

# Archive Avenue

Connecting Dutch culture and  
community

TU Delft

Faculty of Architecture and the Built Environment Architecture

AR3AH115 Graduation Studio Revitalising Heritage

Ludo Swaans



# The KB



# Content

- **Introduction**
  - Digitalization of libraries
  - The KB
  - Project aim
- **Research to design**
  - Balancing preservation and accessibility
  - Balancing security and porosity
  - Heritage
- **Design**

# Digitalization on the public role of a library

History of the modern library  
(Wandelt & Schmidt-Lux, 2022)

Before digitalization

1850-1995

- Libraries as a **repository** for books



Library Sainte-Geneviève. Source: Henri Labrouste

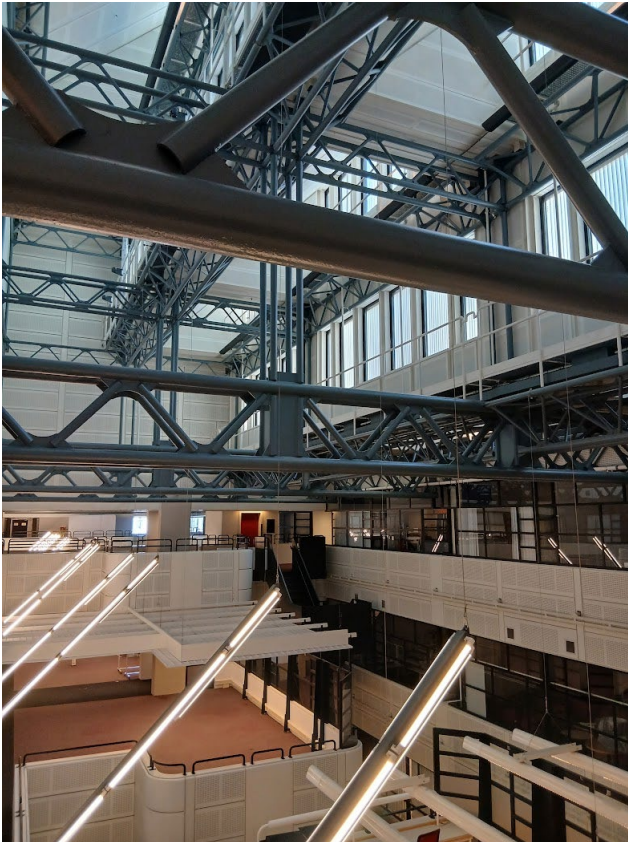


Reading Room in the Library Sainte-Geneviève.  
Source: Unknown Artist.

# Digitalization on the public role of a library

## History of the modern library

(Wandelt & Schmidt-Lux, 2022)



Atrium in the reading room of the KB. Source: author



The KB in 1997. Source: Dorine van Hoogstraten



The KB in 2006. Source: Dorine van Hoogstraten

# Digitalization on the public role of a library

## History of the modern library

(Wandelt & Schmidt-Lux, 2022)

### First digital media

1995-2005

- Libraries as *Mediatheques*
  - **Storing** different media
  - Making different media **accessible**



Sendai Mediatheque, 2001. Photo Tomio Ohashi

# Digitalization on the public role of a library

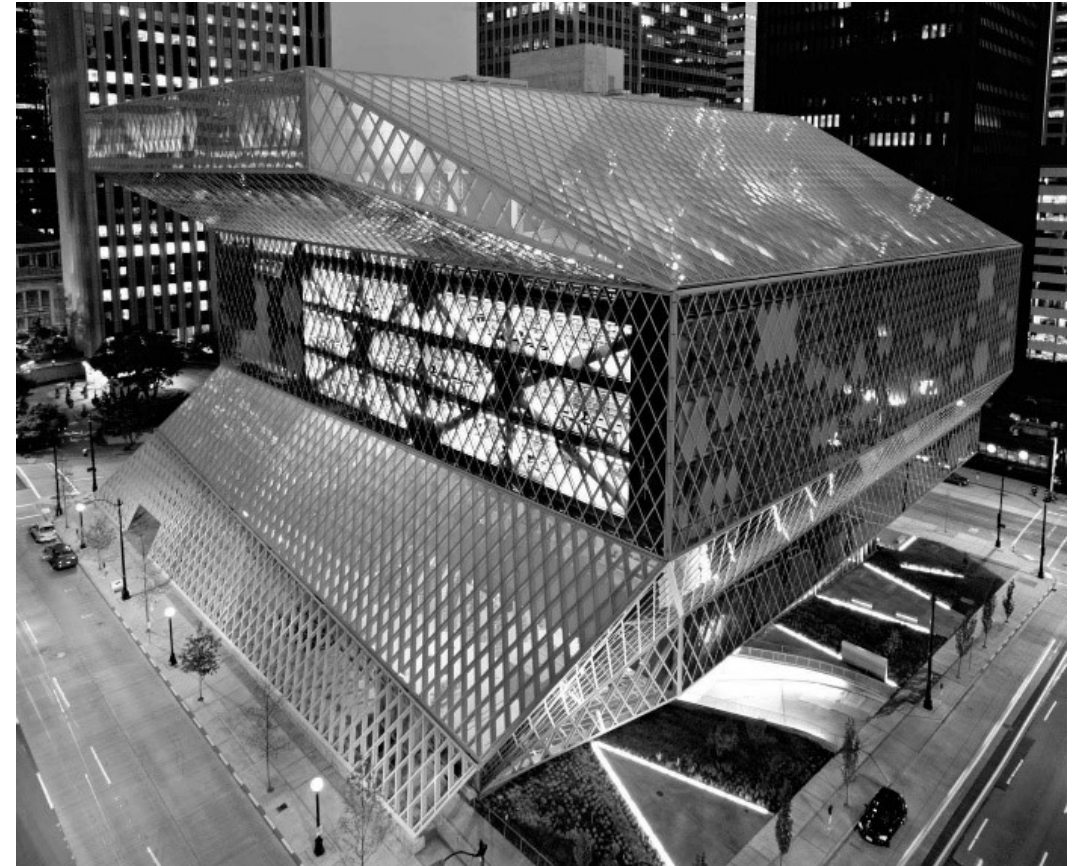
## History of the modern library

(Wandelt & Schmidt-Lux, 2022)

Data is accessible everywhere

2005-2015

- Libraries as information stores



The Seattle Public Library. Source: P. Ruault

# Digitalization on the public role of a library

## History of the modern library

(Wandelt & Schmidt-Lux, 2022)

Data is accessible everywhere

2015-

- Libraries as living rooms



Inside the DOKK1. Source: Charlotte Henard.

# Digitalization on the public role of a library

## History of the modern library

(Wandelt & Schmidt-Lux, 2022)



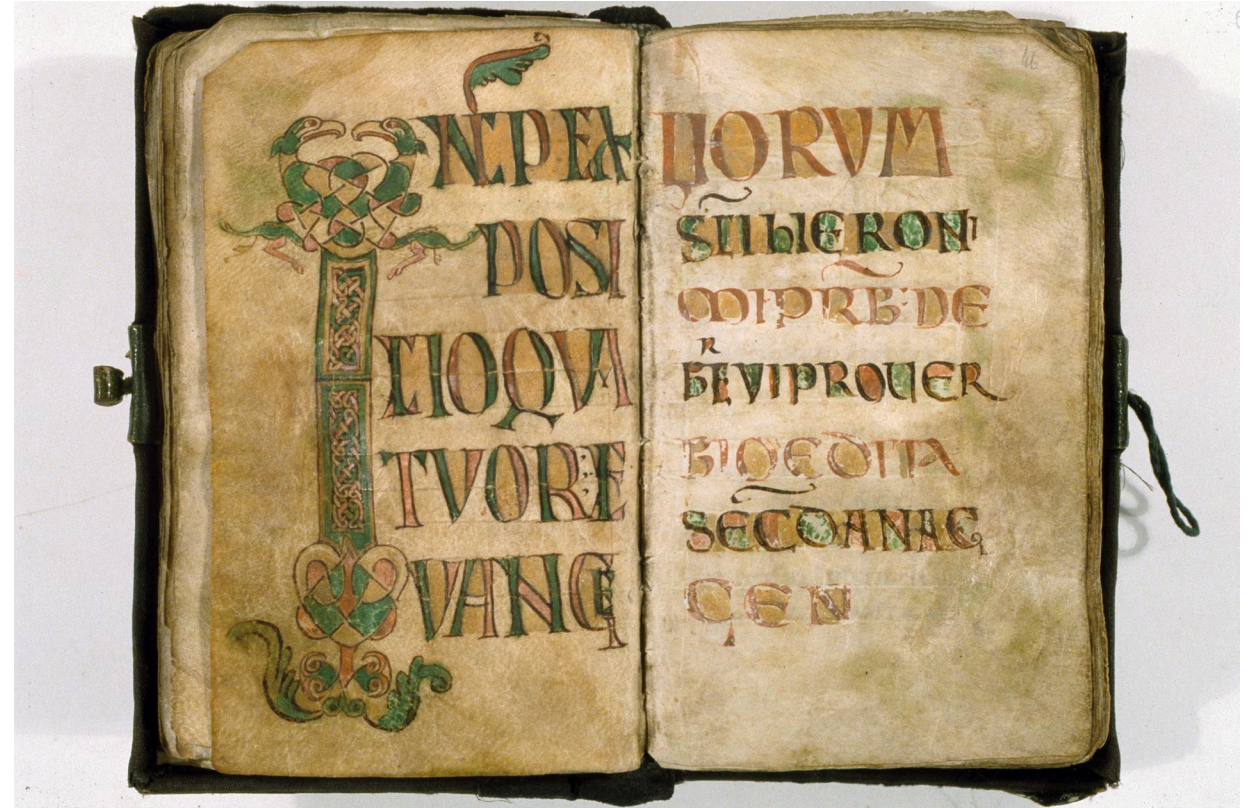
The new informal zone in the KB, 2023. Source: Arvide

# **The public role of the library**

The library provides materials or experiences that most individuals cannot access at home.

# The KB | The Royal Library

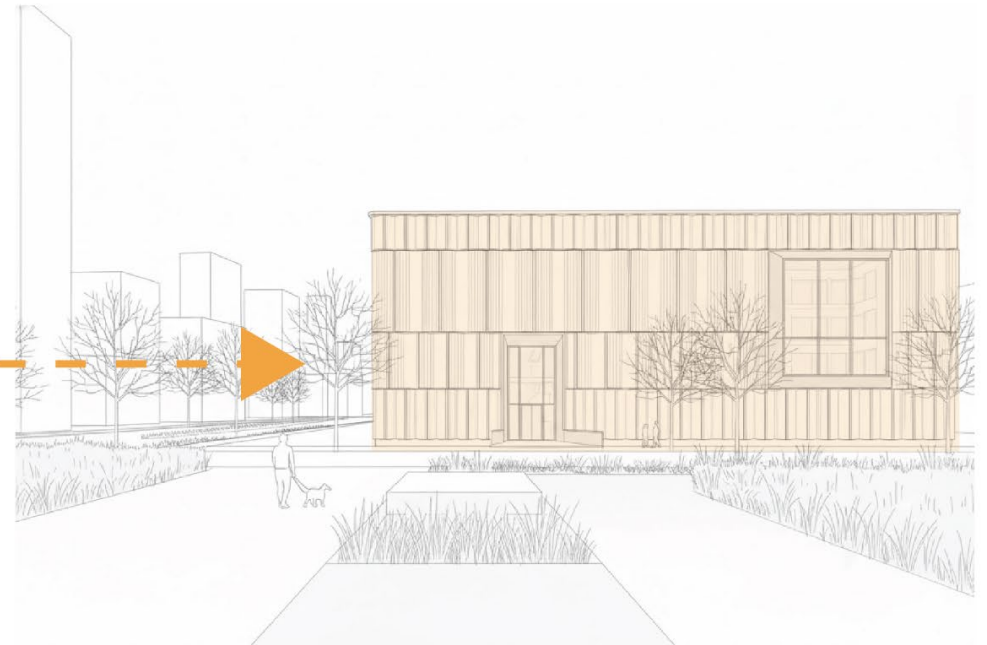
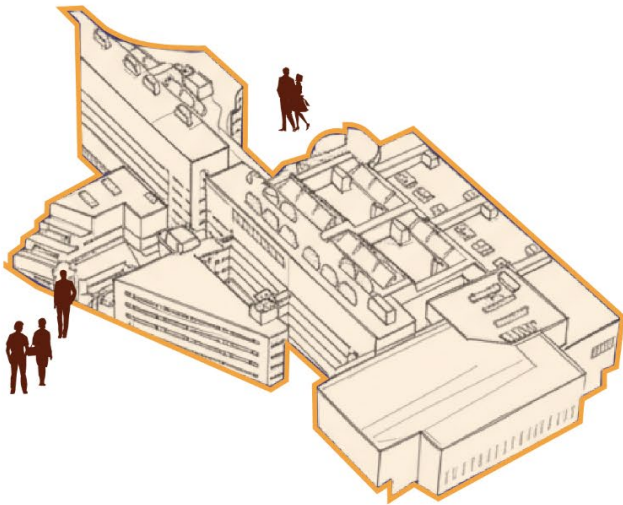
- National duties: *(Lushington, Rudolf, & Wong, 2016)*
  - Collect cultural materials
  - Encourage awareness of these
- Valuable special collections
  - Details get lost when digitalizing



The oldest book at the KB, source: KB

# The KB

- All collections relocate to an off-site repository in Delft



# The New KB

## Future Library – Optimizing Sustainability

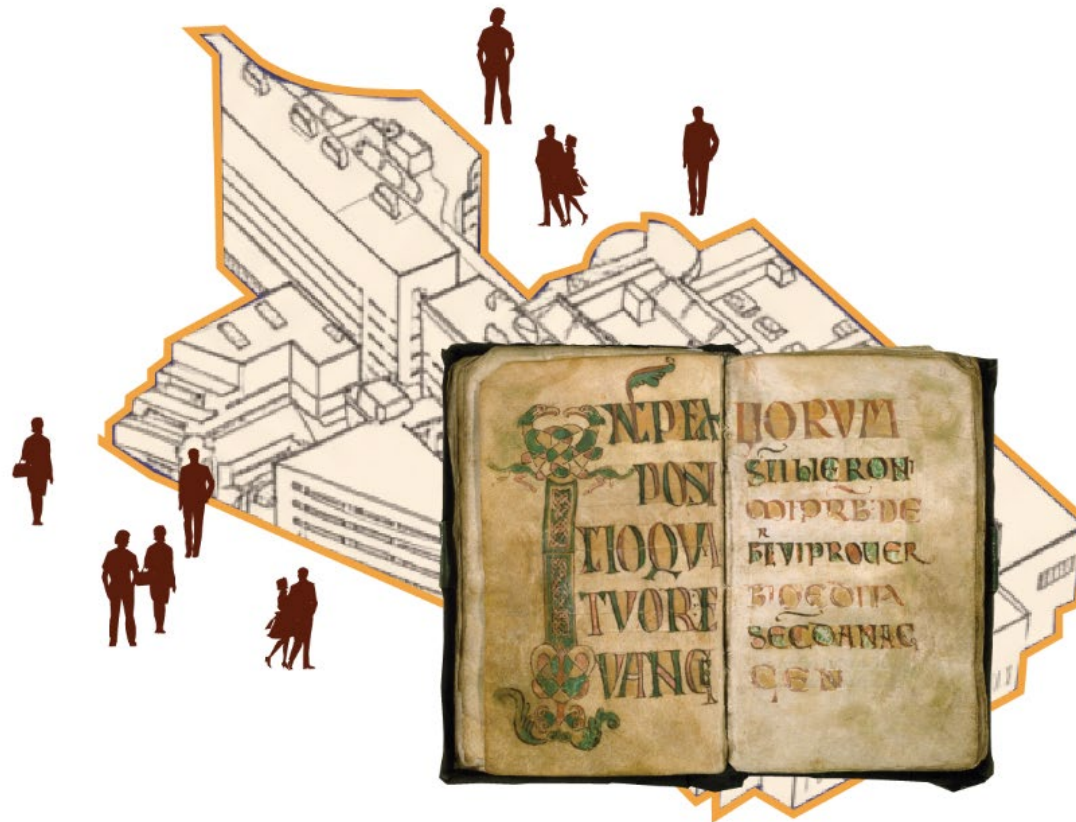
Environmental

Social / Cultural

Economic

TU Delft

Koninklijke Bibliotheek (KB)  
Dutch National Library



# Research question

- *How can the National Library of the Netherlands increase public engagement with its collections, on-site?*

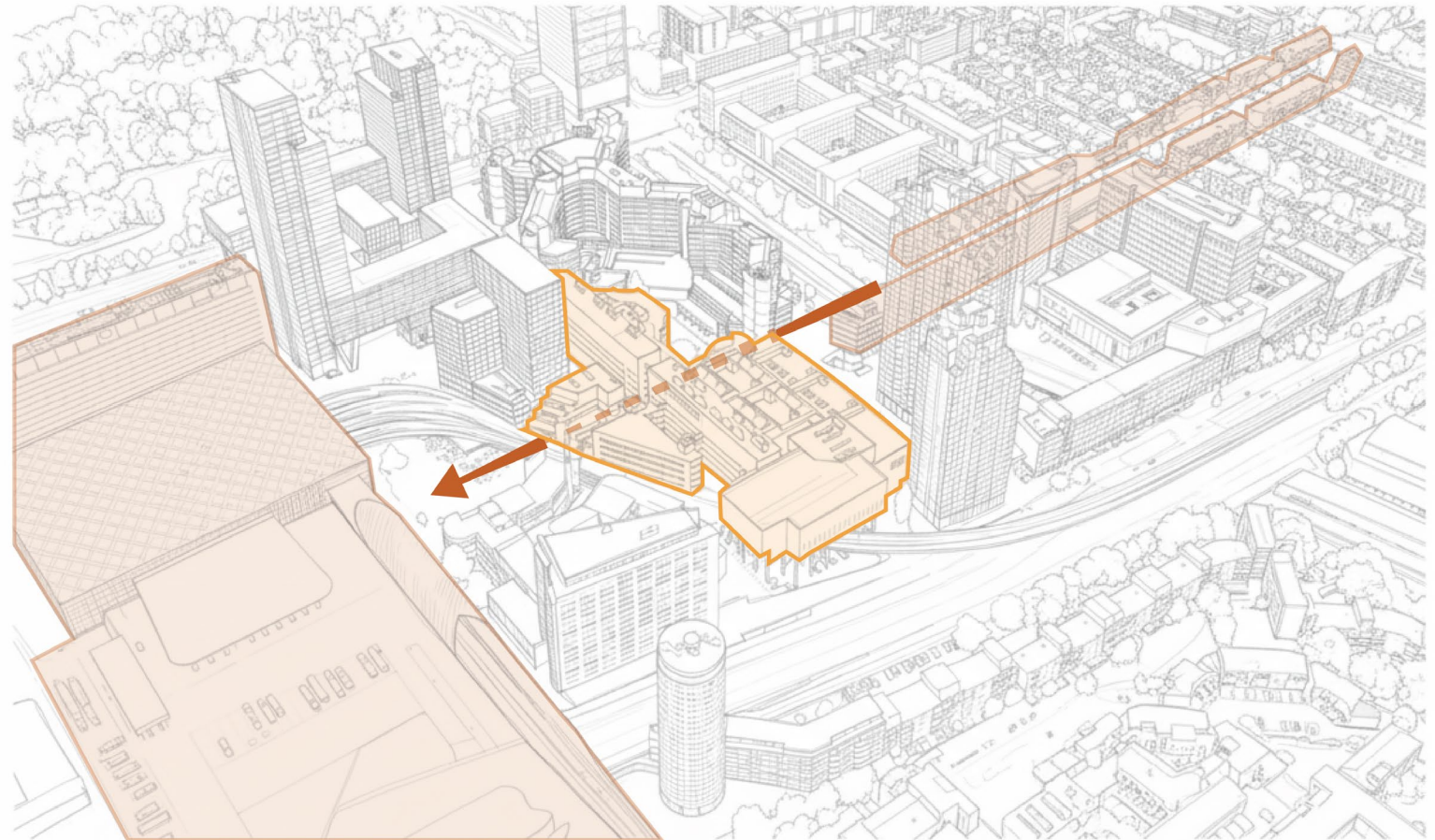


# Design Goals | Urban scale

- Make use of the existing routing
  - Intrigue passers-by



Current connection



Central Station

Theresiastraat

# Design Goals

- Transparency
  - Services and collections
- Accessible
  - Low threshold
  - Modest design



**KB**  
Research



**Archive Avenue**  
Informal  
engagement



**Off-site repository**  
Preservation

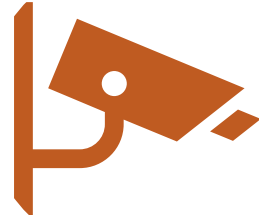
# Research to Design



SDG's



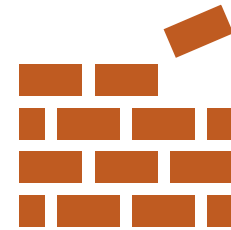
Preservation  
and  
accessibility



Security  
and porosity



Urban context



Heritage



R-strategies





**SDG's**



# Design Goals | SDG's

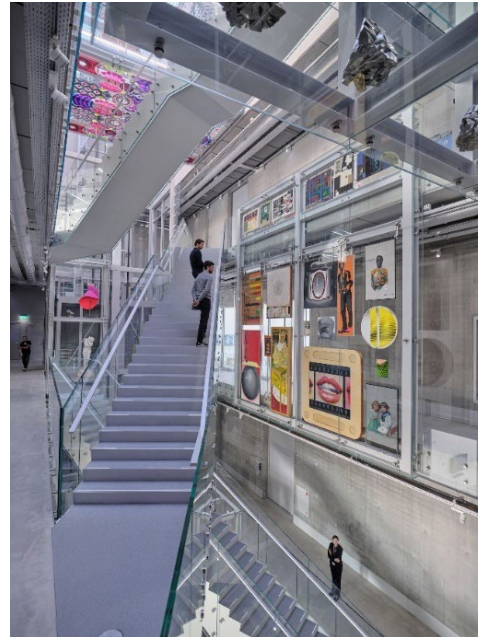




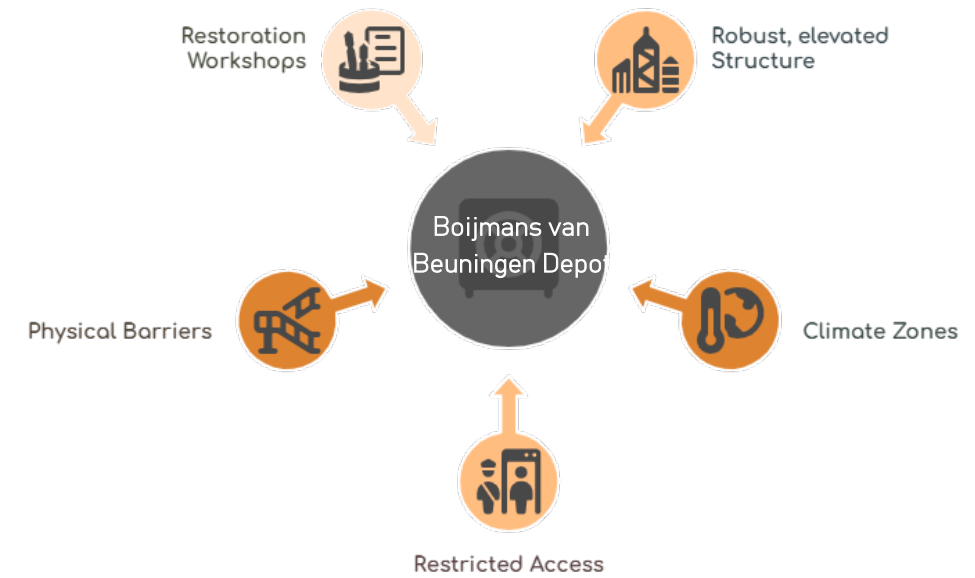
**Preservation  
and  
accessibility**

# Preservation and accessibility

Strategy 1: Controlled environment



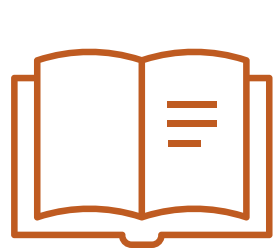
Strategies for Collection Preservation



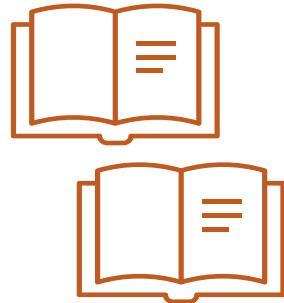
# Preservation and accessibility

Strategy  
2:

Various exhibition  
types



1 Accessible  
repository



2 Museum



3 KB Atelier



4 Workshop

Exhibited  
objects:

Special  
Collections

Facsimiles

Artistic  
impressions

Crafts



# **Security and porosity**

# Security and porosity | Framework

Function	Authenticity Level	Exhibition Type (KB Application)	Public Engagement Threshold
<b>Preservation and security by physical border</b>			
<b>Special Collections</b>	Objective	Original Collections/ Reading Room	High (Guided)
<b>Museum</b>	Constructed	Facsimiles / Replicas	Moderate (Visible, Interactive)
<b>KB Atelier</b>	Symbolic	Artistic Impressions / Digital Interpretations	Low (Spontaneous, Visual)
<b>Workshop</b>	Existential	Makerspace Workshop	Lowest (Participatory, Hands-on)

