



# Rebirth of Linnahall

Reimagining Linnahall's future by transforming Ice rink part into marketplace

An exploration of the reuse of large abandoned buildings

*Introduction*

*Research*

*Design*

*Building Technology*

*Conclusion*

***Introduction***

*Research*

*Design*

*Building Technology*

*Conclusion*



Architects: Raine Karp and Riina Altmäe



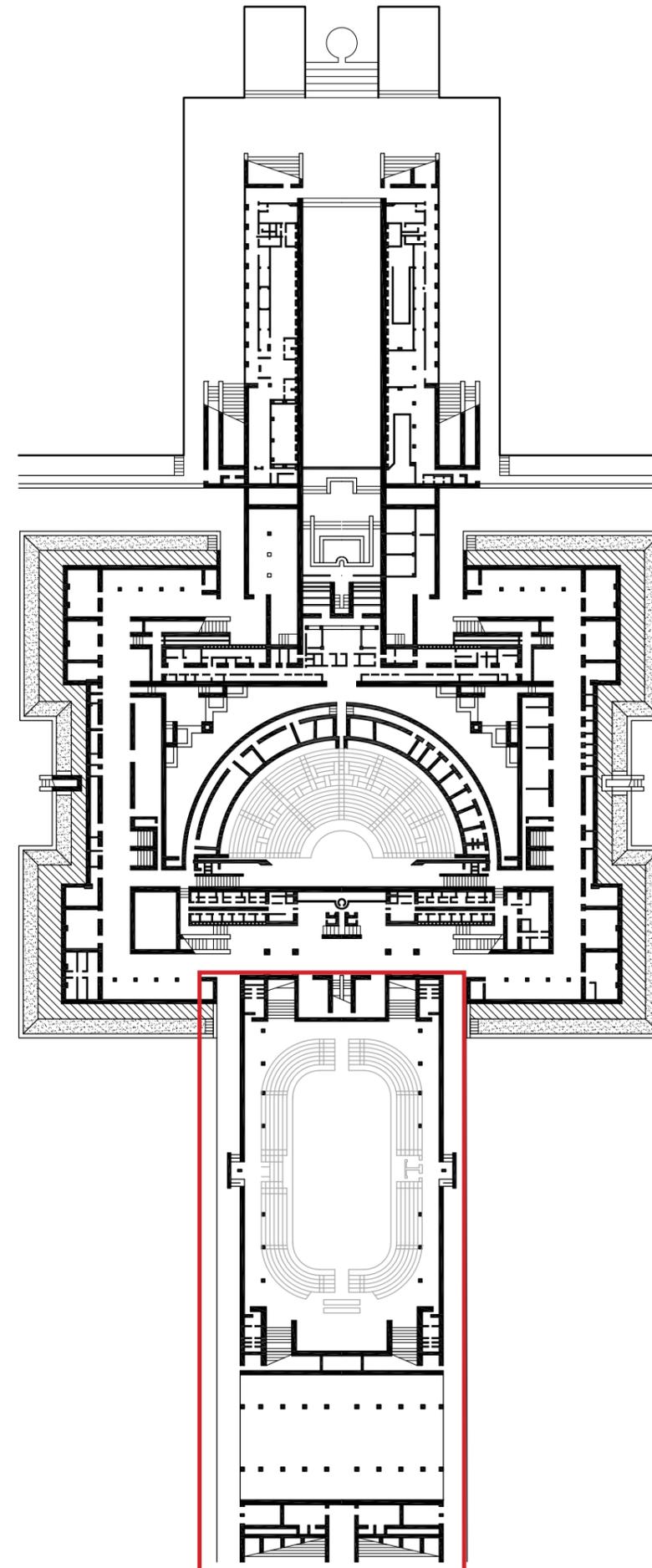
Linnahall under construction (1978)



Linnahall -Viewed from the sea



Linnahall- An abandoned building



Sea side part

Concert hall

Ice rink

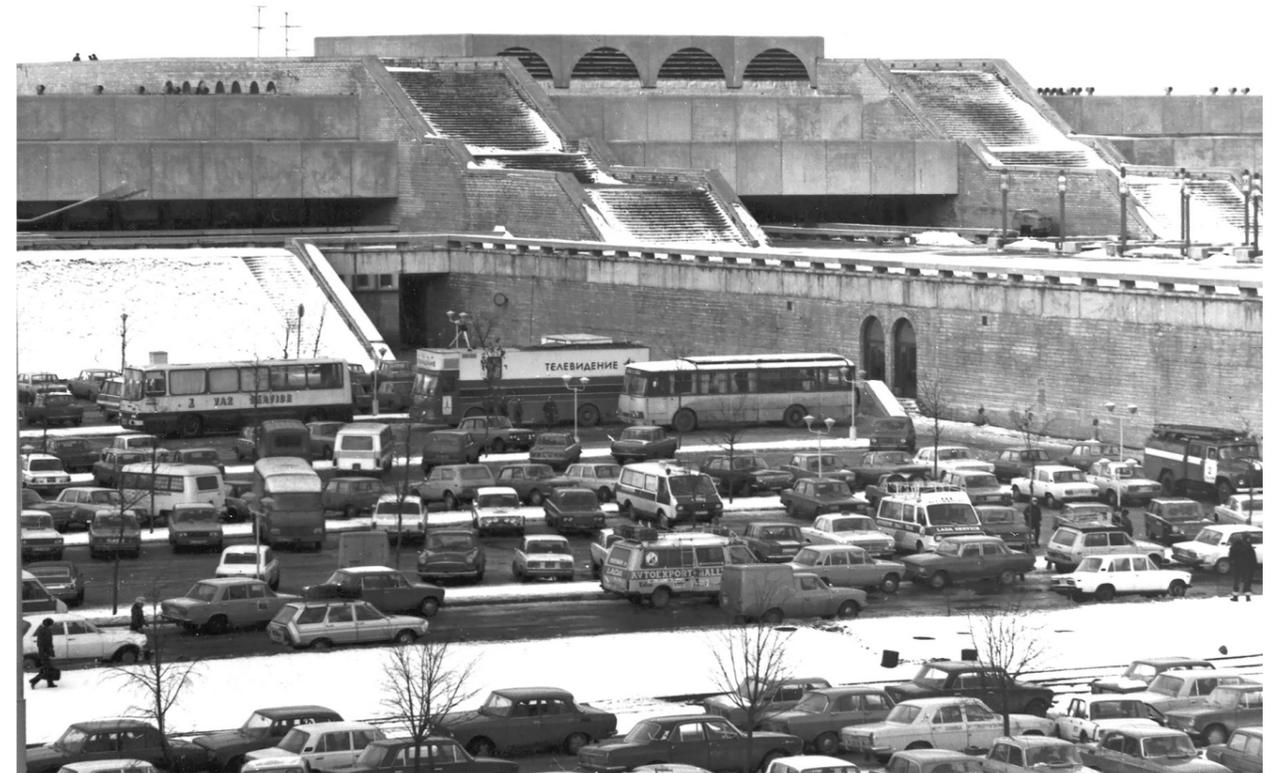


*NEW FUNTION?*

## Publicness



## Cultural significance



What new function can be incorporated in the repurposing of Linnahall's ice rink to maintain its **publicness** and **cultural significance**?

Publicness ← **Market** → Cultural symbol

*Introduction*

**Research**

*Design*

*Building Technology*

*Conclusion*

Research

# Markets in Tallinn



1. Central Market 2. Viru Market 3. Baltic Station Market 4. Kala Market 5. Nomme Market

Research

# Baltic station market



Retail

Vegetables

Meat

Restoranut

Crafts

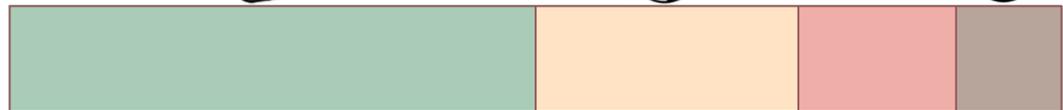
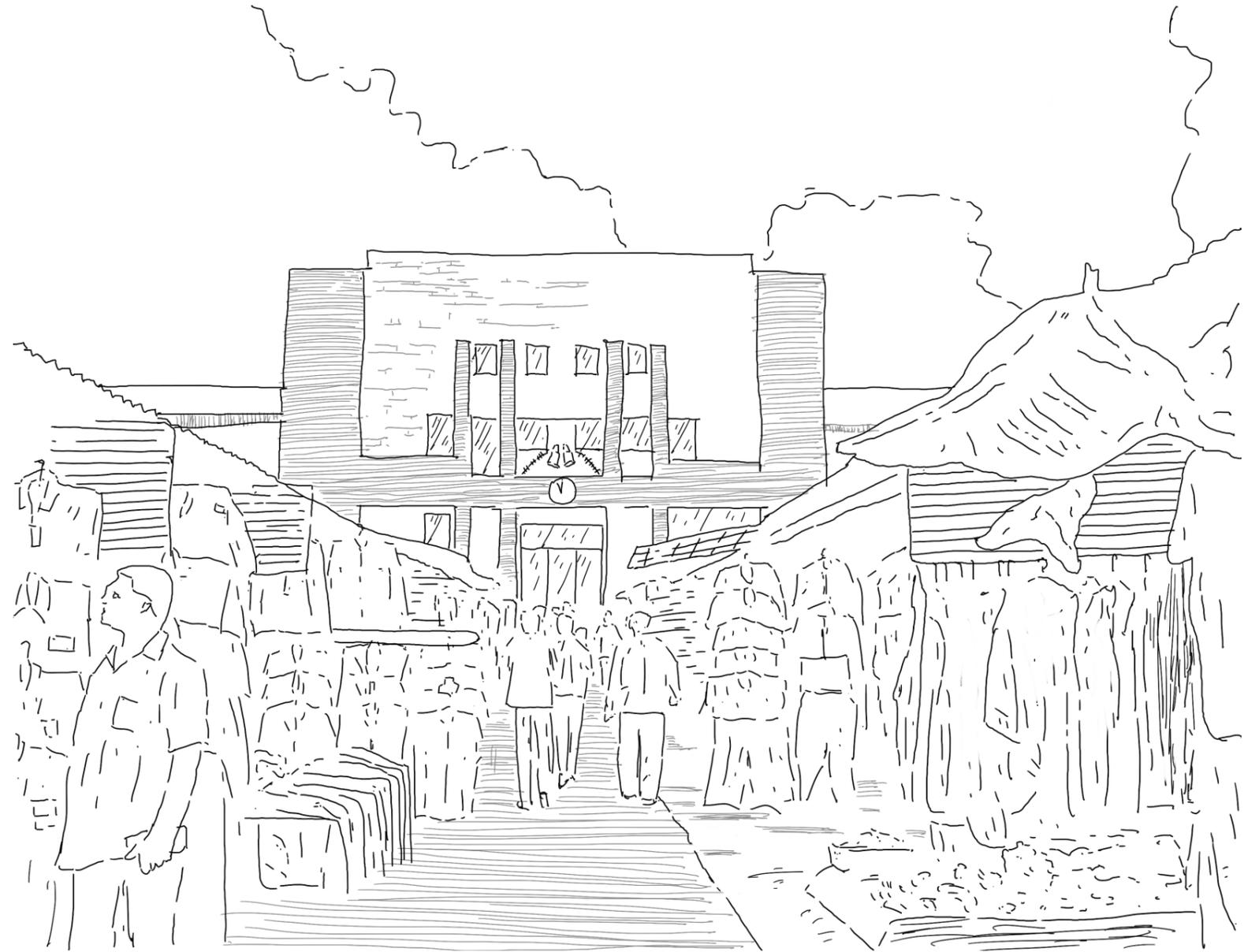


The Baltic Station Market is located in north Tallinn between the city's main railway station and the popular residential district of Kalamaja.

The aim of the reconstruction design was to create a contemporary and diverse market, while also preserving the historic character of the market with all of its hustle and bustle and chaotic nature. Adding to the pre-existing context to attract the widest target audience possible - from rail passengers to local residents, young people to tourists, and everyone who happens to be passing through the area.

Research

# Central market (Keskturg)



Vegetables

Meat

Retail

Crafts



Tallinn's largest market, opened in 1947. The center is a two-story building built in 1986. A large and already recognizable meat hall, where the largest and freshest selection of meat in the city is hidden. Endless fresh vegetable and berry stalls. In addition, there are many clothing vendors.

The buildings come in a variety of scales, from large concrete buildings to small tin houses, and the different indoor and outdoor environments provide a rich walking experience.

Research

# Nõmme market



Nõmme got its main shopping centre – the market – more than 100 years ago, in 1908. This was preceded by a long process because the rights to run a market were granted by the governor of Estonia personally. Nõmme Market sells a wide selection seasonal fresh vegetables and fruits and berries all year round. A large part of the foodstuffs sold at Nõmme Market originates from the local producers of Estonia: canned food, different dairy products and sausages, fresh fish and meat. In spring and summer, we offer a wide range of flowers and plants. There are also several cafes which sell pastries cooked on the spot.

Research

# Fish market (Kalaturg)



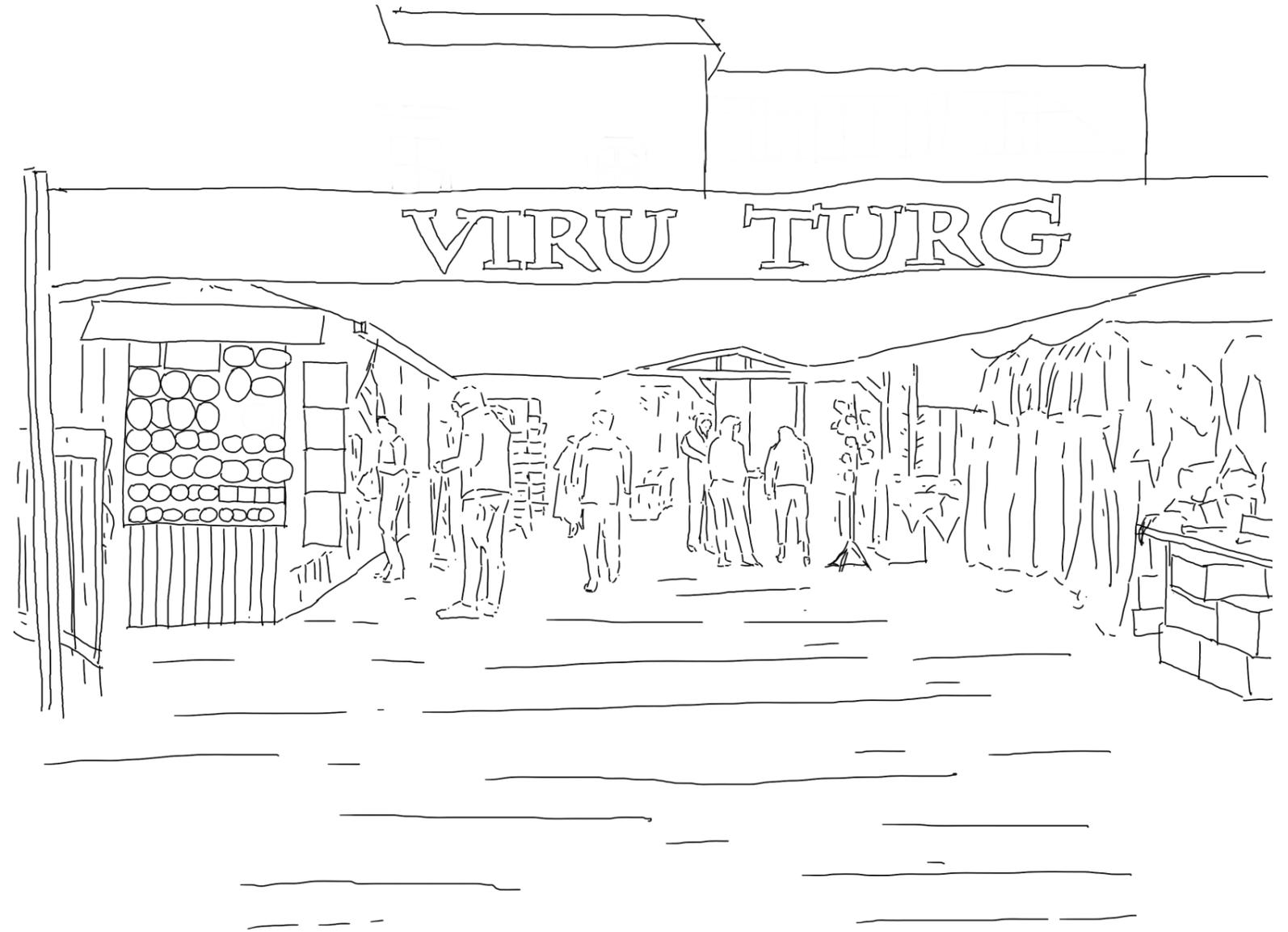
Fish



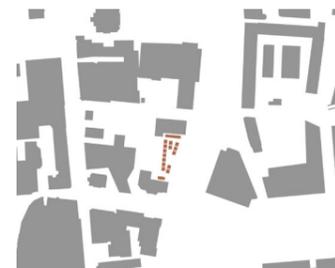
As a seaside city, Tallinn is rich in seafood resources. Kalaturg is located behind Linna Hall and is open every Saturday. Here you can buy fresh fish and fish products as well as smoked fish.

There are only a few stalls in kalaturg, which are not large in area. They are mainly outdoor stalls.

Research  
Viru Market



Crafts



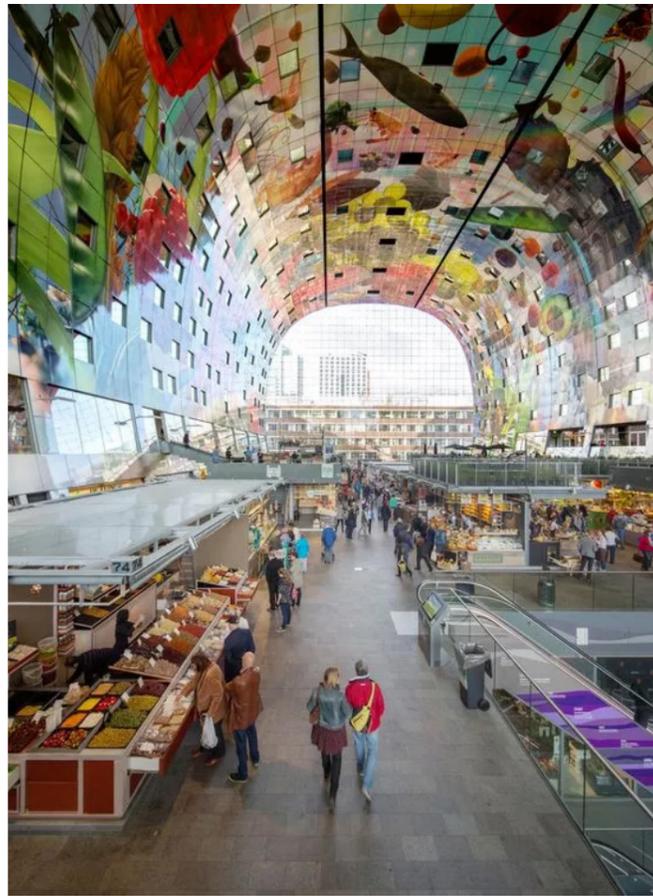
One of the oldest and most beloved markets in Tallinn, Estonia! Located just a few blocks from the city center, Viru Turg has been a bustling hub for local vendors and shoppers since the 1800s.

At Viru Turg, you'll find fresh produce to handmade crafts, all offered by friendly and knowledgeable vendors. Whether you're searching for the perfect gift or looking to stock up on delicious Estonian treats, Viru Turg has something for everyone.

