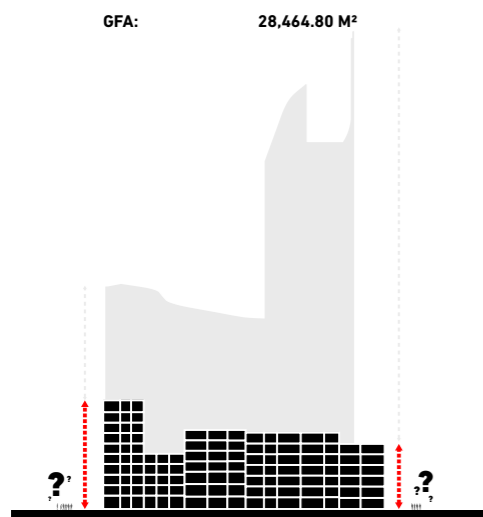
# Concept

Design

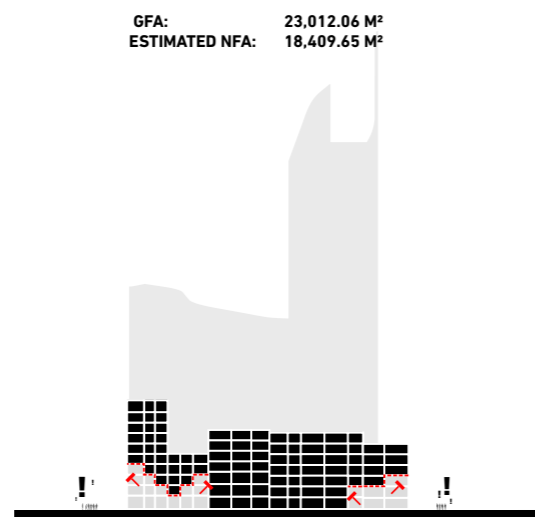


# Concept

## Design



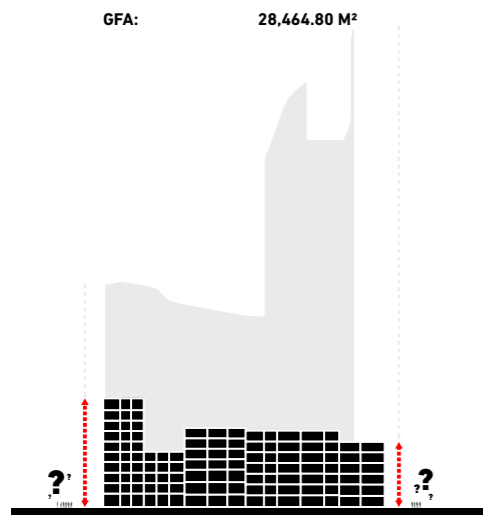
VERTICAL BORDER AT FUTURE CITY GATE



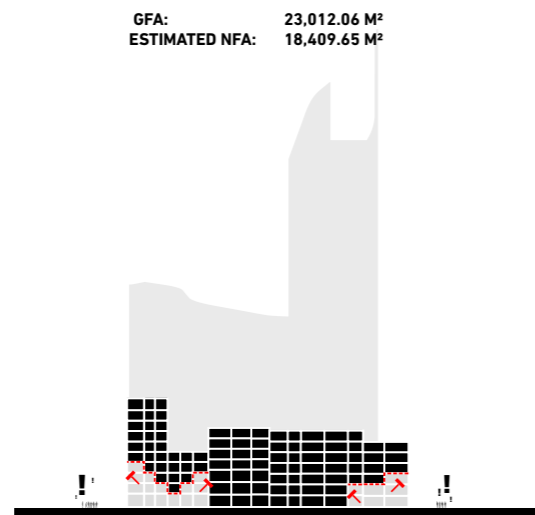
CARVING OUT CAVE AS GATE TO INNER COURTYARD

# Concept

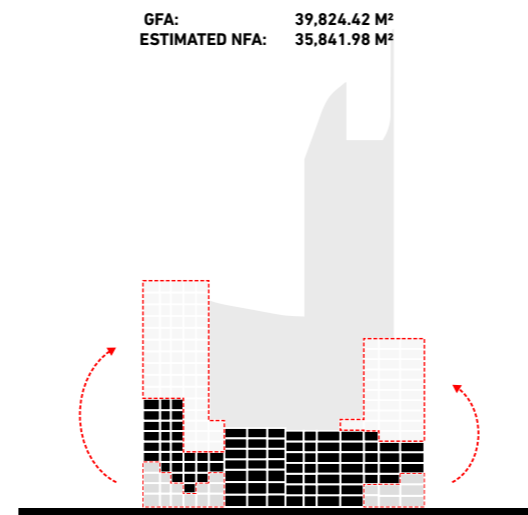
## Design



VERTICAL BORDER AT FUTURE CITY GATE



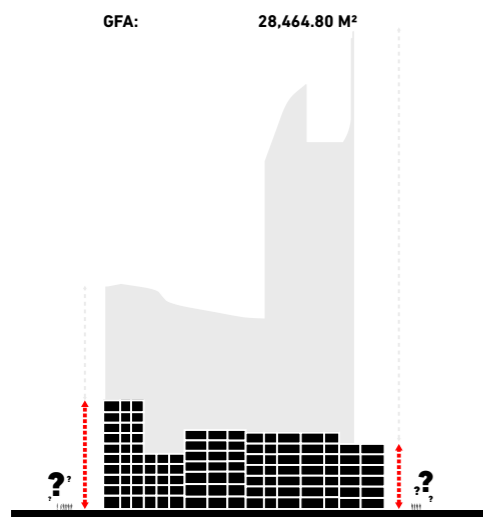
CARVING OUT CAVE AS GATE TO INNER COURTYARD



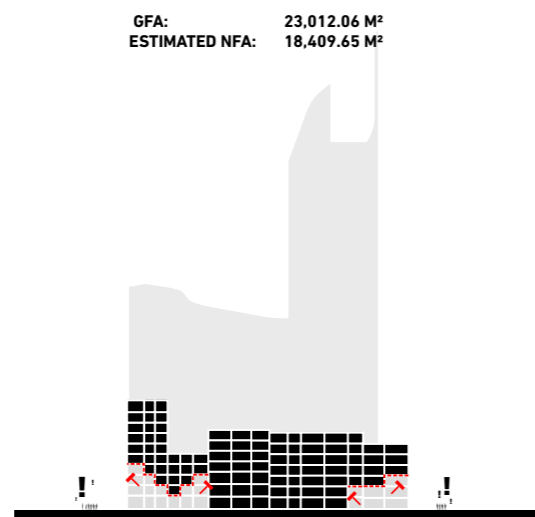
RELOCATION OF LOST FLOOR AREA + NEW PROGRAM

# Concept

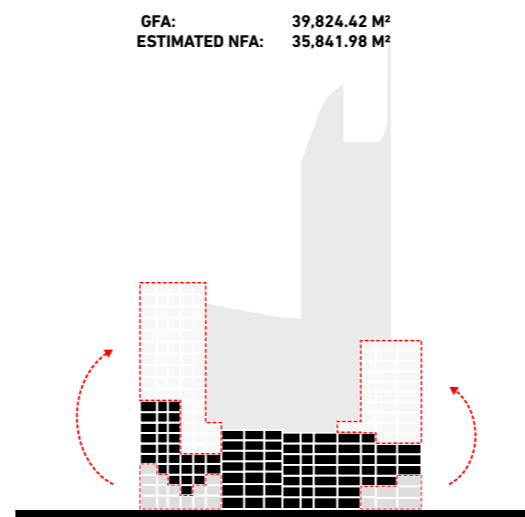
## Design



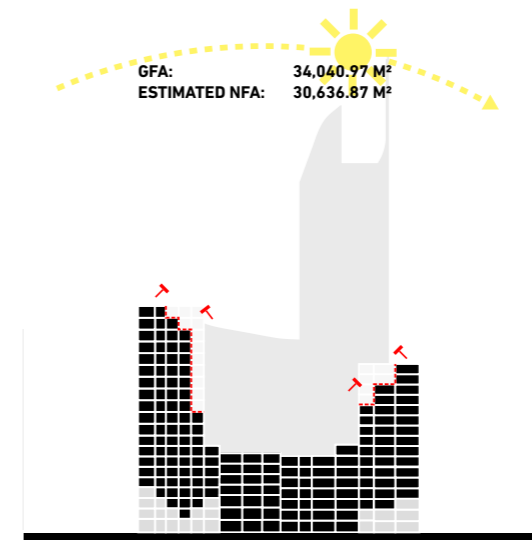
VERTICAL BORDER AT FUTURE CITY GATE



CARVING OUT CAVE AS GATE TO INNER COURTYARD



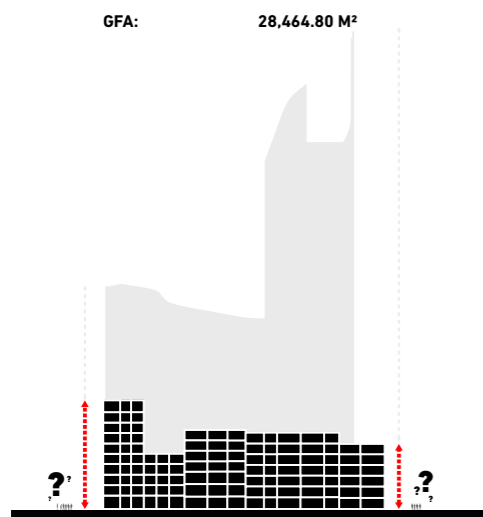
RELOCATION OF LOST FLOOR AREA + NEW PROGRAM



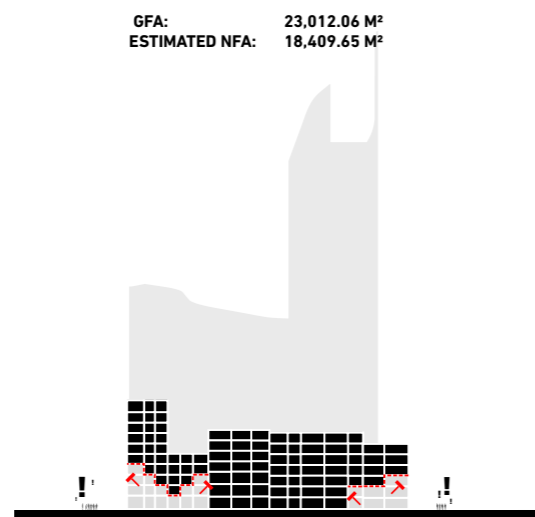
ADAPTING INNER FACING FACADES  
SOLAR ORIENTATION, VISUAL CONNECTIVITY

# Concept

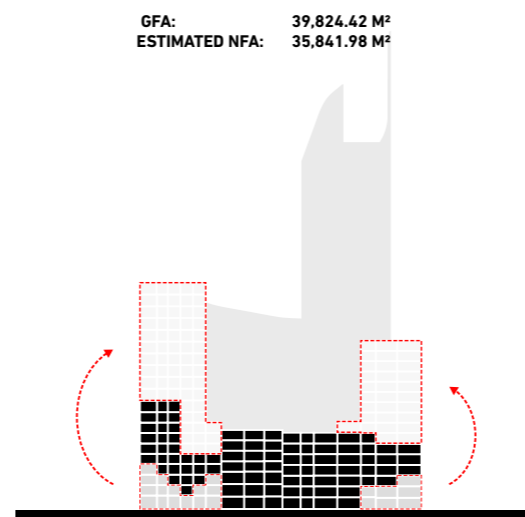
## Design



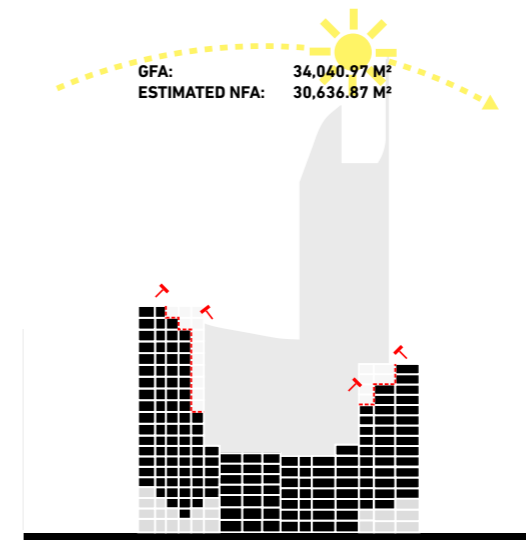
VERTICAL BORDER AT FUTURE CITY GATE



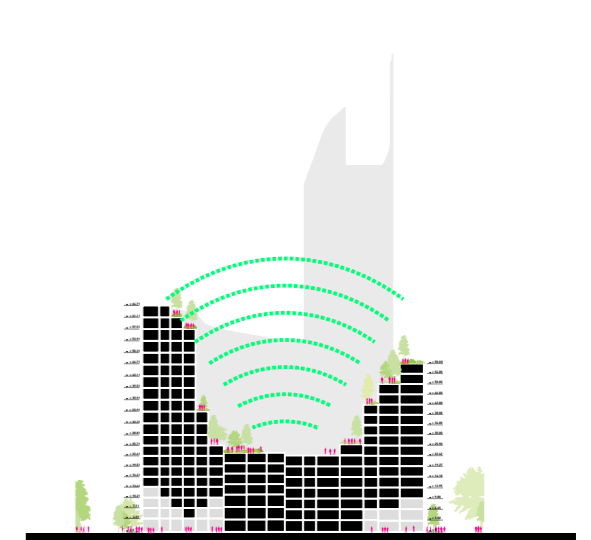
CARVING OUT CAVE AS GATE TO INNER COURTYARD



