



# *A LIFE BETWEEN THE BUILDINGS*

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**CHALMERS**



*Architecture should be like an espalier where roses can grow freely...*



## ABSTRACT & INTRODUCTION

In the city center of Gothenburg there are a number of options to be indoors, something that may be appreciated in a city with approximately 150 days of precipitation each year. However, nearly all of these are in some way commercial indoor spaces, e.g. cafés, shops, shopping malls etc., but one thing that the city of Gothenburg lacks is an indoor space that is not driven by commercialism. A place to go to when you want to escape the rain, the commercial bustle, or just have the possibility to sit down for a couple of minutes or hours without the urge of buying a coffee or lunch, or perhaps having the possibility to do something that you don't have the space, knowledge, or material to do at home. Hence my master thesis will be to create this, today, non-existing public space and give it to the citizens of Gothenburg. In the busiest part of the city, in Brunnsparken, there is an infill site that, since a fire in 2005, has been left empty, and on this site, dominated by commercialism and commuters, I have decided to execute my master thesis. The main focus is to investigate the rather narrow site through models in various scales, mainly 1:100 and 1:200, and materials (cardboard and foam) to find out how the site can be used, how much of it that should be built, i.e. the entire plot or just parts of it, in how many stories, and also in what way it should relate to the surrounding buildings, and finally how a part of the built structure can be given back to the citizens. The benefits of the different materials and scales will be discussed later. My design proposal is a seven-story building made from massive-wood elements, with generous amount of free space to allow any kind of cultural expressions within it, from dancing or painting, to exhibitions and film screenings, more or less anything you like to. It reaches up above the surrounding buildings to express the importance of culture in society, and will work as a display window, and lighthouse to guide people into the possibilities that this building can offer.

Unfortunately Gothenburg is not only a very rainy city; it is also one of the most segregated cities in Sweden. According to an investigation by Anders Sundell, PhD in Political Science at The University of Gothenburg, the 2nd largest city in Sweden, Gothenburg, is the 3rd most segregated municipality in Sweden (in the same investigation the 3rd city Malmö is in 12th place, and largest city Stockholm is 14th). This problem was also demonstrated by journalist Janne Josefsson in the TV-program På rätt sida älven (On the right side of the river) already in 1987, where he showed the differences between two neighborhoods (Biskopsgården and Örgryte) at each end of a 40 minutes long tramline, where Biskopsgården is one of the poorest neighborhoods in Gothenburg, and Örgryte is one of the wealthiest. The program was followed up with a new series in 2012, which showed that the differences still were about as bad, or even worse, as they had been in 1987. The social differences in Gothenburg was also indicated in Harald Swedner's book Socialt Arbete: En Tankerama (Social Work: A Conceptual Framework) (Swedner, H. 1983) in which he, apart from talking about the segregation in Gothenburg, also discuss the impact of the physical environment on peoples habituation and attitude.

When Kulturhuset was planned in Stockholm in the late 1960's the vision was that it should be an institution with the atmosphere of a lively street, and the possibilities of a workshop, and the architect, Peter Celsing, said that his personal vision was to "build for a new human being, who one day has to come." My wish is that this building, just like Kulturhuset in Stockholm, should be the place where people from different areas, and with different backgrounds, meet on a neutral ground; where the building itself becomes a kind of lingua franca, a language used by two persons not sharing a native tongue in order to make communication possible. I want to create a place for people to meet and have a possibility

to prosper, a space for reflection and community, which are essential components in theories about well-being and quality of life, according to Bengt Lindström, Professor of Salutogenesis at The Norwegian University of Science and Technology in Trondheim. Theoretically this approach in my project is about empowerment of the citizens of Gothenburg. Empowerment is a concept originating from education science and philosopher Paolo Freire from Brazil, who in 1962 taught 300 illiterate sugarcane workers to read and write in just 45 days, and it has later become a concept that is used in sociology and health promotion. The main concept in empowerment is that you as a citizen should be engaged in something that affects you, or the community you live in, and the goal is to increase the social, economic, political, etc. strength of individuals or communities. I believe that this building that I have designed can help this process, and be a foundation where this movement can take its point of departure. (Lindström, B. & Eriksson, M. 2011) One other project that has a certain similarity to mine, in terms of social sustainability, is The Peckham Experiment, performed between 1926 and 1950 by George Scott Williamson and Innes Hope Pearse in Peckham, one of the poorest neighborhoods in London. It was a study in health and preventive social medicine, and how activities of different kinds, both physical exercise and access to workshops, could prevent disease and improve health for those utilizing them. In 1935 they had a specially designed building inaugurated, which greatest feature wasn't how specifically designed it was, but rather that it contained nearly nothing. It was supposed to be furnished with people and their activities, and gradually whatever equipment needed, and it became a great success. There was some staff, but their main assignment was not to interfere or control the activities, but be helpful and offer support in case anyone needed them. This building, and the possibilities it offered, created a great sense of coherence for the

persons using the facilities. Sense of coherence is a term used in salutogenesis to describe people's abilities to cope with life, and its core values are meaningfulness, comprehensibility, and manageability, and they were all met here.

In the magazine Arkitektur (Arkitektur 1 - 1987) architects Torbjörn Einarsson and Jerker Söderlind describes architecture as the framework for life to take place, or as they put it; architects should provide the espalier, where roses can grow freely. *Architecture* should be like an espalier where roses can grow freely. In the same way, my building should provide the framework, or espalier, where people have the possibility to grow freely and develop.



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## BACKGROUND & HISTORY



photo: Copperplate of Gothenburg 1705/Wikipedia



photo: Original drawing 1887/Stadsbyggnadskontoret



photo: Södra Hamngatan 47 Burning 2005/Sveriges Radio



photo: Map of Gothenburg 1815/Göteborgs Stadsarkiv



photo: Gothenburg today - site marked/Eniro

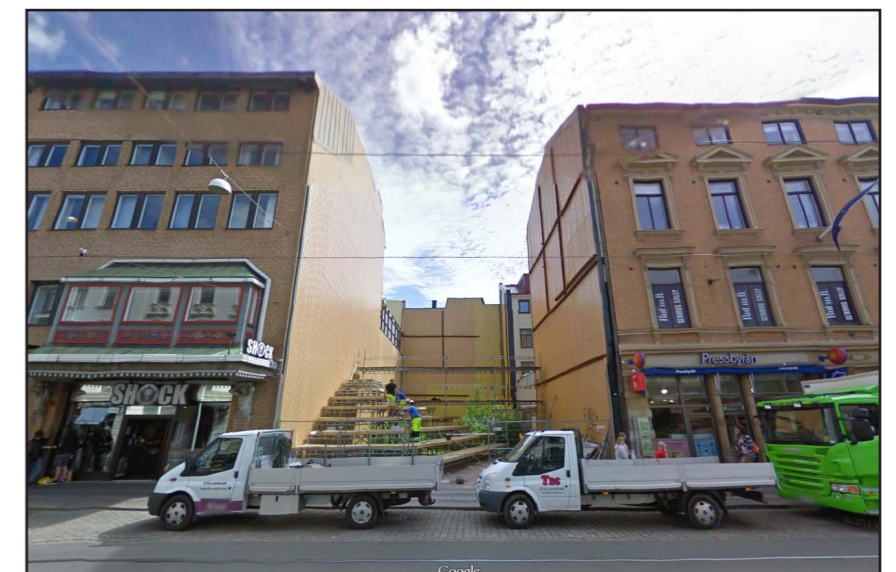


photo: Södra Hamngatan 47 Today/Google

The area Brunnsparken is situated in the central part of Gothenburg, inside the moat, which is also the oldest part of the city, dating back to at least 1621, when the city of Gothenburg was founded.

The place itself was actually an islet with a sugarmill built in 1752, in the same place as the building today known as Palace, but during the beginning of the 19th century the southern part of the canal was filled up and some trees were planted with the goal to create a park.

It has always been a central part of the everyday- and commercial life of the city, and the name *Brunnsparken* derives from an old spring where people could come and have fresh springwater during the mid 19th century (it's old name was *Jernvågsplatsen* because of the first iron-scale in Gothenburg that was situated here before it was moved to *Järntorget* in 1785).

In the mid 19th century the first railway tracks in Sweden were built, and in 1858 the central station of Gothenburg was built. Since then Brunnsparken has been even more part of the communications, and is today one of the busiest parts of the city where all trams, except for no.8, as well as many of the city busses pass.

The site I've chosen to work on, *Södra Hamngatan 47*, is situated in the south-eastern corner of Brunnsparken, where the old house, built in 1887, burnt down during the fall of 2005. Since then the plot has been left unbuilt, but there has been a few initiatives on the site including urban gardening, a sitting sculpture, and a coffee bar in a caravan.

The street *Södra Hamngatan*, from Brunnsparken towards the central station is today dominated by trams, the buildings have are mainly offices with a few shops at the groundlevel at the southern side, and the

restaurant *Palace* on the north side. Since spring 2012, when the city library of Gothenburg started a major renovation, parts of their activities has been located at the end of *Södra Hamngatan*, *Stadsbiblioteket300m2*, which has made the street a lot more vivid, especially outside officehours. Now, spring 2014, the renovations are almost finished and the library will move back to it's main building on *Götaplatsen*.

Since there is a lack of non-commercial public indoor-spaces in central Gothenburg today, and because of the success with *Stadsbiblioteket300m2*, my master thesis work will be to investigate the possibility to make this kind of building on the infill-plot. The work will have it's main focus on investigating the site through models, and also finding what program that will fit on this site.



## DESIGN CHOICES

In my final design there are a few distinct characteristics that I want to explain further, both to pinpoint some important design choices, but also to explain why they look like they do and what benefits they come with.

1st, one of the most distinctive characteristics of my design is the diagonal opening that I have cut through the building in the first two floors, creating a 9,5m high, and 8m wide outdoor square under the roof, where the façade can be folded away to dissolve the barrier between inside and outside, between street, square and building. The reason for the diagonal cut is to make the opening towards the street as large and inviting as possible. A narrower opening doesn't, in the same way, signal that you are welcome to enter at any time, whereas this opening is so large that the border between street, building and square cease to exist; these parts all become one. One other thing that helps to soften up the border between inside and outside is that the groundcover, a bowler floor, is the same underneath the entire building. This also works as a transition between the paving stones on the sidewalk and the massive-wood floors inside the building.

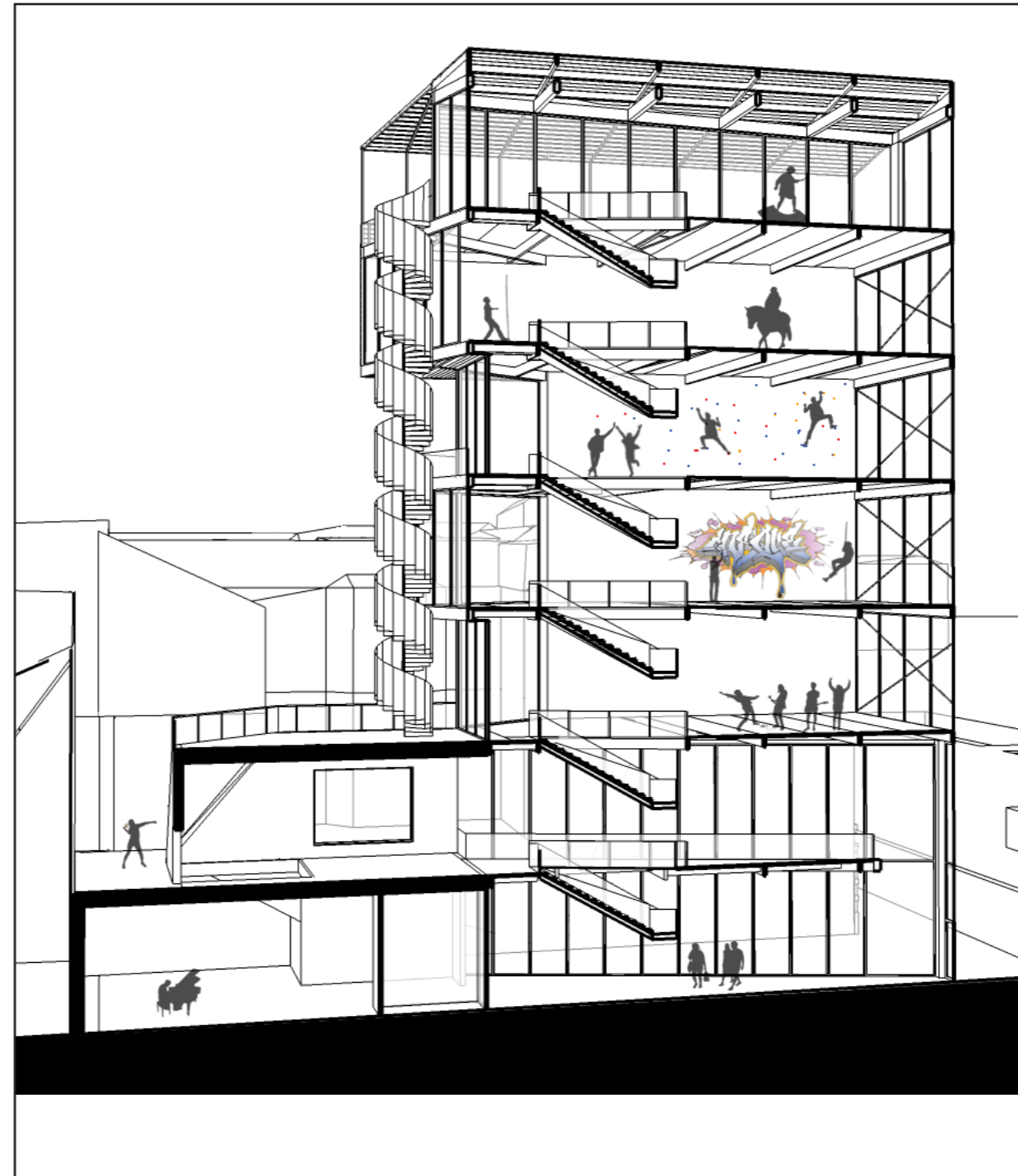


2nd, one other important design choice is the fully glazed façade towards the street. The surrounding buildings are made of bricks and have traditional windows, and the main functions in them are shops at street level and offices on the floors above. This makes this part of the street, however central it is, awfully dead, so to speak, after office hours. As soon as the shops have closed for the day this street becomes somewhat a backstreet.

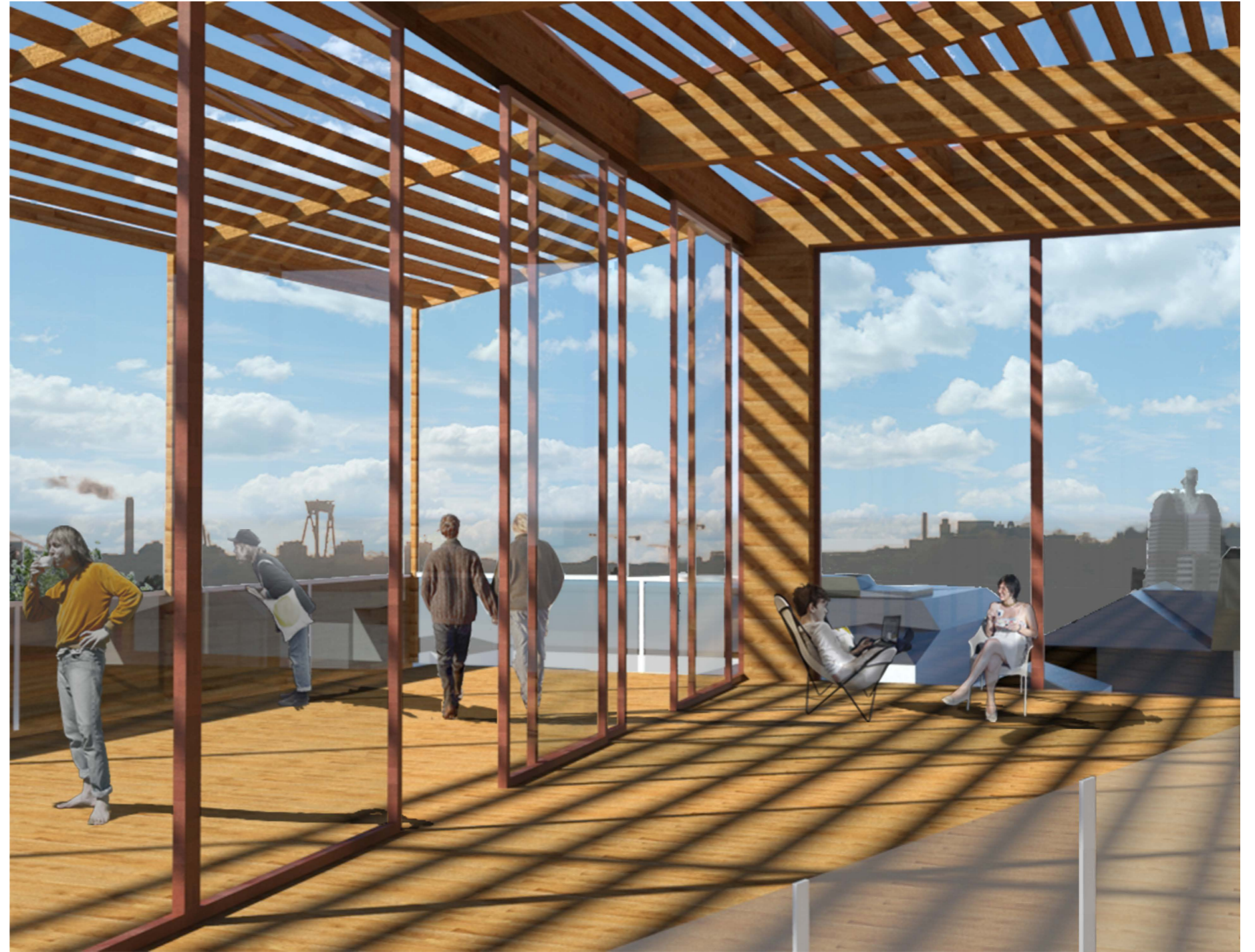
The only exception in later years has been a pop-up library at the east end of the street, placed there because of the renovation of the main library at Götaplatsen. But since the renovation now is finished, the pop-up library, which has been a great success in terms of visitors and livening up the city by varying the functions, now has closed. By introducing this façade that is completely transparent, in between the more closed brick façades, I want to bring life to the street even after office hours. When walking along the street you will know what is happening in this building. You will have the possibility to see that people are there, and what they are doing, something that is impossible today, and it contributes to the city life in a very positive way.



3rd, the next important design choice is the use of loadbearing outer walls, and no permanent interior walls, in the four floors that are dedicated to free use. This is because it should be possible to perform any kind of activity on these floors. If extra walls are needed for an exhibition, or because several different activities that doesn't need an entire floor, but still requires some kind of privacy, screens can be put up to create smaller spaces. In average there is 174sqm free space on each of these floors, and along the west side of each floor the 14.4 m long wall runs without any windows, to create a maximum amount of wall space for exhibitions, or working space if someone for example wants to do graffiti one day, and the wooden walls makes it possible to put things up if you want to create a climbing wall for example. The free space on these floors also supplies flexibility over time. Since all floors can be configured in any way, in the future a floor, or maybe the entire building, may be converted to something else. In traditional, Zen-Buddhist oriented, Japanese architecture the emptiness is of great importance (de Botton, A. 2006). In the emptiness, or unfulfilled, we complete the gaps and flaws with ourselves, hence we become part of what is around us, and as a result we become better human beings. This is also something that is demonstrated by Kristina Fridh in her book *Japanska Rum* (Fridh, K. 2004) where she says that the rooms we are in do not consist of walls, floors and roofs, but of the emptiness that is created within them. Hence the free space in this building, also in a spiritual way, may help to fulfill the persons utilizing it.



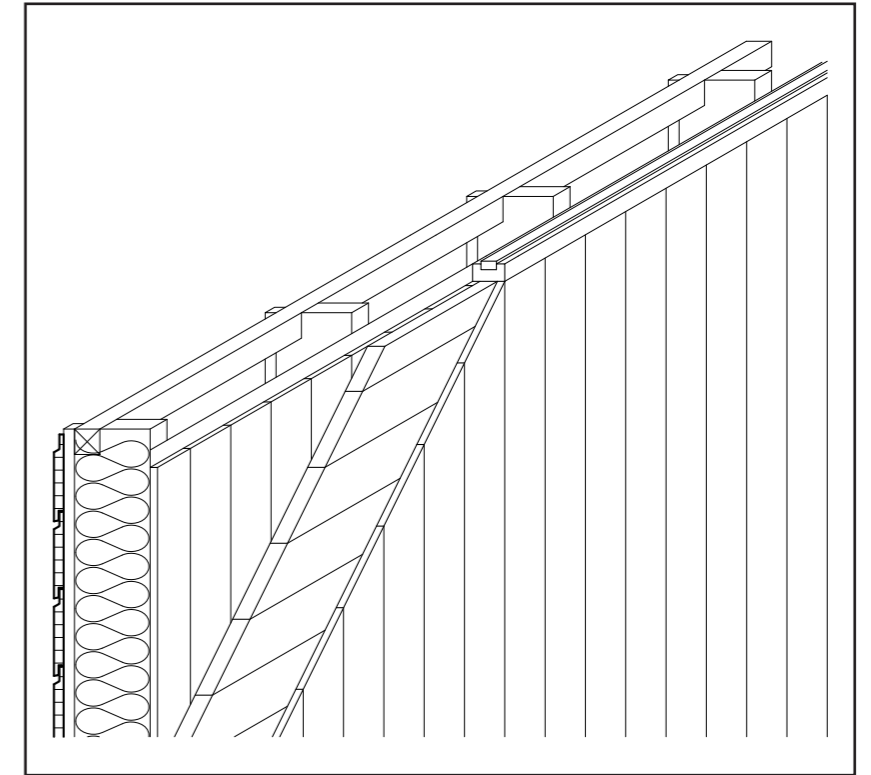
4th, the next design choice that stands out is the top floor that, like the bottom floors, is cut diagonally to balance the bottom cut and to create a rooftop terrace. From there you have a view over most of central Gothenburg, as well as a perfect sunspot. To tie the volume together I have added a pergola that will represent a skeleton of the part that has been cut away.