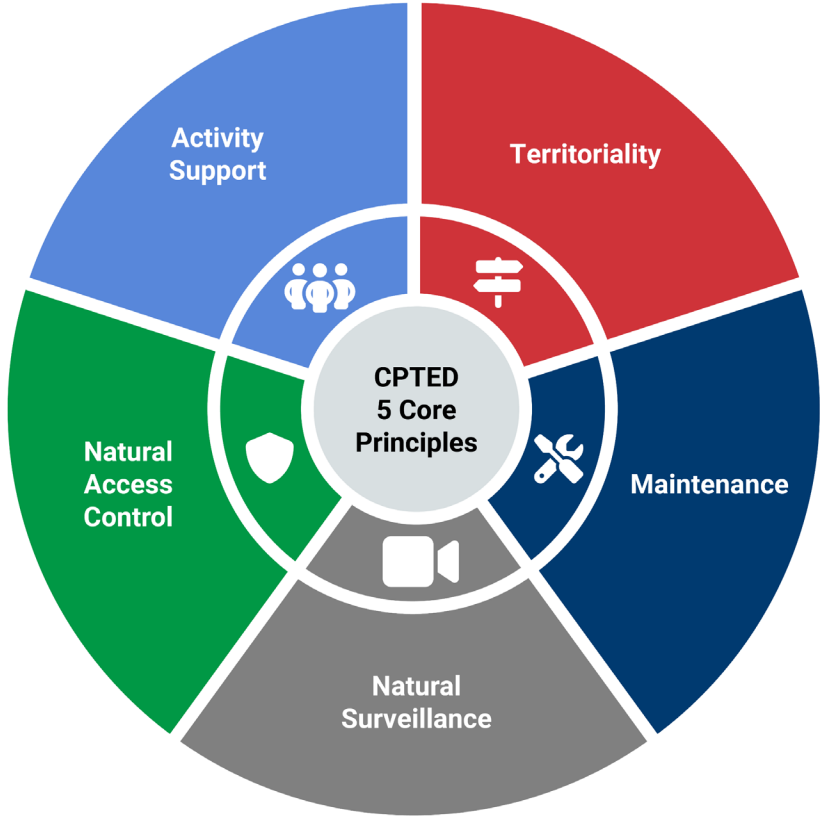
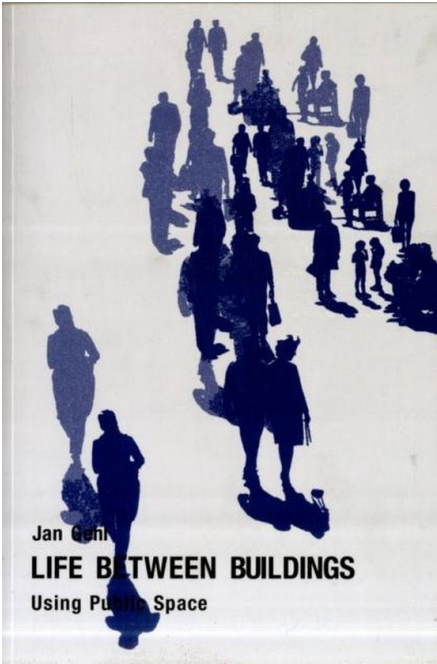
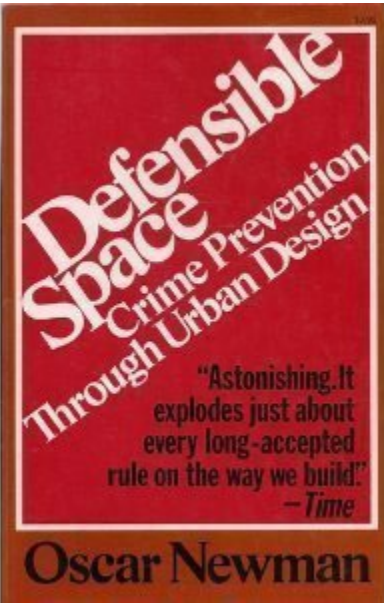
# Security and porosity | Framework

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Security by visual boundary

# Security and porosity | Framework

## Crime Prevention Through Environmental Design (CPTED)



# Security vs porosity | Framework

Threshold  
spaces

Sightlines

Natural  
surveillance



**Heritage**

# Context



# Design Goals | Heritage | Intangible

## Keep

Private  
character

Research and leisure  
should be separated

## Improve

Wayfinding

Layout is too complex,  
routing should be  
instantly clear

# Design Goals | Heritage | Tangible



KB's collections are of cultural value

# Design Goals | Heritage | Tangible



KB's collections are of cultural value



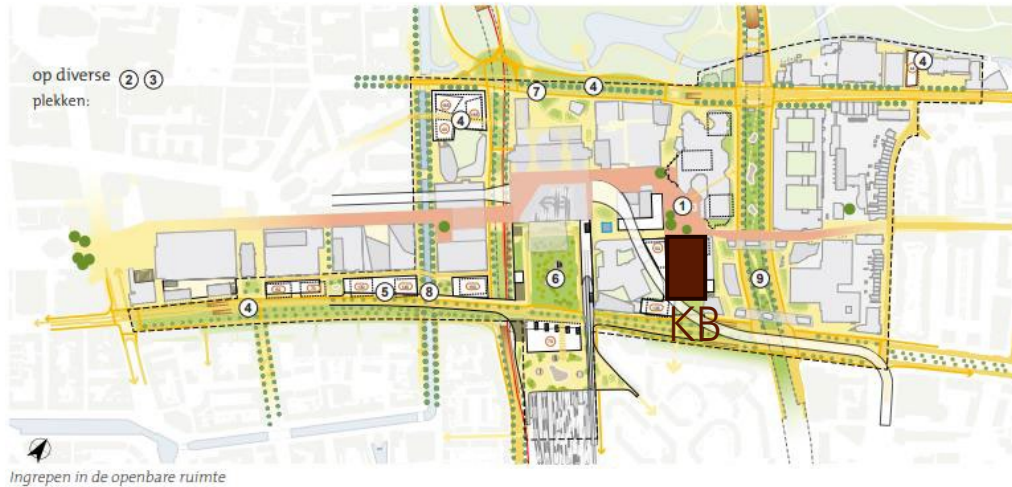
*Pictures: Wijnand Galema (2017)*

The architecture and fixed elements are also culture

An architectural rendering of a modern building courtyard. The scene is viewed from a low angle, looking down a paved walkway. On the left, a building with large glass windows and brickwork features a striped awning over an entrance. Inside the window, a windmill and a small figure are visible. People are walking and sitting on a bench in the courtyard. A dog is on a leash. The word "Design" is overlaid in the center in a bold, dark font.

# Design

# Concept development | Extension of retail street



Ingrepen in de openbare ruimte

Development plans (The Hague Municipality, 2024)



Whitechapel Idea Store, (Lushington, Rudolf, & Wong, 2016)



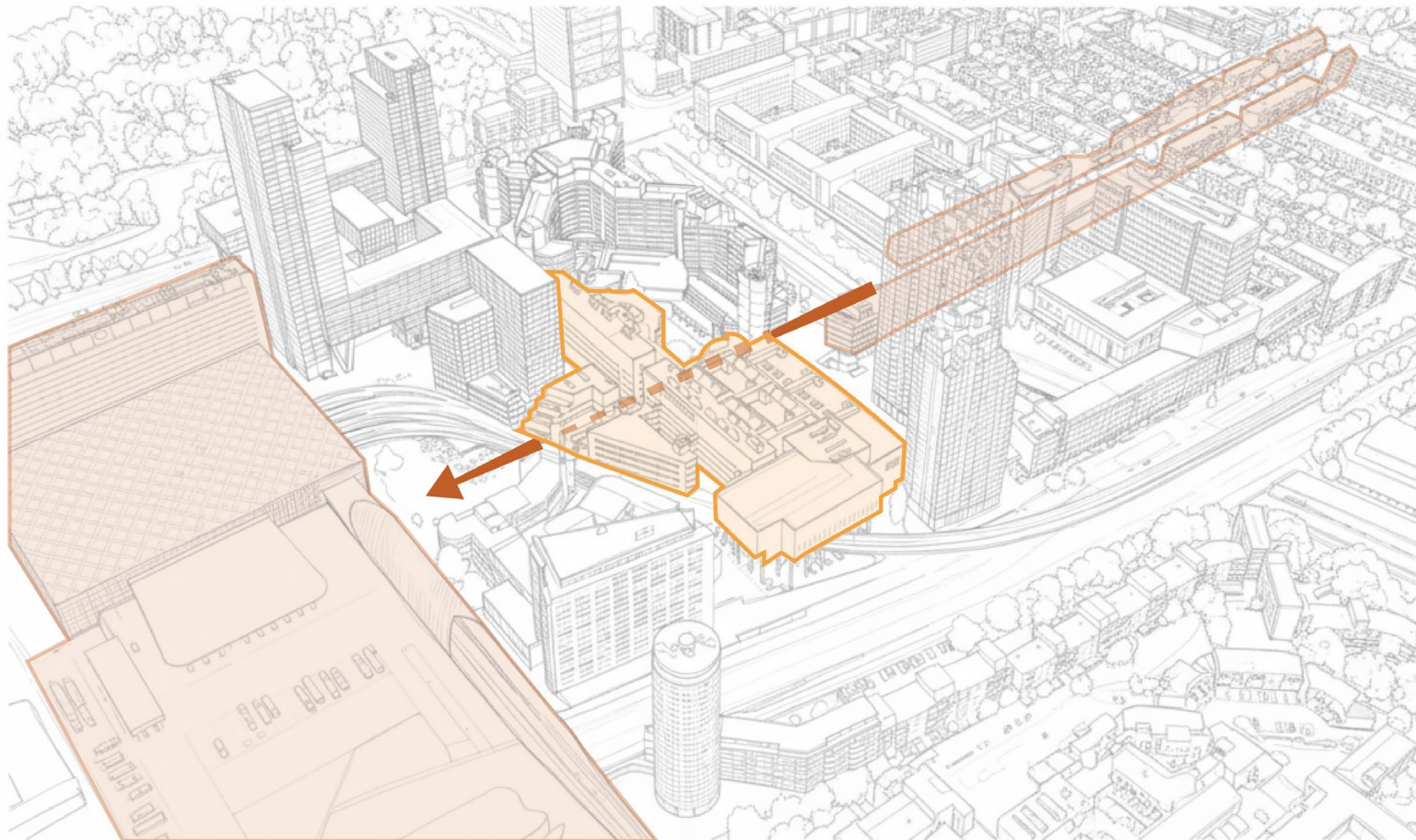
Main retail street in the Hague (Theresiastraat)



Facade KB along the extension line of the Theresiastraat

## Volume Development

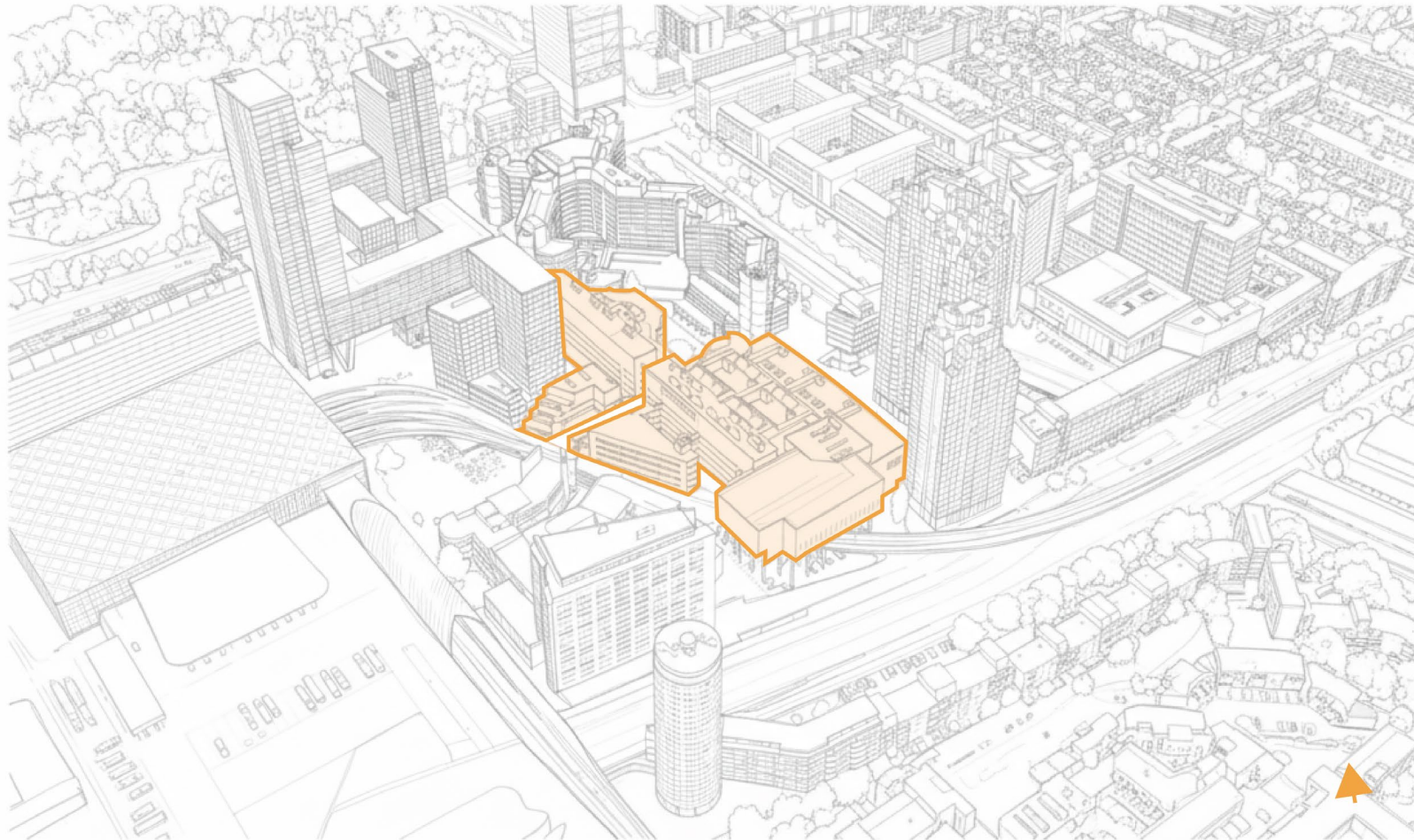
### Step 1: Elongation of the street



Central Station

Theresiastraat

# Step 1: Elongation of the street

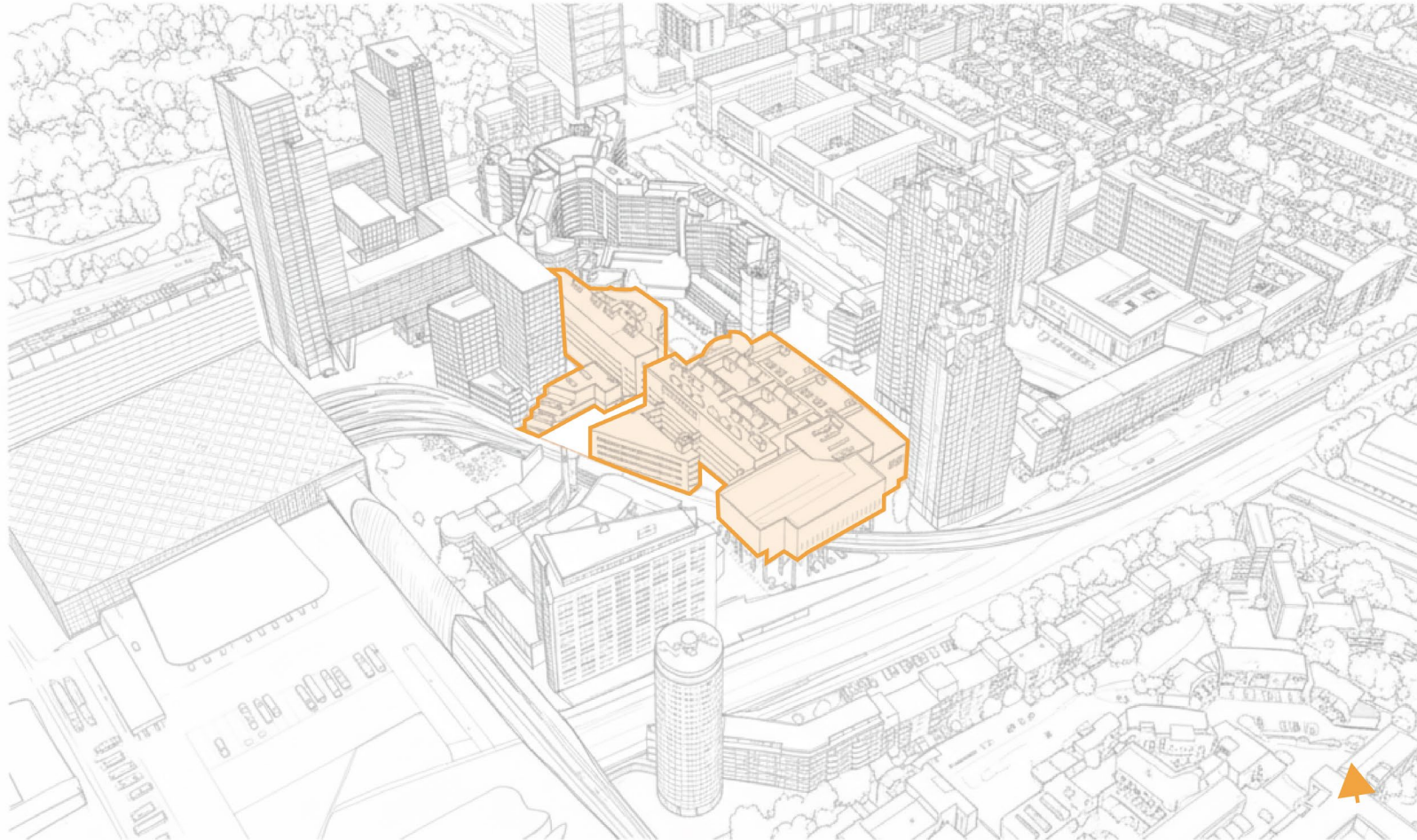


- Opening up the uninviting alley
- Least amount of demolition per square meter of public space



## Volume Development

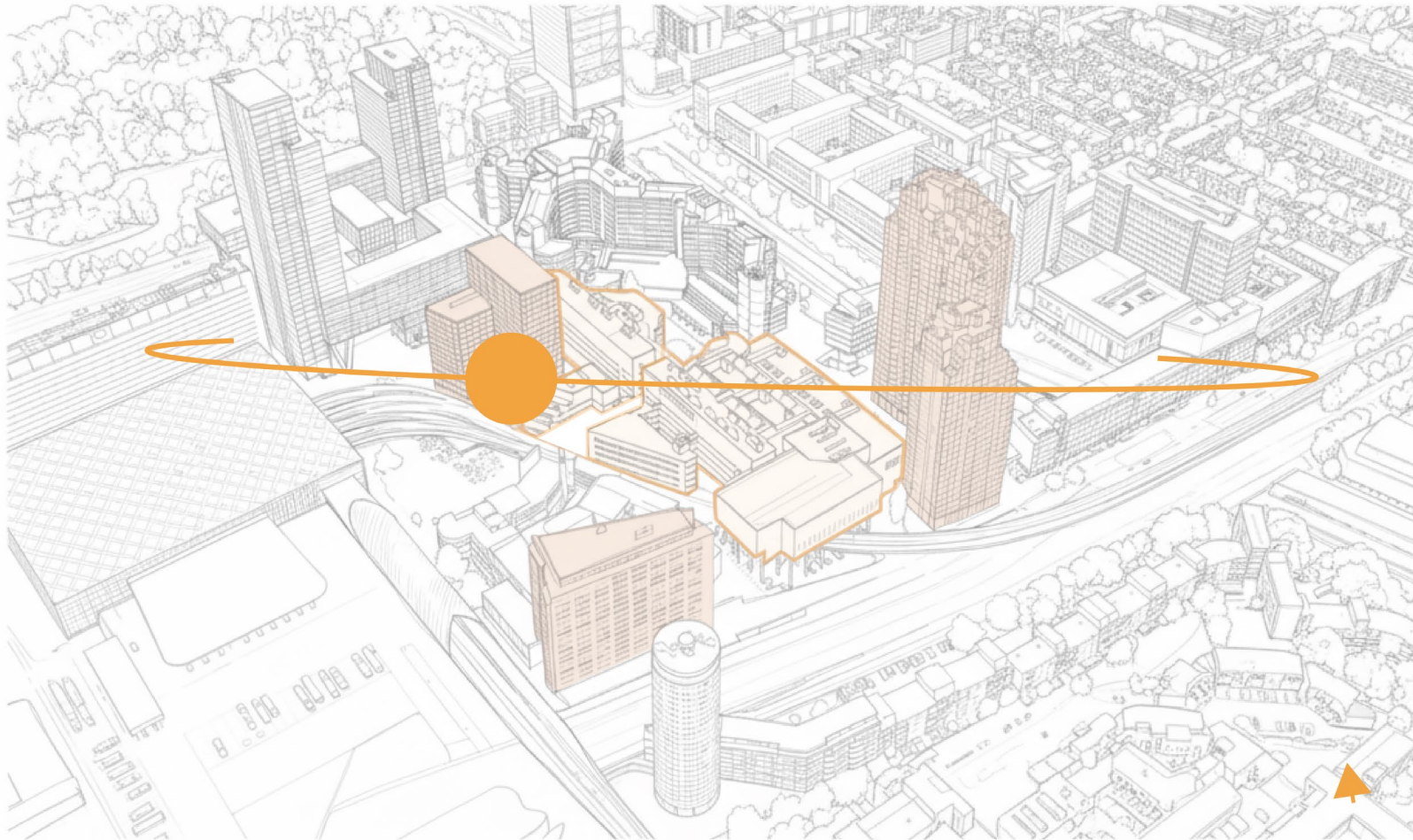
### Step 2: Create more space by offsetting the facade



- More daylight
- Space for social interactions

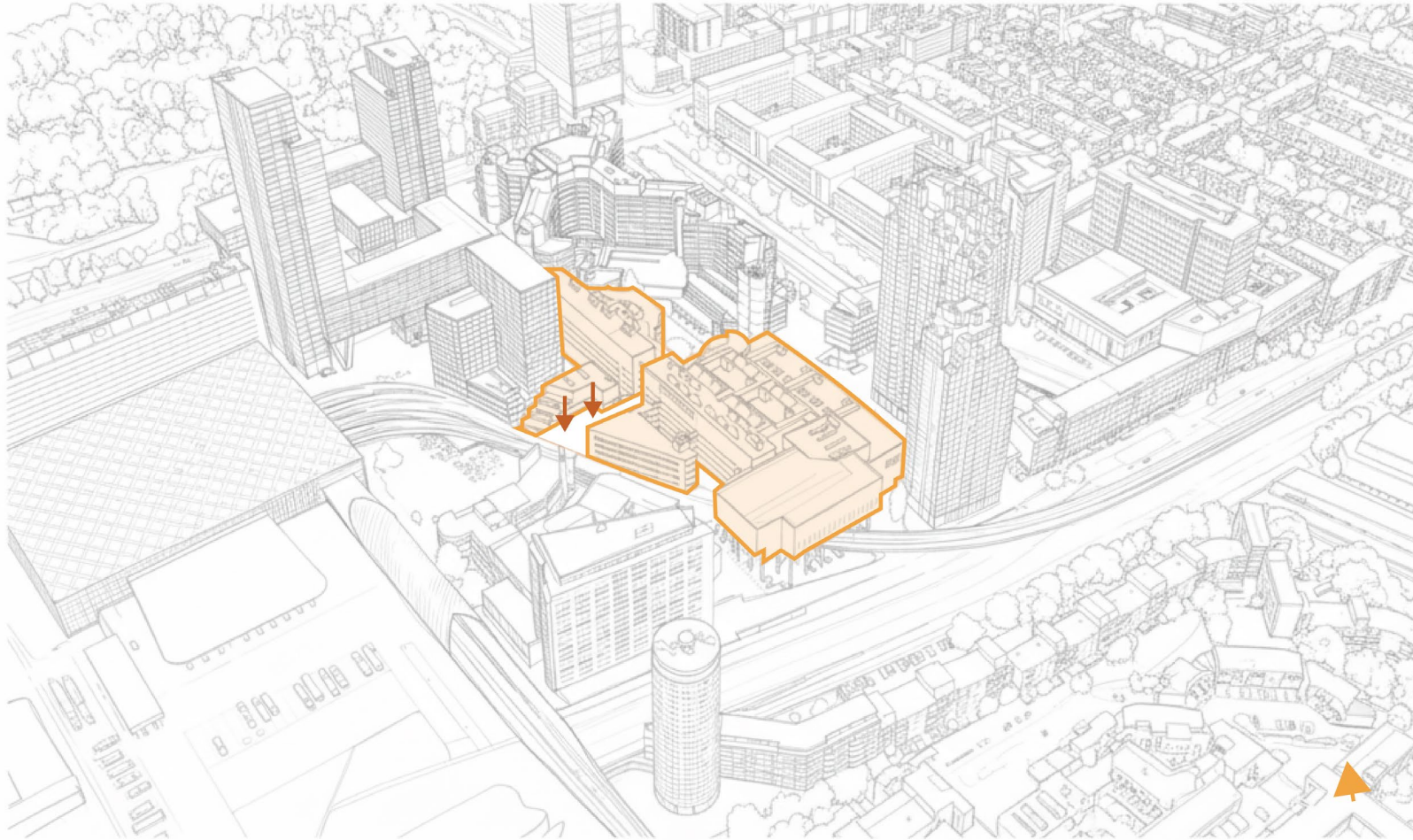
## Volume Development

### Step 2: Create more space by offsetting the facade



## Volume Development

### Step 3: Excavation (digging)



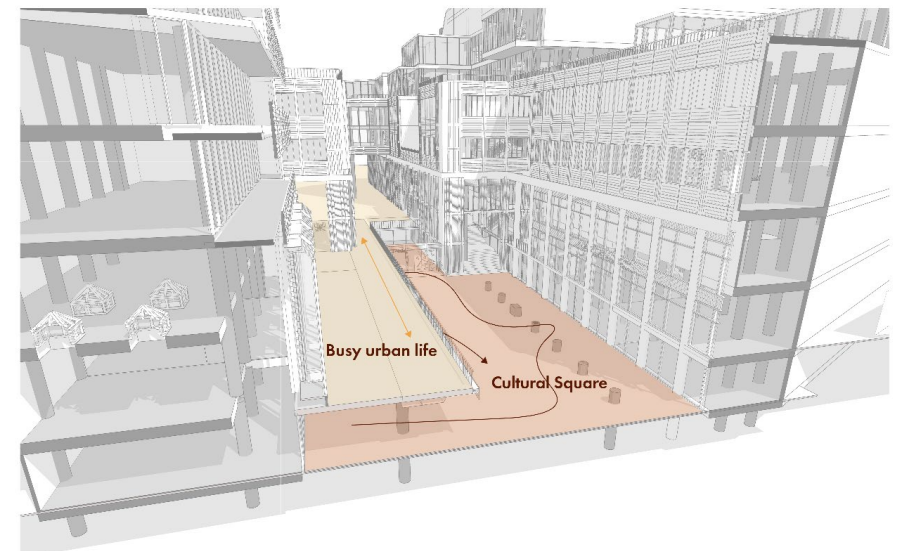
- Distinction between the busy street life and the new cultural square

