

Mental Health Center Hembrug

Revitalizing Hembrug, to revitalize society

Project Documentation

Graduation Documentation
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Introduction

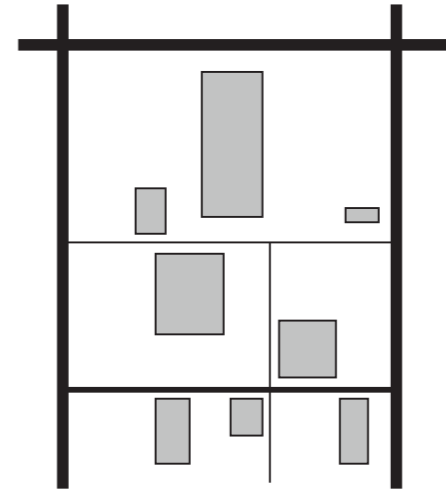
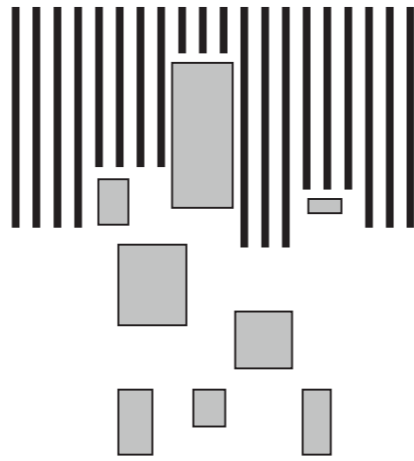
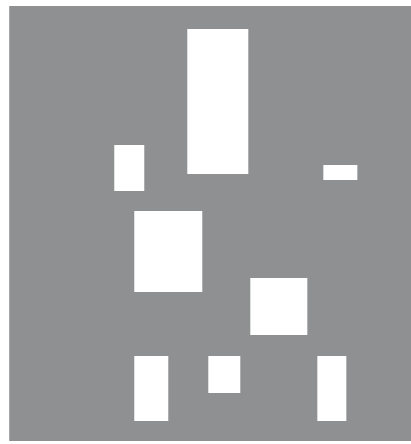
This project documentation is a collection of drawings and visualisations on the graduation project 'Mental Health Centre Hembrug'. The graduation project is focused on a transformation of industrial heritage in Campus North in Hembrug, a former closed-off military production terrain on a peninsula in Zaandam.

For a long time the terrain was used by the Artellerie-Inrichtingen for the production and manufacturing of weapons and ammunition for the Dutch army. After the companies left the area, the area became vacant and nature took over the area. Now it is an oasis of rest where time has been standing still. The area is located in the metropolitan area of Amsterdam with Zaandam and Haarlem on the other side. This is an area where people are mentally and physically suffering under a lot of stress en pressure which resulting in overstraining, depressions and burnouts. At the moment new developments are started to reconnect this former closed off area with the city. For a lot of buildings there is still no future plan. Some of them are in temporary use and others are already transformed. Campus North is located near the new entrance of Hembrug. This part of Hembrug is located on the border between the open campus of the terrain and the forest.

The assignment for the graduation project is a transformation for the ensemble Campus North and consisting out of: two buildings, building 8 'the weapon depot' and building 320 'the machine hall', an open space in front of building 8 including the old Foundation of building 309, 'storage and canteen' and a piece of forest next to building 320 including there surrounding. For both buildings there is still no permanent function.

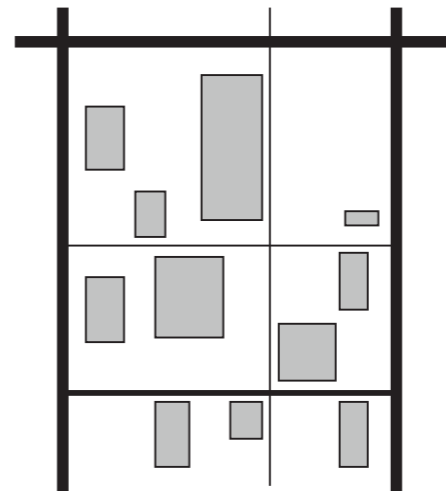
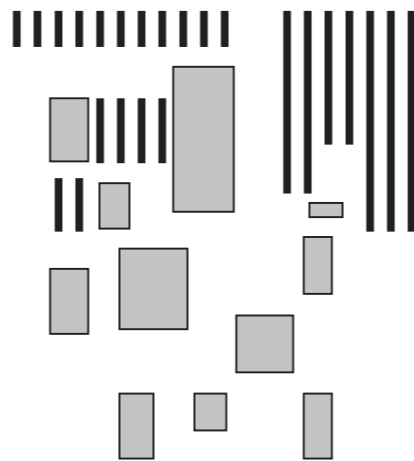
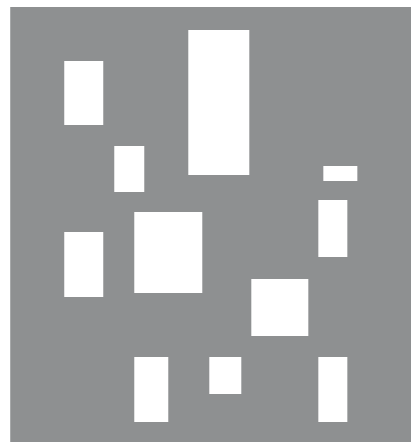
In the graduation project the ensemble is transformed into a GGZ complex where people can be treated and residence who suffer from stress, burnout and depression. The machine hall will get the new function of a treatment centre combined with a small theatre and the weapon depot will be transformed into an open residential community. On the terrain there will also be a closed residential community and a gym realized in new buildings.





Hembrug

Campus North



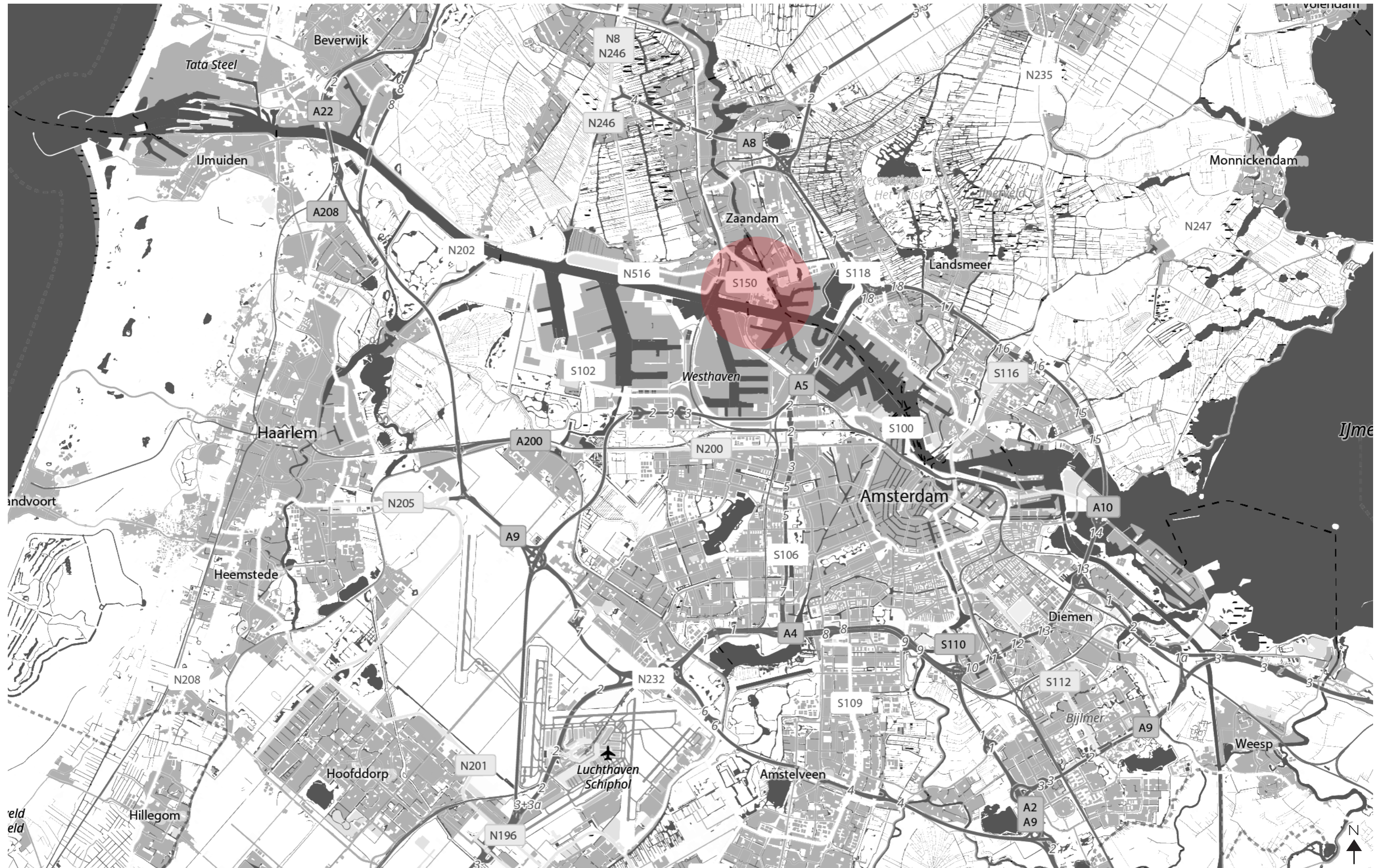
Shared public space

Forest edge

Structure

Hembrug

Amsterdam metropolitan area 1:200.000



Campus North

Hembrug 1:8000



Campus North

Existing situation 1:1000



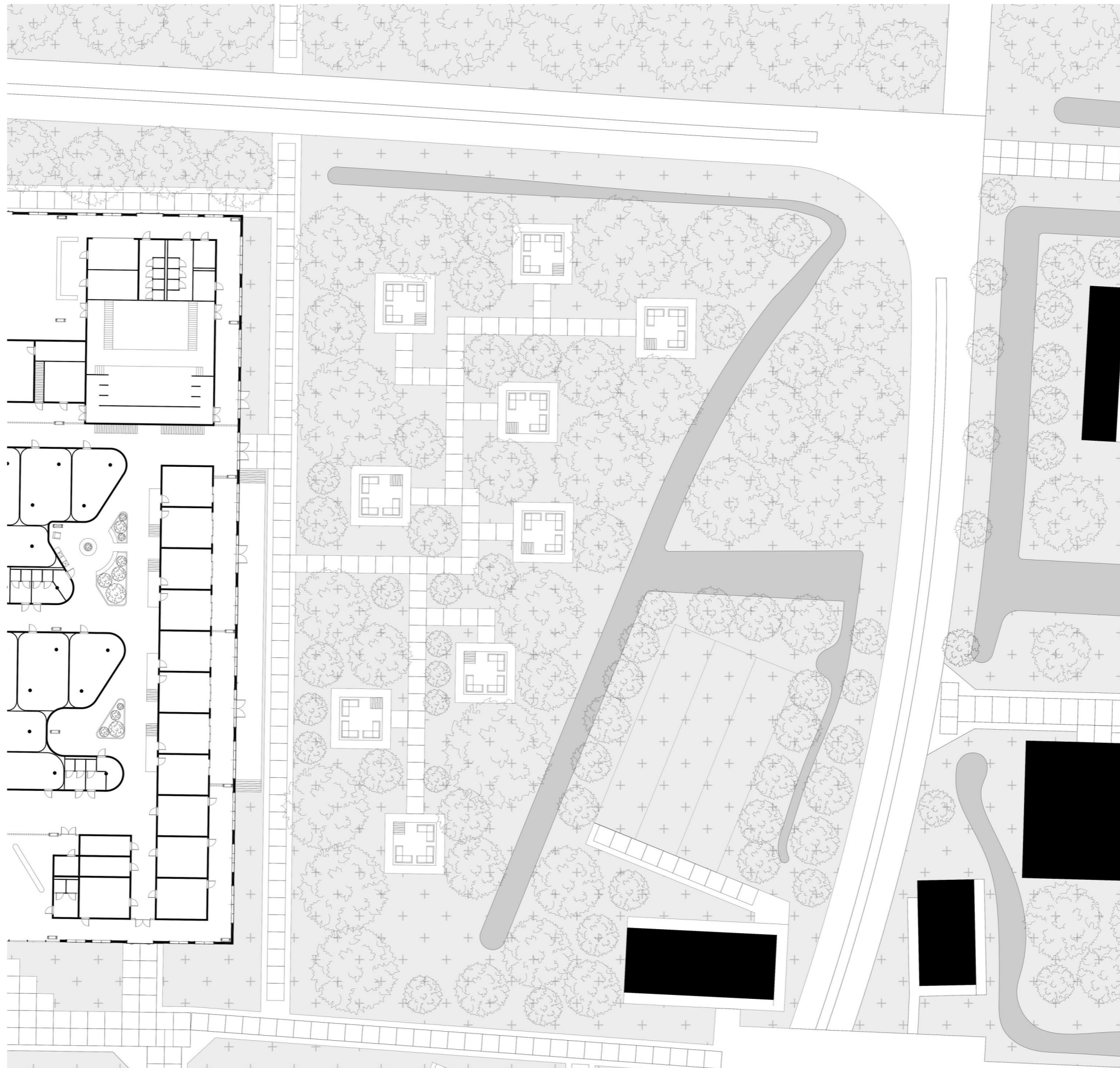
Campus North

Masterplan 1:1000



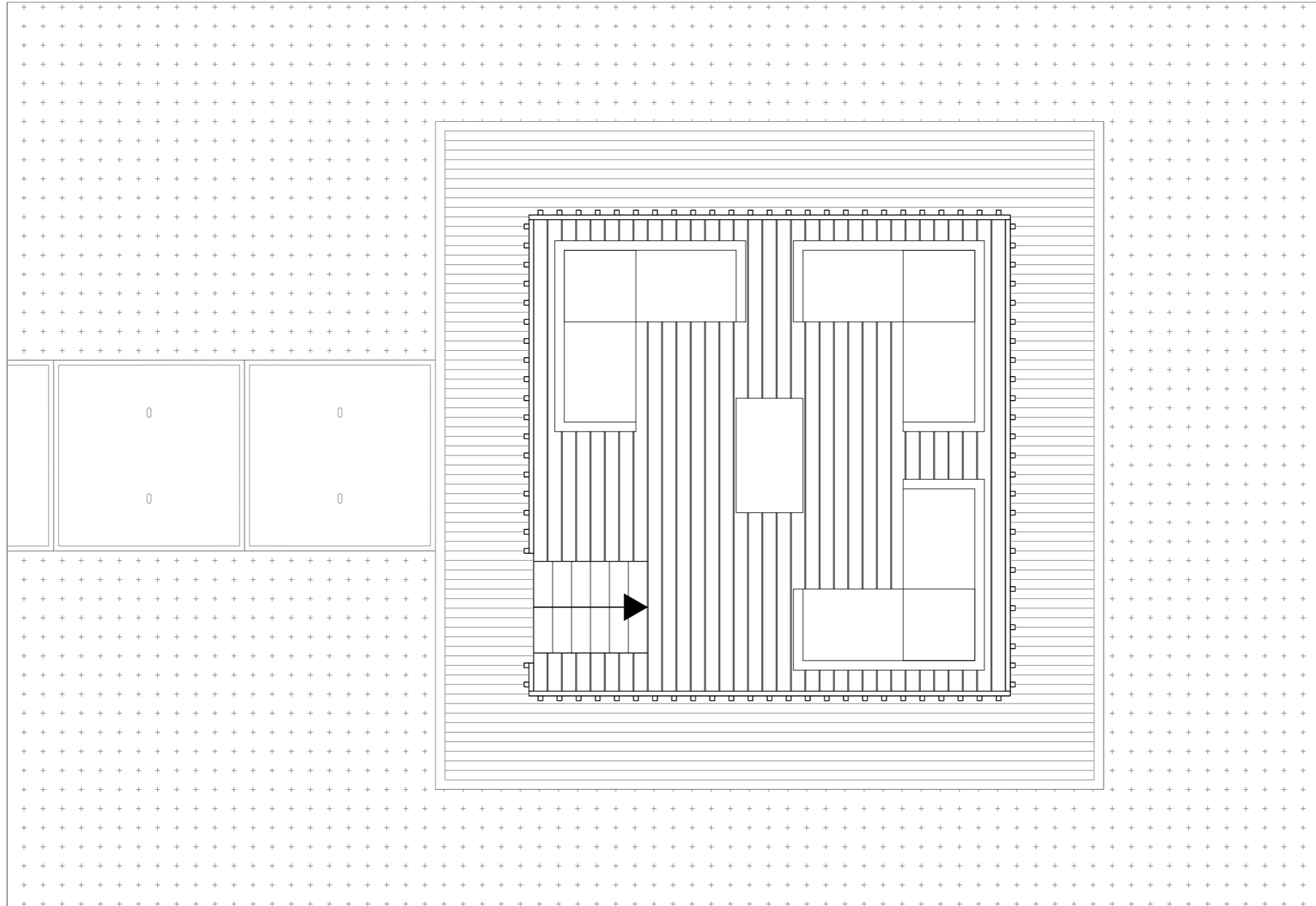
Forest Pavilions

Site 1:500



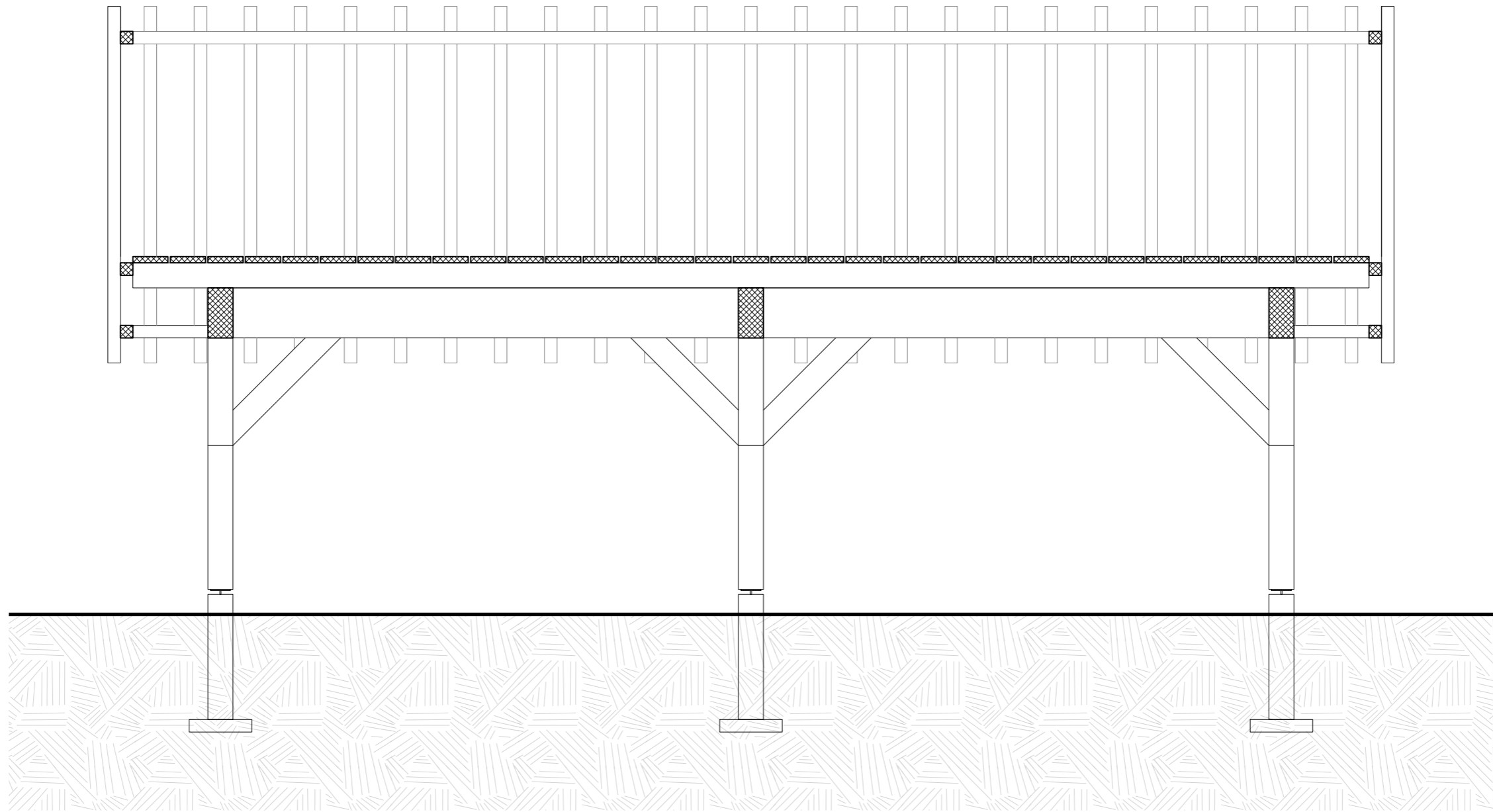
Forest Pavilions

Plan 1:50



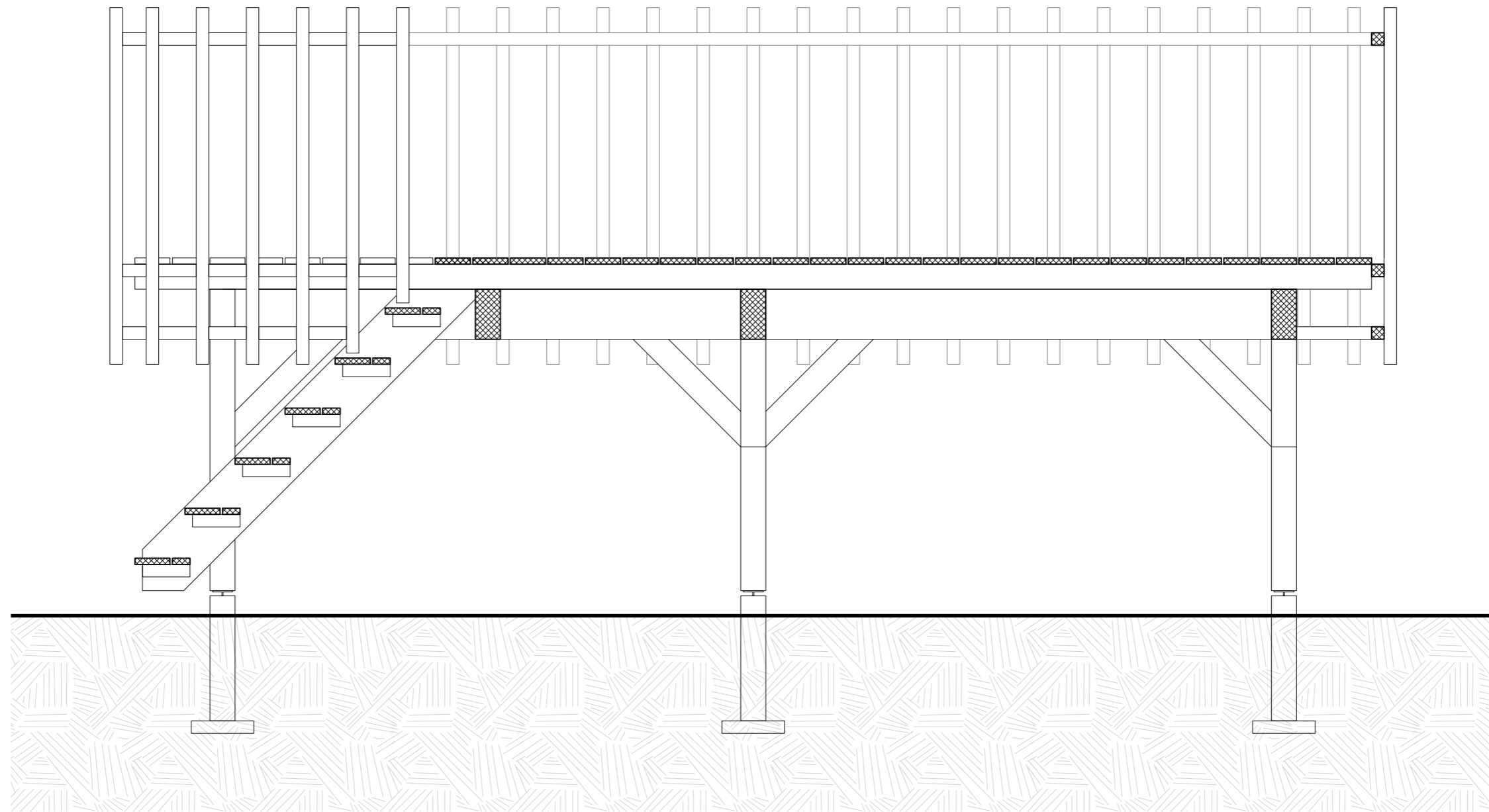
Forest Pavilions

Section 1:20

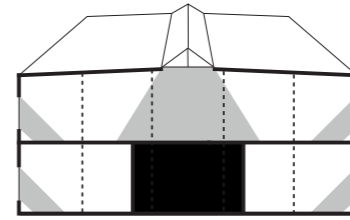
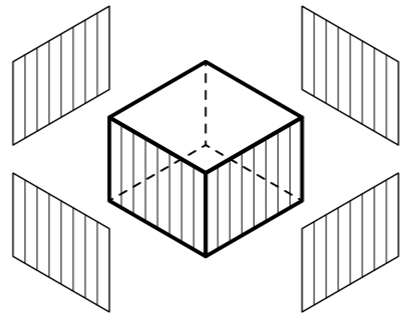
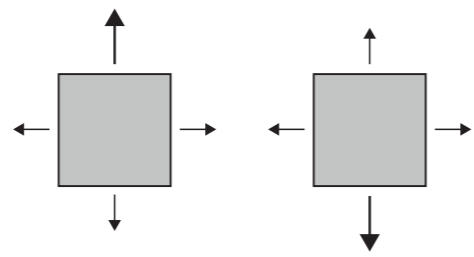


Forest Pavilions

Section stairs 1:20

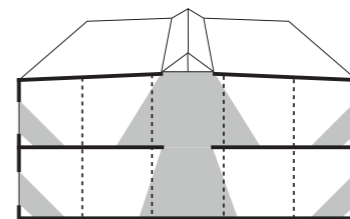
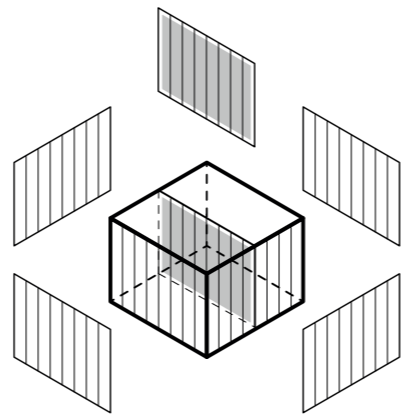
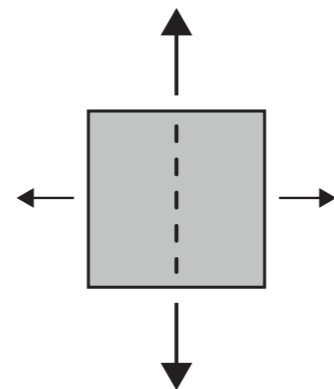






