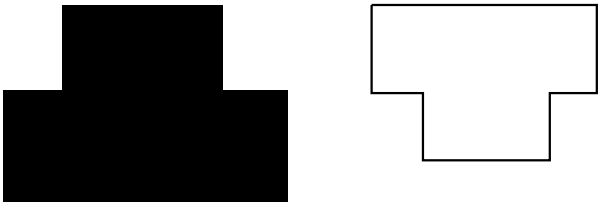


# Information Theater

Expansion and Renovation of Stockholm City Library

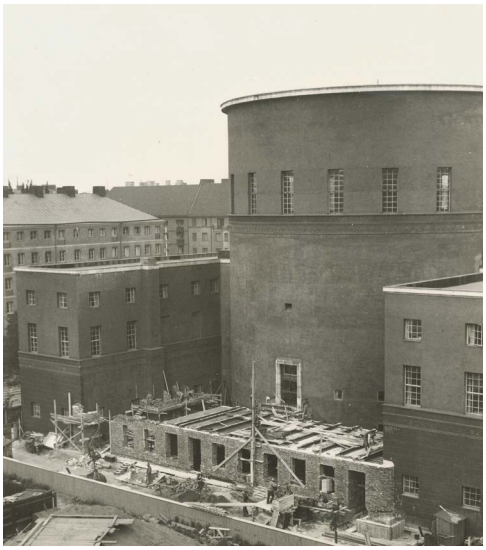
Interiors
Buildings
Cities

Liuying Chen

# Urban context

The Stockholm City Library is located in the city center of Stockholm. It was first built in the 1920s and completed in the 1930s. Over the past nearly 100 years, it has undergone multiple renovations. To its west side, there are three annexes, which were constructed between the 1950s and 1970s.

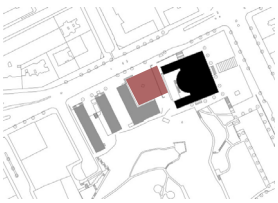

Stockholm City Library(1920s)
Annex 1(1970s): International library and News-paper library.
Annex 2(1950s): Swedish Institute of Children's literature.
Annex 3(1950s): management and offices of the City Library



1932

In the 1920s, the west wing of the library was open to the square. However, by the 1930s, when the west wing was completed, the library became more inward-facing and closed-off. The square it originally faced gradually lost its vitality. Today, the library resembles more of a floating island, detached from its surroundings.

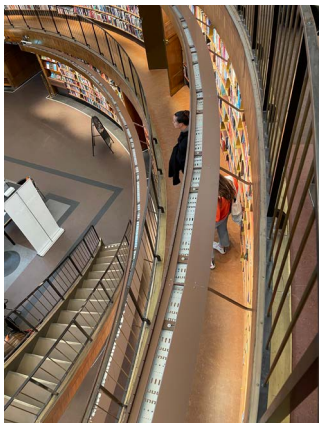
2024



# Current status

From the current site conditions, the square on the west side of the library lacks high-quality paving and vegetation. The site itself is in a state approaching disuse. The annexes located here also do not effectively attract visitors. Therefore, there is significant potential for redevelopment in this area.

From inside the library, several main spaces have exceptionally high spatial quality, but the quality of the corridor spaces is relatively weak, primarily serving the function of directly connecting other spaces. Therefore, in the future, corridor spaces can be seen as having adaptive potential that can be further developed and improved.



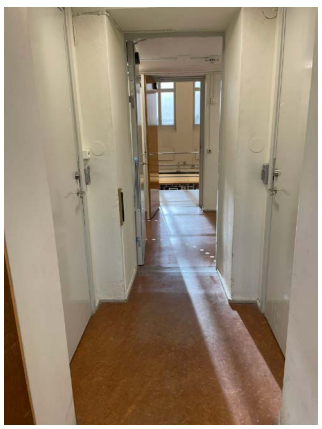
Rotunda

The North wing

The West wing

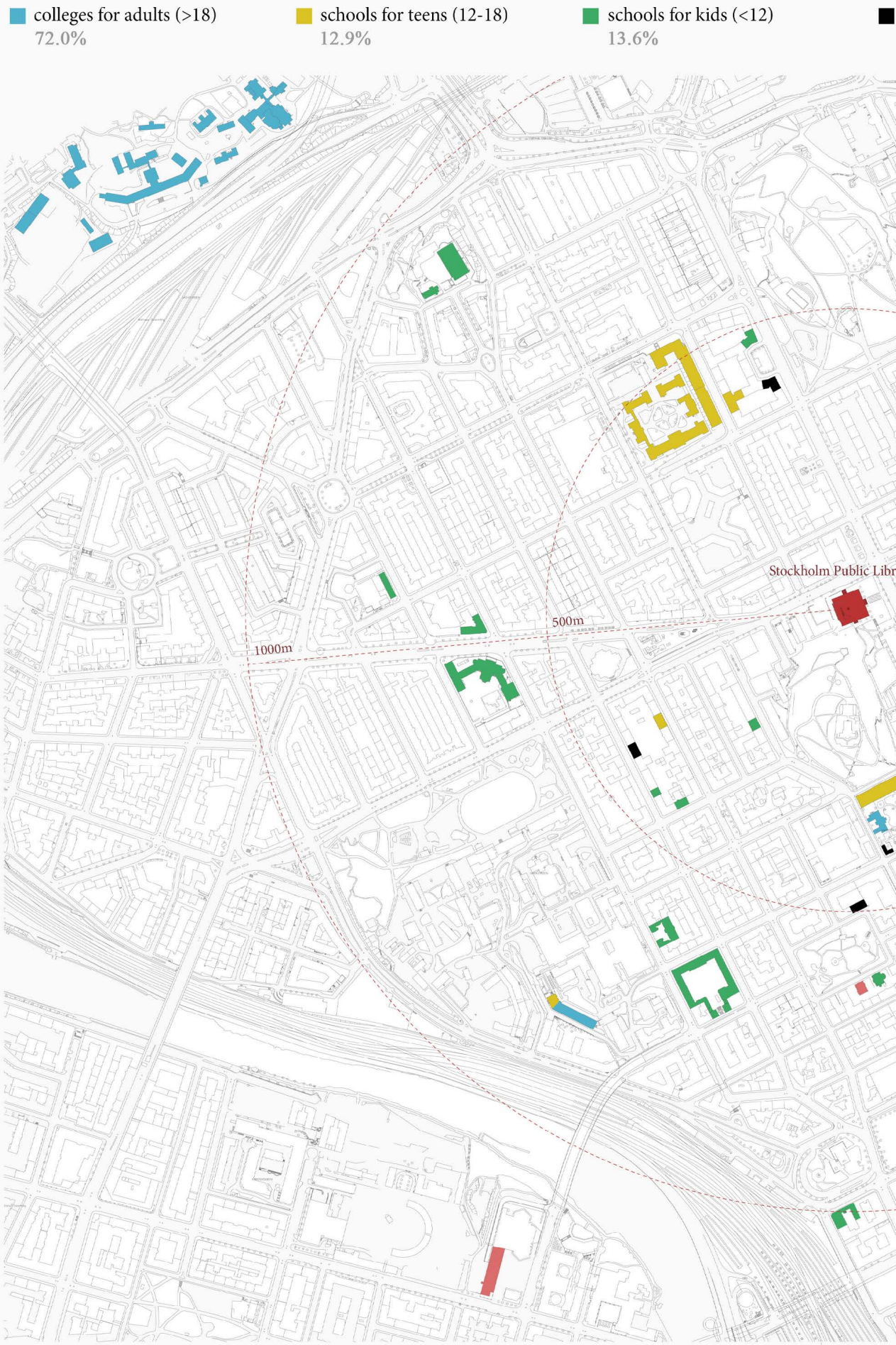
Passage to the North wing

Passage to the West wing



Passage to the West wing (Mezzanine)

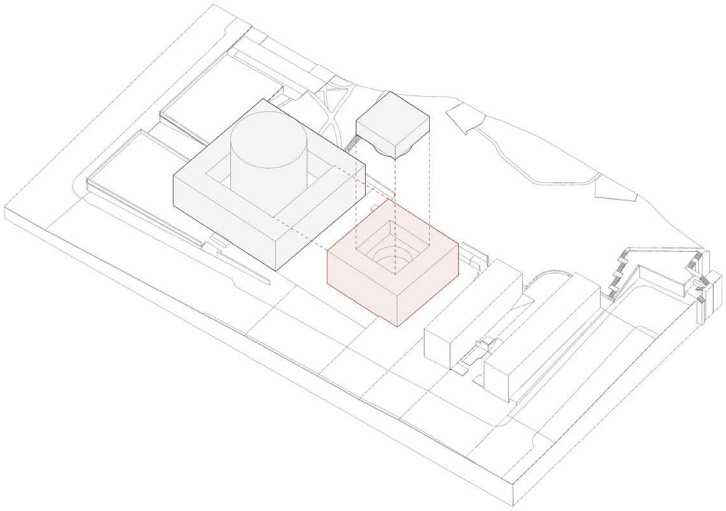
# Mapping


colleges for adults (>18)
72.0%
schools for teens (12-18)
12.9%
schools for kids (<12)
13.6%
1000m
500m
Stockholm Public Libr