## Volume Development

### New situation



- Privacy while visible
- Natural insulation layer of the earth





KB nationale bibliotheek



LITERATUUR MUSEUM

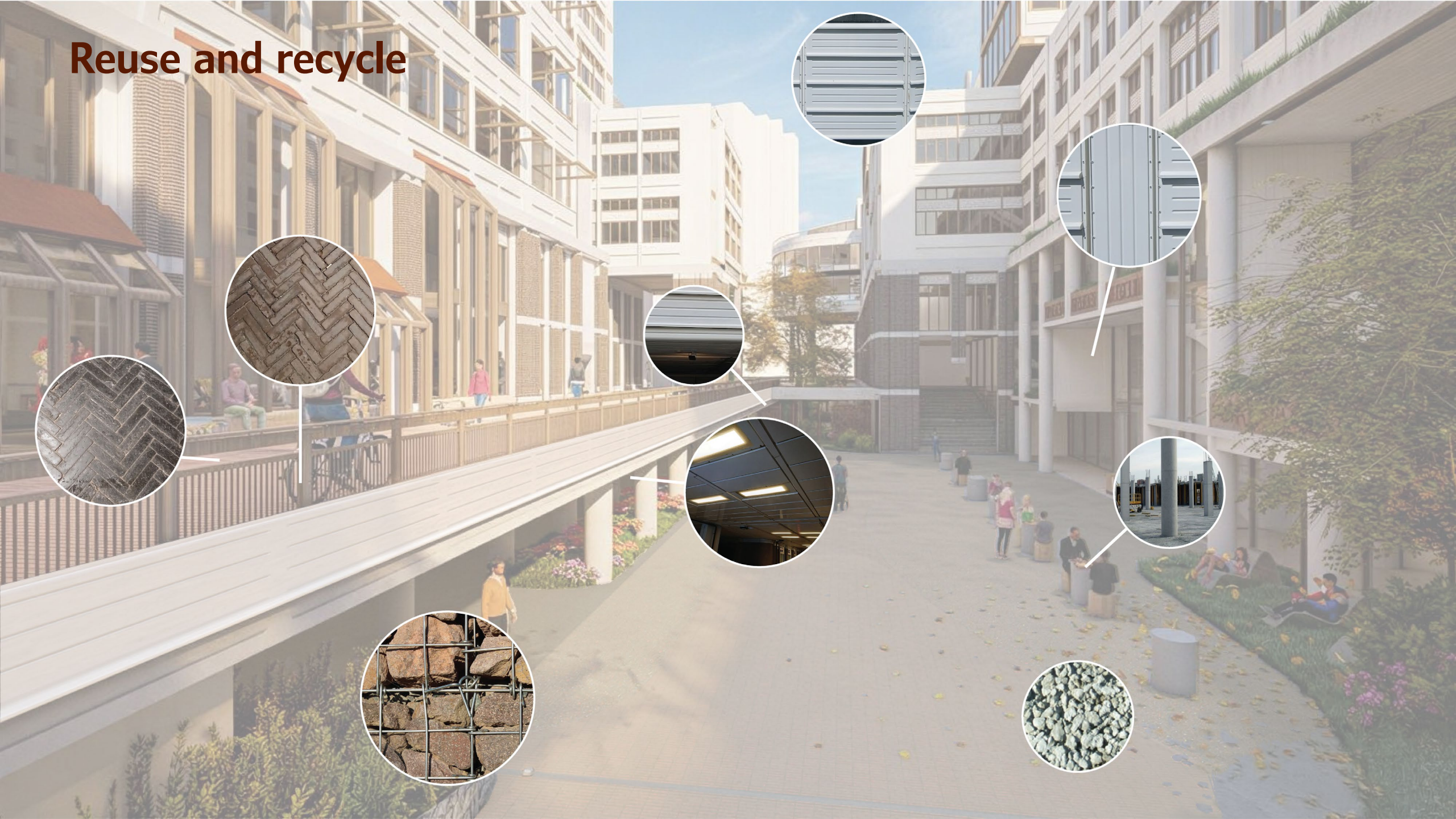
KINDERBOEKENMUSEUM

RKD NEDERLANDS INSTITUUT VOOR KUNSTGESCHIEDENIS

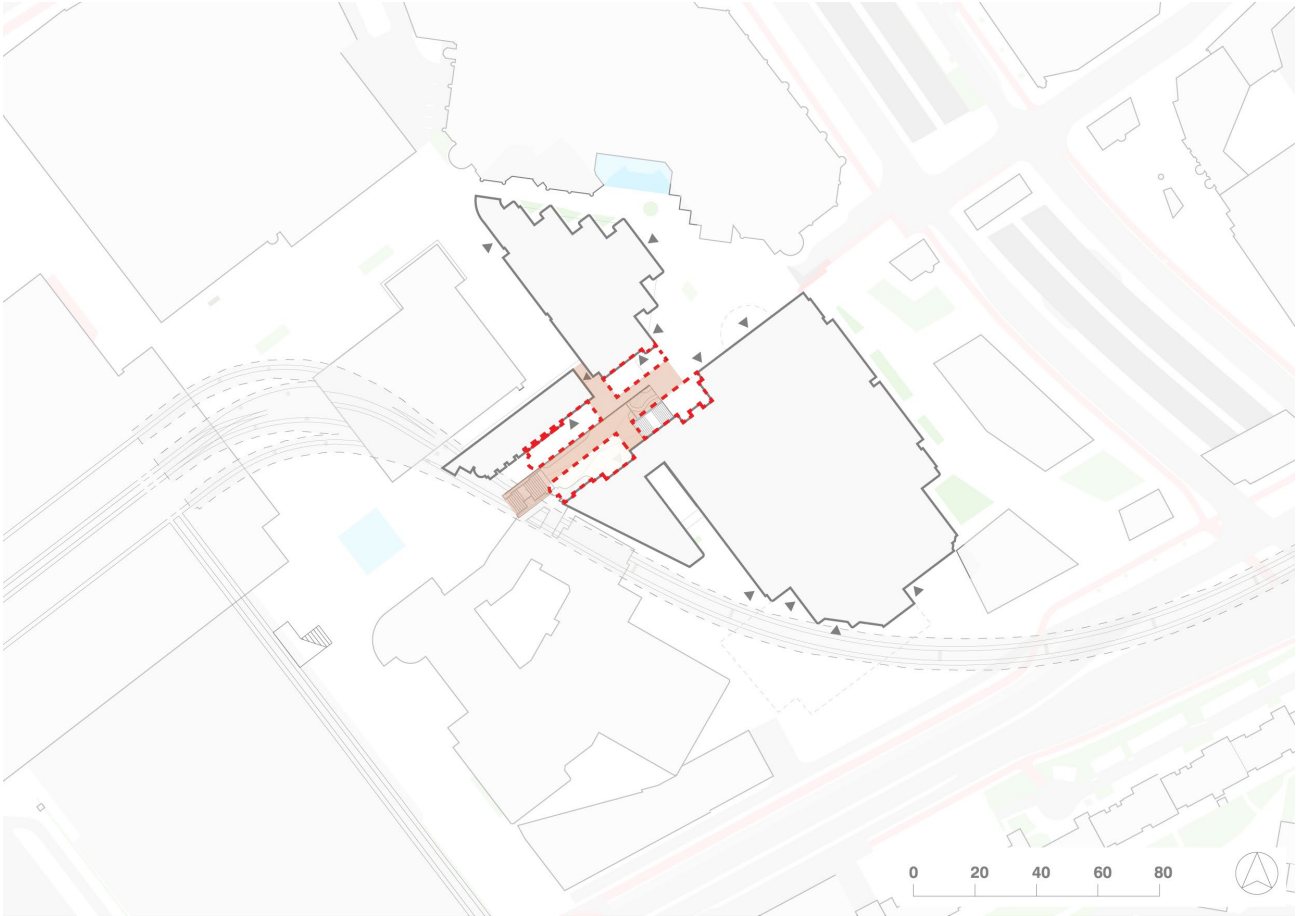
KB  
Gebouwd met woorden.  
Gevormd door mensen.




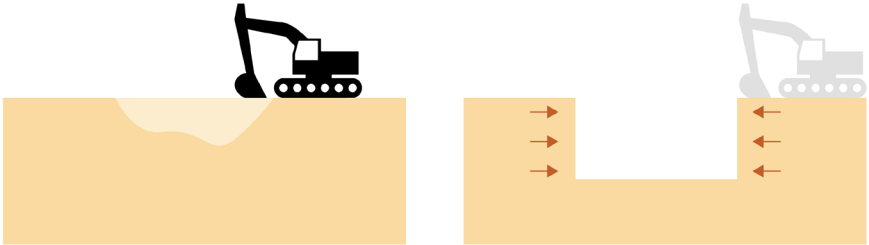
# Reuse and recycle



# Excavation

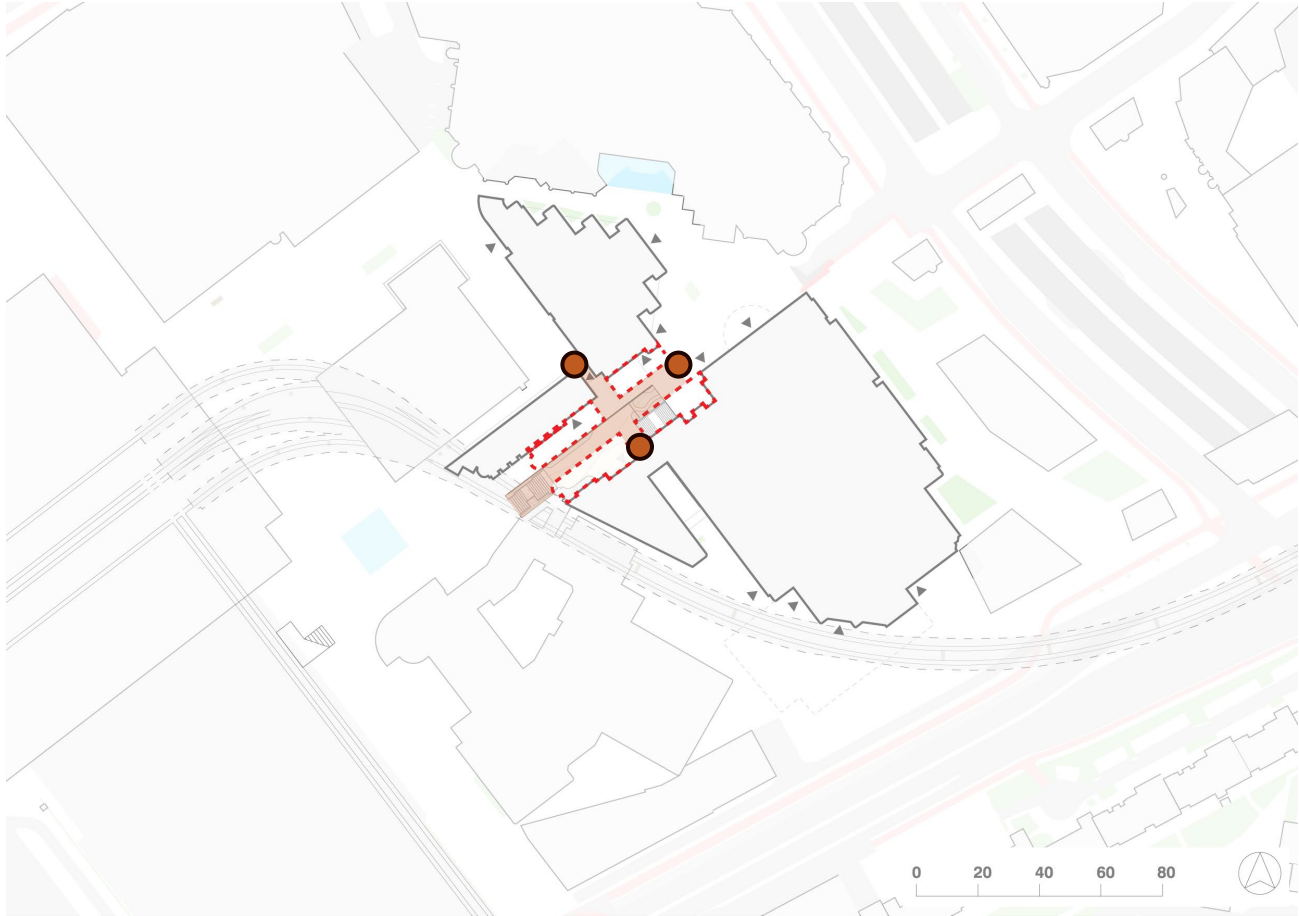


 Existing basement       Dig

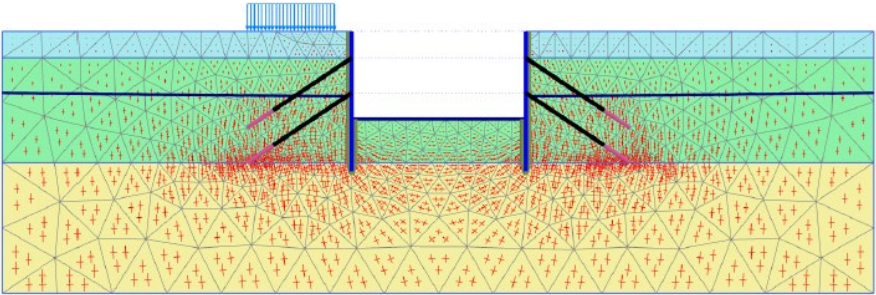


Additional forces added by the soil

# Excavation | Soil to wall

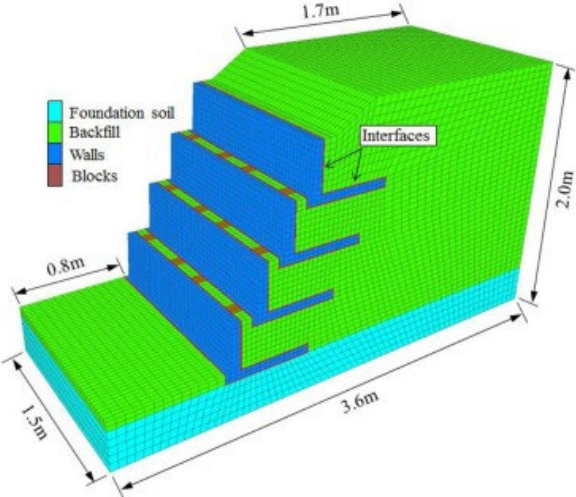
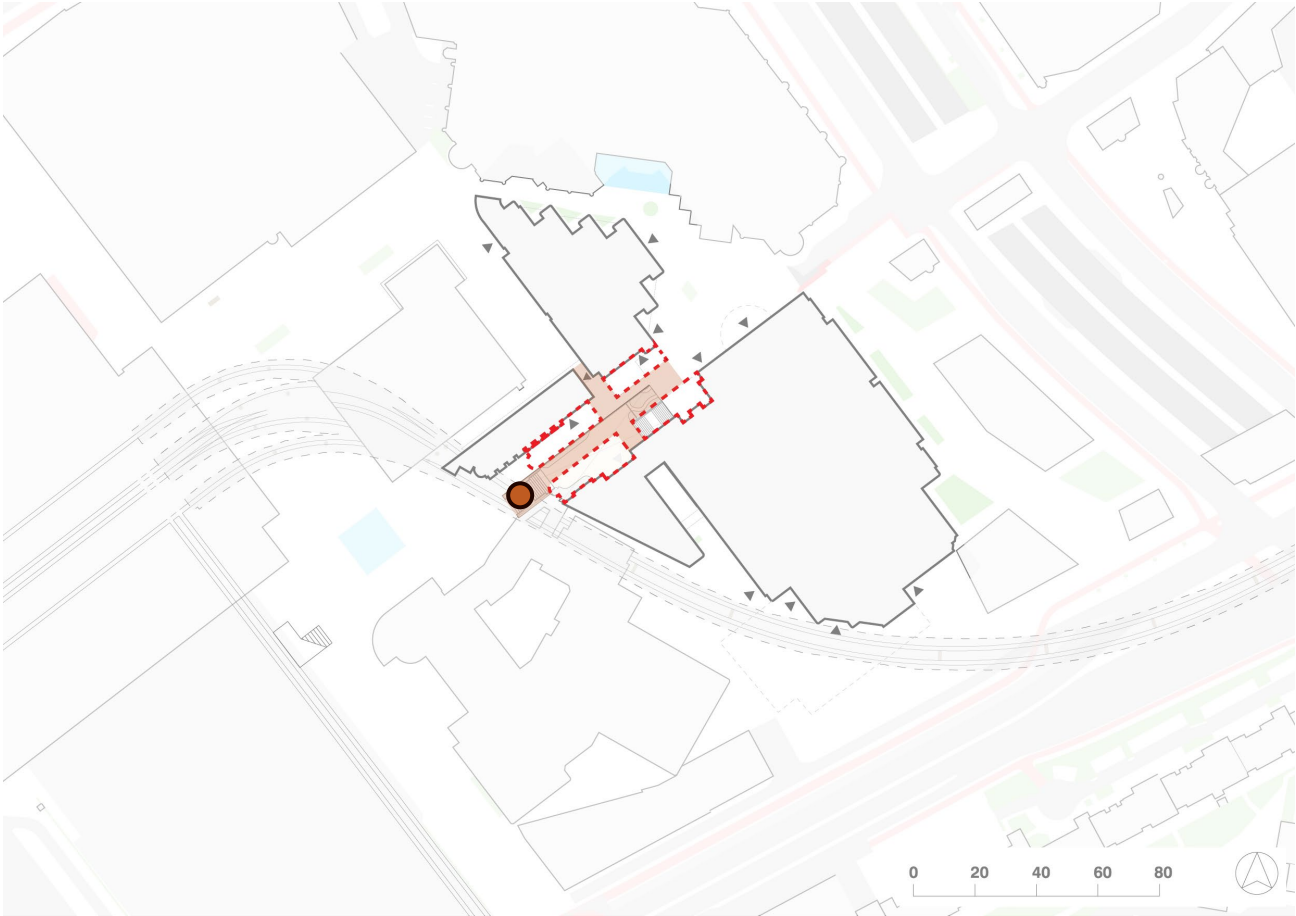


Hydraulic jacks that press piles into the ground\_Giken Europe BV, London



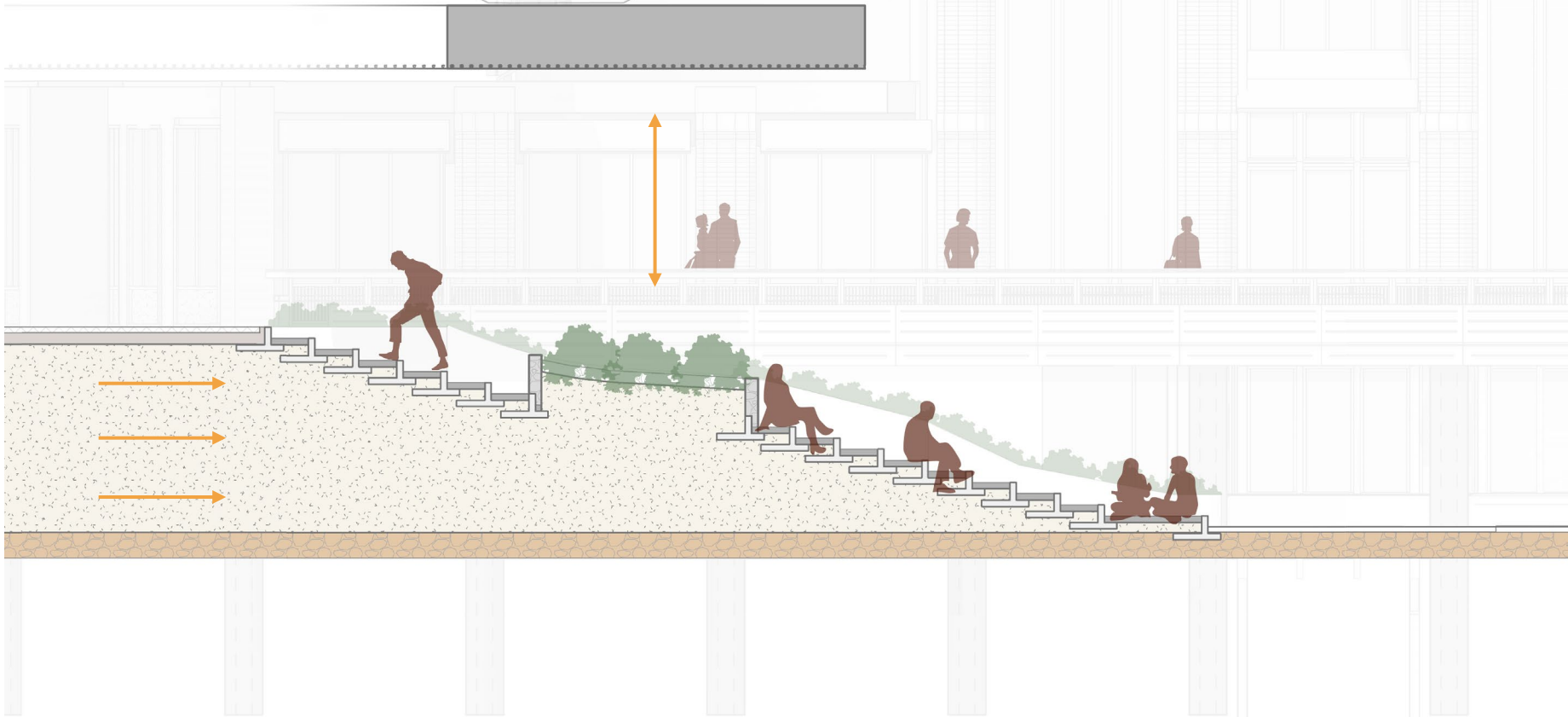
Geoengineer

# Excavation | Soil to open space



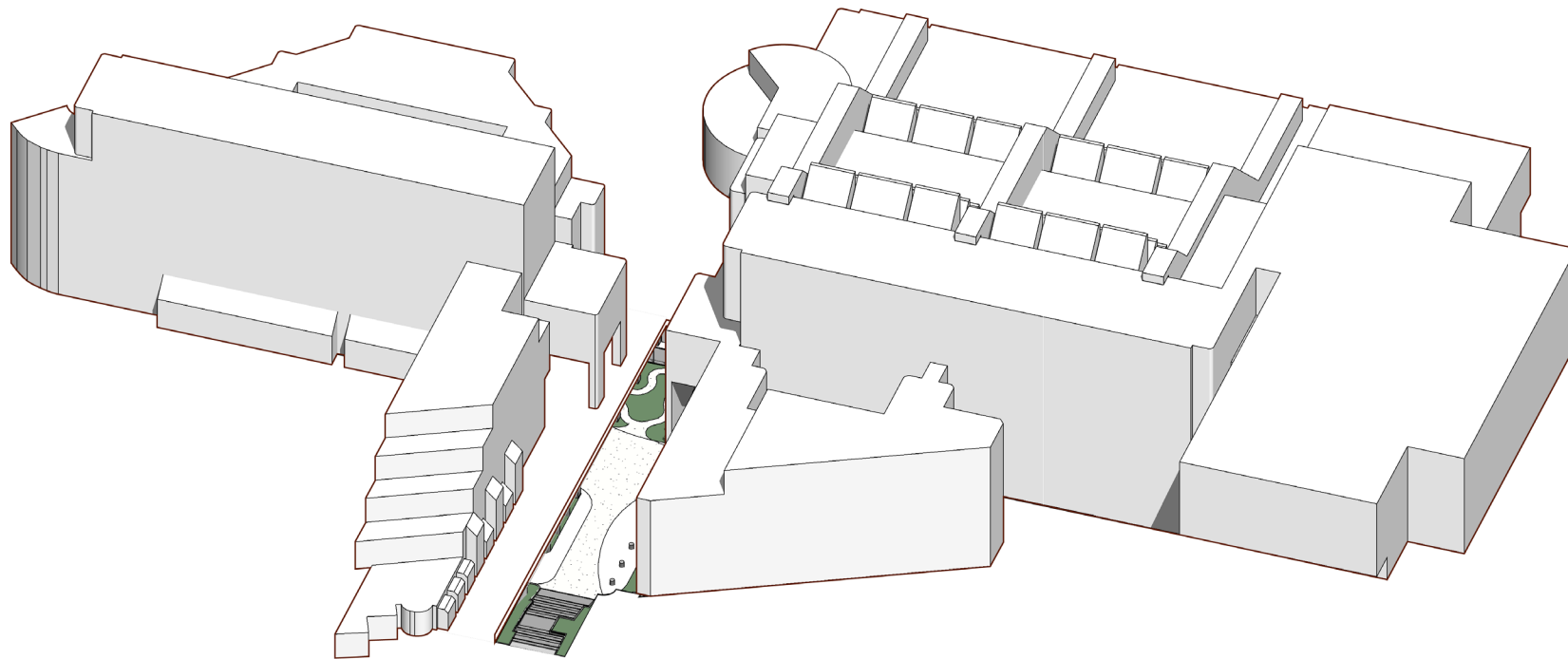
Multi-step cantilever retaining wall (Li&Xiao, 2023)