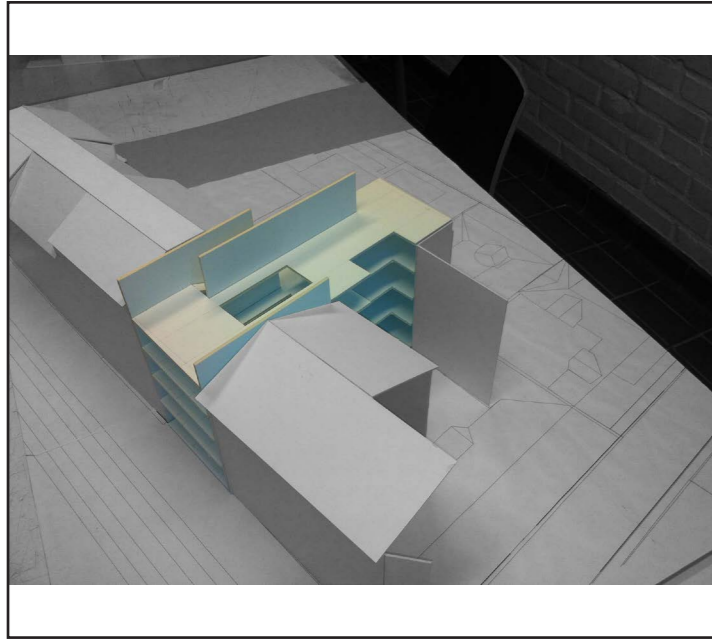
5th, the last design choice that I want to highlight is the choice of material in the building. I have chosen to work with wood in this project, and mainly massive-wood elements, or CLT ,Cross Laminated Timber, and this in an area with no other buildings made from wood; the use of wood in the framework of buildings more than two stories high were forbidden by law between 1874 and 1994. But in the last few years the use of wood in higher buildings have become more and more common, and today there are a number of different suppliers of building systems made from CLT and glue-lam elements. The advantages of using wood instead of concrete or steel are many, for example is the weight of a CLT element less than 1/5th of that of an equivalent element made from concrete. This makes handling of the elements a lot easier on the construction site, also the transportation of the elements is easier compared to heavier materials such as concrete or steel, and the foundation work becomes a lot easier – something that is especially good in Gothenburg, since almost the entire city is built on clay. Massive wood elements are also good in a life cycle aspect, since the CO2 emissions are lower than the ones for other materials, and it is easy to take care of after the building is disassembled. Since all the elements are assembled in a factory the construction time may be reduced, something that reduces the cost for the construction. Finally, by using wood in an environment where all other buildings are made from stone or bricks and contain shops and offices, this building stands out even further as something different. Also, by using wooden walls the possibility to hang things on the wall becomes a lot easier, and is hence one more step towards the user-control of the building.



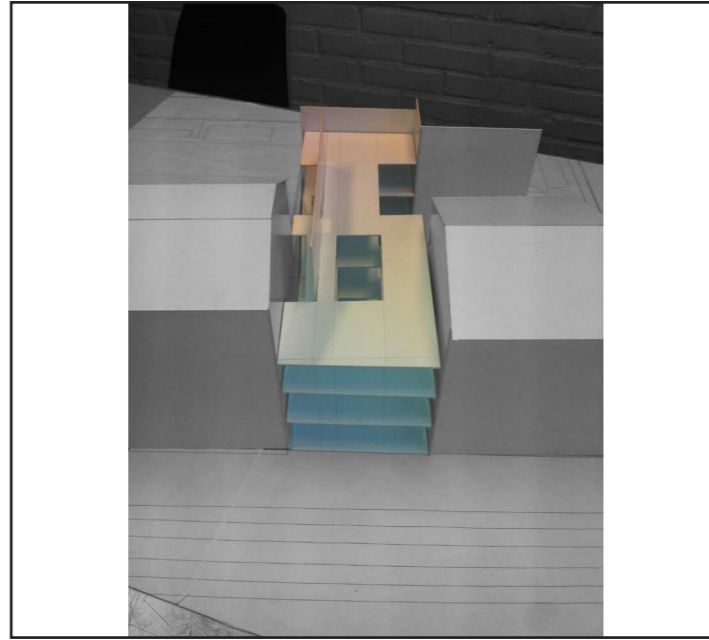
photo: CLT-element/Egoïn



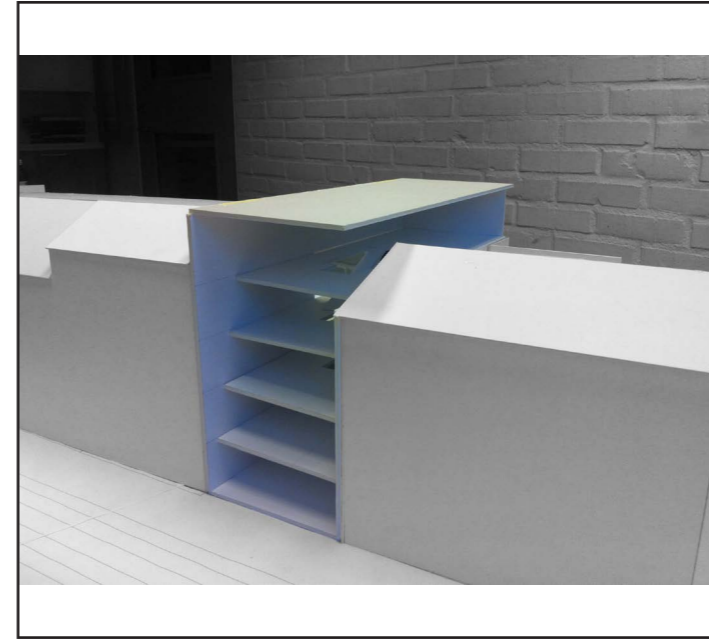
## INITIAL MODEL STUDIES IN CARDBOARD



I started by working in scale 1:100 and using cardboard. My intent was to get a feeling of the size of the plot, try the proportions and get a grip of how many storeys that would be suitable.



Because of the properties of the material, I mainly worked with slab shapes, and floor heights. Pretty soon I realized that it would be impossible to cover the entire site in more than one floor without adding lightshafts and courtyards, because it would be too dark.



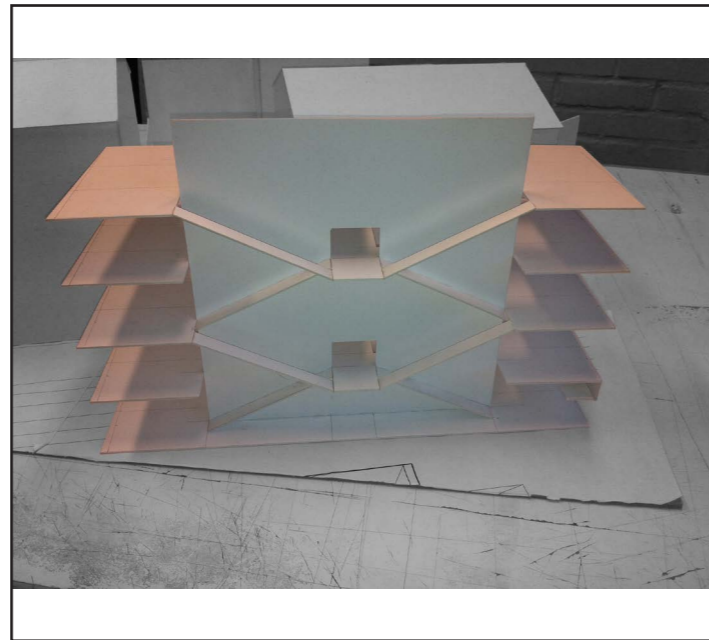
One other thing that I found out rather soon was that the facade facing the street had to be different from the ones surrounding it, since the plot is so central in the city, and one of my goals is to make the street more vivid.



I worked a lot with the placement of the vertical communication and also studied the light conditions inside.



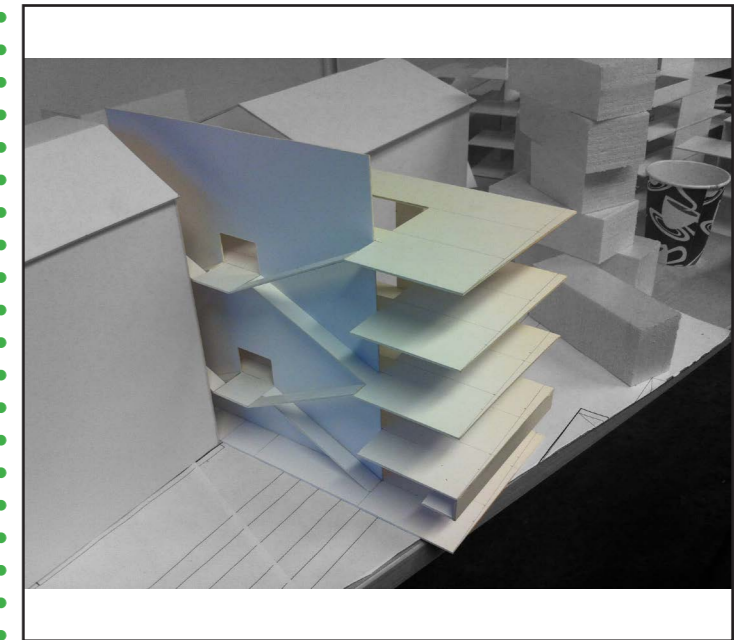
I tried placing the vertical communication in the very center of the building, but realized that the areas left on each side of the staircase weren't large enough, nor flexible enough.



Hence I decided that the vertical communication should be placed along the side of the building. I also wanted the staircase to let down light through it, so it had to be open in some way.

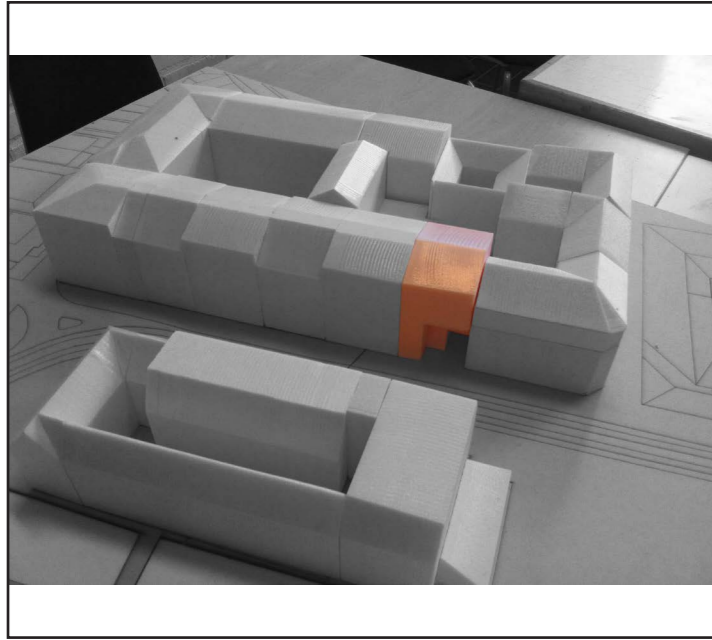


I then decided on what side of the building it should be placed. Since most of the people in this area moves from west, from the bus/tram stops in Brunnsparken, I wanted the staircases to be placed on the opposite side.

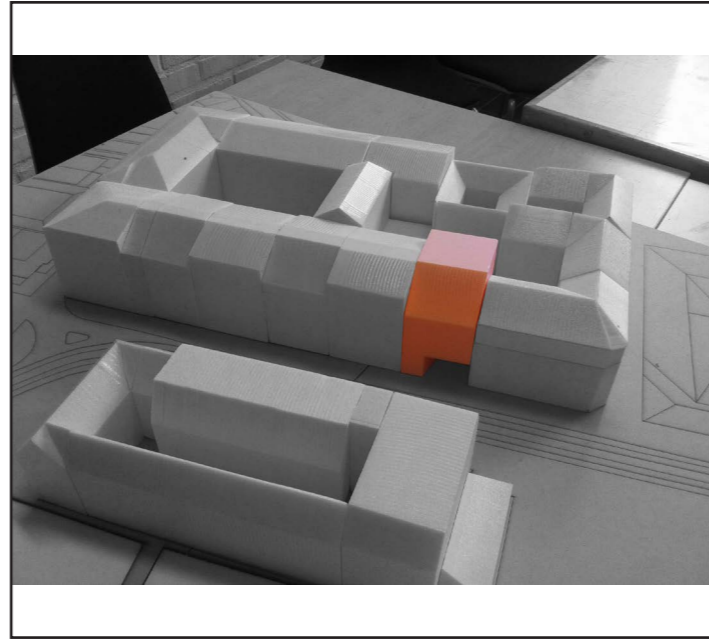


However, all models I made from cardboard looked more or less the same, so I had to change material in order to study the volume instead.

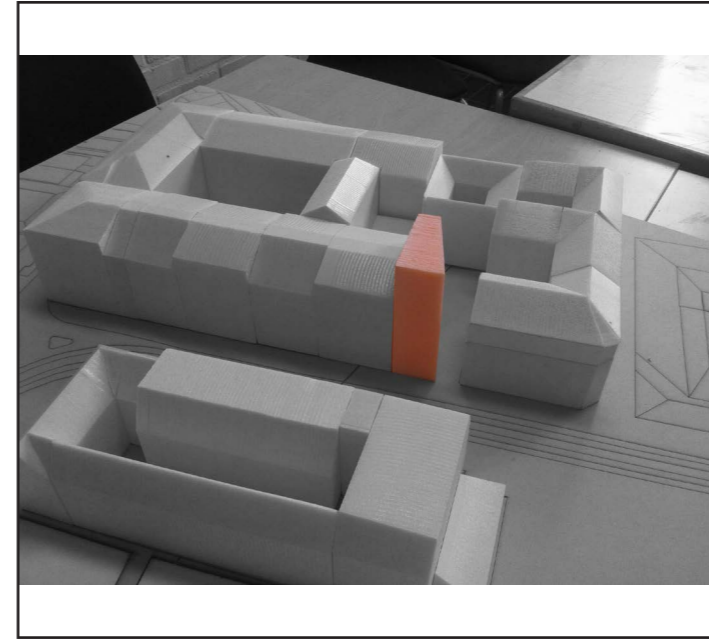
## INITIAL MODEL STUDIES IN FOAM



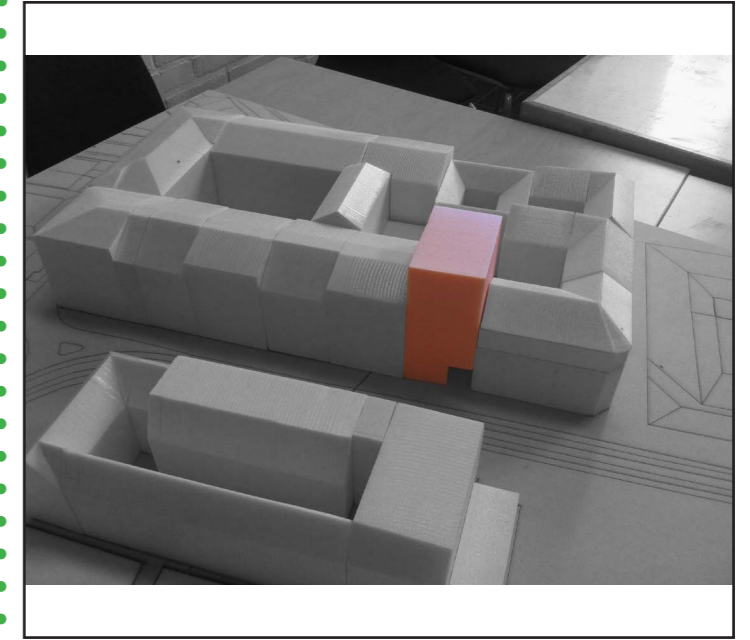
When changing material to foam, I also changed scale to 1:200. The material made it easier to experiment with volumes, and the scale made the models easier to handle than the, rather large, 1:100 models. With volumes, instead of slabs, it was also easier to see how, and in what way, my addition would adapt to the adjacent buildings.



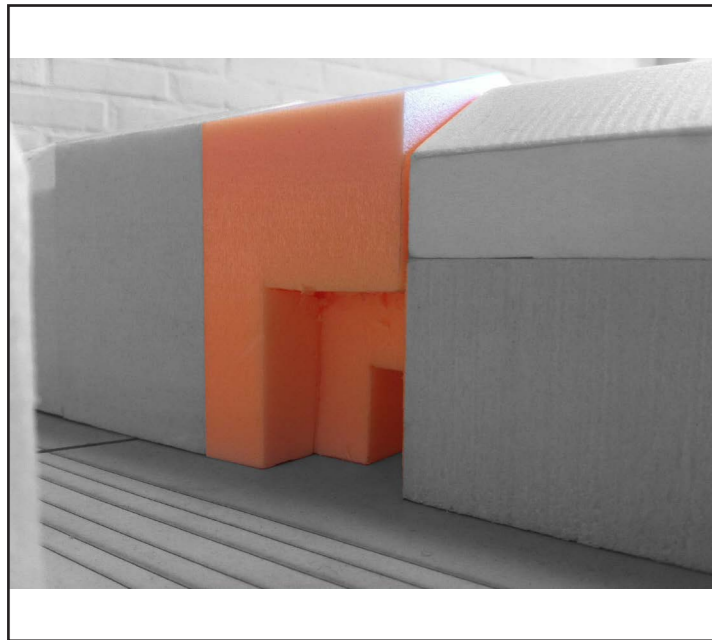
As I moved on I started to break free from the other buildings, at first only by not adapting the angle of the roof.



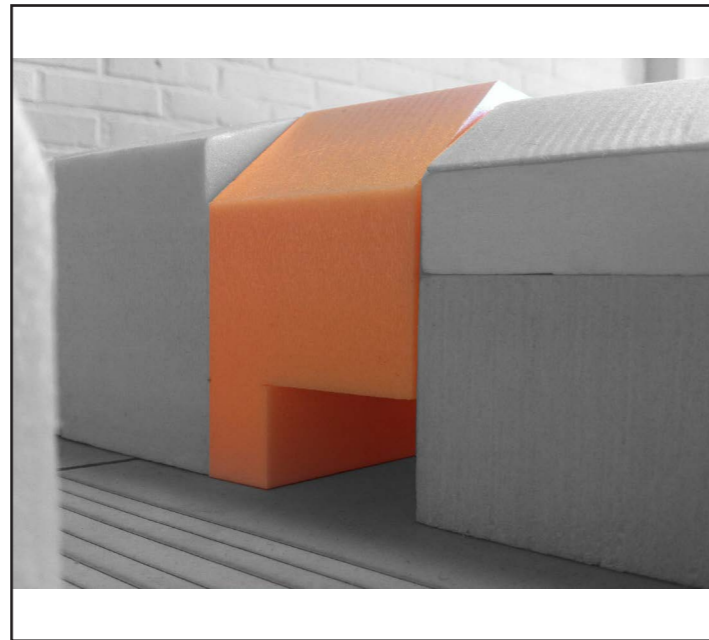
When investigating not how much, but rather how little, of the site that could be built, I came up with a diagonal shape.



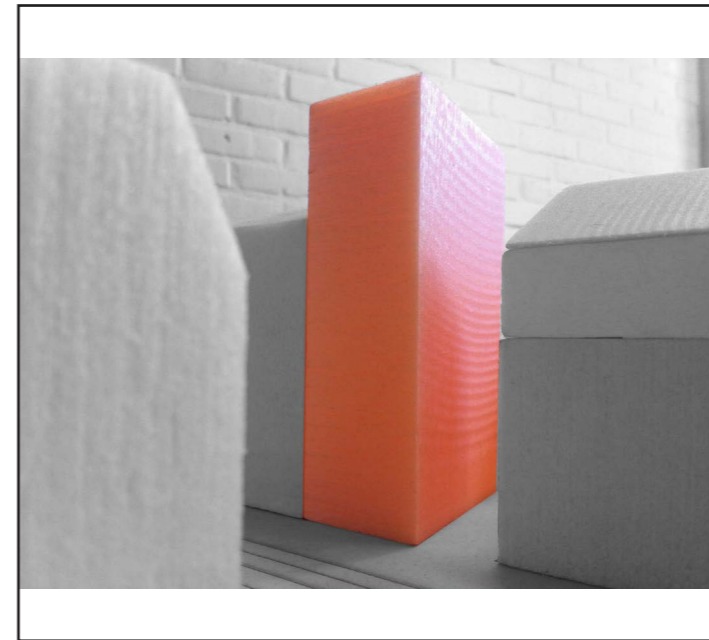
To take care of the issue of the hole in the city structure I added a volume, with the same diagonal cut left in the bottom floor.



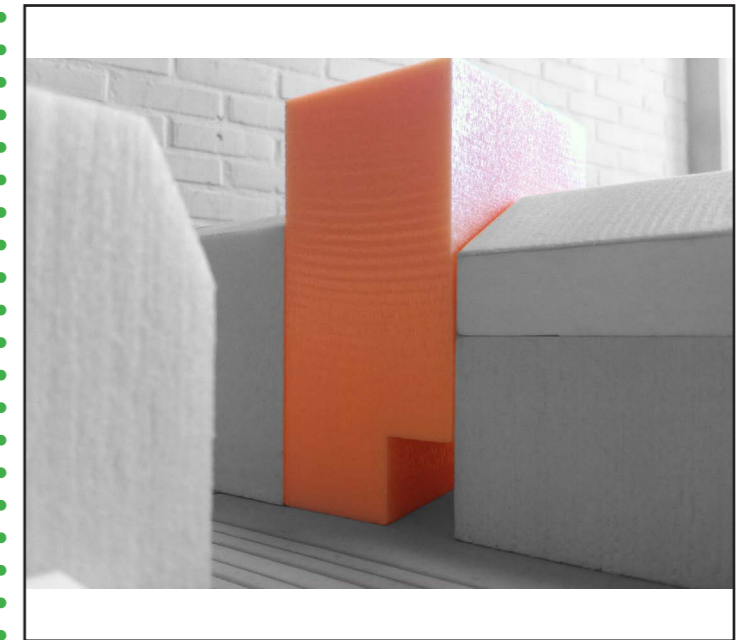
Somewhere around here I also started to investigate the possibility to not build on the entire site, hence making it possible to access the building from the side, or easily pass into a courtyard. At first I also tried to adapt my addition to the surrounding buildings.



But I also looked more into the size of the aperture towards the street. I wanted to find the most welcoming size, so that there would be no question that you are allowed to enter.

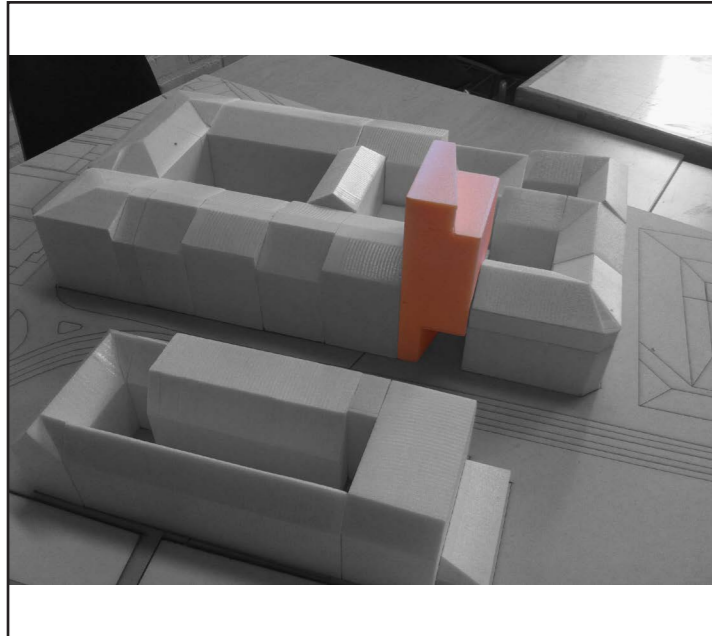


One major problem with this shape, however, was that it left too much of a hole in the city structure. On the other hand I realized that the diagonal helped making the aperture more welcoming, especially when turned the other way so that the opening became 1/3rd of the width of the building.