RELOCATION OF LOST FLOOR AREA + NEW PROGRAM



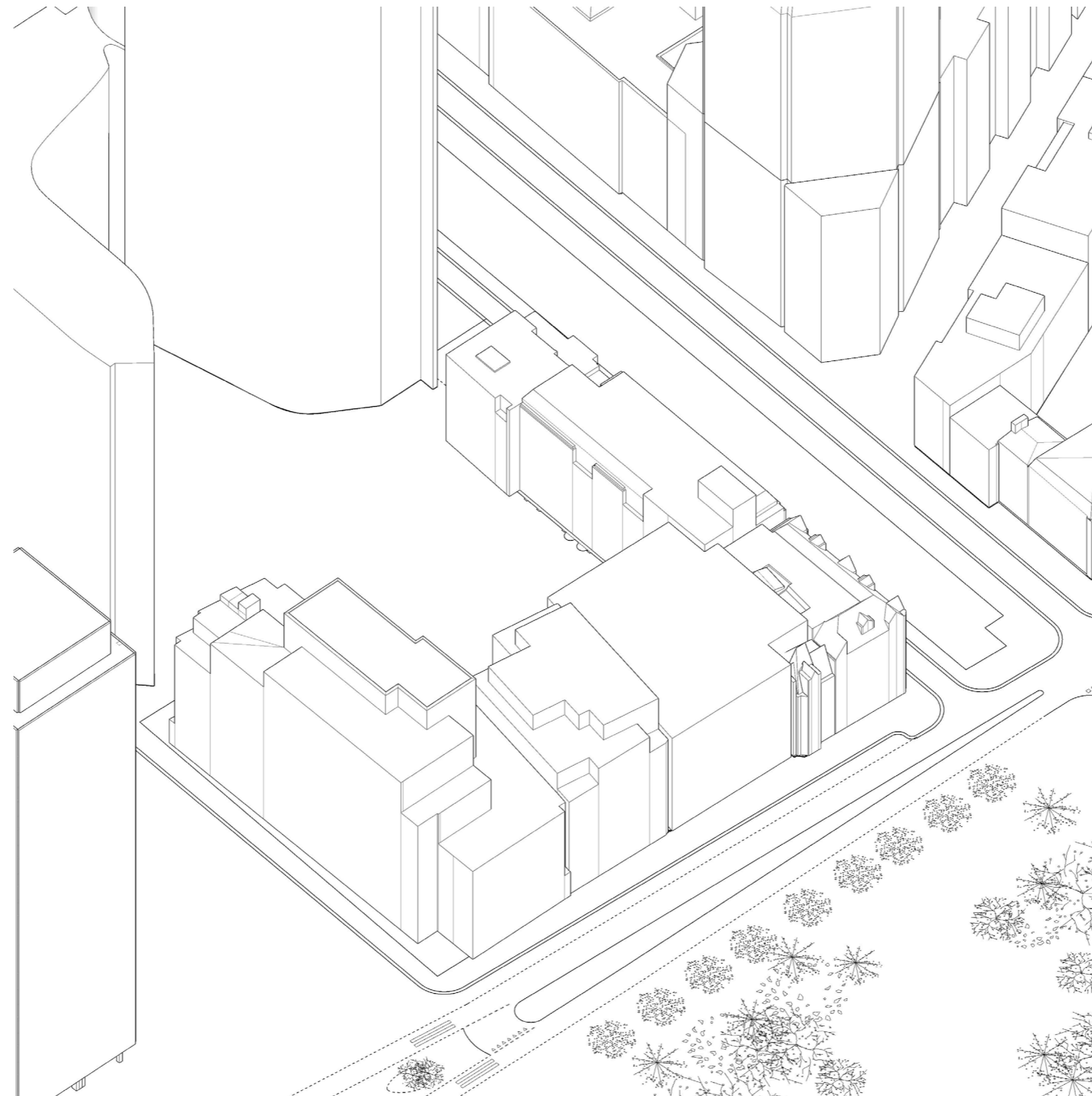
ADAPTING INNER FACING FACADES  
SOLAR ORIENTATION, VISUAL CONNECTIVITY



JP POWER CLUSTERS WHILST ACTIVATING UNDER-UTILIZED URBAN REA  
MODERN INTERPRETATION OF HISTORIC CAMPUS TYPOLOGY

# Form development

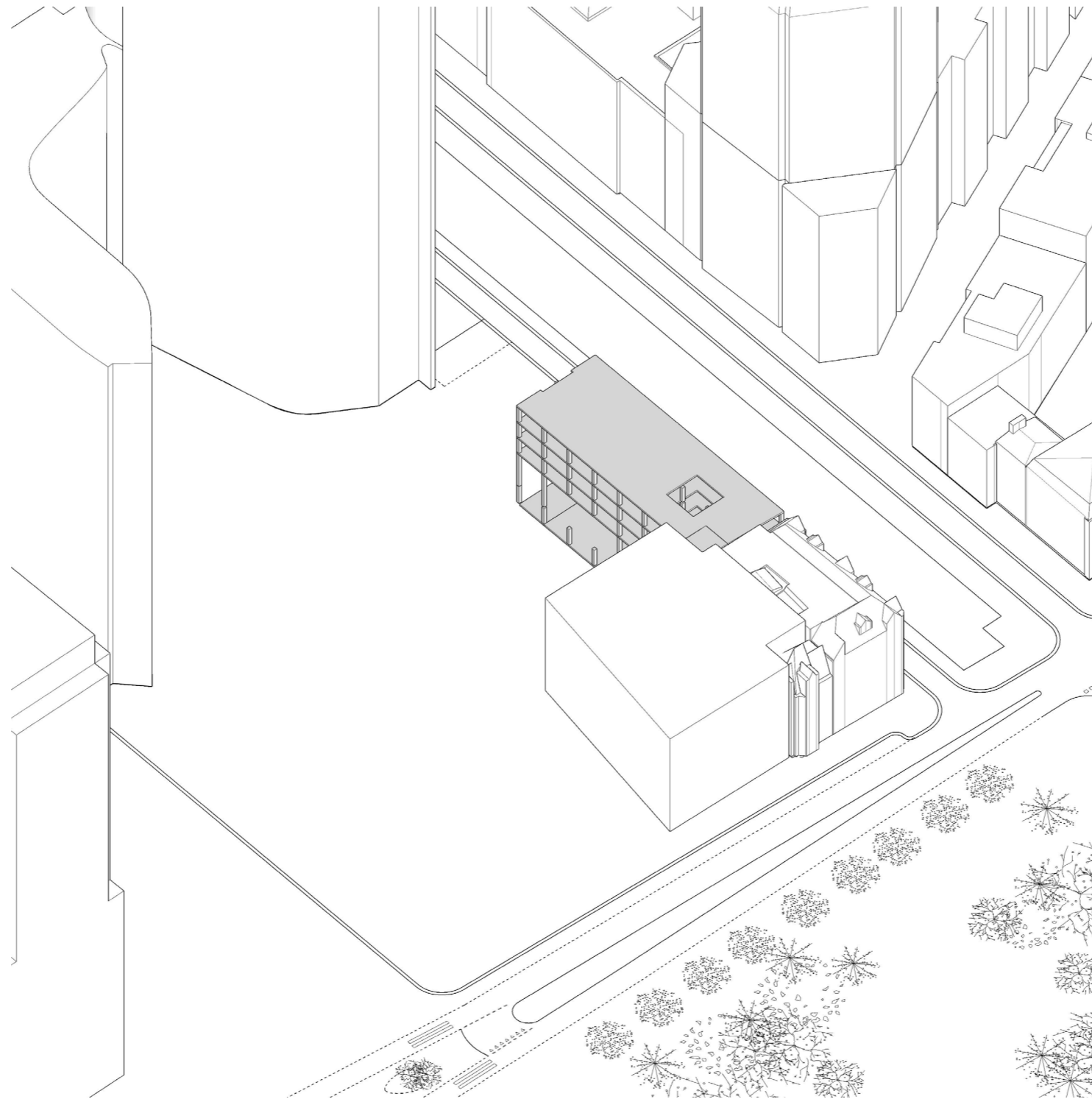
Design



**1. Existing building block**

# Form development

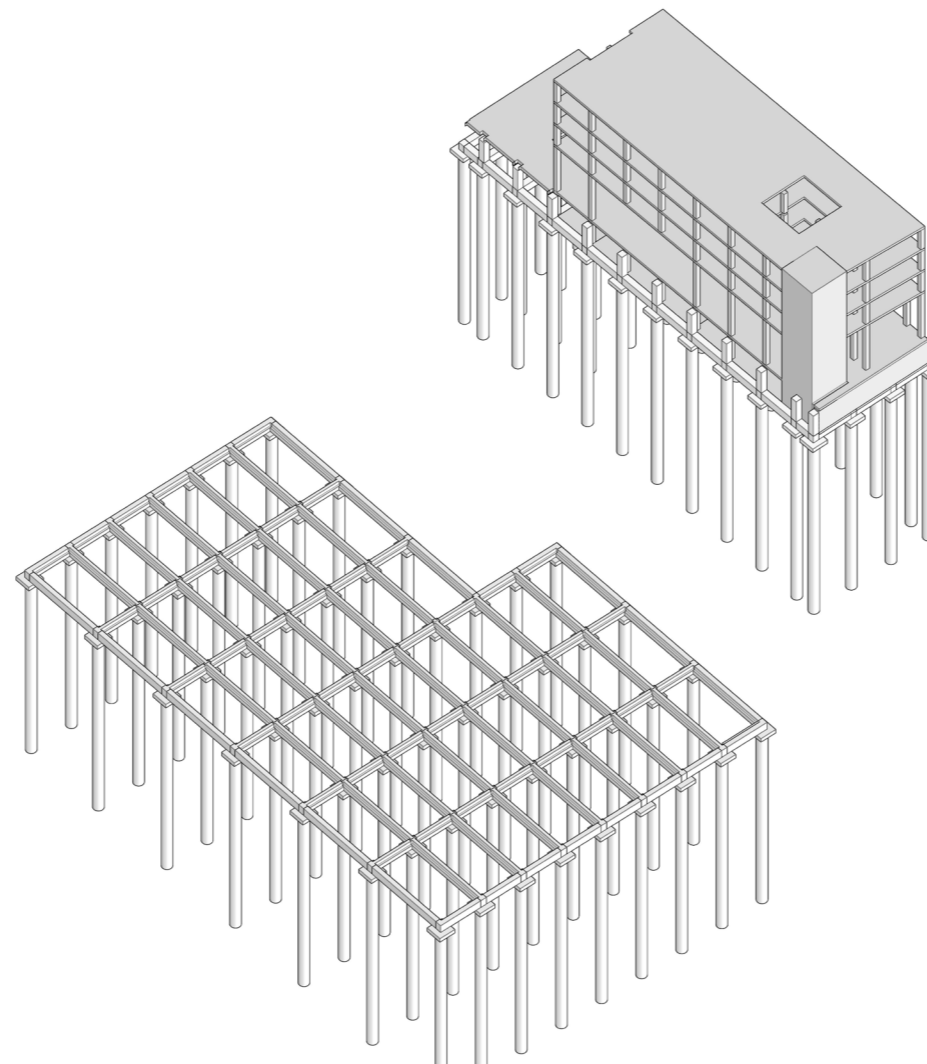
Design



## 2. Re-use and remain

# Form development

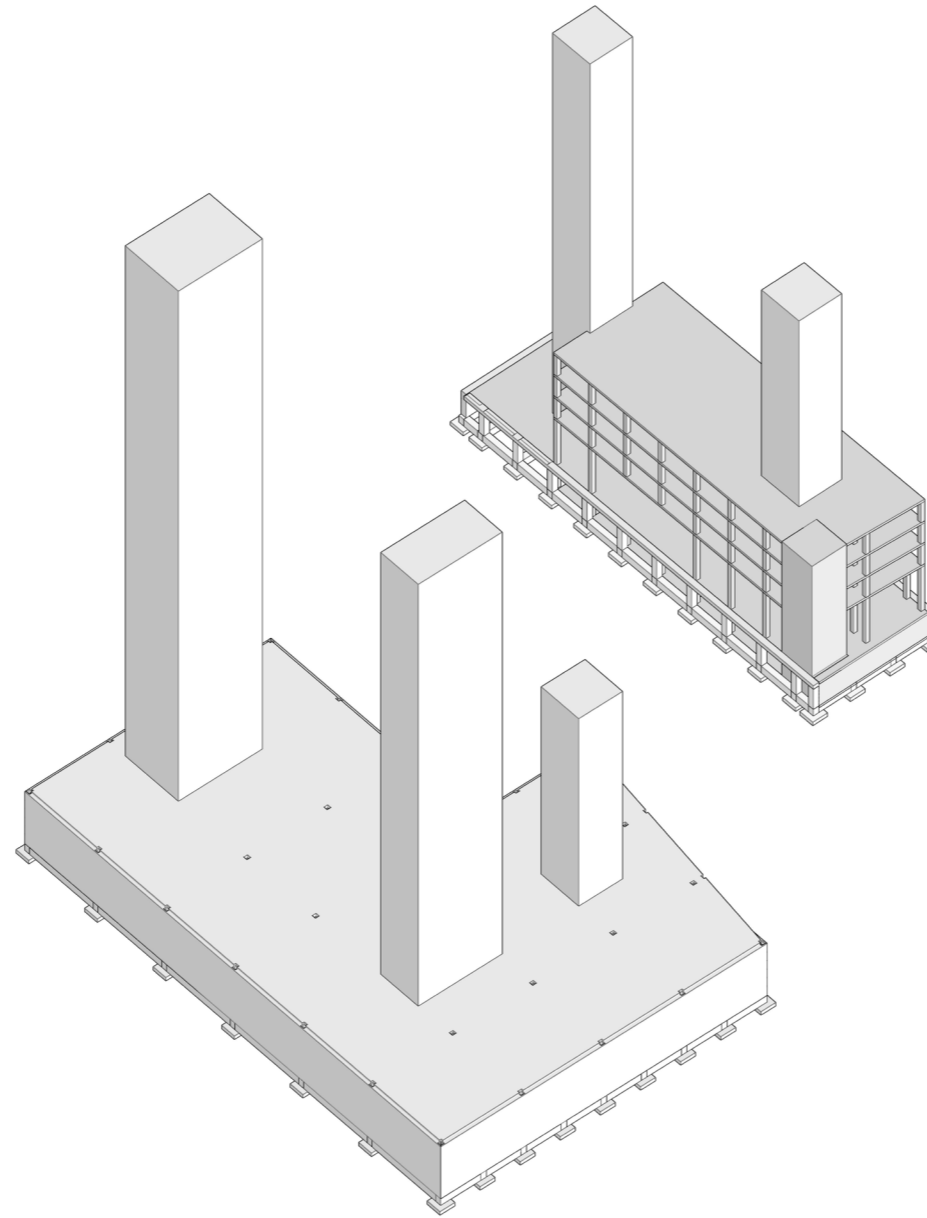
Design



## 3. New Foundations

# Form development

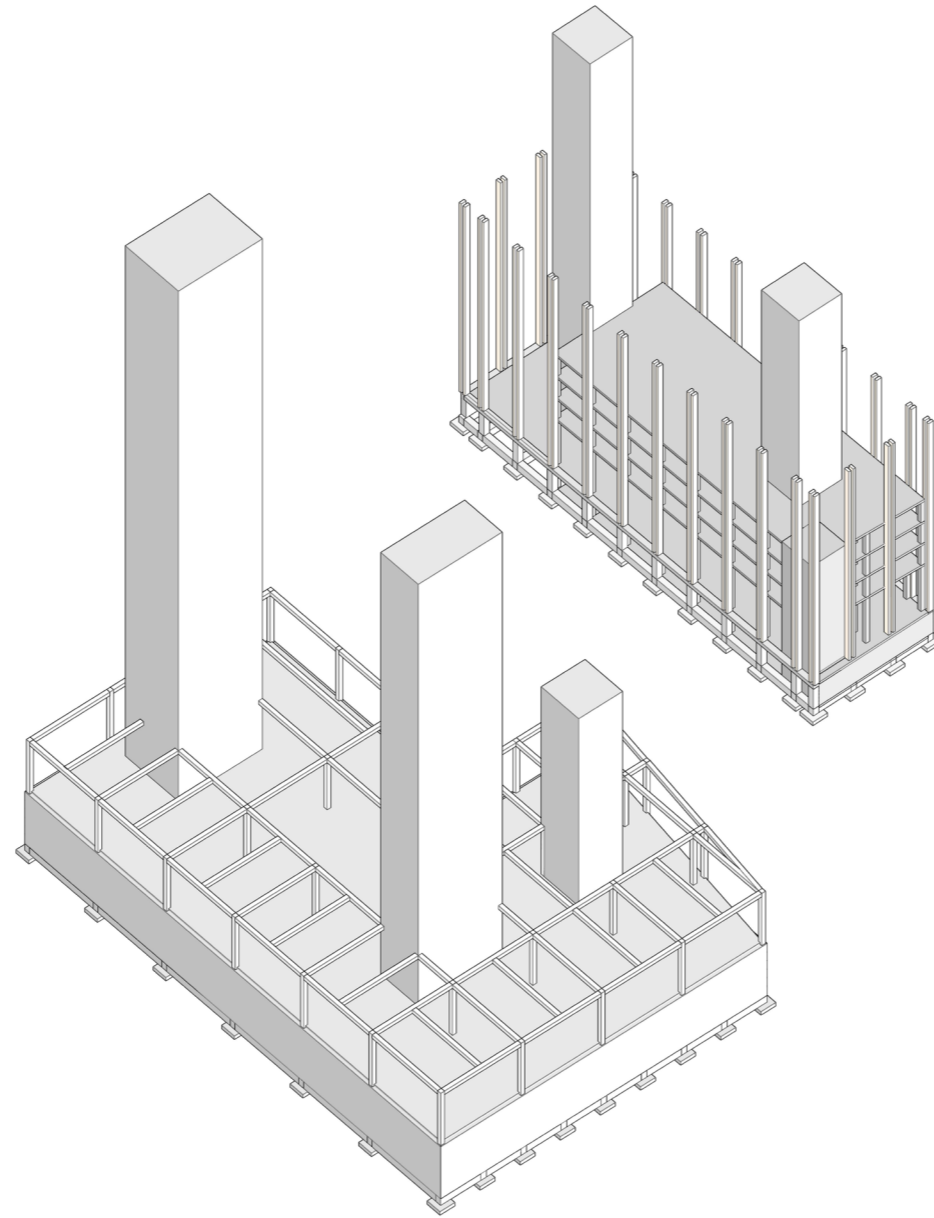
Design



## 4. Concrete base and cores

# Form development

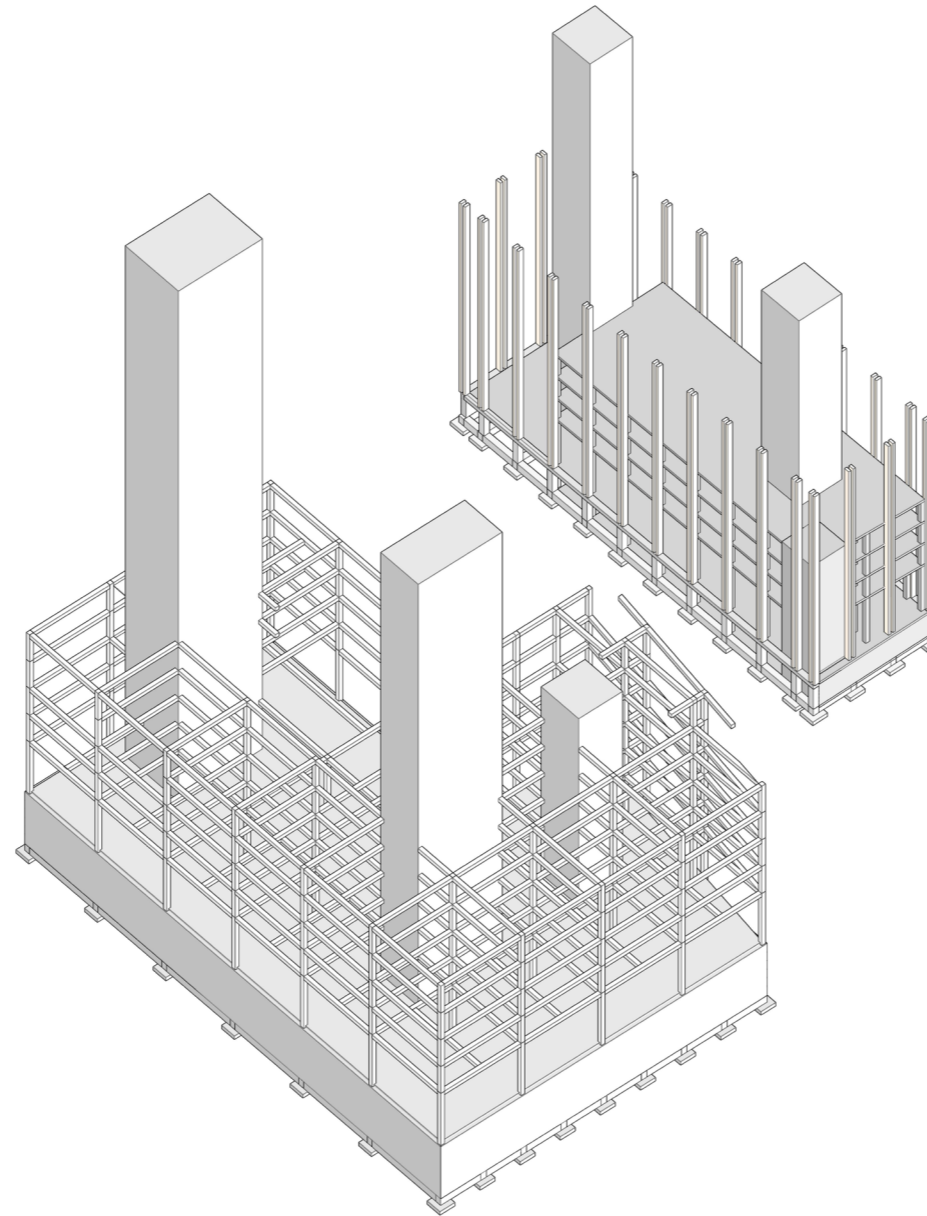
Design



## 5. Concrete plinth (urban layer) & timber vertical extension

# Form development

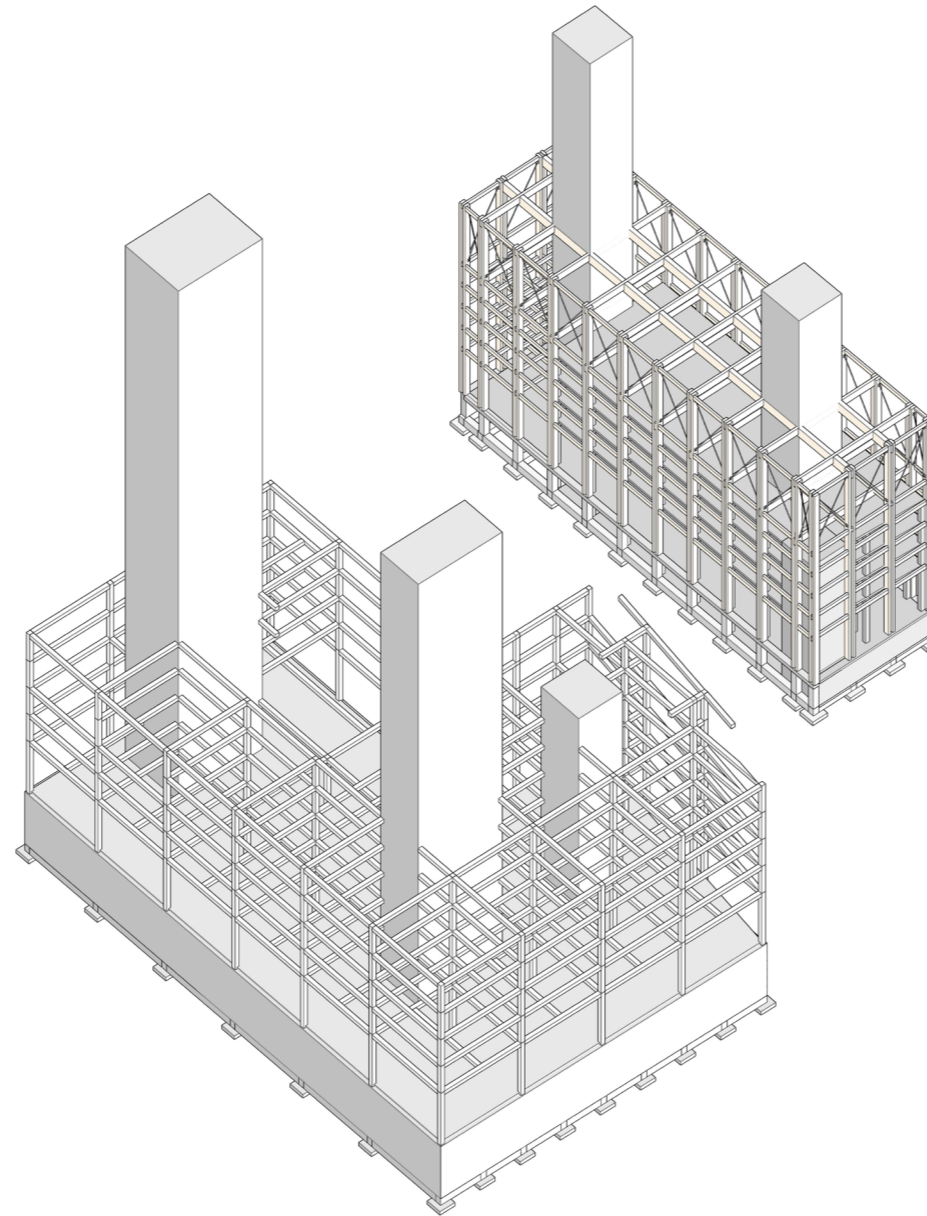