Building 8

Weapon Depot



Orientation over time

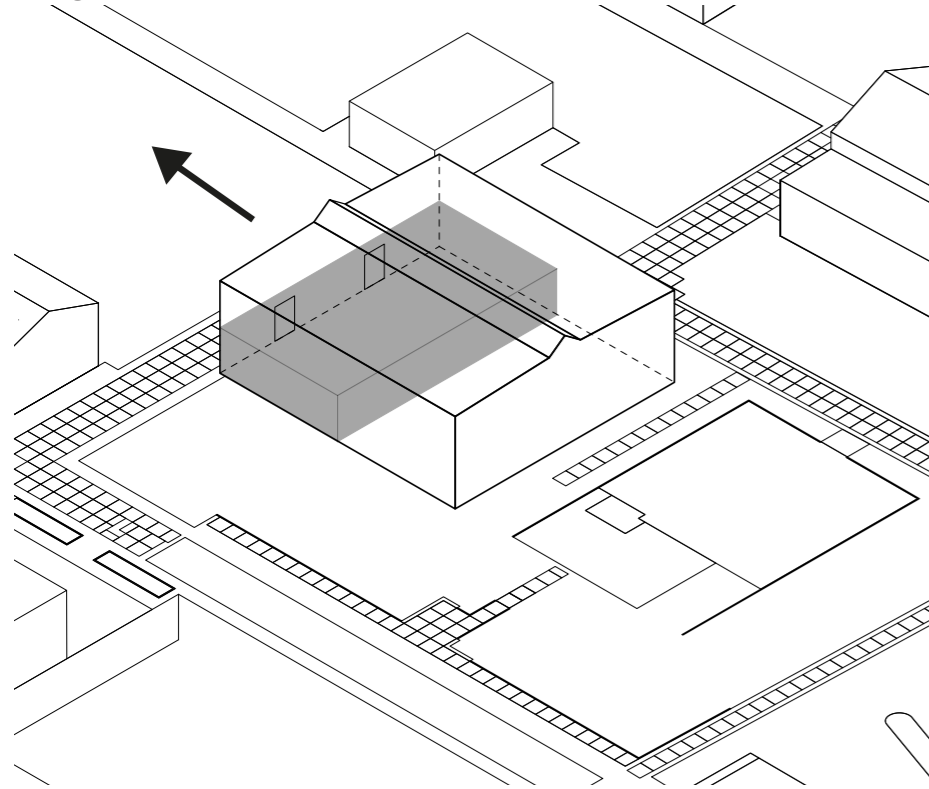
Facades and rhythm

Skylight and structure

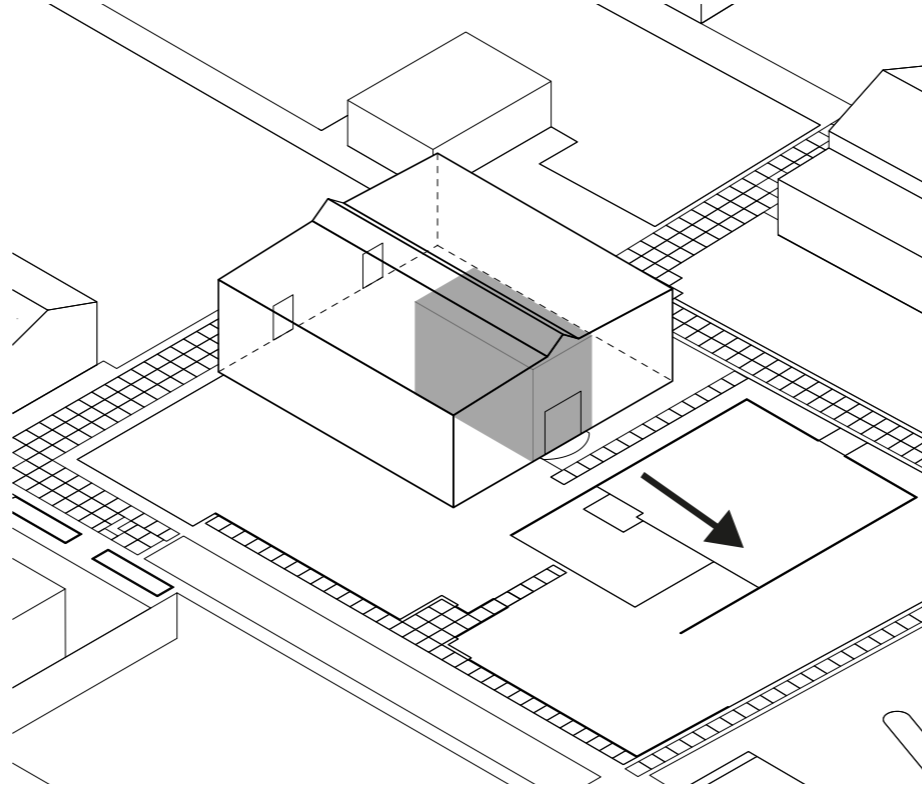
Weapon Depot

Concept

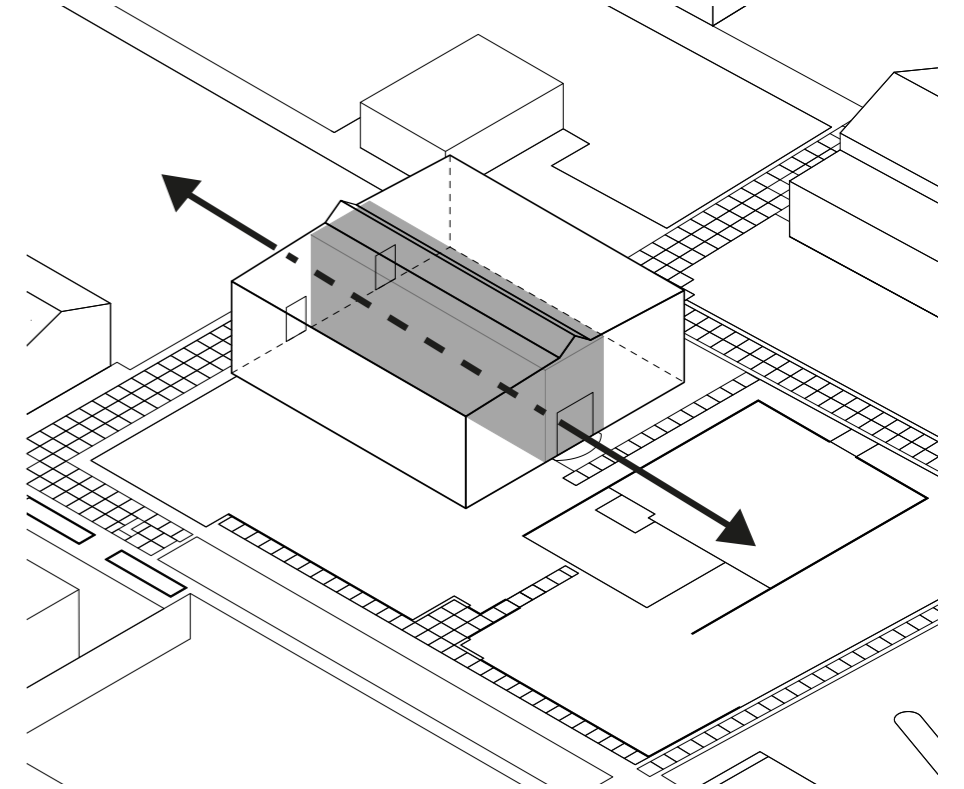
Original orientation 1899



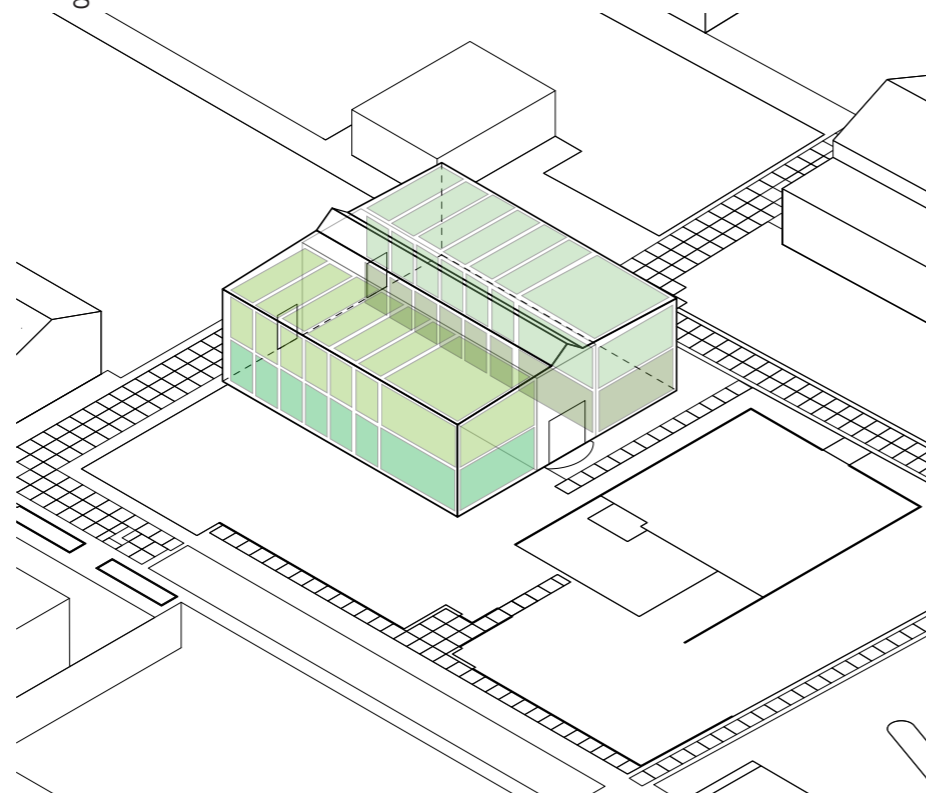
First redesign 1950



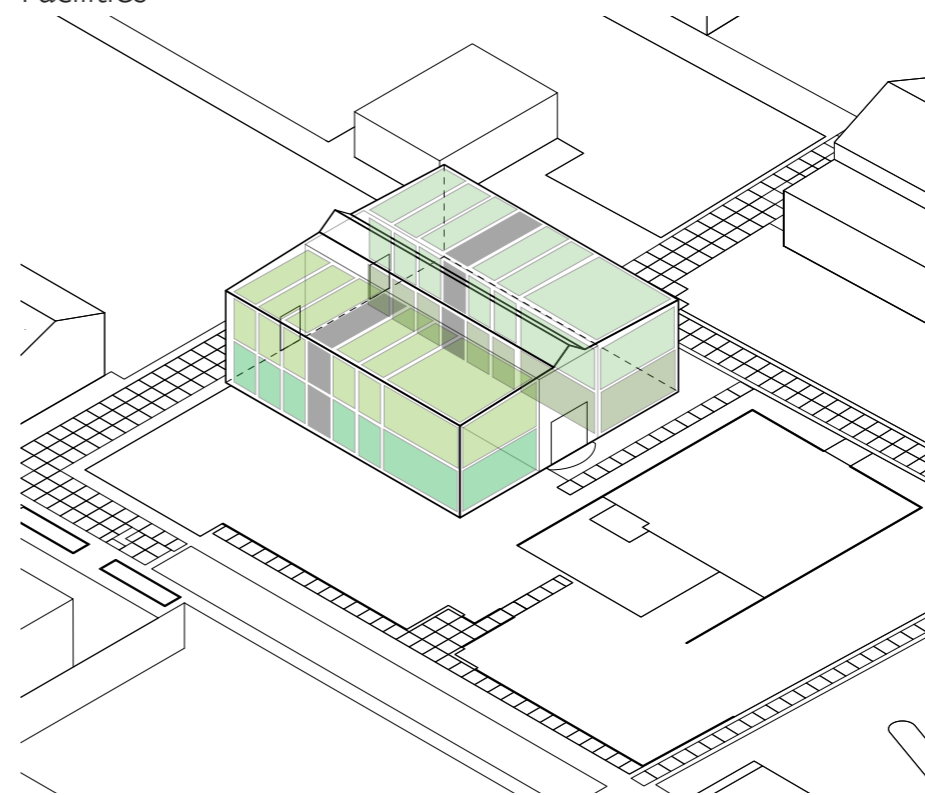
Interior North-South reconnection



Program

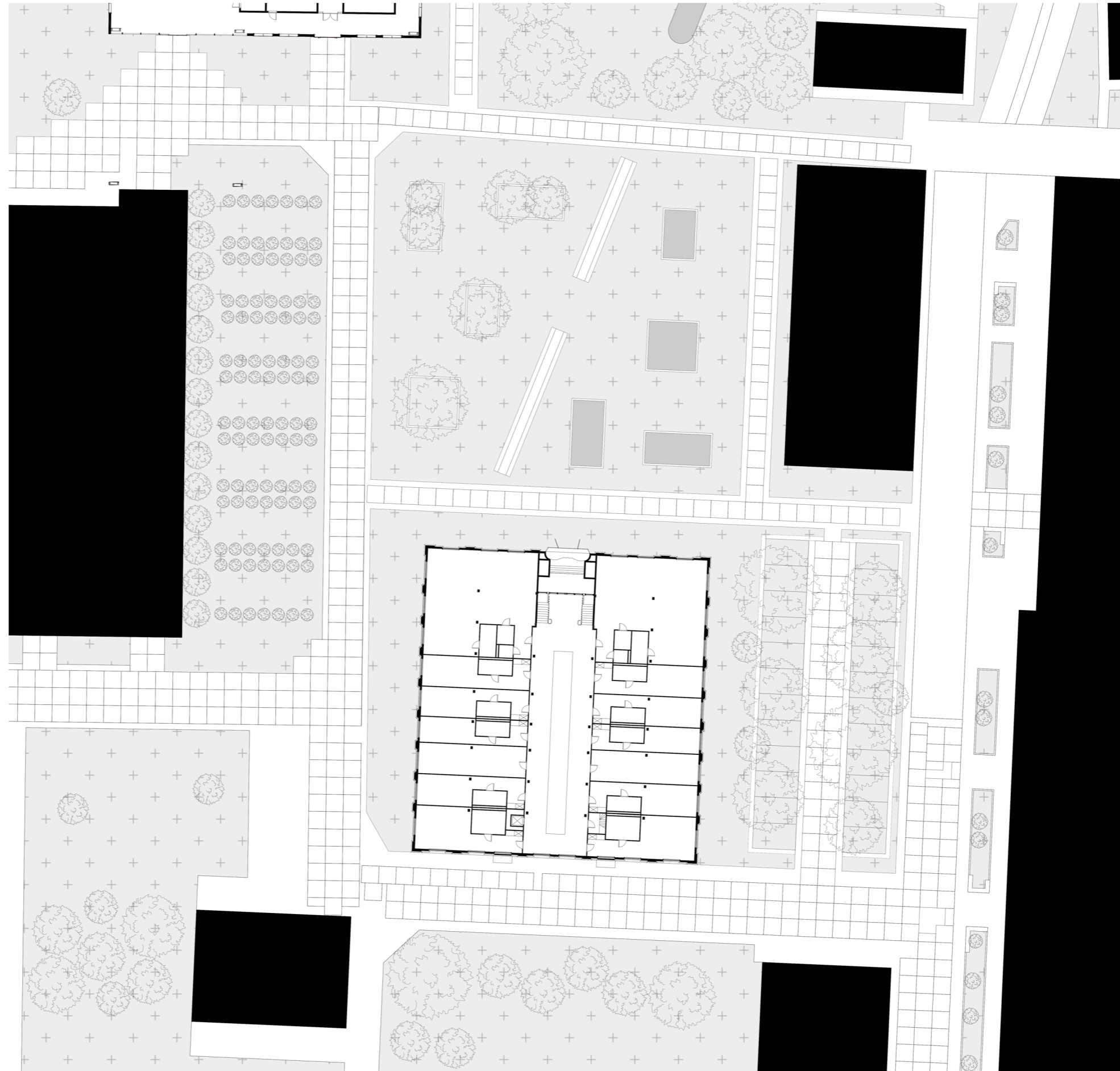


Facilities



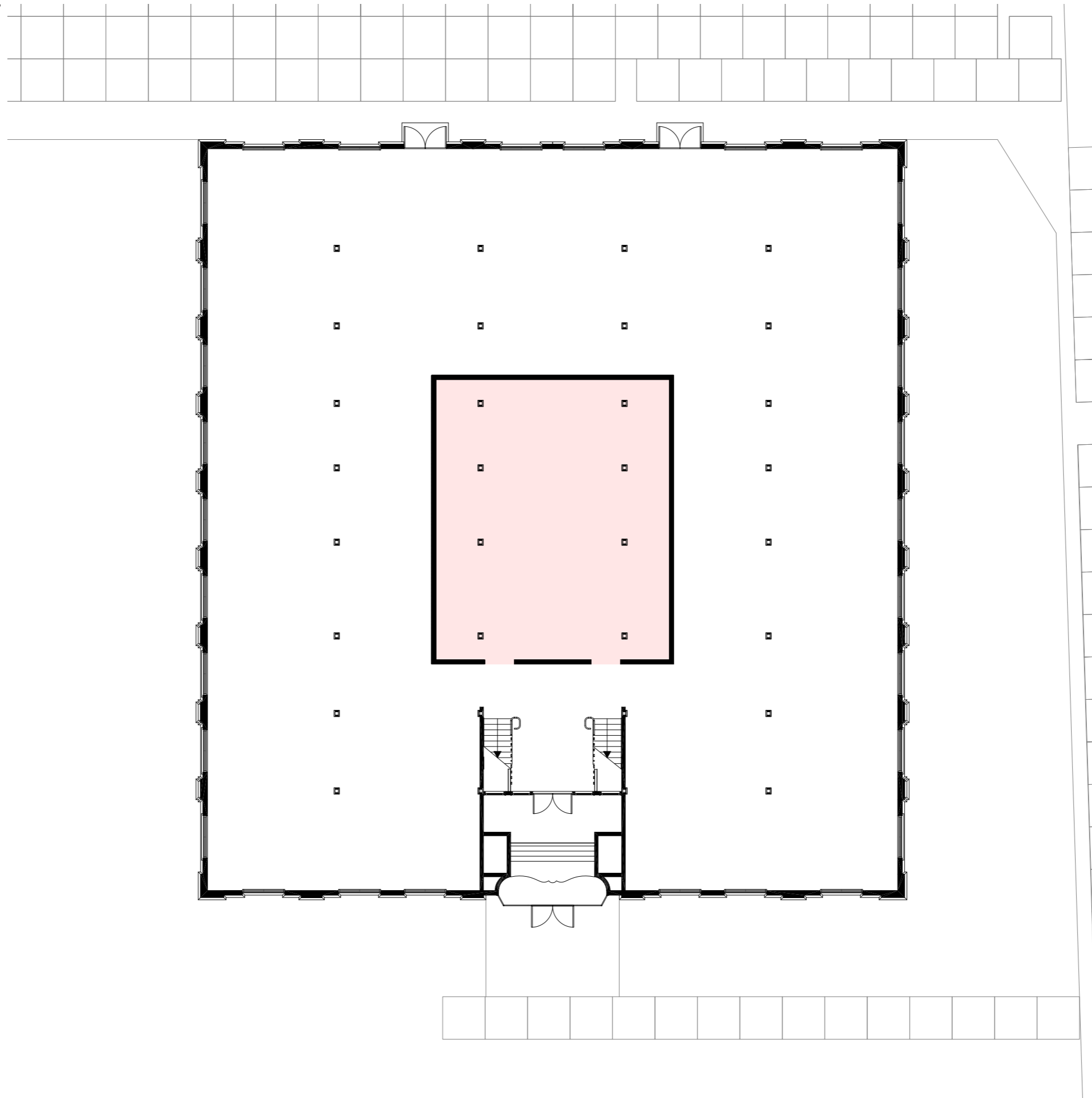
Weapon Depot

Site 1:500



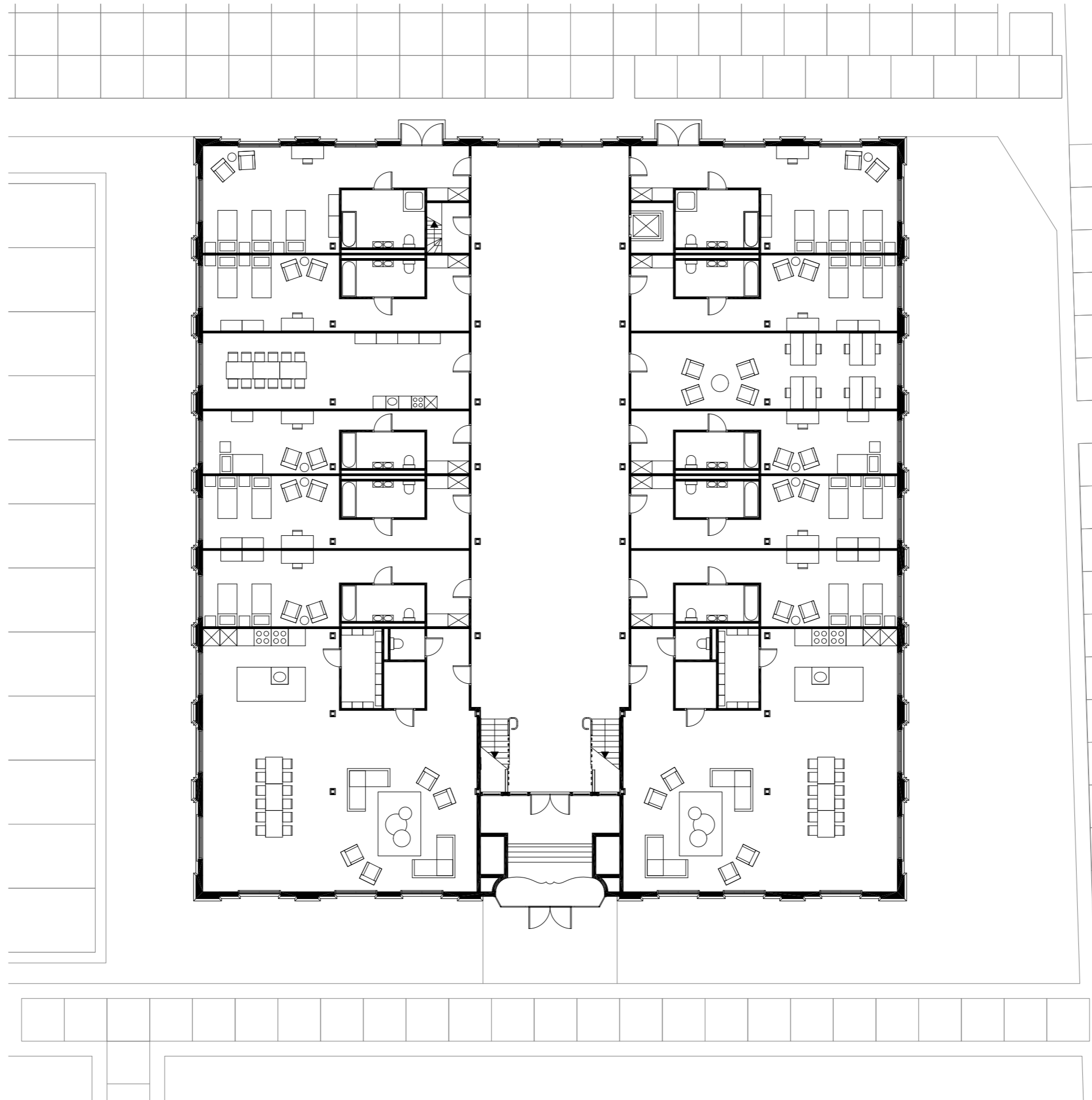
Weapon Depot

Ground floor existing
and demolition 1:200



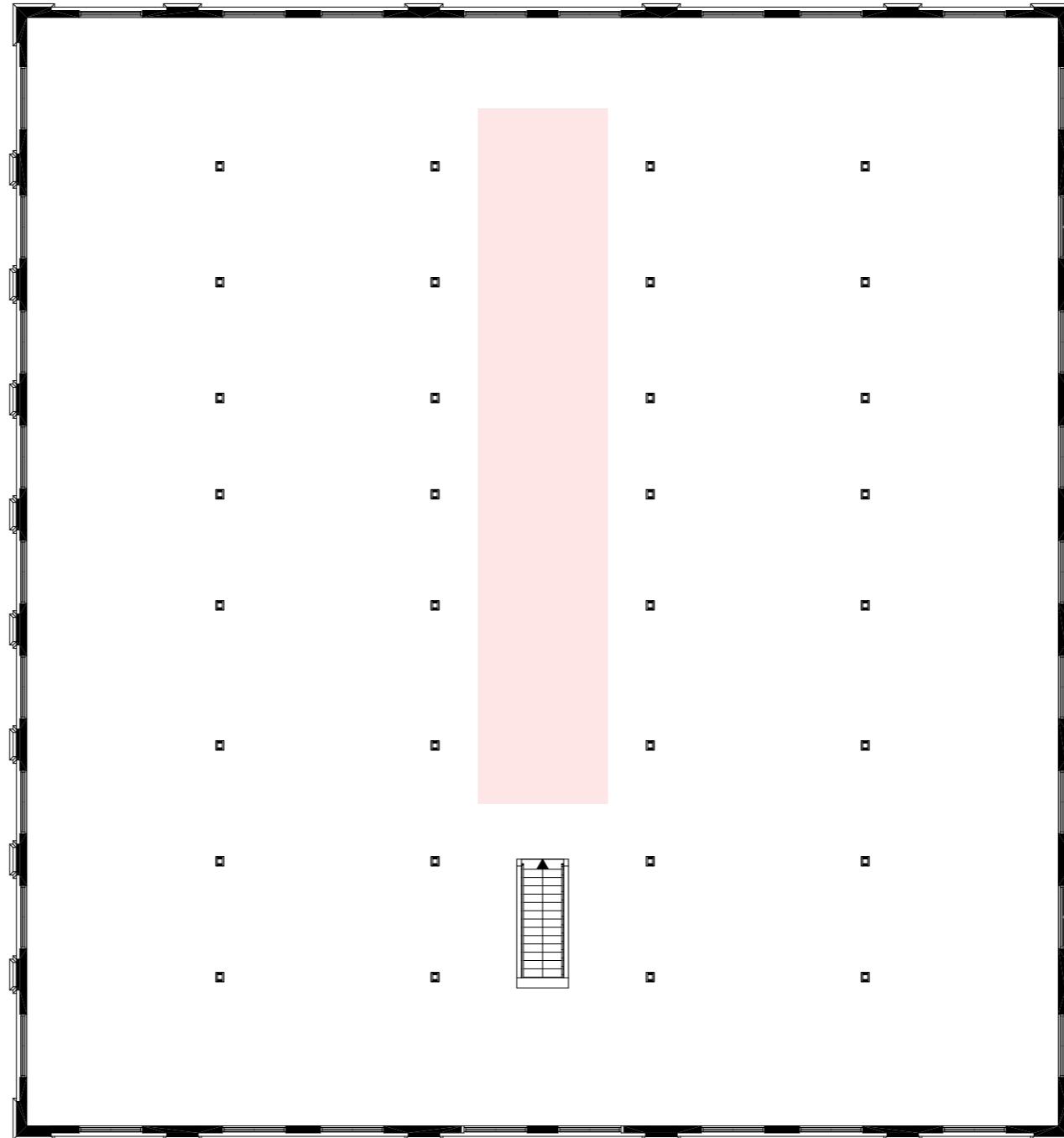
Weapon Depot

Ground floor 1:200



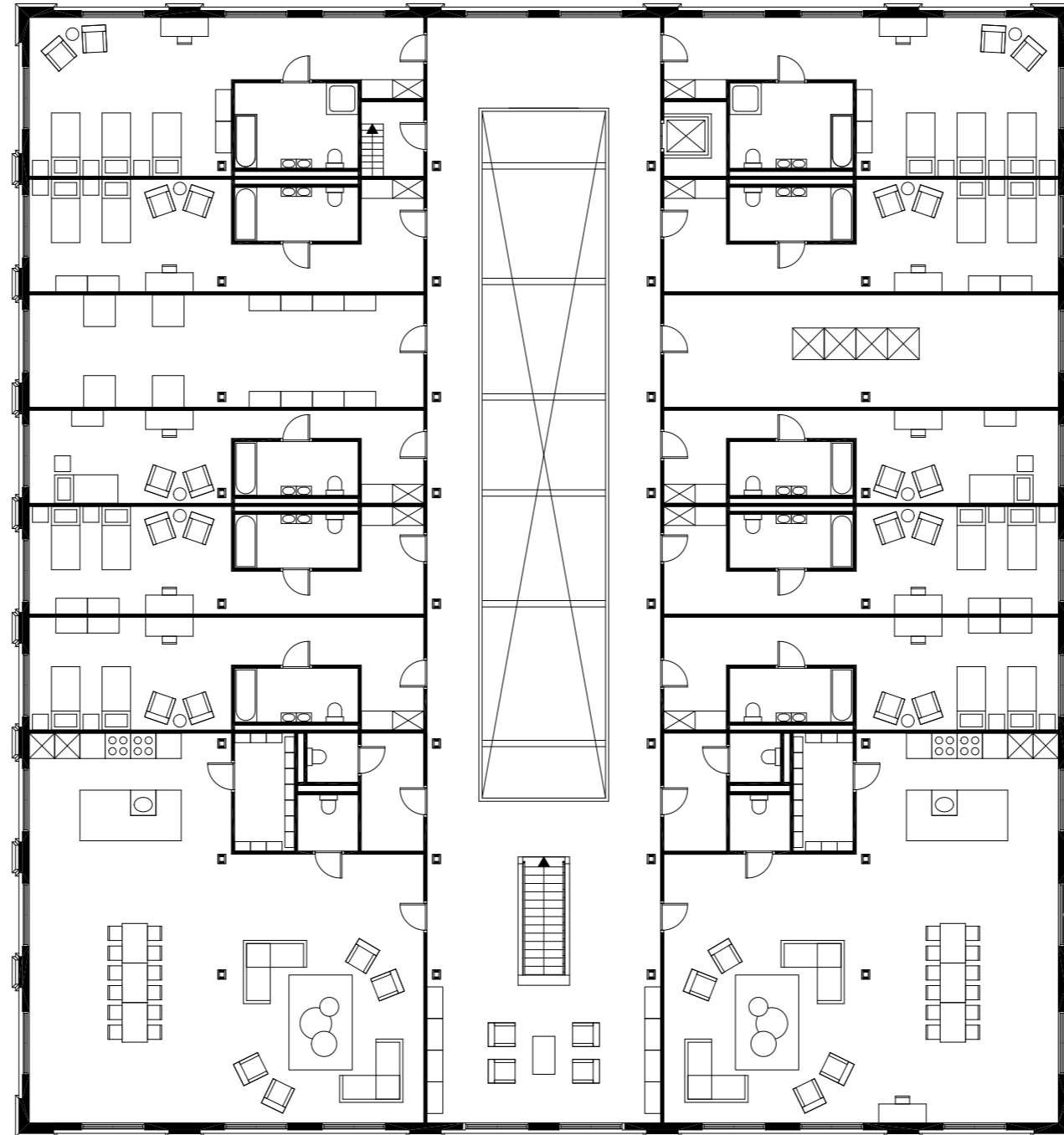
Weapon Depot

First floor existing and demolition 1:200



Weapon Depot

First floor 1:200



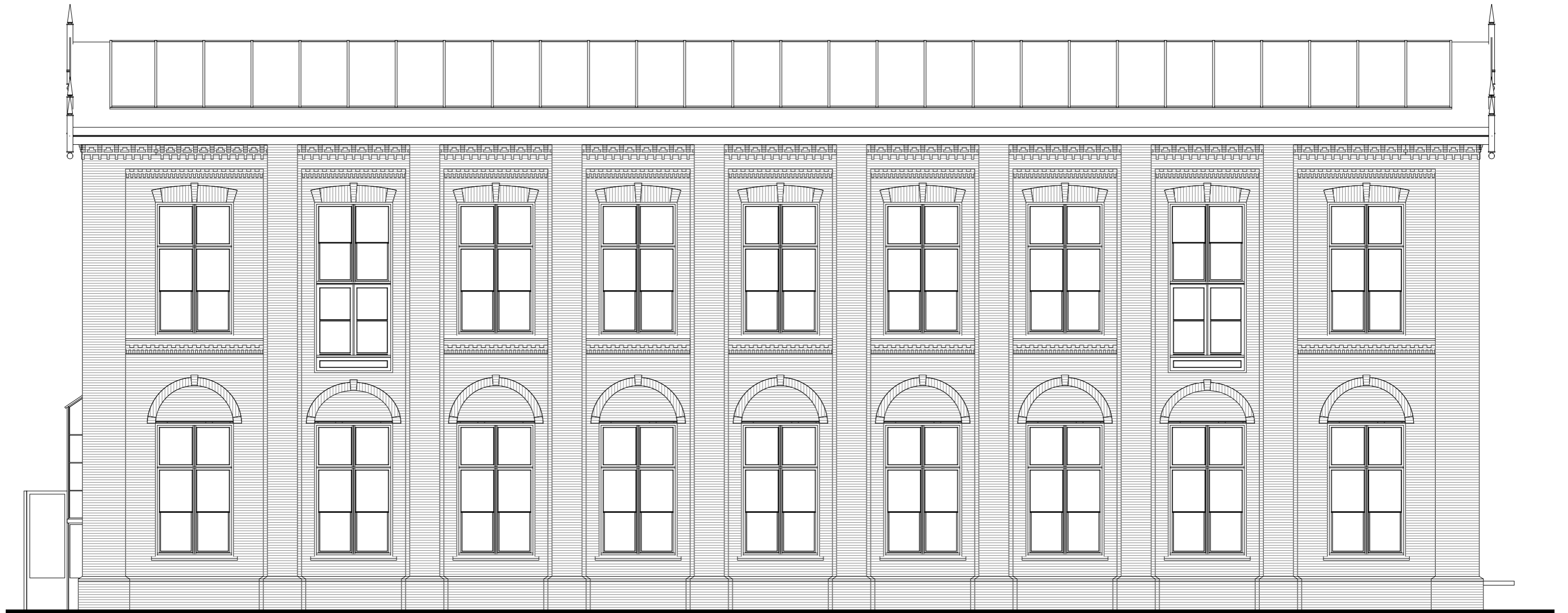
Weapon Depot

North elevation 1:100



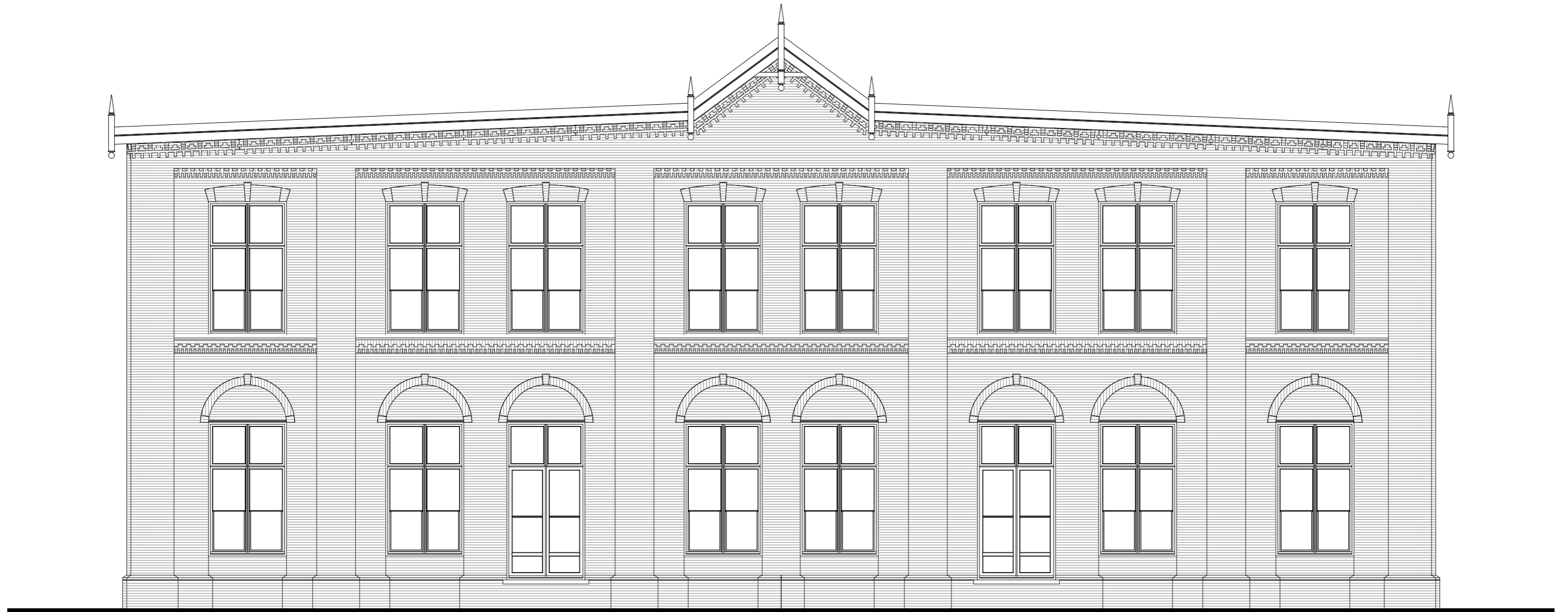
Weapon Depot

West elevation 1:100



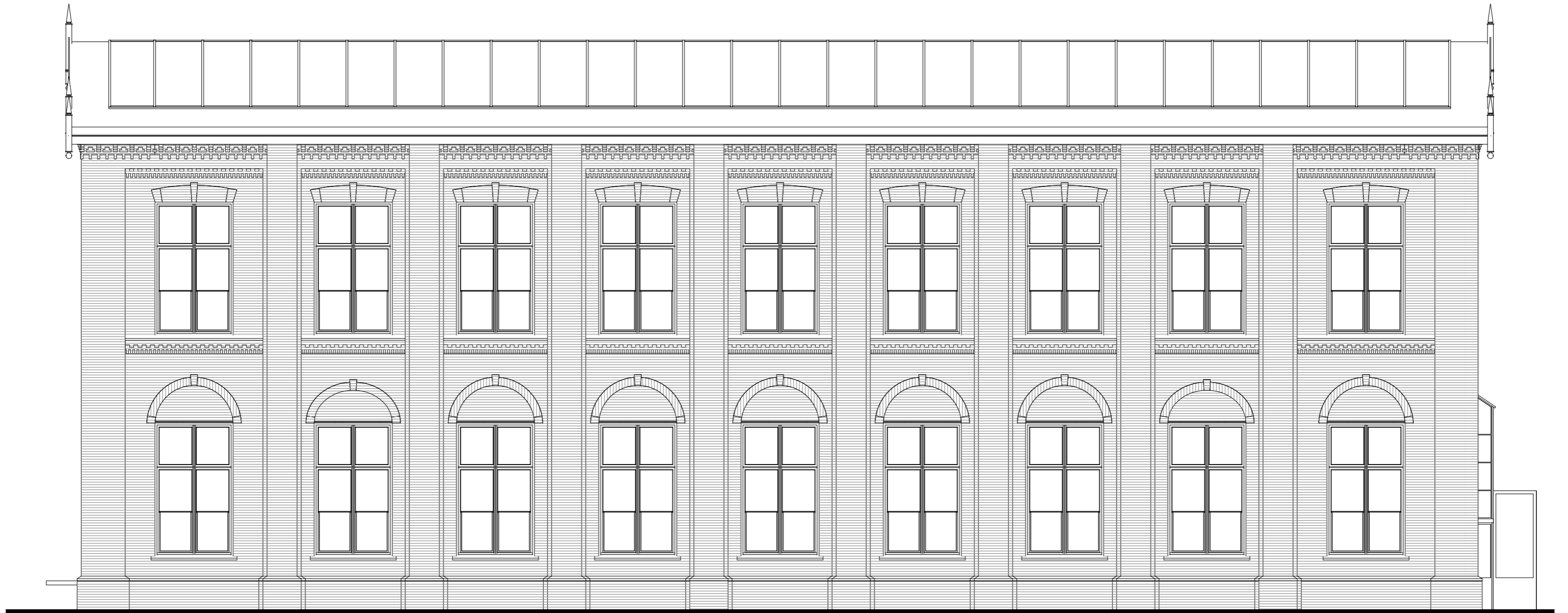
Weapon Depot

South elevation 1:100



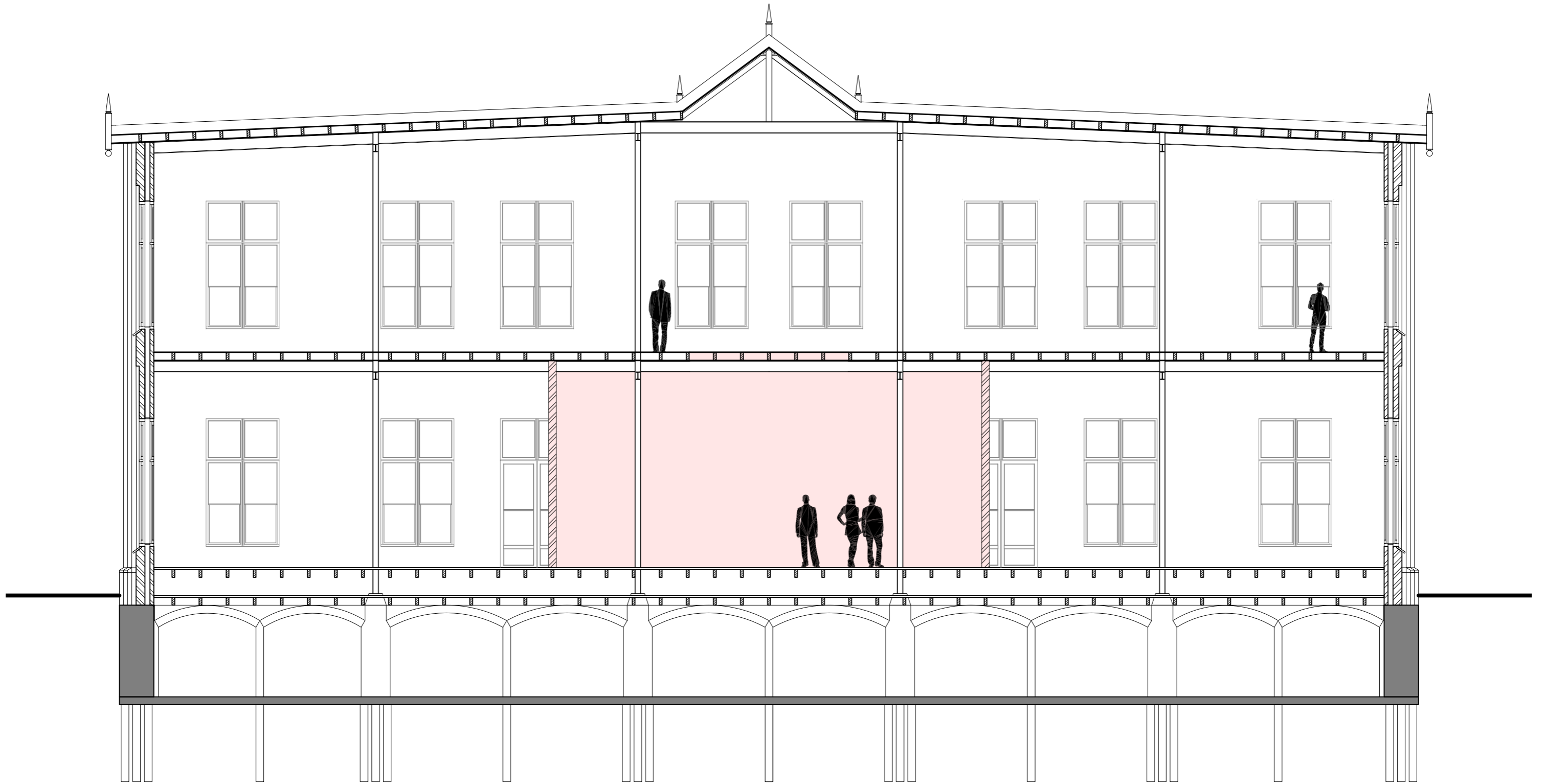
Weapon Depot

East elevation 1:100



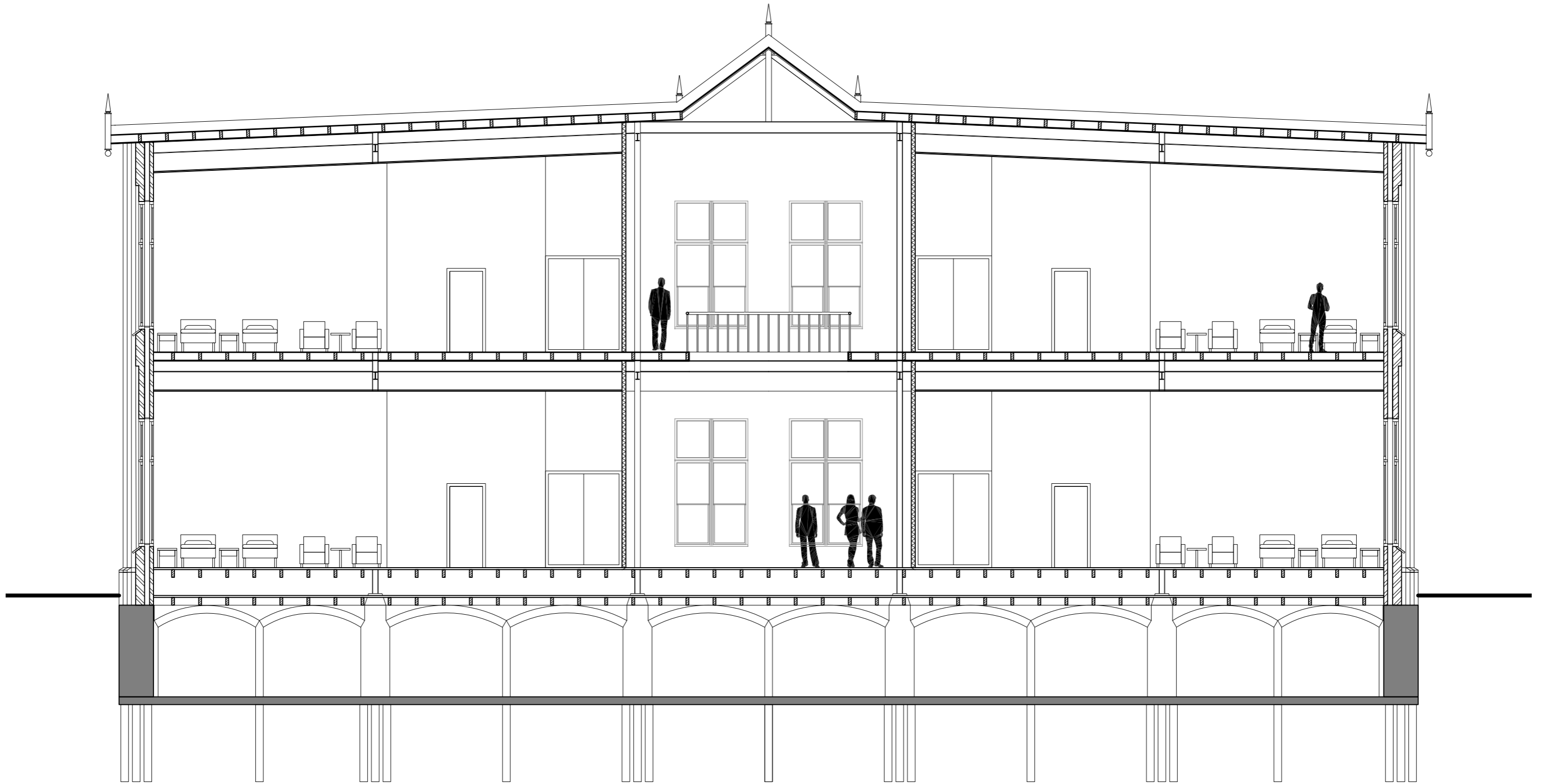
Weapon Depot

Section existing and demolition 1:100

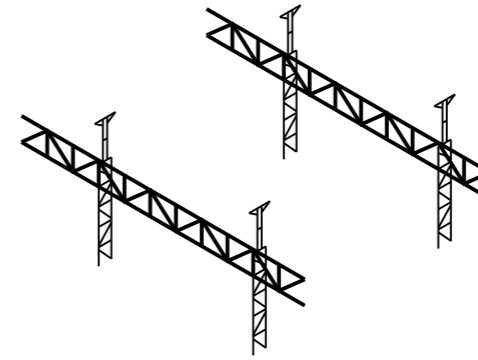
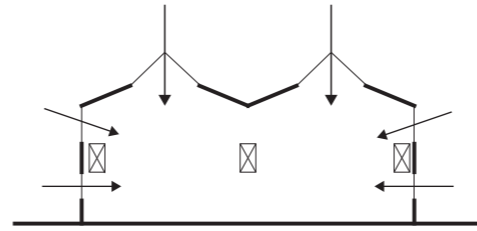
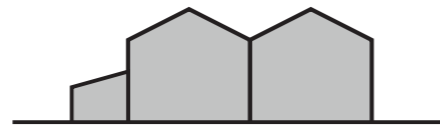


Weapon Depot

Section 1:100

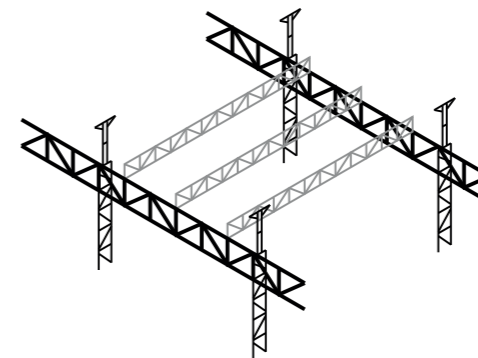
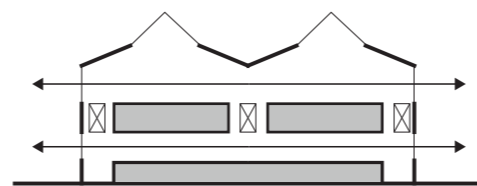
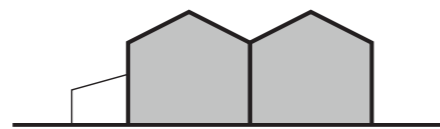






