

Towards a simple complex Hand-out

Towards a simple complex

MANIFESTO

- Alexis Huisman -

Rivers, the breathing lungs of our landscape. It is here that life settles down, adapts, and develops.

Meandering through its landscape it tries to find the most effortless route seaward in order to pursue its ultimate goal; spending its last days restful at the ocean. Not knowing that one day it will be evaporated away from its siblings and brought to an unknown destination from where its journey starts all over again. At the same time it is unaware of the fact that while repeatedly meandering downhill while optimizing every run, it constantly affects its environment. Birds move from the eroded land and nestle between the reeds while the amount of oxygen in the water provides good living conditions for water species on which the birds can feed.

From a certain point of view we do not differ so much from the river. Even though we do have a conscious, we are still travelling through life searching for the most satisfying route to reach our own goals. Since the last century, this route has mainly led us through alleys and arcades filled with state of the art products in order to give us the opportunity to keep up with the newest trends and technologies which are said to minimize the amount of effort that lead us to our goals. Whatever most effectively allows us to attain our immediate goals is the preferred way.

Sadly, this way of living, seemingly has led us towards a dead end. We have become more familiar with some of the environmental consequences that our luxurious lifestyles bring. Global warming, a rising sea level, or material waste are some of them. Less familiar are we with the degradation of local biodiversity and the effects of the rising CO₂-level, while other consequences are yet unknown to us. Despite our growing knowledge about everything we are familiar with, it will be impossible to fully comprehend the effect that we have on the environment. Let alone comprehend this knowledge as an individual. We are and will remain unaware for many consequences that our deeds have, simply because it is too much information to comprehend. But what if some of this information would be right in front of us? What if instead of just hearing about the consequences, one would actually be able to see how the environment works and how your own deeds effect your surroundings? It is here that the architect should play an important role in fostering awareness of the impact that an individual has. Creating a sustainable world does not just merely require a change in the individual, it requires a change in the relationship between the individual and his social and natural environment

The urge of social and technological fashion is, like Adolf Loos said more than a century ago, merely a tool to satisfy our own need for esteem through the appreciation of others. Luckily we are becoming more and more conscious about the absurdity of this phenomenon through the eye openers of people who express the joy and importance of mutualism — a word that the spelling checker does not even recognize —, a symbiosis which is beneficial to both involved organisms, whether they are both humans or something else. We should understand that the continuation of human development can not do without mutual beneficial relationships. Whether they are between ourselves on a social level or between the environment and us.

As architects we have the possibility to create the built environment and therefore we have the privilege to play an important role in shaping society. We create liveable spaces, nudge people, flora, and fauna in a direction of which we think that it is the best for its users. As an individual we are able to shape a world for the collective, while facilitating its needs. Many architects see our role more passively. They believe that creating a sustainable building is as far as we can go. In those cases, sustainability is simply reducing the building its energy usage and making sure that energy harvesting technologies are applied in order to provide at least enough energy for your own usage.

I believe that we are capable of more.

We can restructure society by implementing ideologies into the buildings with measurements which are capable to let people rethink their own behaviour. We can nudge and stimulate users of our architecture in such a way that we can minimize their effort to act sustainably. In order to understand how we can do this, one needs

to understand how social structures can play a role, what relationship there should be between the environment and us, and how we should learn to coop with the never ending story called technological progression.

Taking responsibility

At the moment we see sustainability as a fact, it is just here. We are proud to say that we implement some sustainable features, such as mounting photovoltaic panels, driving electric cars, or separating waste/adjusting our food pattern, into our lives. But do we currently act so out of genuine care for the planet or because it is more practical or financial attractive than the alternative? I believe the latter. When we have to invest some of our own time, belongings, or money, we tend to drop out quite easily. If we do not immediately see a personal benefit related to our actions, then why should we even bother investing? Why should we be proud on acting ‘sustainably’ while we simultaneously keep on abusing the benefits which are provided by unsustainable actions? Some actions like driving a polluting car are understandable since we sadly have become dependent on them. But going on far away vacations for our own benefit or importing luxury and fashionable items from all over the world in order to merely embellish our need for esteem is something which goes straight against the concept of sustainability. The problem is that it is difficult to accept that it is necessary to give up some of the unsustainable and unnecessary luxury we are used to while not directly seeing the benefits of our disadvantage. We should reconsider our necessities by asking whether our unsustainable actions are worth to be approached selfishly — which is not by definition a bad thing — or can be adapted in such a way that its consequences are less or not destructive to the environment.

As individuals we constantly walk away from our own responsibilities. We tend to demand that the local authorities have to initiate and implement sustainable features. Meanwhile, we wait with implementing it ourselves until it seems that it needs no additional personal investment, whether this is time, materialistic, or financial based. From a certain point of view this is completely understandable. After all, why should an individual spend his own precious earned time and money in creating a world which is even faster being demolished by a hand full of egocentric minded and profit orientated individuals, collectives, and governments?

Currently we are at a turning point. We slowly see a political change towards an environmental conscious minded society which is happening on a national and worldwide level. The generations of the future are being raised with awareness for contemporary environmental issues in order to see the world from a different perspective than the older generations did in their youth. There is no doubt that there is enough willingness for creating a sustainable environment, the only questions are when and how.

The right to circularity

Since money is necessary to implement sustainable features and wealth — which makes people able to invest not only in themselves — is just a privilege to the few, some changes are necessary in order to change society. First of all, we should acknowledge that sustainability is part of our basic needs. That every human being should be able to act sustainably in order to meet the needs of the present without compromising the ability of future generations to meet their own needs. This means that we should strive for a society in which no individual should have to live with sustainable limitations. In other words, we need a right for every individual to be able to act sustainably. Just as we strive for enough water, food, and shelter for everyone, we should strive for a society where an individual has all the means to act sustainably.

Secondly, we should understand that acting sustainably on an individual level is not that complicated as we think it is. If we assume that the products we use will become sustainable and will be based on a circular economy, all we have to do is become aware that the disposal of our waste is not the end of its life cycle. Waste and products that we produce should be part of the many circular processes in the environment. In contrast to the river, we can become conscious about the circularity of

the products that define us and use them appropriately. This firstly asks for rescheduling ones personal priorities from an egocentric towards an ecocentric point of view. Choose not for what merely benefits yourself or others, but take your environment in regard and find solutions which are mutual beneficial to all.

Collaborative living as a key to change

As mentioned before we are at a turning point. We are living in a time where the majority feels the obligation towards himself and his environment to live sustainably, but yet does not know how to do this. For this stage it is of importance to have role models in order to point out the possibilities and limitations of a sustainable lifestyle. Since the effects and efforts of a collective are more visible and effective than the introverted sustainable lifestyle of an individual, it is obvious that a collaborative living project will be better capable of enhancing awareness and consciousness about sustainable living than projects in which the individual is the centre point. Nevertheless it should be pointed out that both ways of living can be sustainable.

A collaborative living project enhances the process of integrating a sustainable mindset in society. Seeing a collective, rather than one individual, being able to successfully continue using the advantages of the contemporary society, while at the same time having the advantages of a sustainable society, will open ones eyes and let them at least think about a different possible future than one currently has in mind.

Collaborative living projects will not only be an eye opener on an environmental level, but also on a social level. Living more closely together in a group while sharing some essential but occasionally used spaces and necessities — such as spacious living areas or washing machines — will nudge you to become more familiar with your neighbours. The current anonymity of living next to each other will disappear while more social interaction and tolerance will be enhanced. It will lower the barrier to ask acquaintances for help, minimize potential social isolation, and widen ones knowledge about sustainability since a collective is a source of information. This brings us back to the role of the architect.

The role of the architect

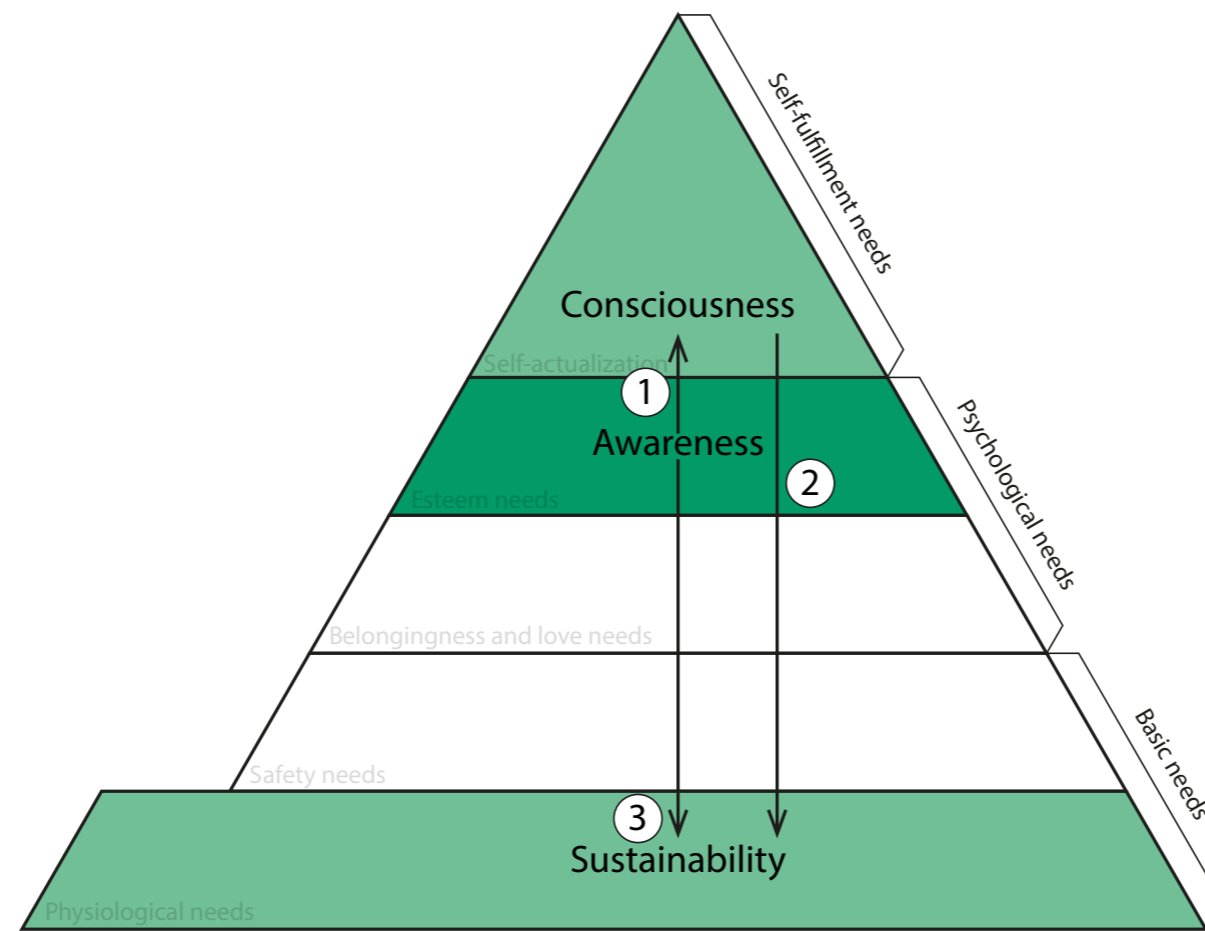
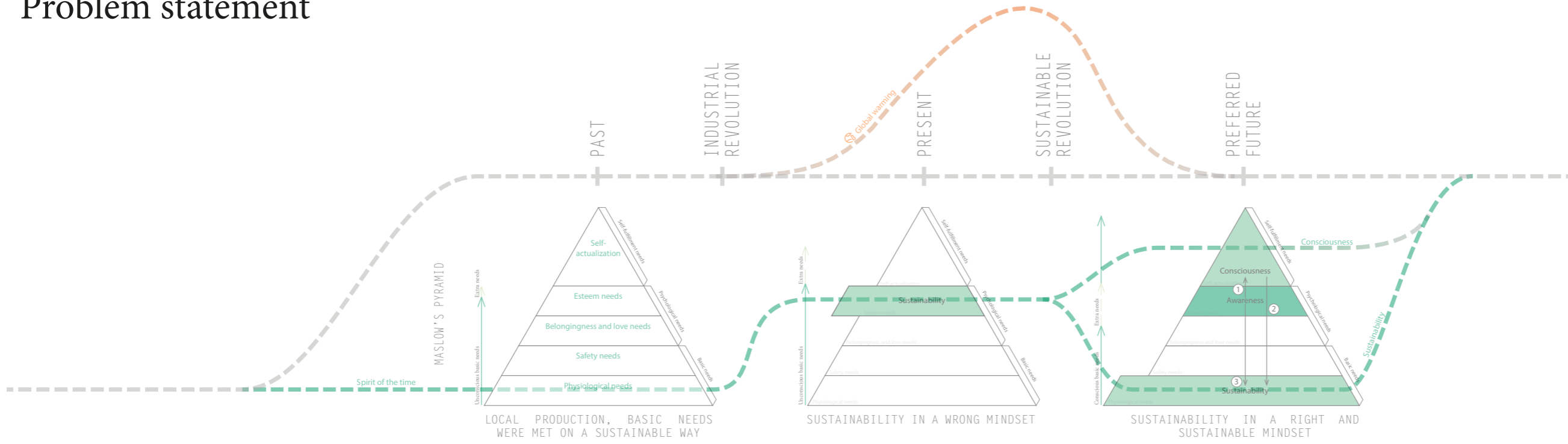
Architects are able to contribute to the collective by facilitating the needs of individuals and collectives, to rethink social structures, and make meaningful adaptations. We should make environmental issues visible with architecture in order to broaden ones perspective on the world. Make clear how everyday necessities, such as water, food, and warmth, play a role in the circular environment. Be clear in what and why we build and refrain from hiding all the aspects that are necessary for a building to function in order to make honest and understandable architecture, just as we want our surroundings to be towards us.

We can foster social interaction in order to limit social isolation and anonymity by being part of a collective. Encourage social desired behaviour, reduce waste, help each other out, share materials and knowledge. Enhance the opportunity of having spare time by combining otherwise individual tasks (such as cooking and child care) on an informal collective level.

Last but not least, we are specialized in the built environment. We spend our time in following state of the art innovations regarding the reduction of the building its energy usage and production. We should make buildings which are part of a circular economy by reusing materials and by minimizing the usage of unsustainable and finite materials. We should focus on researching basic and complex methods which fit best on its location and target group. High-tech solutions could be implemented as long as they are sustainable in all aspects, efficient wise and production wise.

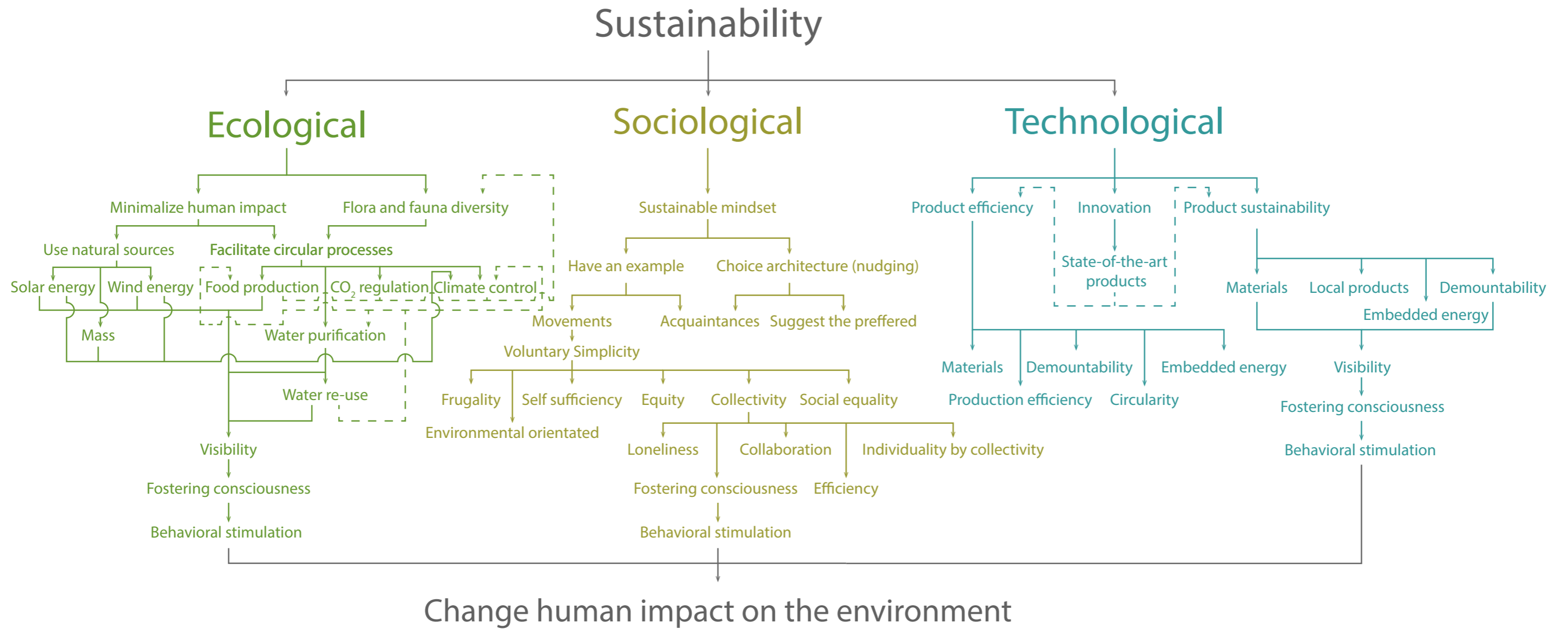
If we as architects give proper attention to our/these responsibilities we would no longer simply drift along the river, but decide its very own course.