# Excavation | Soil to open space

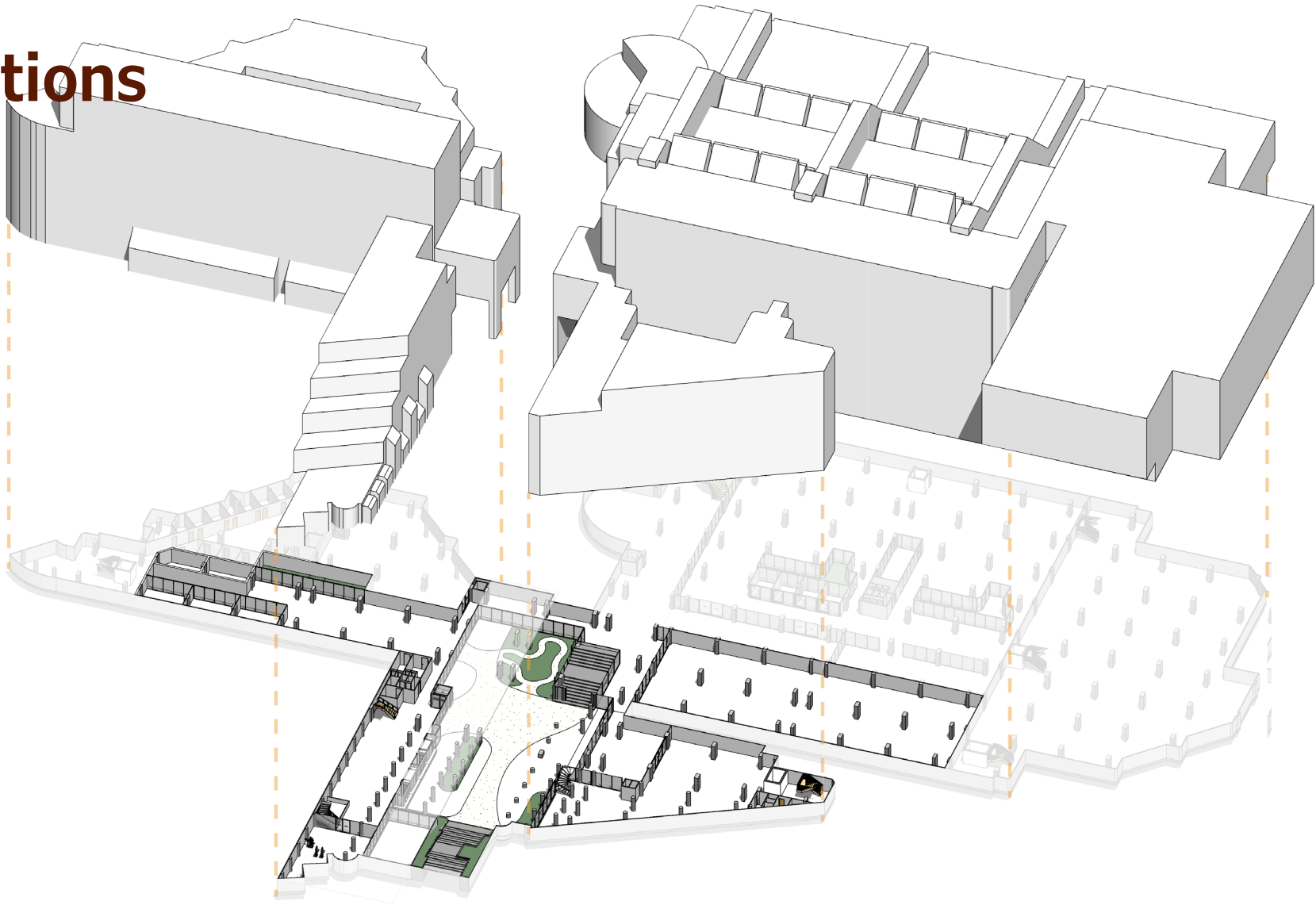




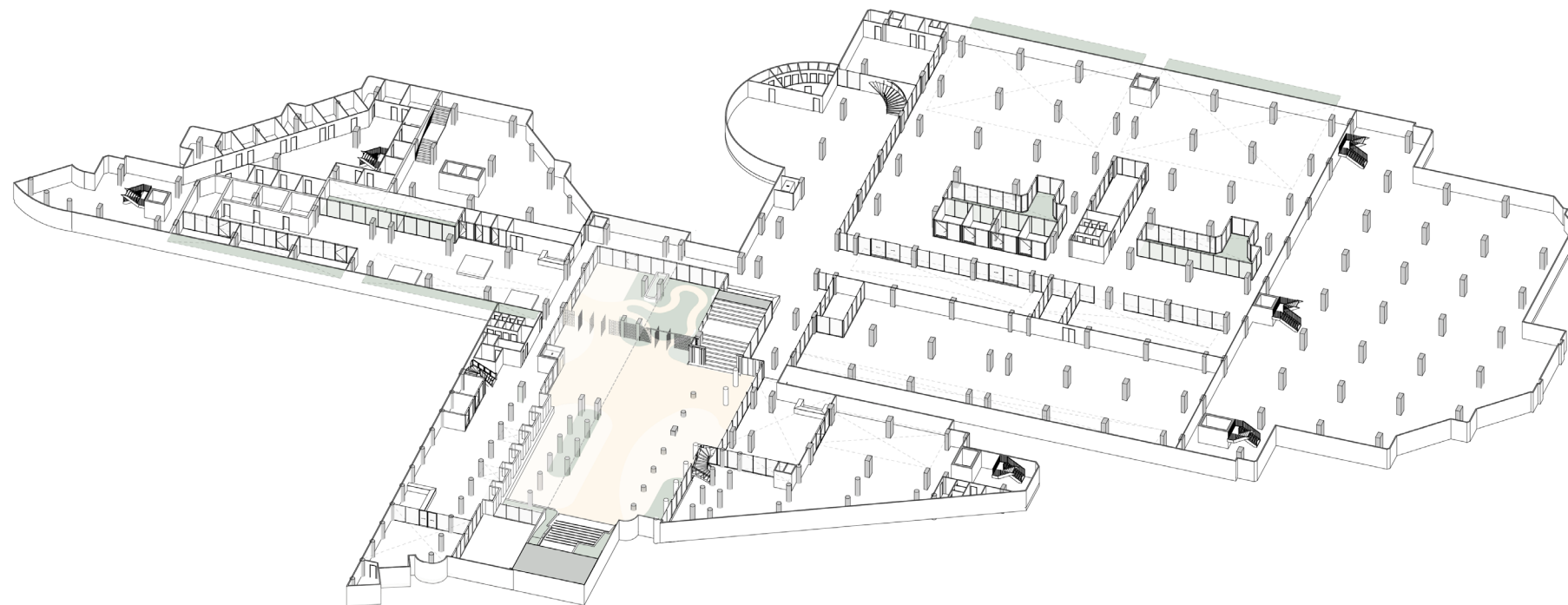
# Exhibitions



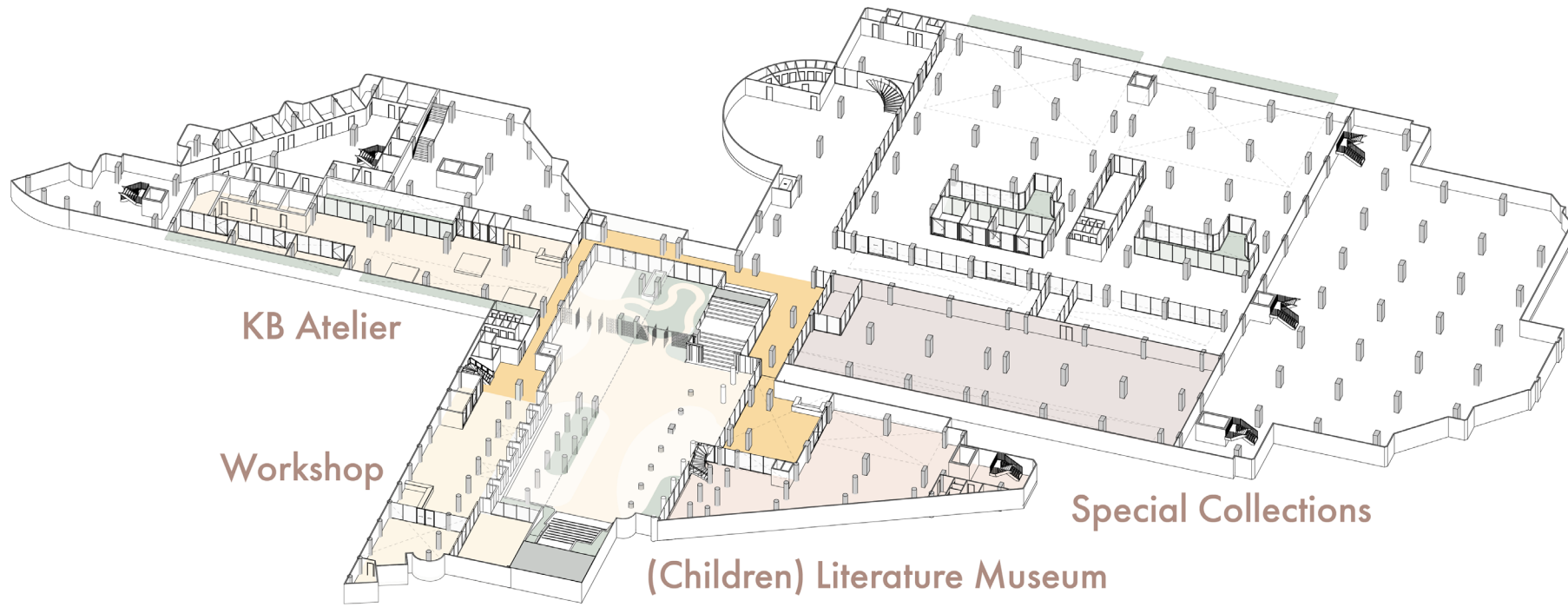
# Exhibitions



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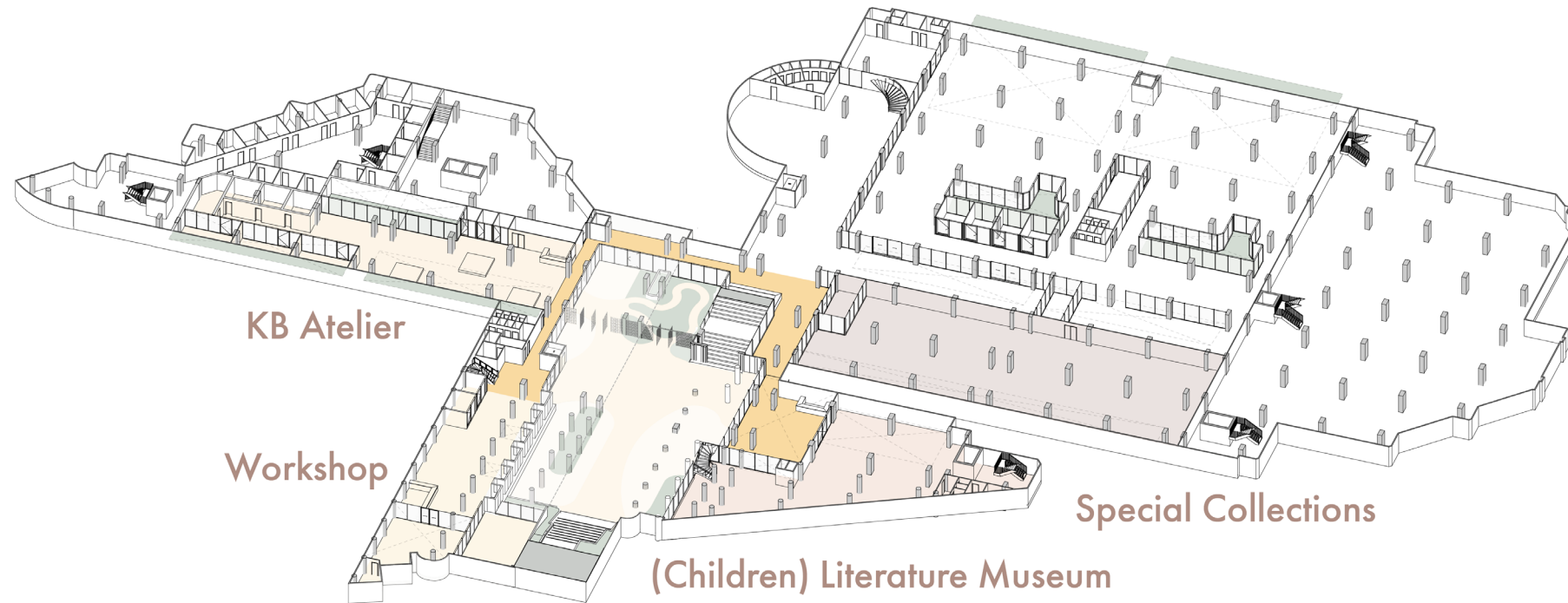


2025 A101010101

MUSEUM MUSEUM

ARCHIVE AVENUE

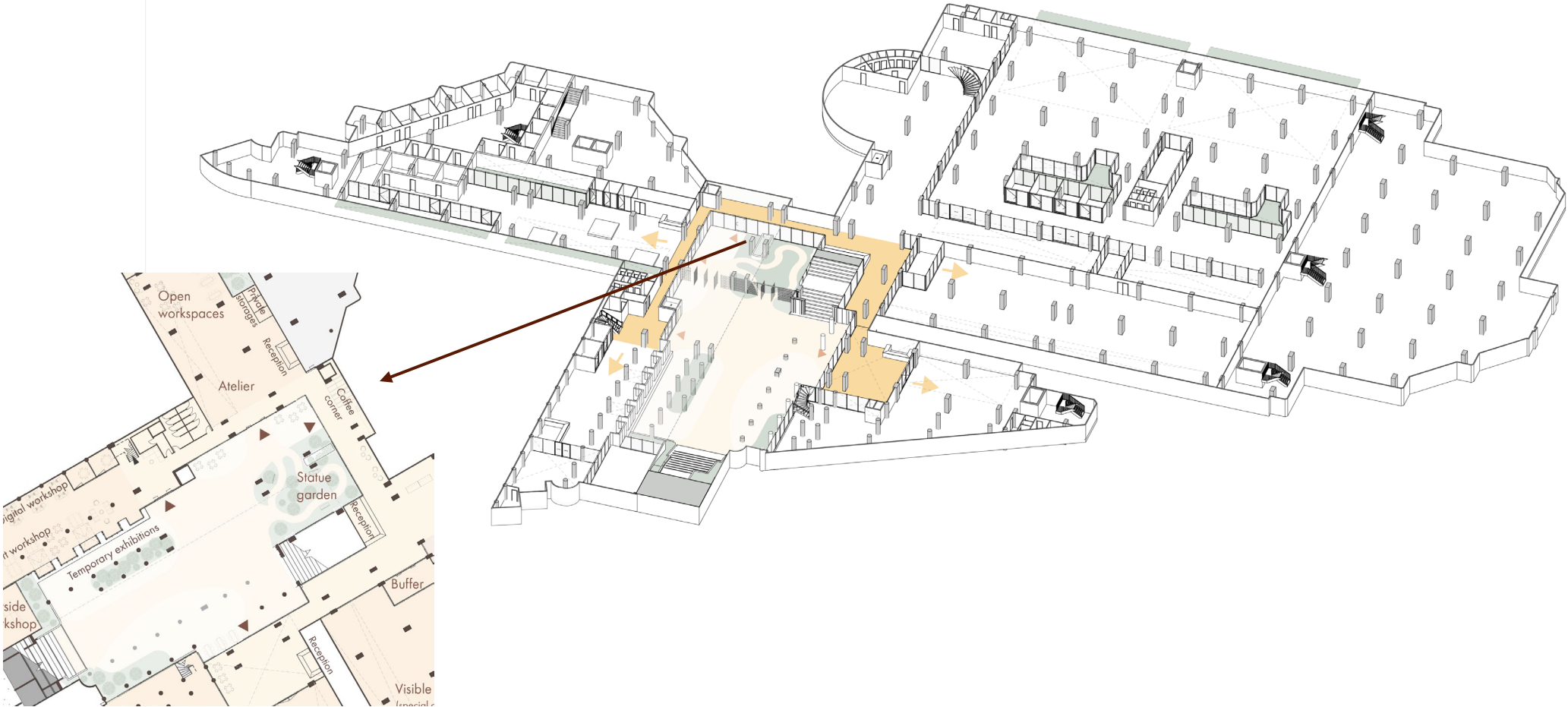
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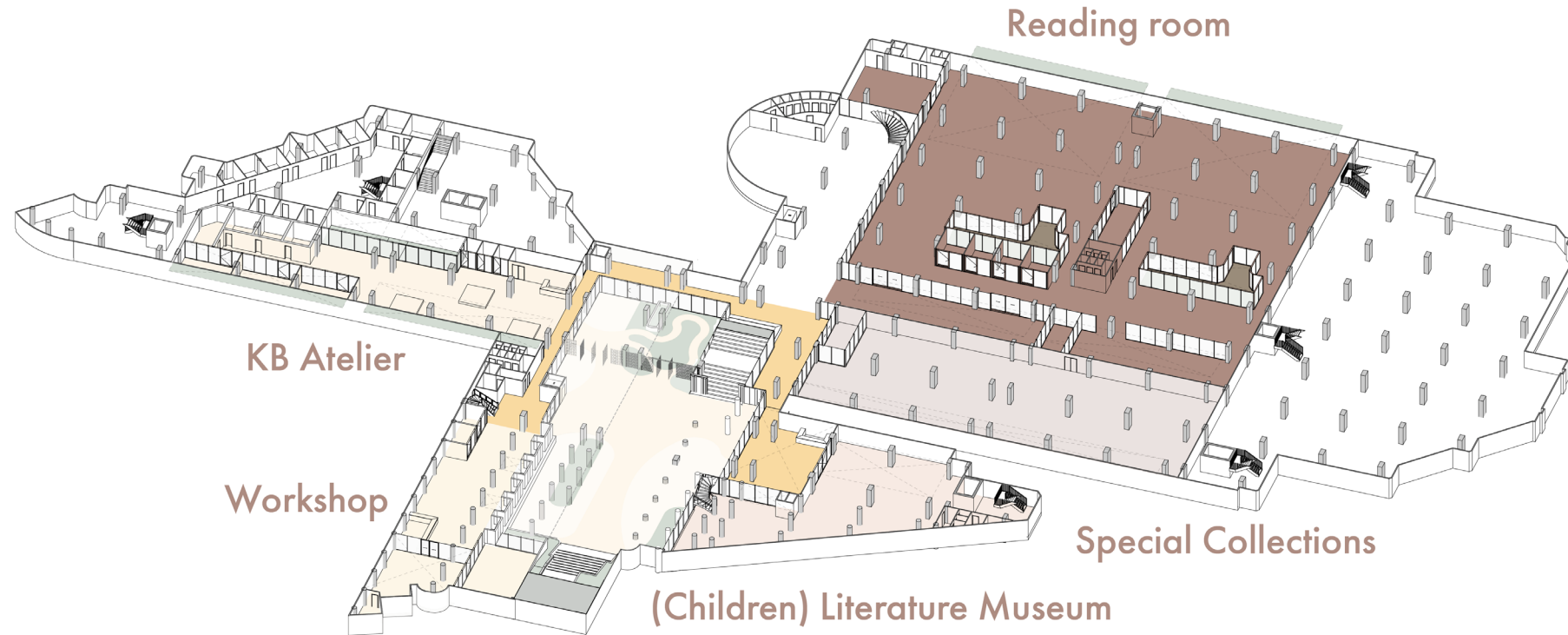
KB Atelier



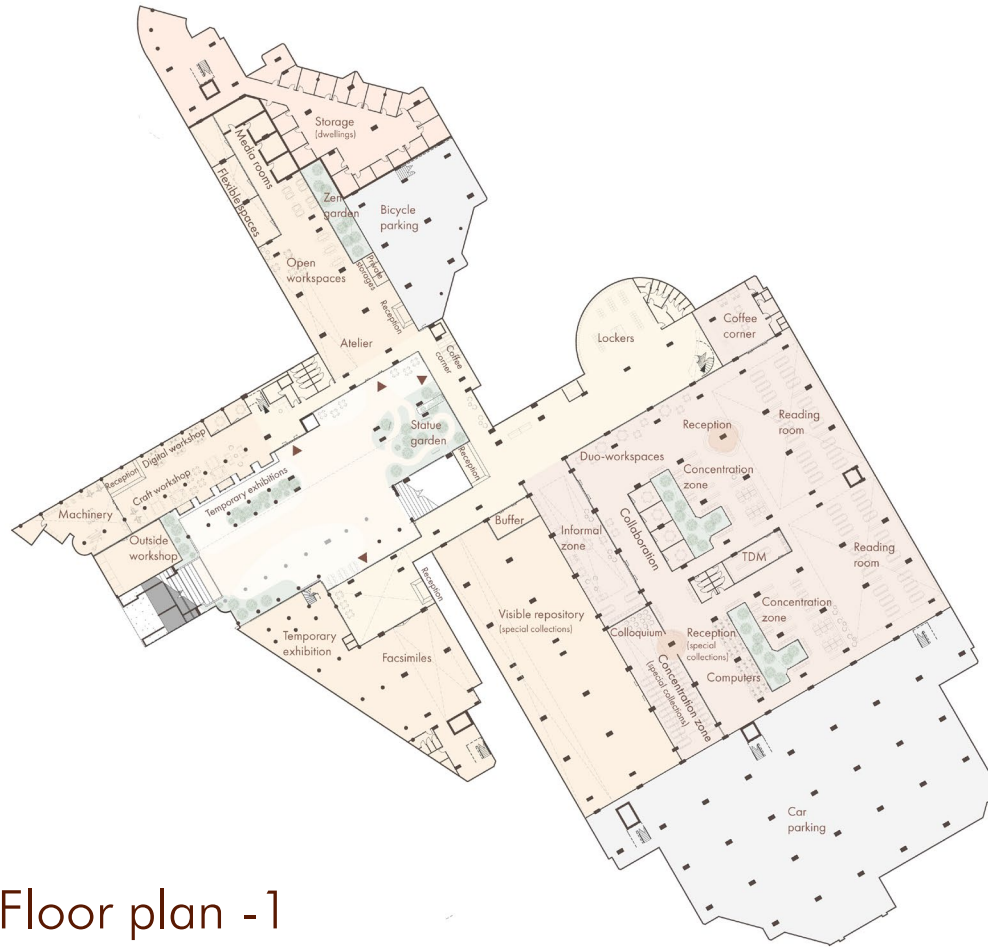
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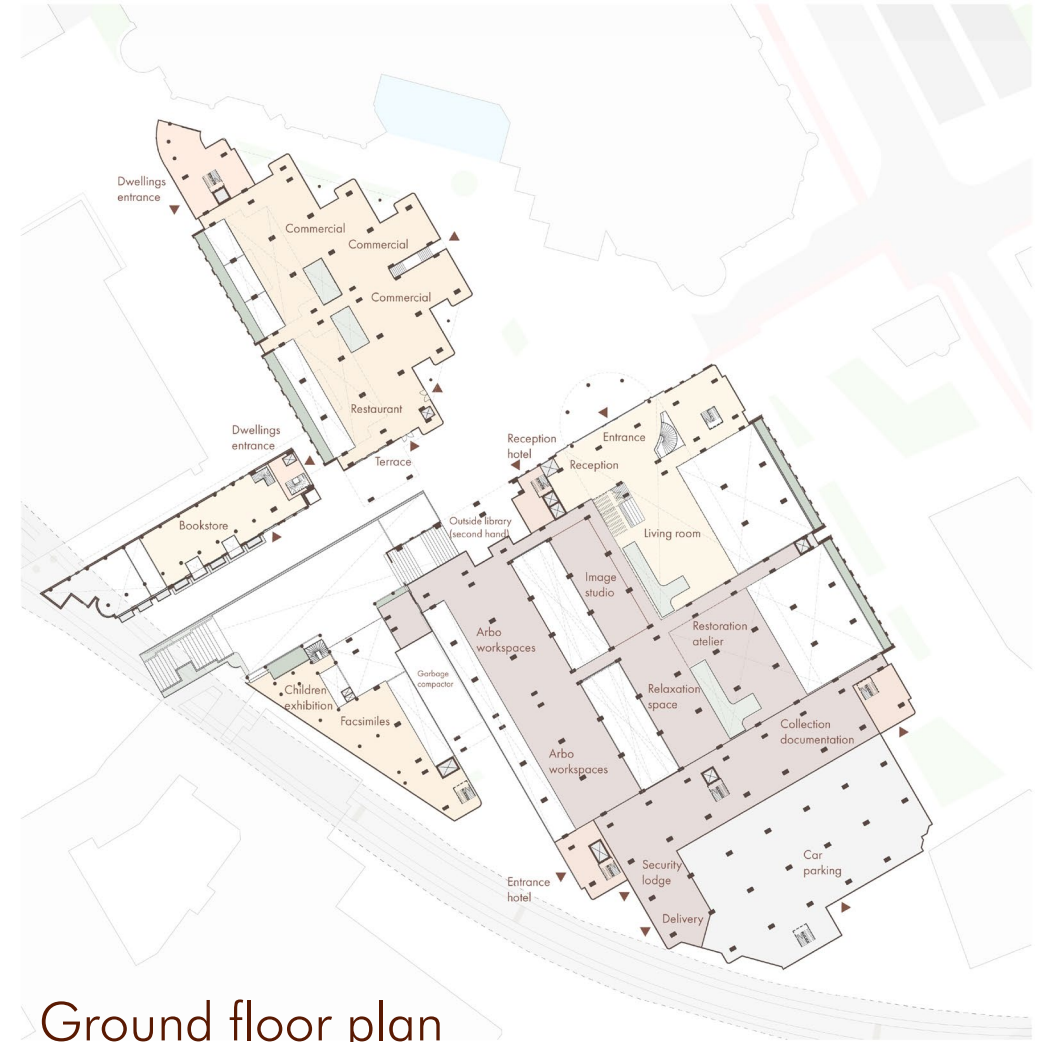
# The library