# Case study-Markets in Global

## Rotterdam Markthal

MVRDV  
12,000m<sup>2</sup>



## Budapest Lehel Market Hall

LÁSZLÓ RAJK



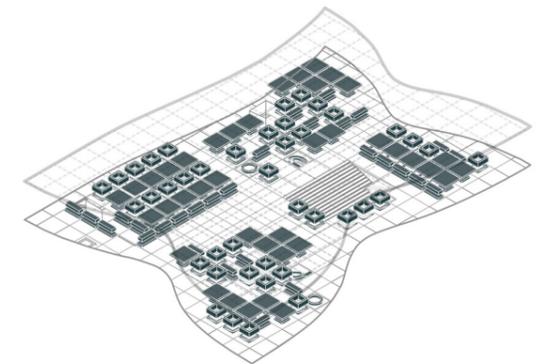
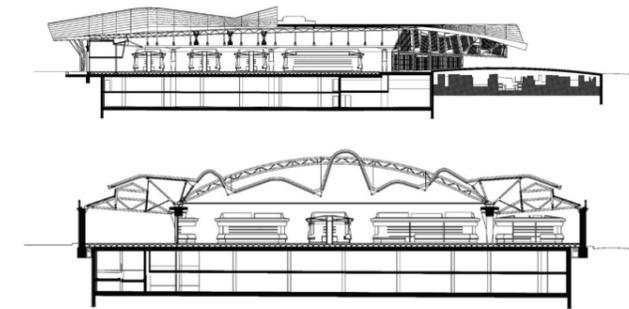
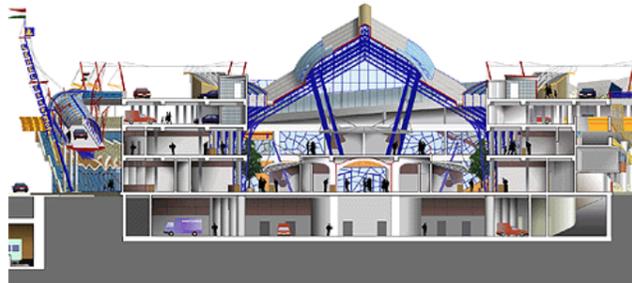
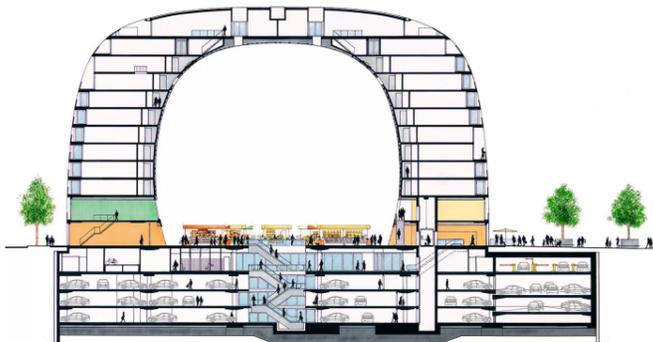
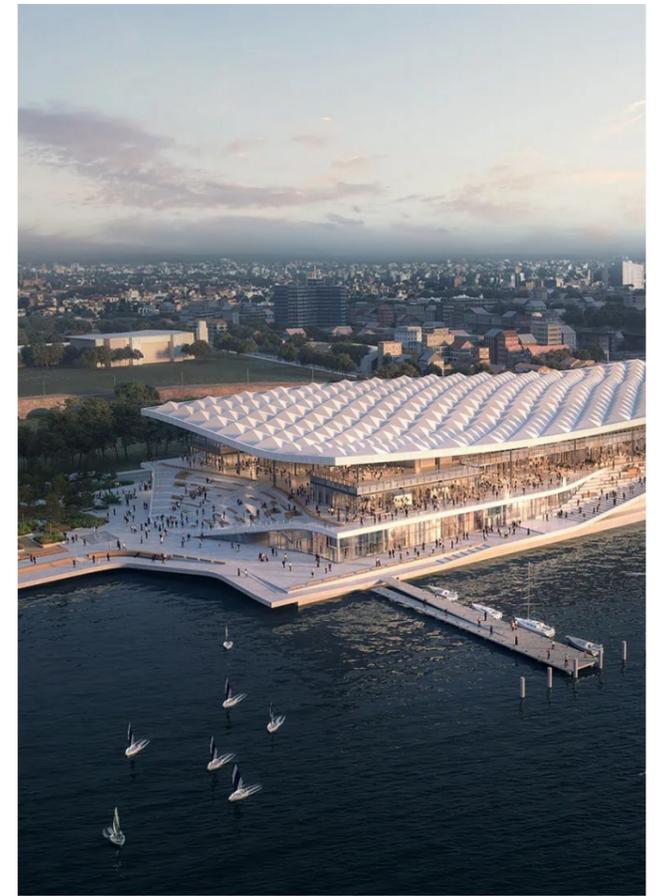
## Santa Caterina Market

EMBT  
17,500m<sup>2</sup>



## Sydney Fish Market

3XN  
80,000 m<sup>2</sup>



*Introduction*

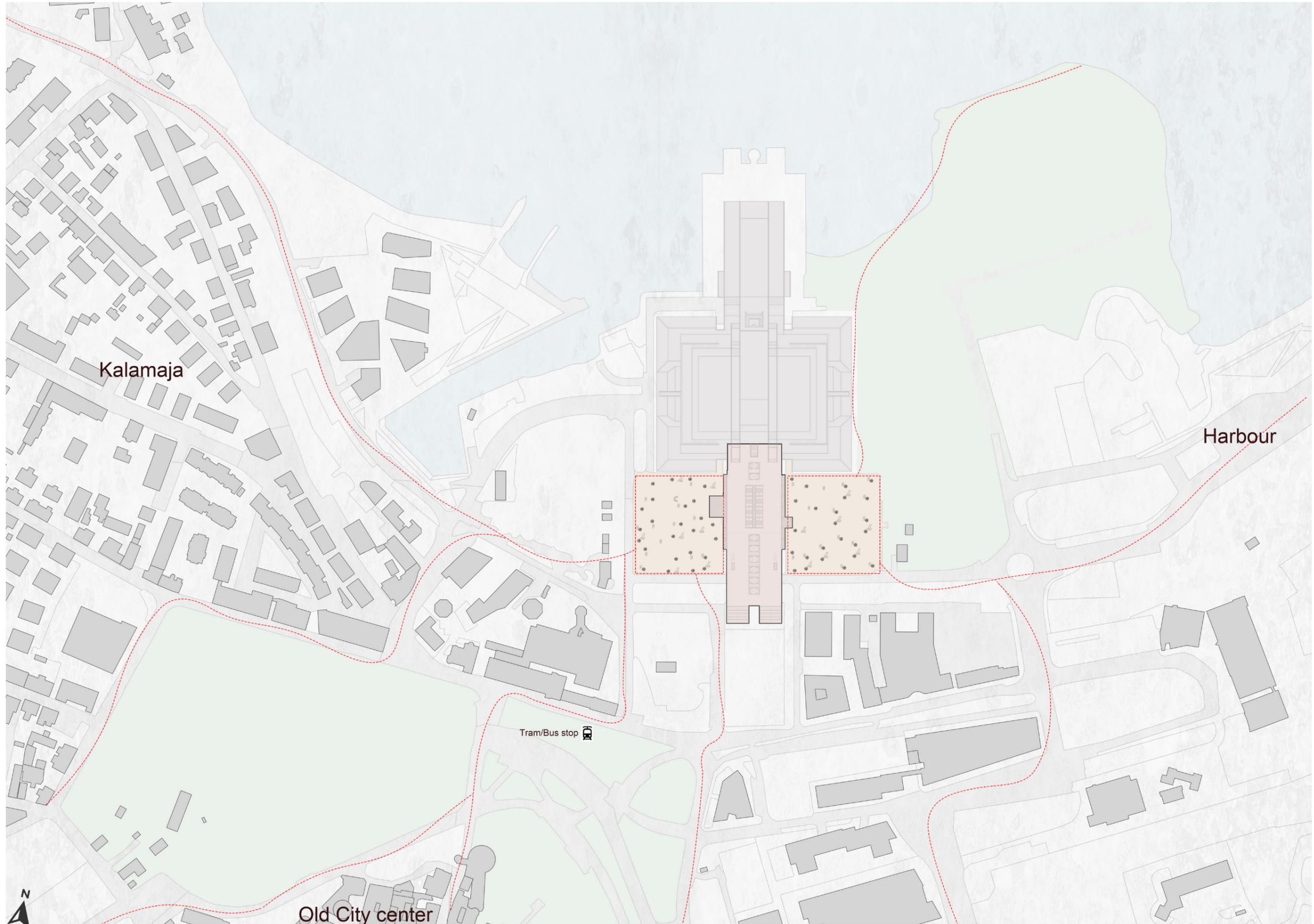
*Research*

***Design***

*Building Technology*

*Conclusion*

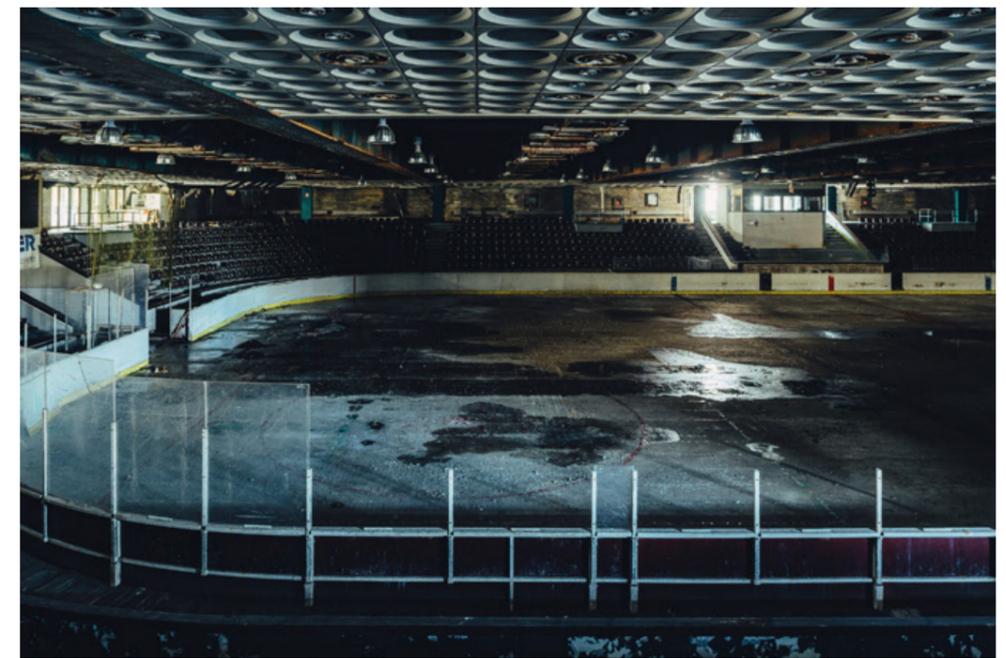
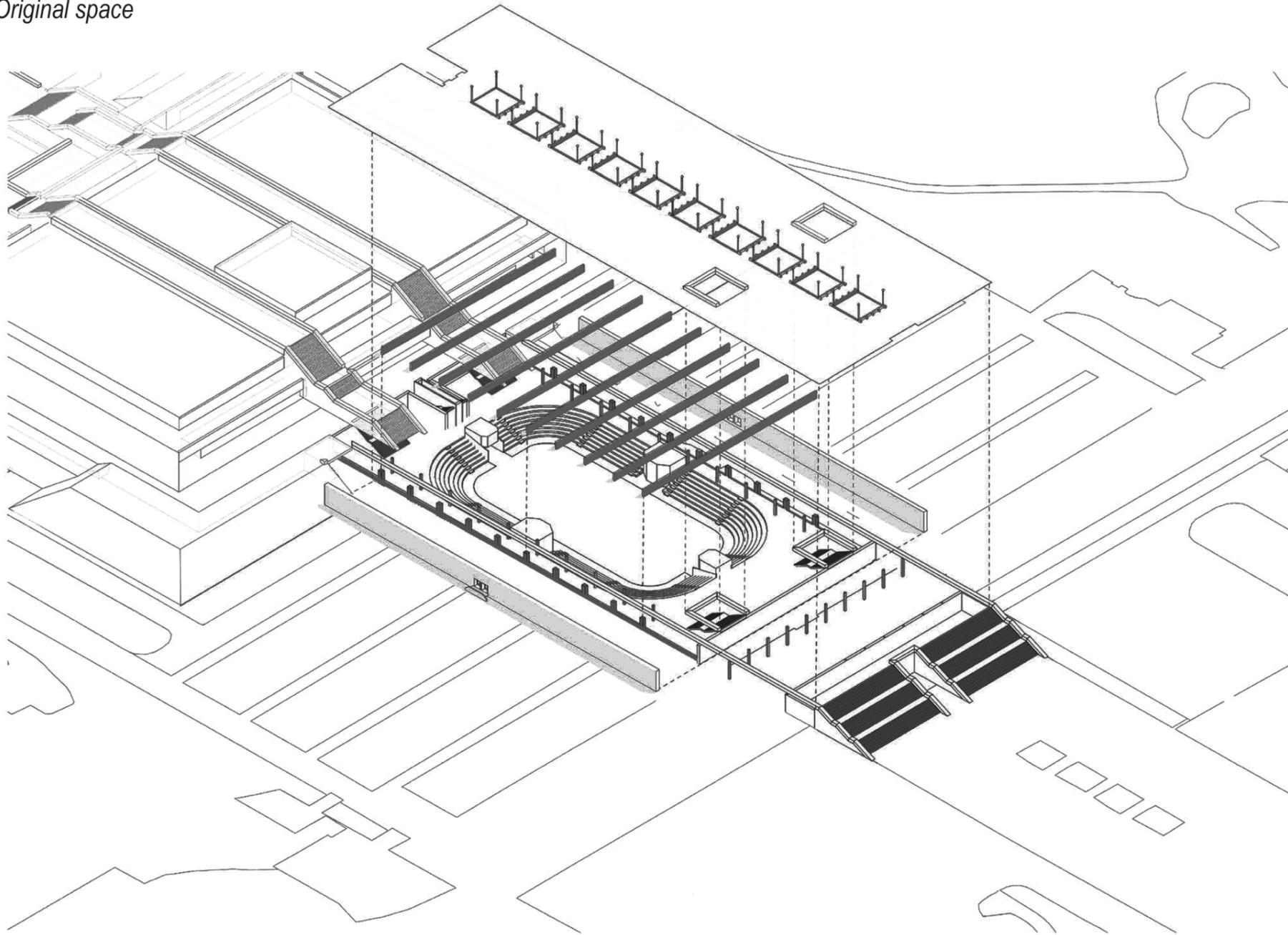
Design  
Site Analysis



