

# Research report

Exploring New Heritage

In gelul kun je niet wonen



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## **Mentors**

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# Introduction

Our cities are filled with buildings from our past. Some of them held in higher regards than others. In the Dutch context, over the last few years efforts have been made to assess whether or not post-war buildings could also merit the same treatment as more traditional monuments.

With the evaluation of these buildings, not only their history and heritage value is of importance. Maybe more influential is their practical and environmental impact on society.

As we are facing a housing shortage and a changing climate, the question arises; to what extent do these structures merit preservation? Often their reputation is sub-optimal, being surrounded by social issues and bad publicity.

This project focusses this question of New Heritage on Heesterveld. 317 dwellings located on the south-east side of Amsterdam, formally slated for demolition. Is there something about these blocks that merits preservation or even expansion?

A framework of cultural and heritage values was assessed to start this process. This was then used as the basis for a redesign strategy that aims at revitalisation and densification of the area. The first chapter of this report elaborates further on the research process.

The second part is documentation of the implementation of this research into the design process. The final design aims to be flexible; this end result can be iterated on by reflecting on it with (future) residents.

# Research plan

Exploring New Heritage

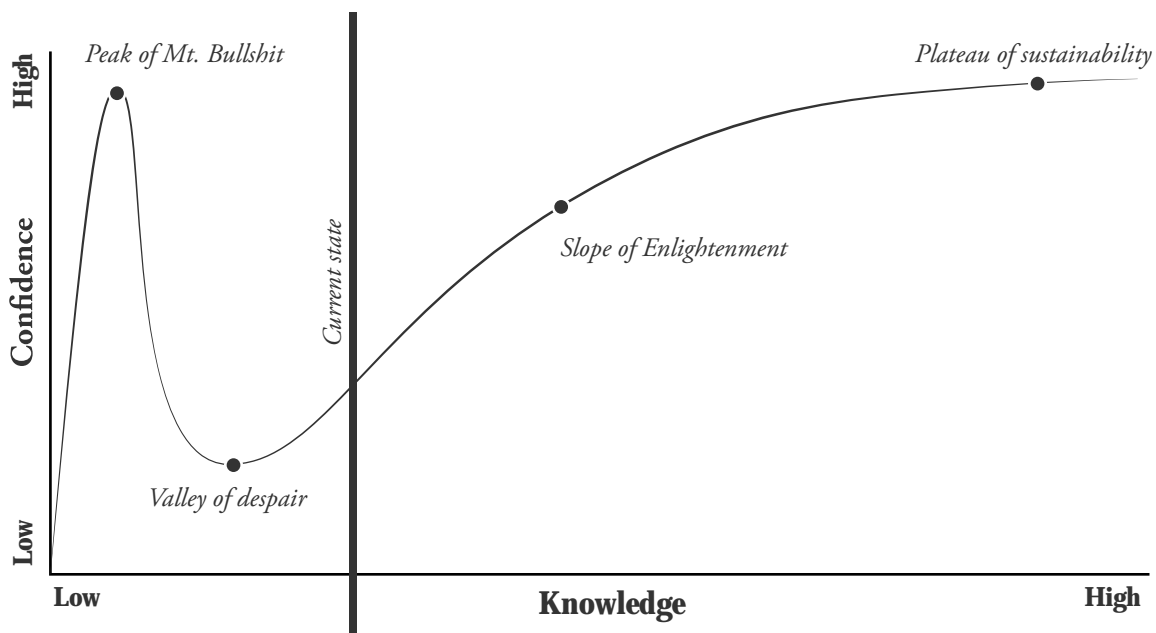


Figure 1. Dunning-Kruger Effect Curve

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# 1. Introduction

New Heritage - Problem statement - Research questions - Research structure.

## 1.1 *New Heritage*

When does something have value? Traditionally, value was determined by experts, the architect. This top down approach might not suffice anymore in our modern society. When dealing with mass housing, the lived experience of its users should be taken into account. It is not enough to judge these buildings simply by looking at a floorplan or façade drawing. Its strengths and weaknesses only really become apparent from the perspective of someone who lives there, who has experienced the building daily.

But should we trust the public in their judgement? Maybe not at face value, but in what they imply by their statements. This is where the first part of this research comes in.

In this design studio we are dealing with new heritage. Objects that are not yet seen as heritage, but should at least be evaluated to see if they merit preservation. Our main focus lies in the H-buurt in Amsterdam, built in the 1980's, part of the Bijlmermeer area. The Bijlmer has a poor reputation in the Netherlands. A post war expansion neighbourhood, plagued by social issues in the perception of the public.

This research plan describes the collective and individual research that was done in and around the H-buurt. The lessons learnt in developing these methods, as well as the results they yielded, are further developed in a strategy for (re)designing these parts of our urban fabric.

## 1.2 *Problem statement*

Affordability is the key driver in sustainable (re)development for social housing. In the context of social housing, this term encompasses three fields that need to be addressed in the future: ecology, economy and social cohesion.

The ecological problems society faces are clear. The effects of climate change will have major implications on communities. The challenges are not only related to sea levels rising, but also to bio-diversity, food supply, liveability in cities or energy availability. In the context of social housing the last factor is especially relevant. Dwellings with poor isolation rack up substantial energy bills, which can lead to energy poverty. Low income households spending a large part of that income on their energy needs.

This impacts peoples economic situation. Instead of being able to build capital, income is spent on monthly bills. The home becomes an enemy in the process of empowerment.

Last, the Urban Land Institute defines social cohesion as "*A sustainable community is*

*a holistic entity like an ecosystem, balancing environmental, social and economic imperatives. (...) A community that fosters a healthy relationship between people and nature.”*

From this definition a from social cohesion to themes as social capital, social growth and place attachment is made (Sanders, 2010).

### 1.3 Research questions

From this problem statement I suggest the following research question;

*How can ecological, economic and social factors improve affordability in 1980's public housing?*

Since we are dealing with architecture, this leads to further questions on how to design for this. When can architecture influence affordability in social housing? Where can design impact the three themes that influence affordability? How can heritage values be safeguarded in this process? And on a more personal note, when do heritage values become valid input for a (re)design? As Olgiati & Breitschmid (2019) put it,

*“In our extremely unrelated, heterogeneous, polyvalent, unconventional, informal, decentralized, and spread-out world, which is increasingly freed of ideologies, how can we design, or again, project buildings that possess a general validity and common value, beyond the particular meaning they might have for a private individual?”* (p. 21)

Apart from these theoretical problems we also need information on our case study, the H-Buurt.

### 1.4 Research structure

This research consists of two parts; it starts with collective work to define the cultural values and attributes present in residential Post-65 neighbourhoods. First, a pilot in Almere Haven was done to develop a set of research methods. These methods are then implemented in more extensive research into the H-Buurt. From this we can derive an overview of the cultural values that are present.

These findings will be used to formulate a personal design strategy.

As the studio progresses, the balance between research and design shifts. Design comes in later in the process. In this phase, during Q3, research and design supplement each other.

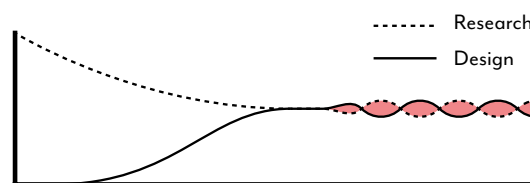


Figure 2. Research & Design

## 2. Collective research

Structure - Almere Haven - H-Buurt - Scenario's.

### 2.1 Structure

What do people value, and why do people value certain things in the built environment? To answer this question, the studio's collective research focusses on defining methods to explore these questions. As mentioned earlier, Almere Haven was used as a testing ground. The area, located in the south part of Almere, was built around the same time as the H-Buurt. Additionally, it served as an introduction to Post-65 neighbourhoods. The scheme below describes the workflow from pilot research to the individual design process.

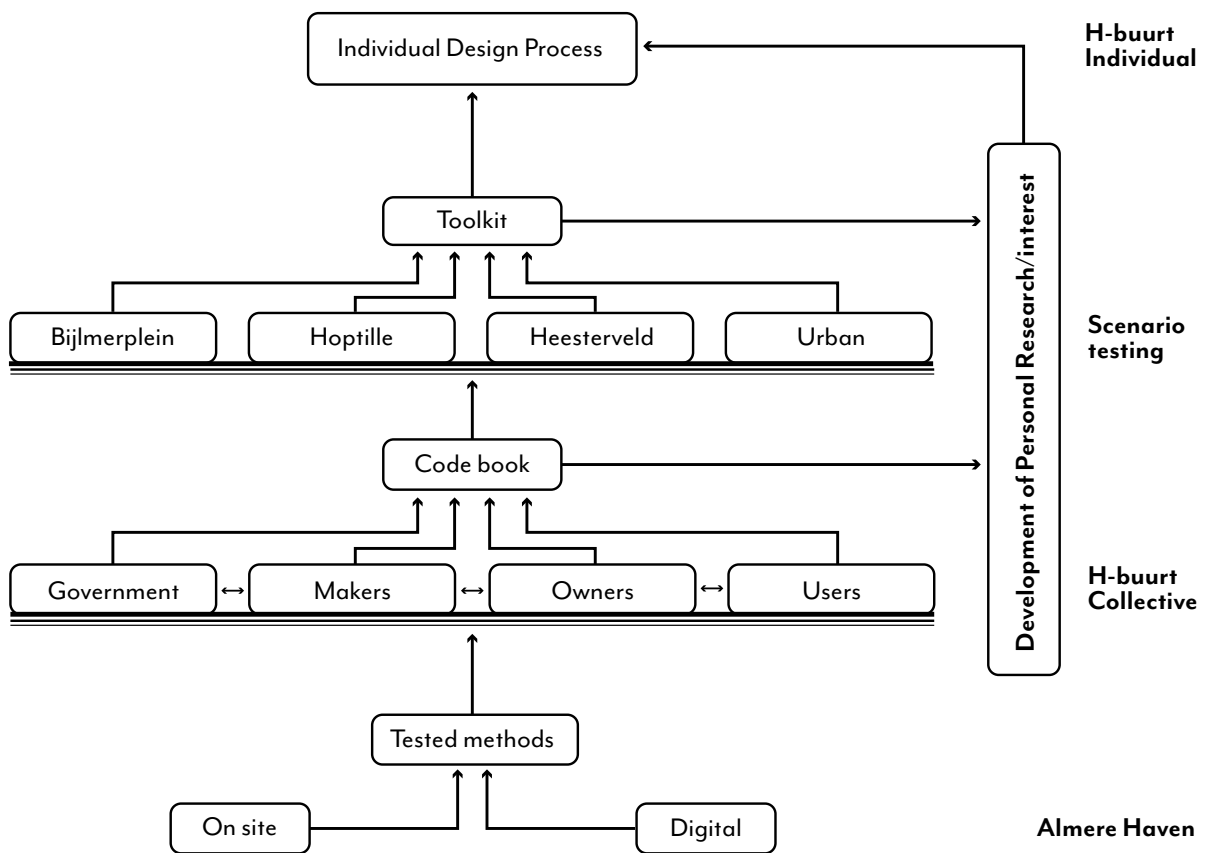


Figure 3. Studio workflow

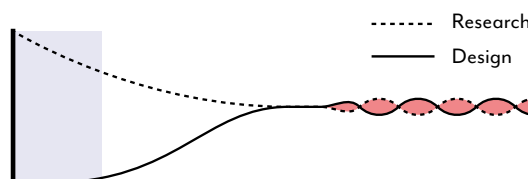


Figure 4. Research & Design, phase 1



## 2.2 *Almere Haven*

The goal of the pilot research in Almere Haven was to test and evaluate a set of research methods that could be used to study the main research topic, the H-Buurt. For this, two main strategies were tested; on site research and digital research.

### 2.2.1 *On site methods*

The on site research focused on gaining insight in a neighbourhood by fieldwork. To this end the following methods were tested:

- Open conversation
- Drawing
- Photo elicitation
- Questionnaire

Having an open conversation and letting people draw their experience provides a broad set of information. Although it does not always lead to measurable, comparable results, it does give the researcher an overview of what is going on in the area. Drawing has a similar openness to it. Respondents are asked to draw what is important to them, there are no further restrictions.

Using photo elicitation and a questionnaire is a much more rigid method of gathering information, making the results comparable. In photo elicitation the selection of images that respondents are shown is key. The aesthetics, style and subject of the image all influence the perception of that image. It should also be made clear that it is the contents of the image that matters, not the image itself.

After testing the following order was recommended for future use of these methods:

1. Questionnaire
2. Photo elicitation
3. Drawing
4. Open conversation

A questionnaire can be both open and specific, depending on what kind of questions are asked. This method is effective in getting answers on the information you want to obtain. It is an effective method if the aim is to compare outcomes. Photo elicitation provides clear and direct outcomes without the need for interpretation by the interviewer. Drawing is interesting because of the possibility of varying outcomes, but the results can be difficult to compare. Open conversation provides a wide range of results. These need to be interpreted and coded to make it possible to make the data comparable. This coding process will be elaborated on later.

### 2.2.2 *Digital*

The digital pilot research focussed on social media analysis and historical research. In the end this was synthesized into a narrative about the past, present and future of the neighbourhood.

#### *Mapping*

The raw data from social media was processed through several methods of mapping.

The produced maps reflect data collected from three main sources; Facebook, Instagram and Flickr. In the overview maps the reader can quickly see where the focus is and what areas of Almere are talked about. They can be used as a first interpretation of the public opinion through social media as they represent roughly 130 attributes, 338 pictures mentioned and numerous tags, which were collected in a week's time.

These heat maps really show where the most activity takes place and where most photos are being taken. This is really a quantitative study, in combination with the tag maps it really tells a lot of information. The information in the tag maps is more qualitative and tells more about the attributes at that specific location.

### *Sankey diagram*

The Sankey diagram connects all research methods and combines the different sources, like Facebook, Instagram, housing corporations and the data from the government. In this way, this method is suitable for social media research, because the several media can be combined in this method and the shared values become clear.

It is however a diagram with a lot of information and it can be a bit hard to interpret. It also shows a lot of different attributes, which makes it a bit hard to read the diagram, the values are kept very essential and minimal. These values can be read easily and it is clear the social and the aesthetic values are most important for both parties, the public and the authority.

The diagram also indicates which parts do not correspond yet, this is only 14 percent in this case. This method could be used in future research, however there need to be a few adjustments, like making the diagram more readable and minimizing the attribute types.

### *Comparison study*

Looking at the past vision offers us insight into the original ideas of a city, an envisioned character. This past vision can differ from the present state. Therefore, a comparison of the society's perception of the current condition of the city and the past vision can show us both the appreciation of the authority's vision and a possible mismatch between concept and reality.

Additionally, every city has a future plan (again, a vision), which can be in line with the present development or it can differ. An overall comparison between past vision, present perception and future vision can offer a strong view on what citizens really value and what to improve. The tricky part of this study is to find comparable attributes (content). It is not recommended to compare i.e. the character of buildings with the greenery of the city.

This method, like many others as well, is more informative, if more input data can be gathered. This study is meant to focus more on the governmental approaches of a city than on an individual evaluation. It can guide the authorities through the next steps of city planning.

## 2.3 *H-Buurt research*

The methods that were selected after the pilot research in Almere Haven are used to create a codebook and design toolkit. First I will give an overview of the research that was done to come to these products.

The research in the H-Buurt was divided per stakeholder. The perspectives of the government, makers, owners and users were selected, to be able to create a comprehensive overview of the values that are present in the area. Each of these groups took a slightly differed approach, so I will only elaborate on the government group's methods. The results of the makers, owners and users are represented in the codebook and design toolkit that is presented at the end of this chapter.

### 2.3.1 *Government perspective*

The investigation into the government's perspective was comprised of three lines of research.

First of all, the demographics of the area were studied, in relation to key events from the past. This provides us with basic information on the demographic composition of the H-Buurt. Additionally, it shows why the demographics are what they are.

Additionally, an analyses of the policies and visions the municipality puts out was done. These future plans give an indication of values that the authorities want to protect, but also what challenges have to be dealt with. The assumption here is that a challenge represents a value that is not currently present, but will be at a later stage.

Last, interviews with representatives from the municipality provided us with further information on the vision the city of Amsterdam had for the H-Buurt. Especially interesting was the conversation with the area manager, who is the interface between the municipality and the inhabitants. His response gives valuable insight on the attributes inhabitants of the area attach value to, through the lens of the government.

These interviews consisted of an open conversation about the area, and a set of photos. Following the methodology of Hennink, Hutter & Bailey (2020), an interview guide was used to frame the first half of the conversation. The interview guide provided a flexible set of topics to touch on, to gather general information and get the interview going.

In the second half of the interview the respondent was shown the five pre-selected photos. The responses to the photos were coded, and compared to the other stakeholders.

### Coding

The coding process followed a fixed method, using the software of Atlas.ti. Transcripts from the interviews were tagged using cultural values, derived from Silva & Roders (2012), and attributes, derived from Brand (1994).

VALUES					
ECOLOGICAL	SOCIAL	ECONOMIC	AESTHETICAL	HISTORICAL	POLITICAL
<b>Environmental</b> Architectural Urban	<b>Communal</b> <b>Community</b> <b>Ethical</b>	<b>Use</b> <b>Non-use</b> <b>No-use</b>	<b>Architectural</b> <b>Urban</b> <b>Materiality</b>	<b>Commerative</b>	<b>Management</b> Strategy <b>Educational</b> <b>Symbolic</b> <b>Entertainment</b>
<b>Resilience</b>	<b>Resilience</b> <b>Identity</b> Individual Communal <b>Age</b> Nostalgic	<b>Entertainment</b>			

ATTRIBUTES					
TANGIBLE			INTANGIBLE		
<b>Site</b>	<b>Surface</b>	<b>Typology</b>	<b>Story</b>	<b>Vision</b>	
<b>Surroundings</b>	<b>Amenities</b>	<b>Space</b>	<b>Social</b>	<b>Atmosphere</b>	
<b>Stuff</b>	<b>Scale</b>		<b>Services</b>	<b>Past/present/future</b>	

Figure 5. Values & Attributes

Rather than just identifying a certain value, like ‘social’ or ‘economic’, a value statement was attached to the code. For instance, an ‘abundance of benches’, related to social value. Doing this enables us not only to keep track of the cultural values that are indicated, but also what the status of the attribute that holds a value is. This information is key for comparing values among stakeholders, and informs design strategy later on.

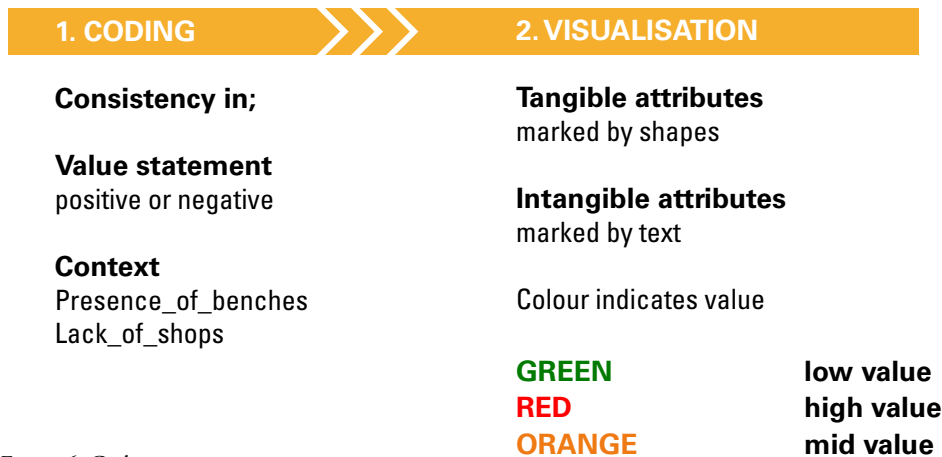


Figure 6. Coding process

These codes could then be represented in a Value-Attribute matrix per photo, showing which values relate to certain attributes. These matrices are compared between stakeholders. From the combined matrices, overlaps and conflicts emerge. This allowed us to define a list of relevant themes for the H-Buurt, being;

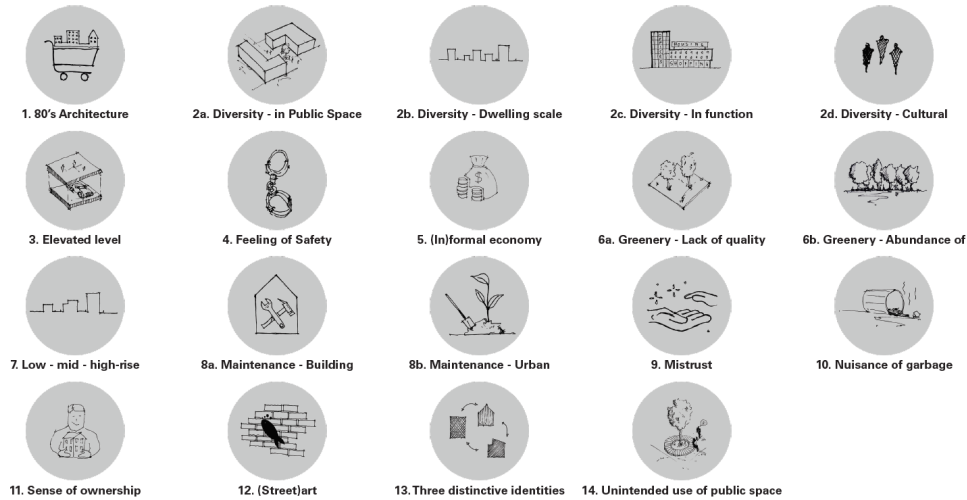


Figure 7. Themes H-Buurt

All results from the research on the area were compiled into a report. In the conclusion each theme is addressed per stakeholder. This not only tells what values and attributes we should pay attention when we start designing, but also by what stakeholder this value is perceived.

## 2.4 Scenarios

Now, we move from exclusively doing research, to bringing in design to further the research. What is the effect of design interventions on the present values? To test this, a possible future scenario is proposed, and evaluated in terms of the impact it has on the cultural and heritage values.

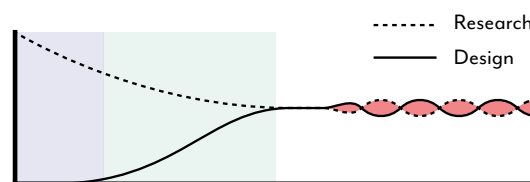


Figure 8. Research & Design, phase 2

Based of the themes that were determined by collective research scenario's were developed in four groups; *socio-spatial*, *densification-economic*, *safety-function* and *identity*. Again, these groups followed slightly different methods, so I will elaborate on the topic of densification-economic.

#### *2.4.1 Densification & Economics*

The scenarios relating to densification and economics all stem from ‘What if?’ questions. These questions are translated into a design intervention, and projected onto our three specific areas within the H-Buurt; Bijlmerplein, Hoptille or Heesterveld. As for economic scenarios, it does not make much sense to relate them to one urban block. These will be tested against the whole off the H-Buurt.

In the initial brainstorm sessions anything goes. Later on, a benchmark was determined that the scenario should achieve. For instance, when densifying an area, the proposal should achieve a 200% increase in floorspace. From the complete list of initial ideas five were further developed; two economic strategies for the H-Buurt at large, and a densification strategy for Bijlmerplein, Hoptille and Heesterveld.

The goal of this process is to gain insight on the impact of certain scenarios on the value of an object, an impact assessment. From the collective research we have data on the current situation, the base. Now we take the strategies we development on densification and economics, and apply those on that base. This tells us what might happen, and we can determine the chance of that happening. From this we get to the impact assessment.

#### *2.4.2 Impact assessment*

To assess the impact of the scenarios we not only look at the cultural values defined by Silva & Roders (2012), but also the heritage values Brand (1994) and Riegl (1903) defined. These heritage values relate much more to the object. For this assessment we do not focus on whether or not an object should have these values, but only what the impact of our scenario is on them. Whether or not an object should retain for instance its age value is a question for later design stages.

The impact of a scenario is assessed in terms of both the risks and benefits it could have, on a scale from slight to extreme (source risks). Furthermore, the chance of the impact actually taking place is ranked from extremely unlikely to very likely. So, an intervention might have an extreme impact, but is also extremely unlikely to happen.

With this information in hand it is possible to judge the impact of the scenarios on the existing values. Assessing impacts through this method is not an exact science, but relies on our own “expert” judgement as designers. These judgements become more and more refined through discussion, which is an obvious limitation in times of a global pandemic.

The result of this process is a rich collection of scenarios, touching on all the themes that are relevant to our case study, the H-Buurt. This body of knowledge can be seen as a toolkit. The scenarios are not meant to be a starting point for the final design, but as a selection of tools to pick and choose from.

Now begins the start of the individual design process, or rather, research by design process. The research done in the first quarter of this year provides a general exploration of area, and some insight on the present values. Now it must become more specific, so in the next chapter I will elaborate on my approach going forward.

### 3. Individual research

Affordability & Value - Value in modern society & theoretical framework -

Goal.

*Heesterveld – In gelul kun je niet wonen*

As stated in the introduction, I see affordability as the driver in sustainable (re)development of public housing. So, the question is, what is affordability, and how can it be achieved through architectural means? The following chapter is an elaboration on the problem statement from the introduction, taking into account the findings of the collective research.

