



COMPLEX PROJECTS

A NEW EXPERIENCE OF TRIALS

THE BERLIN REGIONAL CRIMINAL COURT

Elin Lohe
2022/2023



INTRODUCTION

German Court organization

Criminal Cases

State protection cases /
special significance:

Terrorism, espionage



↑
Appeal



↑
Appeal

Crimes **min. 4 years**
imprisonment / psychiatric
hospital / preventive detention:

Murder, manslaughter, serious
sexual offenses, robbery
resulting in death ...



↑
Appeal

Crimes **below 4 years**
imprisonment:

Thefts, fraud, insults,
minor physical harm ...



Federal Court of Justice Karlsruhe

Higher Regional Court Berlin

Regional Court Berlin

Local Court Tiergarten

Critical features of courthouses



Security
Düsseldorf Local and Regional Court. 2010



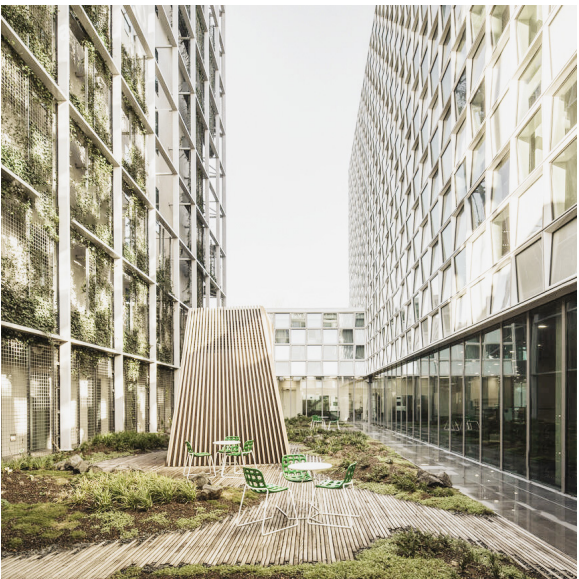
Division of flows
Antwerp Law Courts. 2005



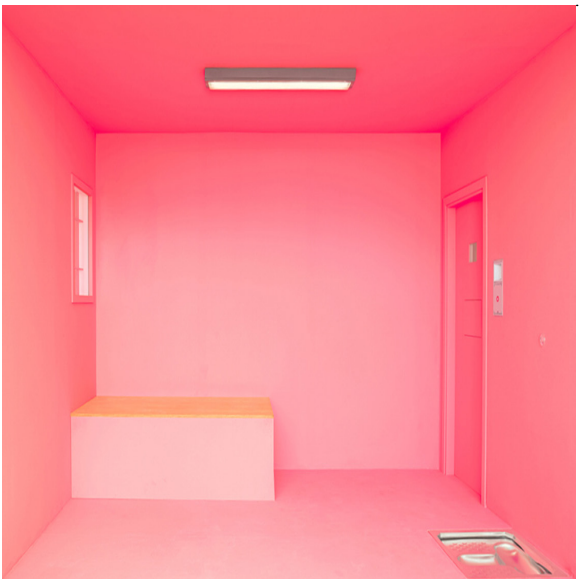
Waiting areas
Brisbane Supreme and District Court. 2012