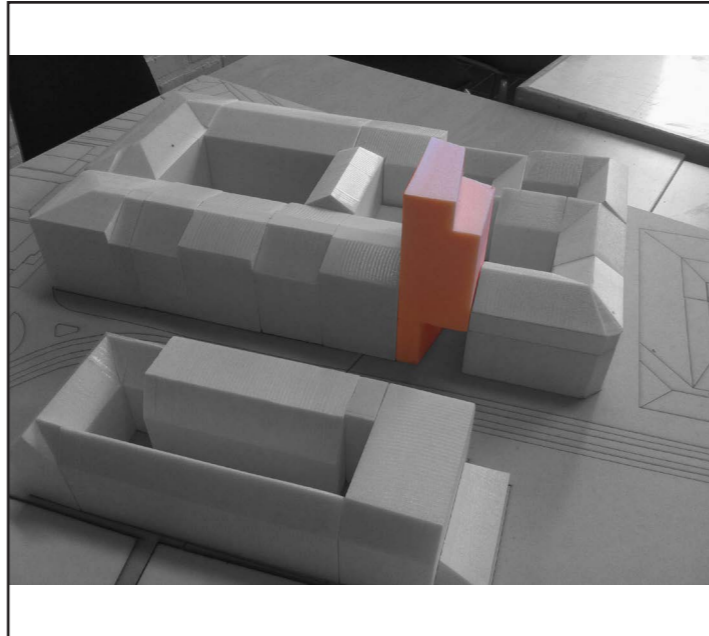


What I realized then was that the diagonal had to be cut the other way to make the opening larger, since this opening feels more like a traditional entrance to block with an inner courtyard, rather than an entrance to a public building where anyone is allowed to enter.

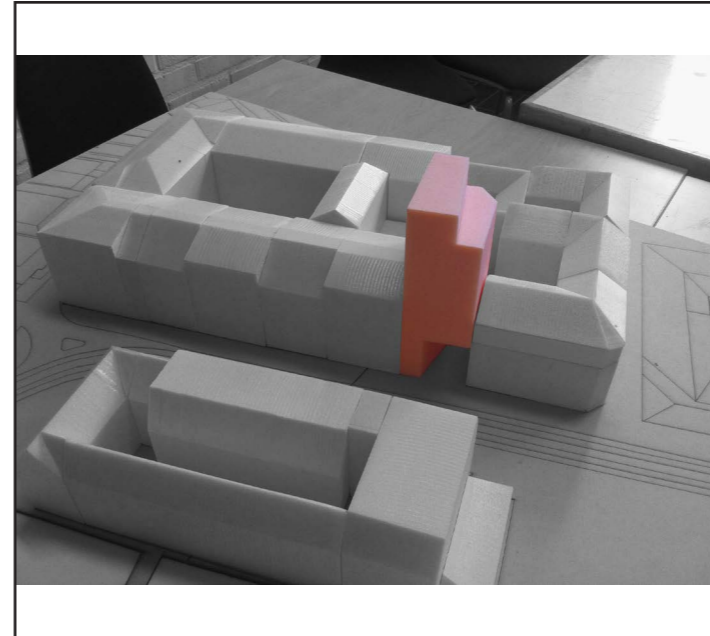
## TUNING MODEL STUDIES IN FOAM



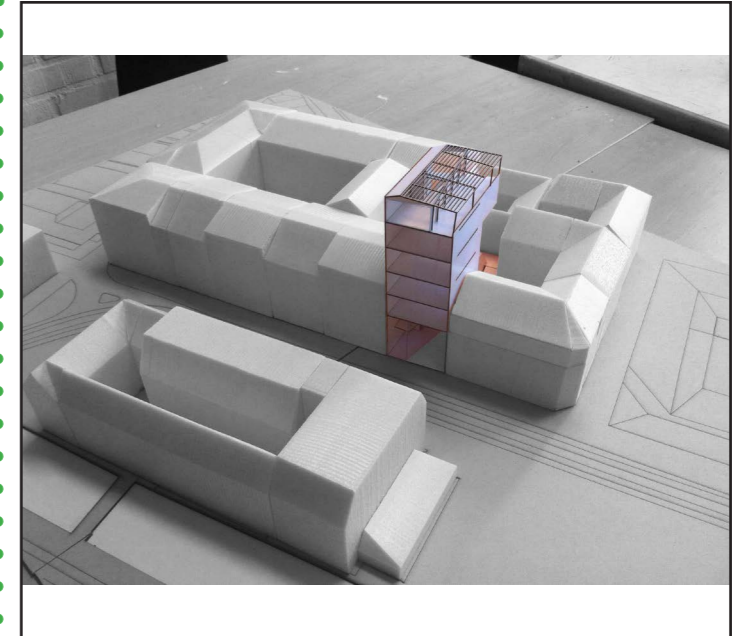
When making the opening wider, I also tested to make it twice as high. This opening became so large that there's no doubt you are allowed to enter. The street and building start to merge. Since almost all higher buildings in Gothenburg have a flat roofs, and look like boxes, I wanted to do something else with the roof of my building.



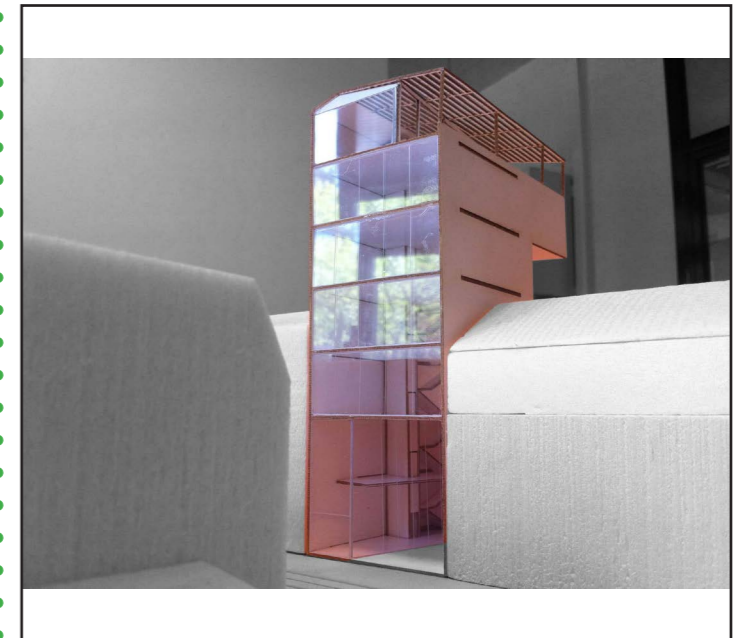
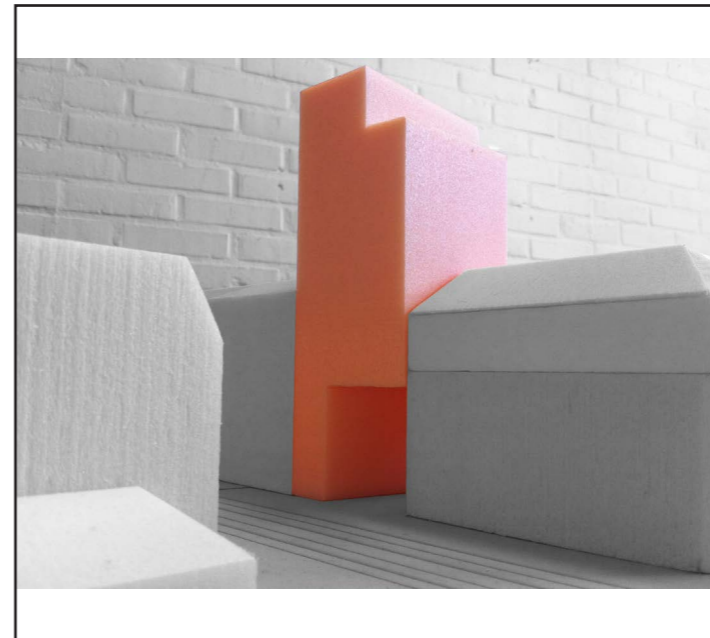
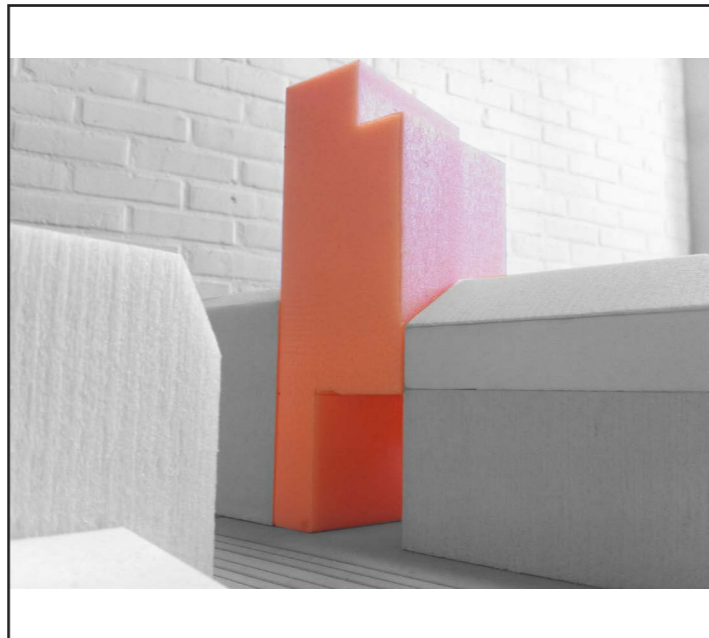
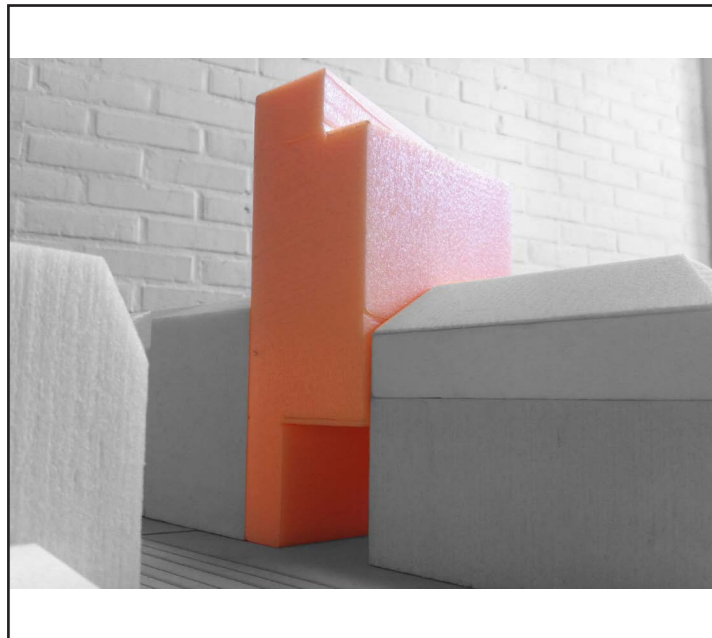
First I cut the same diagonal on the top as I had in the bottom, but since it left too little space on the inside I had to adjust it a bit and make the indoor area larger. I also adjusted the volume on the back by cutting it so that the edges align with the facades of the surrounding buildings.



As a further adjustment I decided to cut not the entire building on the west side, but only from the edge of the facade, to the edge of the diagonal cut in the bottom floors. This created a volume that was slightly sleeker than the previous ones.

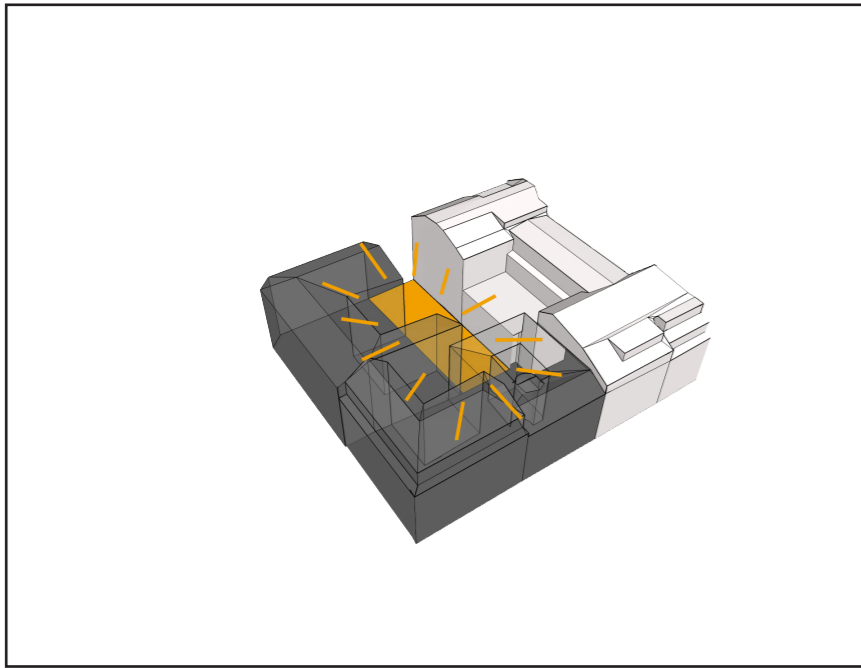


Last I built a cardboard model in scale 1:200, to get a grip of what it looks like when more details are added.

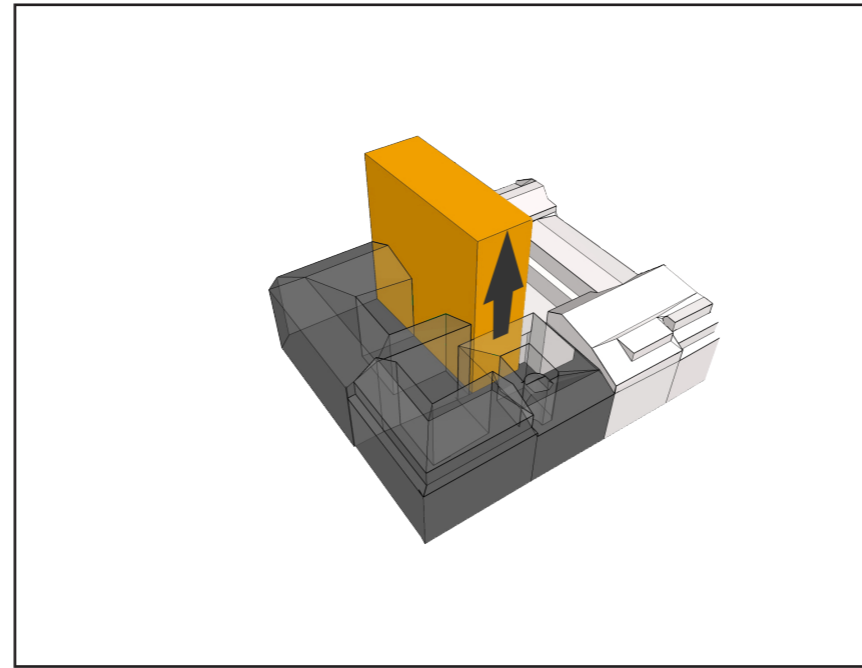




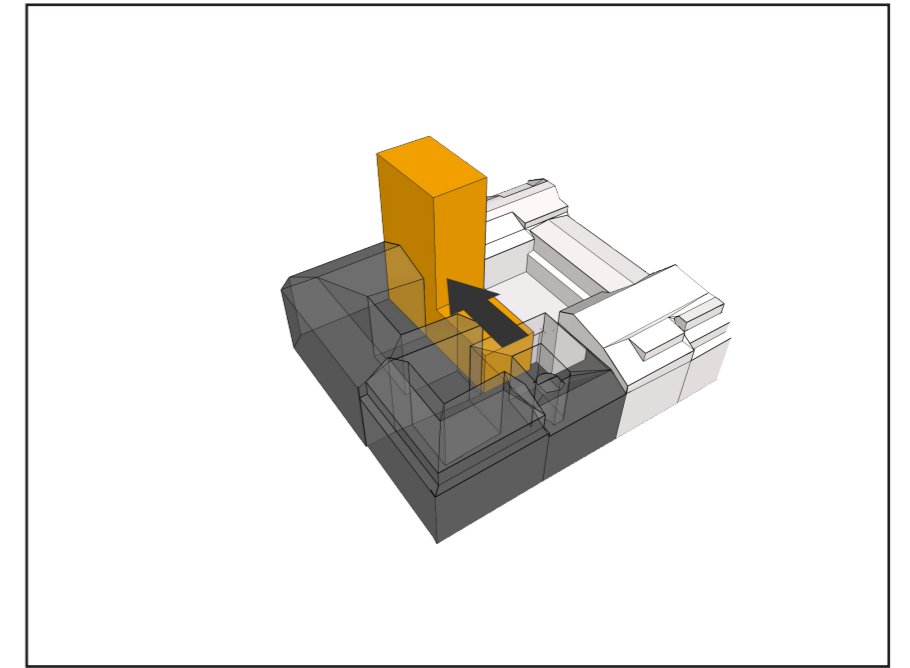
# CONCEPT



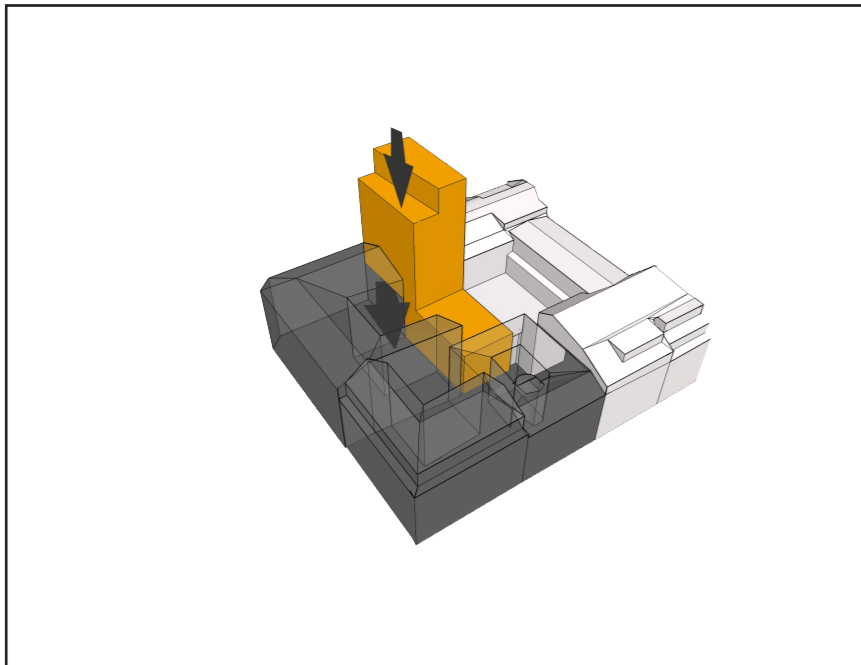
It begins with the infill site in Brunnsparcken



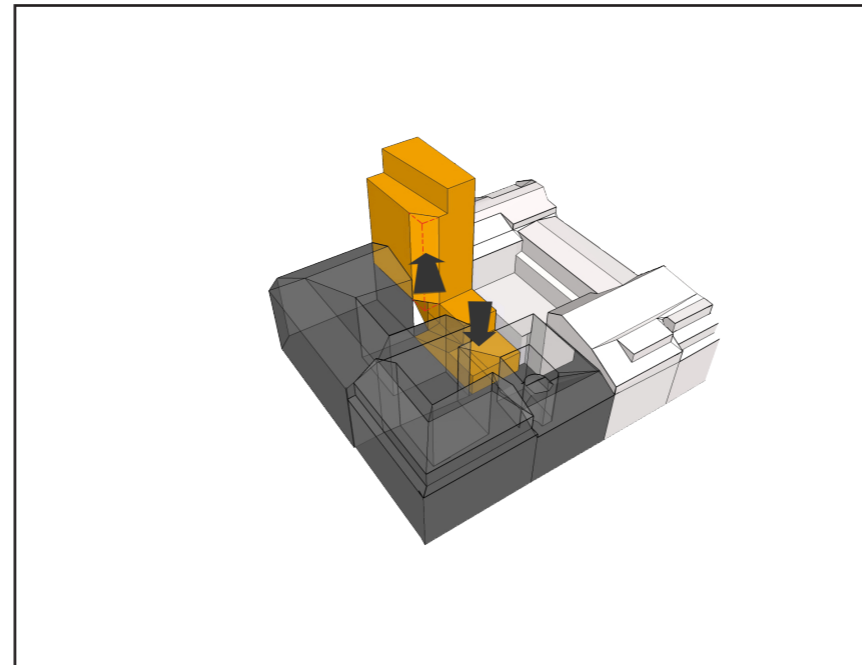
It is extruded to create a volume



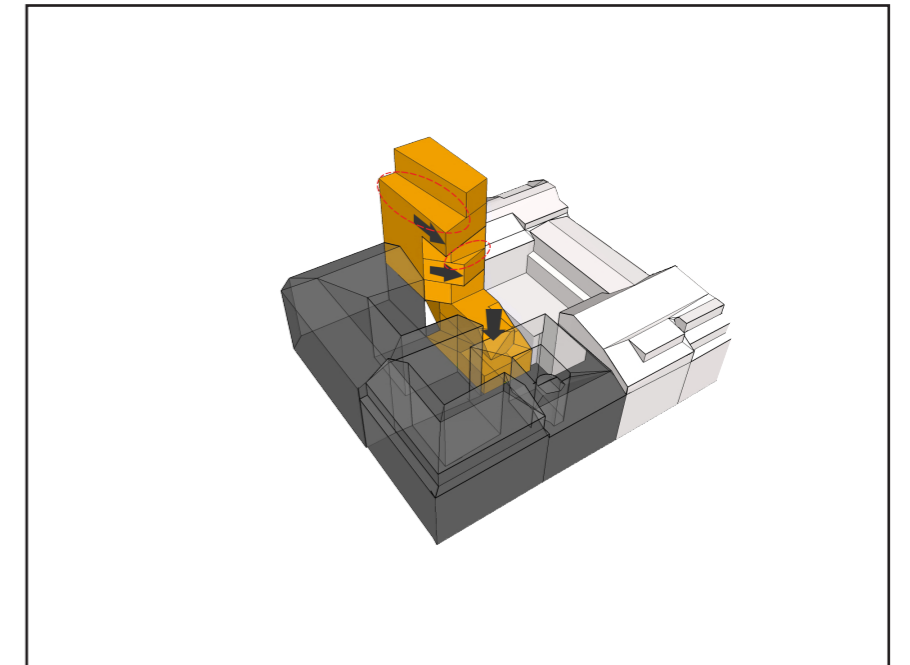
The volume is pushed back to align with the edge of the building to the right



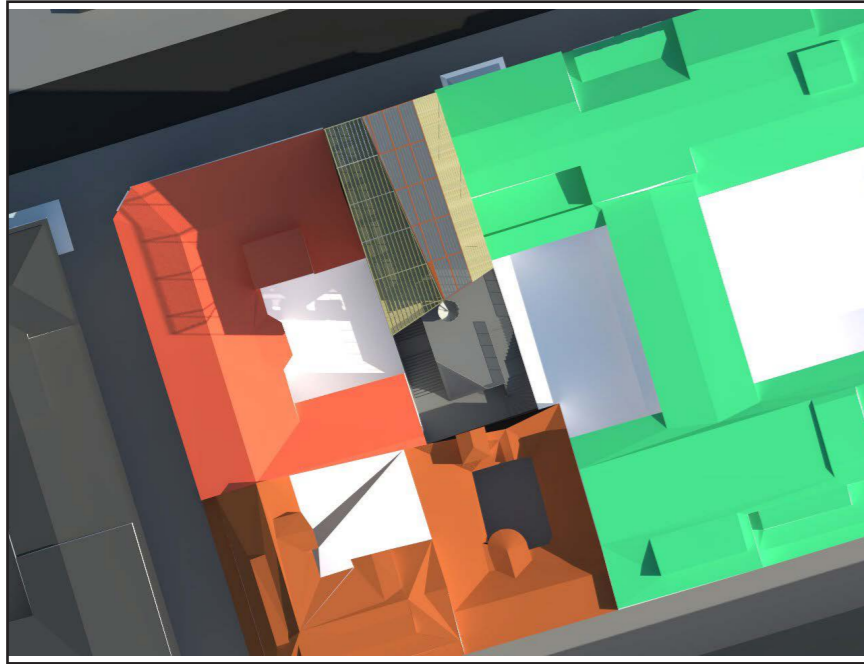
The top is pushed down to create a roof terrace and the bottom two floors are cut away to make passing through underneath possible