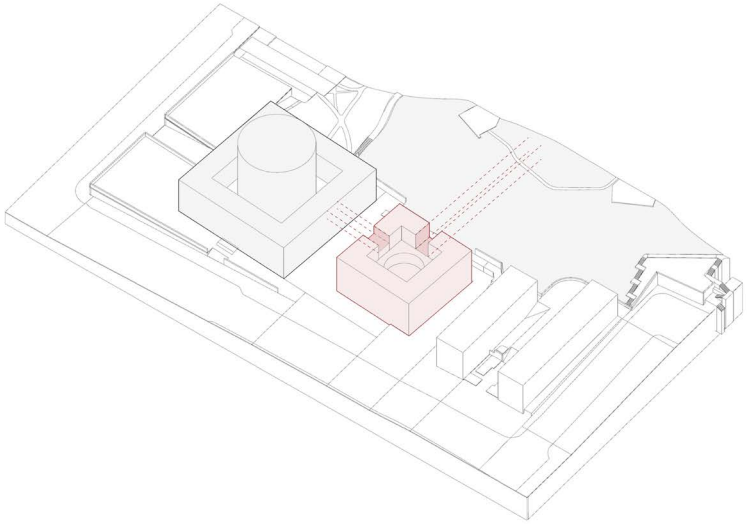
skills training institutions
1.5%

public libraries

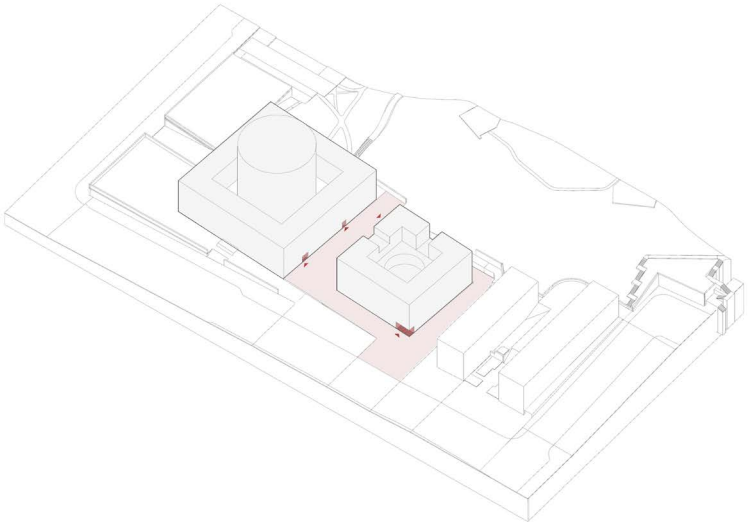
# Volumn evolution



Overturn

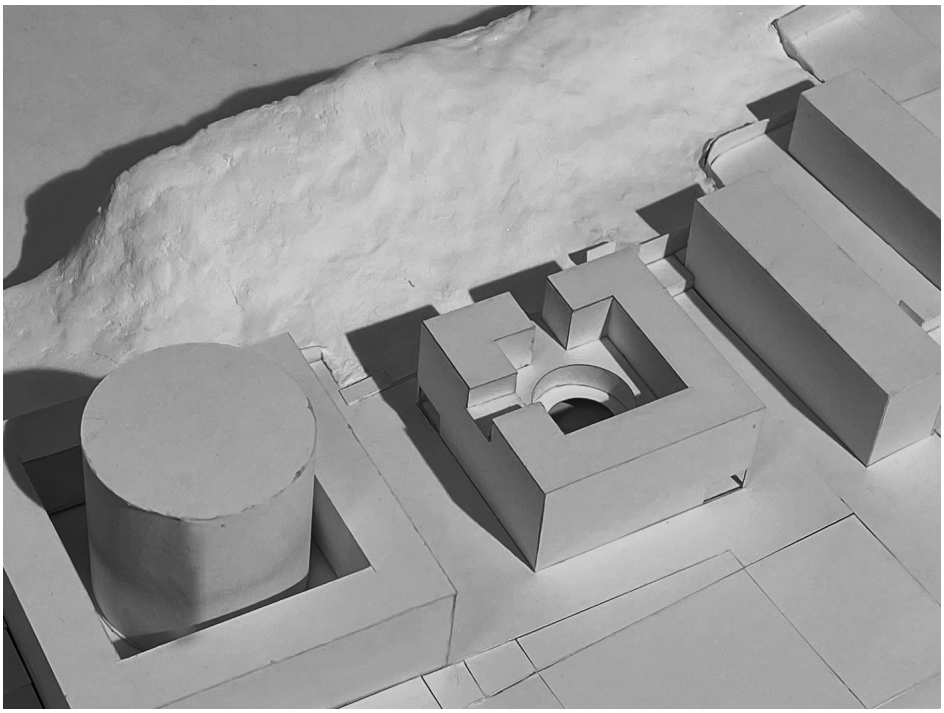


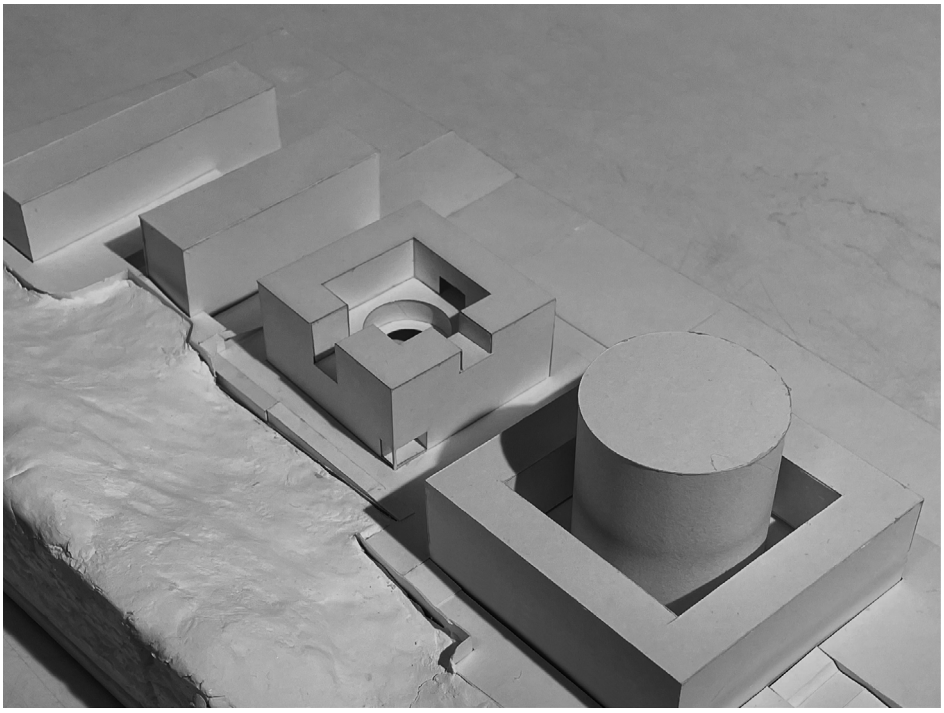
Void



Entrance

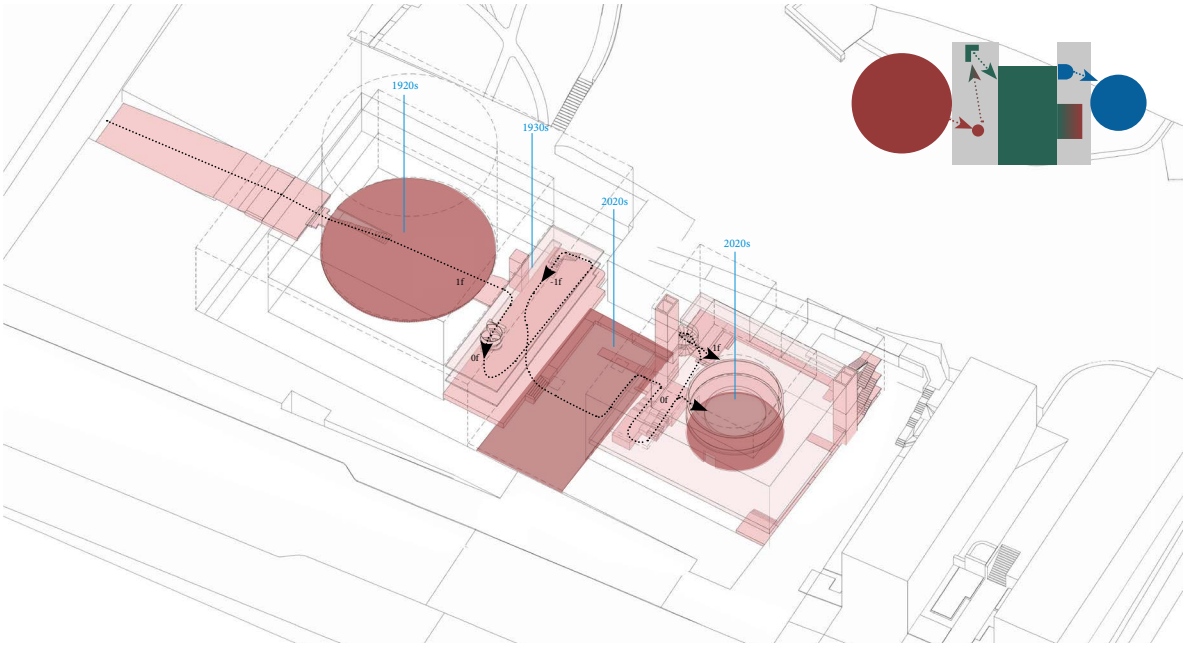
1:500 Model



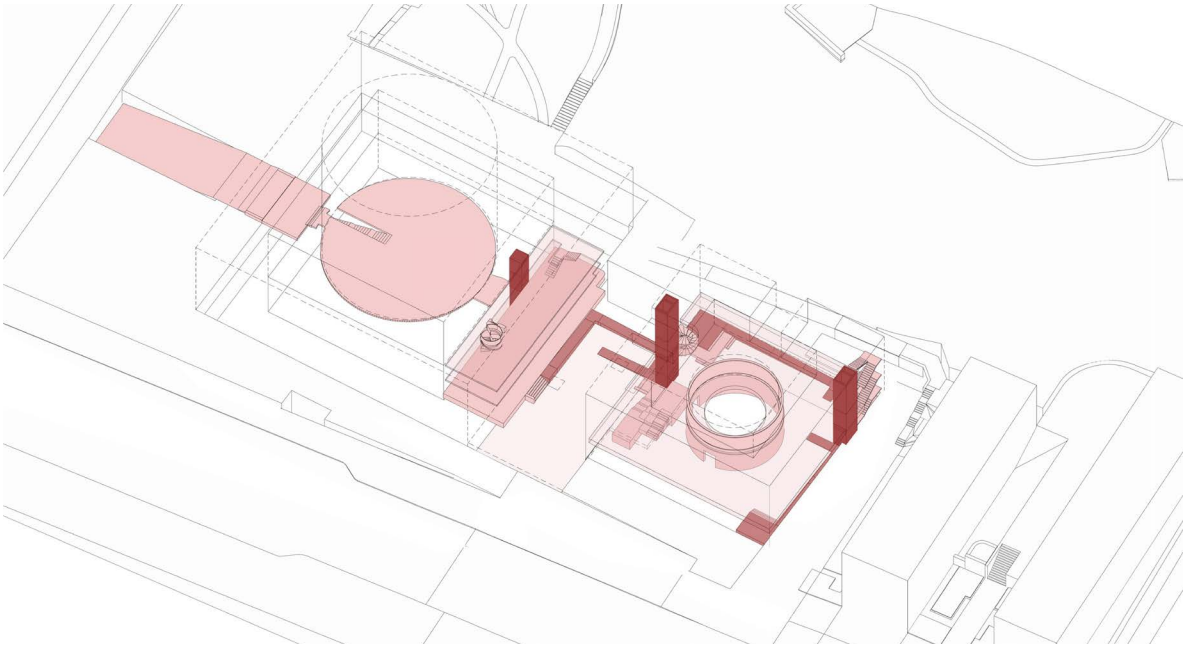


## 3-D circulation system

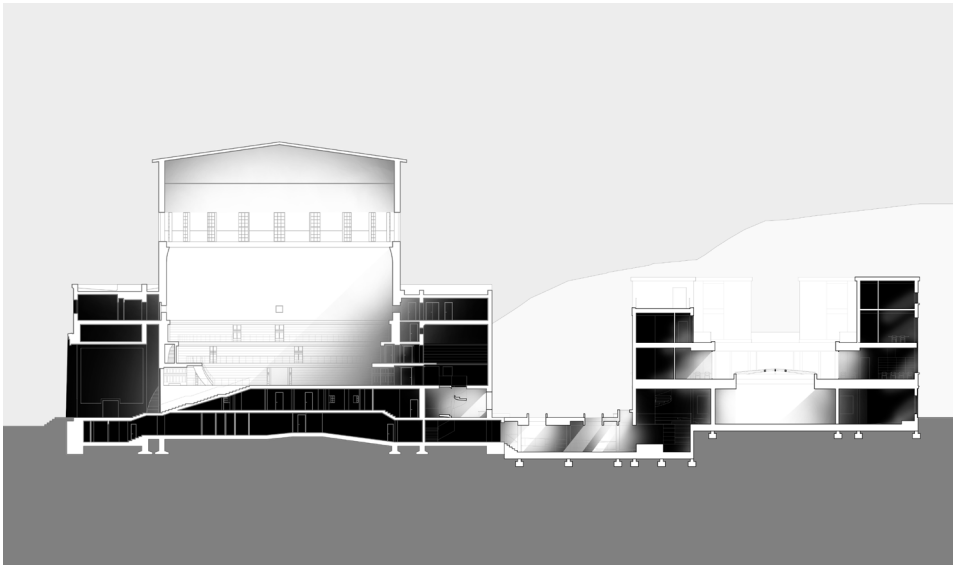
Between the old and new libraries and the connecting spaces, three main spatial nodes are established: the old rotunda, the underground art gallery, and the new rotunda. A three-dimensional transportation system is also installed, allowing people to move through and activate all spaces. This setup enables visitors to perceive the transition from old to new architecture, creating a sort of time and space tunnel.