Building 320

Machine hall



Typology

Facade and daylight

Construction

Machine Hall

Concept

Creating new entrances

Meeting spaces

Removing the annexes

Routing

Connect the halls

Entrance halls

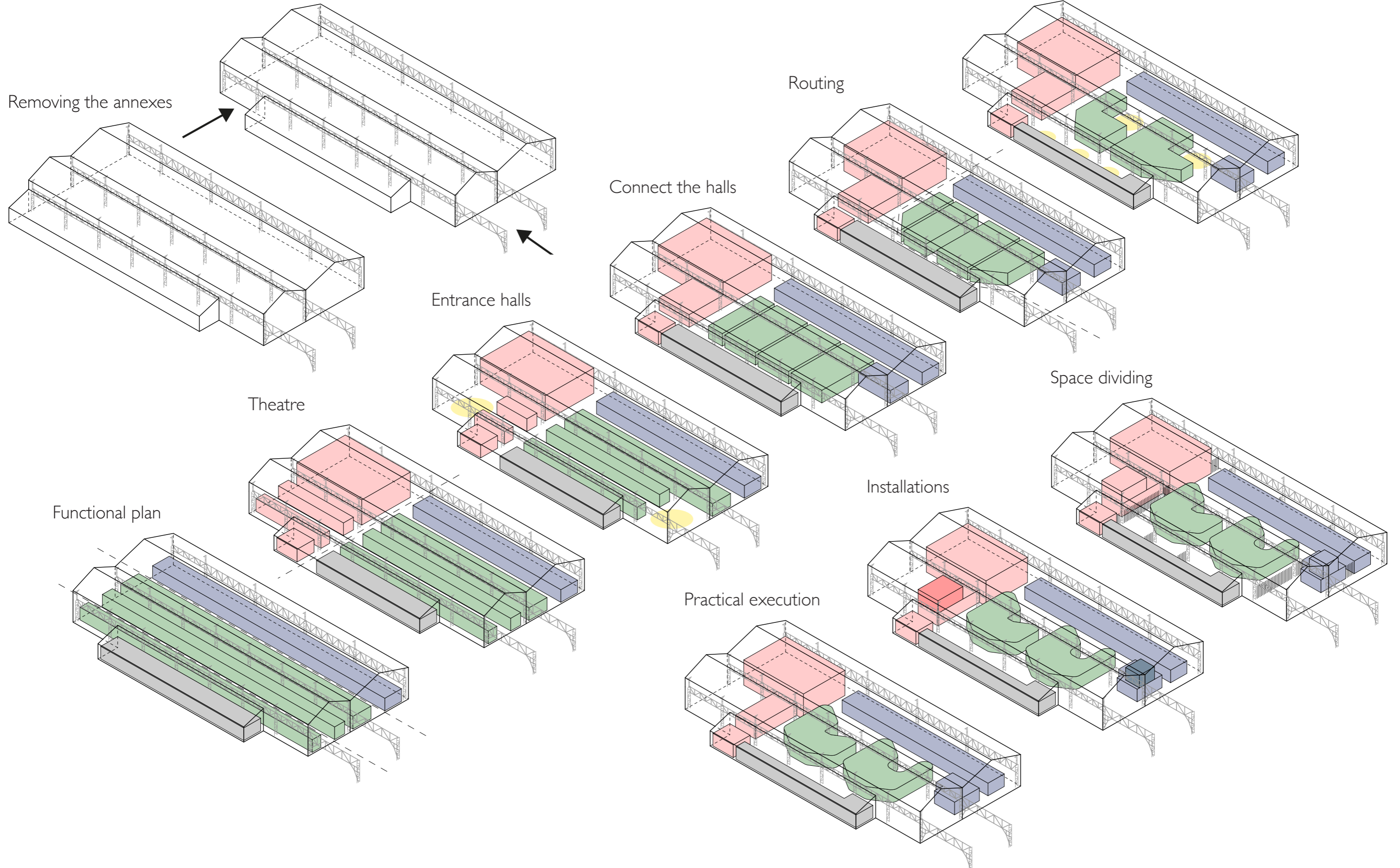
Space dividing

Theatre

Installations

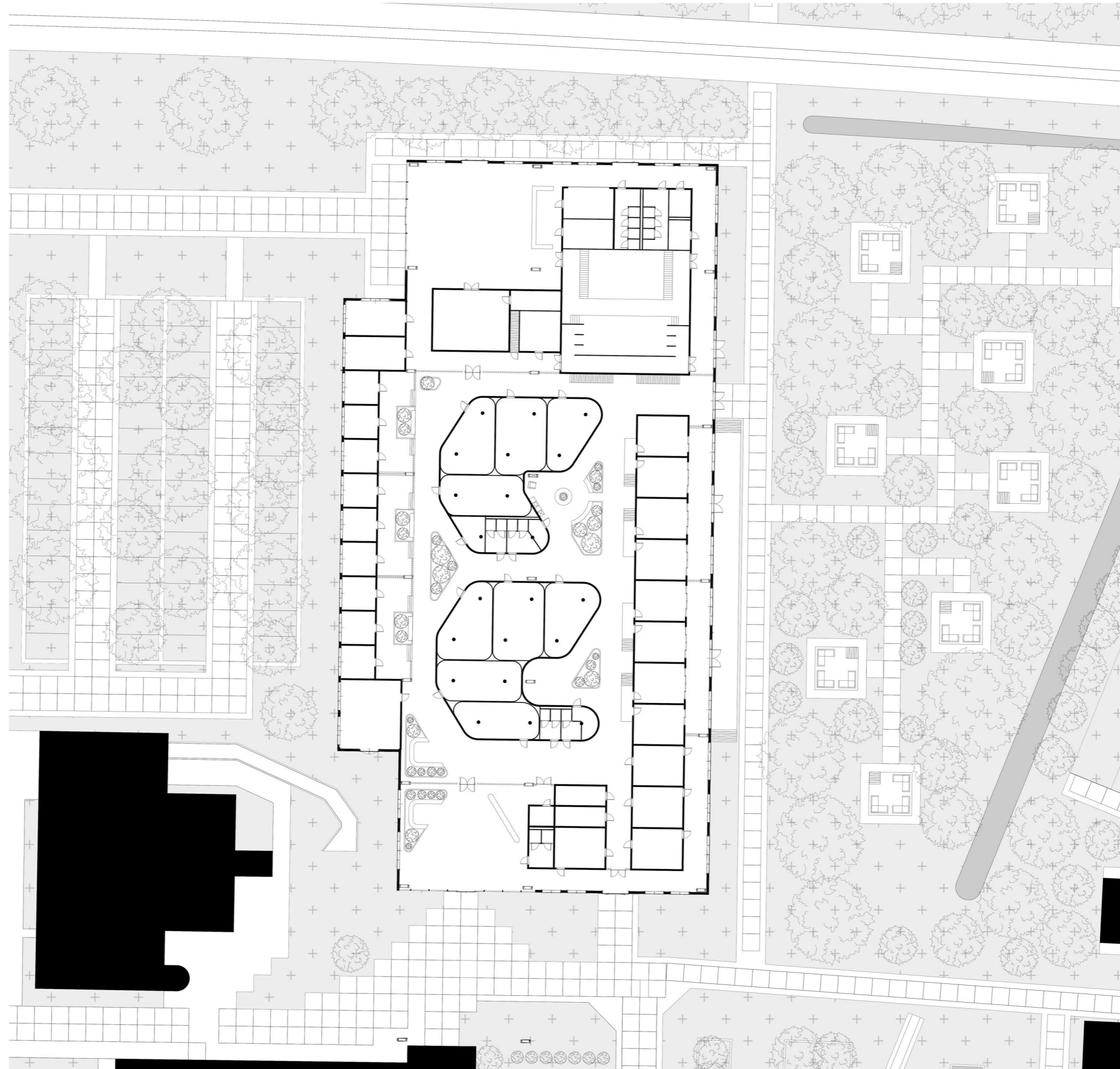
Functional plan

Practical execution



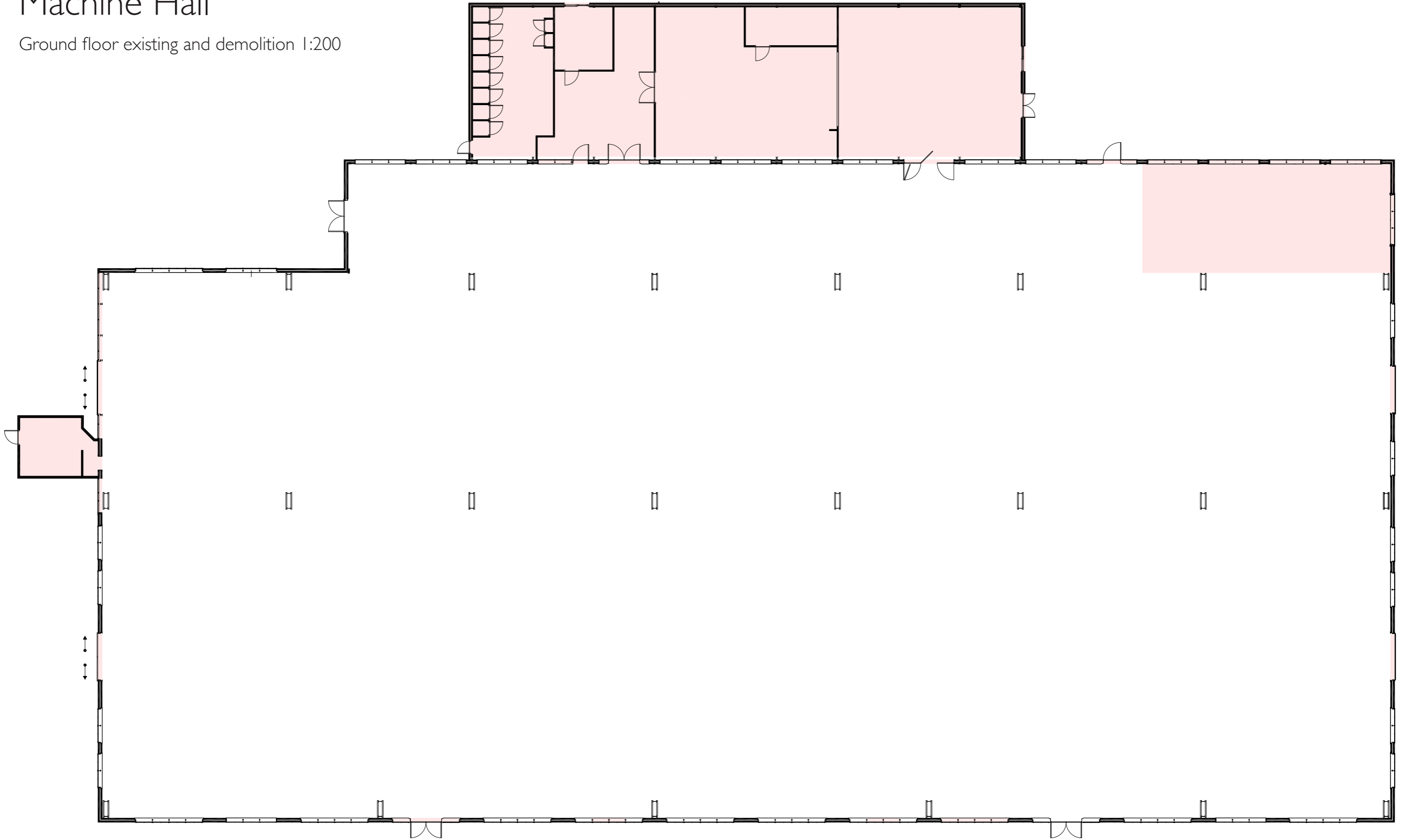
Machine Hall

Site 1:500



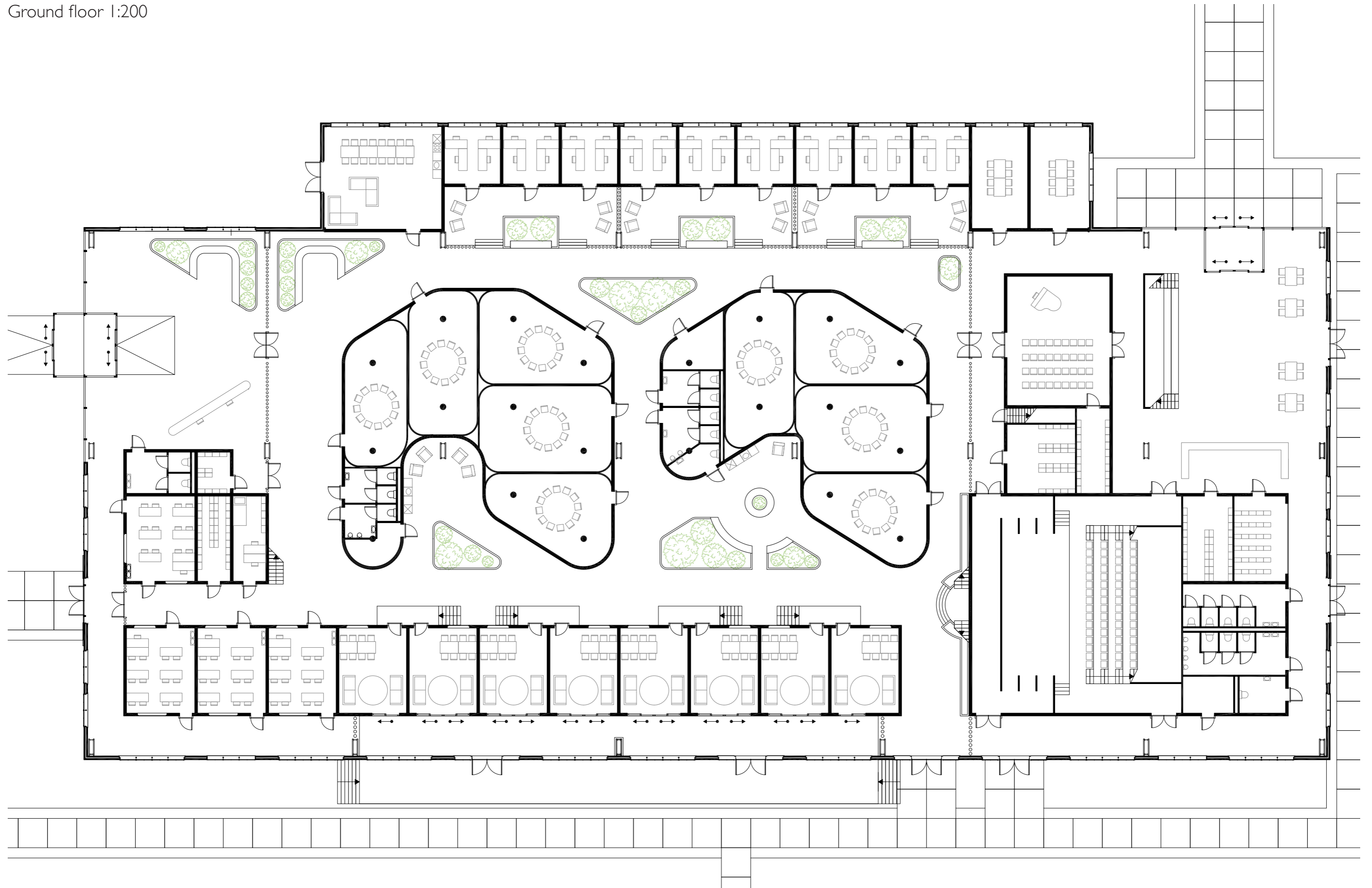
Machine Hall

Ground floor existing and demolition 1:200



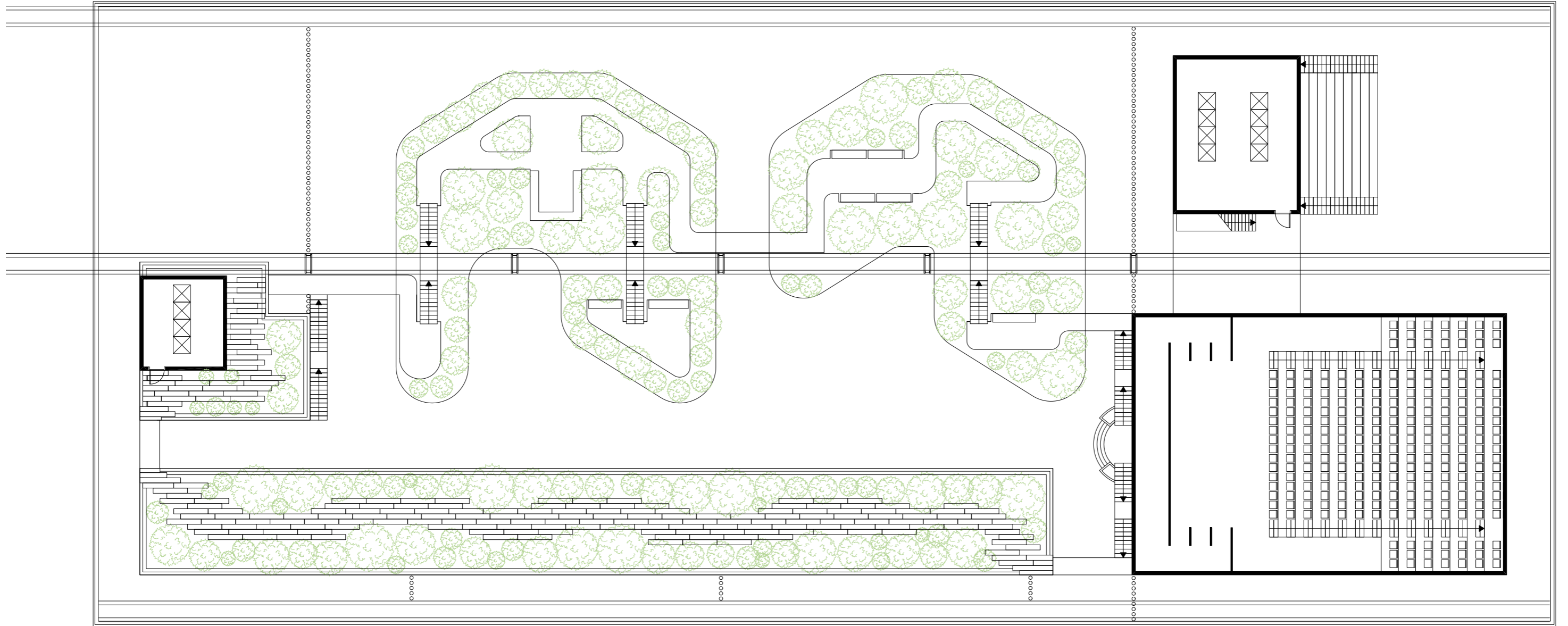
Machine Hall

Ground floor 1:200



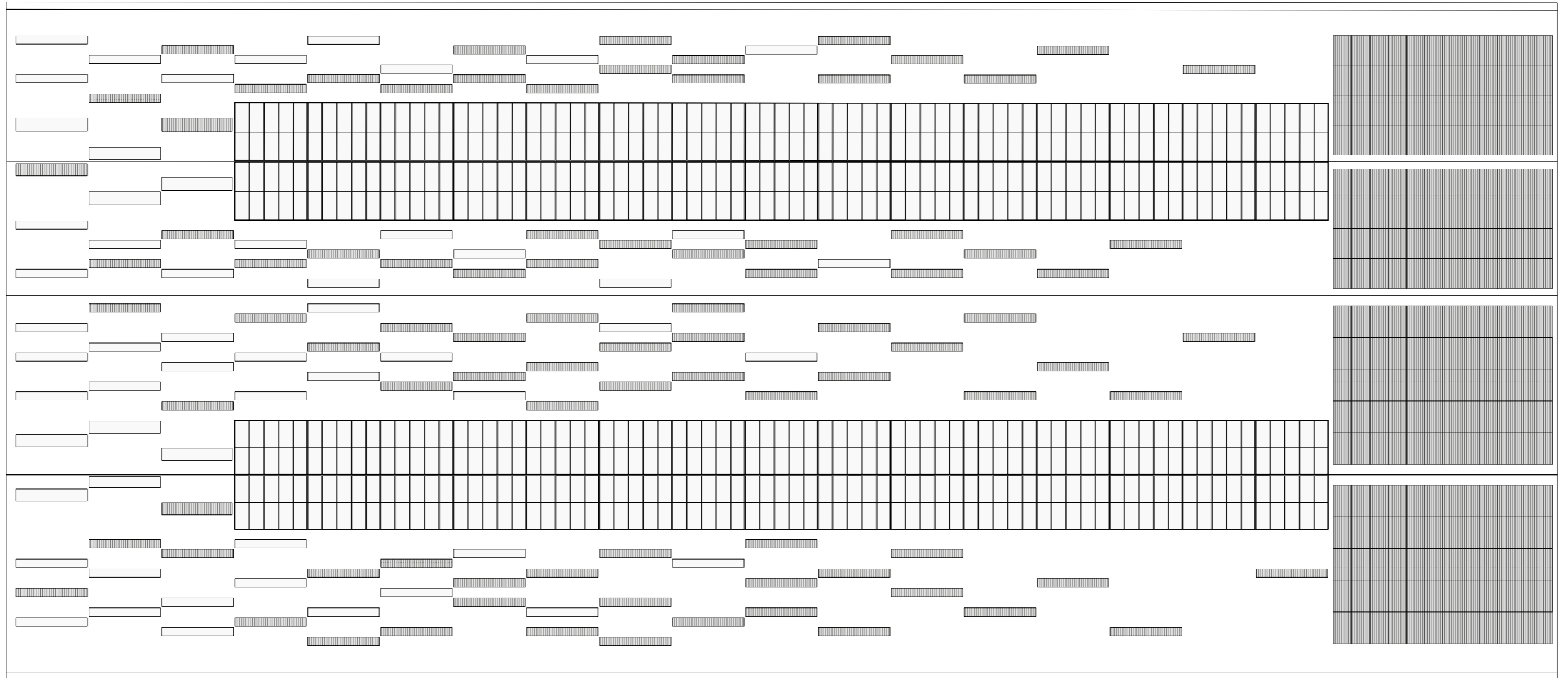
Machine Hall

First floor 1:200



Machine Hall

Roof 1:200



Machine Hall

South Elevation existing and demolition 1:200



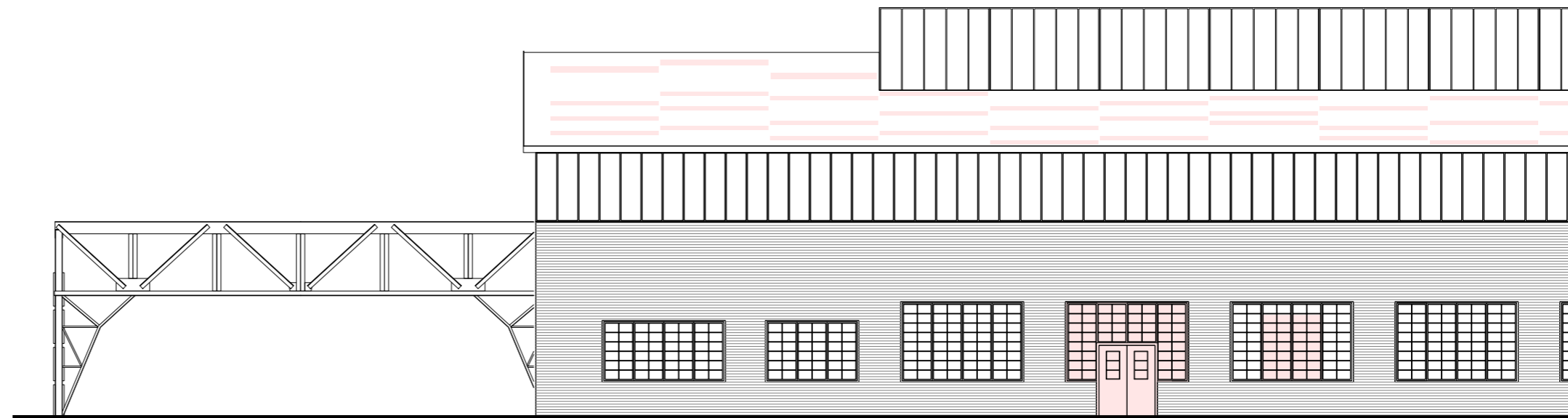
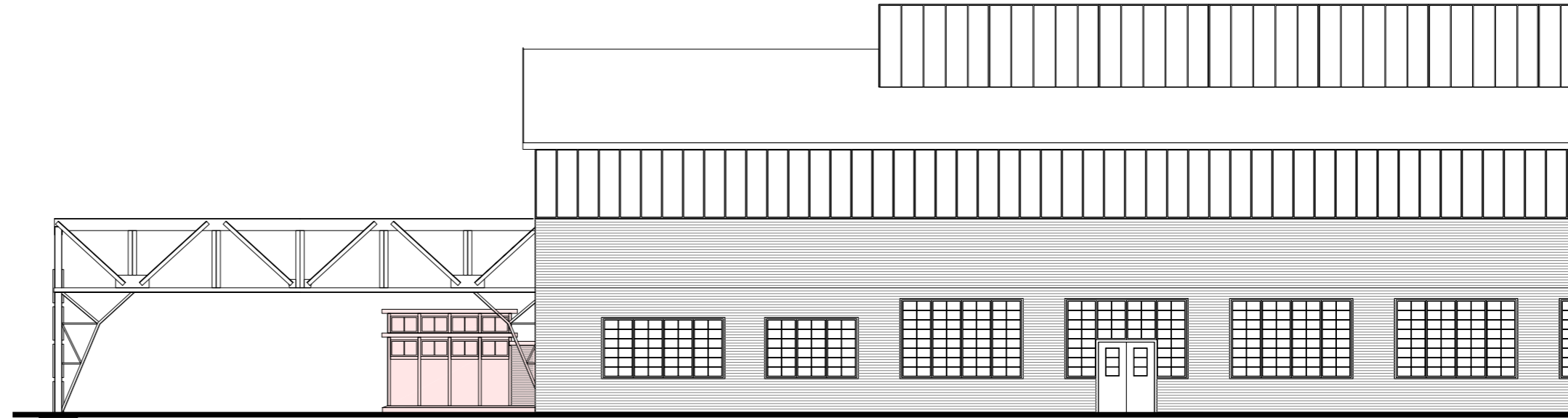
Machine Hall

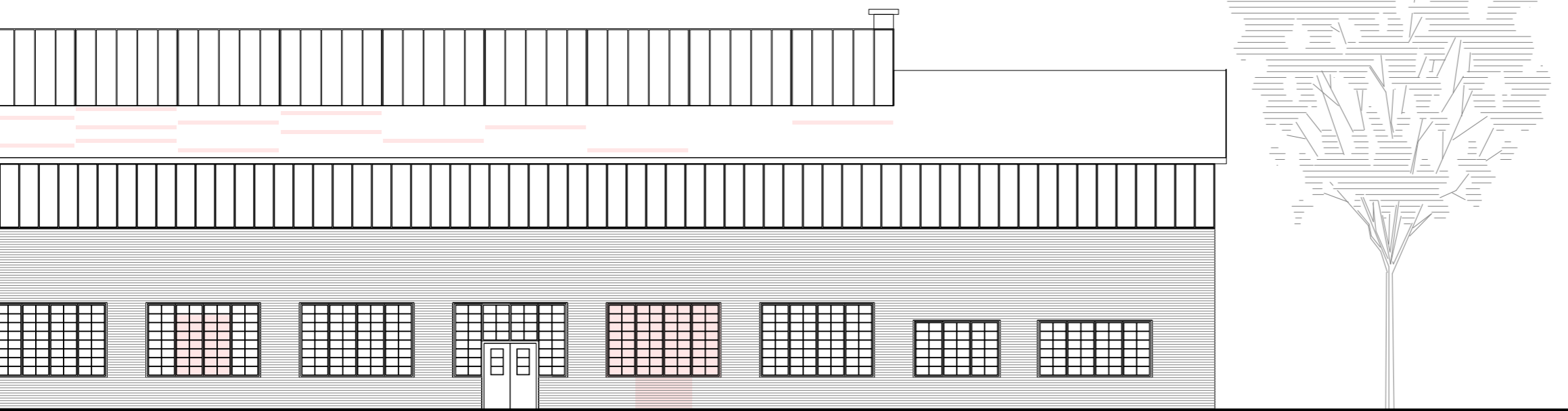
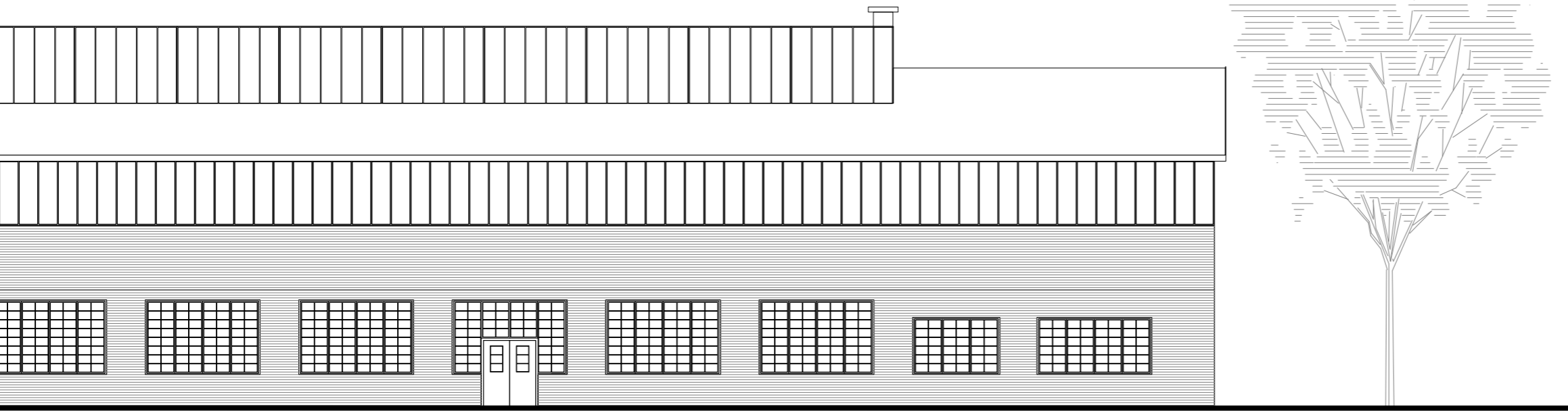
South elevation 1:200



Machine Hall

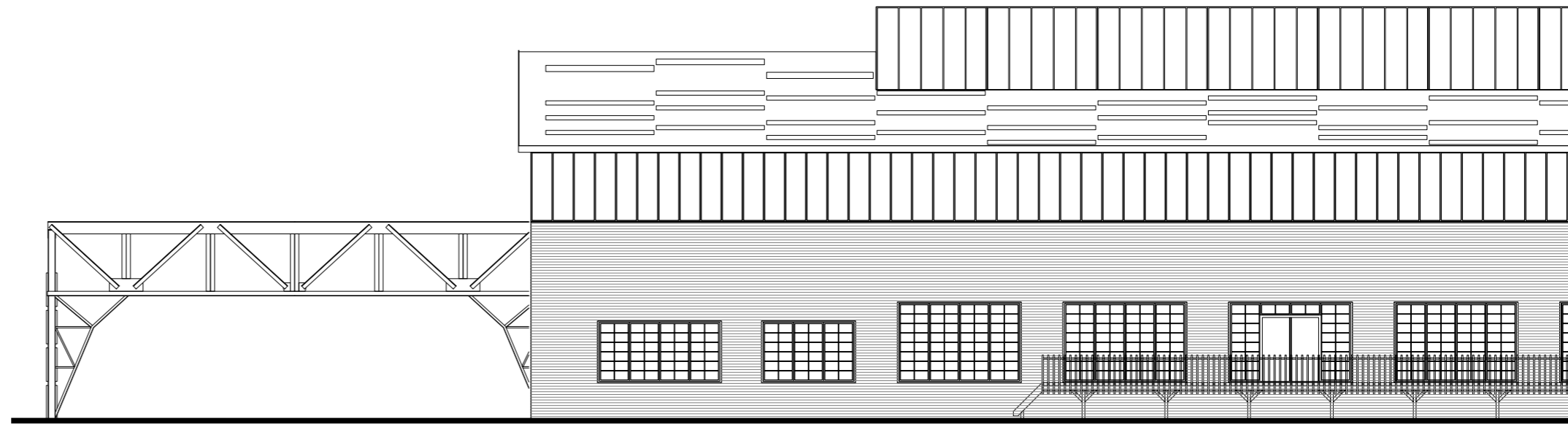
East elevation existing and demolition 1:200

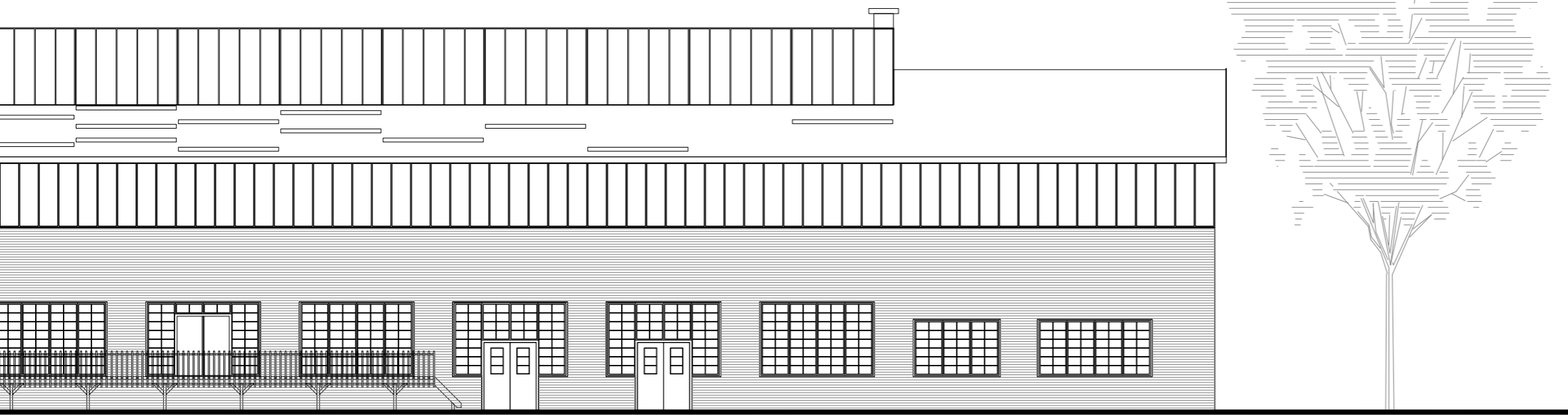




Machine Hall

East elevation 1:200





Machine Hall

North elevation existing and demolition 1:200



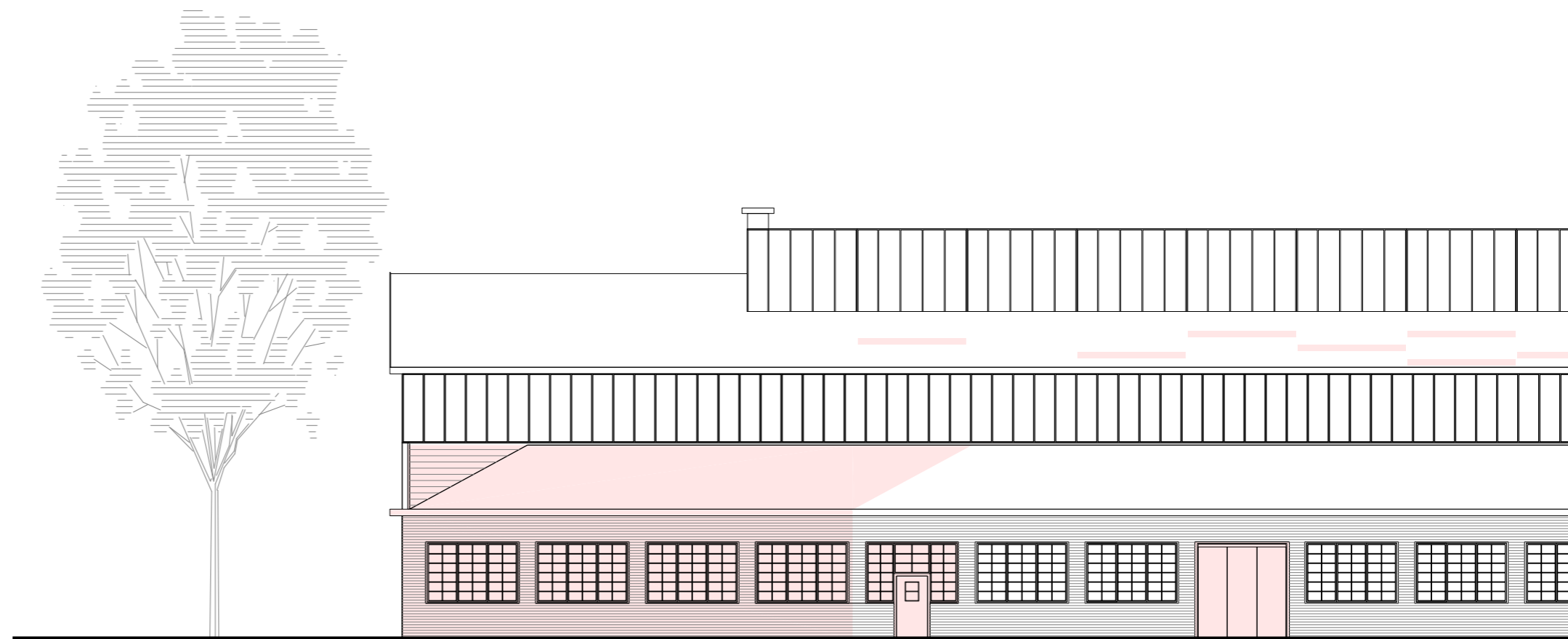
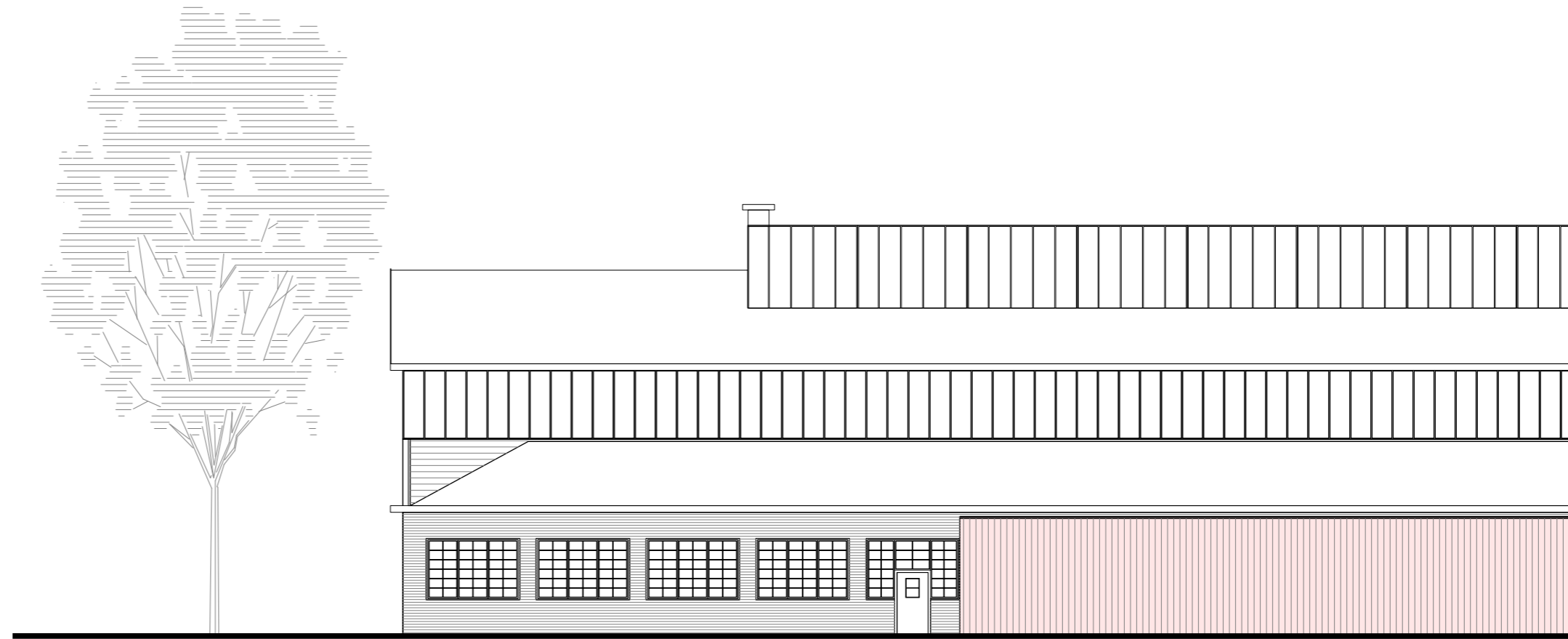
Machine Hall

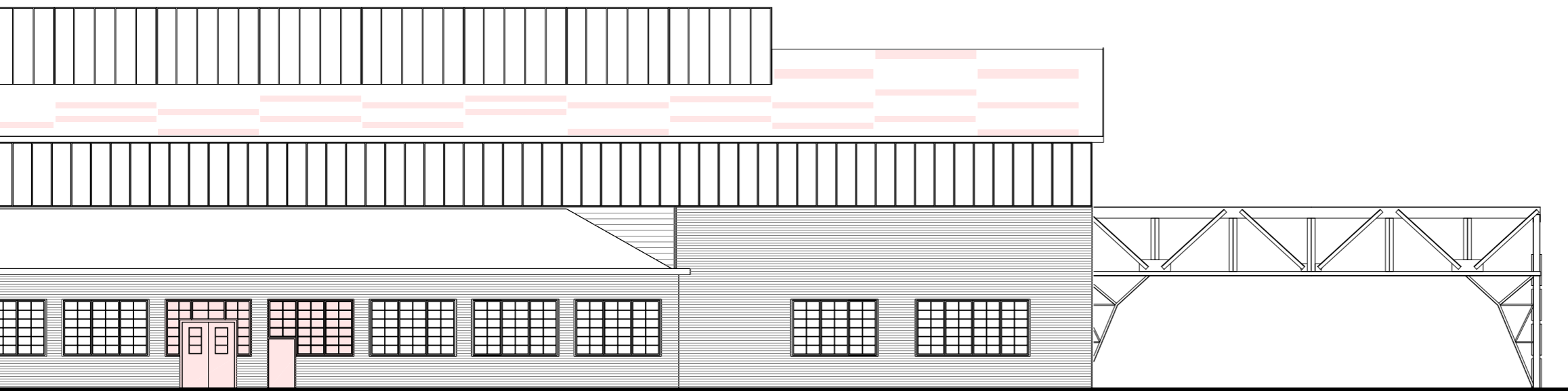
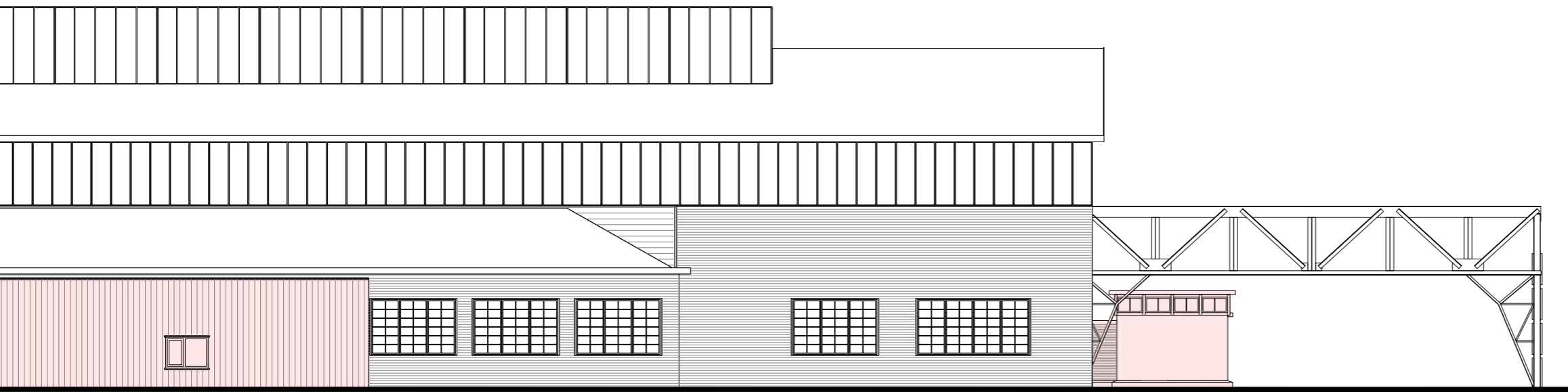
North elevation 1:200