Design



## 6. Concrete plinth (urban layer) - continued

# Form development

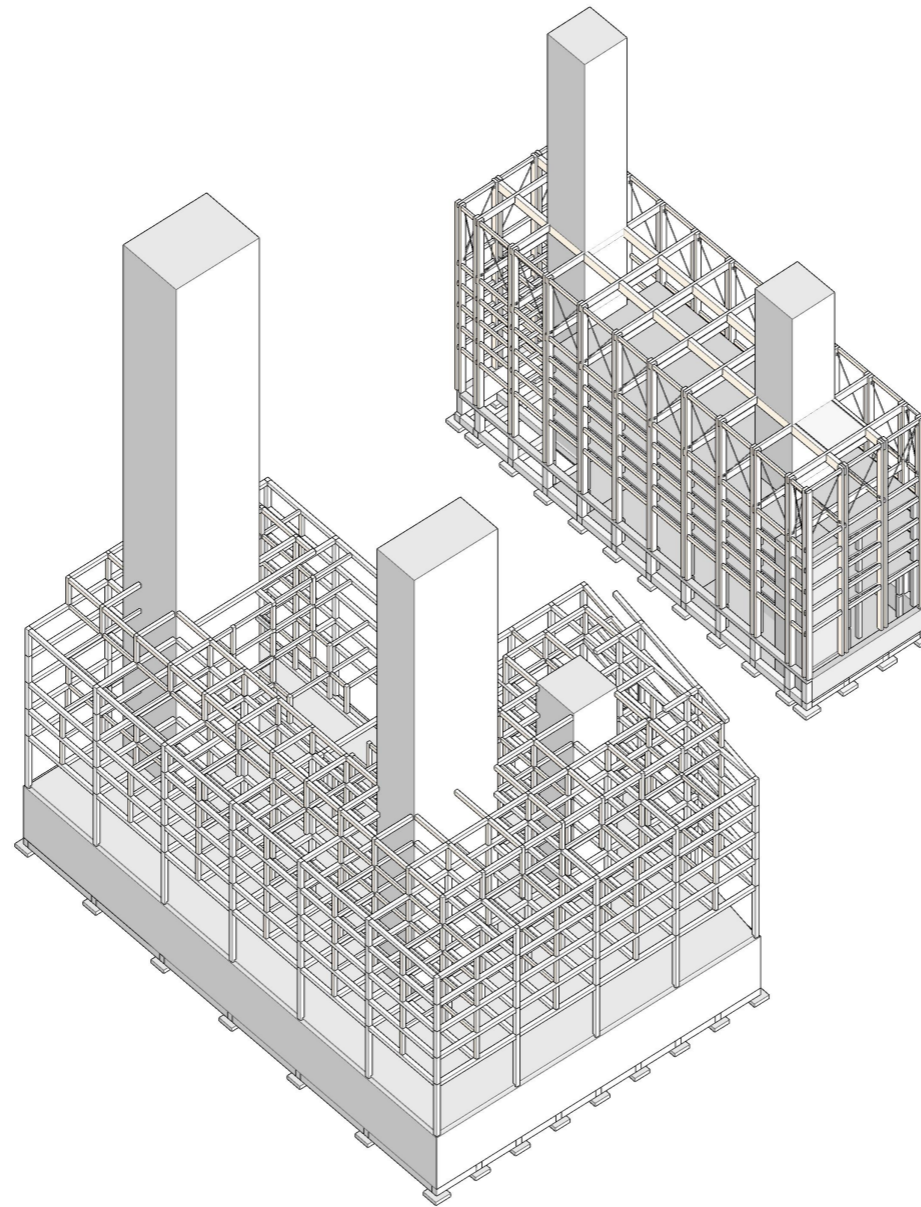
Design



## 7. Timber framework and main load-bearing elements for T2

# Form development

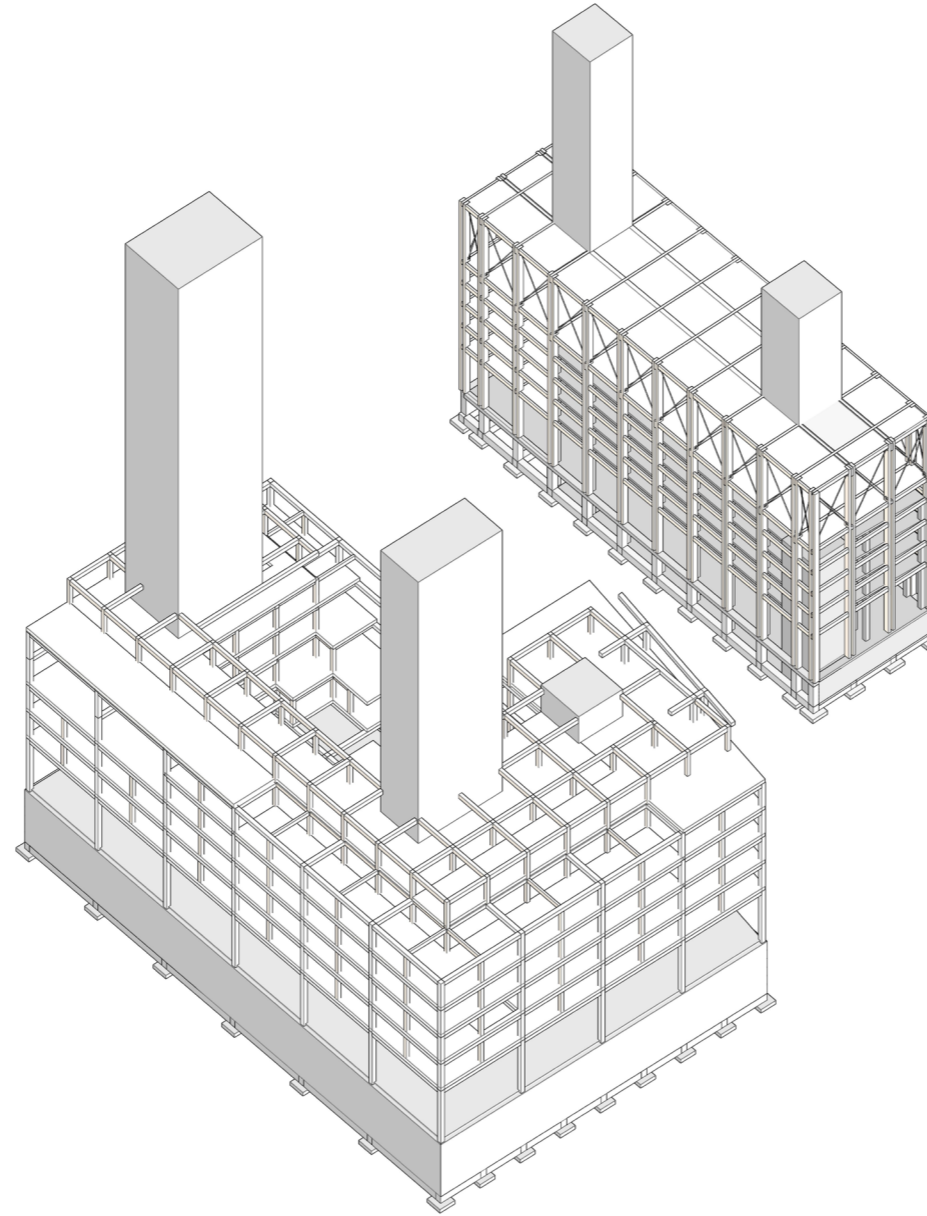
Design



## 8. Secondary lightweight & flexible timber infill

# Form development

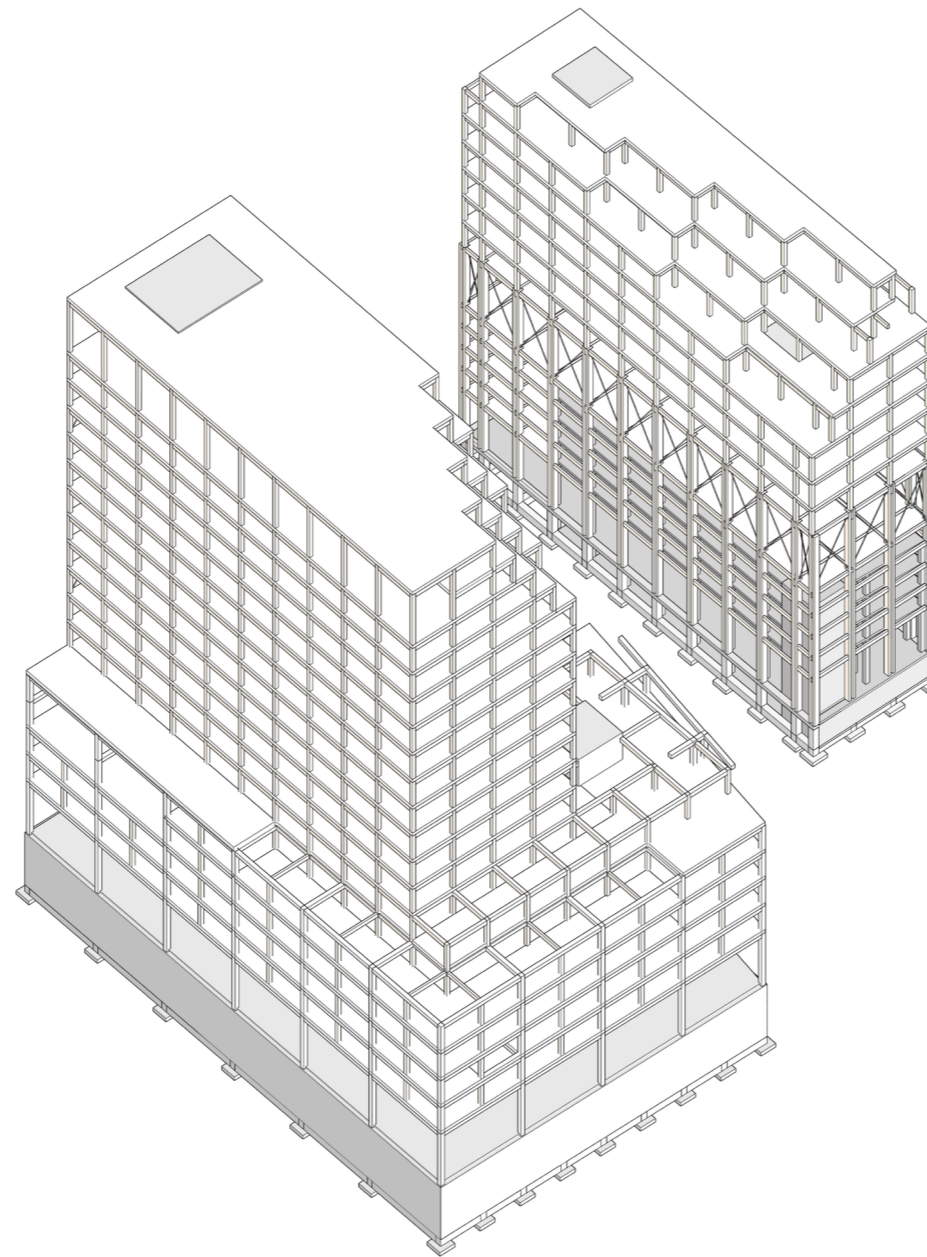
Design



## 9. CLT interior and exterior slabs

# Form development

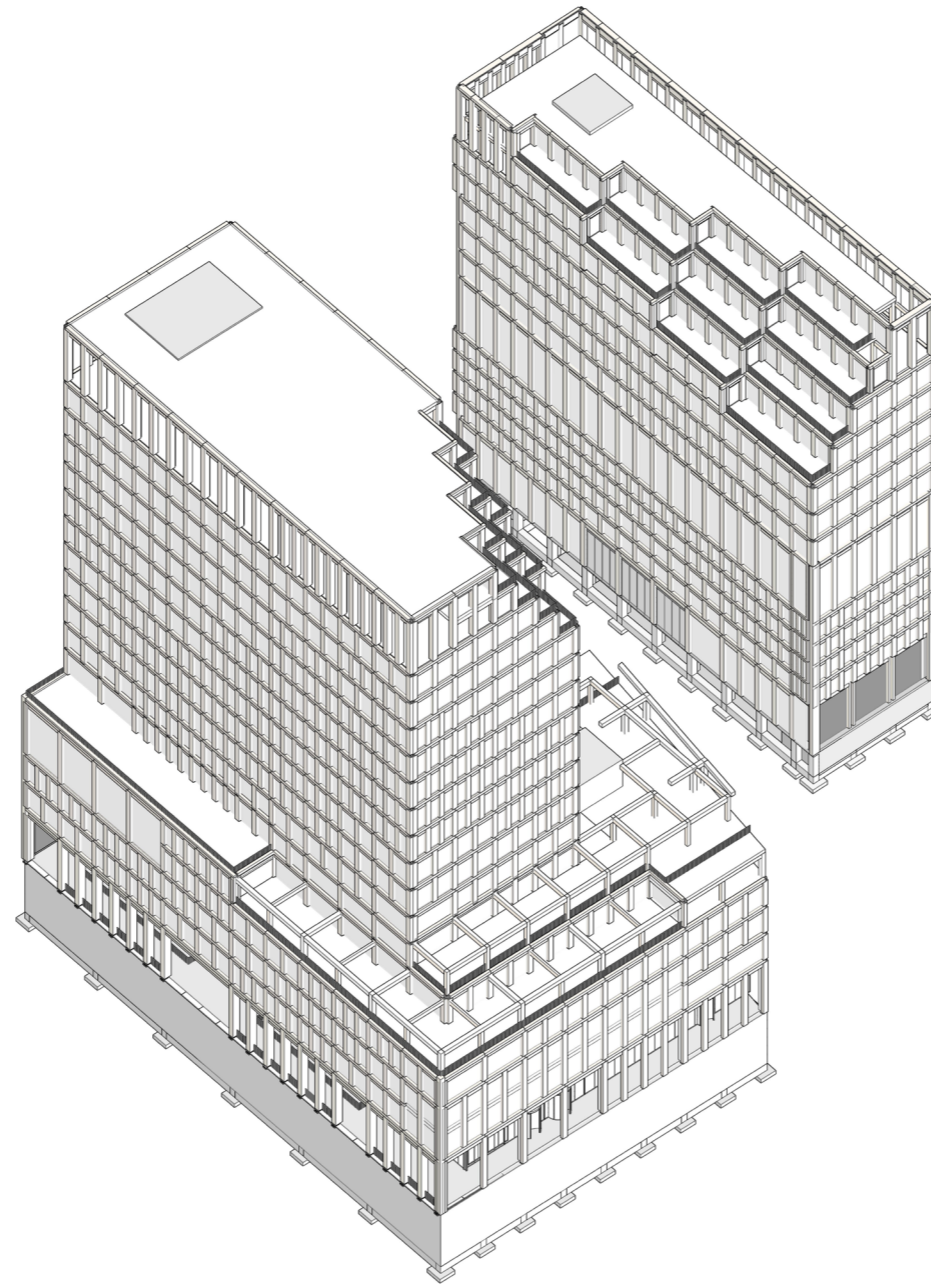
Design



## 10. Upper floors

# Form development

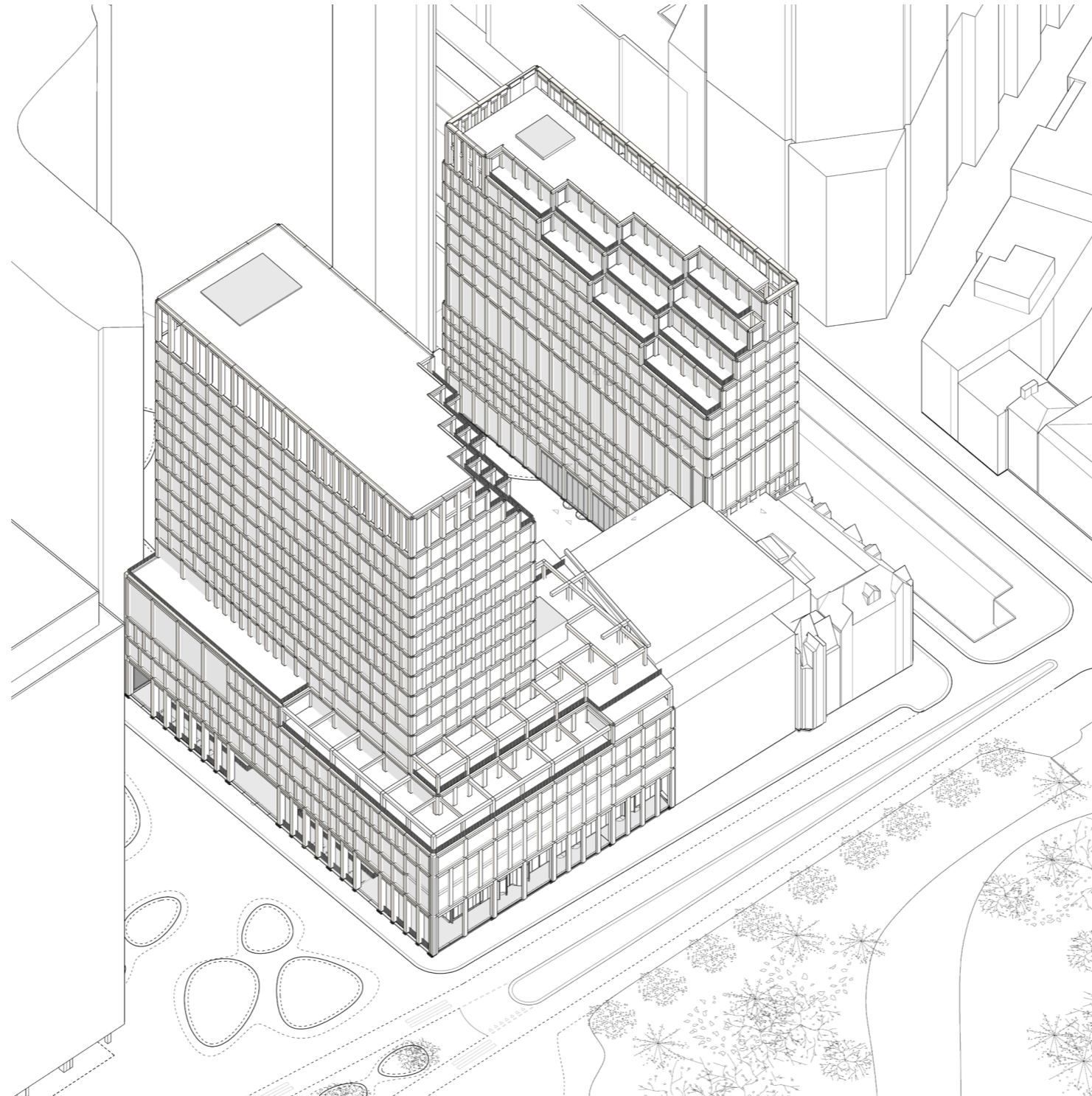
Design



## 10. Skin

# Form development

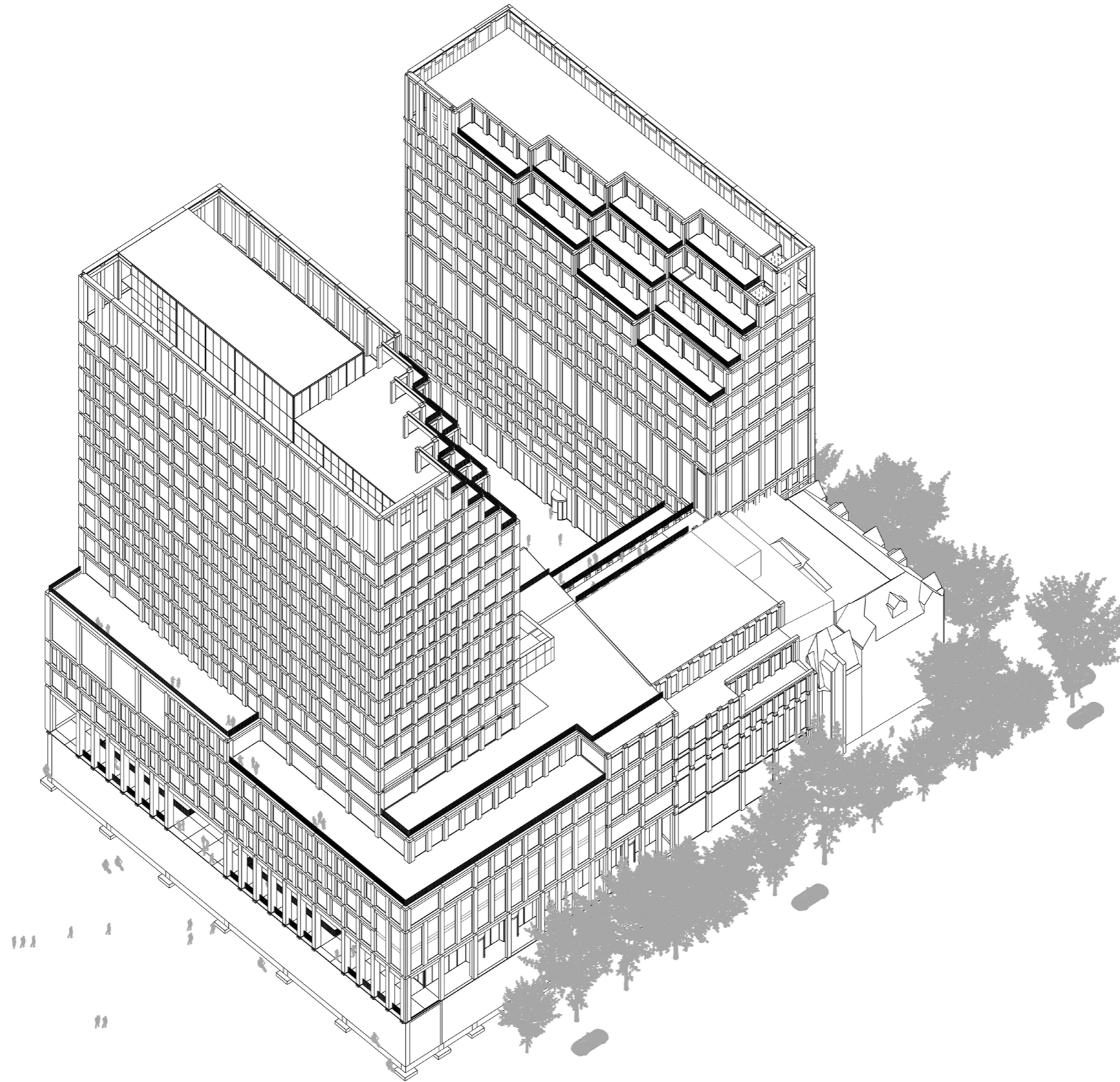
Design



## 10. Site

# Form development

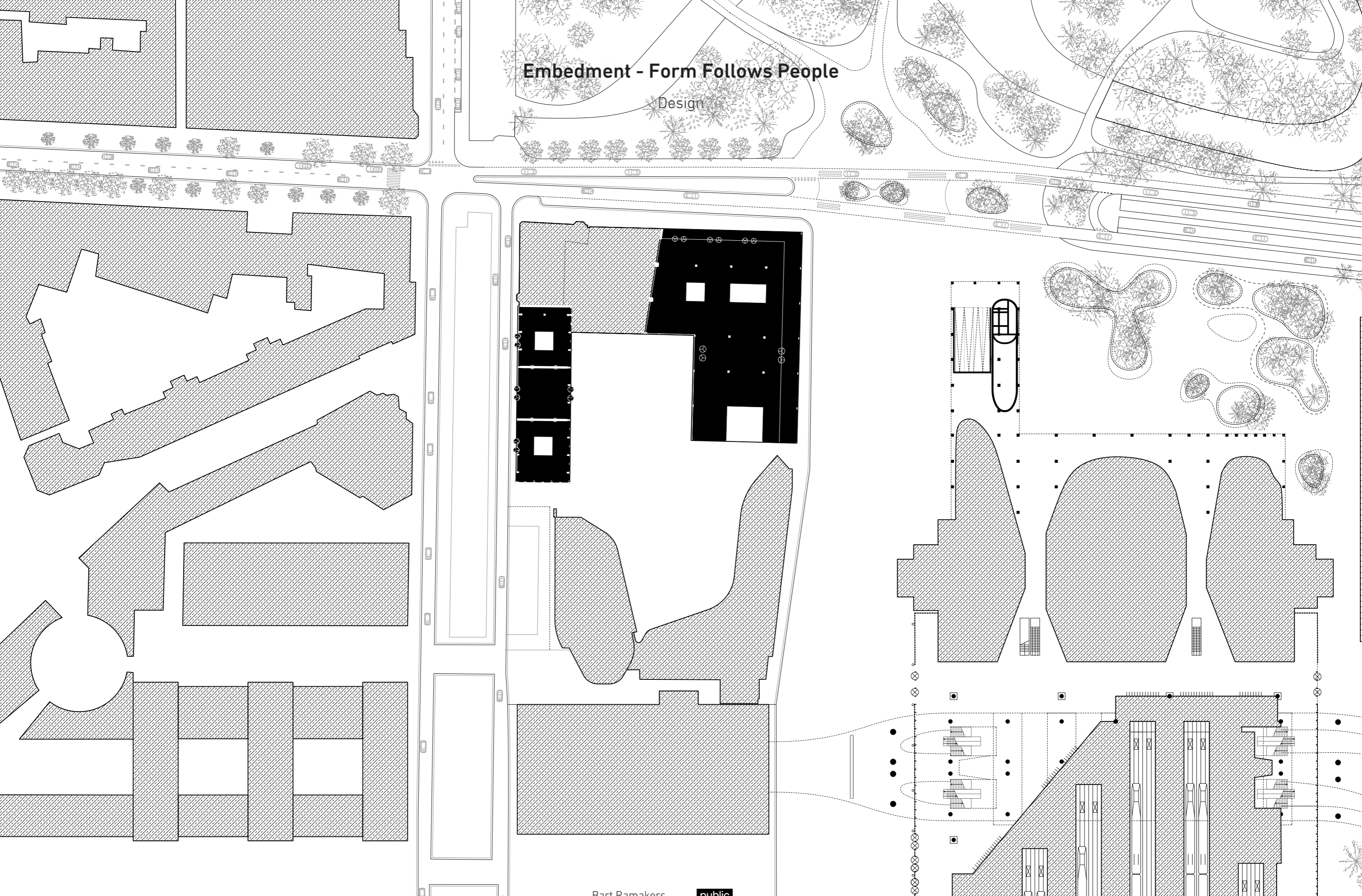
Design



