

# FLOATING WOODEN OFFICE

INGRI HEGGEBØ & SYNNØVE SOLBERG

URBAN TRANSFORMATION IN TIMBER | FALL 2015

The site is located in Maridalsveien 10, next to a roundabout connecting Maridalsveien og Fredensborgveien. Maridalsveien is characterized with taller buildings and more traffic and noise. Fredensborgveien is more calm with smaller, old wooden houses. There is an building on the site, built in 1938, with a facade that is listed. Today the building consists of a recycling facility in the ground floor and offices. Our project is based on keeping the facade as it is, in addition to sightlines, traffic safety and movement patterns on the site.

The building is elevated 15 meters from the ground, and is 25 meters in total. It follows the curved outlines of the site, and embraces the existing building. The project is shaped by its surroundings, and the form is wider on the side facing Maridalsveien, and it is smaller on the side facing towards Fredensborgveien.

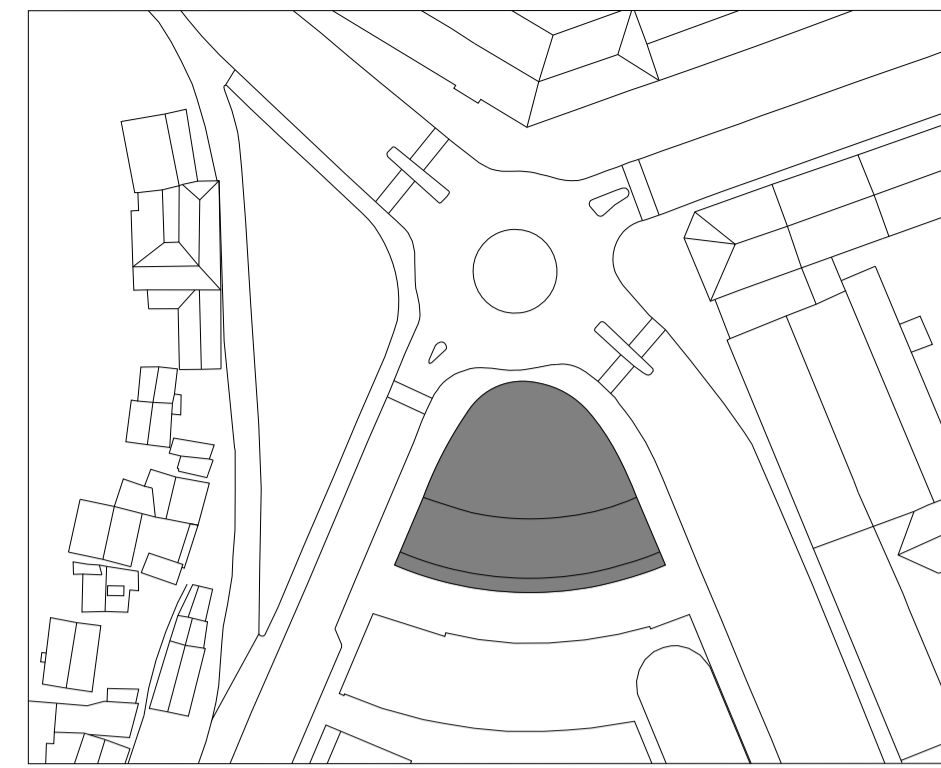
The fact that the site is facing north, shadowed by the three story existing building, makes the place in front of the existing building an unattractive place for staying a longer period of time. Our project facilitates movements across the site, giving an experience for the pedestrians passing the site. The building has an atrium to ensure some daylight on the pathways crossing the site, and the ground has a soft surface of moss to enhance the experience.

Since the new building is connected to the existing, it was natural to have the same program. The project and the existing building is connected by entrances and vertical communication, which makes it possible to leave rest of the site open for the pedestrians. There is one main entrance with elevator located in east, and one that mainly functions as a fire escape in west. The new office building has an open plan, which can transform as required. In the first floor of the new building there is a canteen and meeting rooms, that can be used by both to the new and the old building. On top of the existing building there is a common roof terrace.

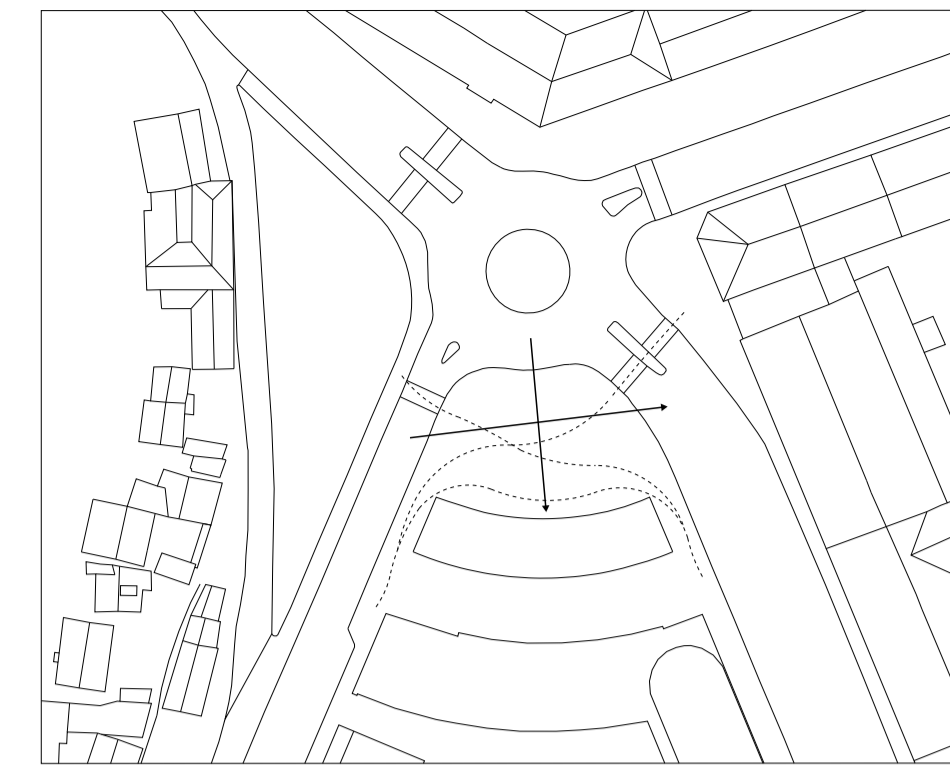
The primary construction consists of a system of columns and beams in gluelam. The dimensions of the columns are 300x300 mm in the section. The beams are in the section 700x300 mm, and the longest span is 11 meters. The floorconstruction consists of thick CLT slabs, and they are attached at the same level as the gluelam beams to slim the height of the floor construction. The height from floor to roof is tree meters, and under the beams it is 2,7 meters. This makes it possible to install a ceiling with a ventilation system, but it would also be possible to develop av natural ventilation system in this building.

The building is held up by 22 steel columns, two columns meets a beam in the floor construction. The columns have a diameter of 400 mm, and some of them are tilted to create the illusion of a randomized system. The 15 meter long columns have to be rooted in the bedrock. The connection to the existing builing stiffens the new construction, with the elevator and connections to the wall og the existing building.