Light
Antwerp Law Courts. 2005



Natural elements
International Criminal Court. 2015



Materials and Colors
Cool Down Pink
Lenzburg detention center



Courtroom art
Courthouse Amsterdam. 2020

PROGRAM

Security zones



Outdoor space



Public area



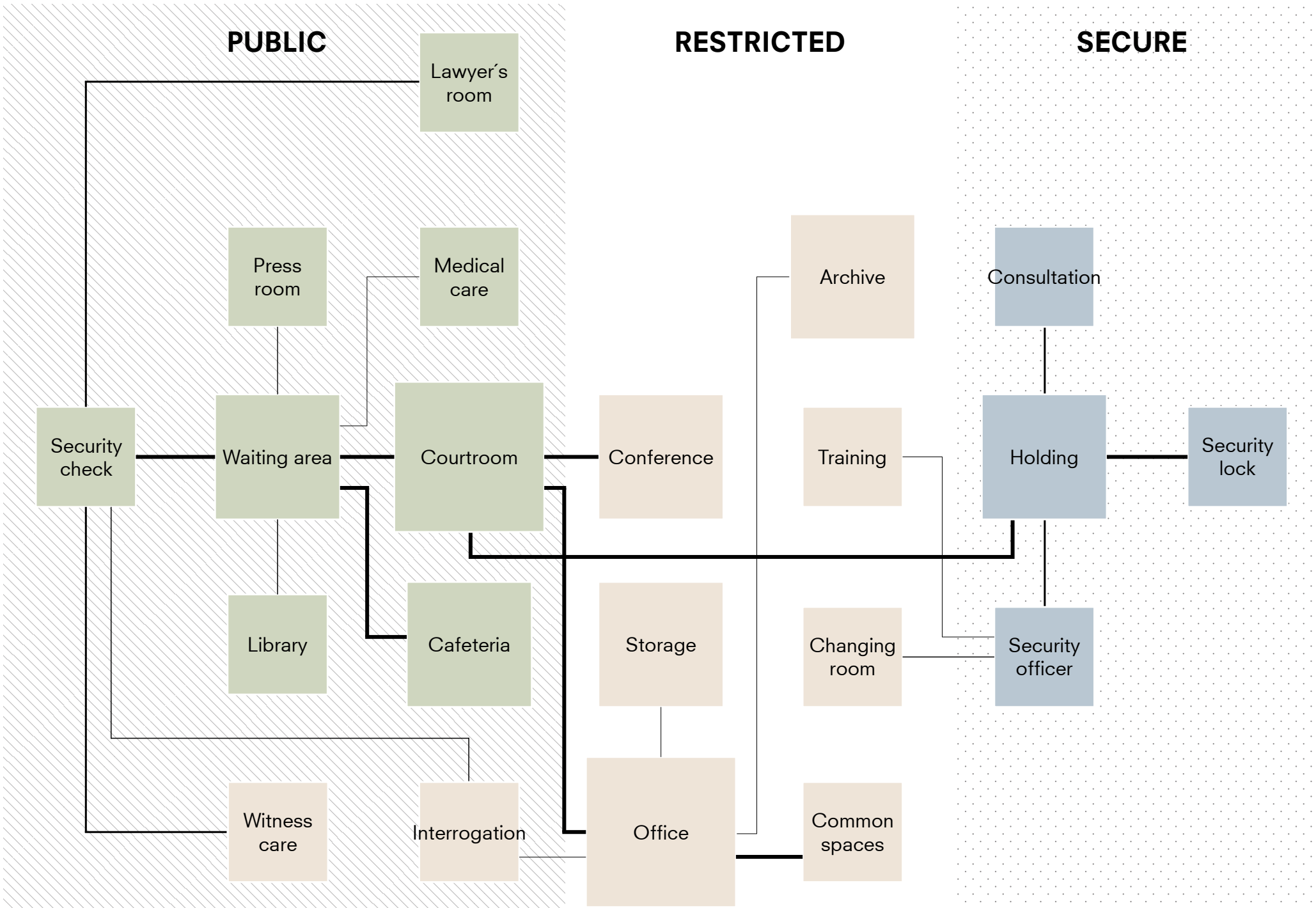
Restricted area



Secure area



Gross: 37 000 m²
Net: 31 800 m²



Public area

Restricted area

Secure area

Courtrooms 10.0%

Public area 35.0%

Offices 37.0%

Services 2.0%

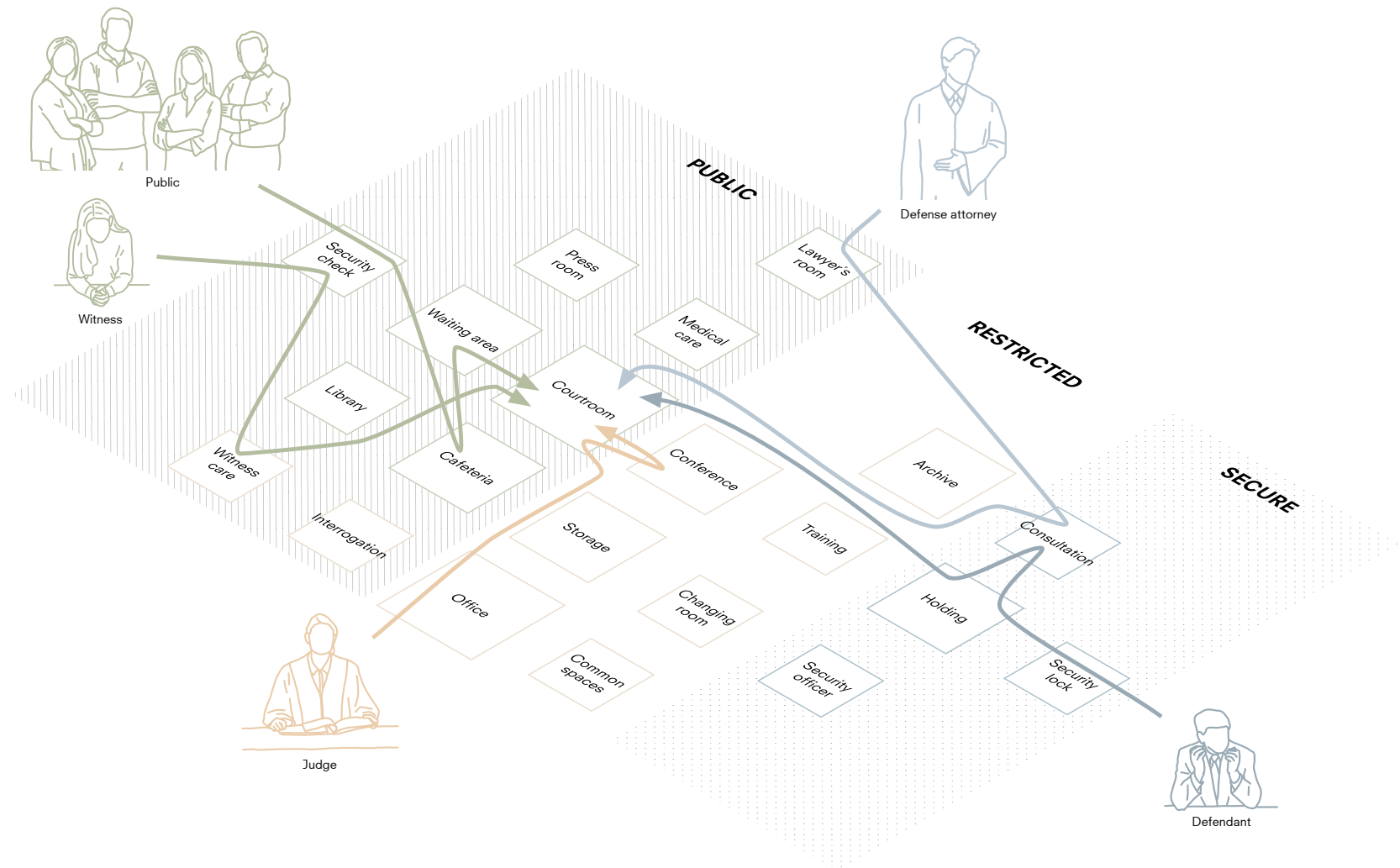
Parking 8.0%

Holding 8.0%

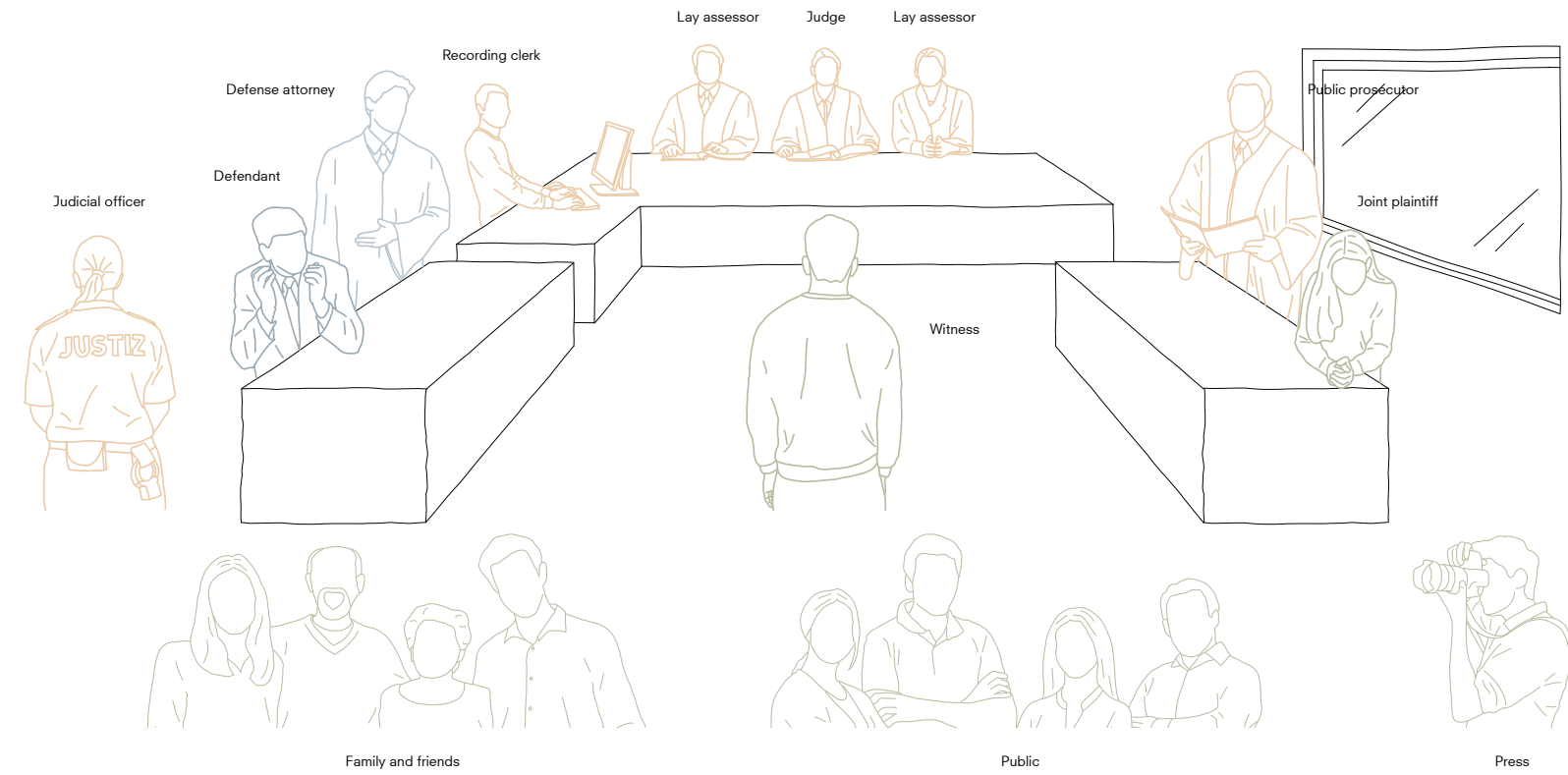
CLIENT

Courthouse user

User Flows



Typical courtroom



Berlin Citizens

Guidelines for Berlin City Center

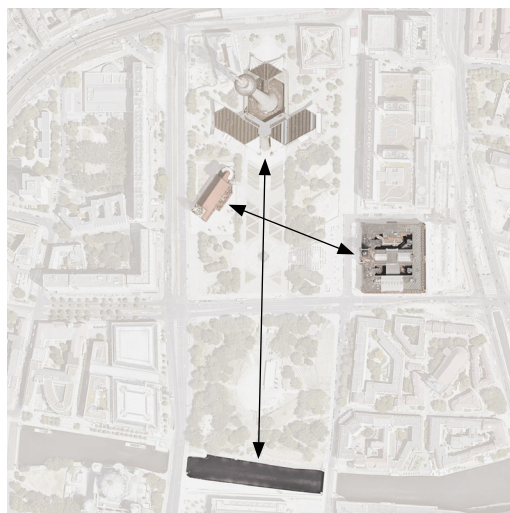
Defined 2016



Improvement green spaces



Public access to Spree



Visual relations

Responsibilities

User

Client

Maintenance



Planning of requirements and
user representative



Client representative



Green spaces



Courthouse

SITE

Requirements



1. Accessible by public transport



2. Connection to main road network



3. Connection to pretrial detention Moabit



4. No traffic congestion



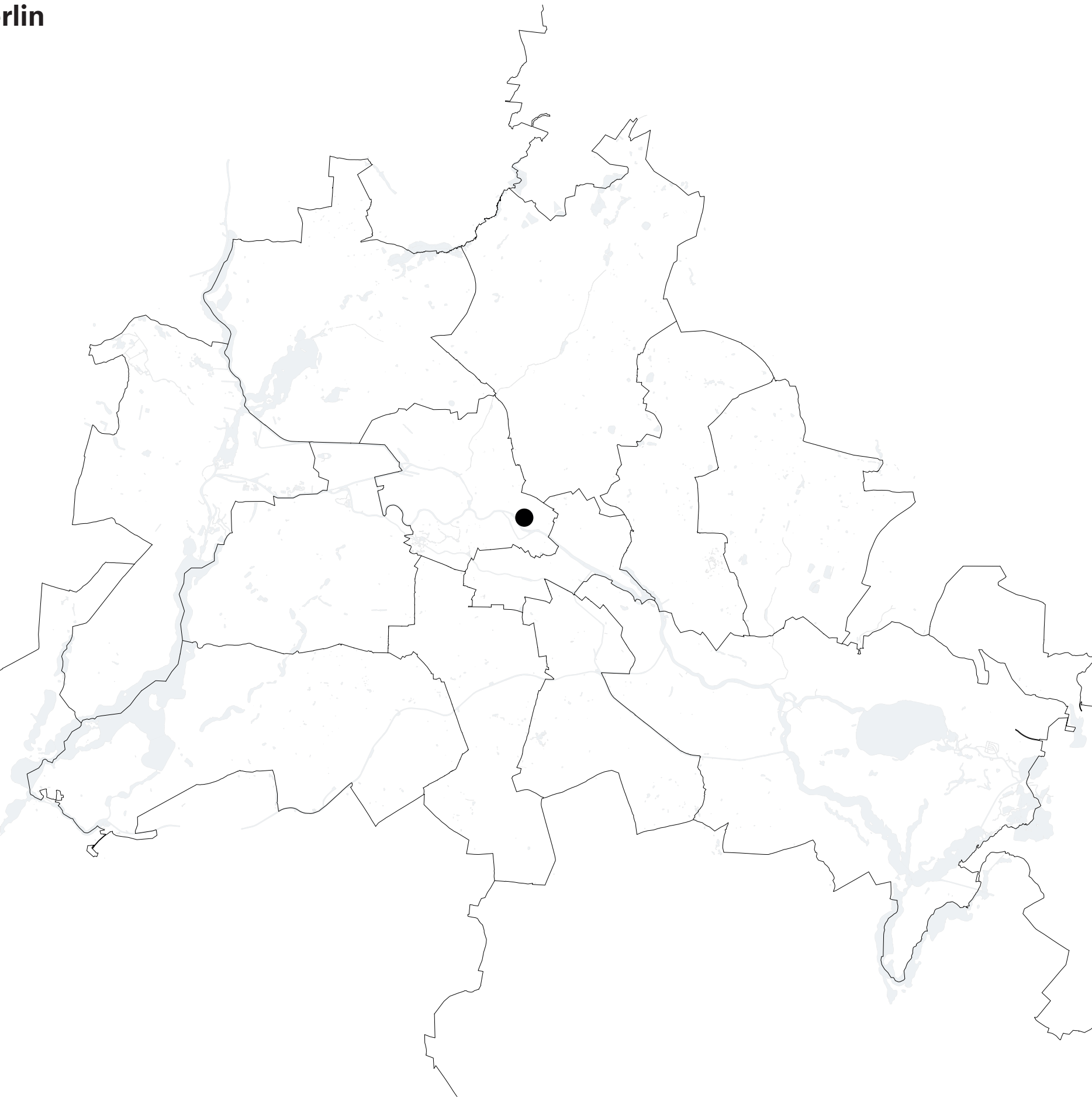
5. Two adjacent roads of 12m width



6. Landmark / Vocal Point

Site in context of Berlin

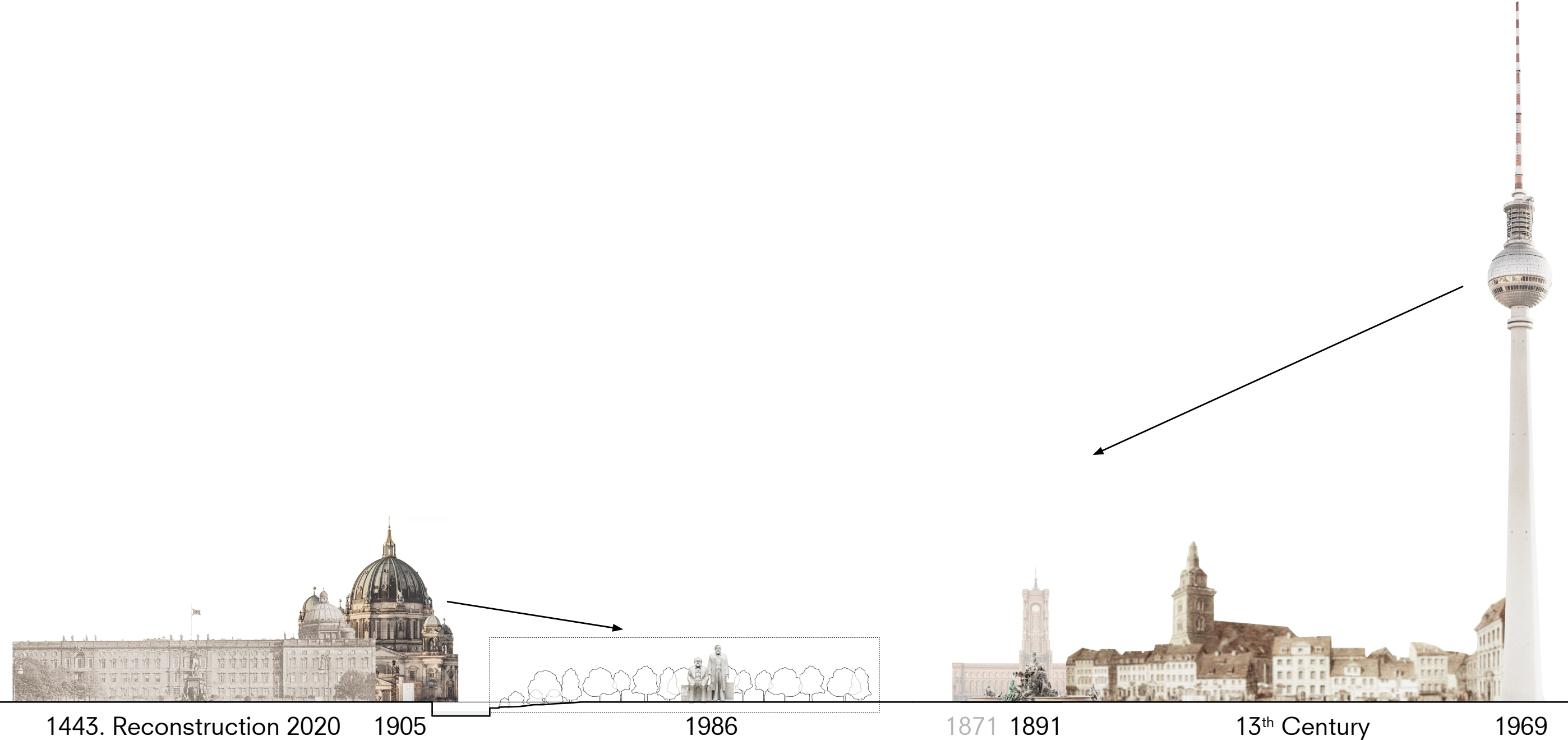
Marx-Engels-Forum



Present situation

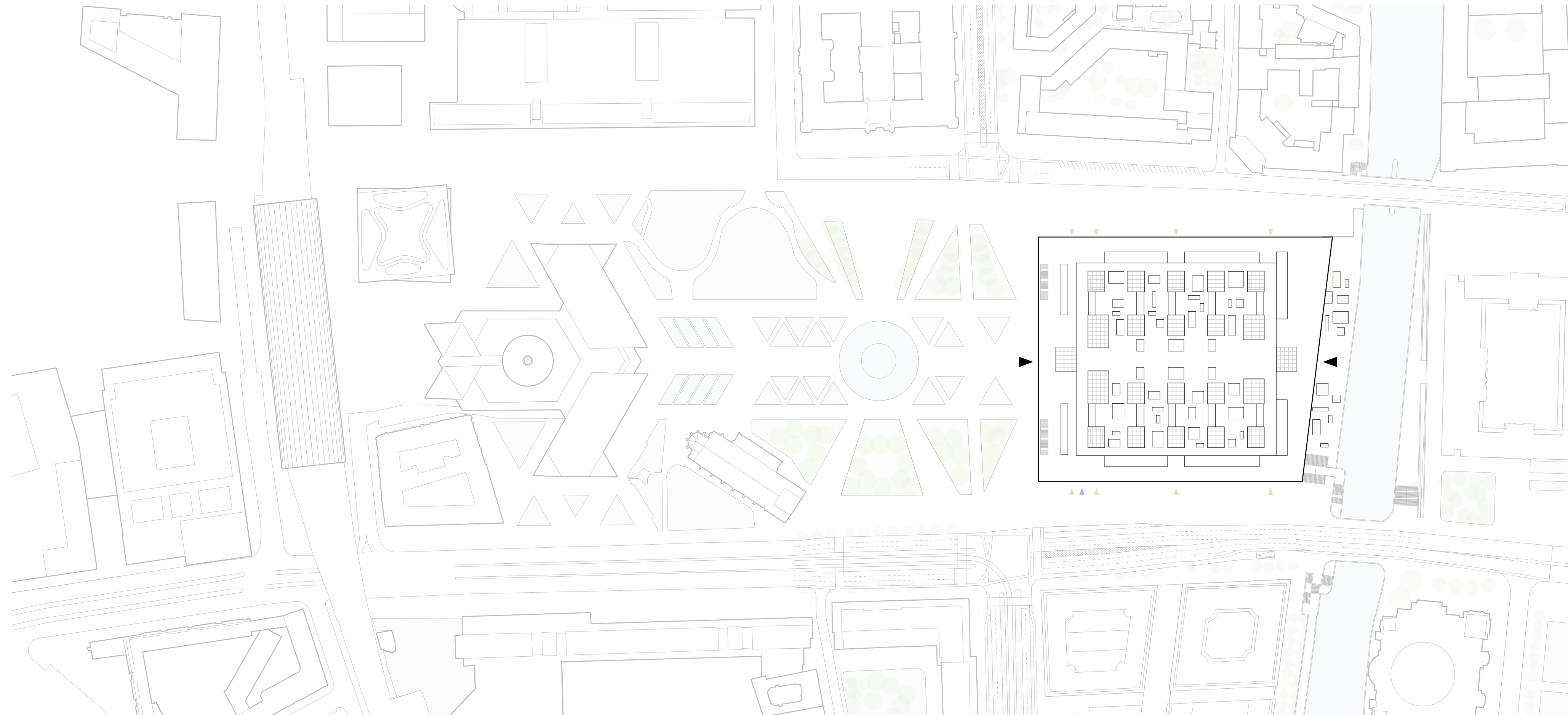
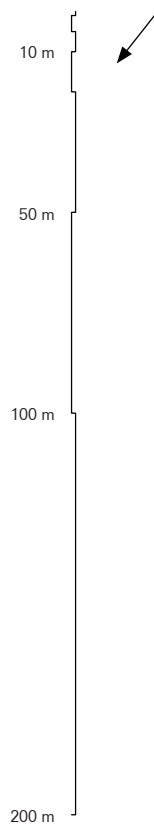


Historical surroundings



Master plan

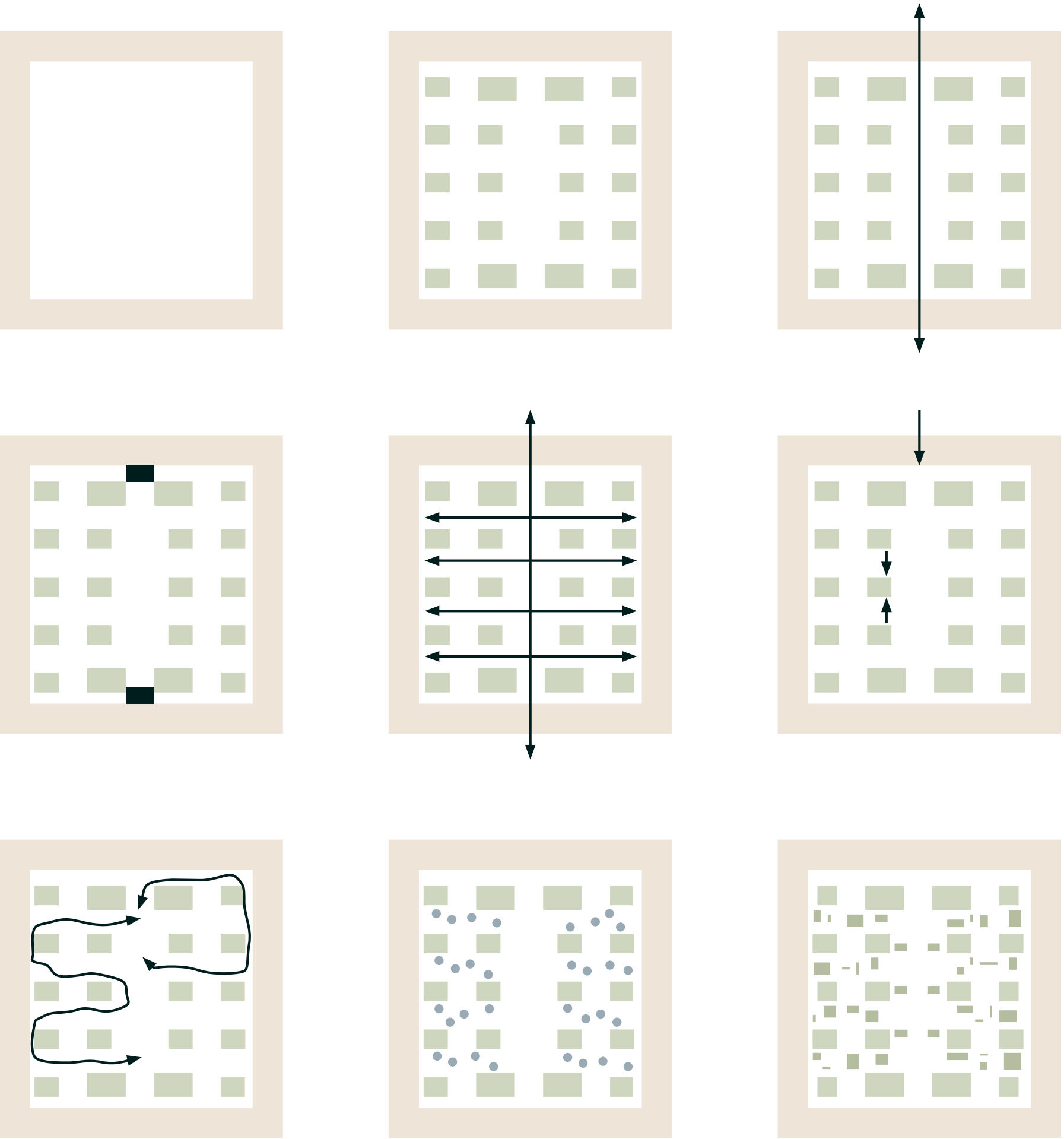
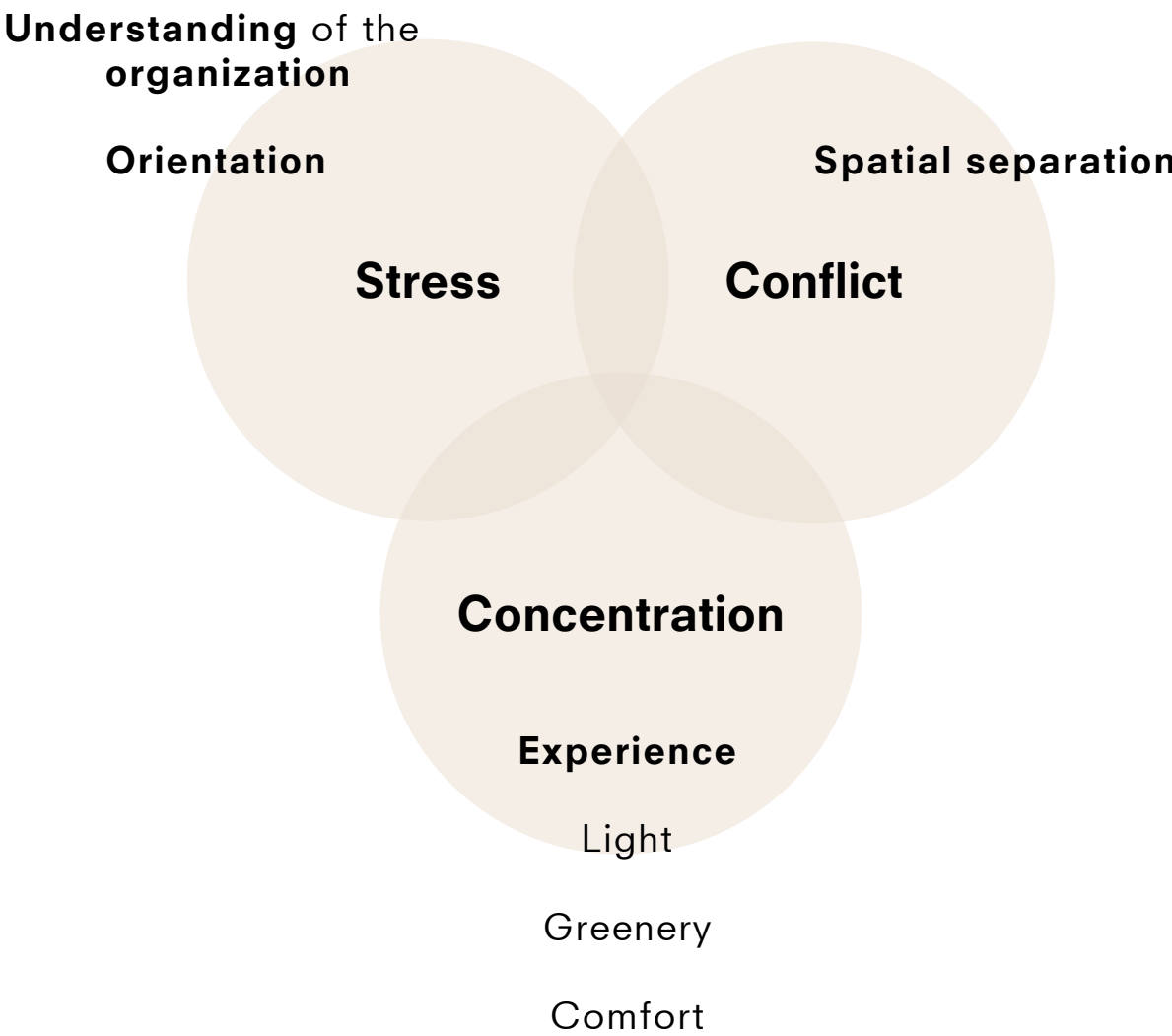
Level of detail. 1:1000



CONCEPT

Research question

What **spatial qualities** influence the **user's experience** in a manner that improves the **efficiency of processes** in a courthouse?