## The Final Design

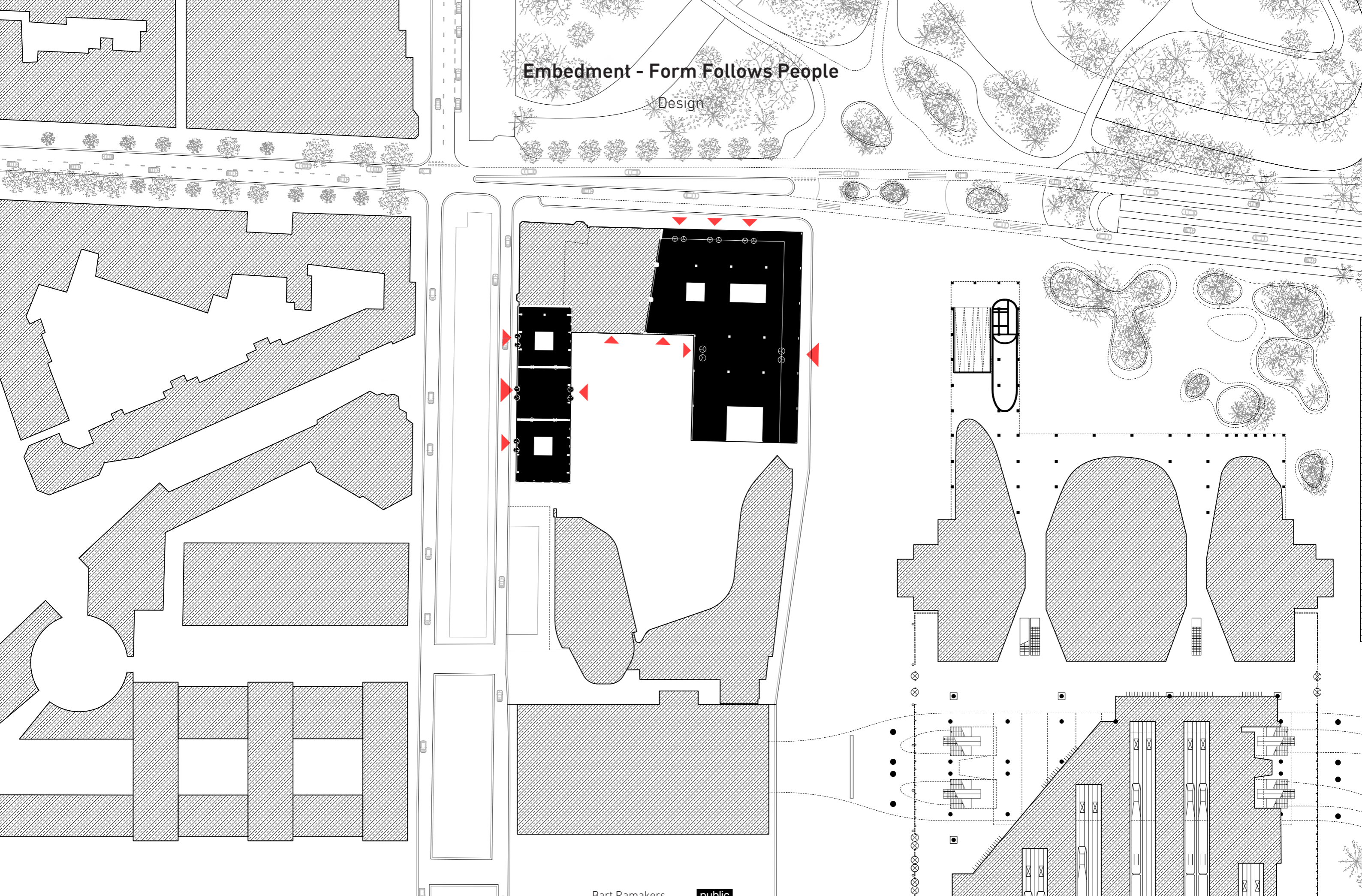
# Embedment - Form Follows People

Design



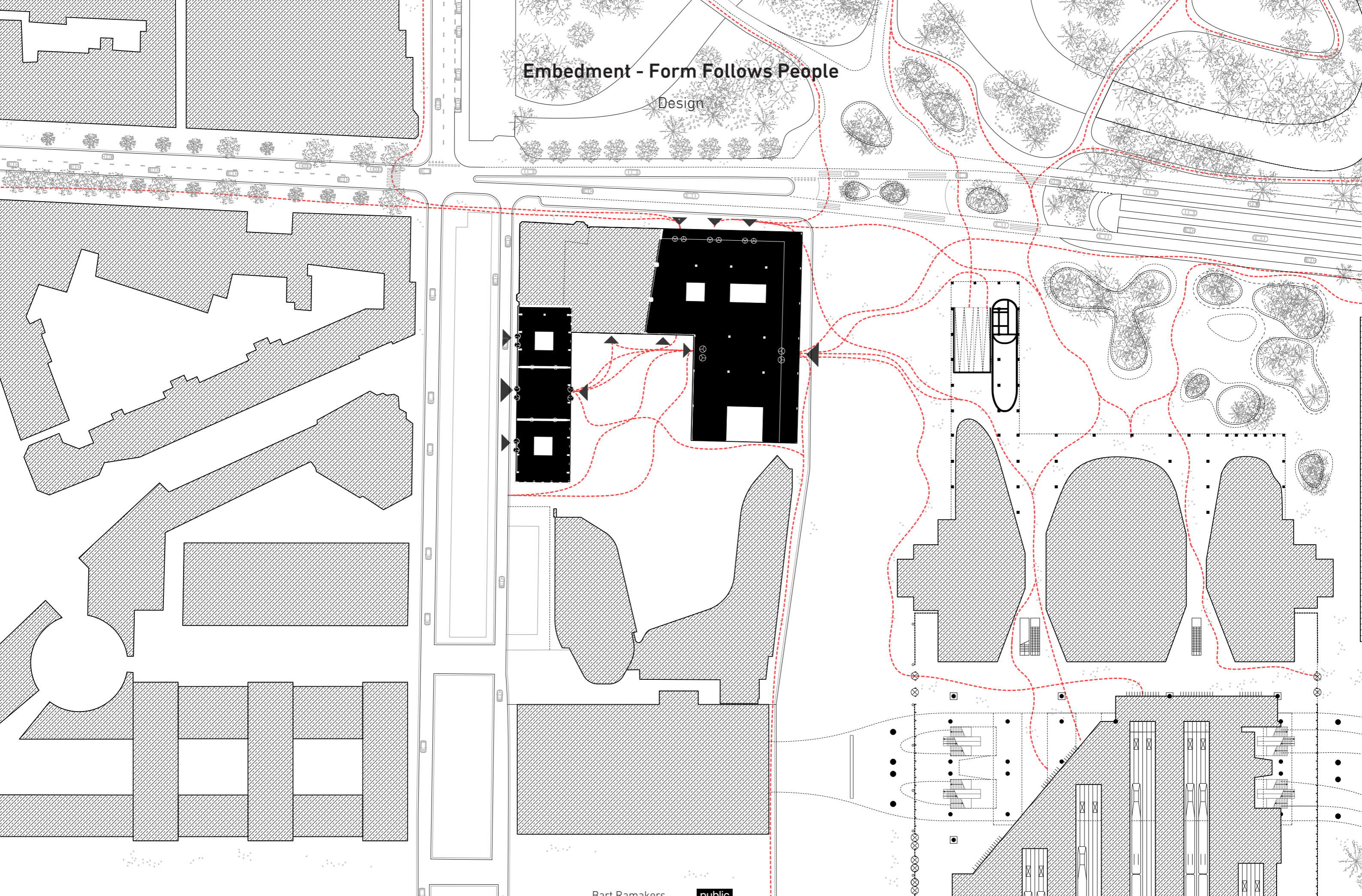
# Embedment - Form Follows People

Design



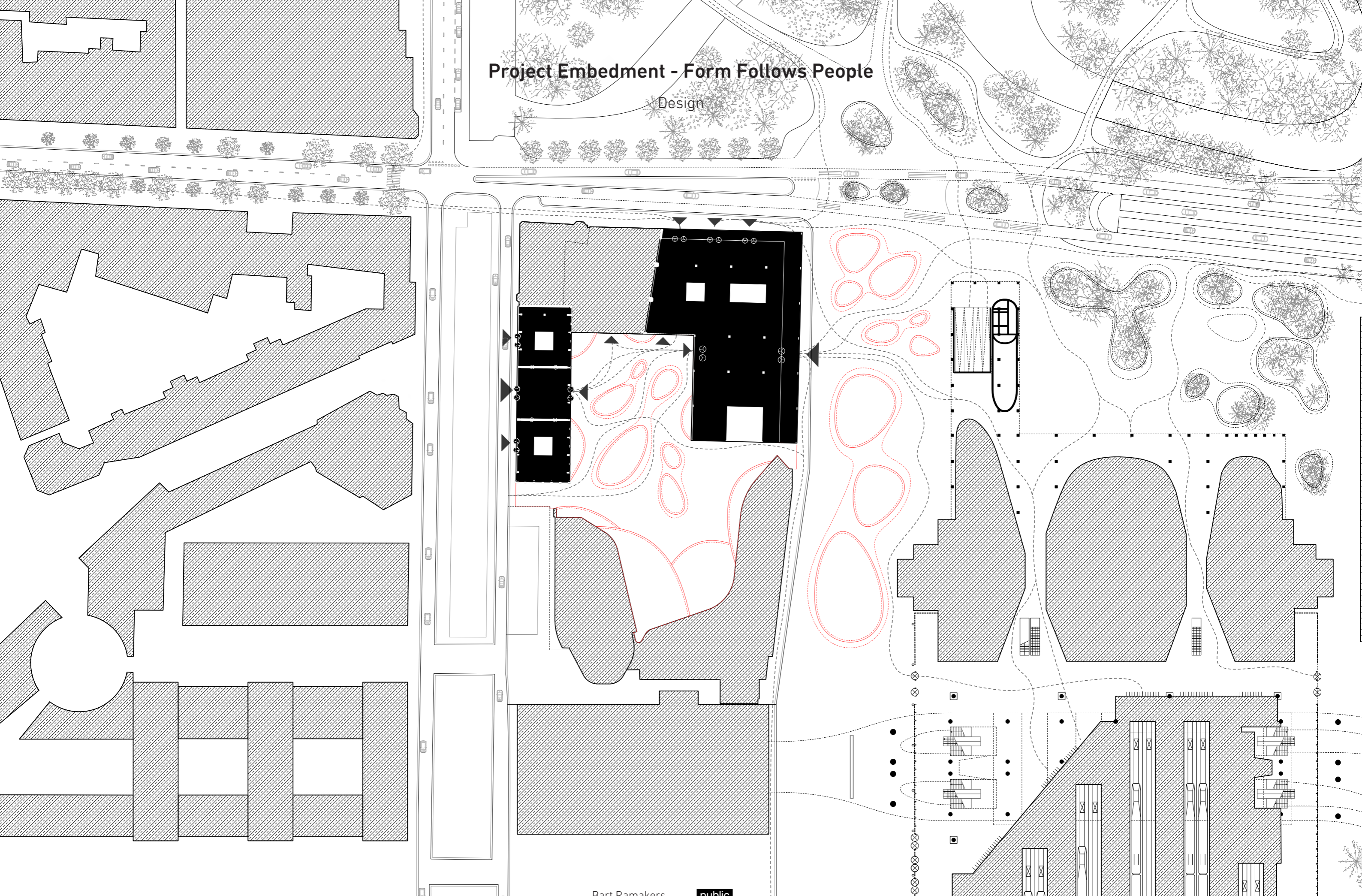
# Embedment - Form Follows People

Design



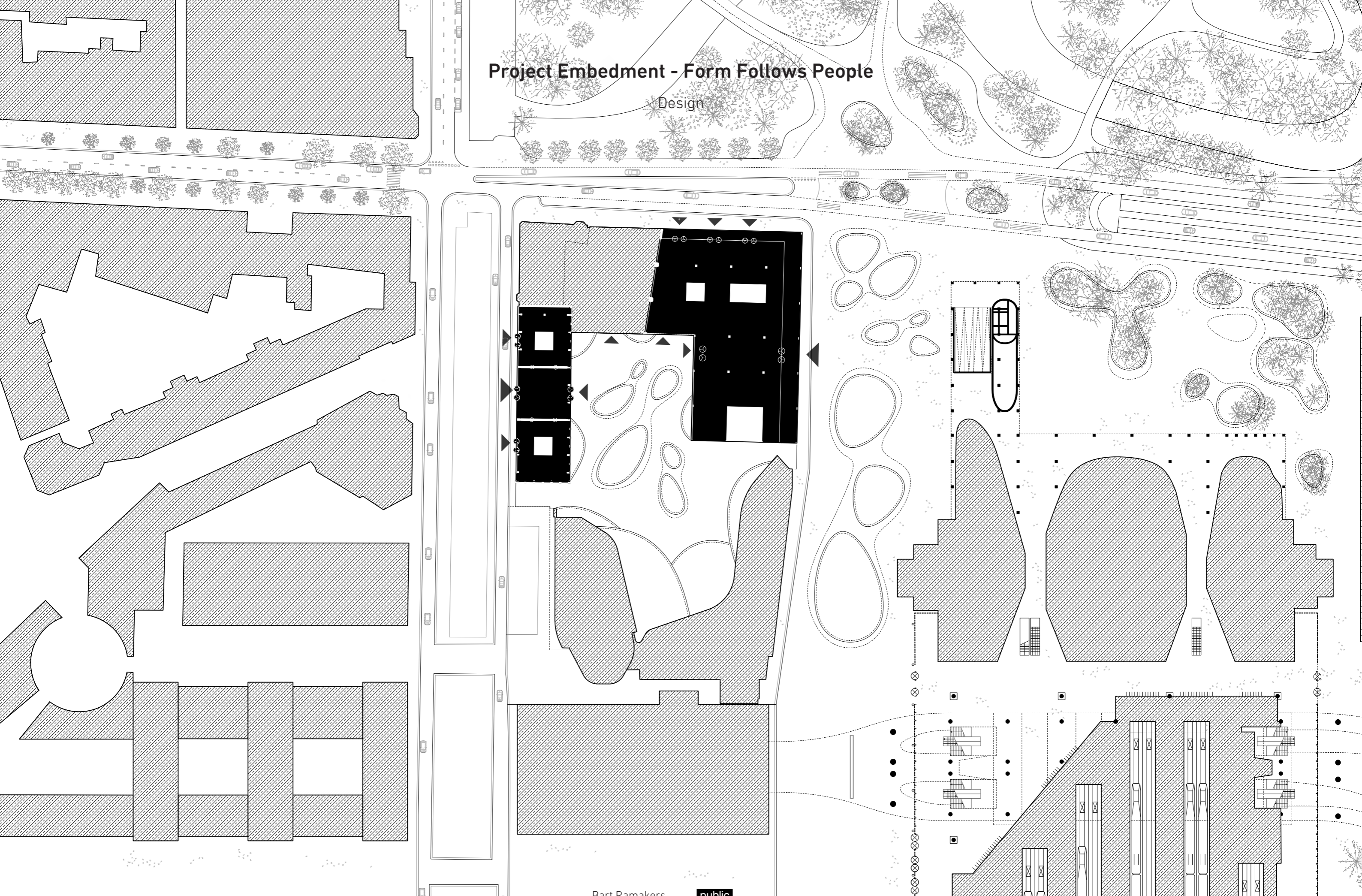
# Project Embedment - Form Follows People

Design



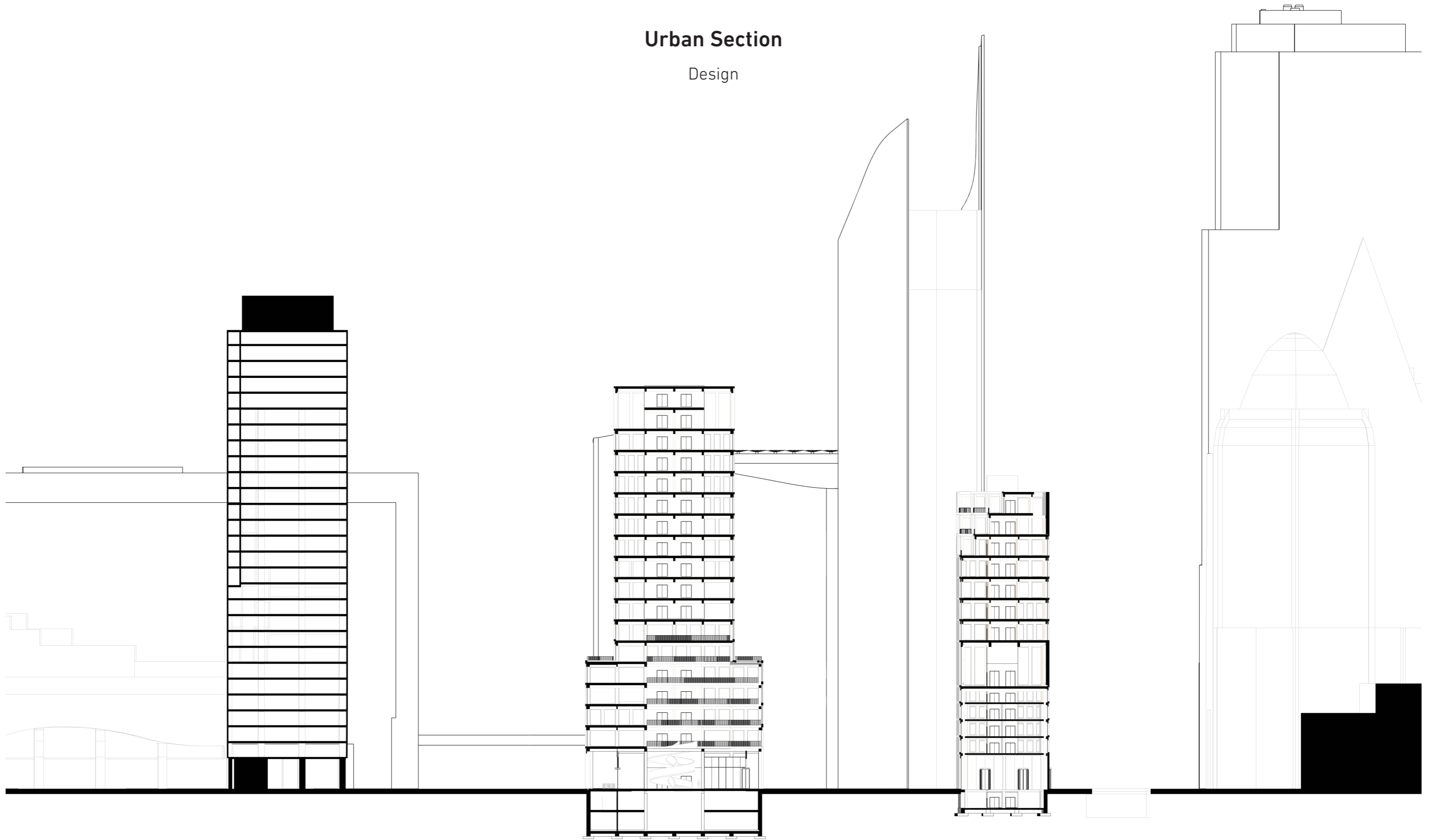
# Project Embedment - Form Follows People

Design



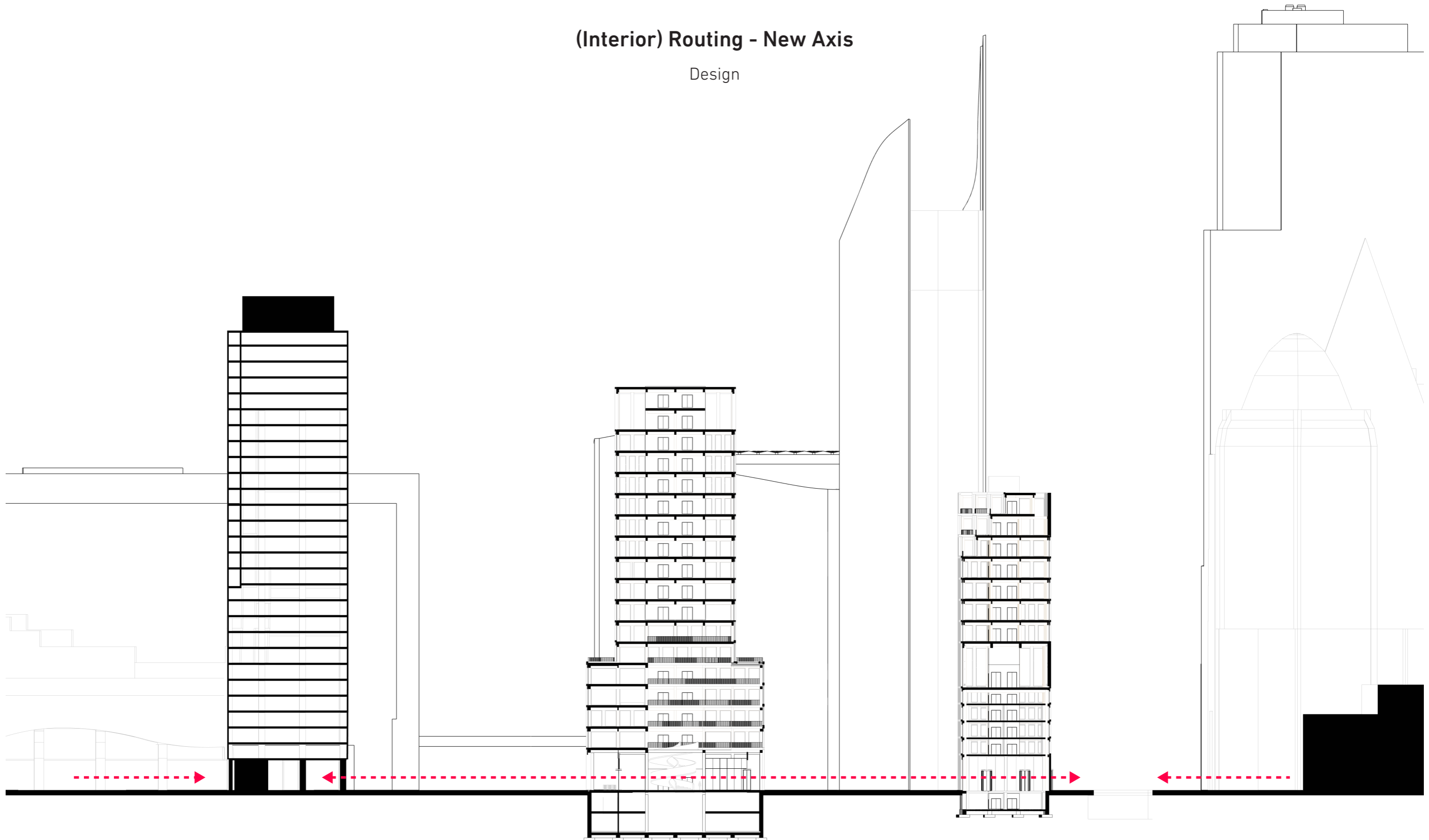
# Urban Section

Design



# (Interior) Routing - New Axis

Design



Koningin Julianaplein

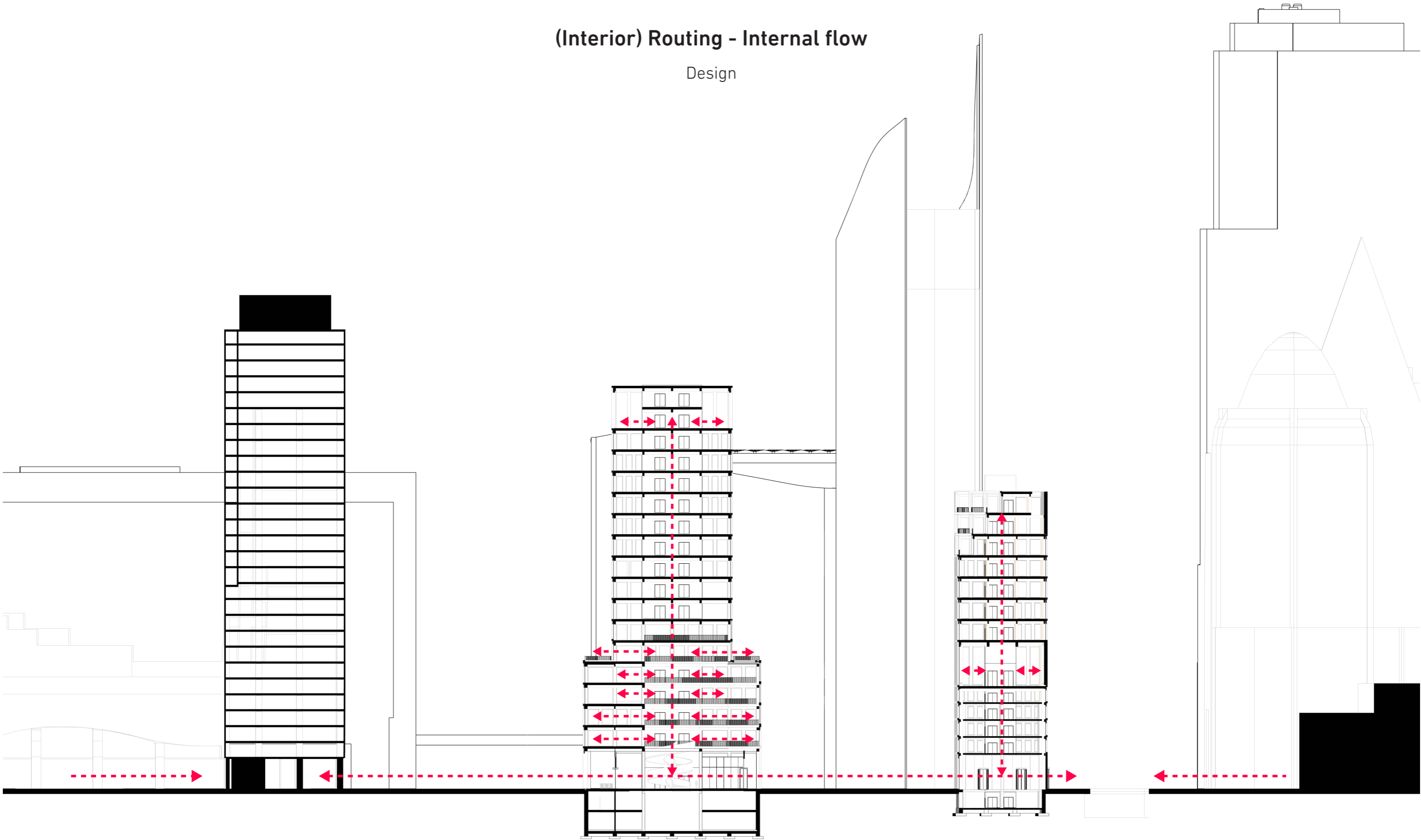
KJ Exit

Inner Courtyard

Towards City

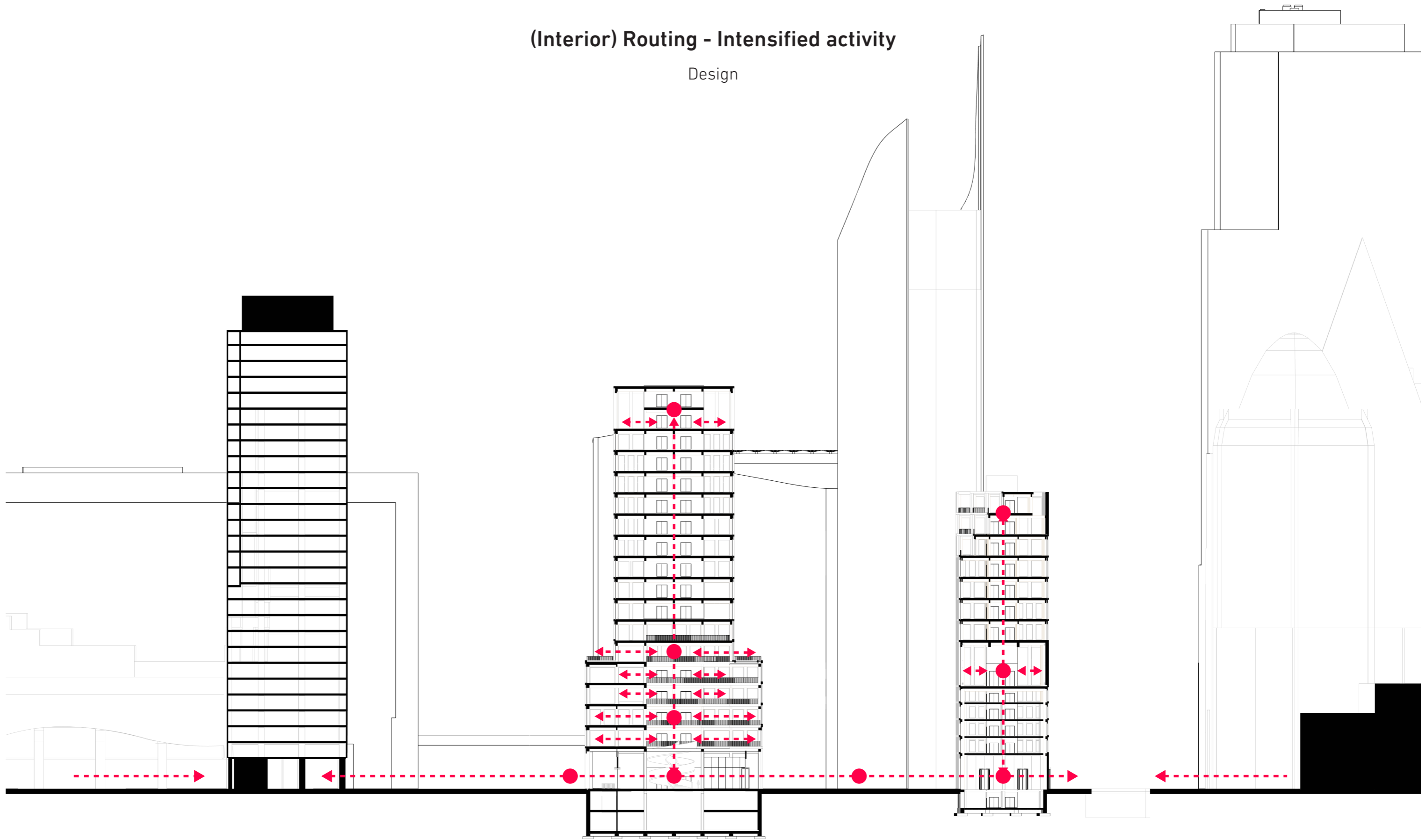
(Interior) Routing - Internal flow

Design



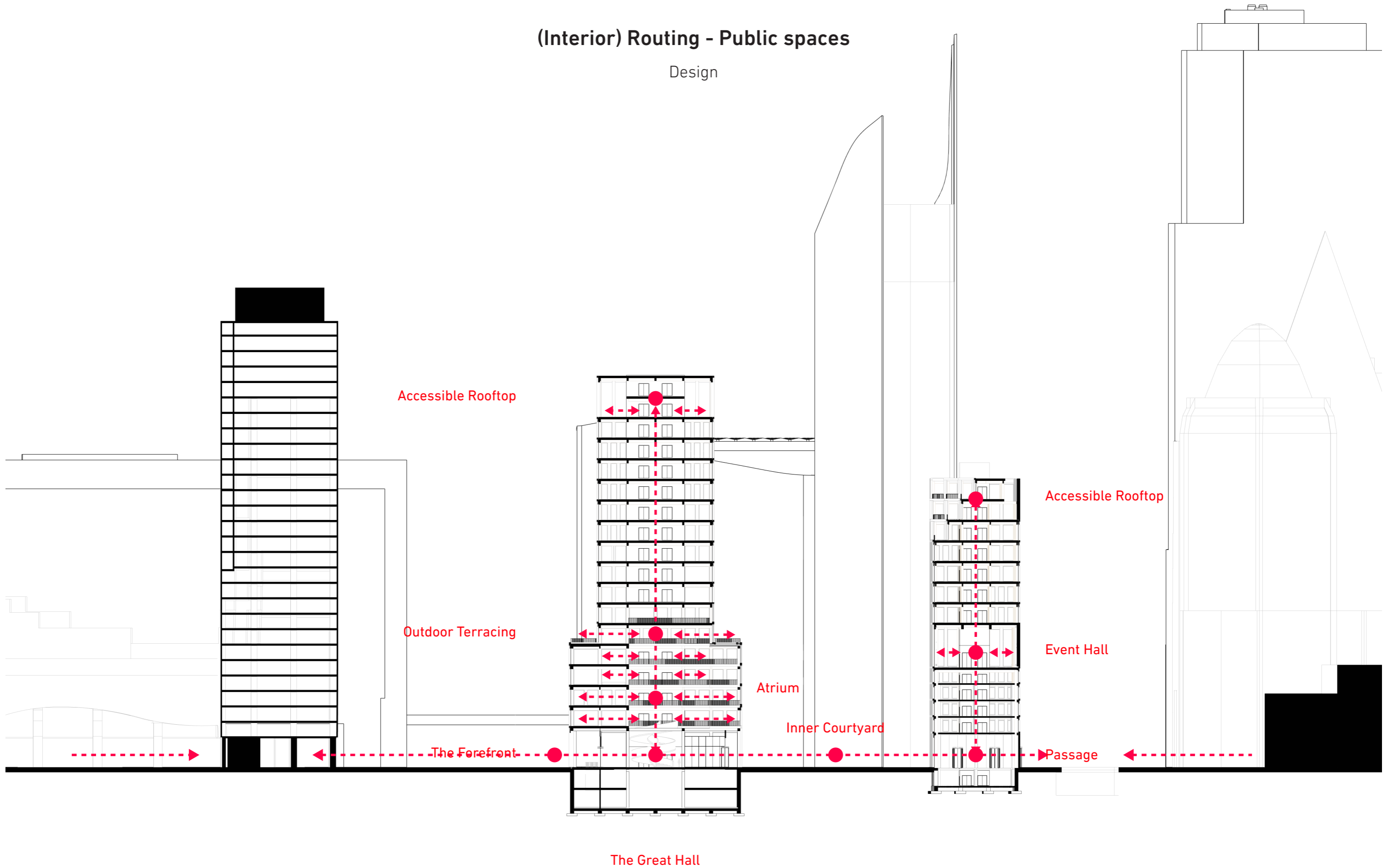
# (Interior) Routing - Intensified activity