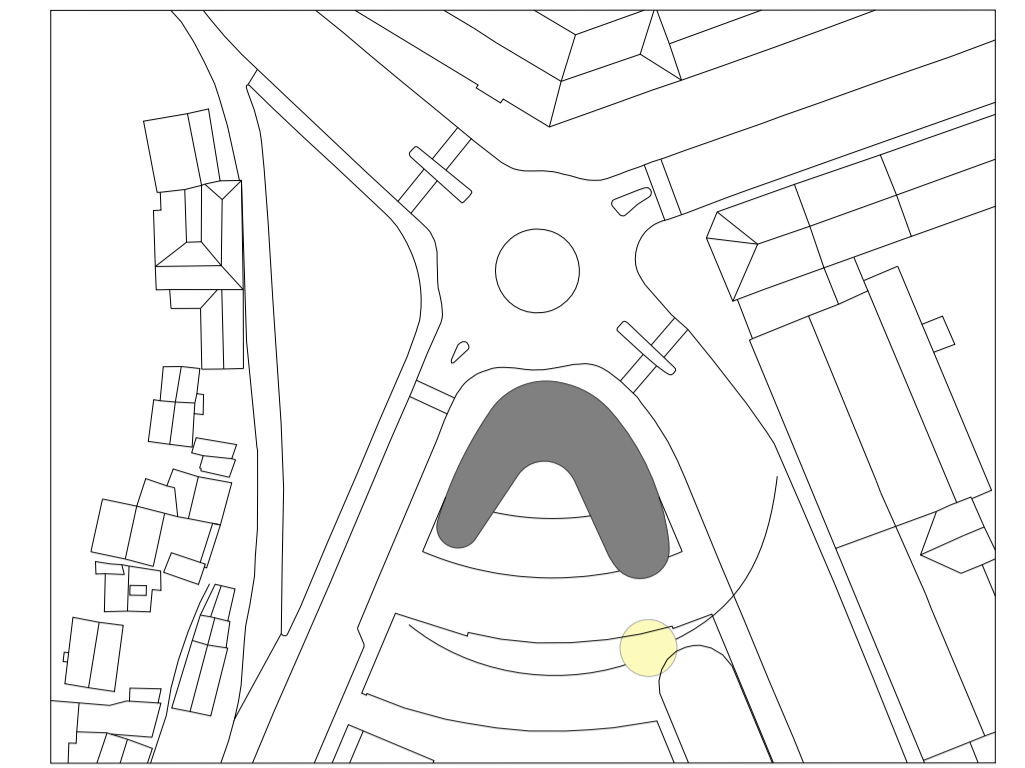
Because the project does not have any corners, the facade is based on this continuity, with glass bands going around the whole facade. In the north facade the bands are 1500 mm high and in the south facade 2500 mm. Wooden slats works as sunshading, and in the north facade the openings between the slats varies along the facade to enhance the view from the working area. In the south facade, which is by the corridor area, the slats does not have any large openings, to maximize the sunshading.



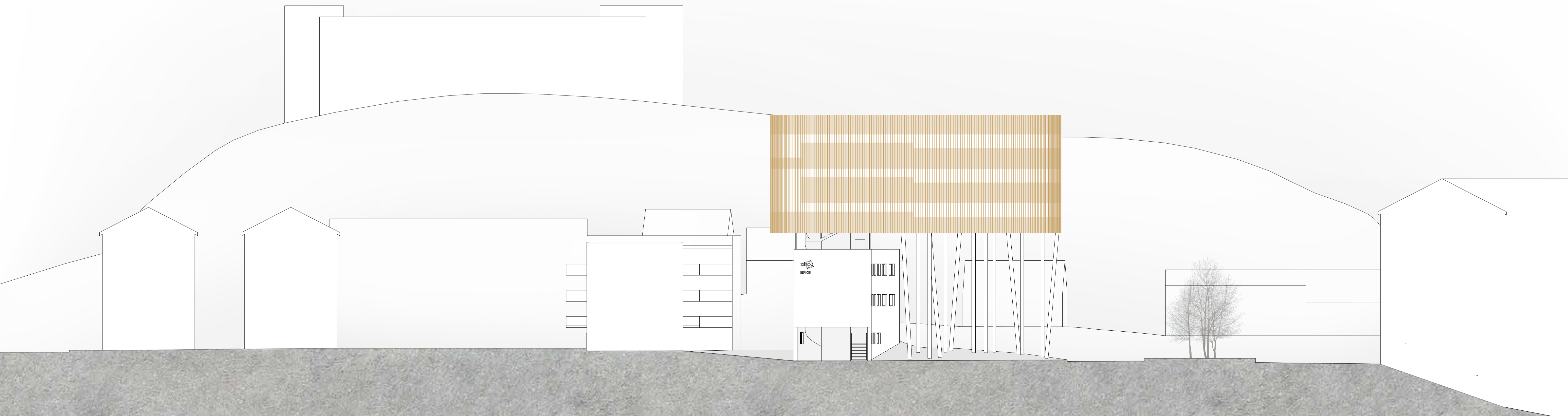
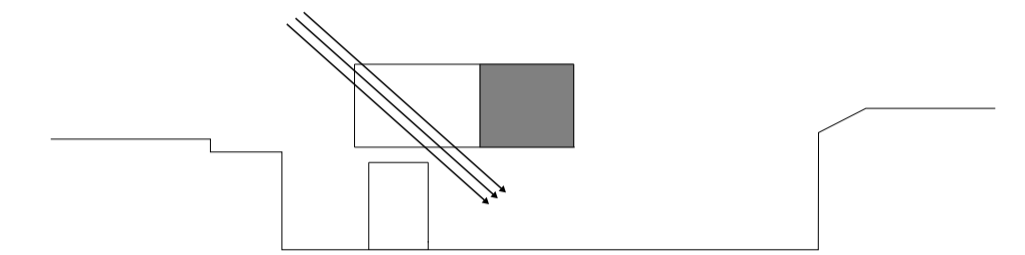
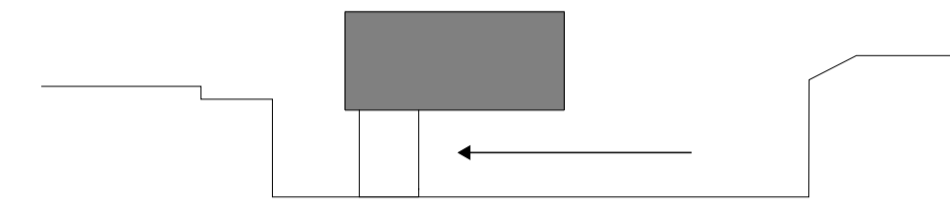
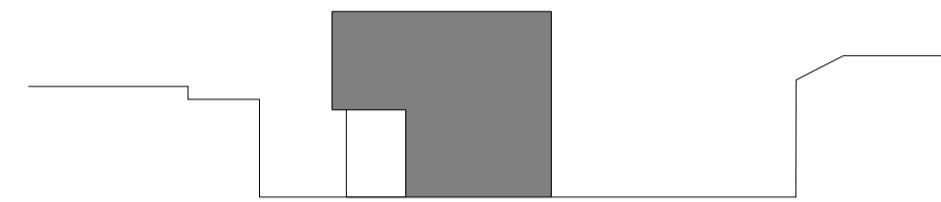
The outline of the building follows the site boundaries.



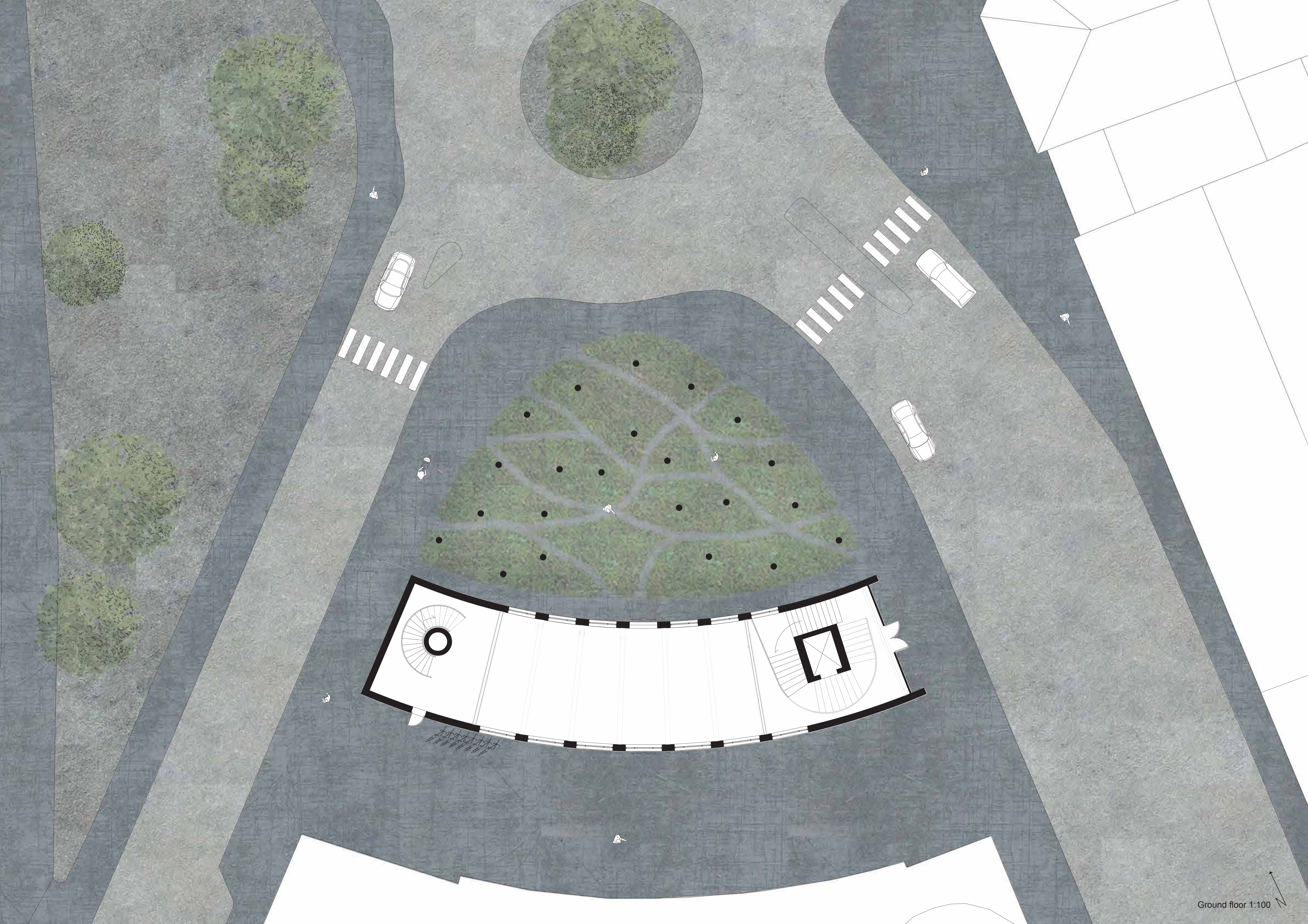
To ensure traffic safety, and to maintain the view for the existing building, the building is elevated.