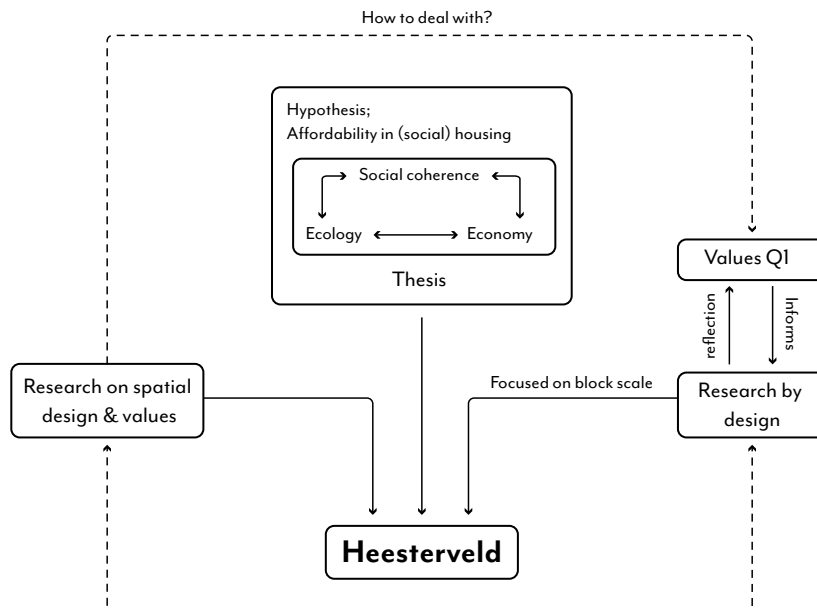


Figure 9. Individual framework

#### 3.1 Affordability & Value

Affordability primarily relates to the financial implications of getting access to a product, in this case housing. It is a balance. How much we have left over after a purchase often determines how affordable something is (Robinson, Scobie, Hallinan, 2006). It is also a matter of comfort, as opposed to the bare necessities. In the lower strata of housing, public housing, the quality of the home should not be the bare minimum.

Especially in older public housing, tenants face additional costs due to poor isolation. The shifted balance in cost and quality makes the home unaffordable.

Jan Schaefer's provoking statement "In gelul kun je niet wonen" leads to the design challenge at hand. What are the aspects of public housing designers can

influence to improve affordability? I propose the fields of ecology, economy and social cohesion as the key components of this problem. Economics relate to costs, ecology and social cohesion to quality.

These themes can either inform a design decision or be a criterium for designing. Additionally, the cultural values identified serve as a reference point in the design process. With these values it is clear what to do. Present values should be preserved, non-present values should be added. Here cultural values differ from heritage values.

Heritage values exist in a force field, the extent to which they are or should be present is up to the designer. In *The modern cult of monuments* (1903) Alois Riegl separates them in two categories; commemorative and present-day values. He spoke of a 'cult', indicating that "the appreciation of the historic fabric was like a secular veneration of the historic buildings as if they were sacred relics of the past." (Kuipers, de Jonge, 2017). The value ascribed to a building was no longer informed by a religious belief. Society itself was now the framework that guides appreciation.

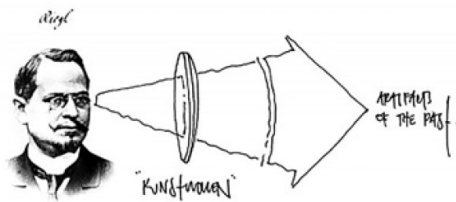


Figure 10. Riegl's lens of 'Kunstwollen'

COMMEMORATIVE VALUES	PRESENT DAY VALUES
Age value	Use value
Historical value	Art value
Intentional commemorative value	a. Newness value b. Relative aesthetical ('art') value.

Figure 11. Heritage values

Riegl goes on to relate this new framework to emotional attachments. For instance, as the aging process of a building follows its natural course, the human mind is sensitive to this. Age value transcends differences in education, social standing or economic differences, because we all age and can relate to that process. Riegl places newness value squarely opposed to that. It represents mankind's triumph over the forces of nature.

This interpretation of what is old (aged) and what is new could relate to the way we deal with our natural environment. Humans have in the past 200 years remade the natural to point that parts of it will become uninhabitable. Being new effectively means being frozen in time. Either it is the perfect state of a newly made object, or the removal of signs of decay. As our environment consists of cycles and processes, any new object is an obstacle. Two things can happen; the obstacle is destroyed, or the natural cycles are changed by it. Getting rid of newness value would add flexibility to the things we produce.

The previous paragraph illustrates how heritage values can be applied to modern problems, to come to strategies for design, beyond the scope of the building.

### 3.2 Value in modern society & theoretical framework

Riegl already in 1903 signals the declining importance of religion in providing a framework for common value. This process has gone on in the past 100 years, so we might ask ourselves, where can we now find common value? This is not something I intend to address in the design, but to serve as an informant in the design process.



The main question remains:

*How can ecological, economic and social factors improve affordability in 80's public housing?*

The theoretical framework for dealing with this questions consists of two parts. For ecology, Urgenda, the Club of Rome and the UN provide information on the urgency of the issue and roadmaps for future developments. Urgenda specifically for the Netherlands, outlining what needs to happen up to 2030 to transition to 100% renewable energy. In the chapter "Anders wonen" of Rapport 2030 (2020), four parameters are set for the built environment.

On economy the main question is, who pays the bill? In the end it is always the tenant. Data on the demographics of the H-Buurt from the collective research gives an overview of the current state. The intention of the municipality is to bring in higher income groups, so it is important to know what effect this would have on the area, i.e. gentrification. Tim Butler (2007) argues that where gentrification originally related to inner city areas that became available after deindustrialization in the 1960's, but that its focus has turned elsewhere.

Social factors tie into these processes, as it relates to a sense of place and belonging. Previous gentrification processes have pushed out original inhabitants, either physically or socially. Sanders (2010) frames the sense of belonging and investment a person has in relation to themes like social capital, social growth and place attachment. Richard Sennet's separation of the Ville and the Cité (2018) builds on this framework. Separating the closed, hard city from the atmosphere and open human activity that inhabits it. The Ville is a fixed framework a designer can directly influence, what happens after that is anyone's guess. The cultural values discovered in the collective research on the H-Buurt provide information on the Cité of the area.

These three themes and their respective lines of research inform the 'quality' aspect in the 'quality-cost' balance of affordability. When designing, Heesterveld is a case study for bringing in that quality. Complicating the design process is the question whether Heesterveld is heritage and should be treated as such. At least we know what should be improved in terms of sustainability and social cohesion.

But what parts of the current situation should be preserved, if any? To answer this, we can bring in the data gathered in the impact assessments and Riegl's heritage values. Stewart Brand's shearing layers are useful to determine to urgency of preservation or adaption. Each layer has a different lifespan, the stuff in a building is continually changing, the structure might last for a century. Traces of damage on the structure are a much more urgent problem than decay of the façade.

An additional approach when assessing the current state of Heesterveld is the practice of 'making strange'. Seemingly ordinary traces of decay/use could prove to be signifiers of larger processes that define the building. A wear mark on a door, the objects people place by their front doors, the new coat of paint on a window frame, might be unintended monuments, indicating the human behaviour a the building facilitates. It works as system, with often unintended consequences. Christopher Alexander (1965)

describes this on an urban level, where seemingly unrelated objects form an unintentional system.

*“in Berkeley at the corner of Hearst and Euclid, there is a drugstore, and outside the drugstore a traffic light. In the entrance to the drugstore there is a newsrack where the day’s papers are displayed. When the light is red, people who are waiting to cross the street stand idly by the light; and since they have nothing to do, they look at the papers displayed on the newsrack which they can see from where they stand. Some of them just read the headlines, others actually buy a paper while they wait.*

*This effect makes the newsrack and the traffic light interactive; the newsrack, the newspapers on it, the money going from people’s pockets to the dime slot, the people who stop at the light and read papers, the traffic light, the electric impulses which make the lights change, and the sidewalk which the people stand on form a system - they all work together.” (p. 2)*

These systems can also be found on the building scale. For example, the apartment block I live in has a small bench near the elevator. Meant for catching your breath while you wait, it is also used to exchange second hand goods. Coffee mugs, children’s clothes and books find a new home through this unmanned thrift shop.

### 3.3 Goal

The previous paragraphs describe the theoretical framework for now. But what does this lead to? Taking Heesterveld as a case study for 1980’s social housing, the next step is to identify the heritage values that it might hold. The cultural values, and attributes that hold them, have already been investigated thoroughly in the collective research. Then I can bring in the knowledge from my individual research and start formulating a future program for the buildings.

So, values are informants of design interventions. Ecology, economics and social factors form the theoretical basis to improve affordability, they are what any design intervention is weighed against. For instance, using parameters from Urgenda (2020), to set benchmarks in terms of sustainability. One aspect of this studio research has become a bit obscured; the question whether a building like Heesterveld should be considered heritage. Further analysis of heritage values is needed to come to a conclusion on this.

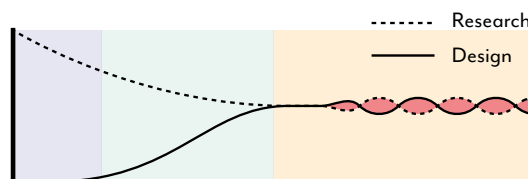


Figure 12. Research & Design phase 3

# Affordability

In terms of economy, ecology and social factors.

## Scale

These three terms are not singular issues, they overlap each other. Together, they inform us on how to come to an affordable solution. So, we have to define several things. First off all; what is affordability? The term in itself is vague. It could pertain to multiple scales. Geographically, in this studio we focus on the neighbourhood and the building block scale. The entire city is too complex and fluid to discuss in short, the individual dwelling is too specific and context related.

## Scope

Focussing on affordability within the neighbourhood, the H-Buurt, and the building block, Heesterveld, serves our purpose well. I will elaborate on the terms that inform the affordability of an object on these scales. These observations are used to set up parameters that a design proposal can be weighed against.

Additionally, I think it is valuable to look at affordability in a slightly broader context. This serves two purposes; to express the urgency of the theme and to elaborate on phenomena that transcend the architectural object.

{ *Food supply, Bio-diversity, Climate change, Energy poverty, Energy cost, Financial stress, Housing shortage, Gentrification, Class inequality, Safety, Community tension, Social cohesion* }

## What does it mean to be affordable?

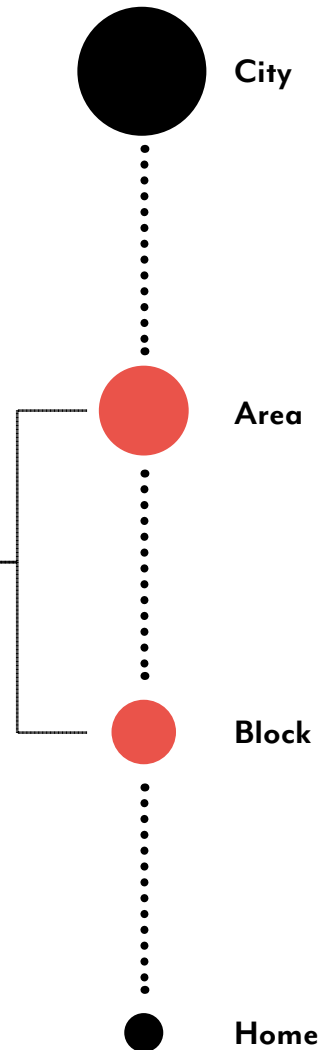
At P2 I presented affordability as a balance in cost and quality. This does not tell us when something is affordable. To narrow this down the following definitions might be usefull;

*“Securing some given standard of housing at a price or a rent which does not impose, in the eyes some third party, an unreasonable burden on household income.” (MacLennan and Williams, 1990, p . 9)*

*“Households should be able to occupy housing that meets well-established norm of adequacy at a net rent which leaves them with enough income to live on without falling below some poverty standard.” (Bramley, 1990b, p . 16)*

Both definitions leave room for an individuals consumption of non-housing goods. As Hancock (1991) summarizes, the notion of oppurtunity cost is key. What had to be foregone to obtain housing? If this imposes an “unreasonable burden”, the housing is not affordable.

Hancock also provides a usefull way to visualize to affordability of housing. These graphs show to relationship in non-housing and housing consumption. By replacing the non-housing consumption with factors like environmental impact these graphs become usefull to visualize the (un)affordability of these subjects.



## Affordability in graphics

Figure 1 shows to base scheme Hancock uses to represent the relation in consumption of non-housing and housing goods.

$Y^*$  is the minimum of non-housing goods a household should be able to consume.  $H^*$  the minimum of housing goods. If a household falls in area A their situation is unaffordable by any standard. Area D and C are ambiguous, either non-housing or housing consumption is below reasonable standards. Area B is affordable.

Figure 2 represents the income of a household that is able to consume  $Y^*$  and  $H^*$ . Any point below this line represents a household in an unaffordable situation.

This also follows for the burden a household places on, for instance, the environment. In this case  $Y^*$  is the income needed to offset the impact on the climate; heating cost, renewable energy sources, access to public transport.

I am not sure if the two scales can be separated entirely. When determining  $Y^*$  and  $H^*$ , improving the thermal quality of a home might relate to both factors.

In any case, this method is usefull because it determines what is *unaffordable*, rather than what is *affordable*.

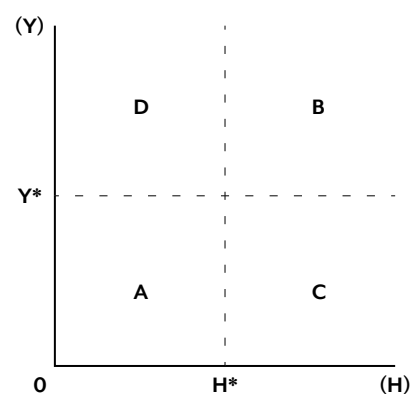


Figure 1

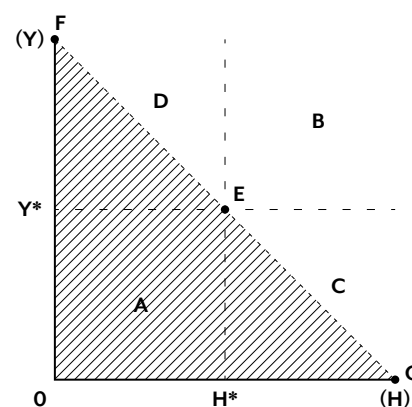


Figure 2

# Heesterveld - In gelul kan je niet wonen

A case for affordability in 1980's Dutch housing



Walk-up entrance at Heesterveld, Beeldbank Amsterdam

**Thijs Blom** / 4476425

**Studio** / New Heritage

**Tutors** / Uta Pottgieser (Arch.) & Ger Warries (BT)

May 19th, 2021

# Contents

## **Intro**

Heesterveld

New Heritage

## **Research**

Cultural value

Heritage value

Affordability

## **Design**

Building analysis

## **Design principles**

Life on the ground

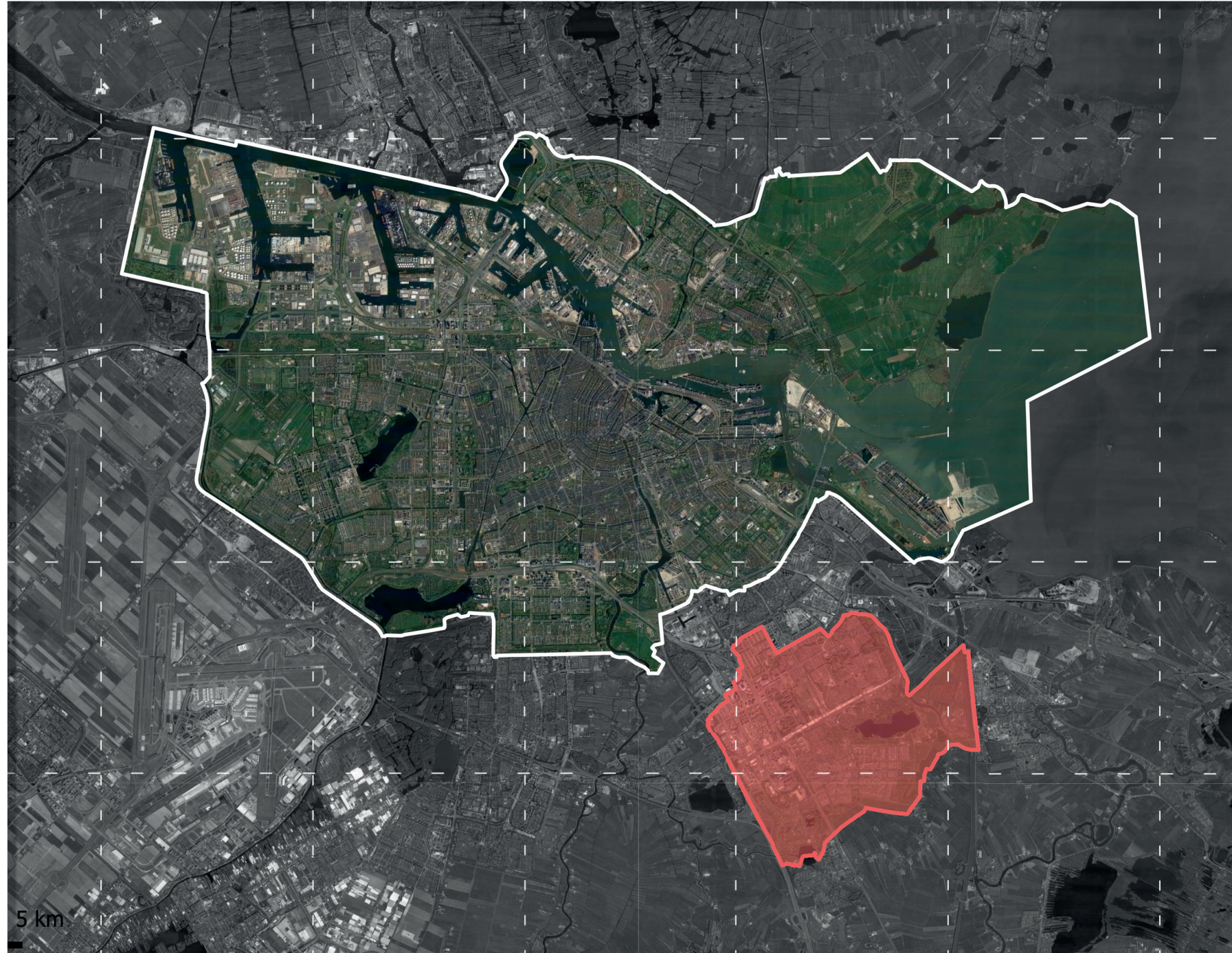
Life in between

Life on top

## **Reflection**

# Intro

## Heesterveld / Amsterdam



Municipality of Amsterdam / 1:200.000, Bijlmermeer in red

# Intro

## Heesterveld / H-Buurt

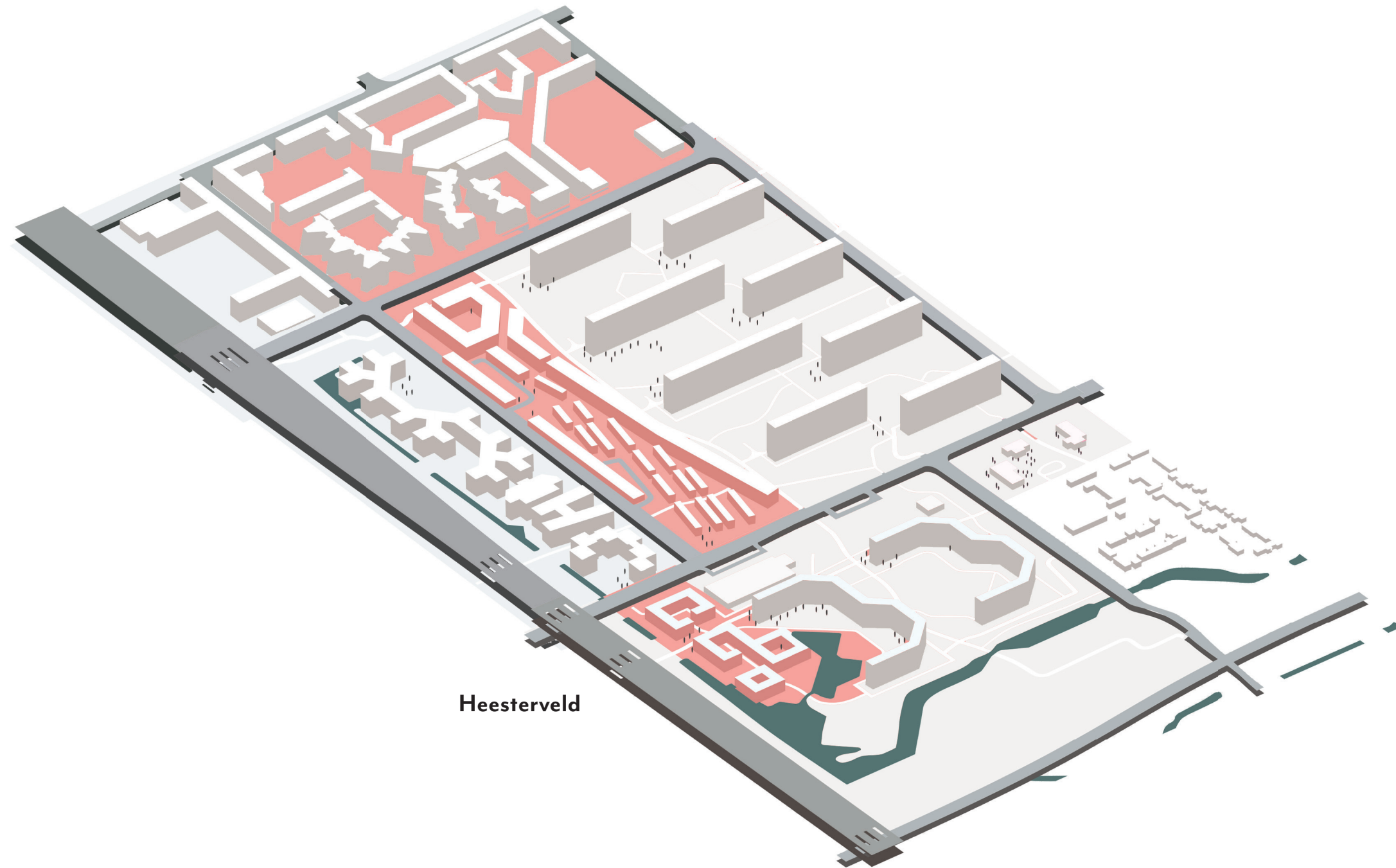


Image by Jonathan Verhoef



# Intro

## Heesterveld



**1982**  
**Frans van Gool**

Four blocks  
317 dwellings

# Intro

## New heritage

Is this heritage and to what extent does it merit preservation?



Courtyard at Heesterveld, Beeldbank Amsterdam



Courtyard at Heesterveld, Beeldbank Amsterdam

# Research

Value?

{ Cultural value  
anecdotal }

{ Heritage value  
self determined }

Cultural & Heritage value

relate to

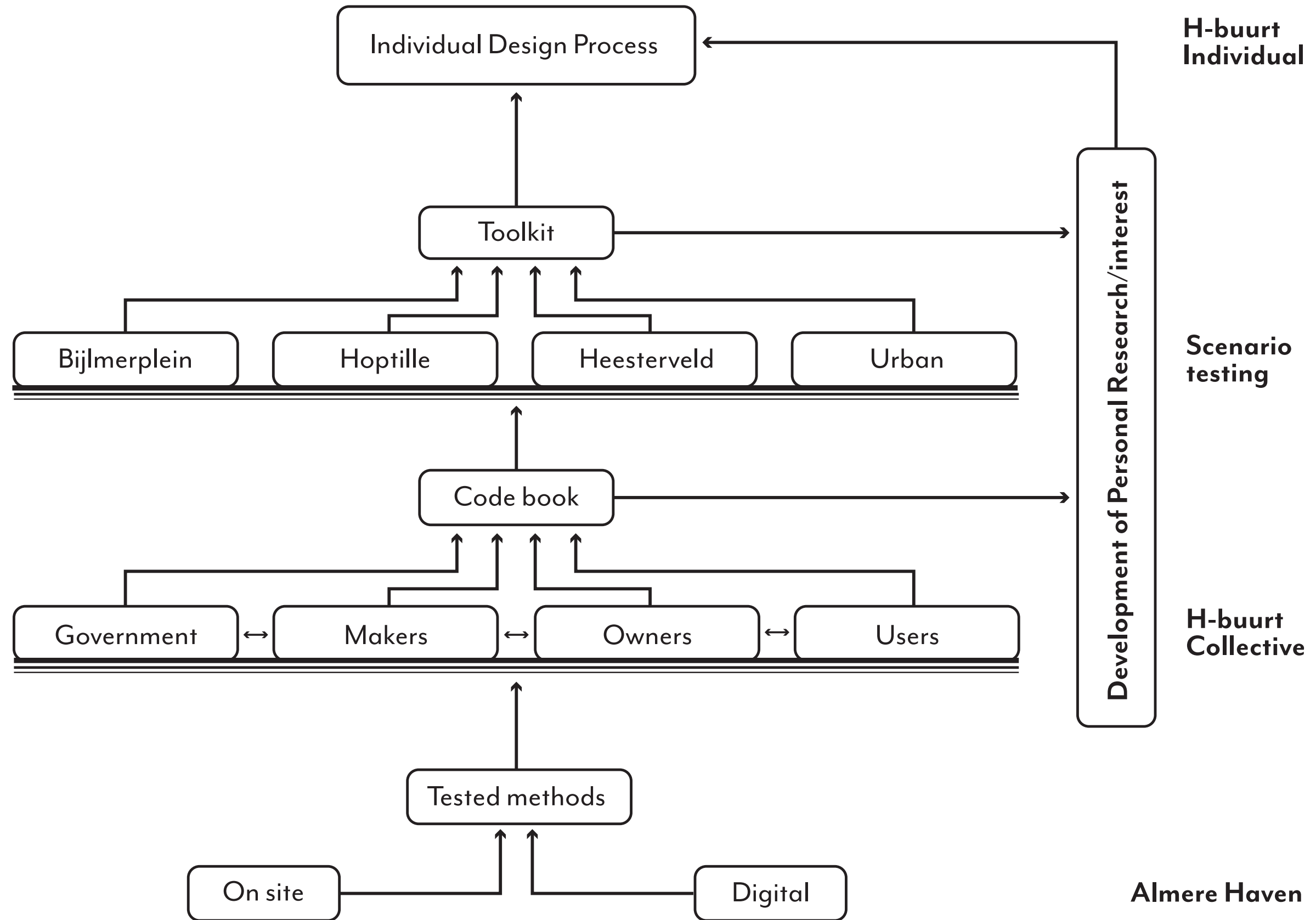
Attributes



Design interventions

# Research

## Cultural value / Methodology



# Research

## Cultural value / Fieldwork

What do you think of this image?