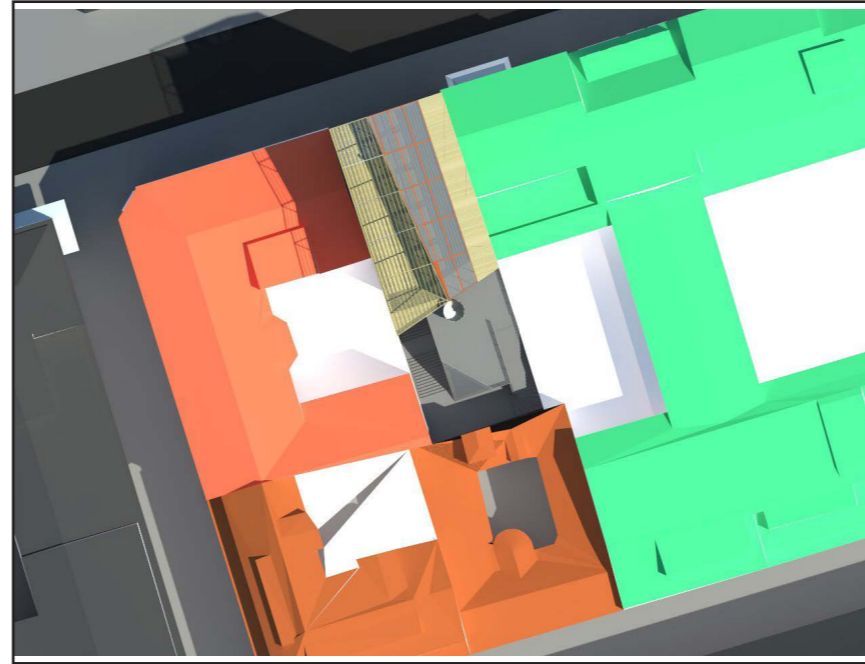
The edge is cut off to adjust the volume to the building on the left, and the volume at the back is pushed down to create a landing



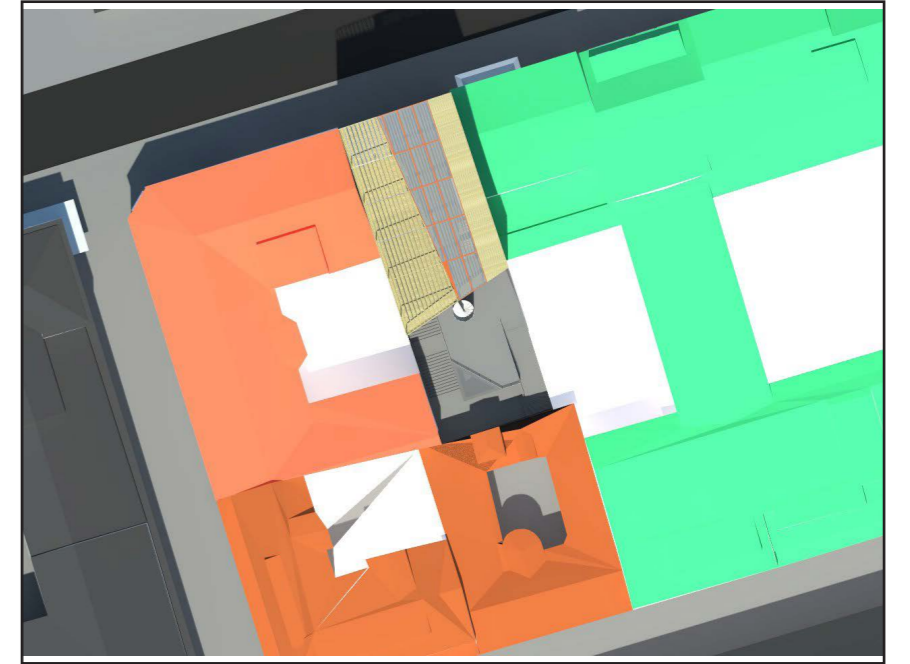
The volume is extruded to highlight the individual floors and create a balcony, as well as a larger roof terrace. The volume at the back is cut off to create a slanted skylight to get light down to the basement



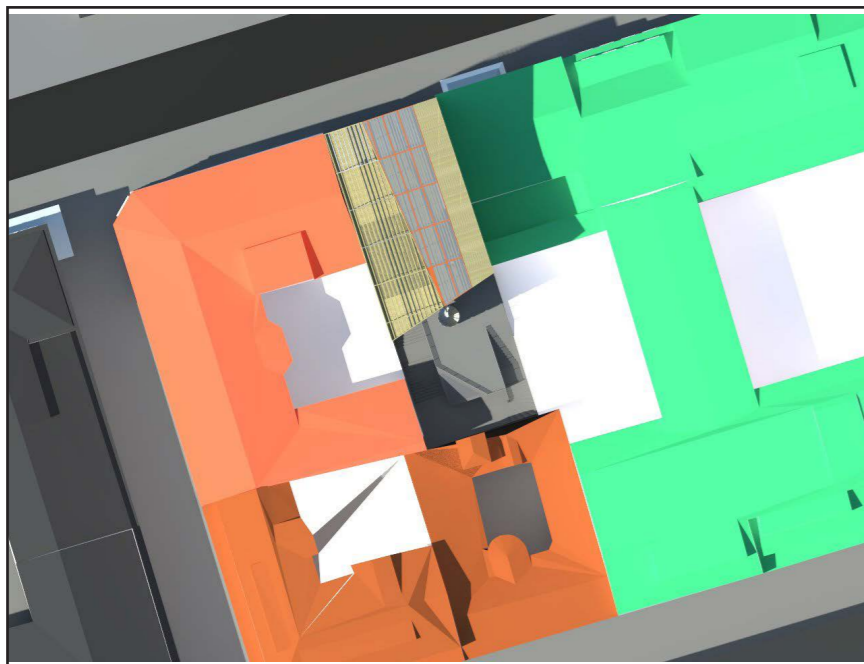
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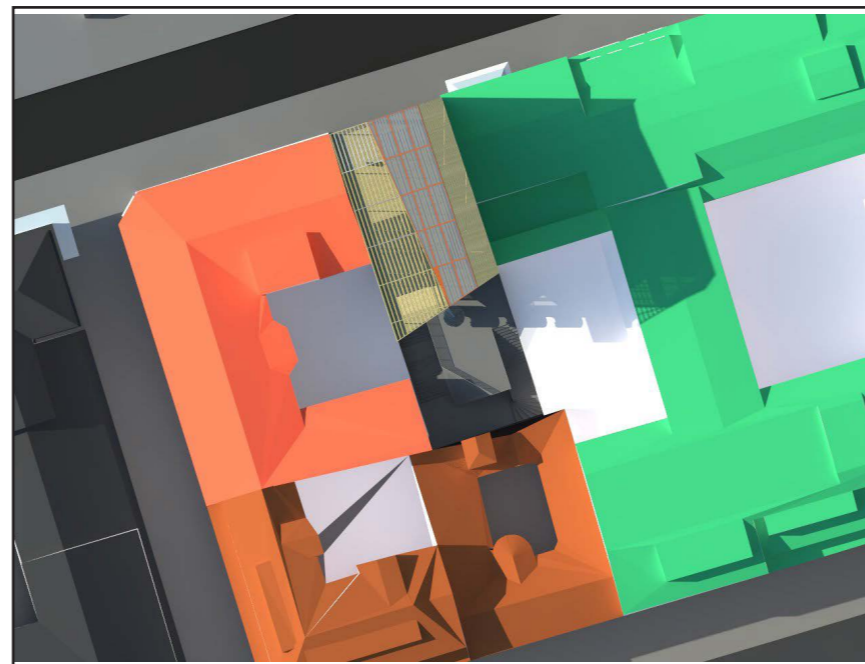
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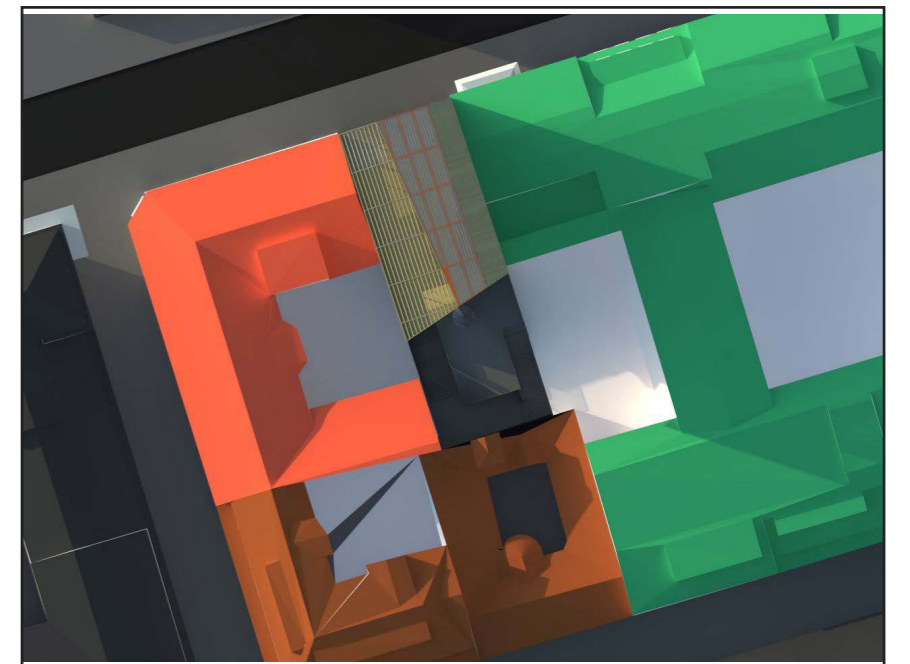
12 p.m.



14 p.m.

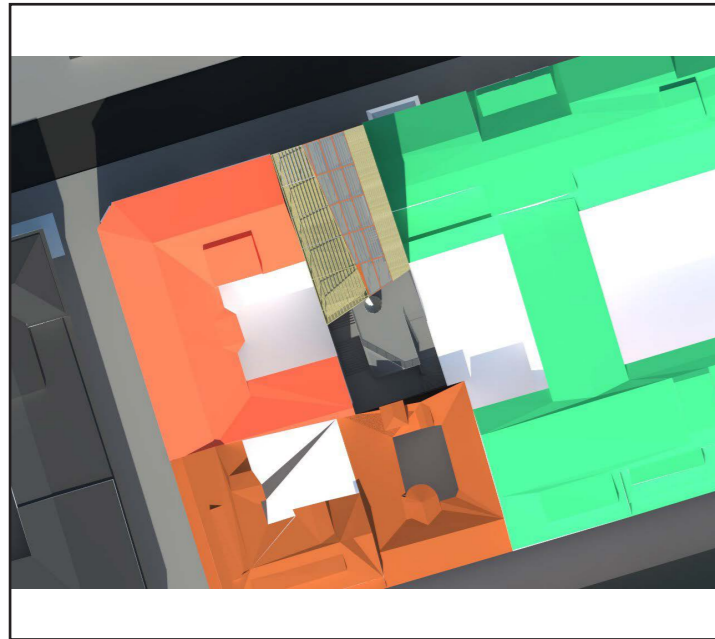


16 p.m.

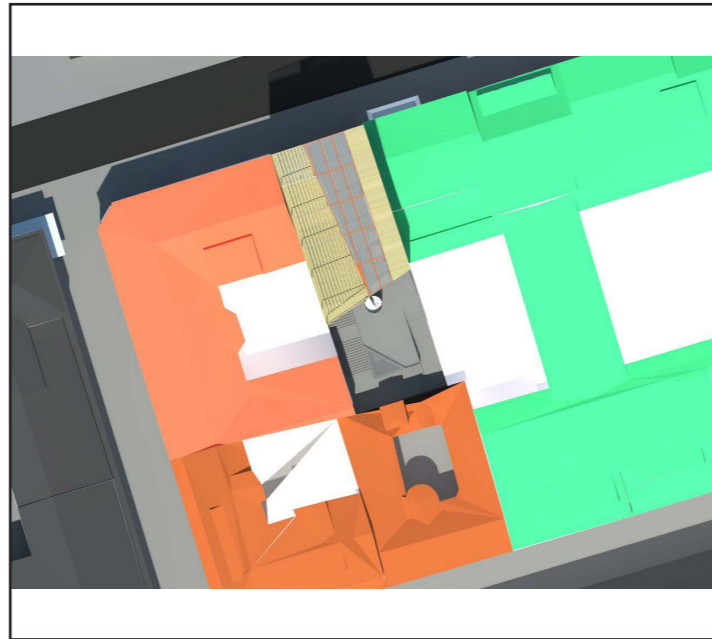


18 p.m.

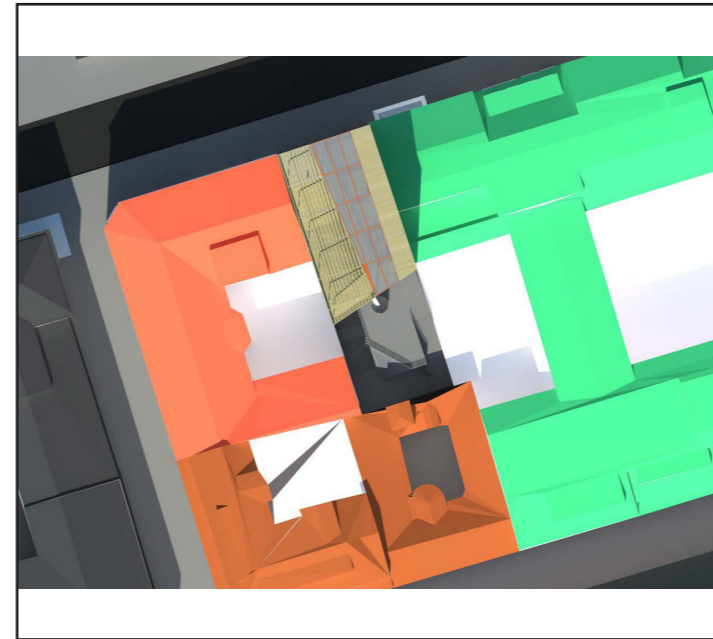
SUN STUDIES - OVER THE YEAR



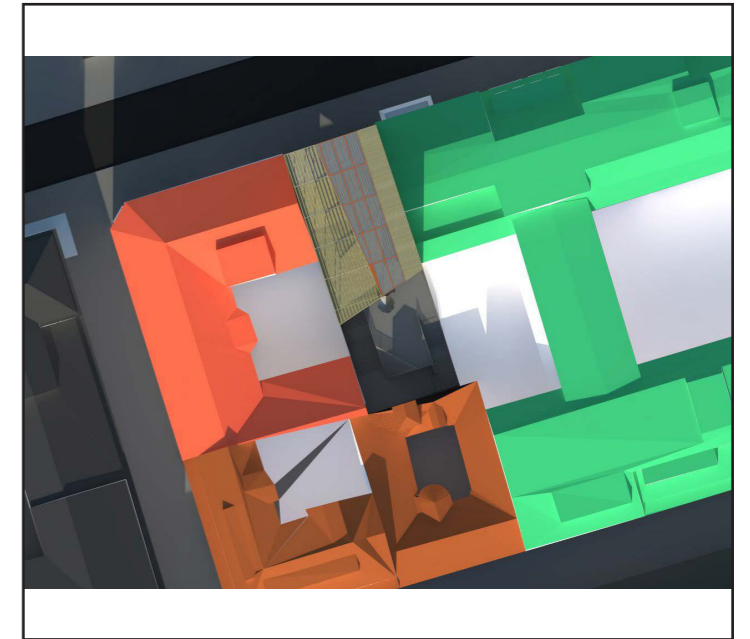
12 p.m. in March



12 p.m. in June



12 p.m. in September



12 p.m. in December

## THE SITE

As stated before, the site I'm working on is an infill in the very center of Gothenburg. It's measures are roughly 12.1m wide and 34.4m deep. On the west side of it is a 19th century house made from stone and bricks, and a traditional pitched roof. The building is 14.4m deep and 19.1m high. It has an inner courtyard, which is covered on the first floor, with a terrace on top of it.

On the east side, designed by architect Johannes Olivegren in 1973, is a rather big yellow brick building with a facade which is divided into five parts with slightly different expressions, as an attempt to make it look less massive. It is 19,9m deep and 21m high, and also has a covered inner courtyard over the first two floors, this due to a passage with shops that used to run through the entire block.

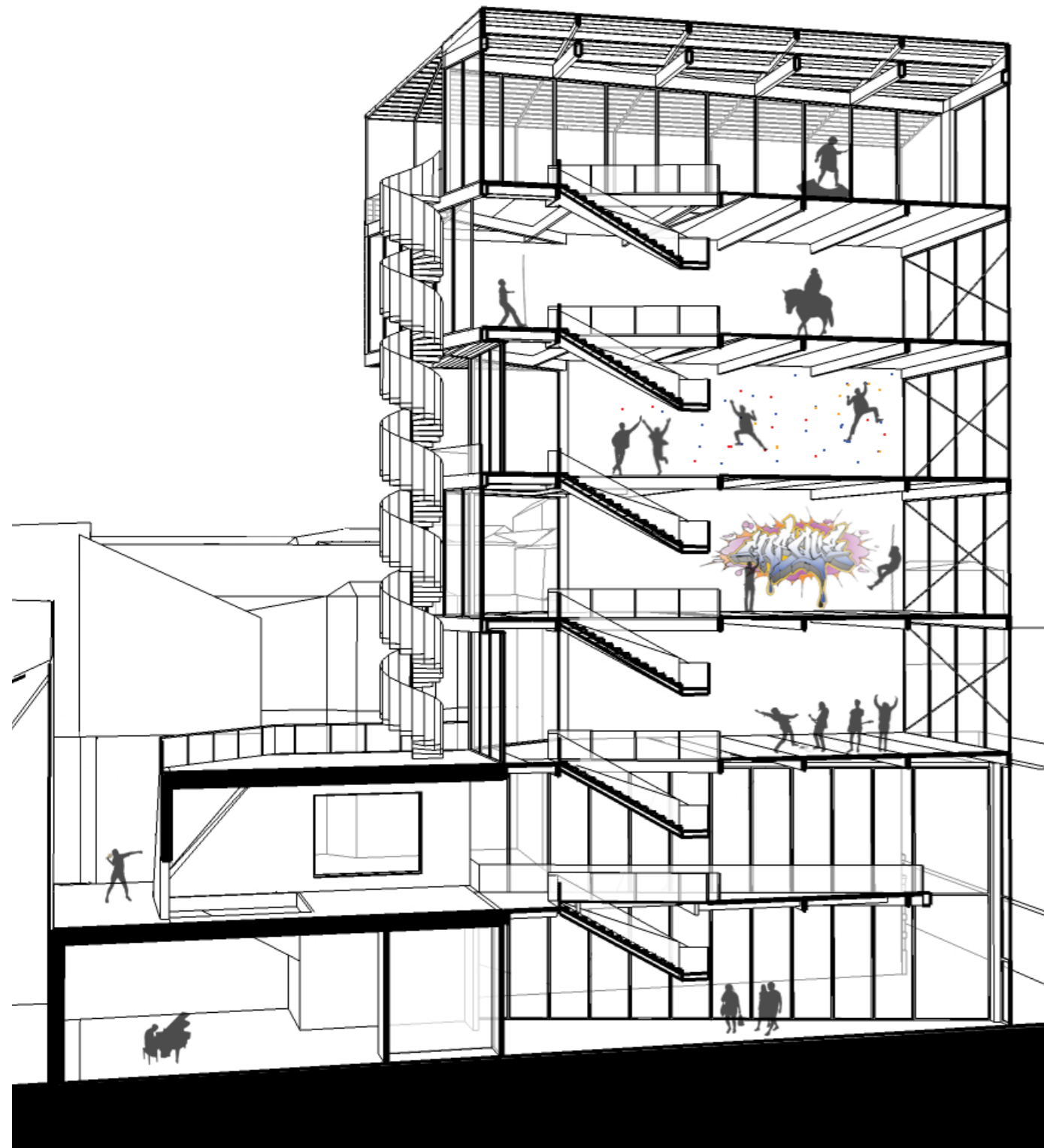
On the south side there is also a 19th century building, which is 14m high and has a blind end facing the site. The zoning map for the site says that the maximum height of a building here is +38m from the zero level, stated by the municipality to +12.0m. My proposal reaches +48.5 m, hence it exceeds the regulation with 10.5m. But since the municipality at the same time wants the cultural institutions to be more exposed, I think this is the ultimate position to make a statement and use as a display window and landmark over the importance of culture in the modern city.