Problem statement

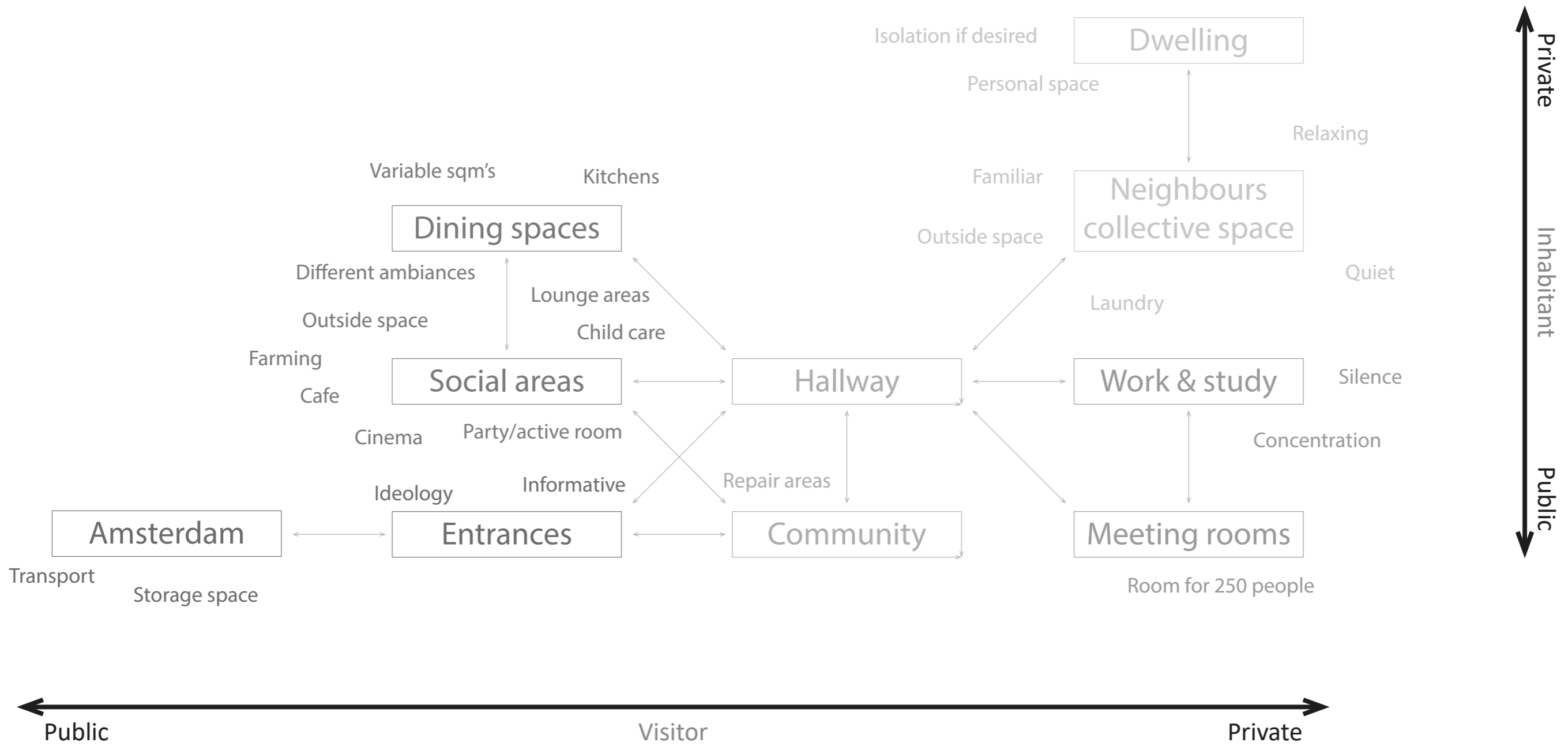


- ① Recognize and understand the problem
- ② Find solutions to the problem, change lifestyle
- ③ The new lifestyle will slowly becomes common

The sustainable fieldwork of the architect

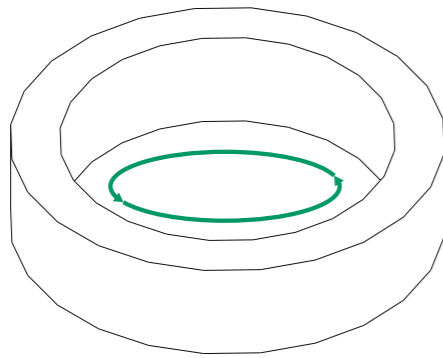


Public private friction in a collaborate living complex

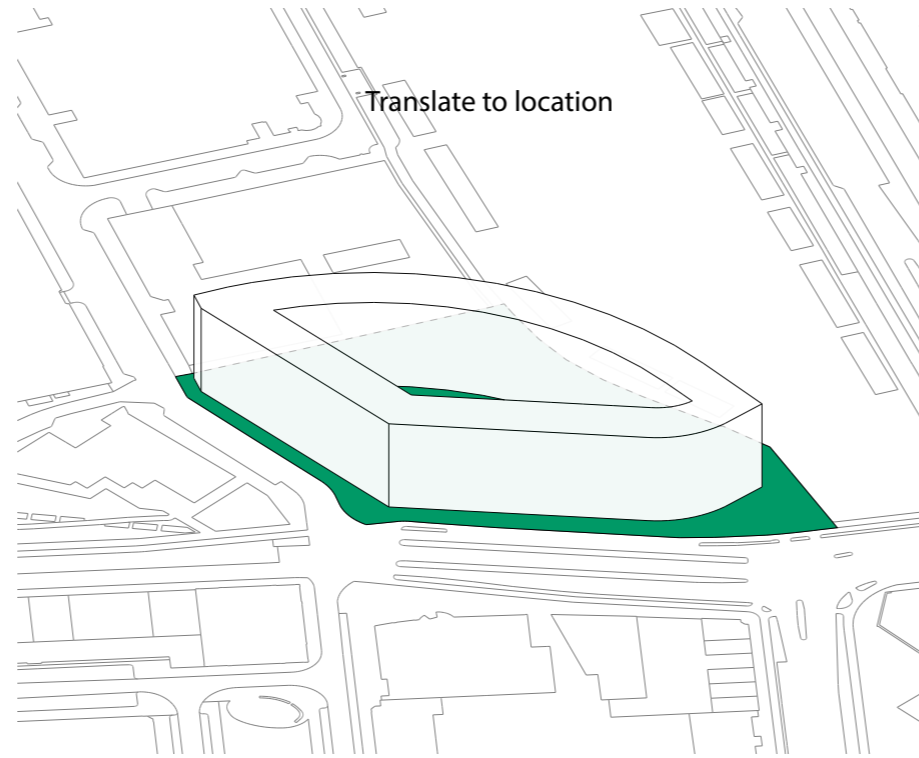


Shape explanation

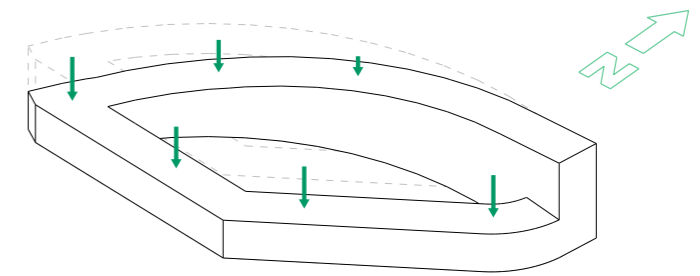
Interactive shape



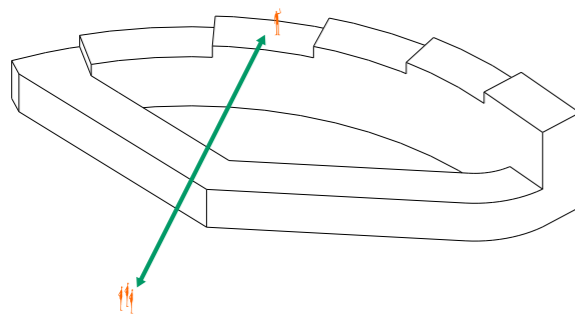
Translate to location



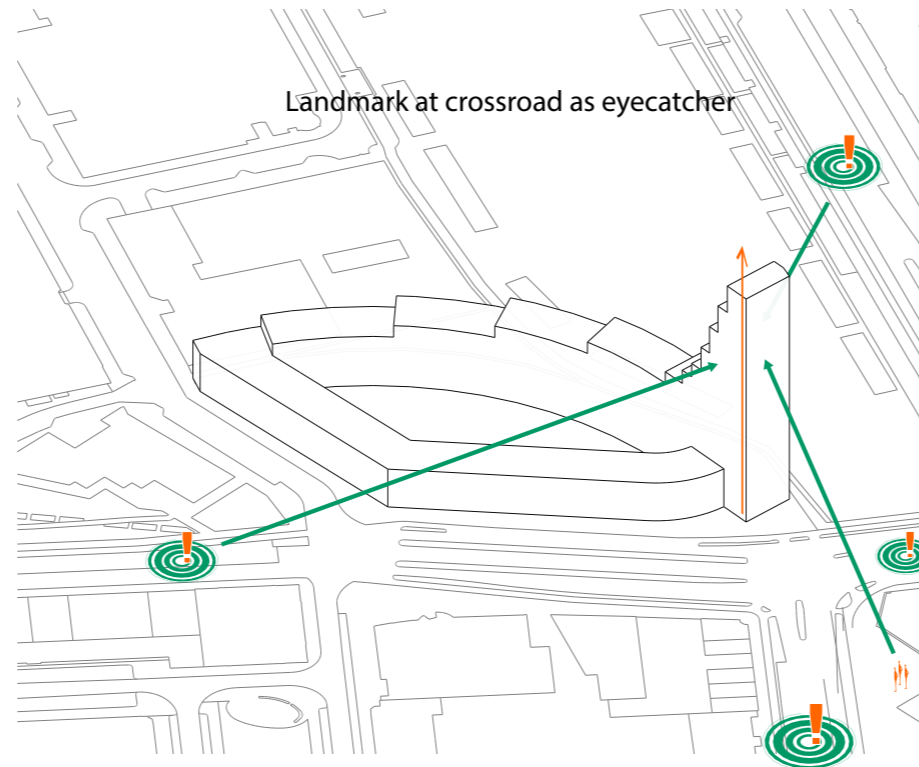
Solar orientation



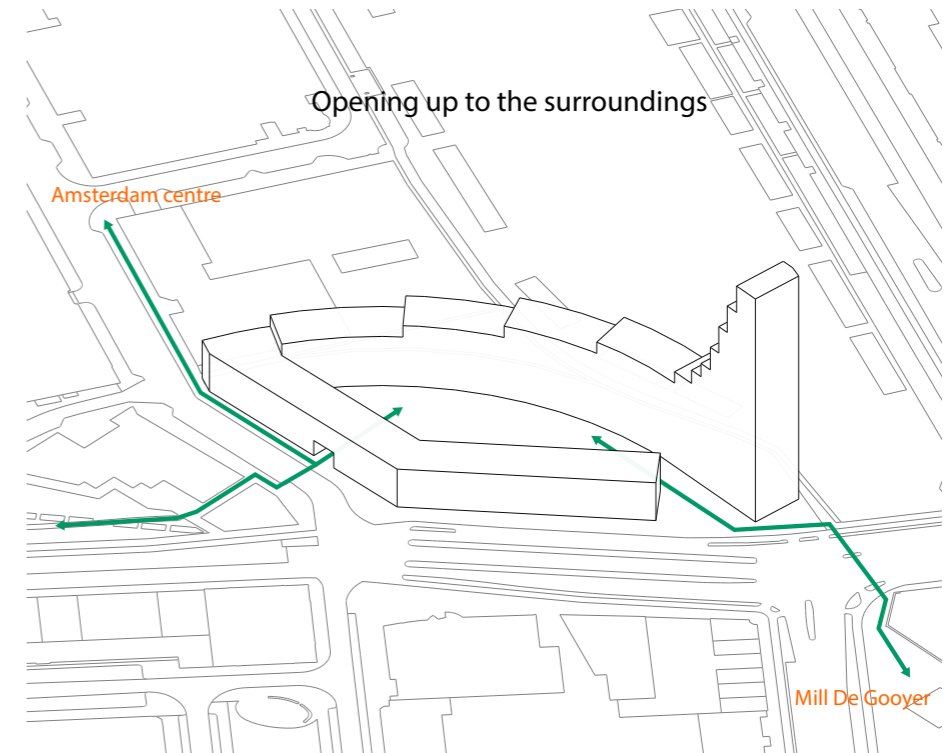
Roof terraces for interaction with neighborhood



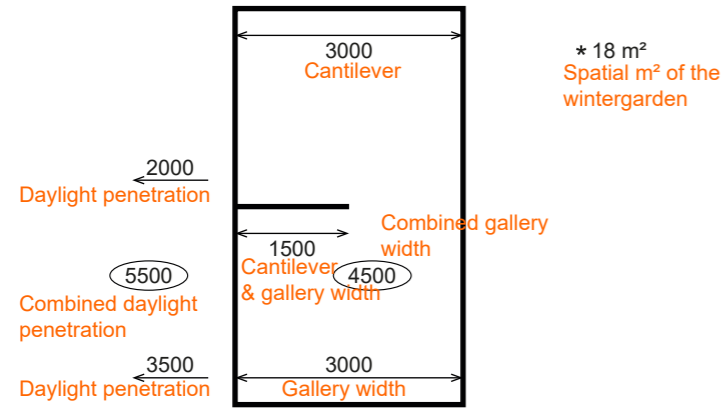
Landmark at crossroad as eyecatcher



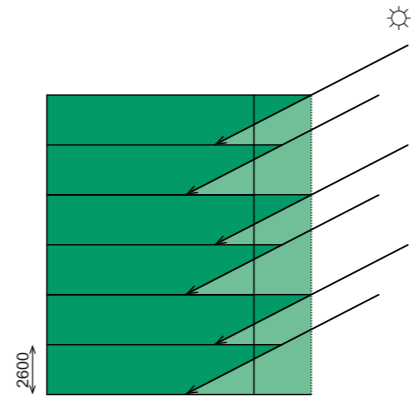
Opening up to the surroundings



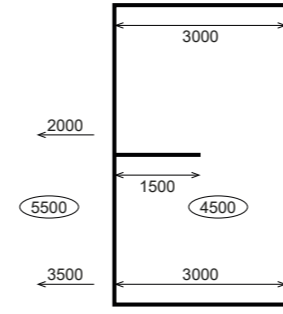
Shape explanation - solar gain maximization