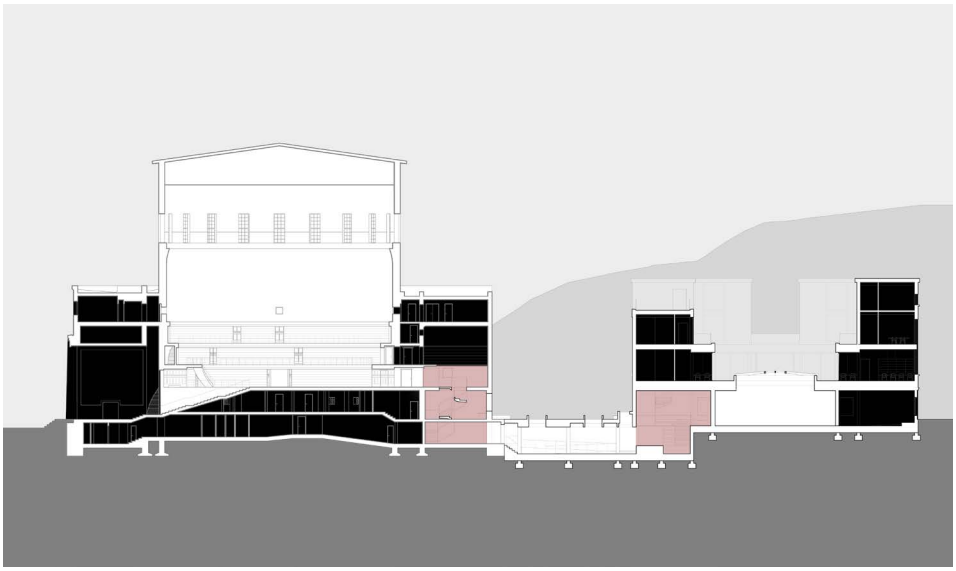

Walking circulation



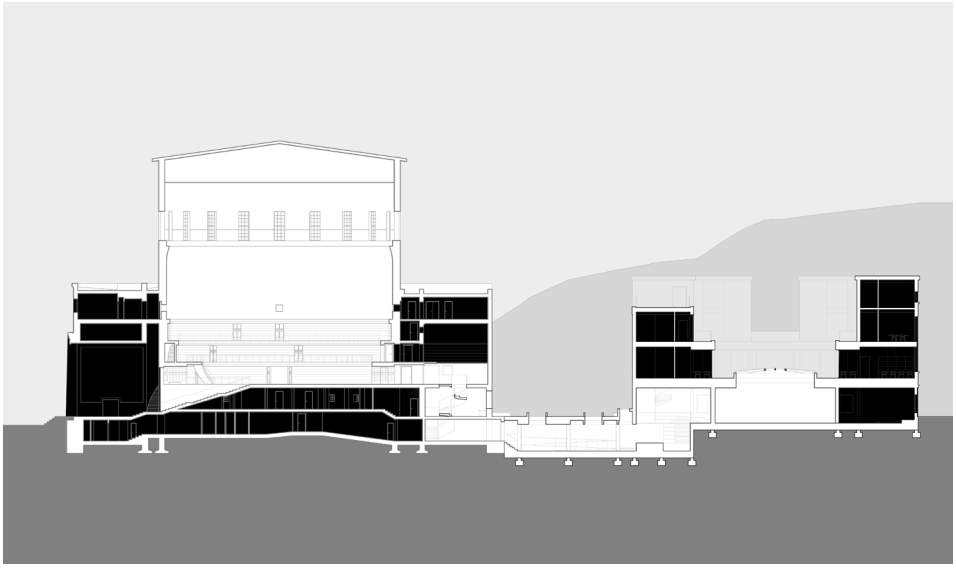
Disability



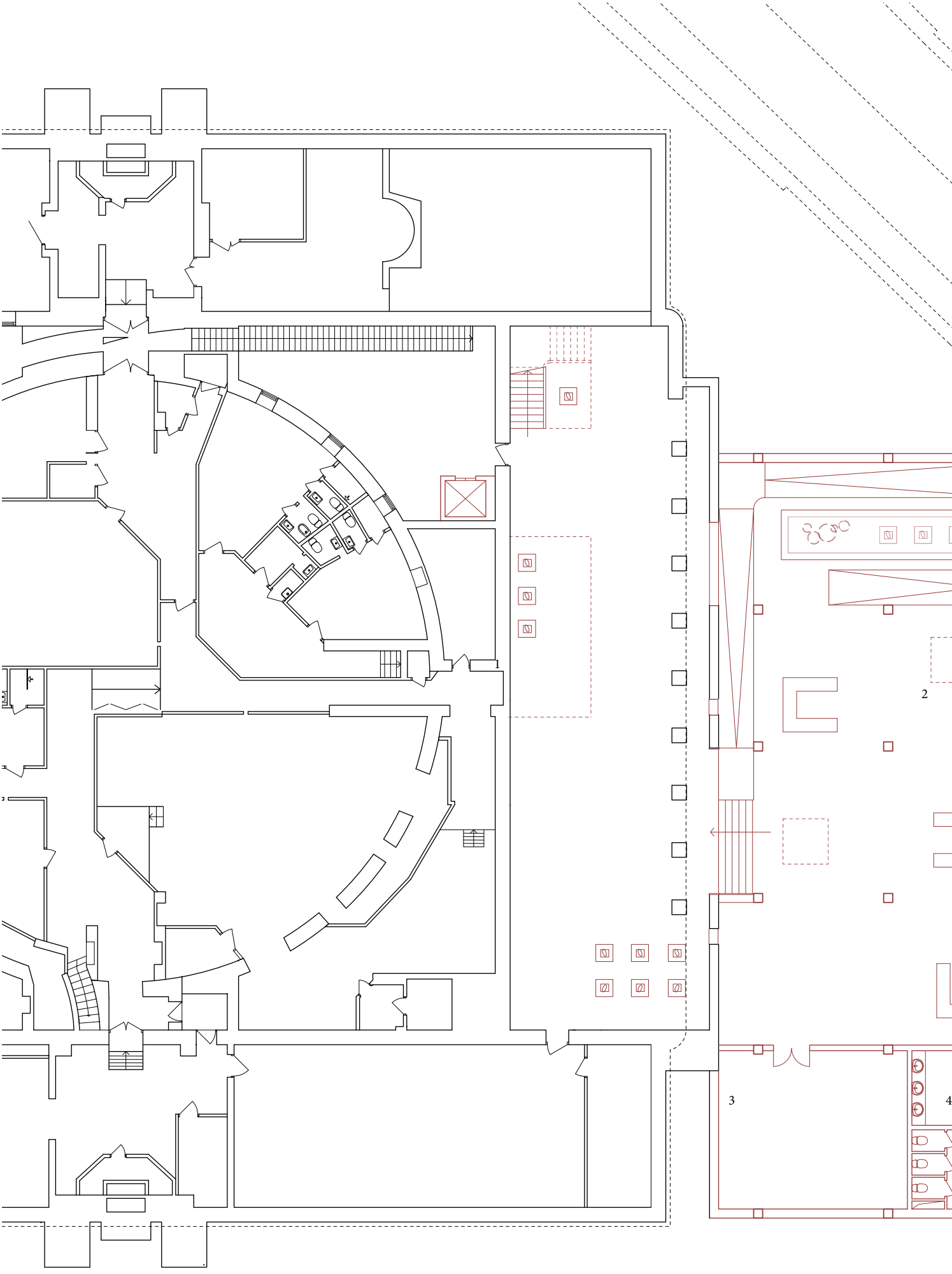
Section light and shadow rhythm



Experiential transportation core



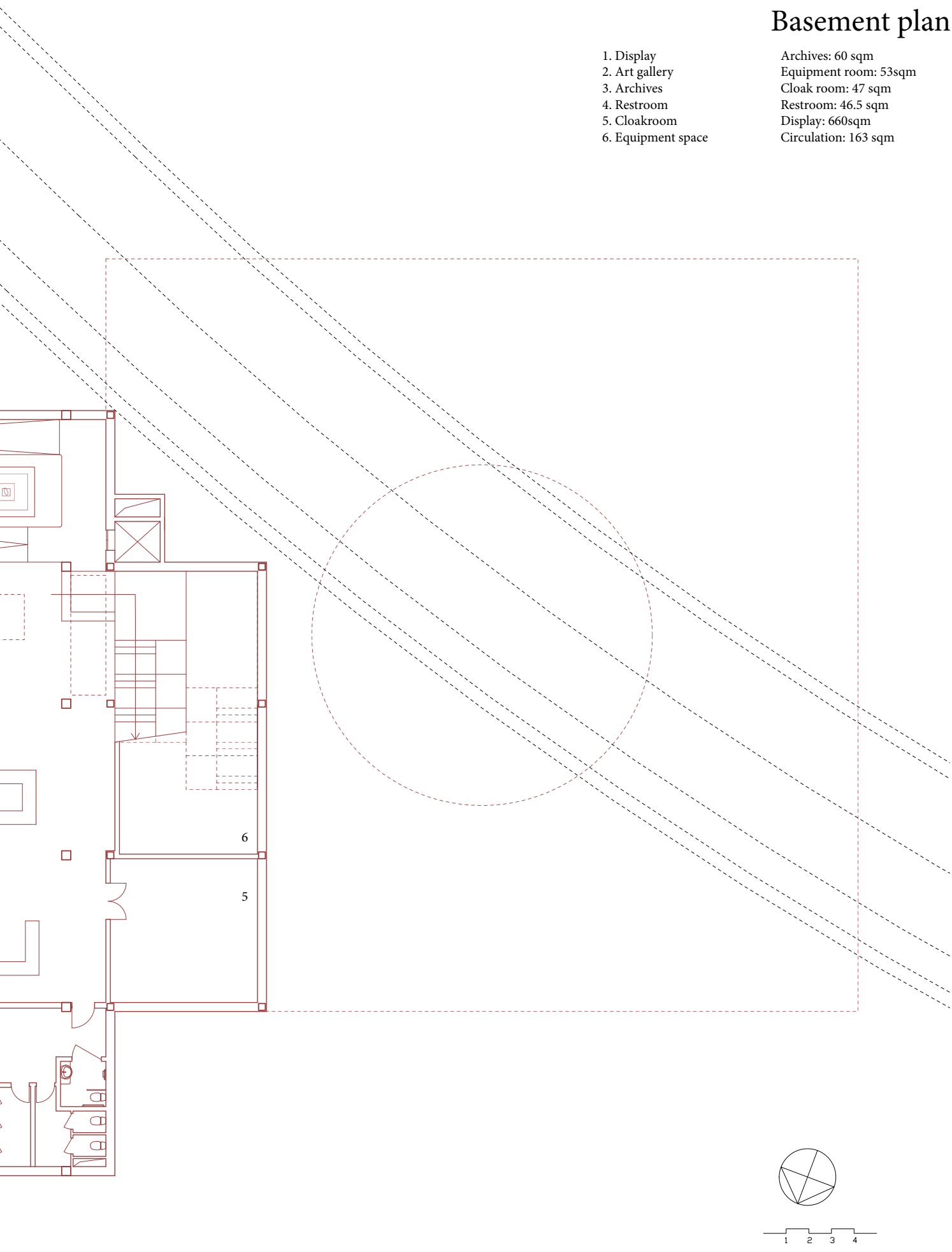
Organic entity of publicness

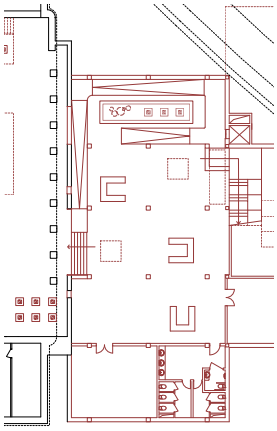

1
2
3
4

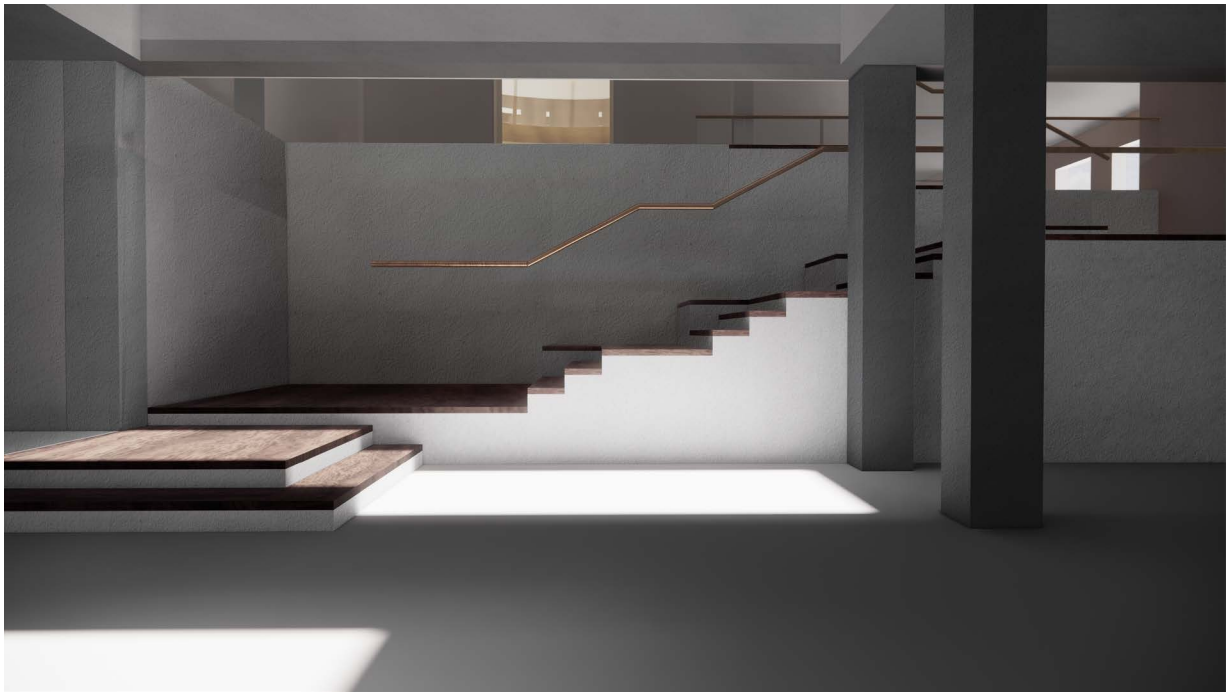
# Basement plan

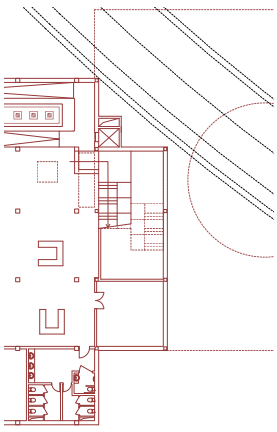
1. Display
2. Art gallery
3. Archives
4. Restroom
5. Cloakroom
6. Equipment space

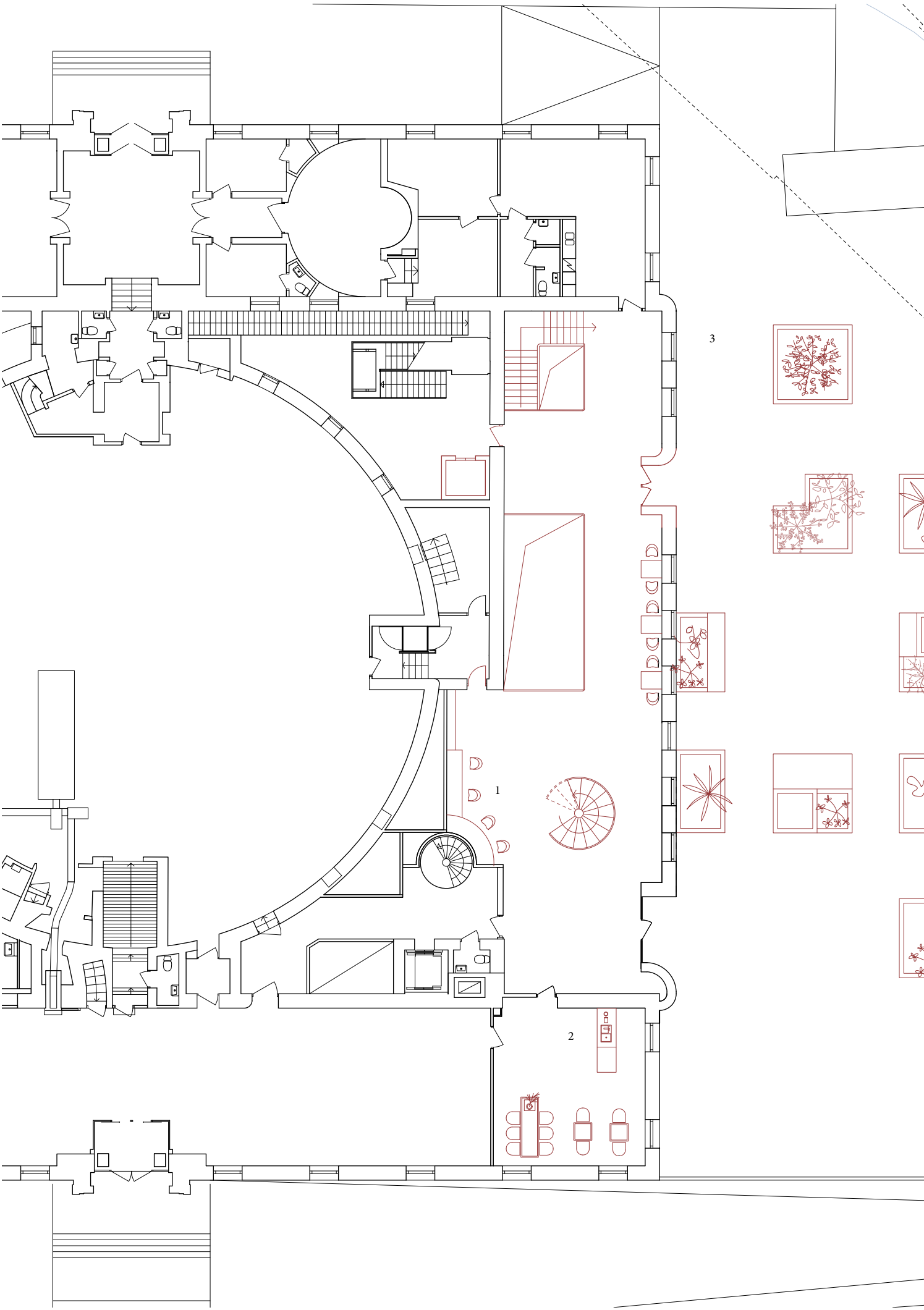
Archives: 60 sqm
Equipment room: 53sqm
Cloak room: 47 sqm
Restroom: 46.5 sqm
Display: 660sqm
Circulation: 163 sqm







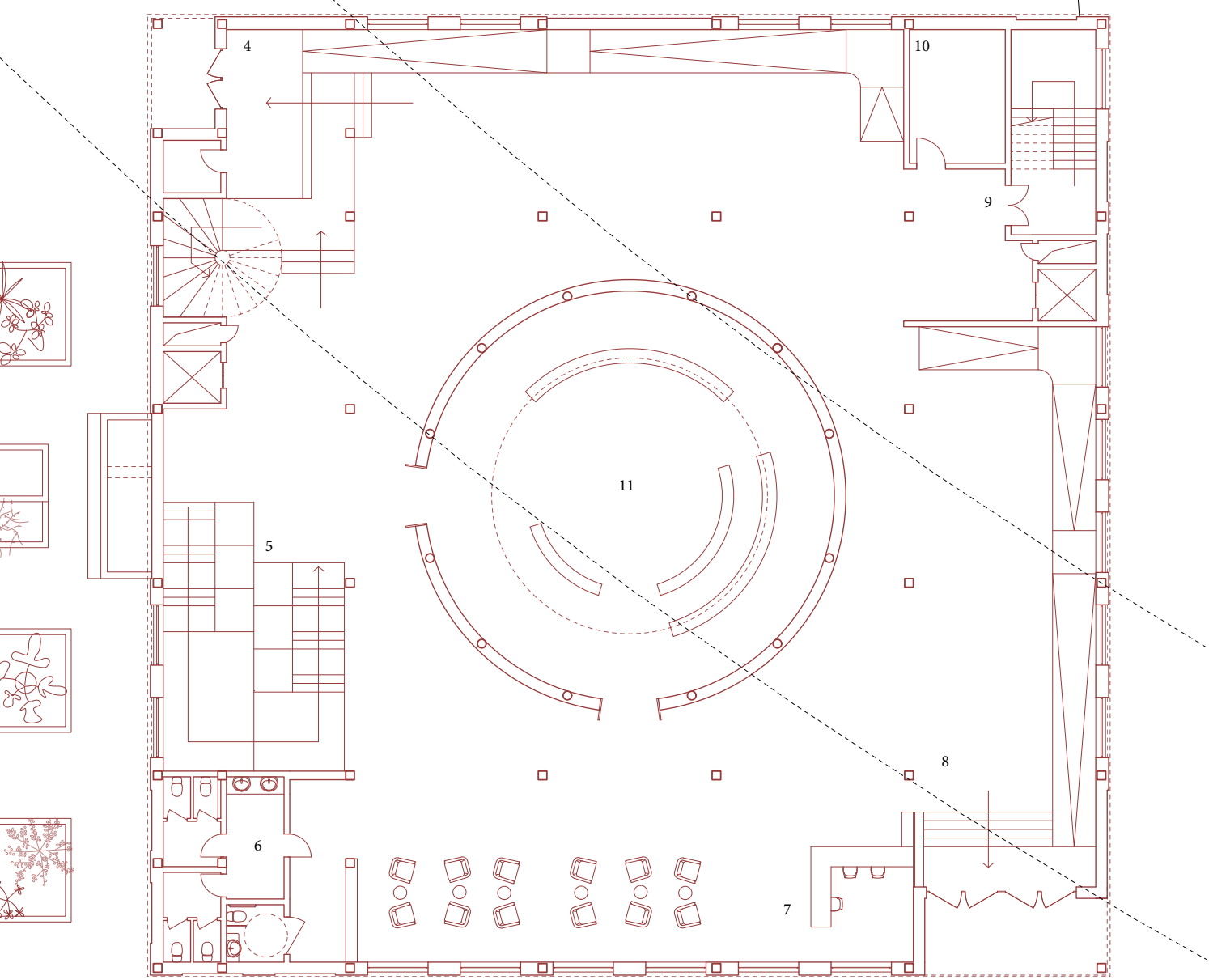


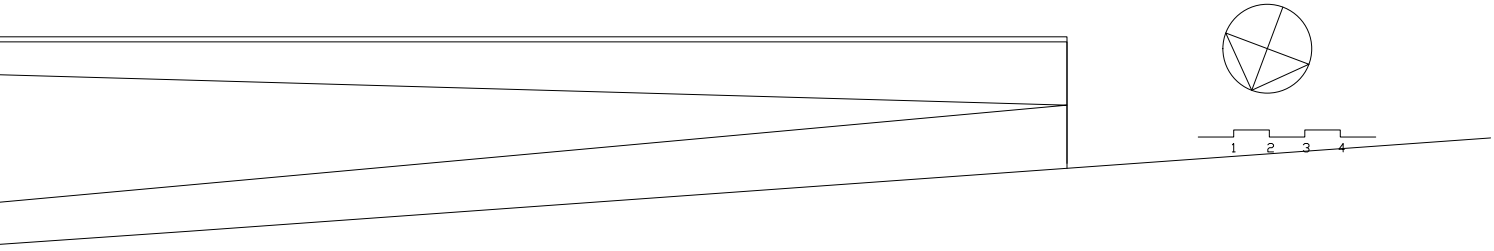

1
2
3

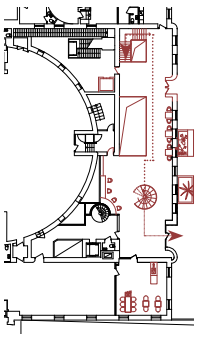
# Ground floor plan

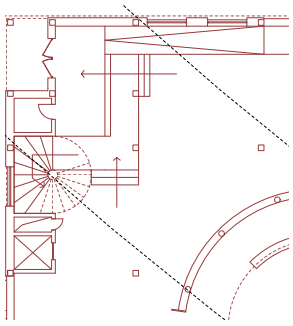
1. Newspaper reading bar
2. Cafe
3. Garden
4. Entrance to the garden
5. Landscape stairs
6. Restroom
7. Reception
8. Entrance to the street
9. Fire stairs
10. Equipment room
11. Immersive theater

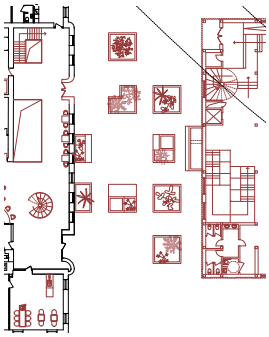
Equipment space: 18 sqm
Circulation: 268 sqm
Restroom: 28 sqm
Public space: 580 sqm
Immersive theater: 160 sqm