Machine Hall

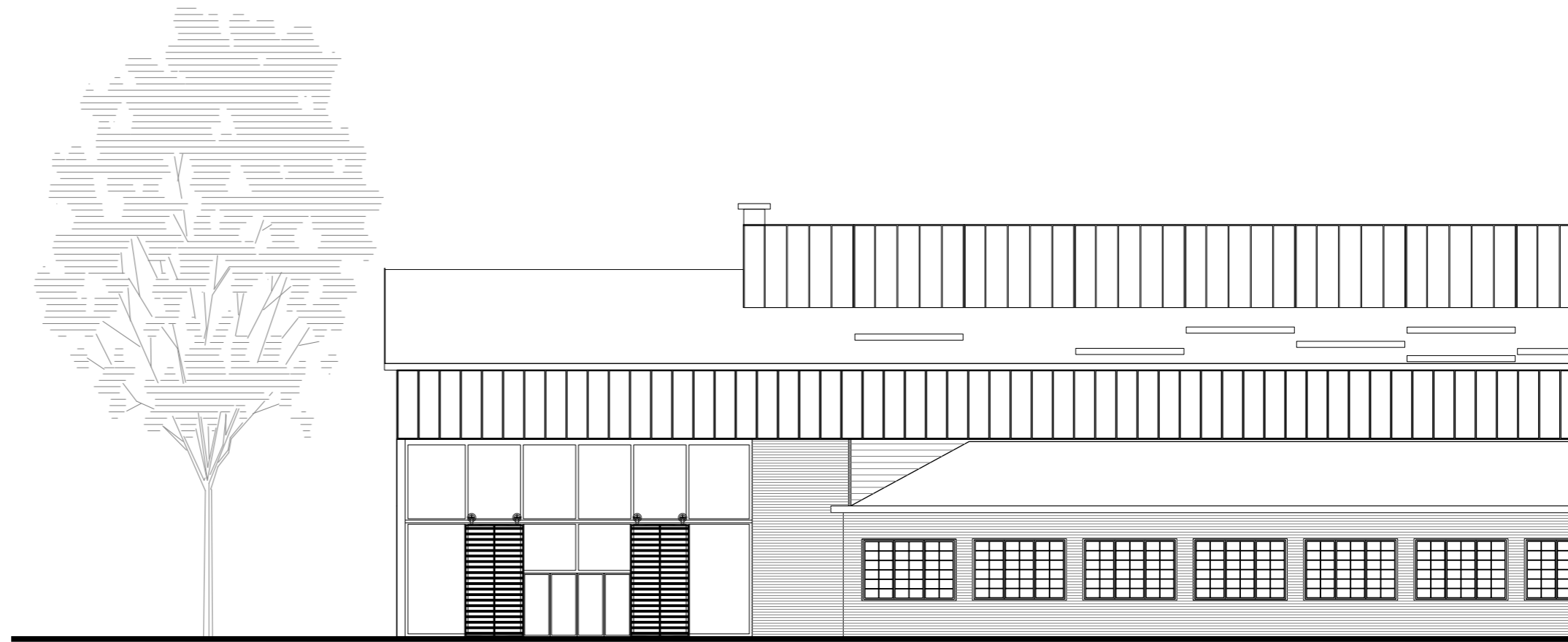
West elevation existing and demolition 1:200

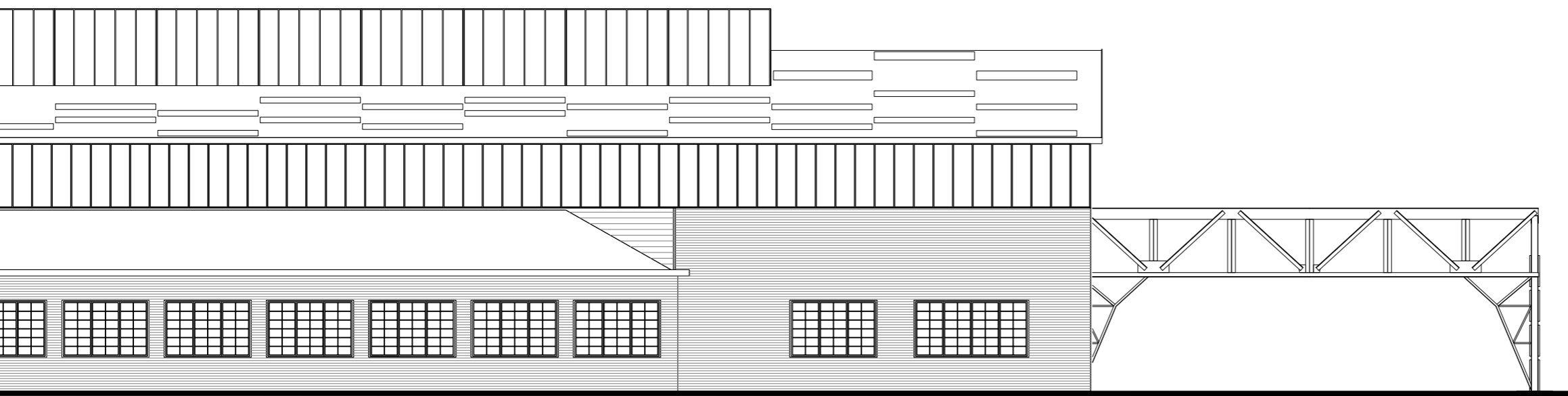




Machine Hall

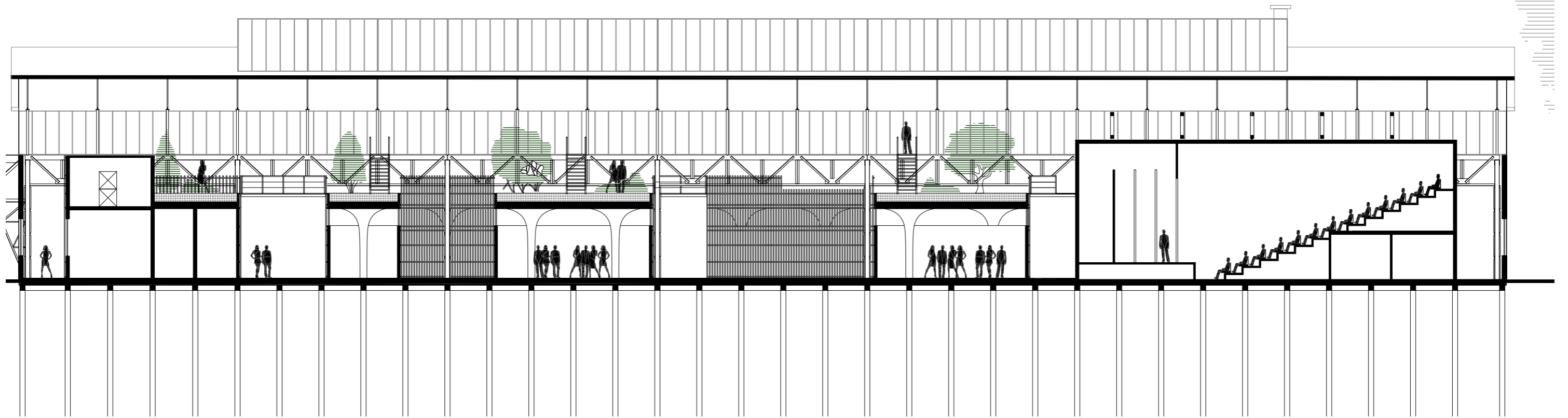
West elevation 1:200





Machine Hall

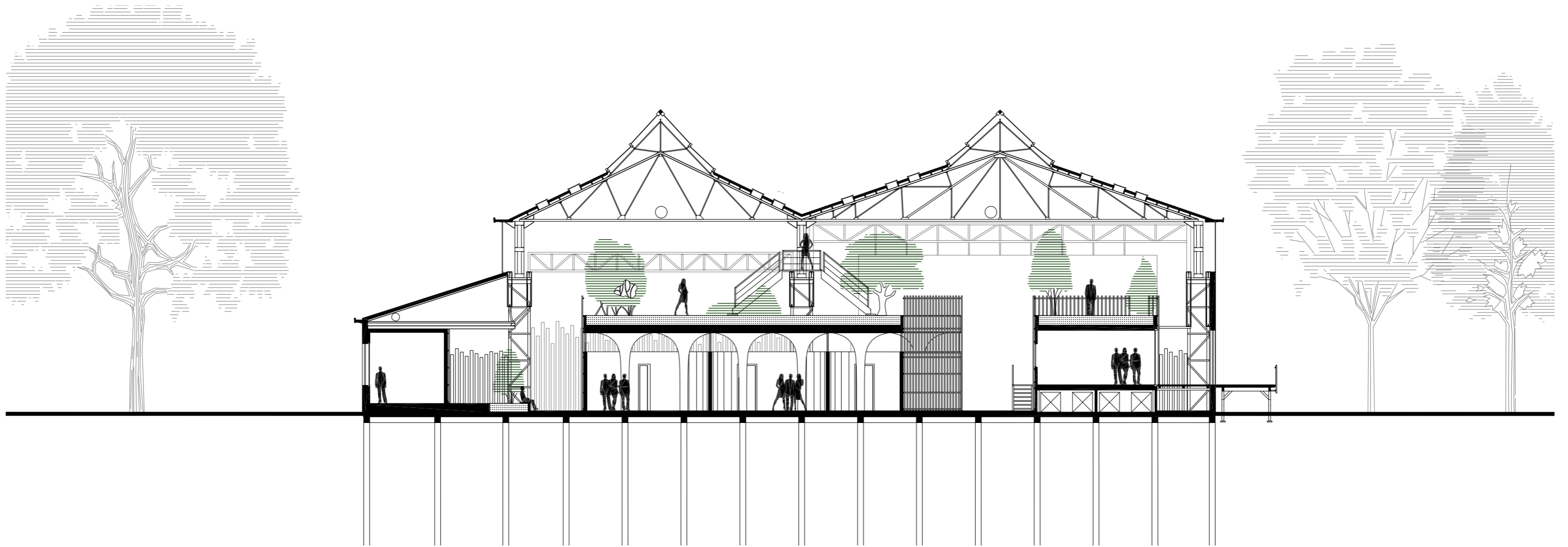
Section North-South 1:200



Architectural drawing showing a vertical section of a building structure, likely a staircase or multi-level interior space, with silhouettes of people indicating scale.

Machine Hall

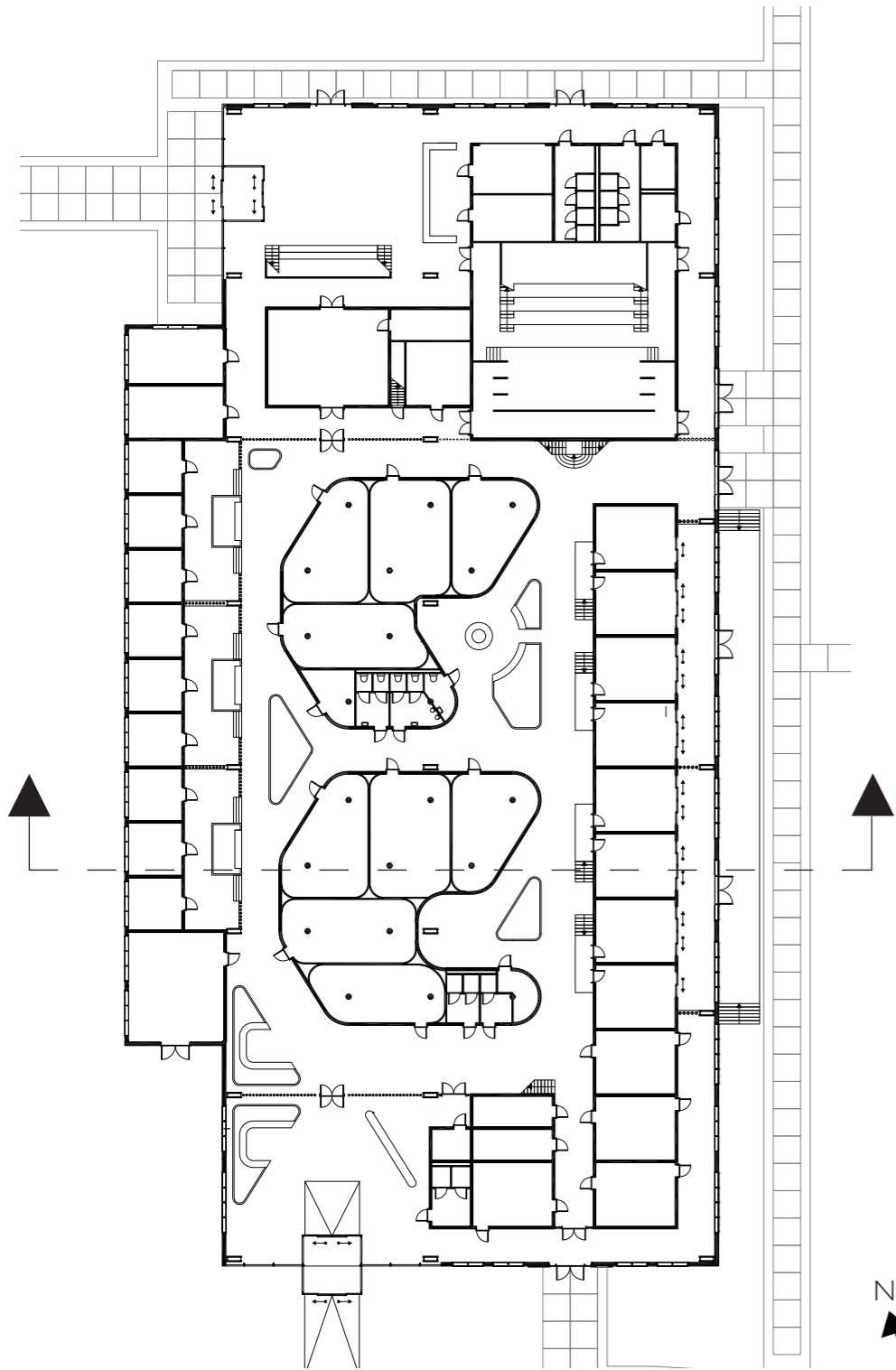
Section East-West 1:200



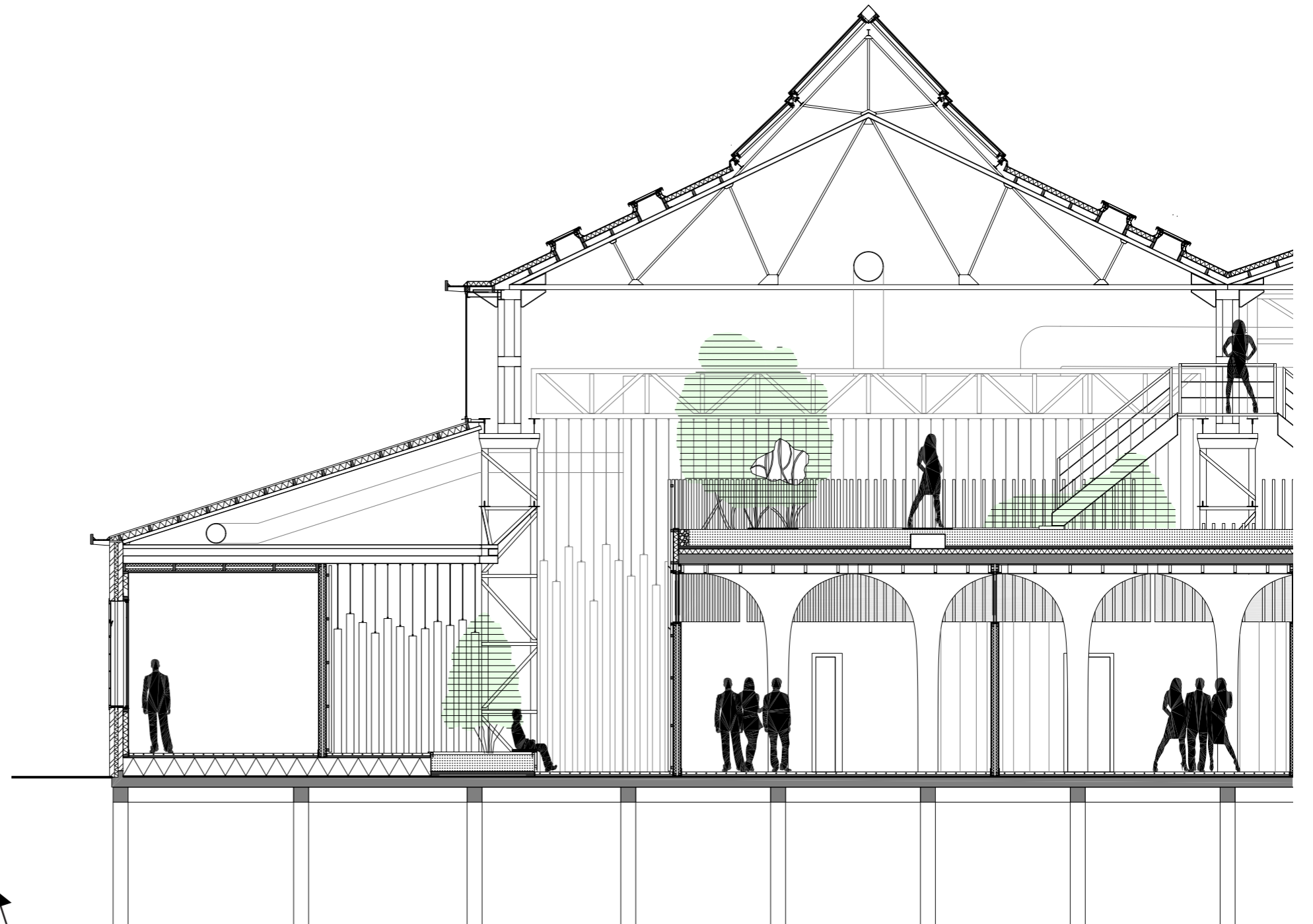
Machine Hall

Section North-South 1:100

Ground floor 1:500



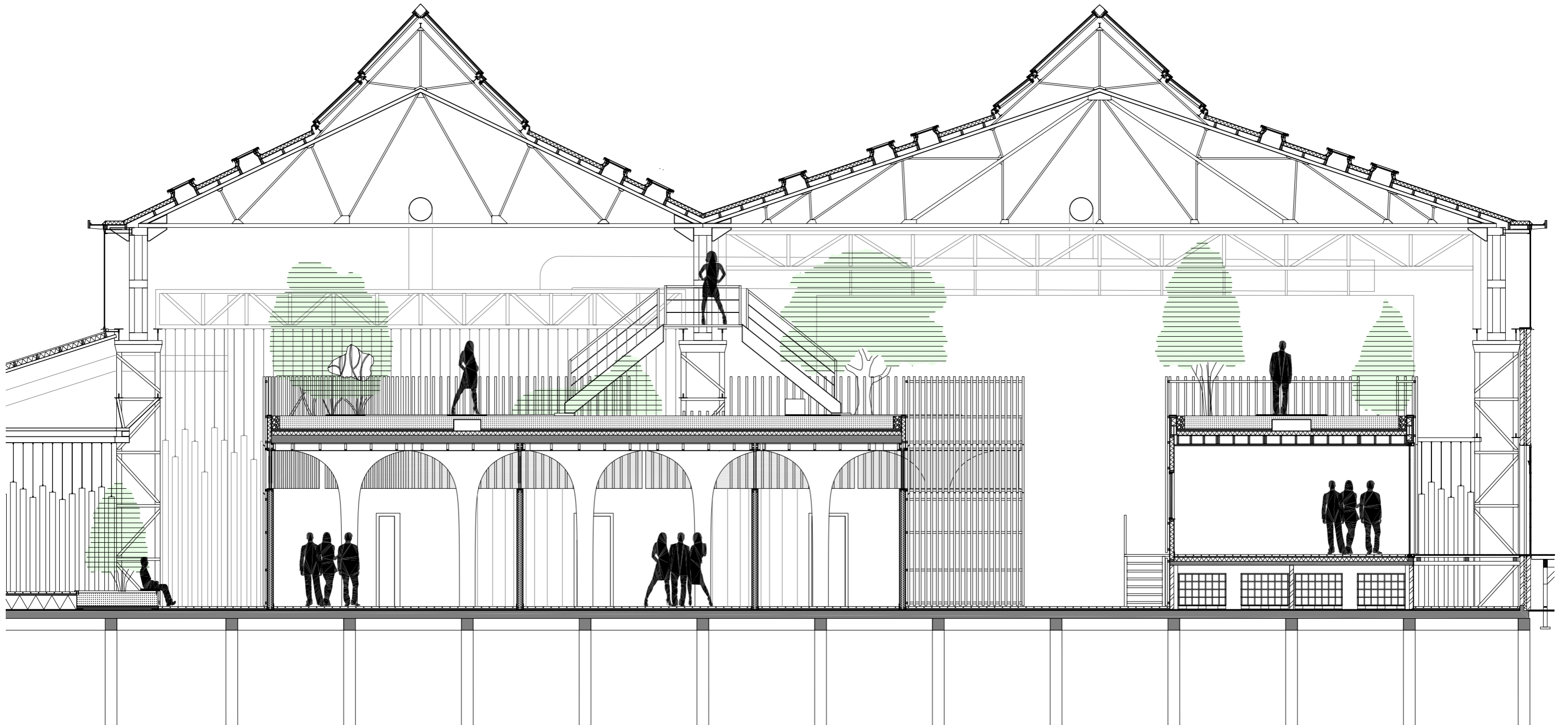
West



Machine Hall

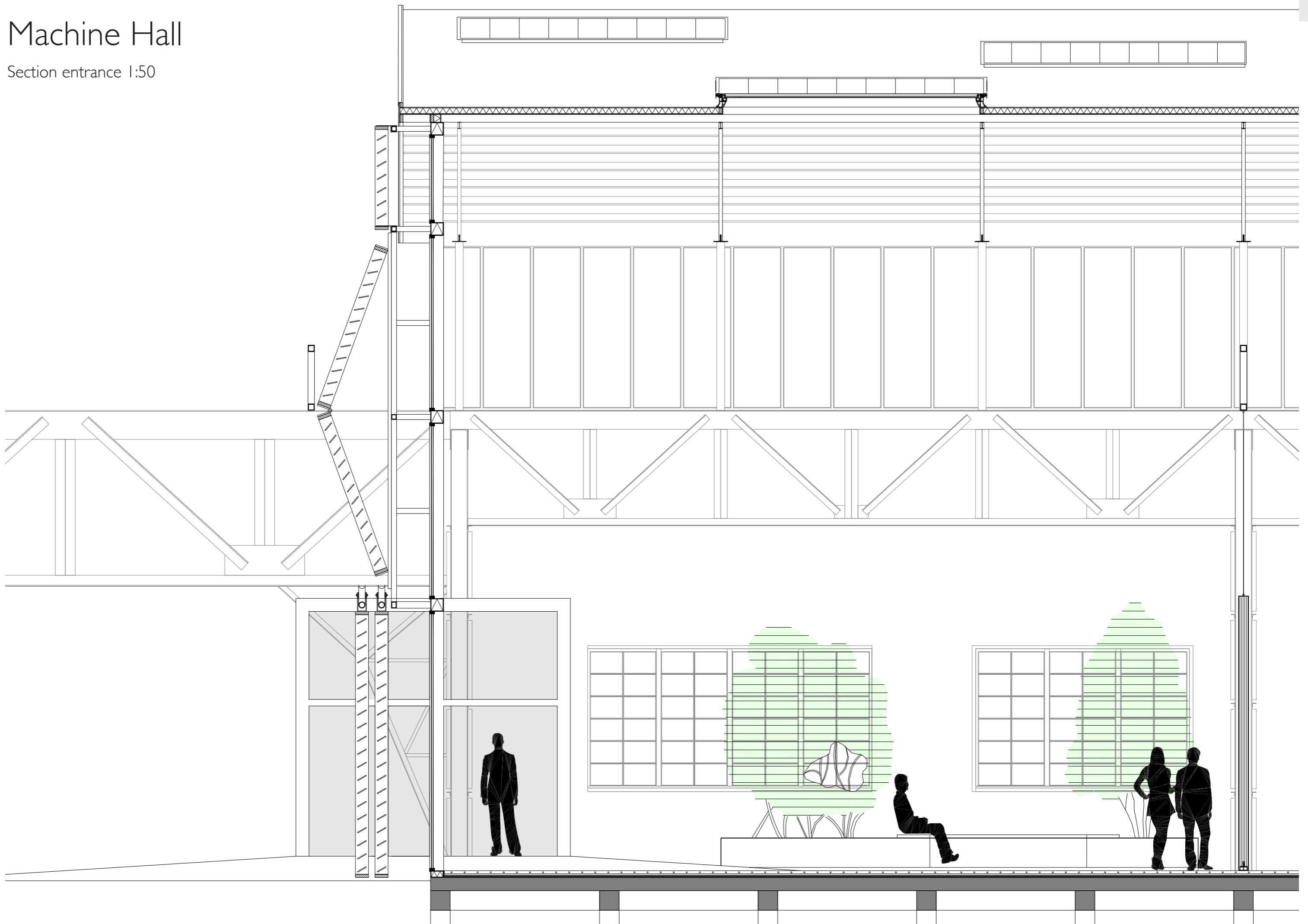
Section East-West 1:100

East



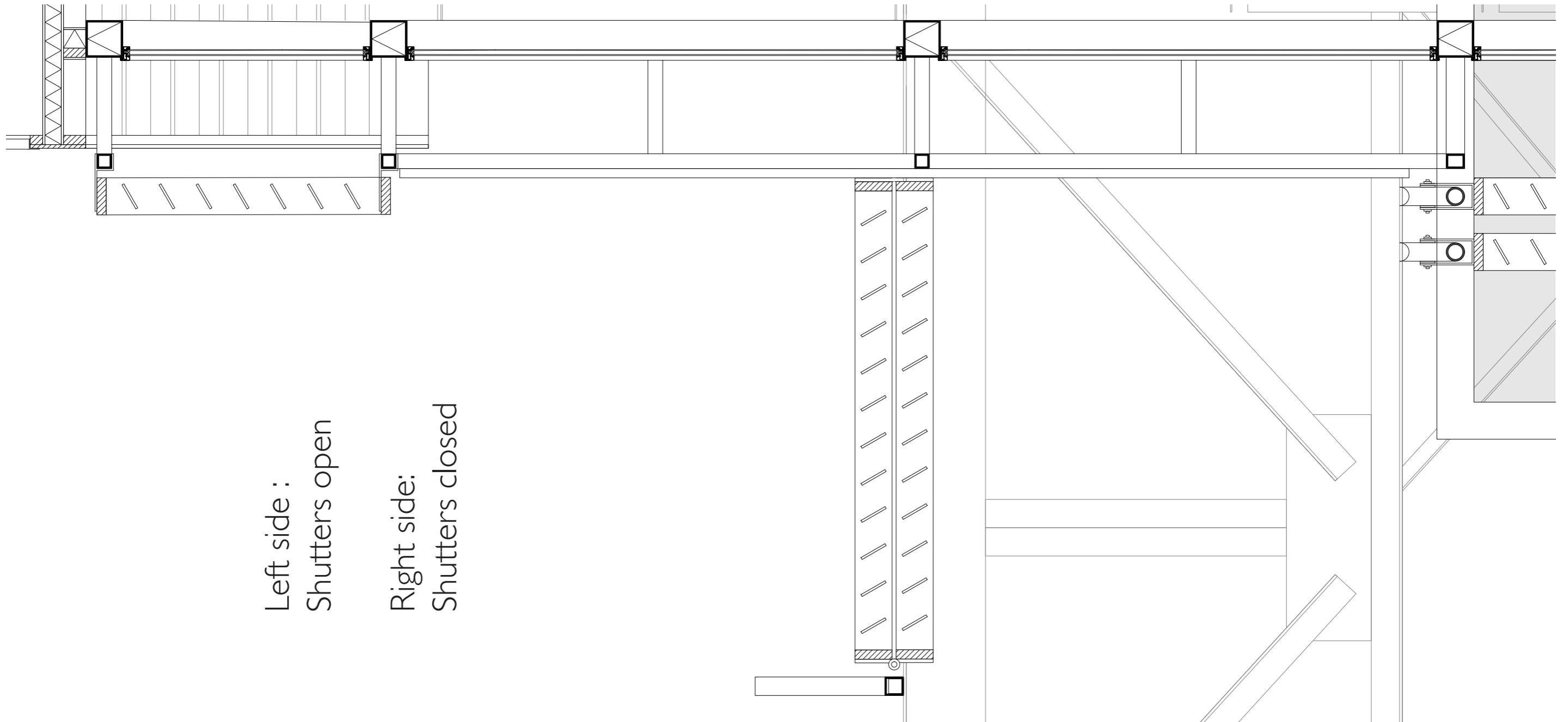
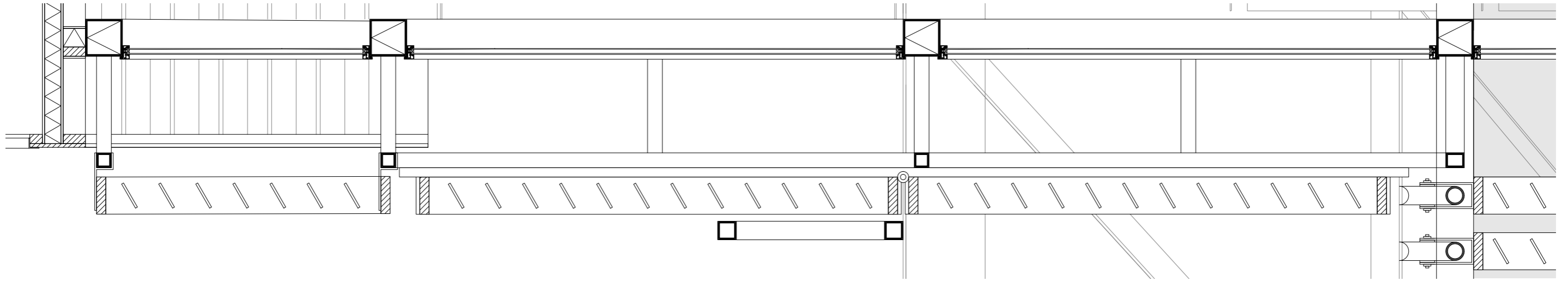
Machine Hall