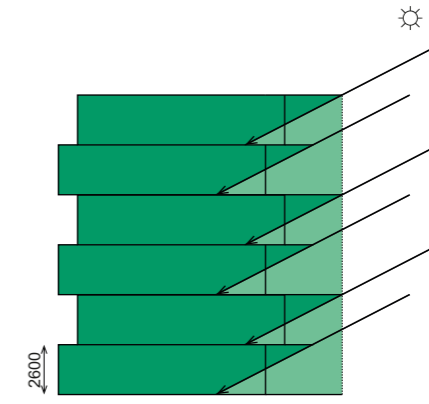
* 18 m²
Spatial m² of the
wintergarden



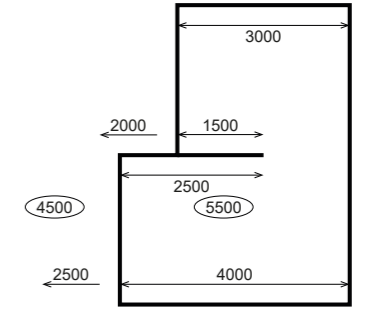
Variant 1



* 18 m²



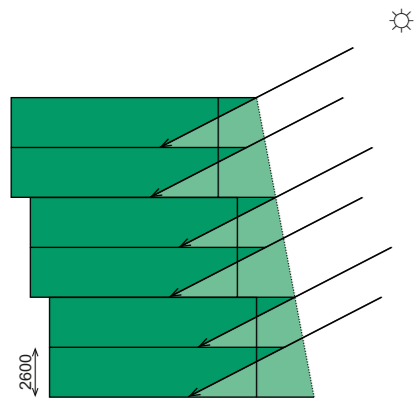
Variant 2



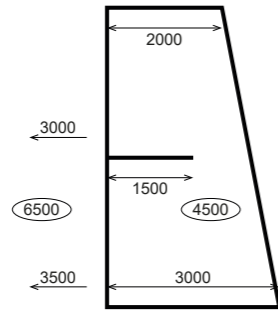
* 21 m²

Shape explanation

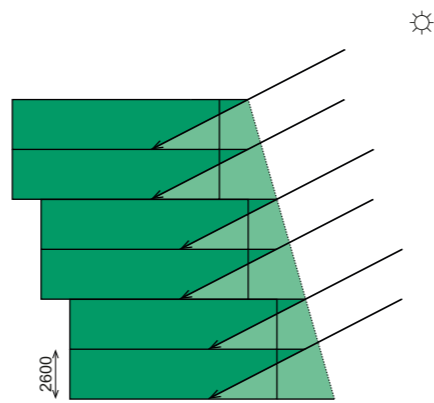
Scheme explanation



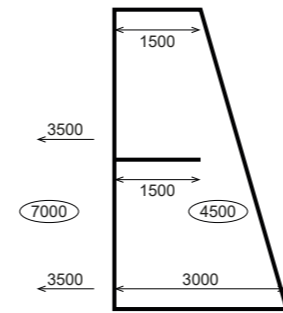
Variant 3



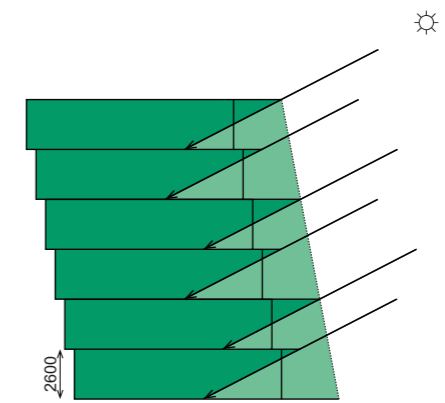
* 15 m²



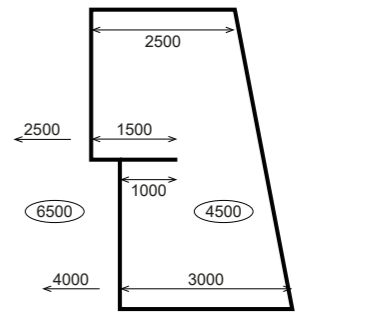
Variant 4



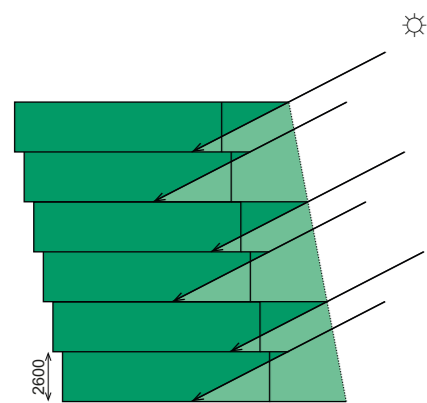
* 13,5 m²



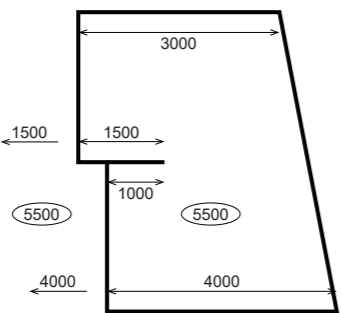
Variant 5



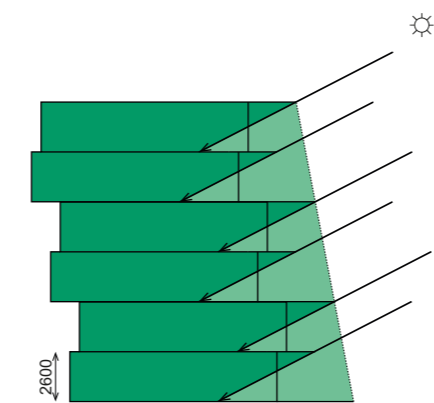
* 17,5 m²



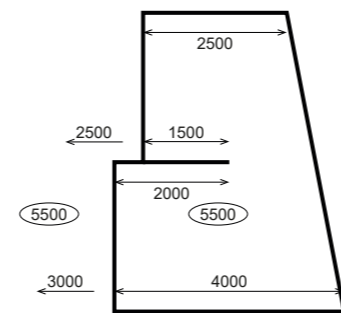
Variant 6