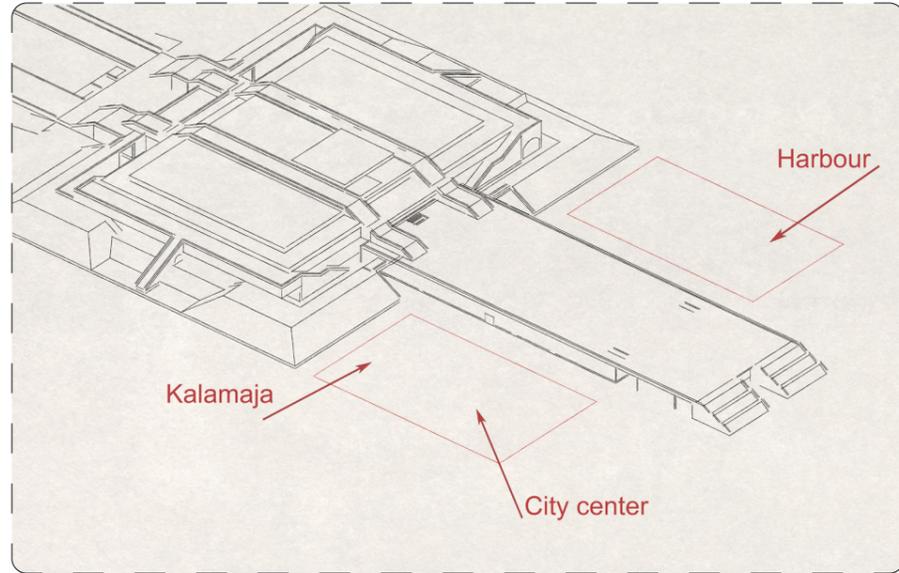
Site plan 1:2000

Design  
Building Analysis

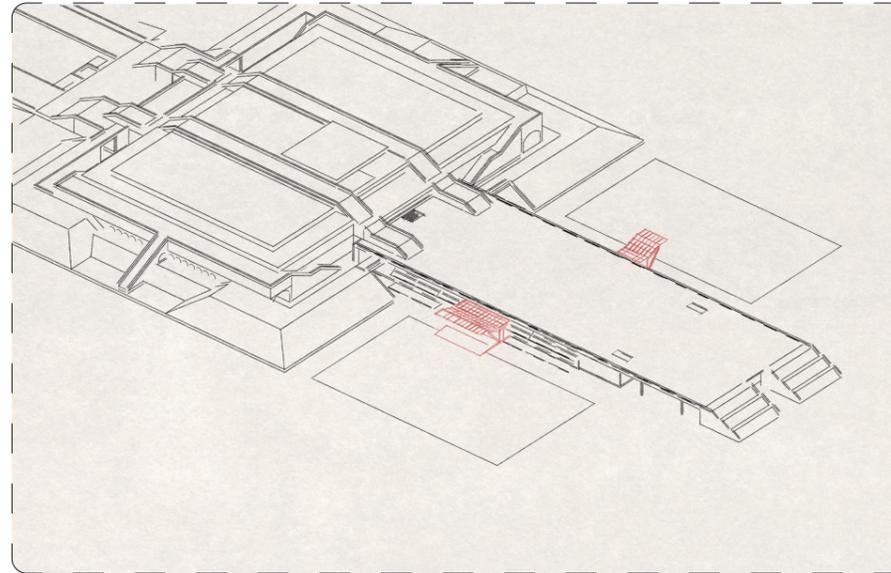
Original space



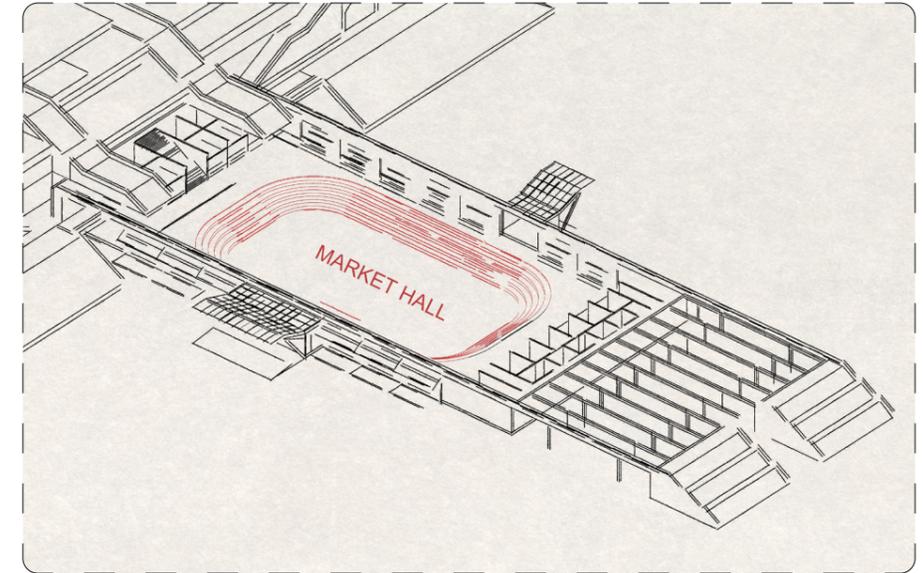
Design  
Design development



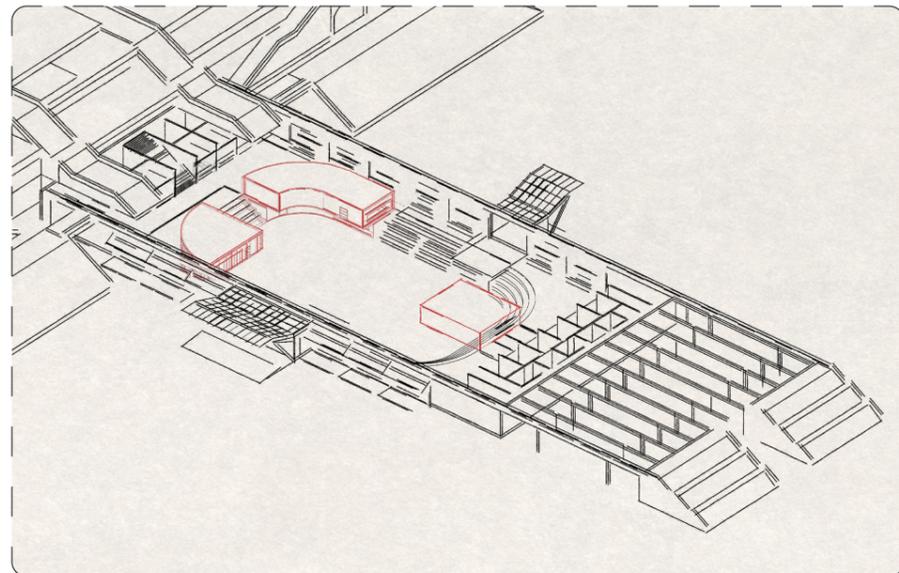
1. Current condition of the site



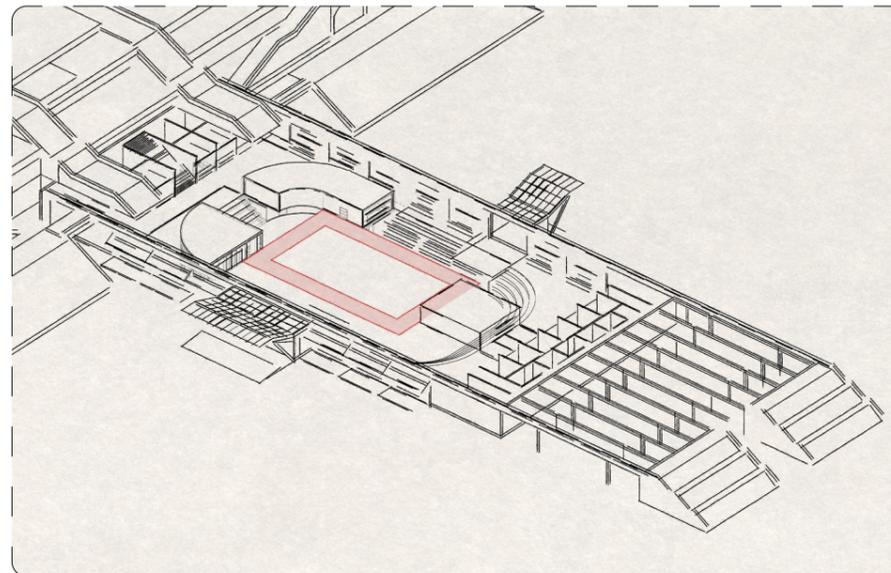
2. Introducing new canopy entrance



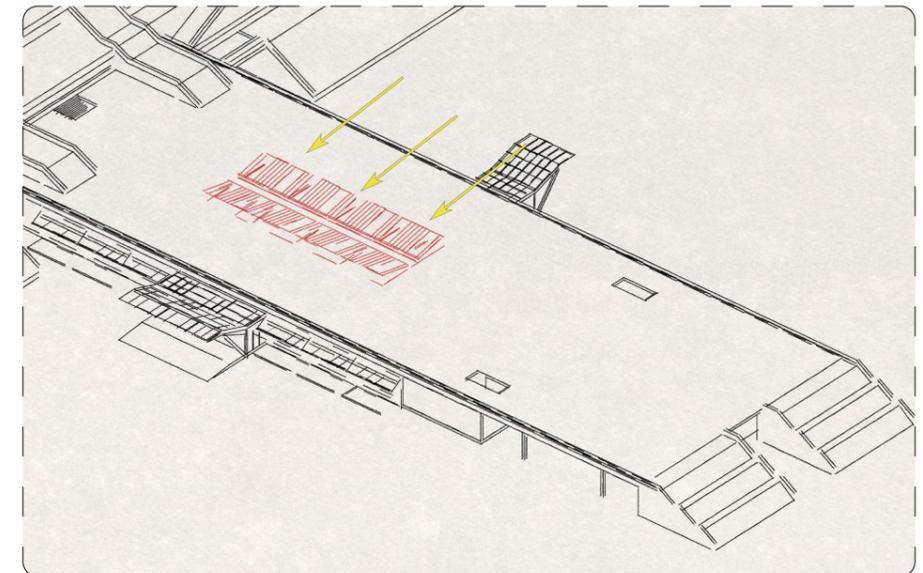
3. Retain the original seat



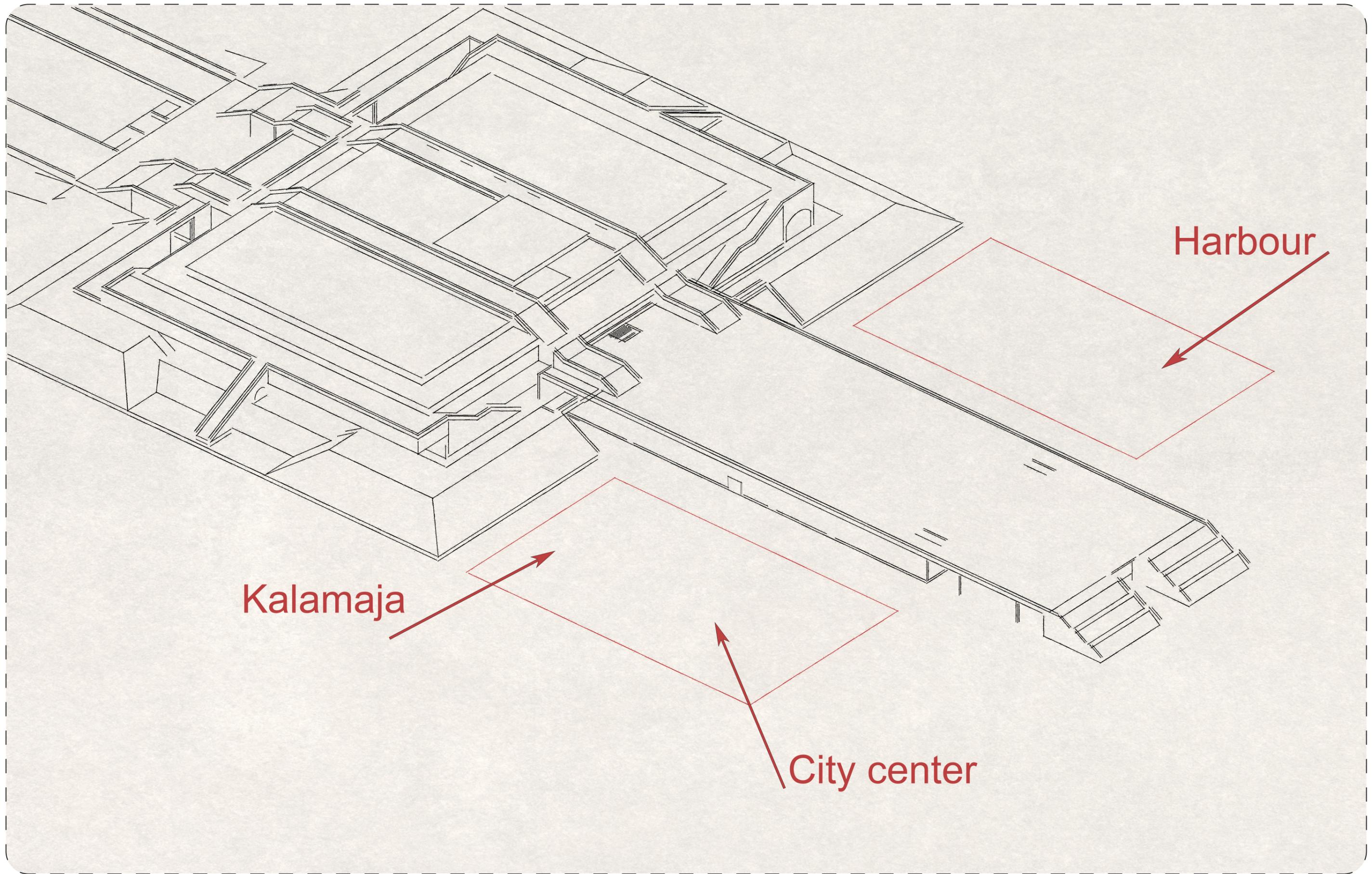
4. Introducing shacks



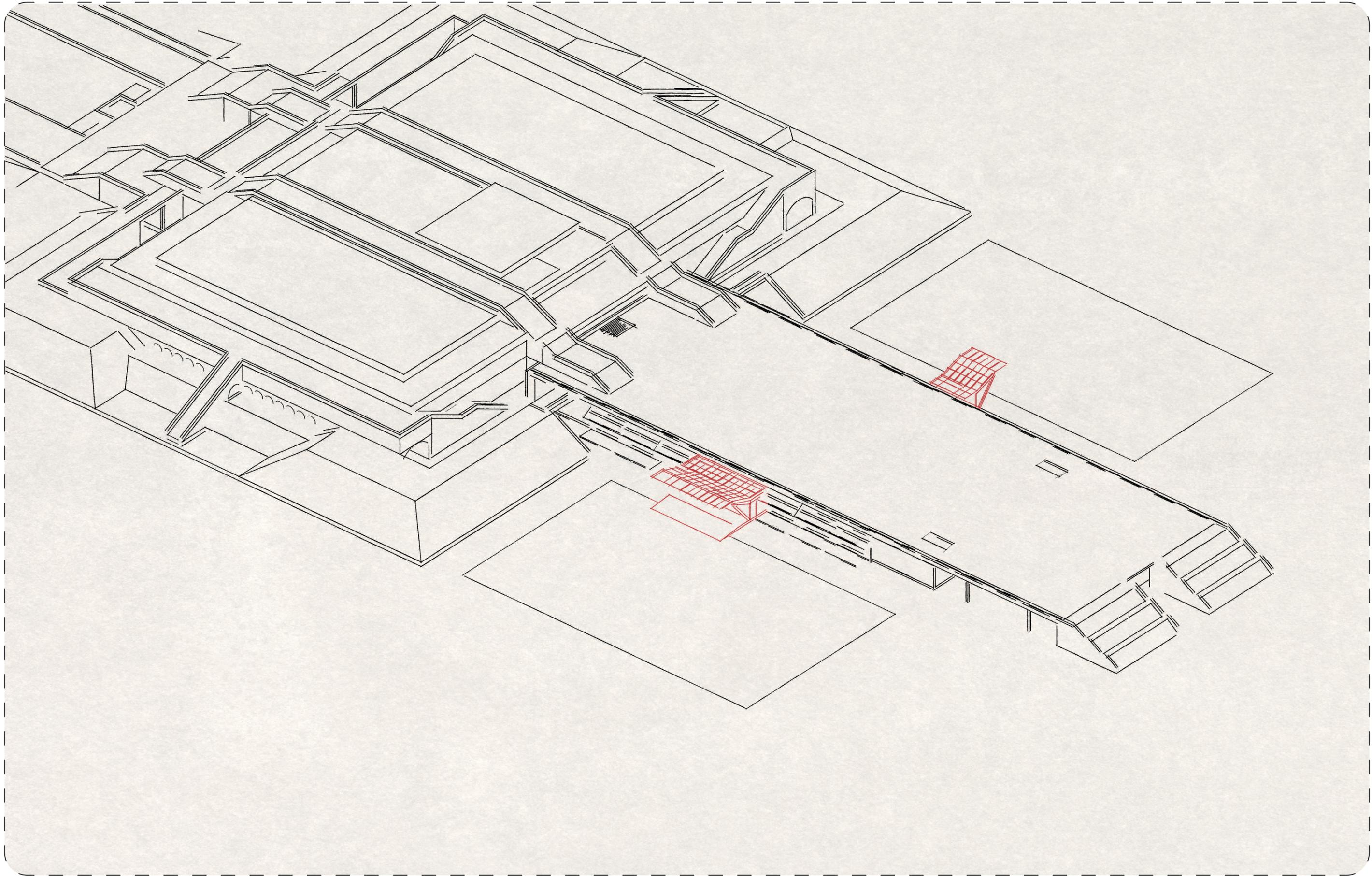
5. Circular walkway



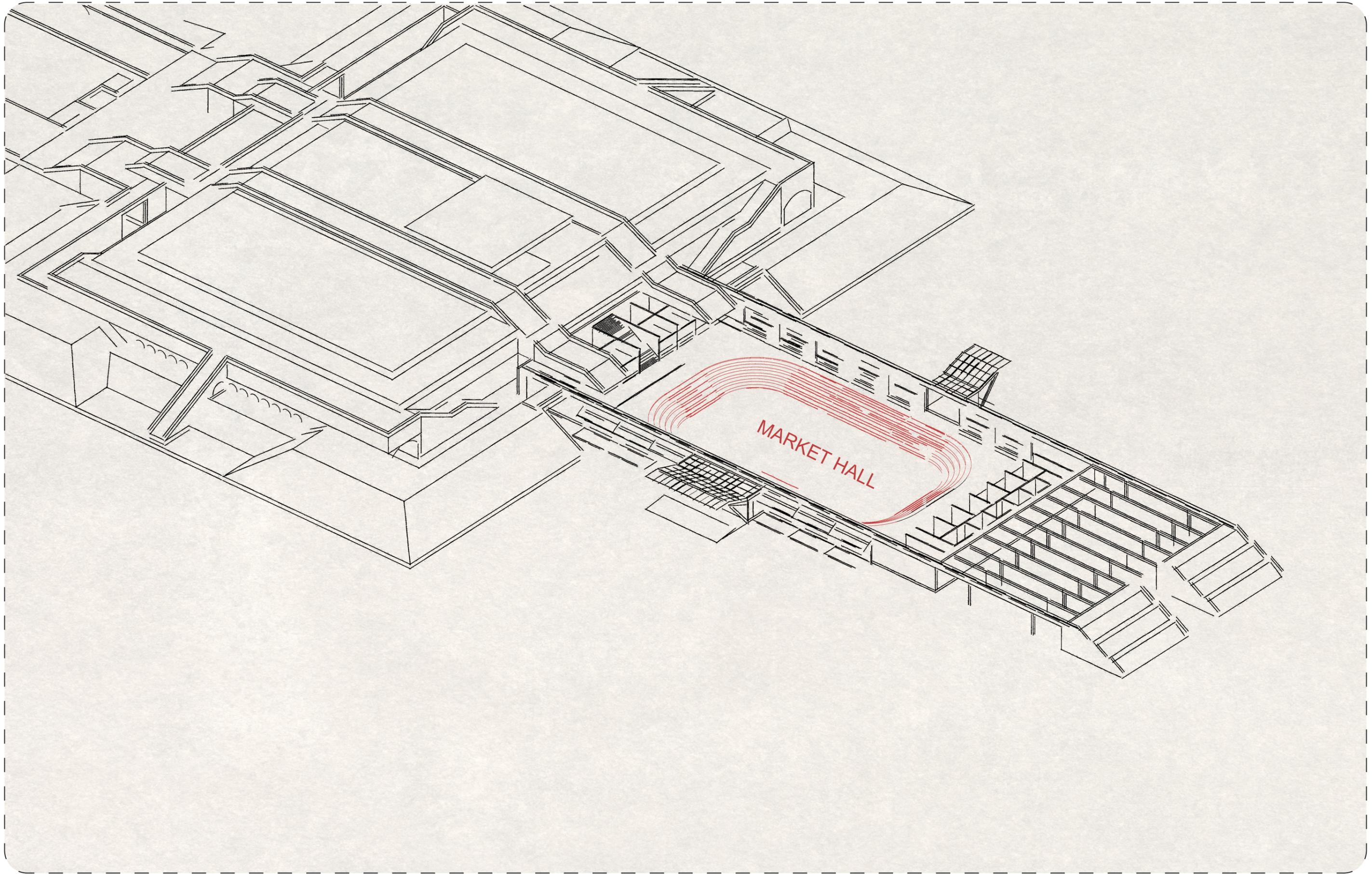
6. New roof system