Section entrance 1:50



Machine Hall

Section entrance facade 1:20

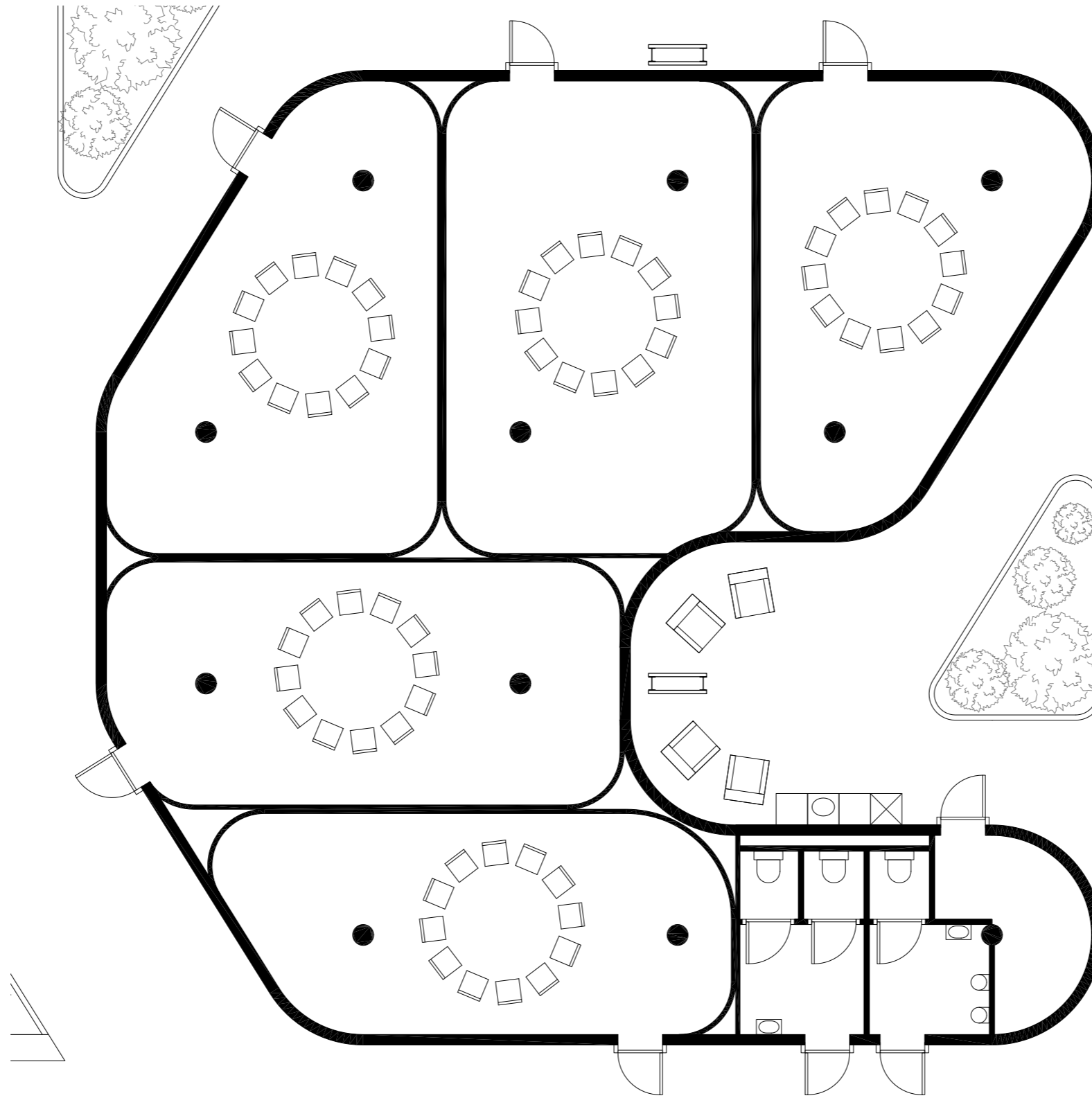


Left side :
Shutters open

Right side:
Shutters closed

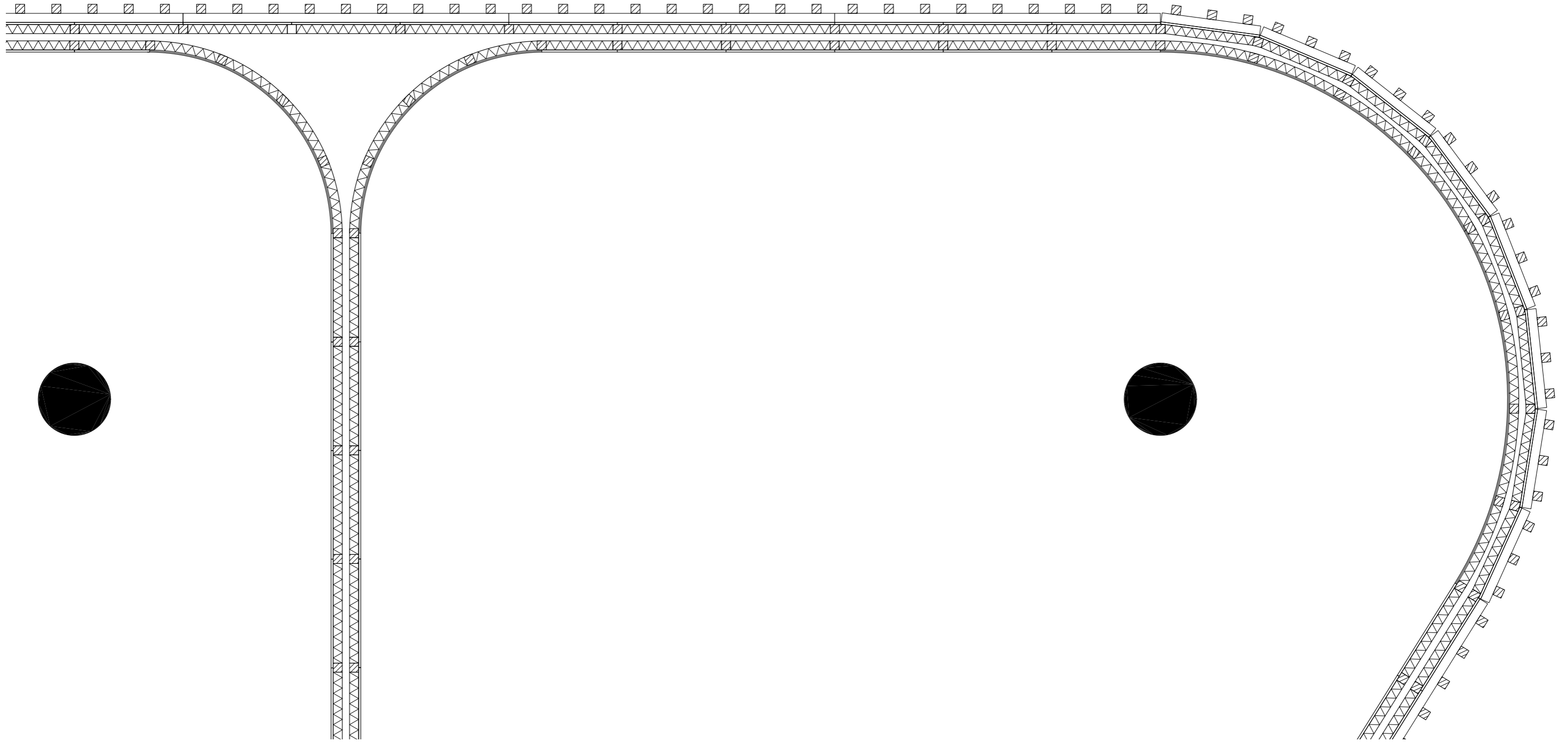
Machine Hall

Ground floor 1:100
Therapy room



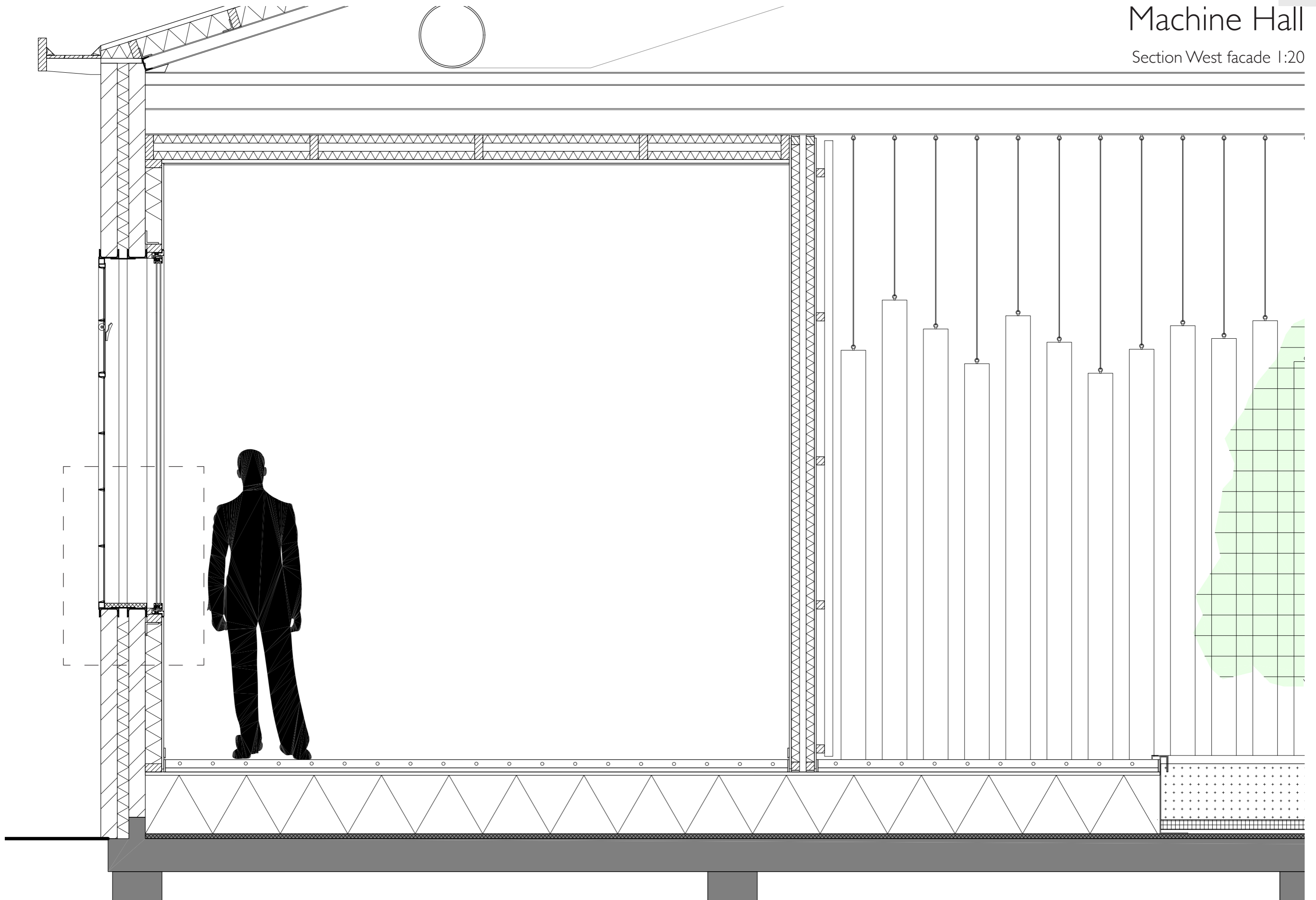
Machine Hall

Horizontal section 1:20
Therapy room



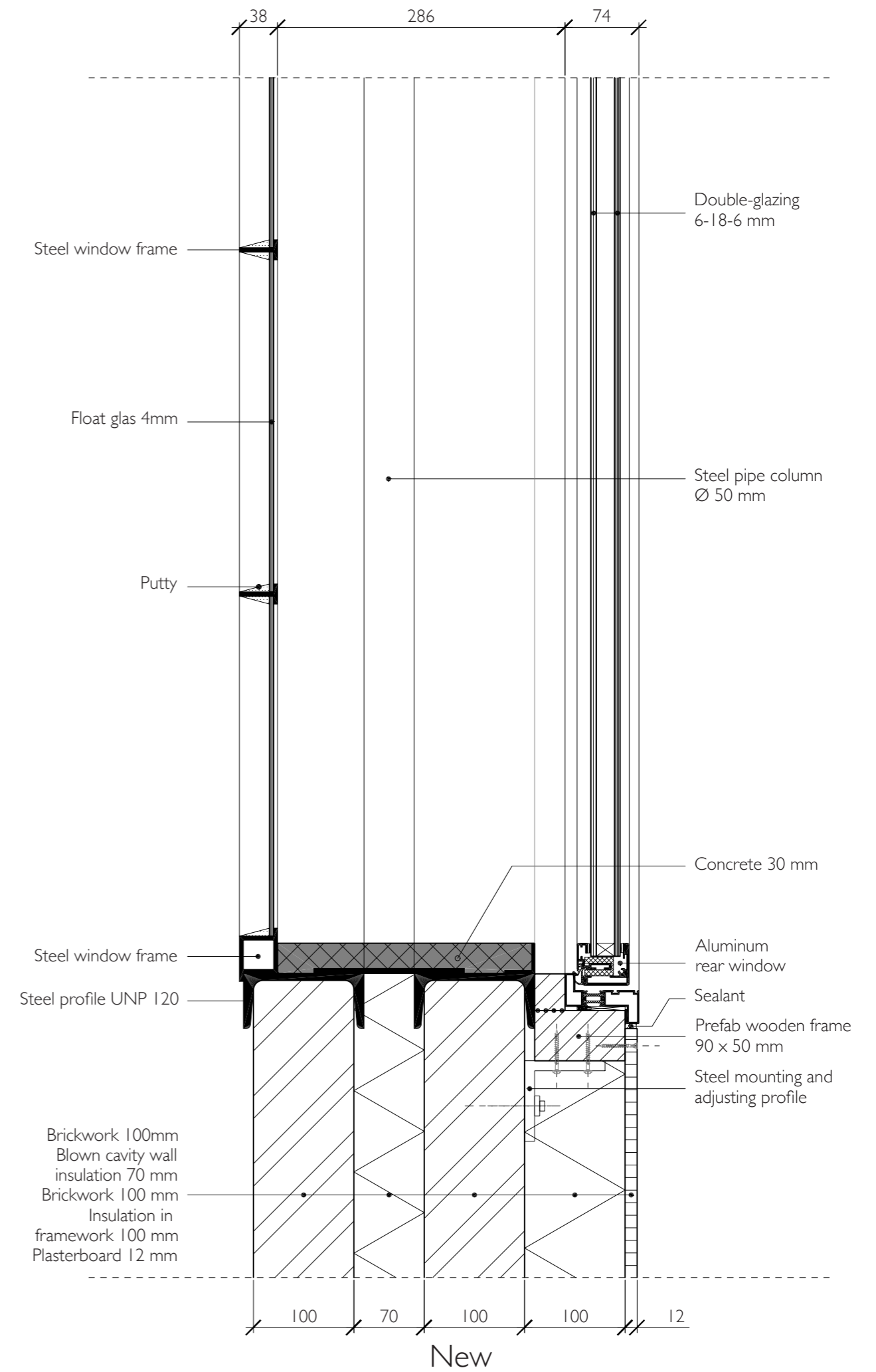
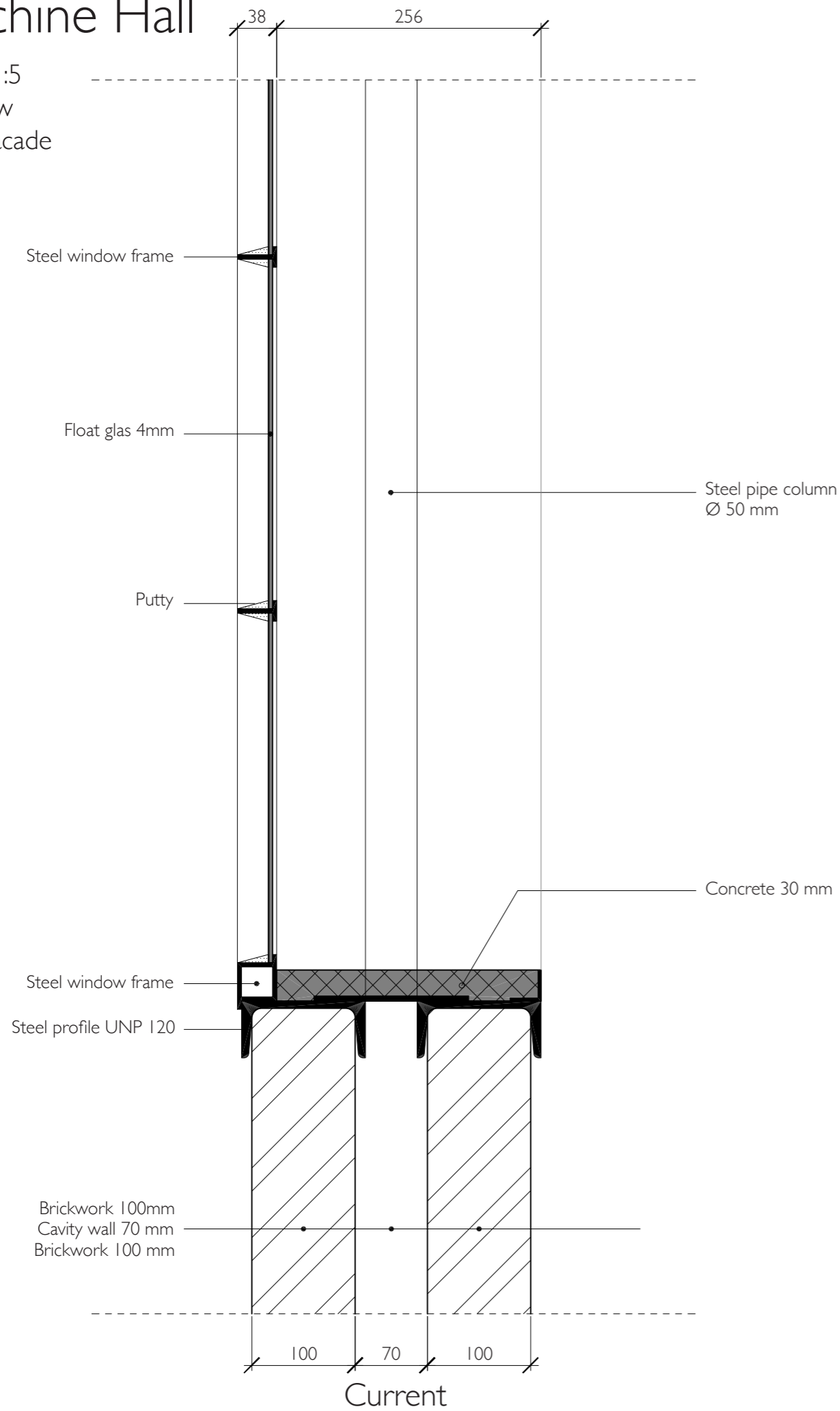
Machine Hall

Section West facade 1:20



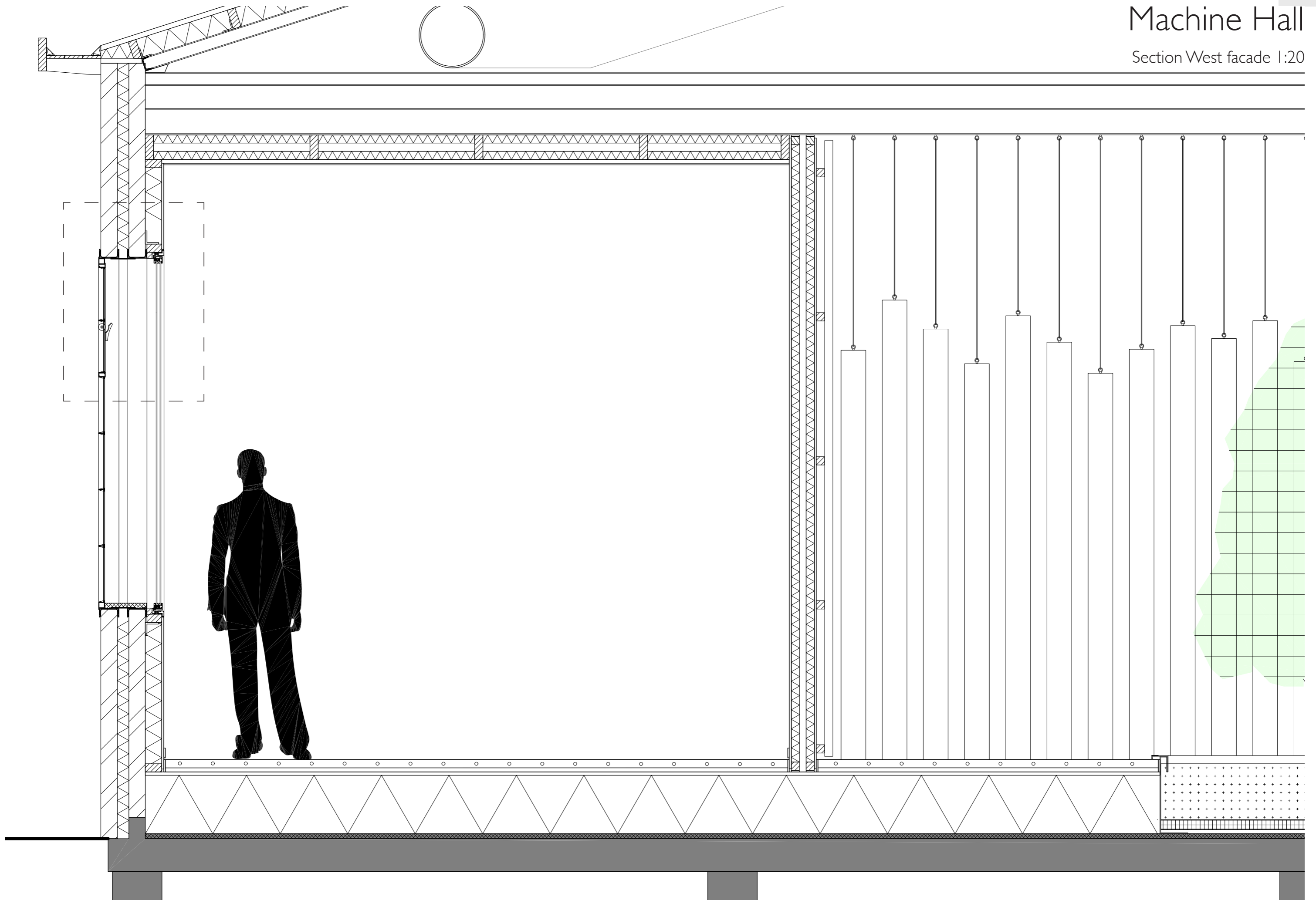
Machine Hall

Detail 1:5
Window
West facade
Bottom



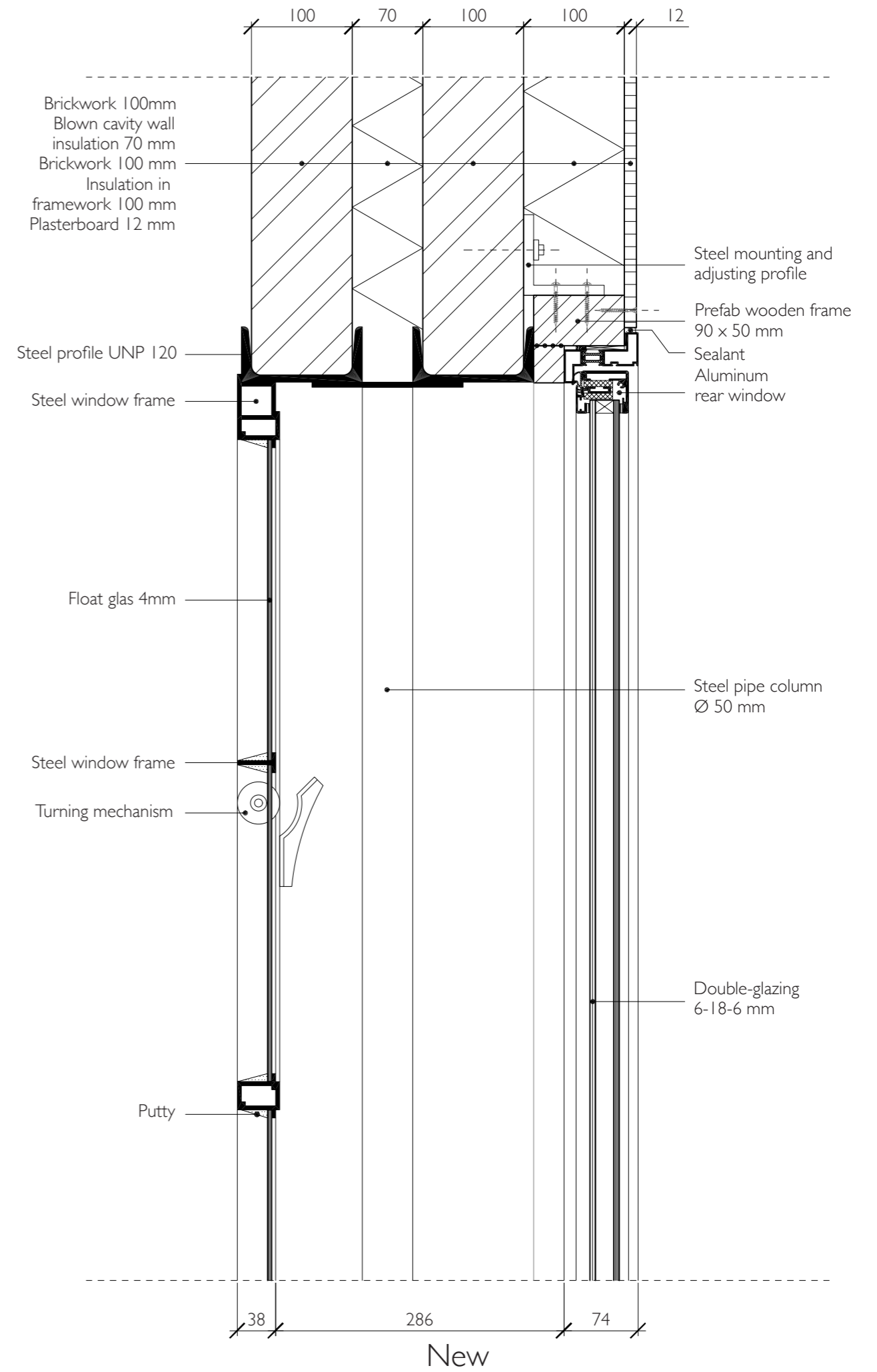
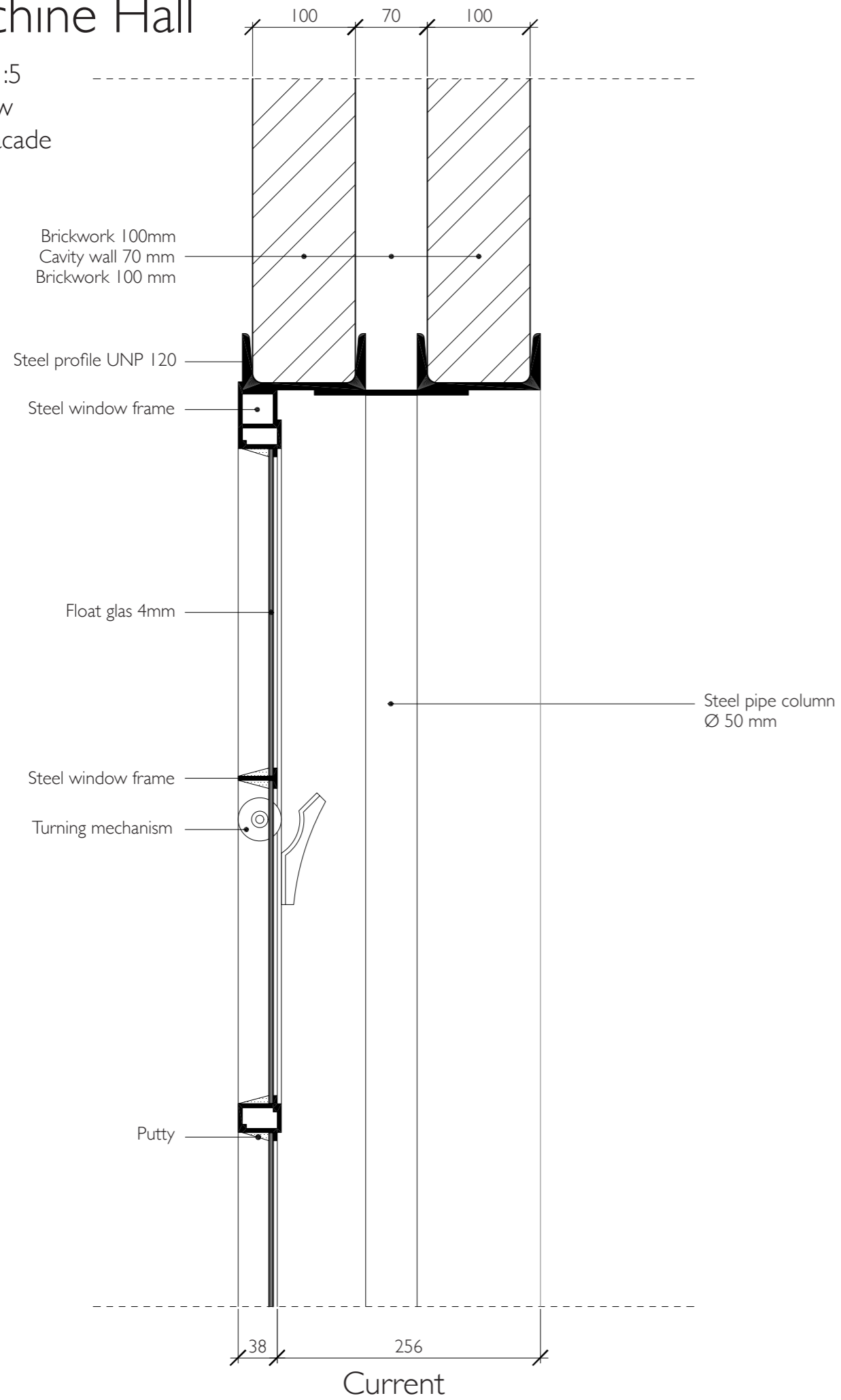
Machine Hall

Section West facade 1:20



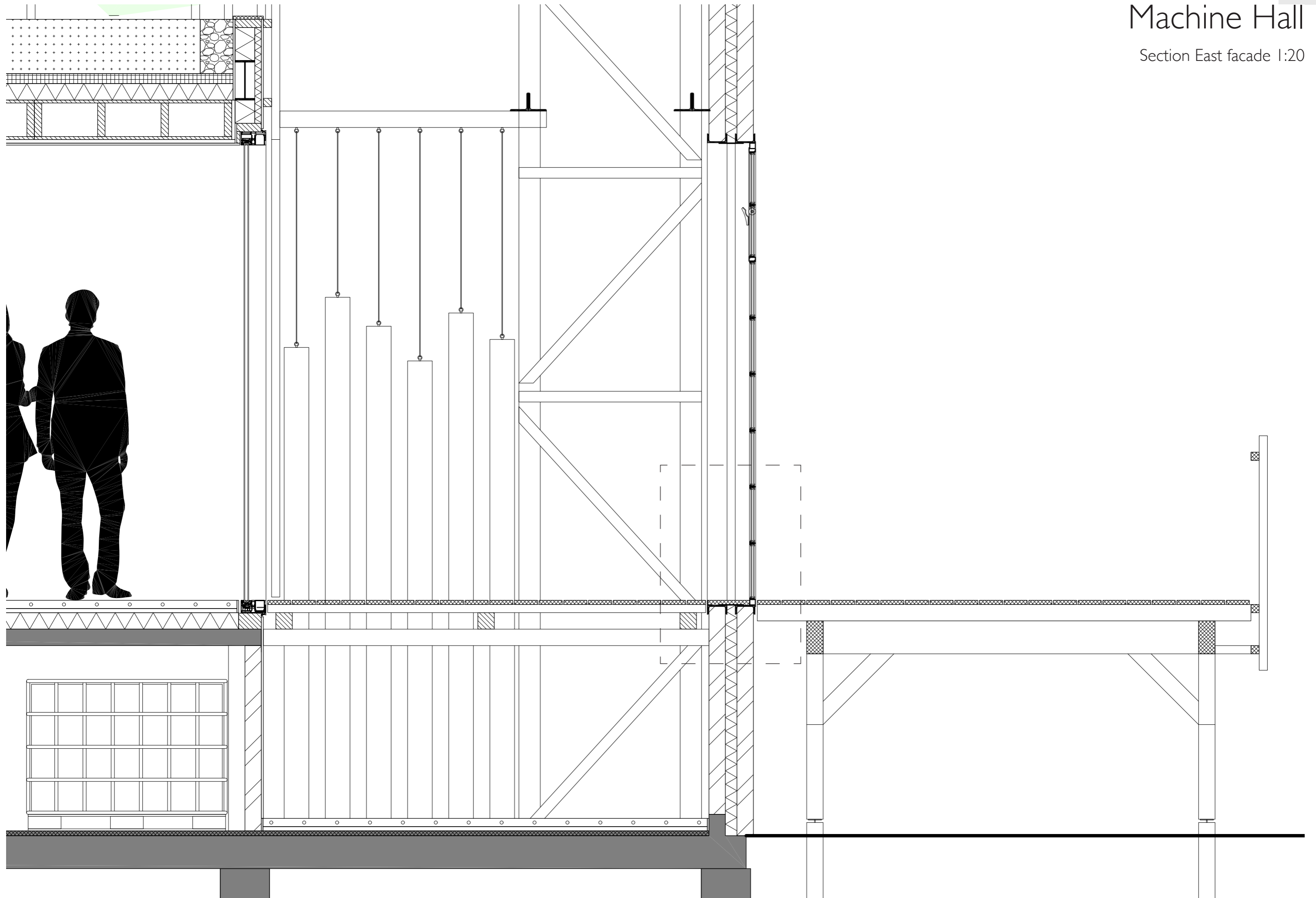
Machine Hall

Detail 1:5
Window
West facade
Top



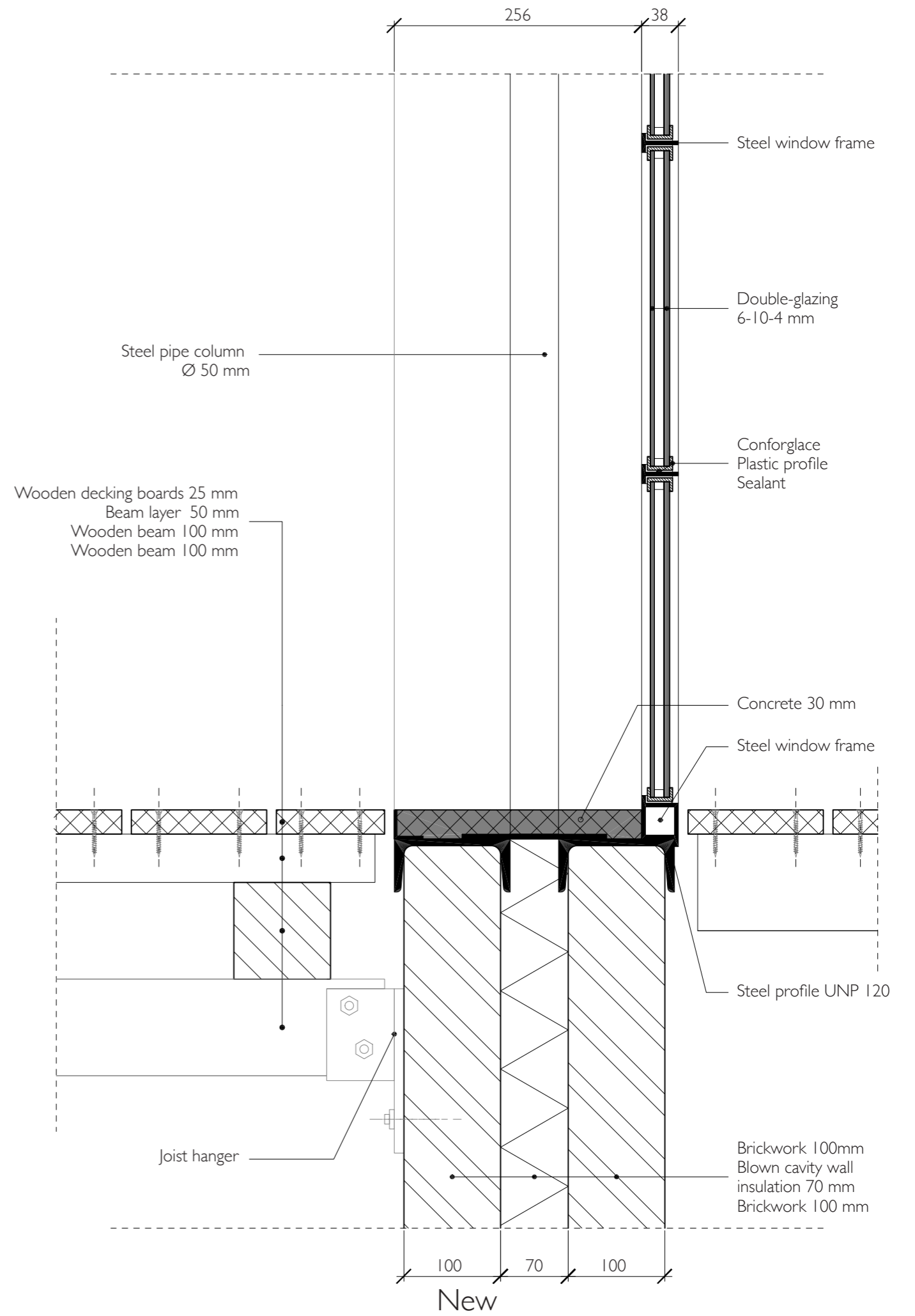
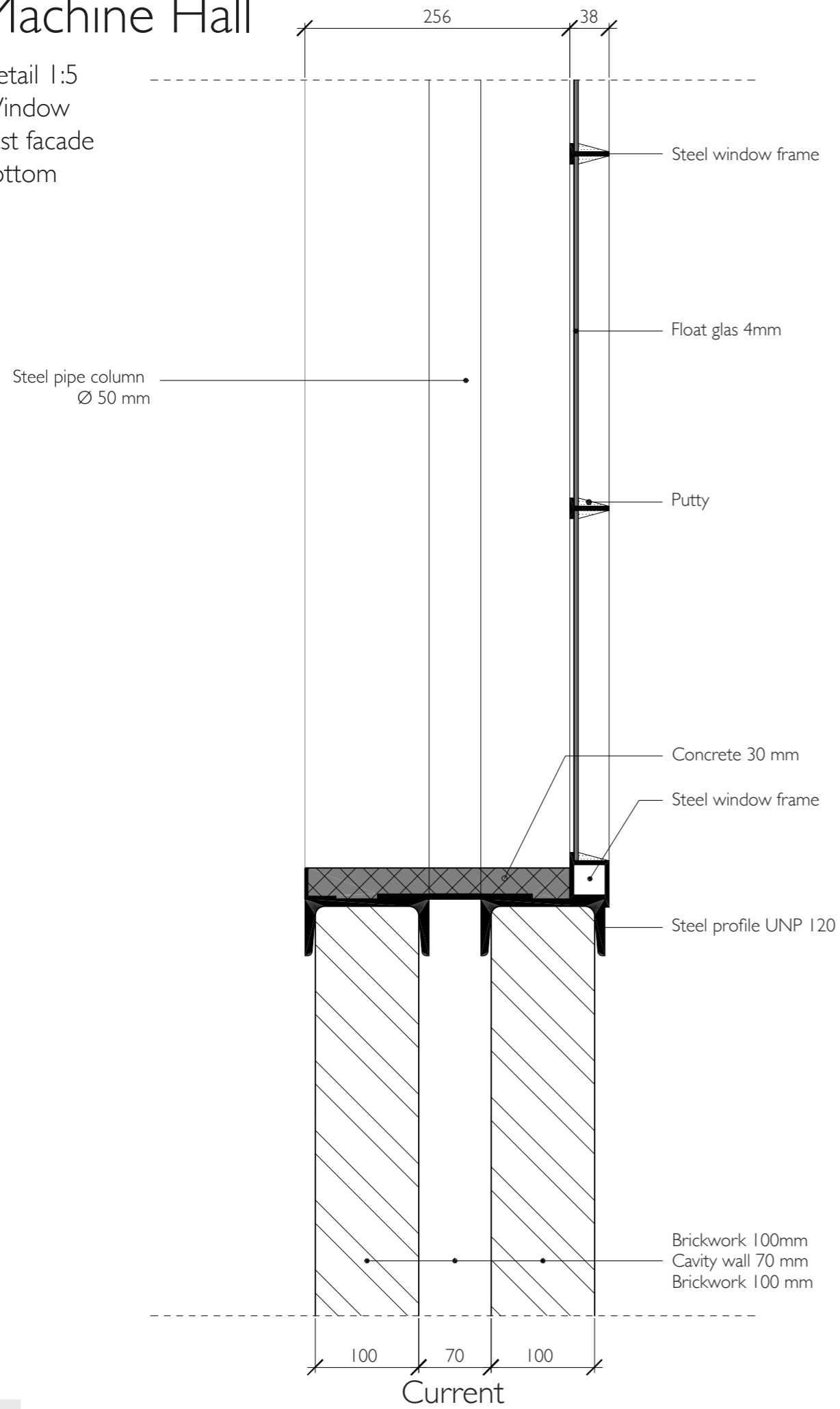
Machine Hall

Section East facade 1:20



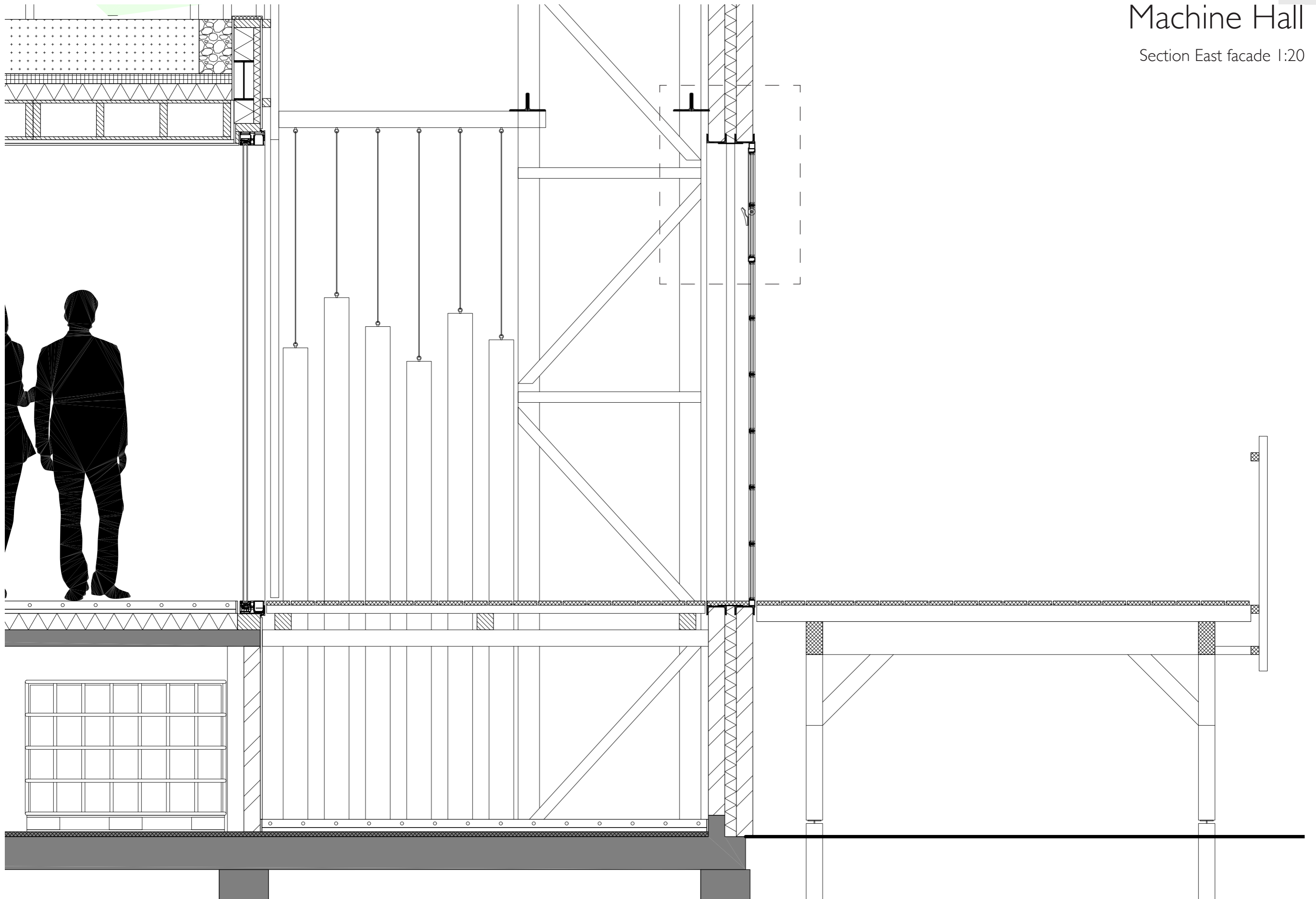
Machine Hall

Detail 1:5
Window
East facade
Bottom



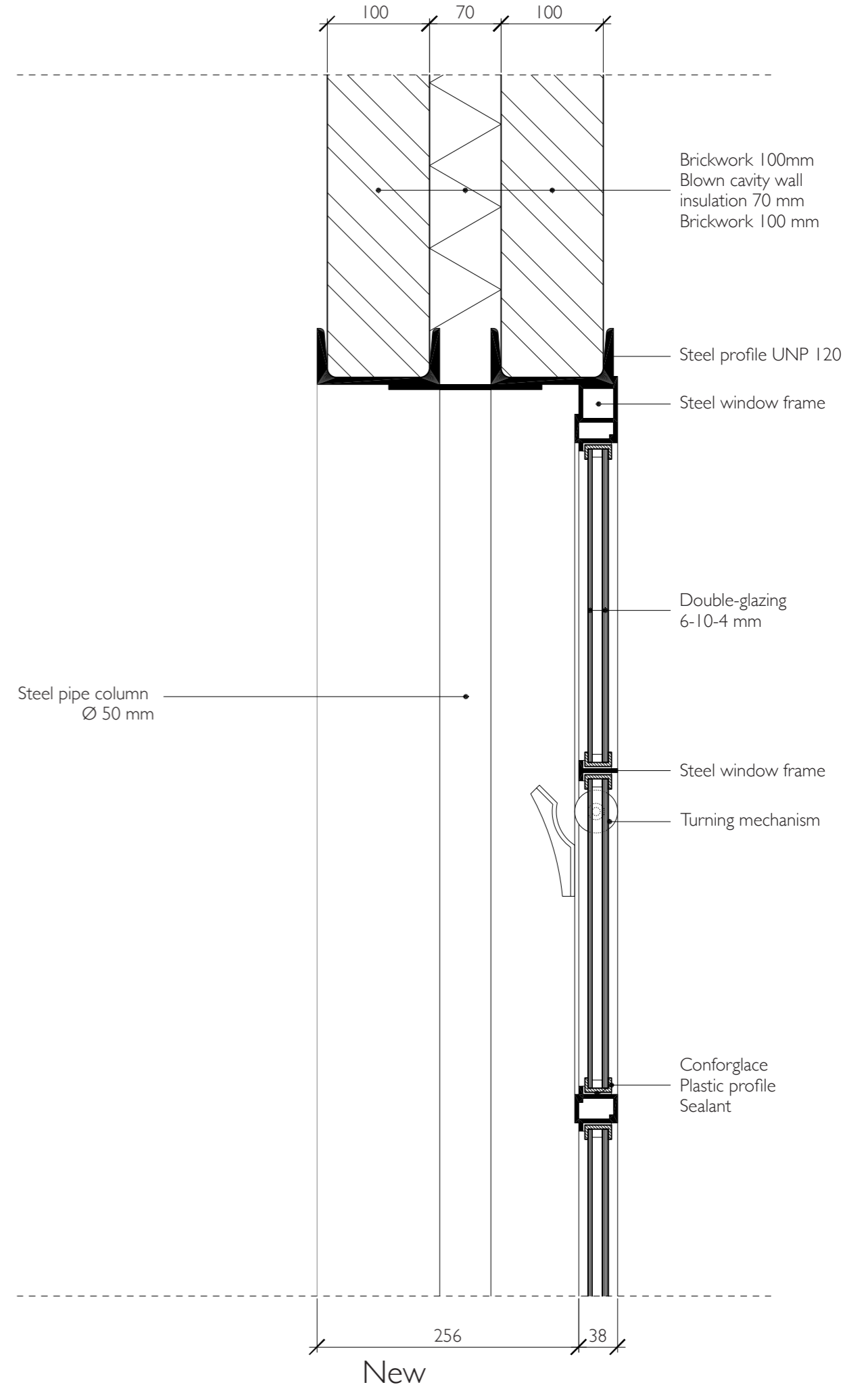
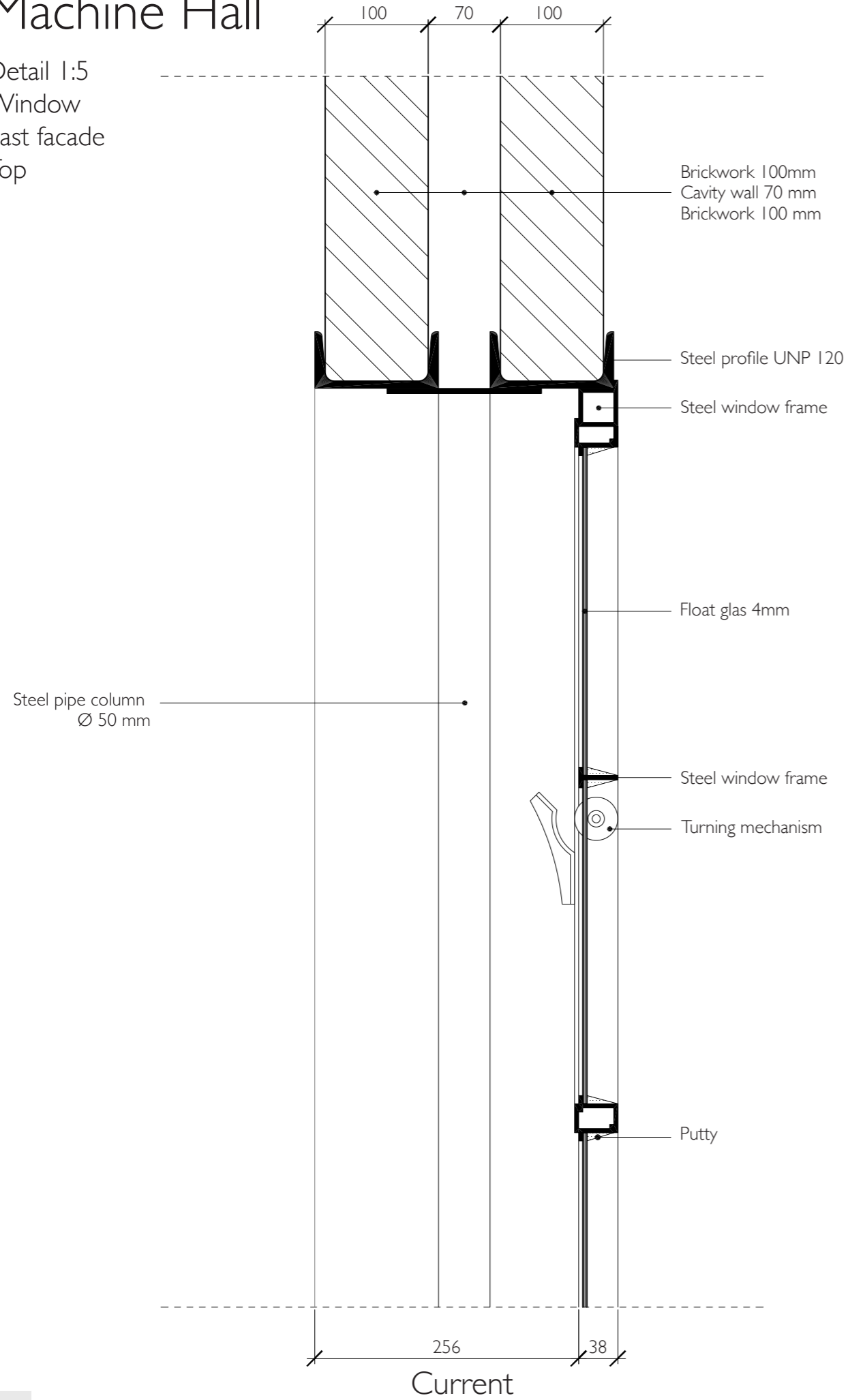
Machine Hall