# The library

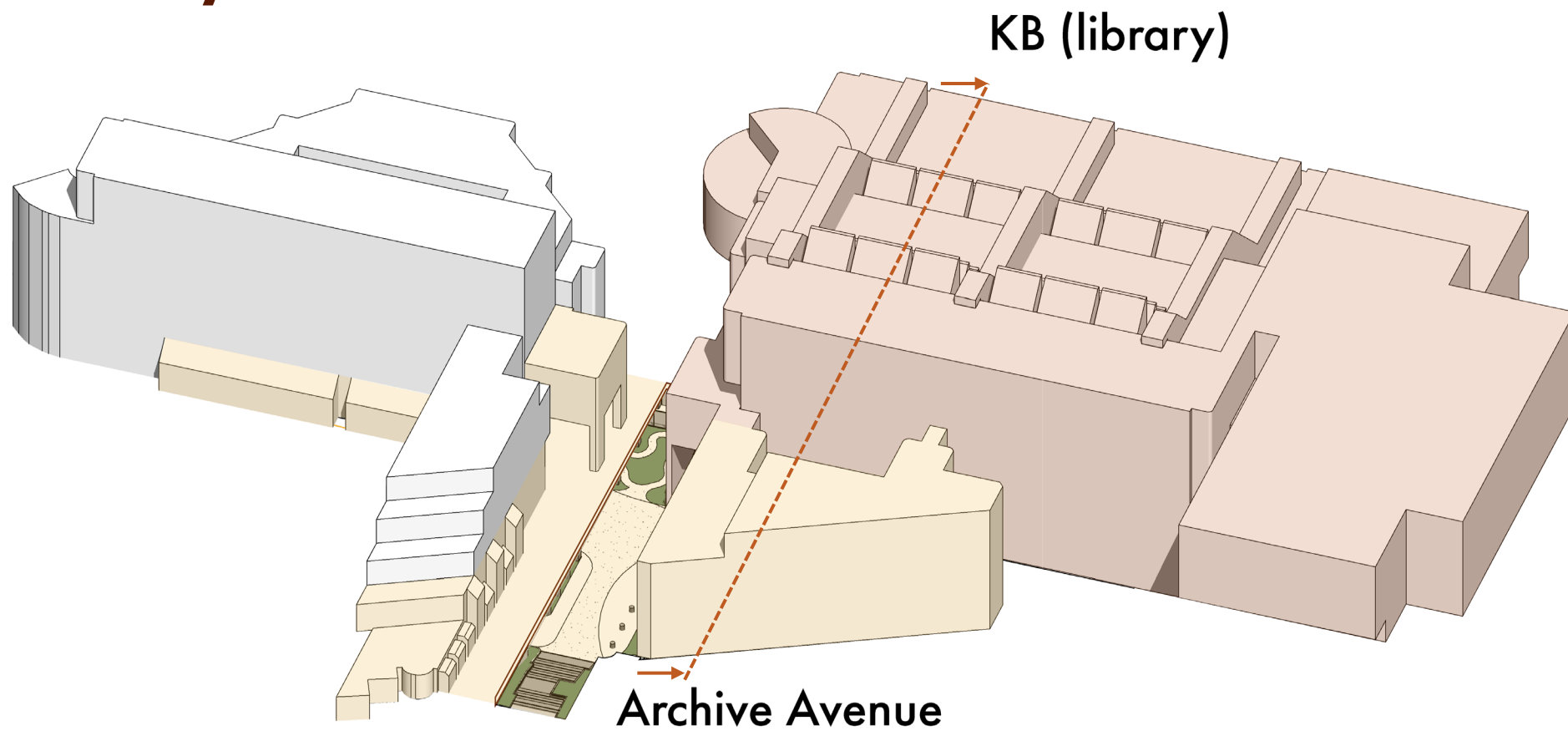


Floor plan -1

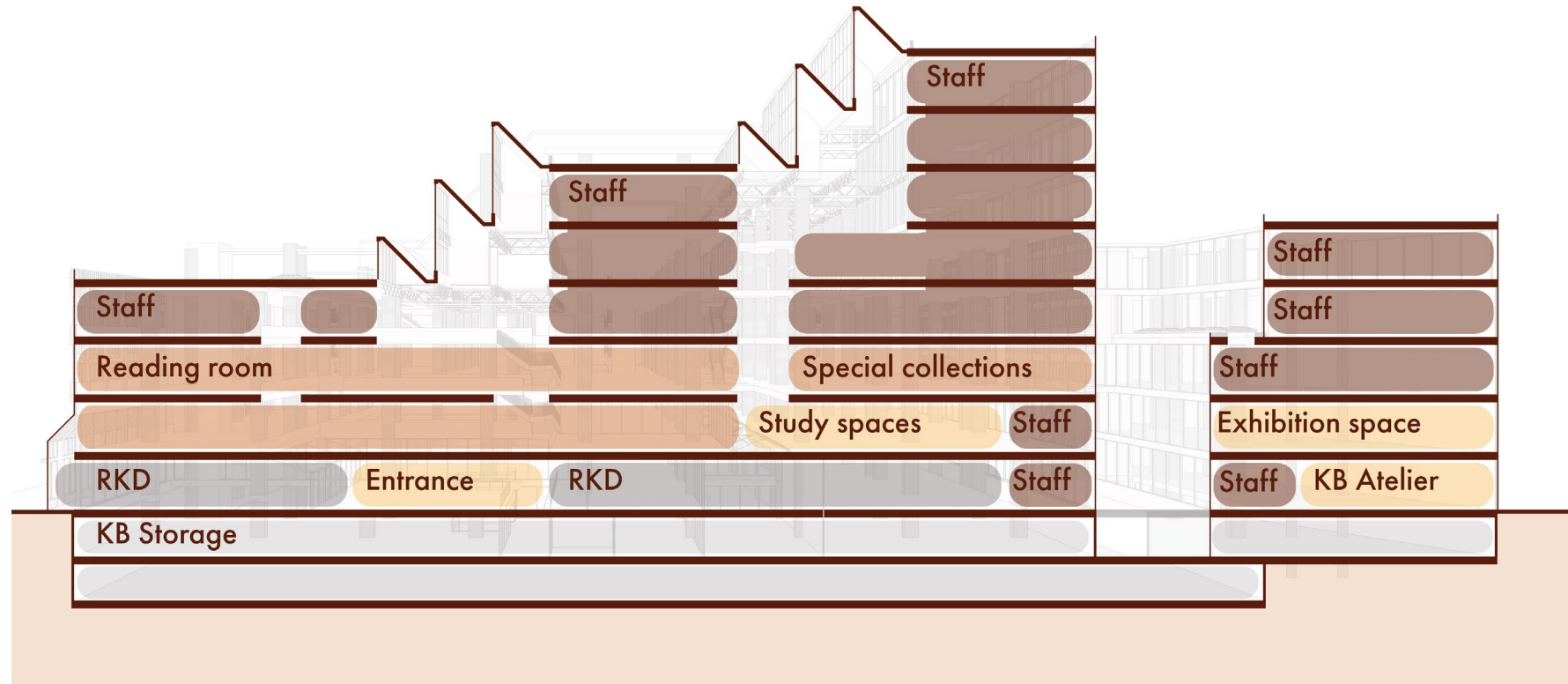


Ground floor plan

# The library



# The KB | Current section



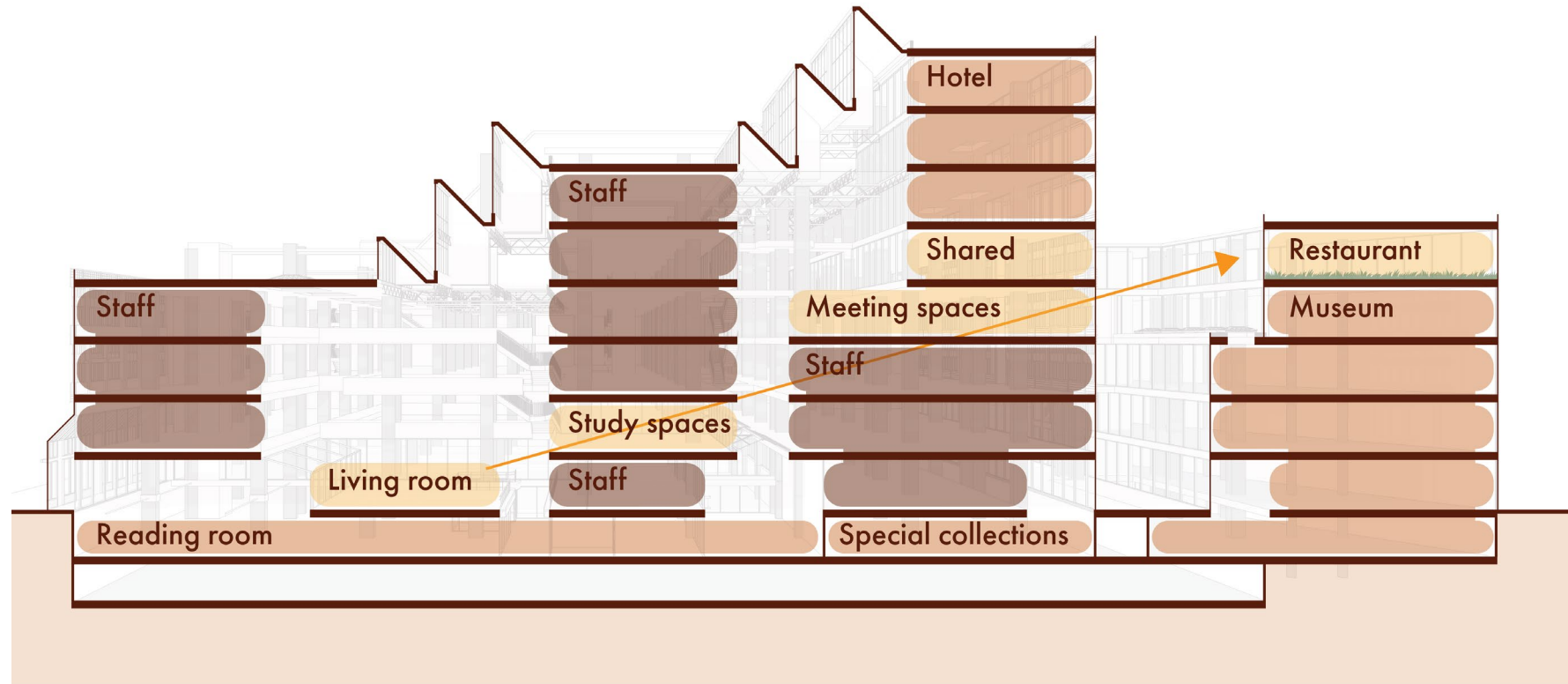
(KB) Offices

Fully public

Members/paid

Relocated functions

# The KB | New section

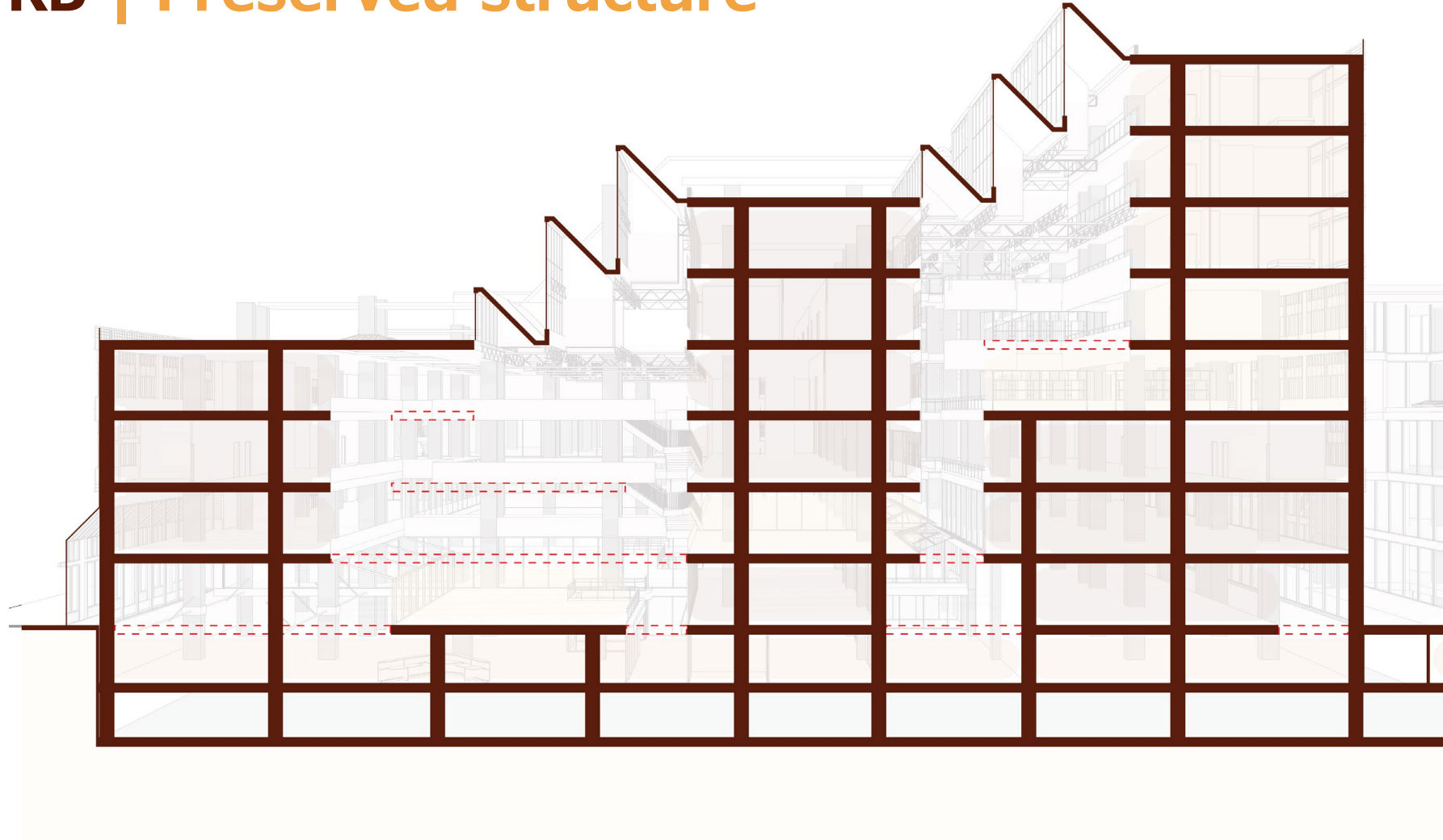


(KB) Offices

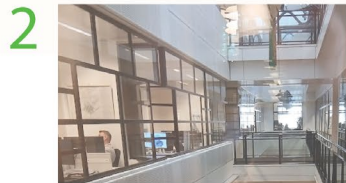
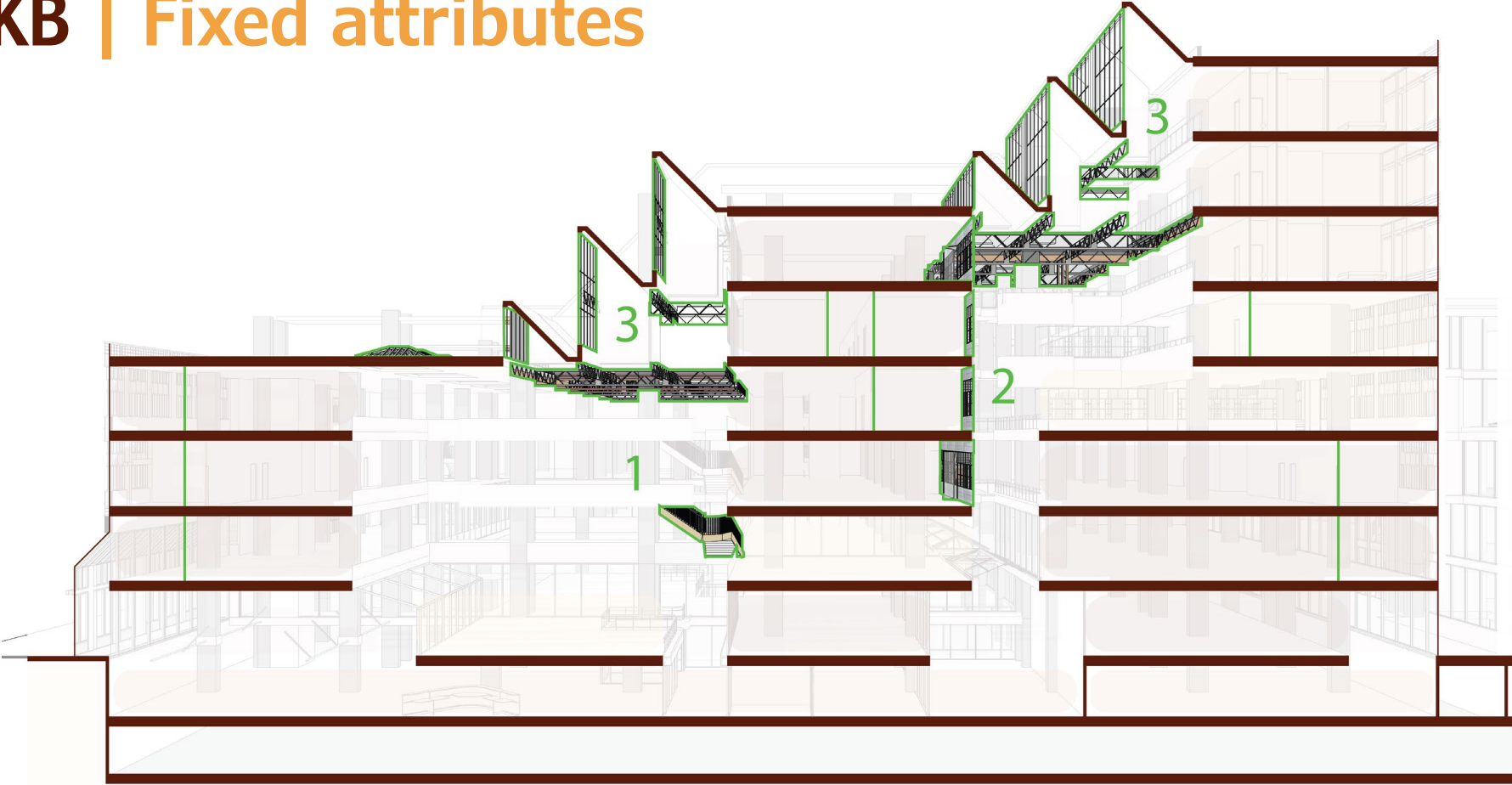
Fully public

Members/paid

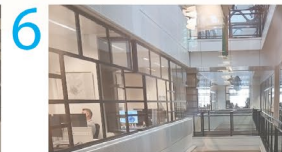
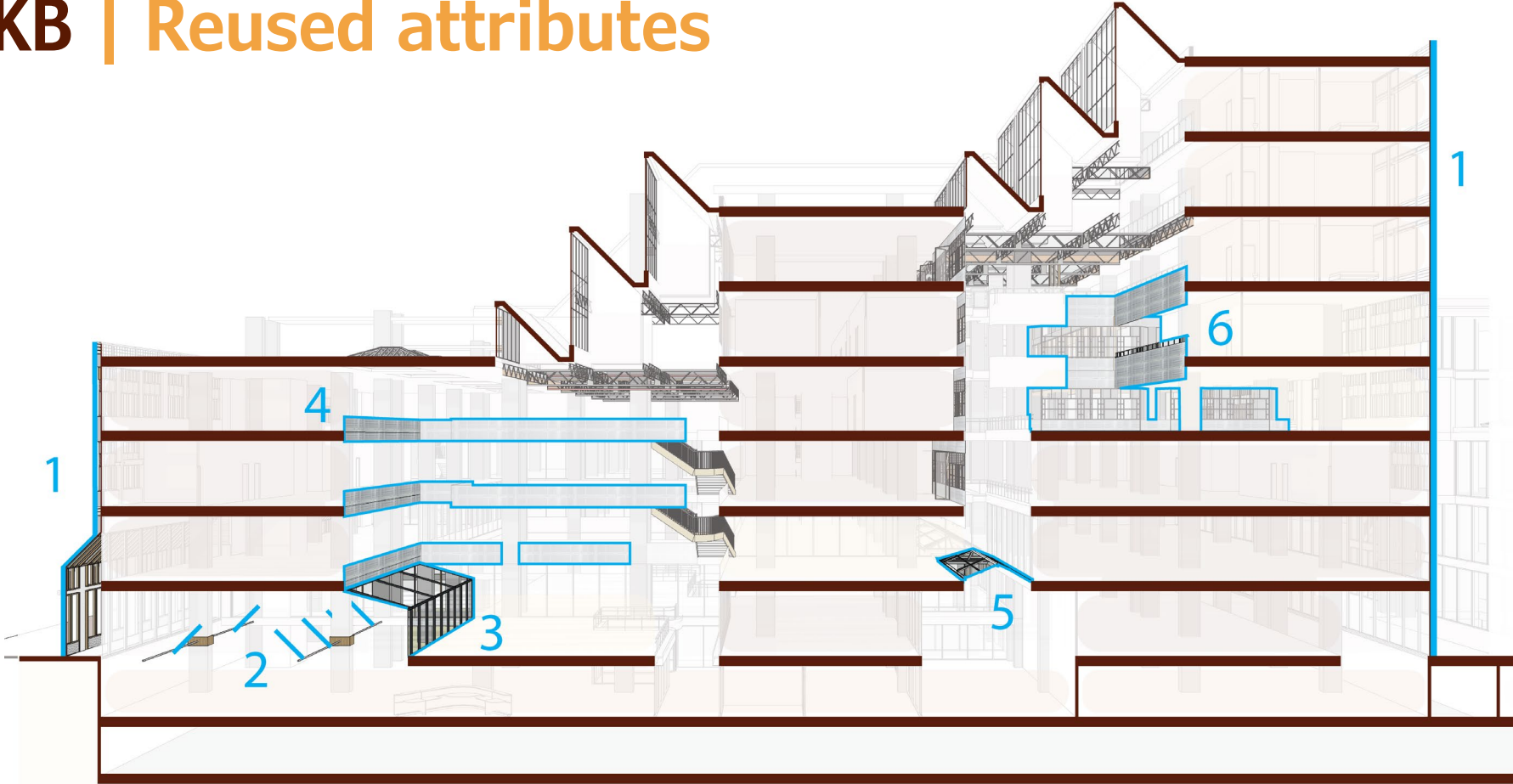
# The KB | Preserved structure



# The KB | Fixed attributes



# The KB | Reused attributes



# The KB | Current atrium



*Characteristic element in a narrow atrium,  
credits: Wijnand Galema*



# The KB | Current entrance



Existing entrance towards the reading room



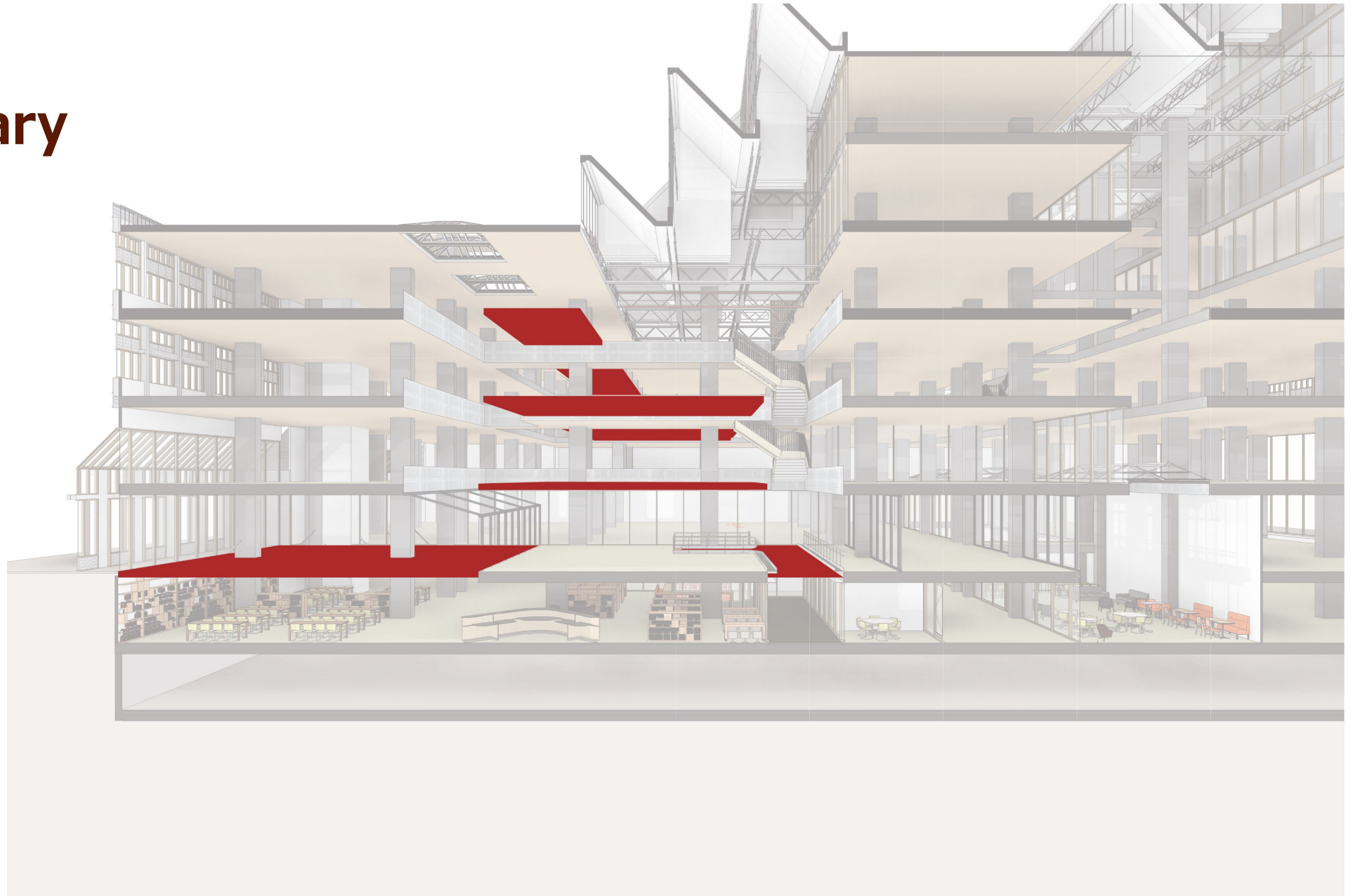
Café at the existing entrance with (almost) hidden wall painting, credits: Emeline Lin



# The library

1.972m<sup>2</sup> demolished

2.689m<sup>2</sup> reading room  
activated  
(+ added comfort)



# The library



3 GOOD HEALTH AND WELL-BEING

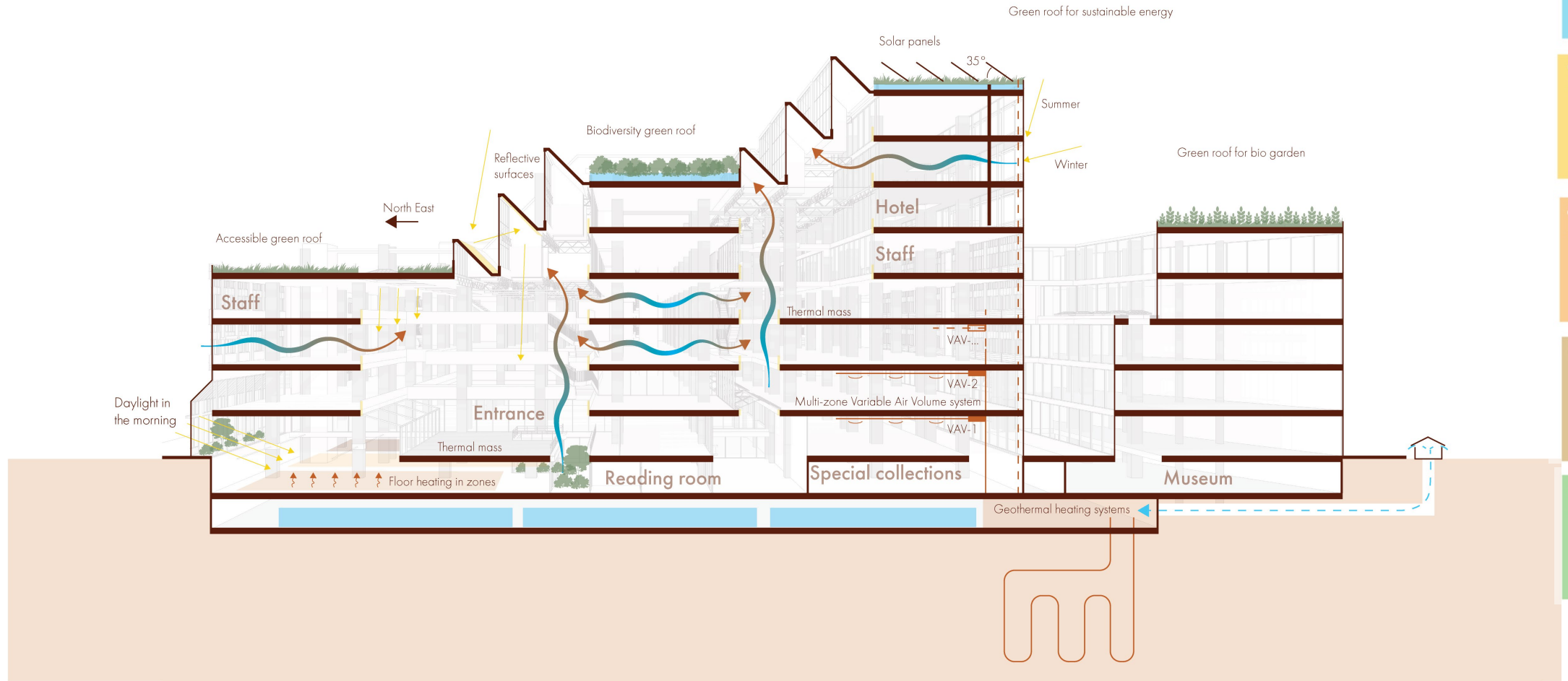


4 QUALITY EDUCATION





# The library | Climate



3 GOOD HEALTH AND WELL-BEING

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

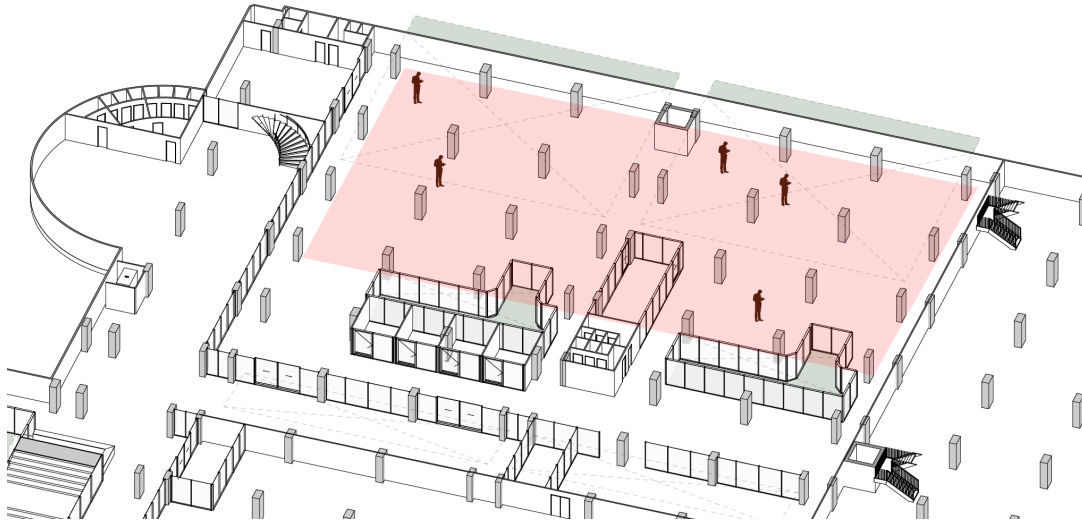
15 LIFE ON LAND

# The library | Climate

11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



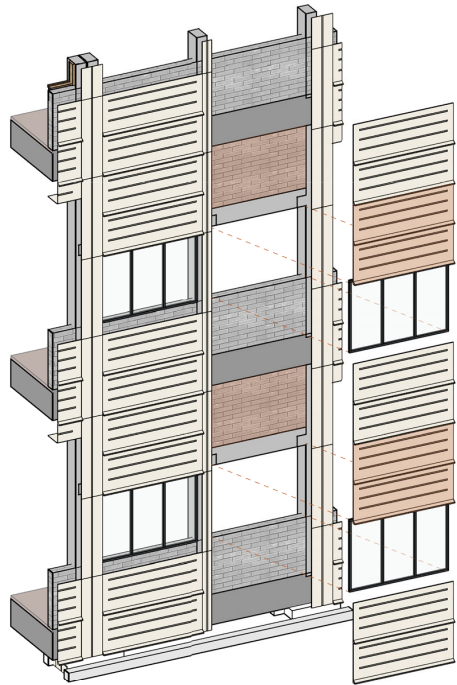
1 heating zone: visitors scatter



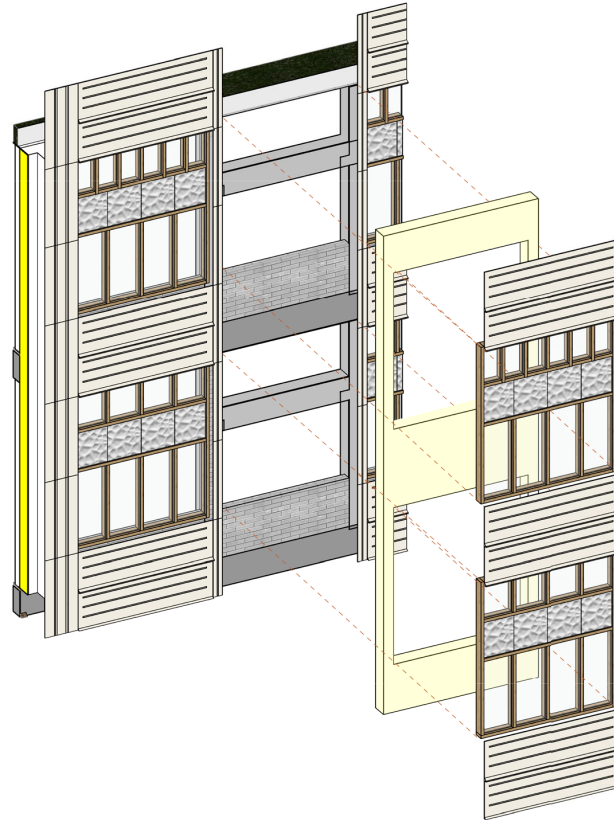
Multiple heating zones: more social connection