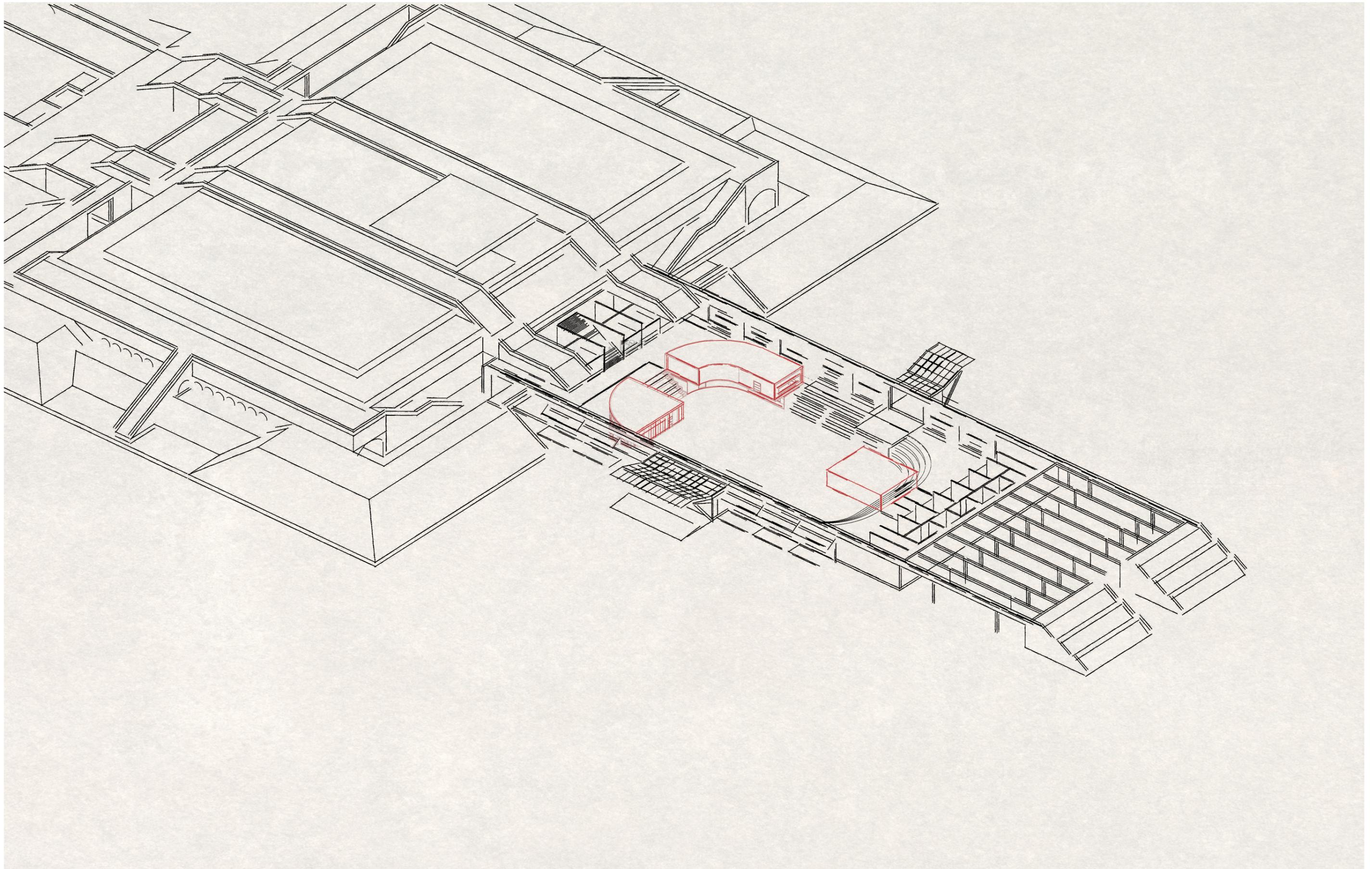
1. Current condition of the site



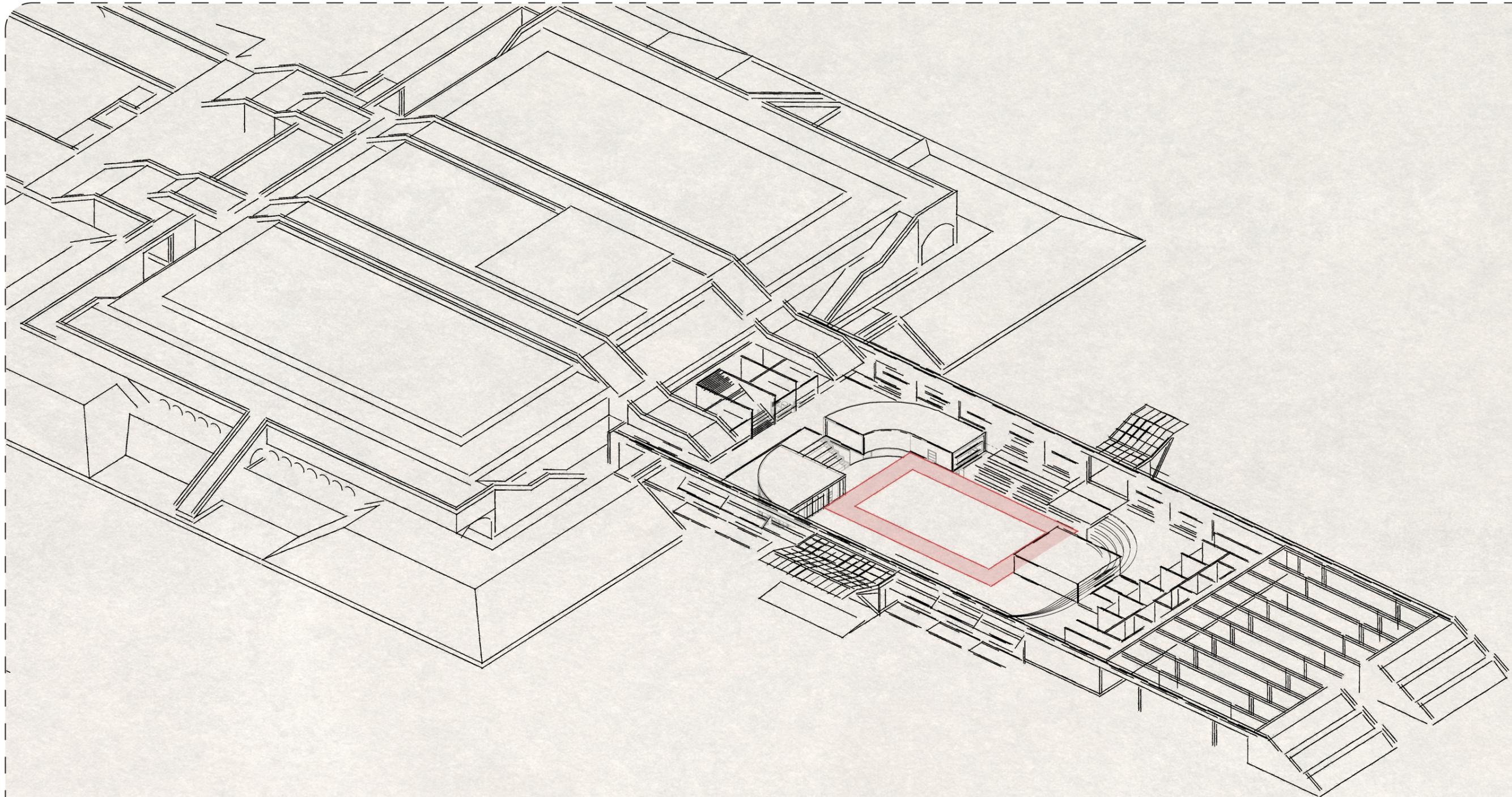
2. Introducing new canopy entrance



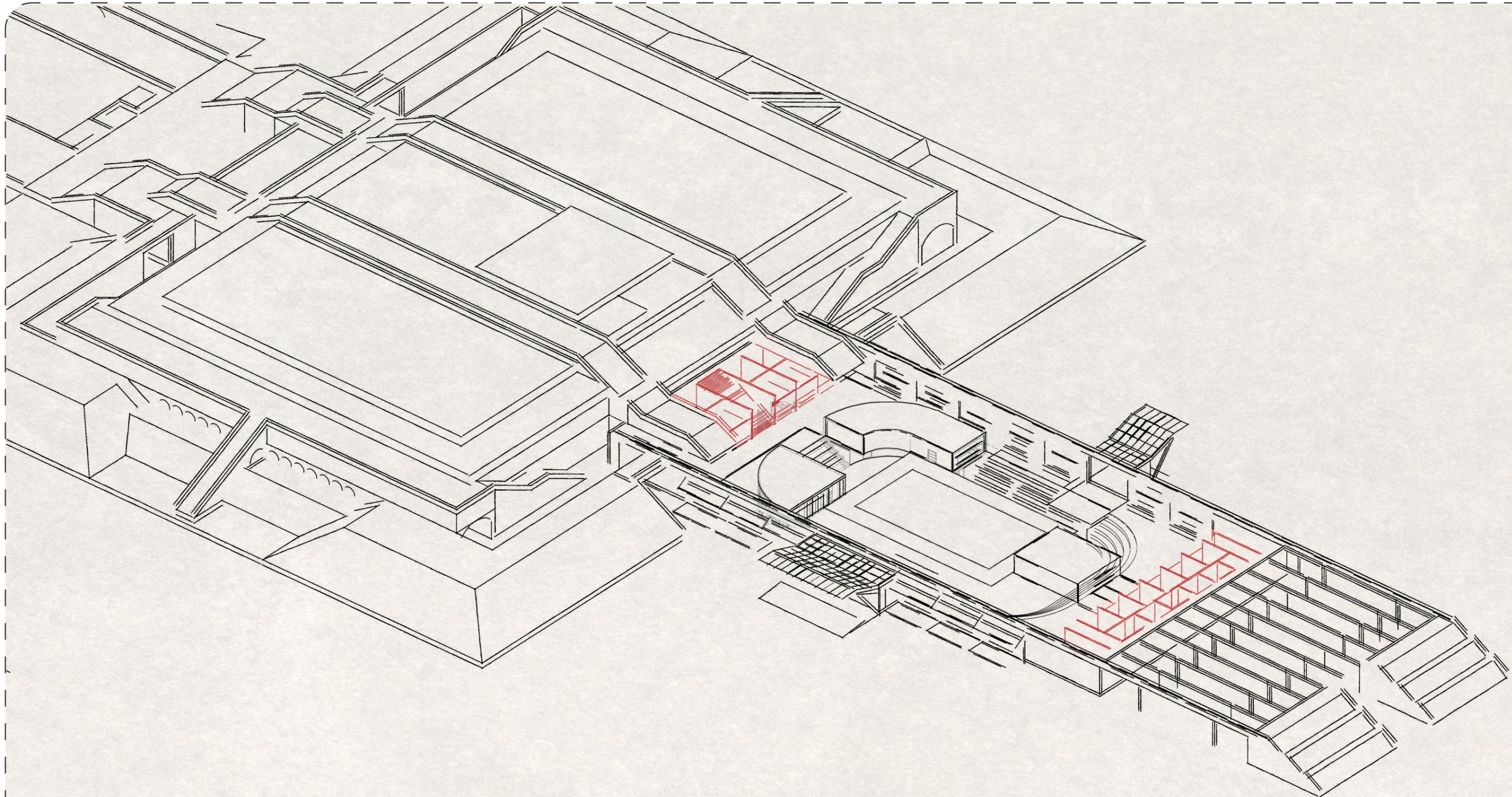
3. Market hall



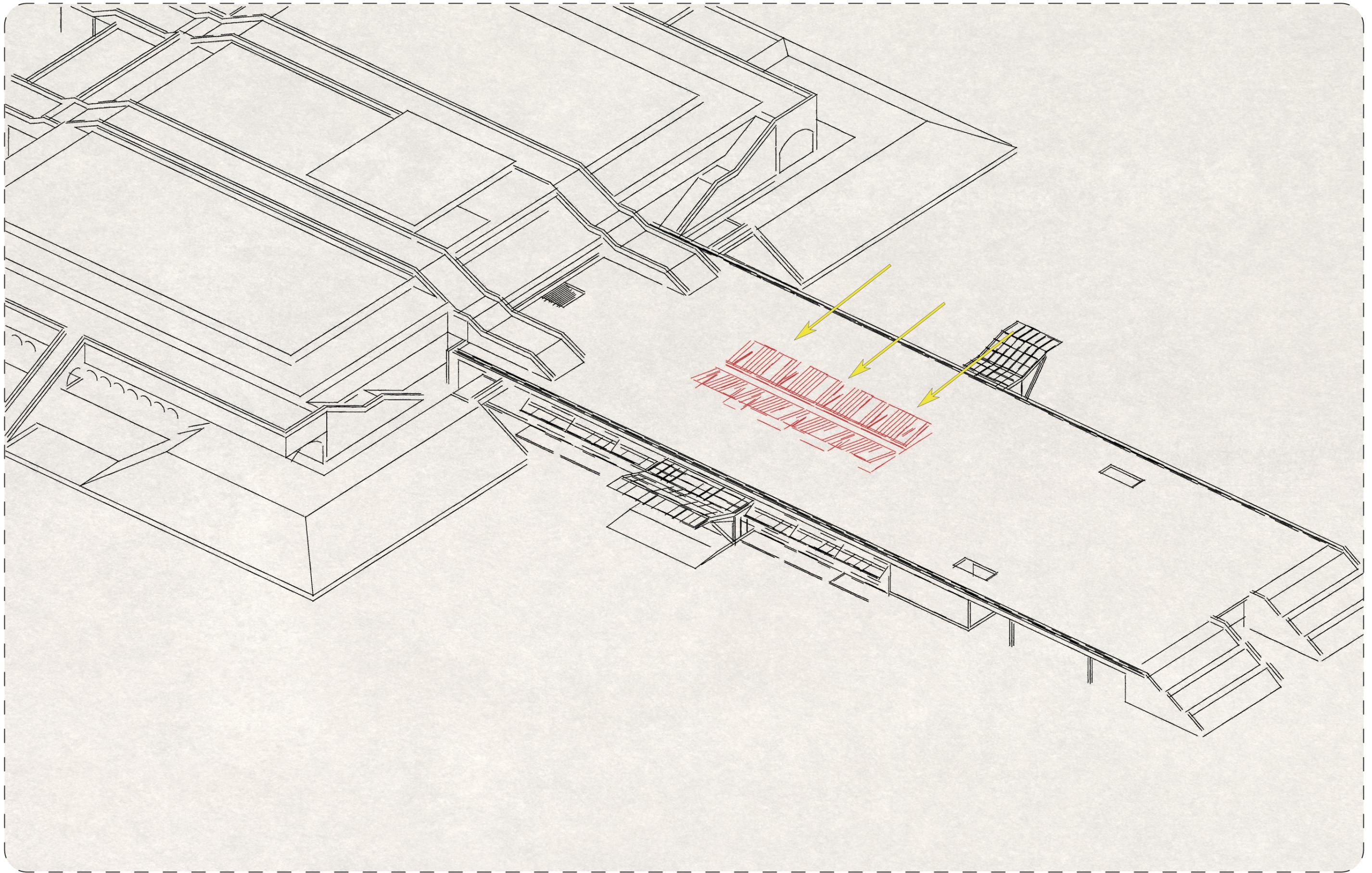
#### 4. Introducing shacks



5. Circular walkway



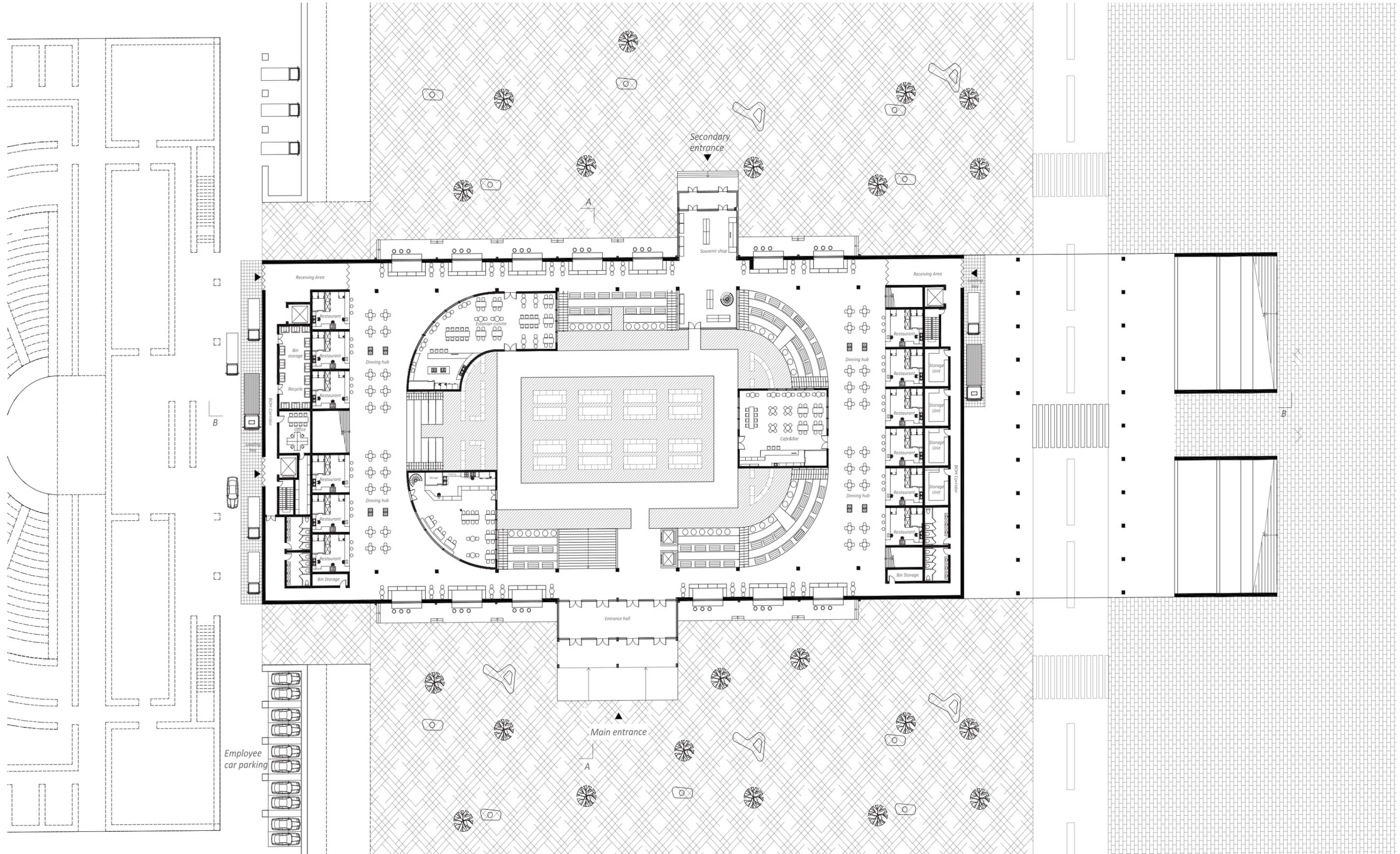
6. Service Space



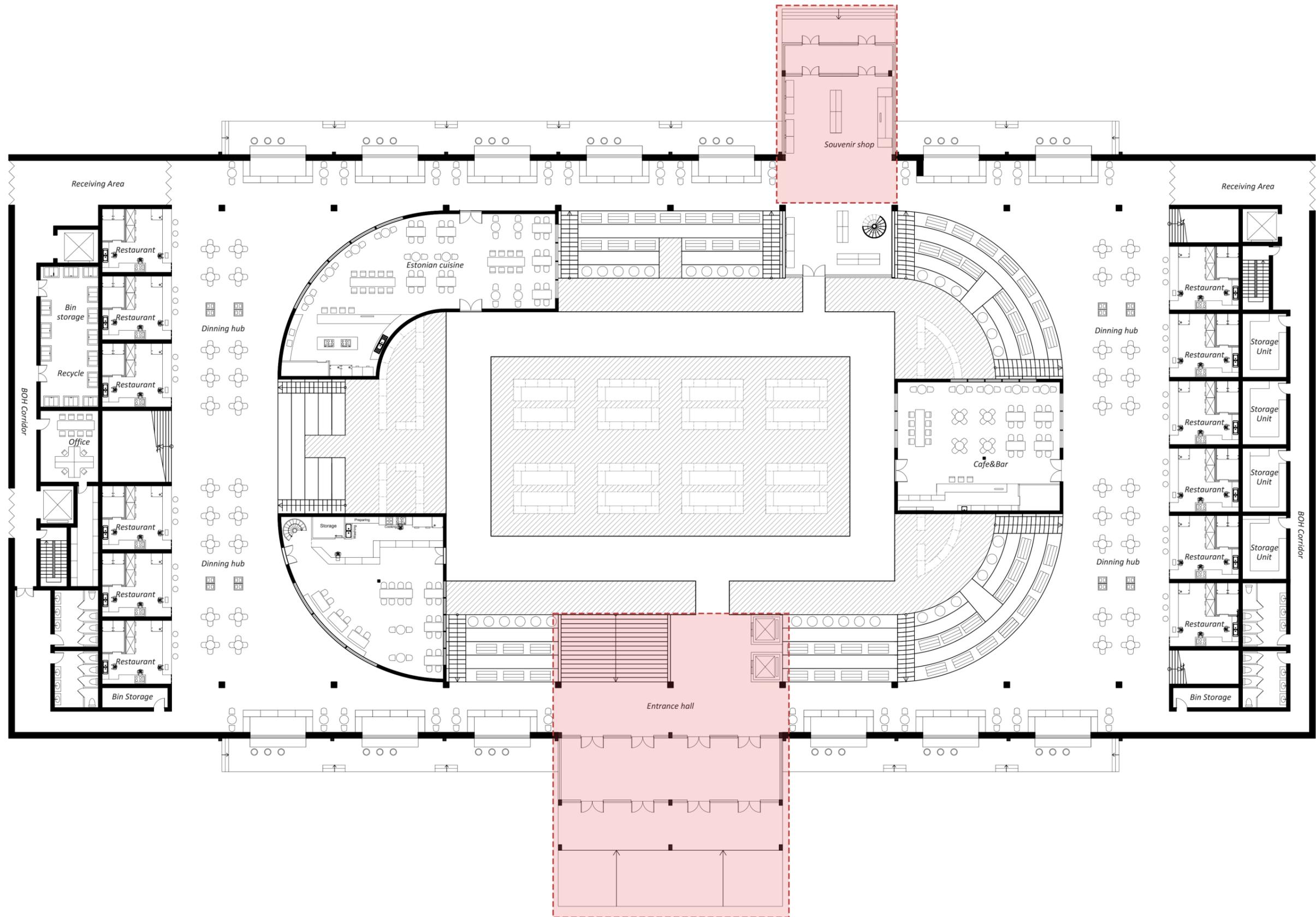
7. New roof system

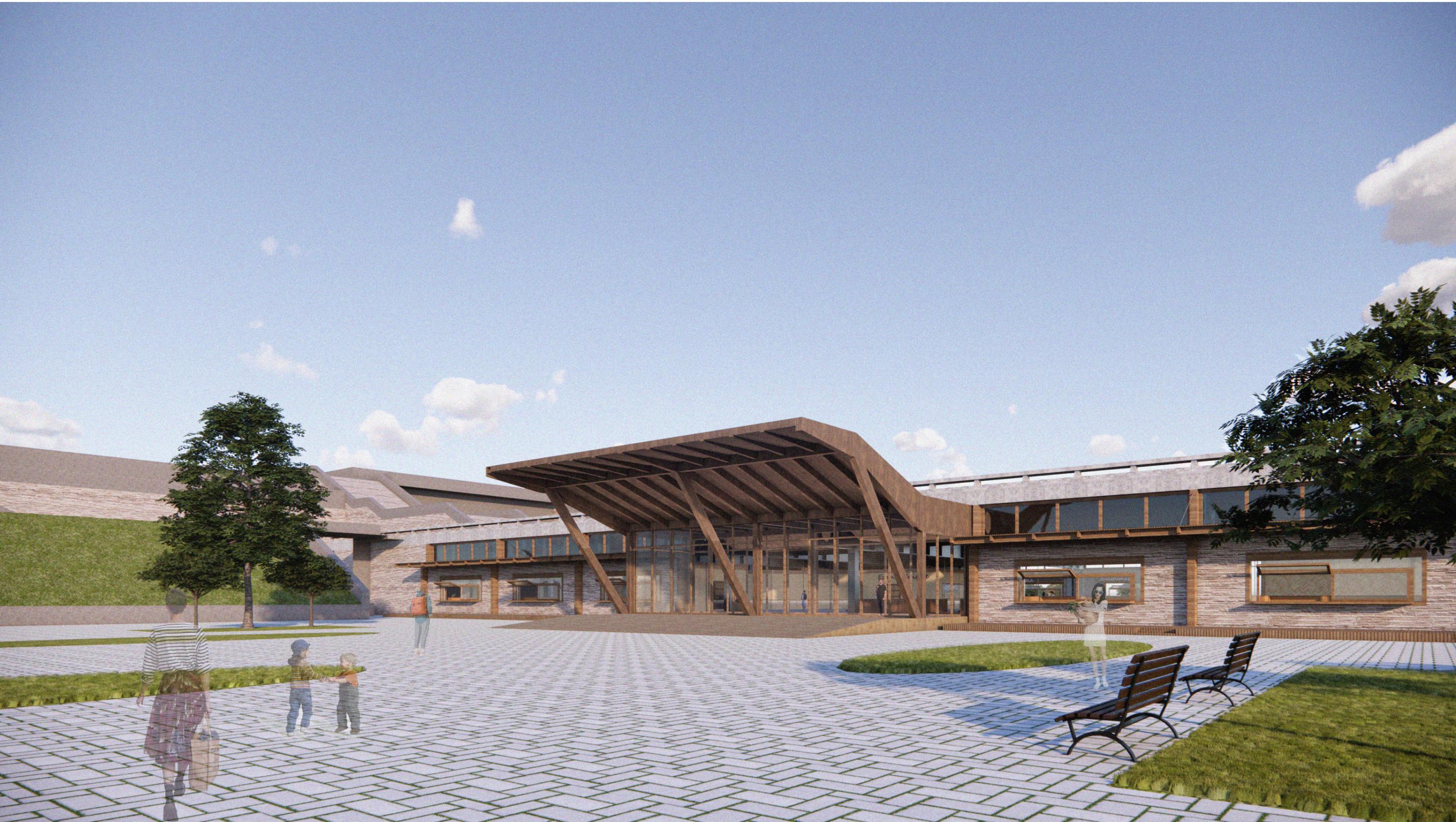
# Floor plans

## Ground Floor



Floor plans  
Ground Floor-Entrance halls





***-Entrance Hall-***

*Rebirth of Linnahall - A Matter of Scale*