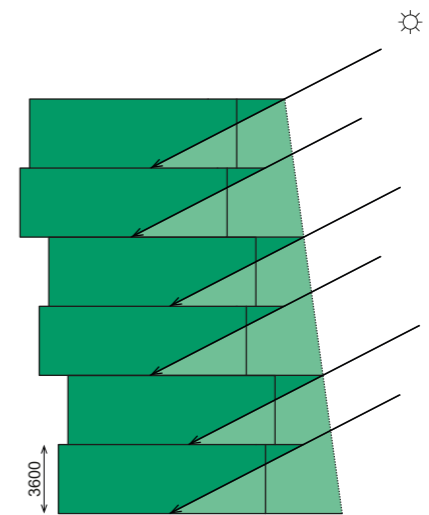
* 23,5 m²



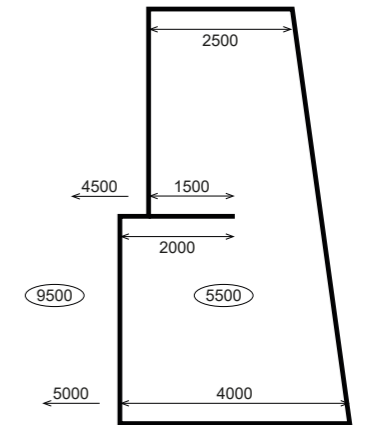
Variant 7



* 18 m²

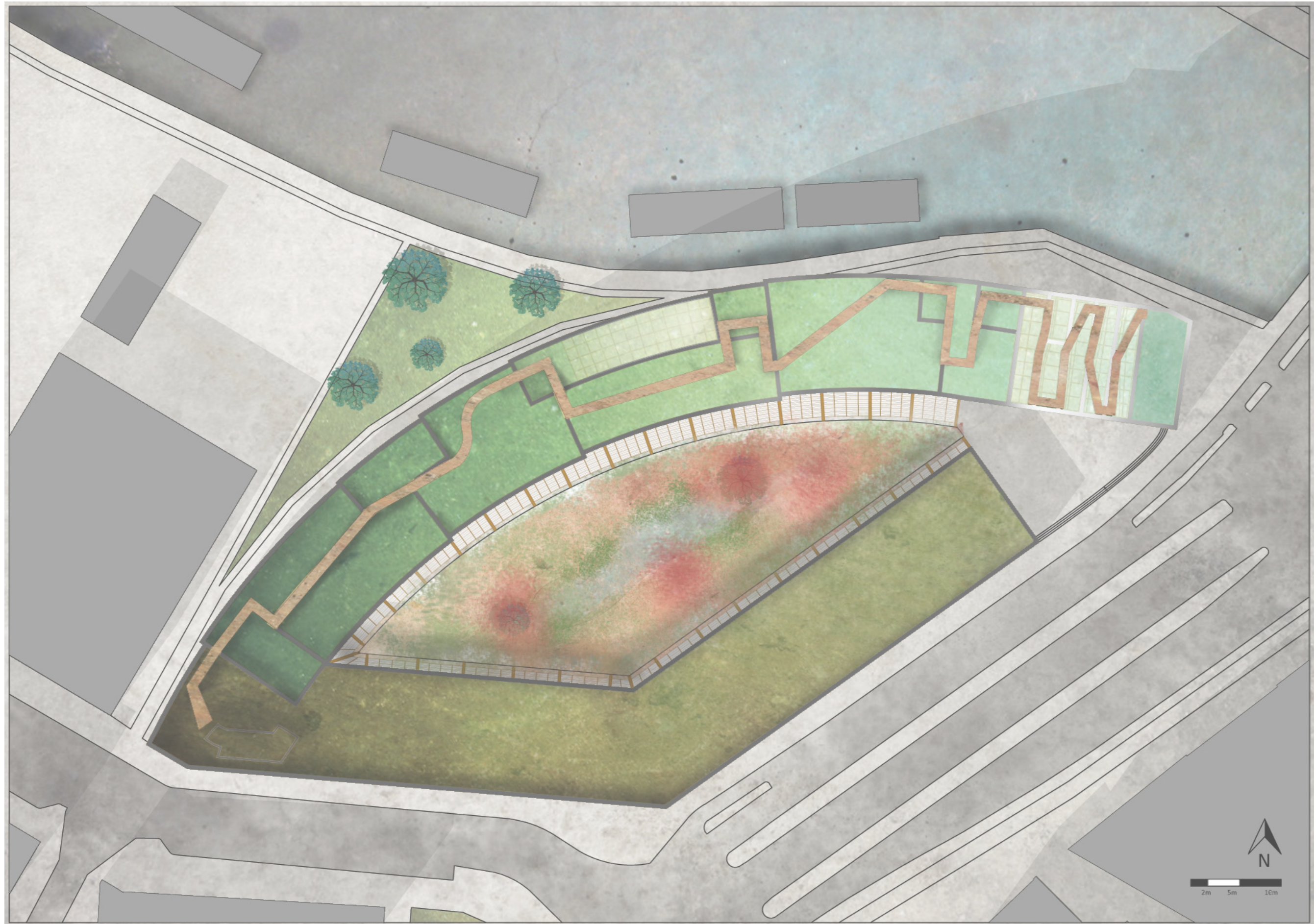


Variant 8



* 25,2 m²

Site plan 1:500



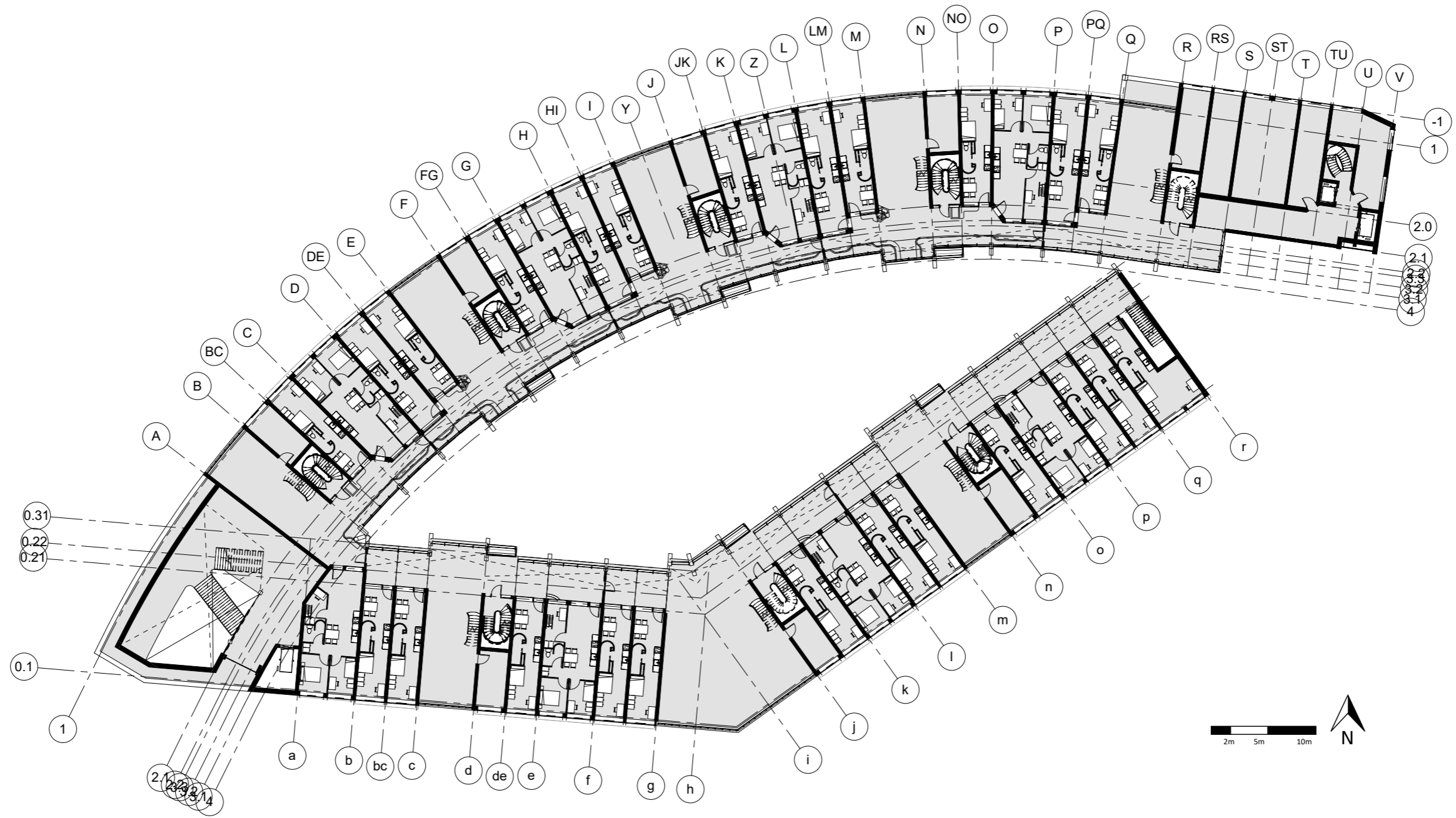
Floor plans

Ground floor 1:500



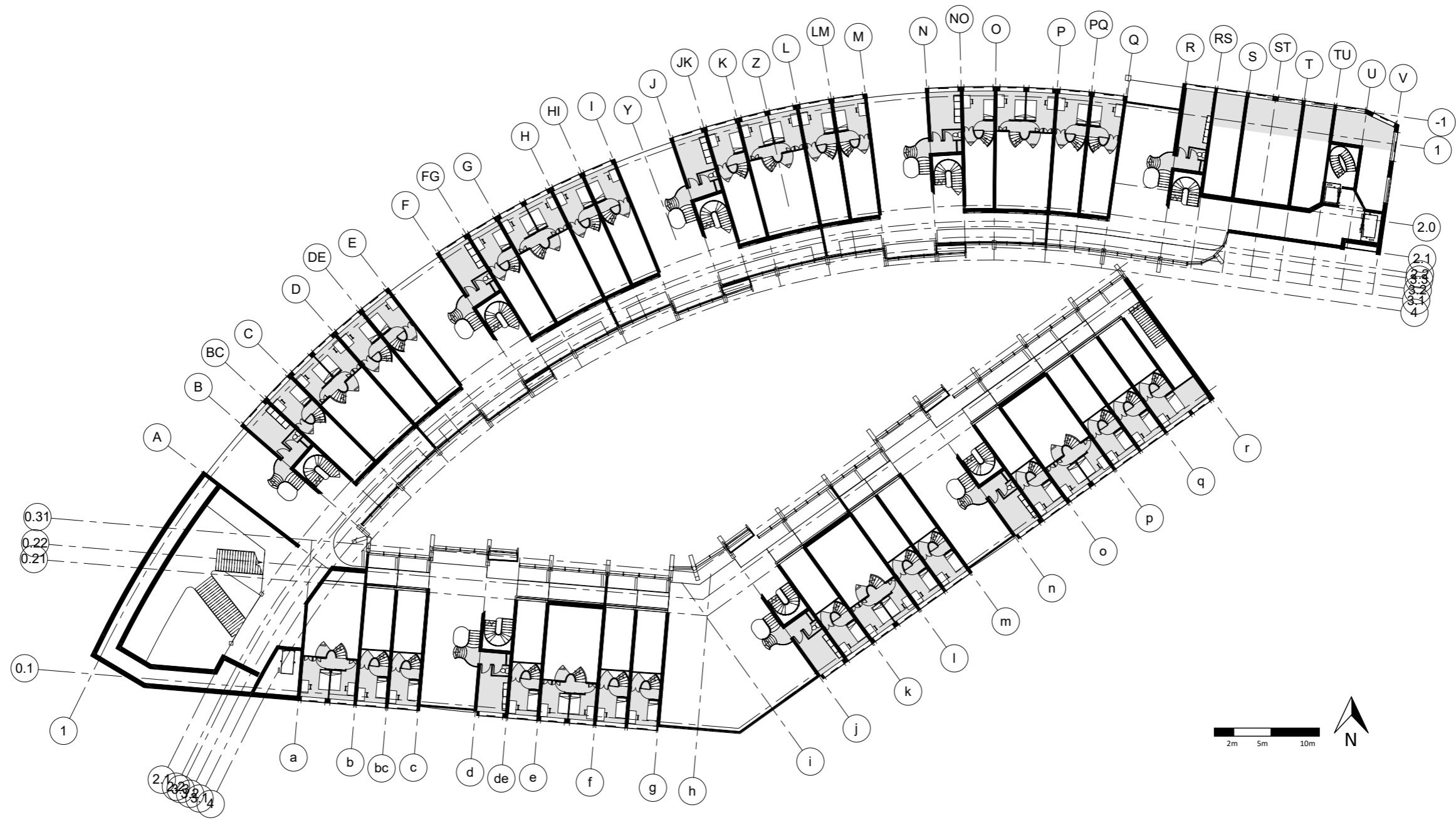
Floor plans

1st floor 1:500

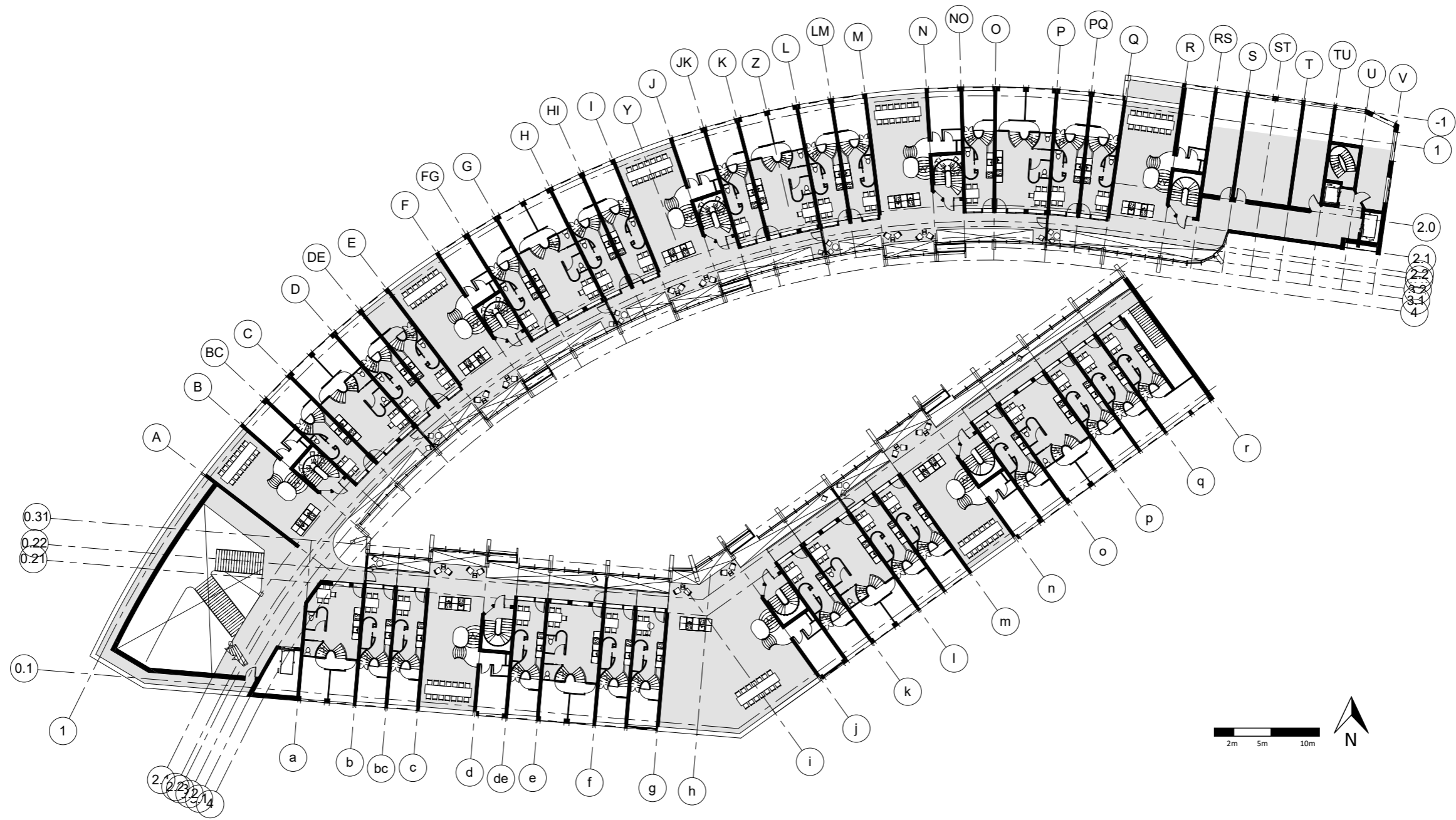


Floor plans

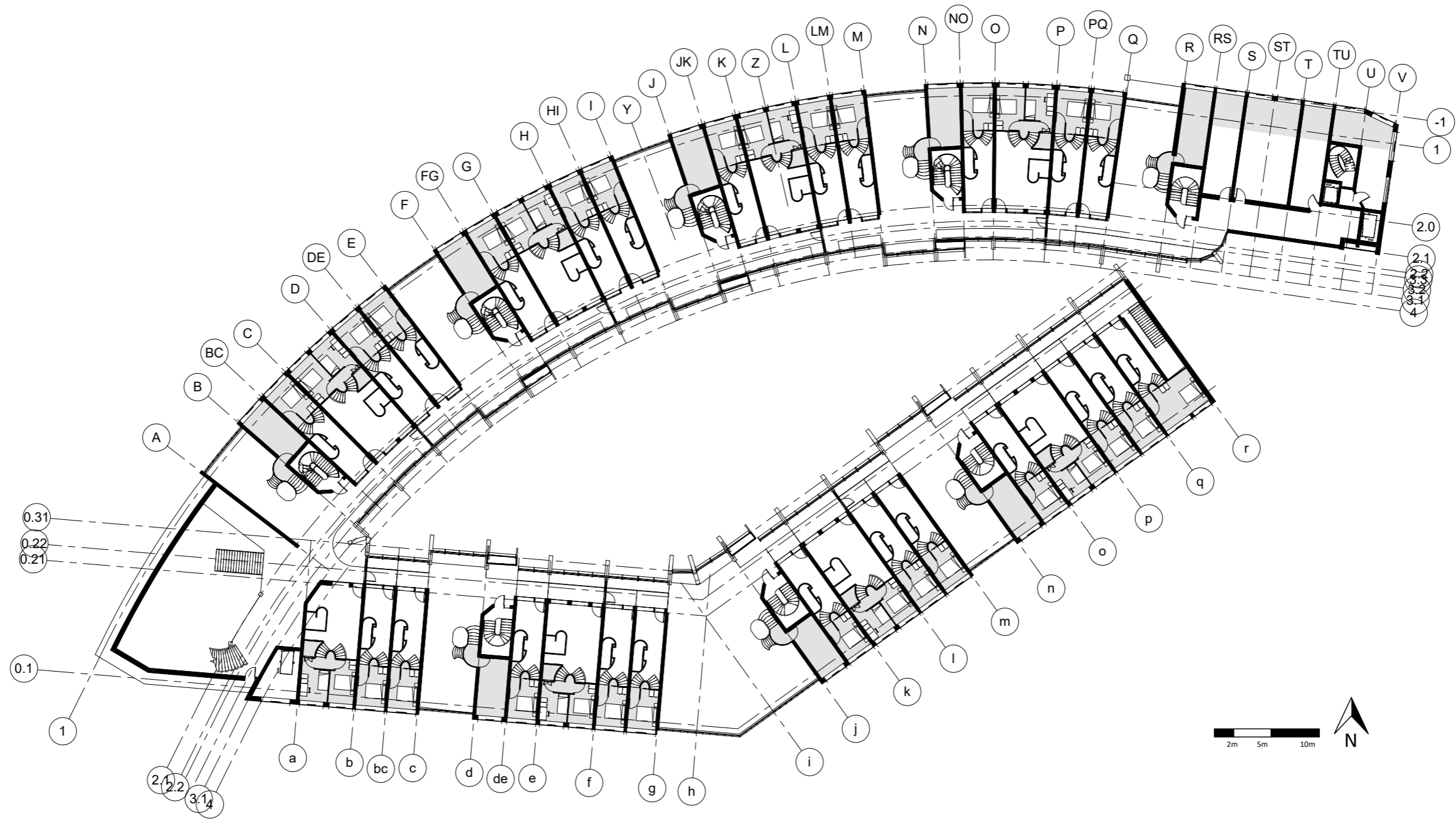
1st floor mezzanine 1:500



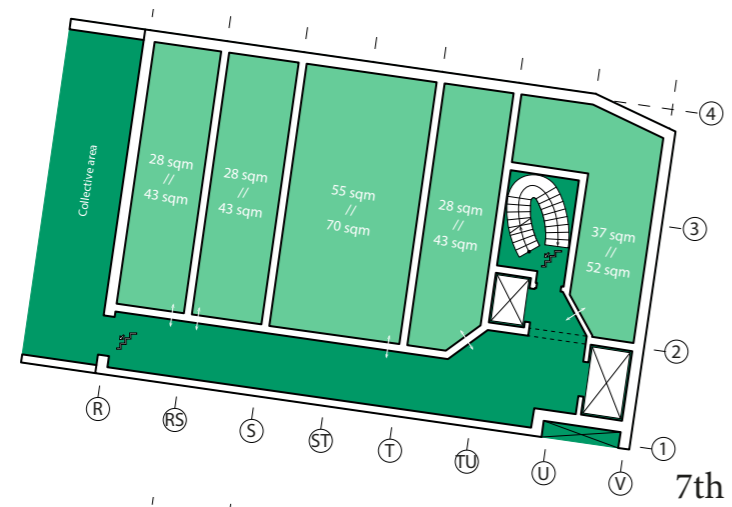
2nd floor 1:500



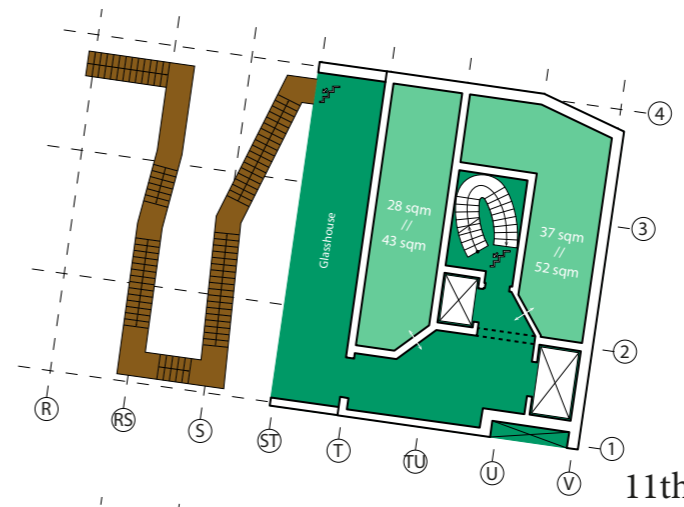
2nd floor mezzanine 1:500



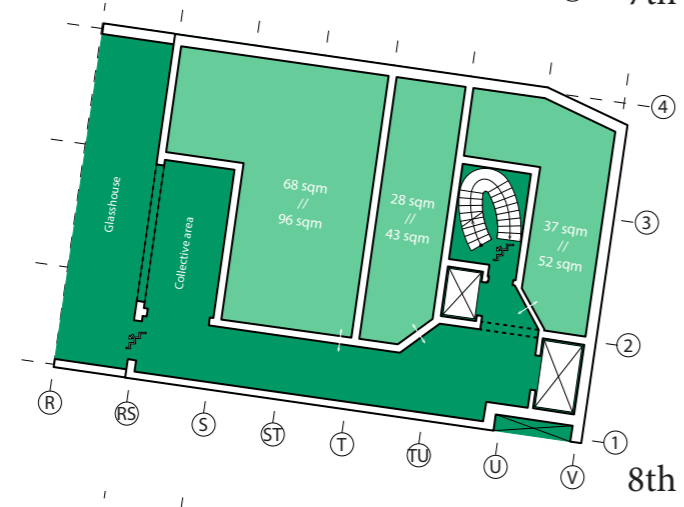
7th floor - roof



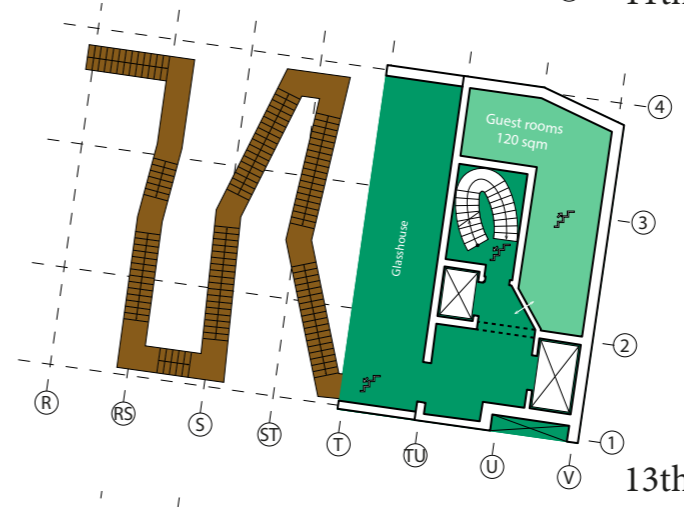
7th



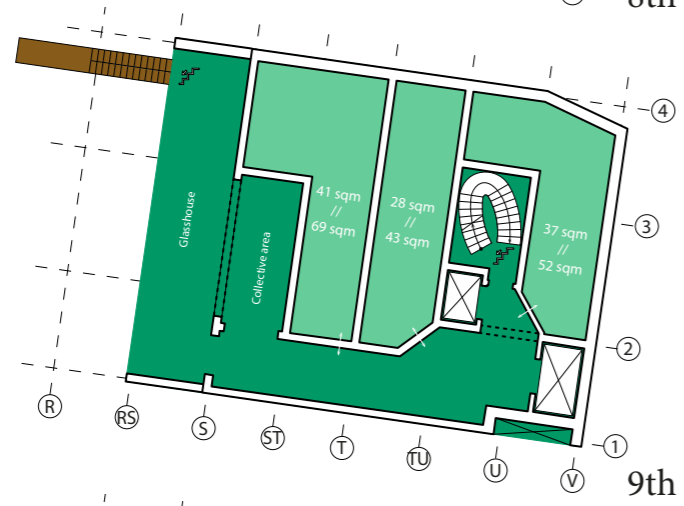