Section East facade 1:20



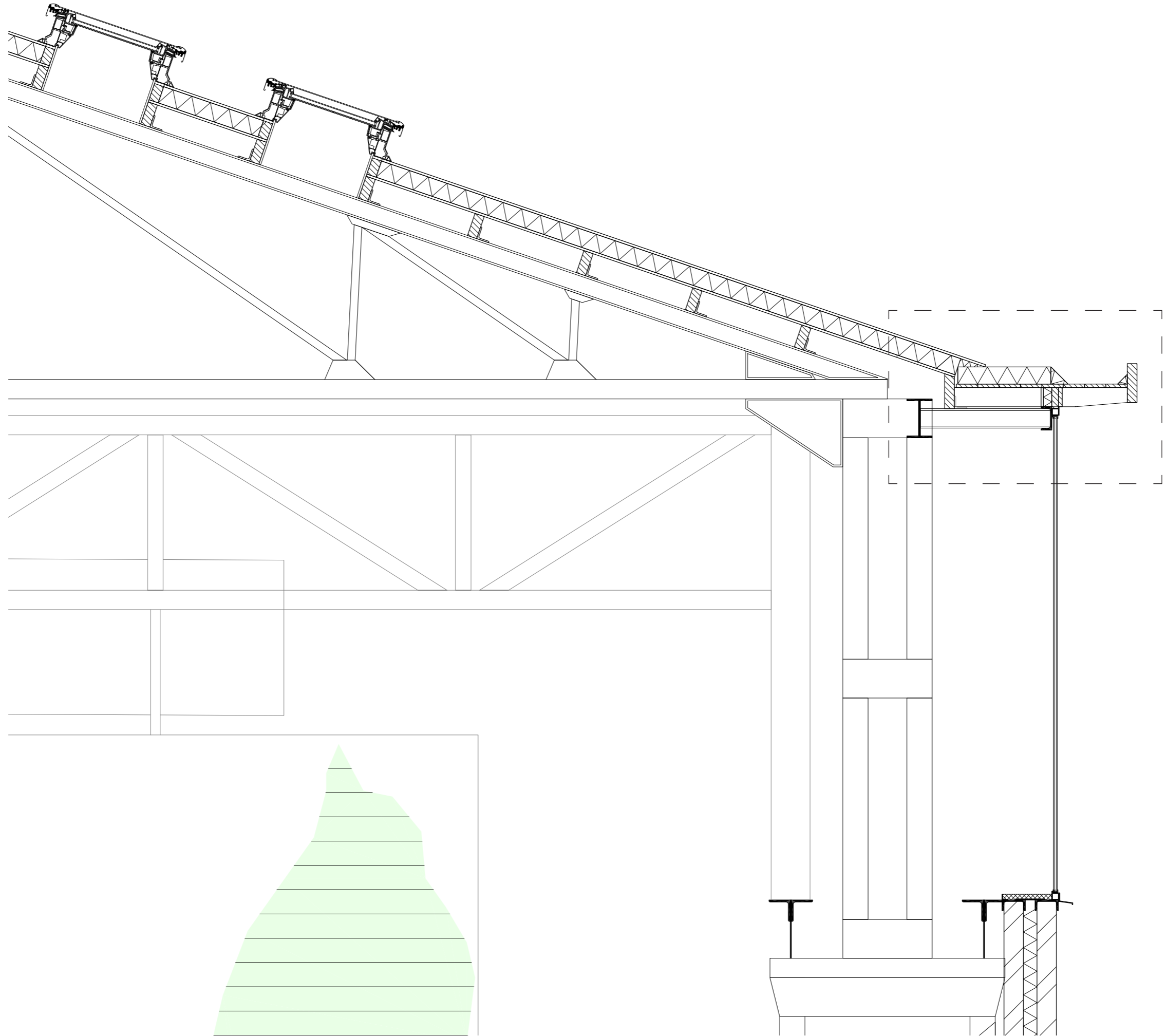
Machine Hall

Detail 1:5
Window
East facade
Top



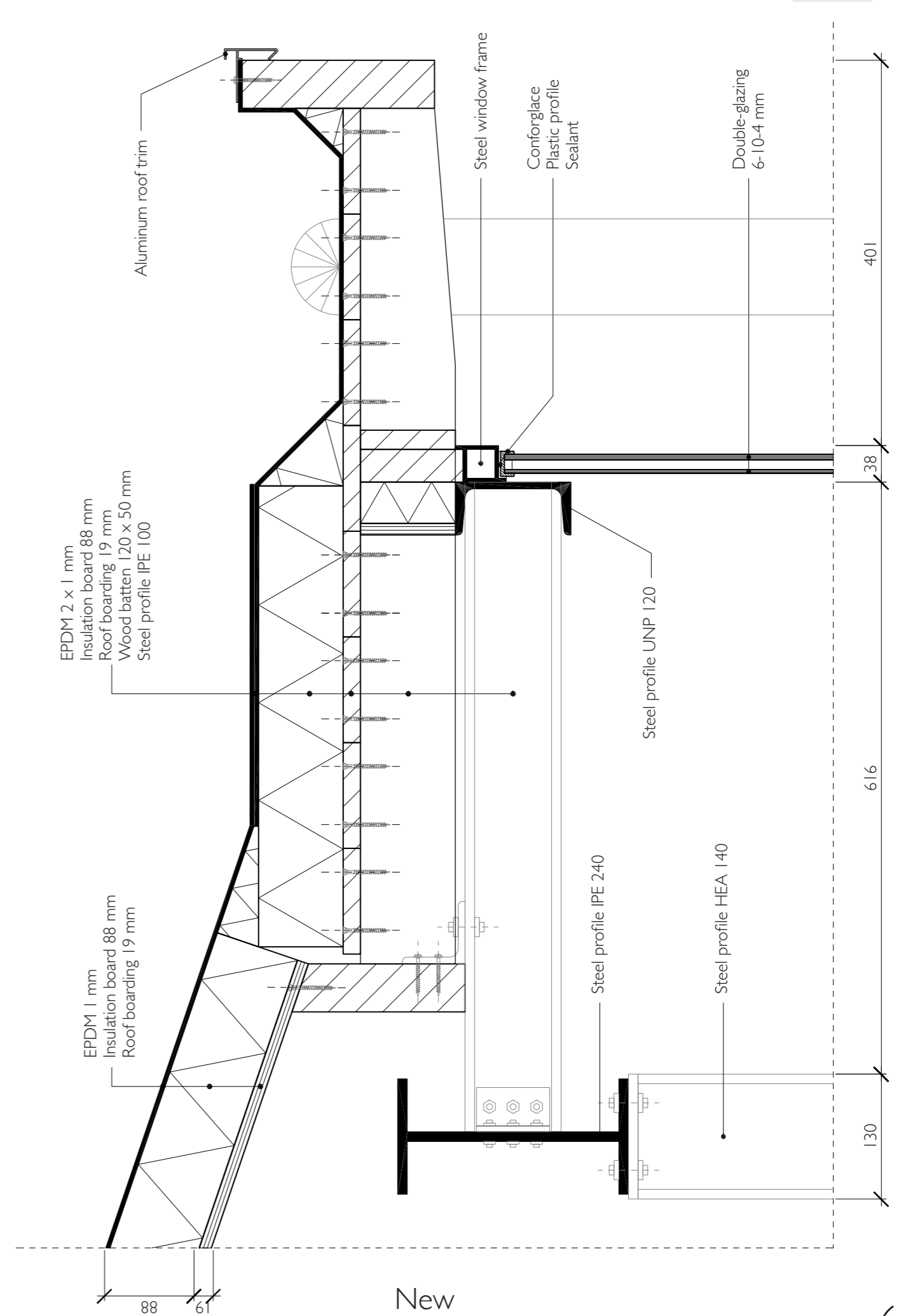
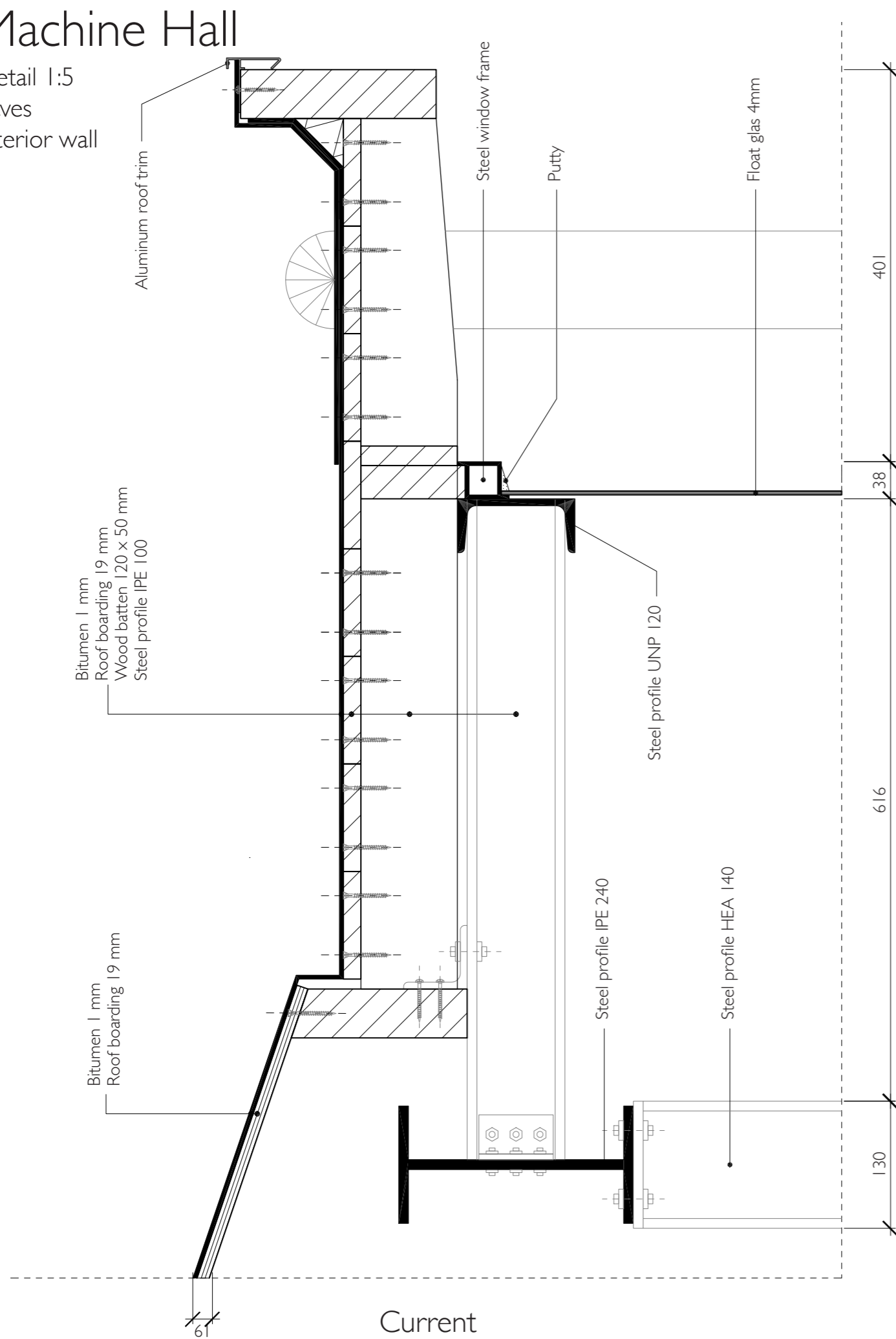
Machine Hall

Section eaves 1:20



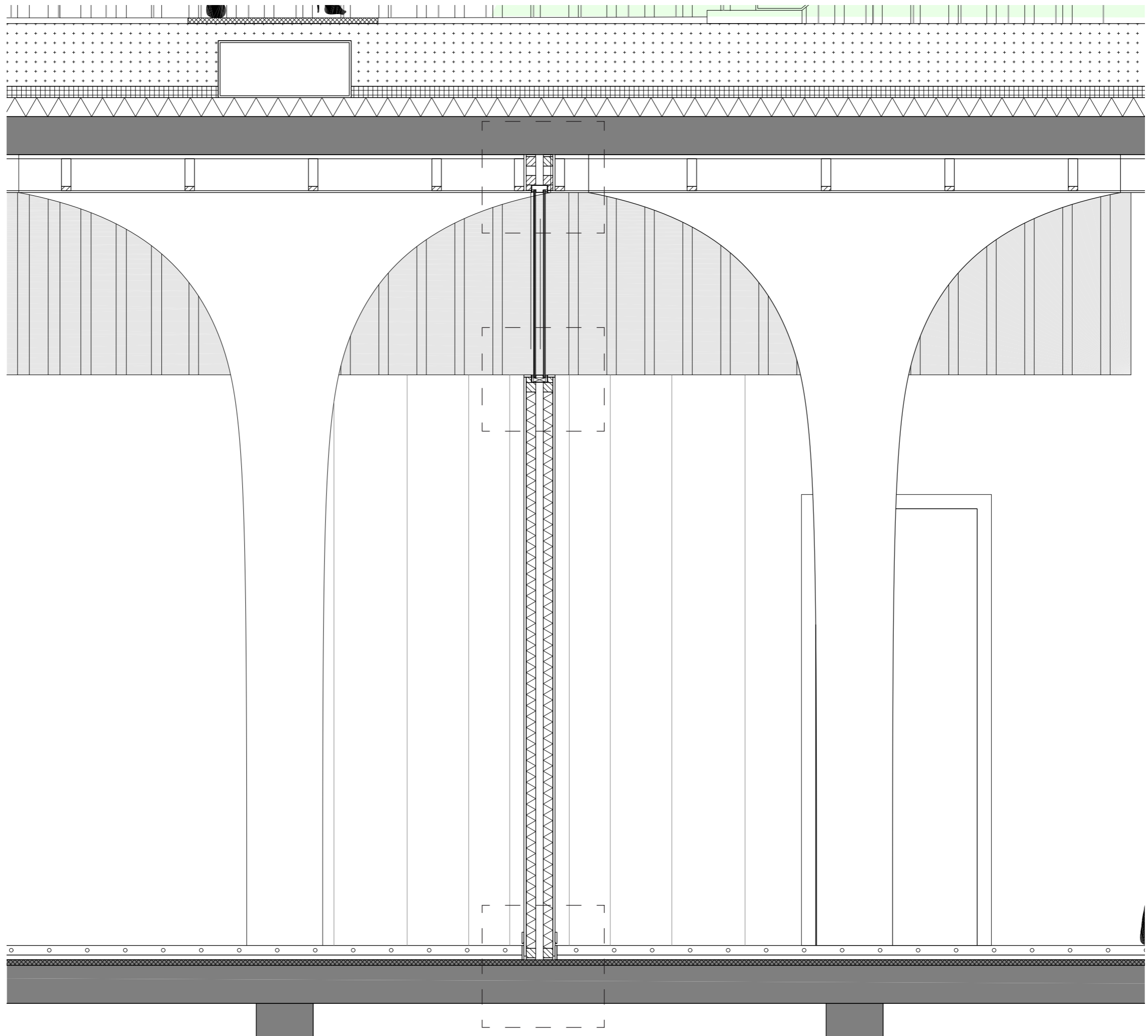
Machine Hall

Detail 1:5
Eaves
Interior wall



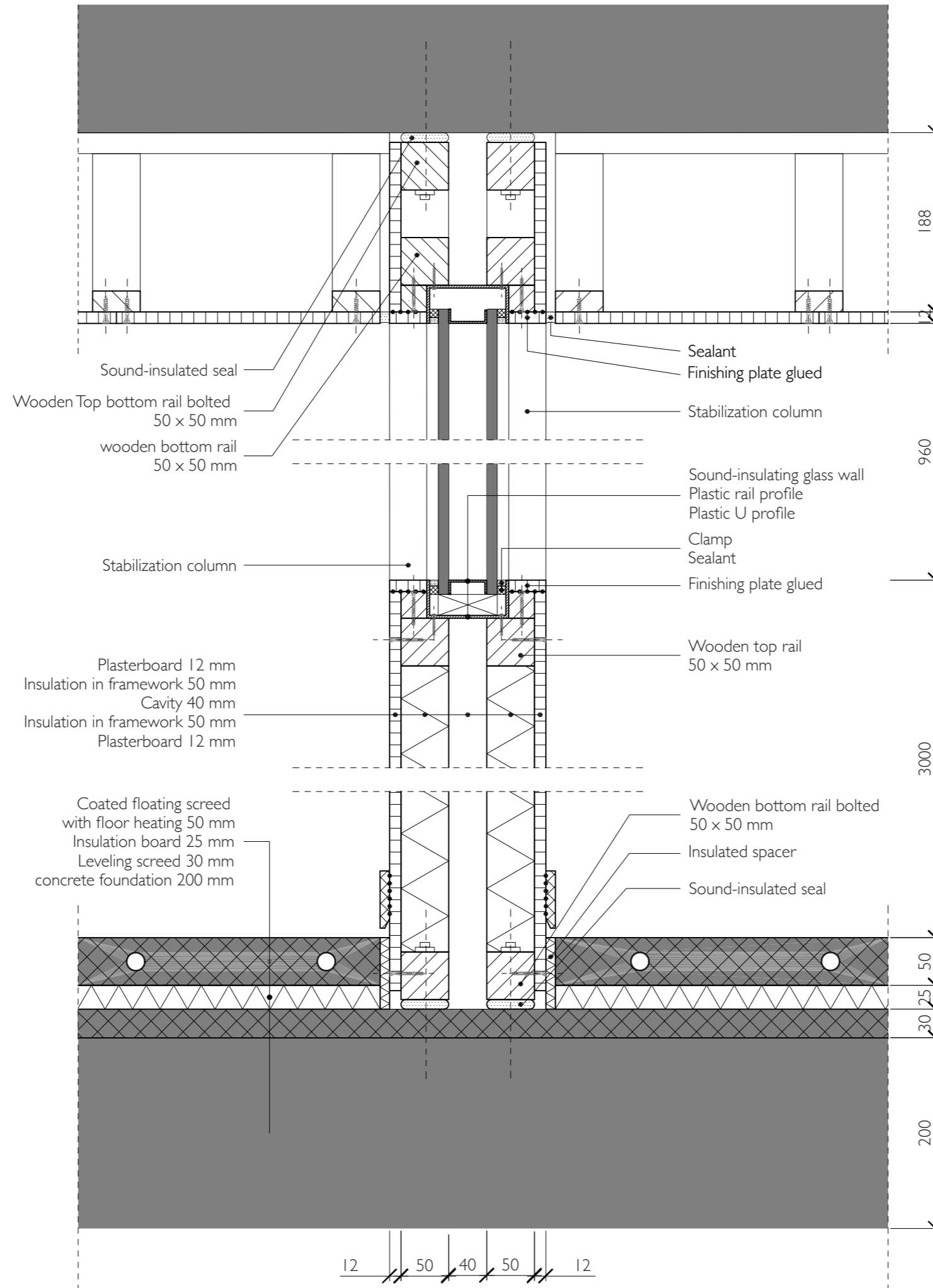
Machine Hall

Section therapy rooms 1:20



Machine Hall

Detail 1:5
Therapy rooms
Interior wall



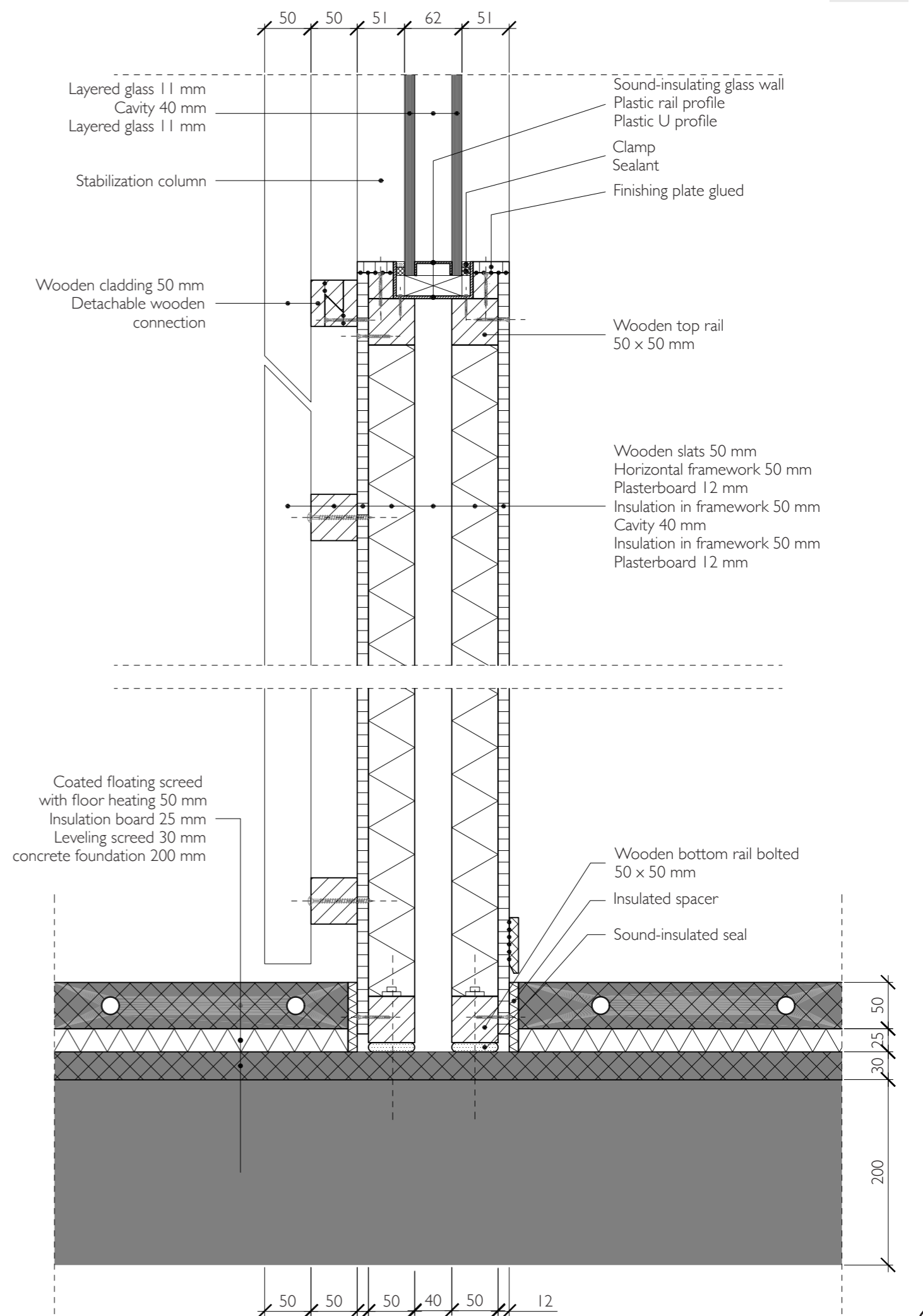
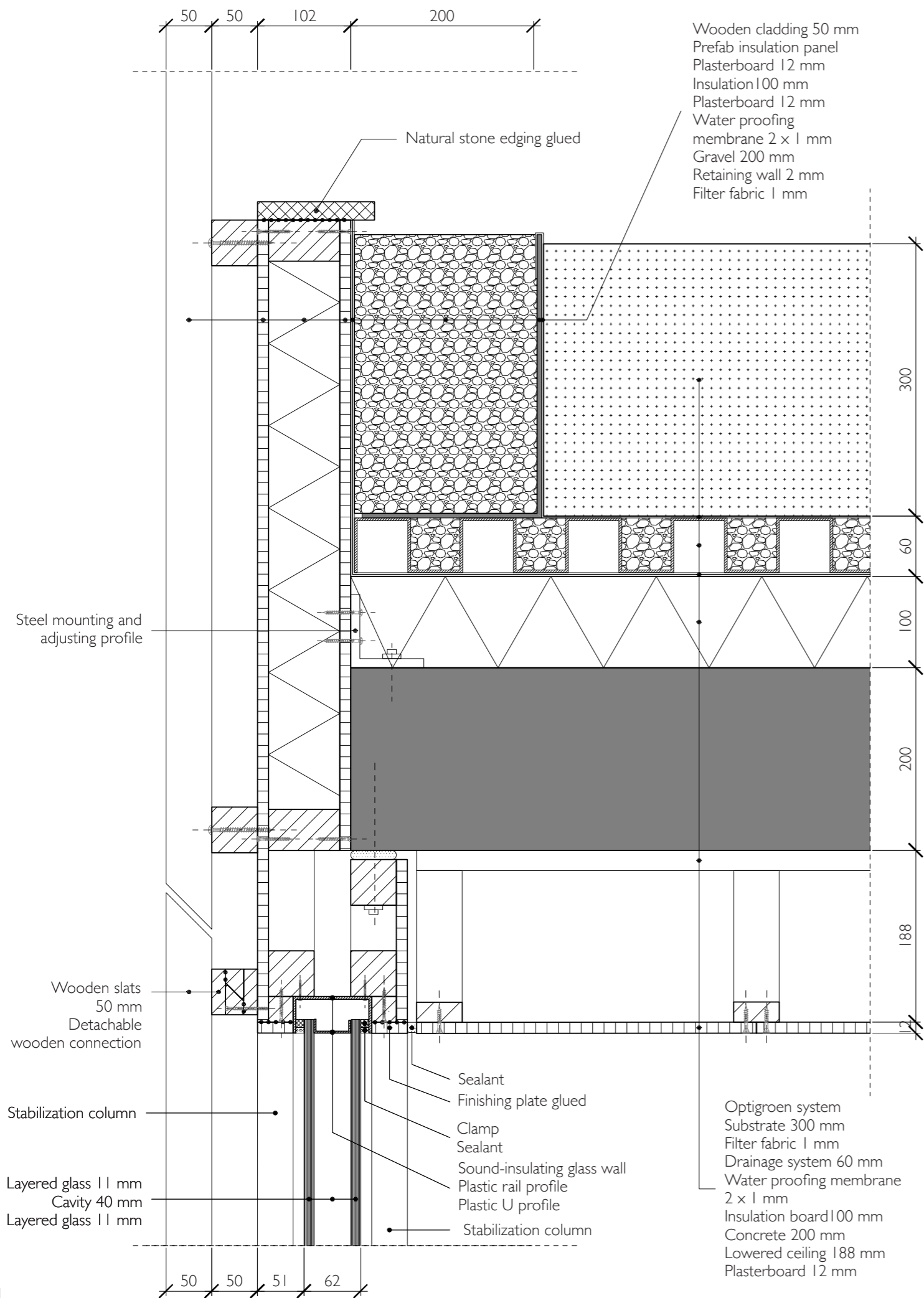
Machine Hall