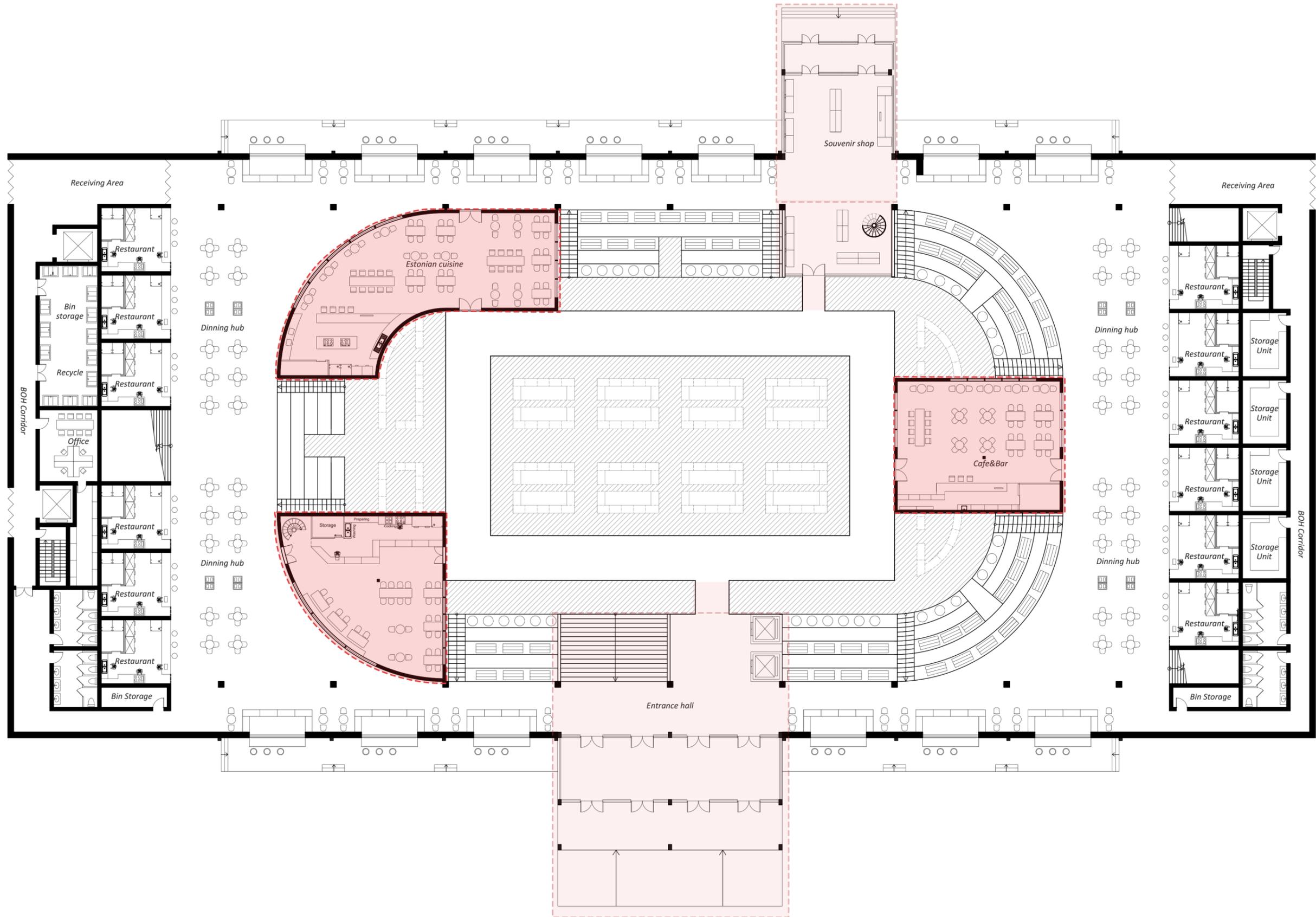


***-Entrance Hall-***

*Rebirth of Linnahall - A Matter of Scale*

Floor plans

# Ground Floor-Restaurant shacks





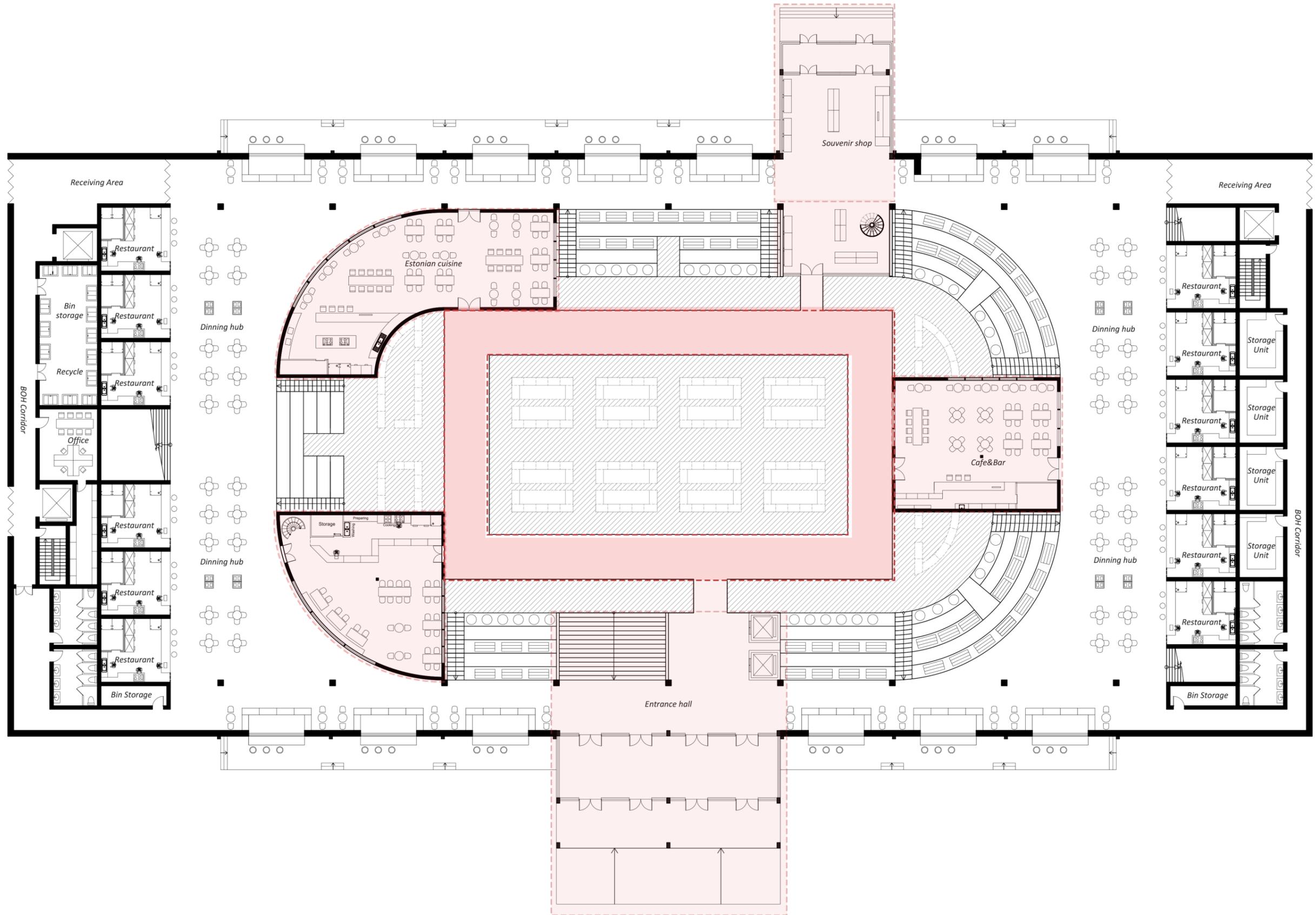
***-Restaurant exterior-***





***-Restaurant interior-***

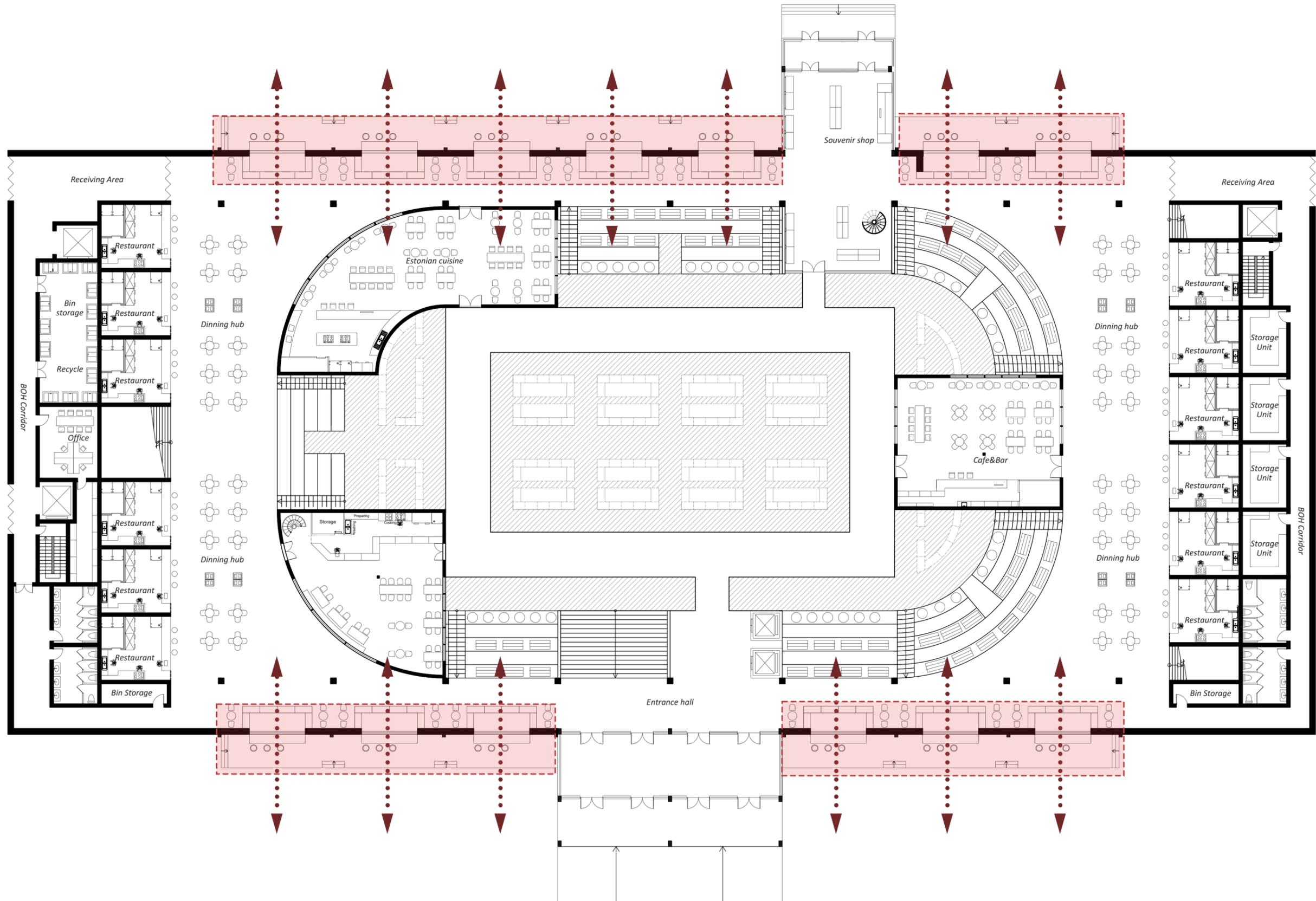
Floor plans  
Ground Floor-Walkway





***-Walkway-***

Floor plans  
Ground Floor-Sale Windows





West Elevation



East Elevation



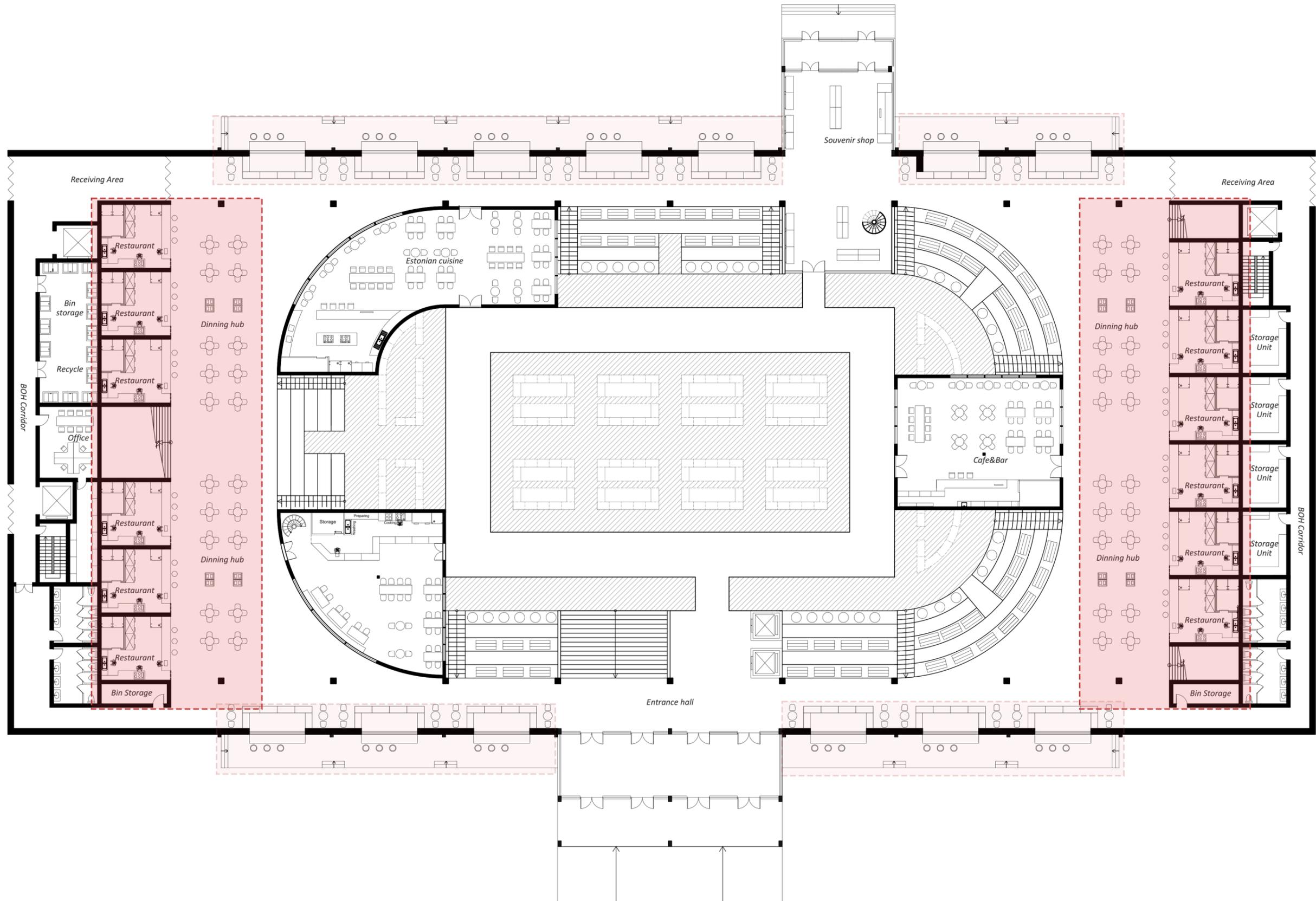
***-Sales window exterior-***



***-Sales window interior-***

*Rebirth of Linnahall - A Matter of Scale*

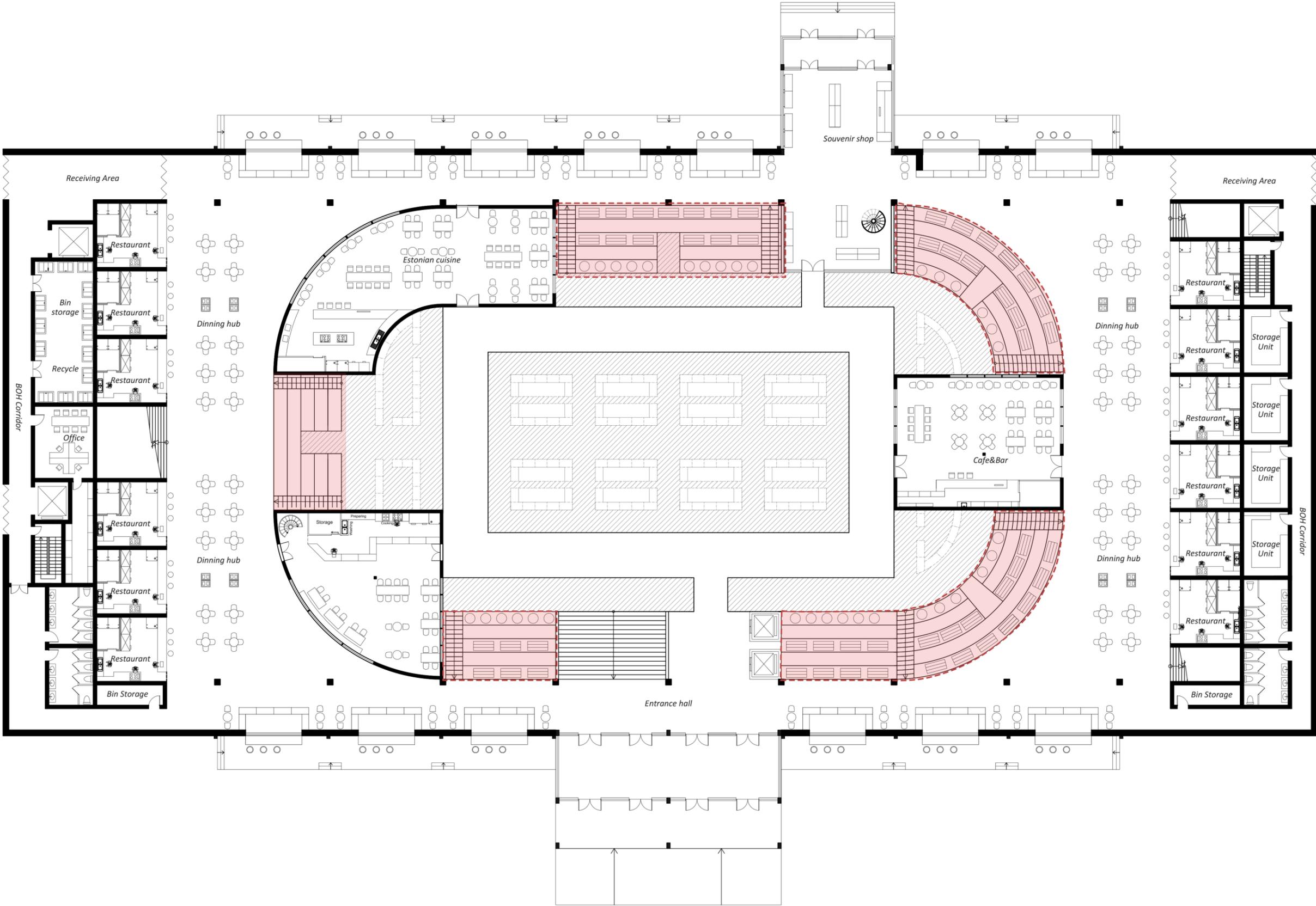