Design



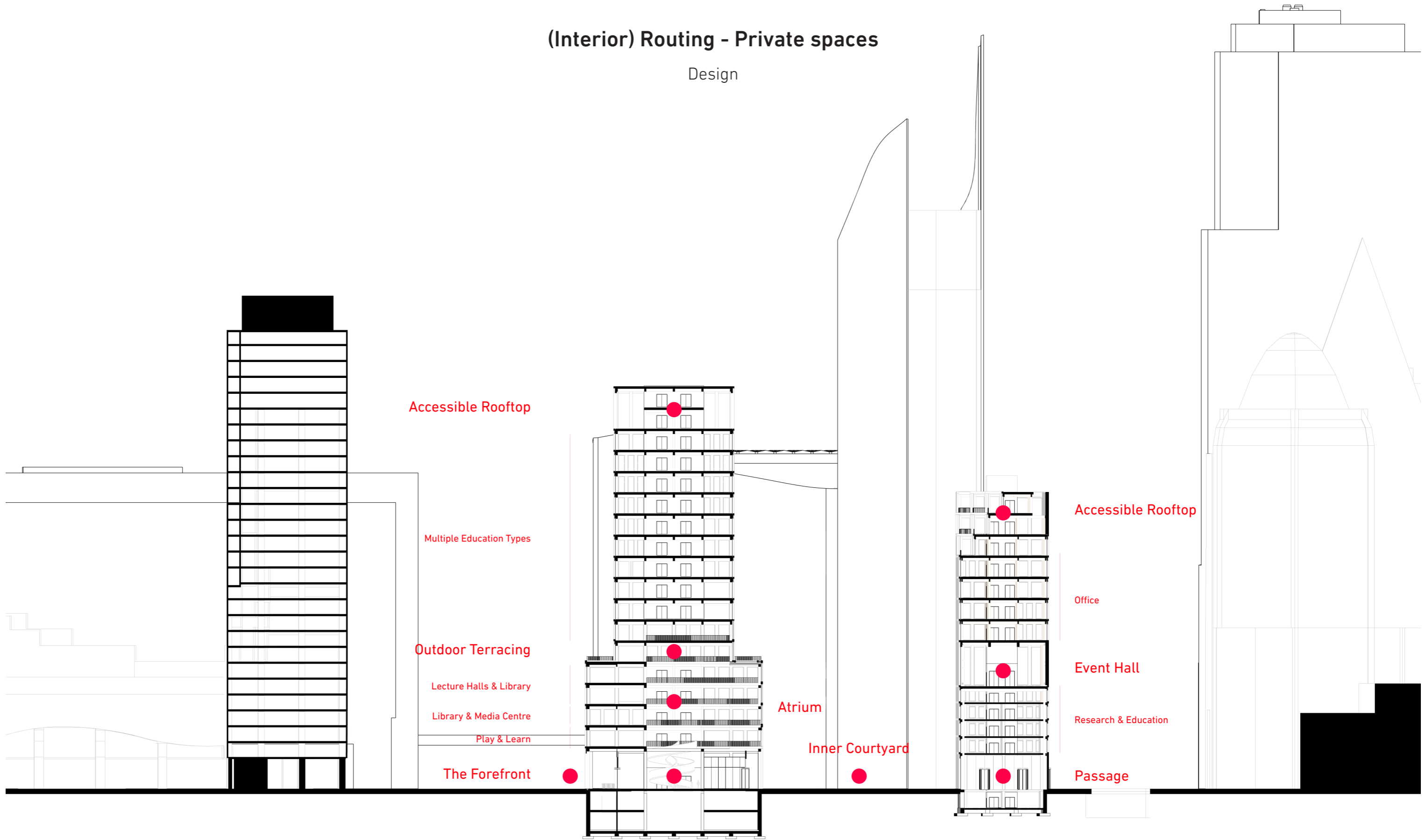
# (Interior) Routing - Public spaces

Design



# (Interior) Routing - Private spaces

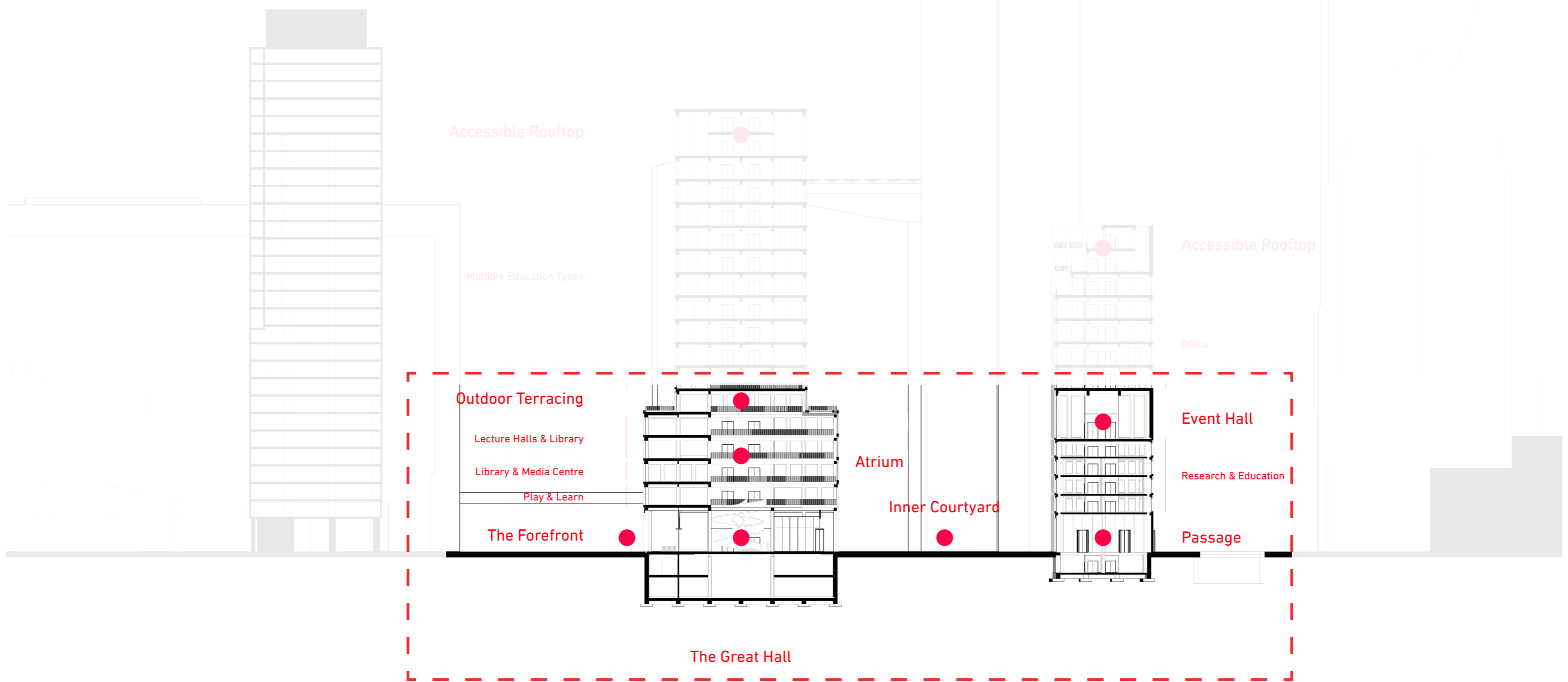
Design



The Great Hall

# (Interior) Routing - Strategic positioning of public spaces

Design



# Exterior Impressions

Design



View of main entrance, seen from Koningin Julianaplein

# Exterior Impressions

Design



Walking towards the main entrance

# Exterior Impressions

Design



Walking towards the main entrance

# Exterior Impressions

Design



View from inner courtyard looking from The Ministry of Education, Culture and Science

# Exterior Impressions

Design



View from inner courtyard looking from T2

# Exterior Impressions

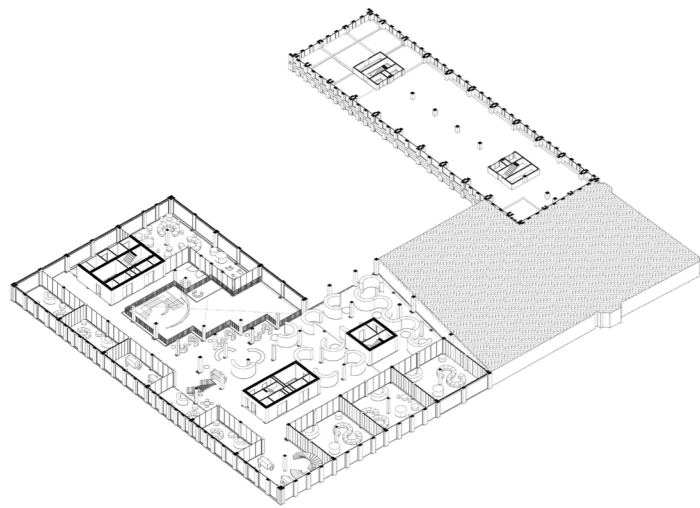
Design



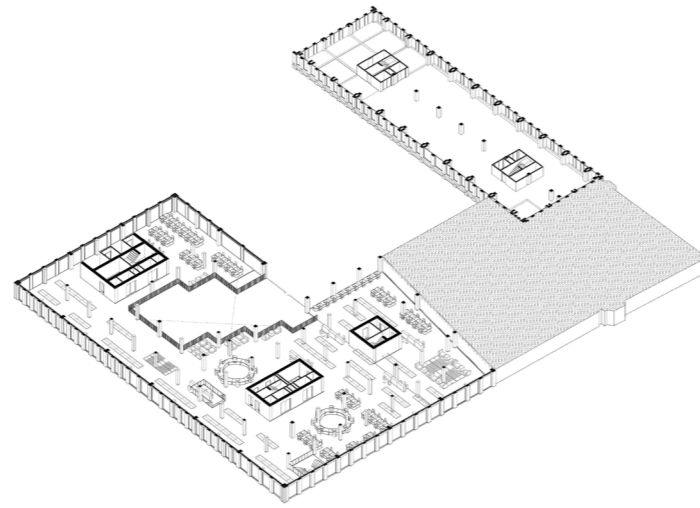
View from Zwarteweg, looking at the entrance of Tower 2 at Oranjevuitensingel

# Axonometrics of first layers

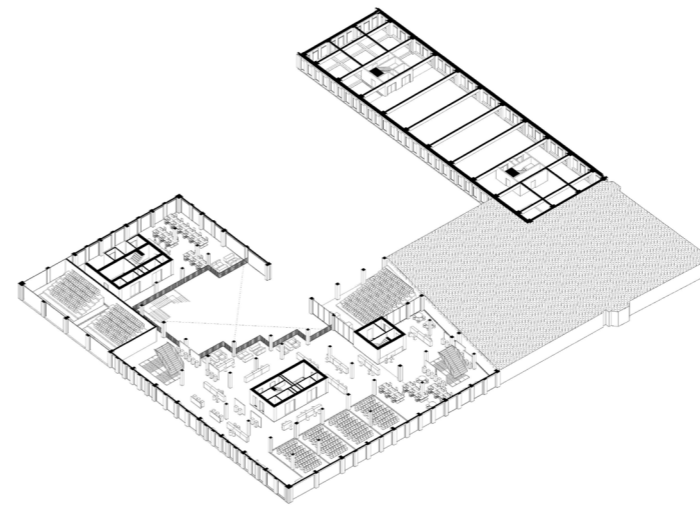
Design



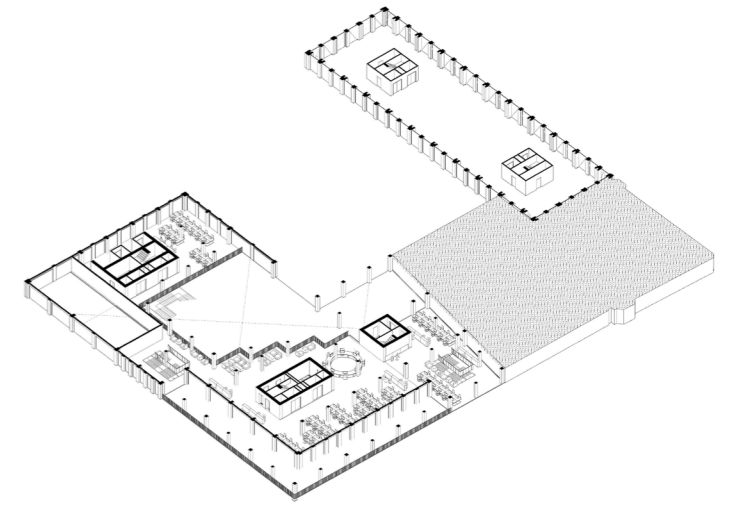
F2 - Play & Learn



F3 - Library & Media Centre



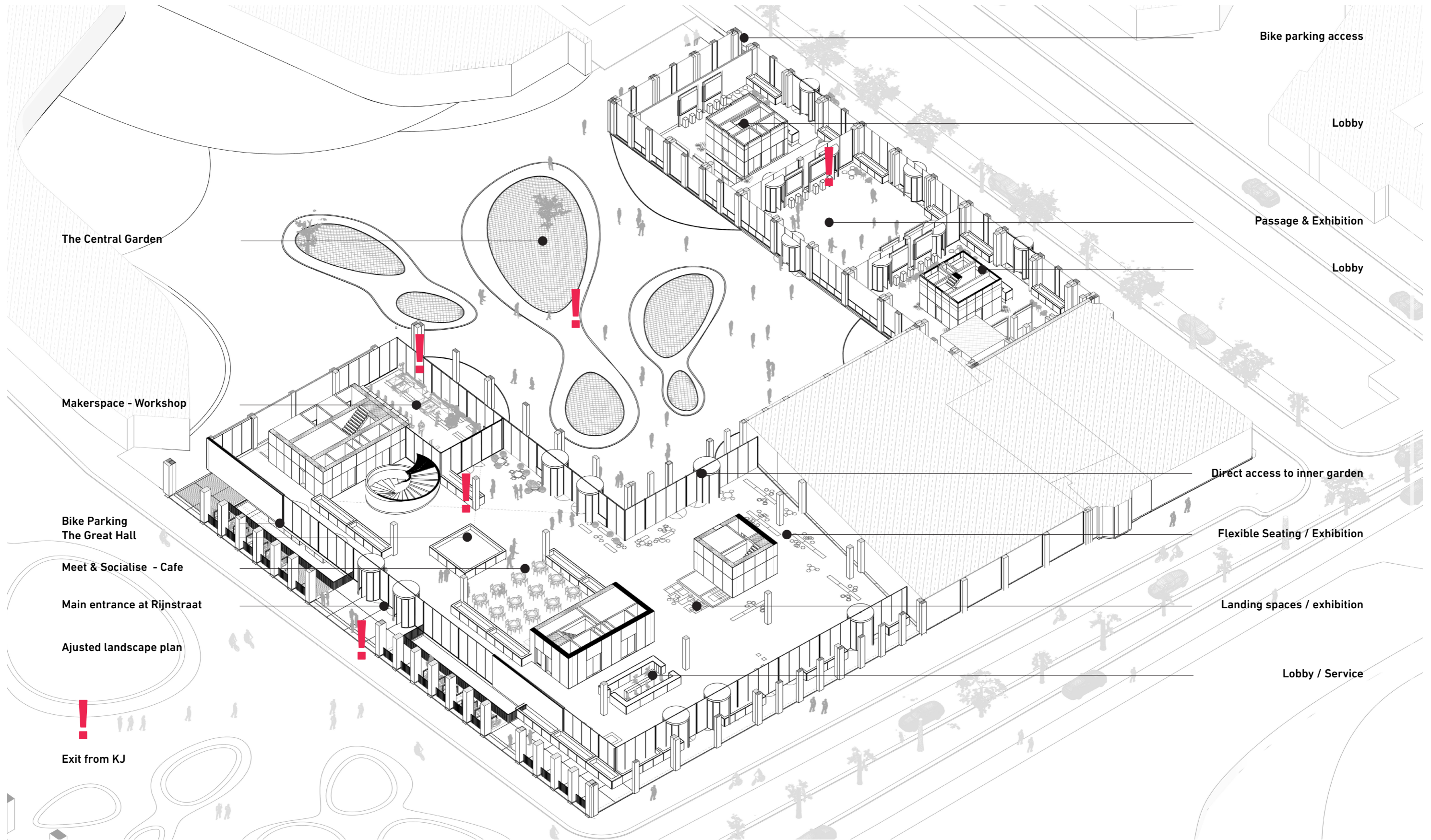
F4 - Lecture Halls & Library



F5 - Lecture Halls & Library

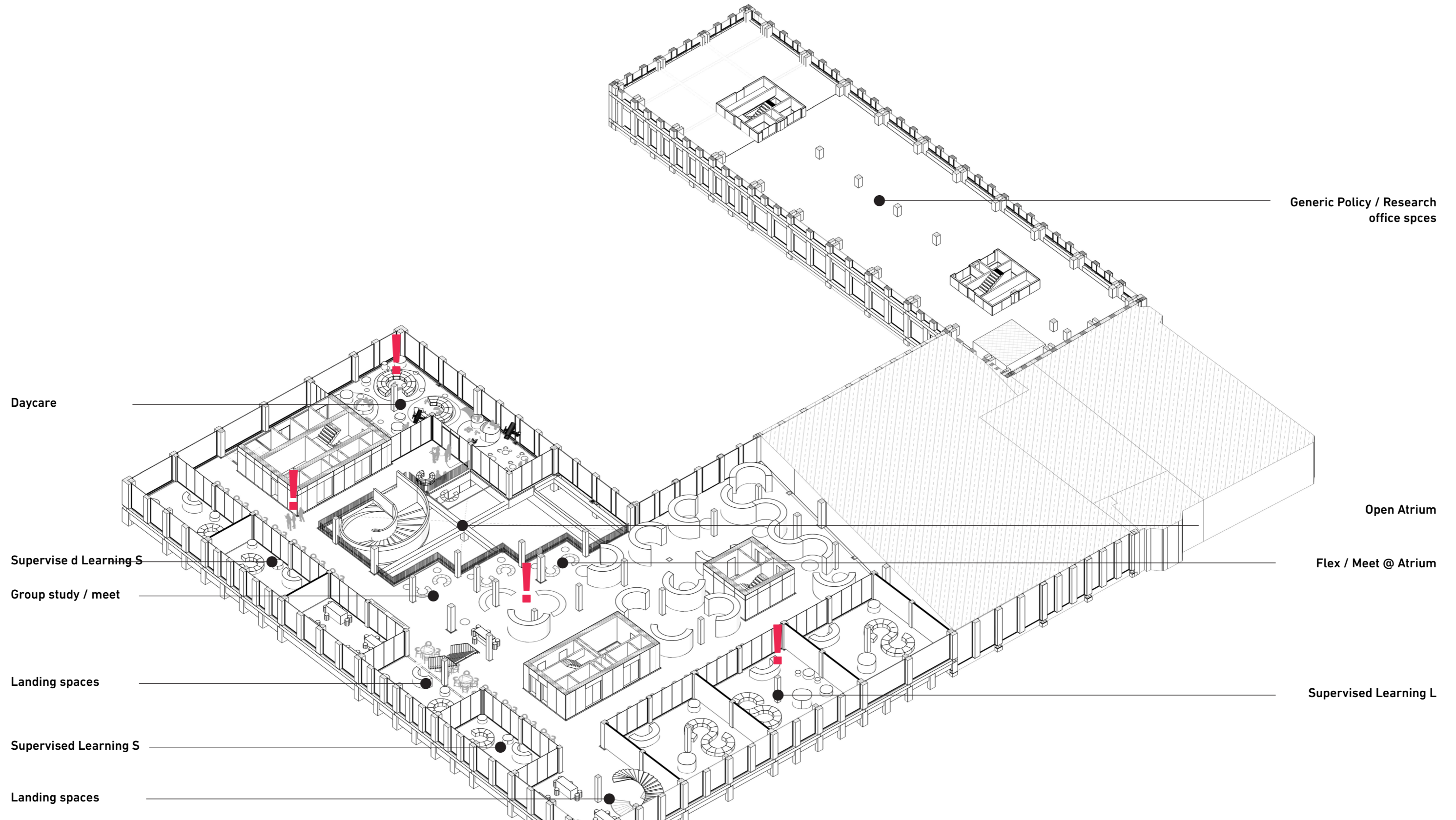
# Axonometrics of first layers - Ground Floor

Design



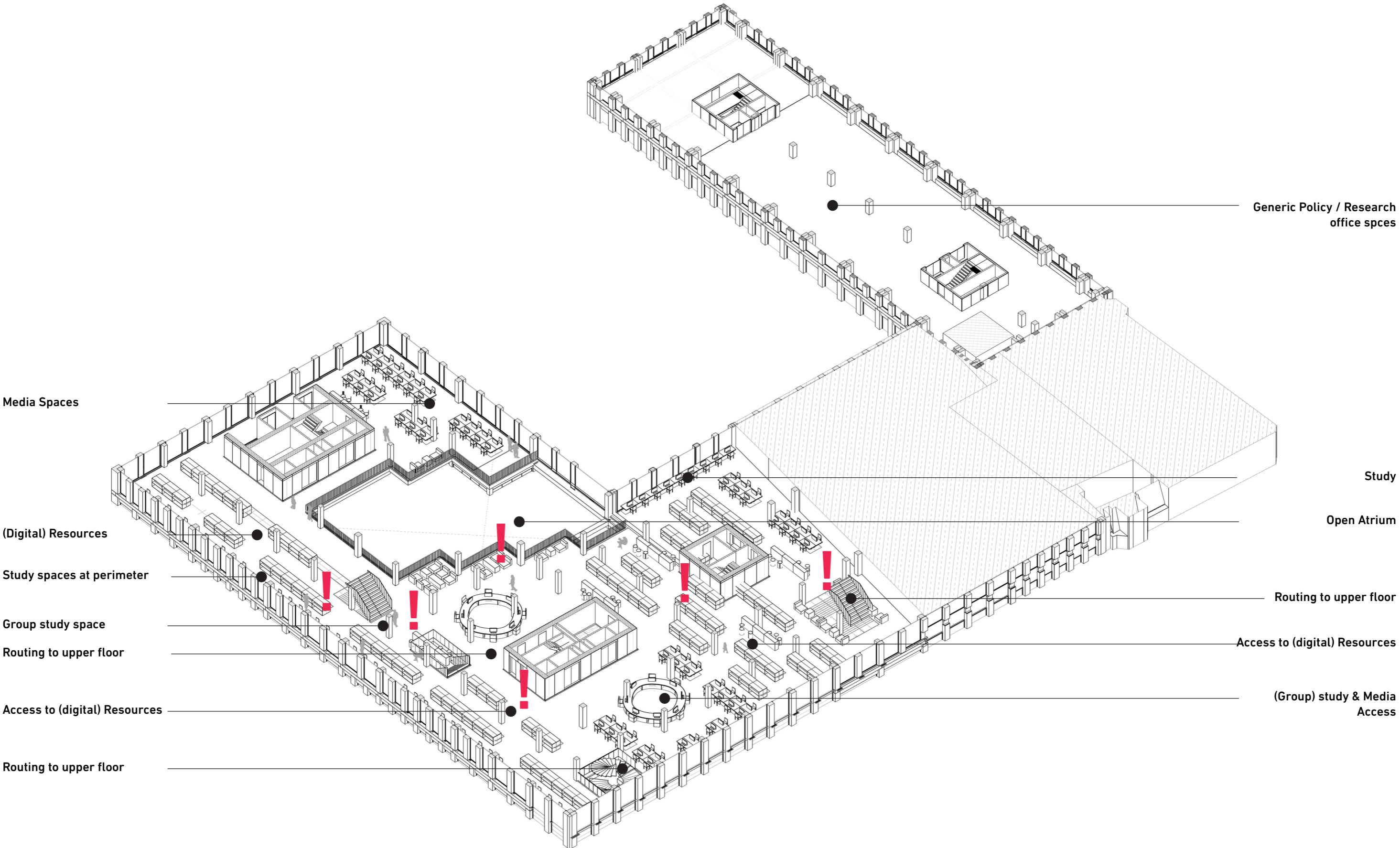
# Axonometrics of first layers - Play & Learn