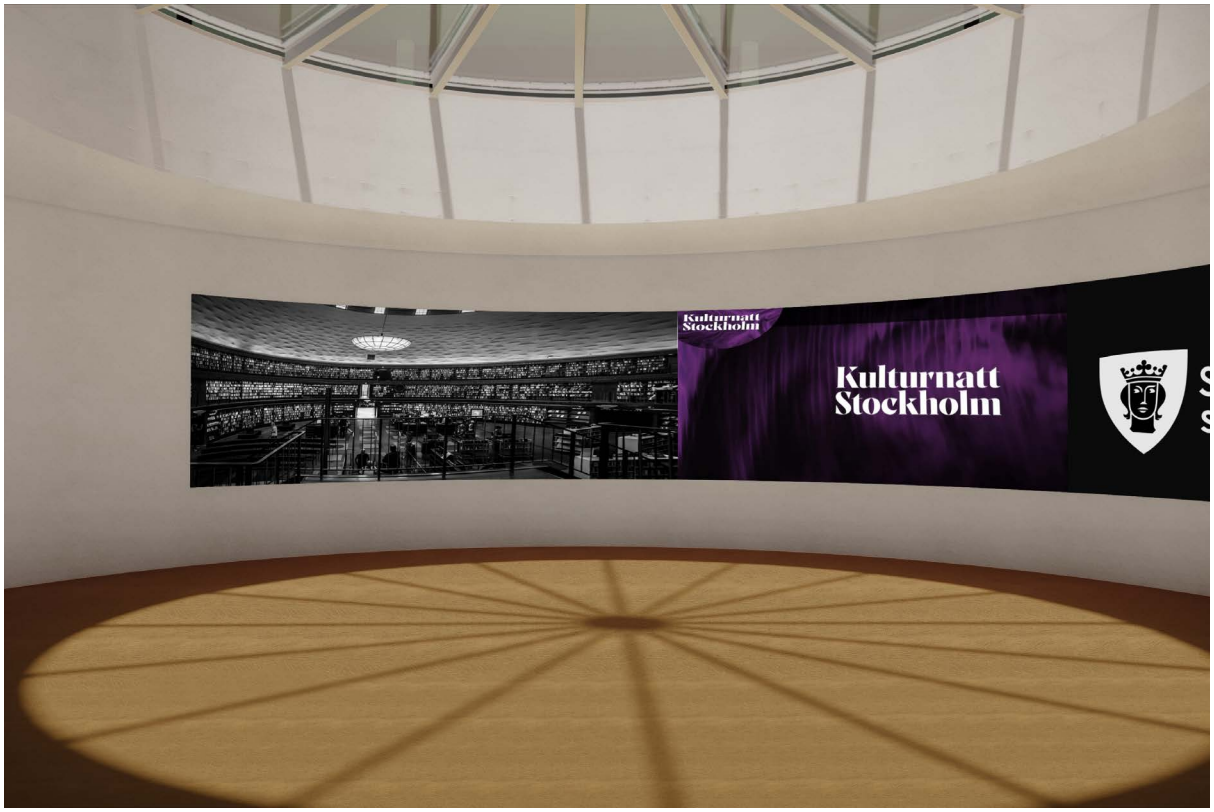


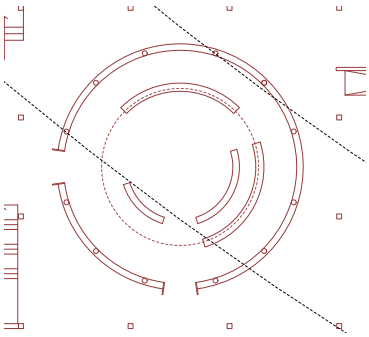



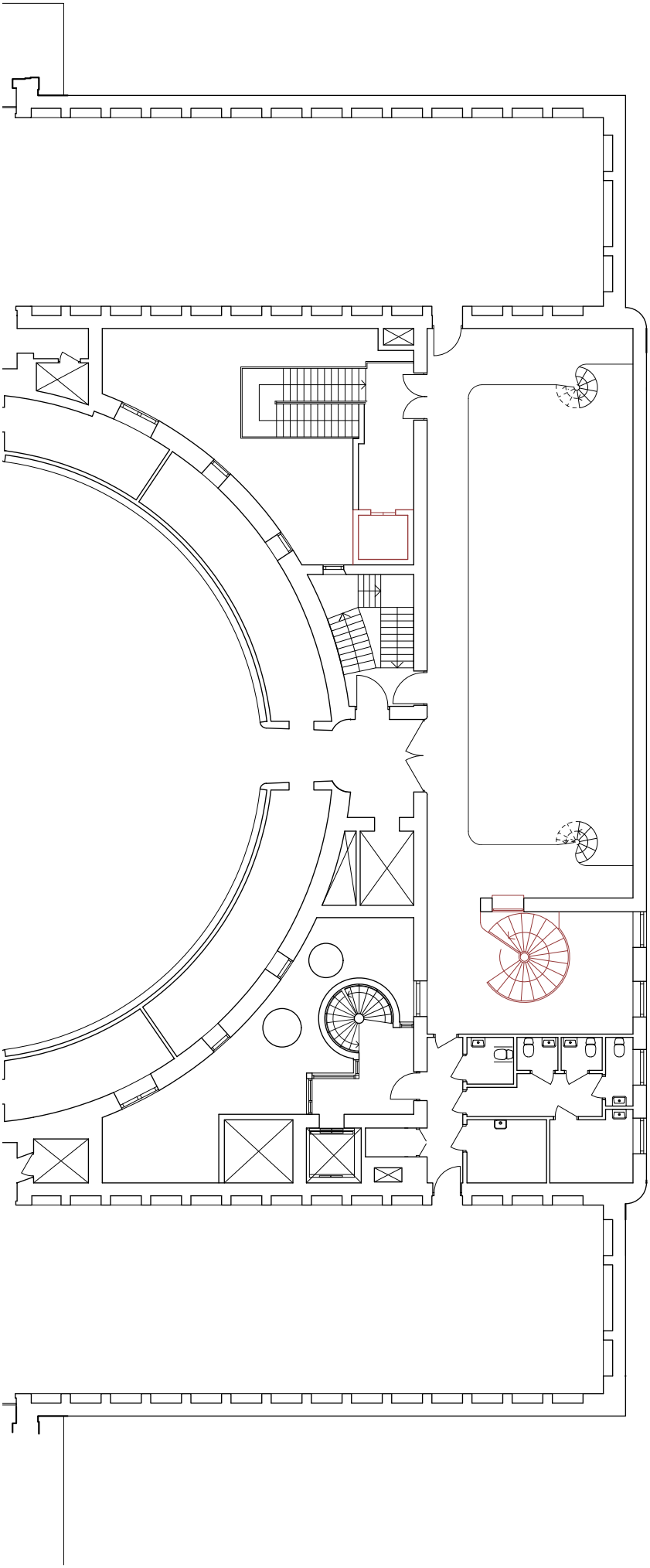


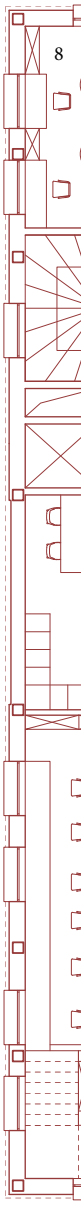





Kulturnatt
Stockholm
Kulturnatt
Stockholm



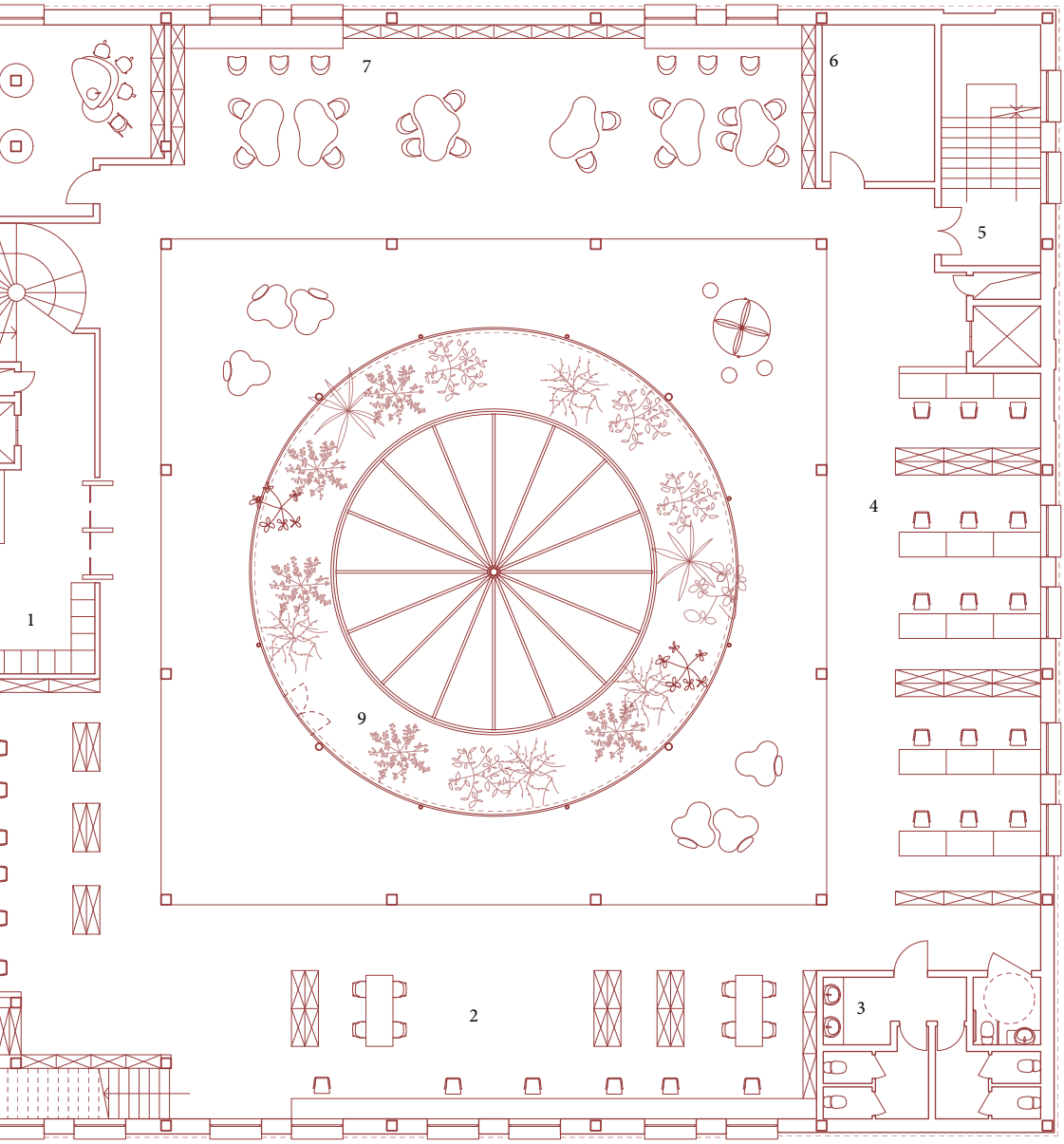


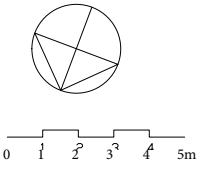

8

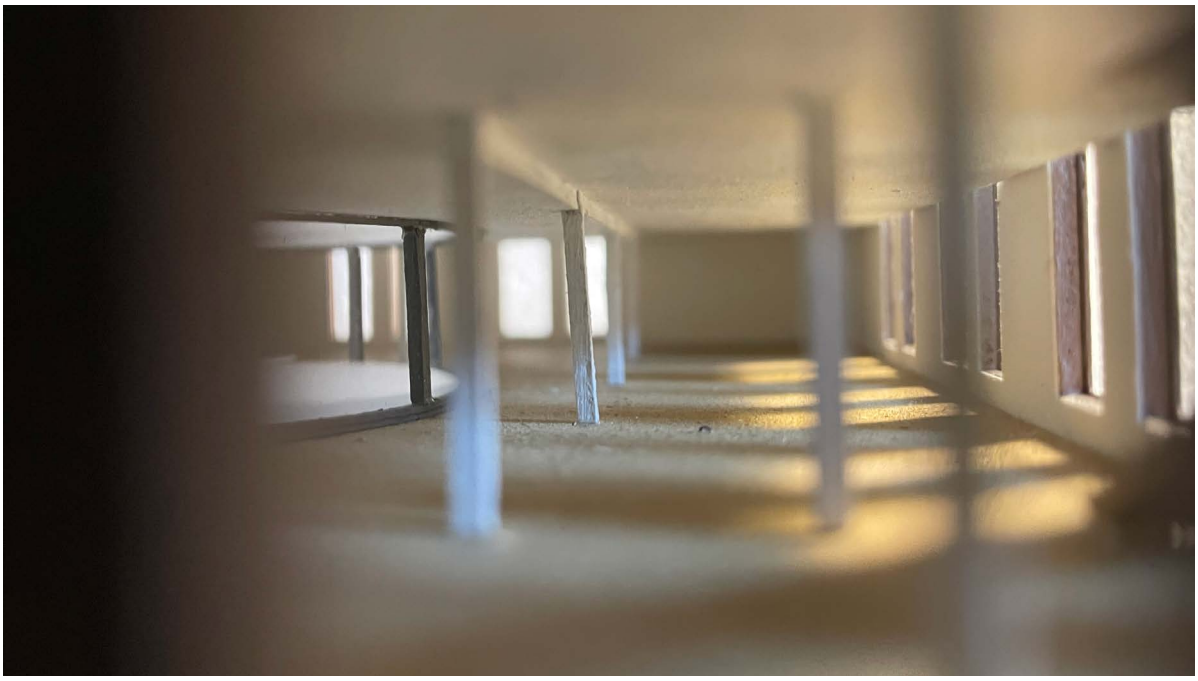
# 1st Floor plan

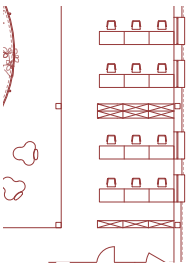
1. Cloakroom
2. Study hall
3. Restroom
4. Talking-allowed reading hall
5. Fire stairs
6. Equipment space
7. Children's library
8. Story-telling room
9. Green atrium

Equipment space: 18 sqm
Cloak room: 39 sqm
Restroom: 28 sqm
Green atrium: 160 sqm
Public Reading space: 307 sqm
Private Reading space: 36 sqm
Leisure Space: 433 sqm
Circulation: 64 sqm