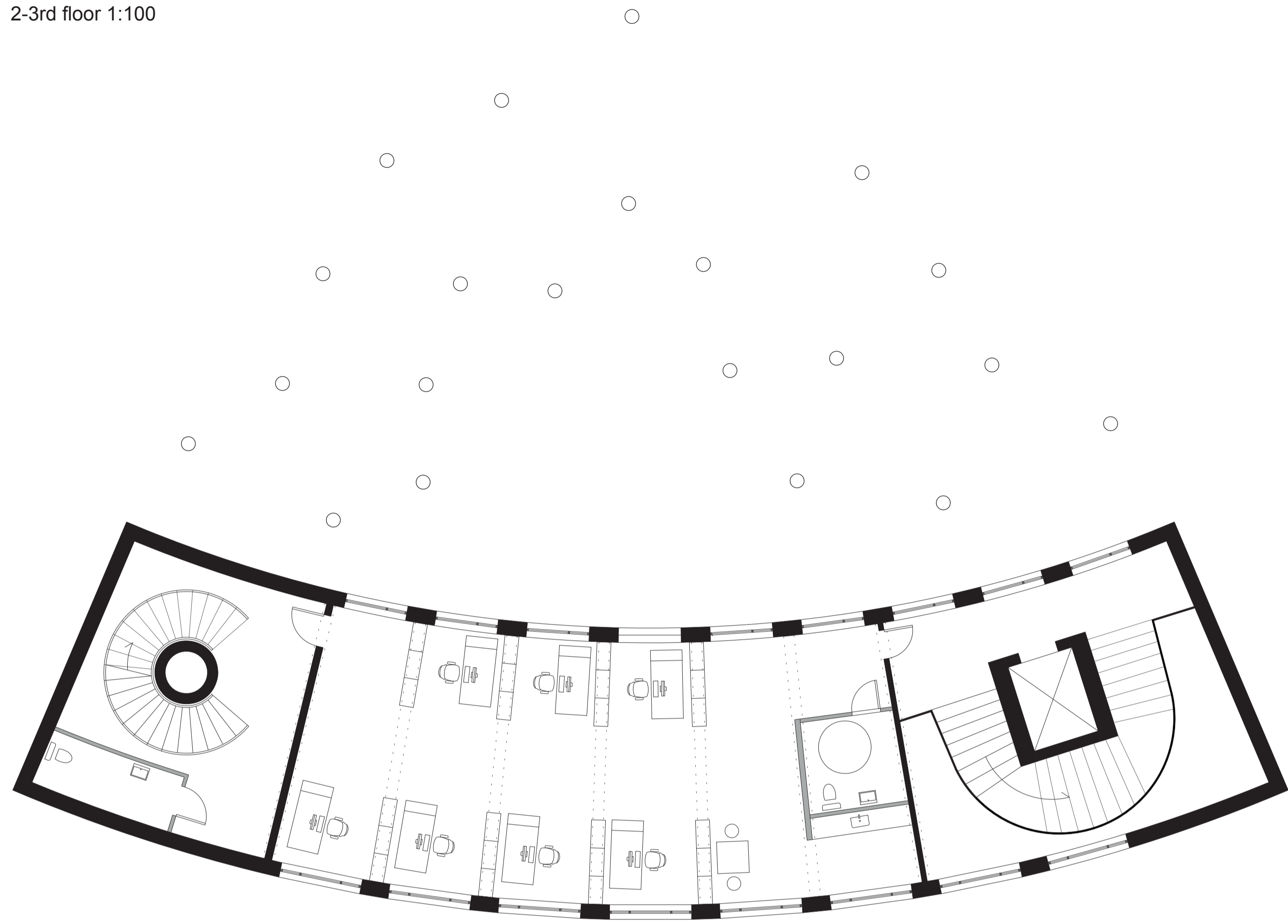
An atrium is added to the new building to ensure sunlight to the public space.