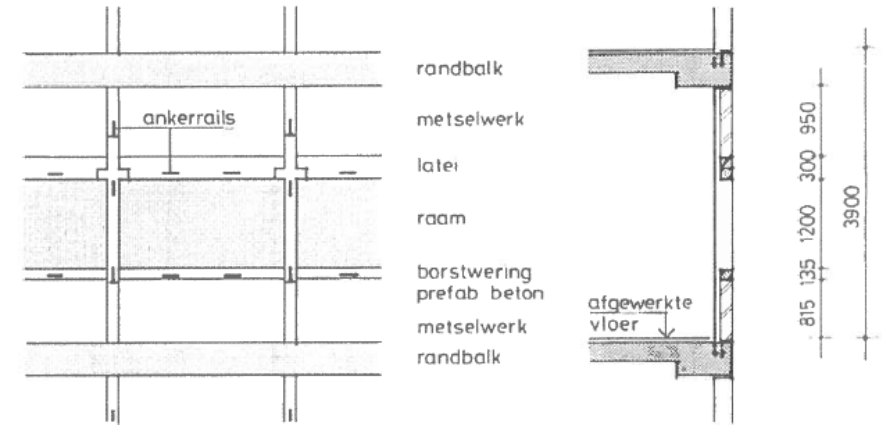
# The library | Climate



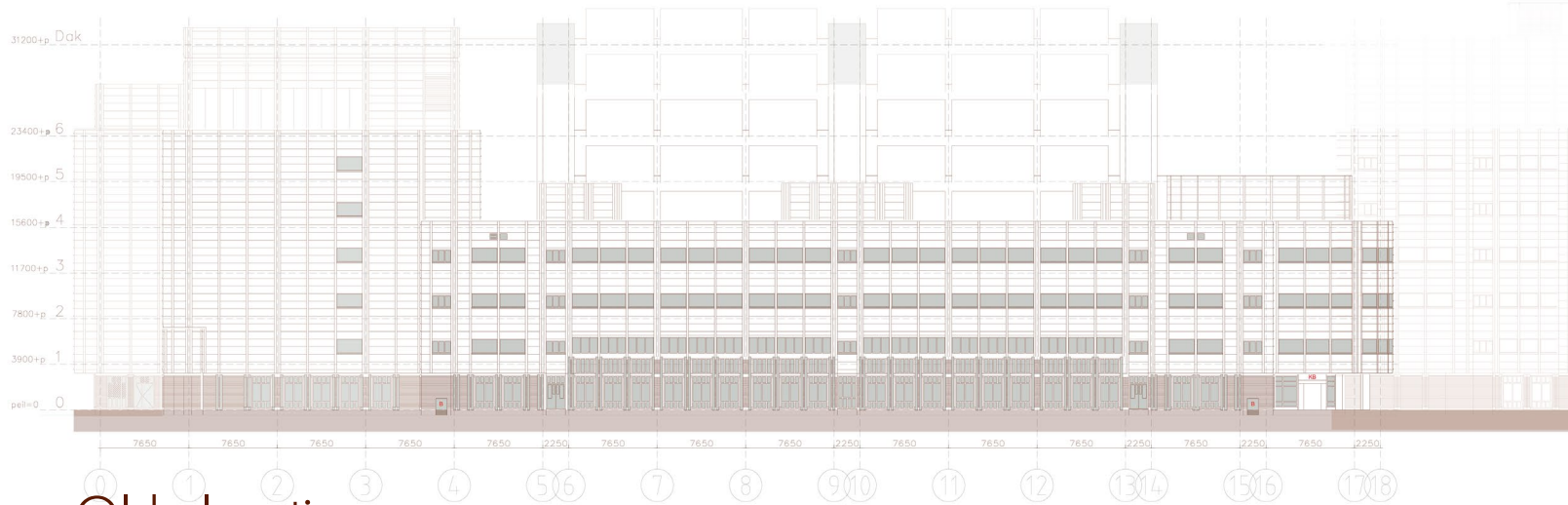
Old facade construction



New facade with added insulation and more window area

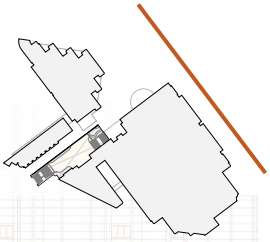
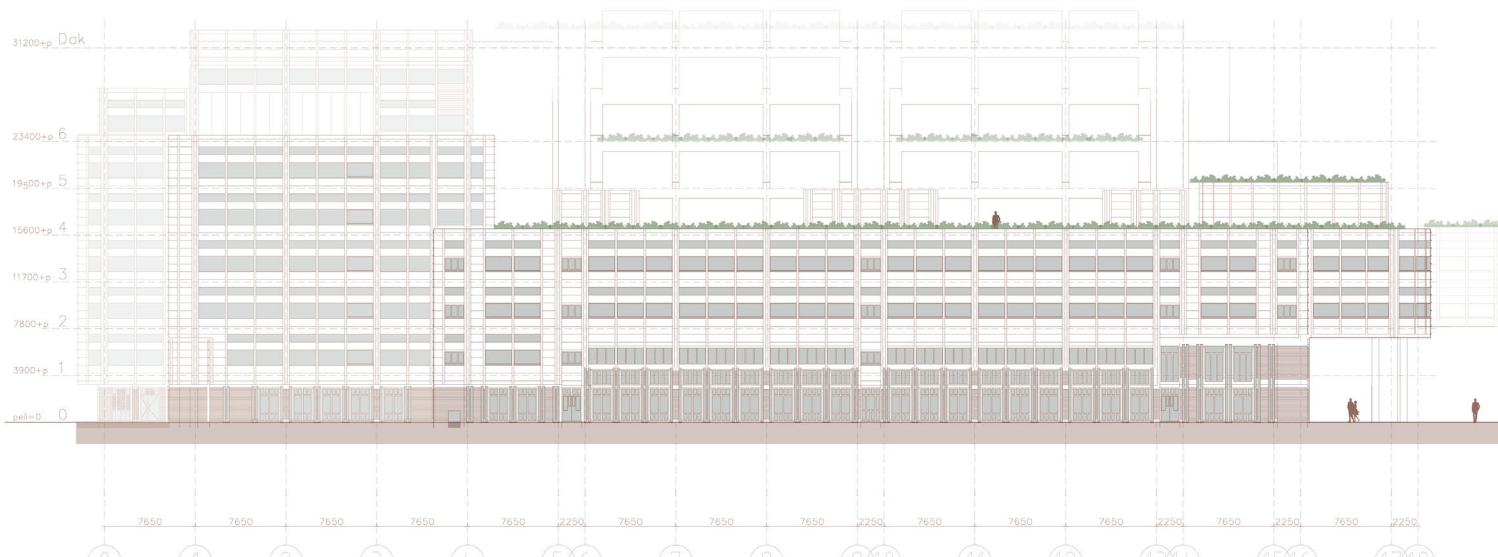