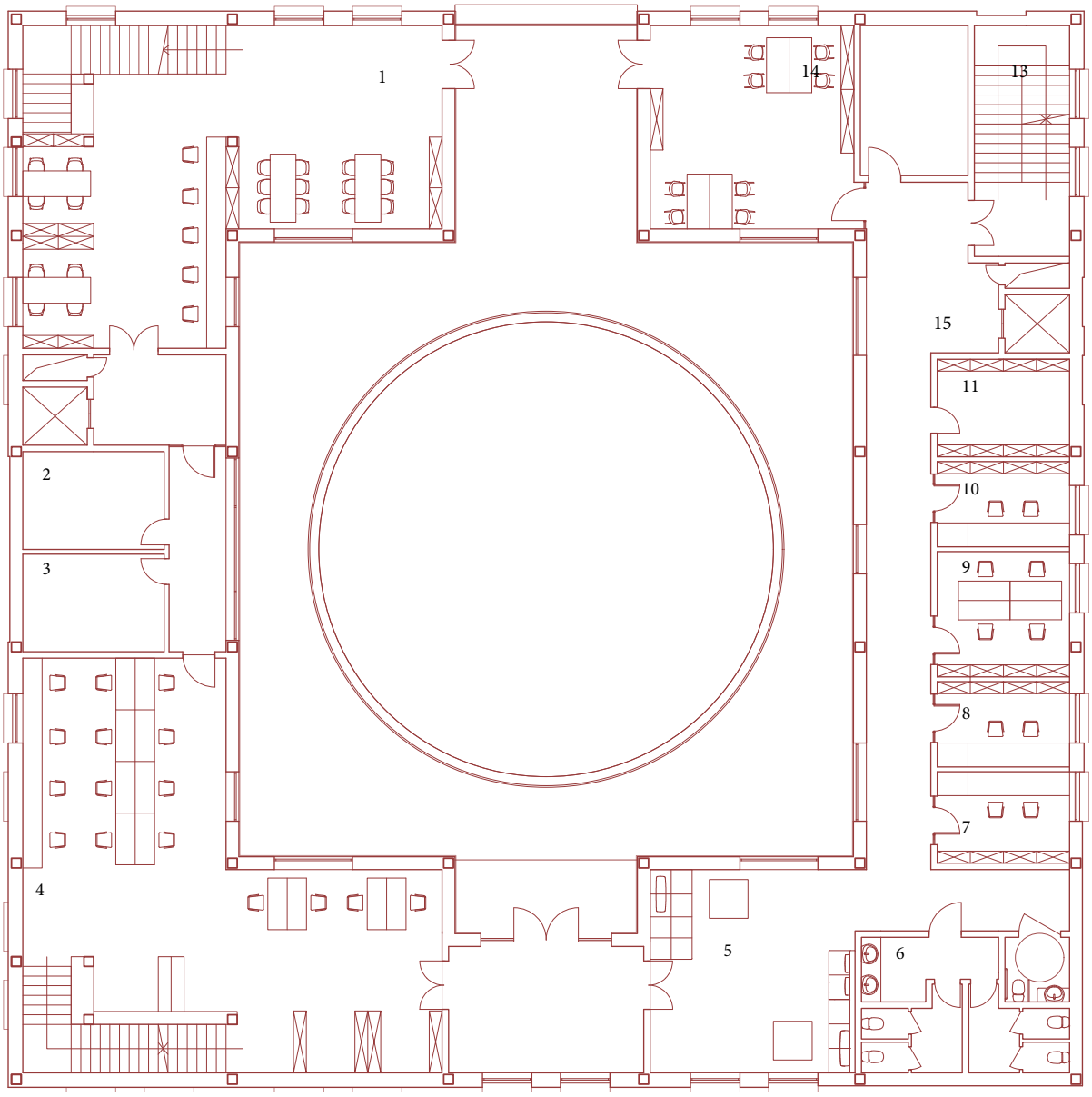


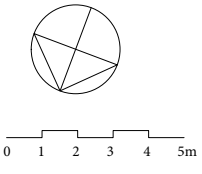


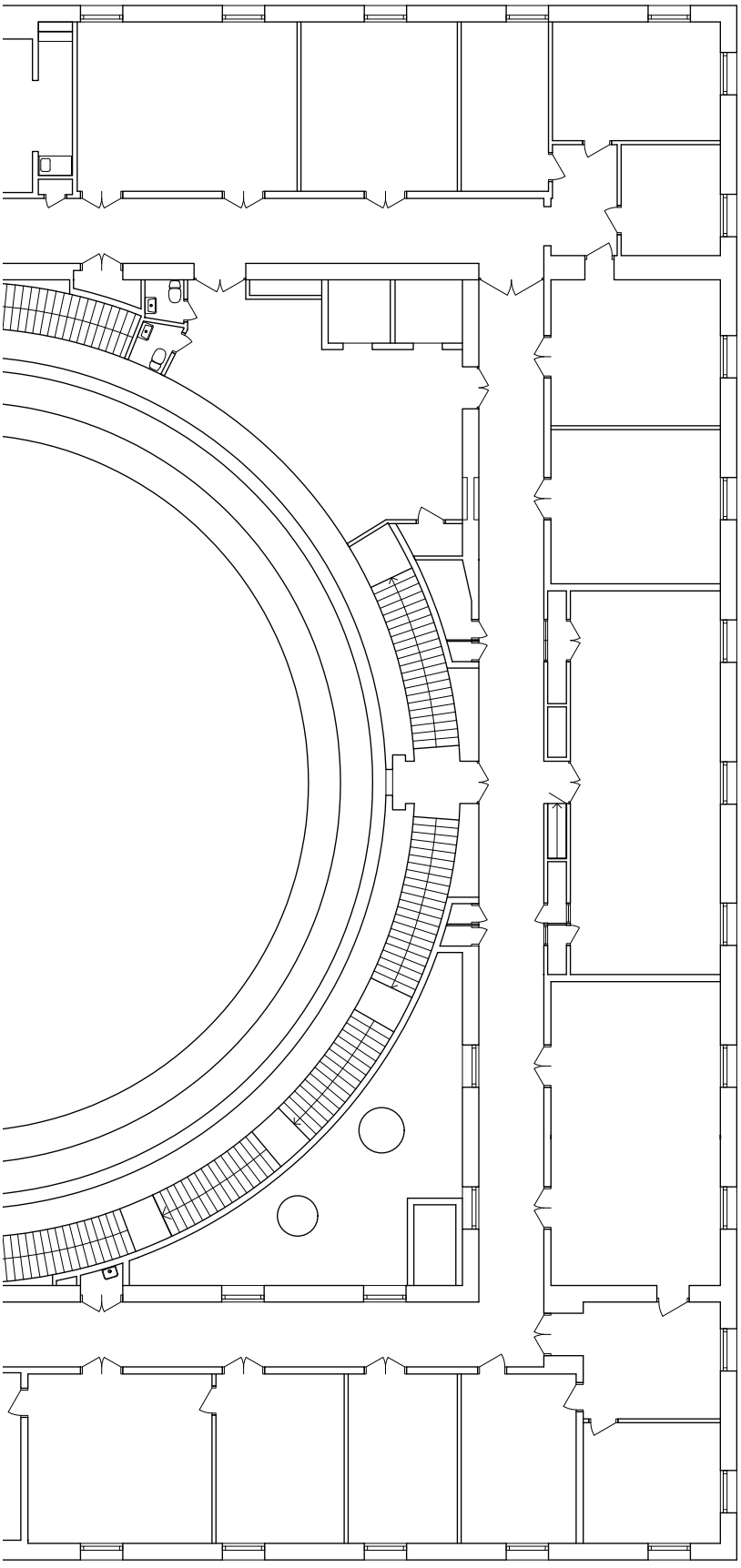
# 2nd Floor plan

1. Reading hall
2. Printing room
3. Archives
4. Computer room
5. Leisure space
6. Equipment space
7. Study room
8. Study room
9. Study room
10. Study room
11. Study room
12. Fire stairs
13. Equipment room
14. Reading room
15. Terrace

Equipment space: 18 sqm
Restroom: 28 sqm
Archives: 13 sqm
Printing room: 13 sqm
Leisure space: 42 sqm
Reading room: 144 sqm
Computer room: 137 sqm
Study room: 70 sqm
Circulation: 62 sqm
Public space: 142 sqm
Terrace: 225 sqm



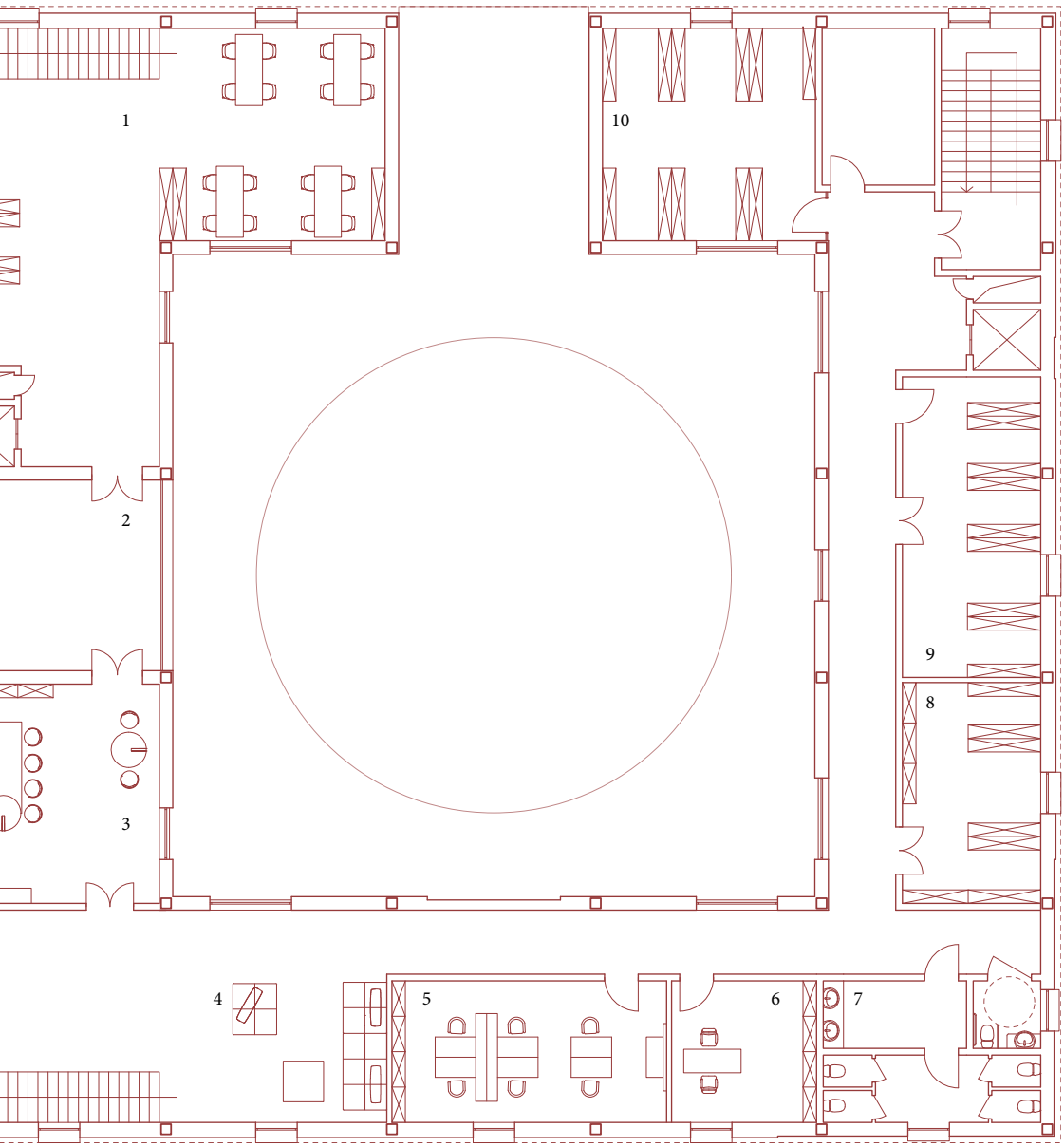



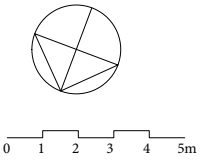


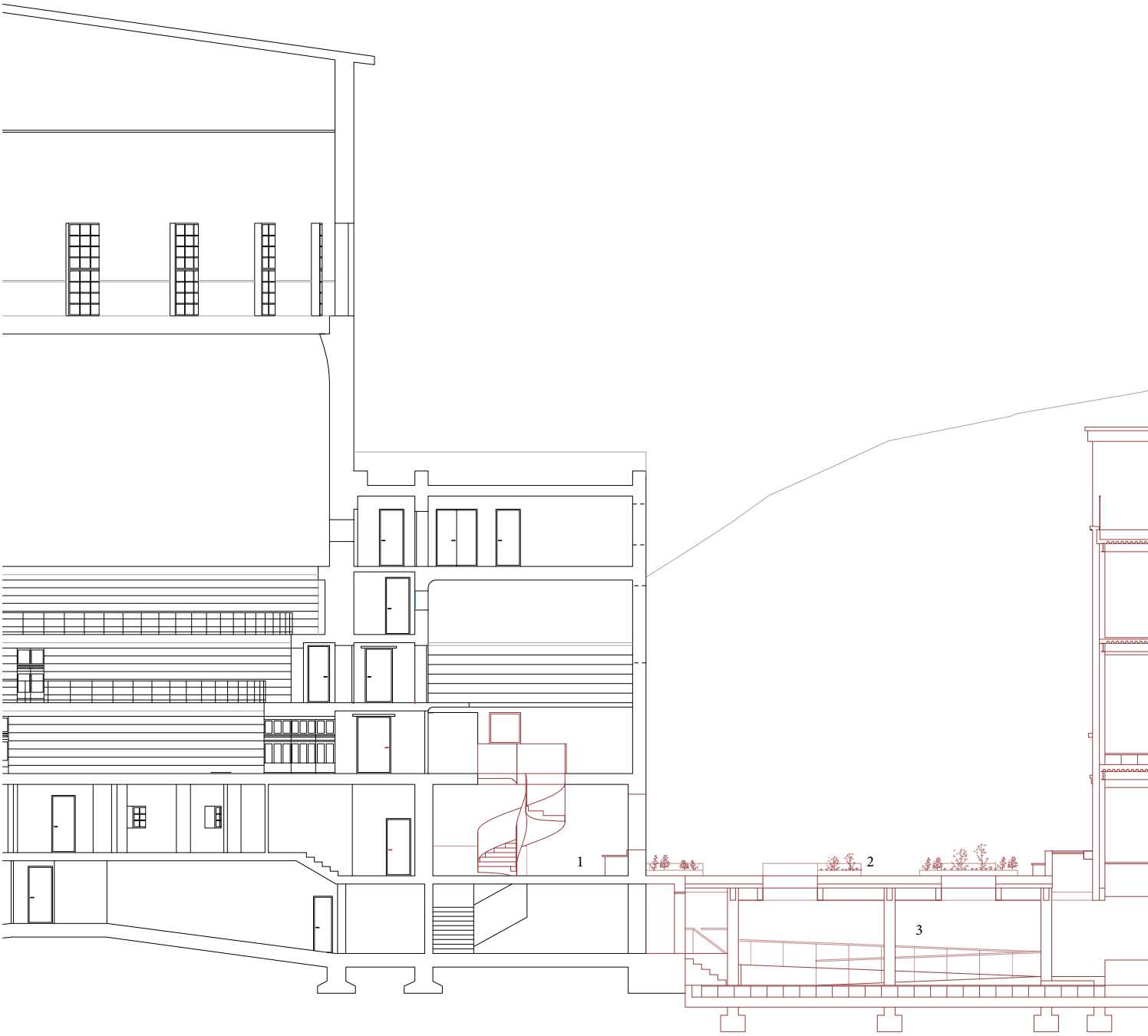
# 3rd Floor plan

1. Office
2. Terrace
3. Meeting room
4. Leisure space
5. Office
6. Office
7. Restroom
8. Archives
9. Archives

Equipment space: 18 sqm
Restroom: 28 sqm
Archives: 111 sqm
Leisure space: 44 sqm
Meeting room: 45 sqm
Office: 188 sqm
Circulation: 62 sqm
Public space: 86 sqm
Terrace: 40 sqm

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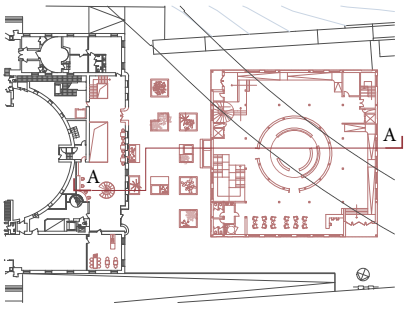
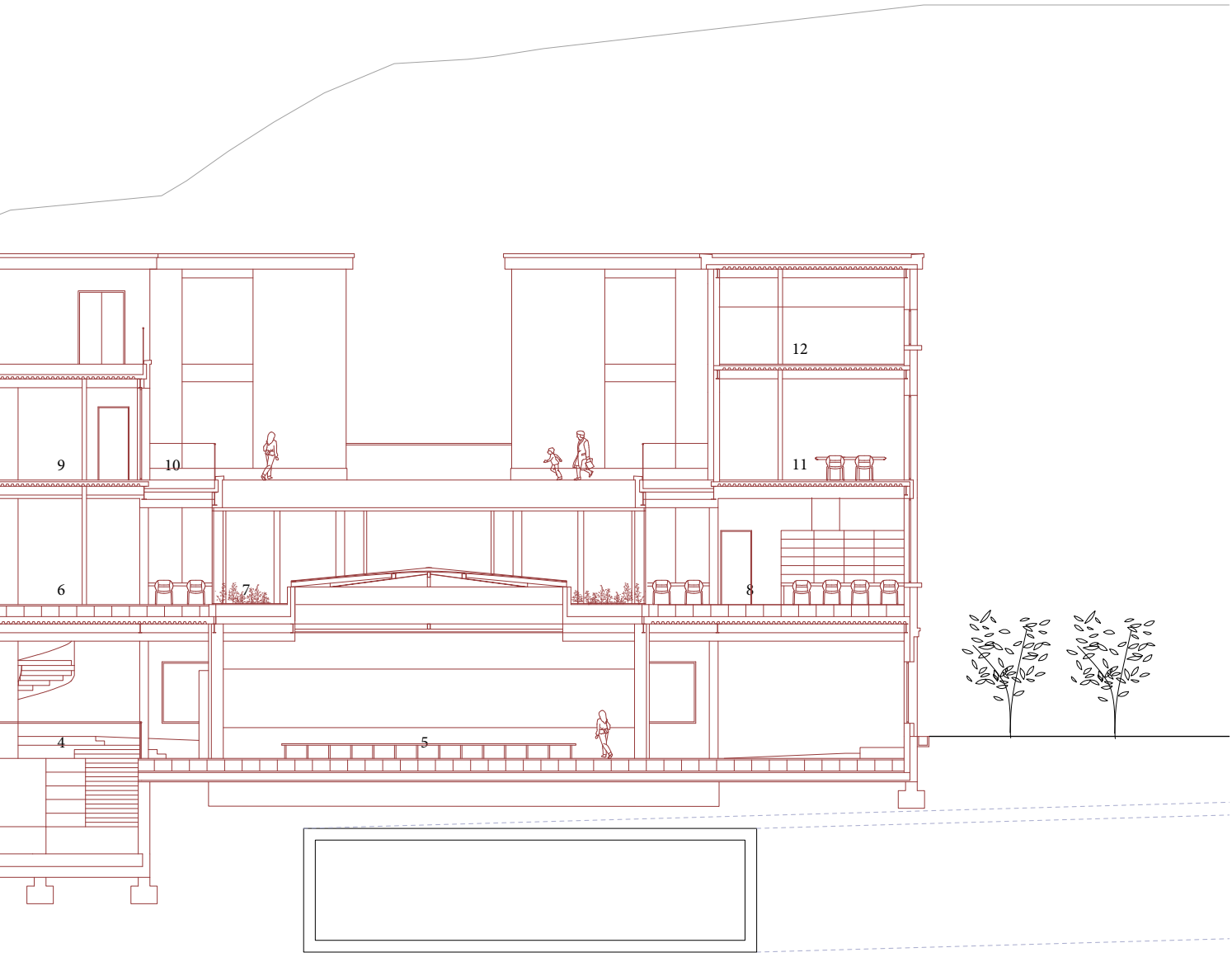