PHOTO 1 | BIJLMERPLEIN



PHOTO 2 | BIJLMERPLEIN

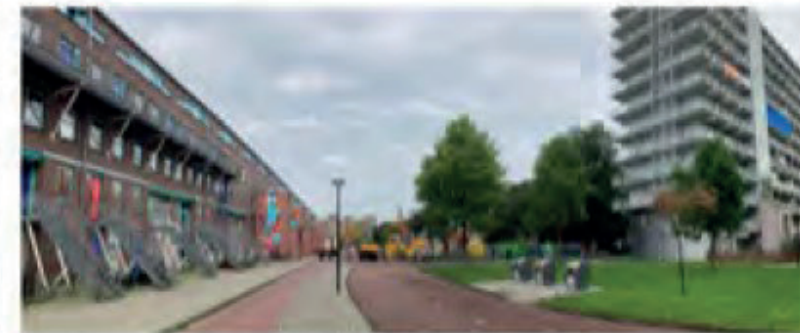


PHOTO 3 | HOPTILLE



PHOTO 4 | HOPTILLE



PHOTO 5 | HEESTERVELD

# Research

## Cultural value / Fieldwork

What do you think of this image?



PHOTO 1 | BIJLMERPLEIN



PHOTO 2 | BIJLMERPLEIN



PHOTO 3 | HOPTILLE



PHOTO 4 | HOPTILLE



PHOTO 5 | HEESTERVELD

# Research

## Cultural value



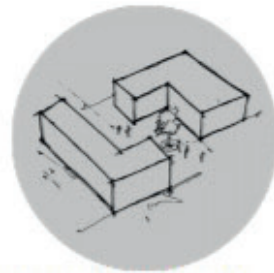
**I heard that there used to be a pig roaming around here, and that there was a guy who had a barbeque that the entire pig would fit into. It was a terrible neighbourhood, so in the end they said “we have to demolish and rebuild, then it will be better”.**

# Research

## Cultural value / Toolkit



1. 80's Architecture



2a. Diversity - in Public Space



2b. Diversity - Dwelling scale



2c. Diversity - In function



2d. Diversity - Cultural



3. Elevated level



4. Feeling of Safety



5. (In)formal economy



6a. Greenery - Lack of quality



6b. Greenery - Abundance of



7. Low - mid - high-rise



8a. Maintenance - Building



8b. Maintenance - Urban



9. Mistrust



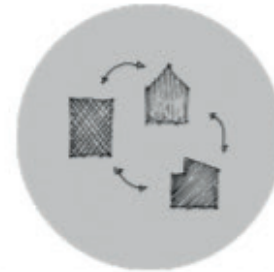
10. Nuisance of garbage



11. Sense of ownership



12. (Street)art



13. Three distinctive identities



14. Unintended use of public space

Themes H-buurt



# Research

## Heritage value / Framework

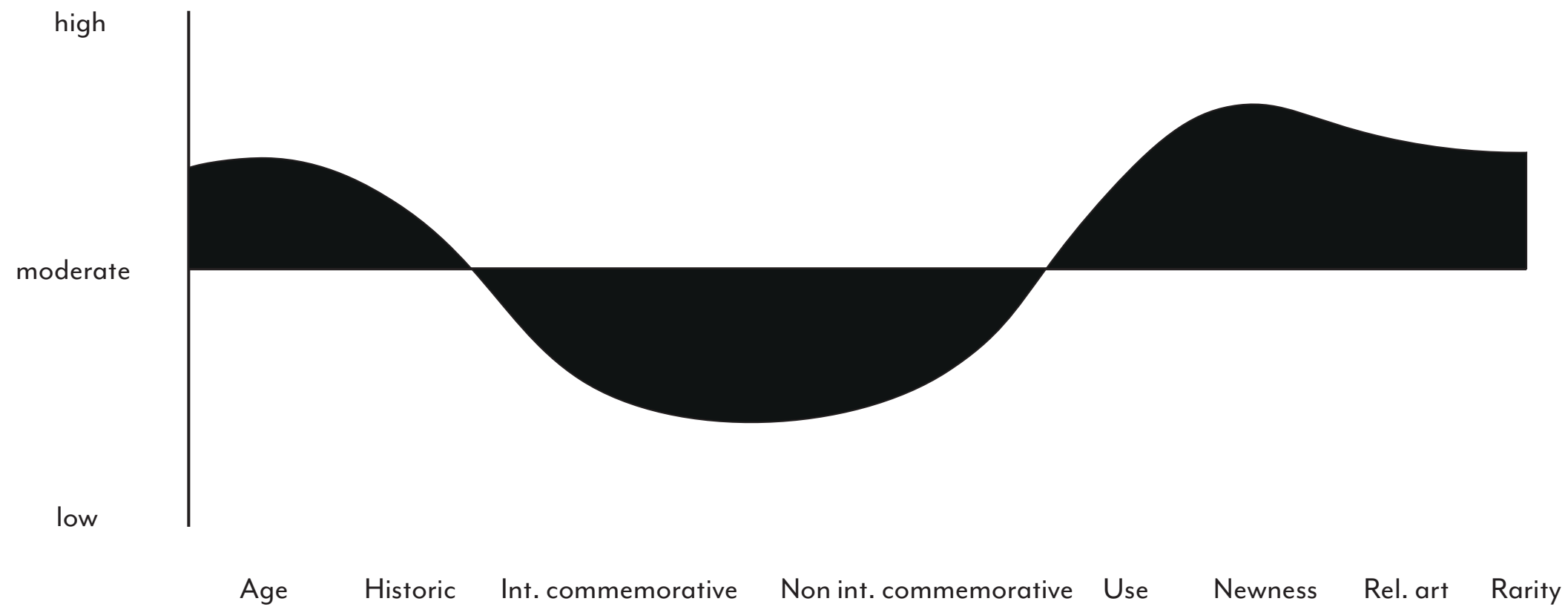
### Riegl values

### Brand layers

	Age value	Historical value	Intentional commemorative value	Non intentional commemorative value	Use value	Newness value	Relative art value	Rarity value
<b>Surroundings</b>		Anti-Bijlmer movement						
<b>Site</b>					Parking to courtyard			
<b>Skin</b>	Concrete aging	PoMo architecture Prefab façade system	Coloured façades			Coloured façades	Coloured façades	Coloured façades
<b>Structure</b>					Concrete tunnel construction			
<b>Space plan</b>								
<b>Surfaces</b>								
<b>Services</b>					Access system Shops			
<b>Stuff</b>		Window & doors			'Hijsbalk'			
<b>Spirit of place</b>			Signs creative community					

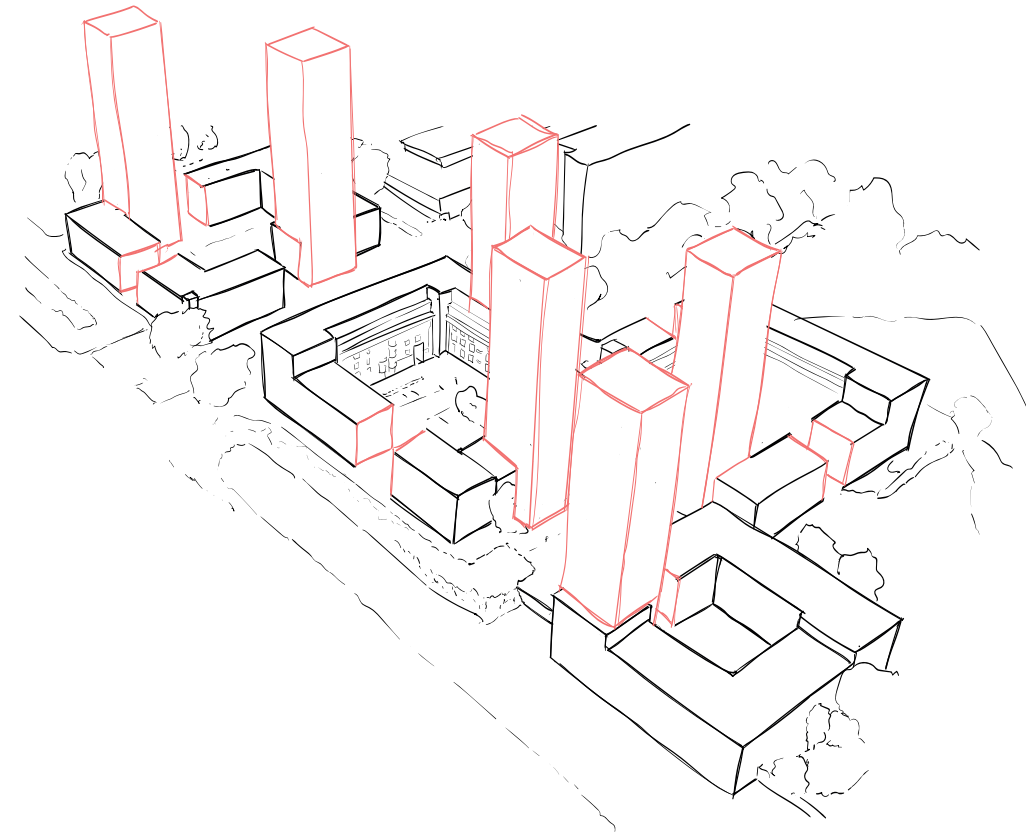
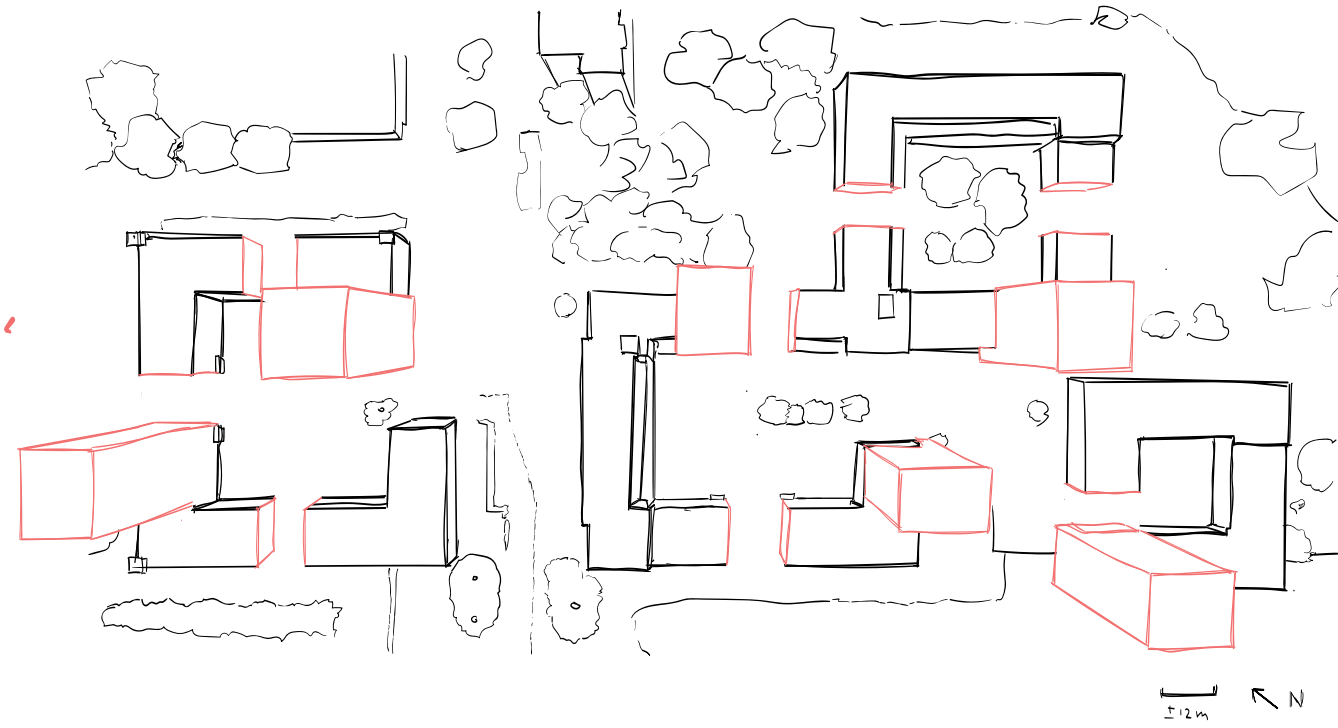
# Research

## Heritage value / Interpretation



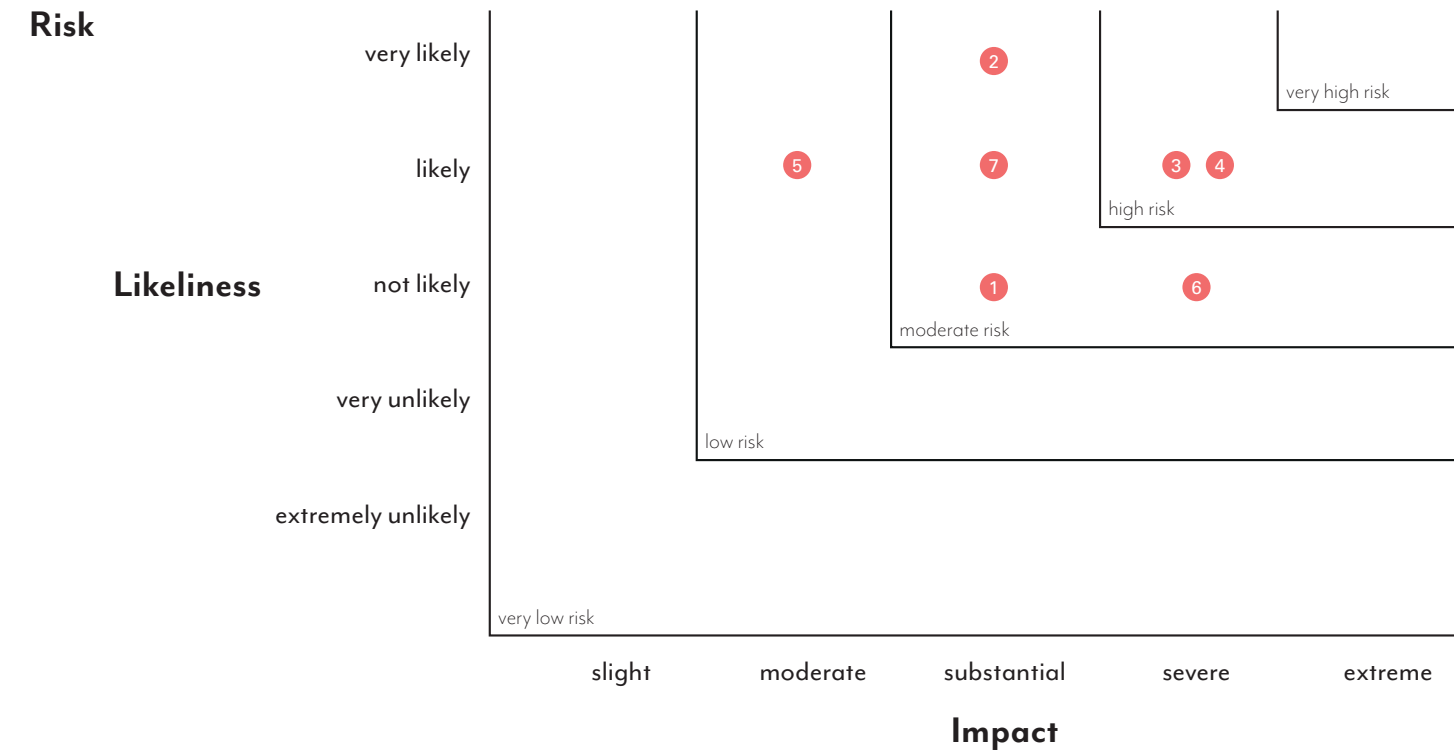
# Research

## Heritage value / Interpretation

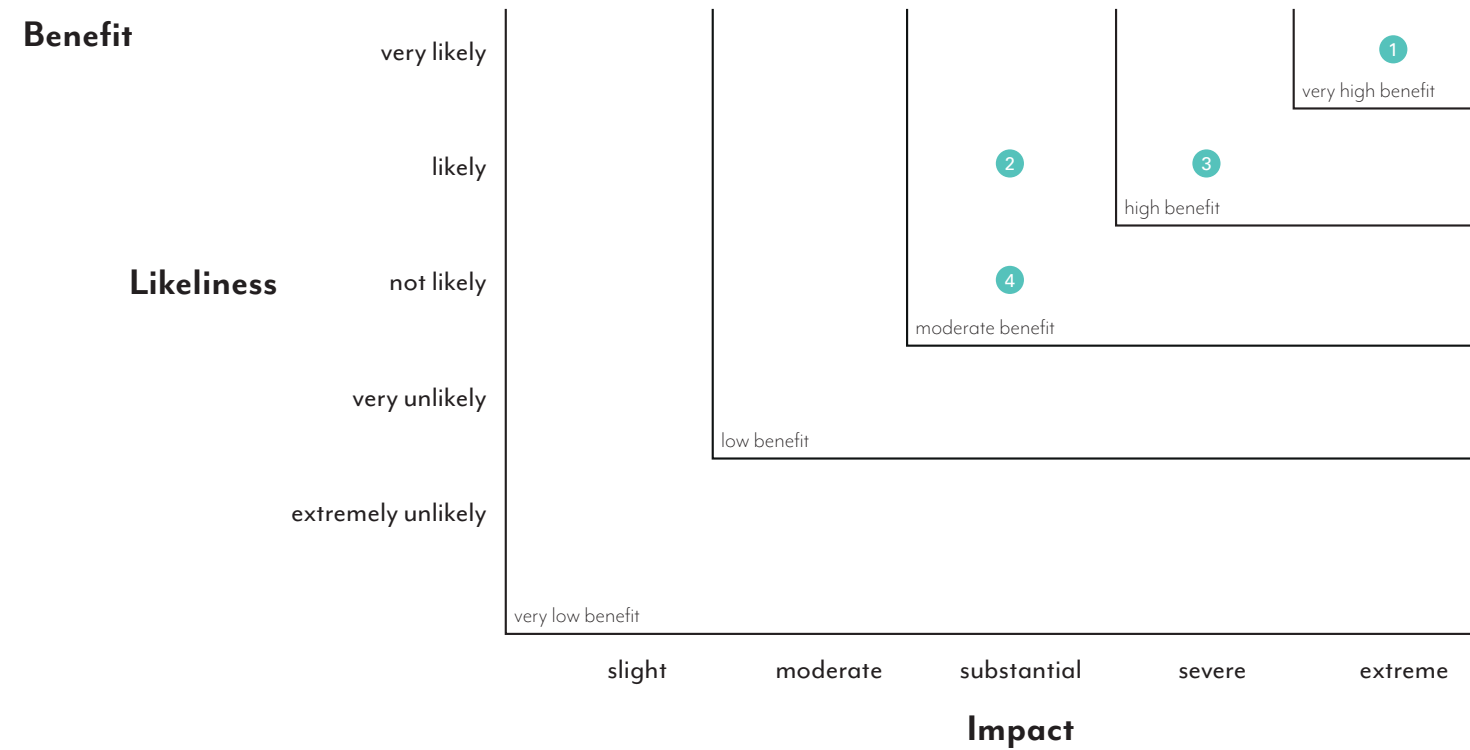


# Research

## Heritage value / Interpretation



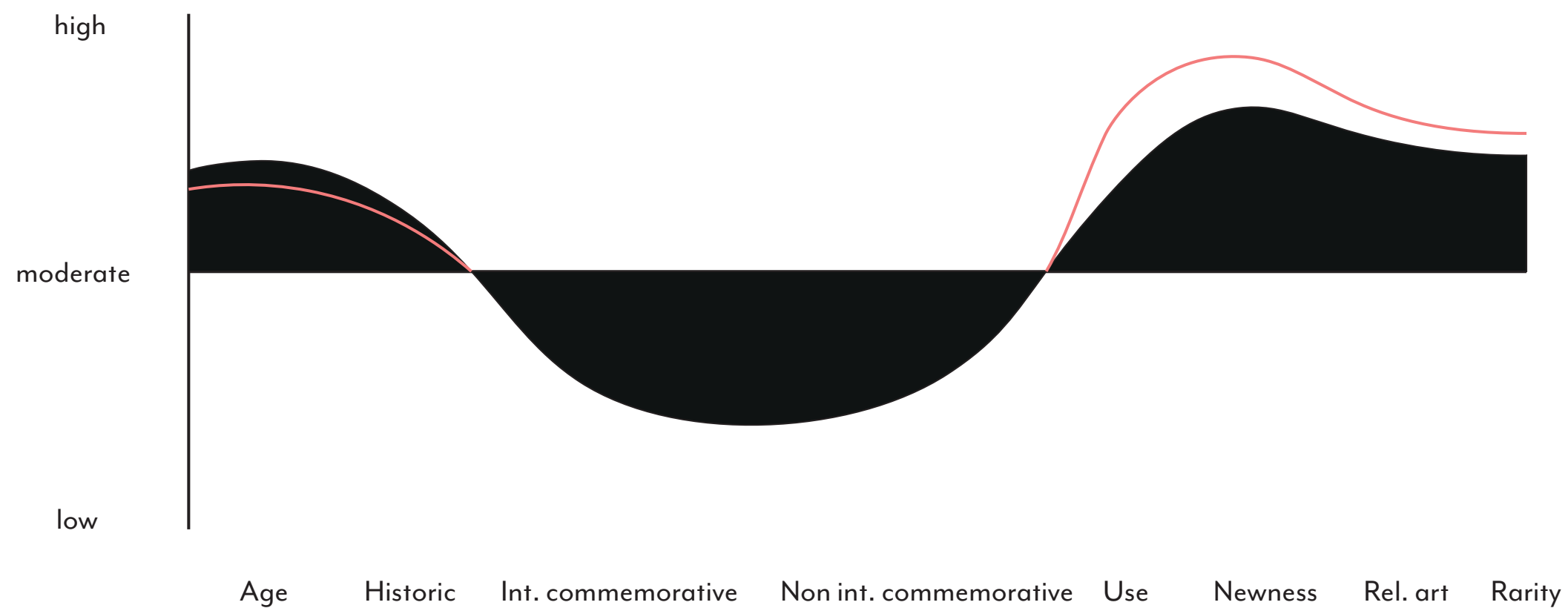
- 1 Loss of Anti-Bijlmer historical value
- 2 Change of focus point
- 3 Loss of human scale
- 4 Technical feasibility
- 5 Weakening community feeling of blocks
- 6 Addition of poorly supervisable spaces



- 1 Adding housing stock
- 1 Improved sightlines
- 1 Added diversity in dwelling types
- 1 Strengthened façade rythm

# Research

## Heritage value / Interpretation



# Research Affordability

**Affordability** is the balance in cost and quality.

=

**Economy**

**Ecology**

**Social**

Why is this the problem to solve?

# Research Affordability

## Het woningtekort dicteert hoeveel huizen erbij moeten komen. Maar hoe groot is het nu echt?

Analyse

24 augustus 2020 • Leestijd 7 - 9 minuten • [Herinner mij later](#)

Het enorme tekort van 331.000 woningen laat maar ruimte voor één conclusie: in hoog tempo woonblokken uit de grond stampen. Maar het is moeilijk te bepalen hoe groot de behoefte aan huizen precies is. En kunnen we woonruimte beter verdelen?

<https://decorrespondent.nl/11524/het-woningtekort-dicteert-hoeveel-huizen-erbij-moeten-komen-maar-hoe-groot-is-het-nu-echt/20527528340000-d2e15b45#:~:text=of%20langer%20leegstaan.,ln%202017%20hadden%20285.000%20huishoudens%20een%20woning%20nodig.,is%20het%20opgelopen%20naar%20331.000.>

## Het Parool 1911 Omroep

Plus

## Hoe professionele bendes de sociale huursector misbruiken

Professionele bendes hebben zich gestort op Amsterdamse sociale huurwoningen van Ymere. De nieuwe vorm van fraude toont aan hoe aantrekkelijk het is de sociale huursector te misbruiken.

**Ton Damen** 11 maart 2019, 10:27

<https://www.parool.nl/nieuws/hoe-professionele-bendes-de-sociale-huursector-misbruiken-b31f87e3/>

	2017	2020	2025	2030	2035	2040
	x 1.000					
Vraag van huishoudens in BAR	285	307	298	289	283	279
Vraag van nieuwe huishoudens (saldo)	64	61	47	31	16	6
<b>Totale vraag</b>	<b>349</b>	<b>368</b>	<b>345</b>	<b>320</b>	<b>299</b>	<b>285</b>
Aanbod (beschikbare leegstand > 1 jaar)	107	108	102	109	125	150
Gewenste woningvoorraad	7.928	8.136	8.408	8.608	8.725	8.789
Verwachte woningvoorraad	7.686	7.875	8.160	8.387	8.533	8.620
<b>Woningtekort</b>	<b>-242</b>	<b>-261</b>	<b>-248</b>	<b>-221</b>	<b>-192</b>	<b>-169</b>
als % van de woningvoorraad	-3,2%	-3,3%	-3,0%	-2,6%	-2,2%	-2,0%

<https://www.parool.nl/nieuws/hoe-professionele-bendes-de-sociale-huursector-misbruiken-b31f87e3/>

# Research Affordability



▲ Foto ter illustratie. © ANP

## 'Energiearmoede groeit in Nederland'

Het aantal mensen dat de energierekening niet kan betalen, dreigt te verdubbelen. Dat meldt *Trouw* op basis van een onderzoek van bureau Ecorys. Ruim 650.000 huishoudens kunnen hun maandelijkse energierekening niet of nauwelijks betalen.