11th & 12th



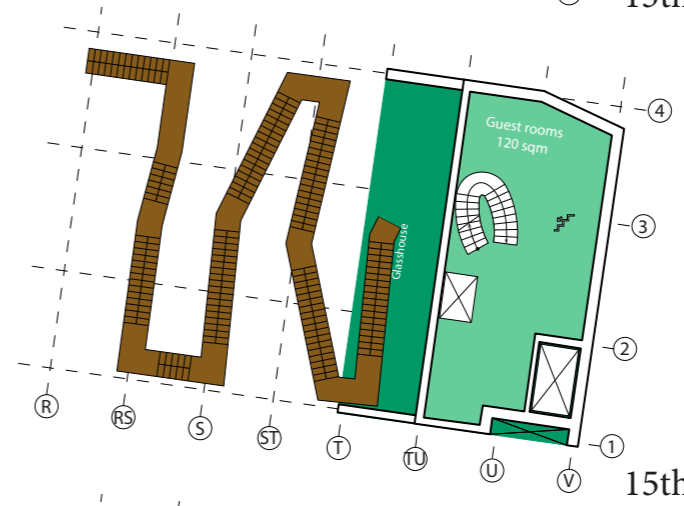
8th



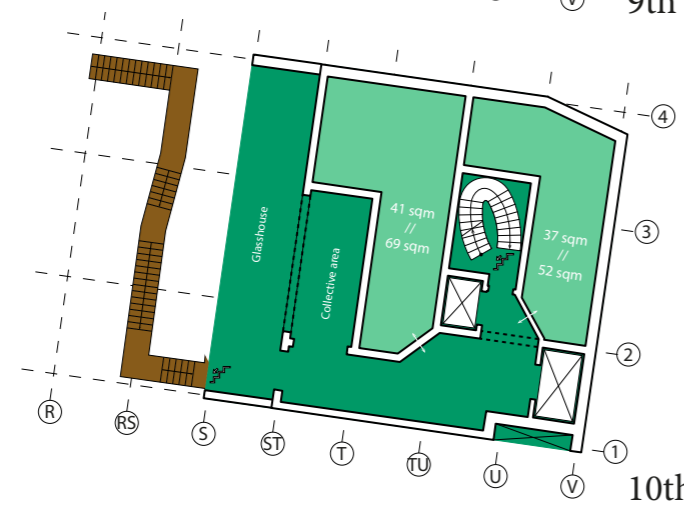
13th & 14th



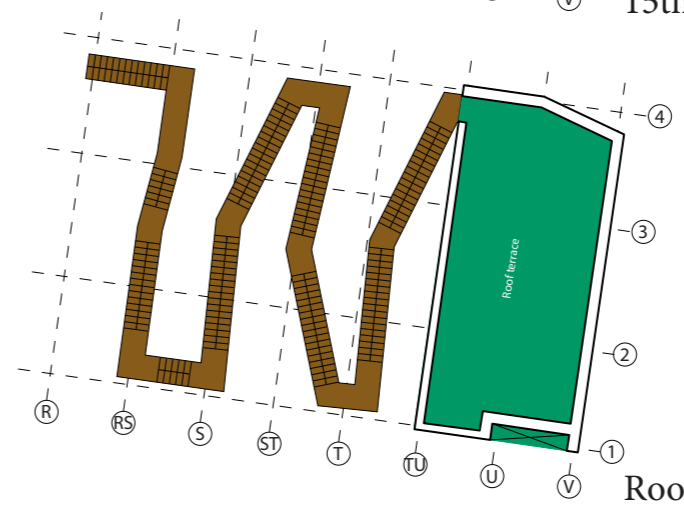
9th



15th & 16th

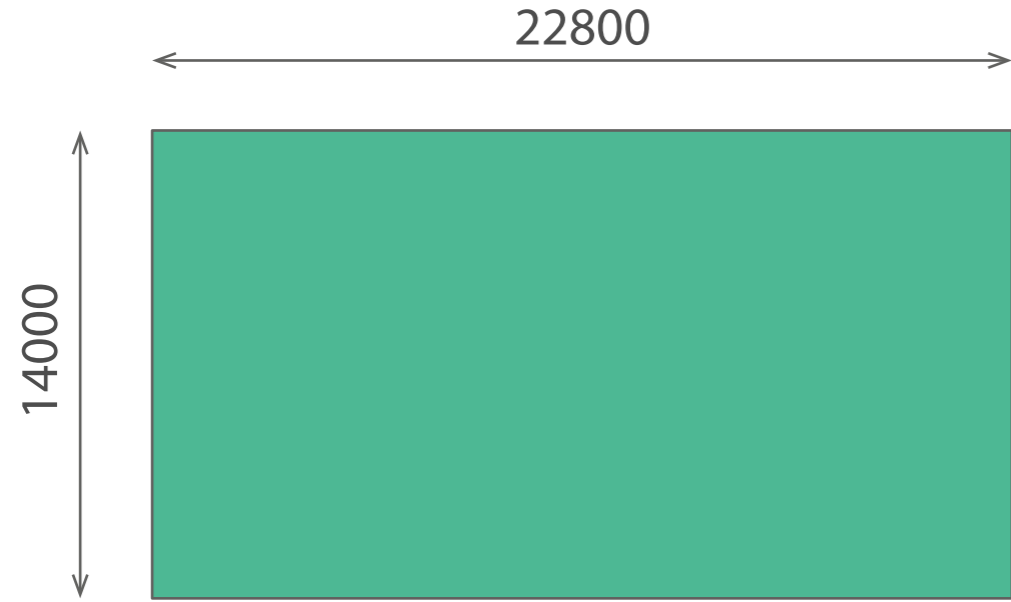


10th

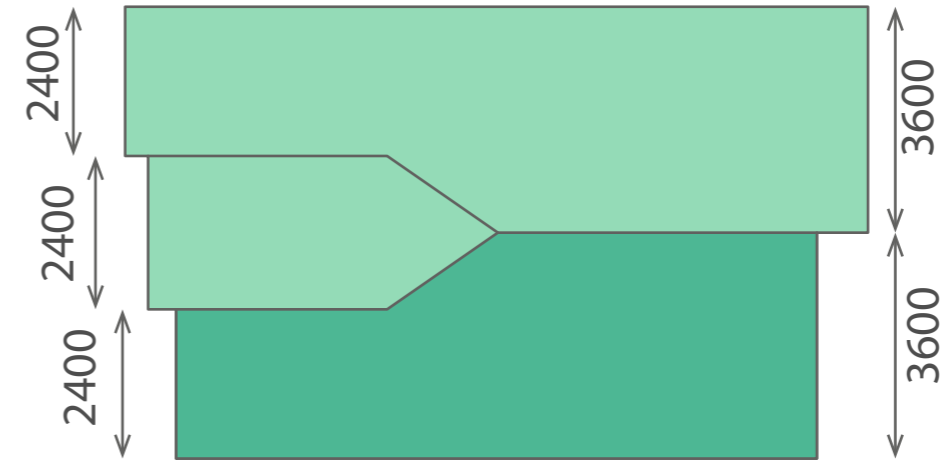


Roof

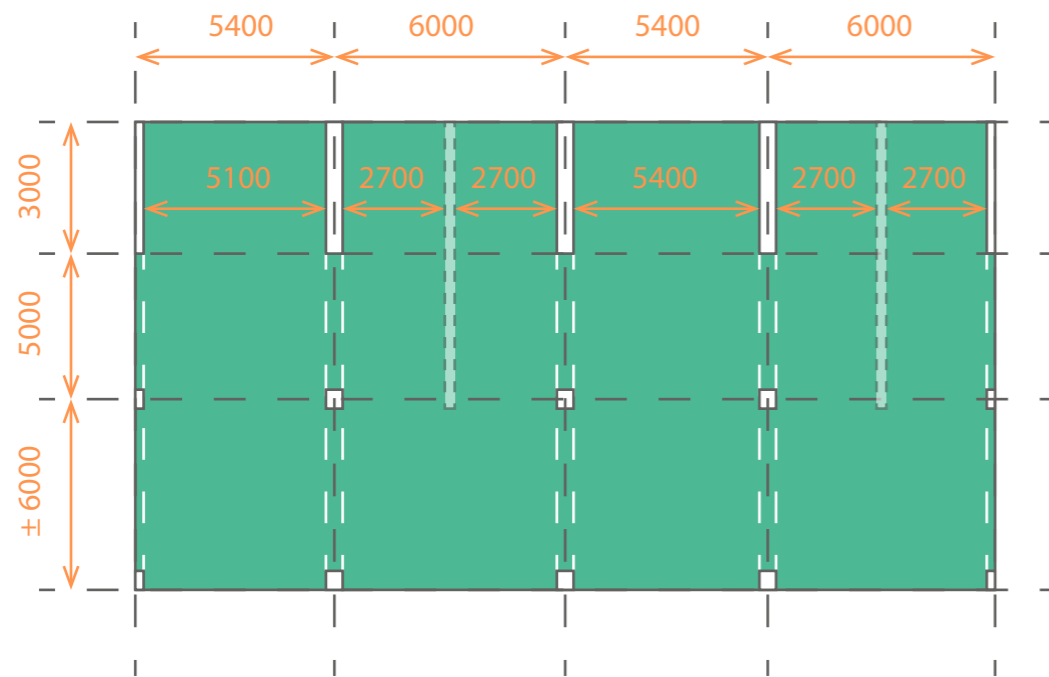
Dimensions and configuration



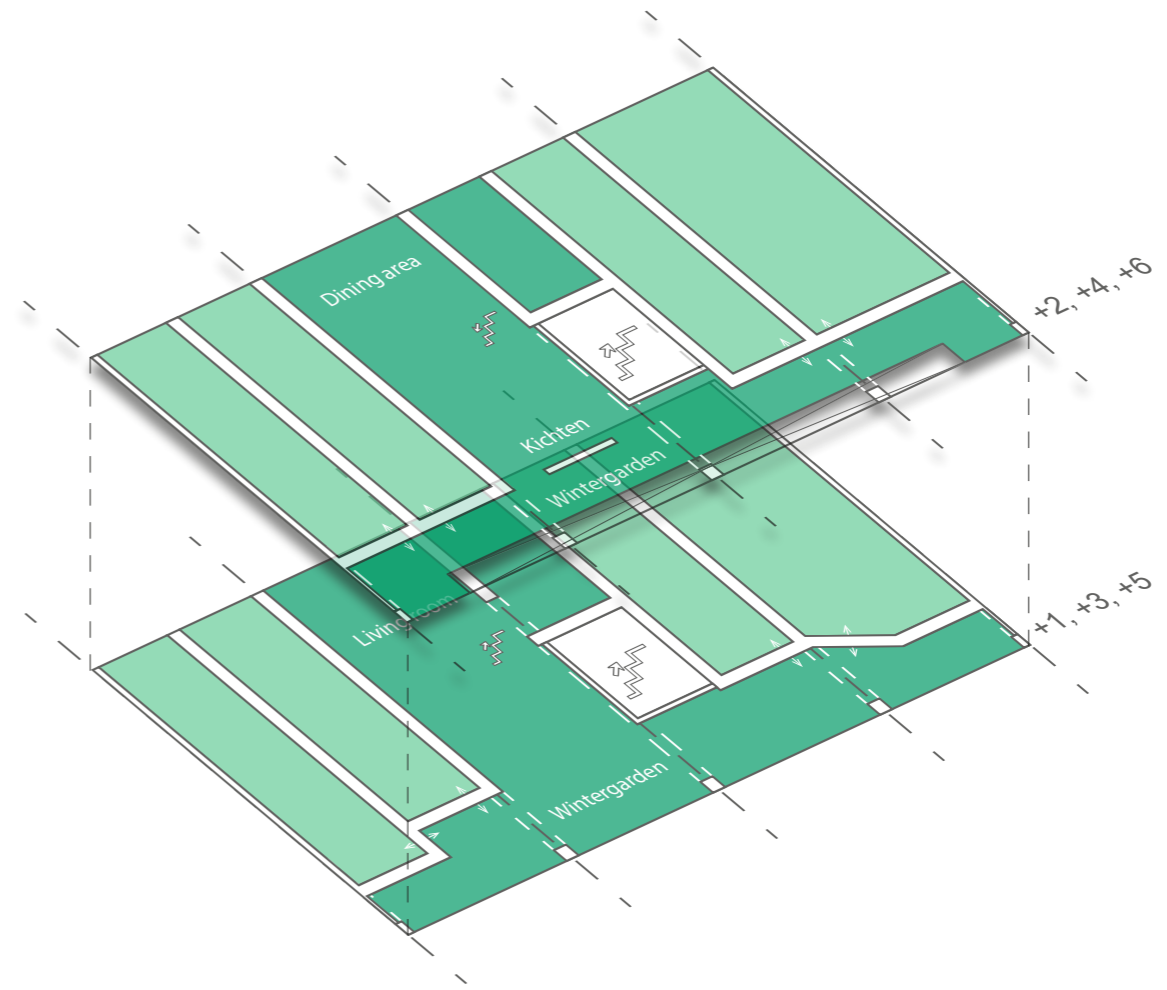
Main dimensions cluster



Height dimensions dwellings



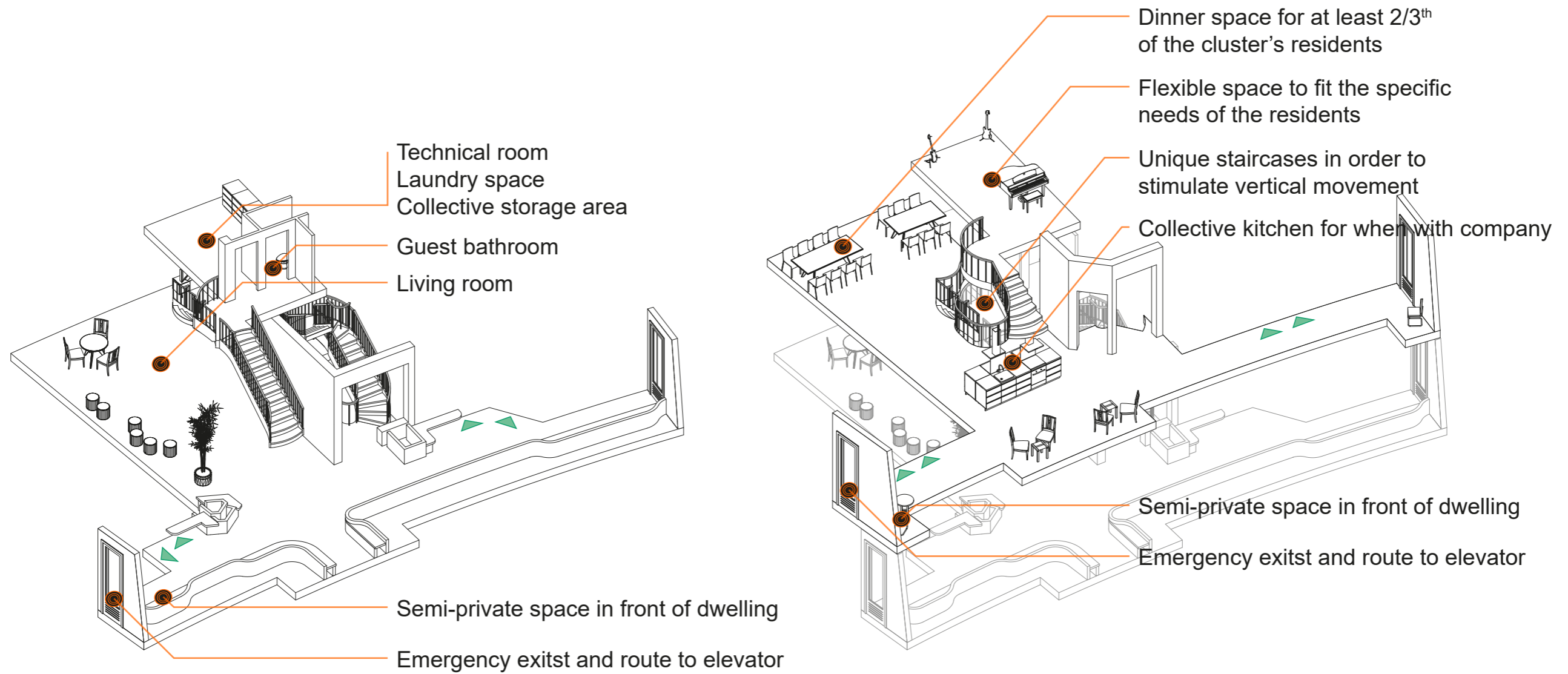
Constructive dimensions



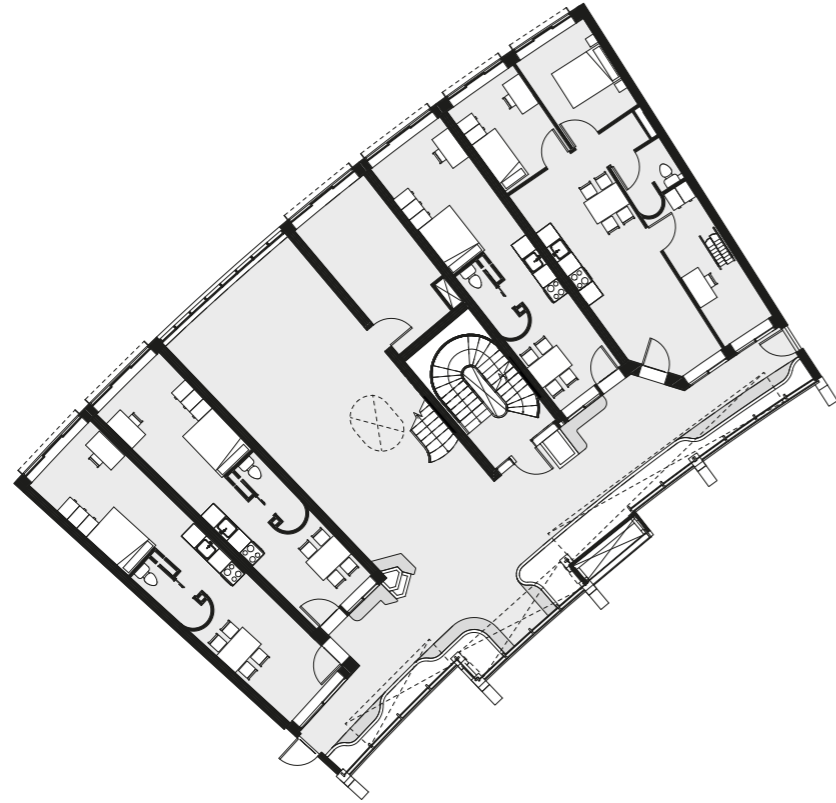
Cluster configuration

Configuration of the clusters and dwellings

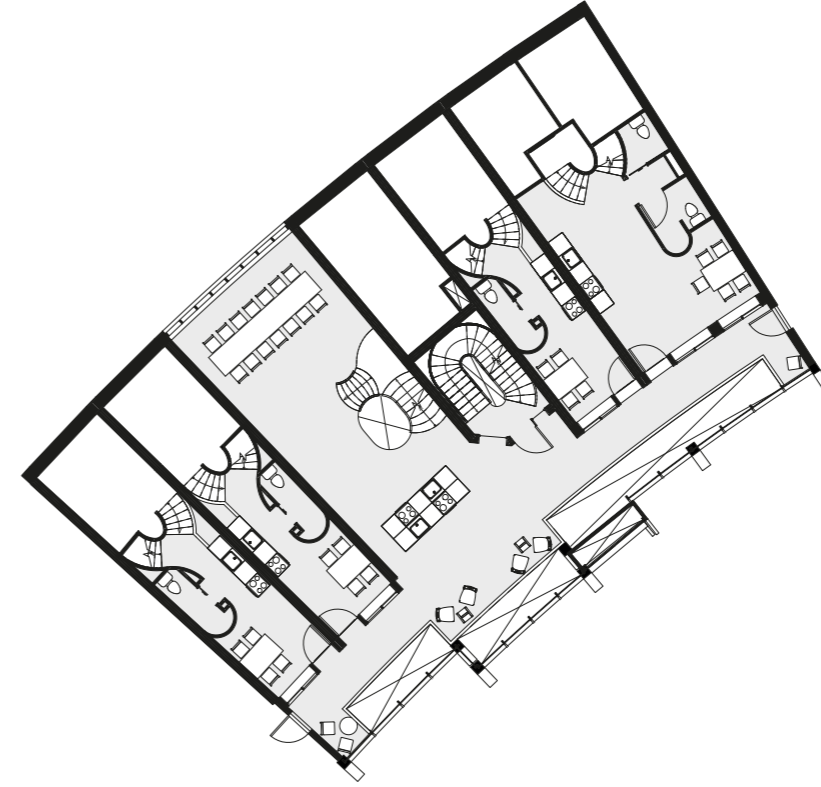
Axonometric drawing shared space of the cluster