A
A

# A-A Section

1. Office
2. Garden
3. Art Gallery
4. Landscape stairs
5. Immersive theater
6. Cloak room
7. Green Atrium
8. Reading hall
9. Pringting room
10. Terrace
11. Study room
12. Archives




0 1 2 3 4 5m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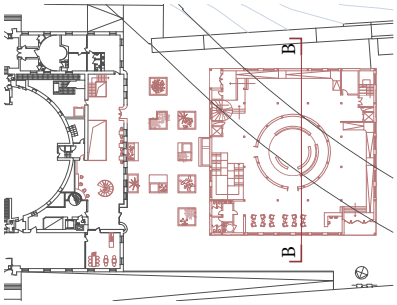
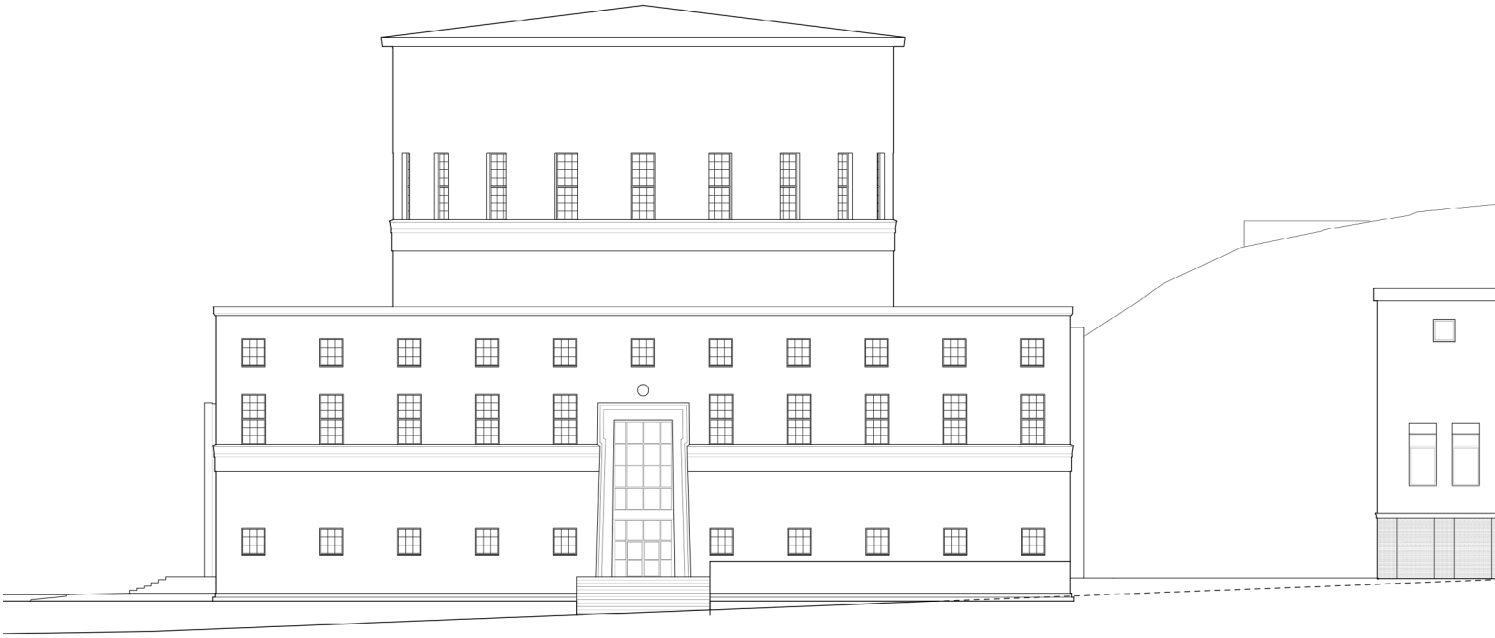

B
B

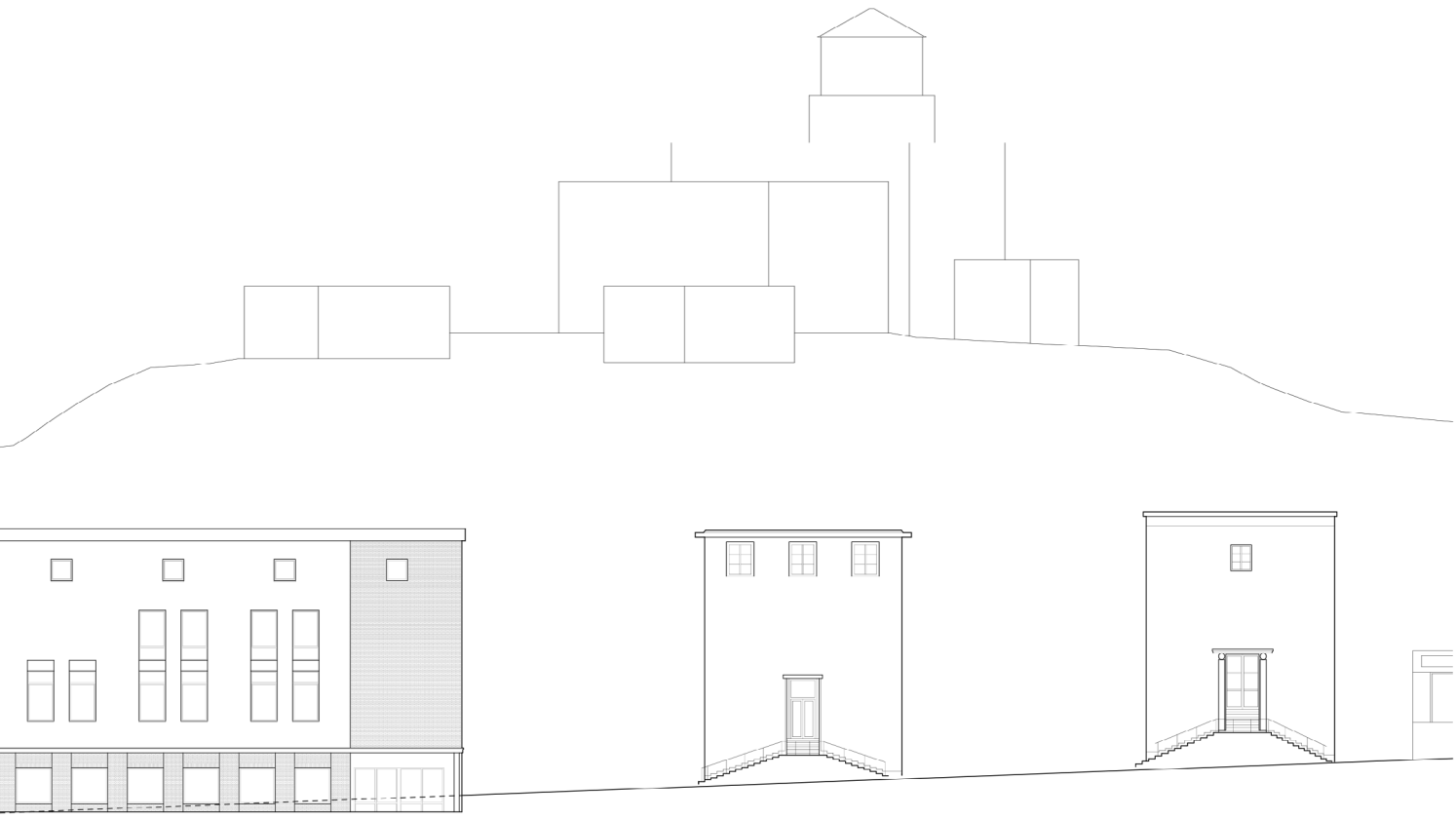
# B-B Section

1. Leisure space
2. Immersive theater
3. Composite stairs
4. Reading hall
5. Green atrium
6. Children's library
7. Terrace
8. Office

## Elevation

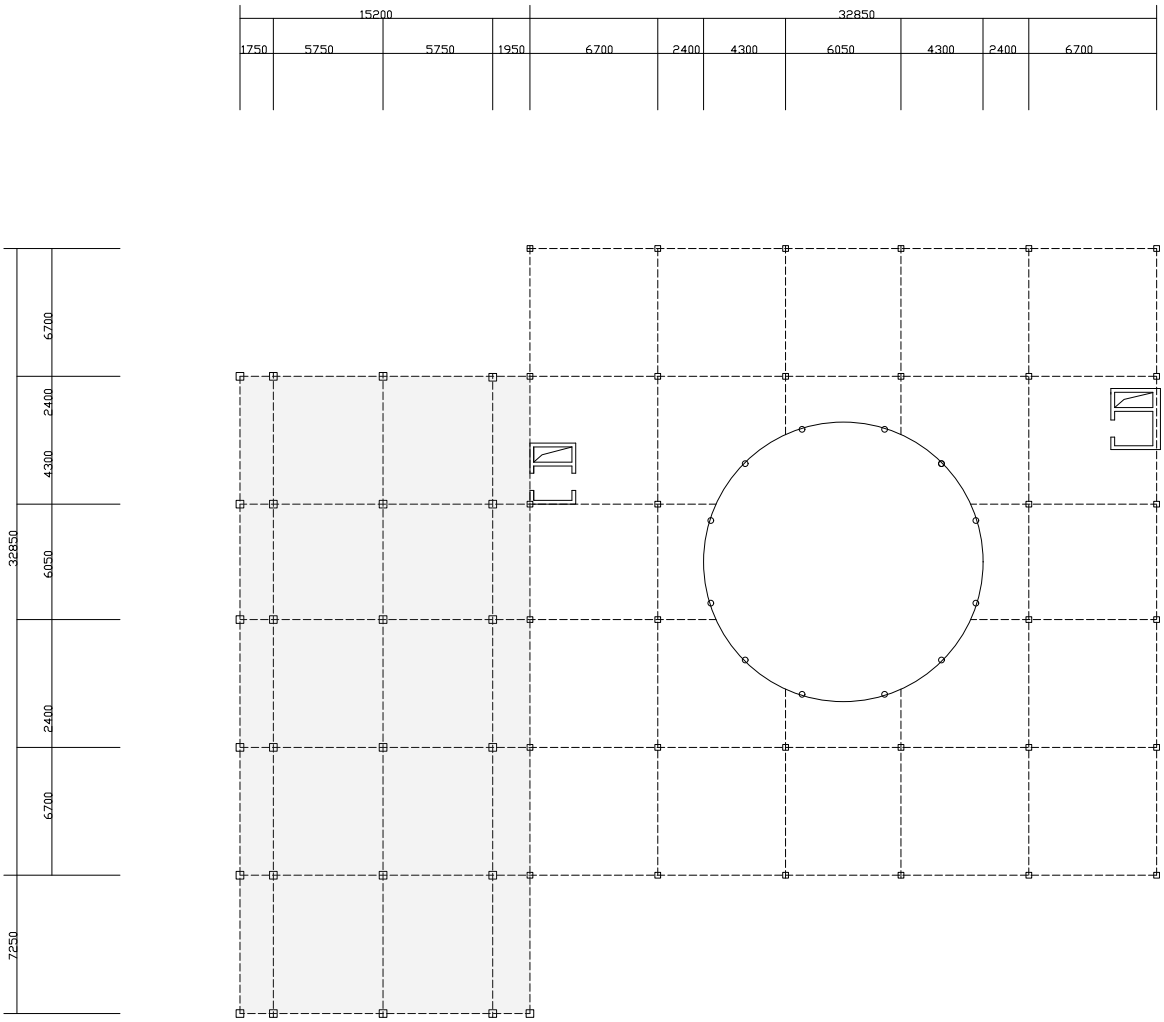
On the façade, the variation in the size of vertical windows corresponds to the surrounding site, forming its own rhythm horizontally, distinct from the completely symmetrical façade environment nearby. Additionally, the low walls on the ground and the building's plinth create three stepping patterns, guiding people to explore deeper into the space.