<https://www.ad.nl/binnenland/energiearmoede-groeit-in-nederland-a0a345a1/>

### AGENDA VOOR NEDERLAND VOOR 2030

5x  
andere

- 1 HUISHOUDENS GAAN 65% ENERGIE BESPAREN (O.A. DOOR ISOLATIE EN ZUINIGERE APPARATEN)
- 2 KANTOREN VERBRUIKEN 70% MINDER ENERGIE
- 3 NIEUWBOUW WORDT ENERGIENEUTRAAL (VANWEGE EU-REGELGEVING 50.000 HUIZEN PER JAAR VANAF 2020)
- 4 BESTAANDE HUIZEN WORDEN ENERGIENEUTRAAL (GAS ERUIT; DE REST DUURZAAM OPWEKKEN)
  - A. OPSCHALEN VAN TIENDUIZENDEN WONINGEN PER JAAR IN 2018 NAAR RUIM 1 MILJOEN WONINGEN IN 2030
  - B. OPLEIDEN PROCESBEGELEIDERS, INSTALLATEURS EN ANDEREN DIE HUISHOUDENS GAAN ONDERSTEUNEN

Urgenda (2020)



# Research Affordability

## Drillrapvete aanleiding steekpartij Albert Heijn Watergraafsmeer

Een slepende vete tussen Amsterdamse drillrapgroepen was de aanleiding voor de steekpartij waarbij een medewerker van Albert Heijn zwaargewond raakte in een filiaal in de Watergraafsmeer.

**Wouter Laumans** en **Paul Vugts** 22 december 2020, 22:56

<https://www.parool.nl/amsterdam/drillrapvete-aanleiding-steekpartij-albert-heijn-watergraafsmeer-be-aa5857/>

REPORTAGE BIJLMERFANFARE

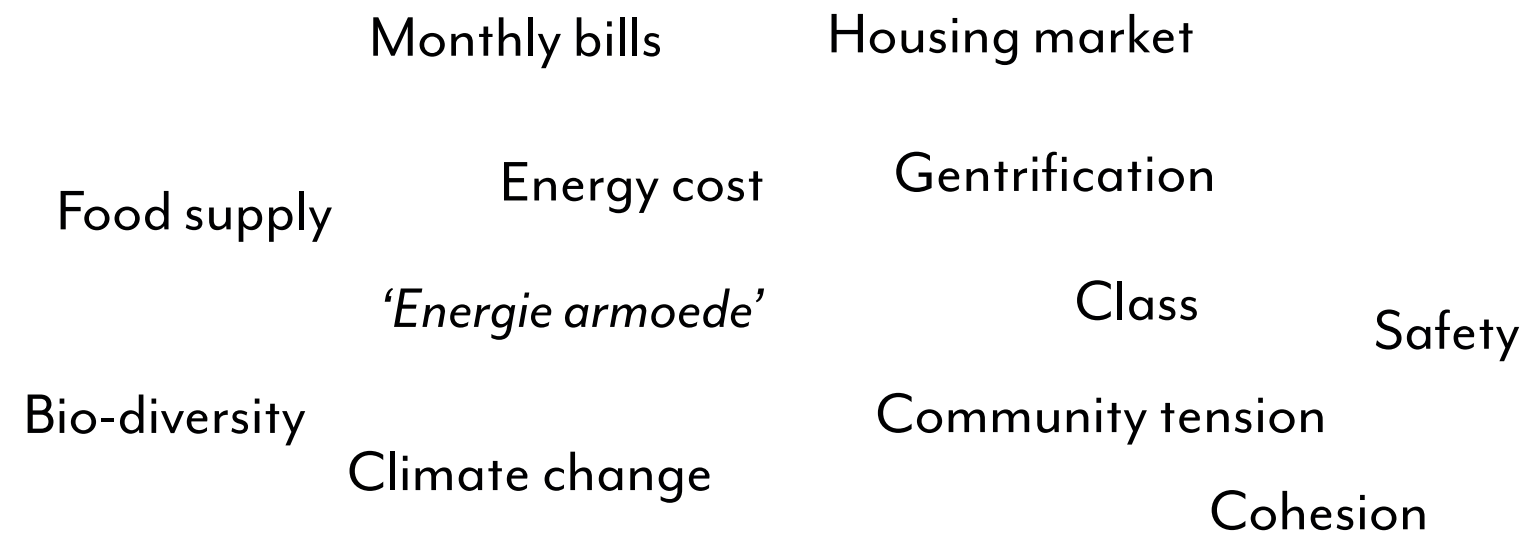
De Bijlmerfanfare laat zien dat er meer is dan drillrap, met dank aan het buurtfonds



<https://www.volkskrant.nl/nieuws-achtergrond/de-bijlmerfanfare-laait-zien-dat-er-meer-is-dan-drillrap-met-dank-aan-het-buurtfonds-b212aal3/>

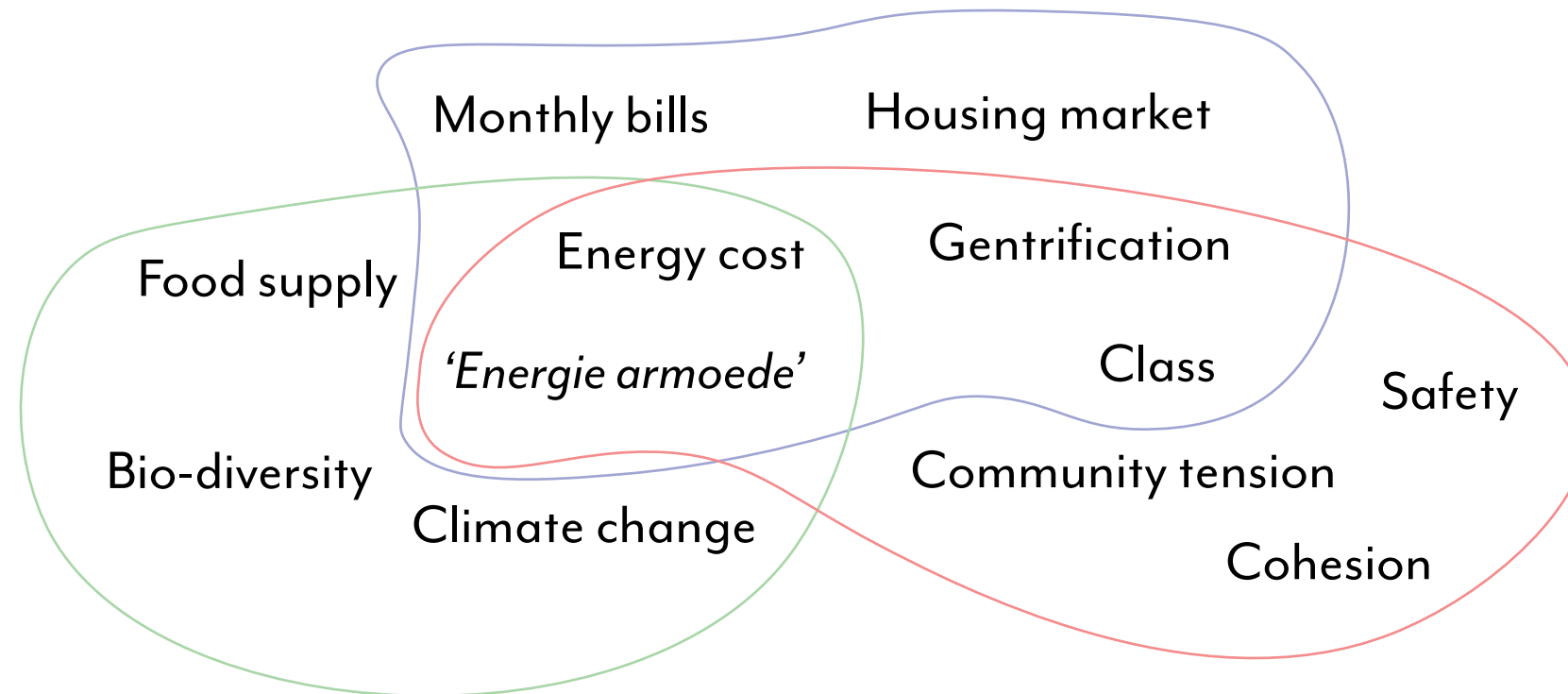
# Research Affordability

## Affordability



# Research Affordability

**Affordability** is the balance in cost and quality



# Research Affordability

**Affordability** ~~is the balance in cost and quality~~

=

**Economy**

**Ecology**

**Social**

*“Securing some given standard of housing at a price or a rent which does not impose, in the eyes some third party, an unreasonable burden on household income.” (MacLennan and Williams, 1990, p . 9)*

*“Households should be able to occupy housing that meets well-established norm of adequacy at a net rent which leaves them with enough income to live on without falling below some poverty standard.” (Bramley, 1990b, p . 16)*

# Research

## Design strategy

**Cultural value**  
anecdotal

**Heritage value**  
self determined

**Cultural & Heritage value**  
relate to  
**Attributes**

**Design interventions**

# Design

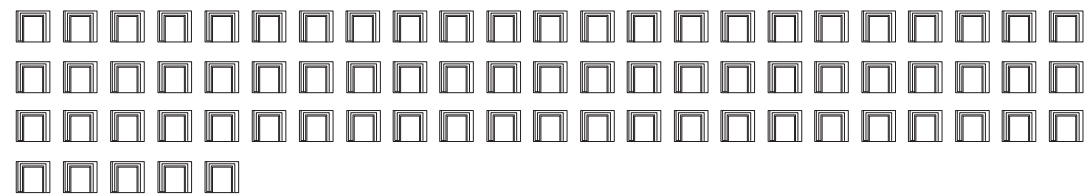
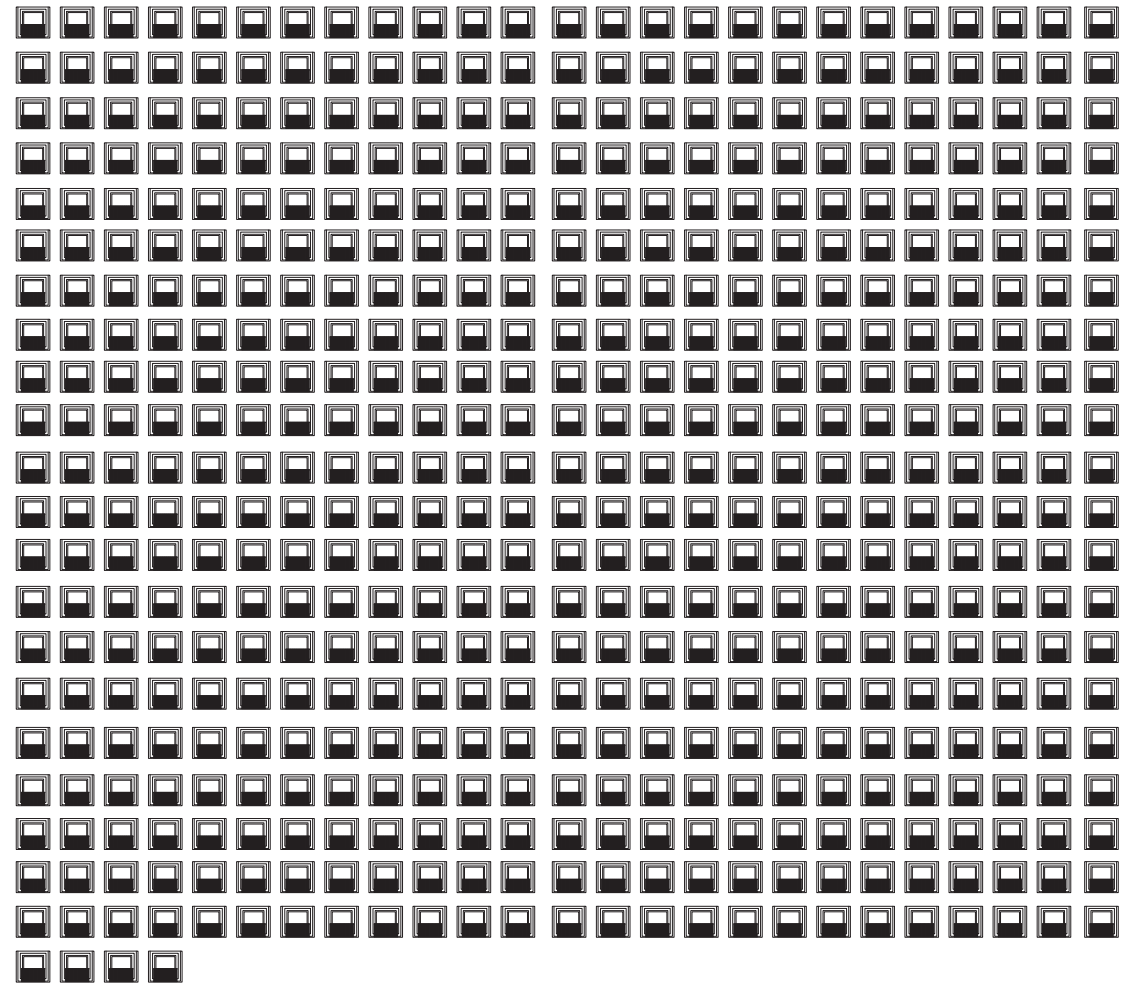
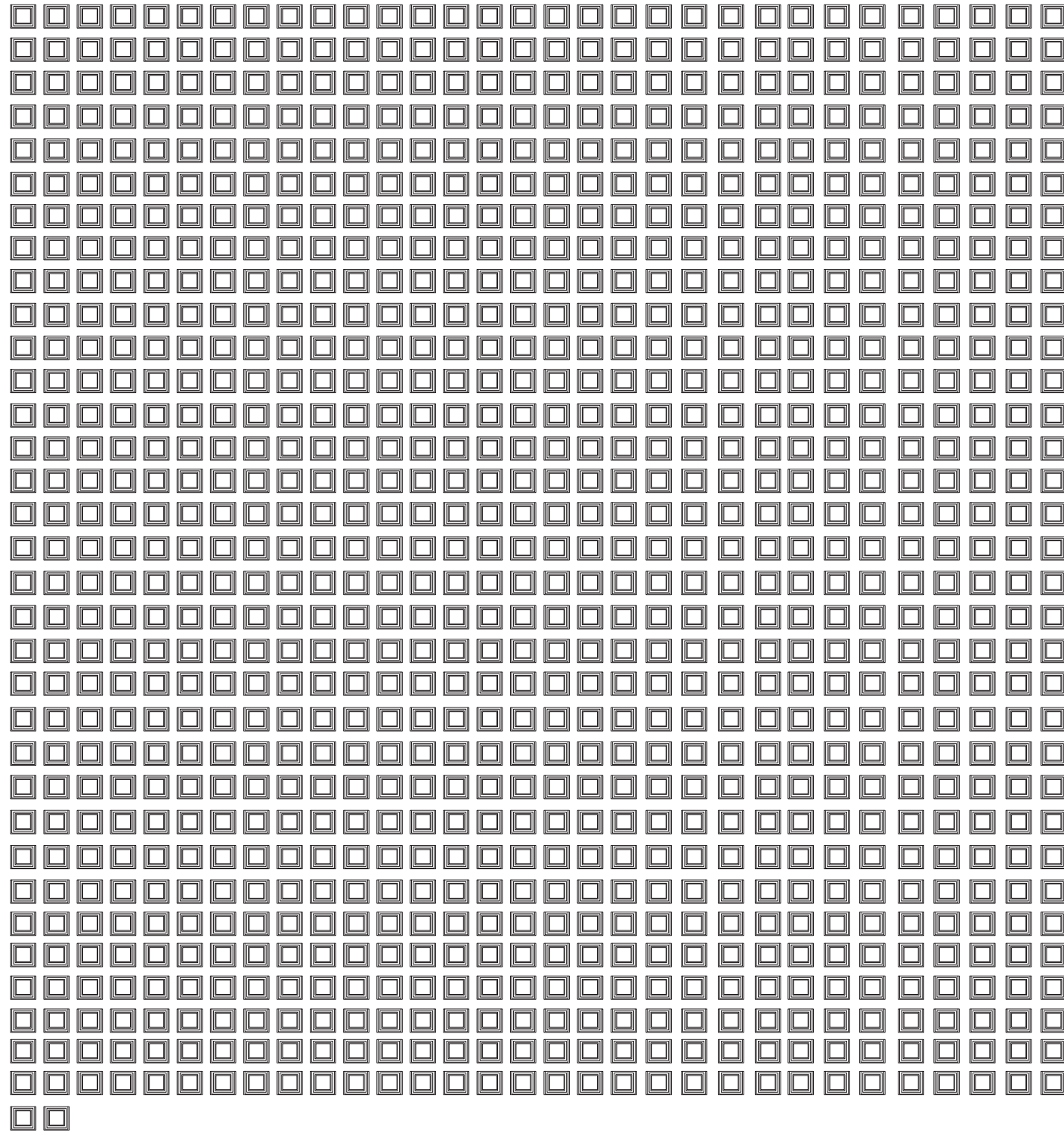
## Building analysis



Balcony at Heesterveld, Beeldbank Amsterdam

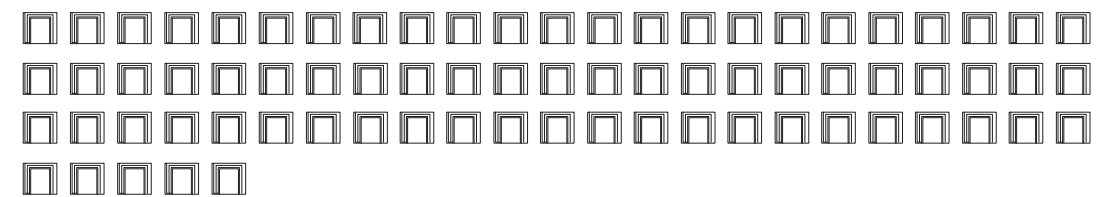
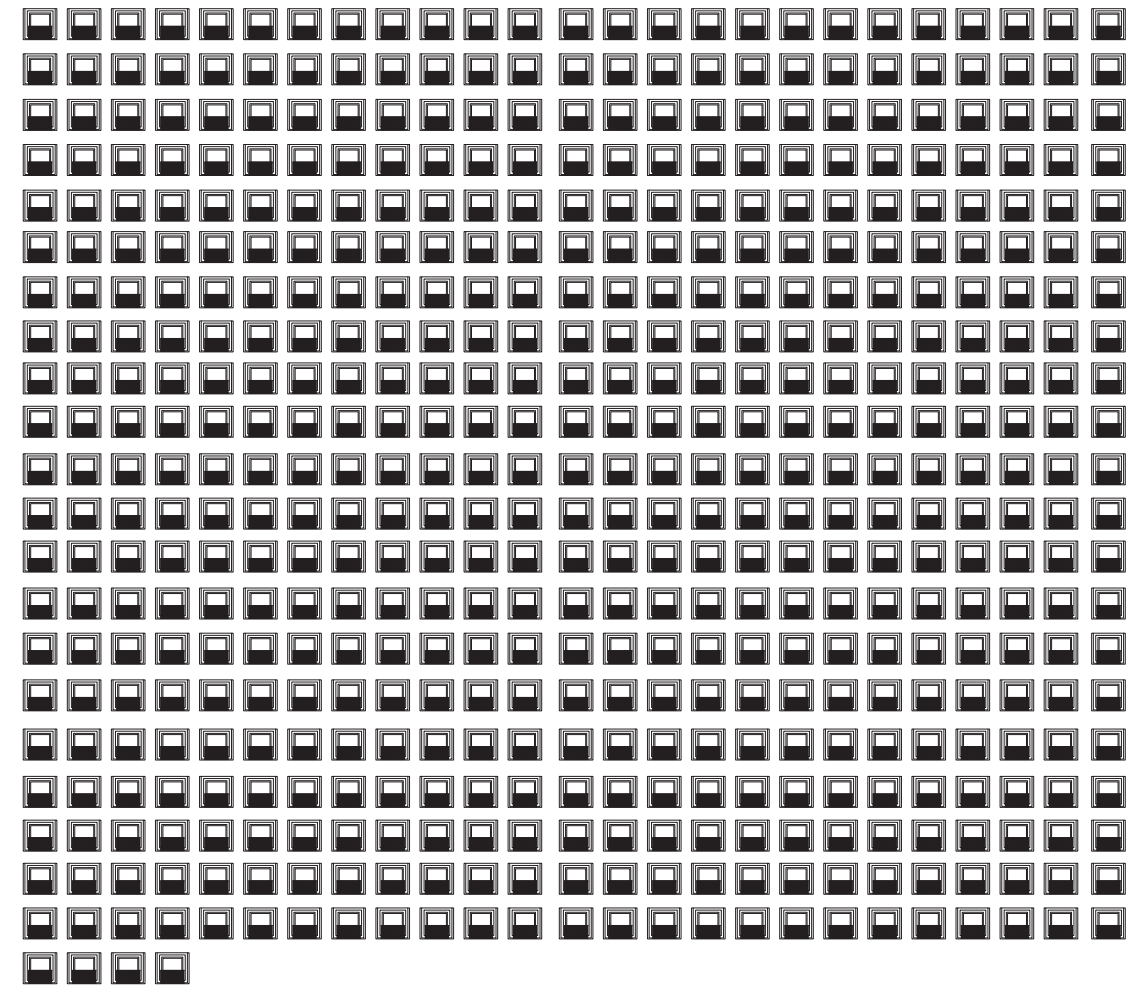
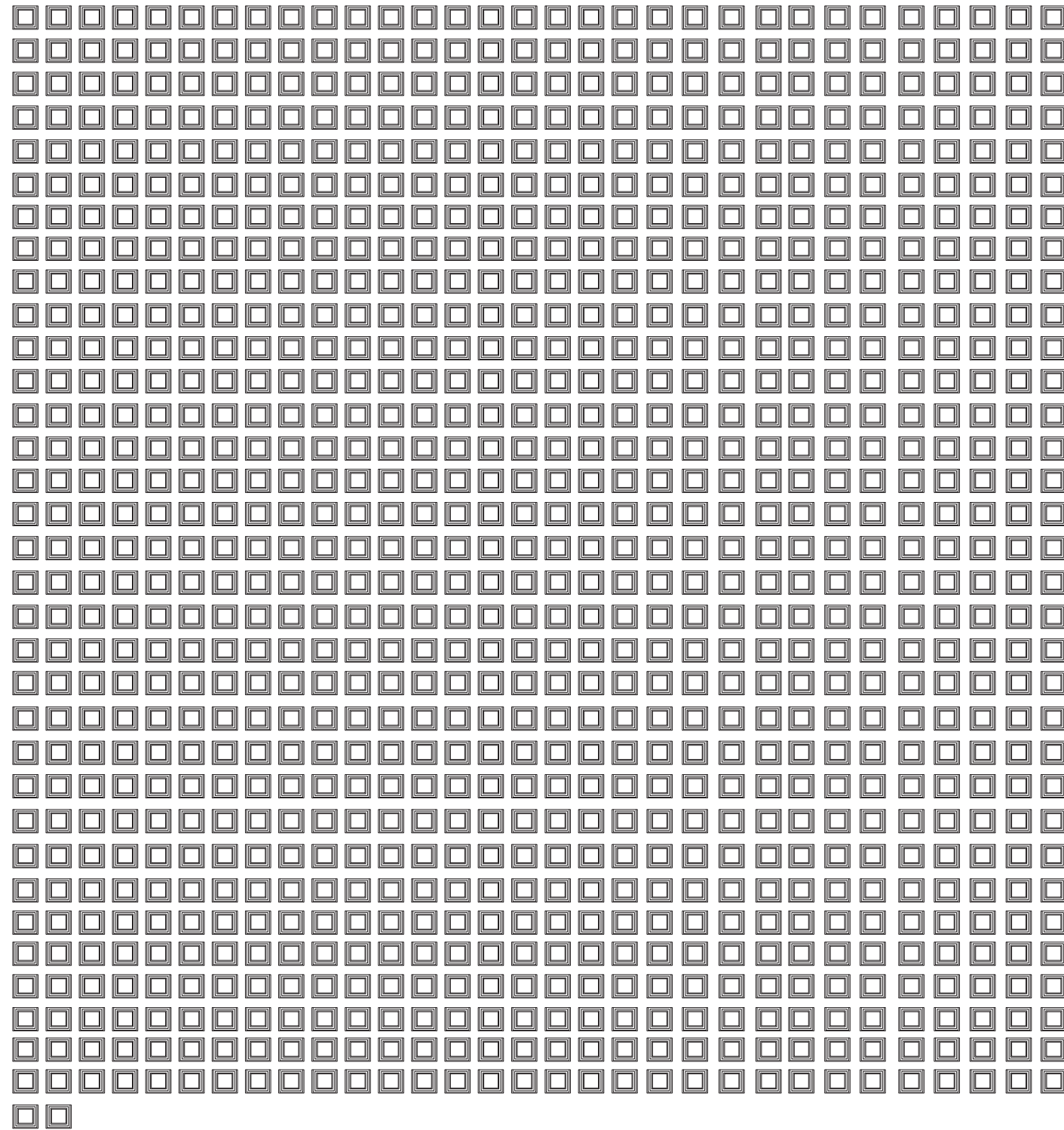
# Design