STEPLAN 1:1000 (A3)



PERSPECTIVE & EXPLODED AXONOMETRIC VIEW



6. CAFÉ & ROOF TERRACE

5. FREE SPACE

4. FREE SPACE

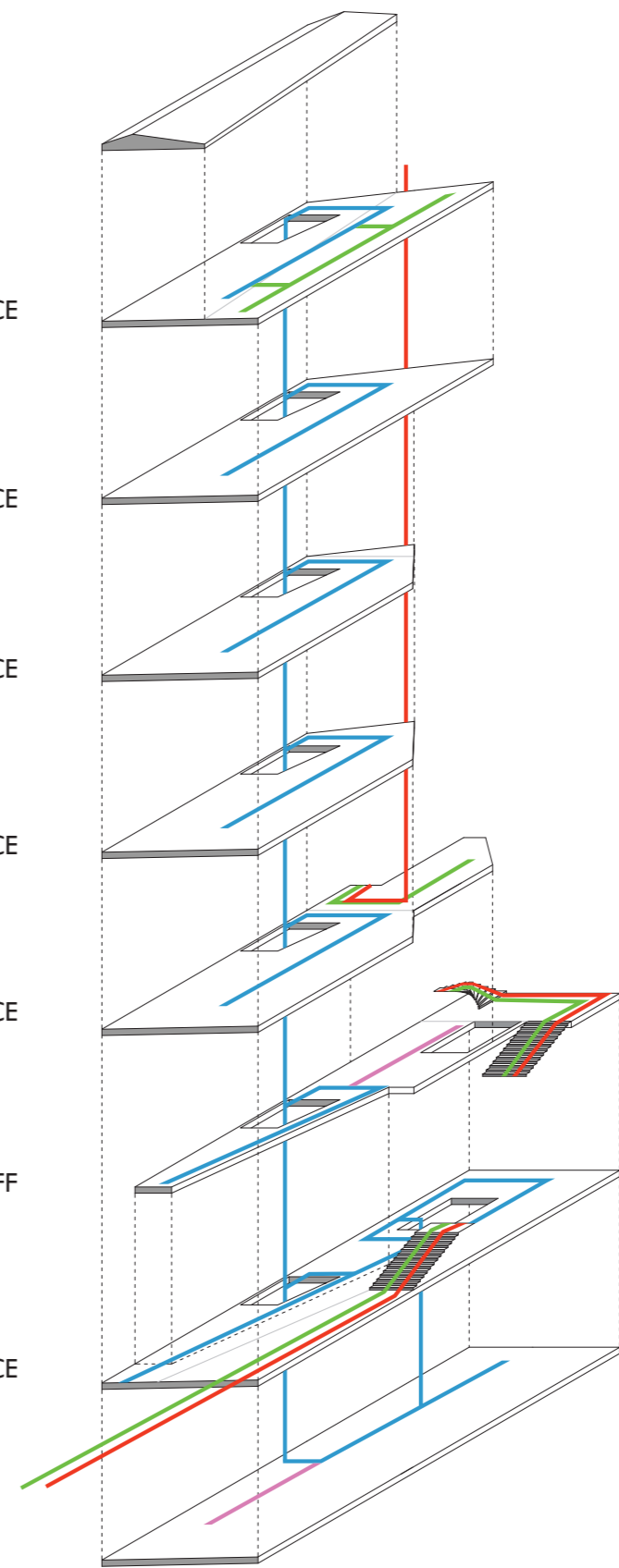
3. FREE SPACE

2. FREE SPACE & TERRACE

1. MEZZANINE & STAFF

0. ENTRANCE

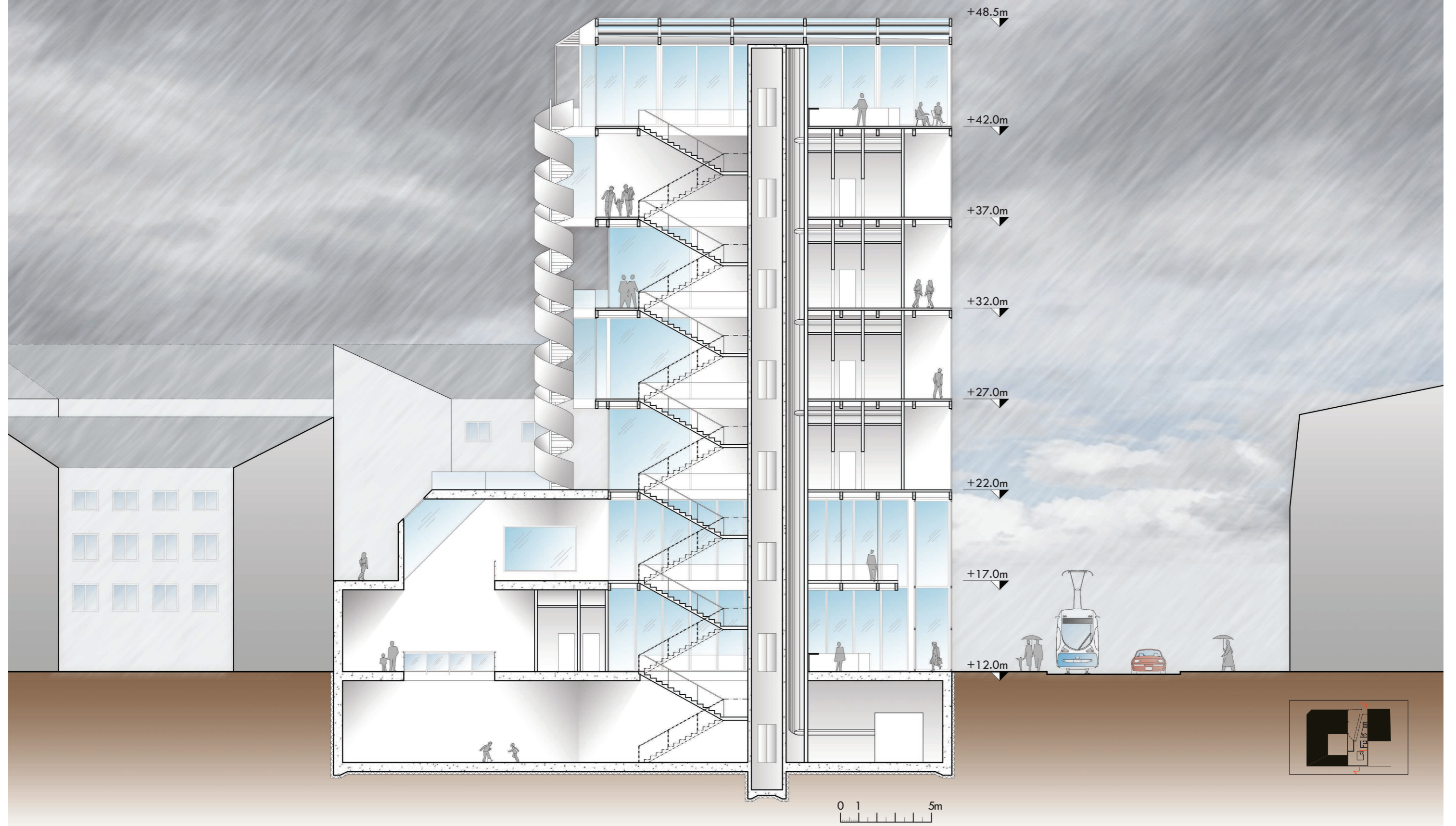
-1. BASEMENT



- INTERNAL MOVEMENT
- EXTERNAL MOVEMENT
- STAFF AREA
- EMERGENCY EXIT MOVEMENT

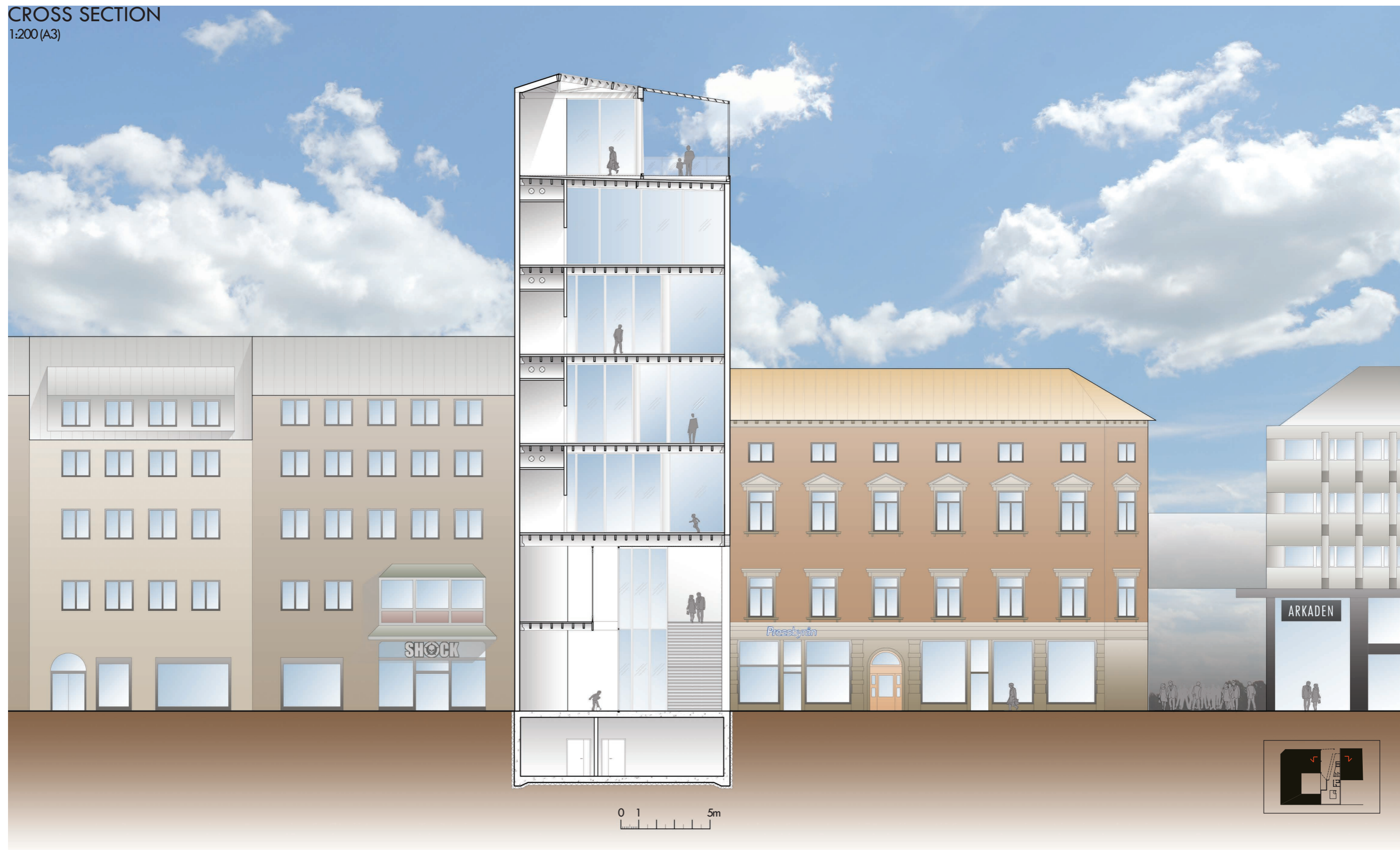
LONGITUDINAL SECTION

1:200 (A3)



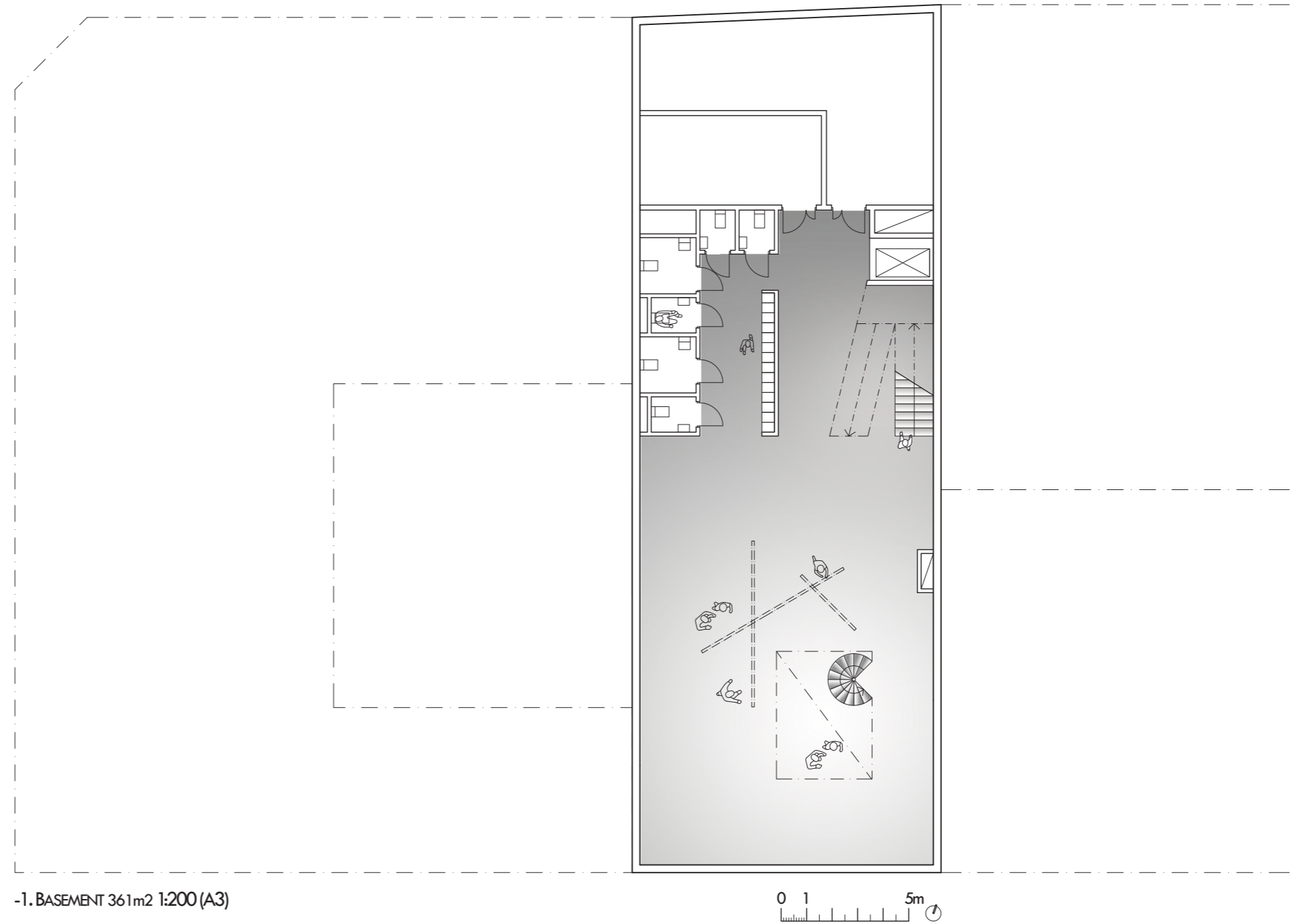
# CROSS SECTION

1:200 (A3)



# PLAN

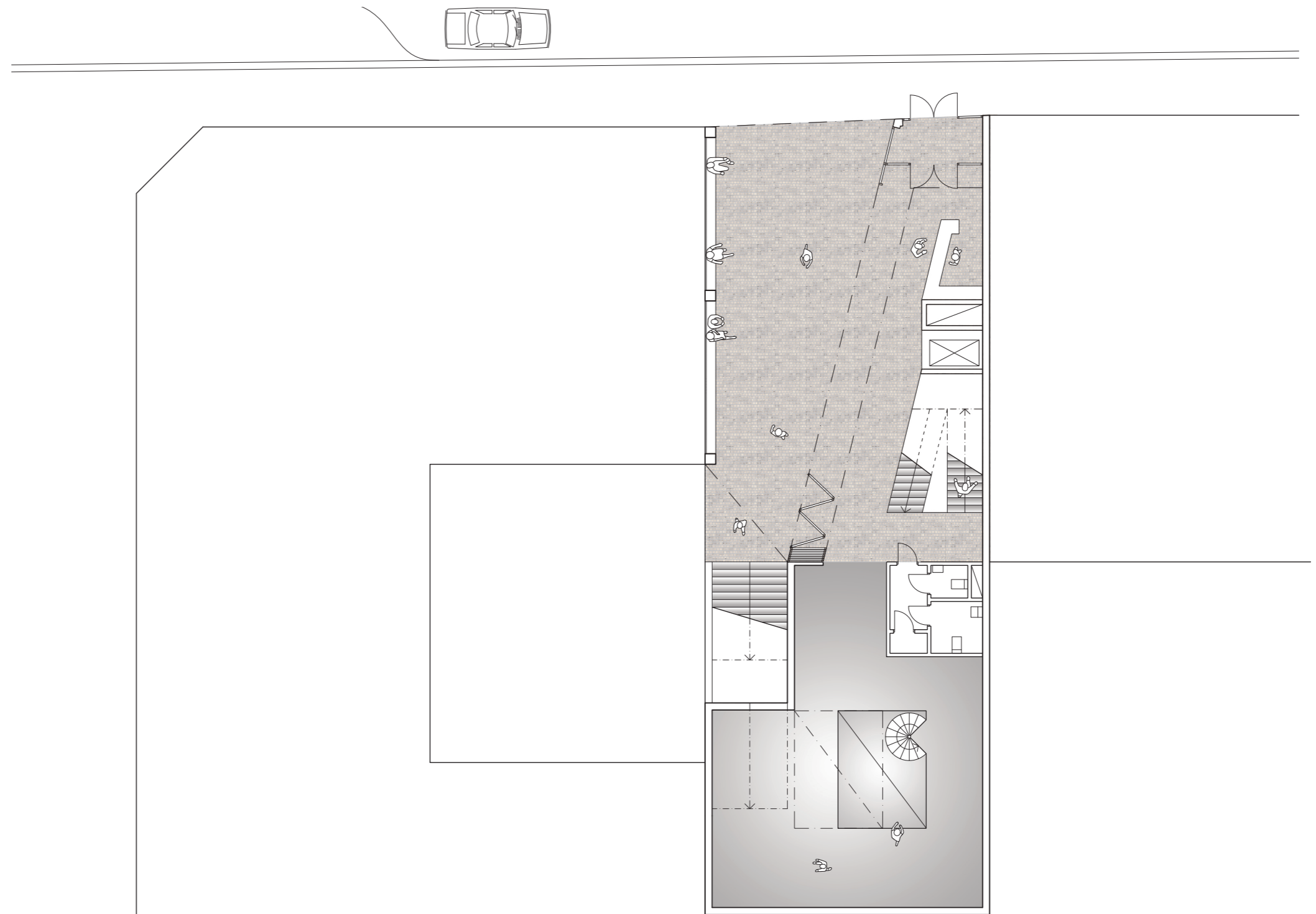
The basement floor of the building contains a large exhibition space, directly connected to the exhibition space on the entrance floor via a spiral stair. There's also a package of bathrooms and lockers, as well as storage space for the cafés and a technical room with direct access to the ventilation shaft.



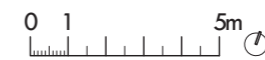


# PLAN

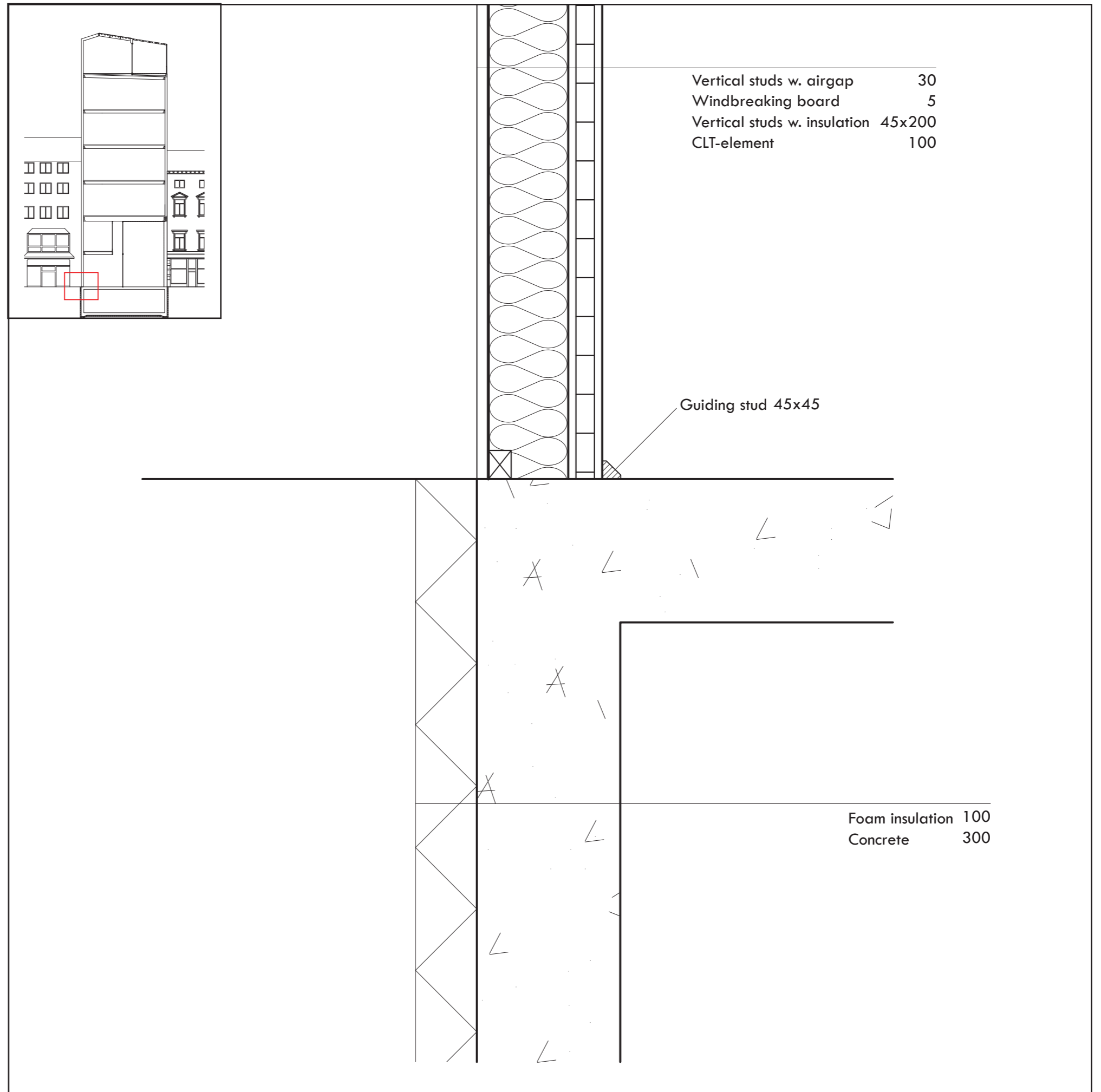
On the entrance floor there is a small café, for a quick take away coffee while waiting for the tram, or when you enter to see the latest exhibition in the back of the building. This would be the perfect place for the exhibitions that, today, are placed in the basement of the city planning office, where almost no one goes to see them, unless you are truly interested. By putting it in the very center of the busy city, a larger number of people will have access to it, and the knowledge that it exists will create a more democratic process as people will be able to get the information about what is going on in Gothenburg at the moment. As a way of dissolving the border between inside and outside, the large diagonal glass wall may be folded away to make the entire space underneath the building into one space that is neither inside, nor outside. One other feature to achieve this is the groundcover, a bowler floor in the front part, which is added both inside and outside. Towards the back the floor is made from concrete. There is also an opening in the slab to allow quick communication between the floors, but also to let down light from the aperture in the ceiling.



0. ENTRANCE 214m<sup>2</sup> 1:200 (A3)



DETAIL OF GROUND 1:10 (A3)



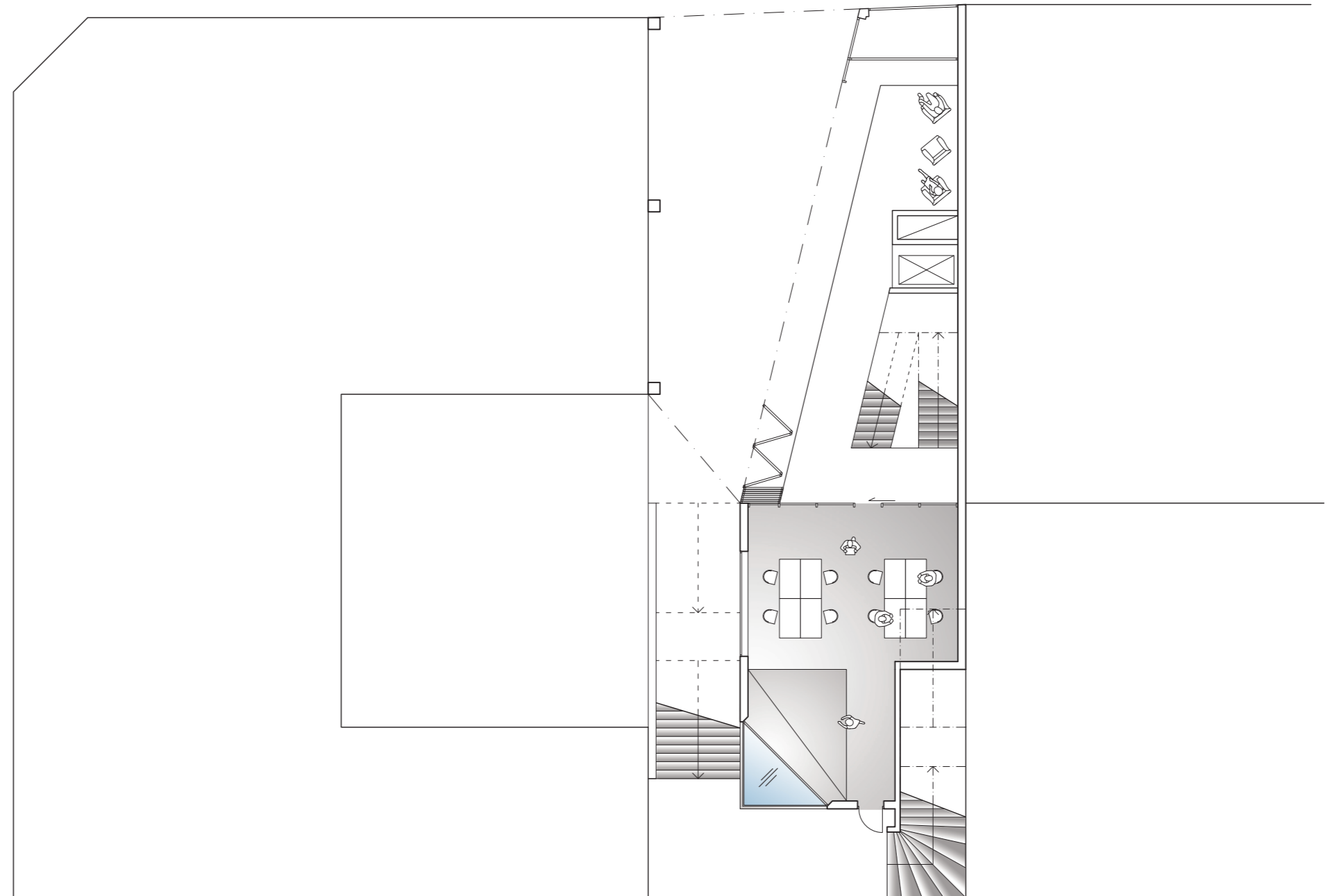


ENTRANCE SPACE

# PLAN

The mezzanine floor contains a magazine library with the possibility to sit down and have a cup of coffee while reading the newspaper and still have an overview of the entrance-plaza and the street outside. A place to sit down and watch people passing by.