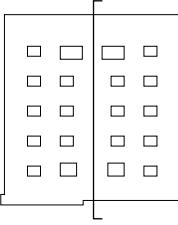
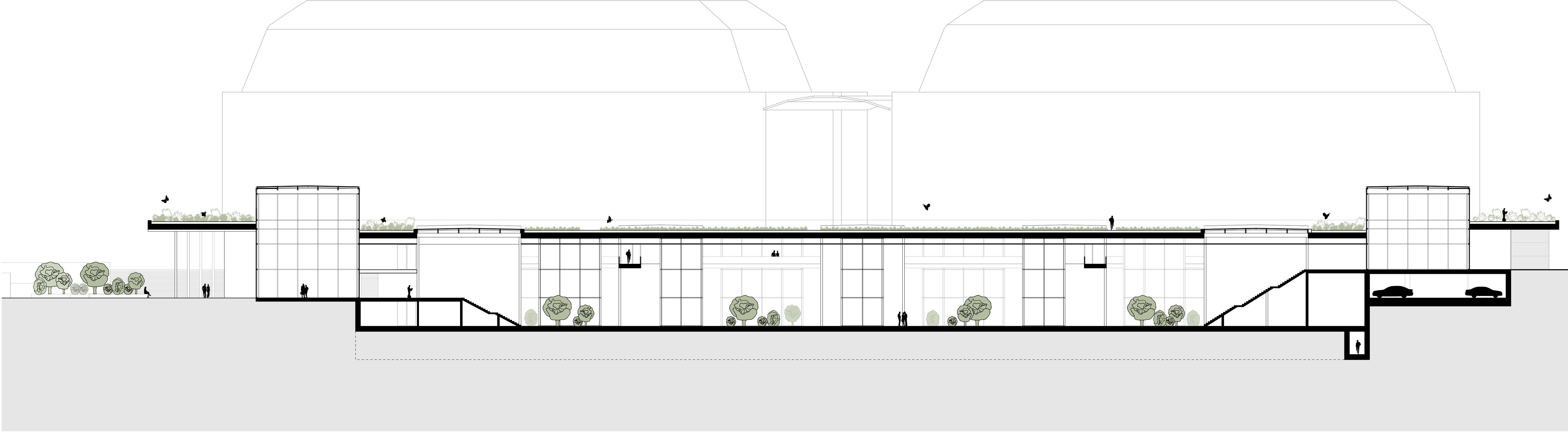
DESIGN