## Building analysis



# Design

## Building analysis

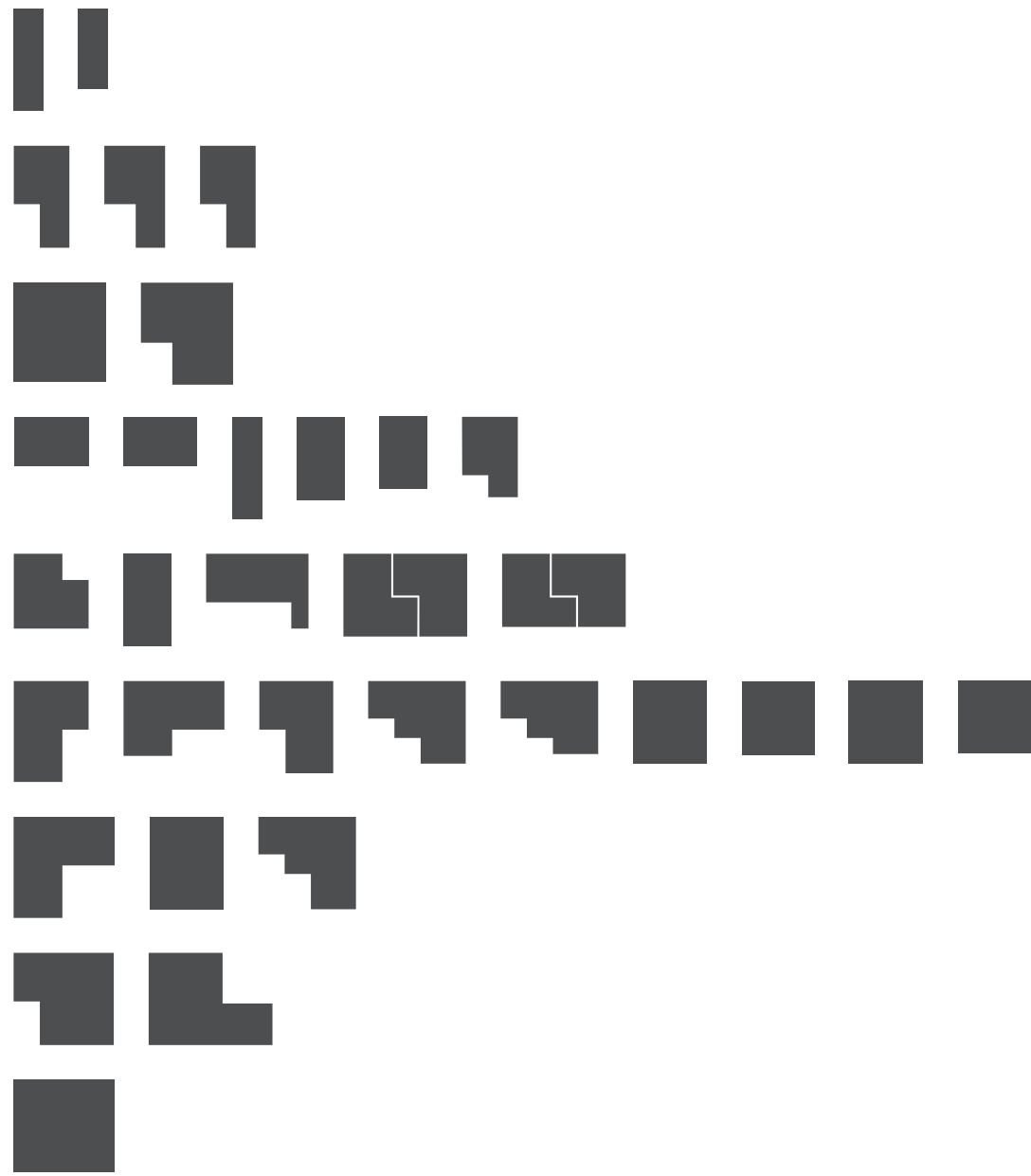


**390t CO<sub>2</sub>**



# Design

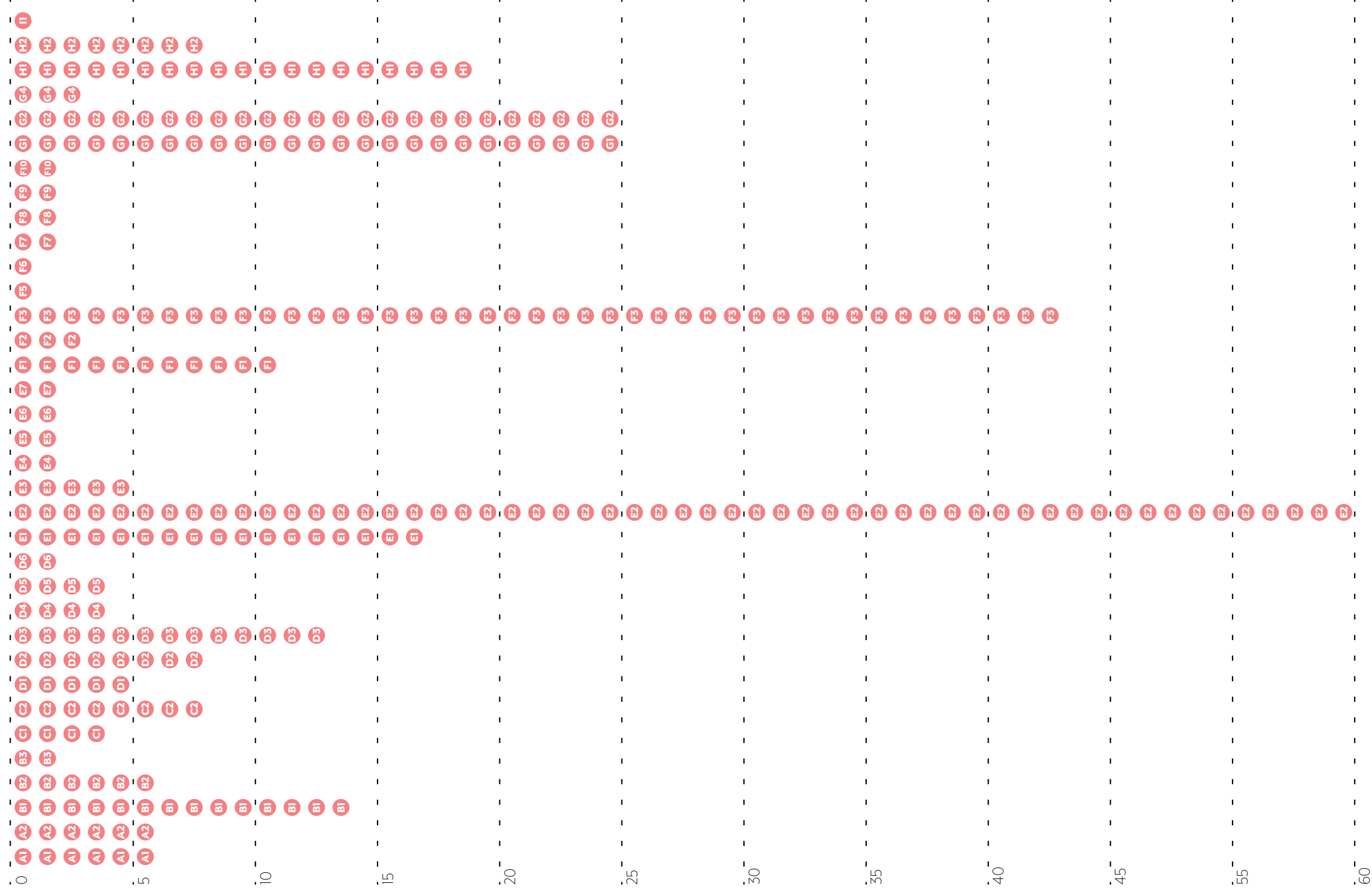
## Building analysis



**35 dwelling types**

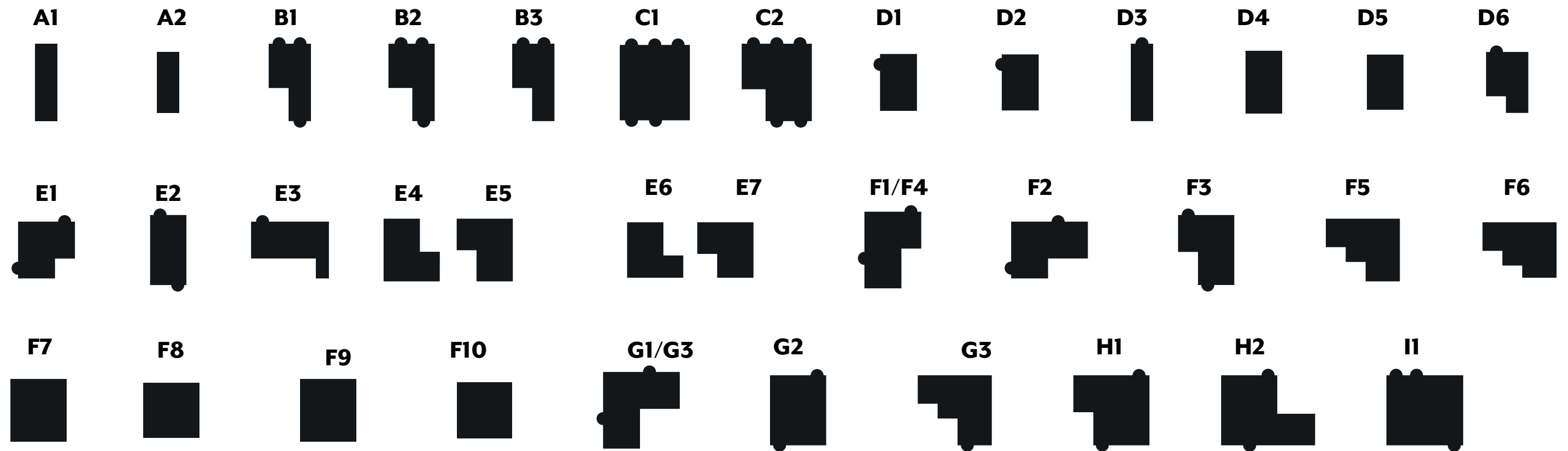
# Design

## Building analysis



# Design

## Building analysis



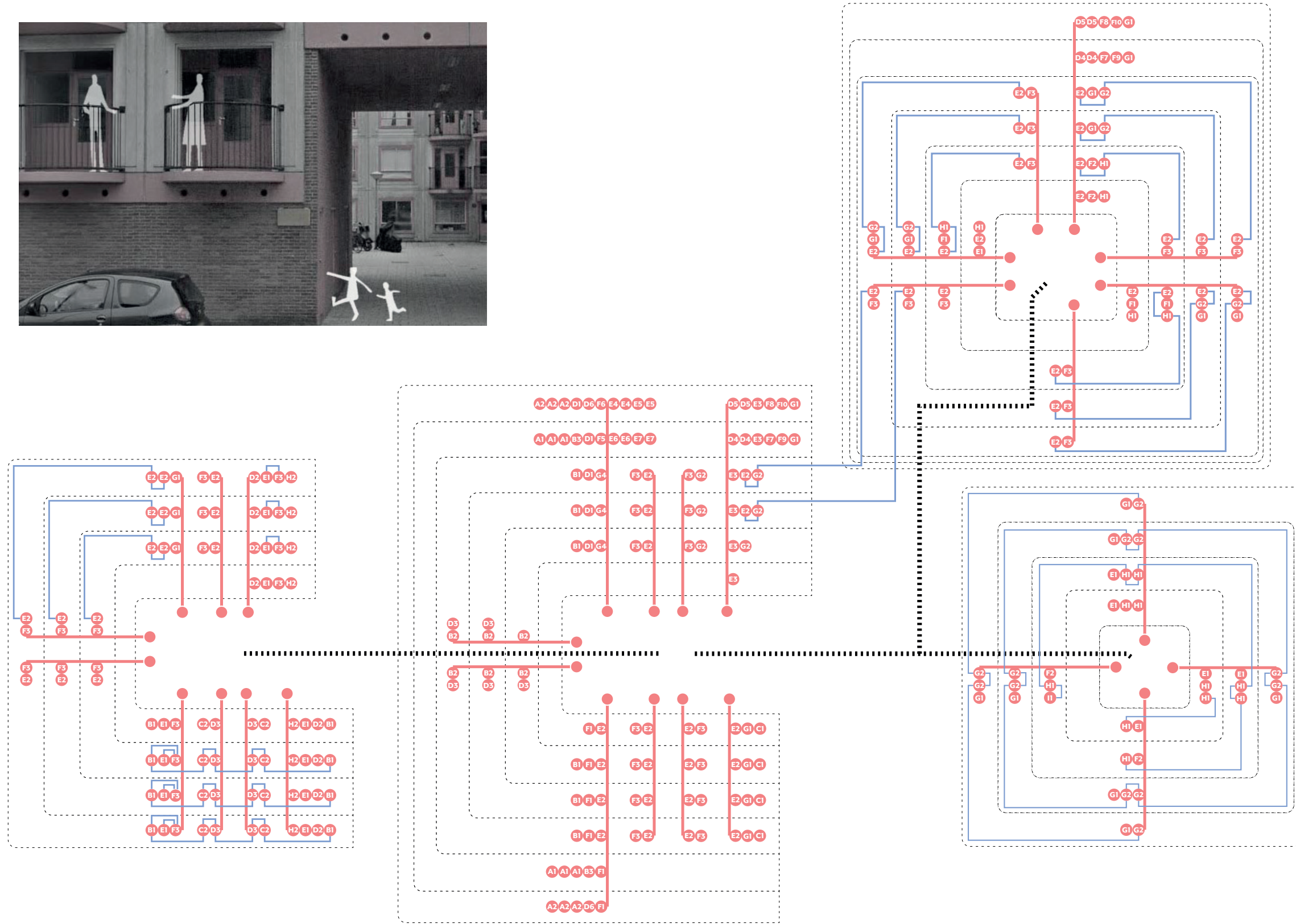
# Design

## Building analysis

<b>A1</b> 39m <sup>2</sup> 	<b>A2</b> 25m <sup>2</sup> 	<b>B1</b> 59m <sup>2</sup> 	<b>B2</b> 63m <sup>2</sup> 	<b>B3</b> 59m <sup>2</sup> 	<b>C1</b> 120m <sup>2</sup> 	<b>C2</b> 106m <sup>2</sup> 	<b>D1</b> 47m <sup>2</sup> 	<b>D2</b> 47m <sup>2</sup> 	<b>D3</b> 39m <sup>2</sup> 	<b>D4</b> 52m <sup>2</sup> 
<b>D5</b> 45m <sup>2</sup> 	<b>D6</b> 51m <sup>2</sup> 	<b>E1</b> 64m <sup>2</sup> 	<b>E2</b> 58m <sup>2</sup> 	<b>E3</b> 71m <sup>2</sup> 	<b>E4</b> 65m <sup>2</sup> 	<b>E5</b> 65m <sup>2</sup> 	<b>E6</b> 55m <sup>2</sup> 	<b>E7</b> 55m <sup>2</sup> 	<b>F1/F4</b> 81m <sup>2</sup> 	<b>F2</b> 81m <sup>2</sup> 
<b>F3</b> 75m <sup>2</sup> 	<b>F5</b> 81m <sup>2</sup> 	<b>F6</b> 76m <sup>2</sup> 	<b>F7</b> 80m <sup>2</sup> 	<b>F8</b> 70m <sup>2</sup> 	<b>F9</b> 80m <sup>2</sup> 	<b>F10</b> 70m <sup>2</sup> 	<b>G1/G3</b> 97m <sup>2</sup> 	<b>G2</b> 89m <sup>2</sup> 	<b>G4</b> 87m <sup>2</sup> 	<b>H1</b> 106m <sup>2</sup> 
<b>H2</b> 116m <sup>2</sup> 	<b>I1</b> 122m <sup>2</sup> 									

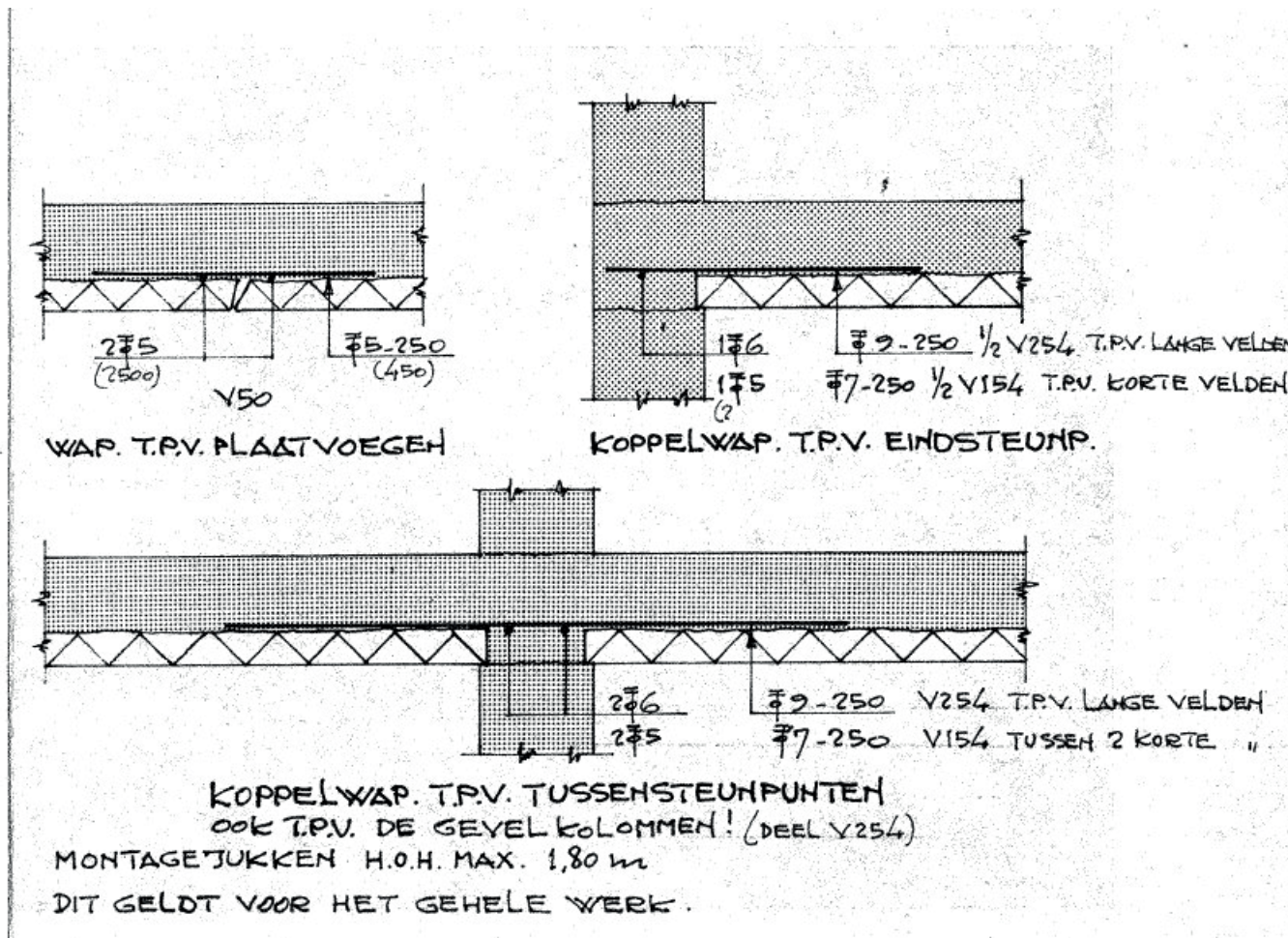
# Design

## Building analysis



# Design

## Building analysis



breedplaatvloeren onderwapening.  
**PLAATINDELING** GEWIJZ: 15-10-'81

VOOR WAPENING EN DETAILMATEN PLATEN ZIE MAP D-I/1A

DE PLAATS VAN HET MEER IN DE PLATTEGROND KOMT OVEREEN MET DE PLAATS AANGEGEVEN OP HET VLOERELEMENT.

net nr.	totaal
G 634	1
V 50	95
V 254	70
staaf K12 = $\phi$ 12	45
lg. 4000	

staaf K12 =  $\phi$ 12  
lg. 4000  
BWT 19 8 0 DOSSIER 75 8 37  
20 JAN. 1982

BETONCONSTRUCTIE  
STAALCONSTRUCTIE  
PALENPLAN

datum	omschrijving	get	gek	gez
18 - 11 - 1981	plaatindeling, voeg- en koppelnetten+ wap. gestorte delen	JAP		
10 - 07 - 1981	prefab vermeld + trapsp. aangepast			
27 - 04 - 1981	vormtekening	G.M.		
18 - 03 - 1981	voorstel	FGT.		

leermaten	plaatdikte	beton	stijg	vochtigheidscoëfficiënt
200	150	200	10	0,21
200	150	200	20	0,42
200	150	200	20	0,42
200	150	200	30	0,63
200	150	200	40	0,84

matten (ook peilmatten) in mm  
 peilmatten tov peil is b.k afgewerkte begane grond = 2000 ÷ NAP

**blok I**

werk Heesterveld Amsterdam

onderdeel plattegrond 1<sup>e</sup> verdieping, deel A.

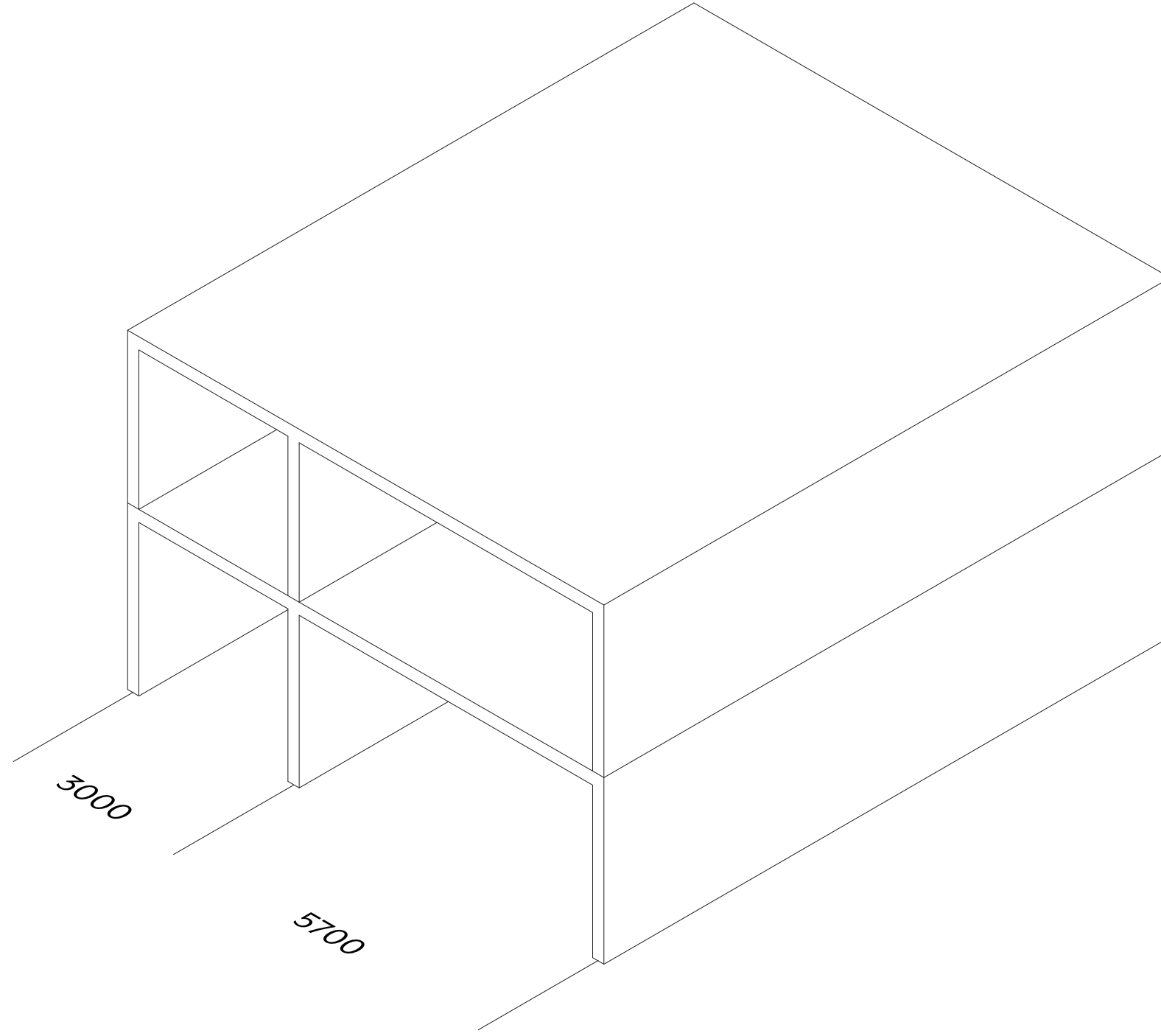
architecten Oyevaar van Gool de Bruijn Amsterdam