On this floor the staff also have their private space, separated from the public part of the building by a glass wall. They do, however have an opening in the slab to the exhibition area below, and also a direct access to the outside.

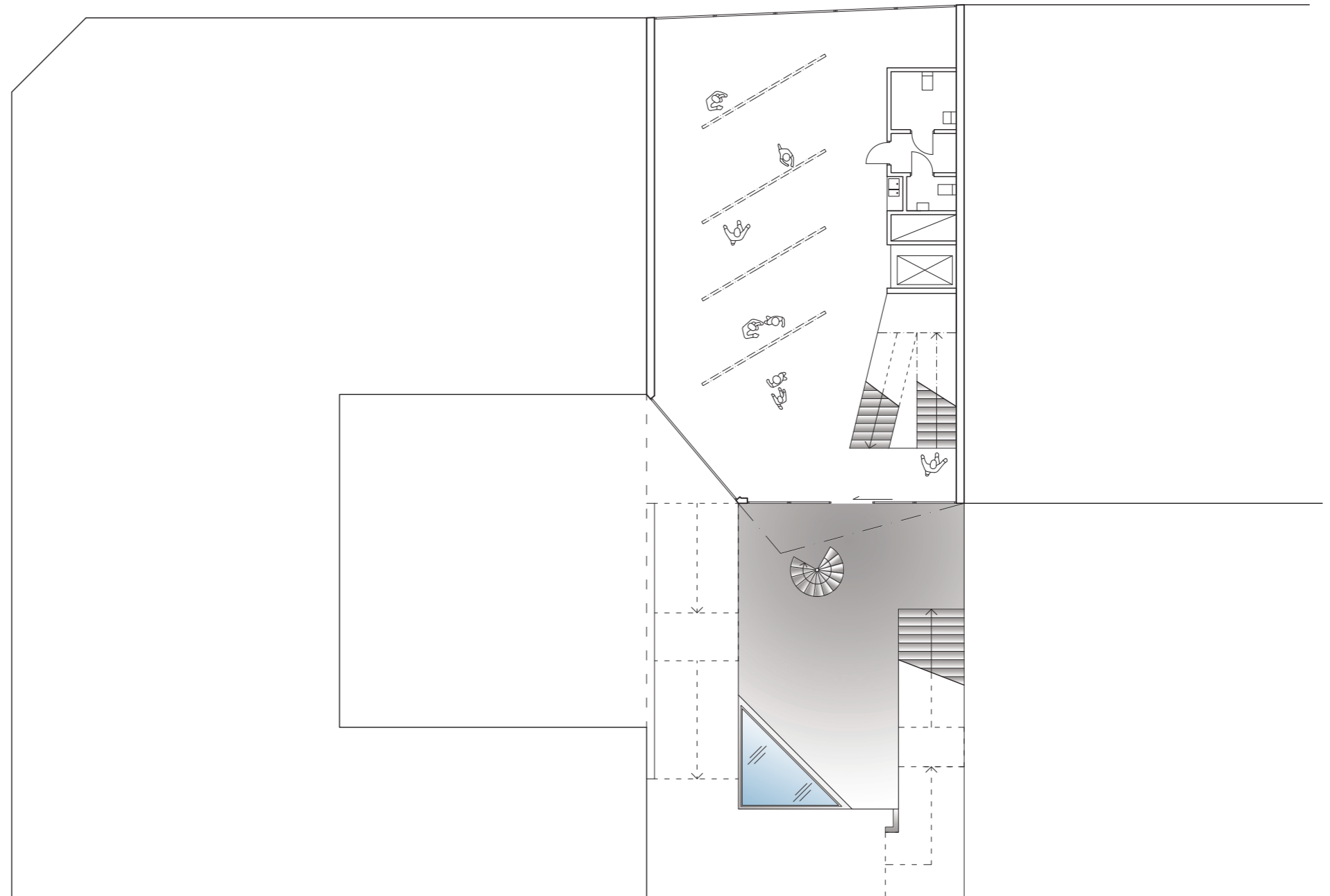


1. MEZZANINE 109m<sup>2</sup> 1:200 (A3)



# PLAN

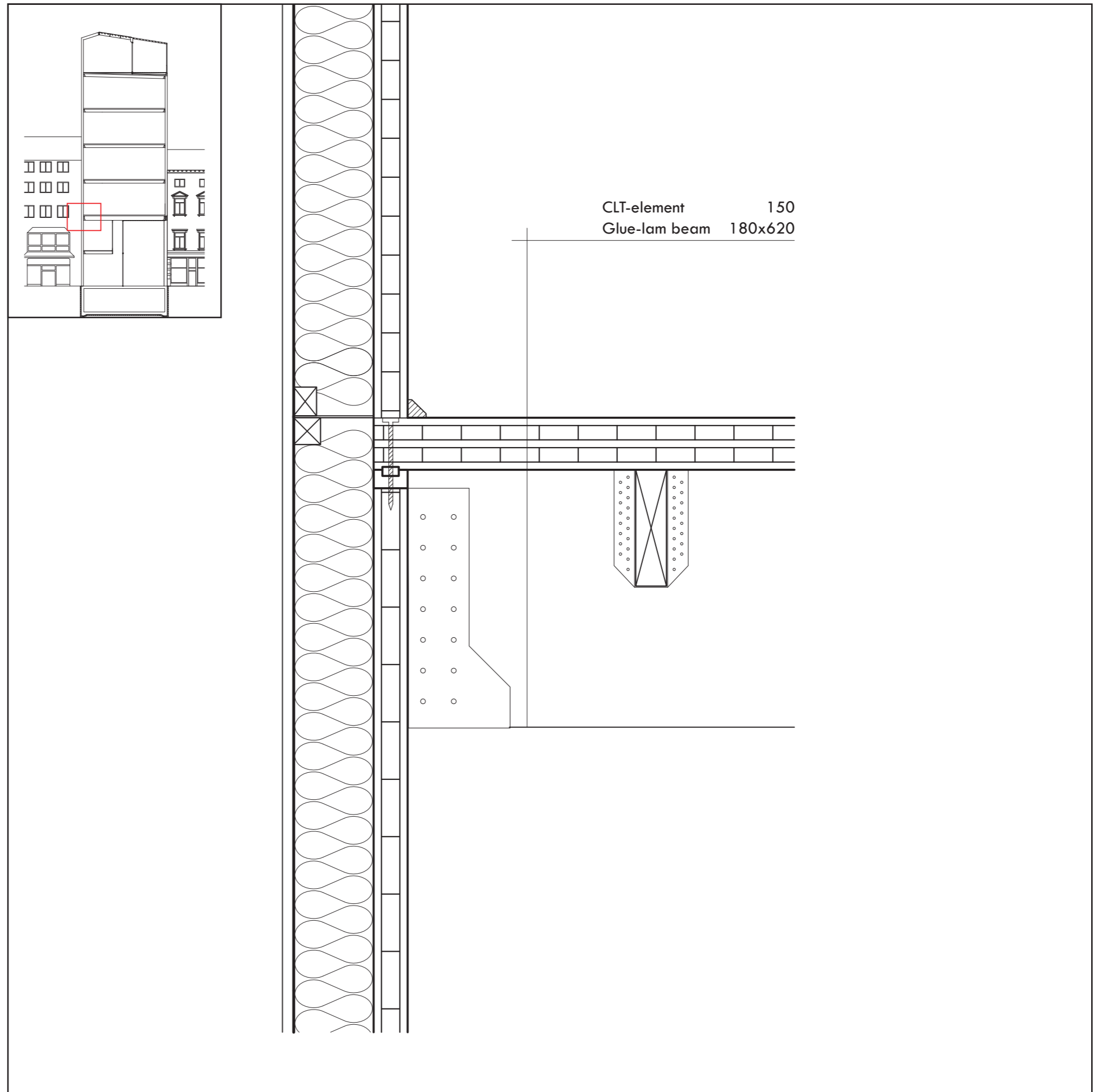
The second floor is the first one that is dedicated to the free usability. Even though this, and the following three floors have some small differences, they all have the free floor and wall space as a common denominator. The specific feature on this floor is the direct access to the elevated terrace, which you also can reach by the stairs from the outdoor space underneath the building. Since one of my main ideas is to give this part of the city back to the citizens, I want that to include not only the indoor space, but also the outdoor areas. This obviously includes the plaza underneath the building, but also the terraces on the roof as well as the ones in the courtyard. The reason for the elevated terraces in the courtyard is both to maximize the usage of the site in terms of indoor area, and also to create outdoor spaces with as much sun exposure as possible. Since the courtyard is rather small, the houses surrounding it high enough to cast shadows over it during almost all of the day, and the sun is rather low this far north in Europe; elevating the courtyard helps to provide sun exposure during almost all of the day. And because we have so many days of precipitation each year, we take every chance we've got to get a few minutes outdoors in the sun, no matter how cold it is. The furnishing proposal here shows a possible art exhibition.



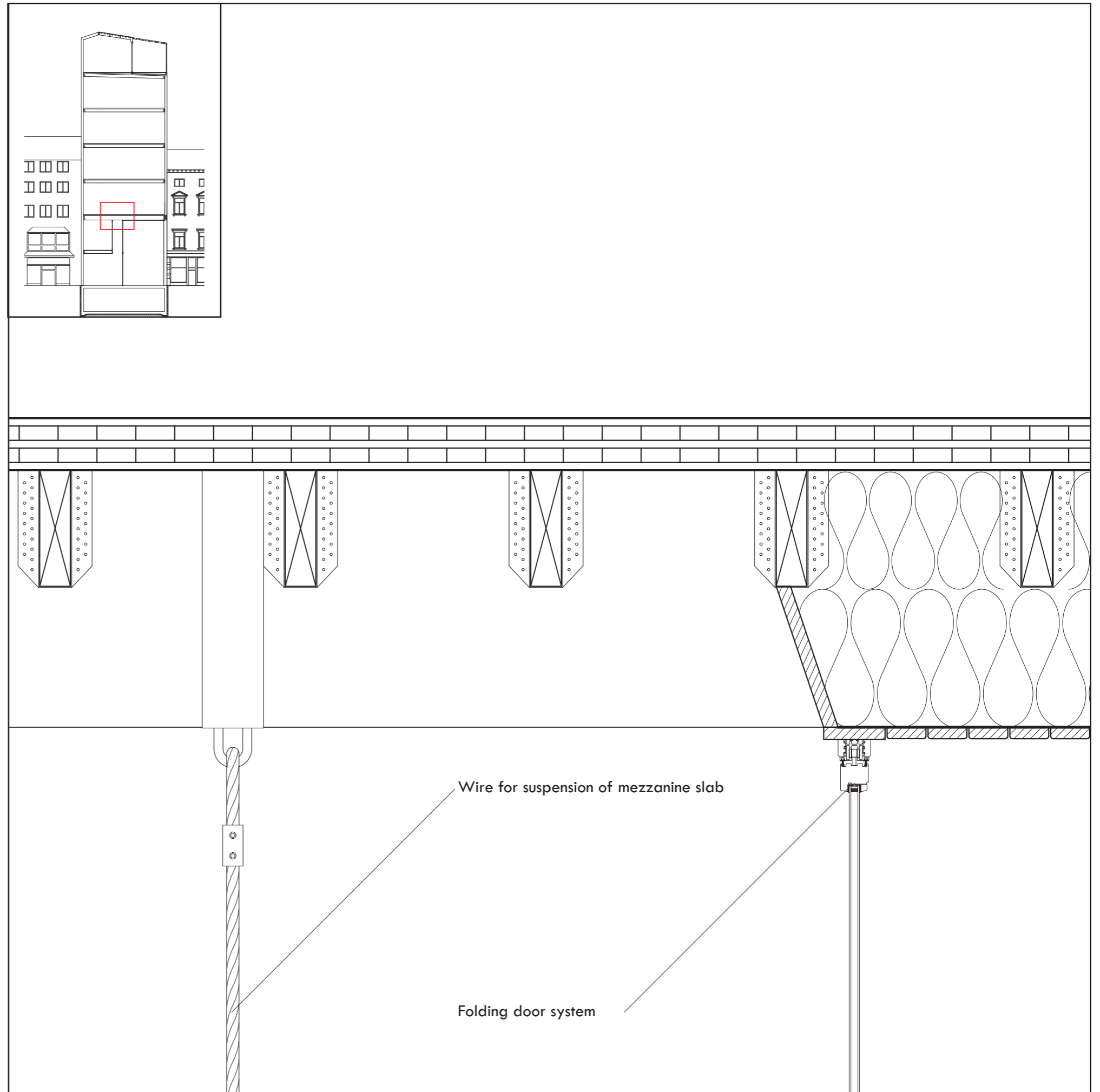
2. FREE SPACE 181m<sup>2</sup> & TERRACE 71m<sup>2</sup> 1:200 (A3)



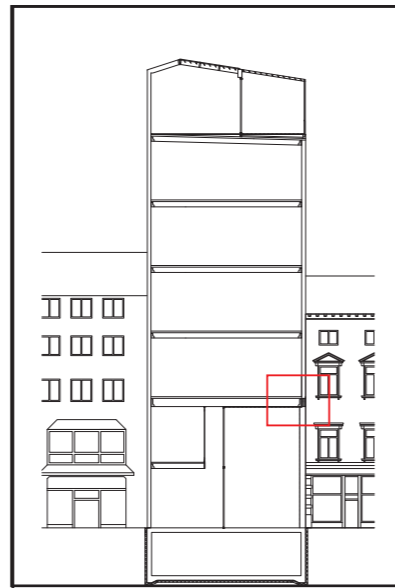
DETAIL OF SLAB 1:10 (A3)



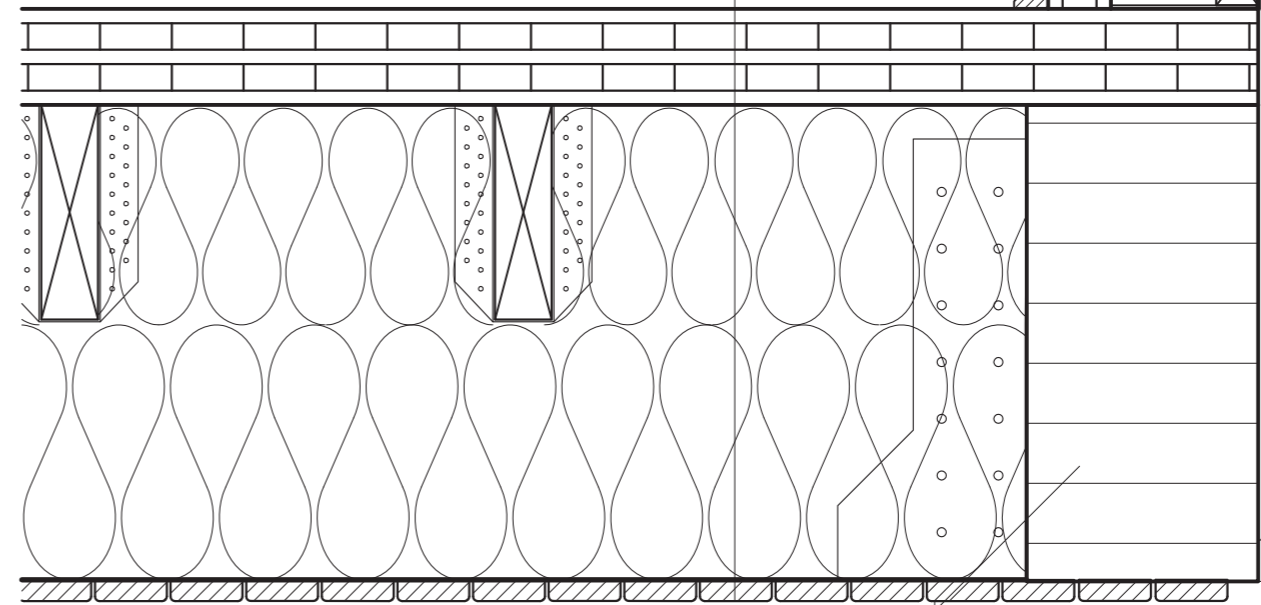
DETAIL OF SLAB & FOLDING DOORS 1:10 (A3)



DETAIL OF SLAB 1:10 (A3)



CLT-element	150
Glue-lam beam w. insulation	180x620
Windbreaking board	5
Wooden panel	30x95



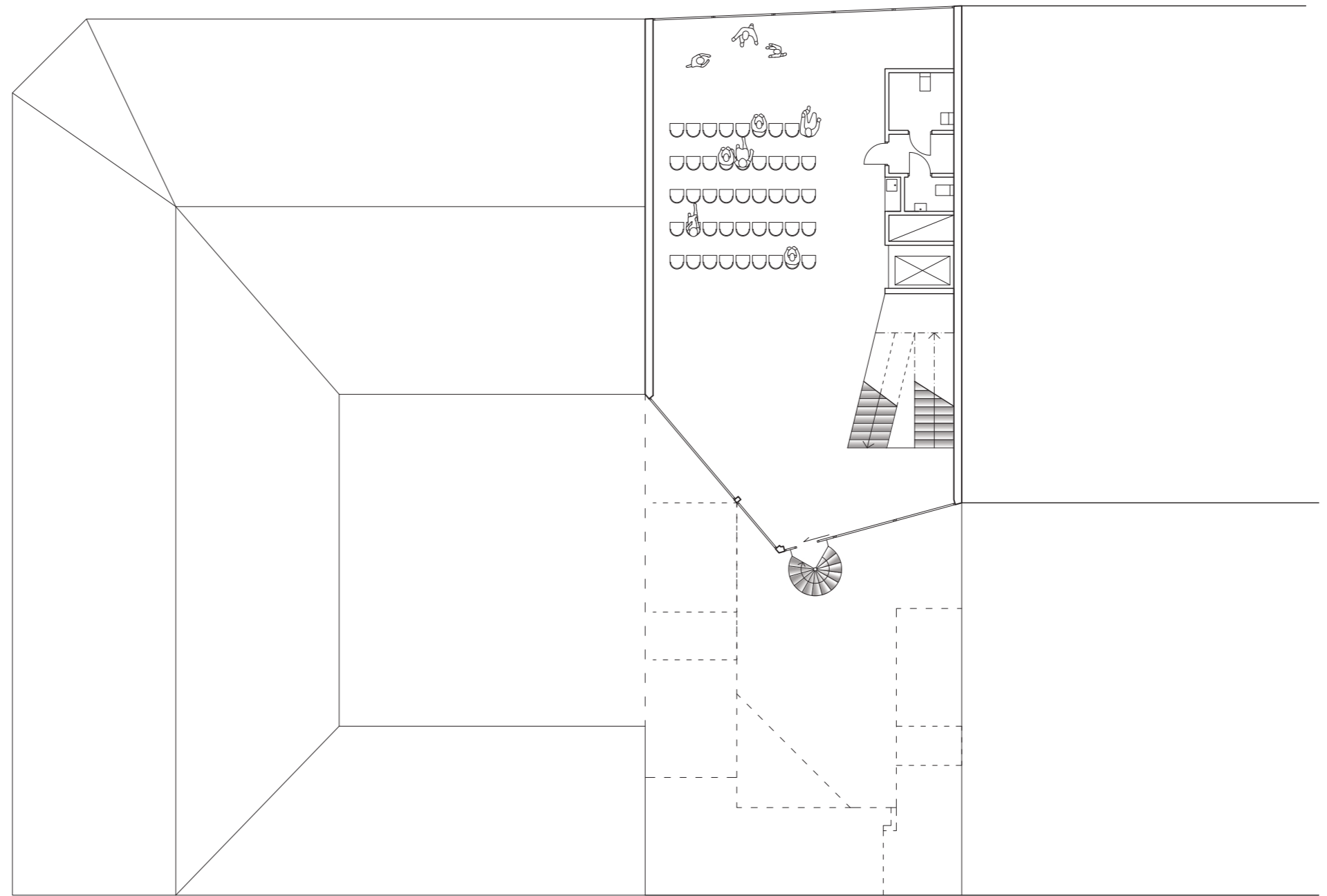
Glue-lam beam 320x620

Glue-lam pillar 450x450



# PLAN

The characteristics of the next floor is that it's extruded towards south. This creates somewhat more floor area, and slightly more window area towards the south-east. On all the floors with free space there are two bathrooms, one fully accessible by wheelchair, and a sink in case water is needed. The furnishing proposal here shows a group of acting students performing a play.,

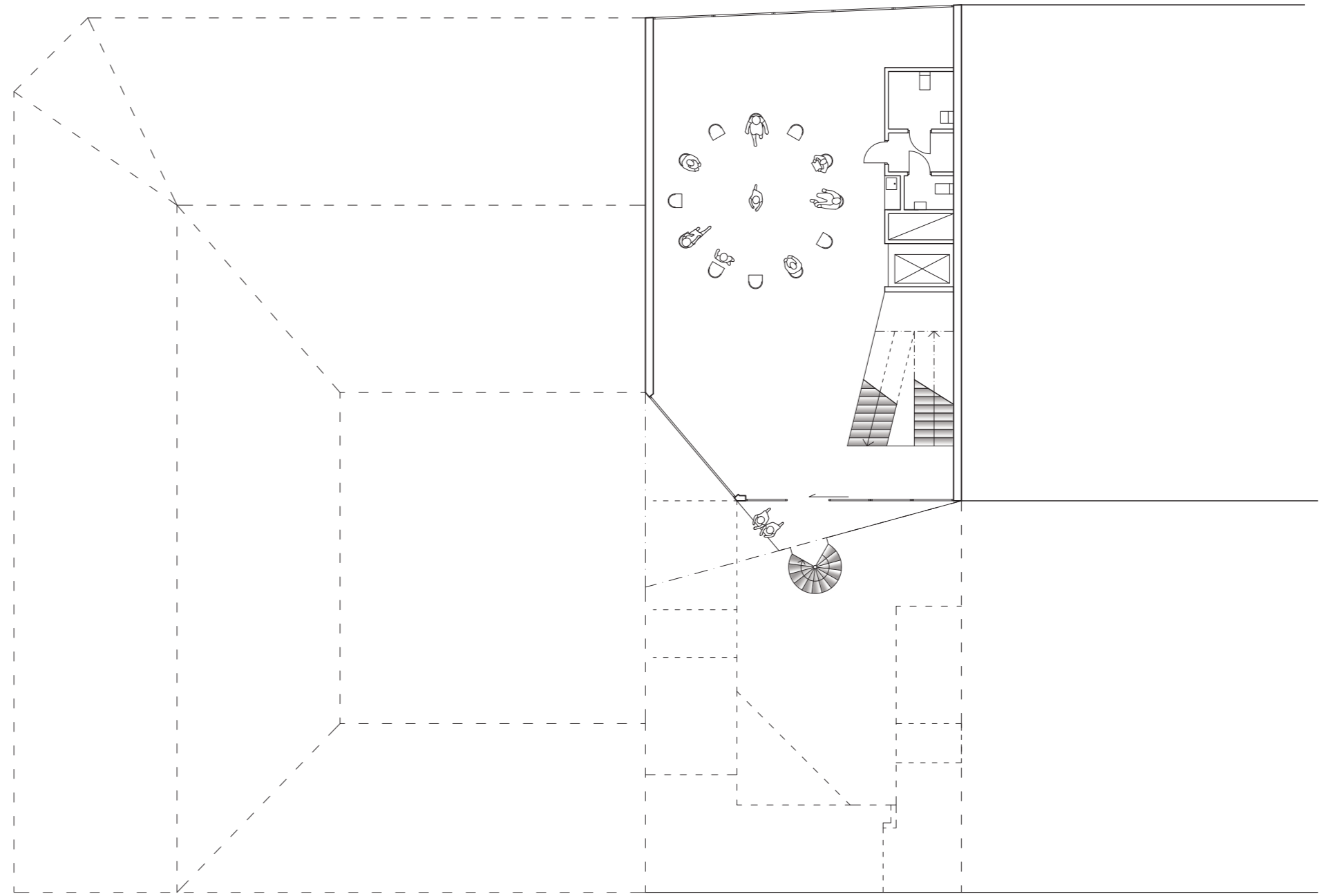


3. FREE SPACE 190m<sup>2</sup> 1:200 (A3)

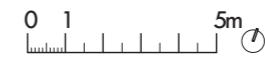


# PLAN

Since the floor below is extruded, and this floor isn't, the extrusion forms a balcony. Apart from that, the layout here is the same as on the floor below. Here the floor is furnished for a session with croquis.