Section

Main axis

Level of detail. 1:200

1 m
5 m
10 m
50 m

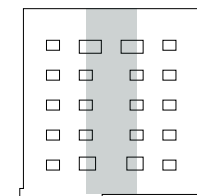




View after entering through public entrance



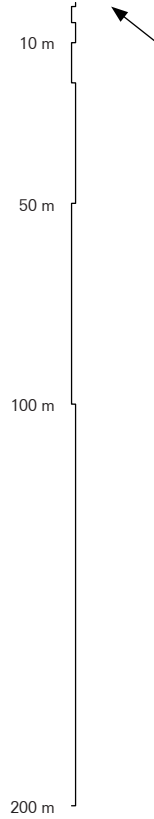
View from judges circulation bridges



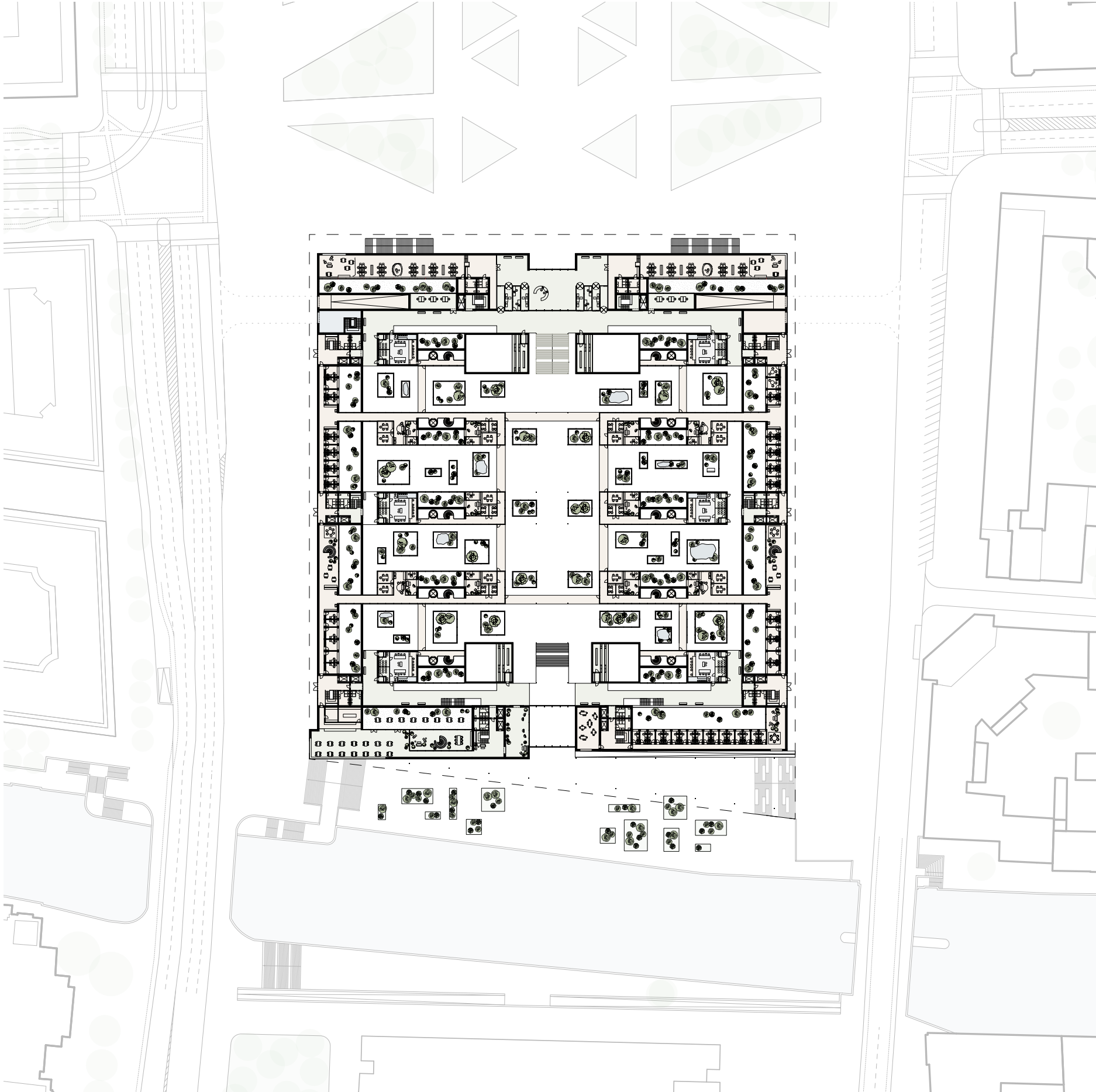
Open space courthouse

Master plan

Level of detail. 1:500

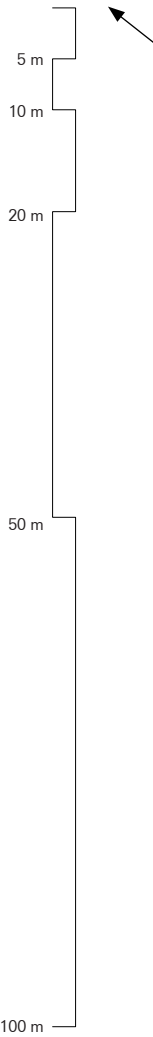


- Public
- Restricted
- Secure

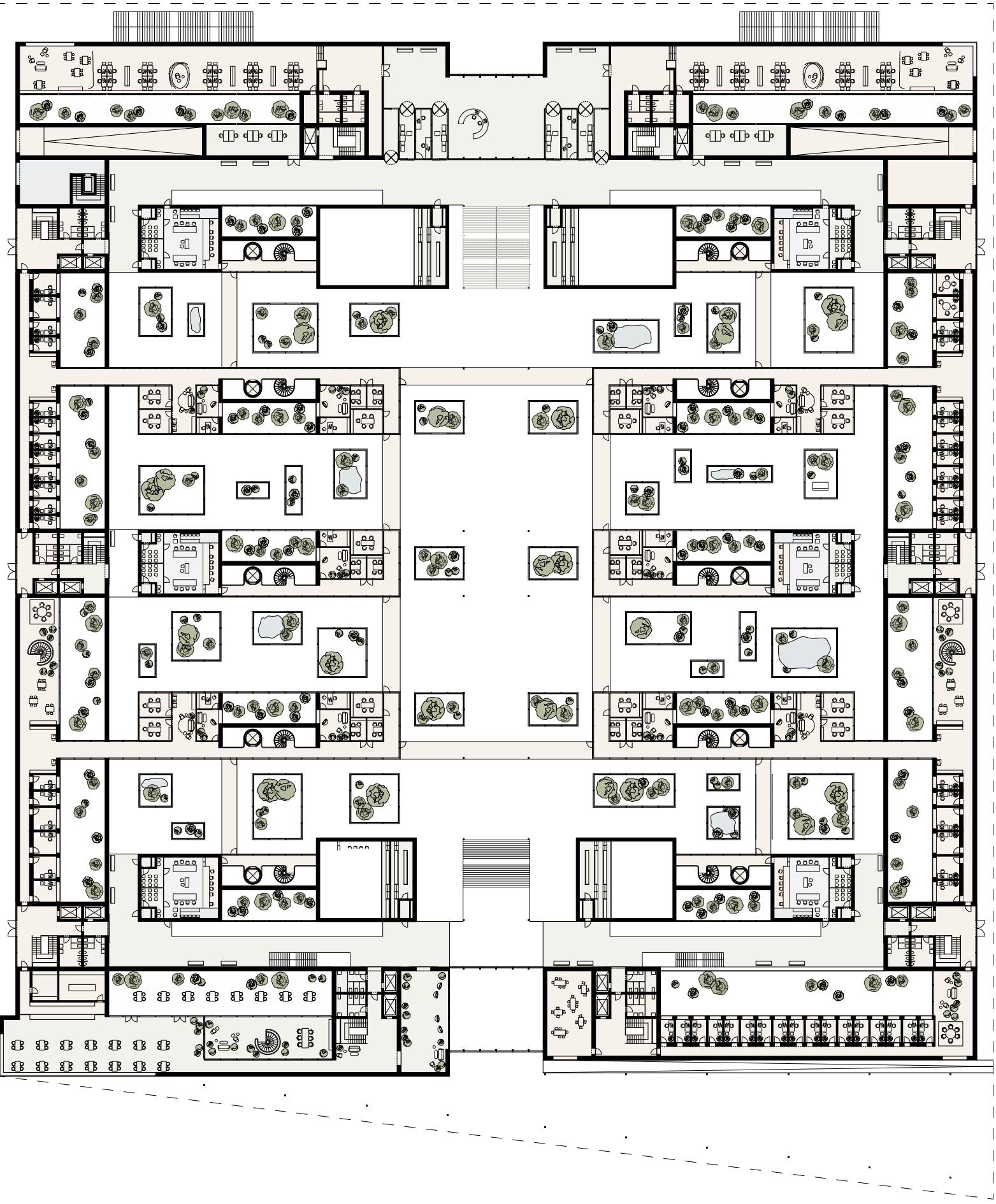


Ground floor

Level of detail. 1:200

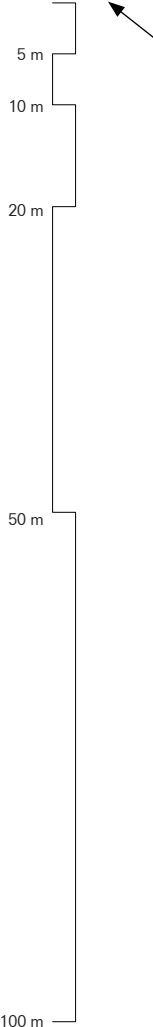


- Public
- Restricted
- Secure

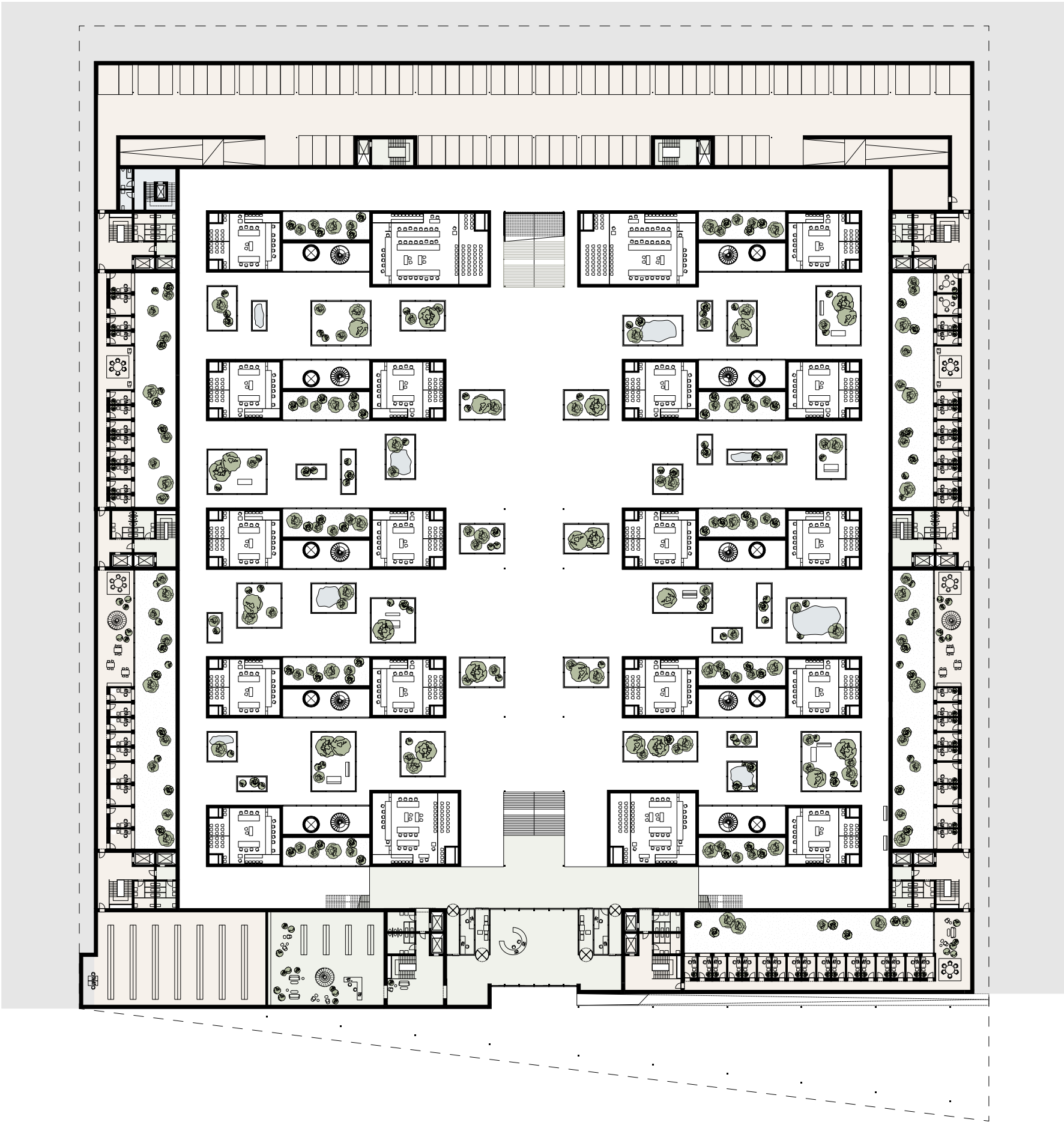


Level -1

Level of detail. 1:200

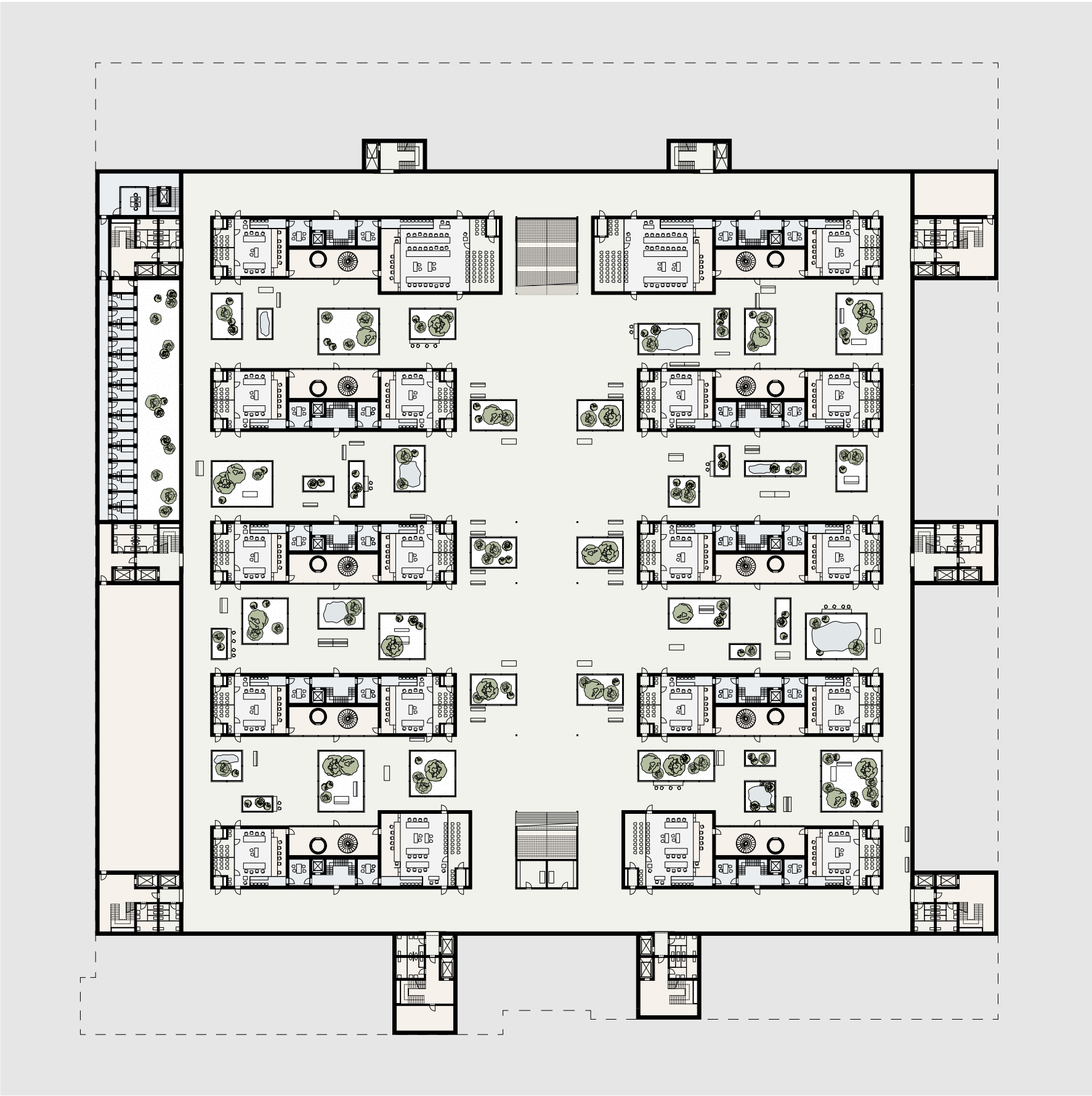


- Public
- Restricted
- Secure



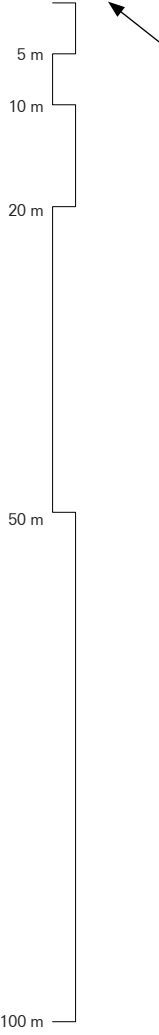
Level -2

Level of detail. 1:200

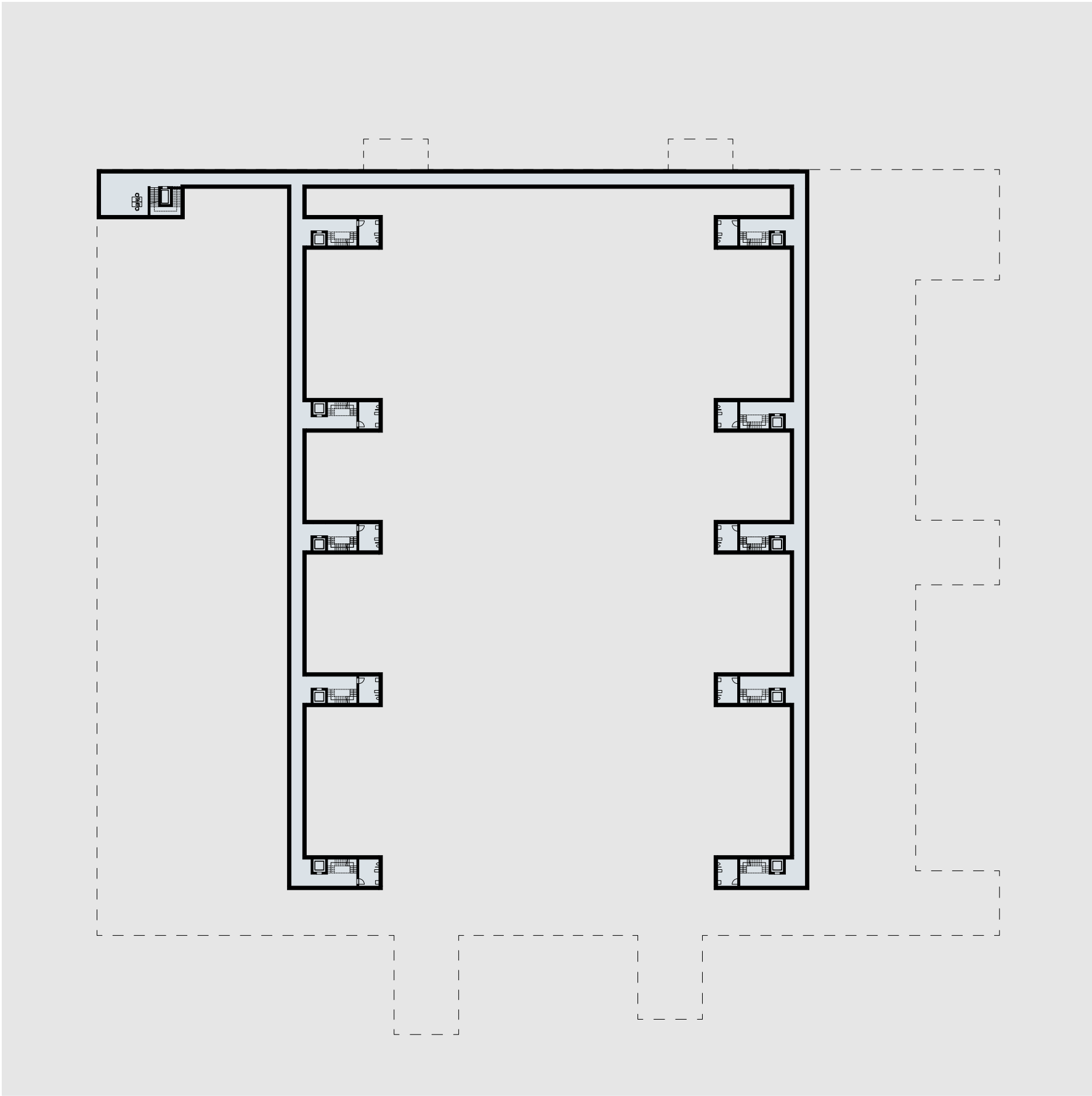


Level -1

Level of detail. 1:200

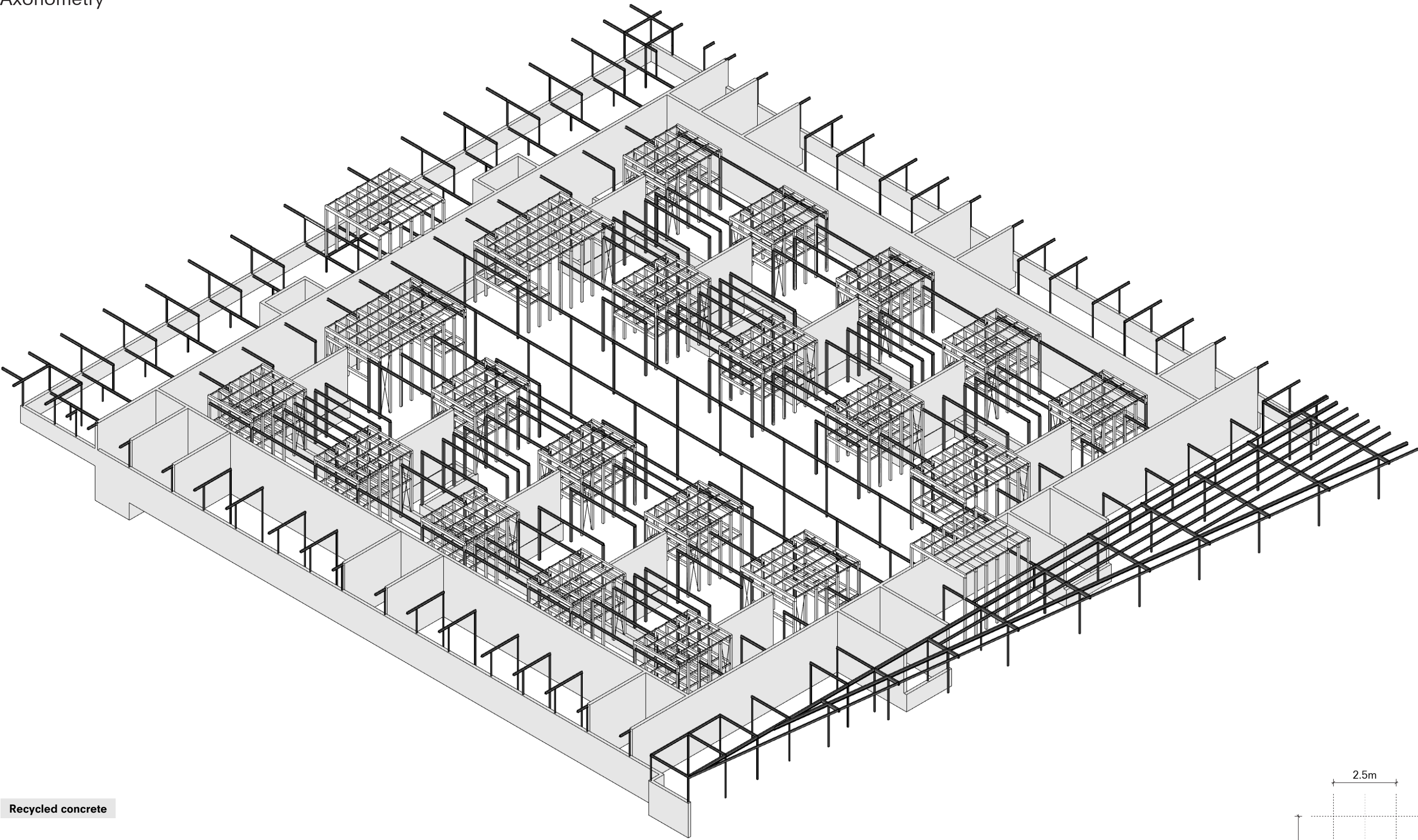


- Public
- Restricted
- Secure

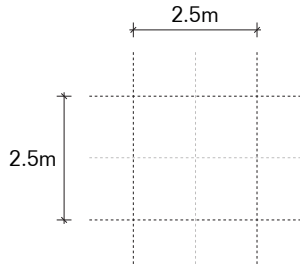


Structure

Axonometry



- Recycled concrete
- Steel structure
- Wood structure

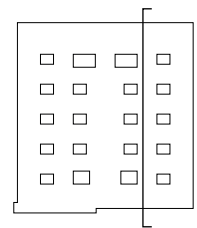
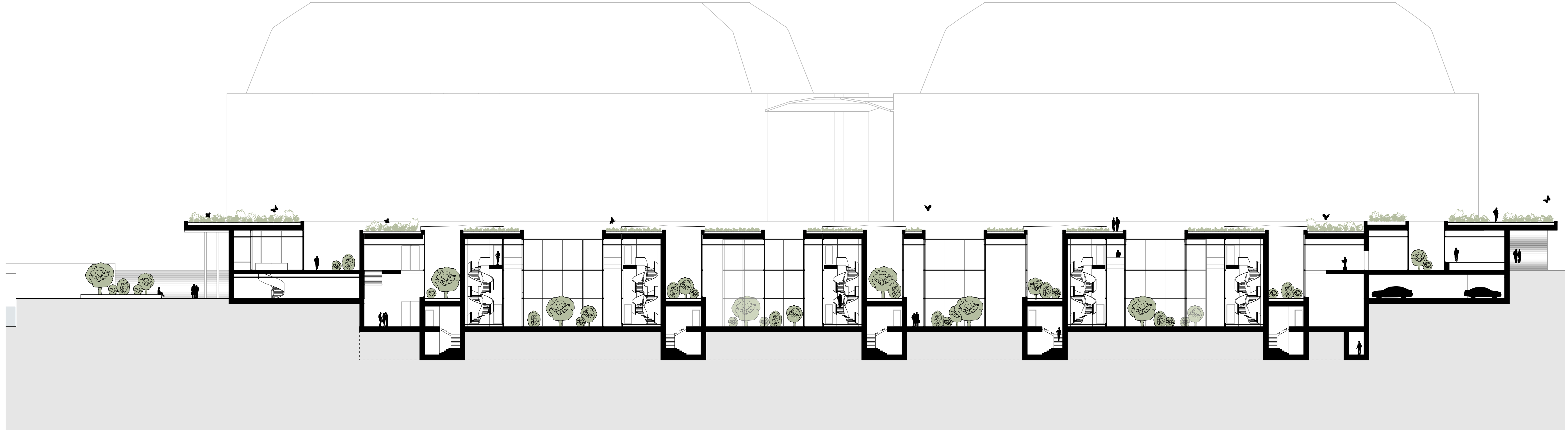


Section

Courtroom cores

Level of detail. 1:200

1 m
5 m
10 m
50 m

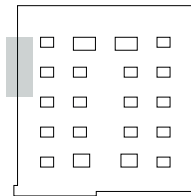
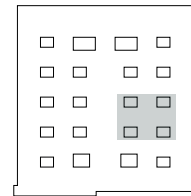




Public elevation of judges vertical circulation



Judges elevation of public waiting spaces

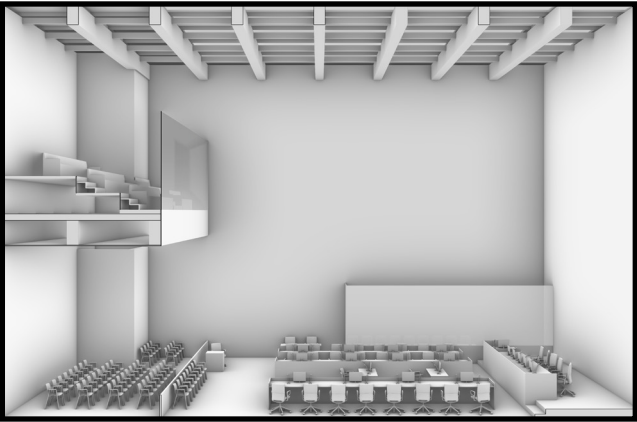


Holding cells in “cool down pink”