schaal 1:50 datum 23 NOV. 1981 gezien

raadgevend ingenieursbureau Aronsohn Rotterdam 4258/103 D

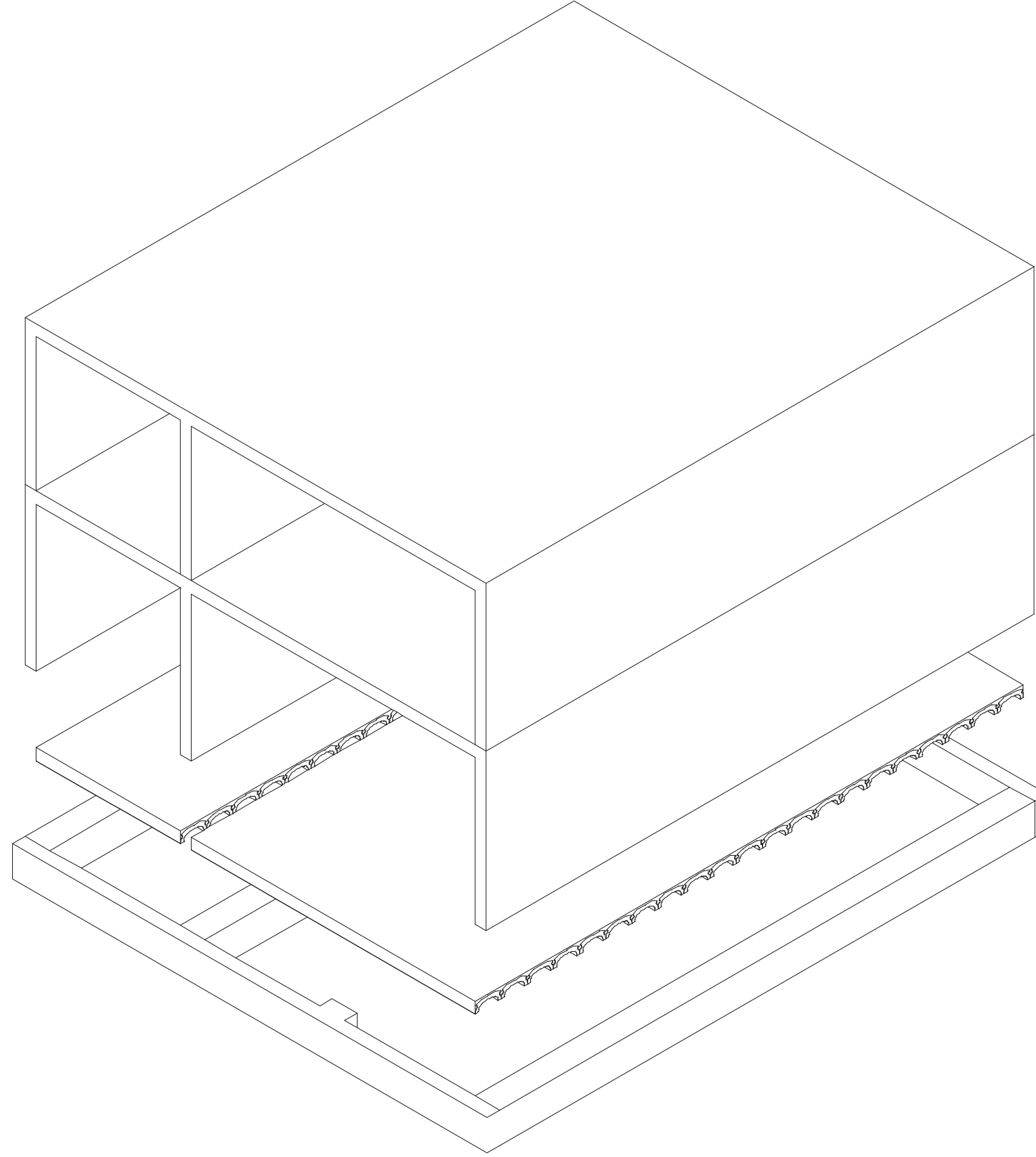
# Design

## Building analysis



# Design

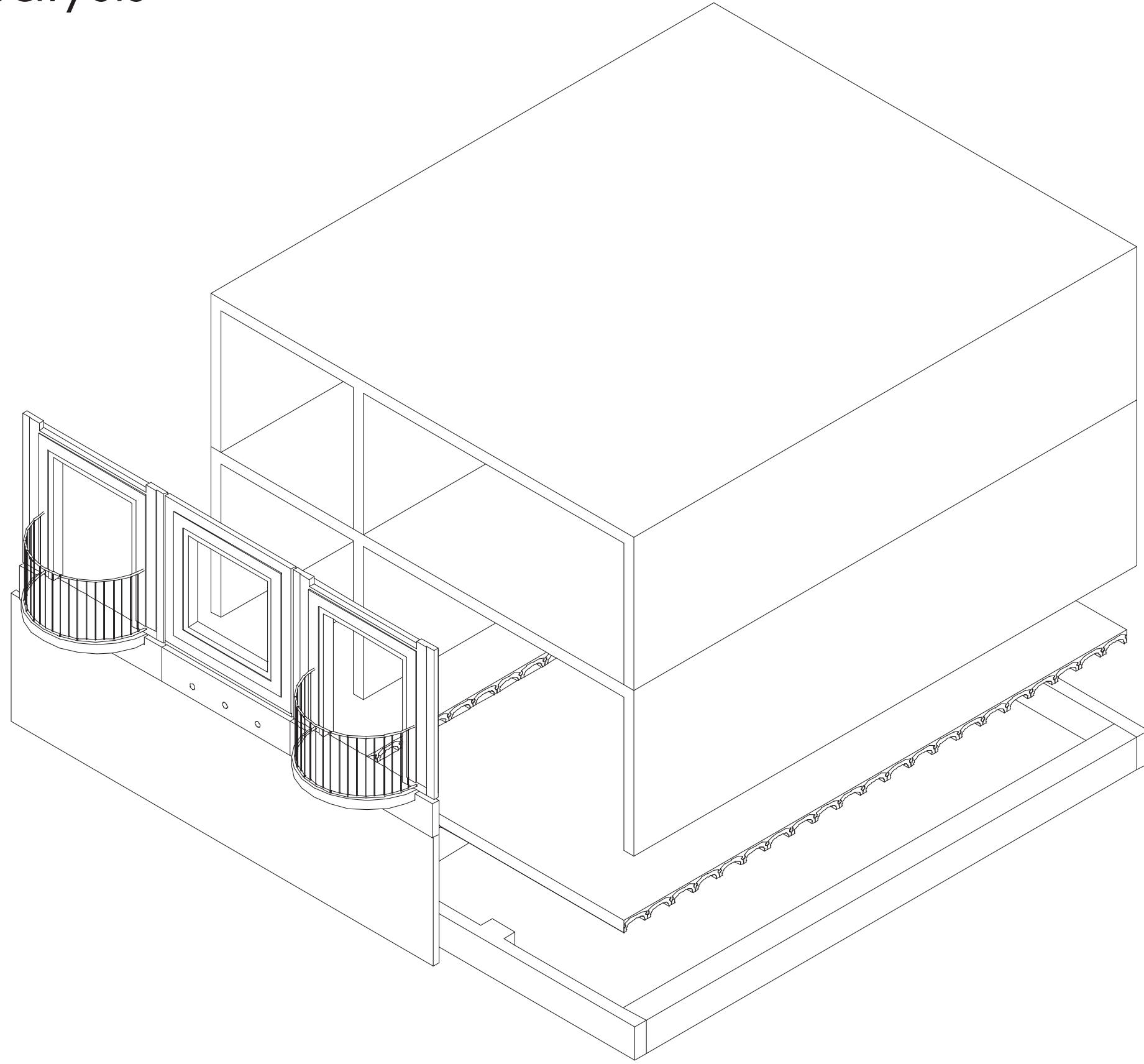
## Building analysis

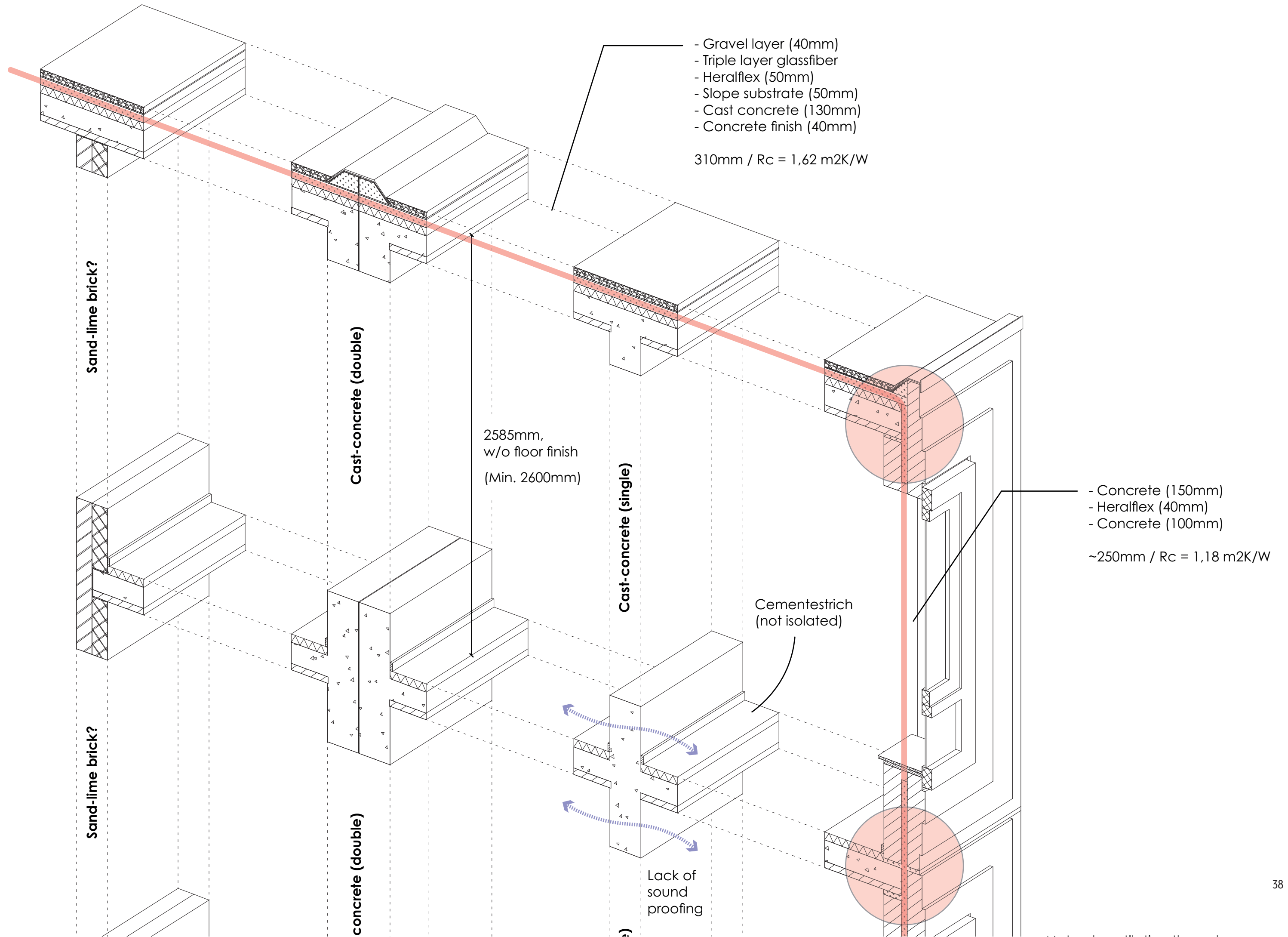


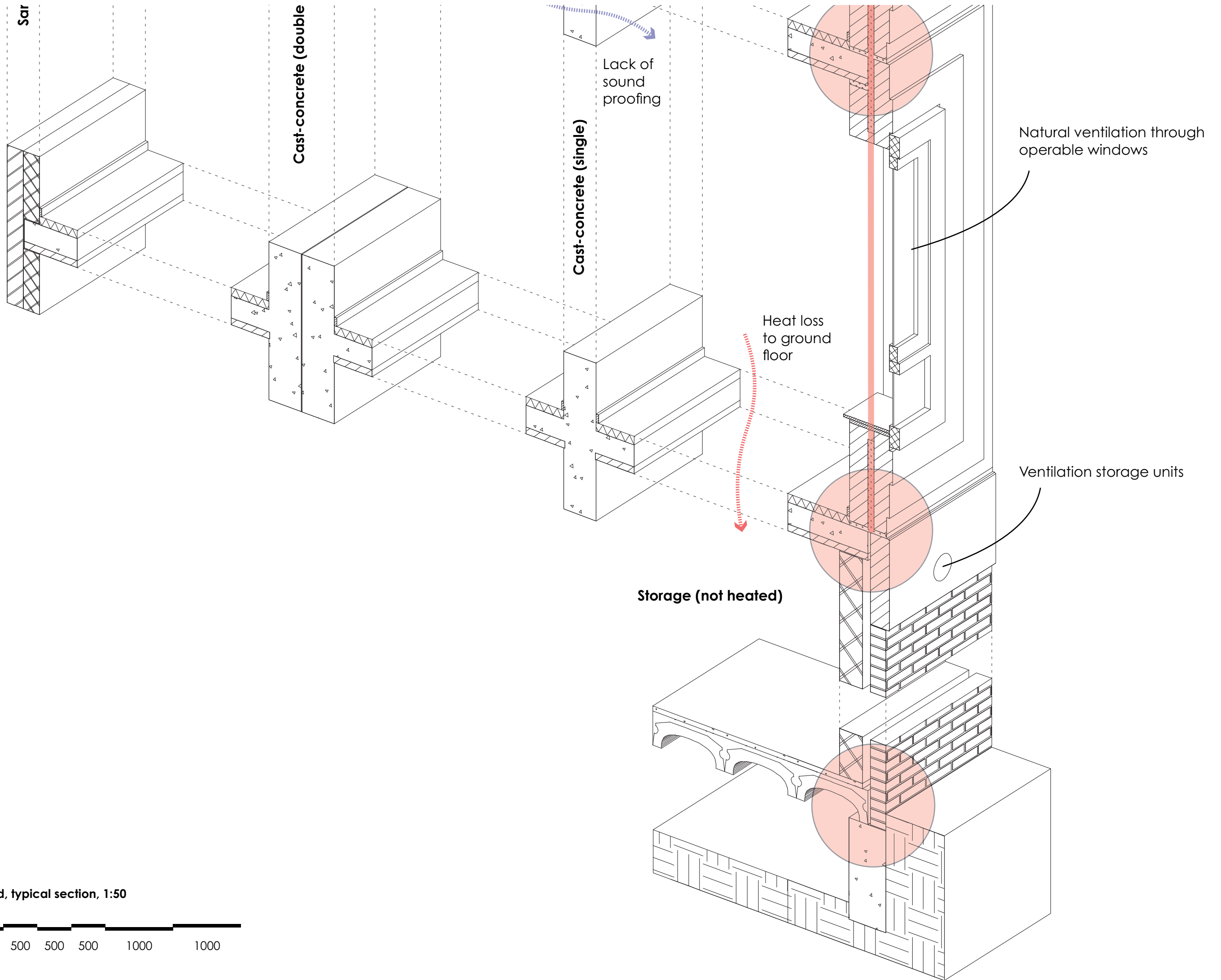


# Design

## Building analysis



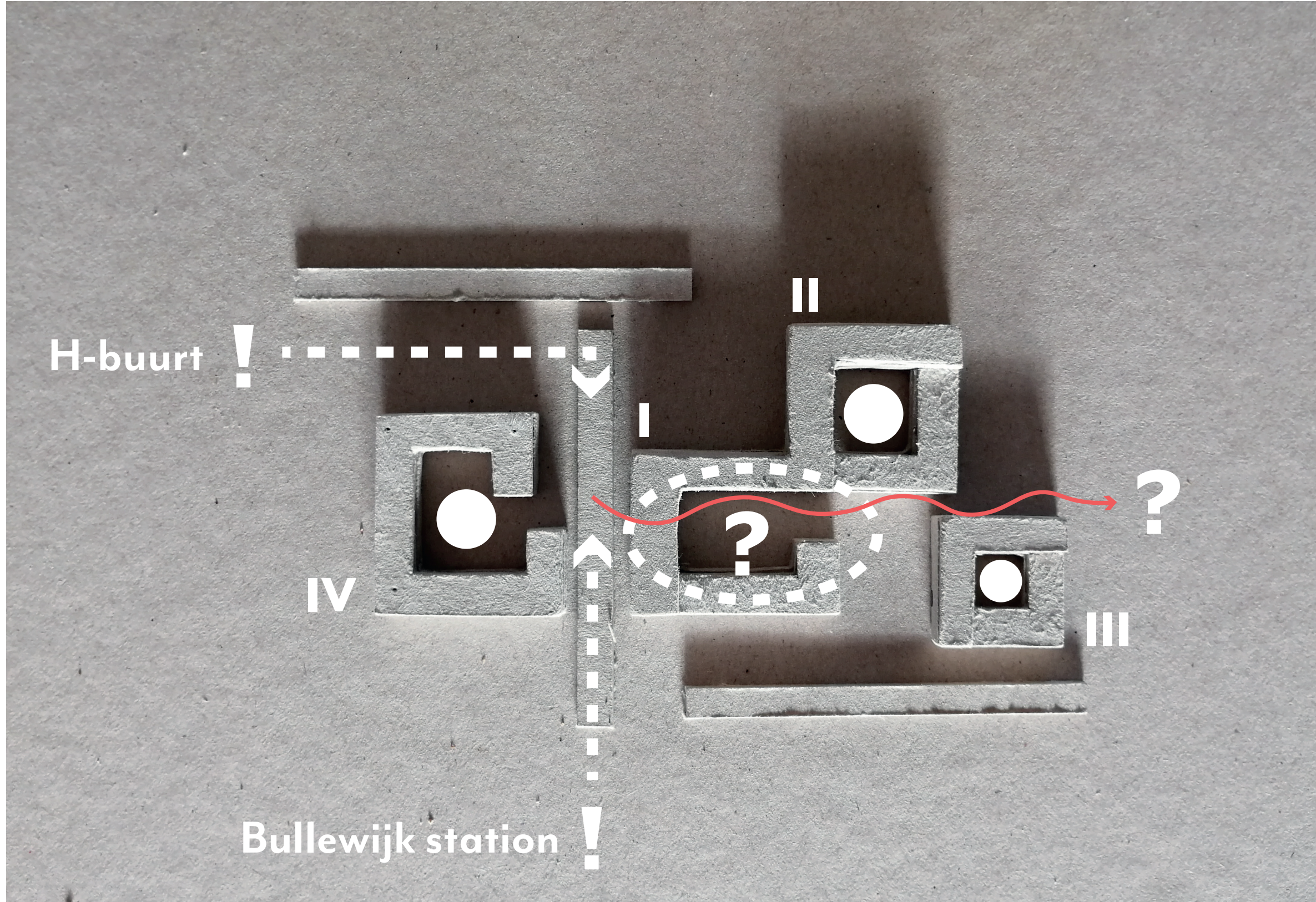




Heesterveld, typical section, 1:50

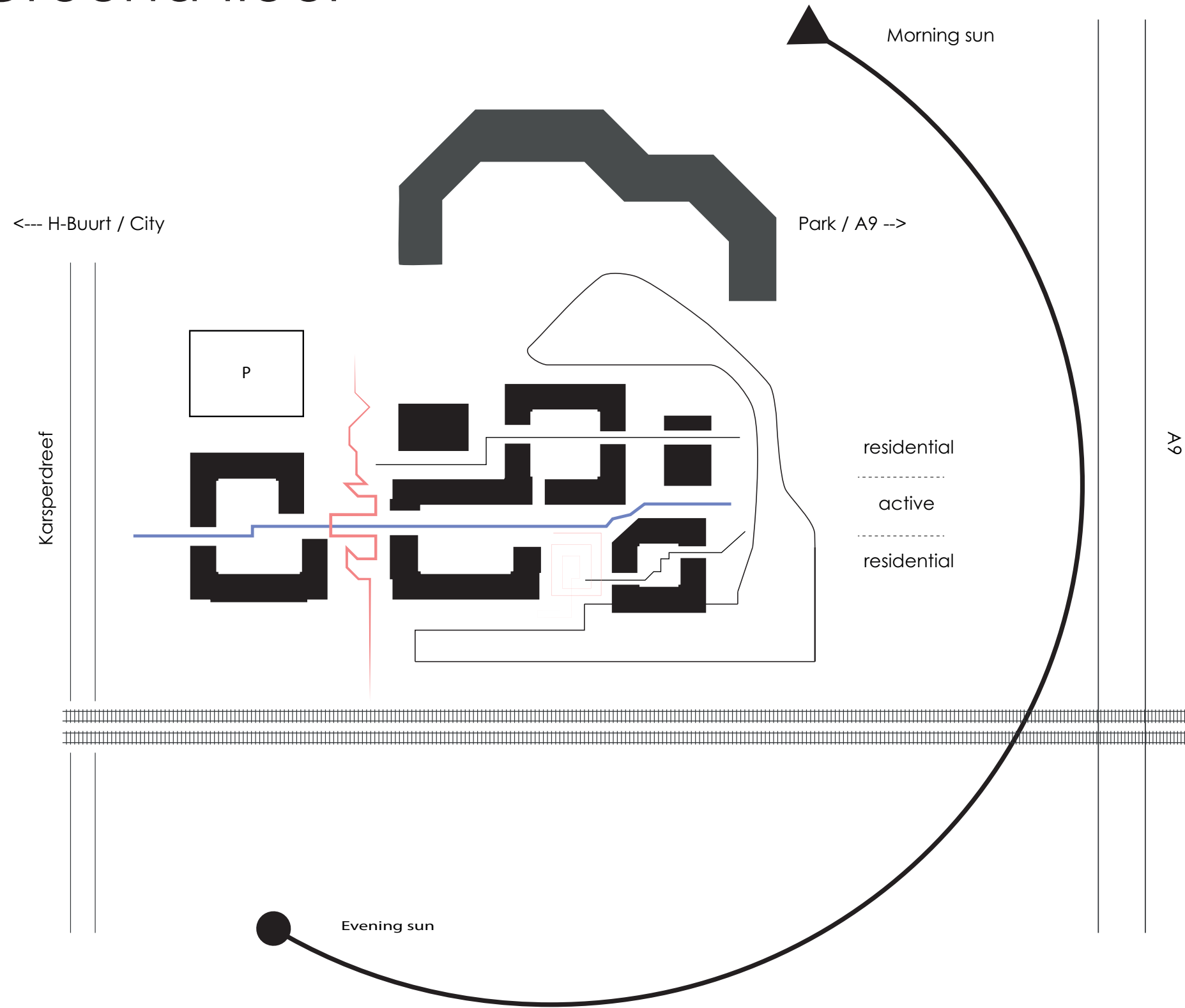


# Design Principles



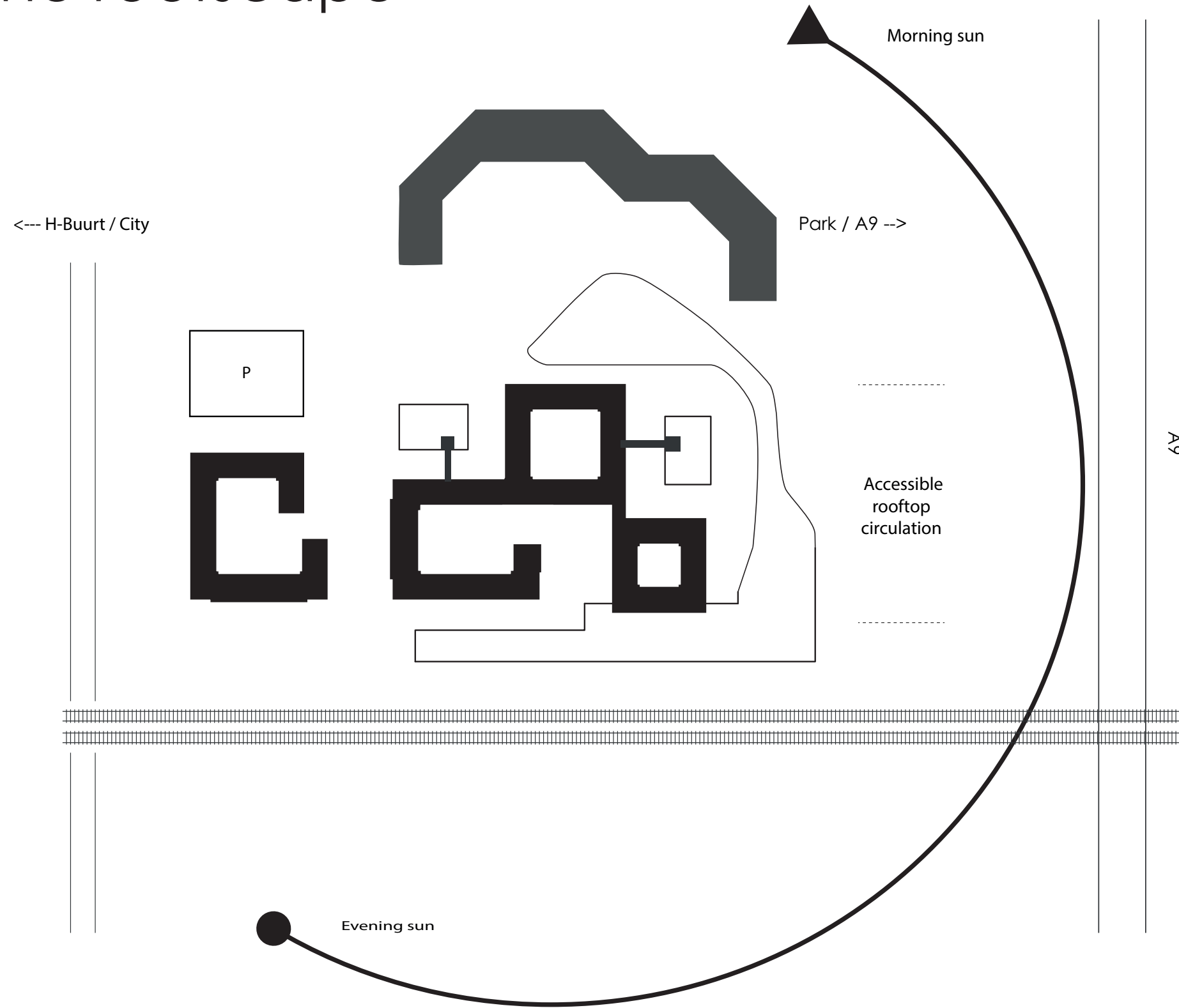
# Design

## Principles / Ground floor

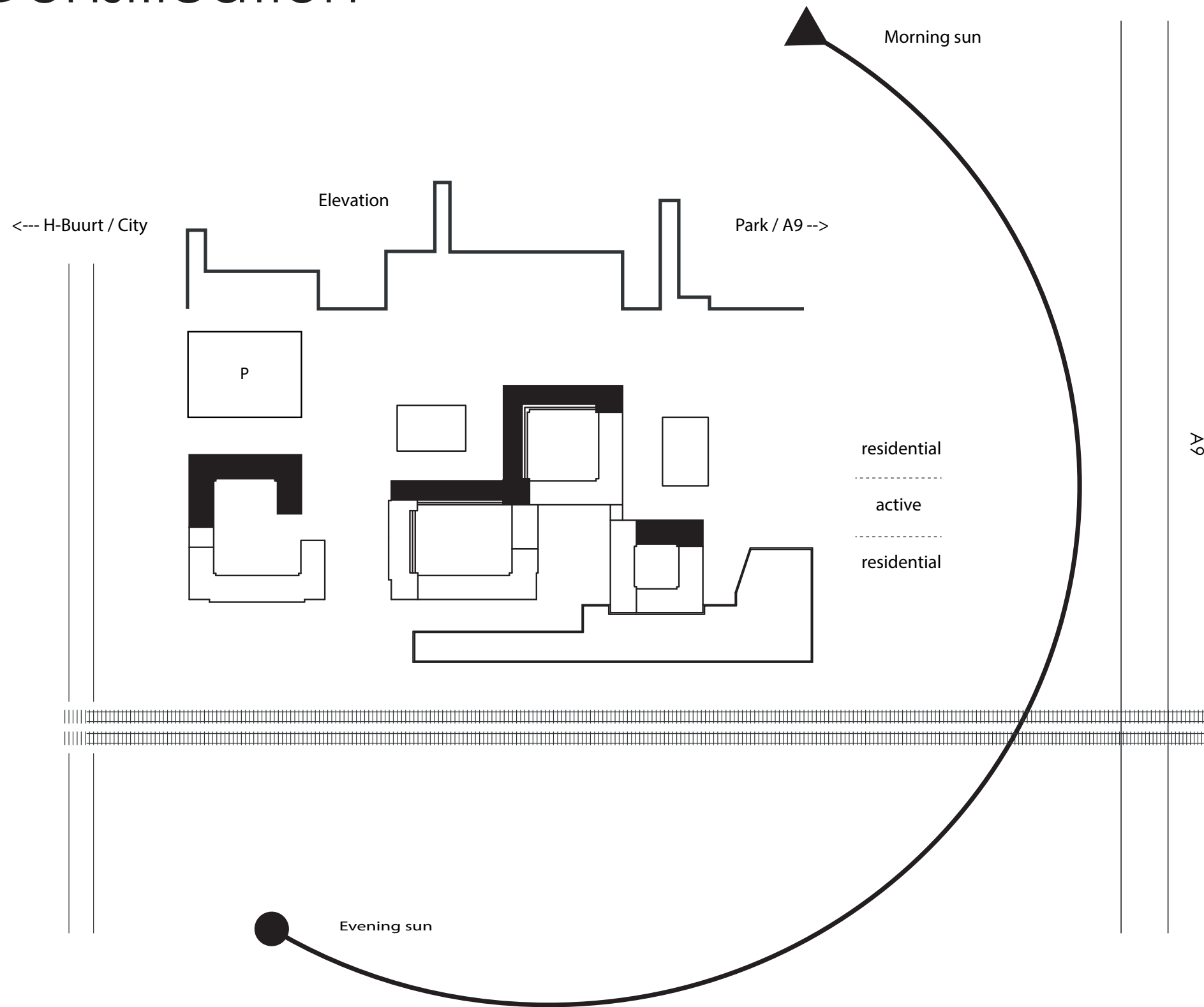


# Design

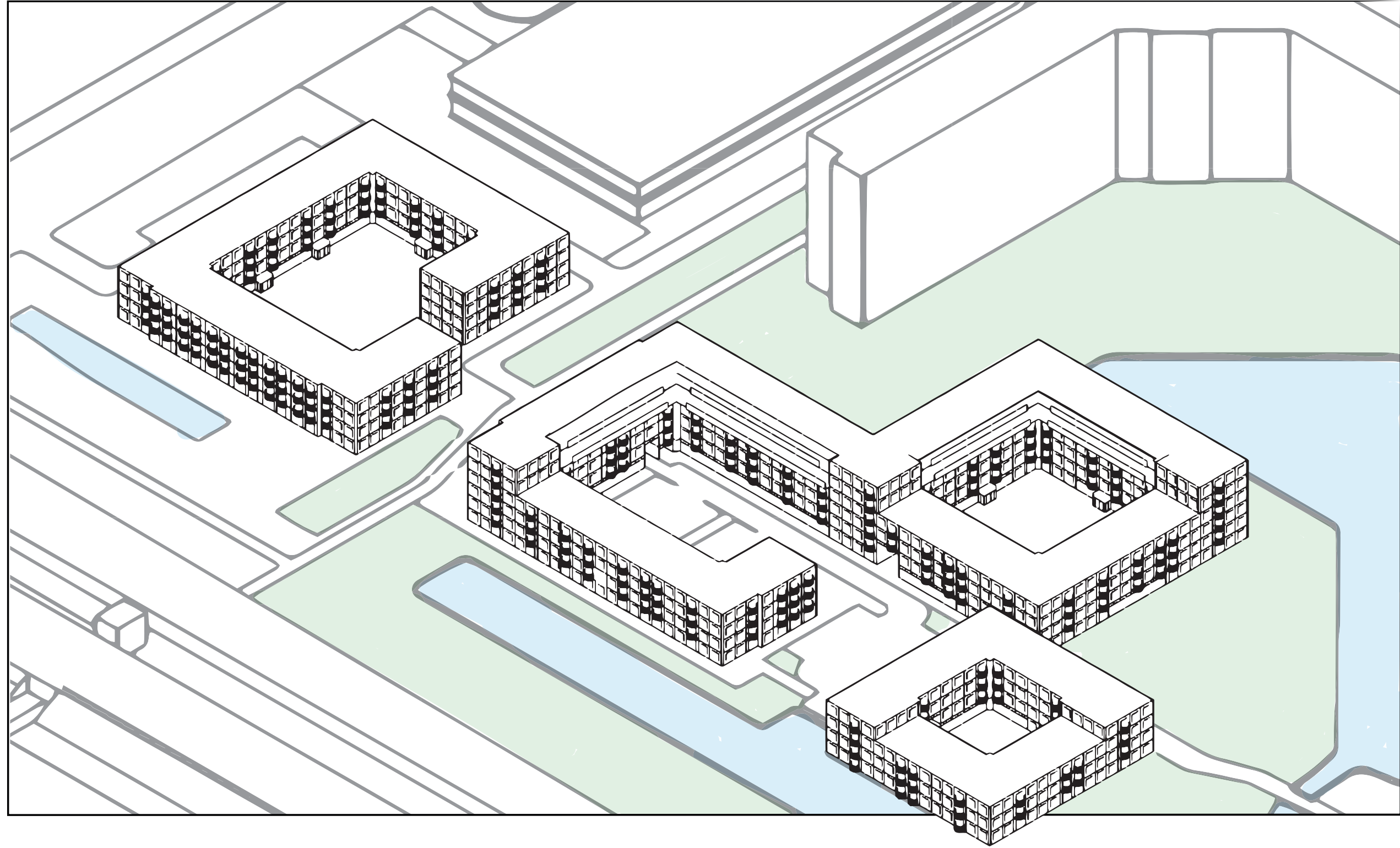