Design



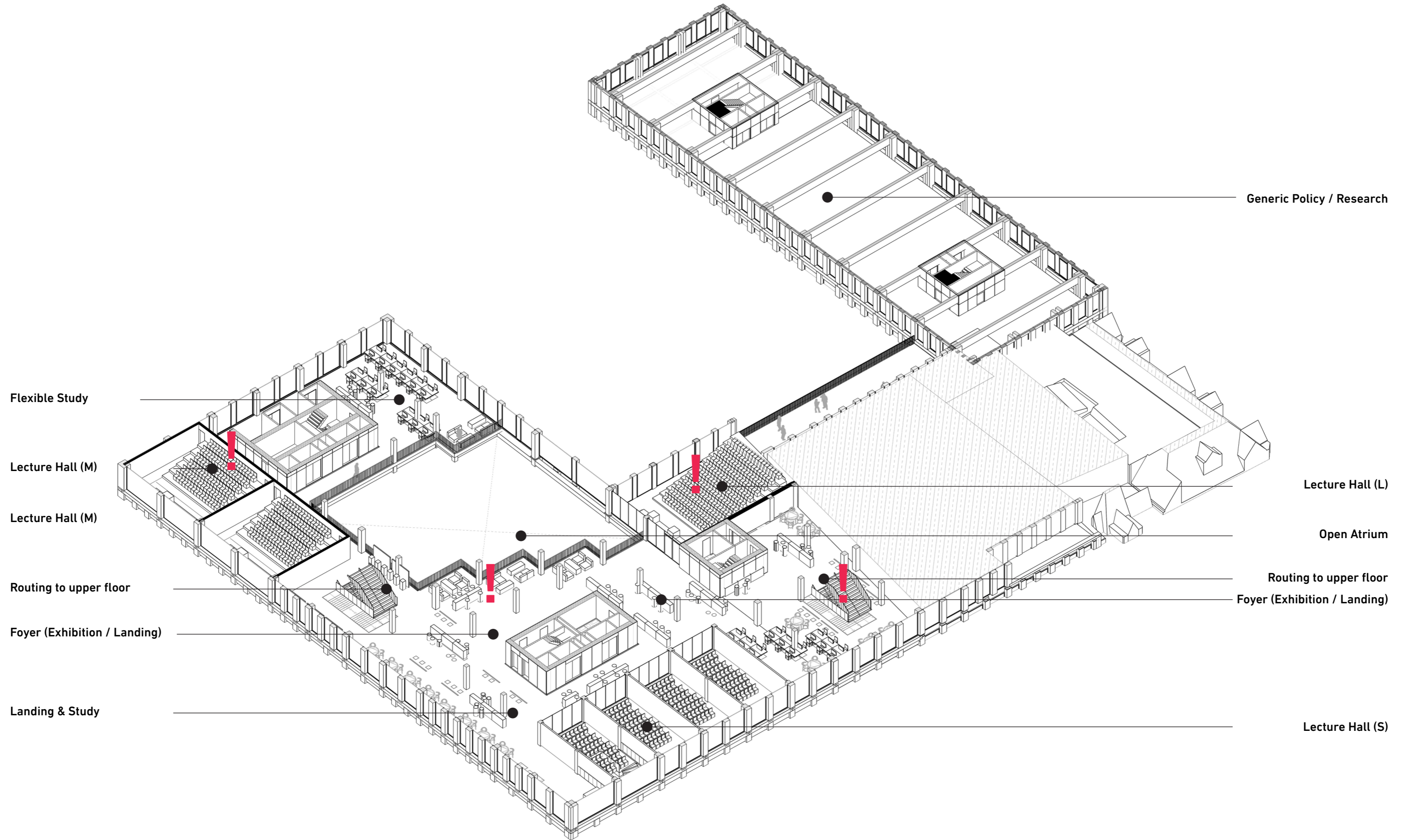
# Axonometrics of first layers - Library & Media Centre

Design

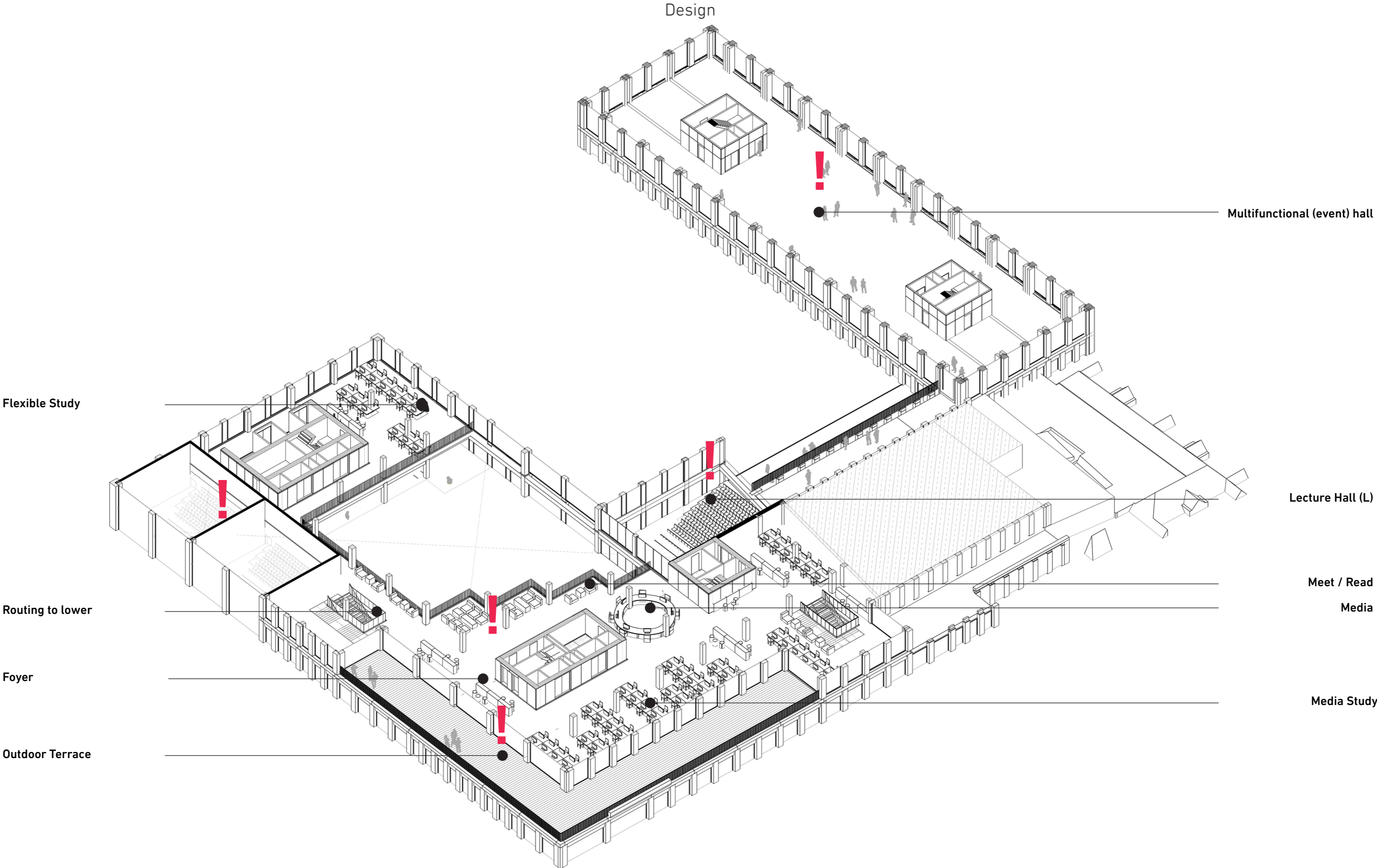


# Axonometrics of first layers - Library & Media Centre & Lecture Halls

Design



# Axonometrics of first layers - Library & Media Centre, Lecture Halls & Multifunctional Event Hall



# Impressions - Koningin Julianaplein

Design



# Impressions - The Forecourt

Design



# Impressions - The Great Hall

Design



# Impressions - The Great Hall & Workshop

Design



# Impressions - The Great Hall: Cafe & Spiral Staircase

Design



# Impressions - Play & Learn

Design



# Impressions - The Atrium

Design



# Impressions - The Library & Media Centre

Design



# Impressions - The Library & Media Centre

Design



# Impressions - The Library & Media Centre

Design



# Impressions - The Library & Media Centre Looking Towards The Courtyard

Design



# Impressions - The Lecture Hall

Design



# Impressions - The Passage

Design



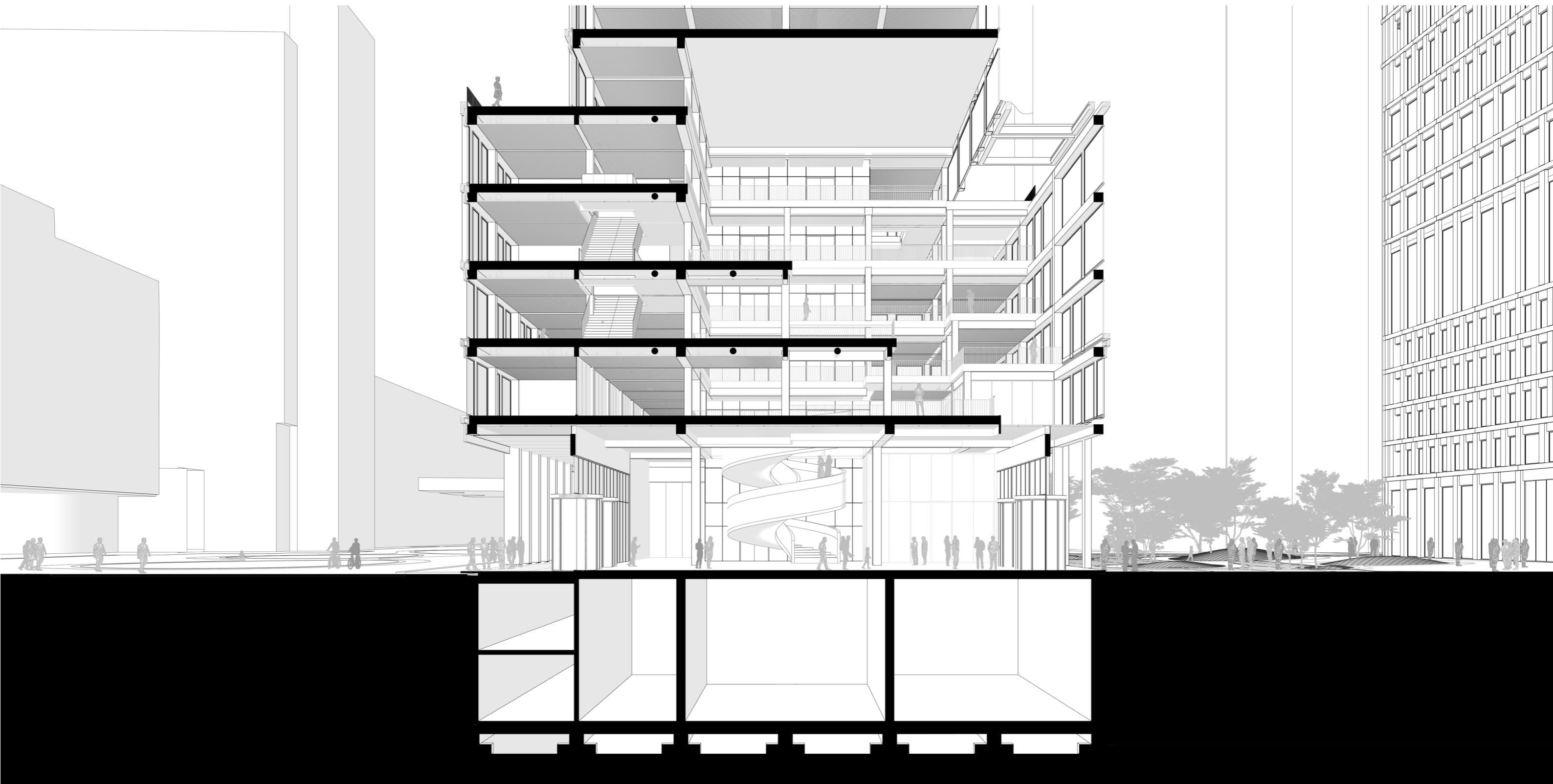
# Impressions - The Multi-Functional Event Hall

Design



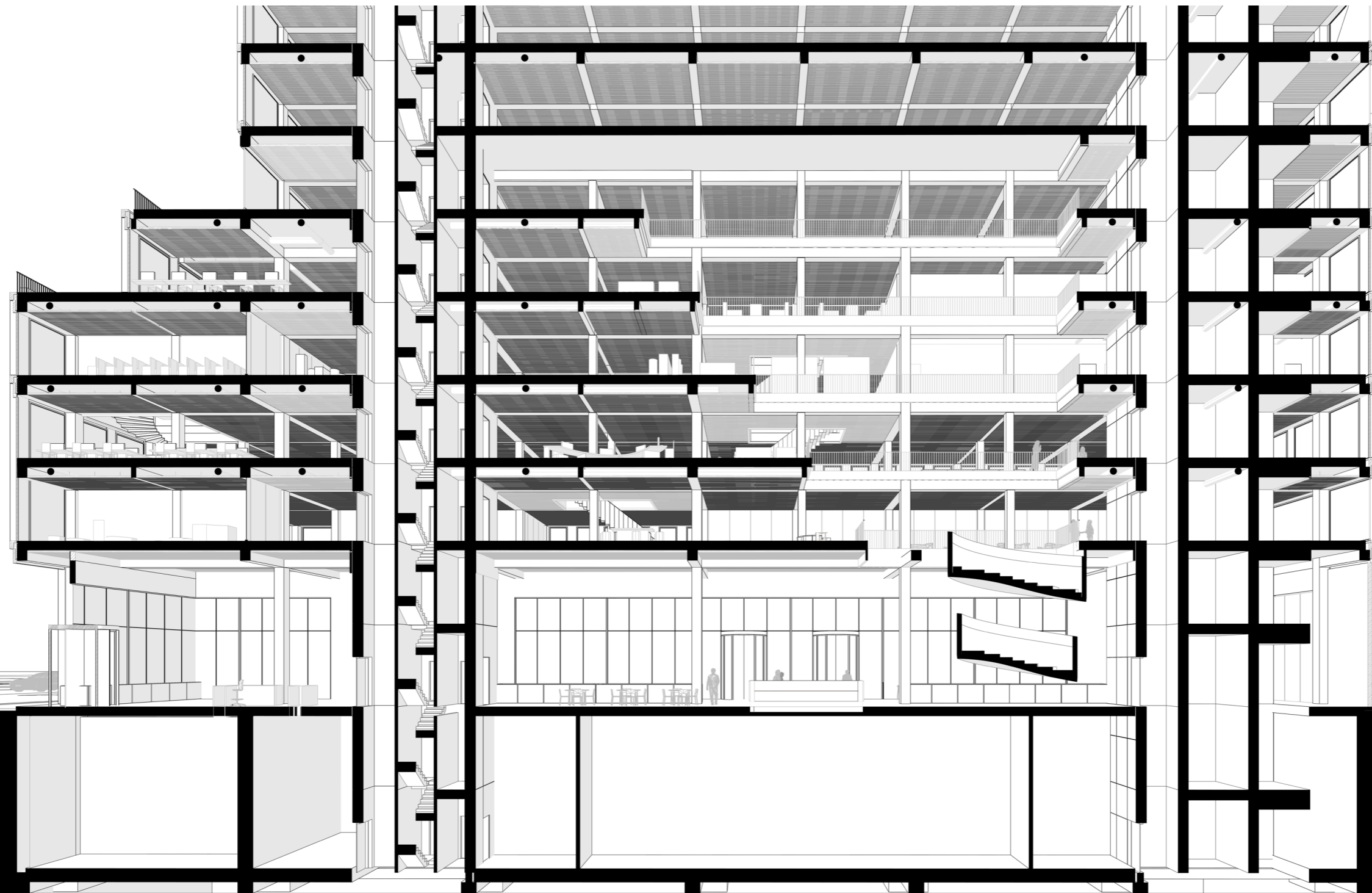
# Section with Resulting (Internal Flows)

Design



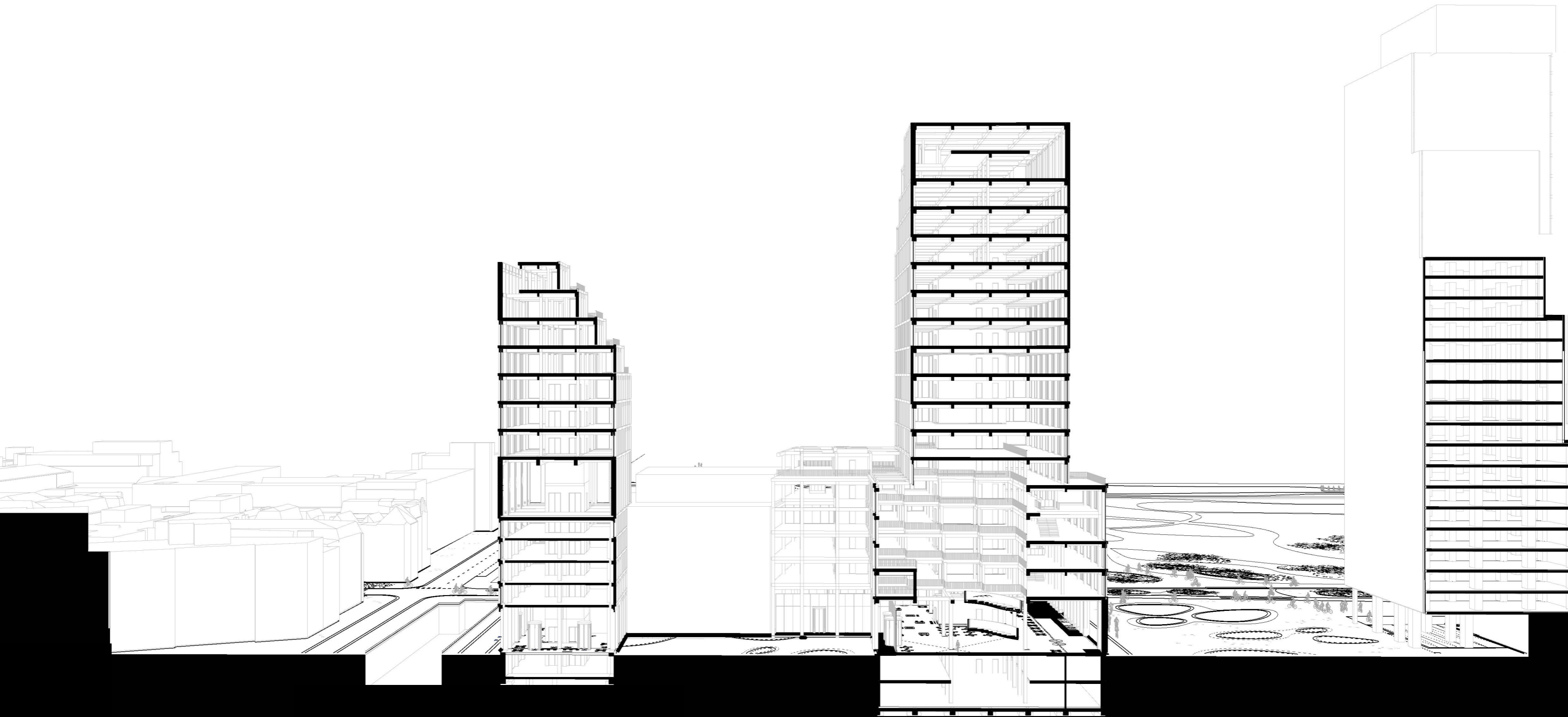
# Section with Resulting (Internal Flows)

Design

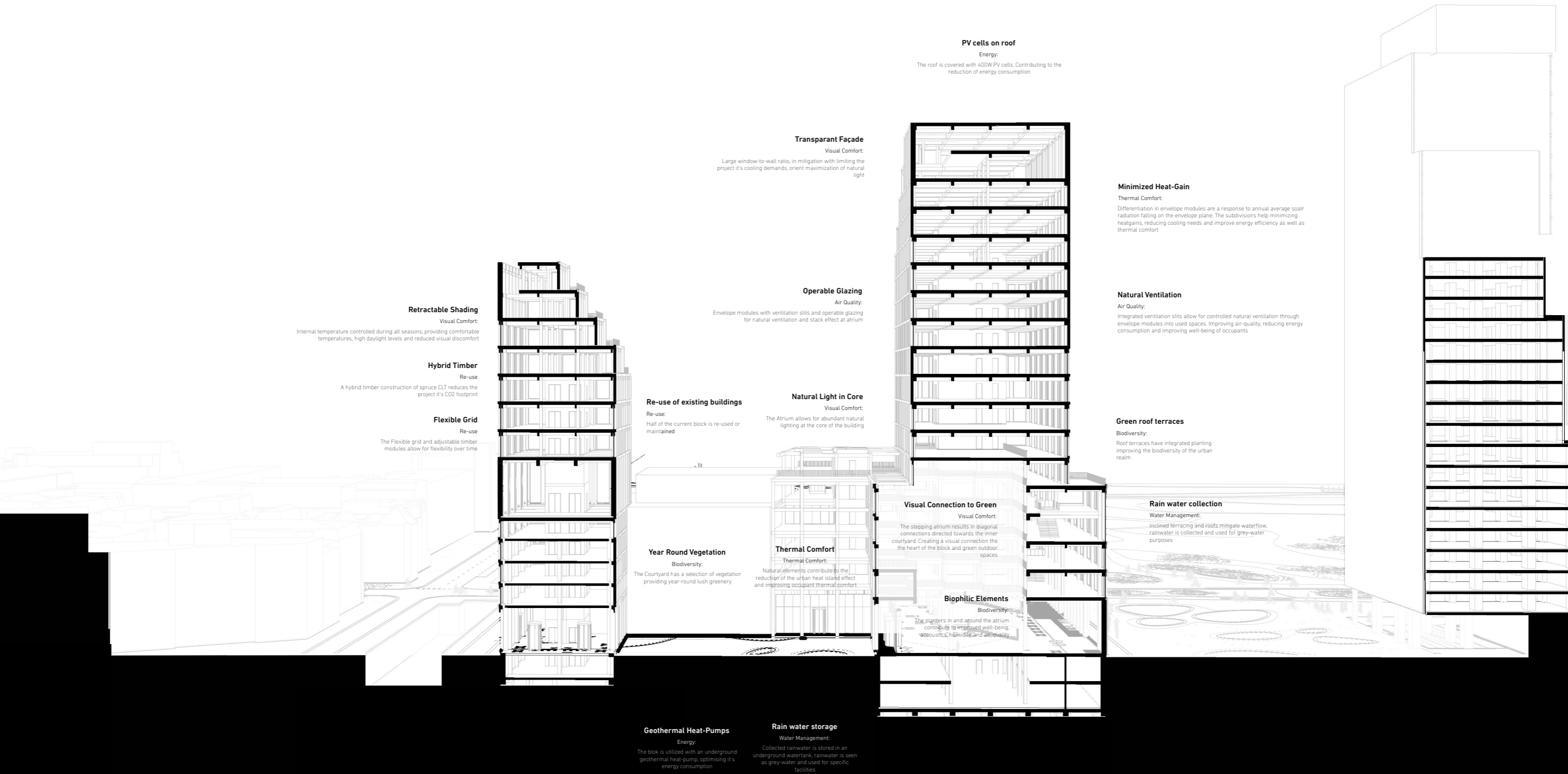


# Overview

Design

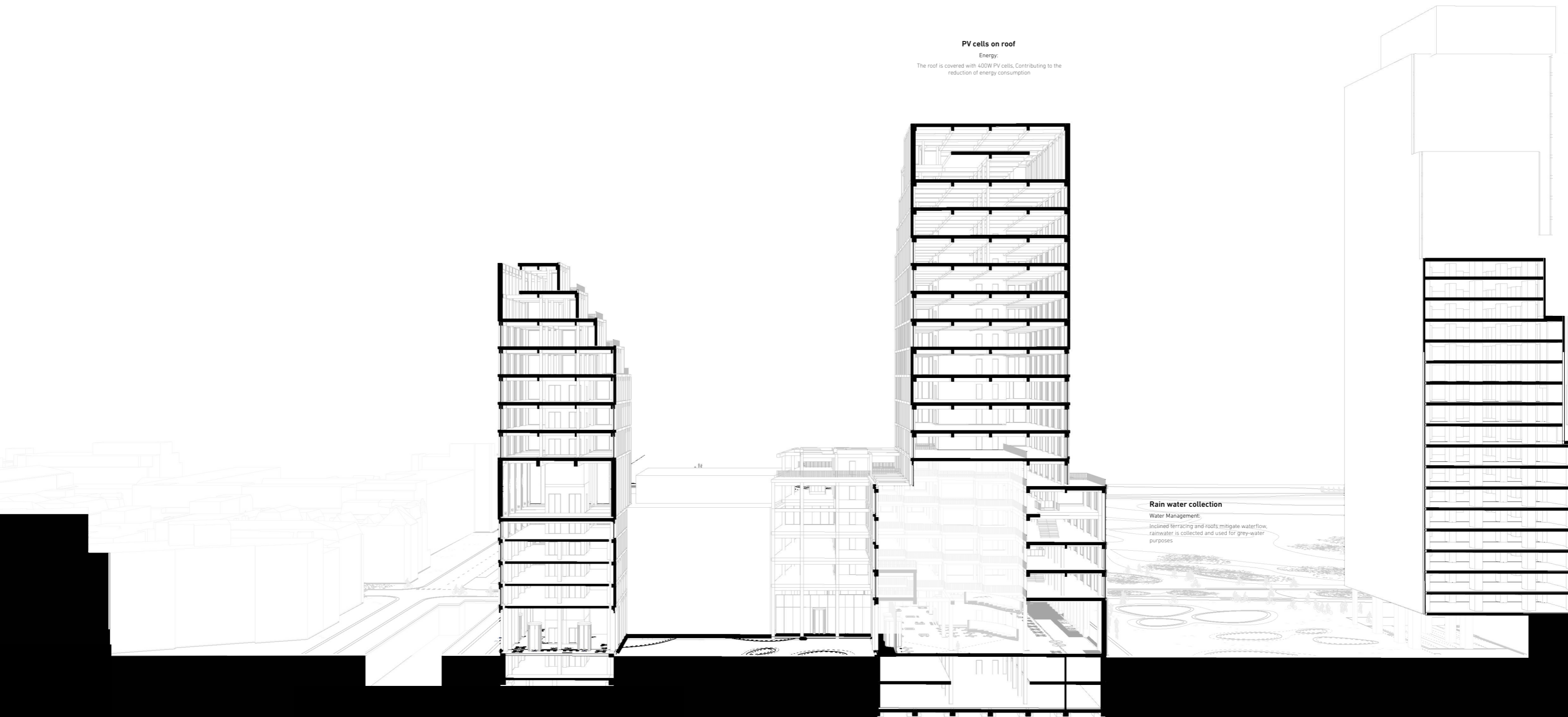


# Climate Concept - Total Design



# Climate Concept - Energetic

## Design



### PV cells on roof

Energy:  
The roof is covered with 400W PV cells. Contributing to the reduction of energy consumption