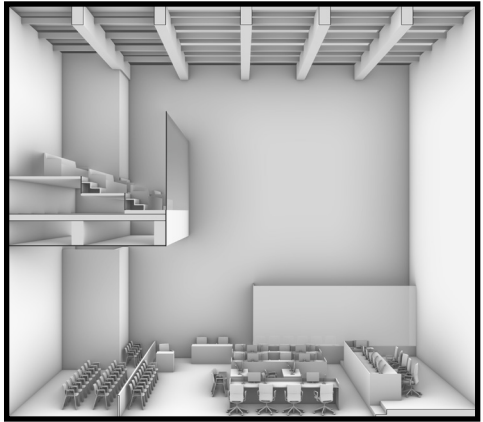


Courtrooms

Types and configurations



L

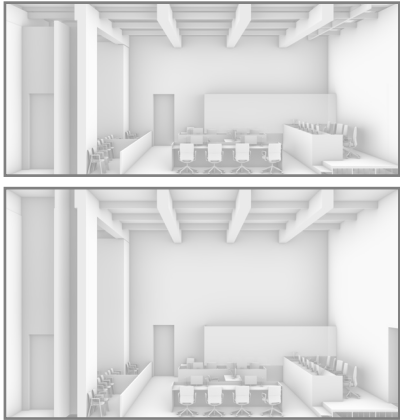


M



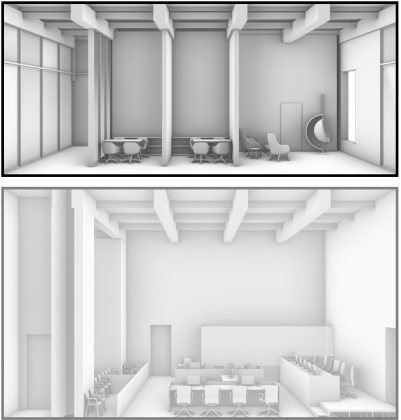
S

XS



S

XS



S

**Deliberation
Witness care**



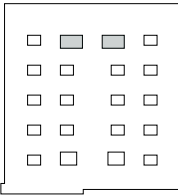
Judges view



Public view



Public gallery view



Building materials

Courtrooms and main hall

Level of detail. 1:50

1 m

5 m

10 m

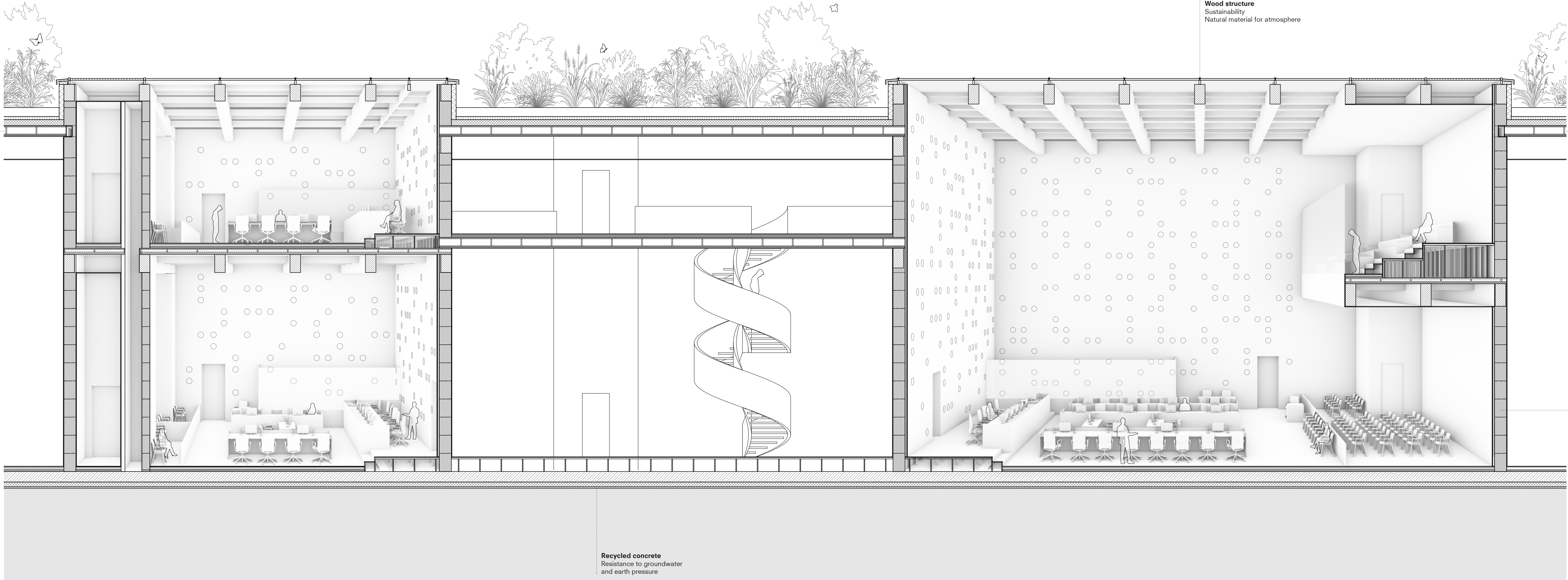
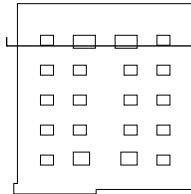
Steel structure
Circularity
Reduction of material

Wood structure
Sustainability
Natural material for atmosphere

Wood hollow core slab
Surface element
Sustainability

Rammed earth
Endless reuse
Good climate regulation

Recycled concrete
Resistance to groundwater
and earth pressure



Comfort

Courtrooms and main hall

Level of detail. 1:50

1 m

5 m

10 m

Photovoltaic
Covers annual electricity demand of the building

Sky lights
Natural Daylight

Sky lights
Natural Daylight

Photovoltaics
Covers annual electricity demand of the building

Acoustic ceiling
Absorption of sound

Glass plates
Distribution of light

Electric lighting
For adequate exposure

Mechanical ventilation
Supply and exhaust air system with heat recovery

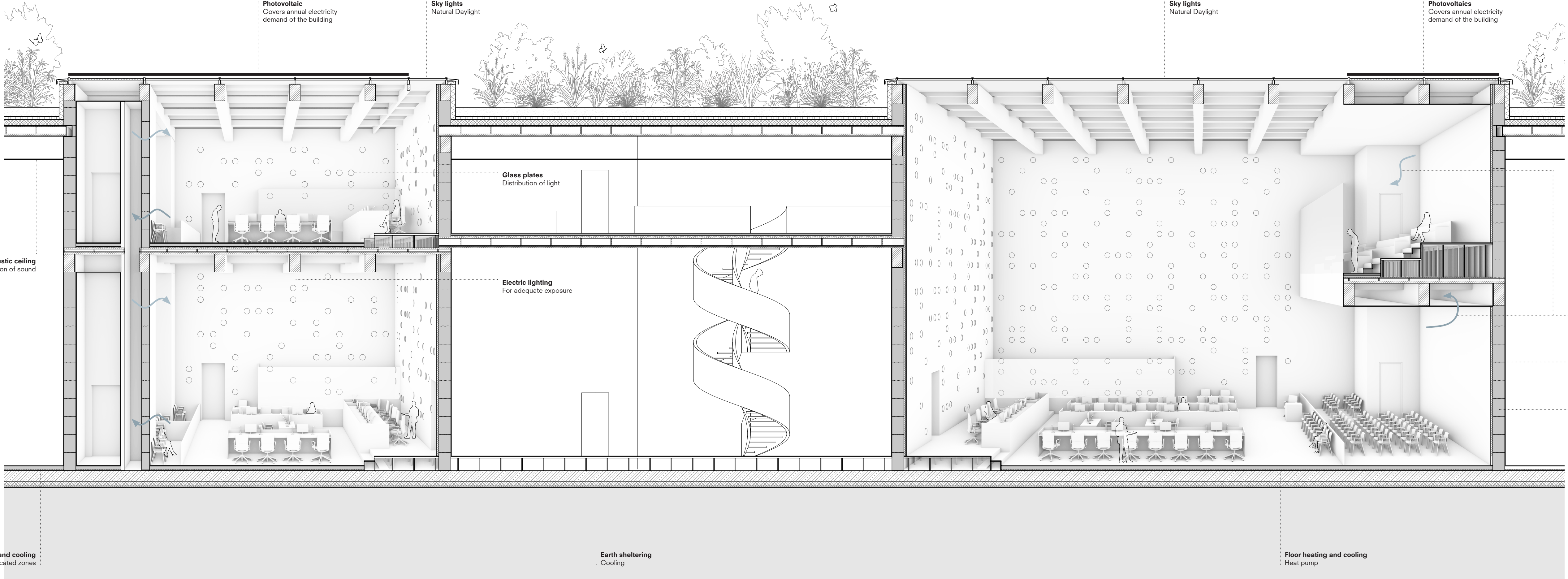
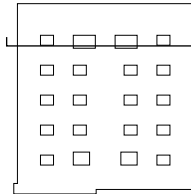
Acoustic plaster
Absorption of sound

Rammed earth
Regulation of humidity and temperature

Floor heating and cooling
In dedicated zones

Earth sheltering
Cooling

Floor heating and cooling
Heat pump



**Biodiversity and
climate adaptation**

Courtrooms and main hall

Level of detail. 1:50

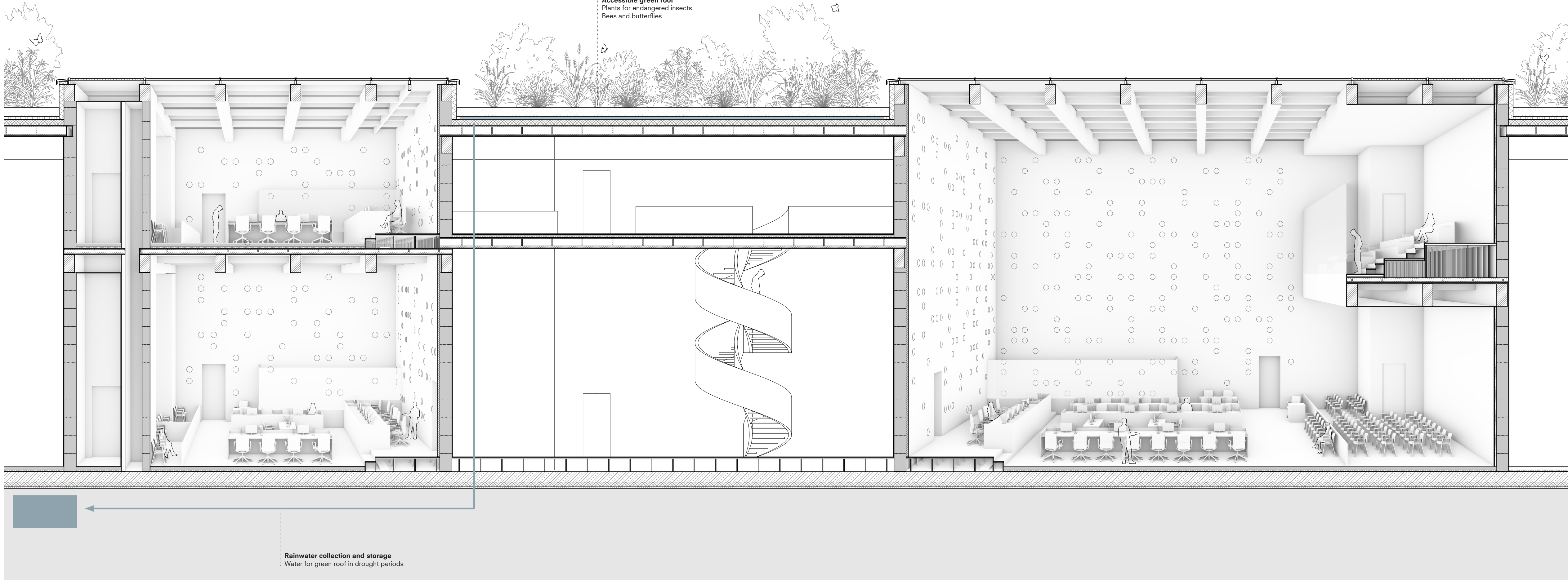
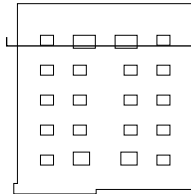
1 m

5 m

10 m

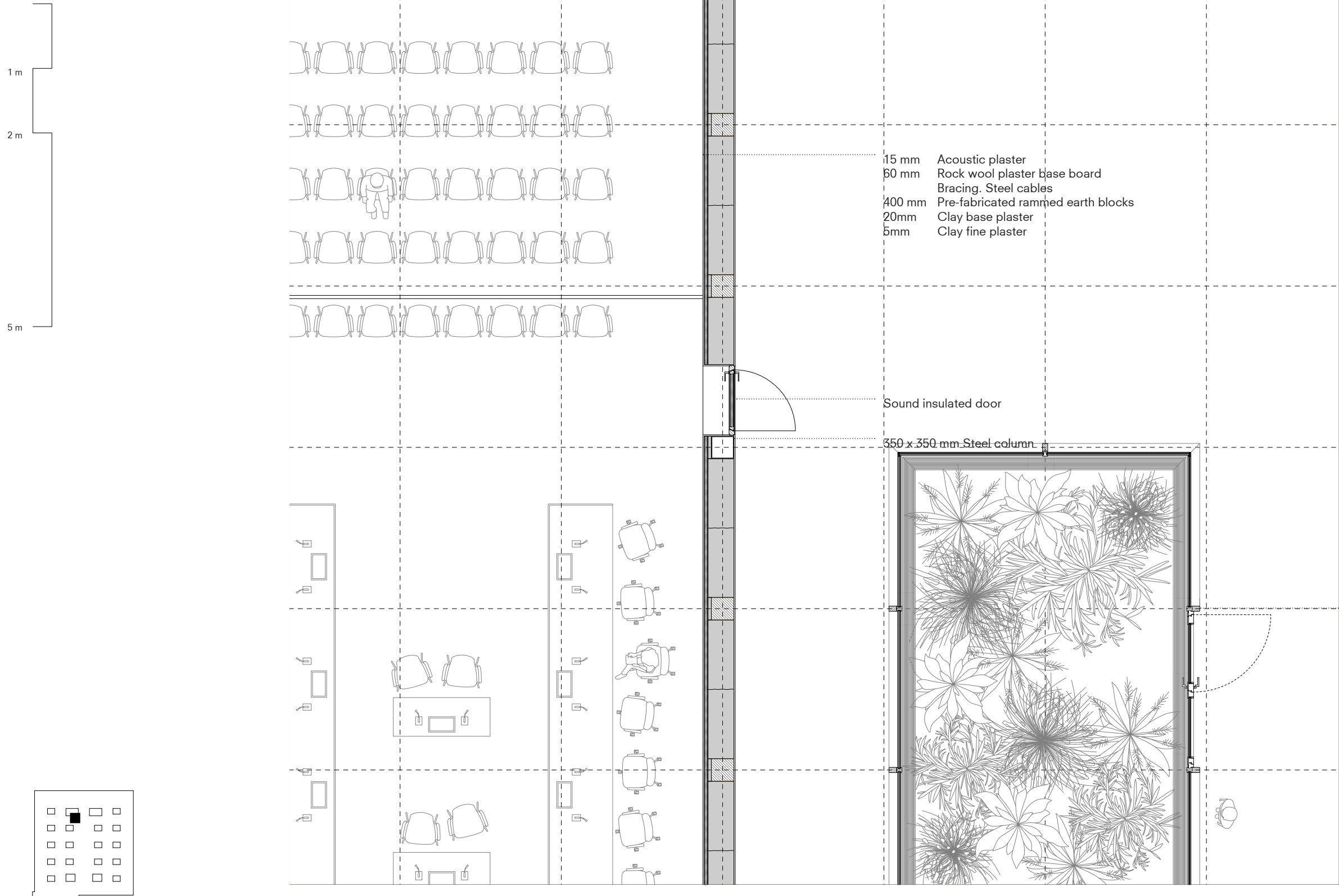
Accessible green roof
Plants for endangered insects
Bees and butterflies