Section therapy rooms 1:20



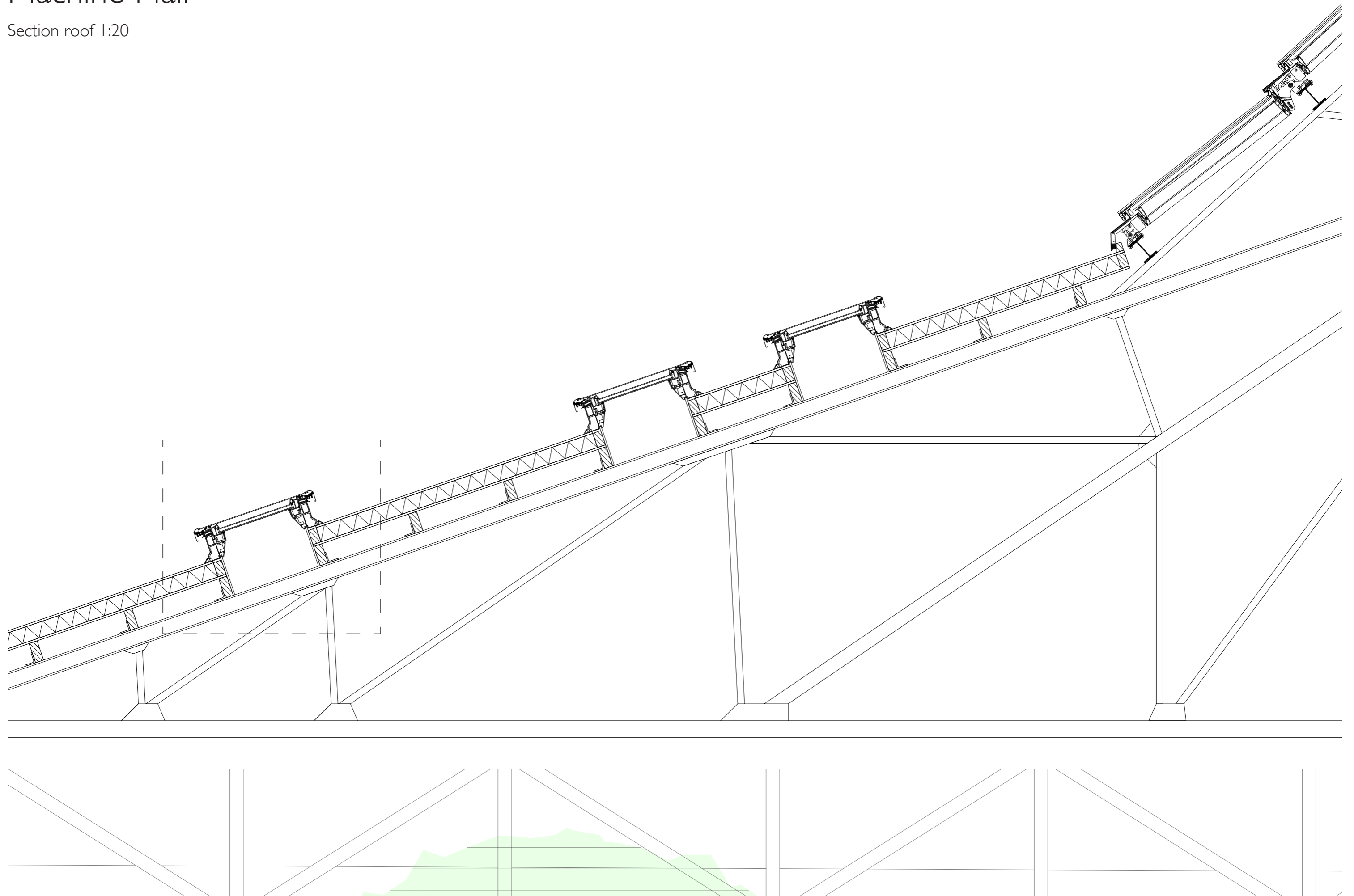
Right side

Detail 1:5
Therapy rooms
Exterior wall



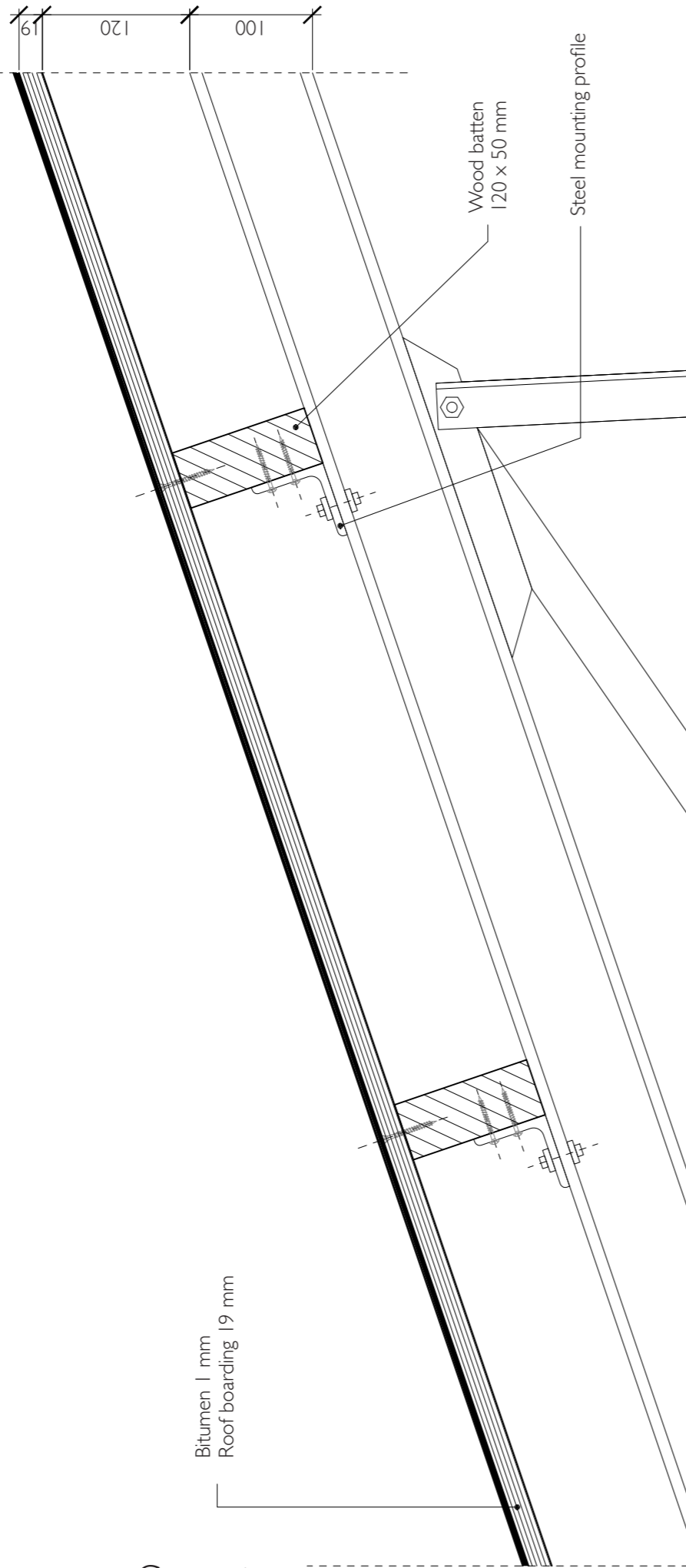
Machine Hall

Section roof 1:20

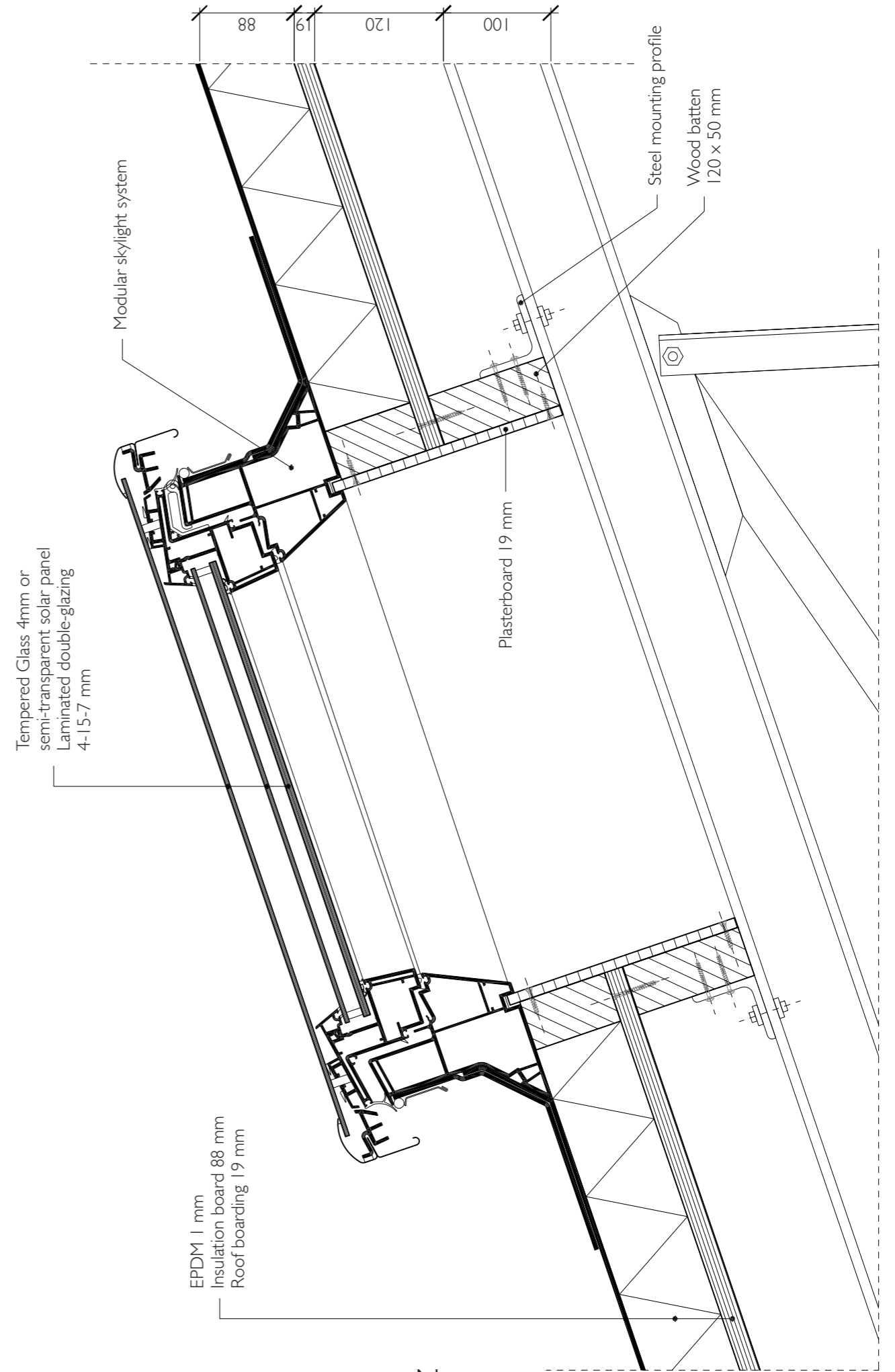


Machine Hall

Detail 1:5
Roof skylight



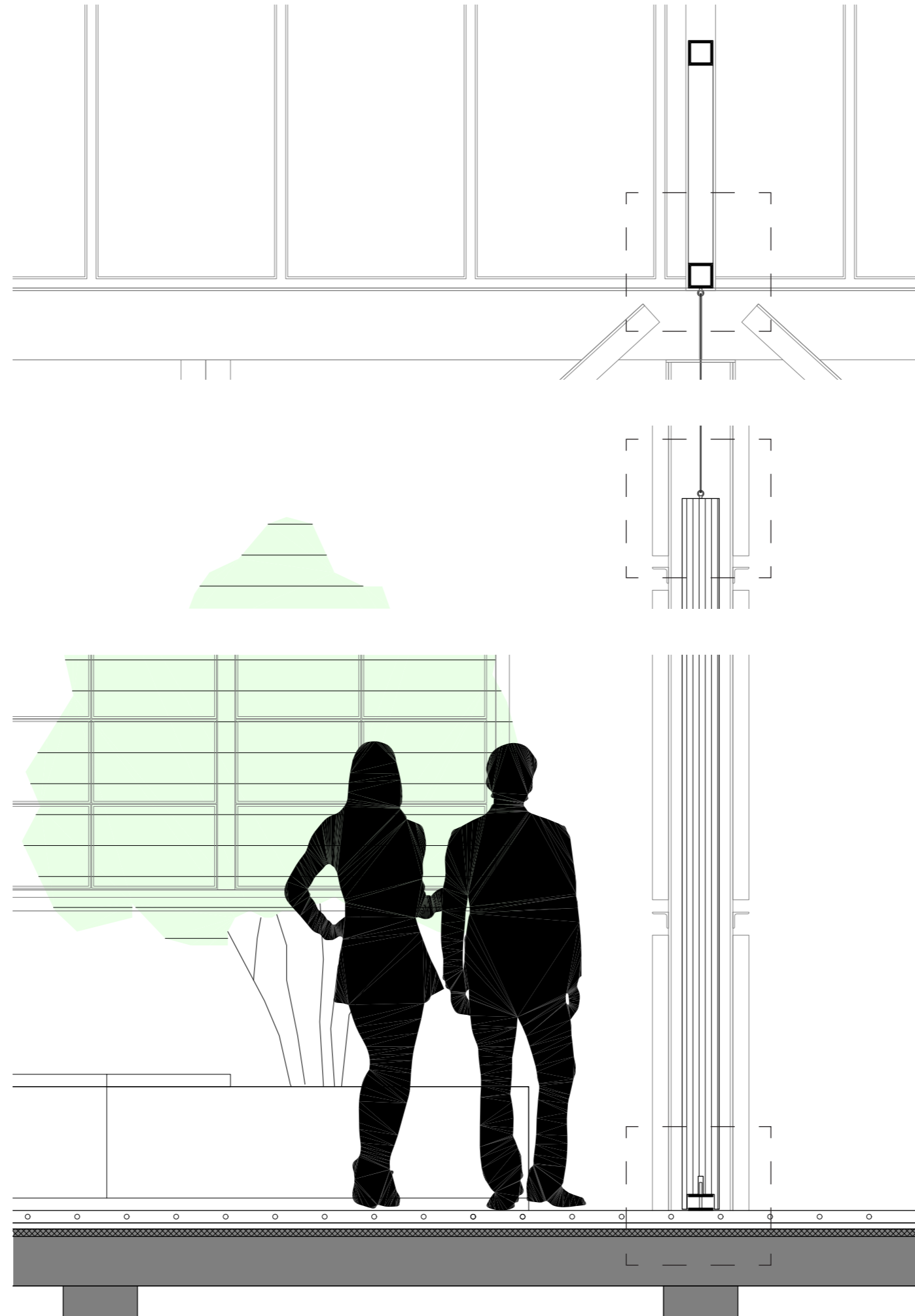
Current



New

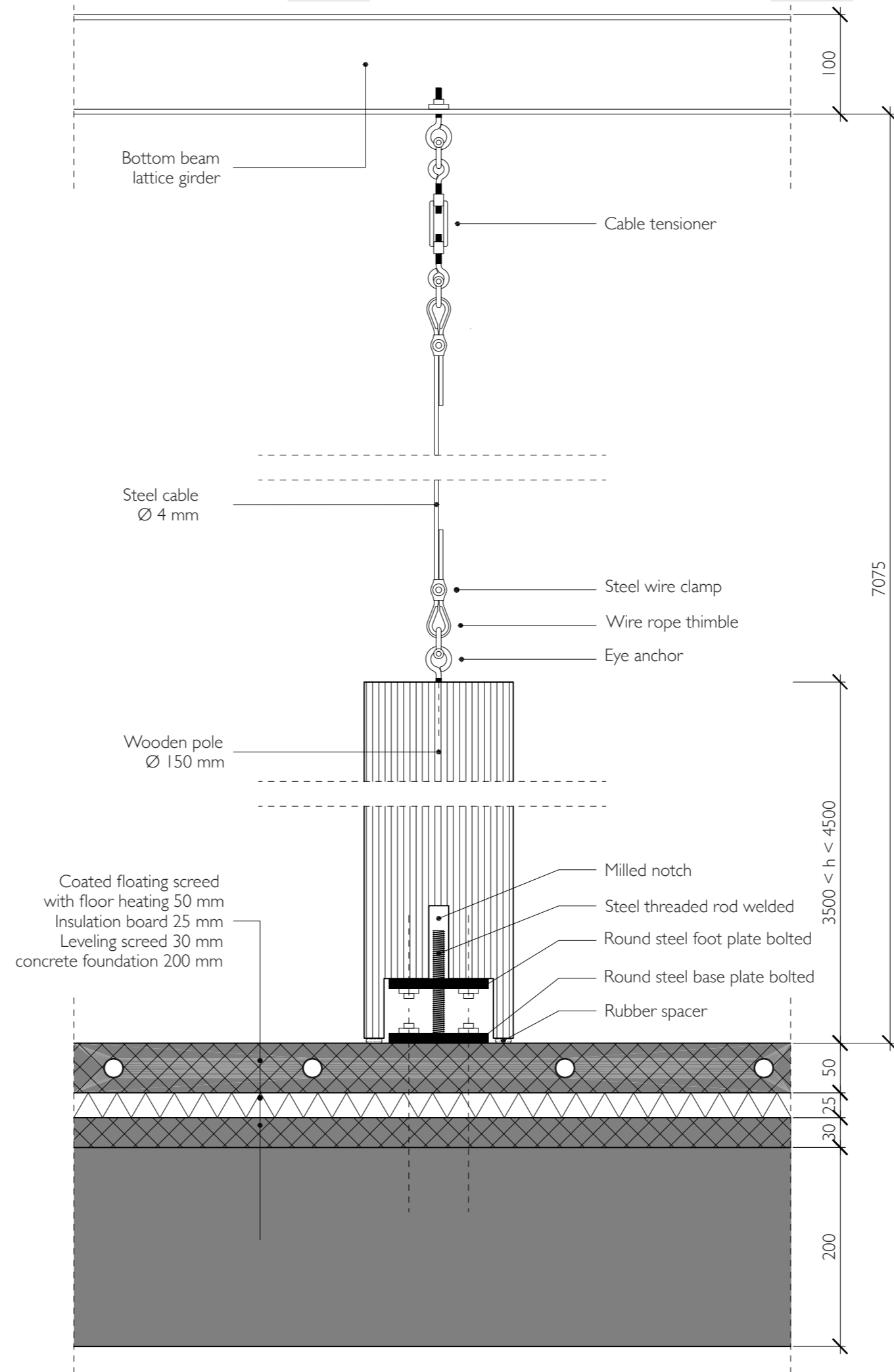
Machine Hall

Section piles 1:20



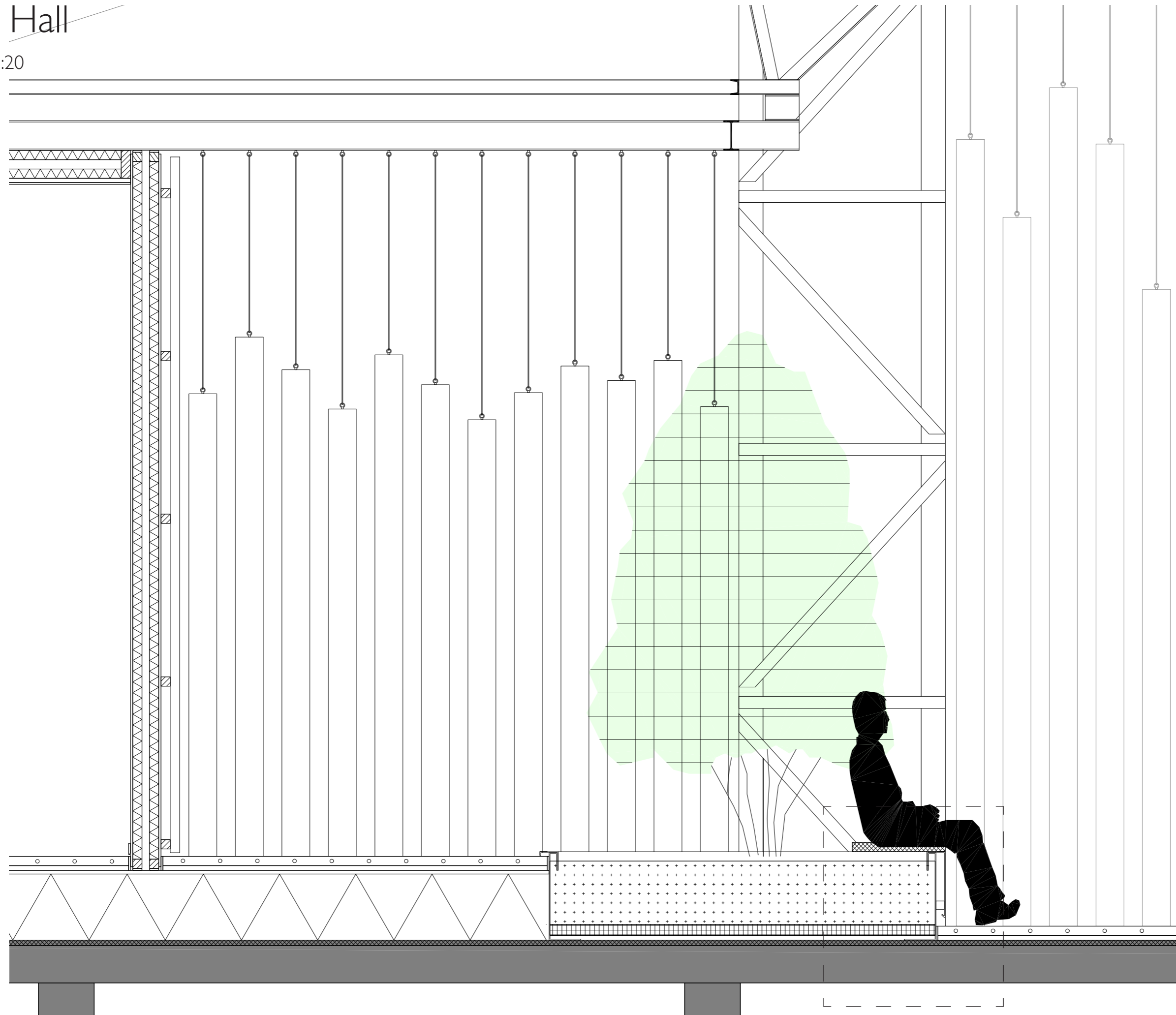
Machine Hall

Detail 1:5
Pile



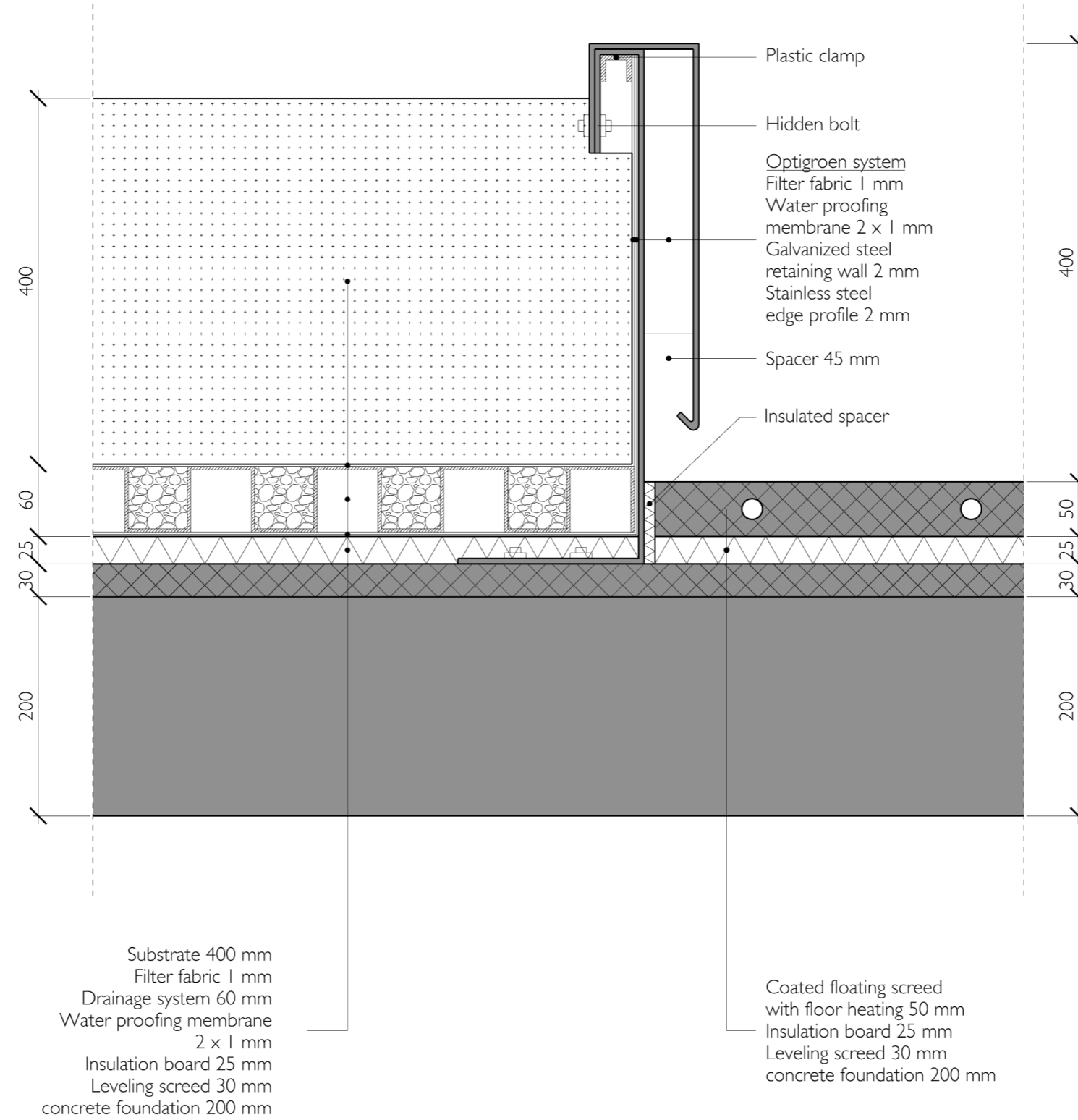
Machine Hall

Section planter 1:20



Machine Hall

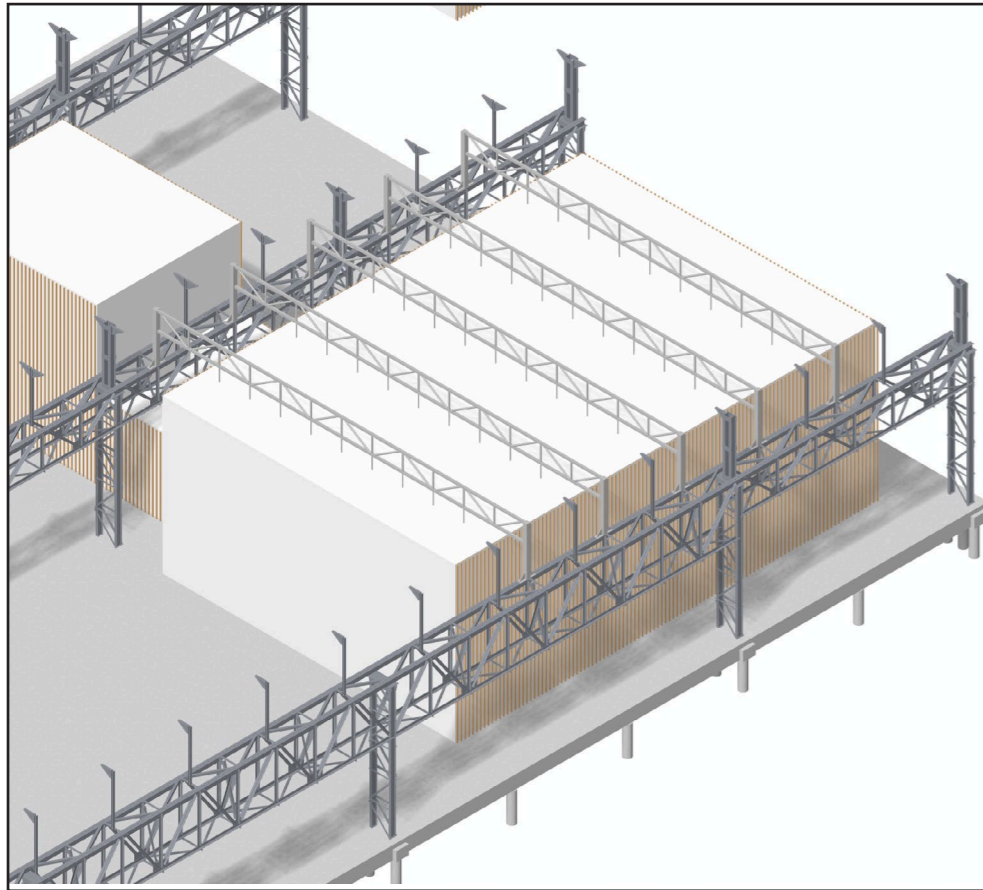
Detail 1:5
Planter



Machine Hall Construction

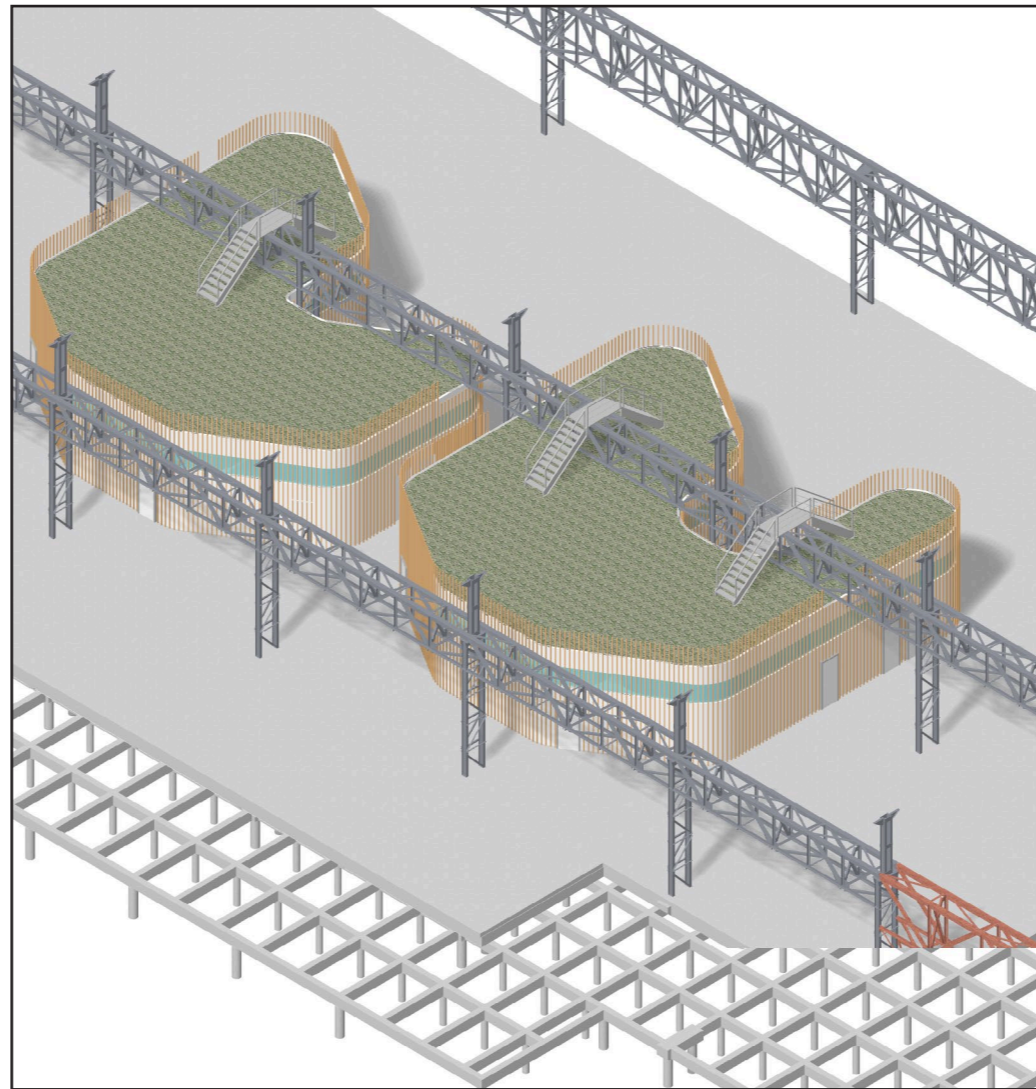
Principles

Theatre



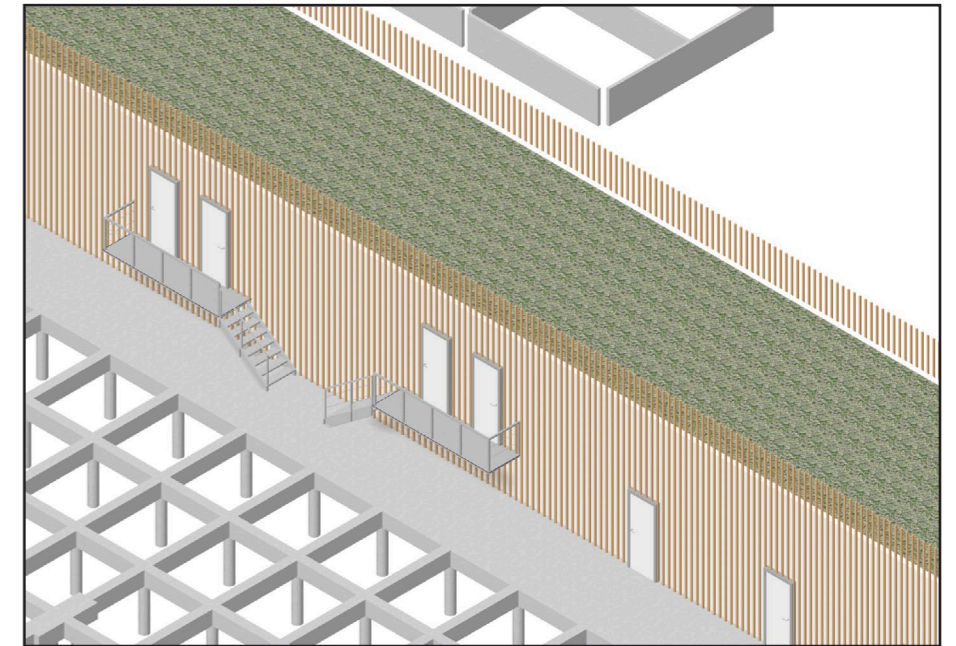
Hanging roof
trusses

Therapy rooms



Mushroom
Columns

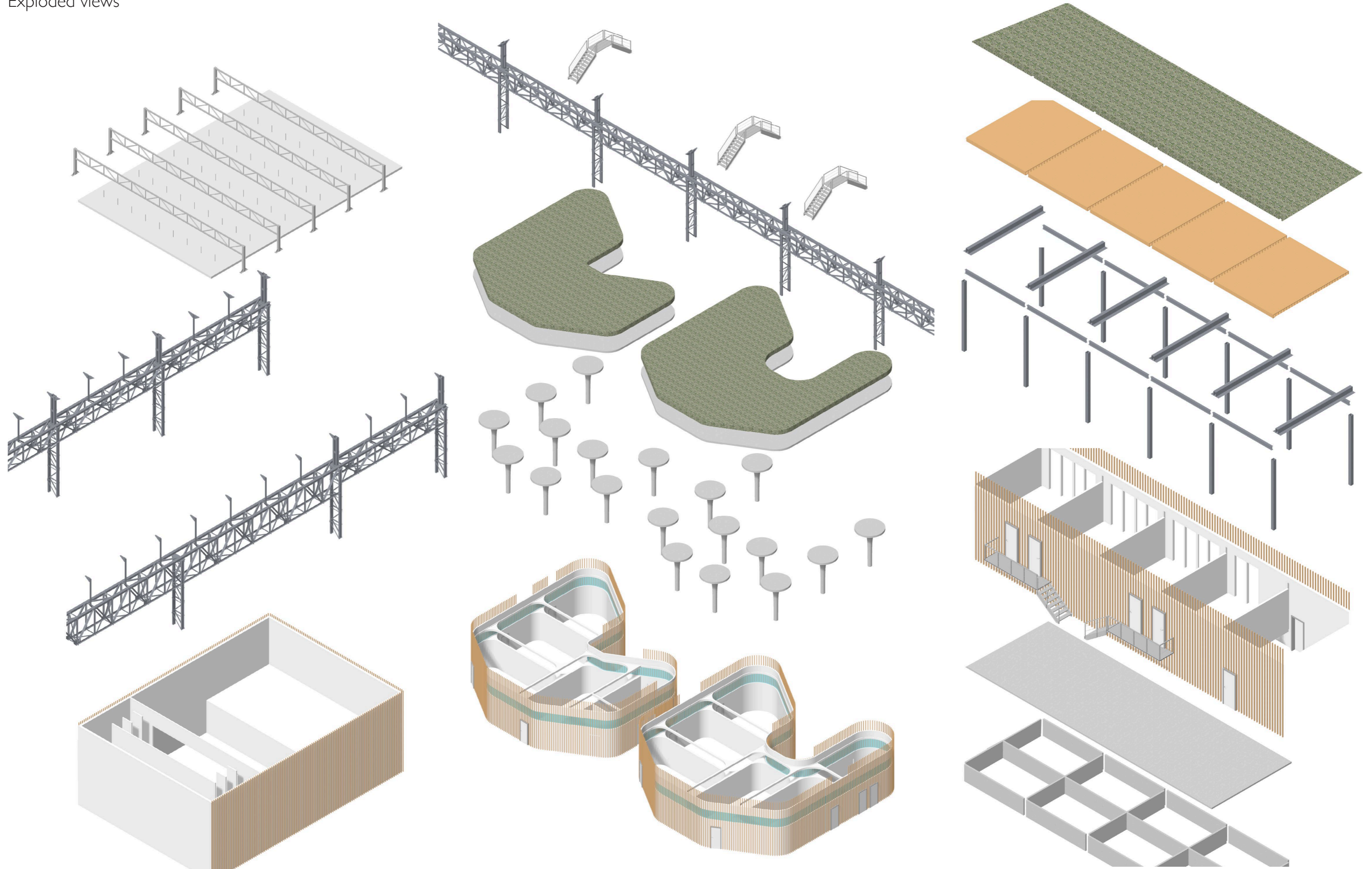
Living rooms



Columns
and Beams

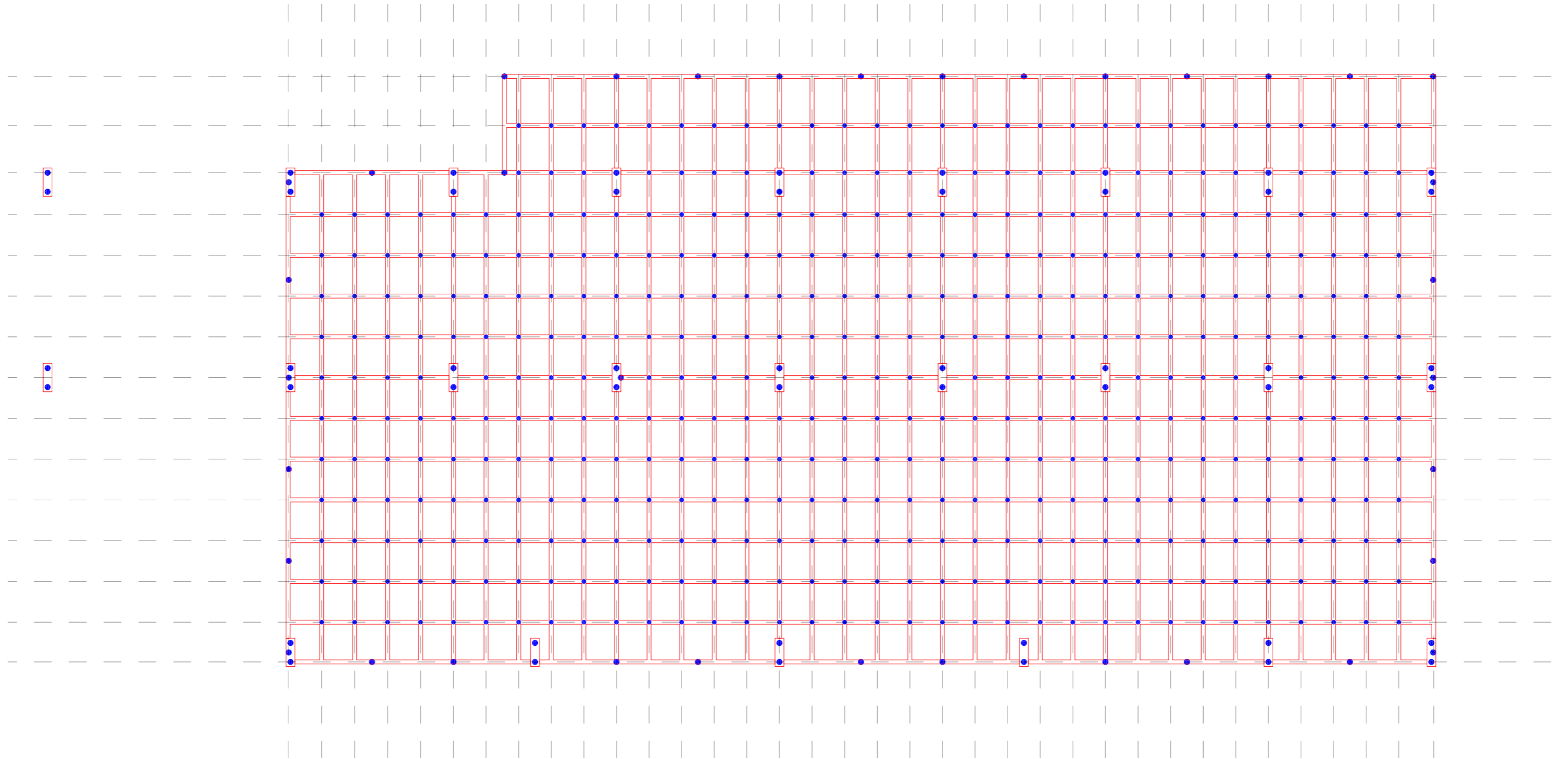
Machine Hall Construction

Exploded views



Machine Hall Construction

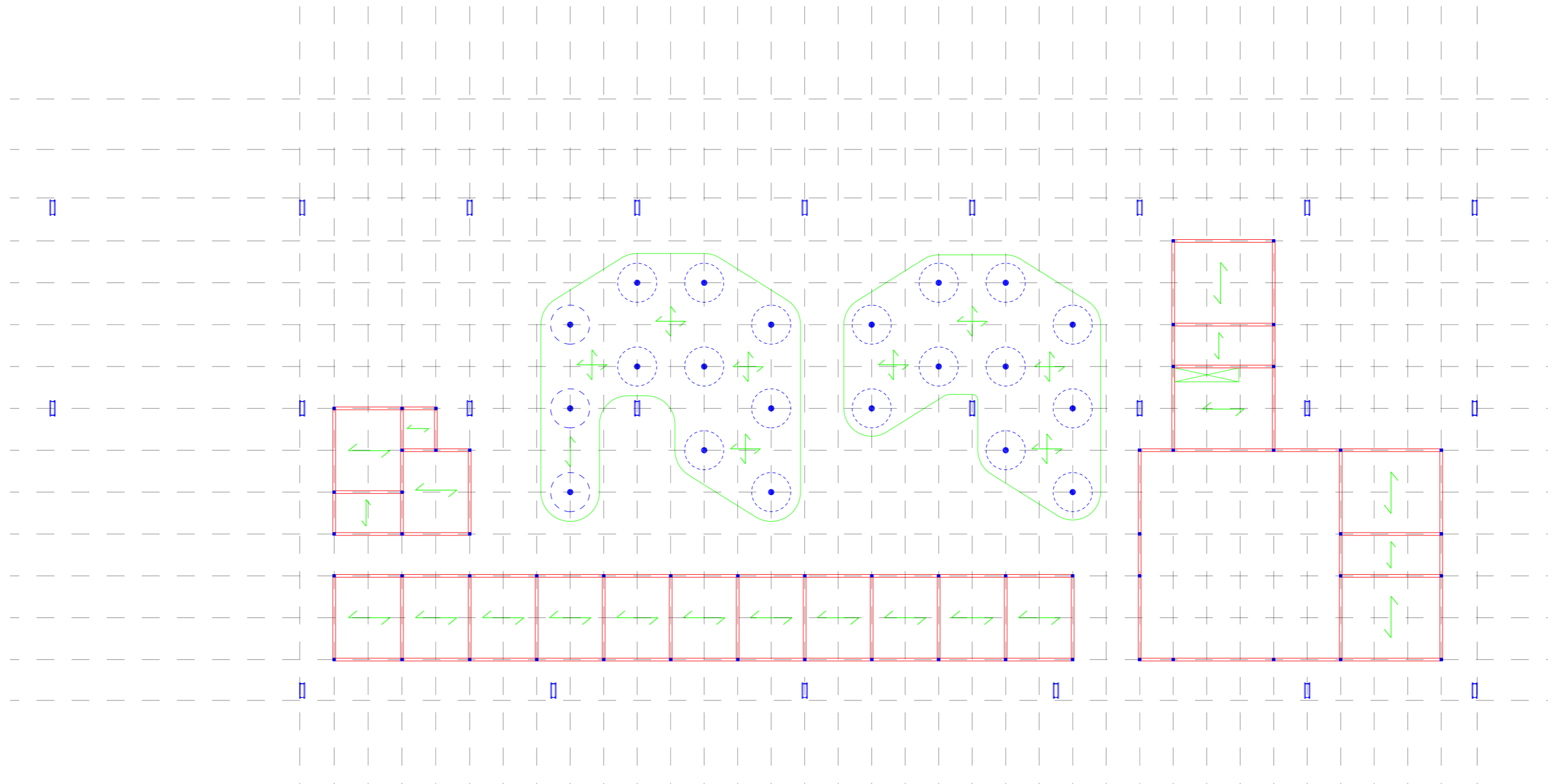
Construction 1:300
Foundation



Machine Hall Construction

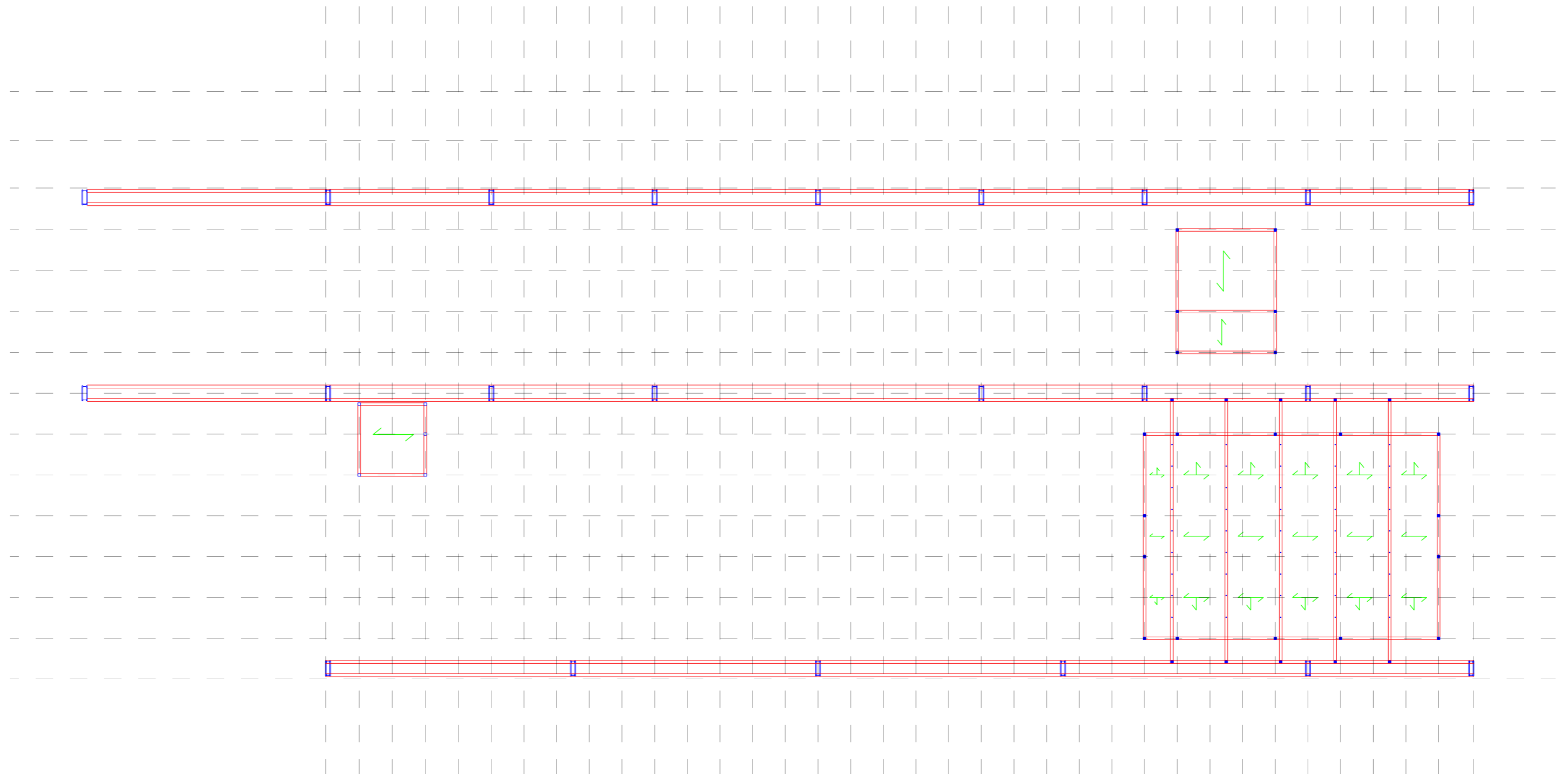
Construction 1:300

First floor



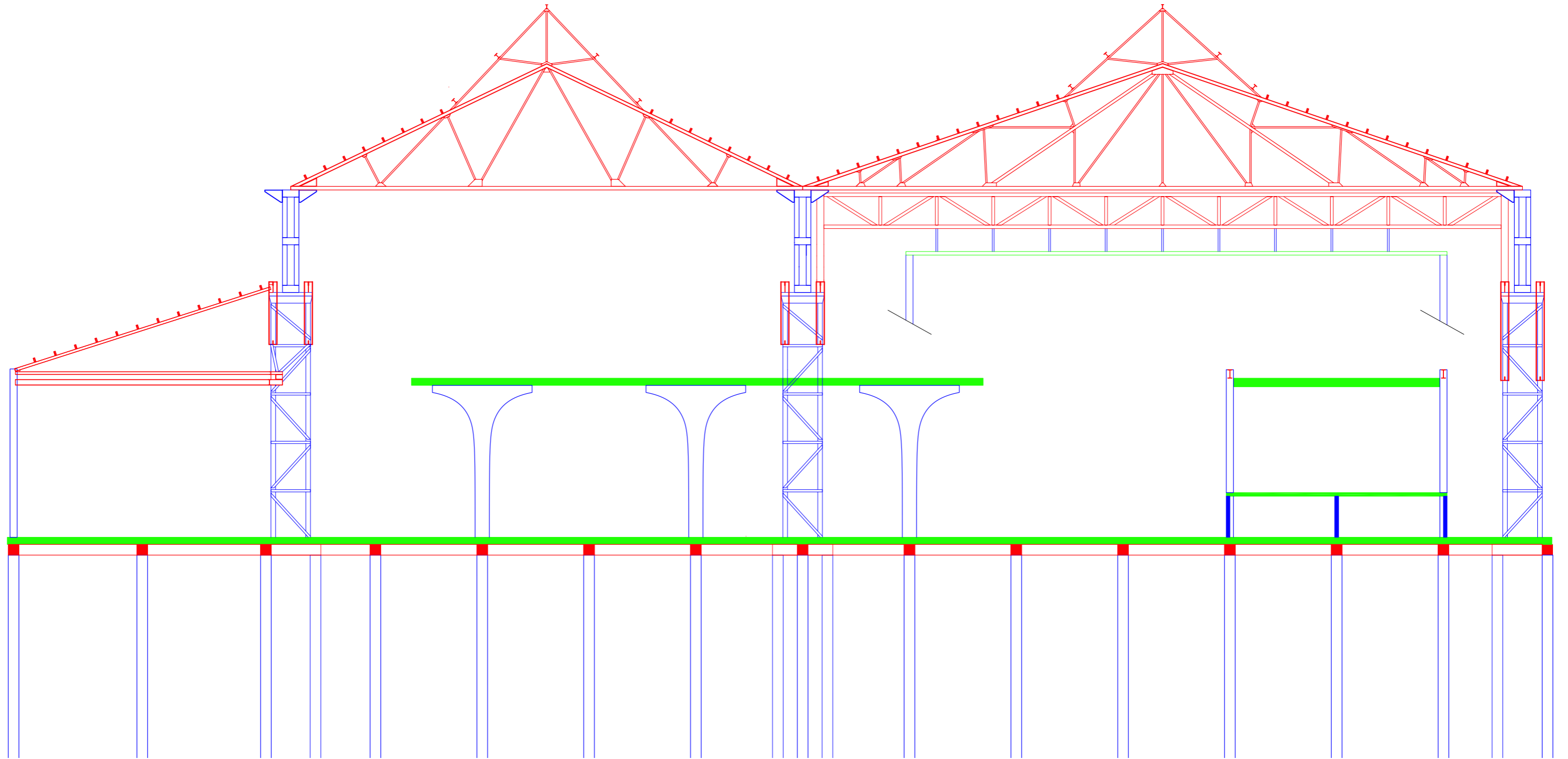
Machine Hall Construction

Construction 1:300
Second floor



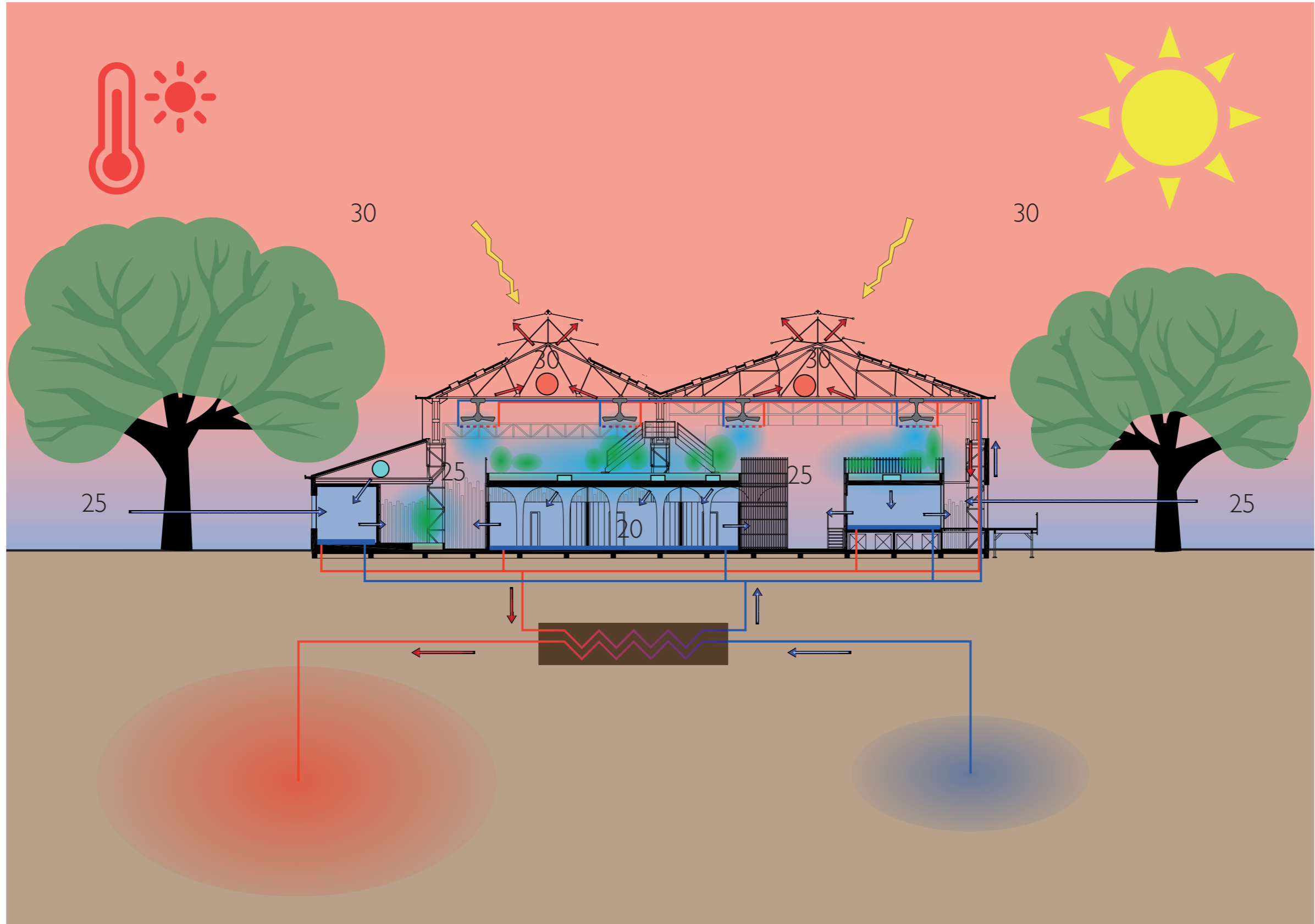
Machine Hall Construction

Construction 1:200
Section East-West



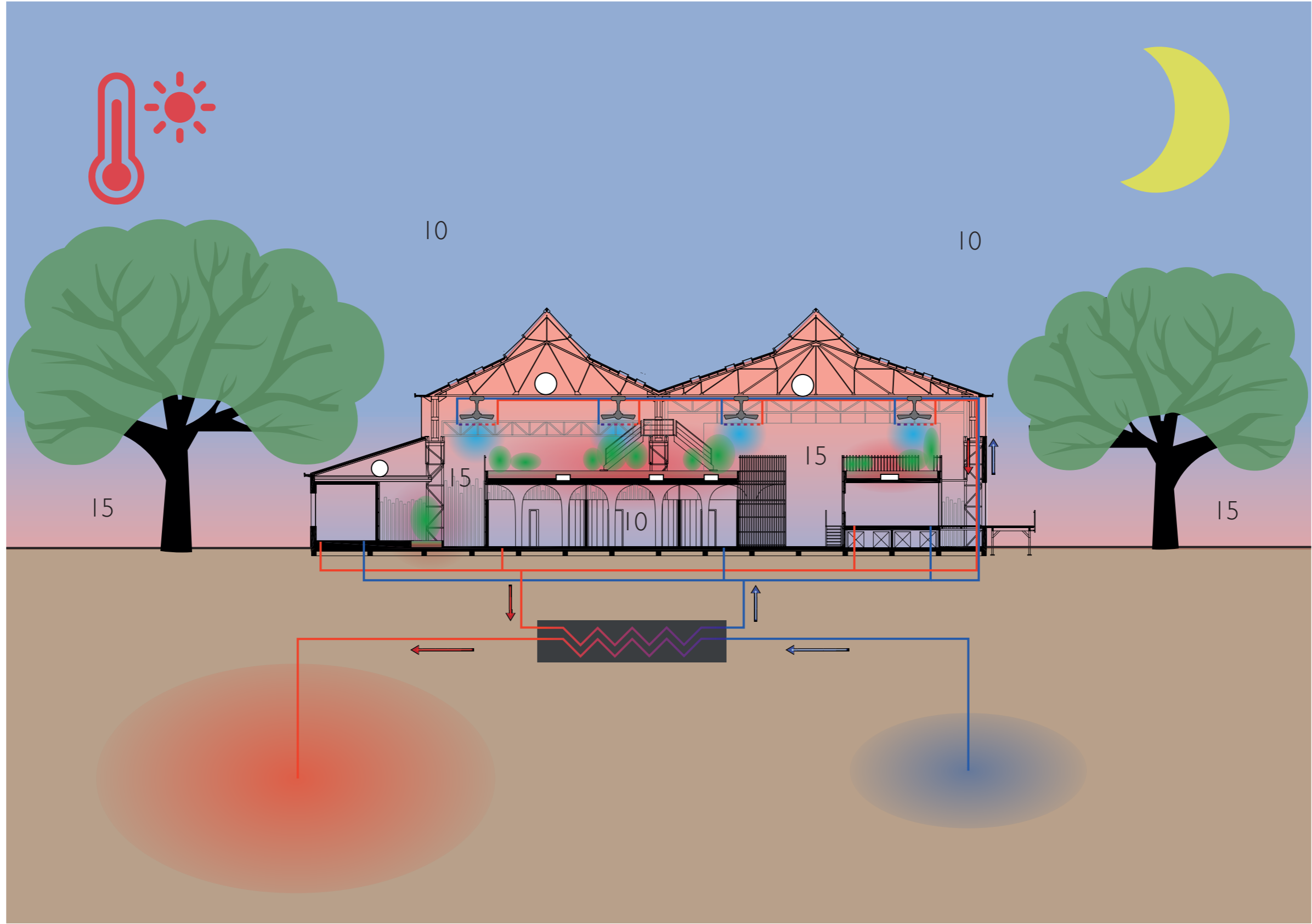
Machine Hall Climate