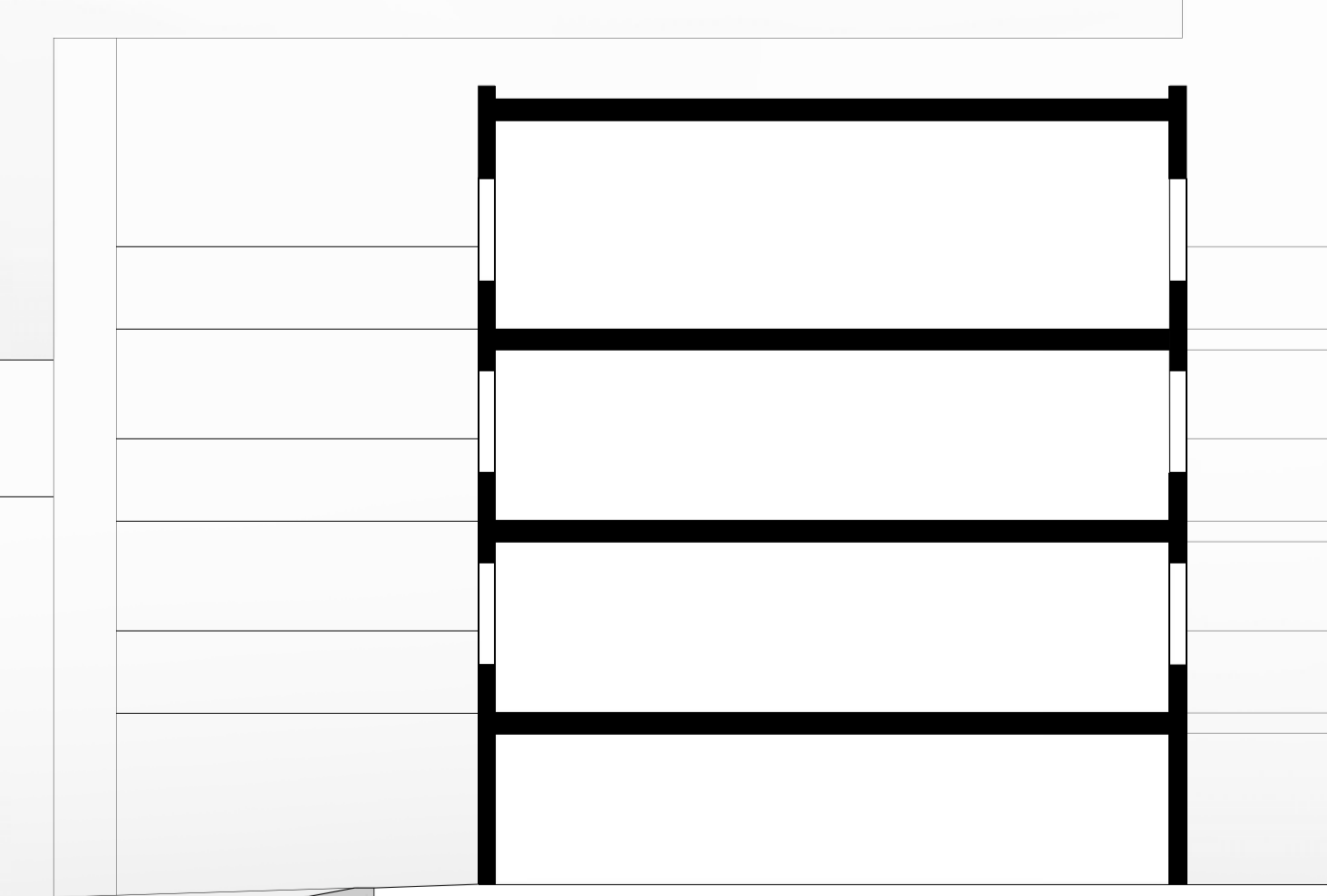
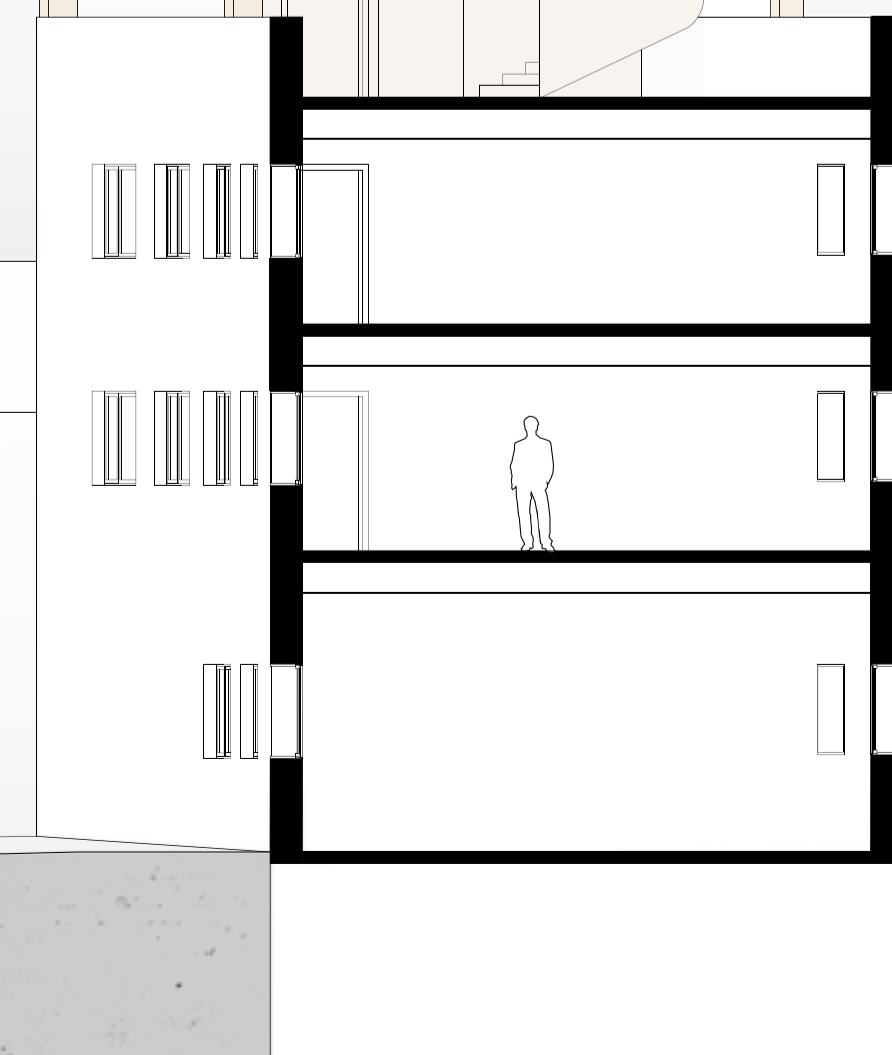