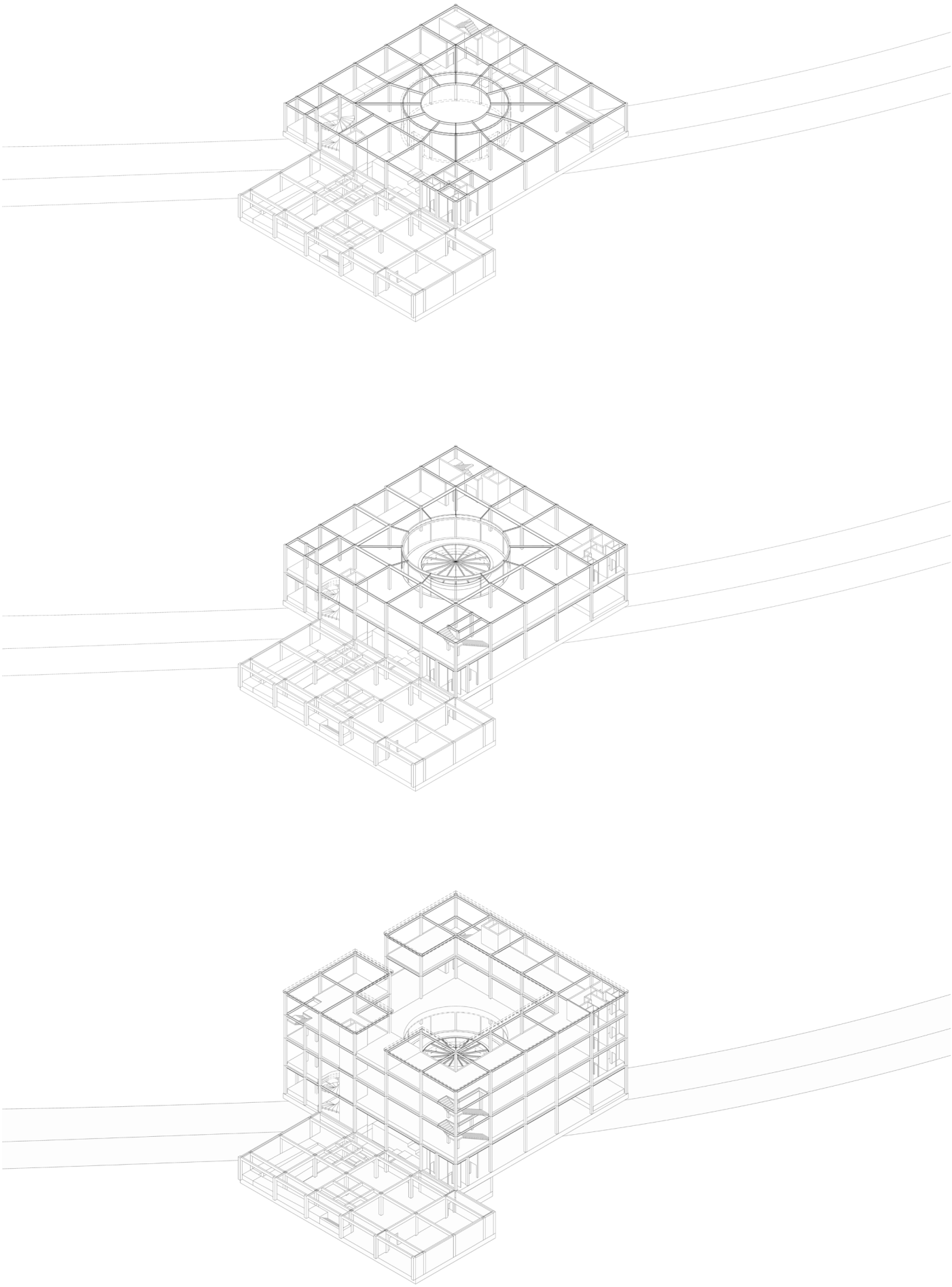
# Construction

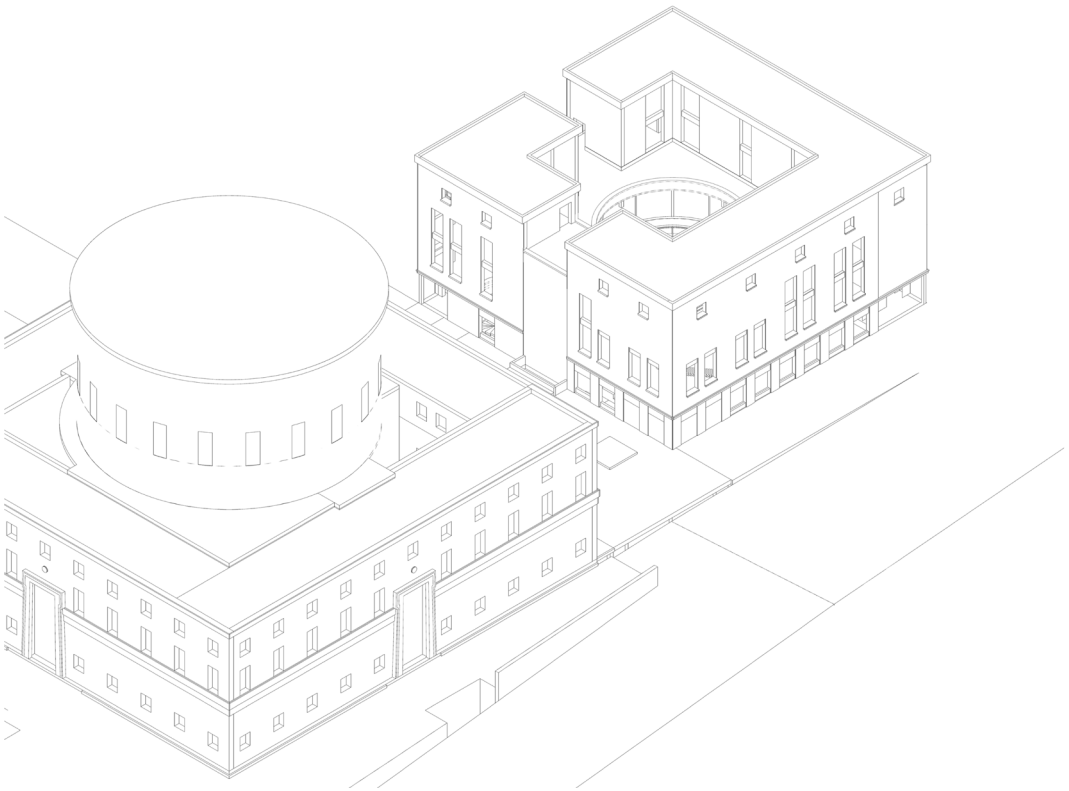
In terms of structural and material choices, concrete structures are used for the underground part and with a combination of steel columns, steel beams, and concrete slabs for the new library section. This approach will make the structural components inside the new library more lightweight and provide greater possibilities



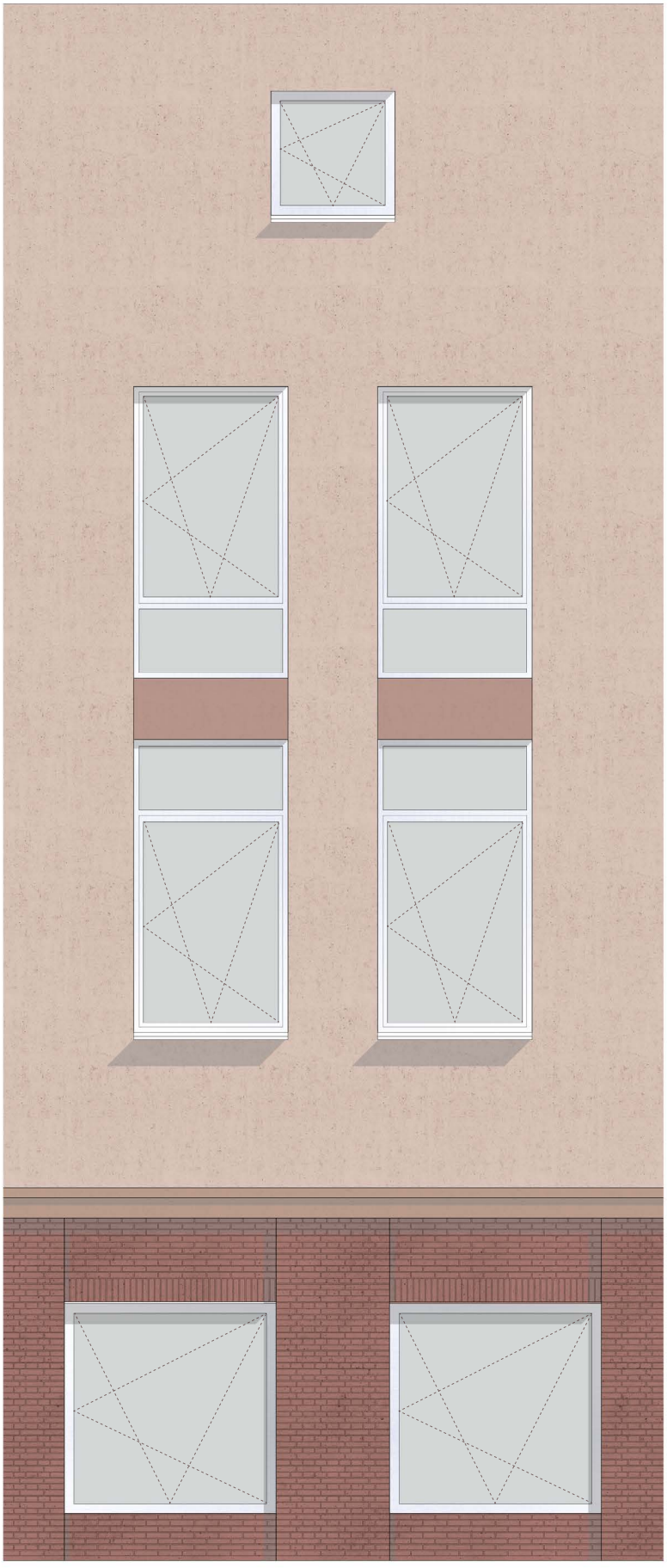

Concrete structure

Steel structure

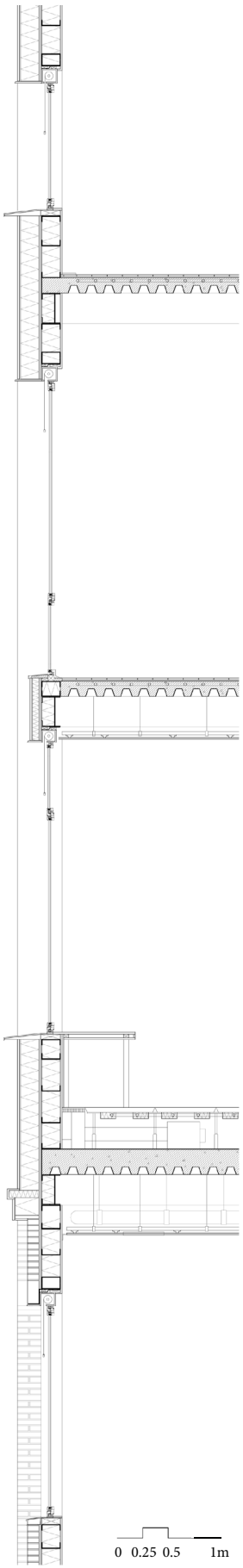




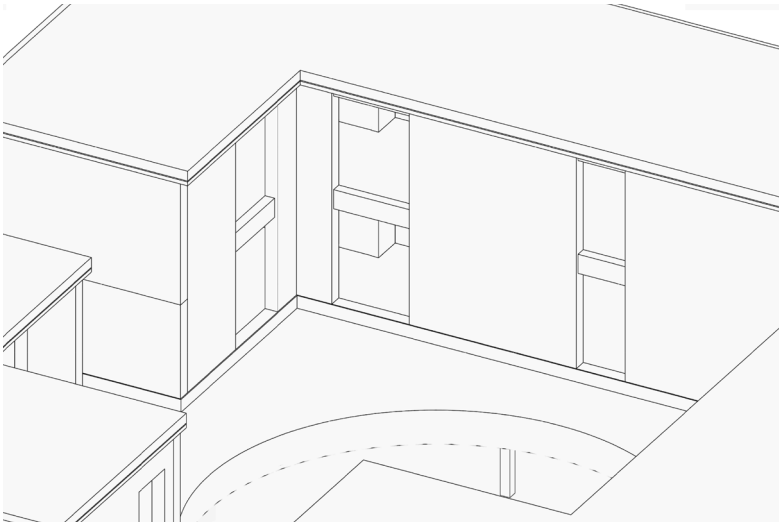
plaster



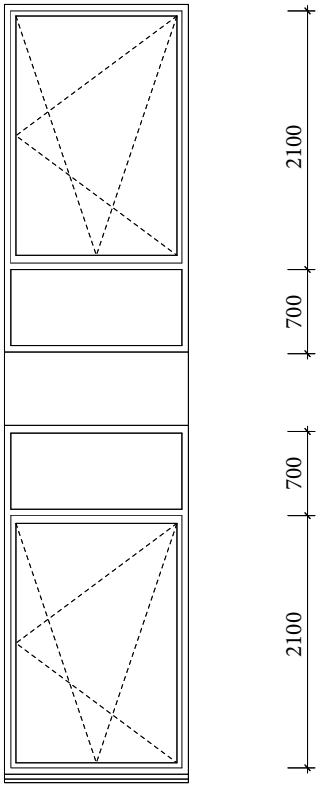
brick


0 0.25 0.5 1m

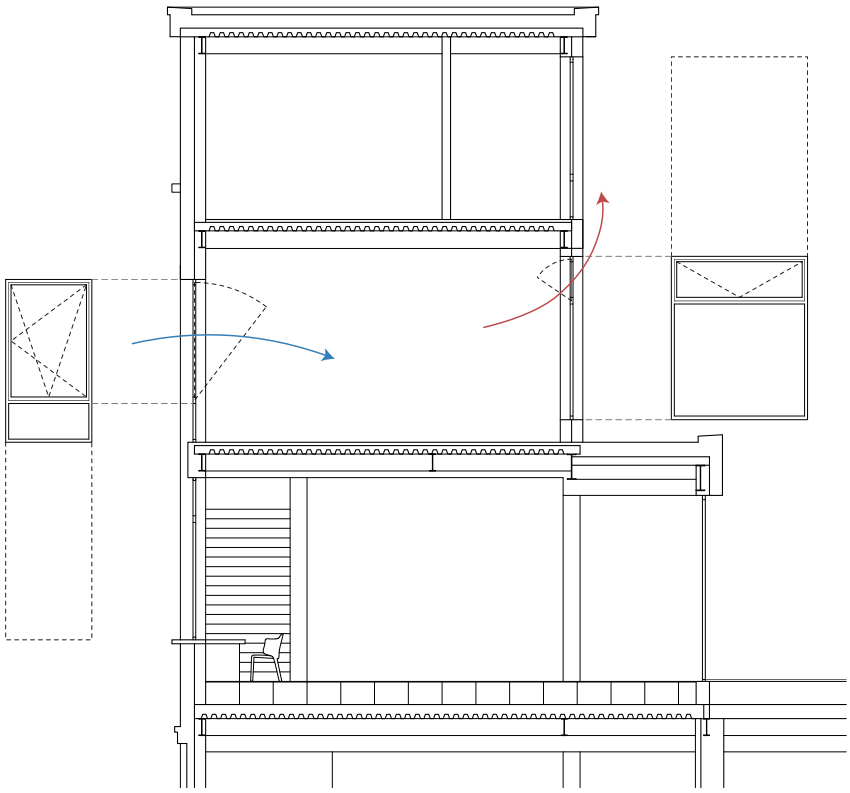
Facade face to the street



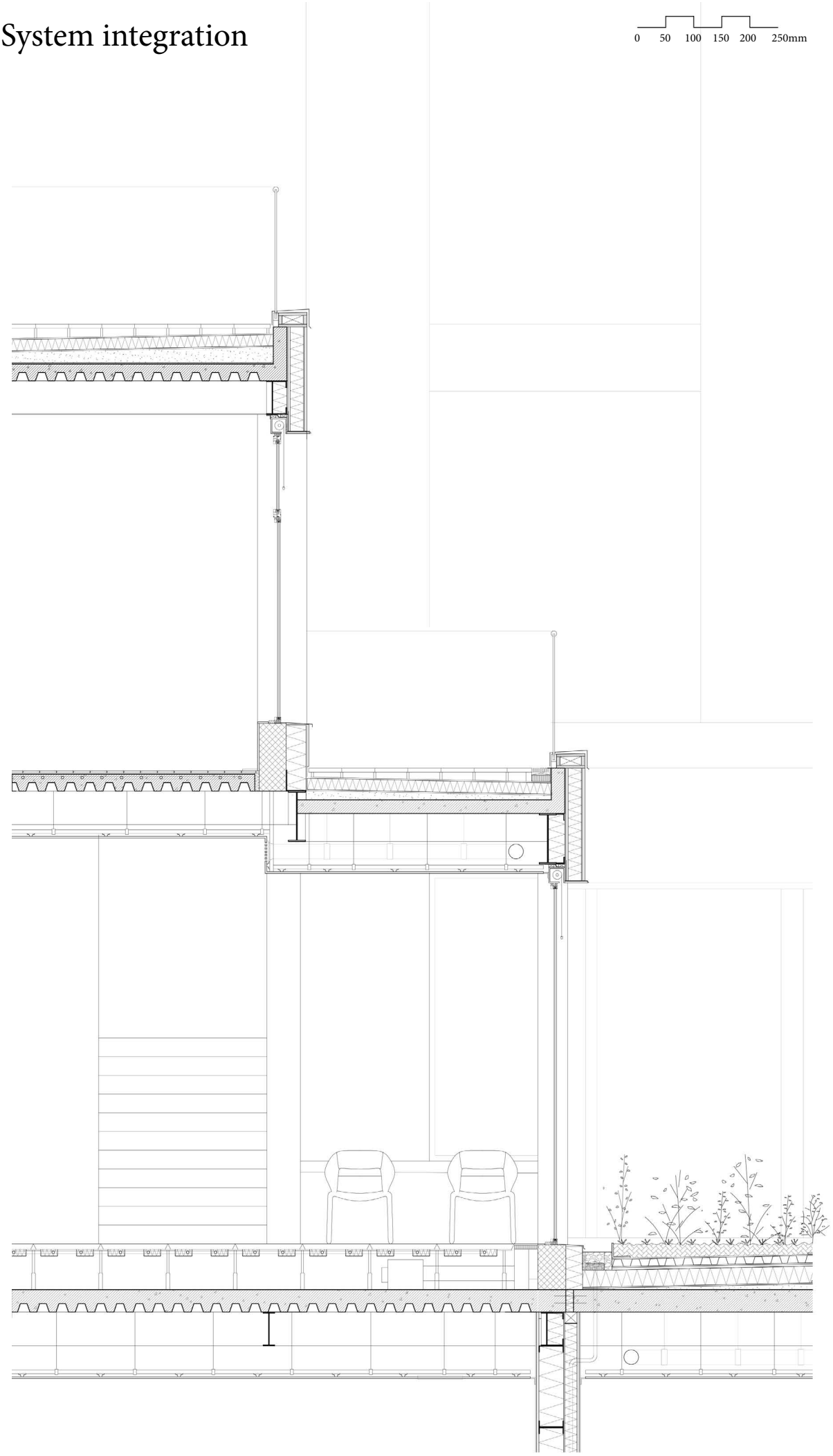
Facade face to the artrium

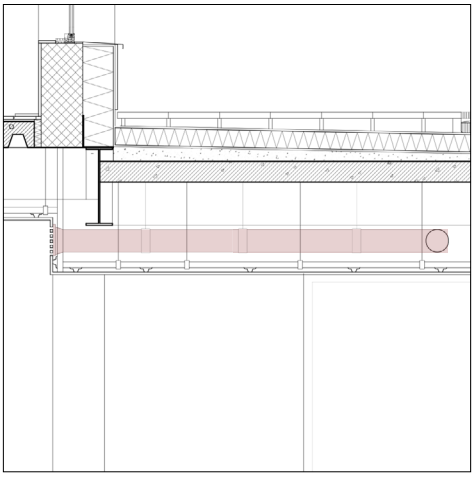


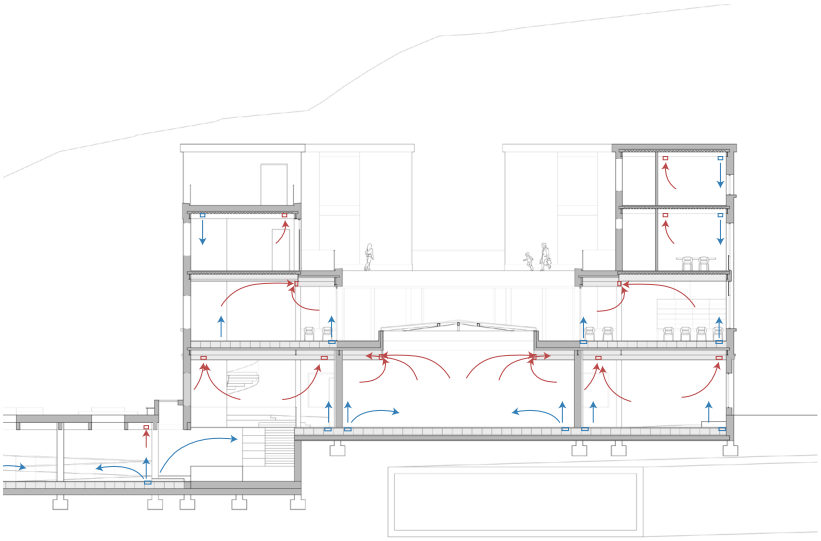

The window division method employs the same proportion on both the inner and outer layers of the facade, with a vertical symmetry. This modulation in the module can affect the size of the windows and help facilitate effective natural ventilation.