Climate summer
Day



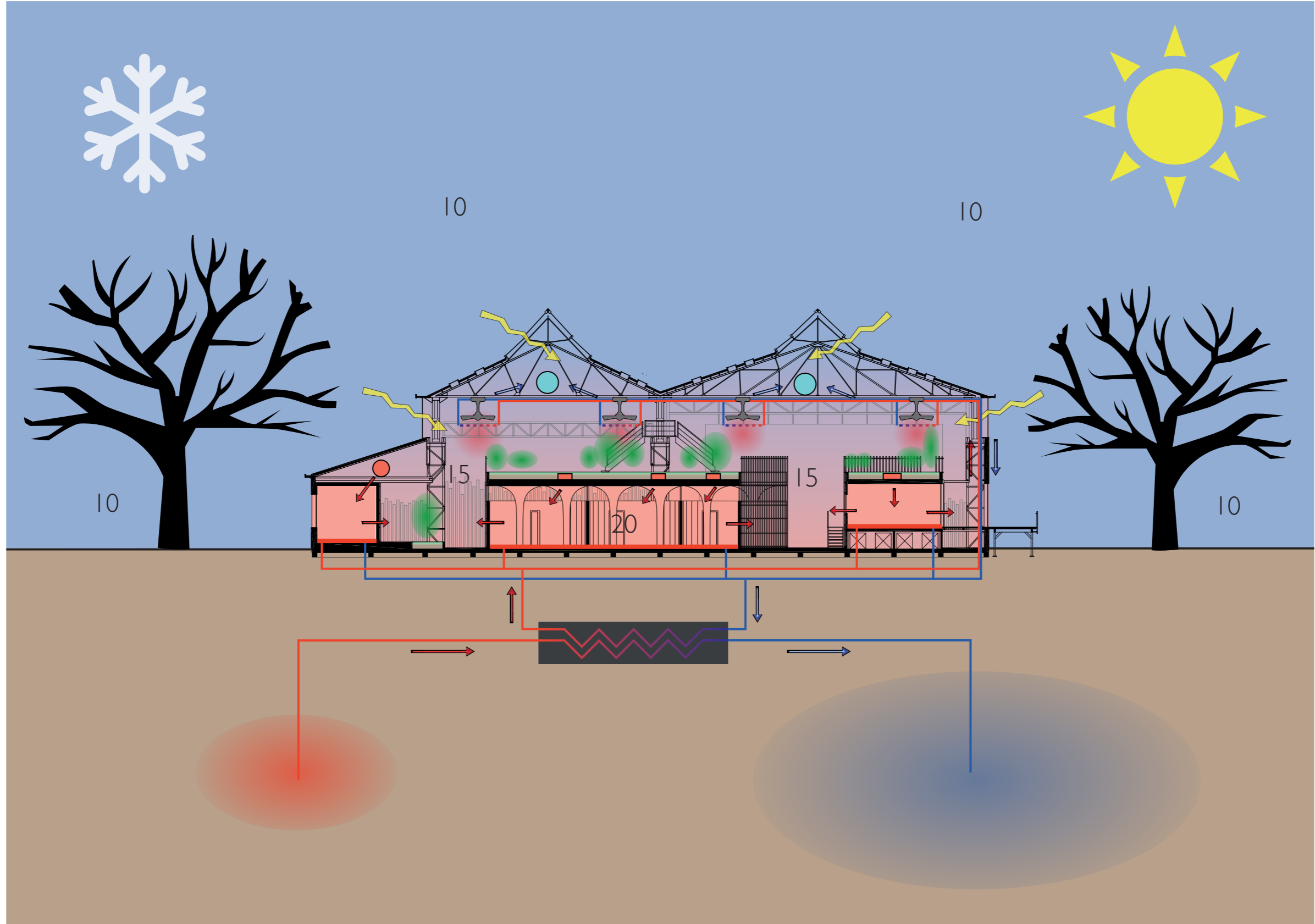
Machine Hall Climate

Climate summer
Night



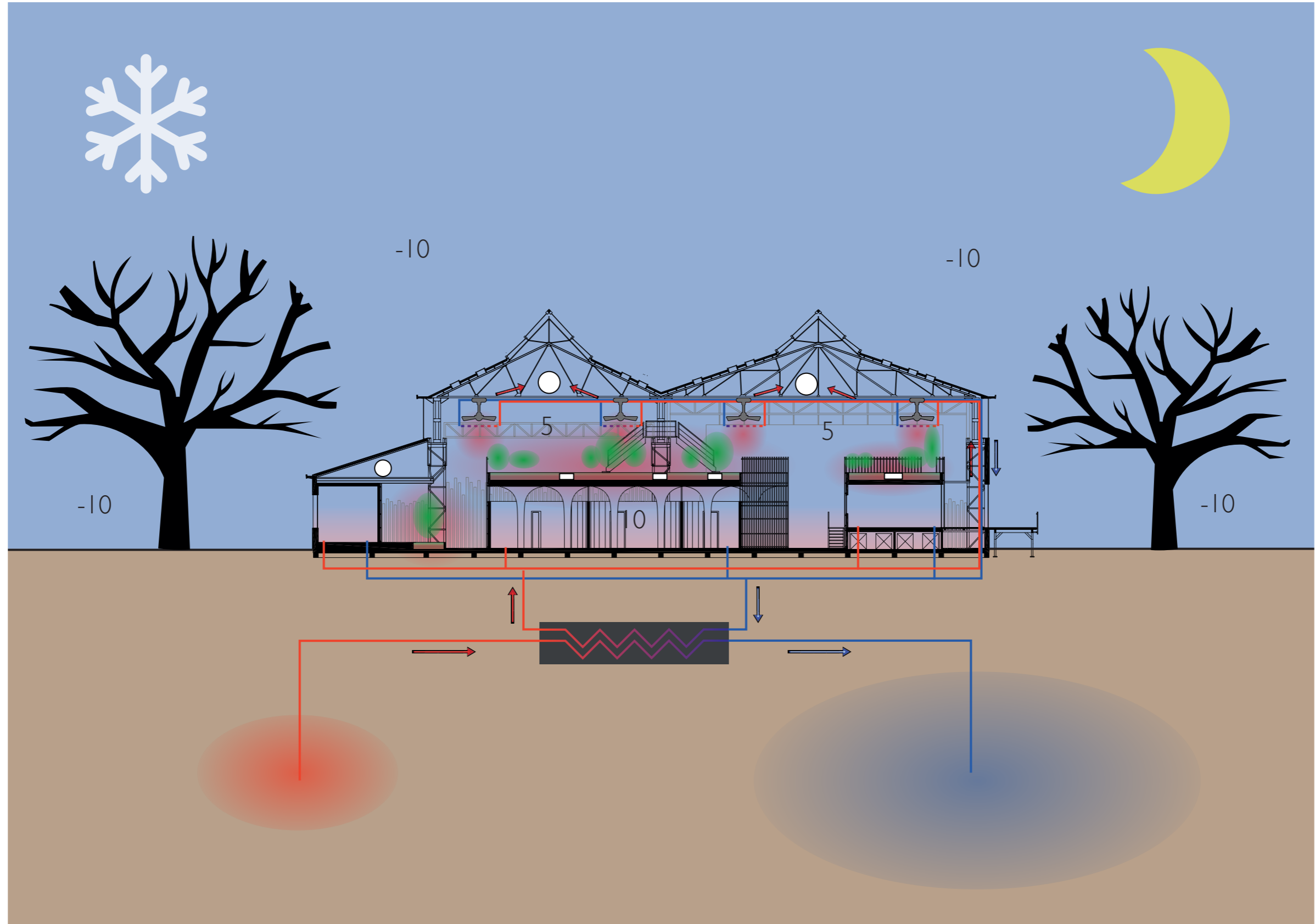
Machine Hall Climate

Climate winter
Day



Machine Hall Climate

Climate winter
Night



Machine Hall Renders

Entrance mental health centre
Slats open



Machine Hall Renders

Entrance mental health centre
Slats closed



Machine Hall Renders

Entrance theatre



Machine Hall Renders

Pavilions



Machine Hall Renders

Foyer mental health centre



Machine Hall Renders

Foyer theatre



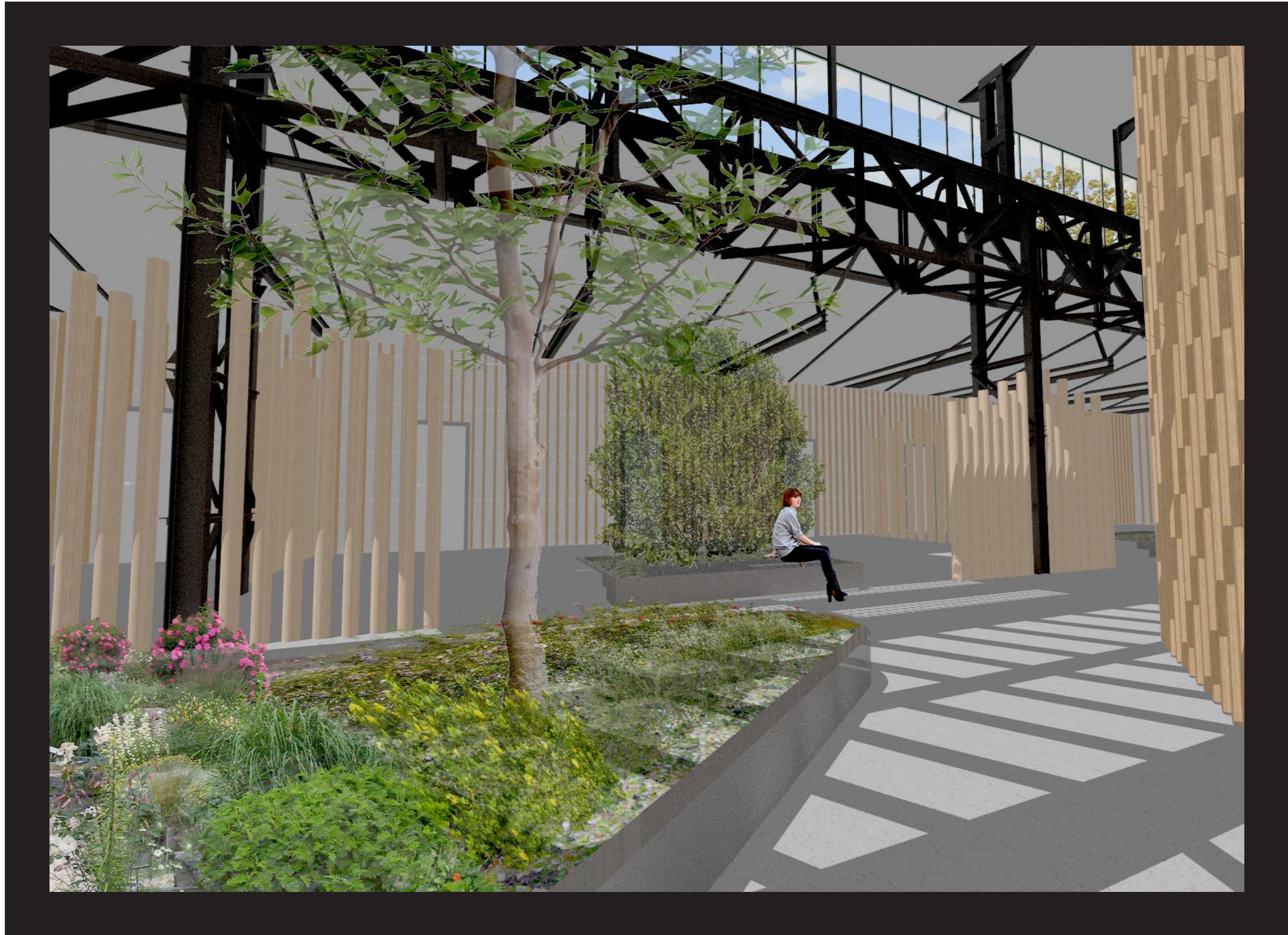
Machine Hall Renders

Central space near therapy rooms



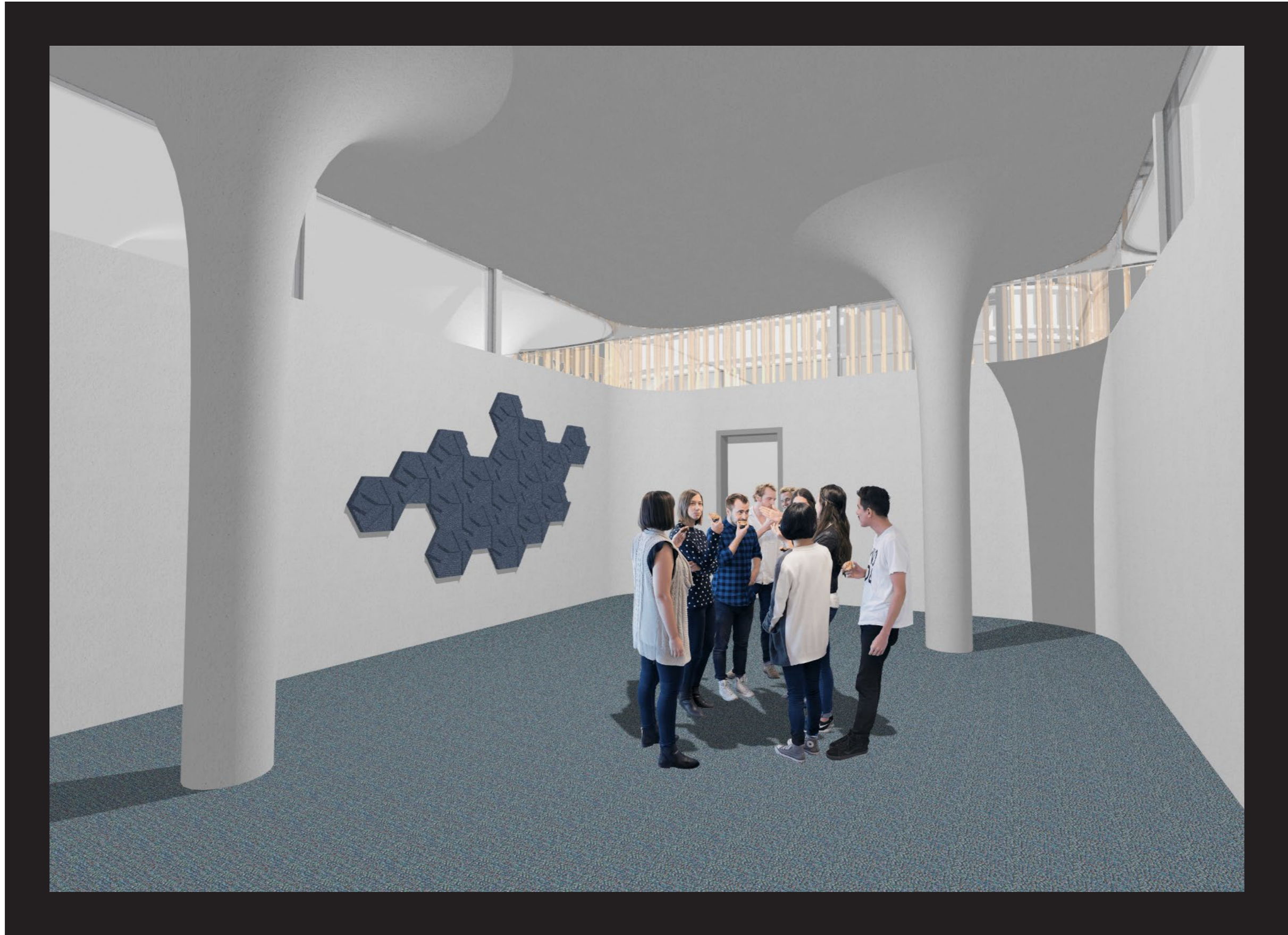
Machine Hall Renders

Central space near offices



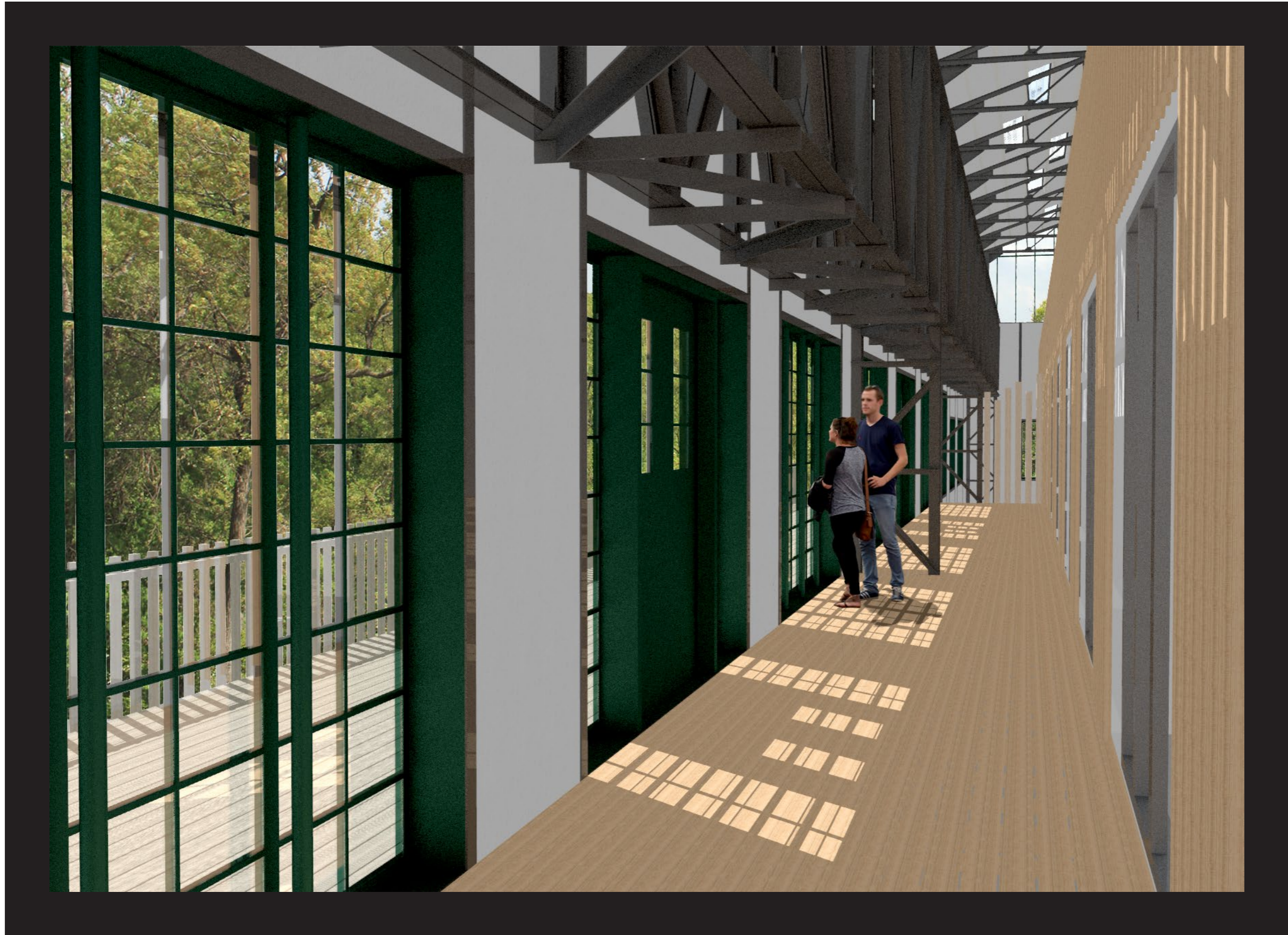
Machine Hall Renders

Therapy room



Machine Hall Renders

Corridor next to the living rooms



Machine Hall Renders

Main staircase to the green roof



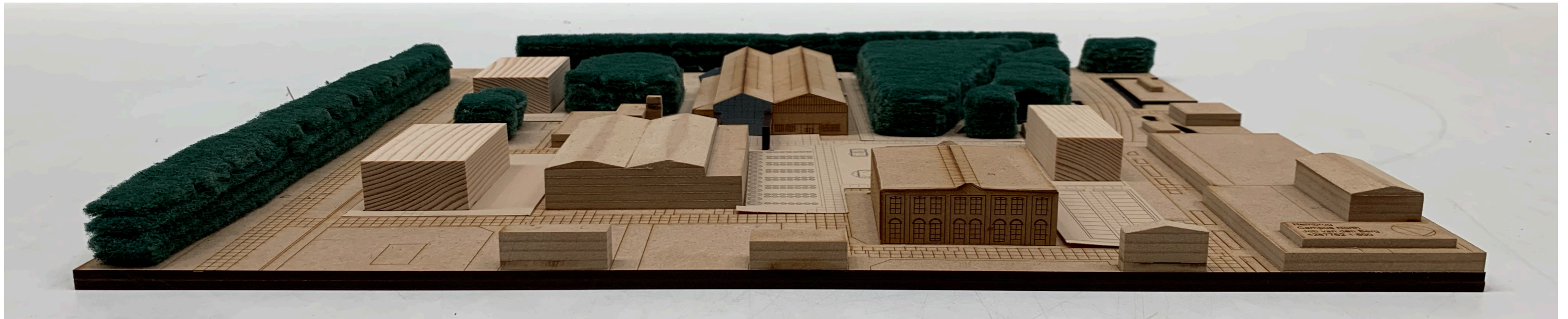
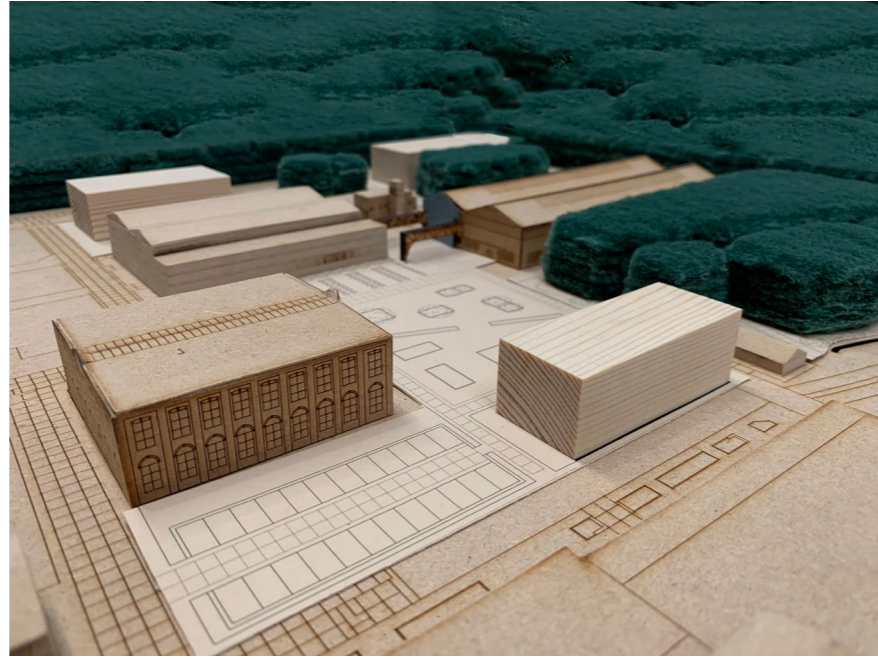
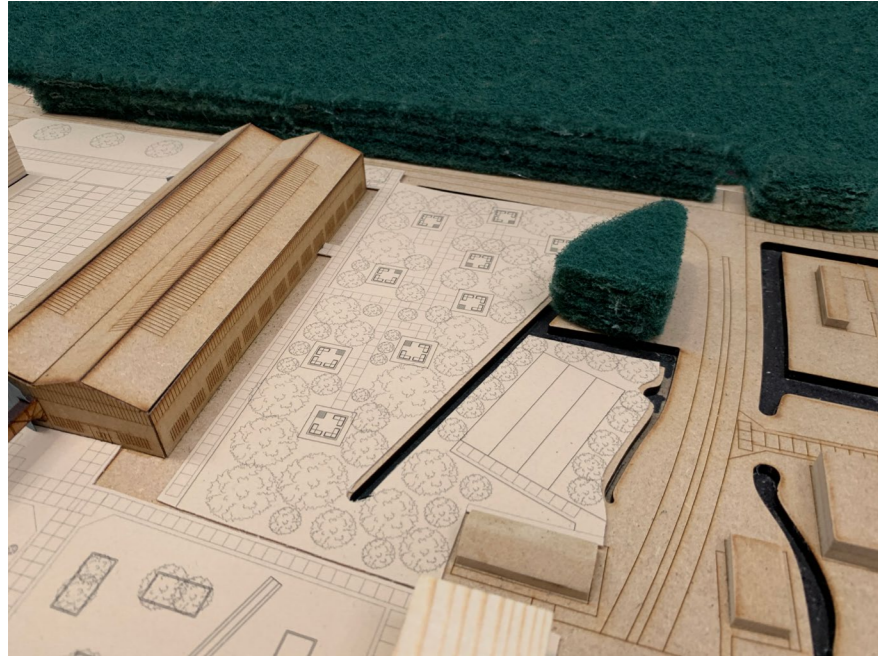
Machine Hall Renders

Reflection



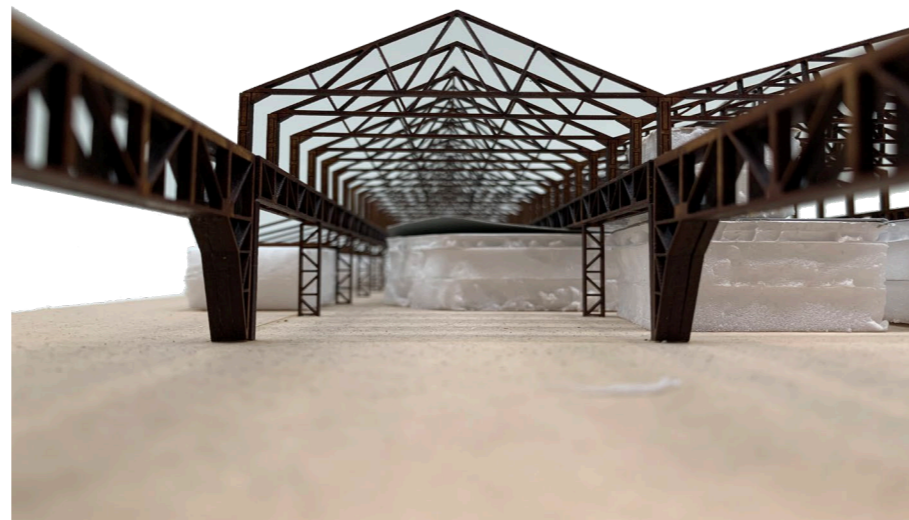
Machine Hall Models

Site model
1:200



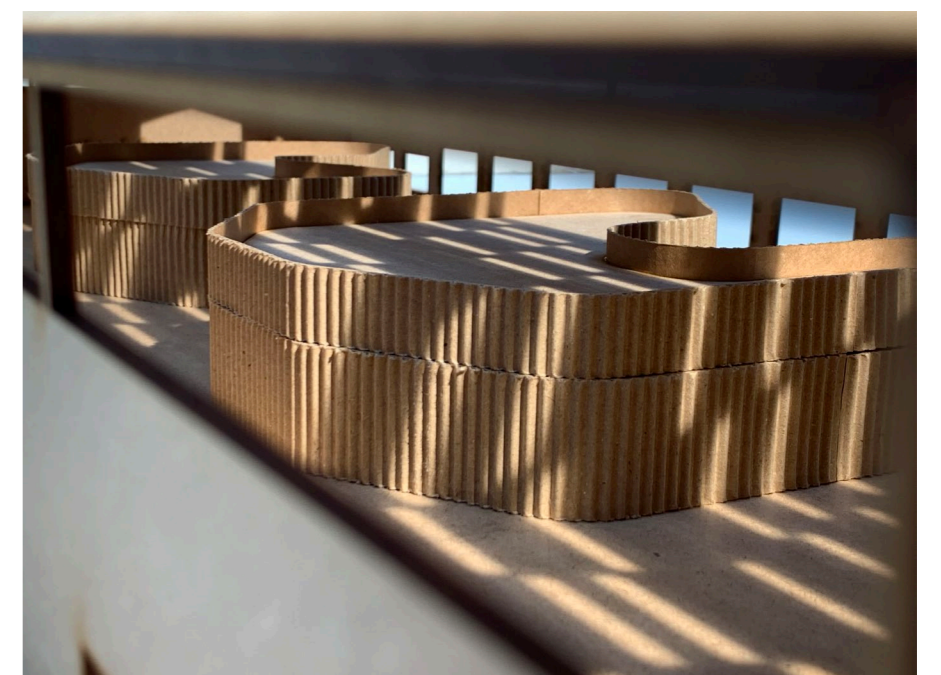
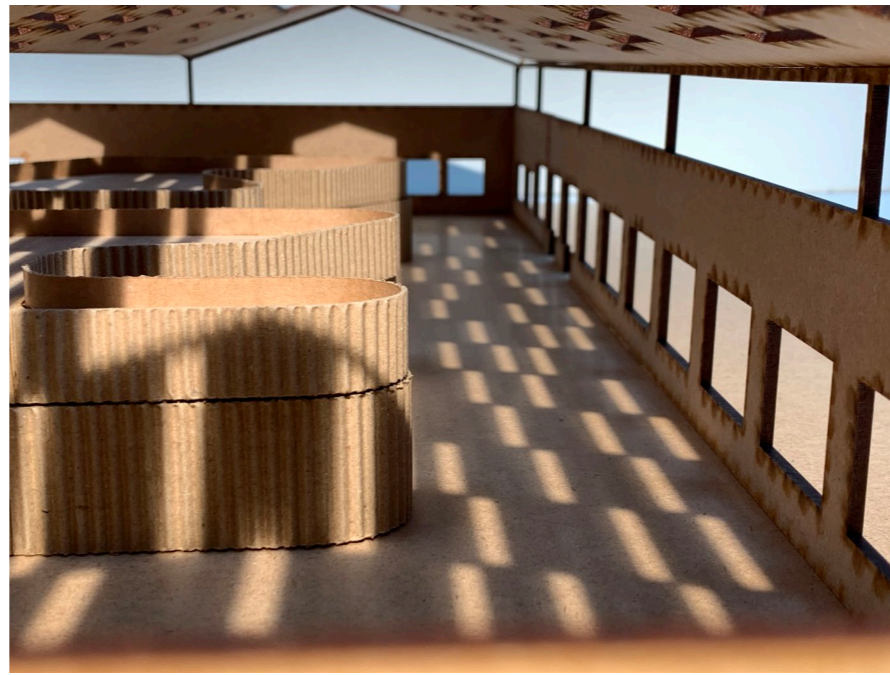
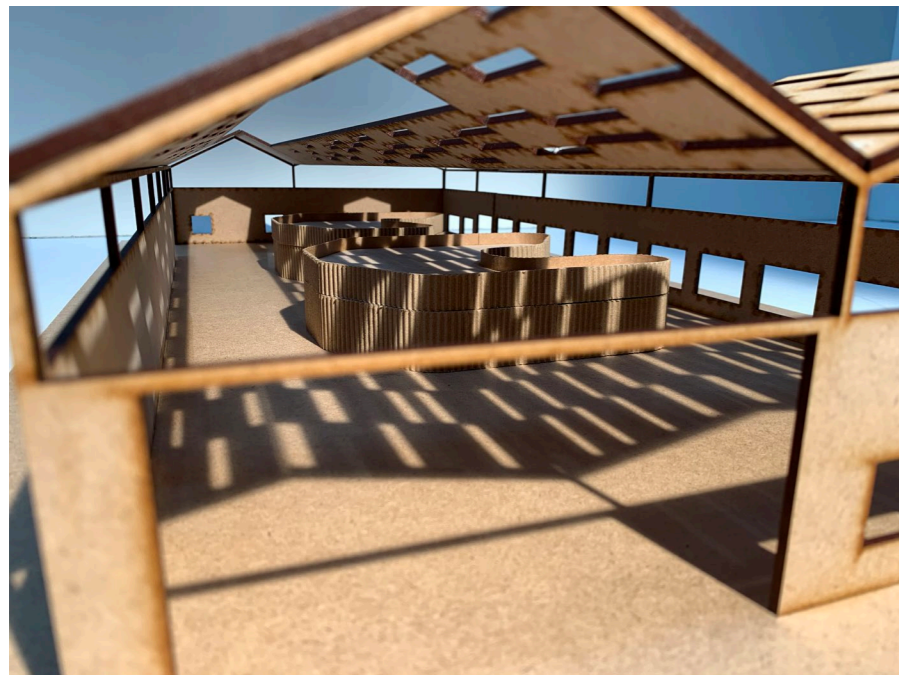
Machine Hall Models

Construction and mass
1:200



Machine Hall Models

Roof intervention
Daylight model
1100



Machine Hall Models

Room dividing
Pole model
120