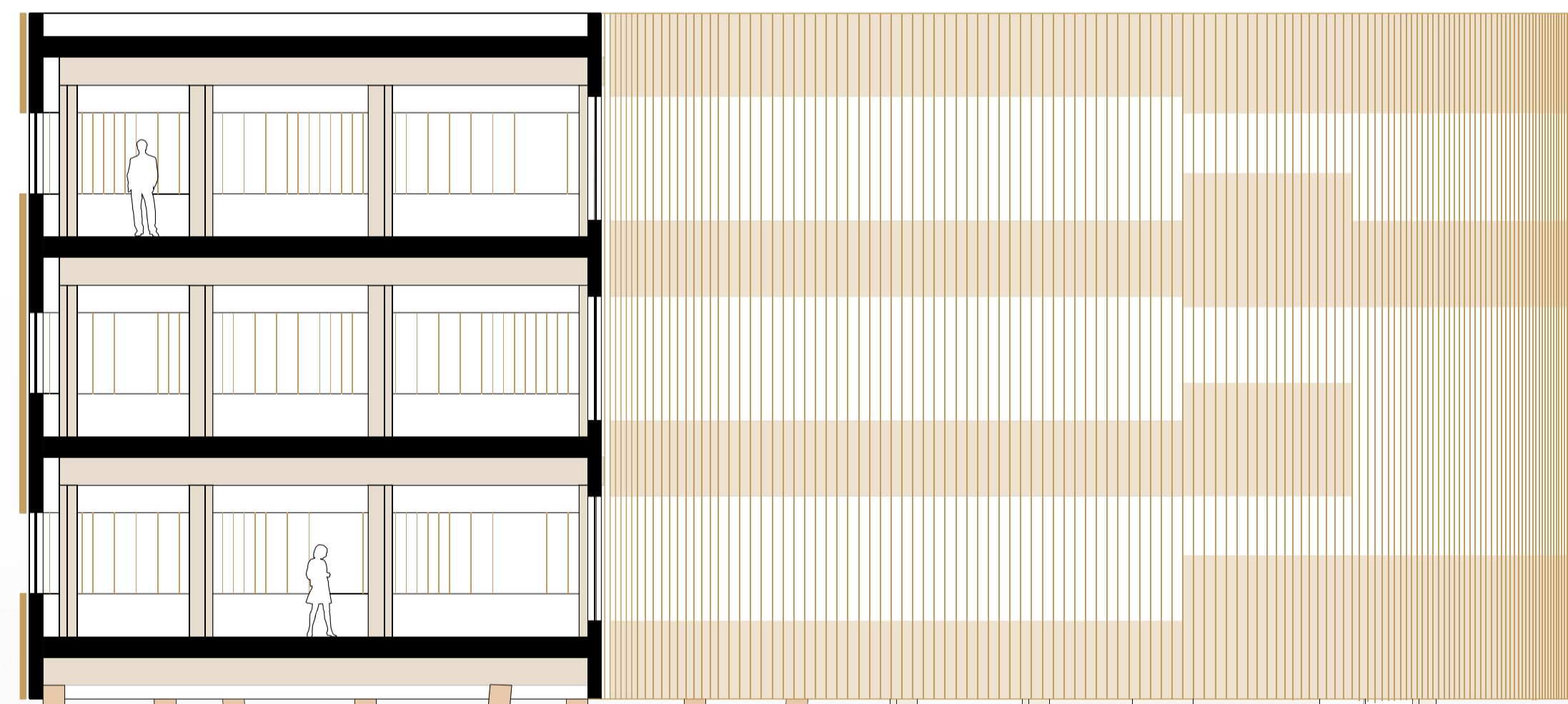
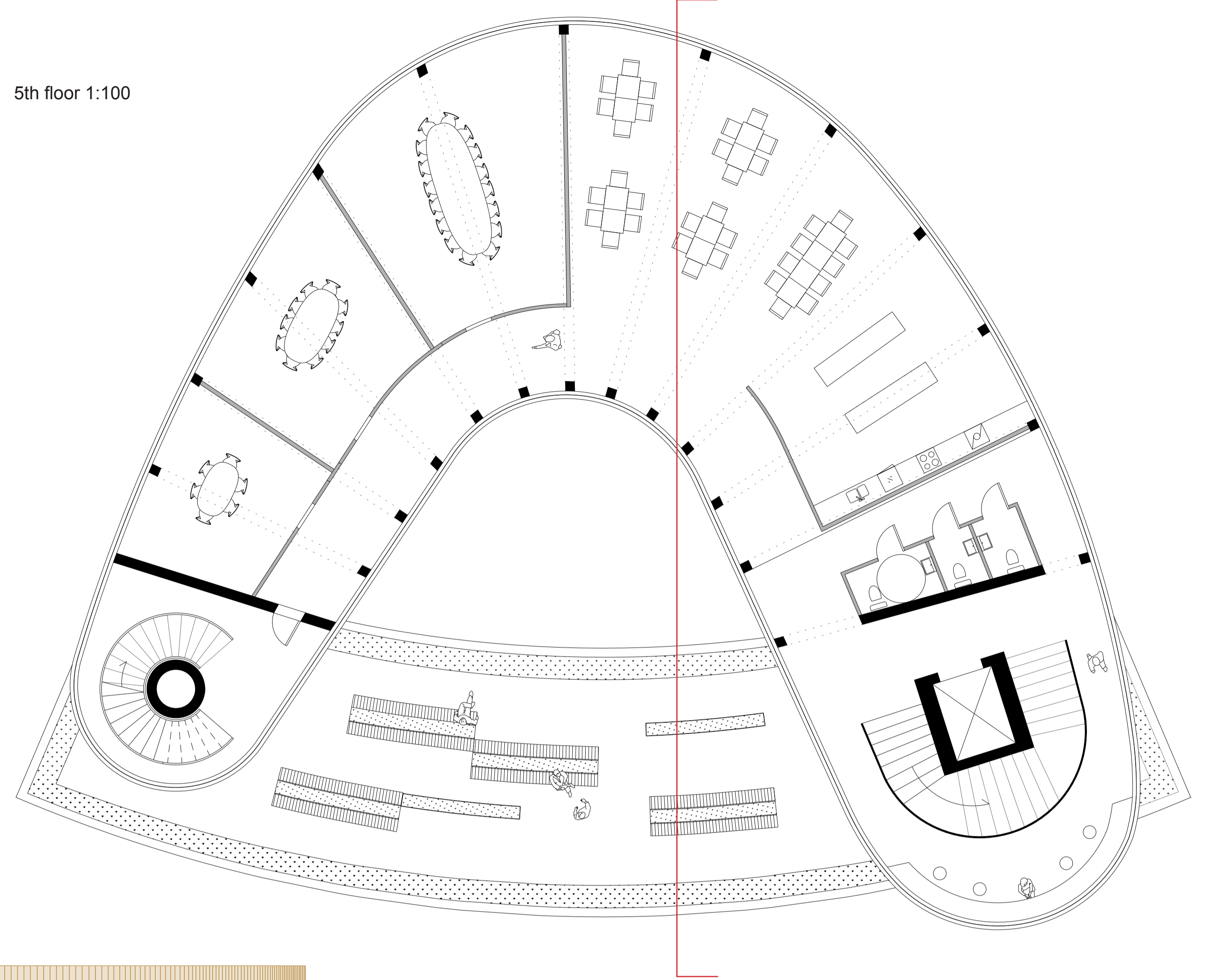