### Rain water collection

Water Management:  
Inclined terracing and roofs mitigate water flow, rainwater is collected and used for grey-water purposes

### Geothermal Heat-Pumps

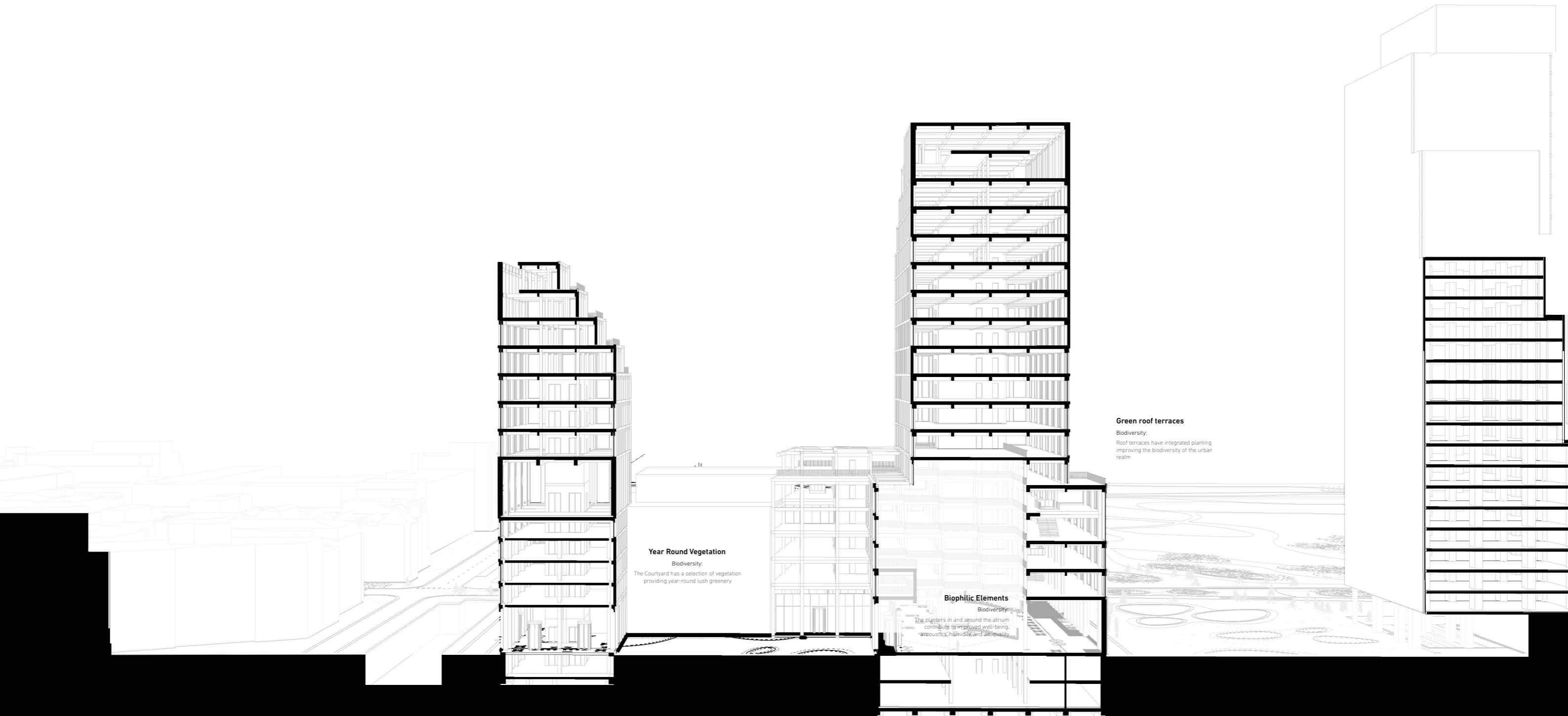
Energy:  
The blok is utilized with an underground geothermal heat-pump, optimising it's energy consumption

### Rain water storage

Water Management:  
Collected rainwater is stored in an underground watertank, rainwater is seen as grey-water and used for specific facilities

# Climate Concept - Biodiversity

Design



### Year Round Vegetation

Biodiversity:  
The Courtyard has a selection of vegetation providing year-round lush greenery

### Biophilic Elements

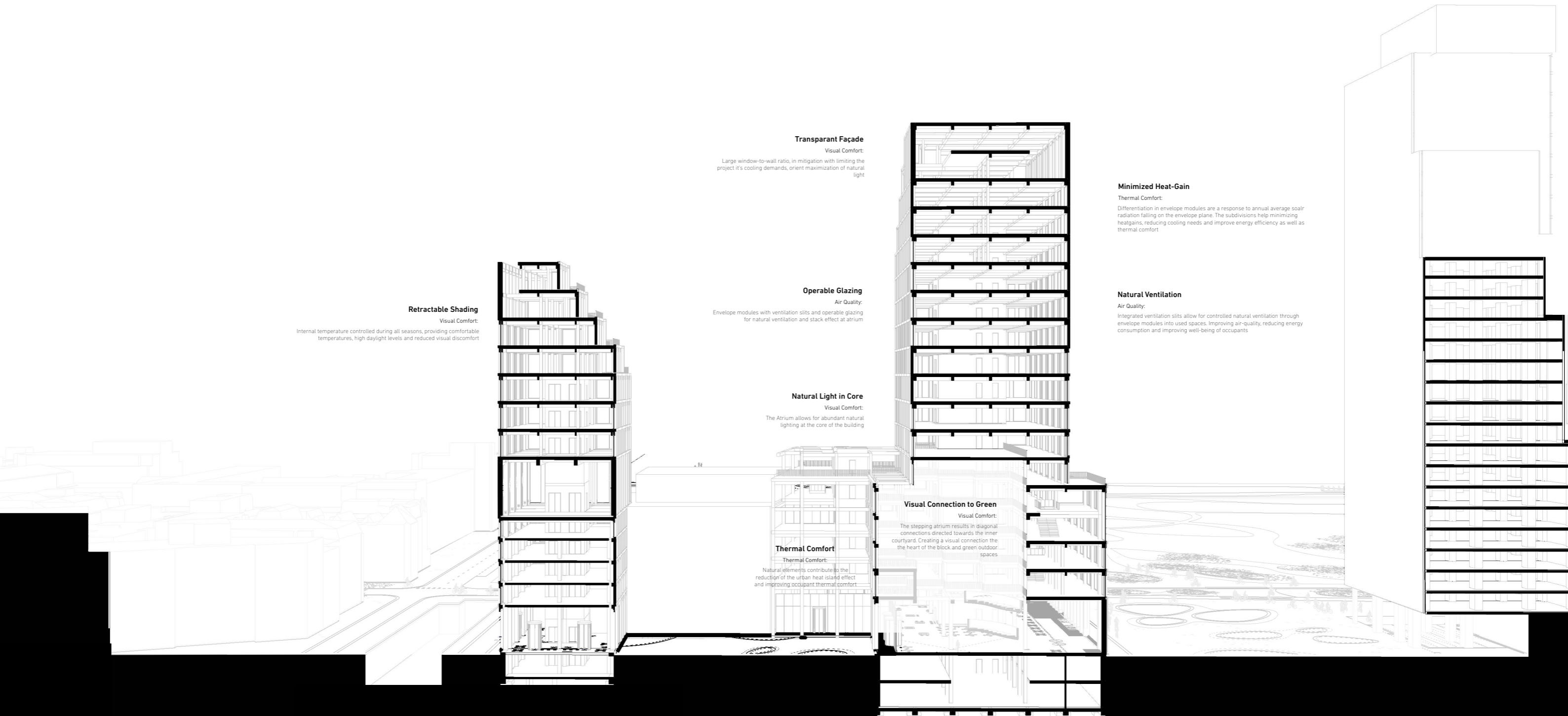
Biodiversity:  
The planters in and around the atrium contribute to improved well-being, acoustics, humidity, and air quality

### Green roof terraces

Biodiversity:  
Roof terraces have integrated planting improving the biodiversity of the urban realm

# Climate Concept - Thermal, Visual comfort

## Design



### Retractable Shading

Visual Comfort:  
Internal temperature controlled during all seasons, providing comfortable temperatures, high daylight levels and reduced visual discomfort

### Transparent Façade

Visual Comfort:  
Large window-to-wall ratio, in mitigation with limiting the project it's cooling demands, orient maximization of natural light

### Operable Glazing

Air Quality:  
Envelope modules with ventilation slits and operable glazing for natural ventilation and stack effect at atrium

### Natural Light in Core

Visual Comfort:  
The Atrium allows for abundant natural lighting at the core of the building

### Thermal Comfort

Thermal Comfort:  
Natural elements contribute to the reduction of the urban heat island effect and improving occupant thermal comfort

### Visual Connection to Green

Visual Comfort:  
The stepping atrium results in diagonal connections directed towards the inner courtyard. Creating a visual connection the heart of the block and green outdoor spaces

### Minimized Heat-Gain

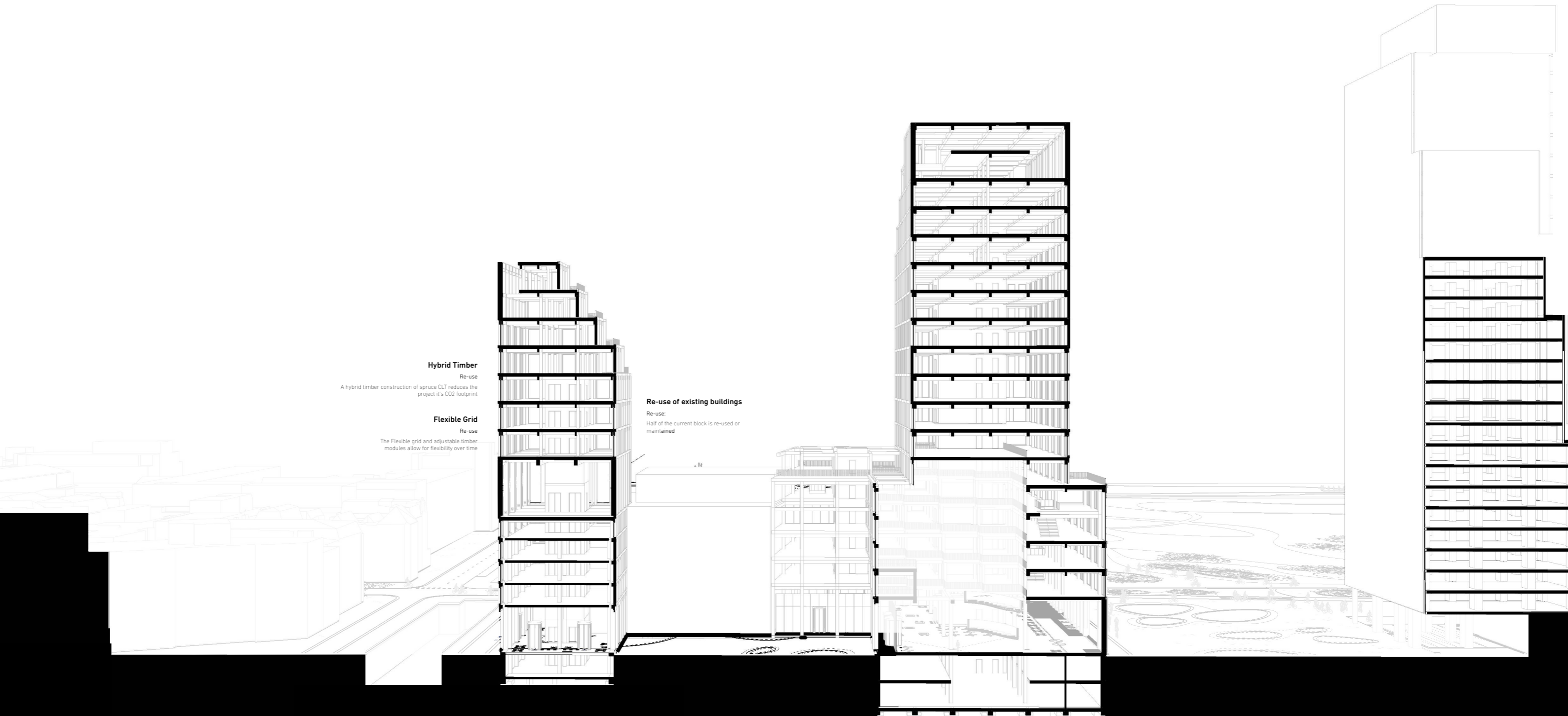
Thermal Comfort:  
Differentiation in envelope modules are a response to annual average solar radiation falling on the envelope plane. The subdivisions help minimizing heatgains, reducing cooling needs and improve energy efficiency as well as thermal comfort

### Natural Ventilation

Air Quality:  
Integrated ventilation slits allow for controlled natural ventilation through envelope modules into used spaces. Improving air-quality, reducing energy consumption and improving well-being of occupants

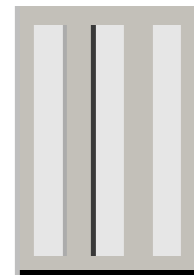
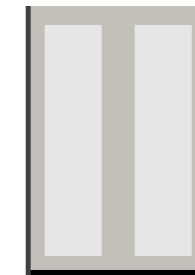
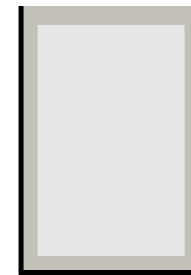
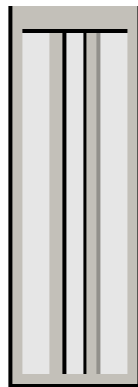
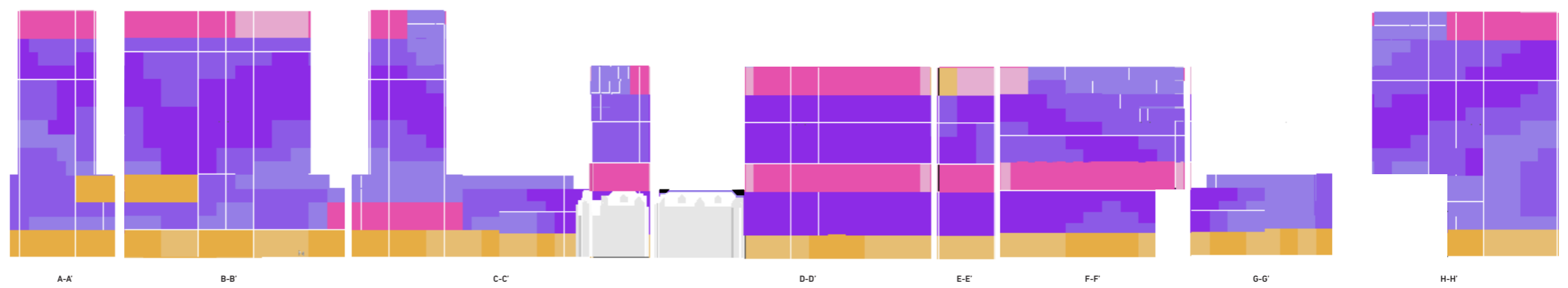
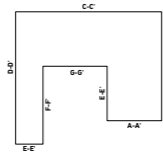
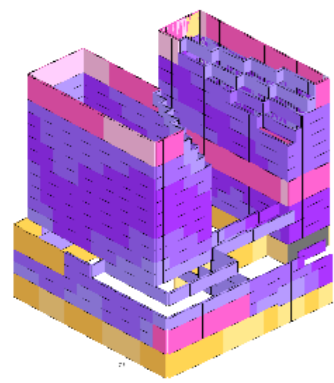
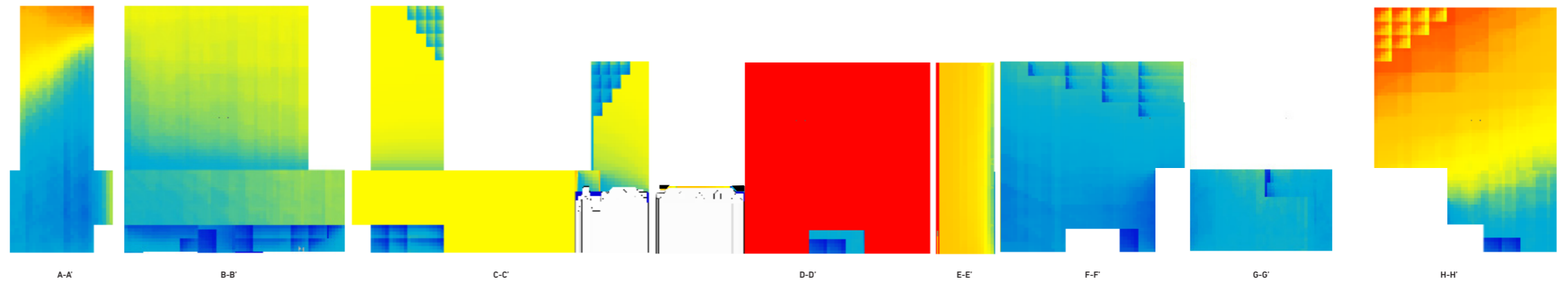
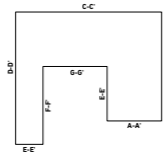
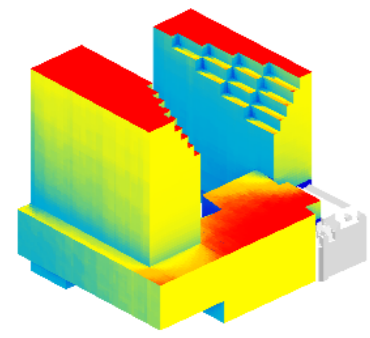
# Climate Concept - Re-use & Adaptability