Rainwater collection and storage
Water for green roof in drought periods



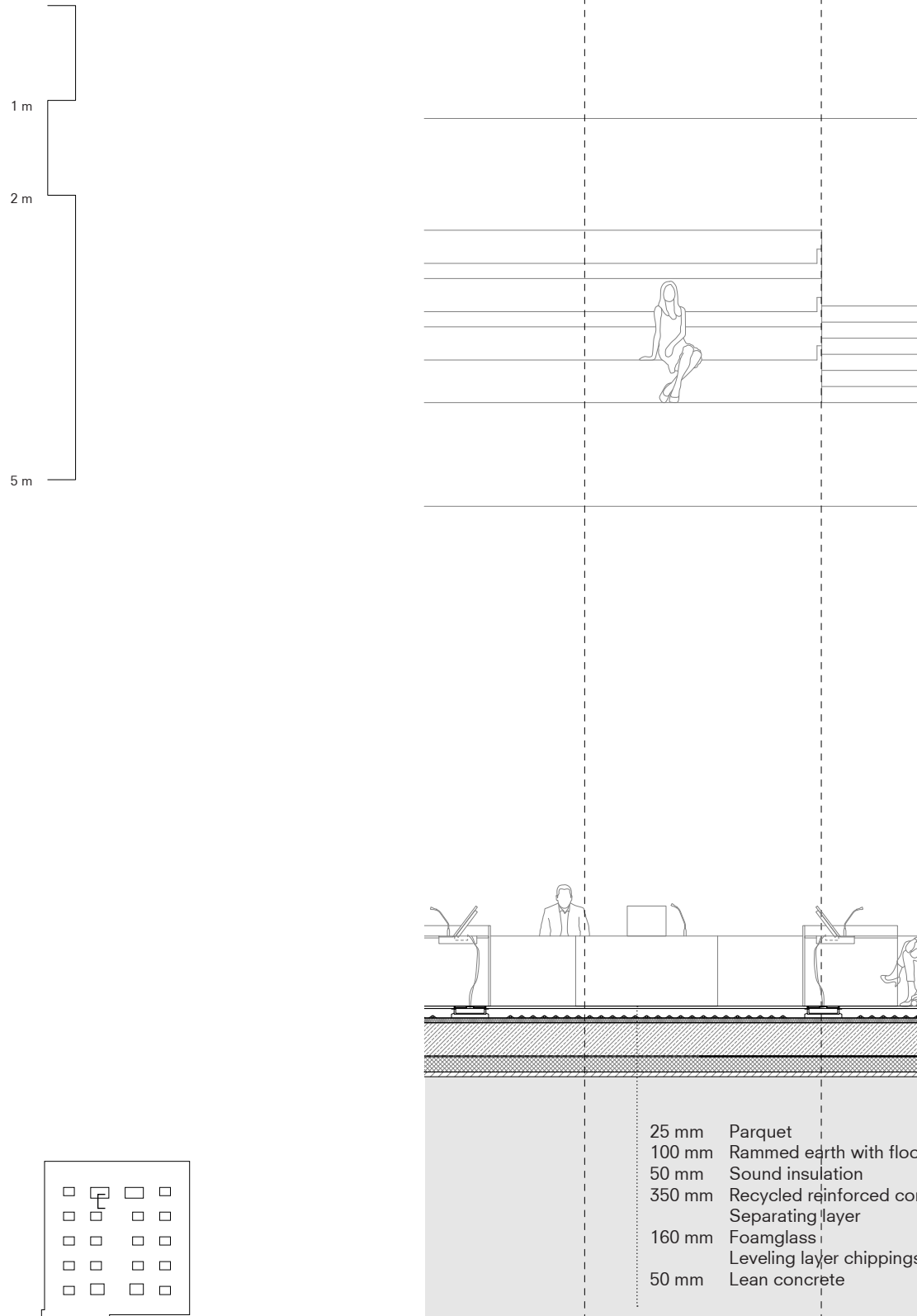
Fragment

Floor plan
Courtrooms and light shaft
Level of detail. 1:20



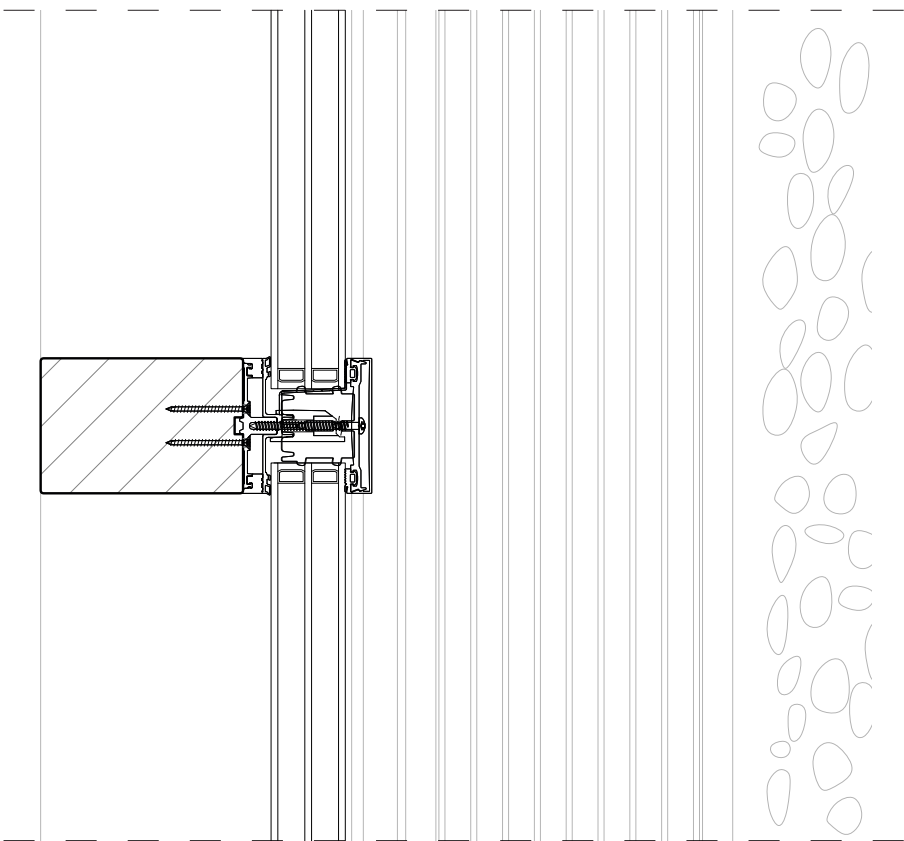
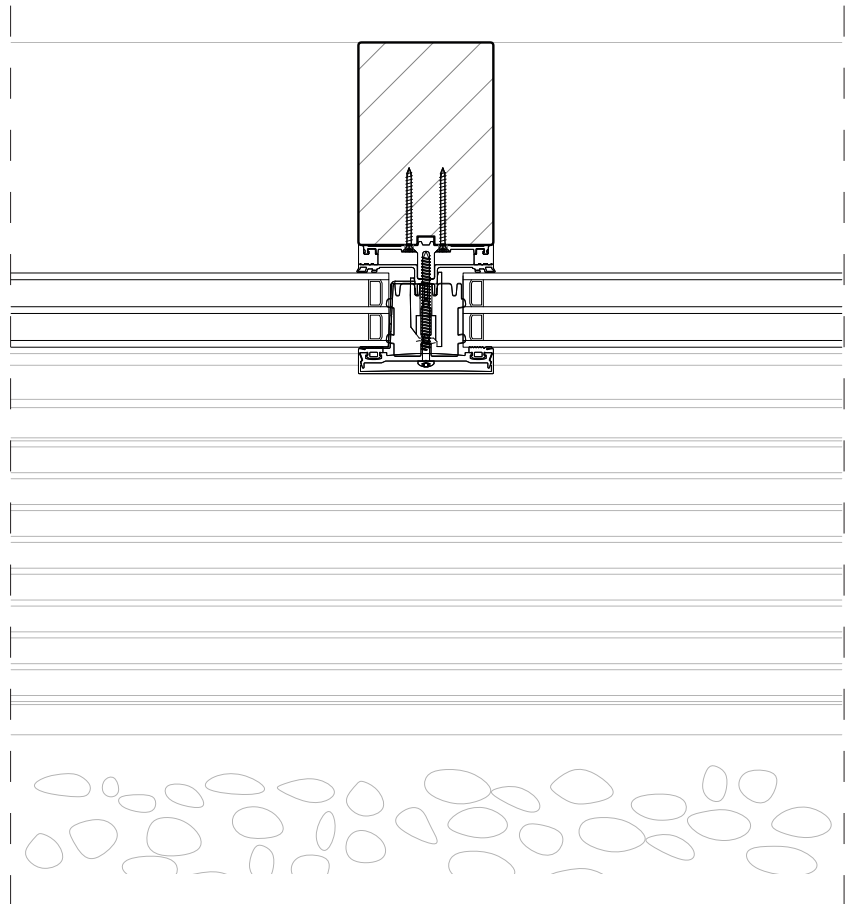
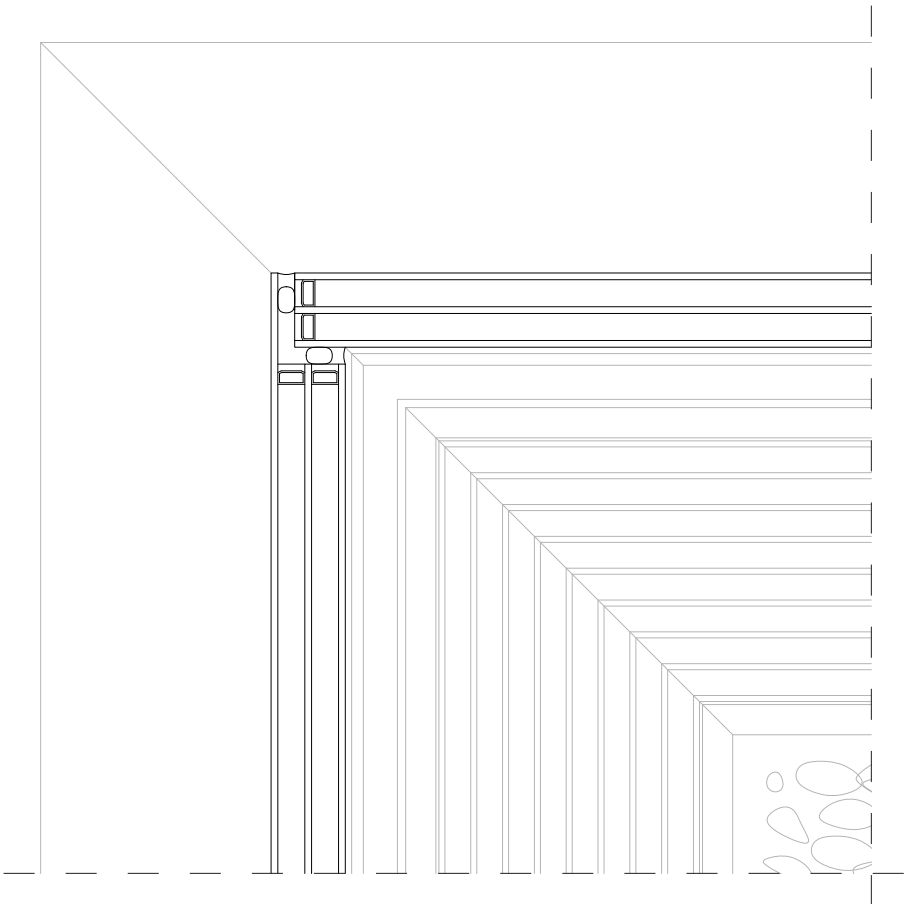
Fragment

Section
Courtrooms and light shaft
Level of detail. 1:20



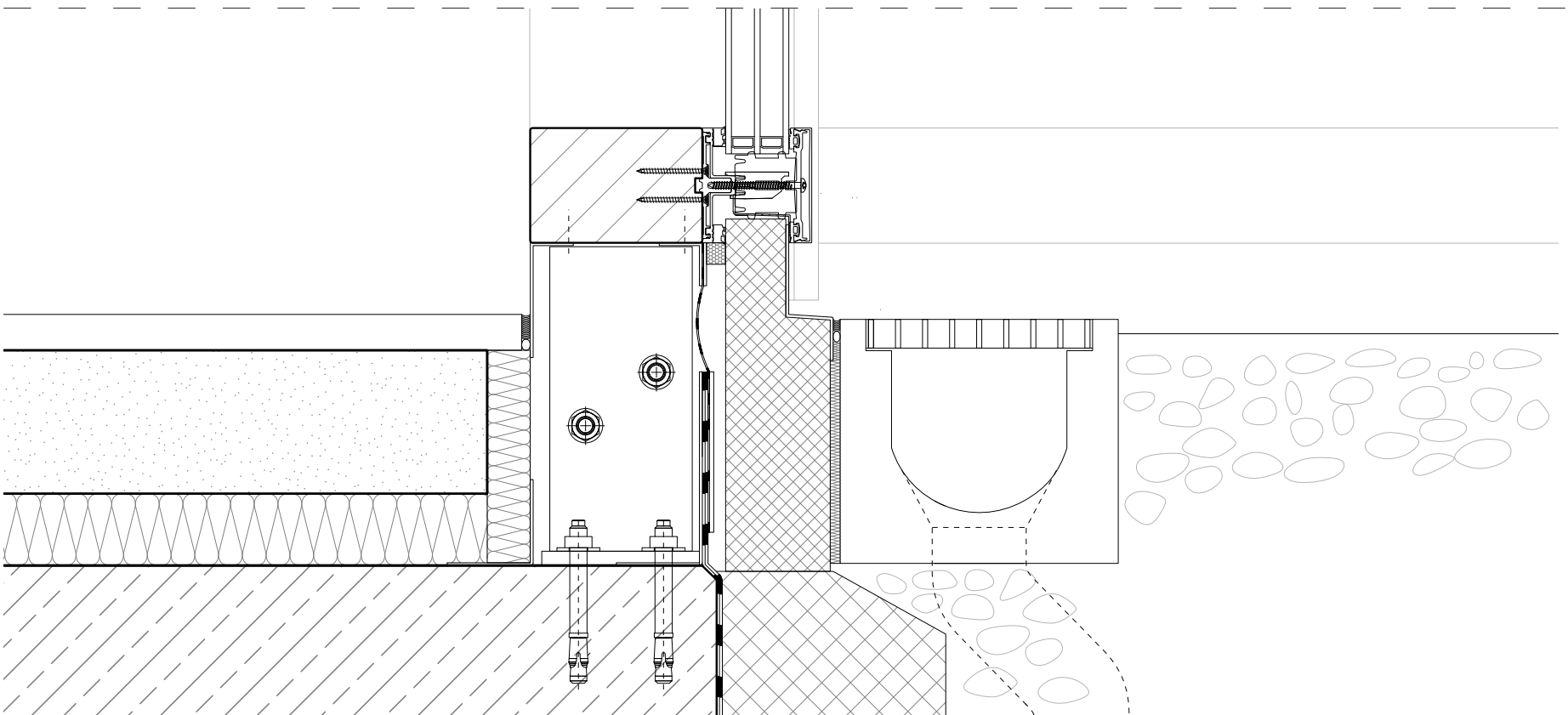
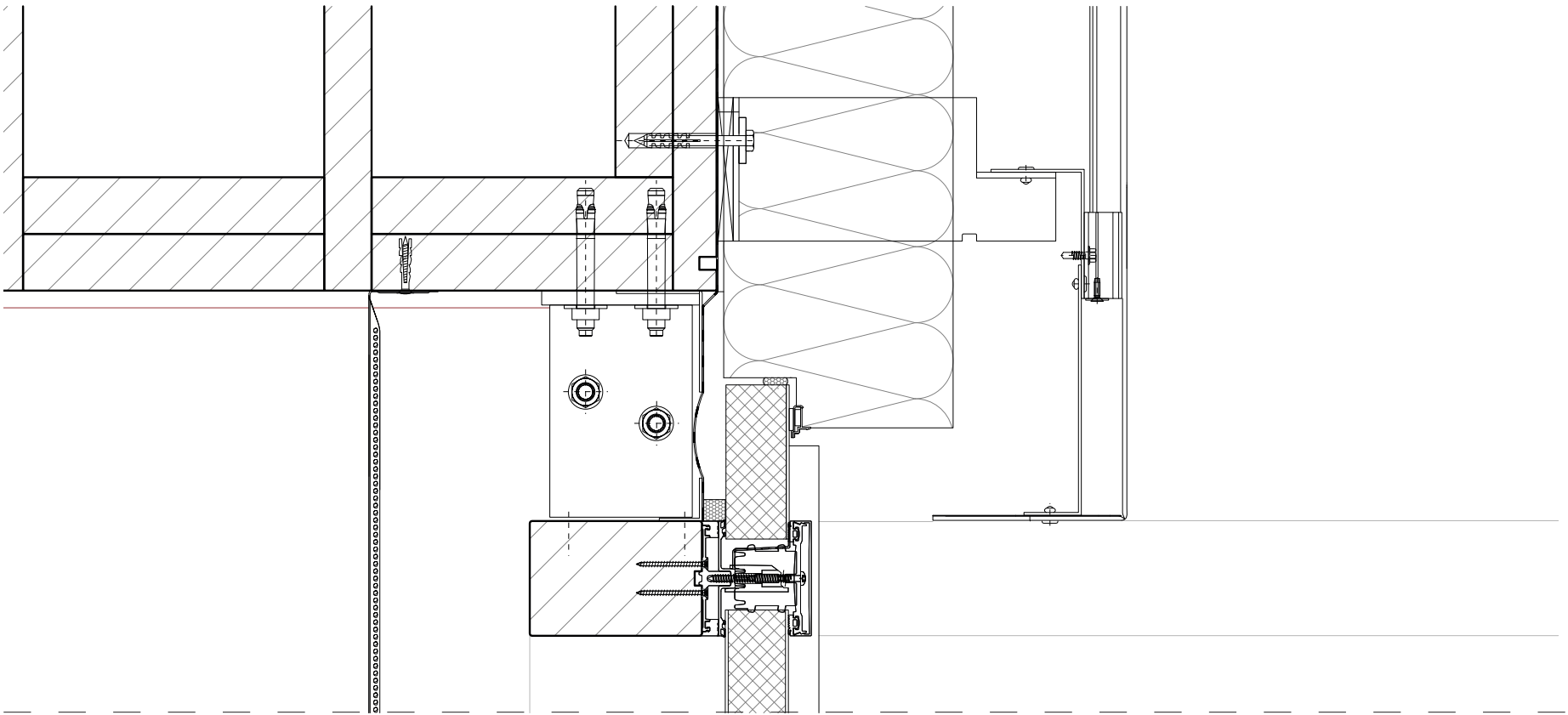
Detail

Light shaft
Mullion-transom facade
Aluminum and wood
Horizontal section
Level of detail. 1:5



Detail

Light shaft
Mullion-transom facade
Aluminum and wood
Vertical section
Level of detail. 1:5