2-3rd floor 1:100

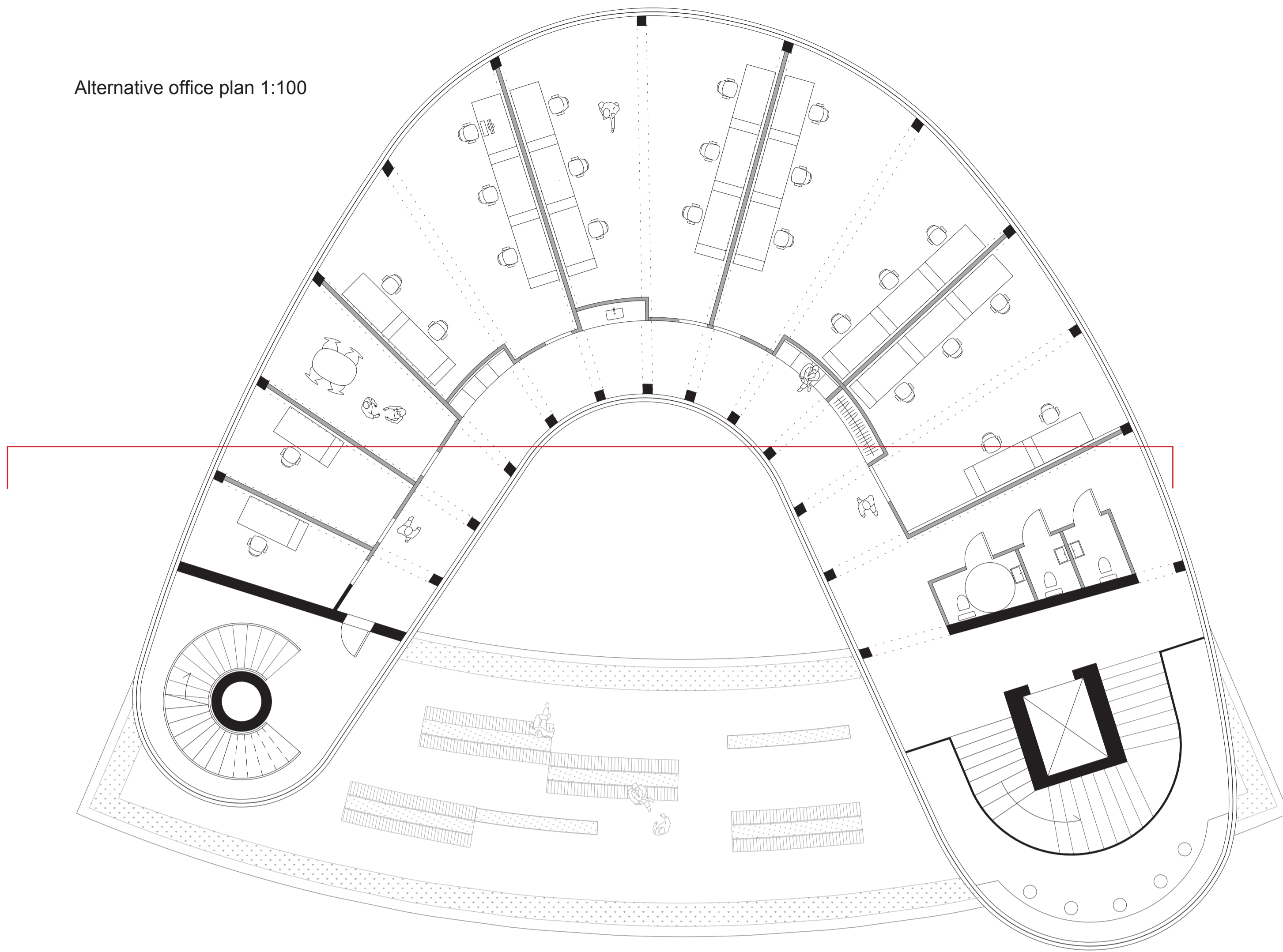


5th floor 1:100

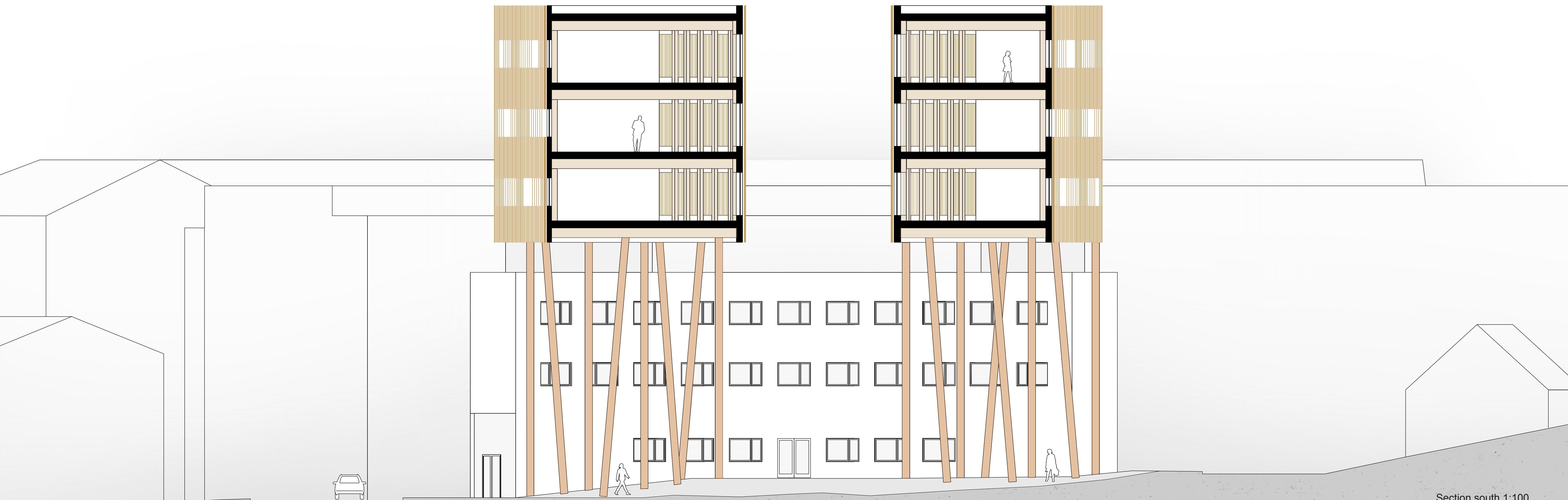
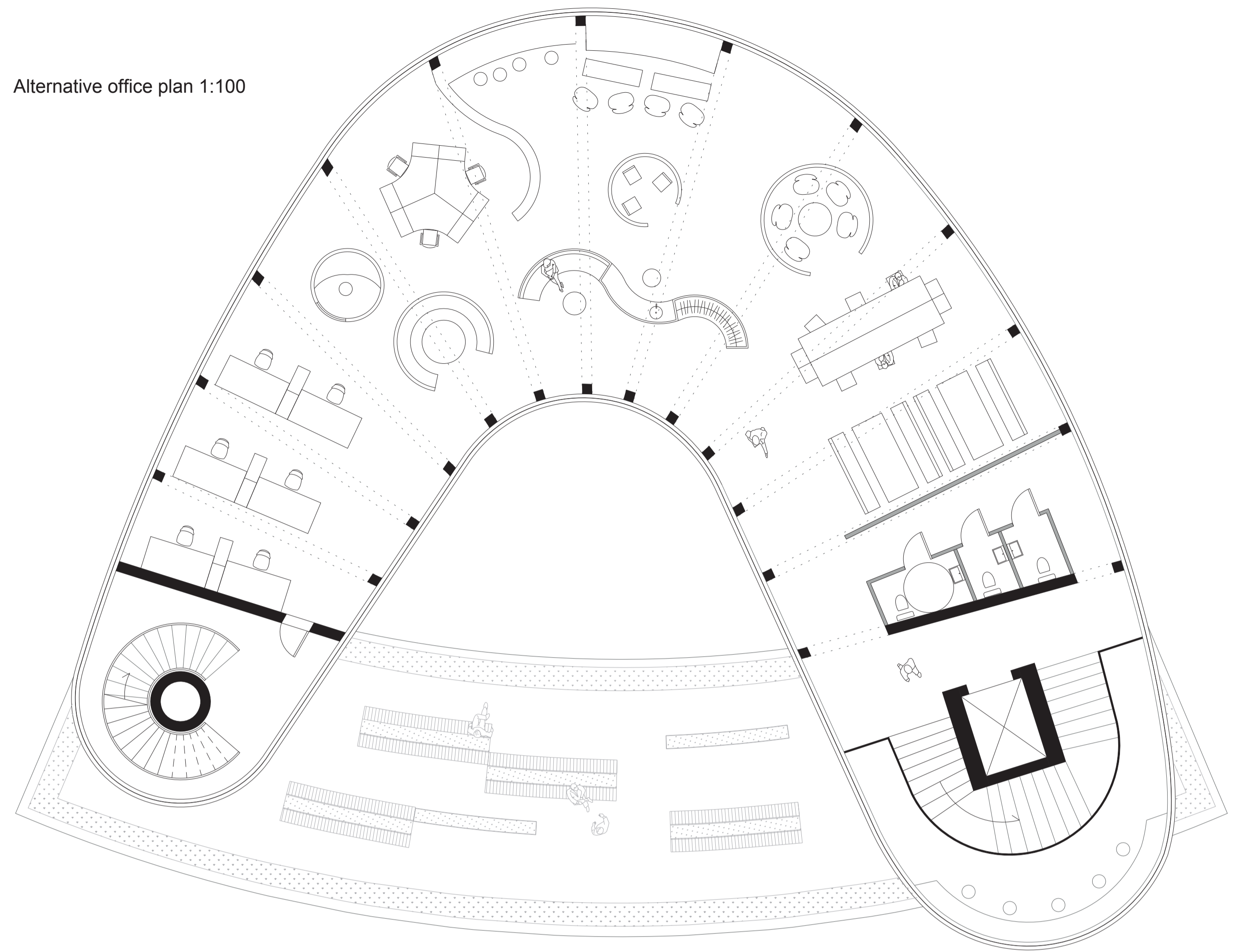