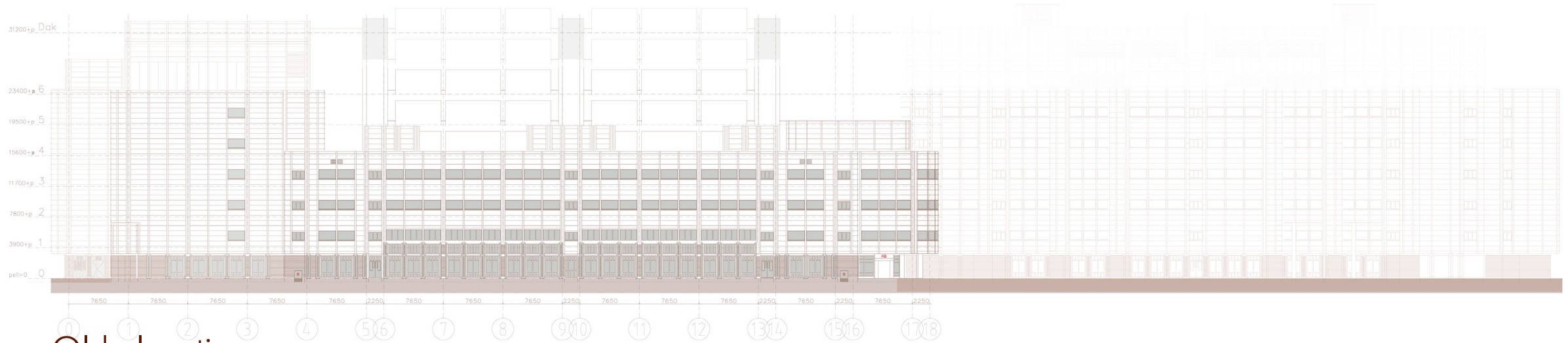
Old facade construction



Old elevation

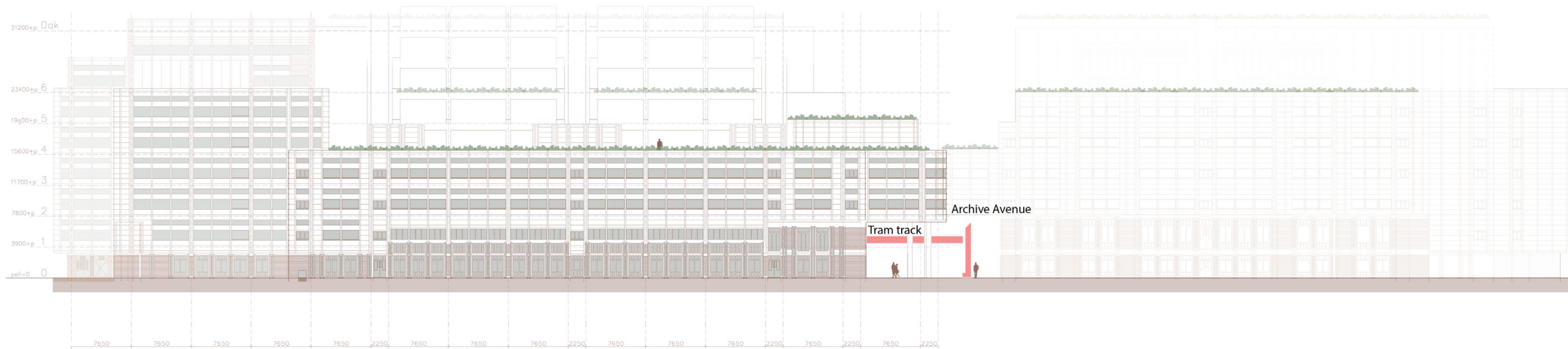
New elevation



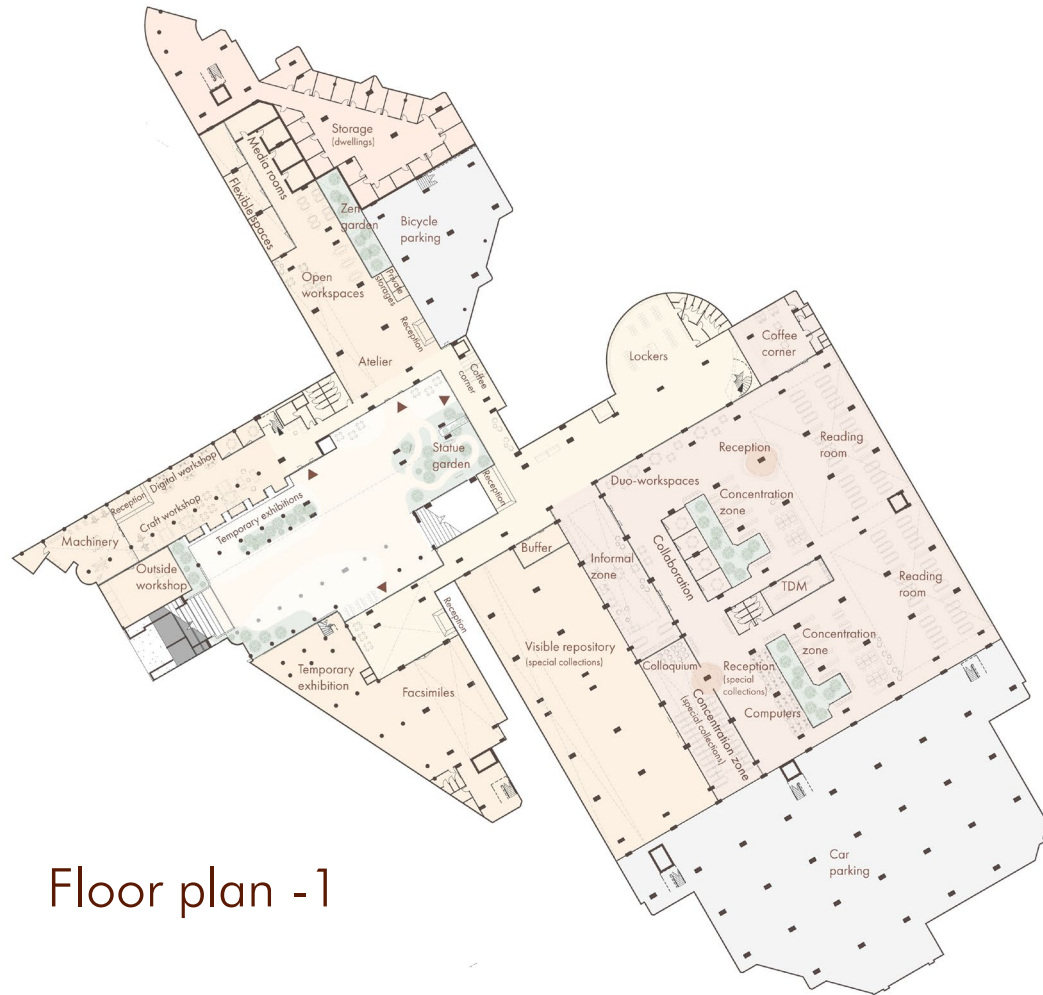


Old elevation

New elevation



# Additional functions

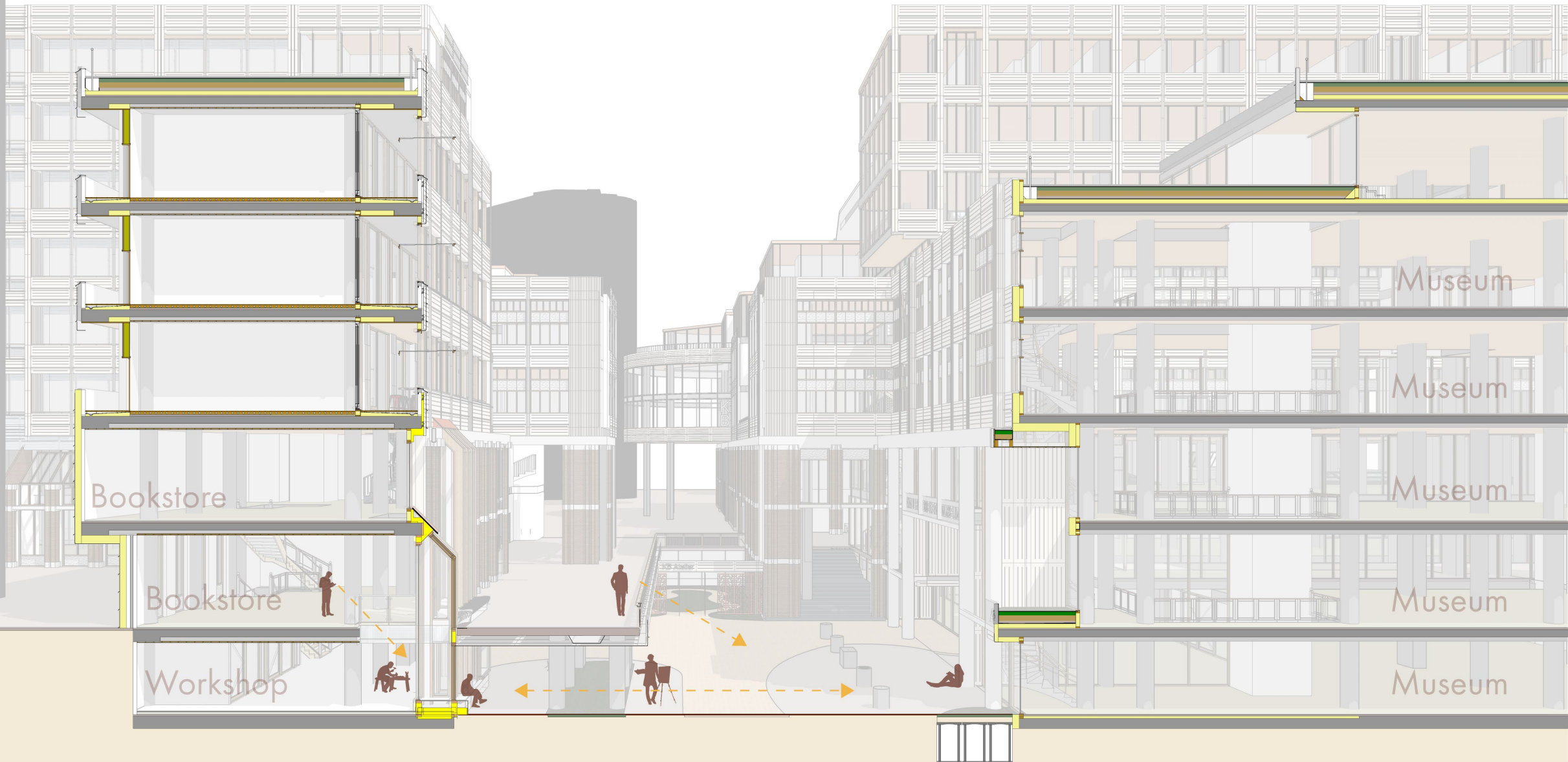


Floor plan - 1

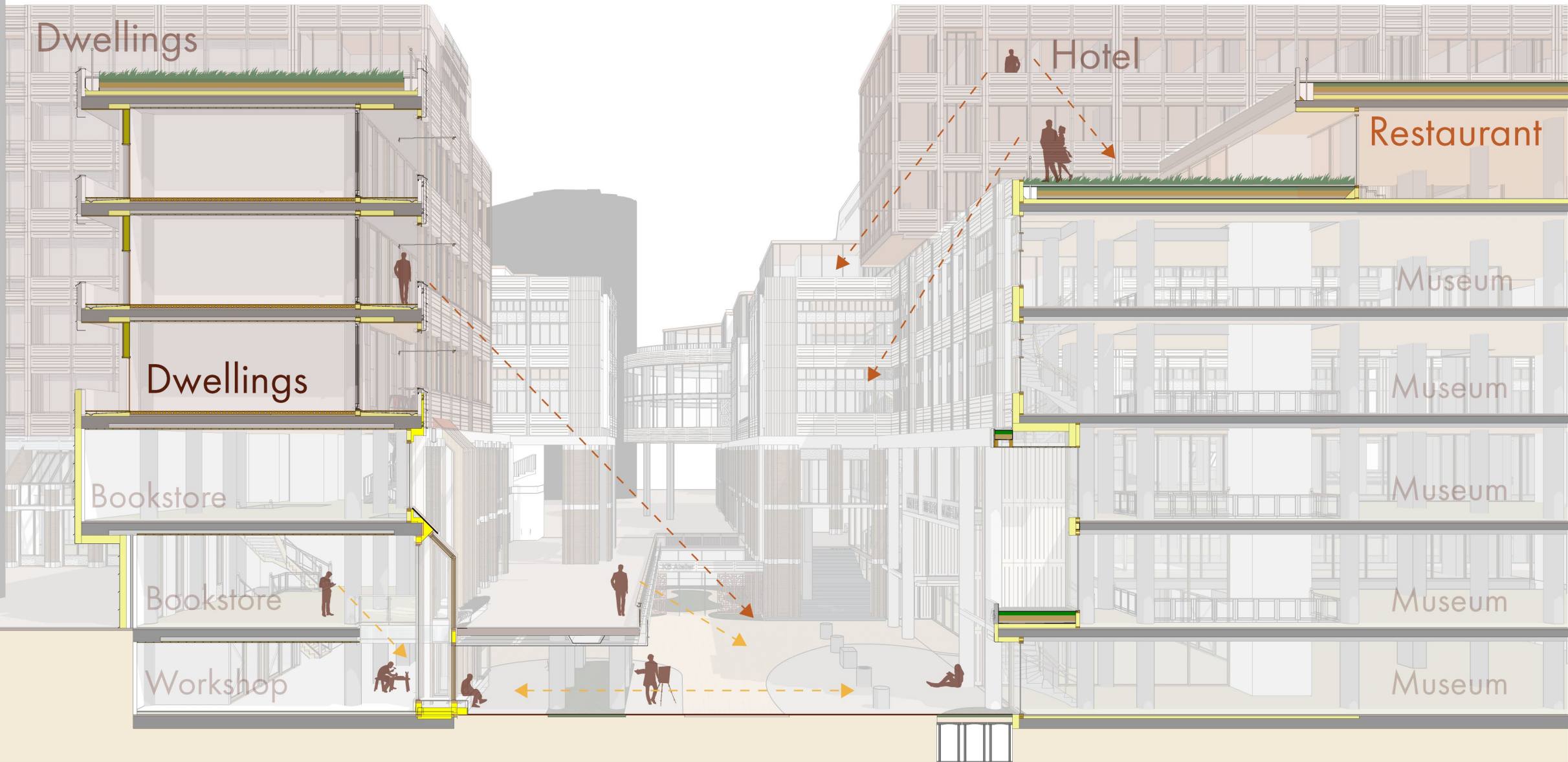


Ground floor plan

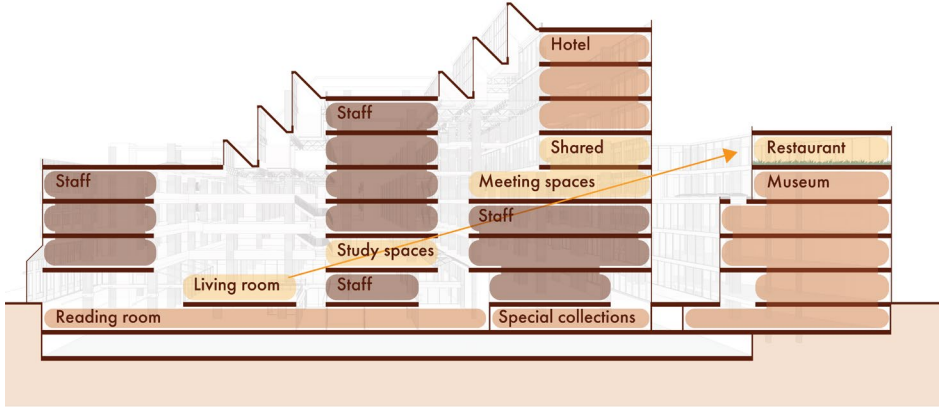
# Additional functions



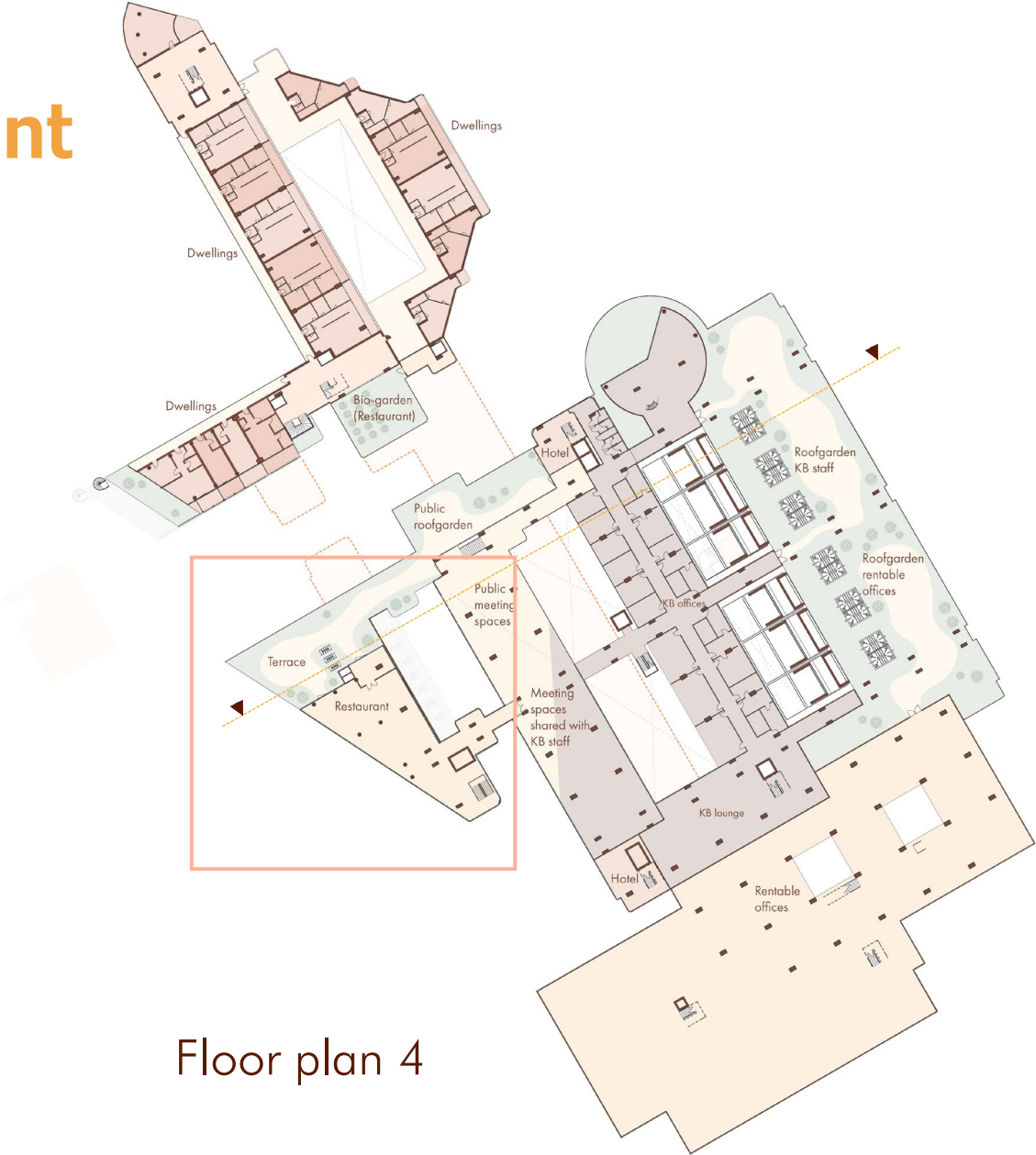
# Additional functions



# Additional functions | Restaurant



Section 1

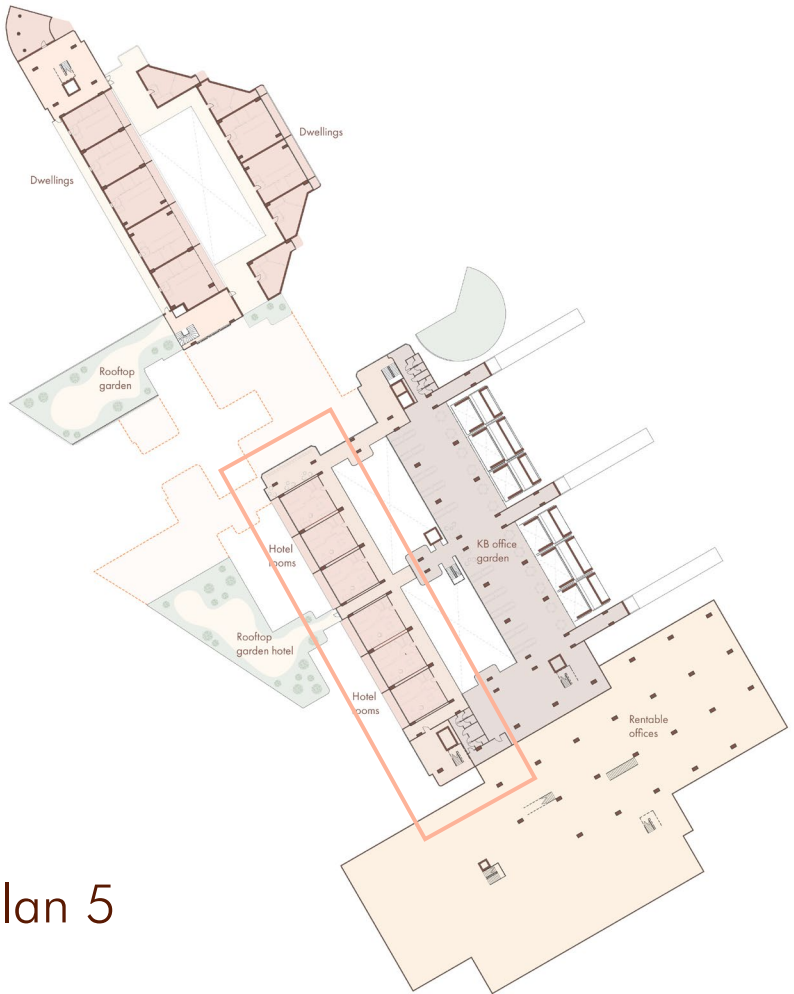


Floor plan 4

# Additional functions | Hotel



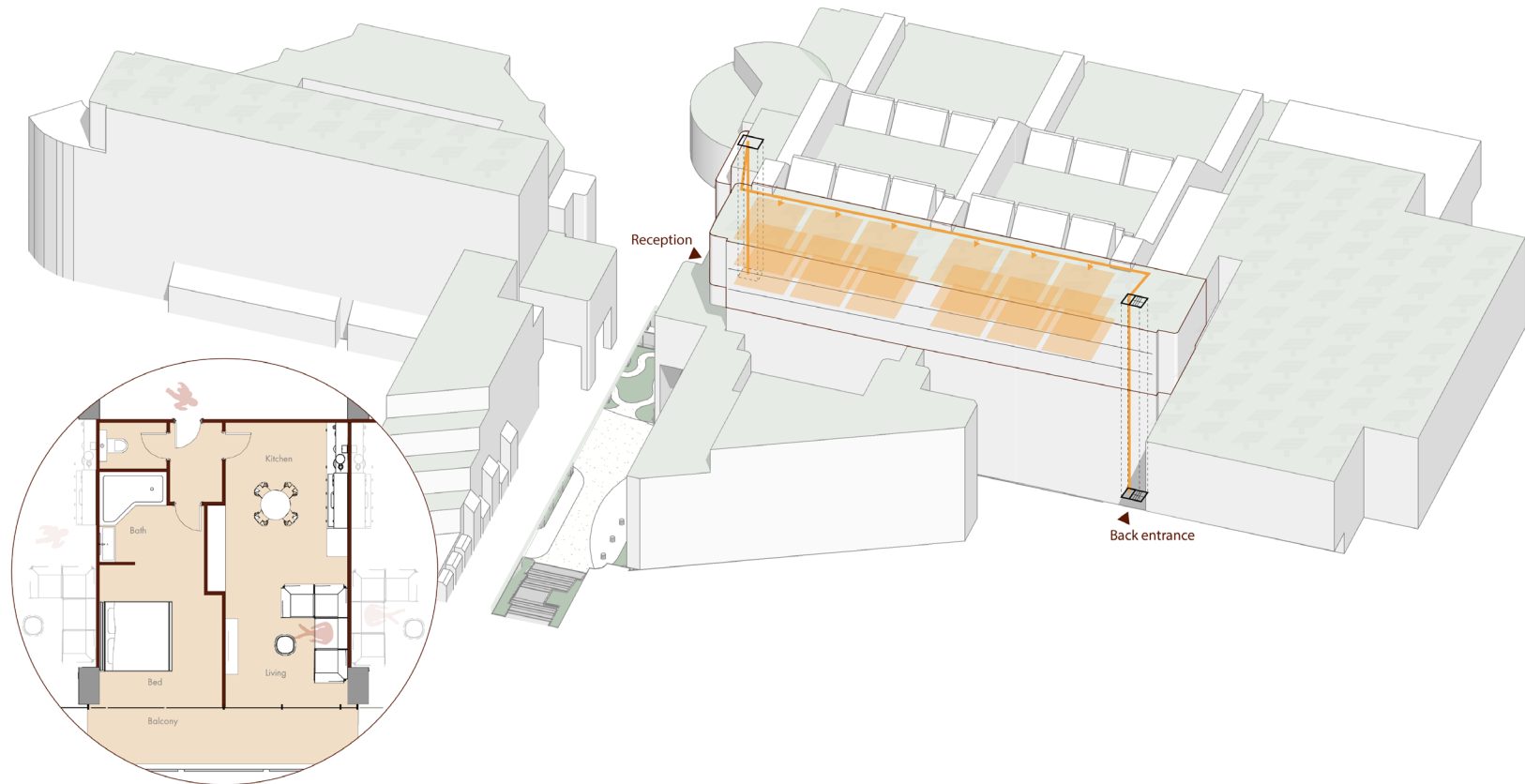
Ground floor plan



Floor plan 5

# Additional functions | Hotel

- Hotel capacity the Hague
- Collaboration with artists and partners
- Library Hotel Amsterdam

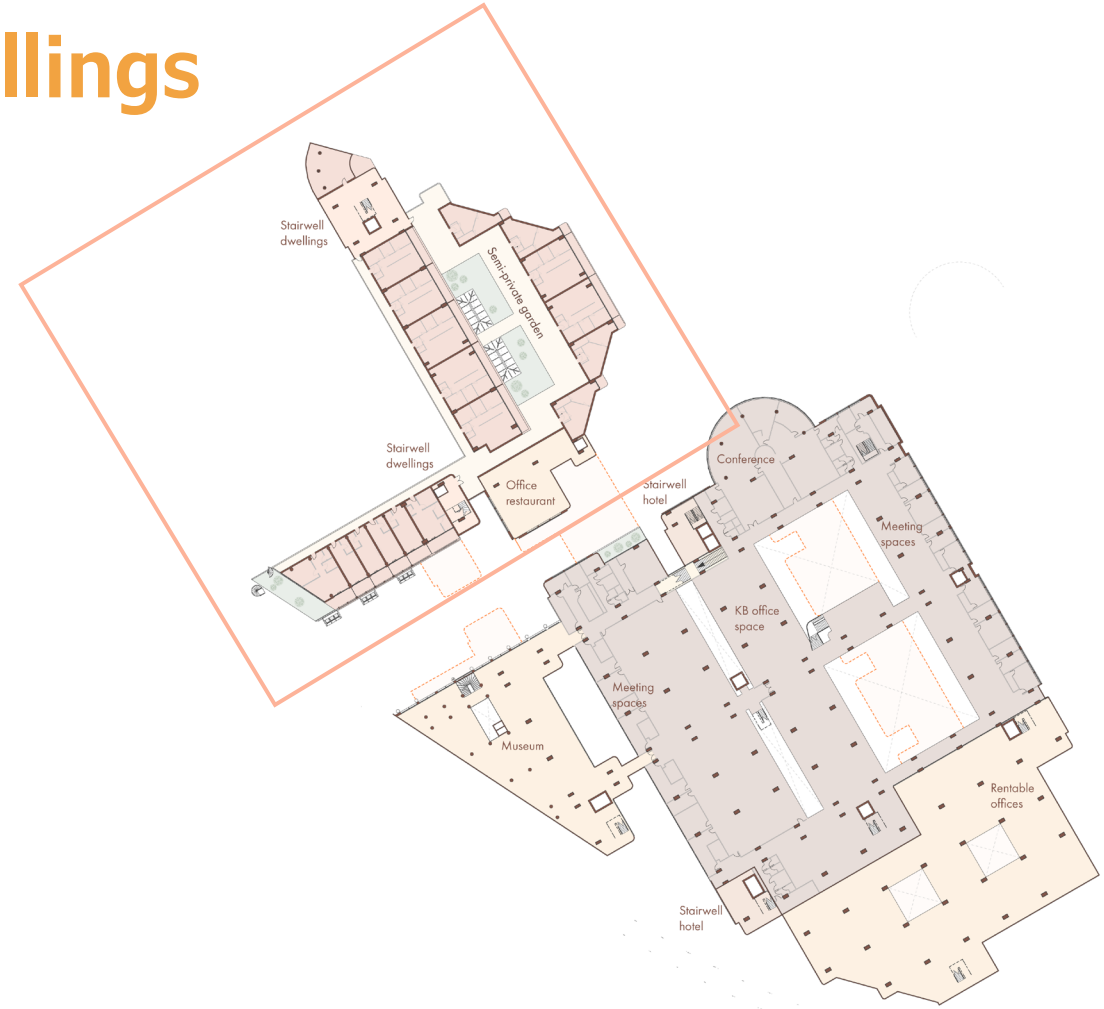




# Additional functions | Dwellings

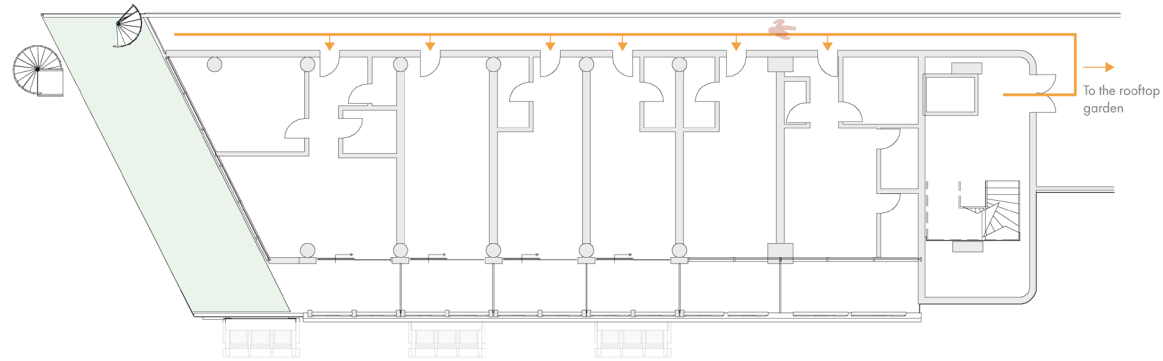


Ground floor plan

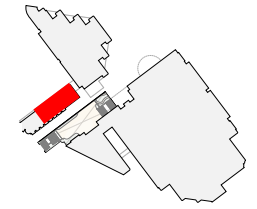
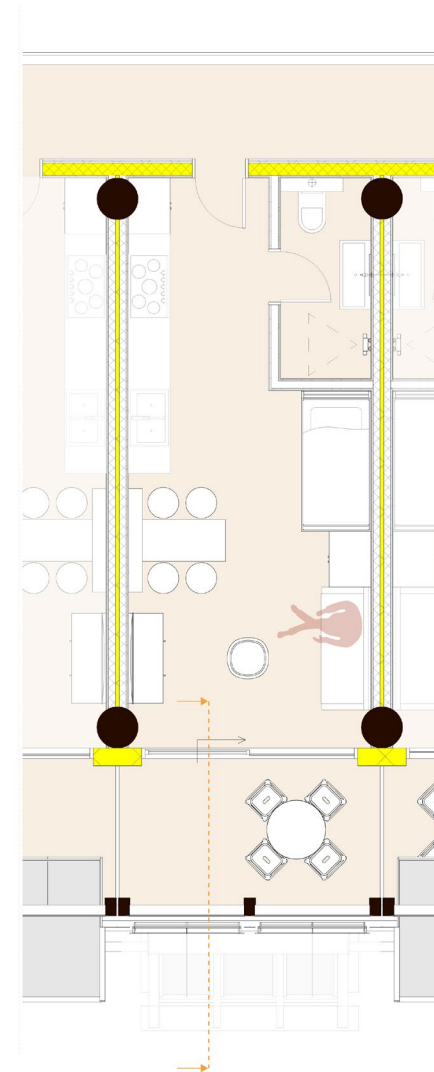


Floor plan 2

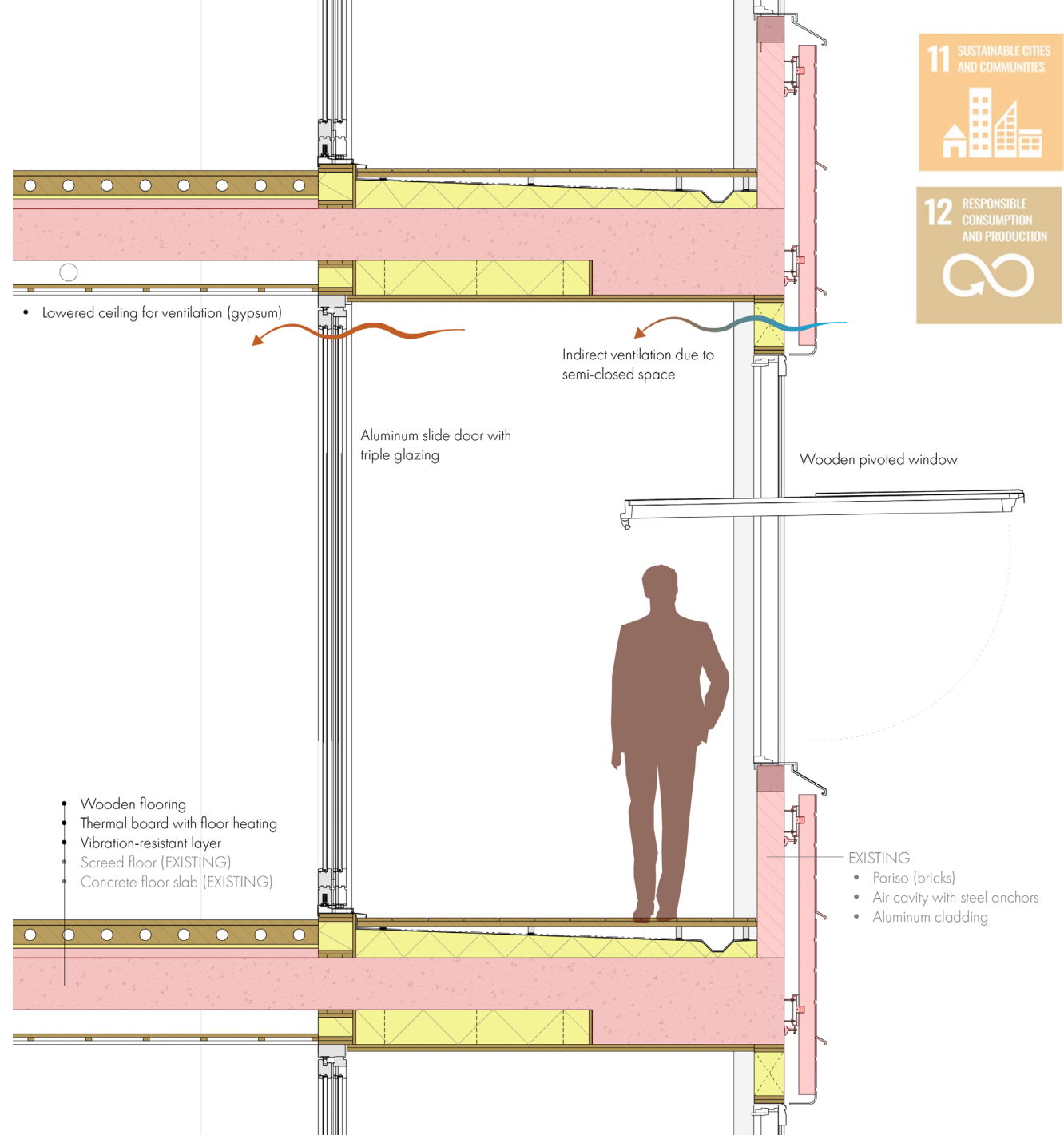
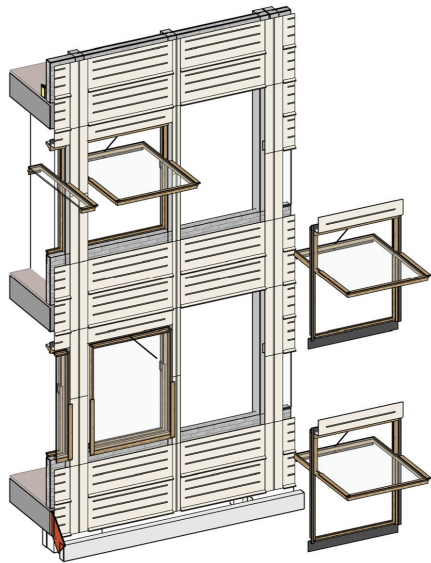
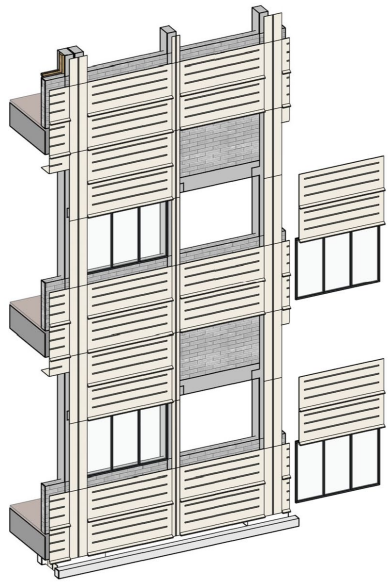
# Additional functions | Dwellings