Detail

Light shaft

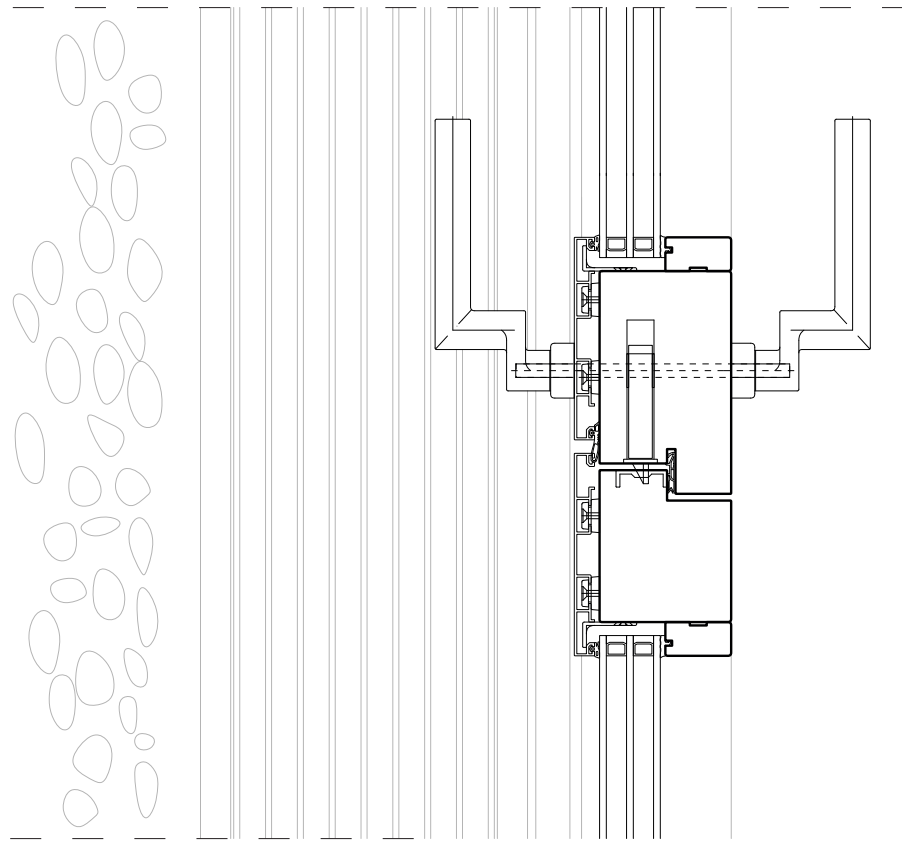
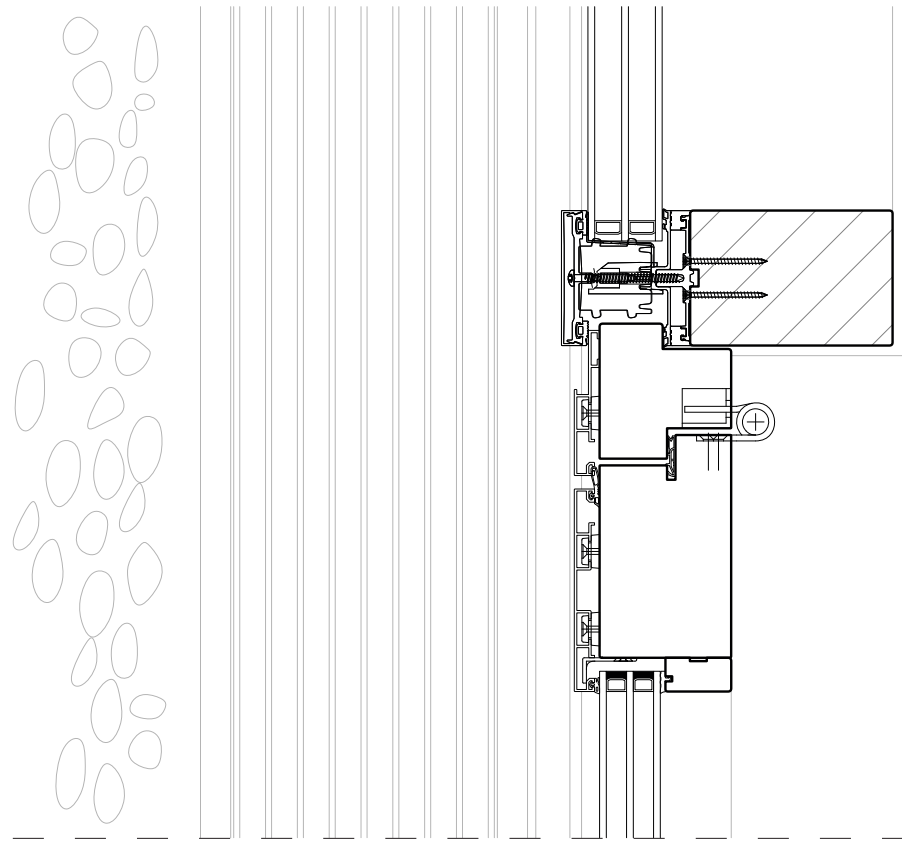
Door

Horizontal section

Level of detail. 1:5

100 mm

500 mm



Detail

Light shaft

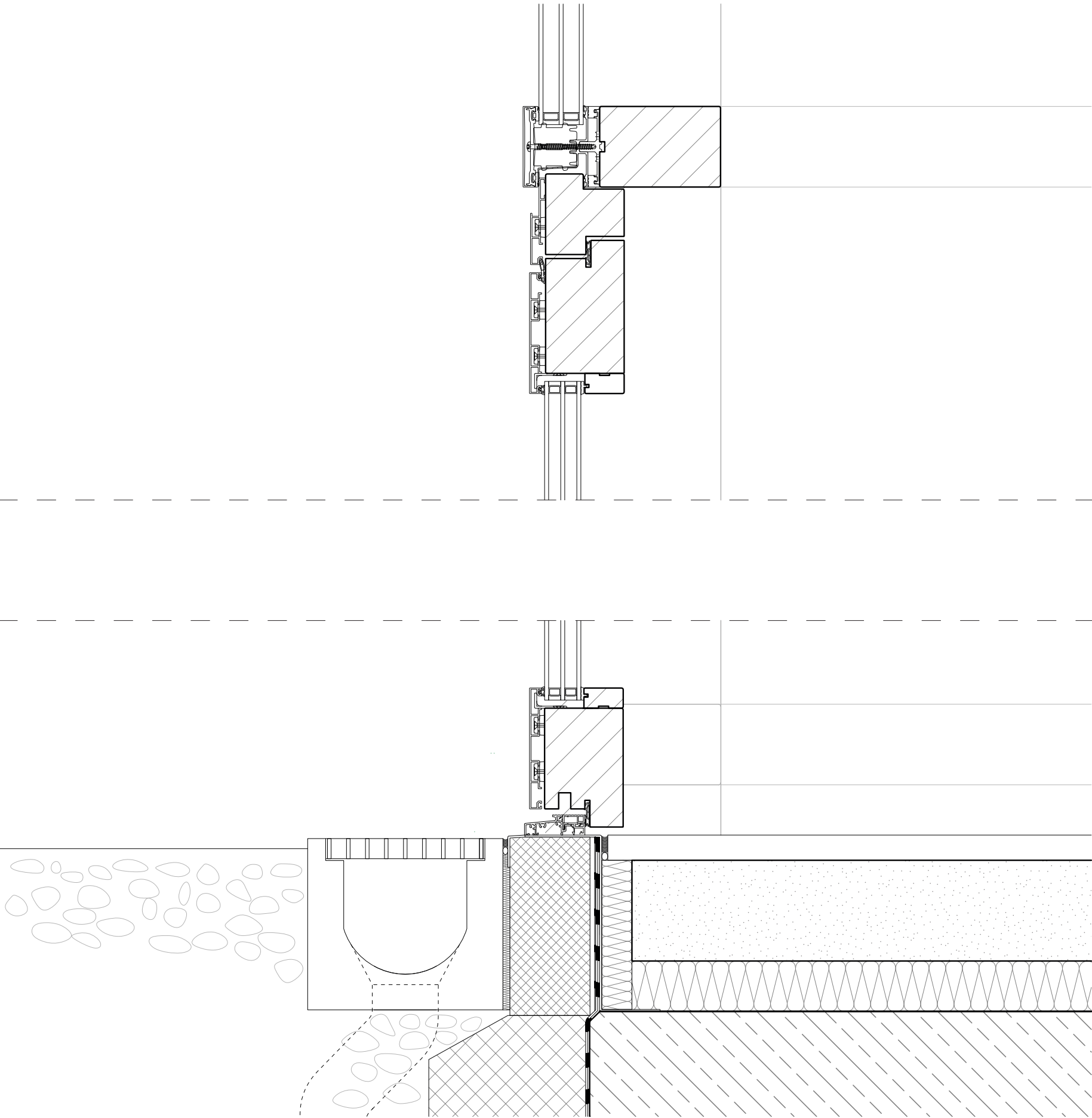
Door

Vertical section

Level of detail. 1:5

100 mm

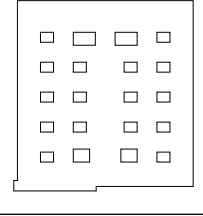
500 mm



Elevation

North-east
Level of detail. 1:200

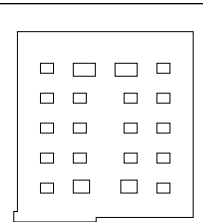
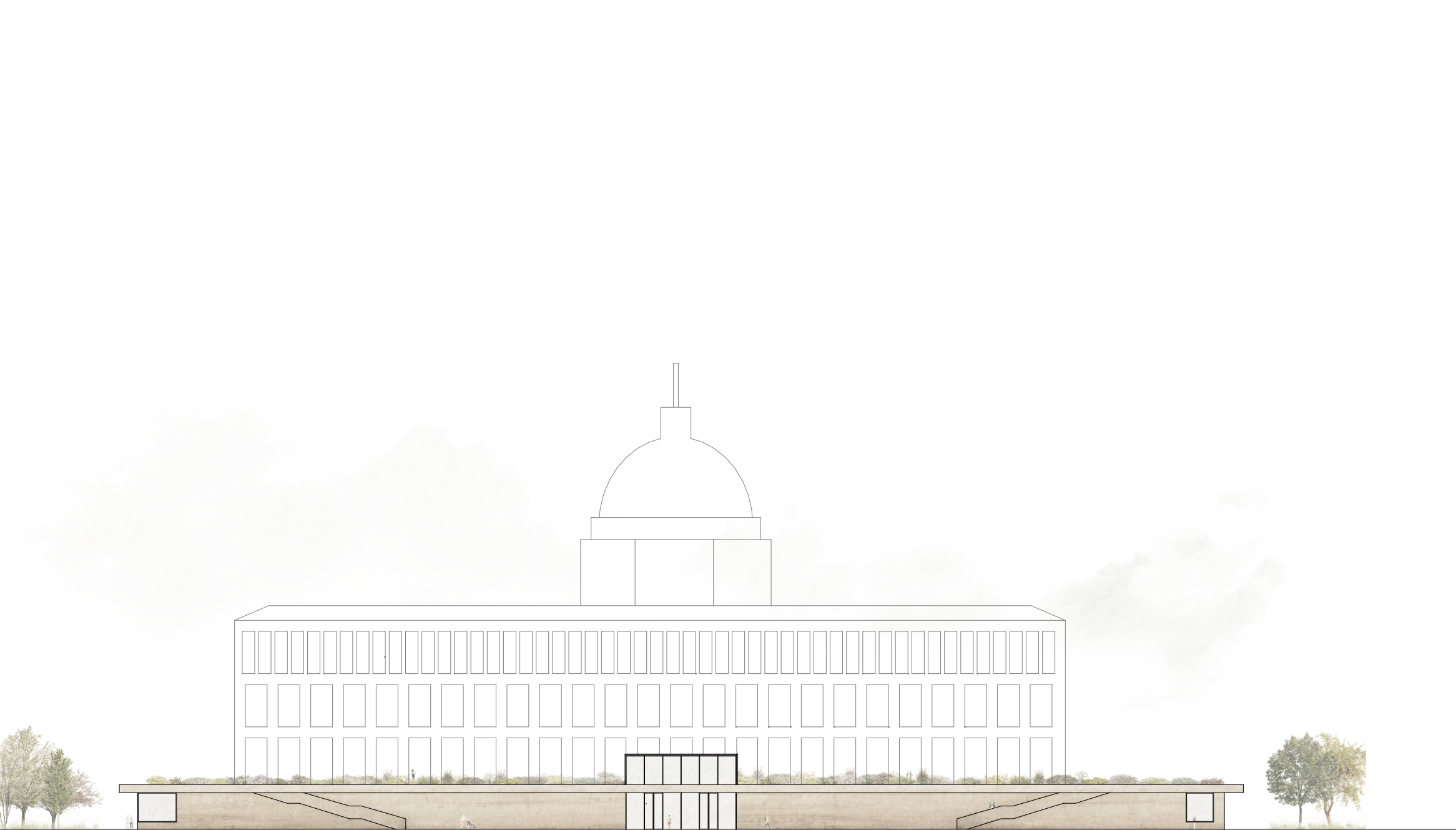
5 m
10 m
50 m



Elevation

South-west
Level of detail. 1:200

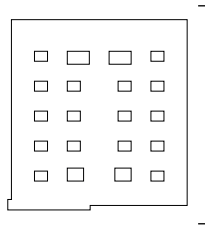
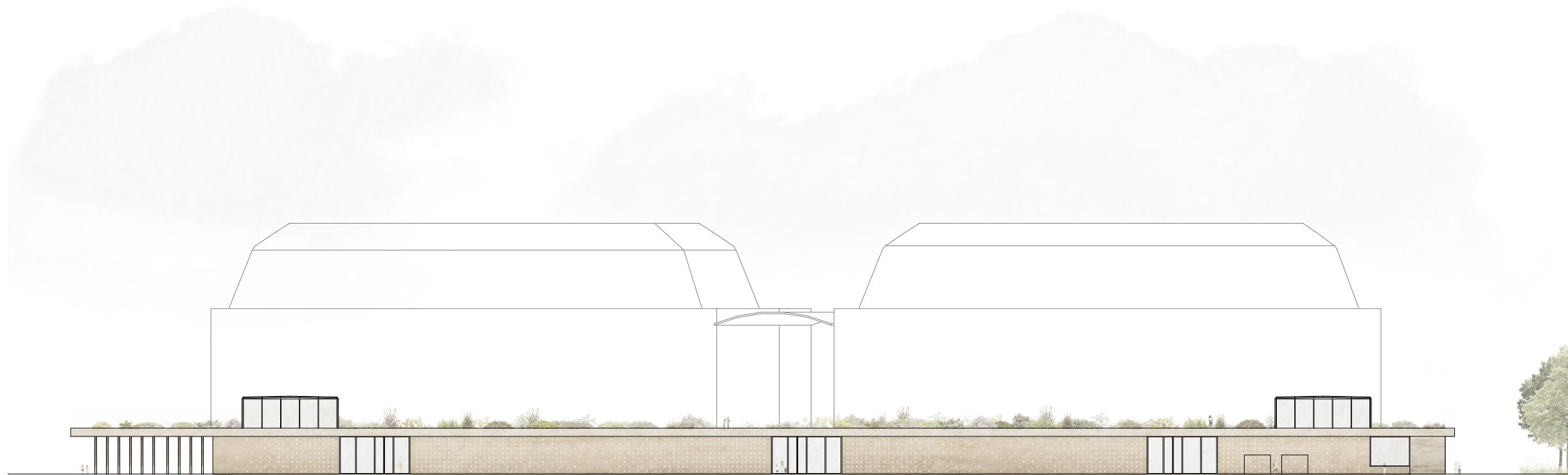
5 m
10 m
50 m



Elevation

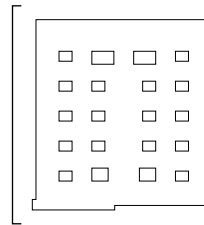
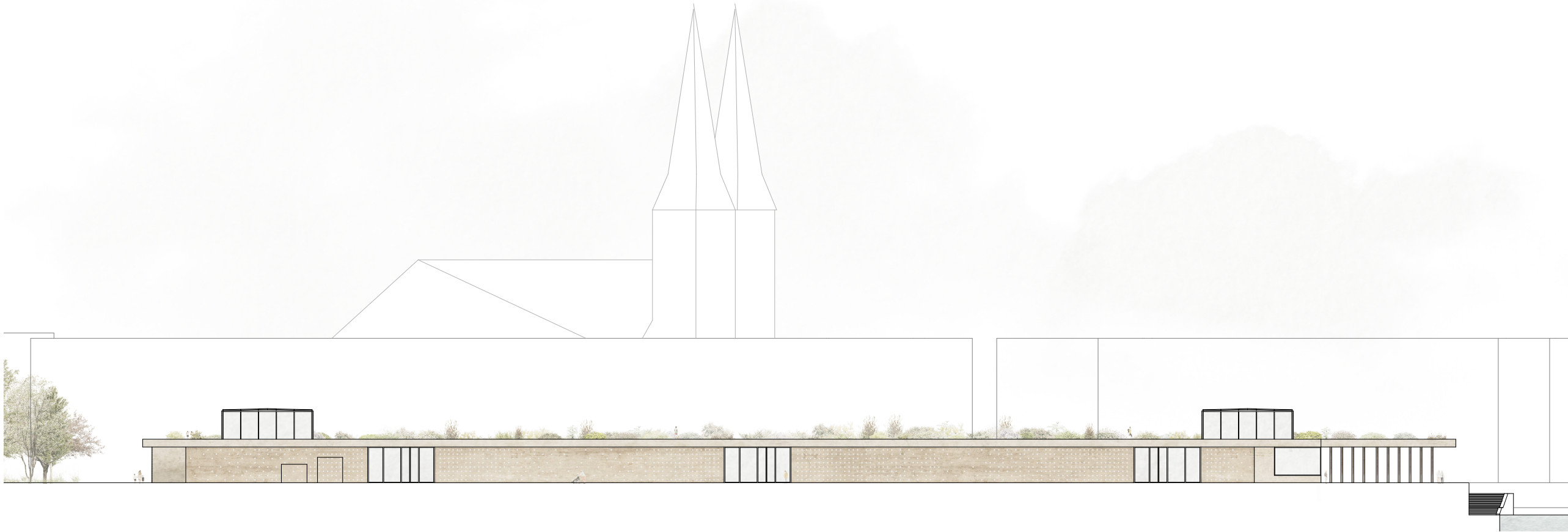
South-east
Level of detail. 1:200