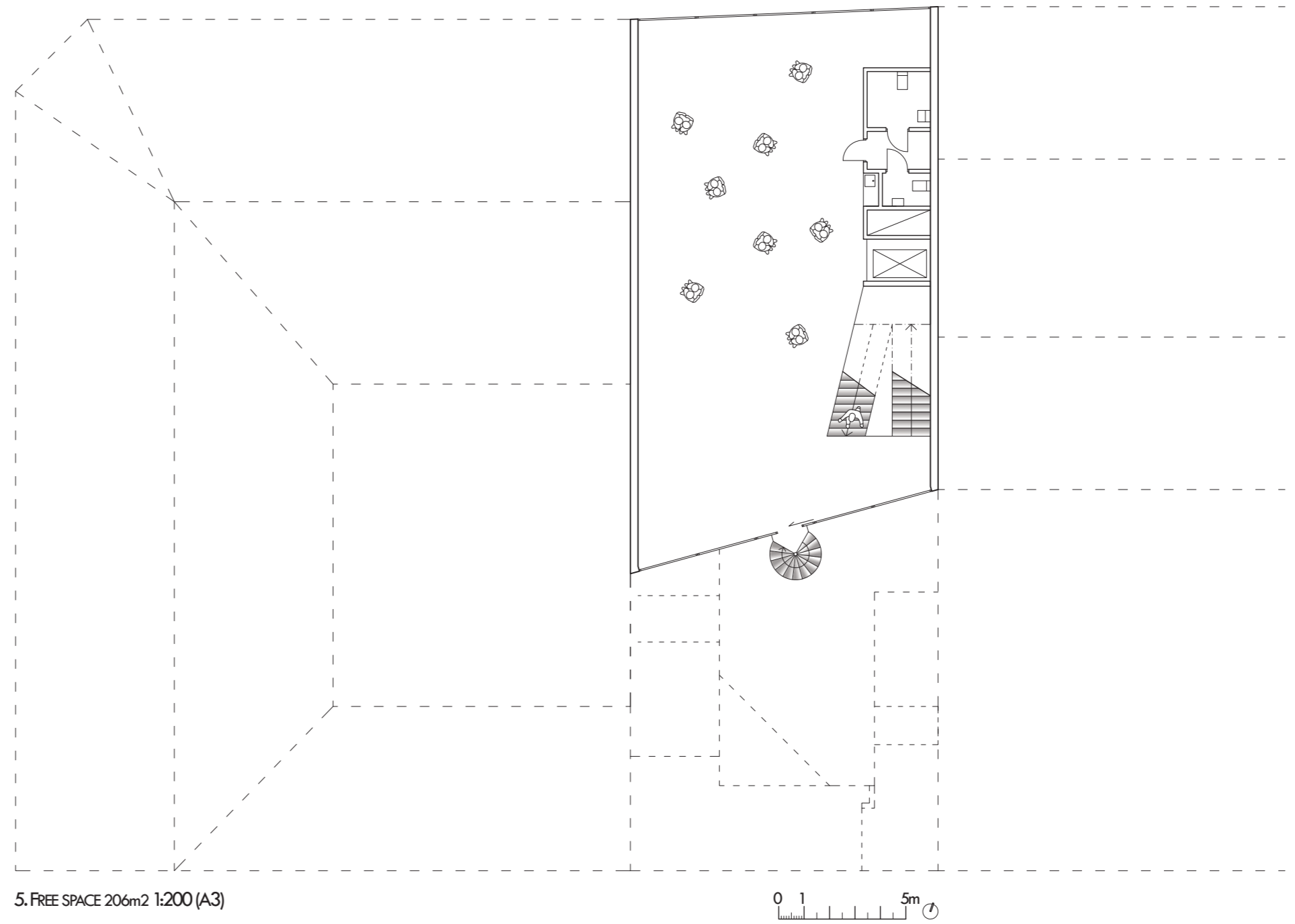


4. FREE SPACE 181m<sup>2</sup> 1:200 (A3)



# PLAN

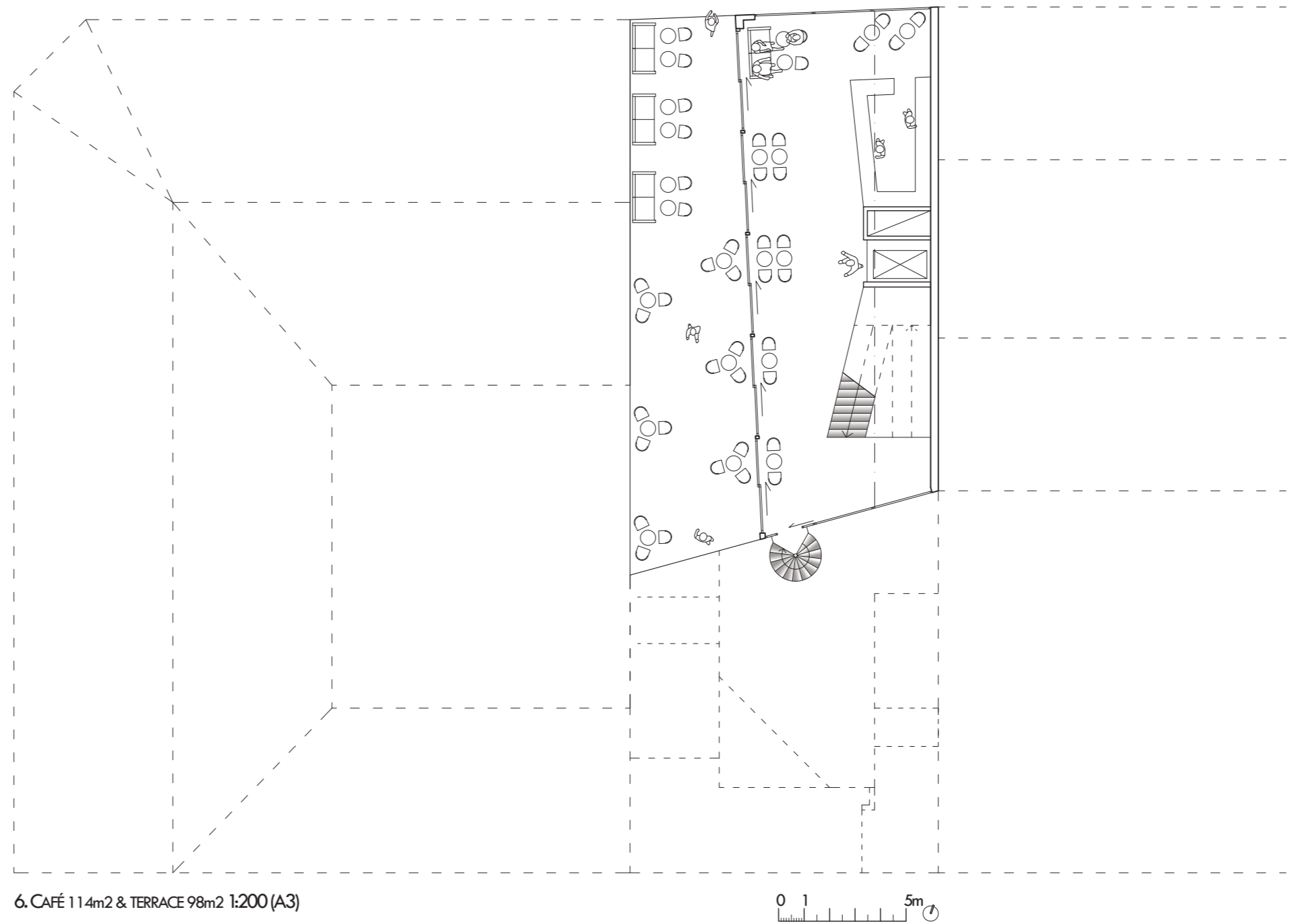
This floor, the last one with free space, is perhaps the one that is most different from the other three. Here the entire west wall is extruded, hence it is the largest one. The reason for extruding this floor is basically because it is possible. Here we have reached above the adjacent building, and no longer have to respect the edges of it. Today they're practicing ballroom dancing here.



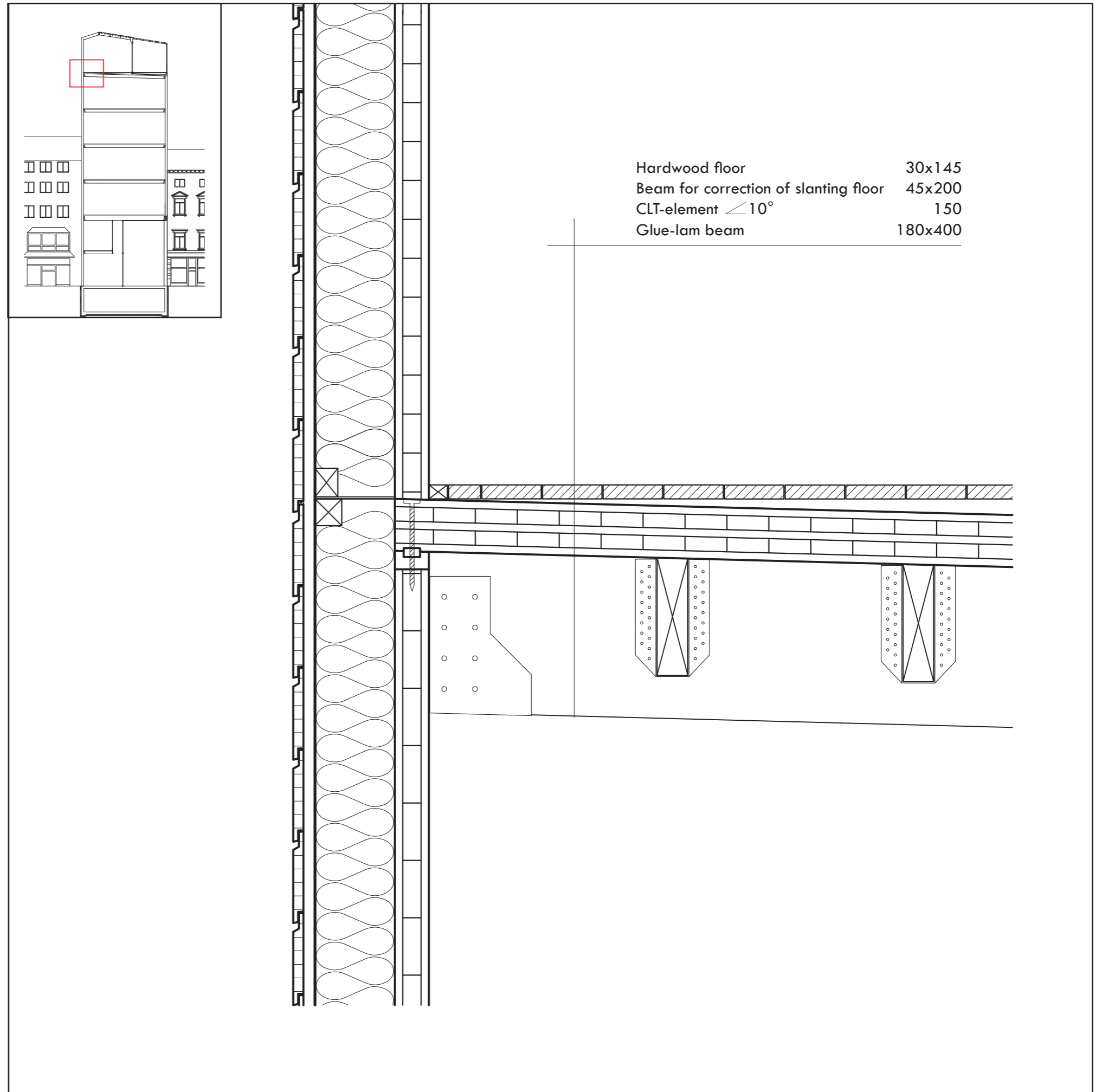
# PLAN

One more advantage of the extruded wall on the 5th floor is that the rooftop terrace becomes larger. Since the terrace is facing south-west, the sun reaches it almost the entire day; so apart from a stunning view over Gothenburg, you also have a perfect sunspot up here. Inside is a café and seatings for all those rainy and windy days. Over the terrace is a pergola, which stretches into the buildings' glassroof. The pergola does provide some sunprotection, but it also creates more interesting shadows.

The total floor area of the building is 1556m<sup>2</sup>.



DETAIL OF TERRACE SLAB 1:10 (A3)

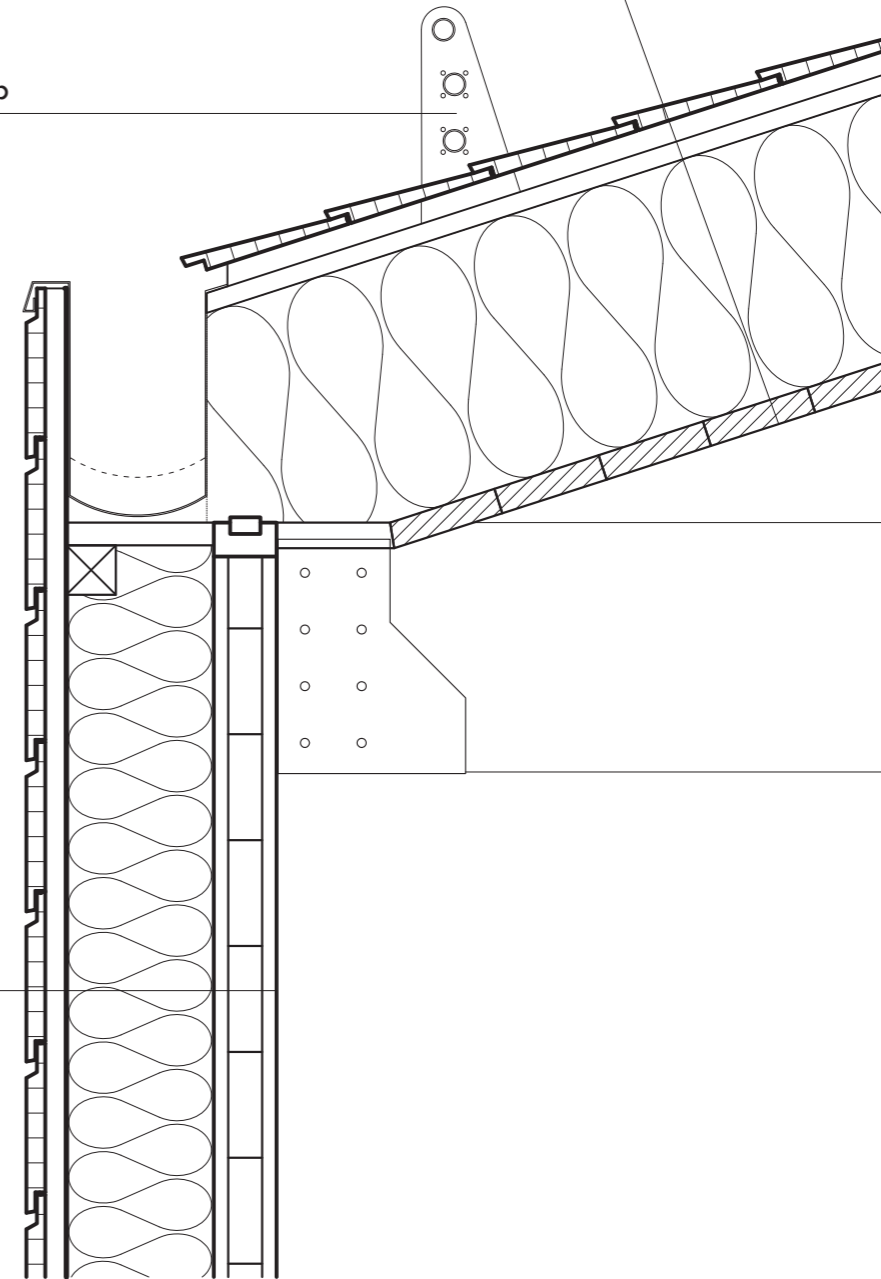


DETAIL OF ROOF/WALL CONNECTION 1:10 (A3)



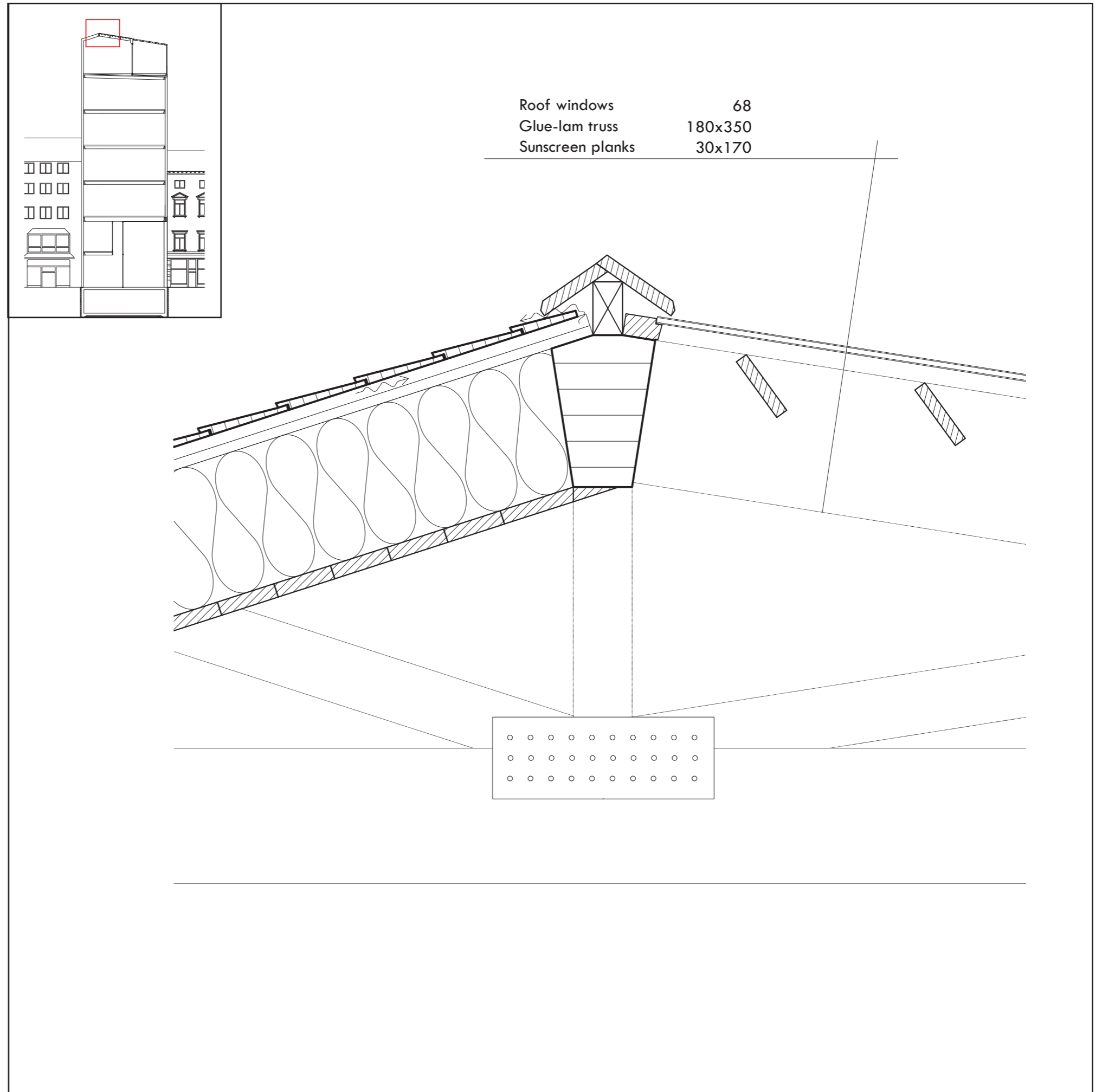
Horizontal clapboard	30x220
Vertical studs w. airgap	30
Roofing felt	0,2
Wooden board	22
Glue-lam truss w. insulation	180x350
Wooden panel	30x140