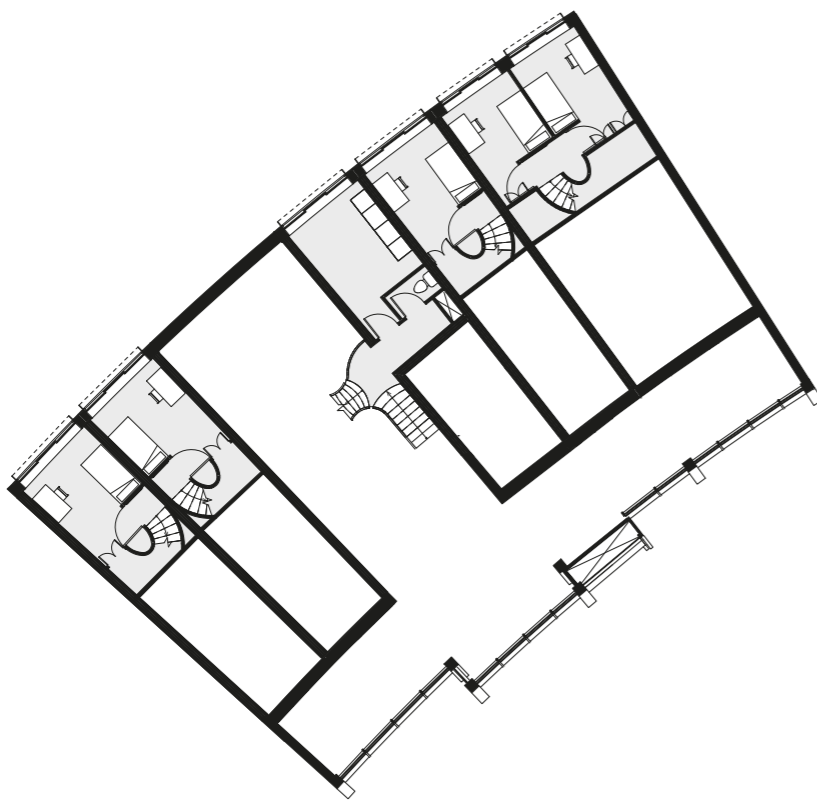
Cluster floorplan 1:200



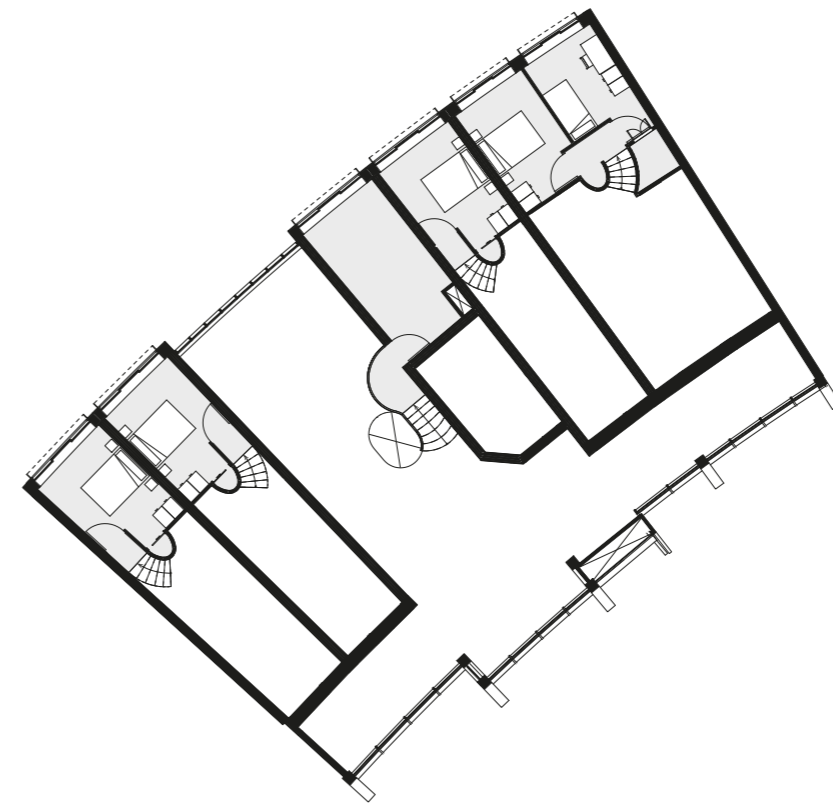
1st floor



2nd floor



1st floor mezzanine



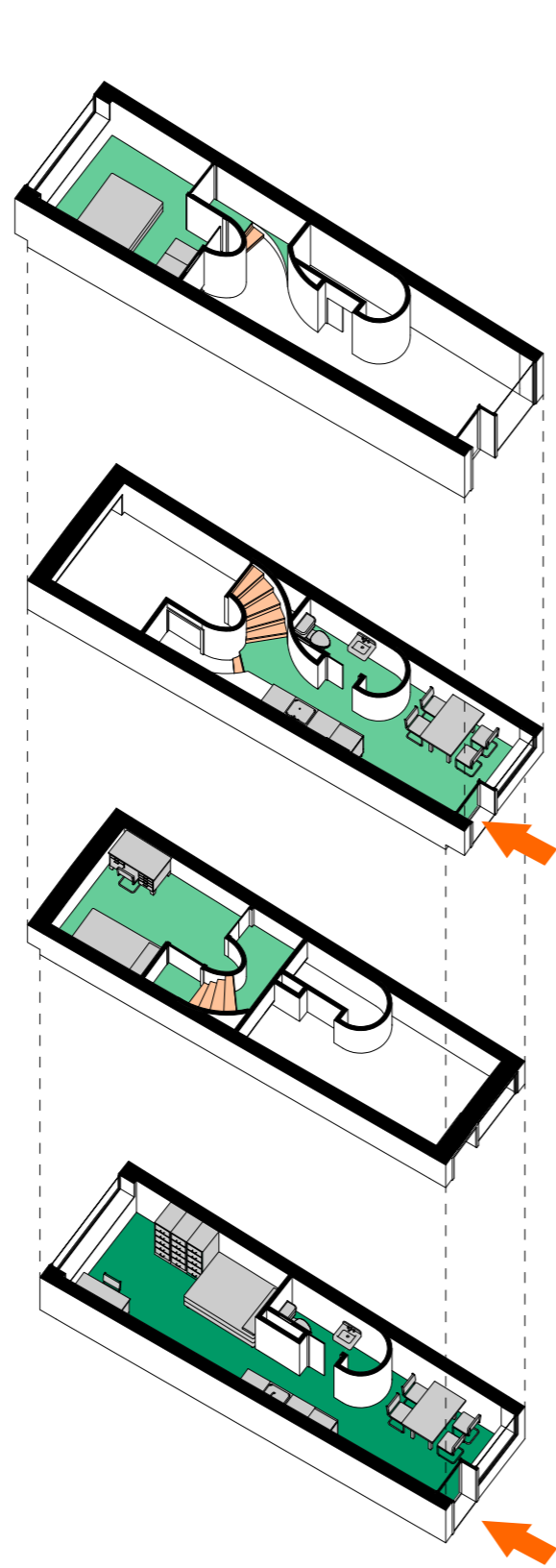
2nd floor mezzanine

Configuration of the clusters and dwellings

Axonometric drawing dwelling typologies

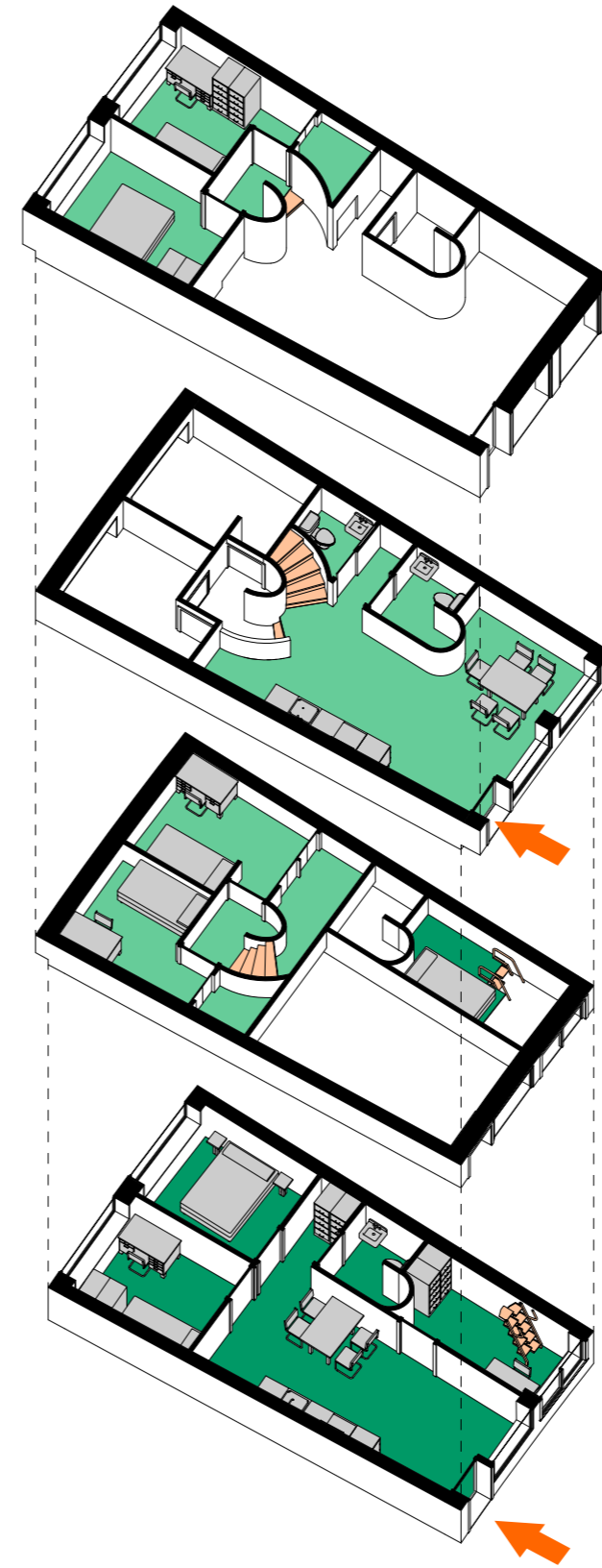
2 bedrooms
± 43 sqm

Studio
± 28 sqm



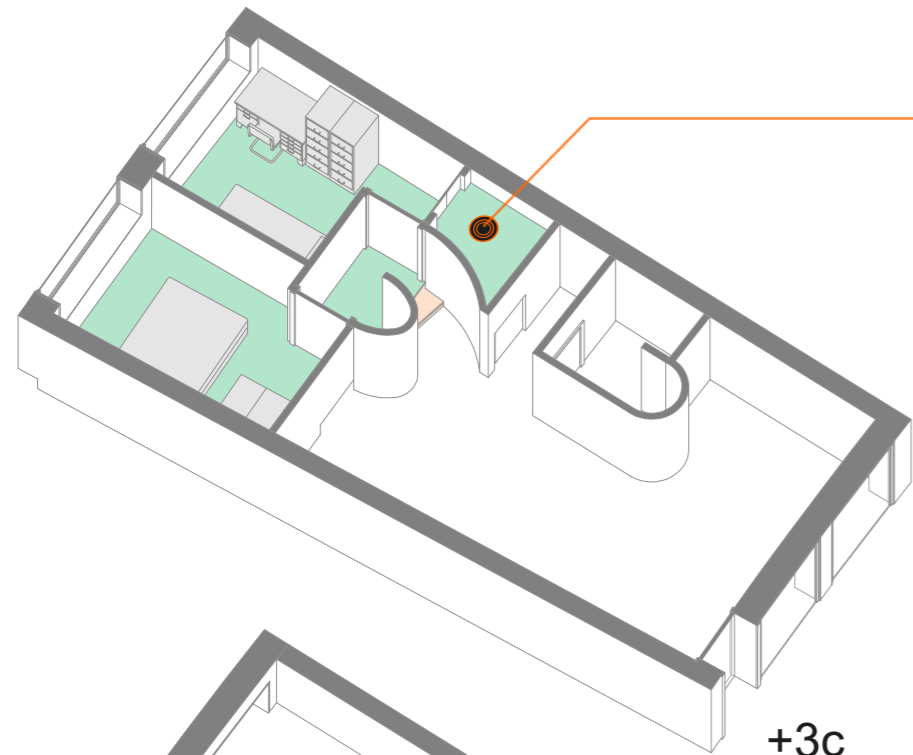
4 bedrooms
± 70 sqm

3 bedrooms
± 55 sqm

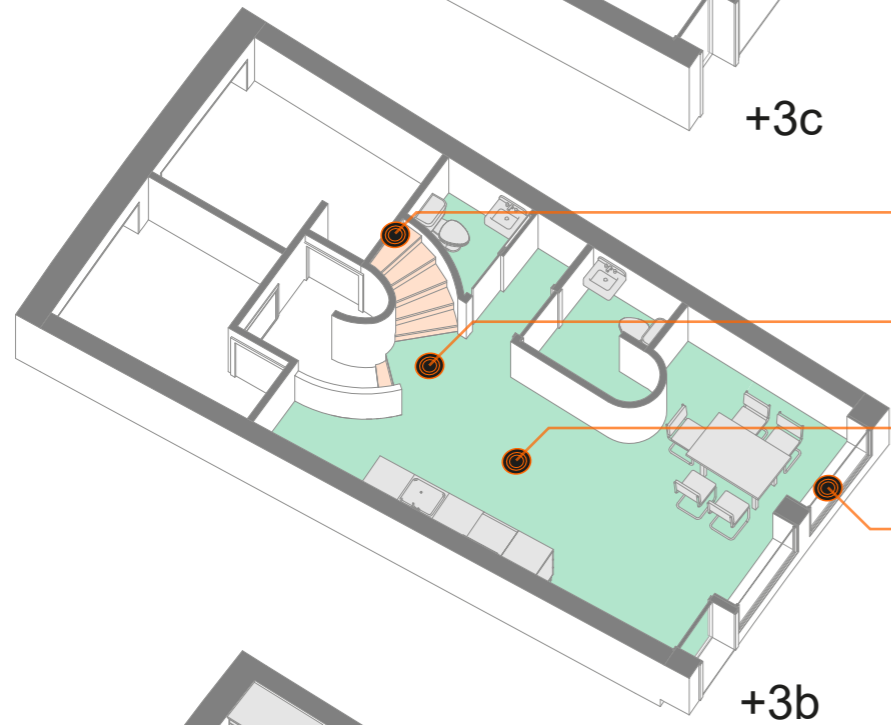


Configuration of the
clusters and dwellings

Dwelling characteristics



Build-in storage spaces

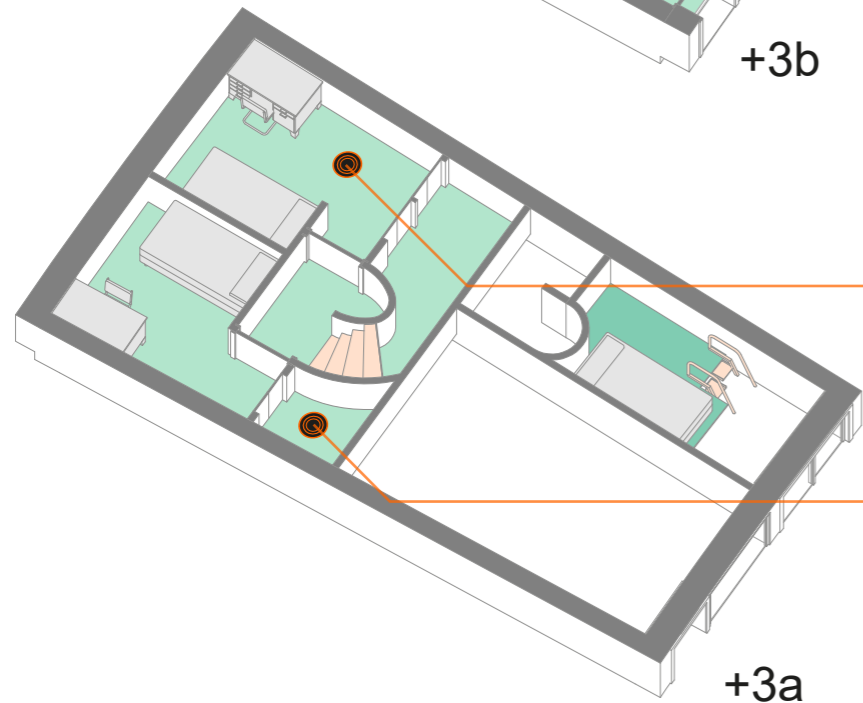


Height difference divides public and private areas

Minimize essential movement area

Kitchen and bathroom divides public and private areas

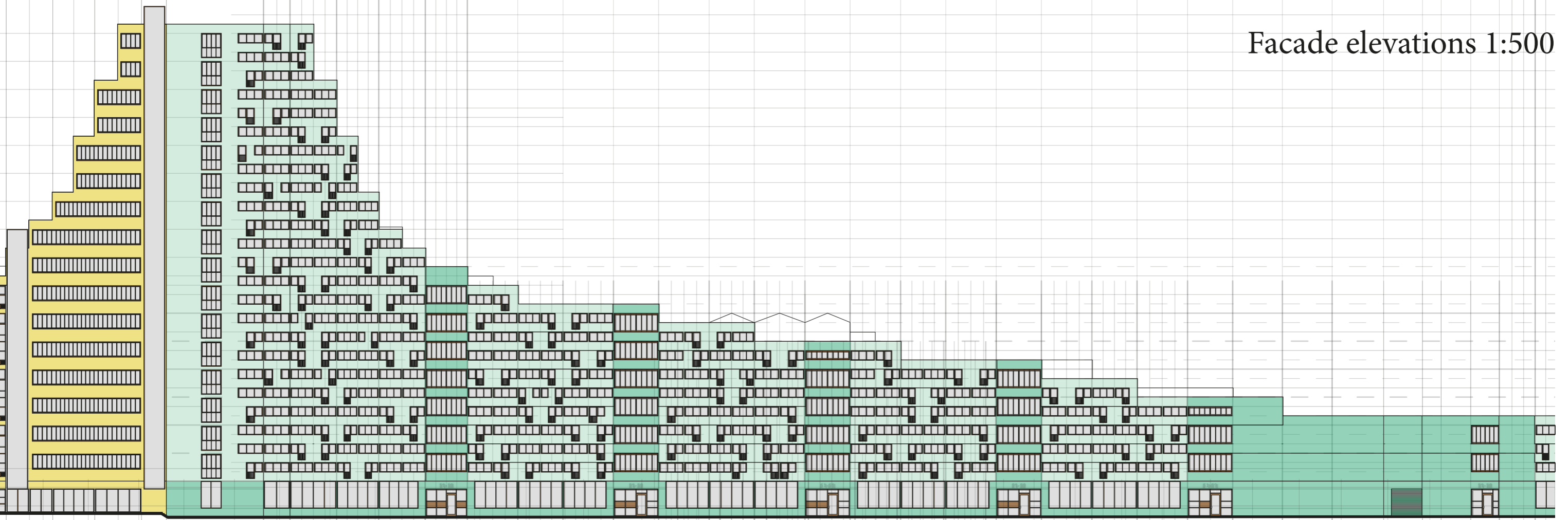
Deep window sill for seating



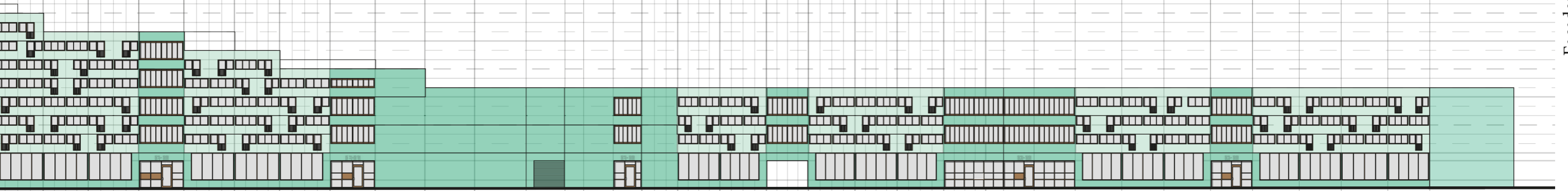
Multiple bedroom layouts imaginable

Build-in storage spaces

Facade elevations 1:500



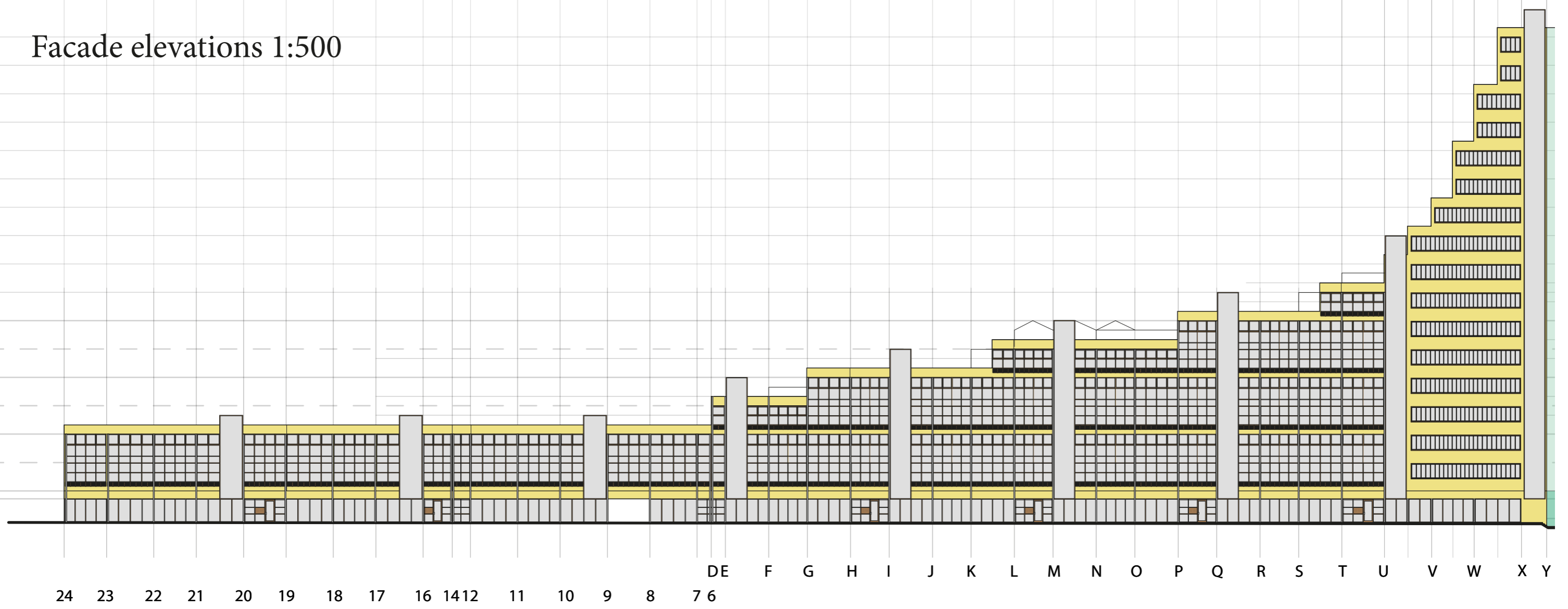
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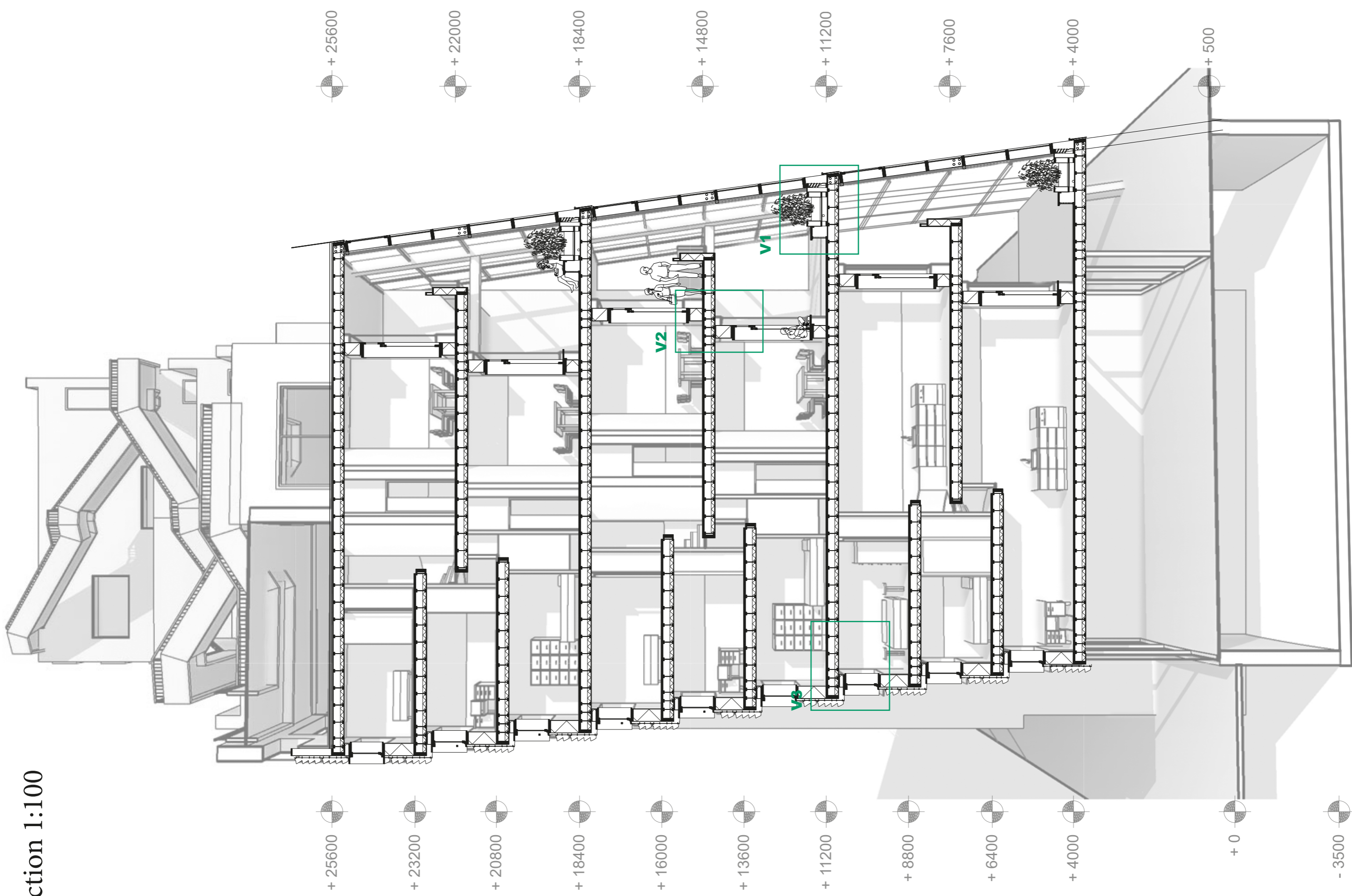
K J I H G F E D C B A 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Facades, elevations,
and technical details