Section east 1:100

Alternative office plan 1:100

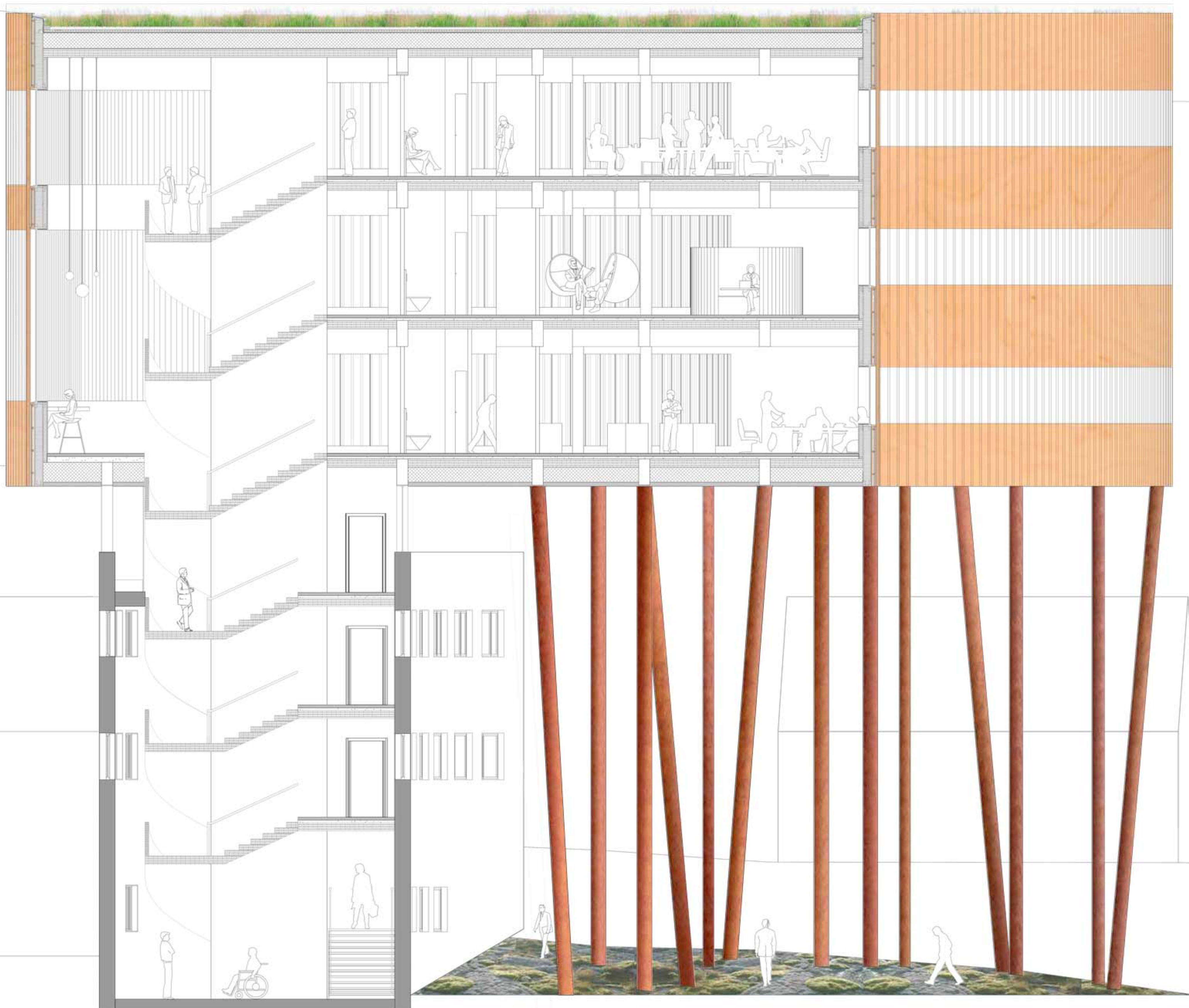


Alternative office plan 1:100

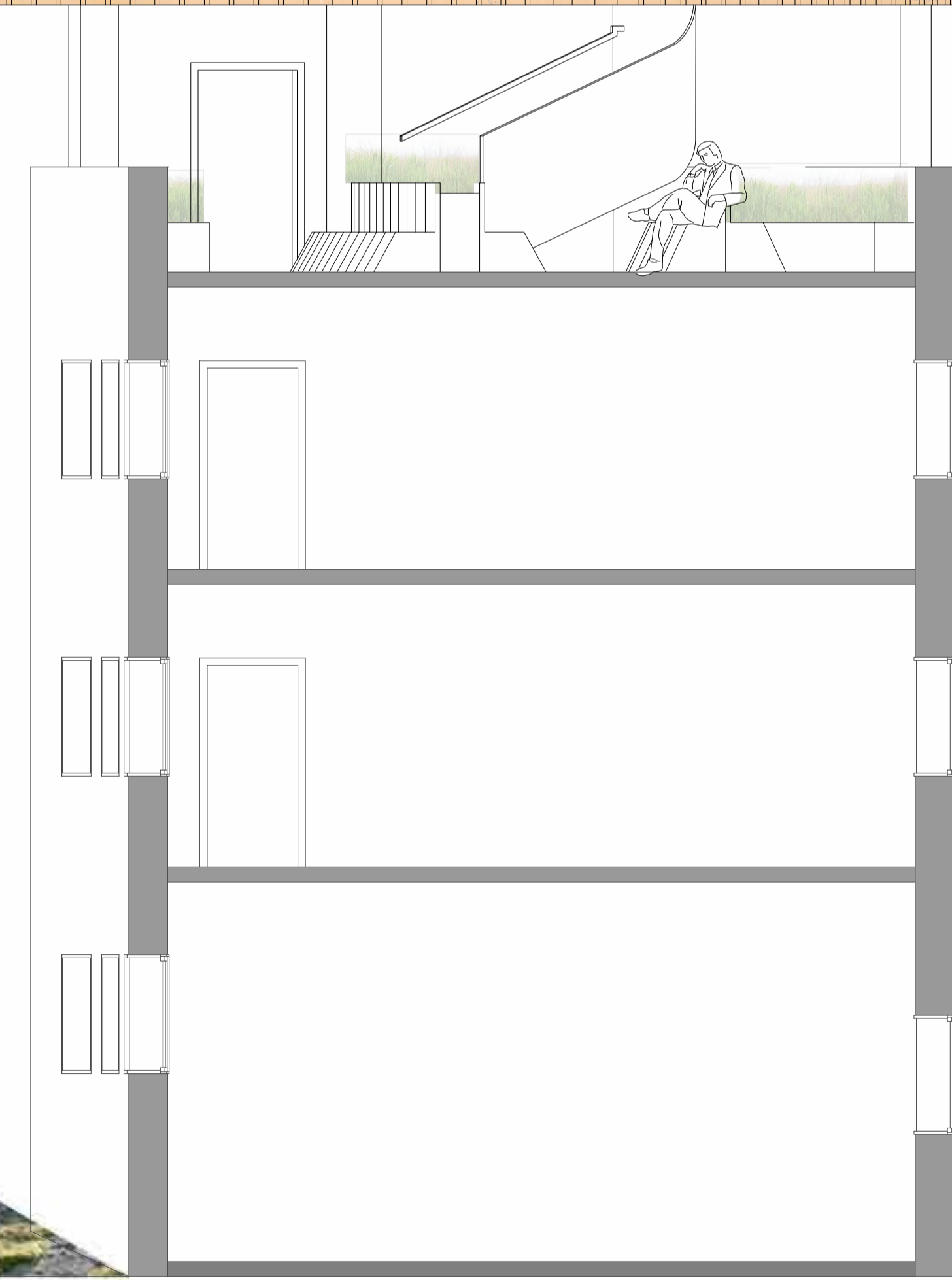


Section south 1:100





Section west 1:50







**THE FLOOR**

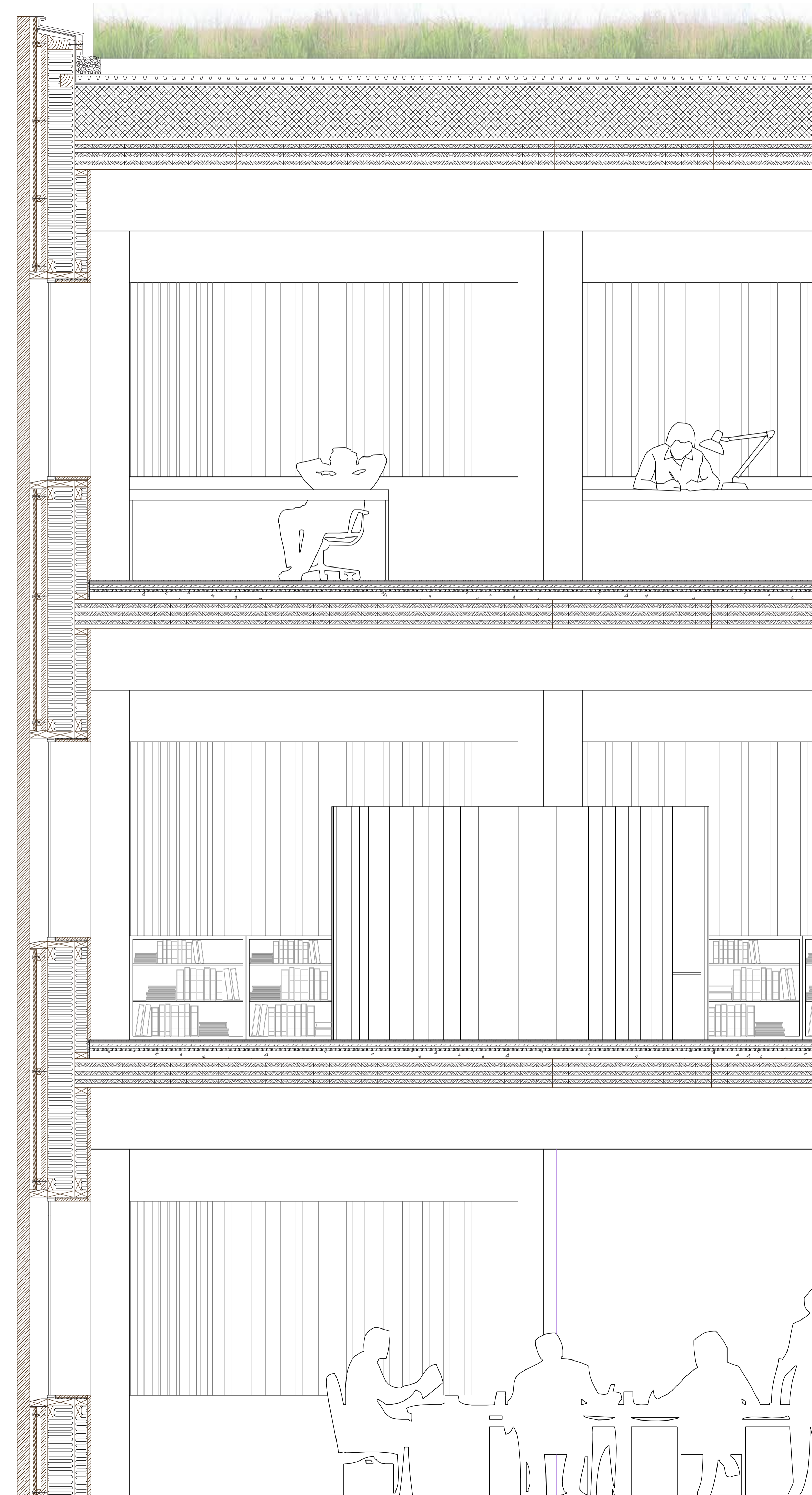
The floor:  
 24 mm wooden floor  
 22 mm chipboard  
 13 mm plasterboard  
 20 mm impact sound plate  
 60 mm concrete  
 224 mm CLT