Floor plans  
Ground Floor-Food hall





**-Food hall-**

Floor plans  
Ground Floor-Crafts display



## Estonian traditional crafts



Knitting and Weaving



Woodworking



Metalworking



Pottery

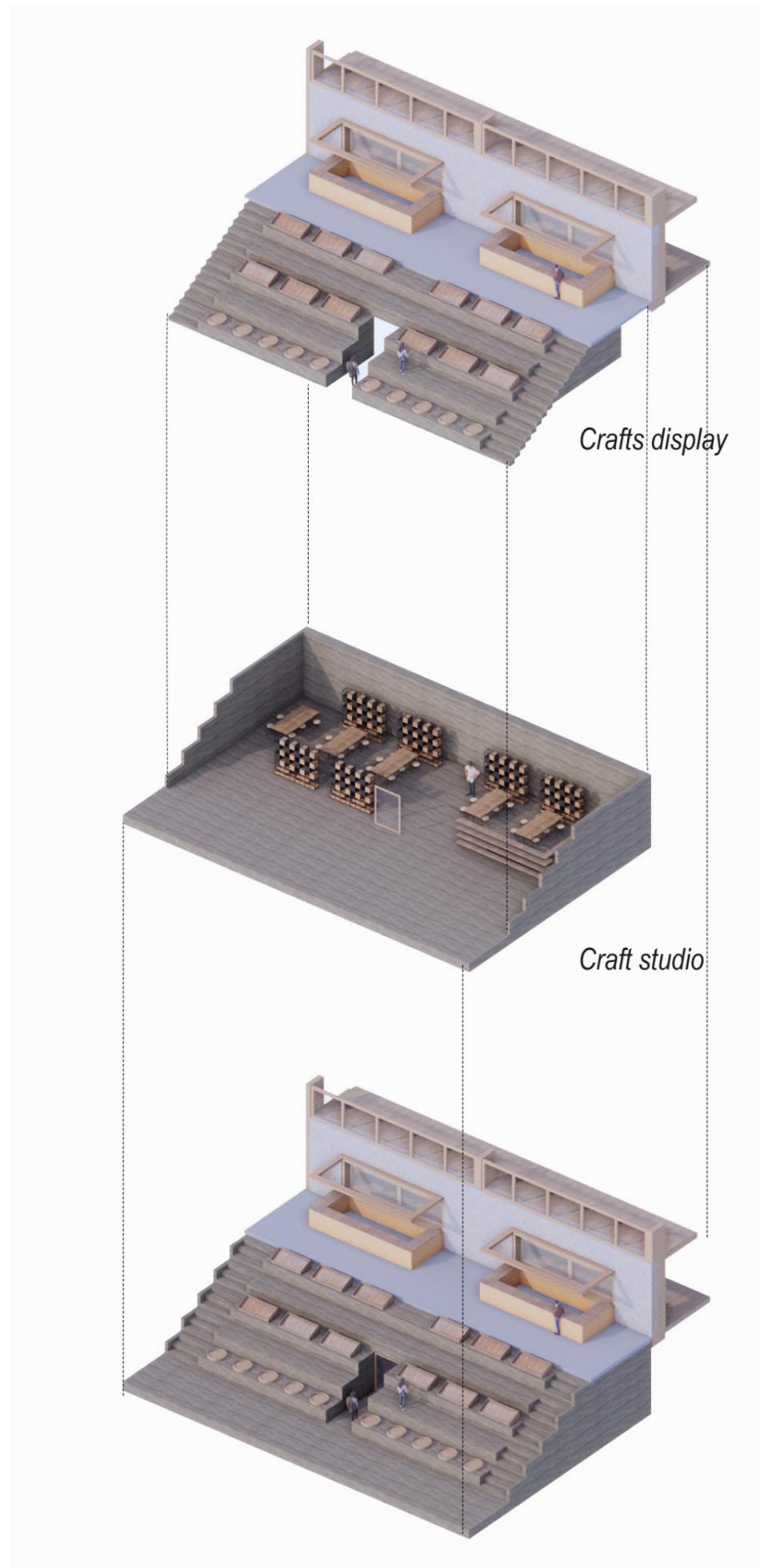


***-Crafts display-***



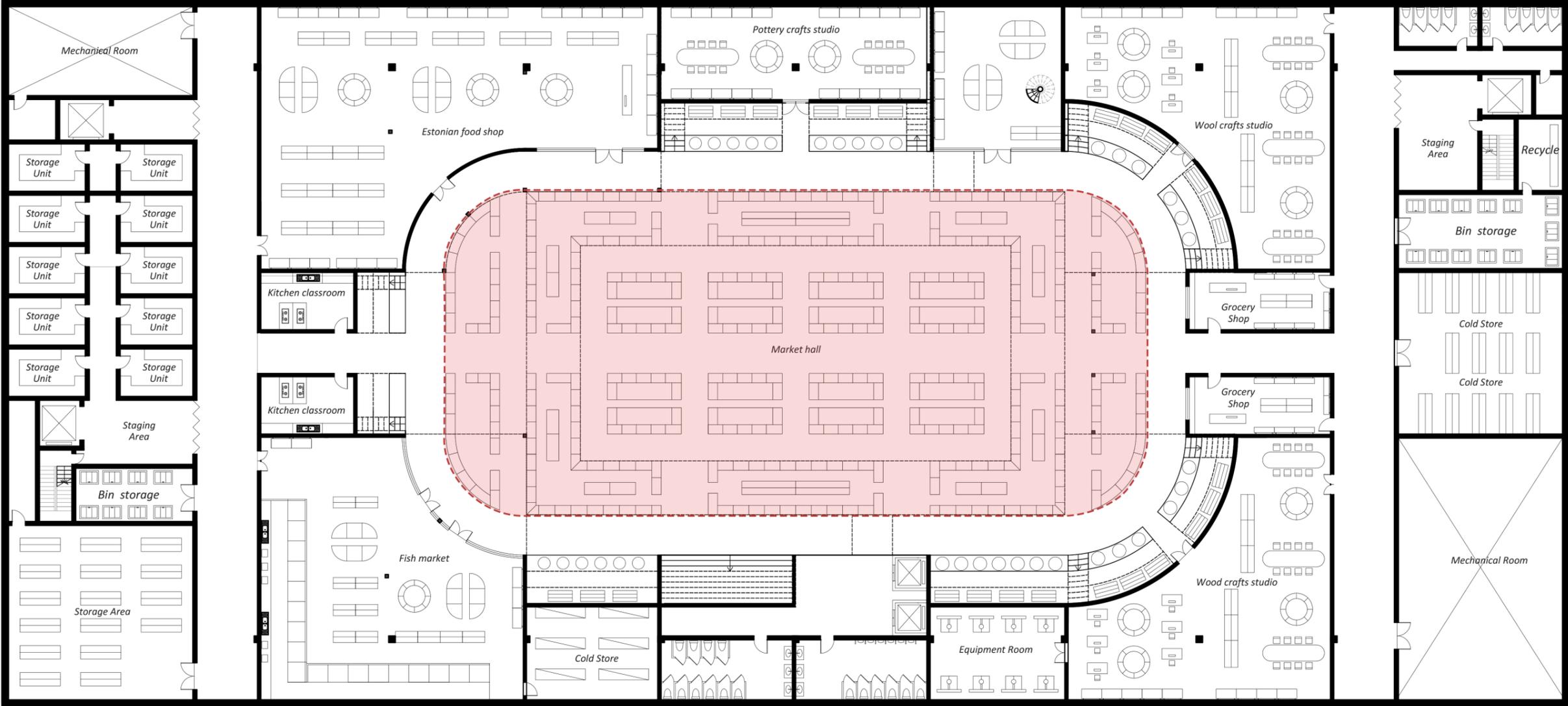
***-Crafts studio-***

*Rebirth of Linnahall - A Matter of Scale*



*Rebirth of Linnahall - A Matter of Scale*

Floor plans  
Lower Ground Floor-Market hall





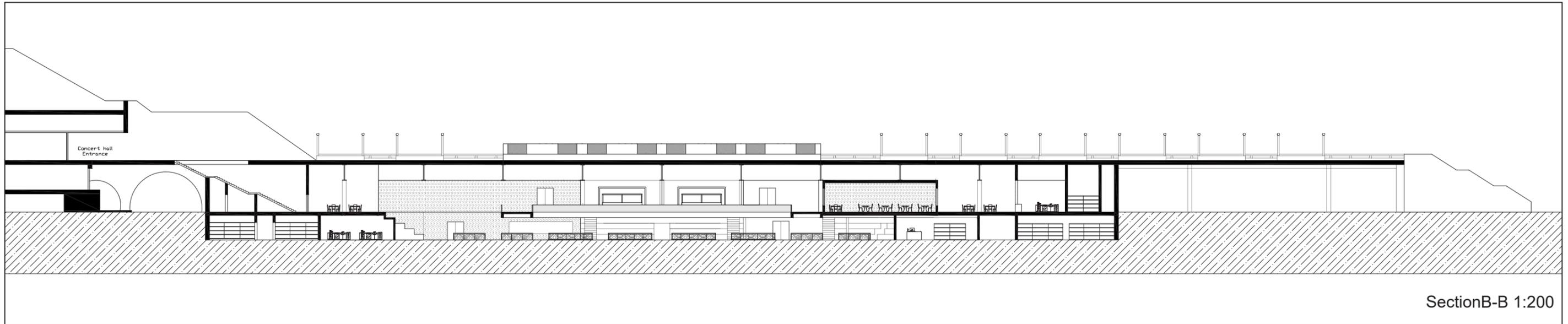
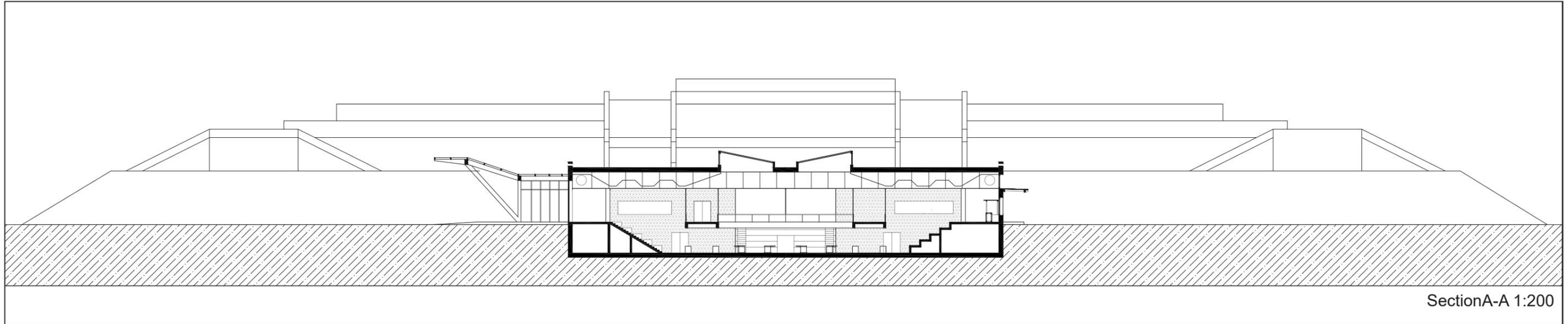
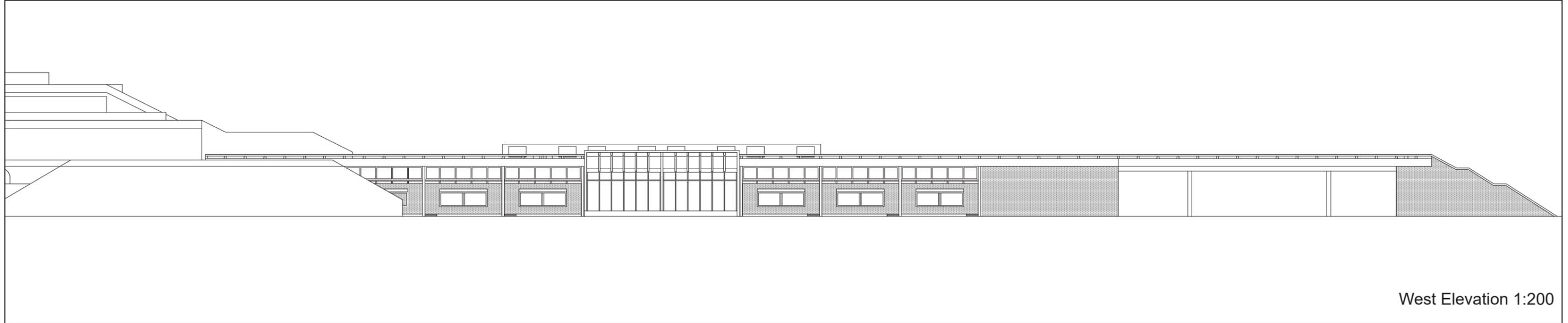
*-Original ice rink-*