Facade elevations 1:500



Section 1:100



Facades, elevations,
and technical details

Elevation 1:100 - Wintergarden exterior



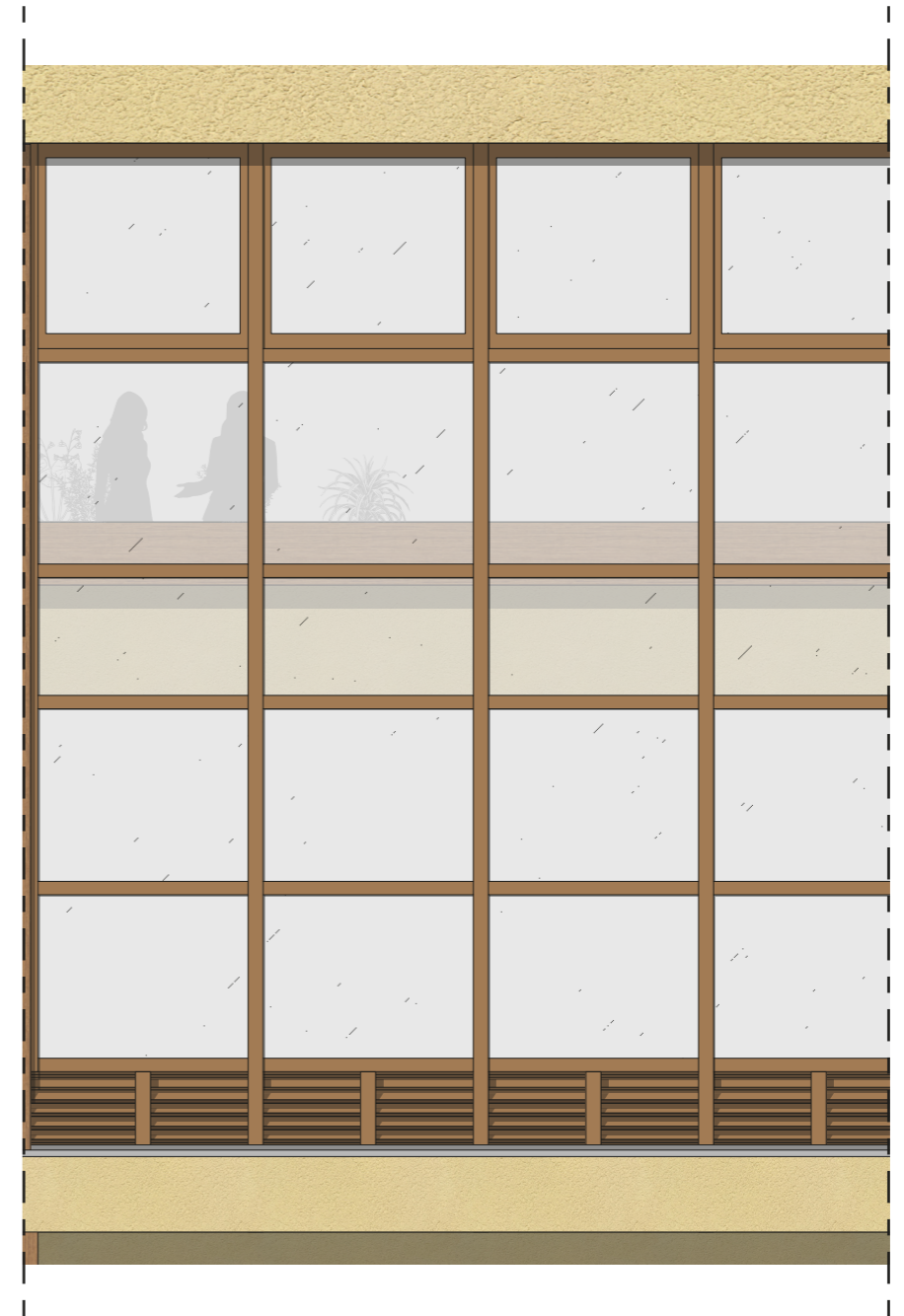
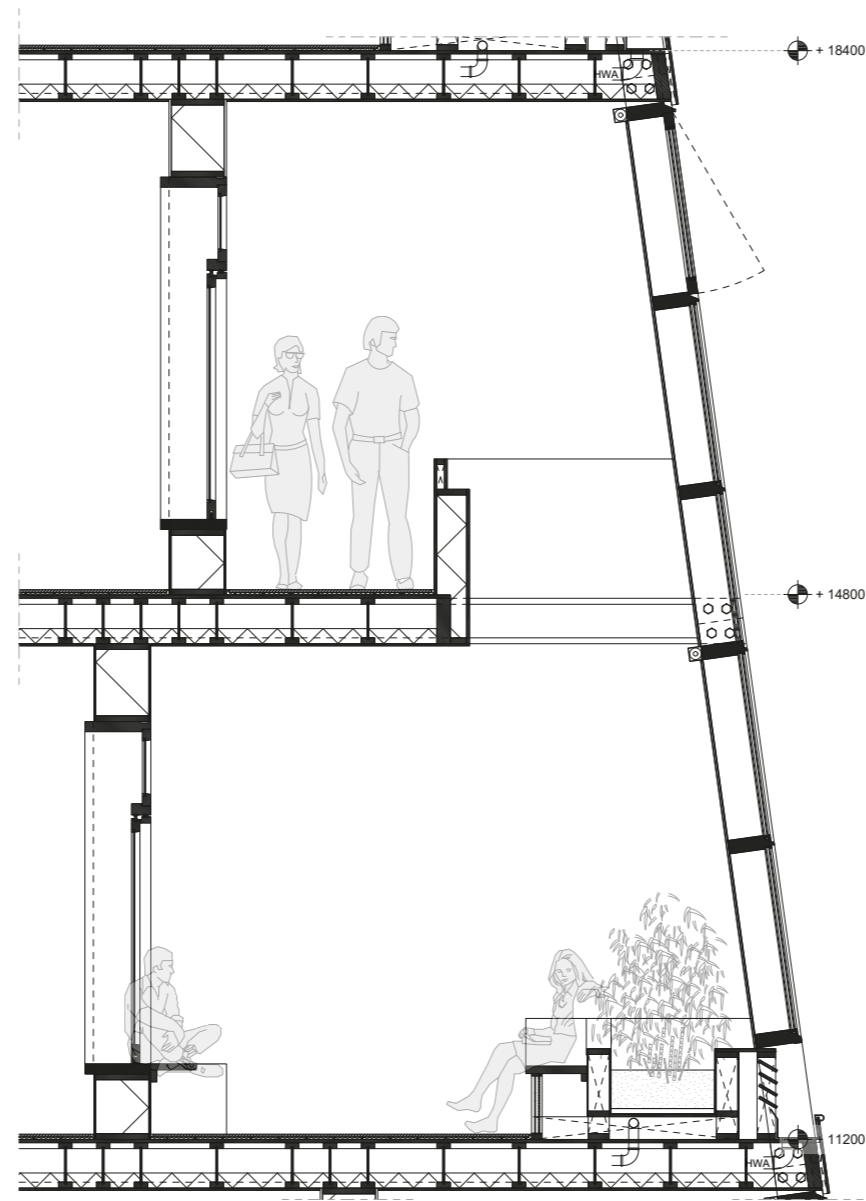
Elevation 1:100 - Wintergarden interior



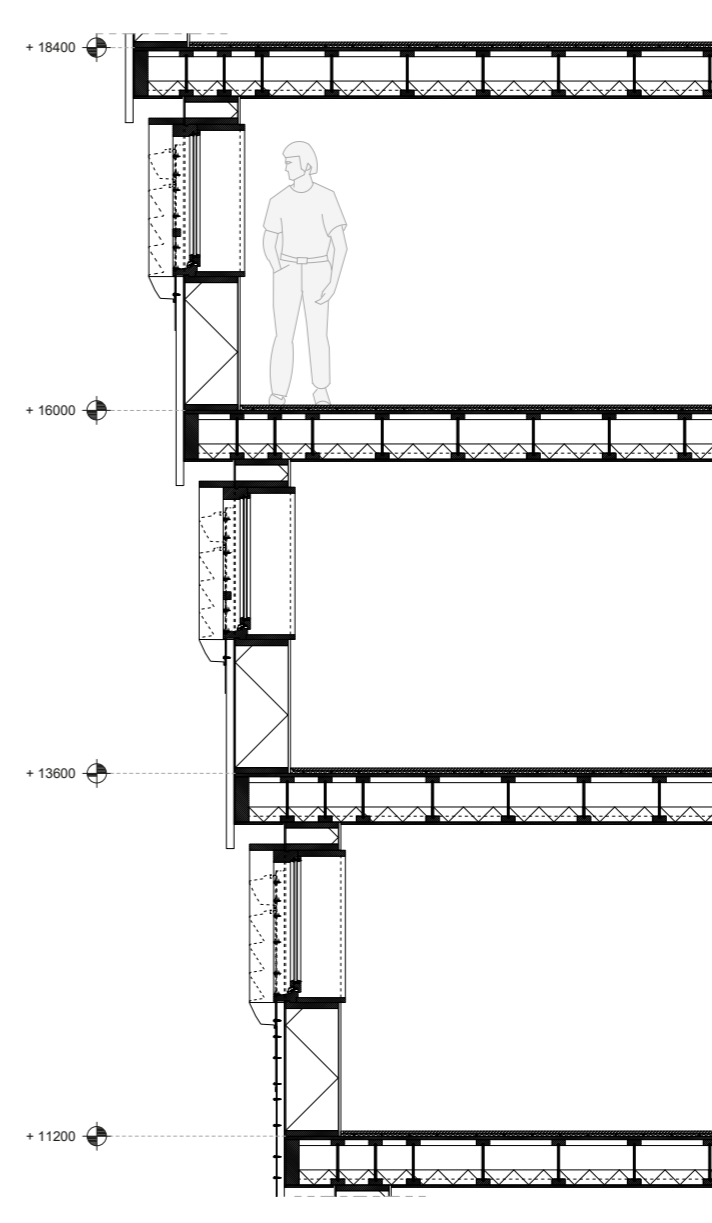
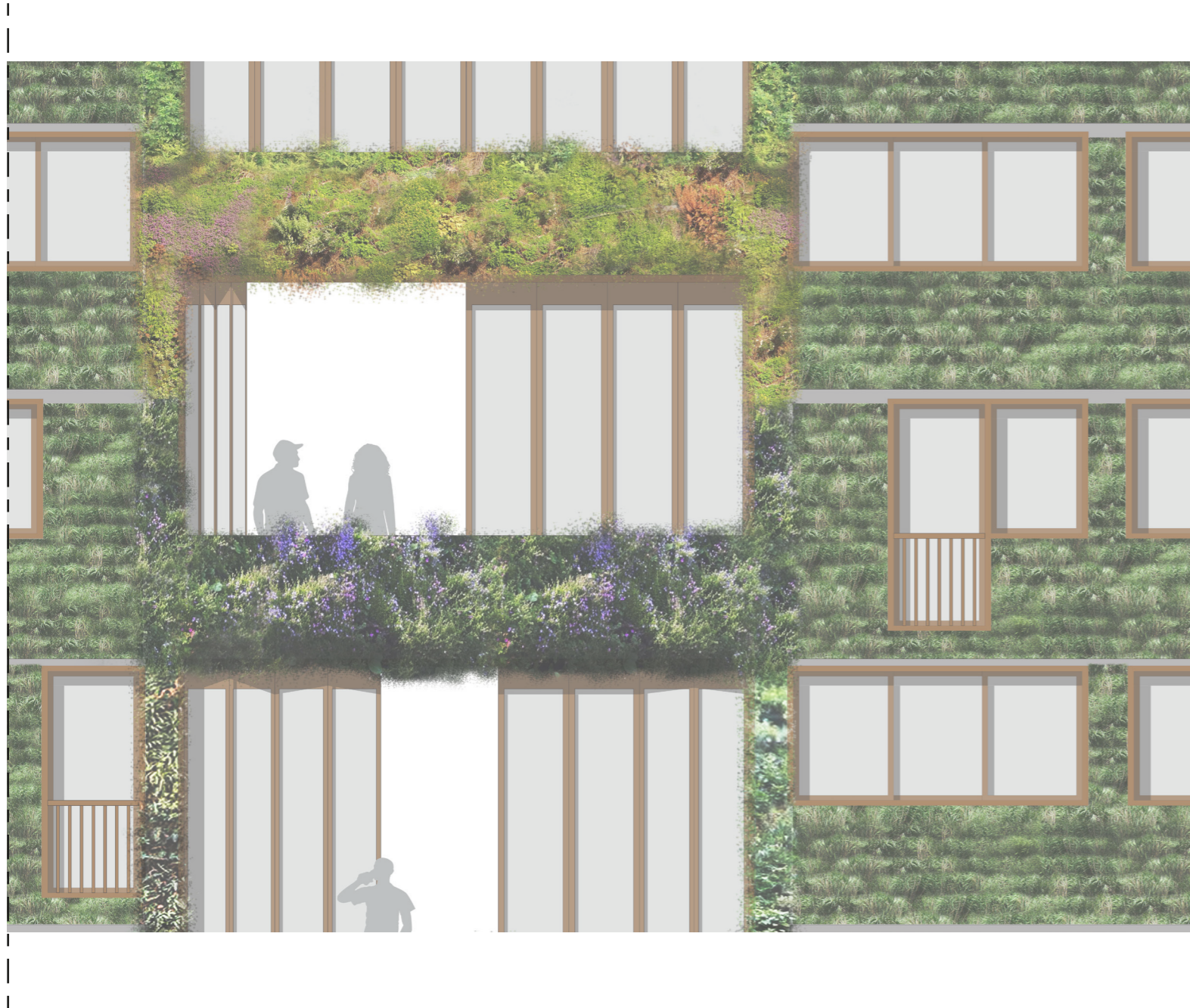
Elevation 1:100 - Streetside



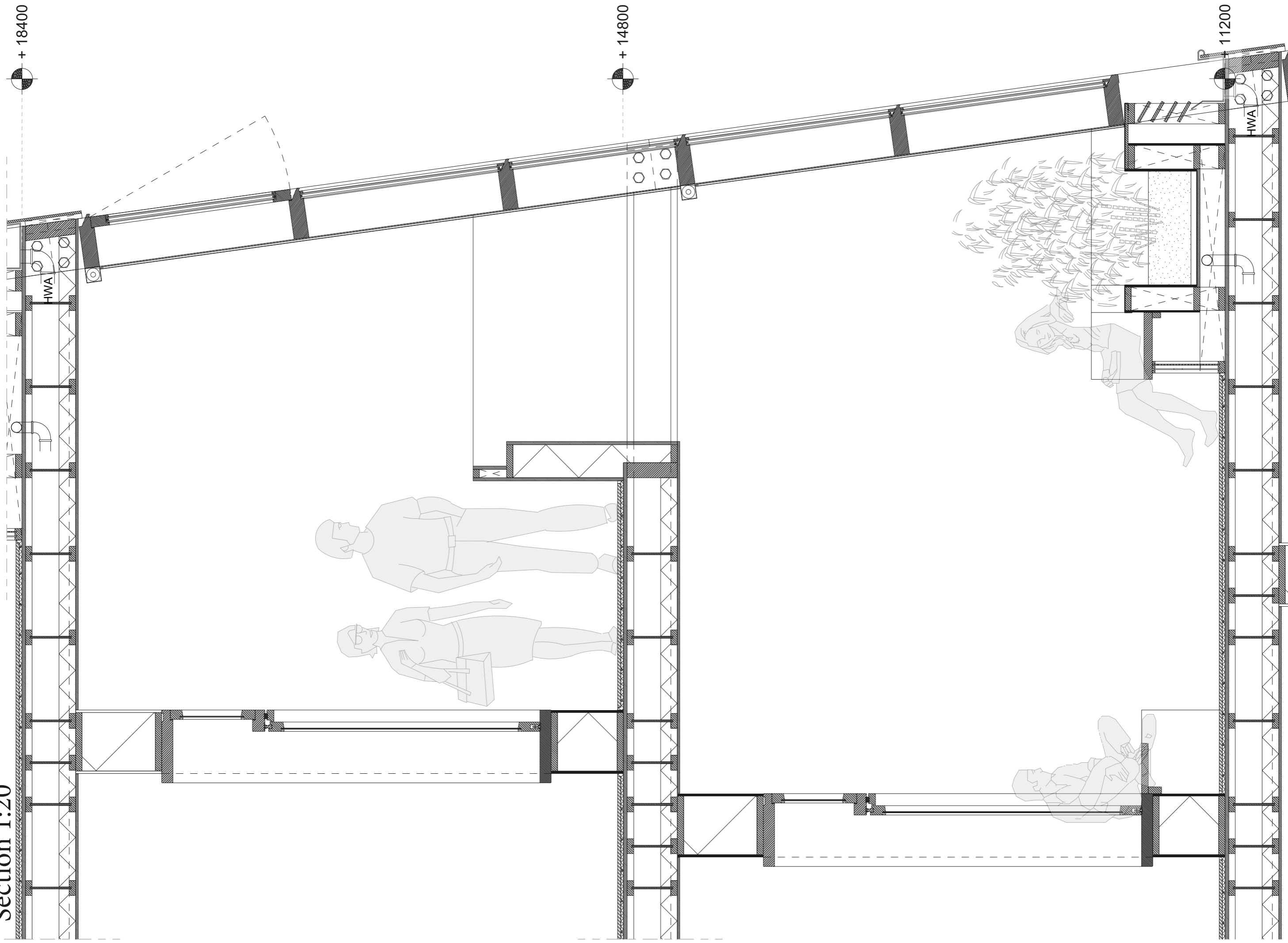
Section and elevations 1:50 - Wintergarden