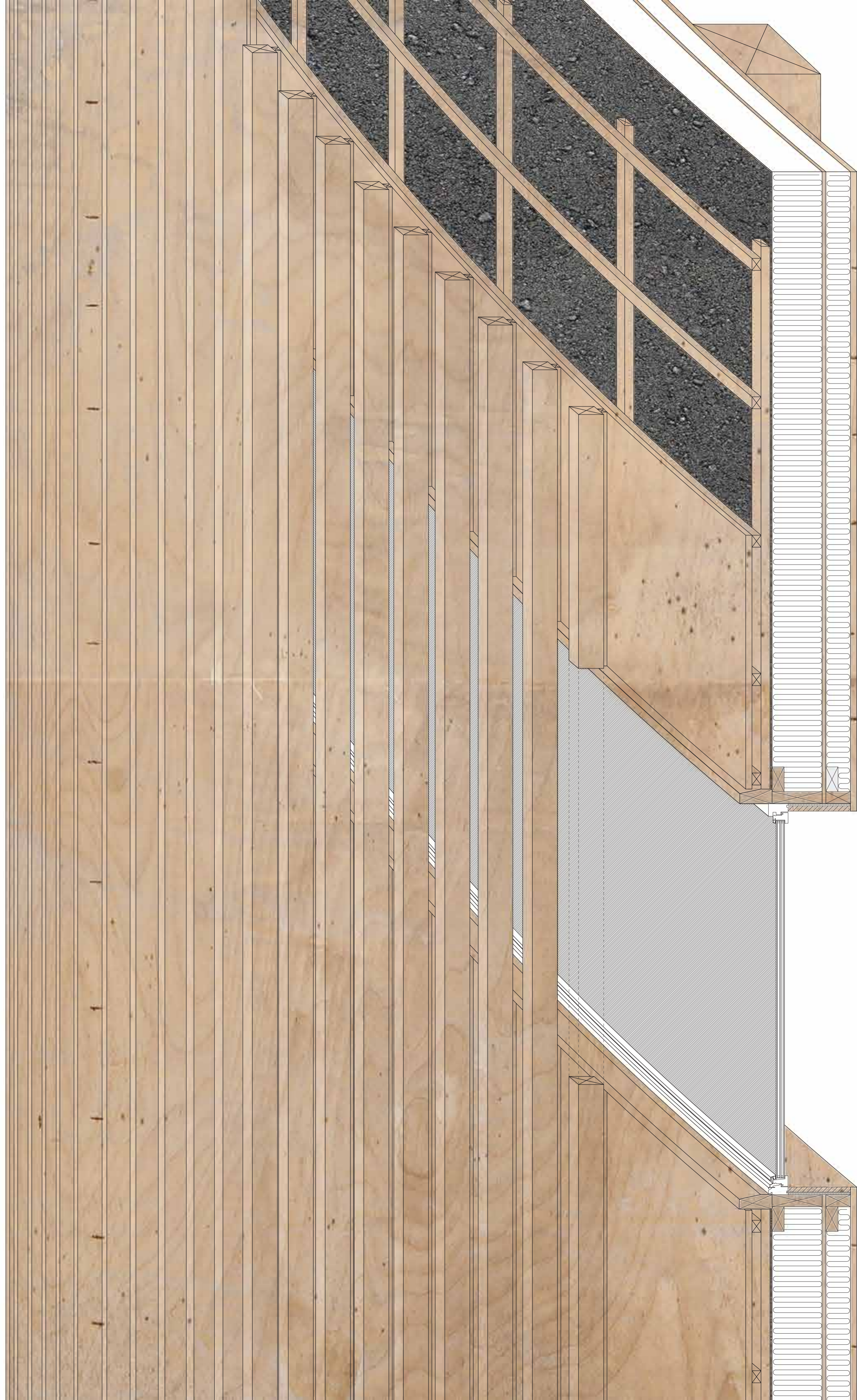
**THE CONSTRUCTION**

400 mm diameter steel columns  
 300 \* 700 mm glulam beams  
 300 \* 300 mm glulam columns  
 steel slotted in wooden beams and columns

DETAIL 1:10



SECTION 1:20



#### FACADE SYSTEM

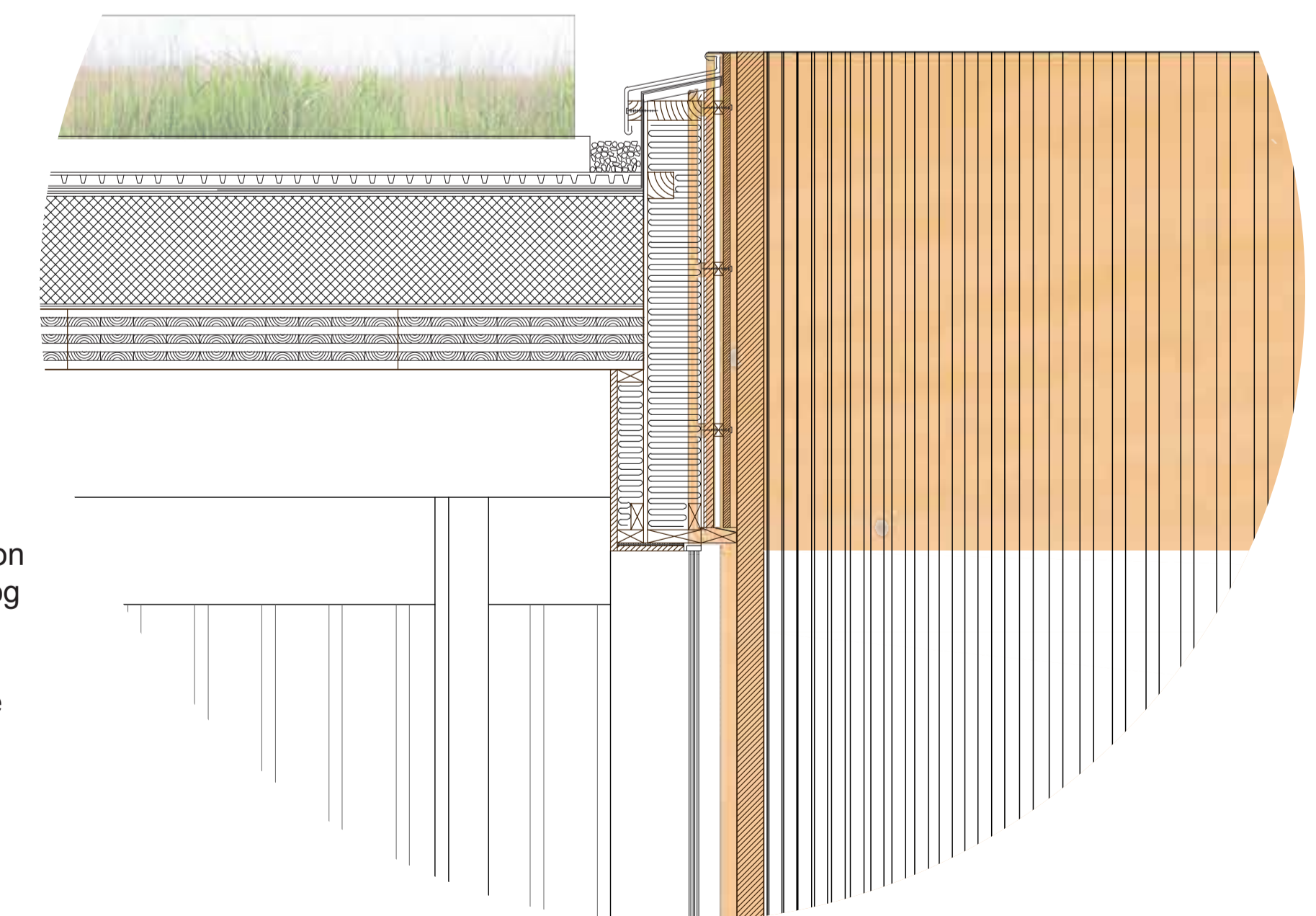
##### INSIDE | OUT

- 300 \* 300 mm gluelam column | limtre søyle
- 25 mm plywood | kryssfiner
- 48 mm Rockwool flexi plate/wooden stud | trestender
- 98 mm insulation | isolasjon
- vapor barrier | dampsperre
- 15 mm Hunton vindtett
- 200 mm Redair flex plate / stud / insulation
- 36 \* 48 mm lath vertically | spikerlekter
- 36\*48 lath horizontally / air gap | lufting
- 2\*12 mm exterior cladding plywood | kryssfiner
- 25 mm lath vertically
- 50 \* 100 mm slats

#### THE ROOF

##### INSIDE | OUT

- 224 mm CLT | krysslaminert tre
- vapor barrier | fuktsperre
- 400 mm flameproof insulation | trykfast isolasjon  
(Migreringssperre, takbelegg, beskyttende lag og  
rotsperre)
- drainage layer | dreneringslag
- 80 mm growth layer with sedum | sedumsdekke  
peat | torv



DETAIL 1:10

DETAIL 1:20