***-New market hall-***

*Rebirth of Linnahall - A Matter of Scale*

# Section&Elevation



*Introduction*

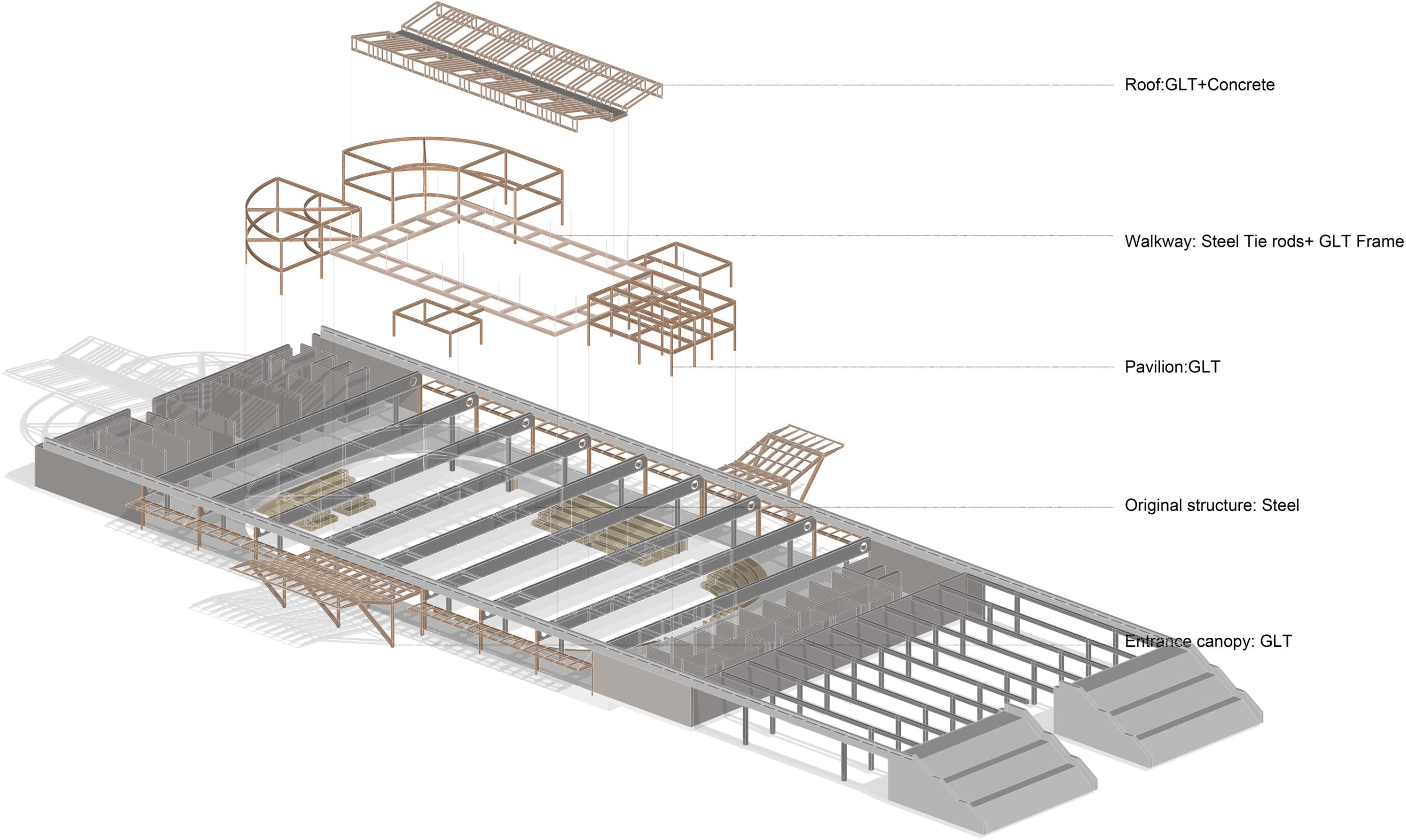
*Research*

*Design*

***Building Technology***

*Conclusion*

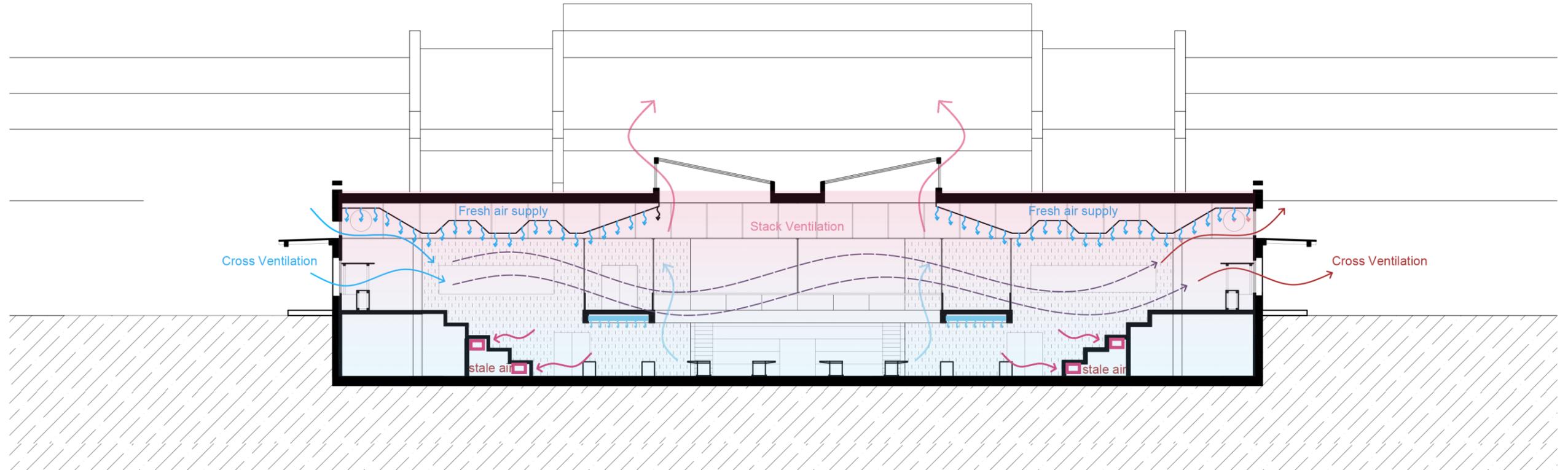
-Structural system-



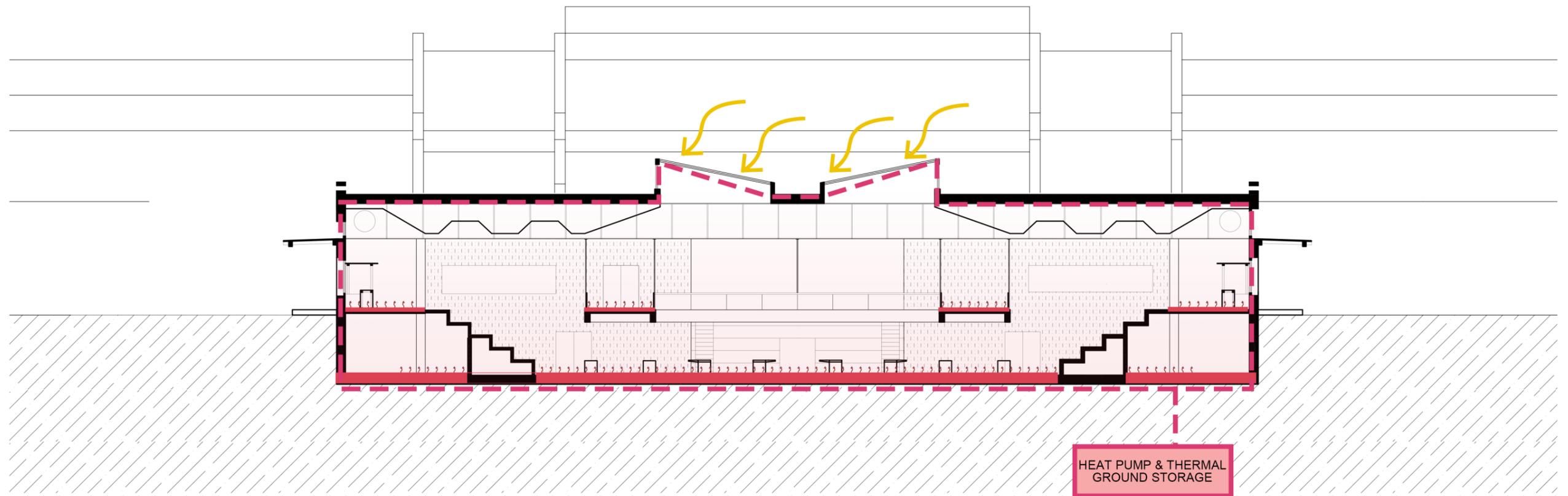
Structure system

Building Technology  
-Climate Strategy-

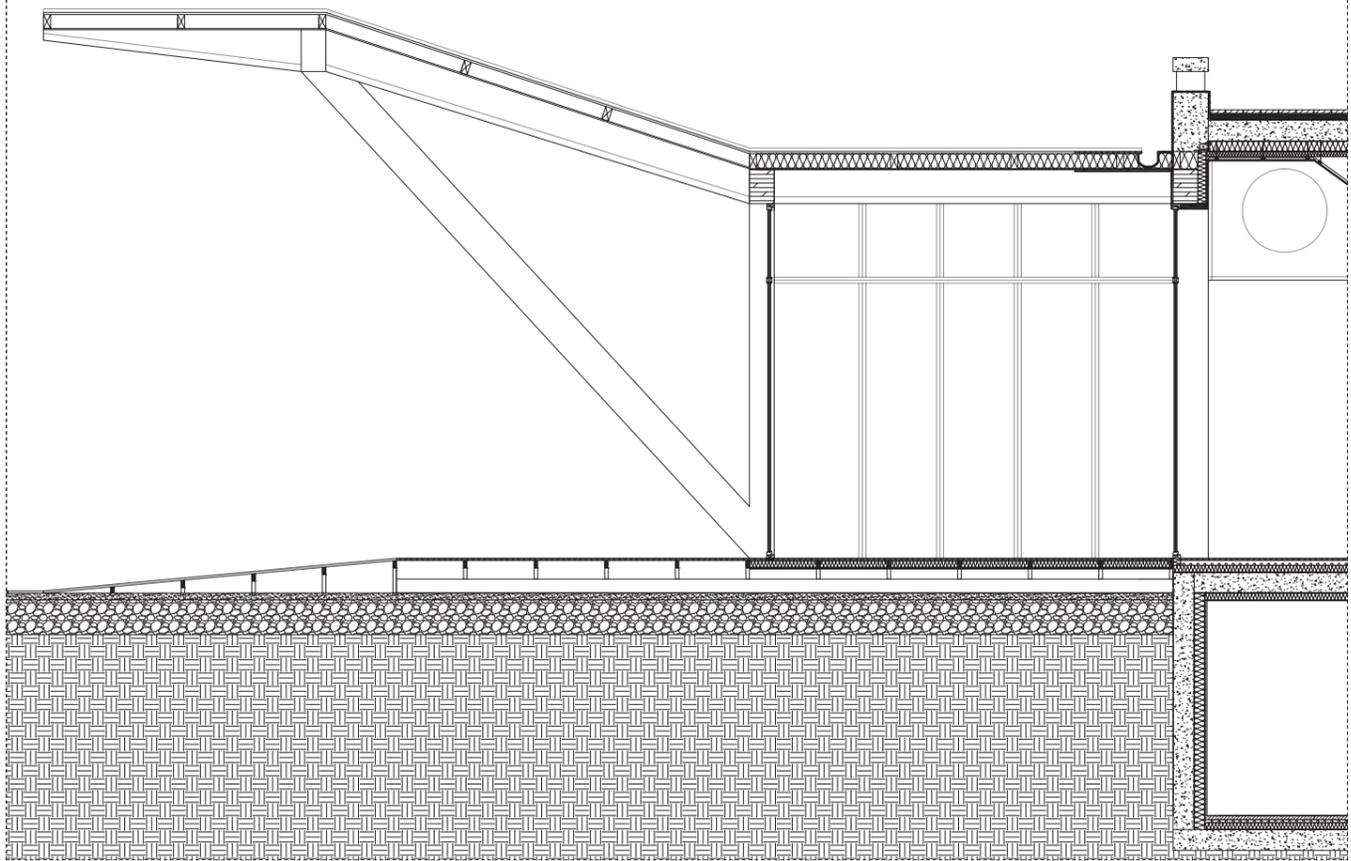
Ventilation & Flow



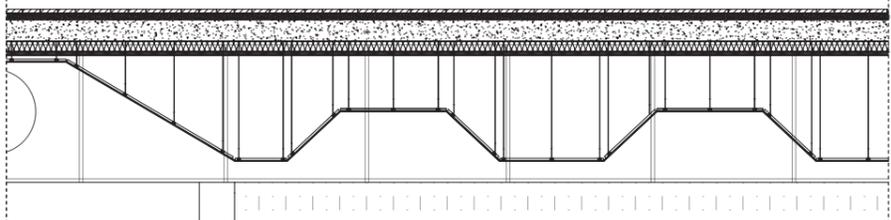
Heating & Energy



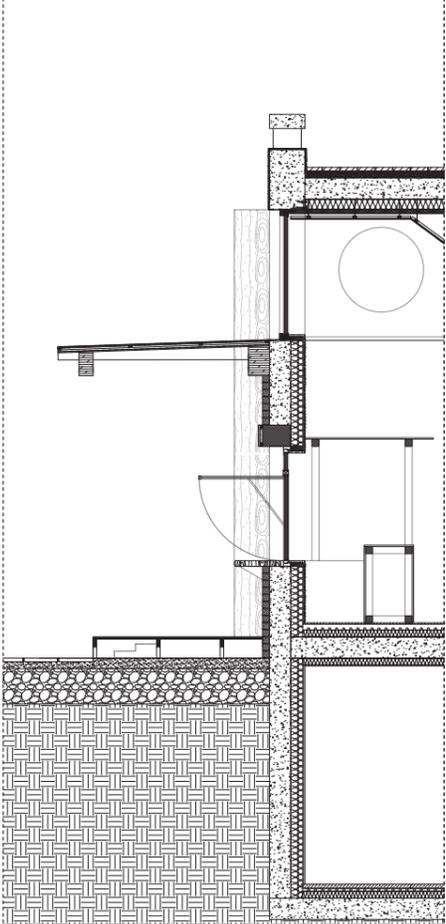
Entrance canopy 1:50



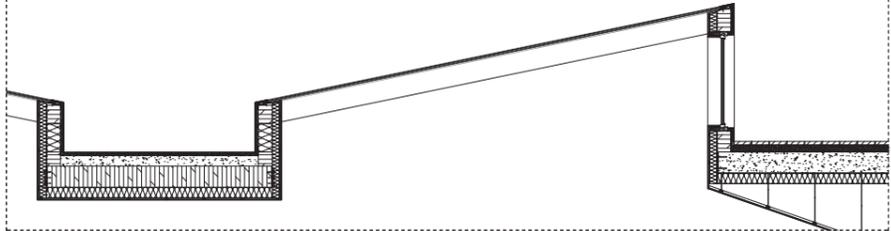
Wooden Ceiling 1:50



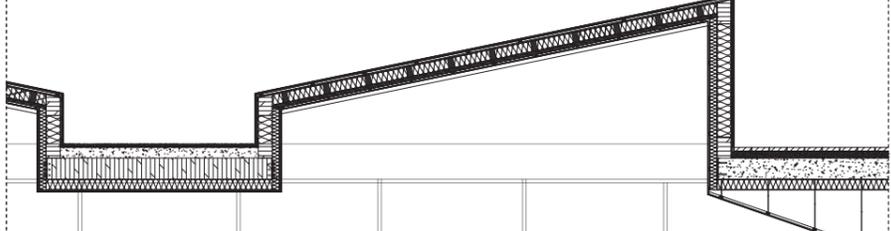
Food stall Window 1:50



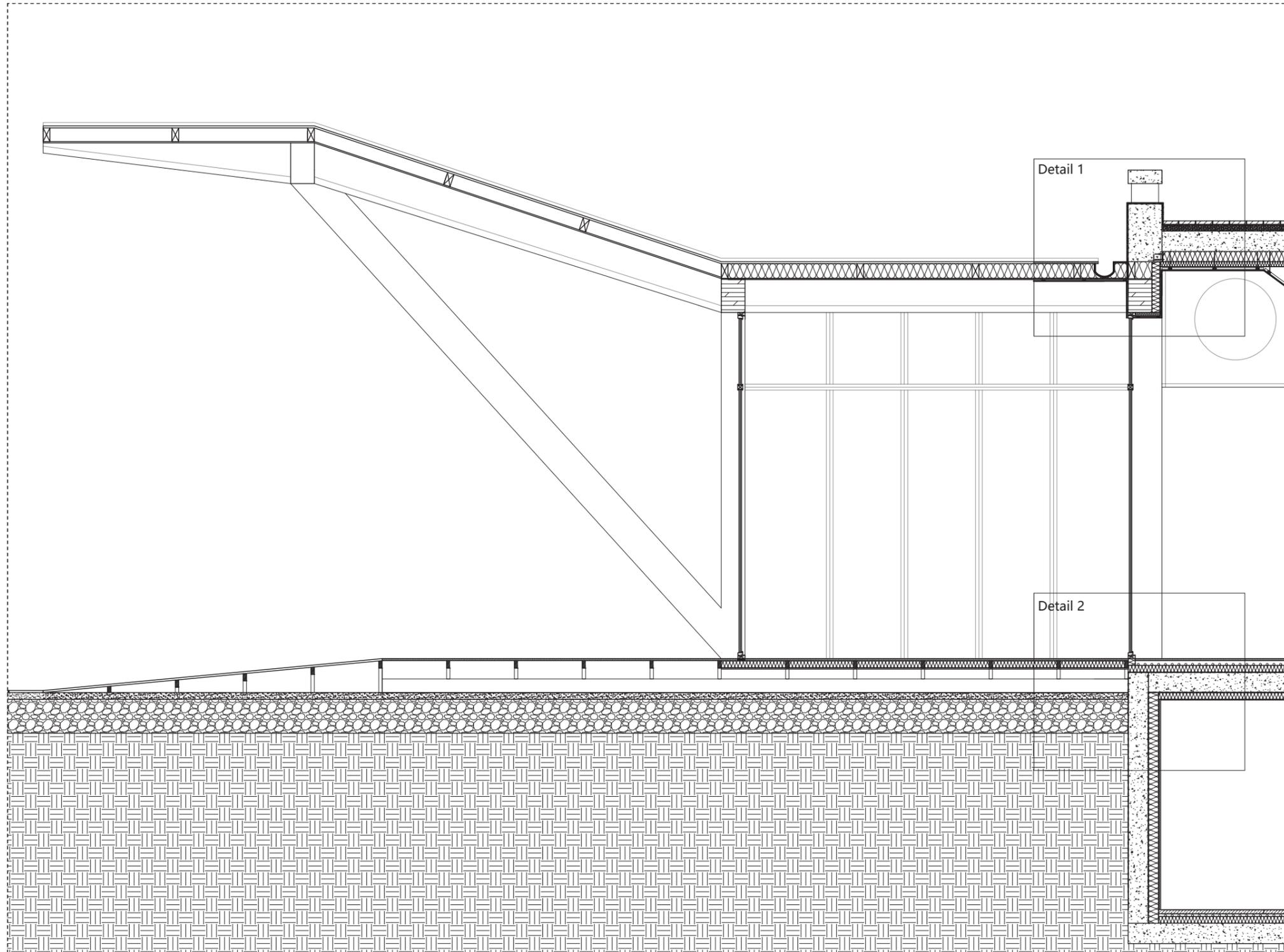
Skylight 1:50



New roof 1:50

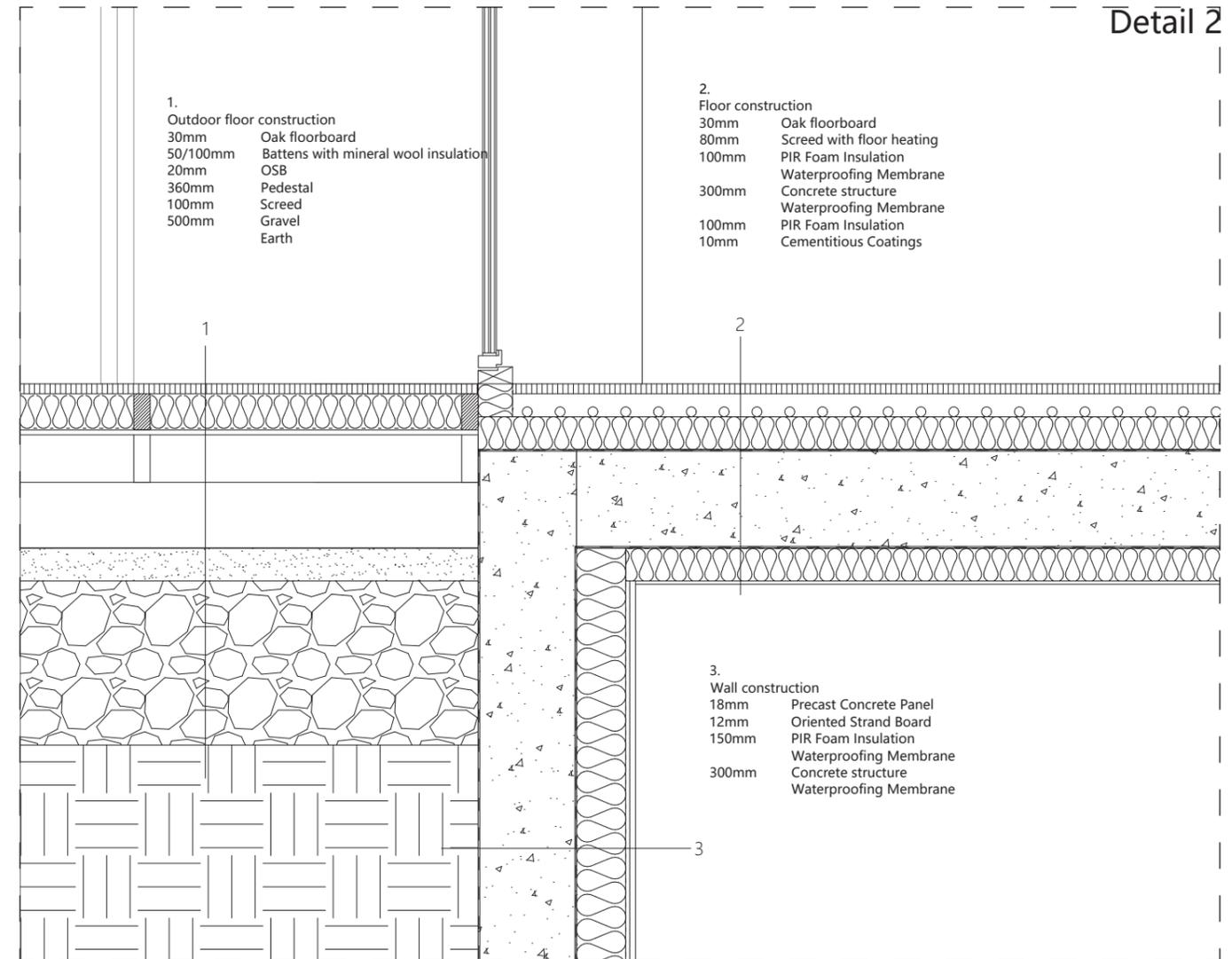
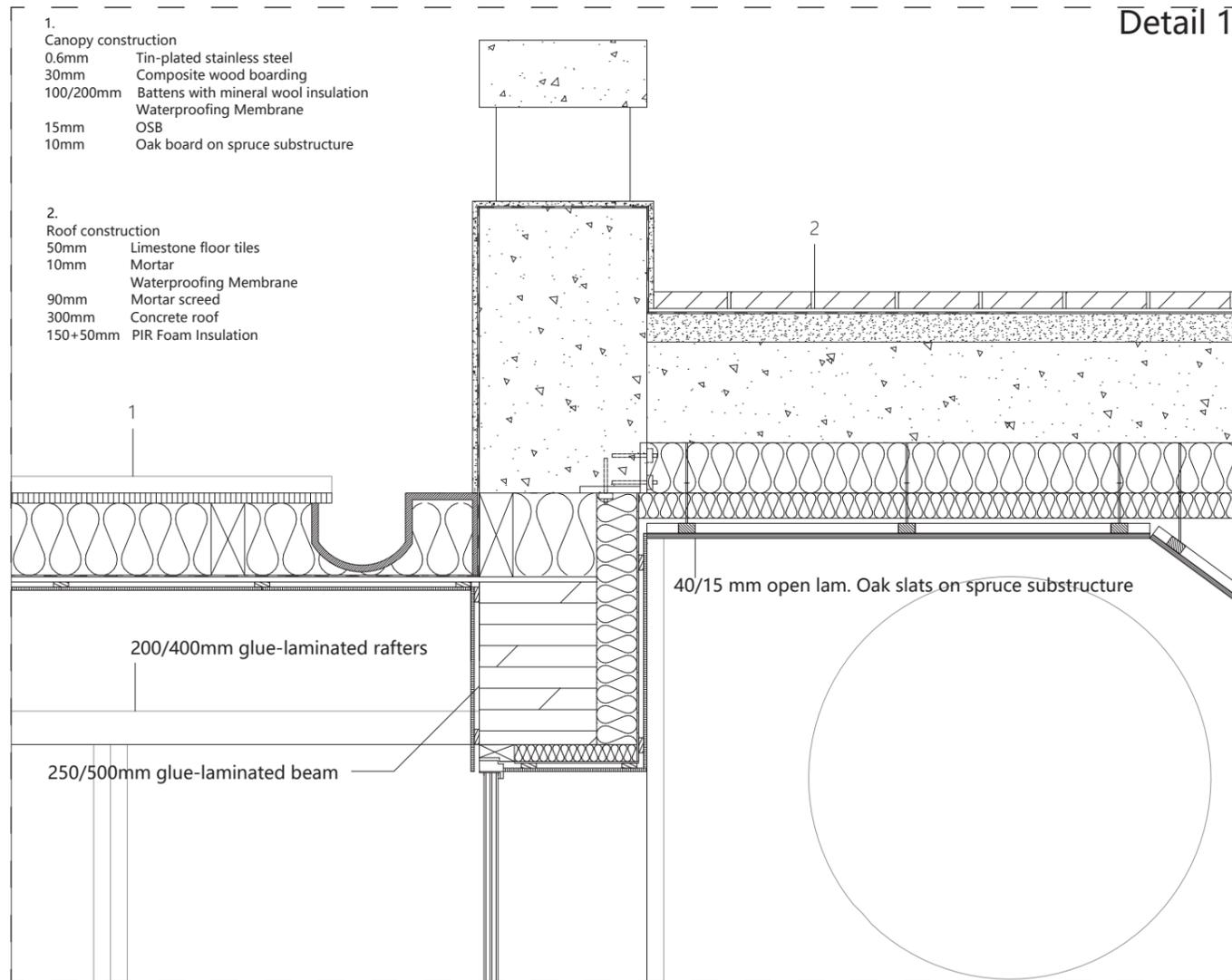


-Part1 Entrance canopy-

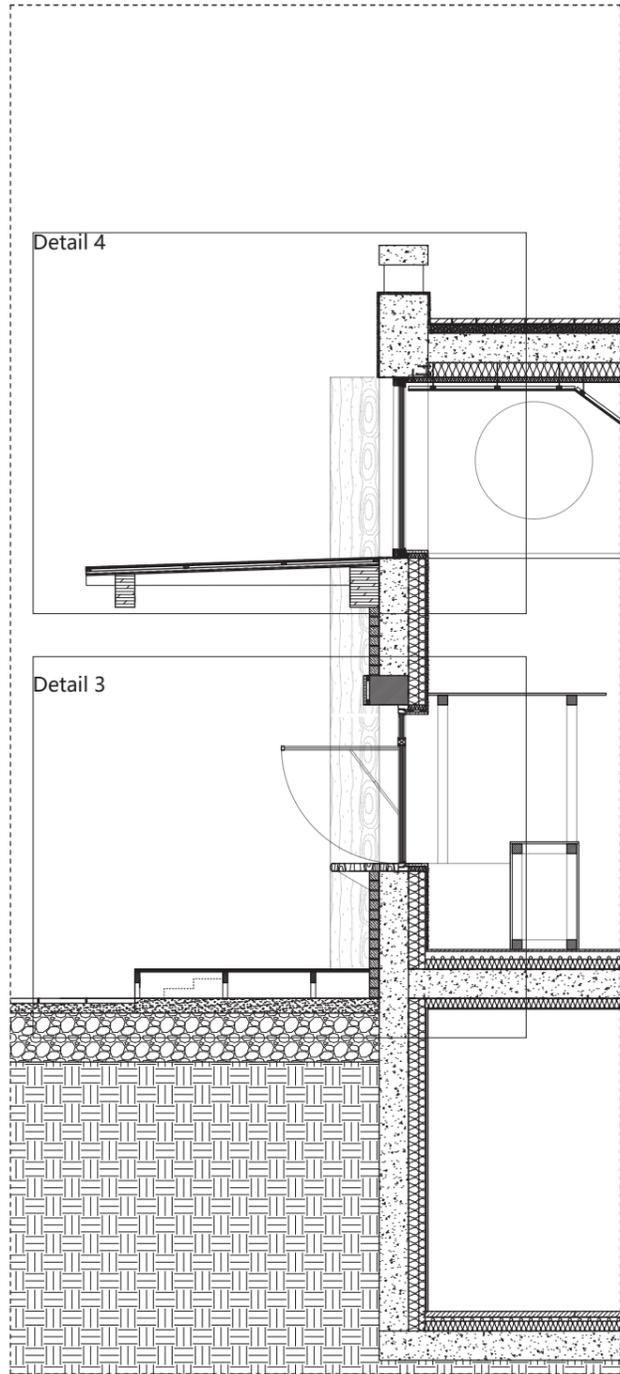


# Building Technology

## -Entrance canopy-



-Part2 Food stall window-



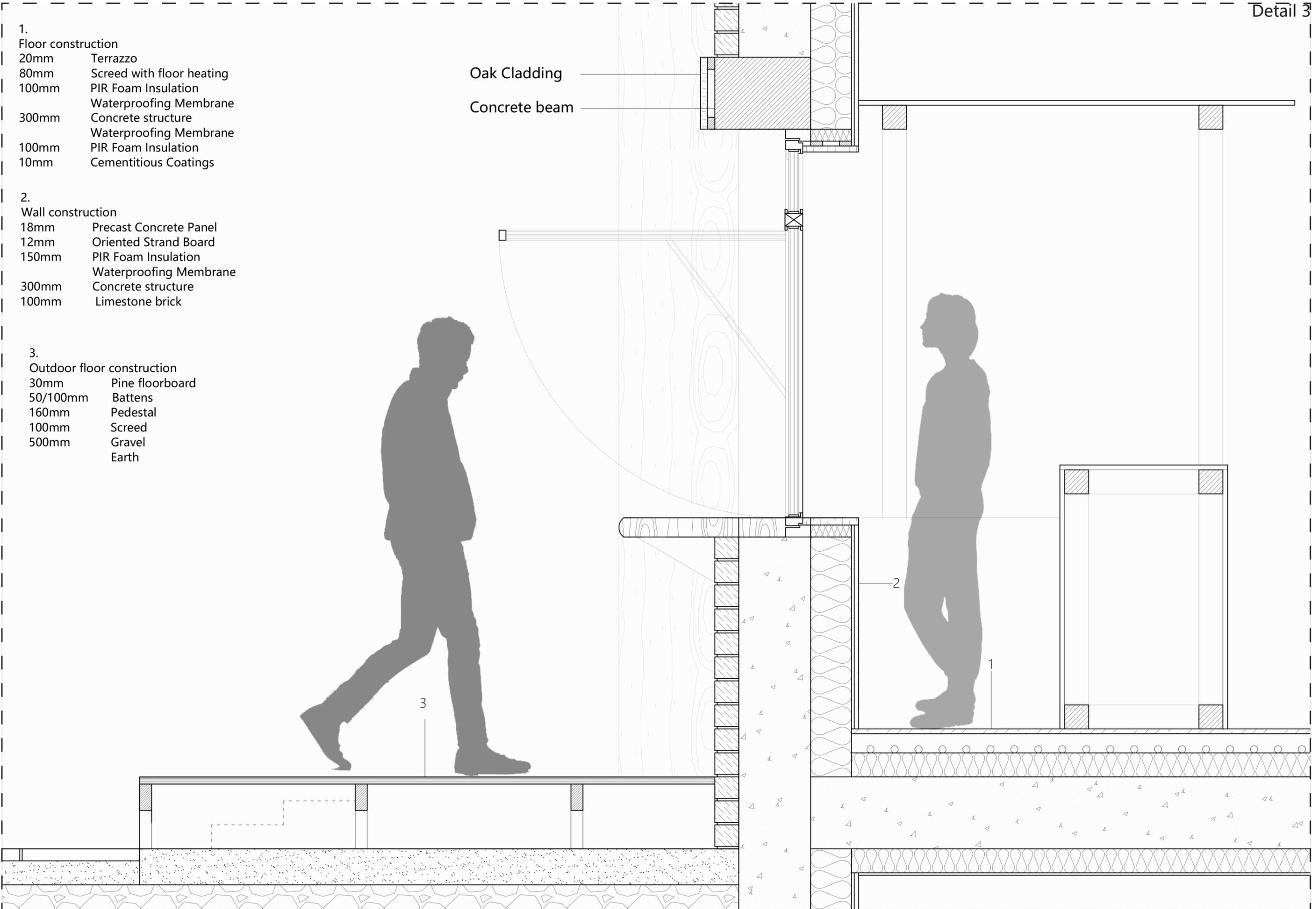
- 1.
- Floor construction
- 20mm Terrazzo
- 80mm Screed with floor heating
- 100mm PIR Foam Insulation
- Waterproofing Membrane
- 300mm Concrete structure
- Waterproofing Membrane
- 100mm PIR Foam Insulation
- 10mm Cementitious Coatings

- 2.
- Wall construction
- 18mm Precast Concrete Panel
- 12mm Oriented Strand Board
- 150mm PIR Foam Insulation
- Waterproofing Membrane
- 300mm Concrete structure
- 100mm Limestone brick

- 3.
- Outdoor floor construction
- 30mm Pine floorboard
- 50/100mm Battens
- 160mm Pedestal
- 100mm Screed
- 500mm Gravel
- Earth