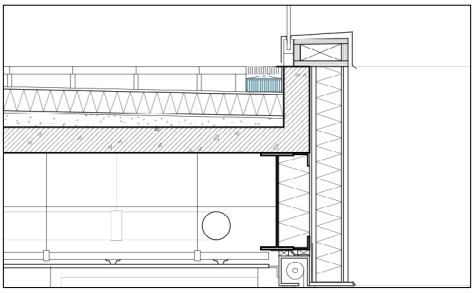
# System integration

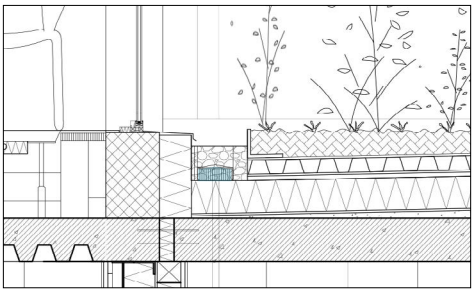


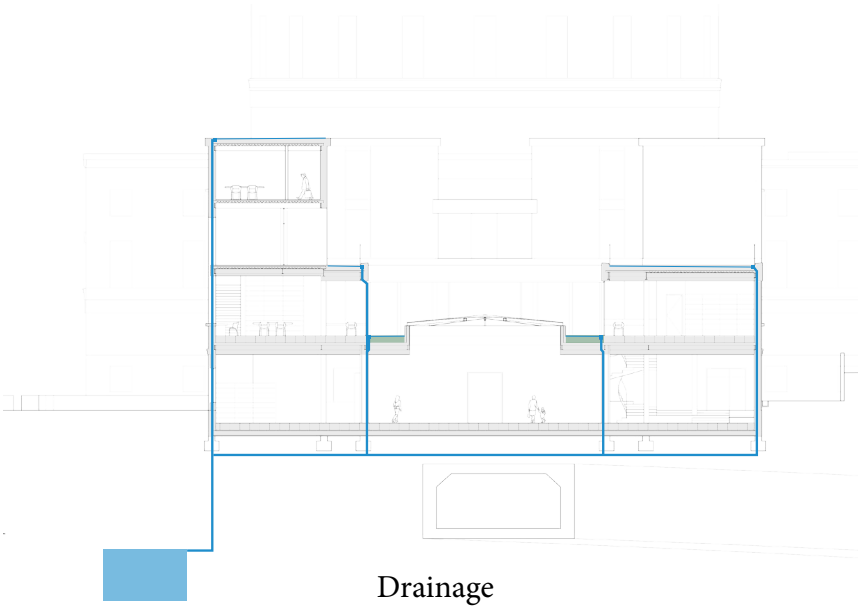




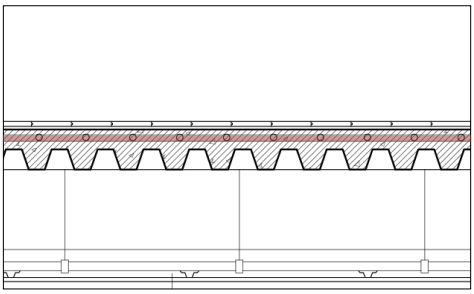
Ventilation

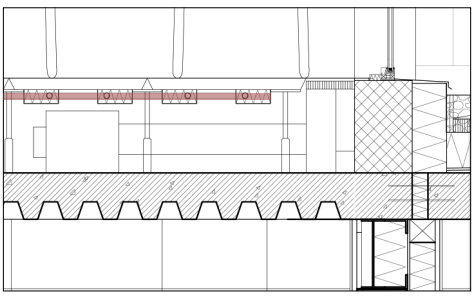


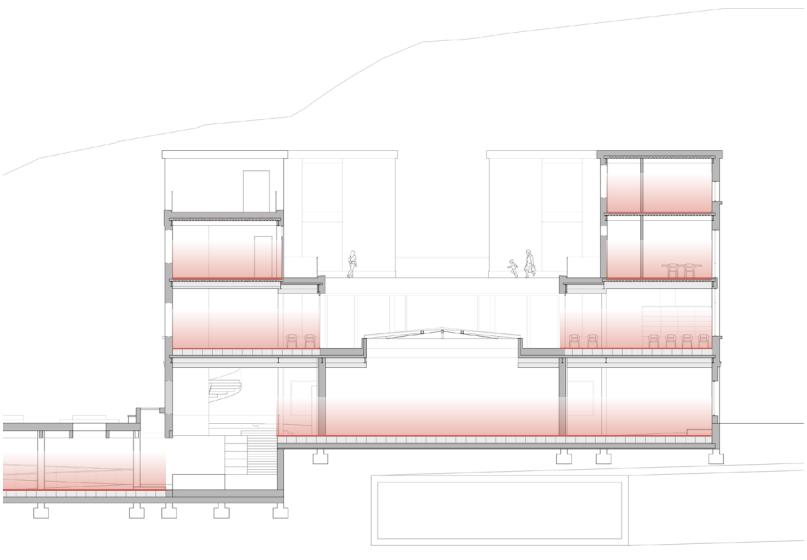




Drainage



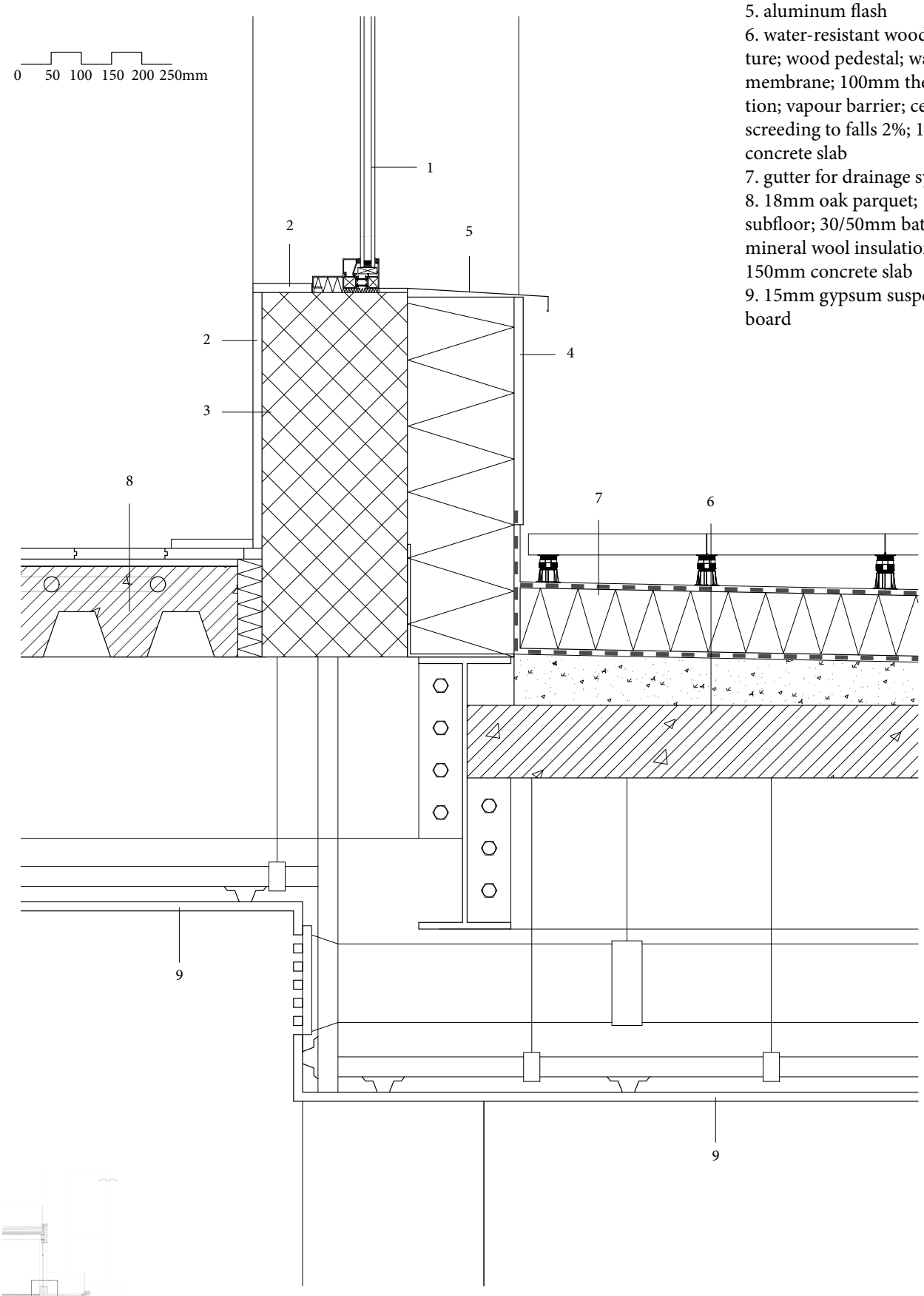


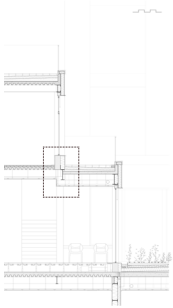


Heating

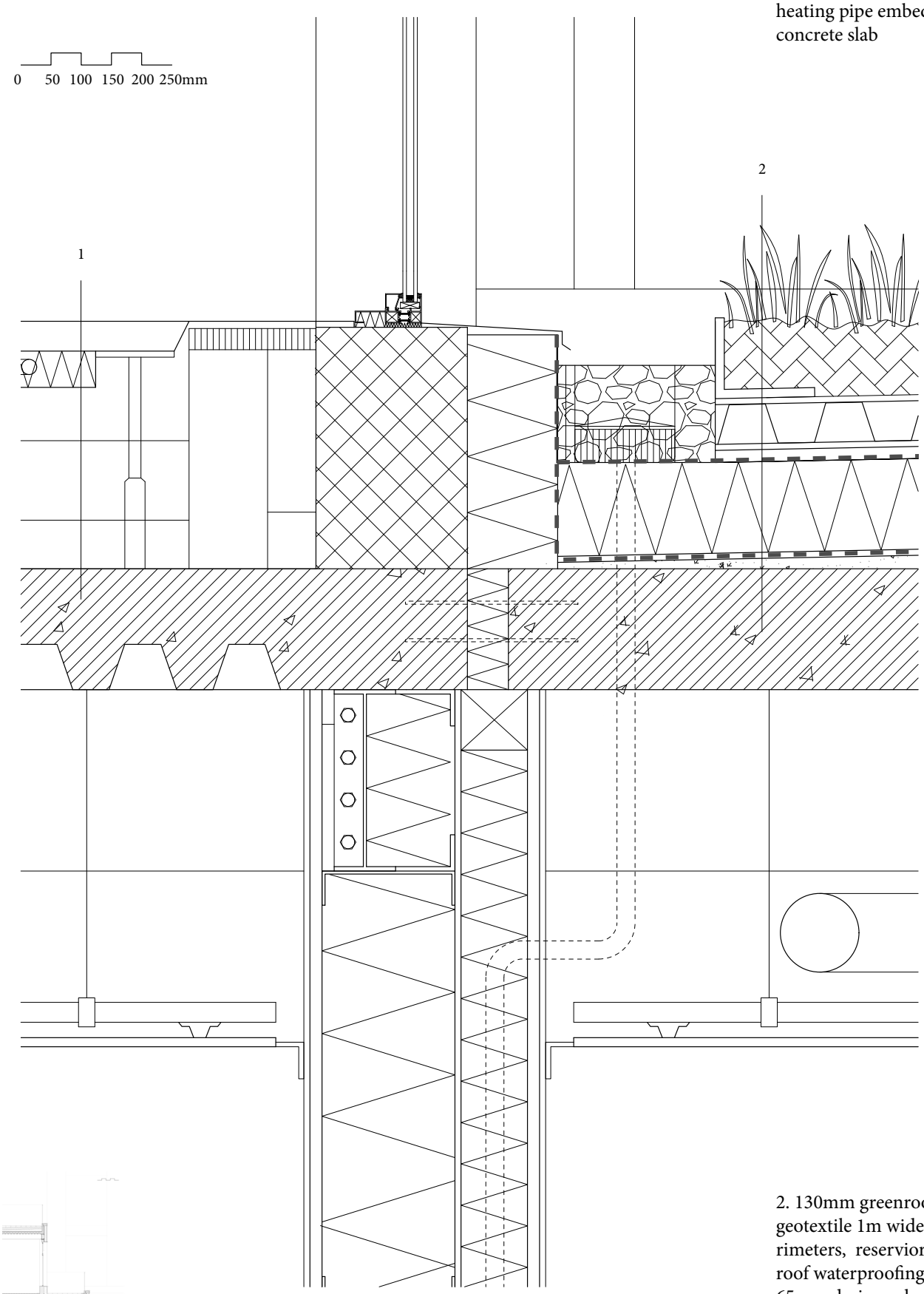
# Detailings

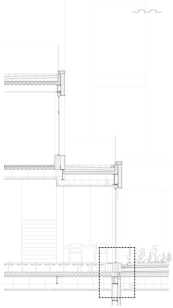
1. double glazing in aluminum frame
2. 15mm gypsum board
3. foamglass
4. 15mm plaster board
5. aluminum flash
6. water-resistant wood substructure; wood pedestal; waterproof membrane; 100mm thermal insulation; vapour barrier; cement mortar screeding to falls 2%; 150mm concrete slab
7. gutter for drainage system
8. 18mm oak parquet; 12mm subfloor; 30/50mm battens with mineral wool insulation gap filled; 150mm concrete slab
9. 15mm gypsum suspendid ceiling board



1. raised floor with 30 mm oak floorboard construction: 30 mm three-layer oak floorboard; 60mm thermal insulation adhered below with floor heating pipe embedded; 250mm concrete slab



2. 130mm greenroof substrate; geotextile 1m wide at all perimeters, reservior layer; green roof waterproofing membrane; 65mm drainage layer; aeration layer; 150mm thermal insulation; vapour barrier; cement mortar screeding to falls 2%; 250mm concrete slab

# Detailings

0 50 100 150 200 250mm

1. double glazing in aluminum frame
2. roller bind
3. 1.6mm plastic membrane seal 110mm PIR thermal insulation; vapour barrier; 150mm concrete parapet
4. 100mm foamglass
5. 40mm crushed granite stone and concrete paving; geotextile 1m wide at all perimeters, 30 mm sand setting bed ; reservior layer; green roof waterproofing membrane; 30mm drainage layer; aeration layer; 90mm thermal insulation; vapour barrier; cement mortar screeding to falls 2%; 150mm concrete slab
6. 10mm plasterboard