Section and elevation 1:50 - Streetside

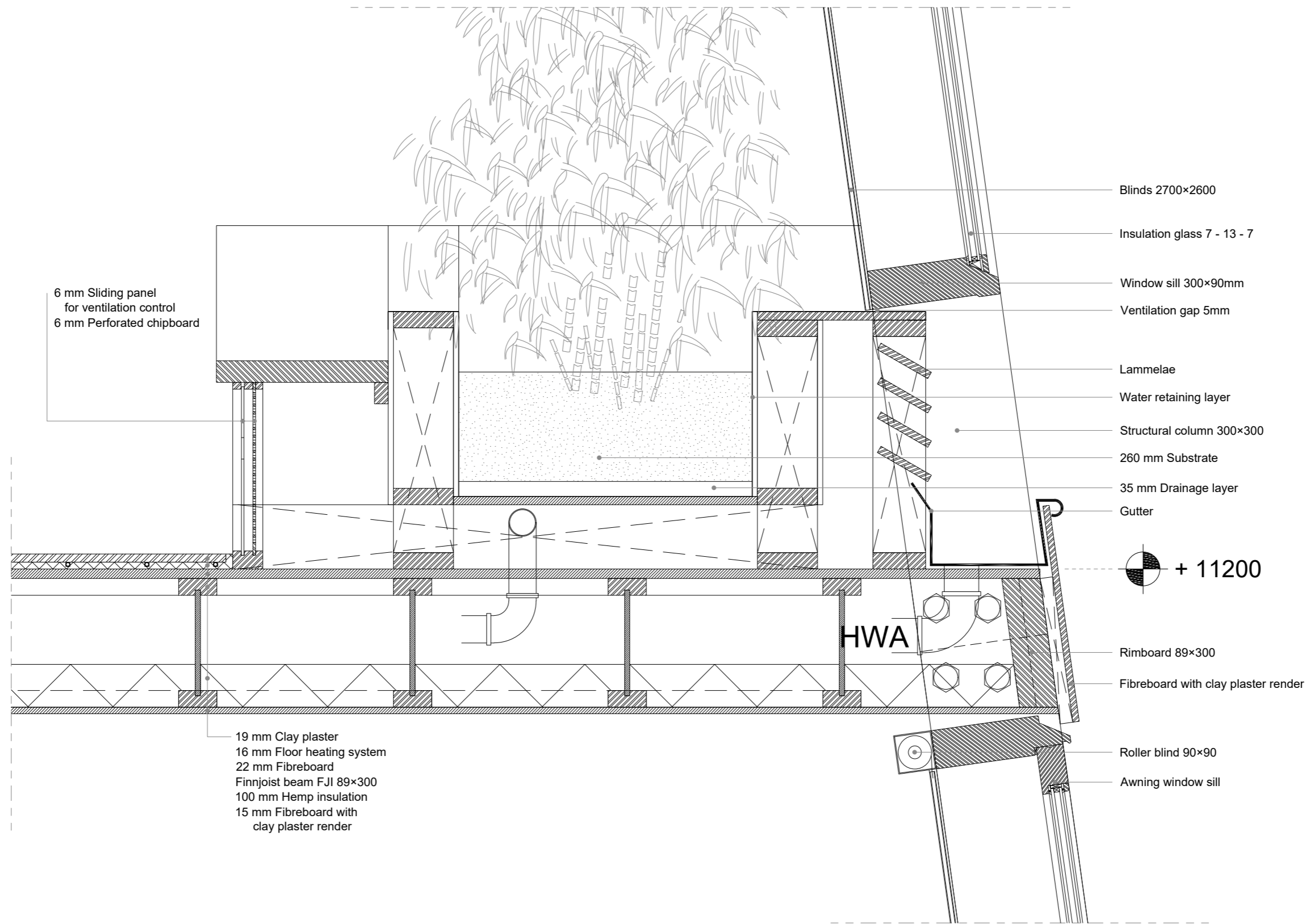


Section 1:20

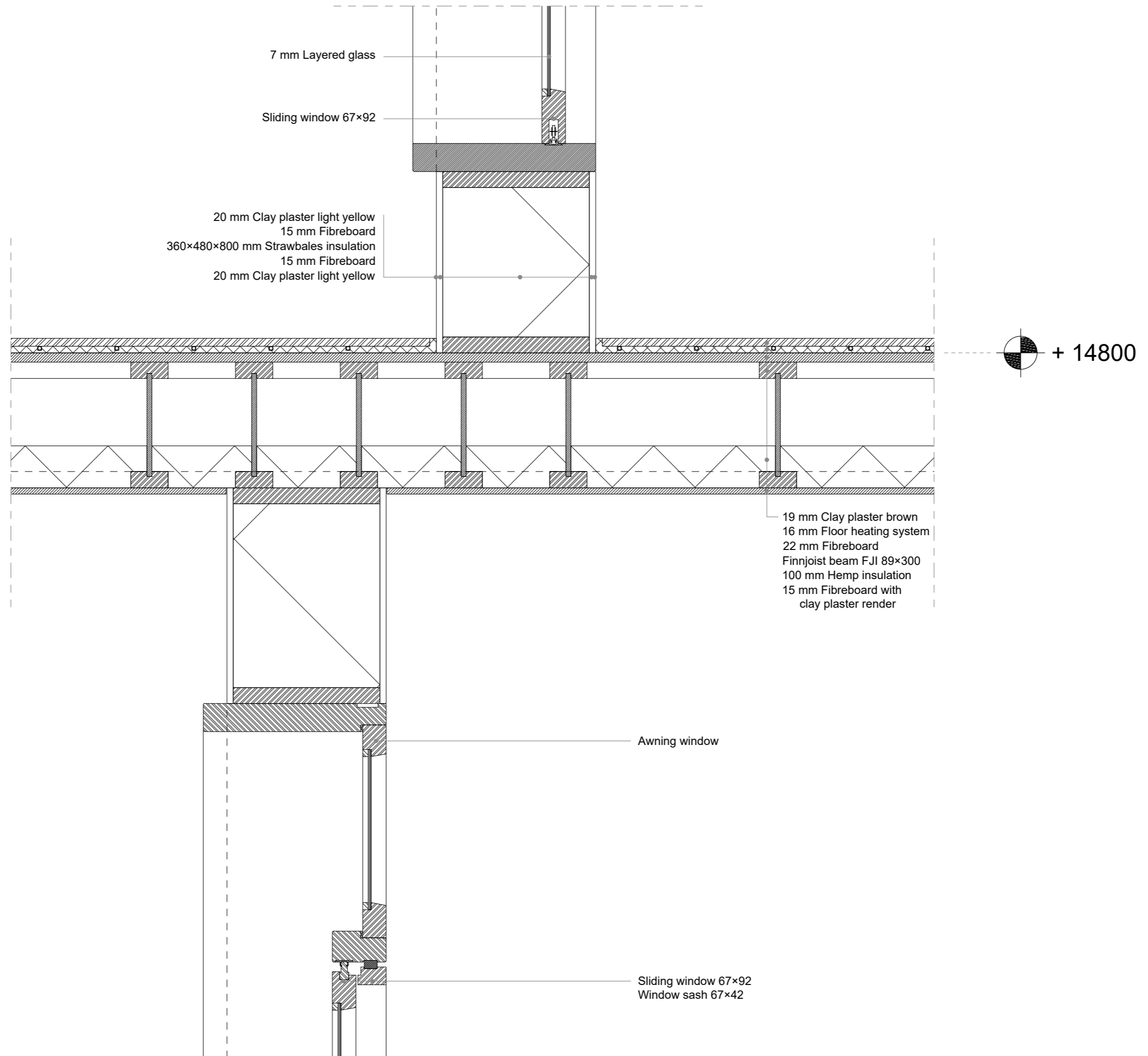


Facades, elevations,
and technical details

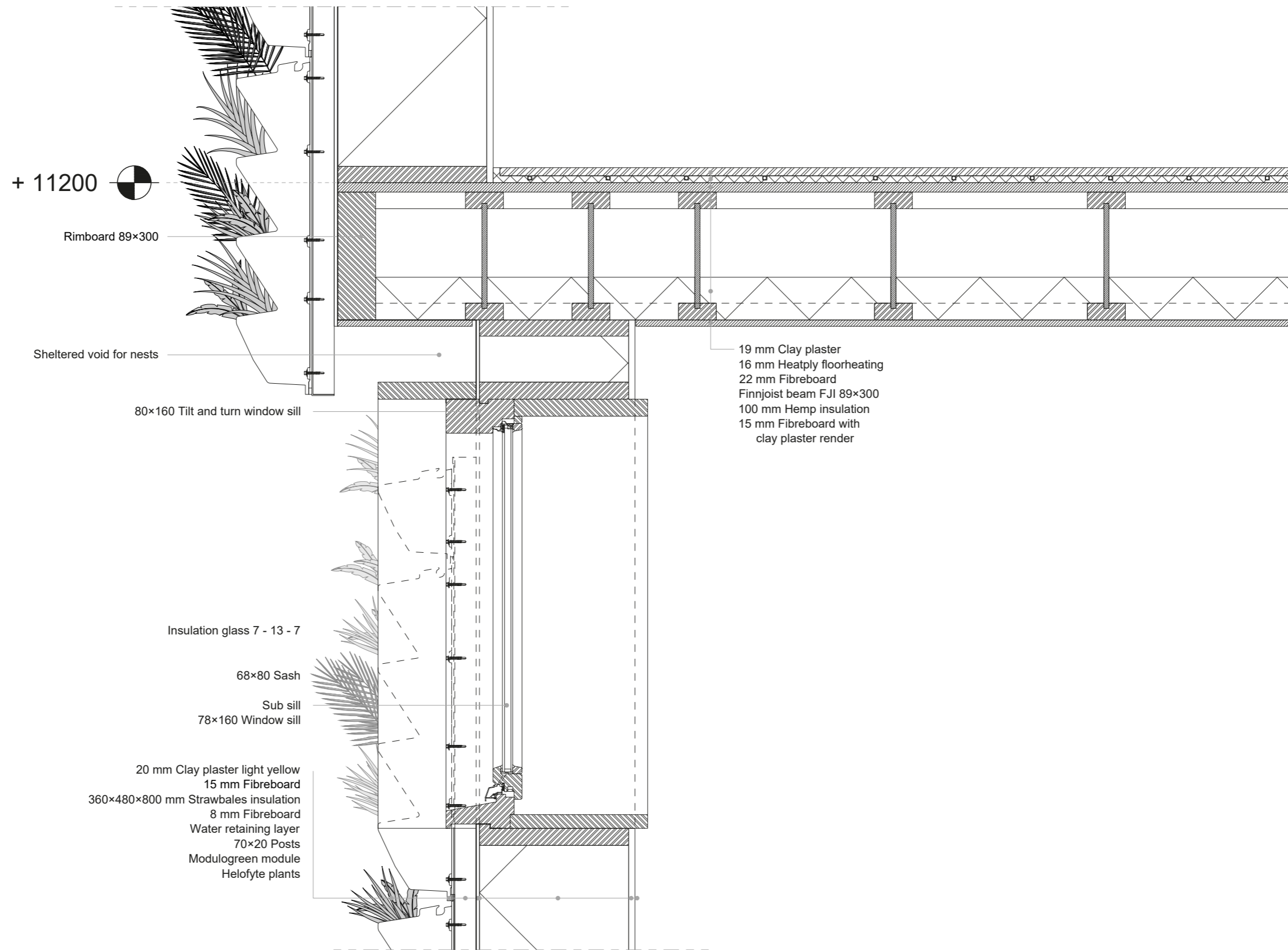
Detail 1:10 - 1



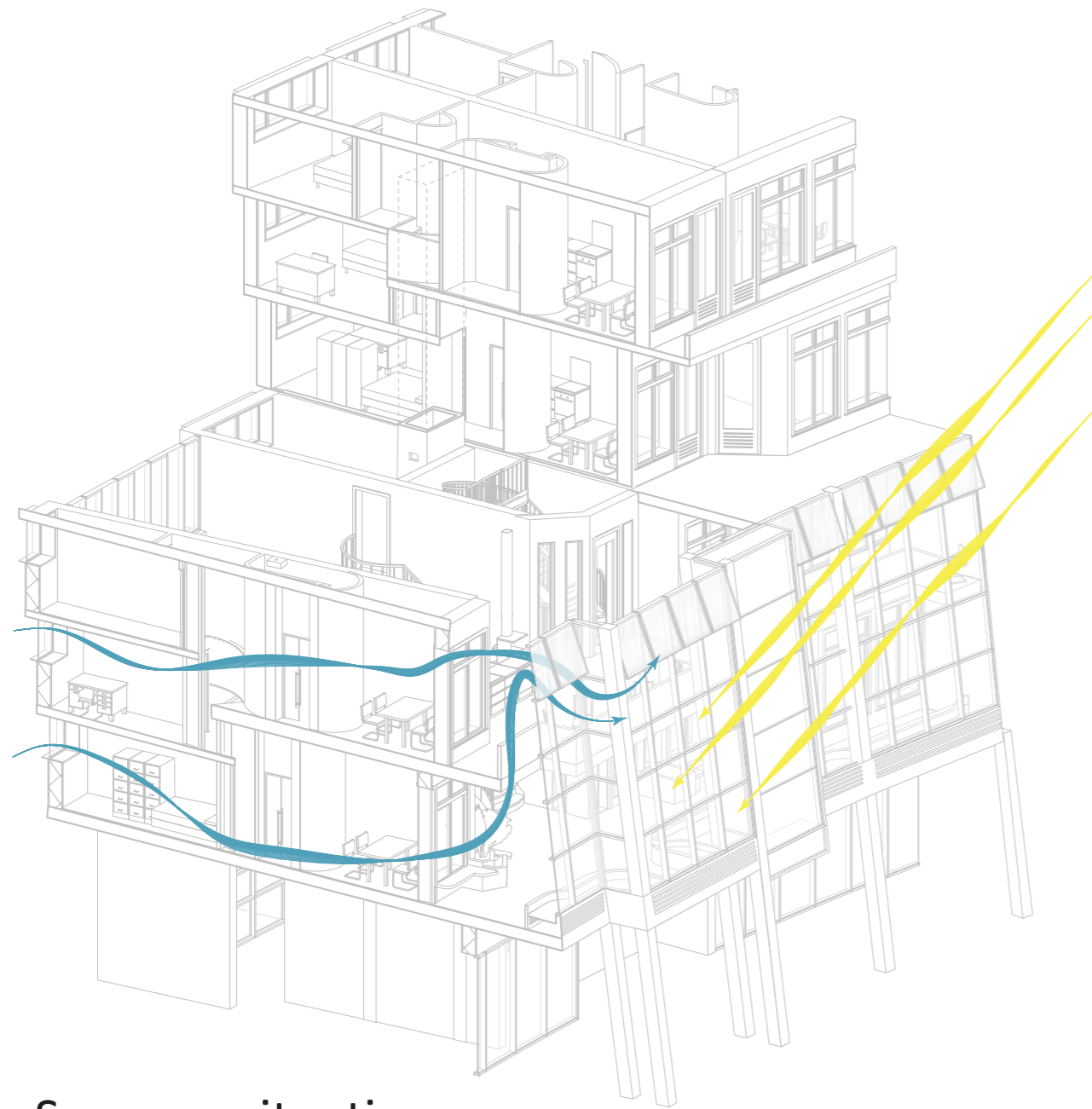
Detail 1:10 - 2



Detail 1:10 - 3



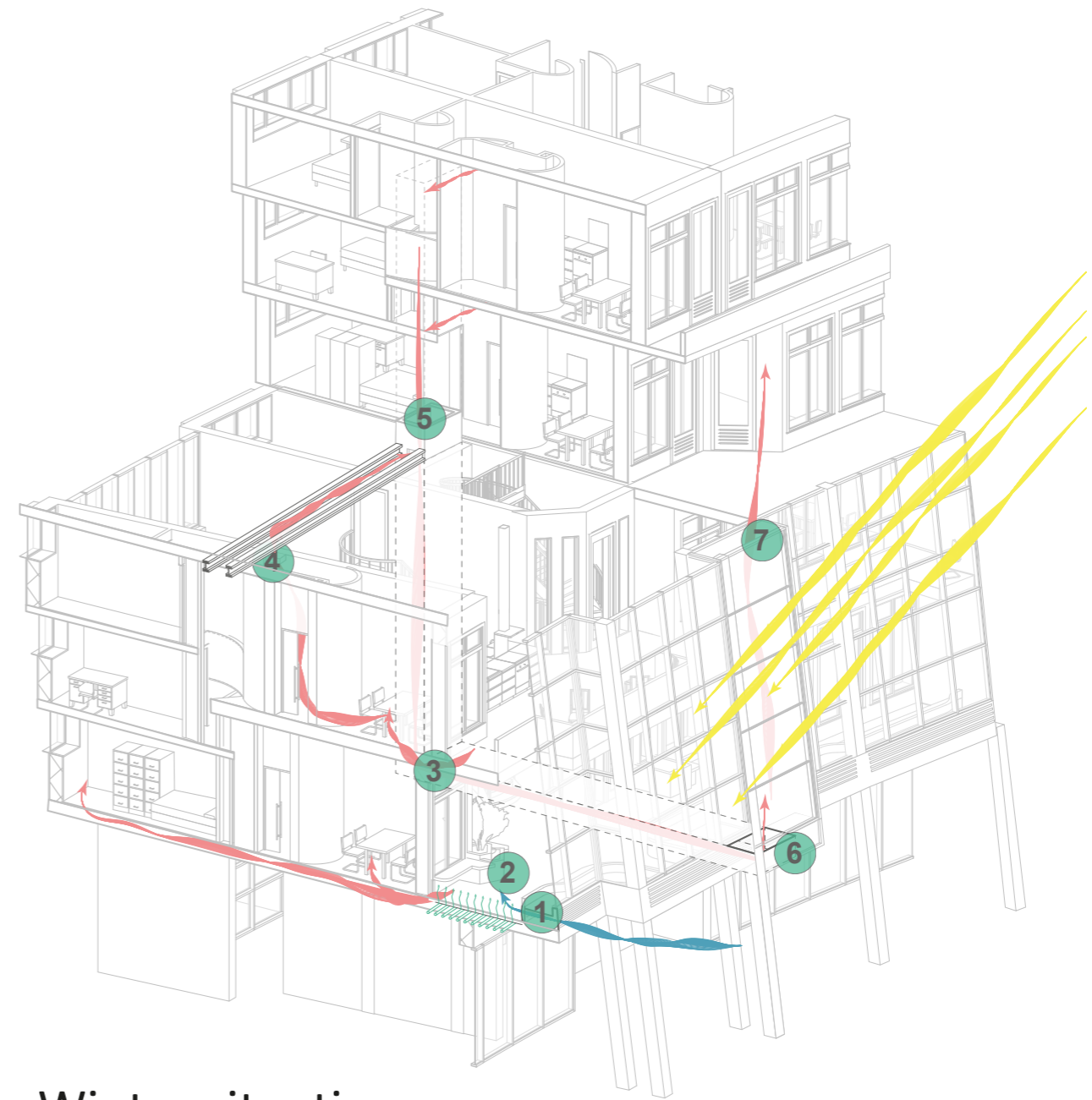
Ventilation and heating principles



Summer situation

Cross ventilation

Cool air enters through the bedrooms and leaves the dwellings through the by solar radiation pre-heated wintergarden



Winter situation

Passive stack ventilation

- 1 Cool air enters the wintergarden
- 2 Air is conditioned by solar radiation and floor heating
- 3 Air enters dwelling through cavities in the floors
- 4 Air exits through kitchen and bathroom area
- 5 Air transported through ceilings to the shunt channel
- 6 The shunt channel provides equal extraction pressure in every dwelling
- 7 Dirty air exits through solar chimney