## Principles / The roofscape



# Design Principles / Densification

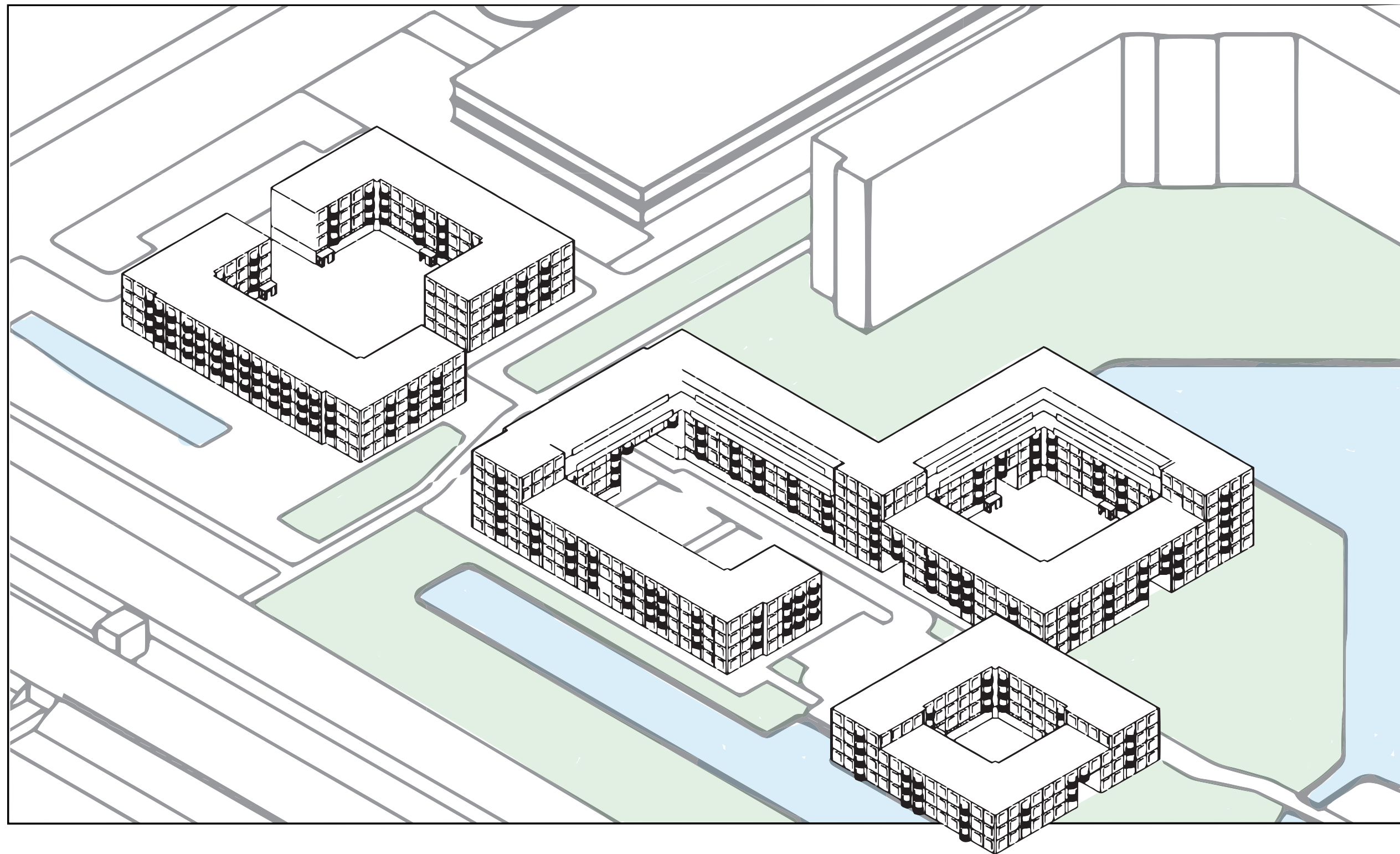


# Design Principles

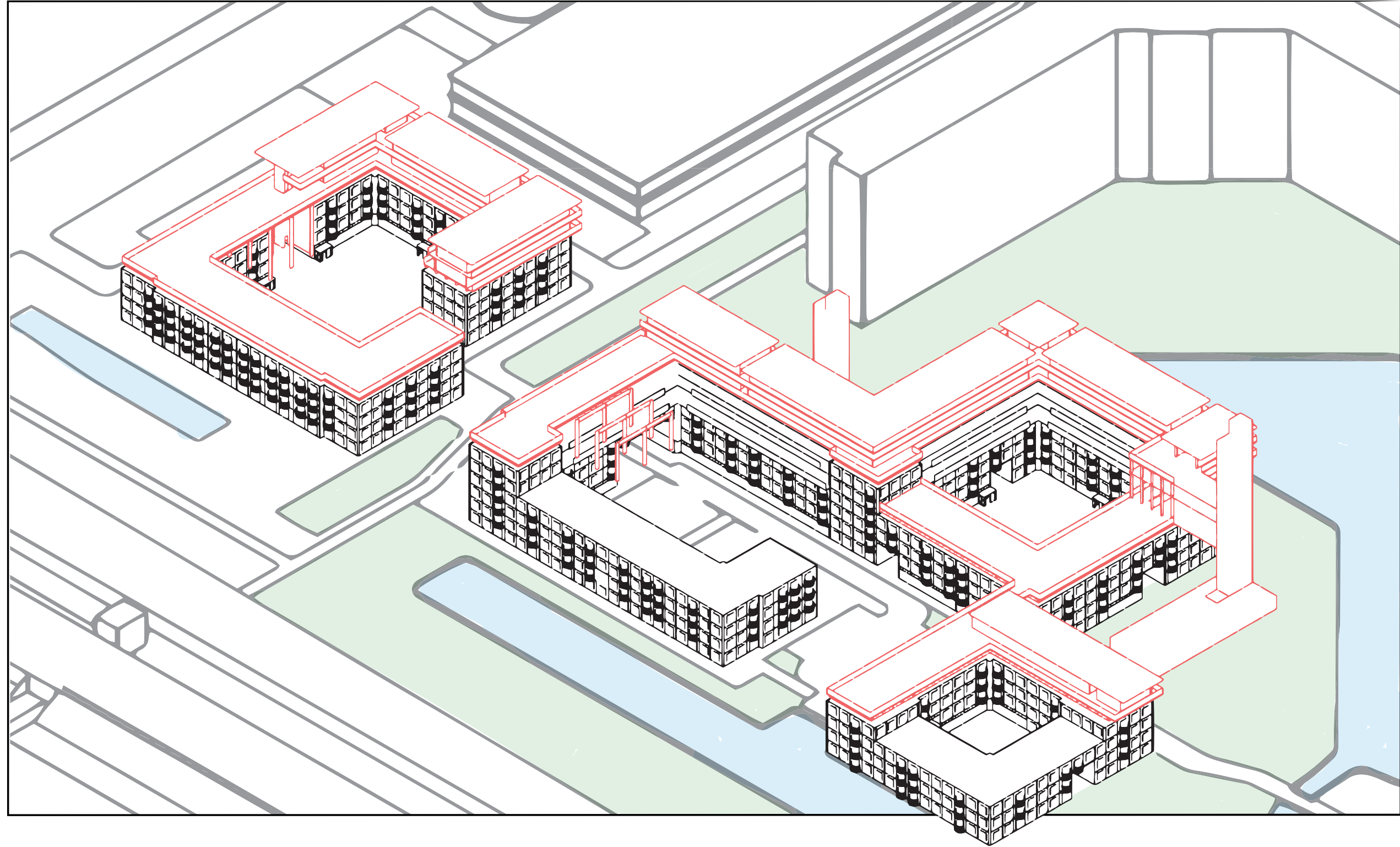




# Design Principles



# Design Principles



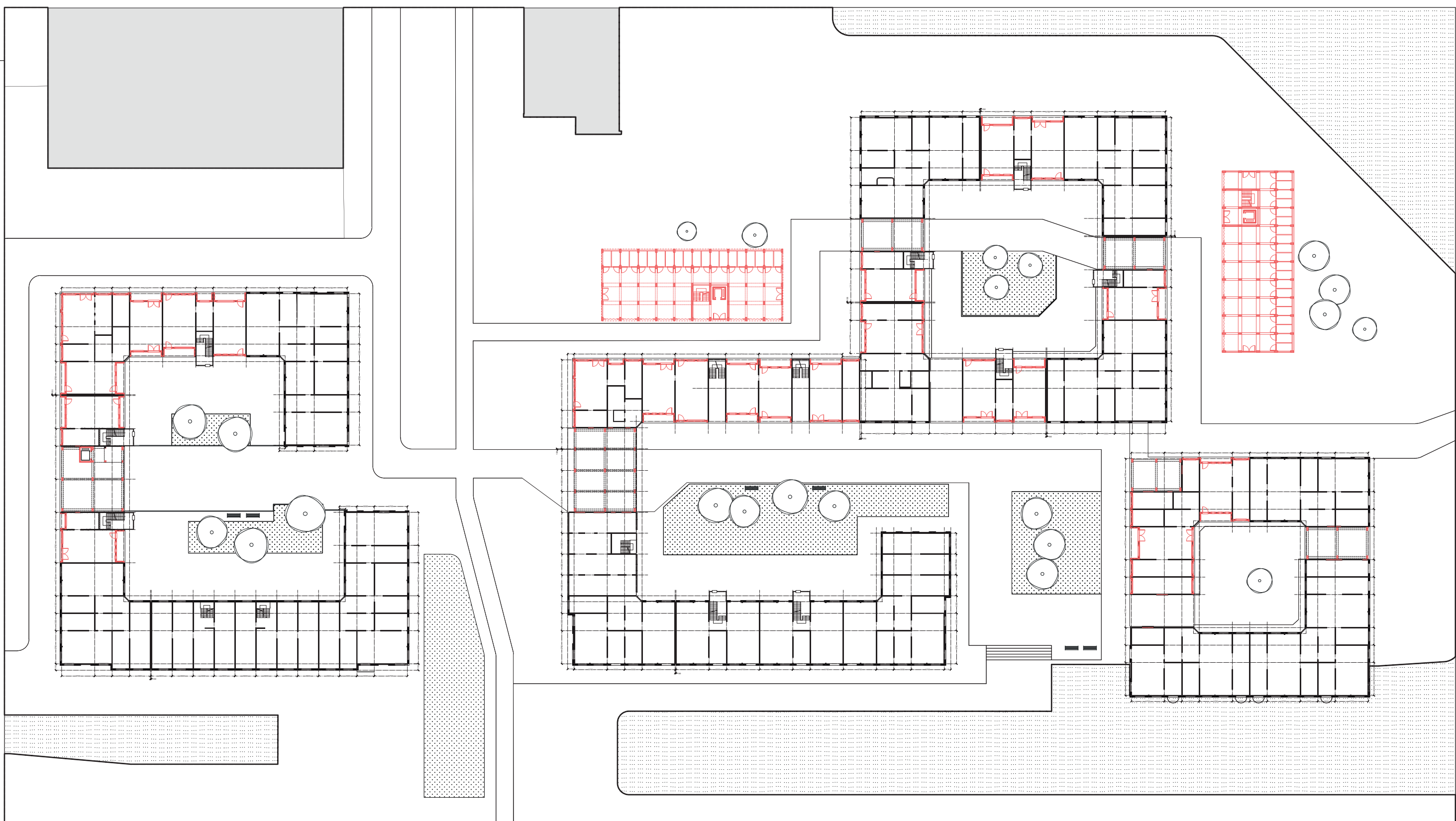
# Design

## Life on the ground



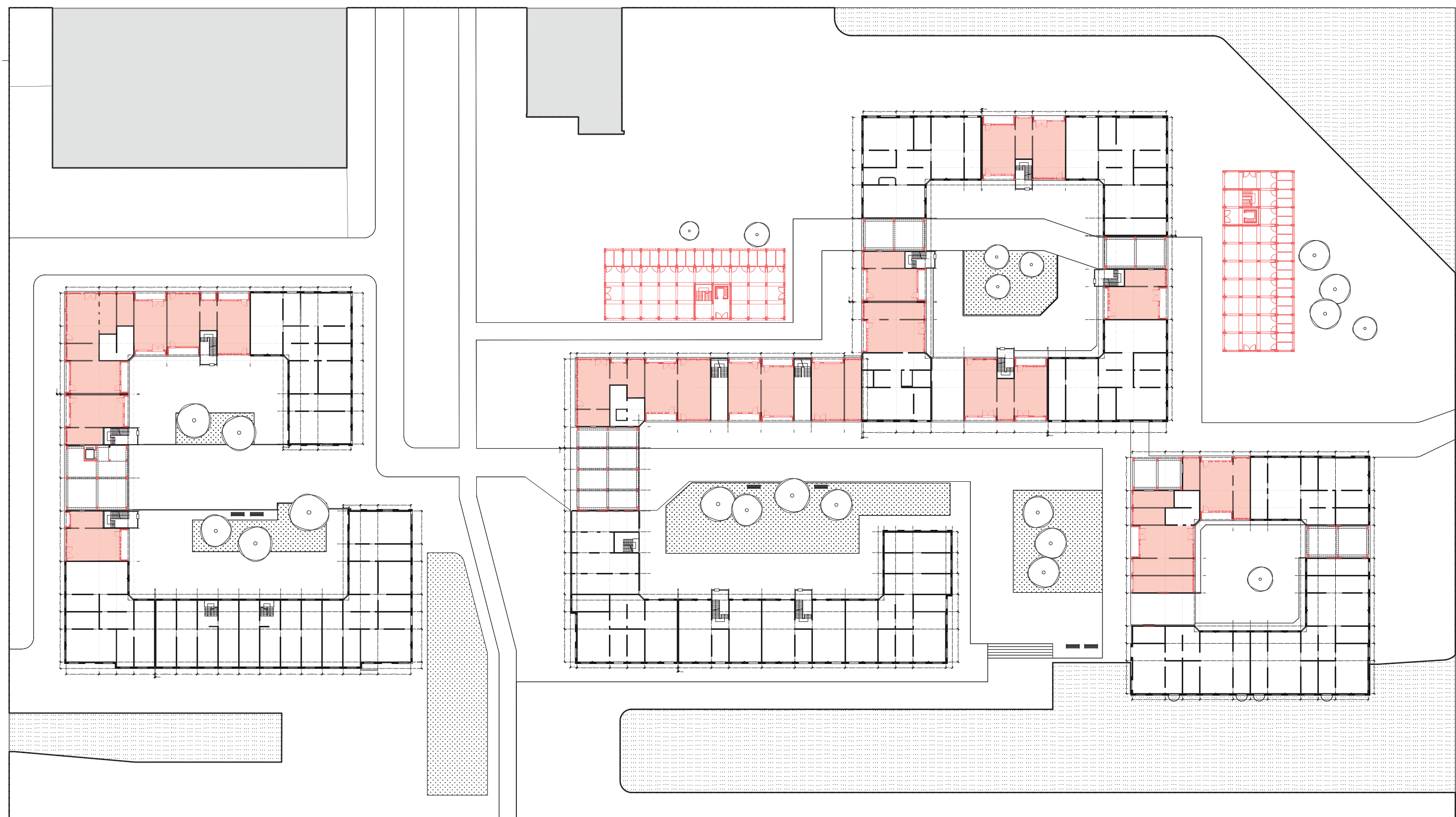
# Design

## Life on the ground



# Design

## Life on the ground



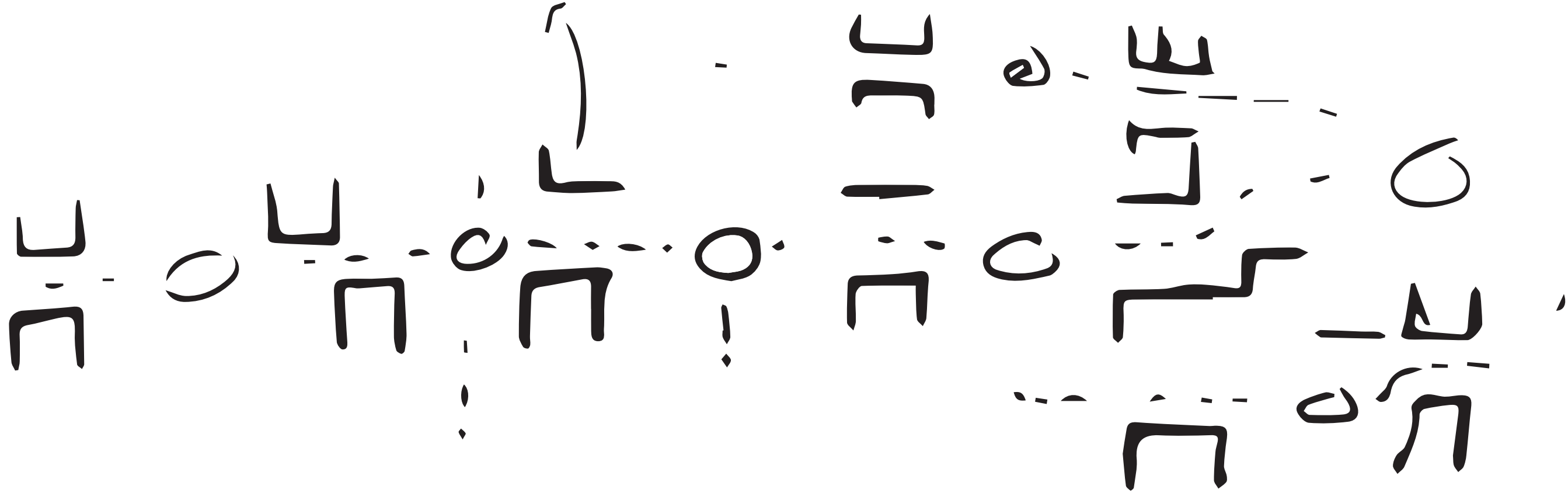
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## Life on the ground



# Design

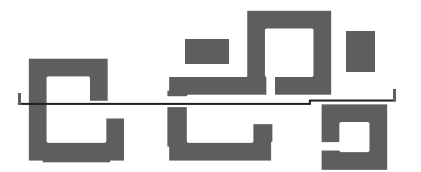
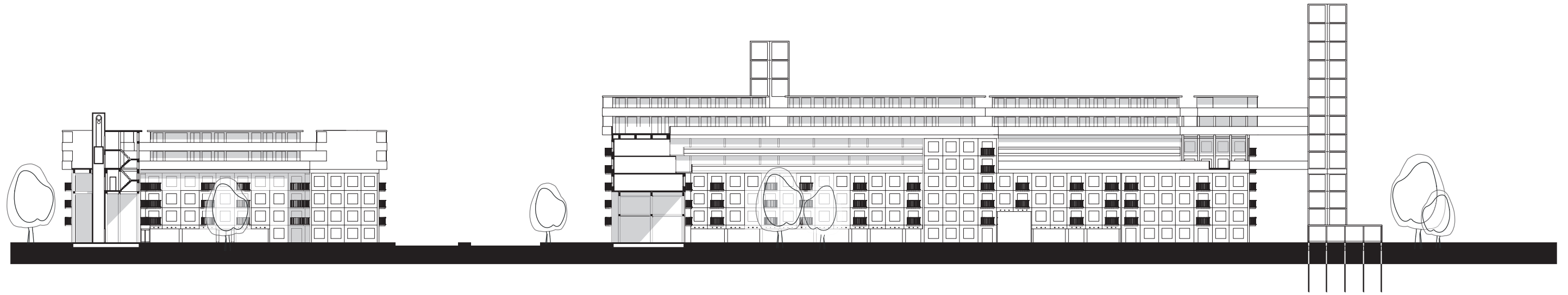
Life on the ground