## Design



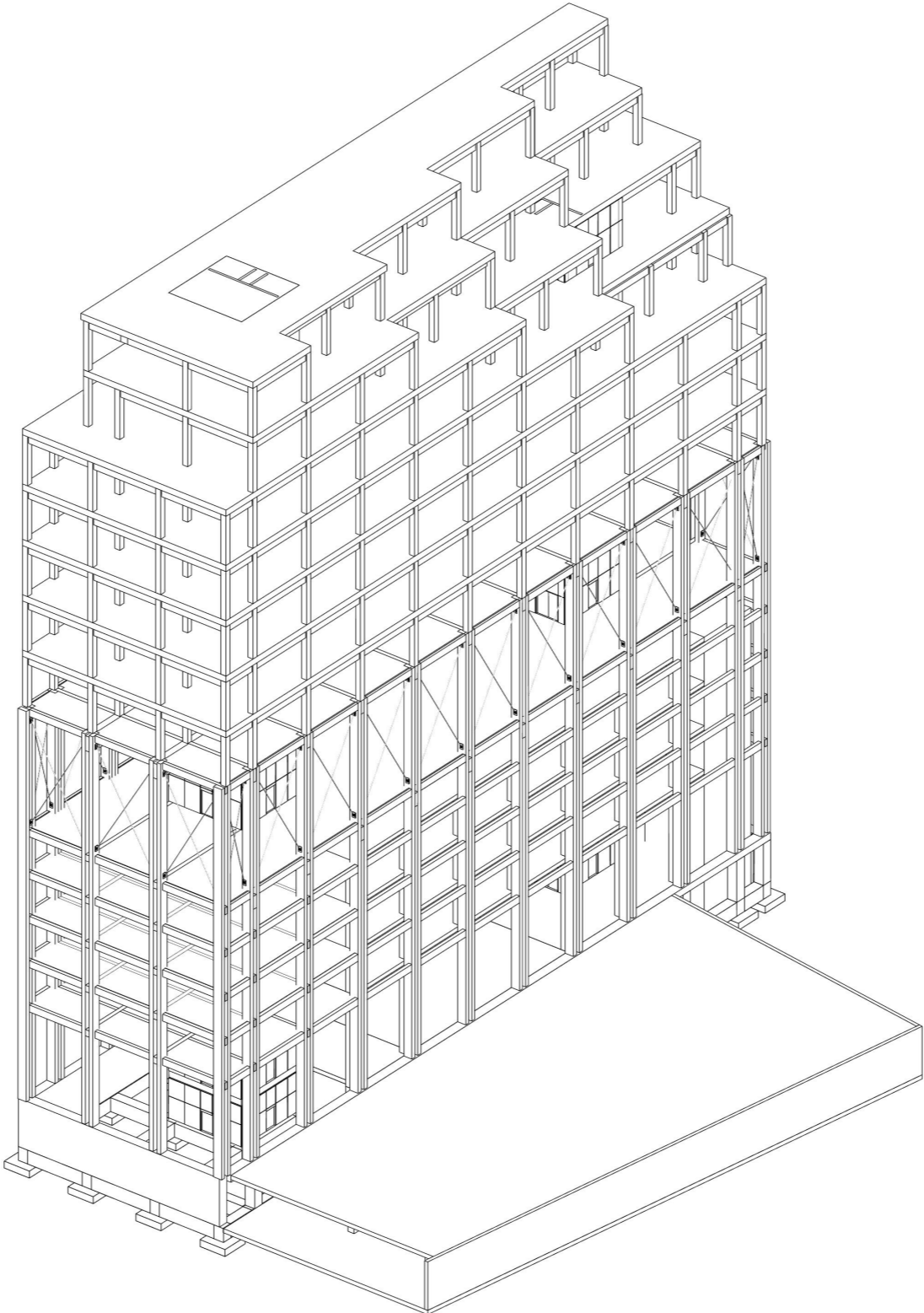
# Envelope Design - Responsive Modules

Design



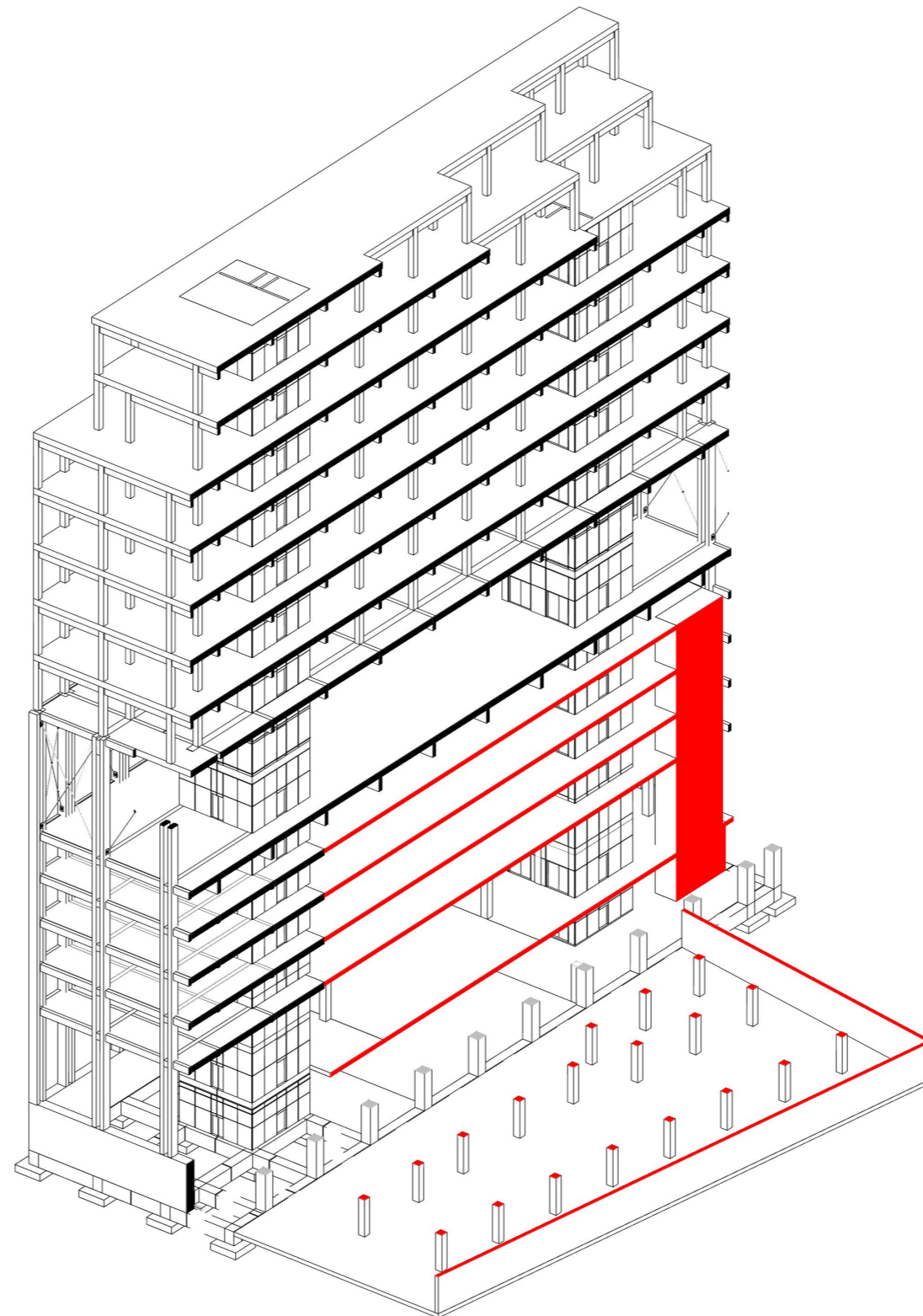
# Structural Scheme - Old-New Total

Design



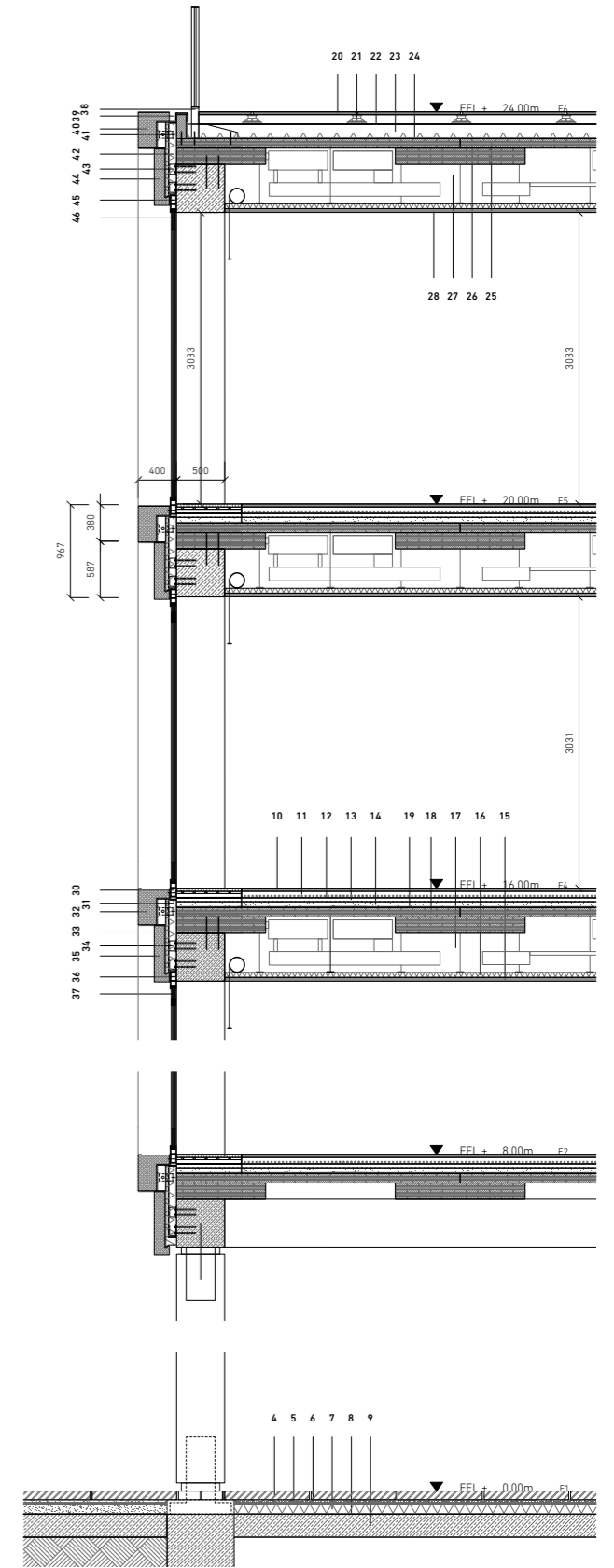
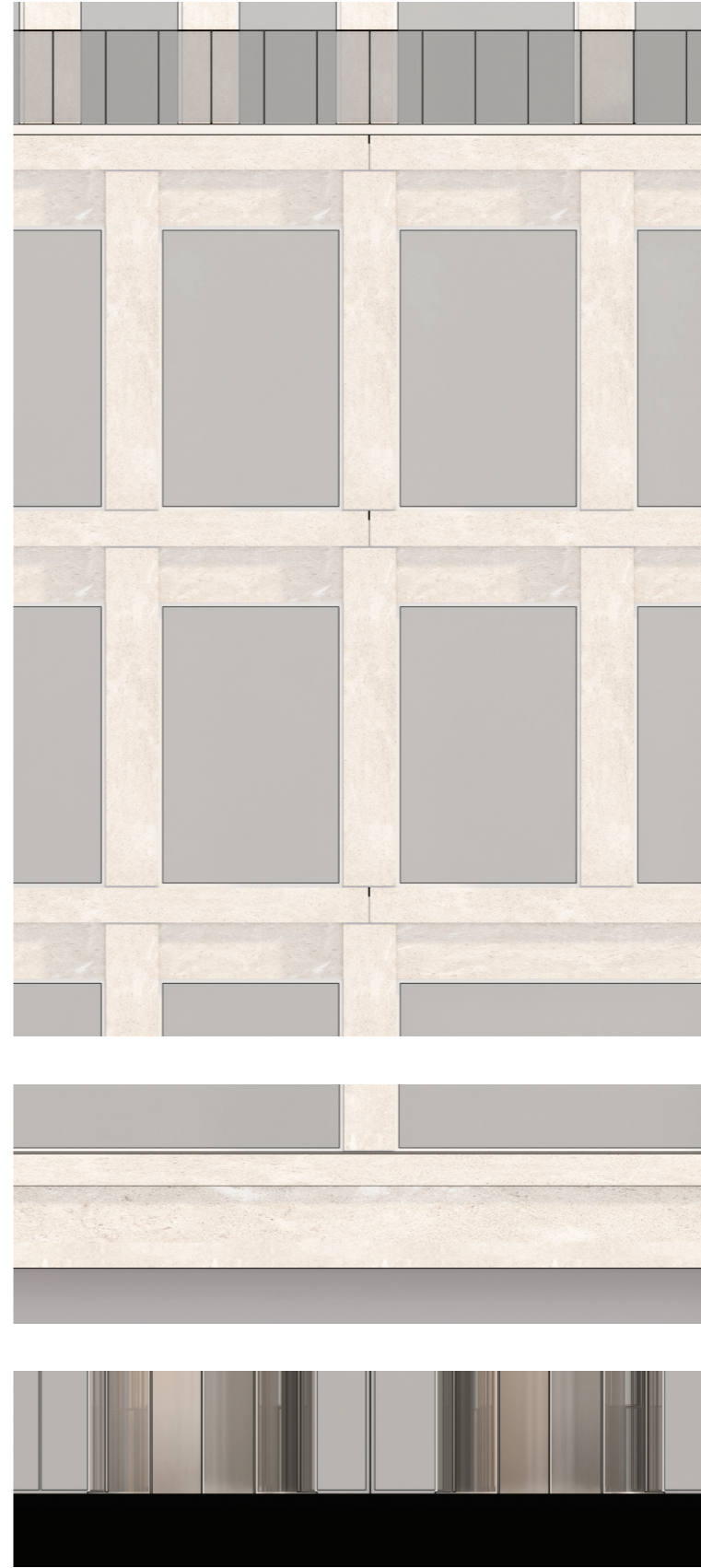
# Structural Scheme - Old-New Section

Design



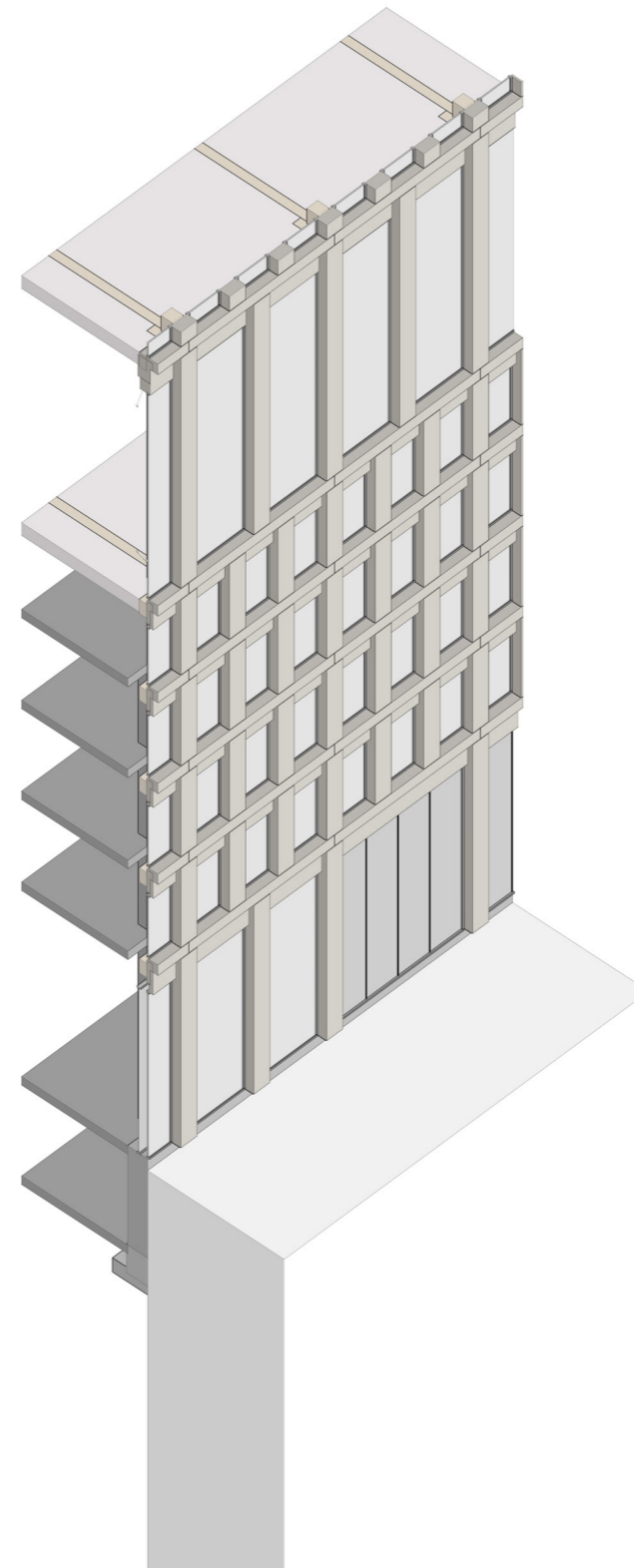
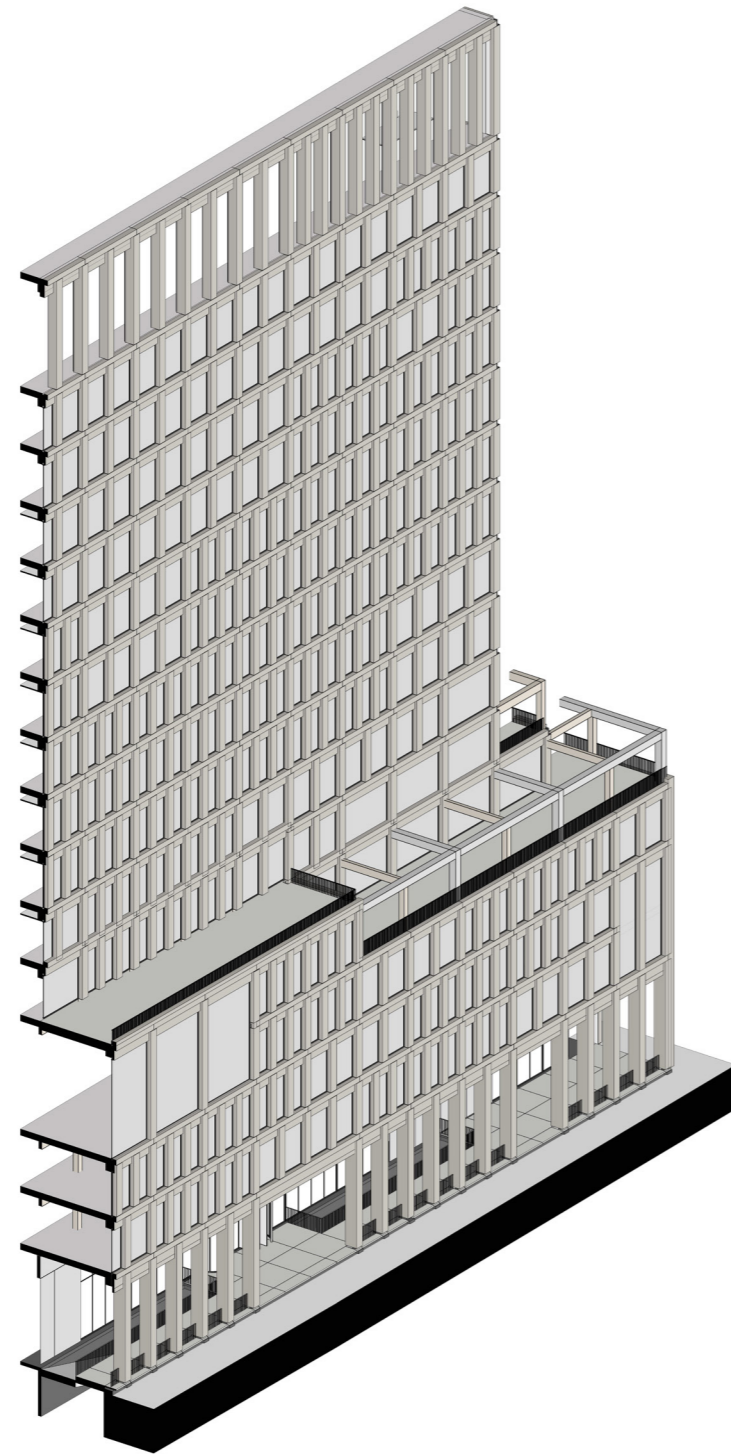
# Facade Fragment

Design



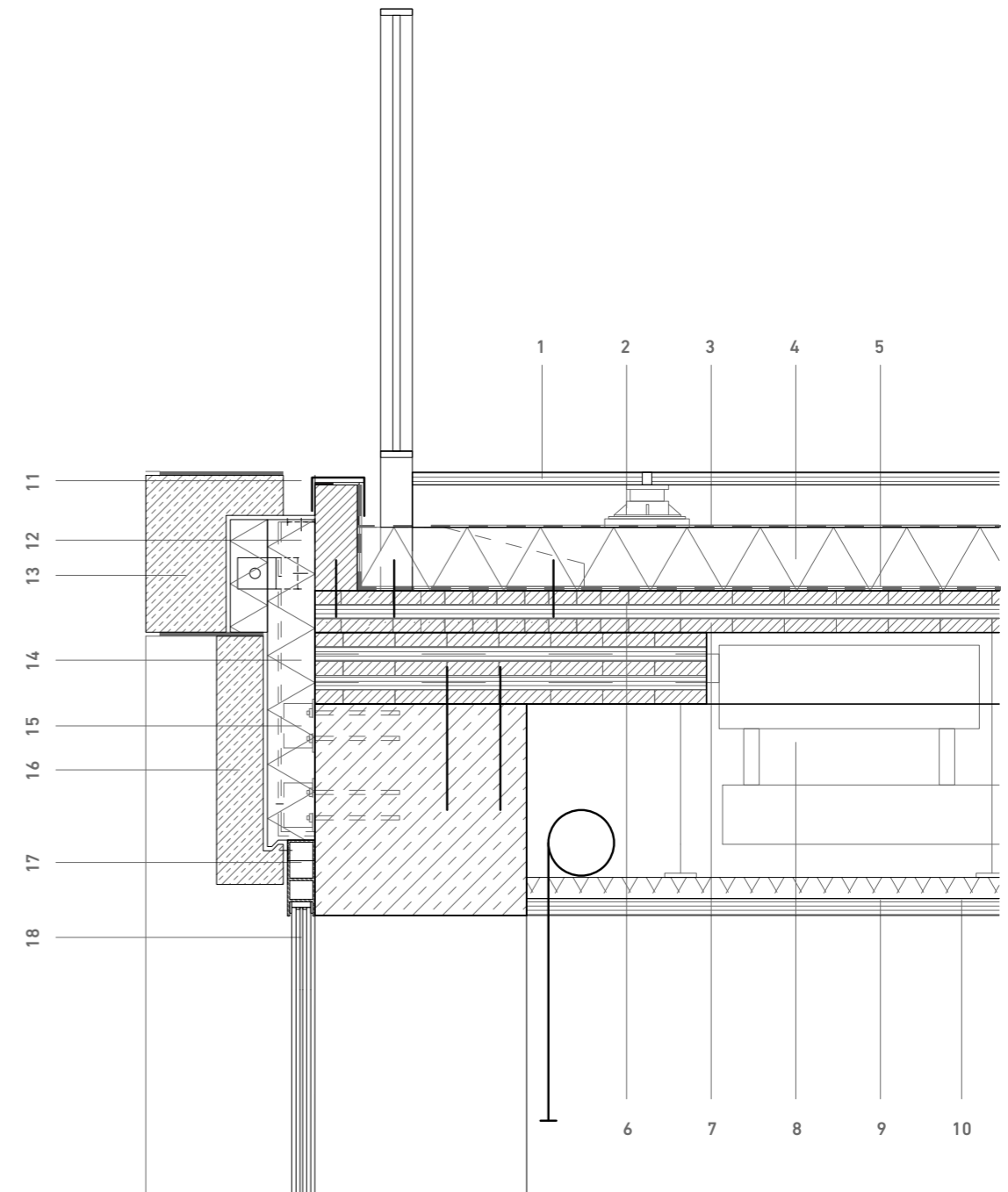
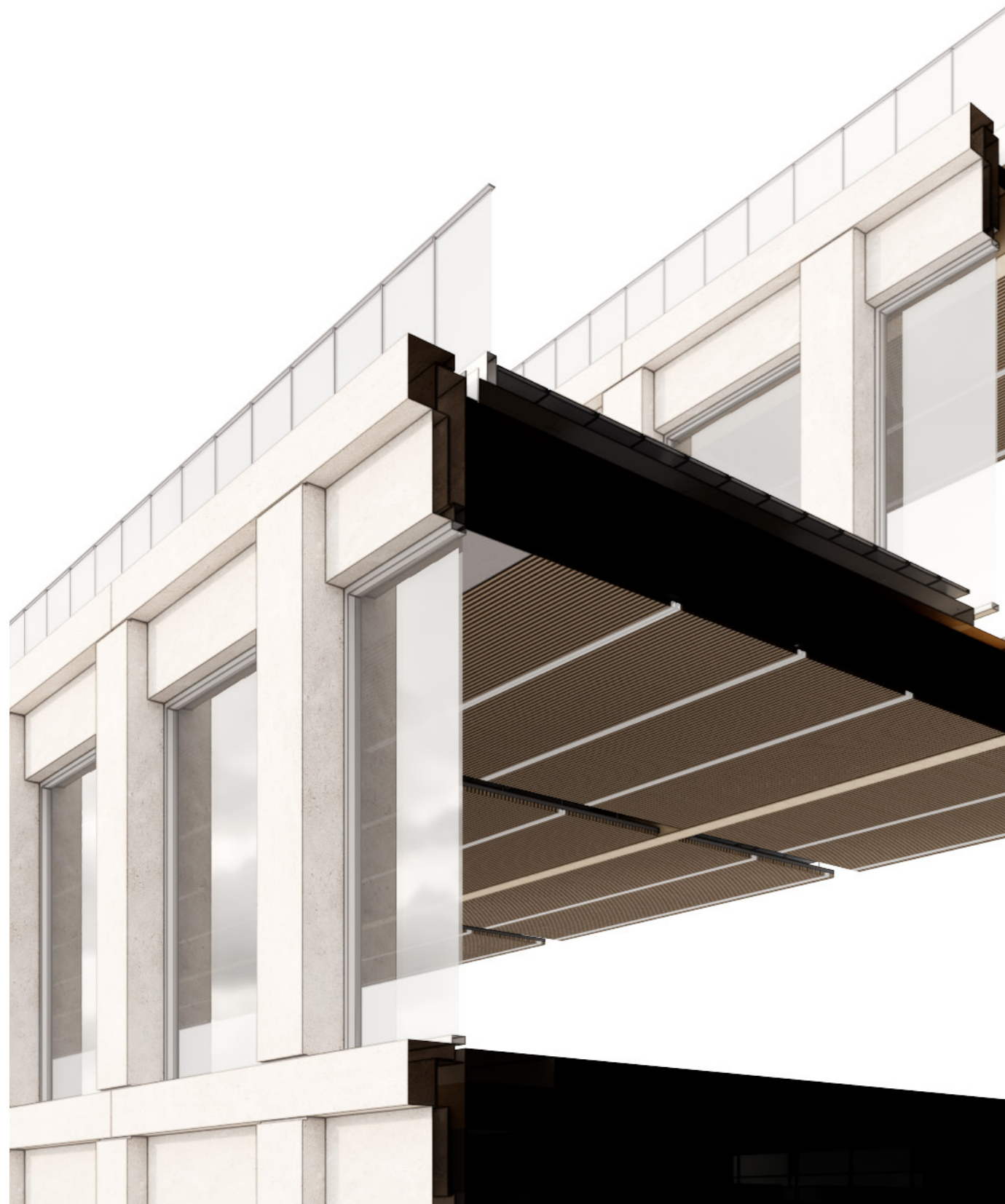
# Facade Fragments

Design



# Detail

Design



### Envelope Outdoor Terrace

- 11. 90mm aluminium framing
- 12. Rainwater gutter
- 13. Shell limestone sill panel
- 14. Insulated steel joint profile

- 15. Mineral wool 100mm
- 16. Insulated steel joint profile
- 17. Shell limestone sill panel
- 18. 90mm aluminium framing
- 19. 3-layered low-e low-u glasst

### Terracing Slab

- 1. 30mm Shell-Limestone Slab
- 2. Paving support pads with top panel
- 3. PE Foil
- 4. Mineral wool to fall
- 5. Two-Ply polymer bitumen membrane

- 6. 3-Ply Cross Laminated Timber, C24
- 7. 5-Ply Cross, Laminated Timber, C24
- 8. Installation Cavity
- 9. Sound Insulation 50mm
- 10. Silver Fir Battens 30/40 mm

Introduction

Research Overview

Context (thematic 1)

Program (thematic 2)

Design

Embedment in Context [City / Neighbourhood]

Building(s) / Ensemble

Building(s) / Spaces

Building(s) Parts

**Conclusions**

## Research Question

Conclusion

*How to design a **hybrid educational system** and its corresponding environment that is **contextually and programmatically responsive**?*

# Unification

Conclusion

*Unification*

*unification of the city block and re-vitalisation of under-utilized urban realm*

# Framework

Conclusion

*Through a Hybrid Framework as adaptable Machine for a Matrix of Possibilities*

*Realised through the cartesian grid of the load-bearing structure and adaptable programmatic organisation,  
Reinforcing the experimental nature of education*

# Process

Conclusion

*The Public Realm as a Process*

*Positioned axes and new urban realm creates the educational centre embodying process*

Thank you!