Oak Cladding

Concrete beam

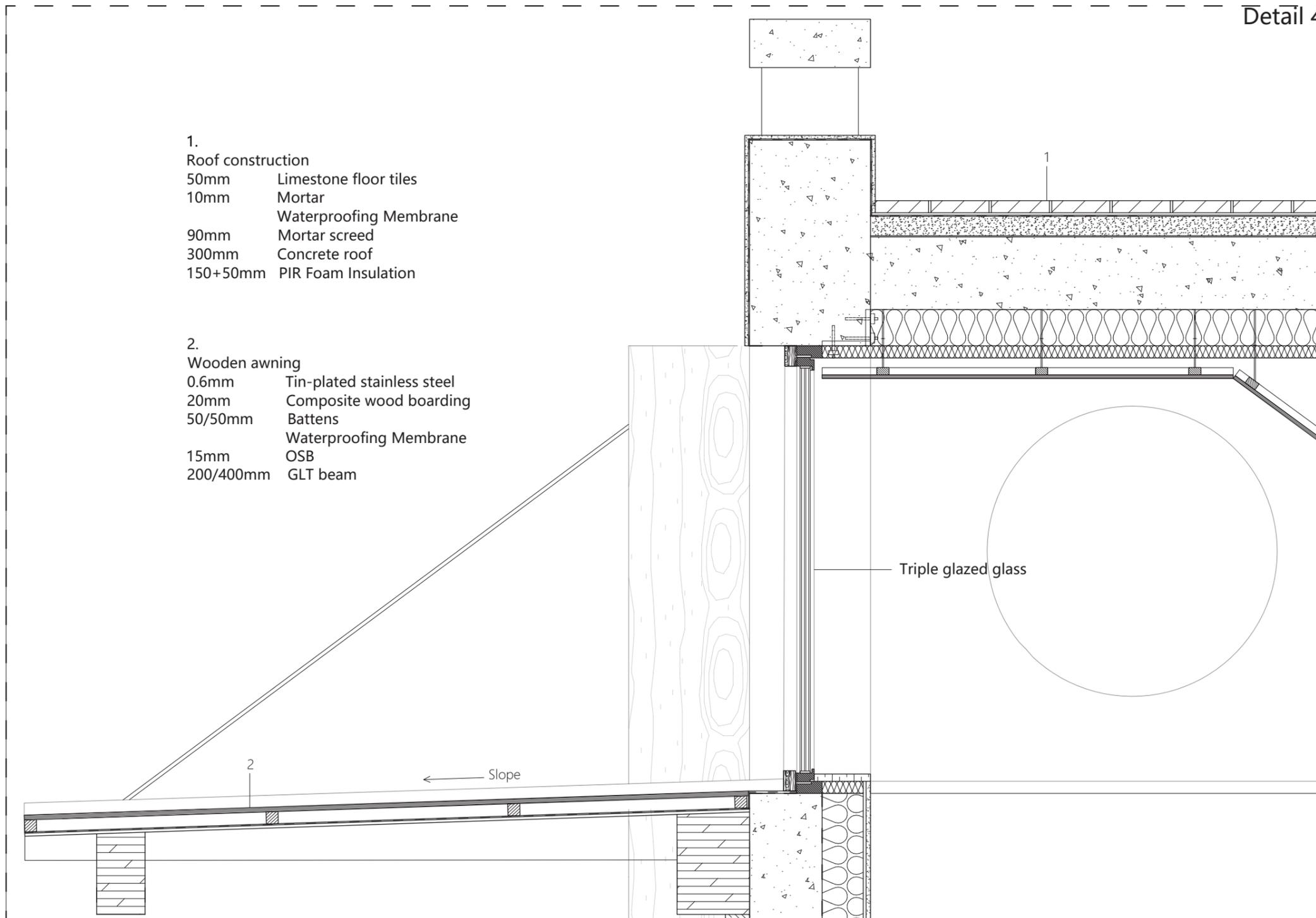


# Building Technology

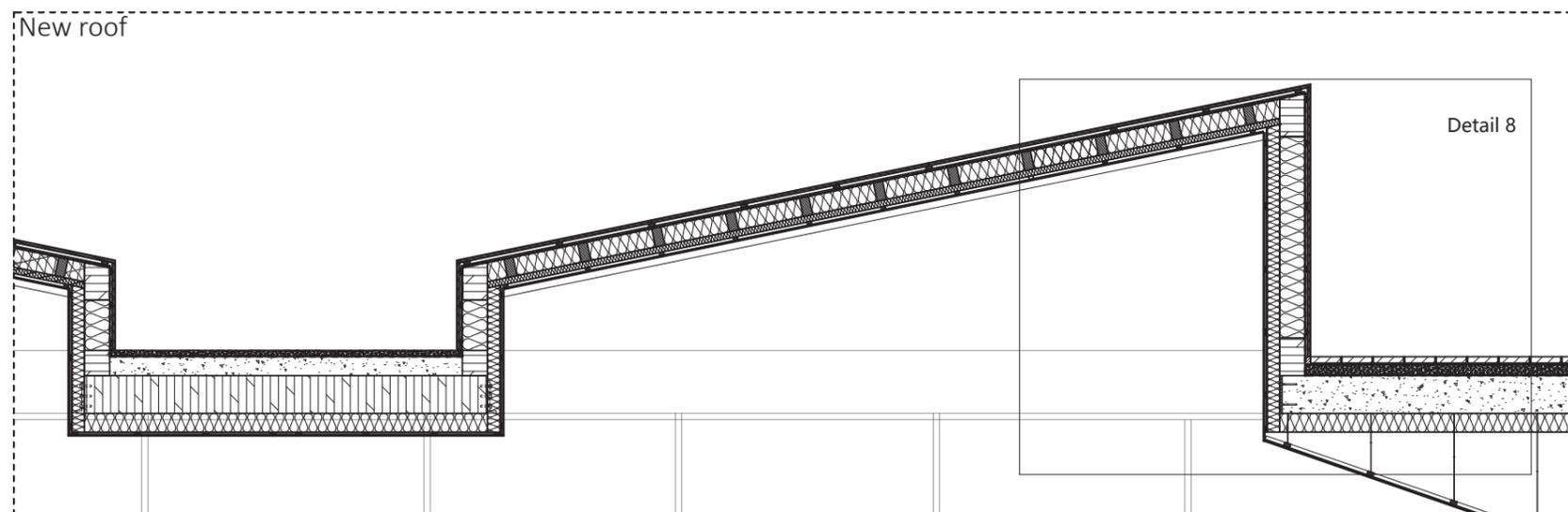
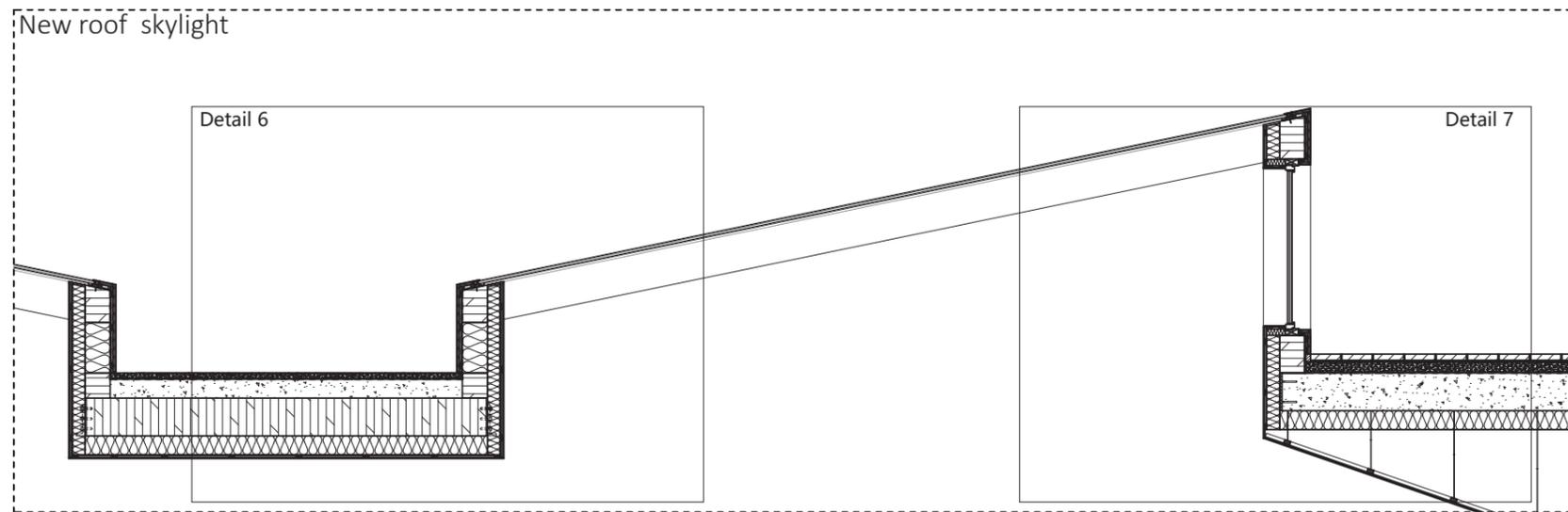
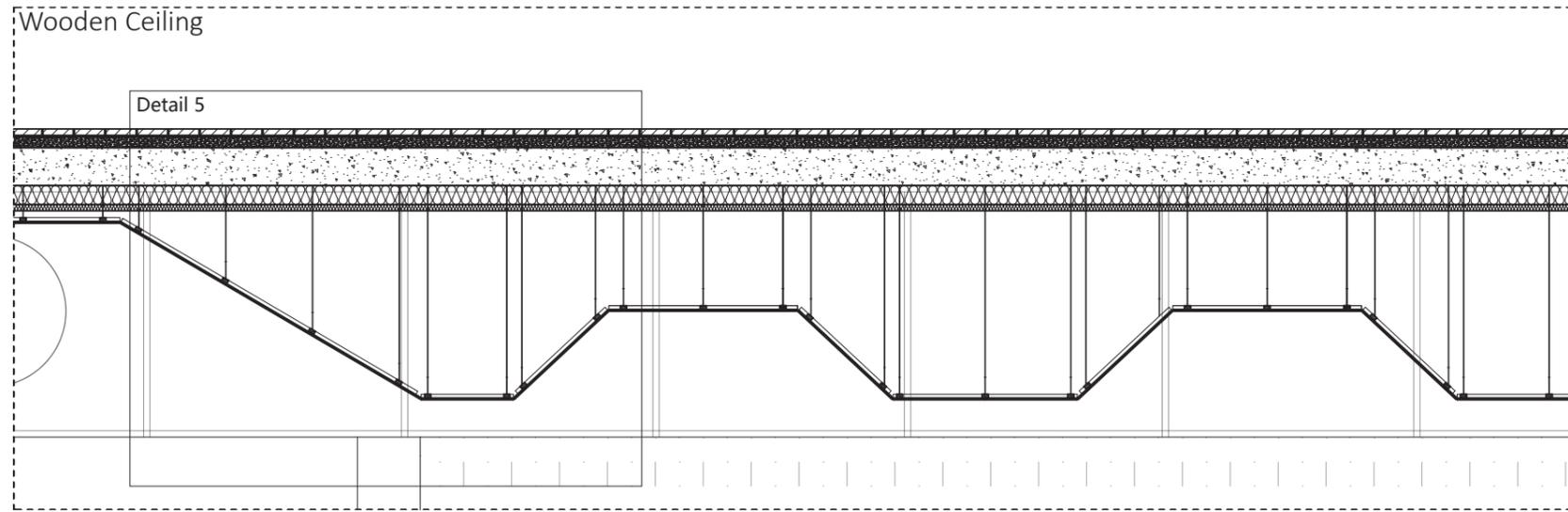
## -Food stall window-

Detail 4

1. Roof construction
  - 50mm Limestone floor tiles
  - 10mm Mortar
  - Waterproofing Membrane
  - 90mm Mortar screed
  - 300mm Concrete roof
  - 150+50mm PIR Foam Insulation
  
2. Wooden awning
  - 0.6mm Tin-plated stainless steel
  - 20mm Composite wood boarding
  - 50/50mm Battens
  - Waterproofing Membrane
  - 15mm OSB
  - 200/400mm GLT beam

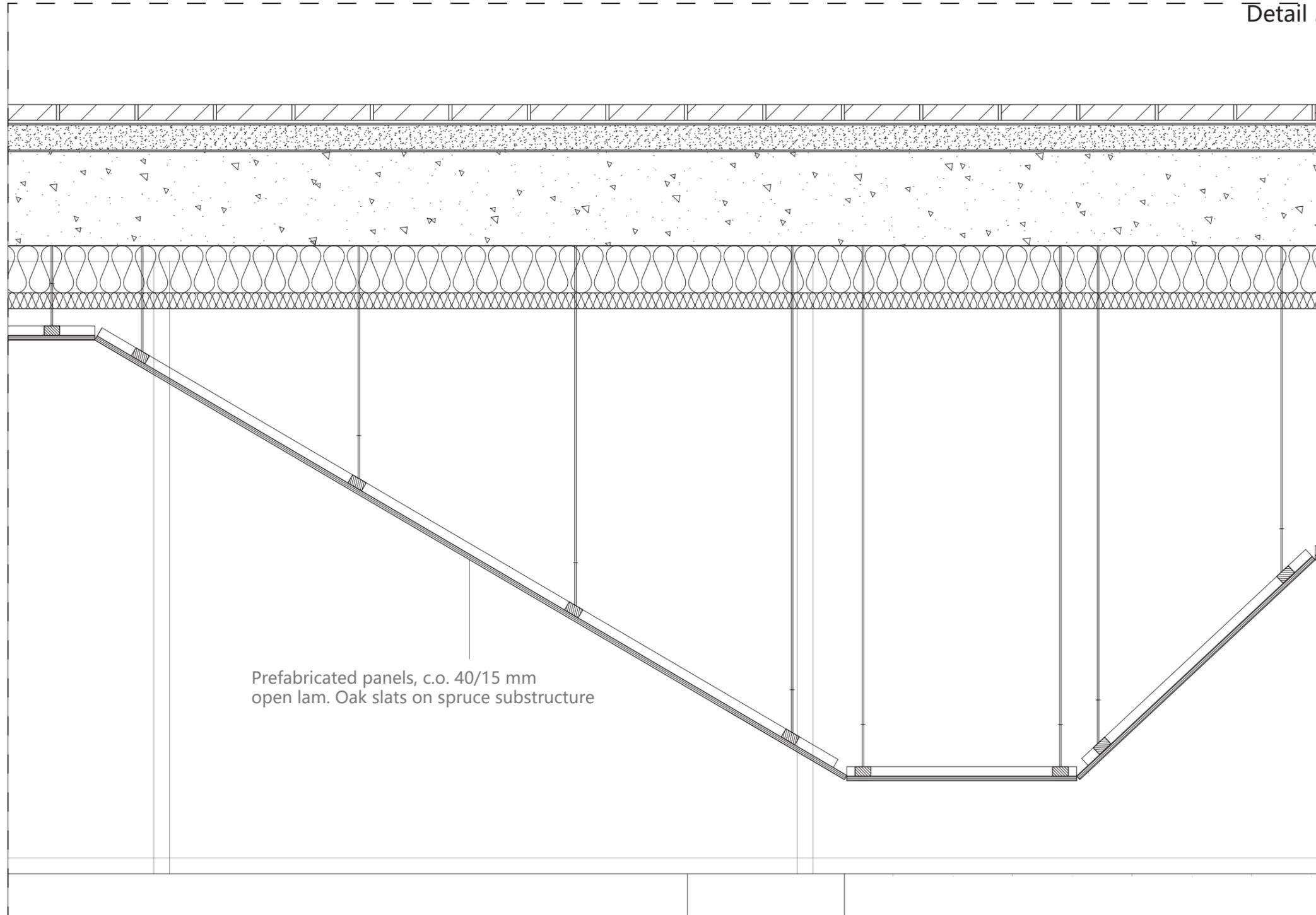


# -Part3 New roof and wooden ceiling-



Building Technology  
-Wooden Ceiling-

Detail 5



# -Roof-

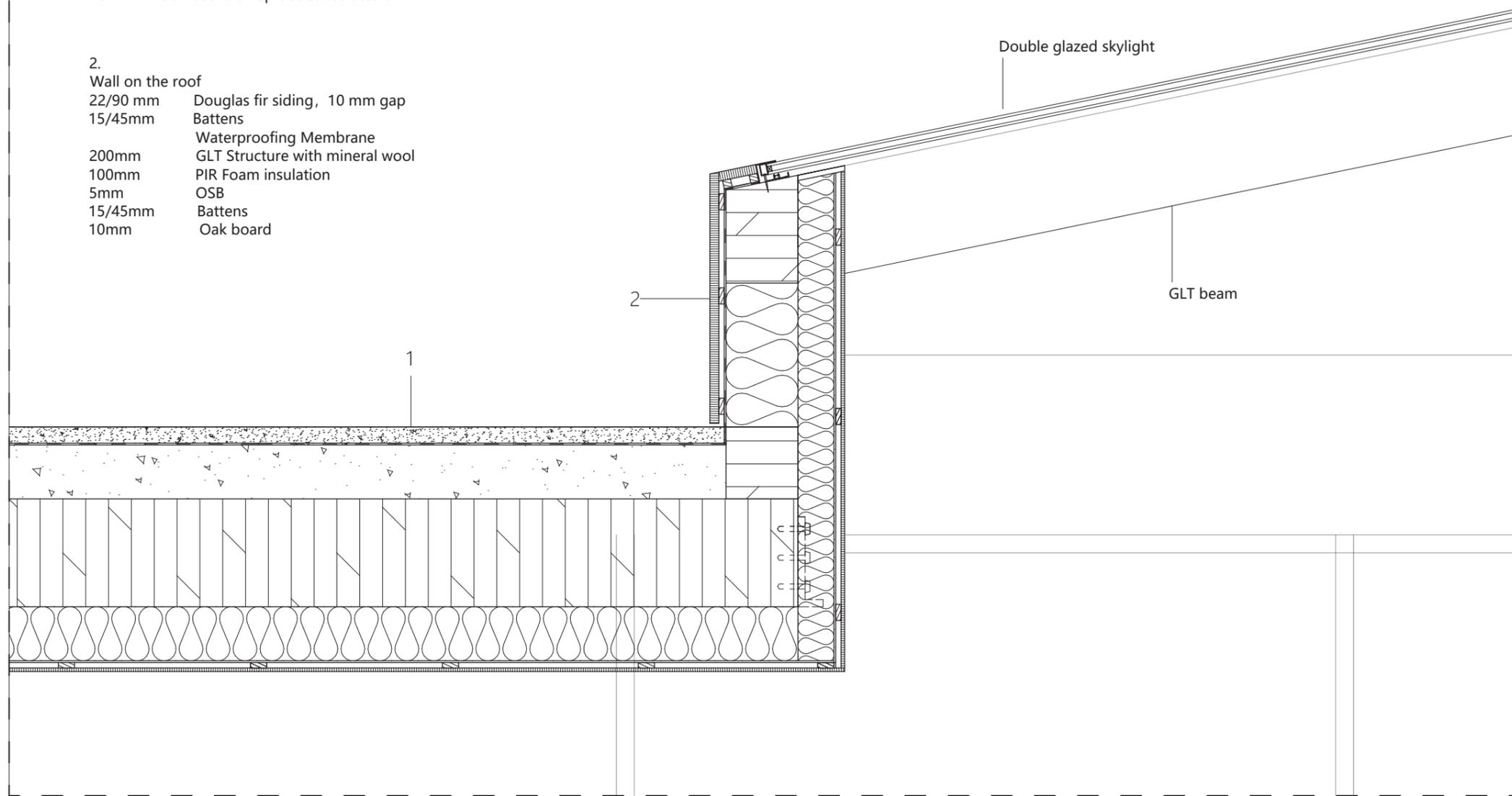
Detail 6

1. Roof construction

- 40mm Mortar protection with gravel
- Waterproofing Membrane
- 150mm Concrete
- 300mm Glue laminated timber
- 150mm PIR Foam insulation
- 5mm Fiberboard
- 10mm Oak board on spruce substructure

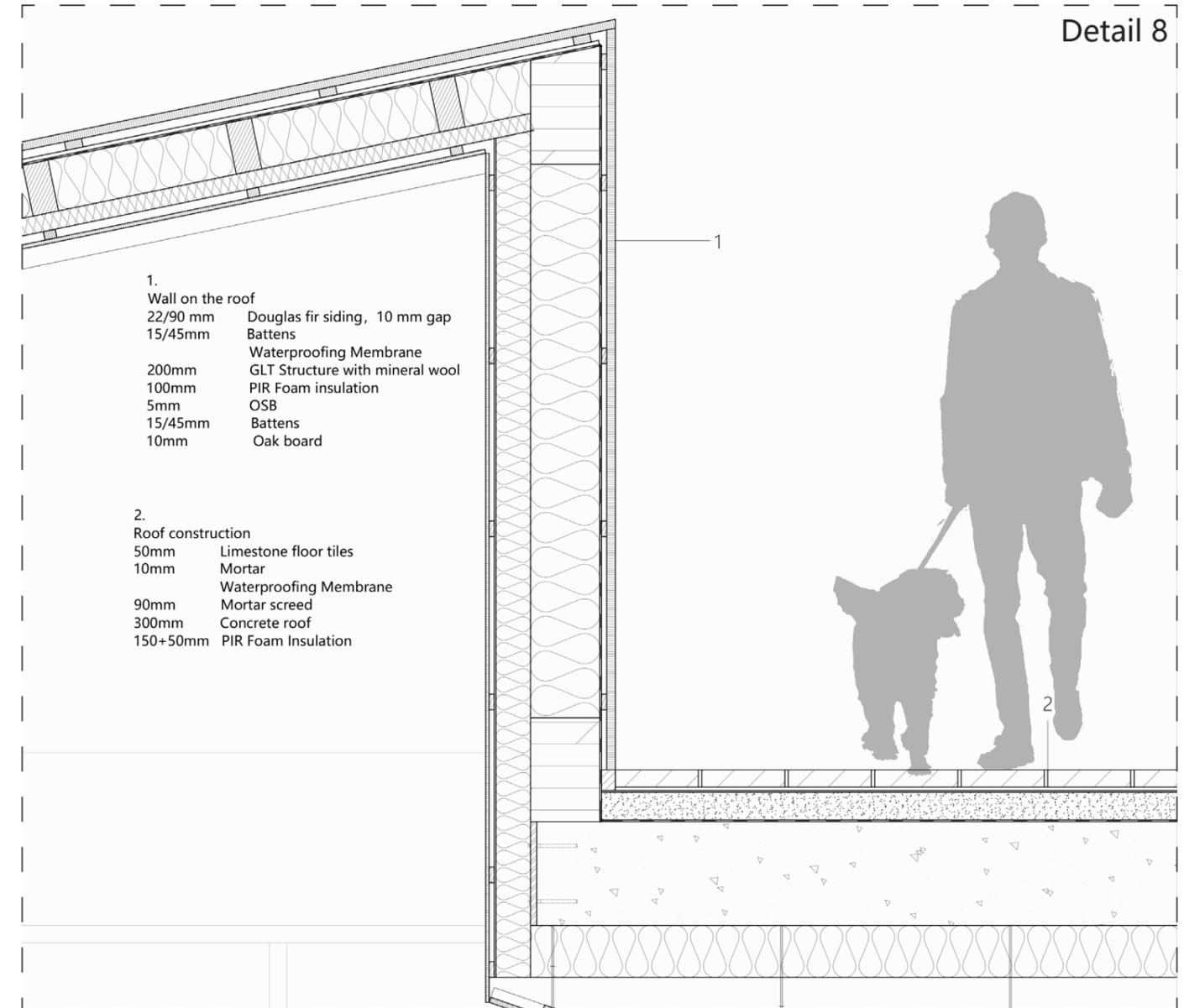
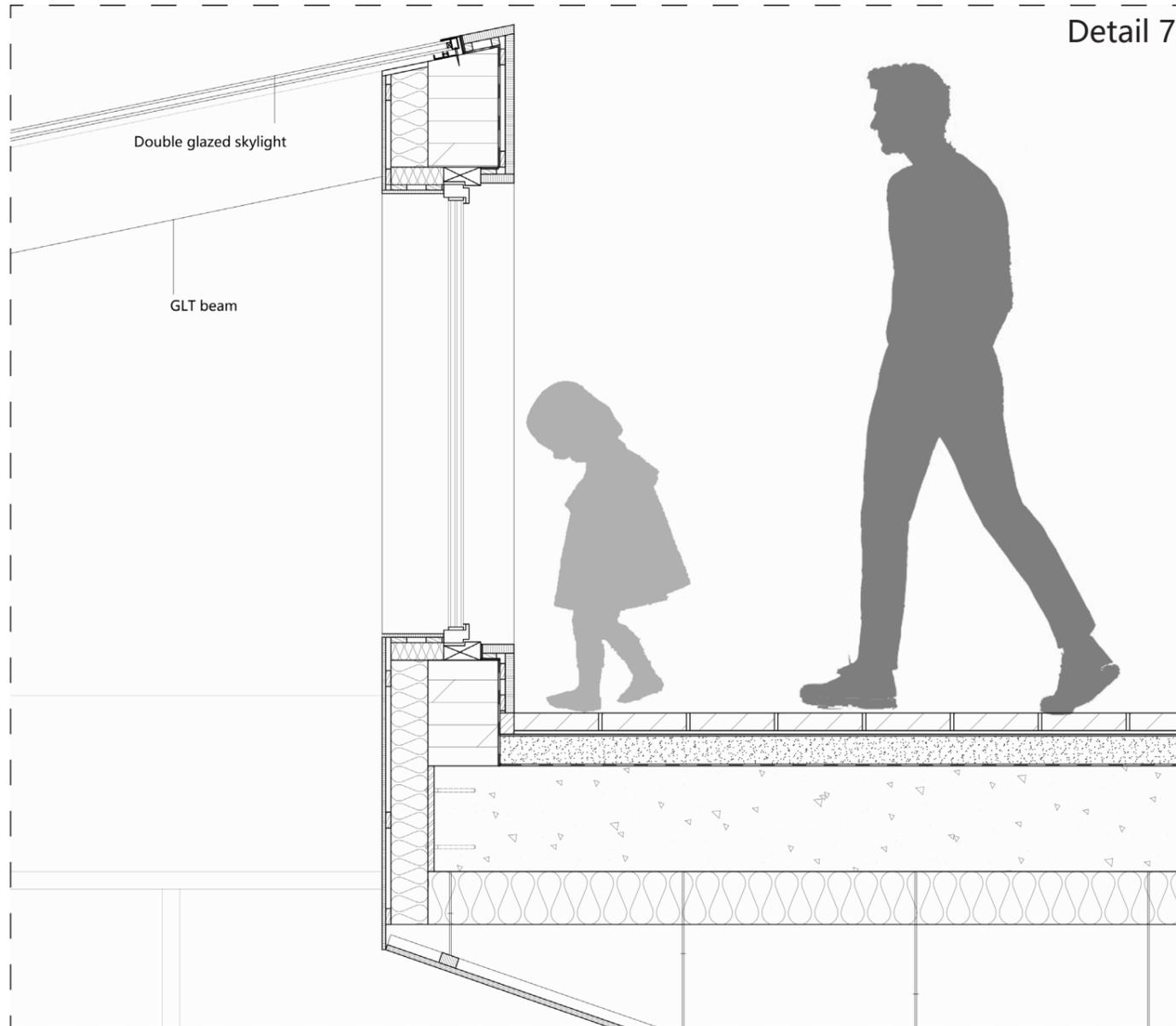
2. Wall on the roof

- 22/90 mm Douglas fir siding, 10 mm gap
- 15/45mm Battens
- Waterproofing Membrane
- 200mm GLT Structure with mineral wool
- 100mm PIR Foam insulation
- 5mm OSB
- 15/45mm Battens
- 10mm Oak board



Building Technology

-Roof-



*Introduction*

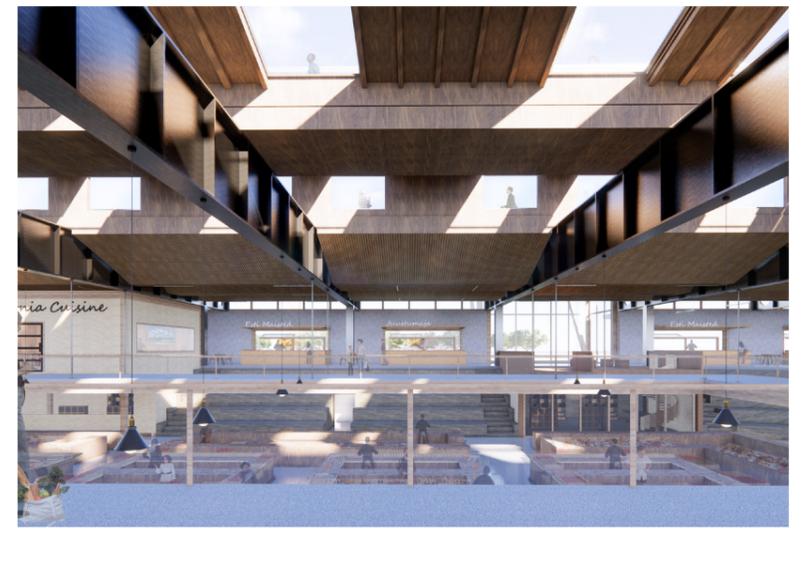
*Research*

*Design*

*Design Development*

**Conclusion**

# -Conclusion-



THANK YOU!