Snow trap

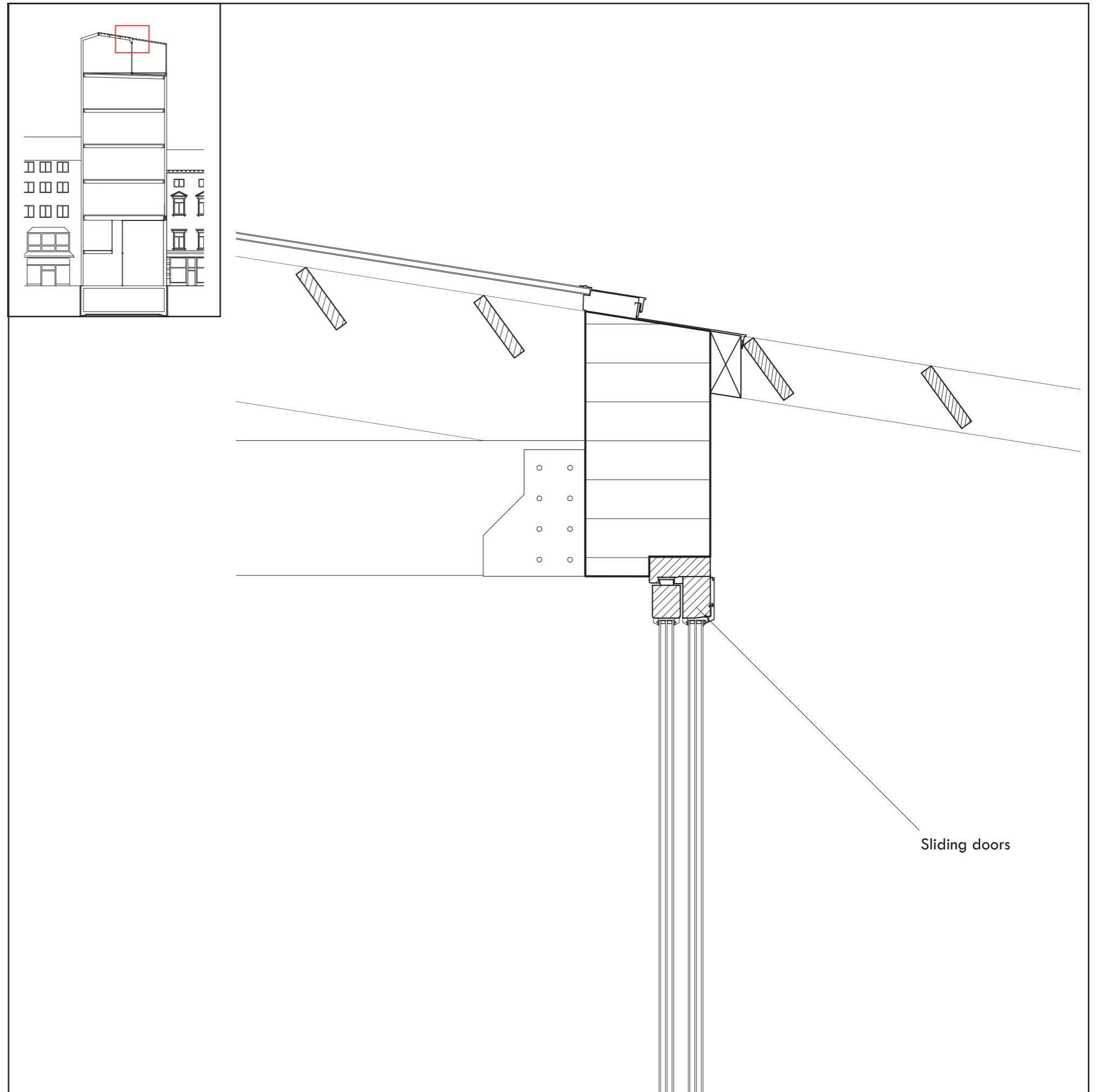


Horizontal clapboard	30x220
Vertical studs w. airgap	30
Windbreaking board	5
Vertical studs w. insulation	45x200
CLT-element	100

DETAIL OF ROOF-RIDGE 1:10 (A3)

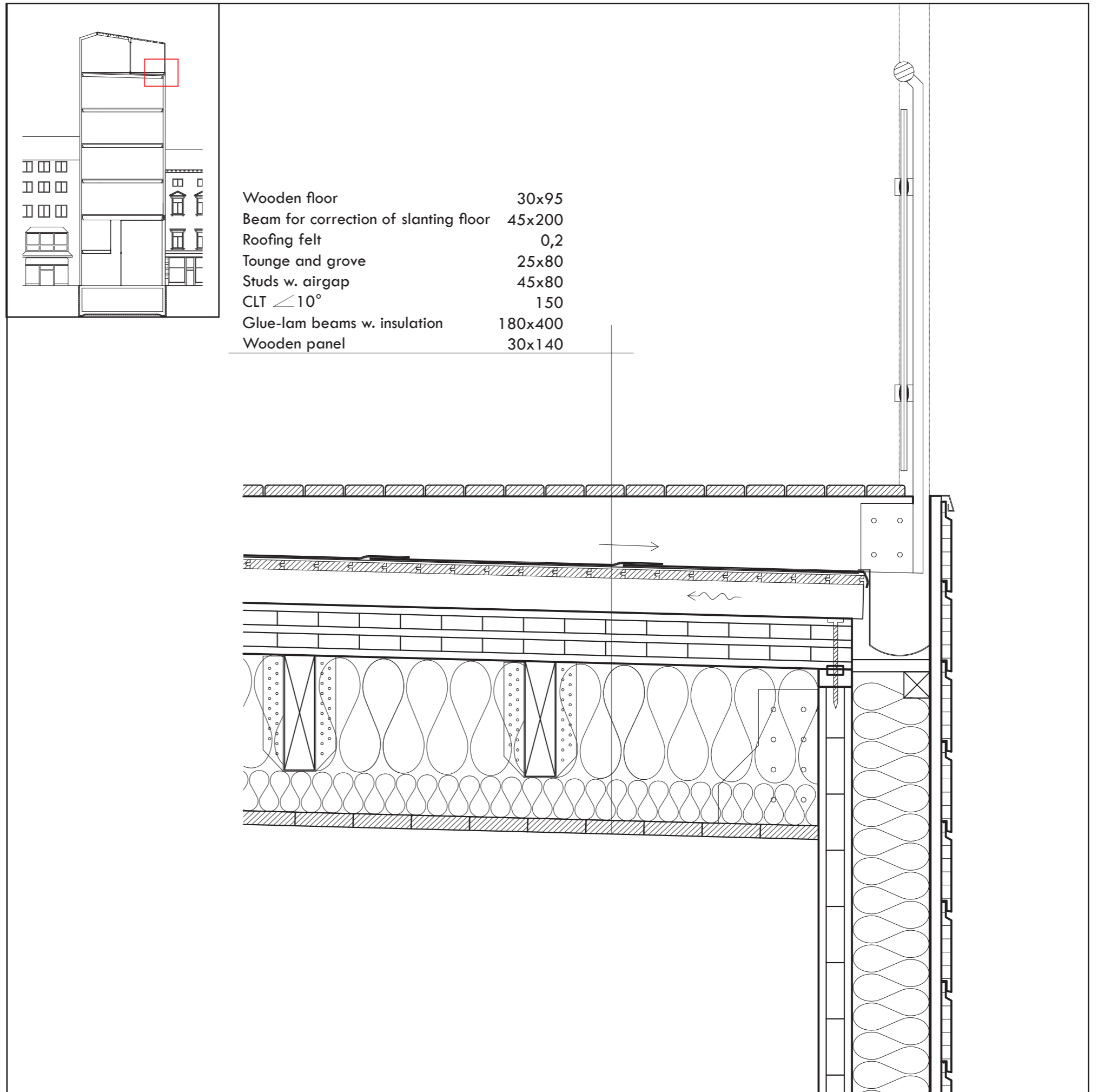


DETAIL OF SLIDING DOORS 1:10 (A3)





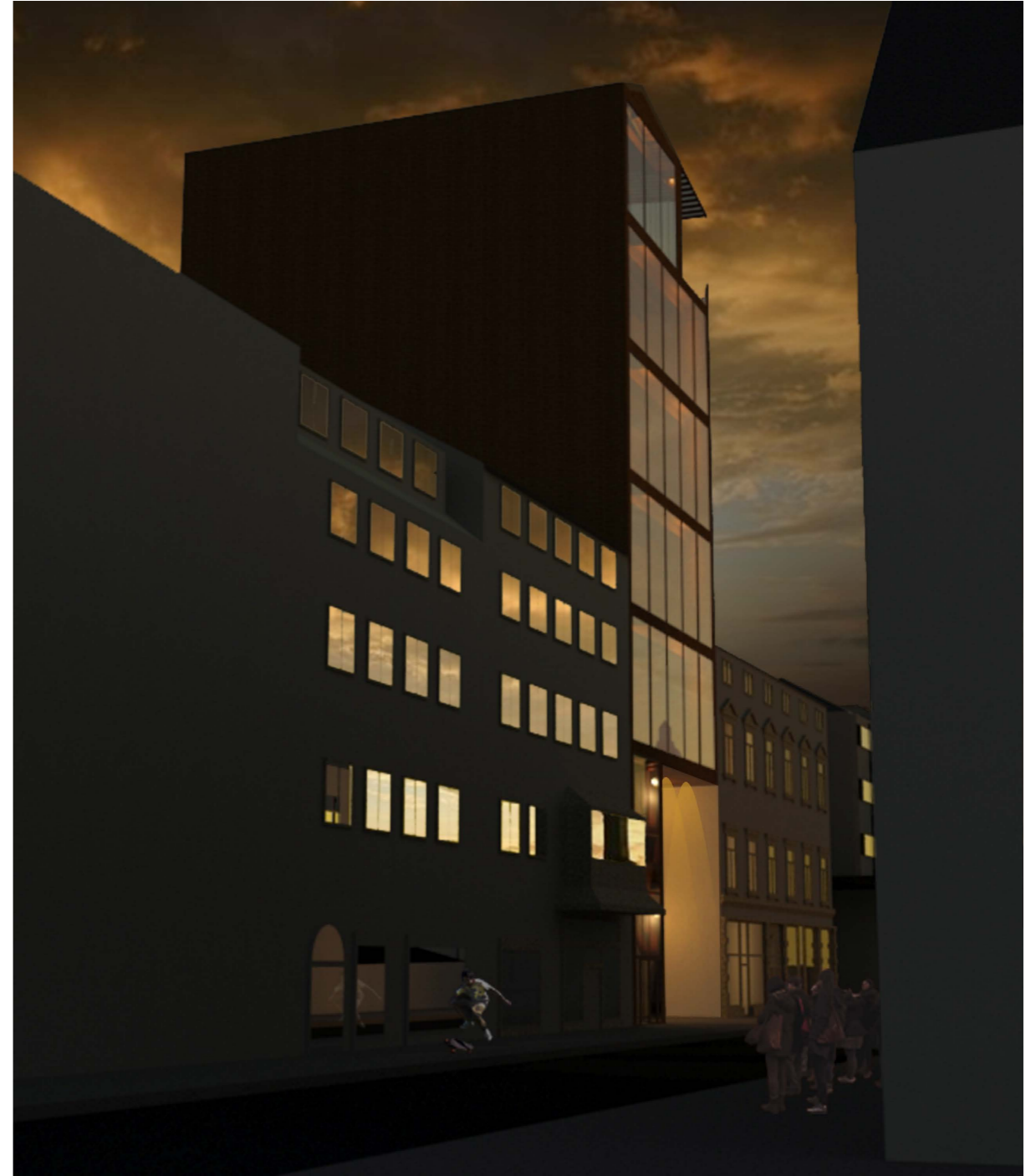
DETAIL OF TERRACE SLAB 1:10 (A3)





ROOFTOP TERRACE

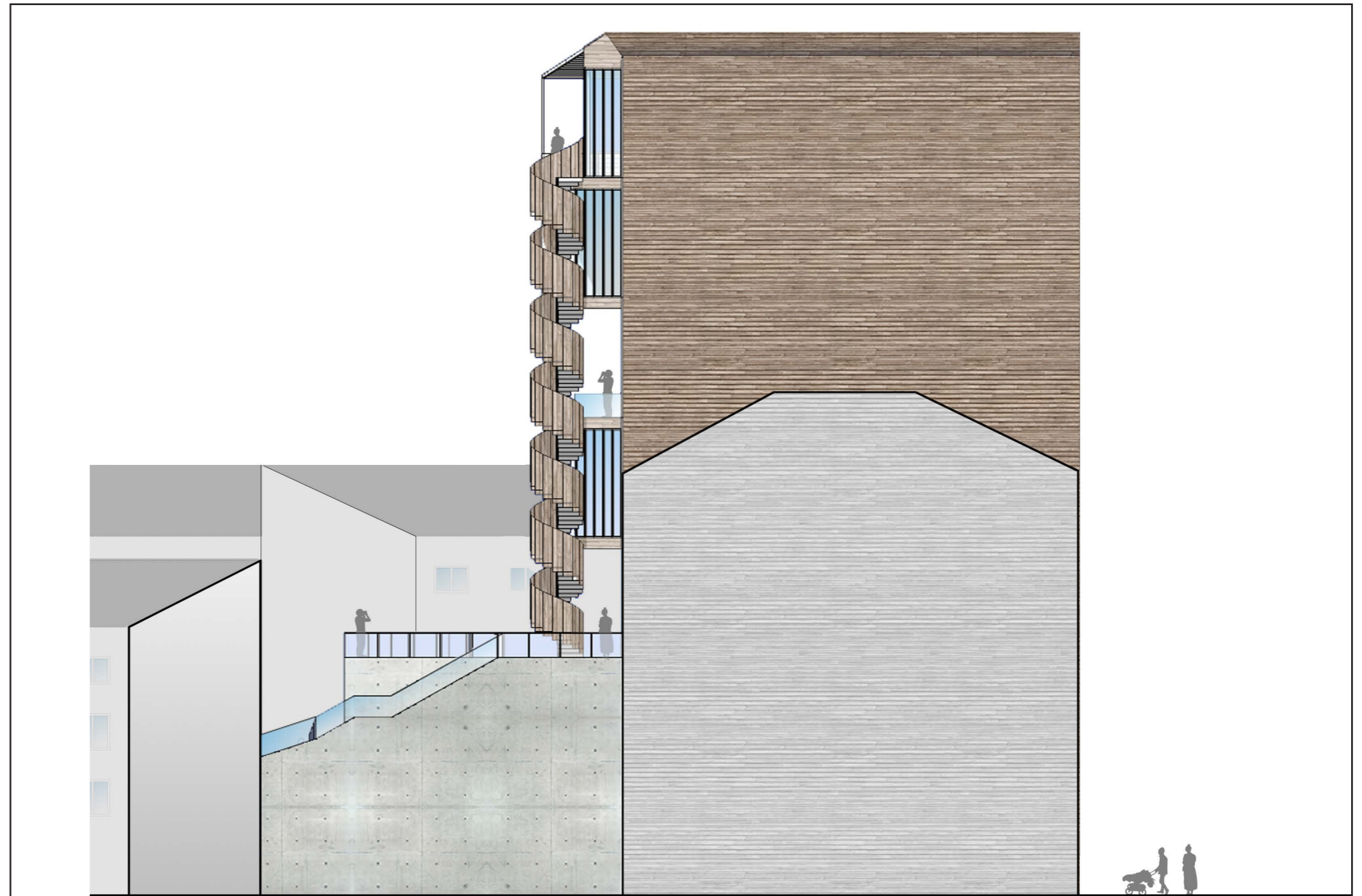
# VISUALISATIONS



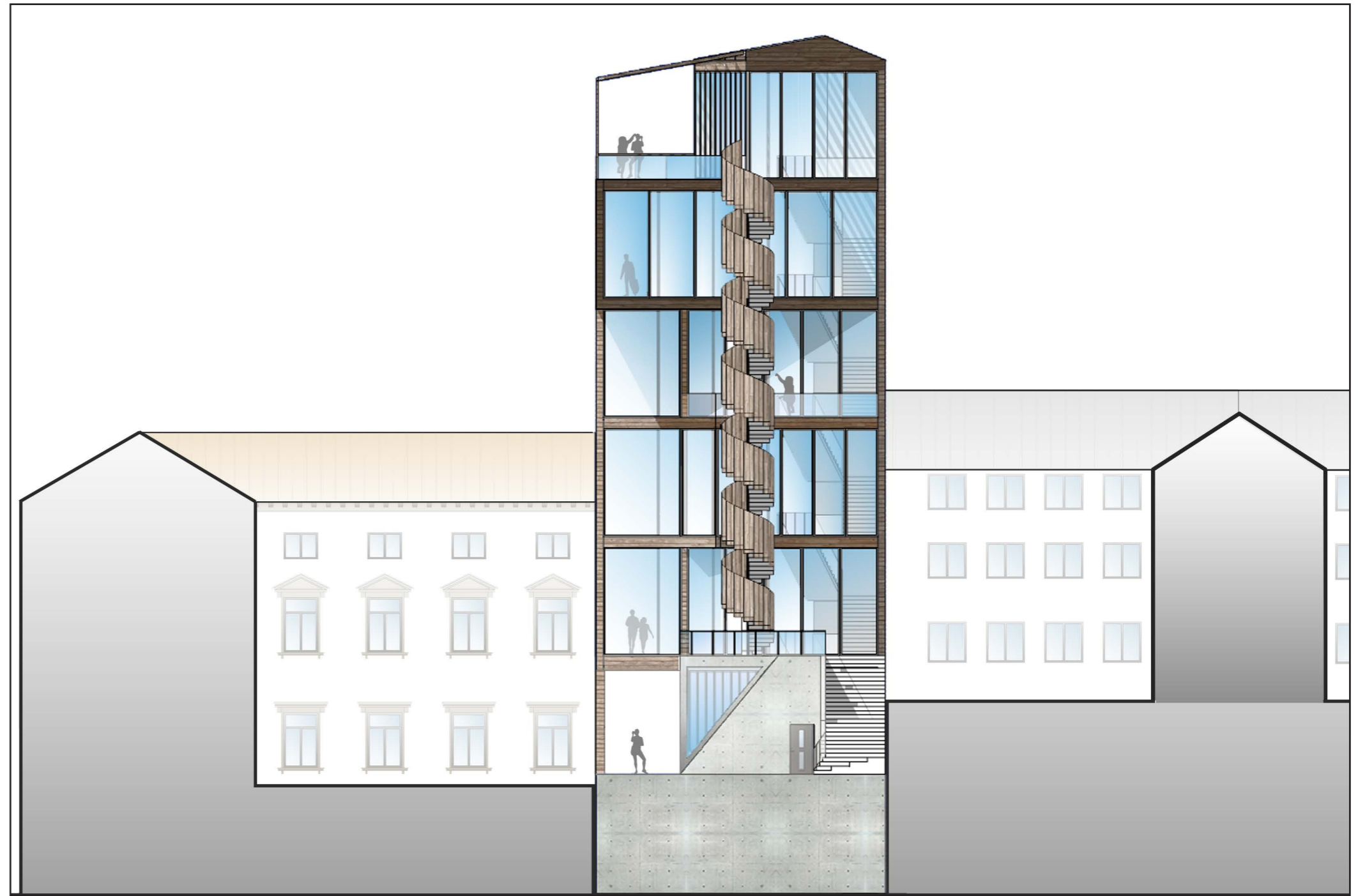
## FACADES - NORTH

Whereas the façade towards the street is consistent and even, the façade and shape of the building on the back is a lot more varied. This difference derives from my wish to create a more classic street/building structure on the street side, and let the backside adapt to the surrounding buildings, but also. The two closed facades are adapted to the connecting facades on the adjacent buildings, so as not to overshadow them, and then each floor has its own expression. The first adaption is that the volume is cut perpendicular to the east façade. The second one is a cut from the west façade to the edge of the diagonal cut in the bottom floors. Then the 3rd floor is extruded in the same angle as the second cut to create a larger indoor space, and also a balcony on the 4th floor. Finally the 5th floor is even further extruded in order to expand the area of the rooftop terrace. This floor is also above the adjacent building; hence it doesn't have the same need to respect the lines of that building.





0 1 5m



0 1 5m



## FINAL MODELS

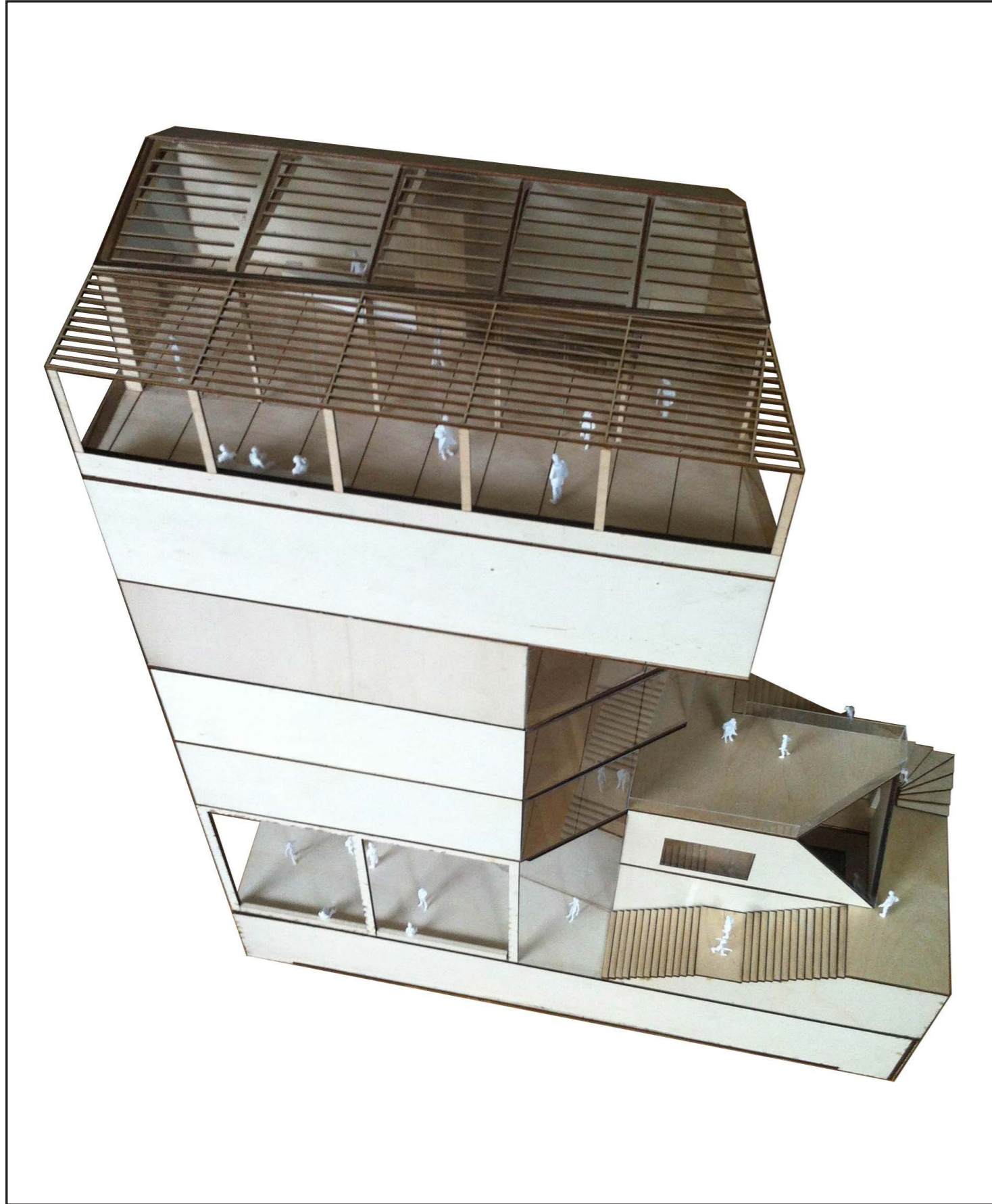
The final model in scale 1:200 showing the building at its location in Brunnsparken.





# FINAL MODELS

The final model in scale 1:50



# FINAL MODELS

The final model in scale 1:50



# FINAL MODELS

The final model in scale 1:50





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### Other sources:

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