Floor plan 2



# Balconies

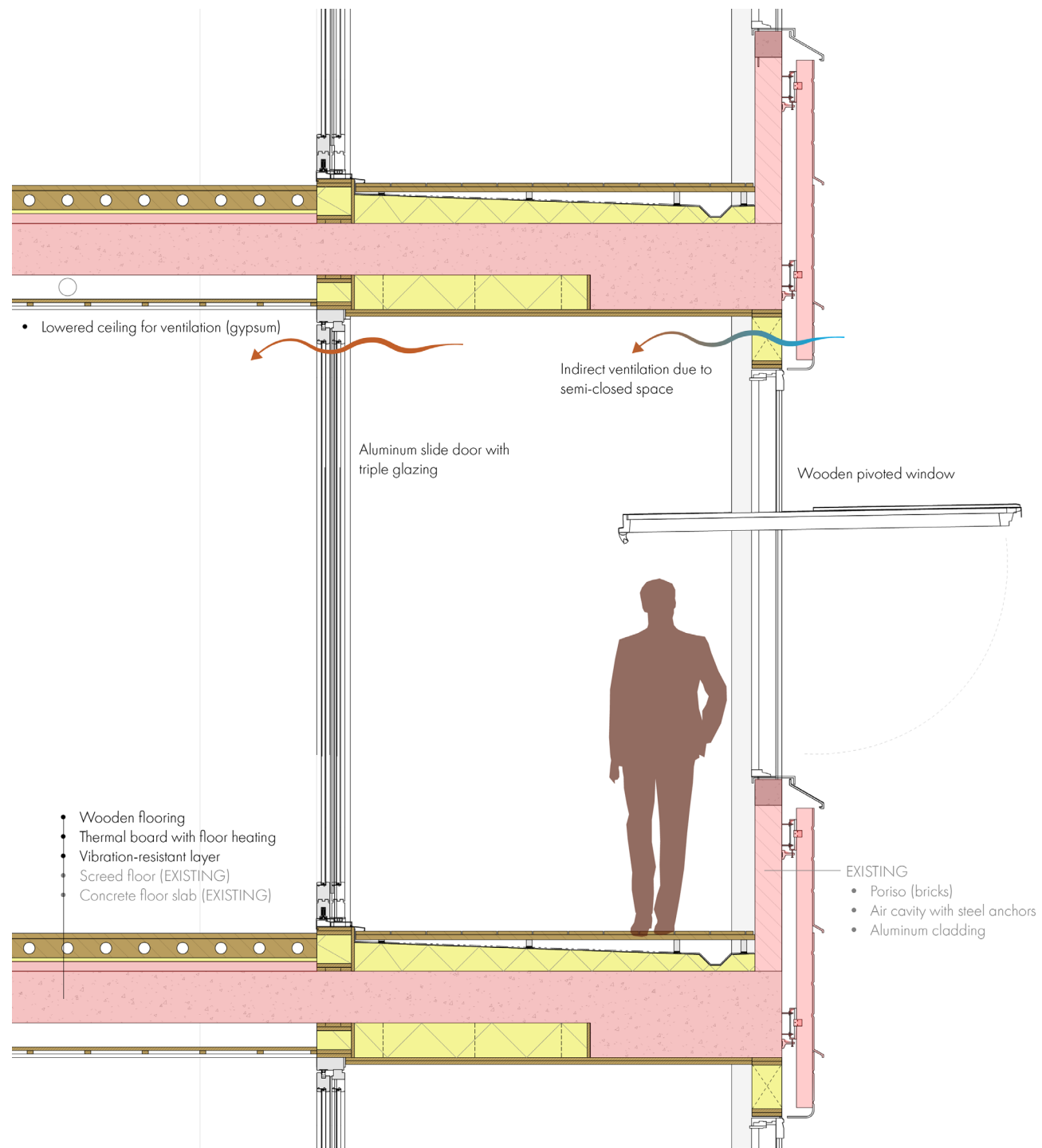


11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION

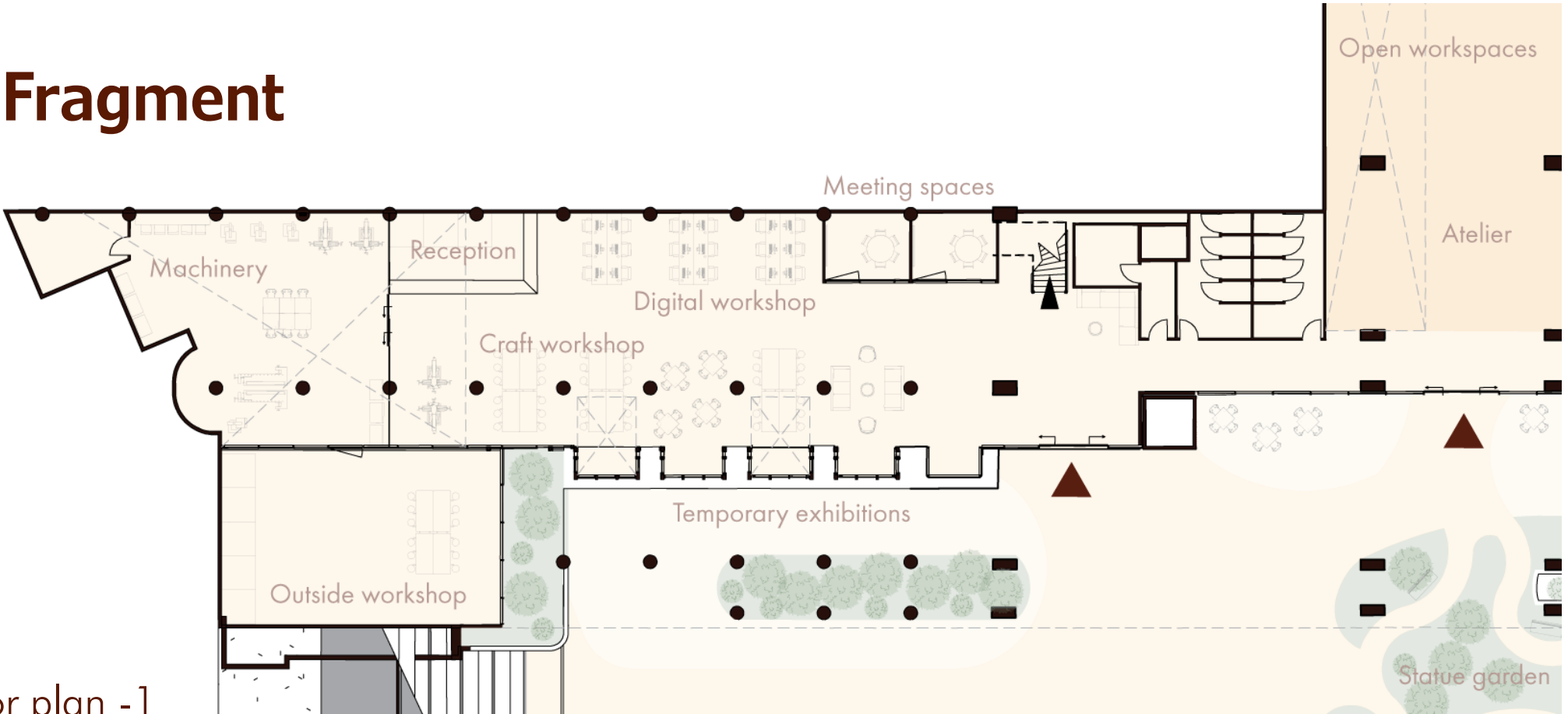




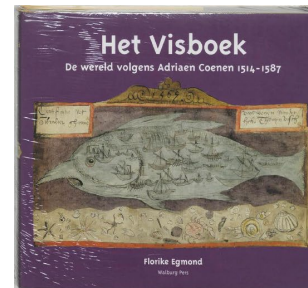
# Fragment



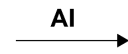
# Fragment



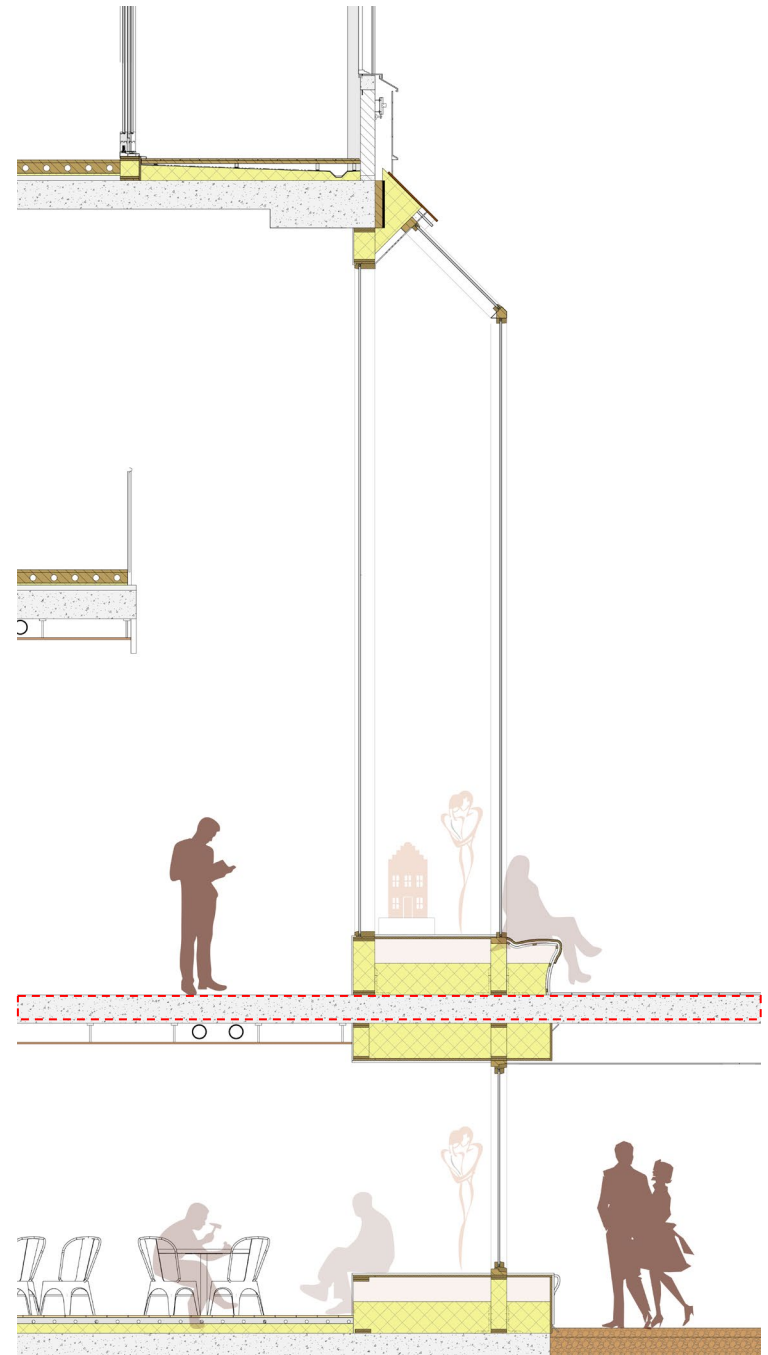
Floor plan -1

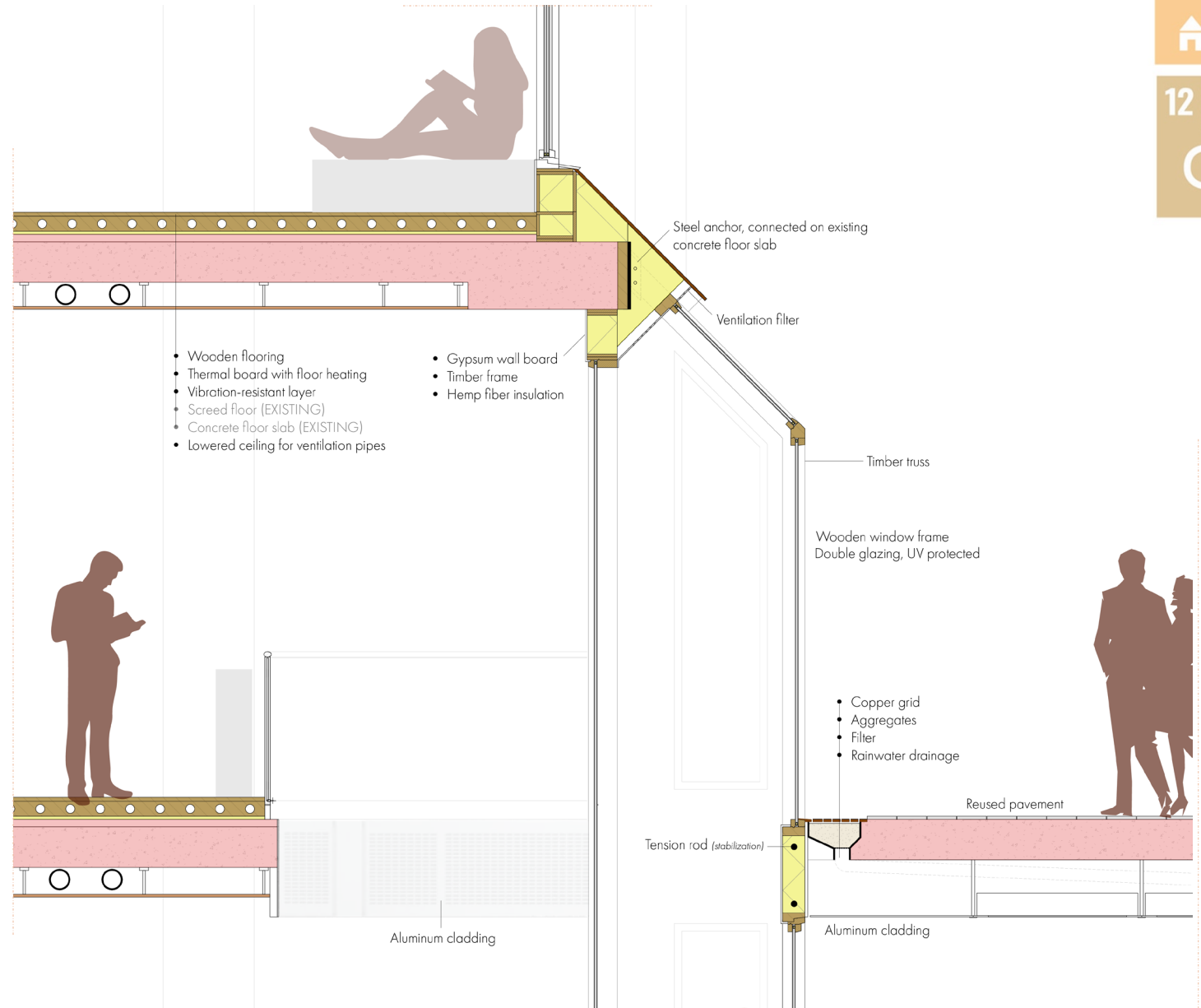
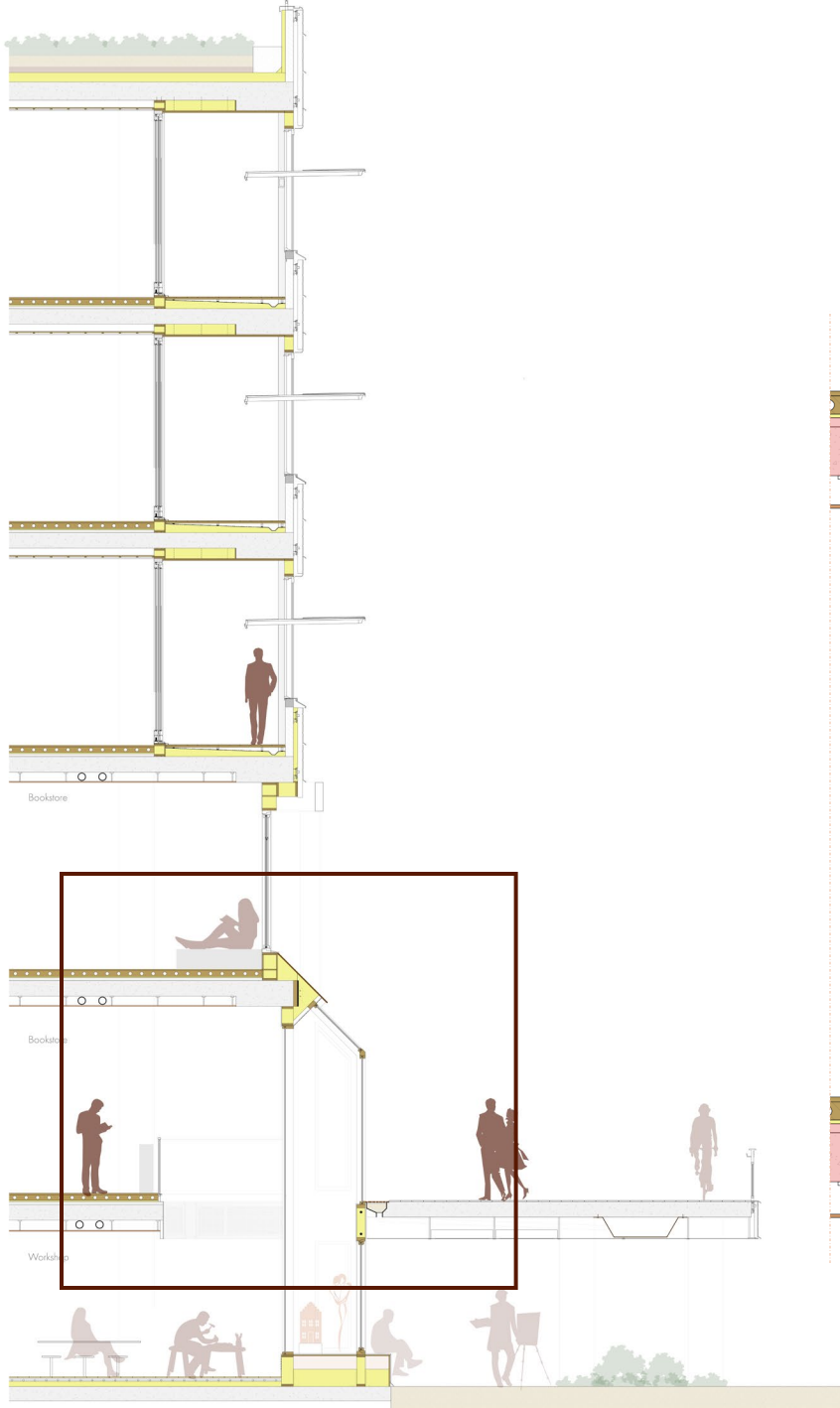


2D image



3D model



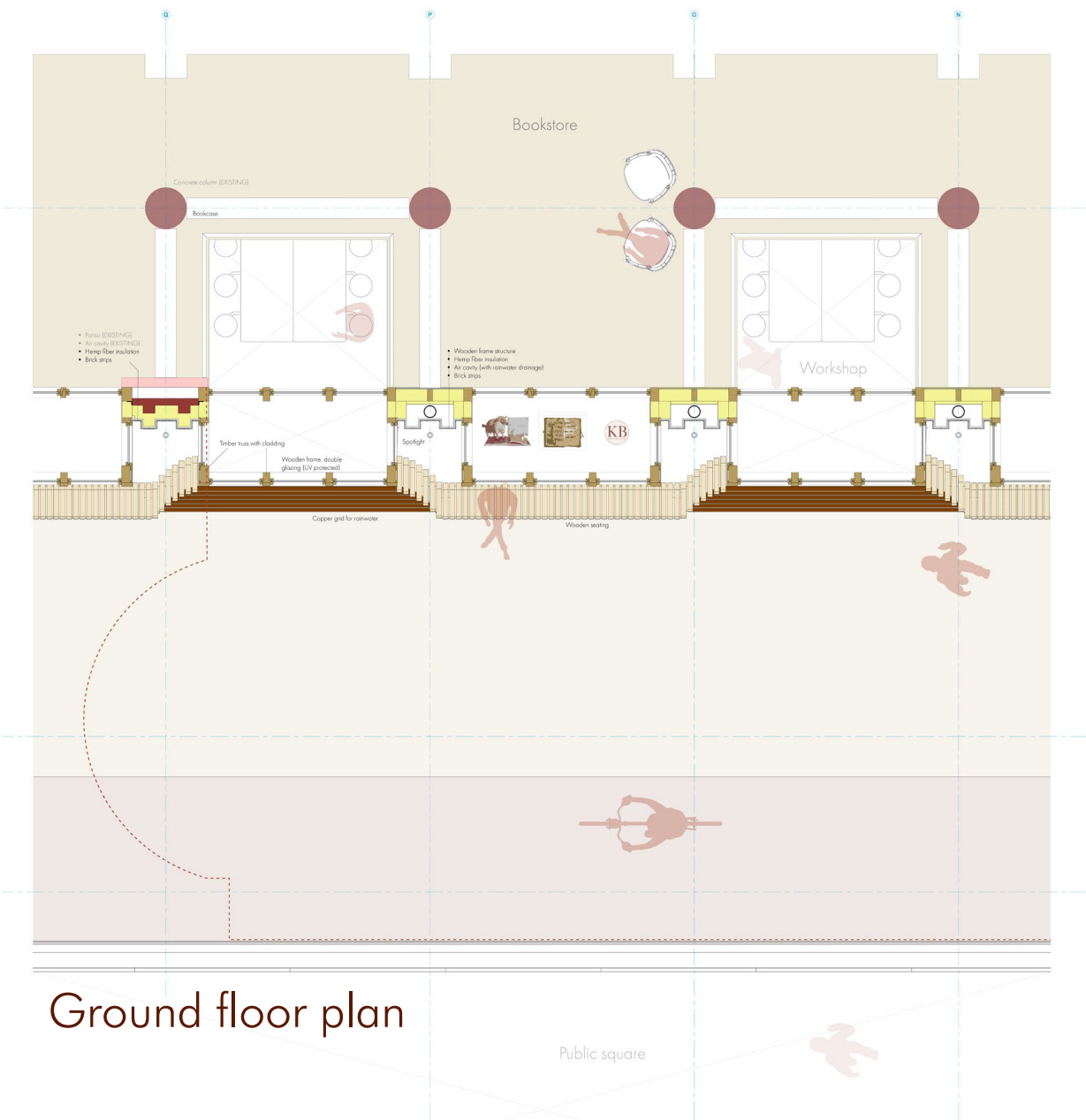


11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION





Ground floor plan





Concrete column (EXISTING)

Bookcase

- Poriso (EXISTING)
- Air cavity (EXISTING)
- Hemp fiber insulation
- Brick strips

- Wooden frame structure
- Hemp fiber insulation
- Air cavity (with rainwater drainage)
- Brick strips

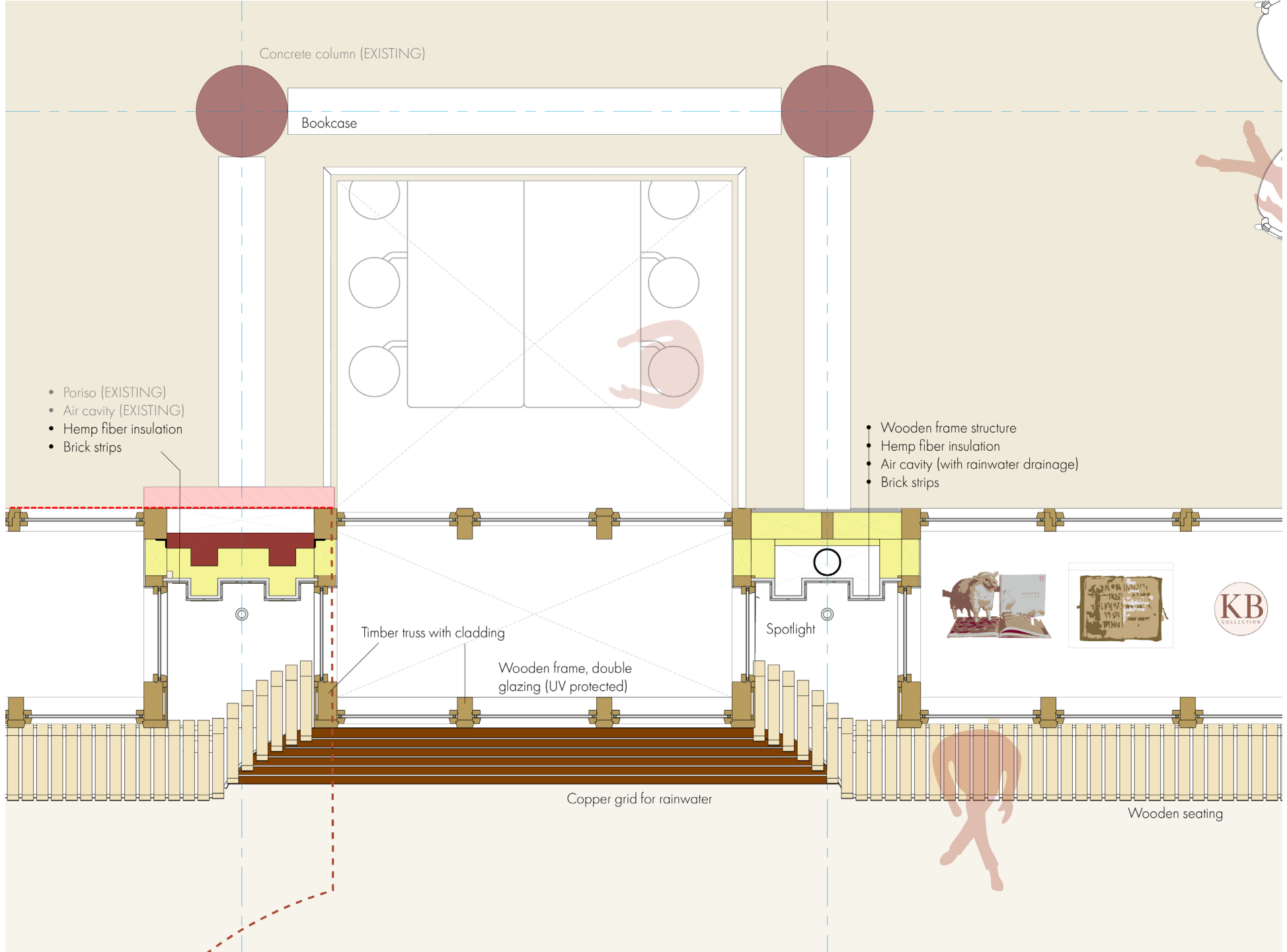
Timber truss with cladding

Wooden frame, double glazing (UV protected)

Spotlight

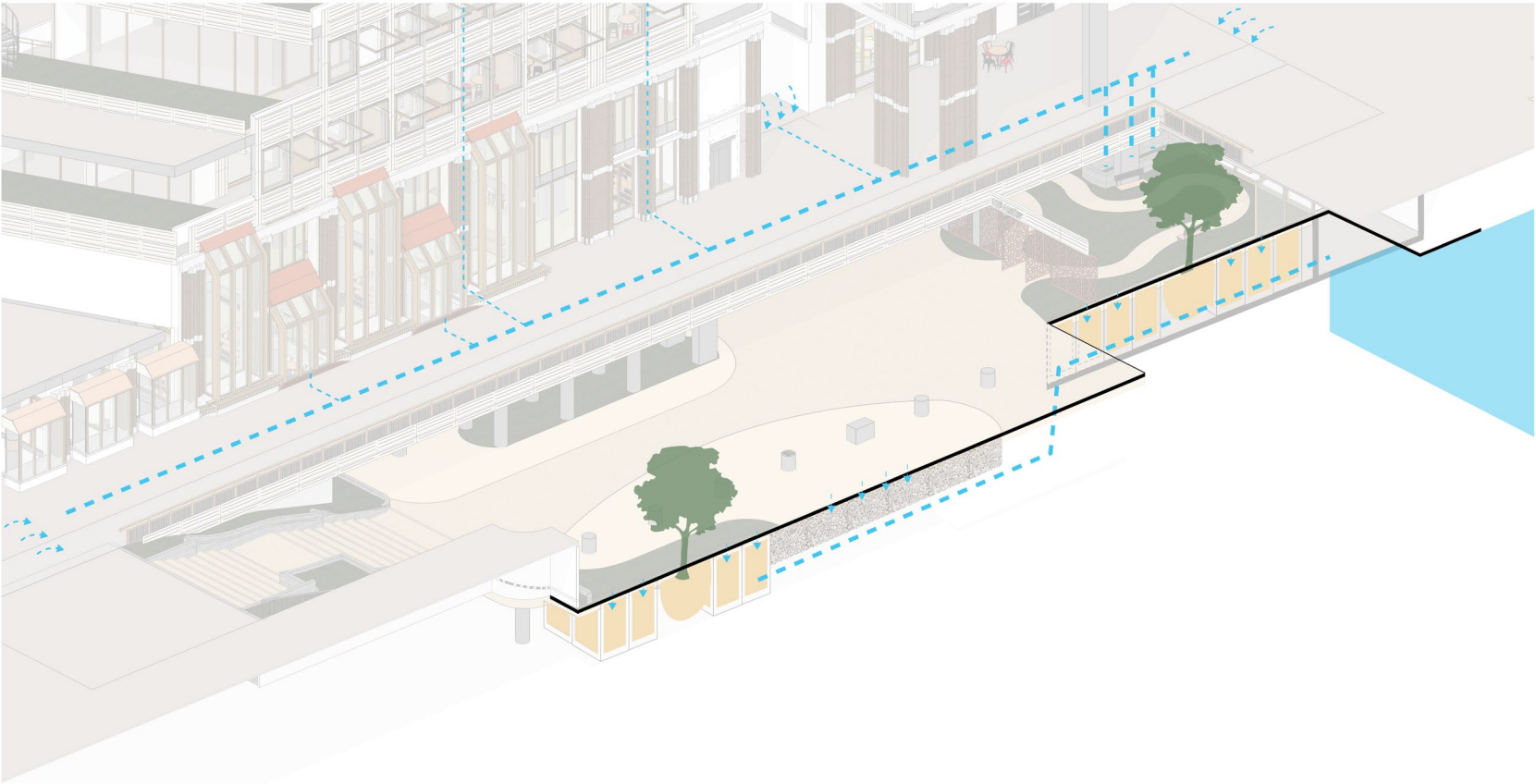
Copper grid for rainwater

Wooden seating





# Water management

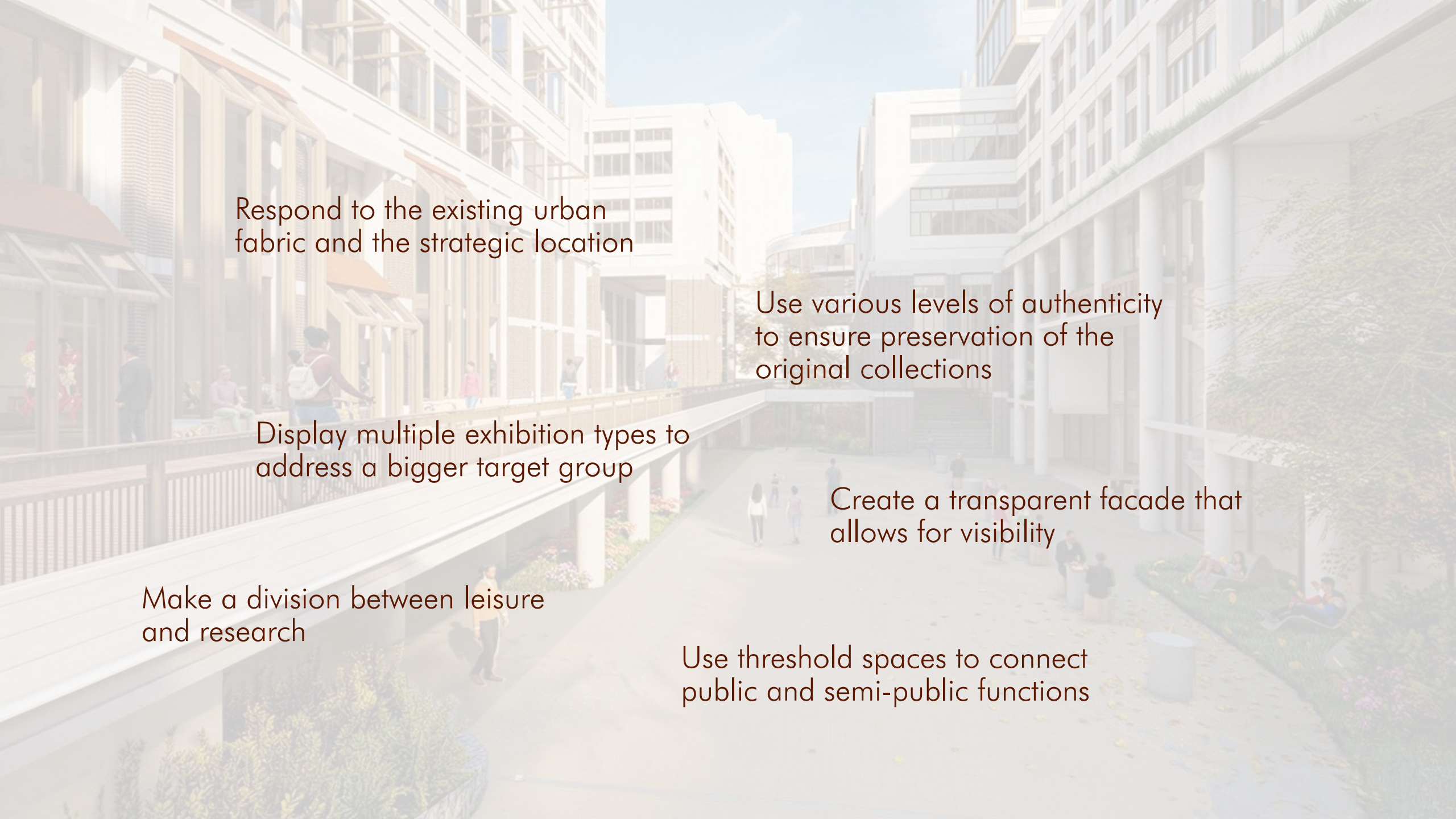


# Research question

- *How can the National Library of the Netherlands increase public engagement with its collections, on-site?*





An architectural rendering of a modern urban courtyard. The scene features a multi-level walkway with a wooden railing on the left, overlooking a central paved area. The buildings are modern with large windows and balconies. People are shown walking, sitting on benches, and interacting in the courtyard. The overall atmosphere is bright and open.

Respond to the existing urban fabric and the strategic location

Use various levels of authenticity to ensure preservation of the original collections

Display multiple exhibition types to address a bigger target group

Create a transparent facade that allows for visibility

Make a division between leisure and research

Use threshold spaces to connect public and semi-public functions

THE END