5 m
10 m
50 m



Elevation

North-west
Level of detail. 1:200



Fragment

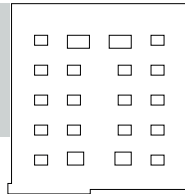
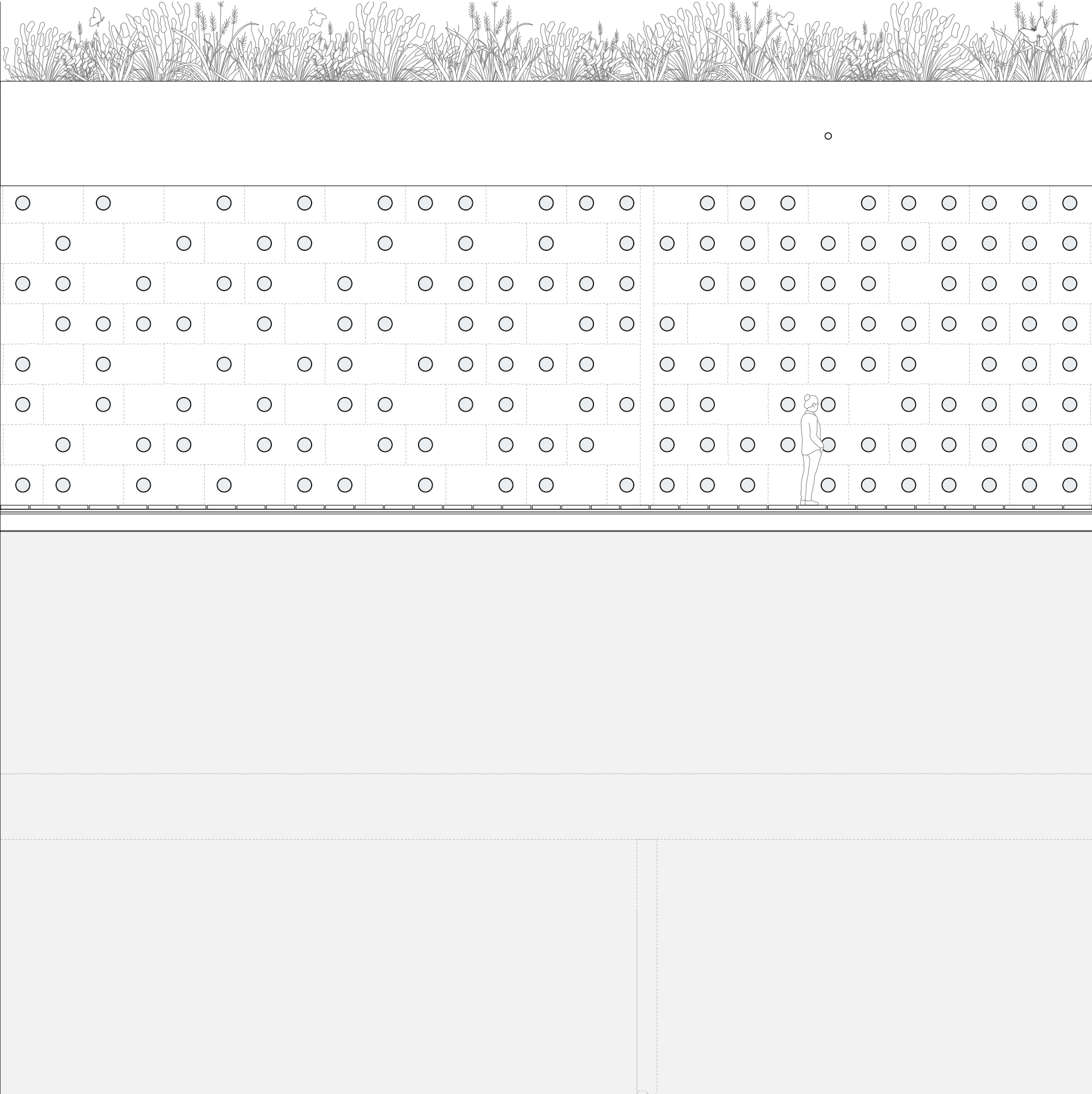
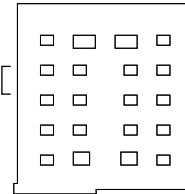
Elevation

Facade

Level of detail. 1:20

1m

5m





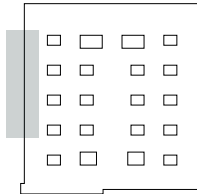
View through facade element



Judges office corridor



Judges common spaces



Fragment

Section

Facade

Level of detail. 1:20

1 m

5 m

5 mm Finishing plaster
10 mm Base plaster
1 mm Primer
400 mm Prefabricated rammed earth blocks
Vapor barrier
160 mm Insulation
1 mm Primer
3 mm Reinforcing fabric
10 mm Base plaster
10 mm Finishing plaster

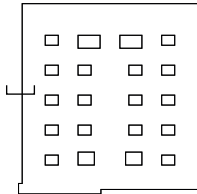
300 mm Soil
Absorbent and capillary fleece
85 mm Water retention with capillary columns for water transport
Separation, protection and storage fleece
Waterproofing, Root resistant
200 mm XPS Insulation
Vapor barrier
360 mm Wood hollow core slab, Surface element.
Inlaid in Steel beams. THQ hat profile with fire protection coating
420 mm Spacing for technical installations
87 mm Suspended acoustic wood ceiling

160 mm Foamglass
Waterproofing
400 mm Reinforced concrete
10 mm Base plaster
10 mm Finishing plaster

25 mm Parquet
100 mm Rammed earth with floor heating / cooling and installations
50 mm Sound insulation
200 mm Wood hollow core slab, Surface element.
Inlaid in Steel beams. THQ hat profile with fire protection coating
420 mm Spacing for technical installations
87 mm Suspended acoustic wood ceiling

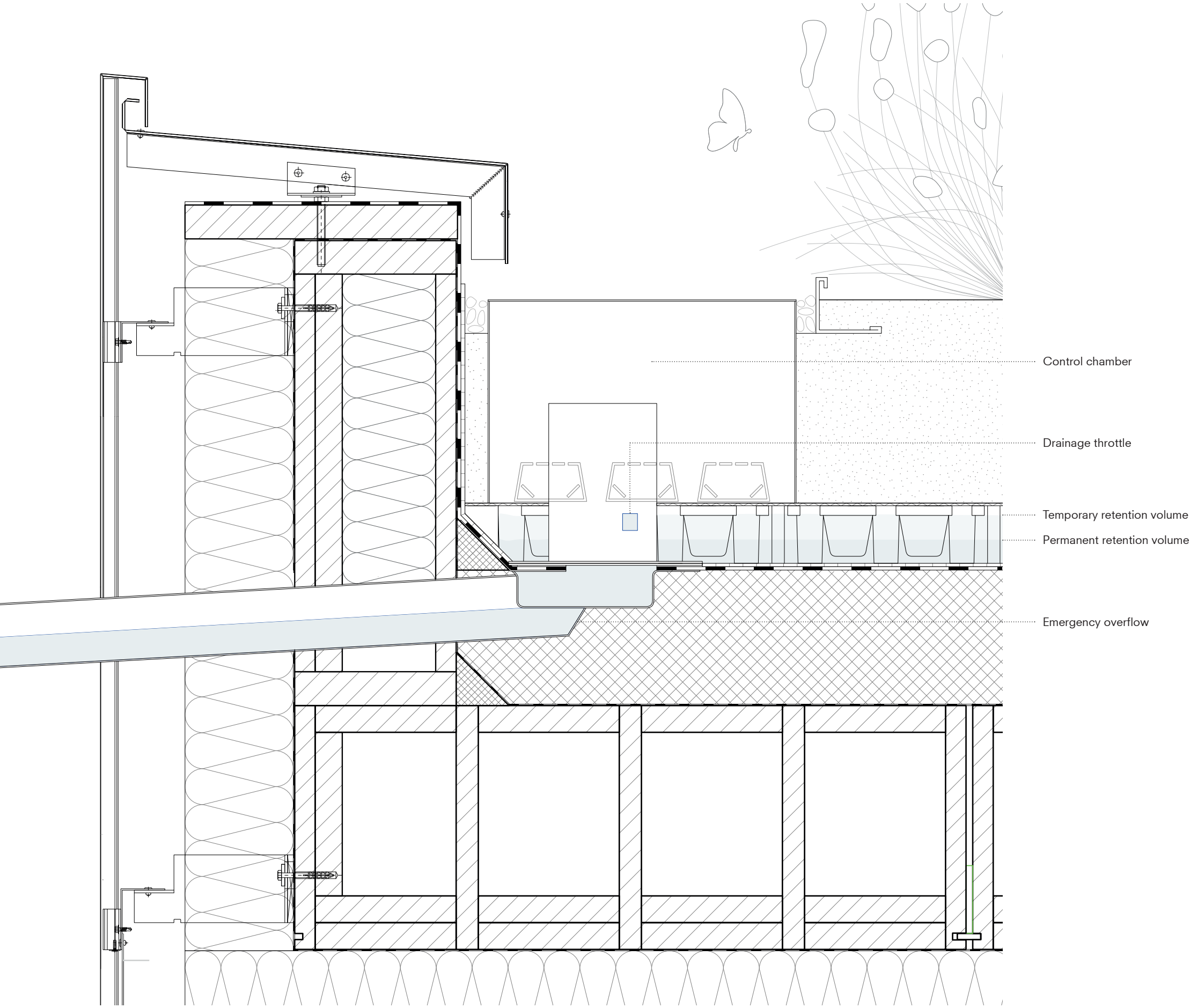
25 mm Parquet
100 mm Rammed earth with floor heating / cooling and installations
50 mm Sound insulation
350 mm Recycled reinforced concrete
Separating layer
160 mm Foamglass
Leveling layer chippings / sand
50 mm Lean concrete

1110 mm Soil
Absorbent and capillary fleece
85 mm Water retention with capillary columns for water transport.
Water is collected and stored
Separation, protection and storage fleece
Waterproofing, Root resistant
250 mm Recycled reinforced concrete



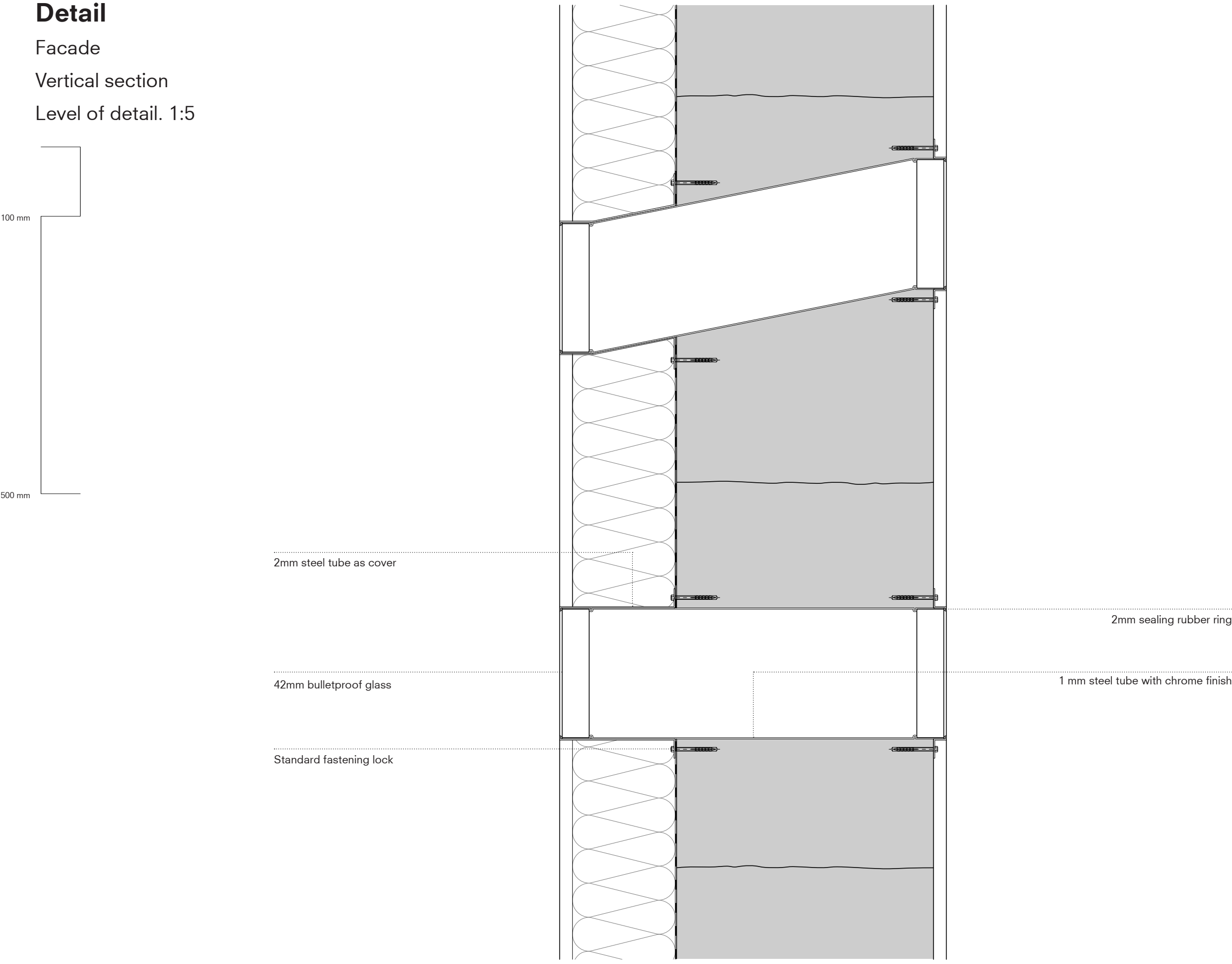
Detail

Attic
Vertical section
Level of detail. 1:5



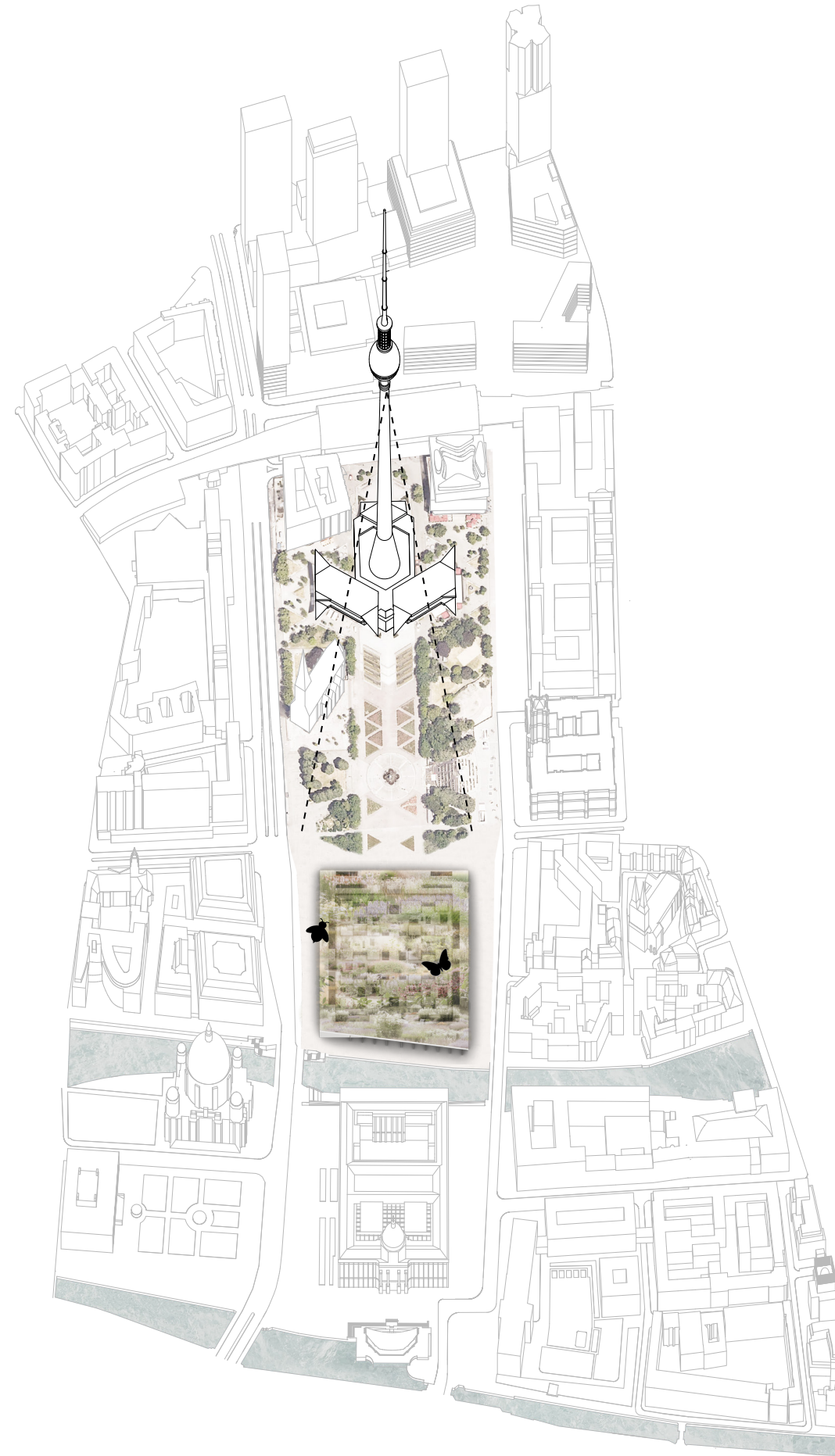
Detail

Facade
Vertical section
Level of detail. 1:5



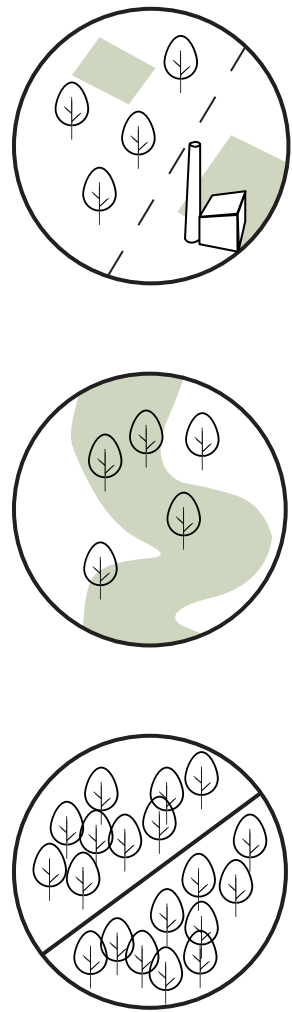
5th facade

Accessible green roof with
insect-friendly plants



View from the roof onto
TV-Tower

Environment group map of Berlin



— Green corridor



Group site plan

Level of detail. 1:10000