*A series of gates*

# Design

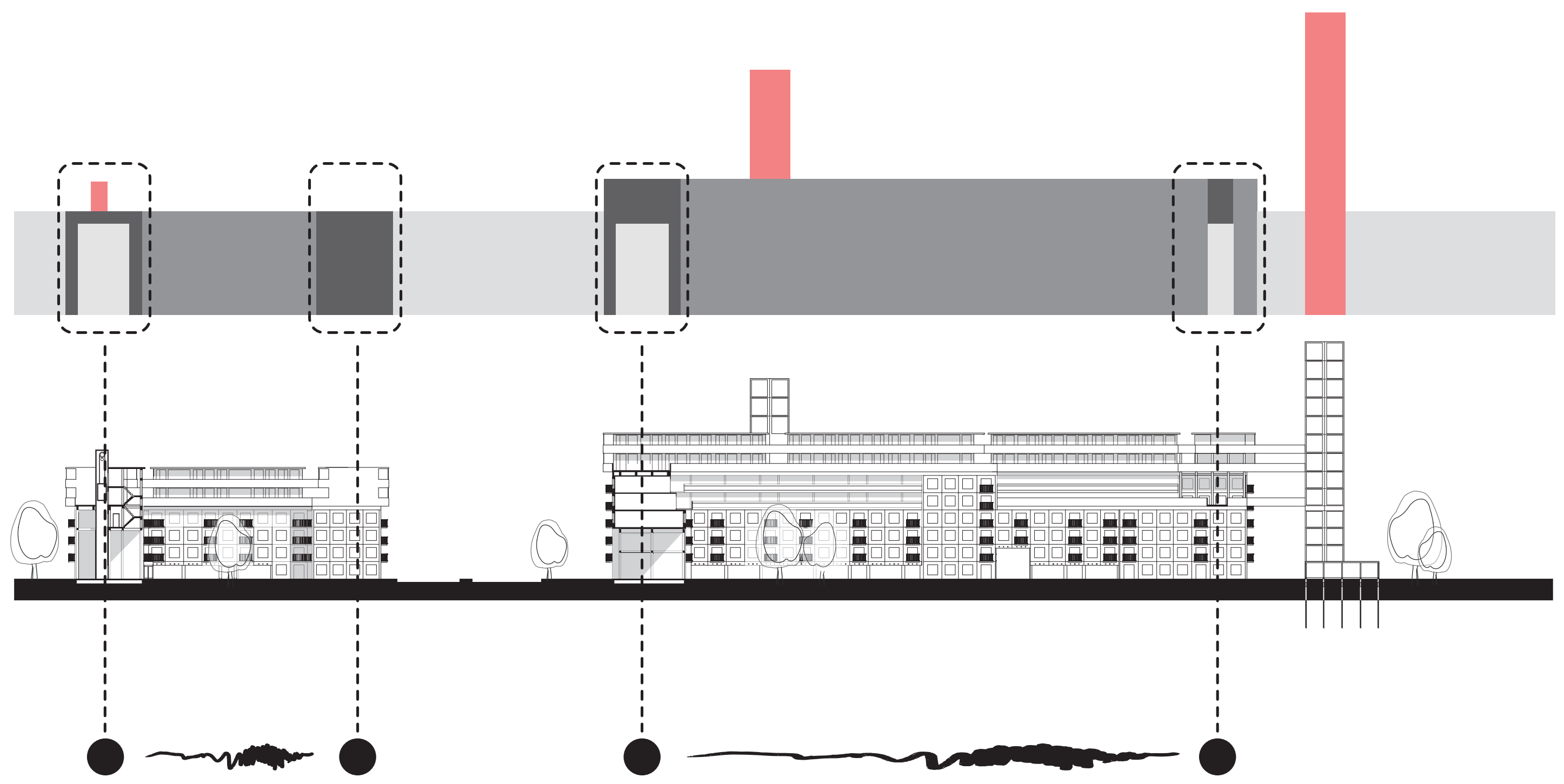
Life on the ground





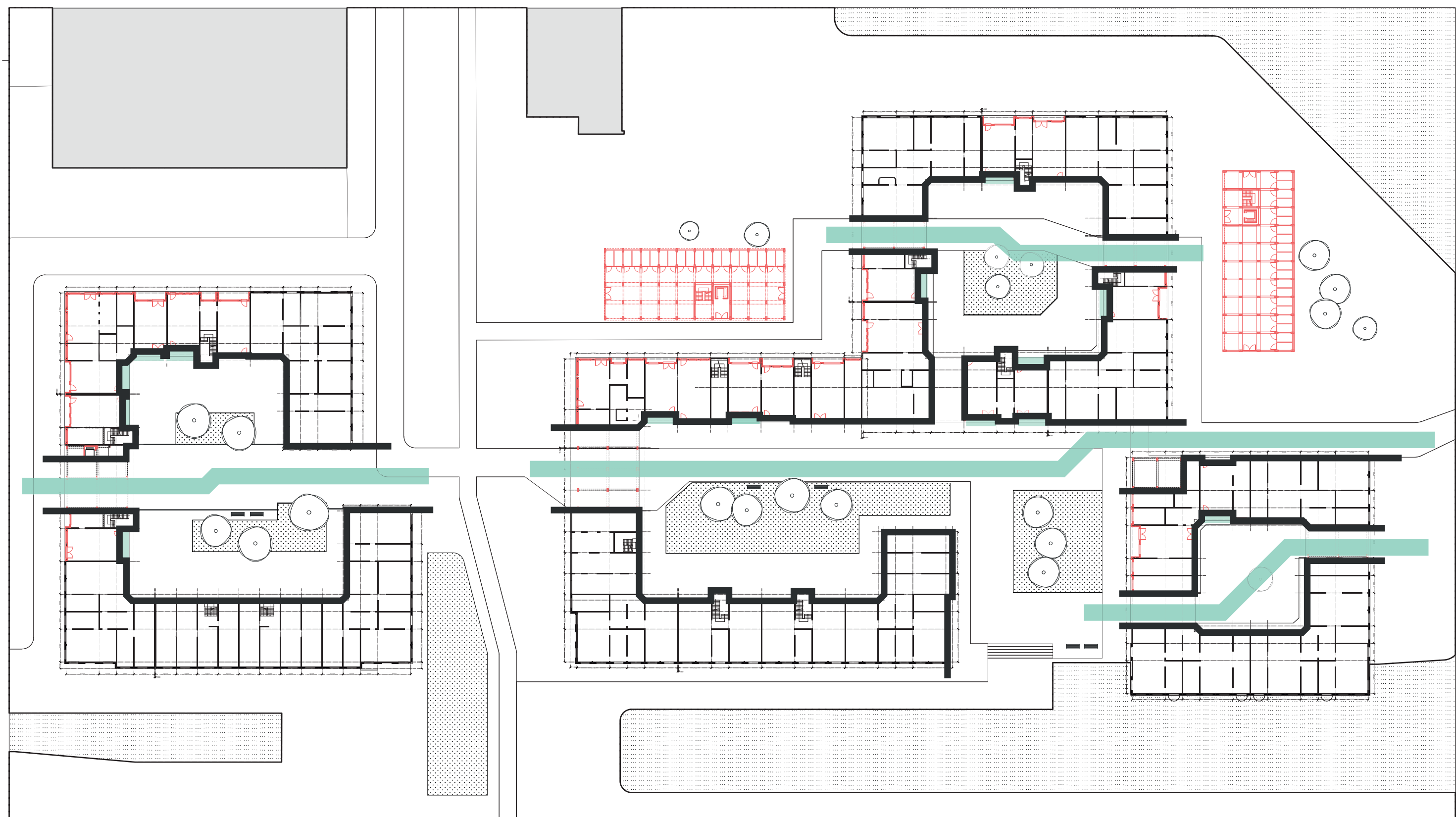
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## Life on the ground



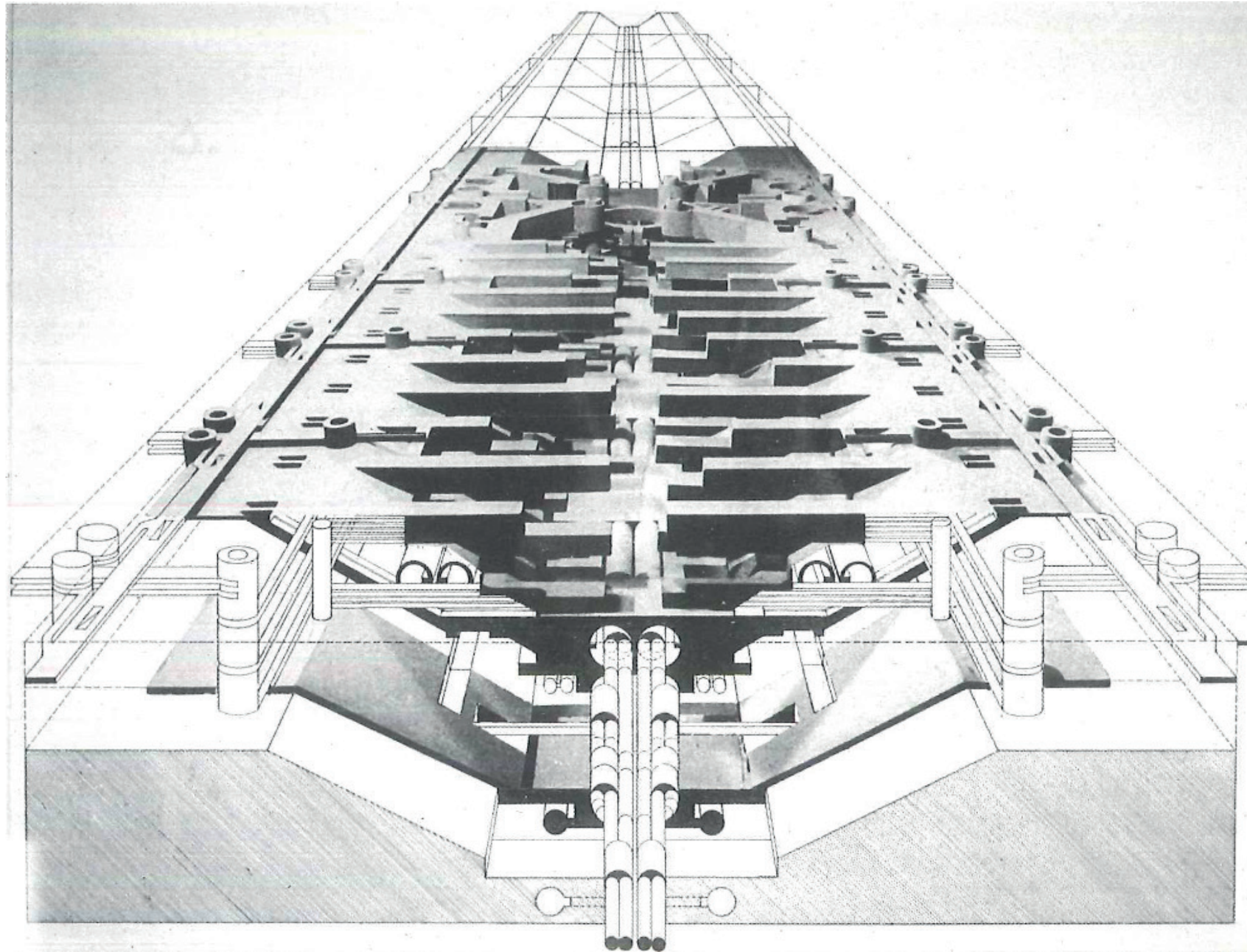
# Design

## Life on the ground



# Design

## Life on the ground



Vittorio Gregotti,  
Venice housing ex saffa,  
Started 1981



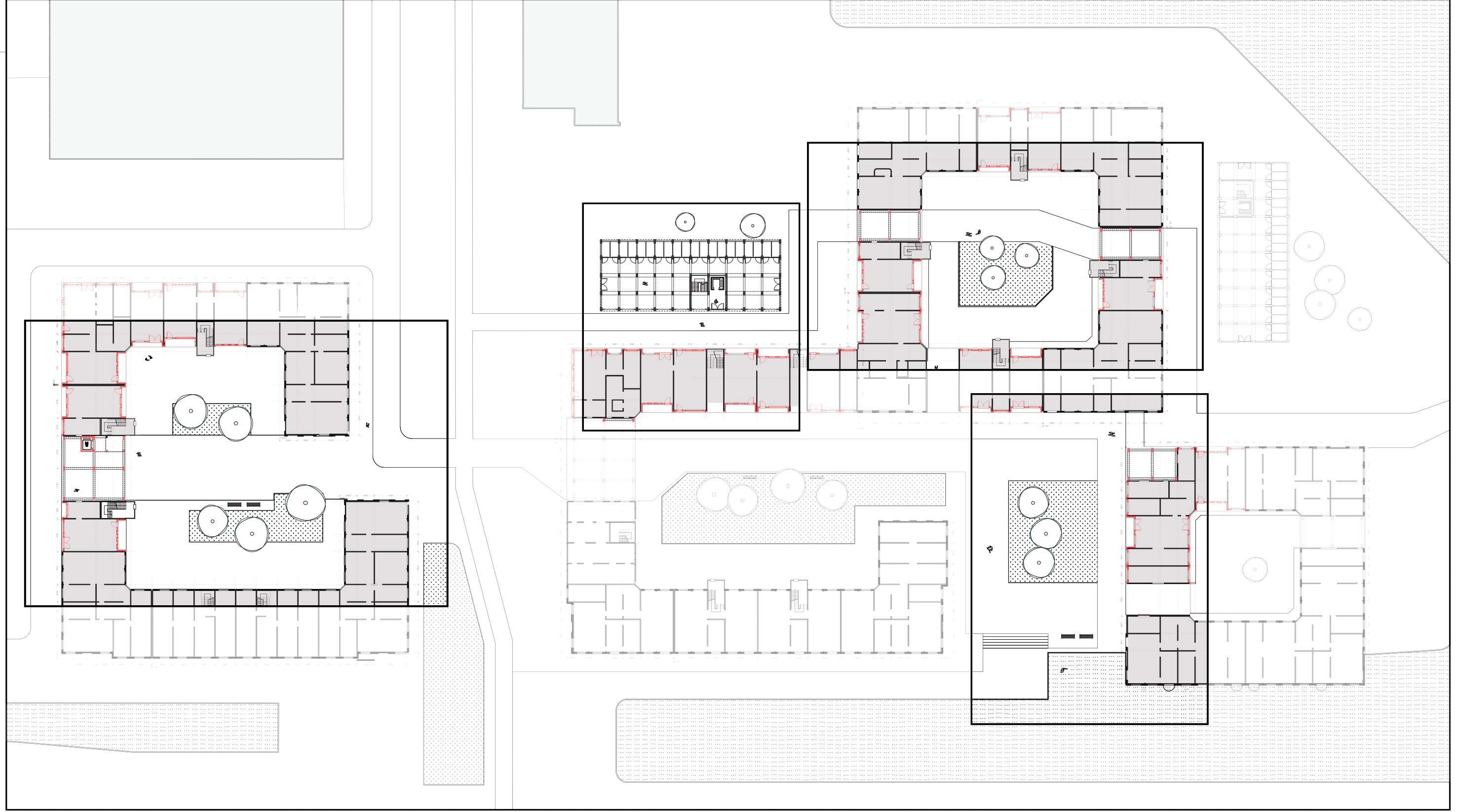
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## Life on the ground



# Design

## Life on the ground



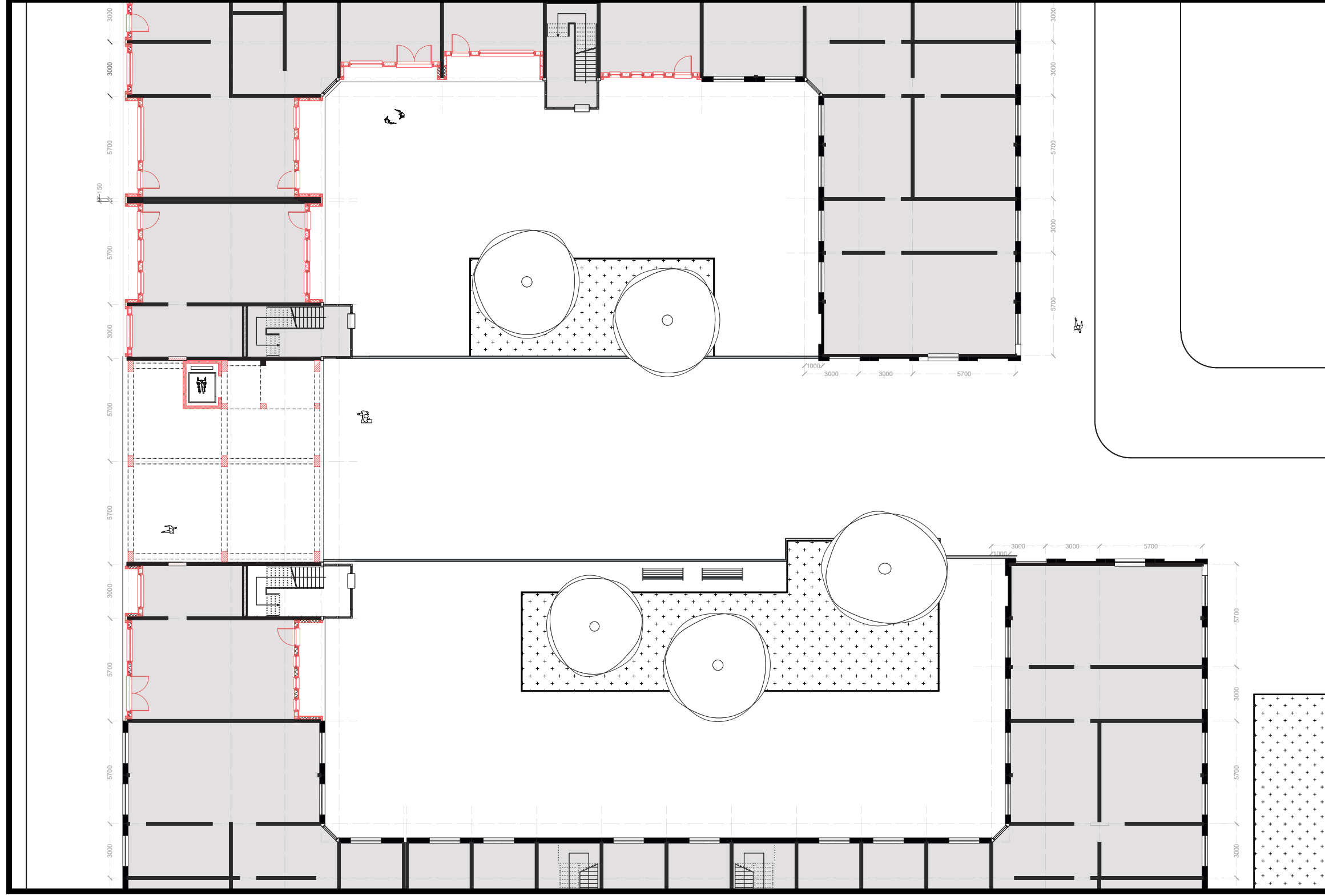
# Design

Life on the ground



# Design

## Life on the ground





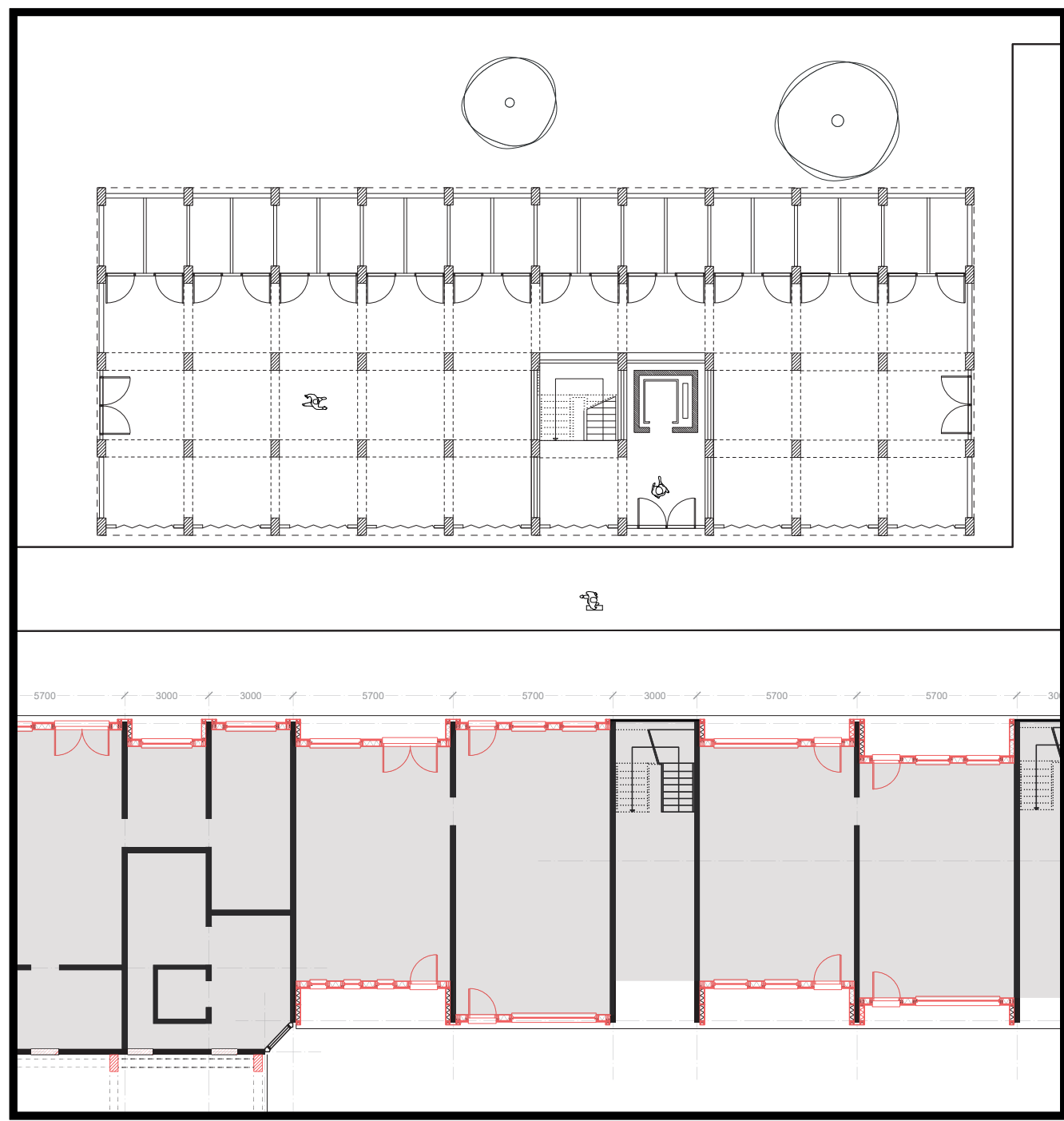
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## Life on the ground



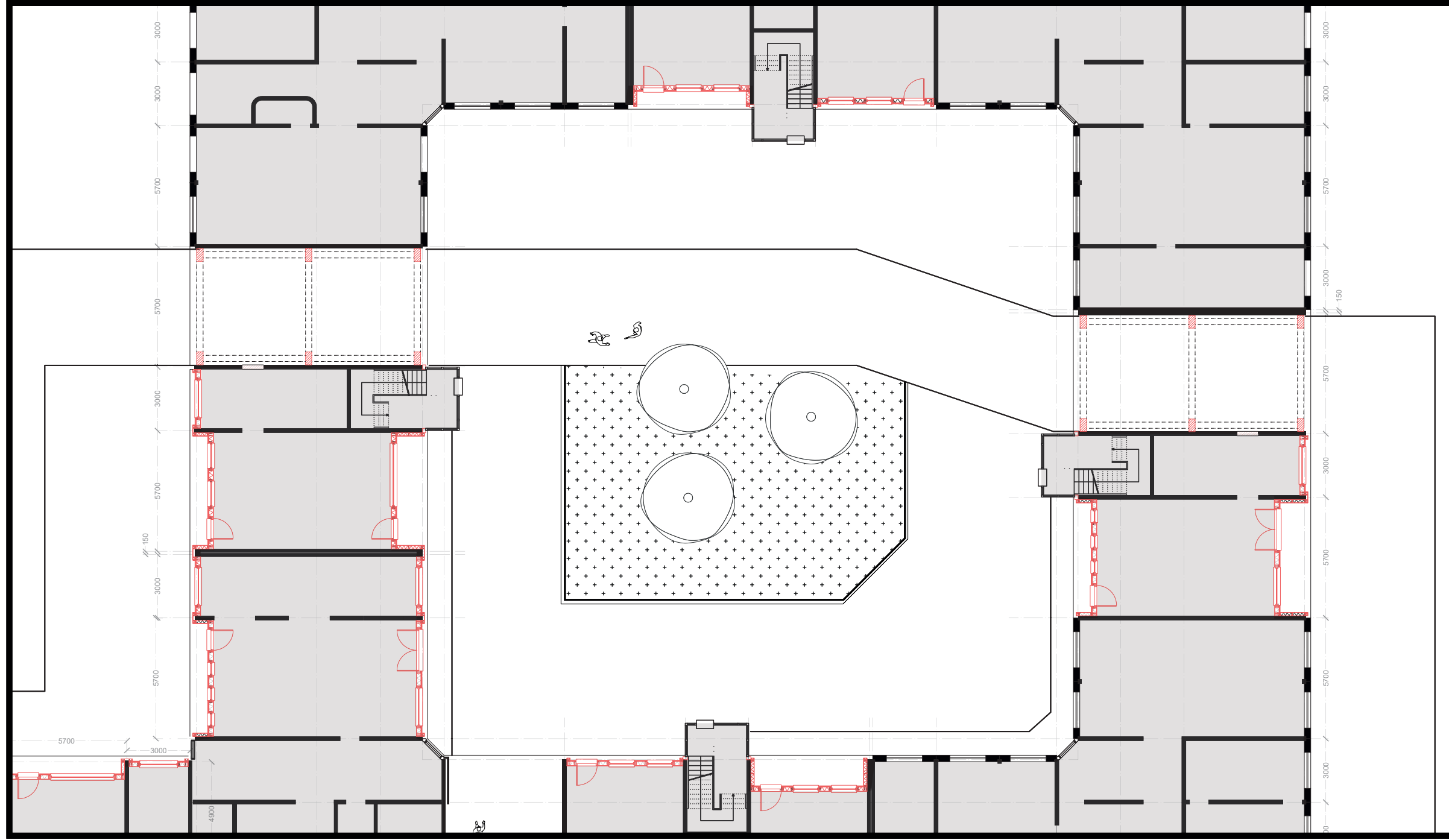
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## Life on the ground



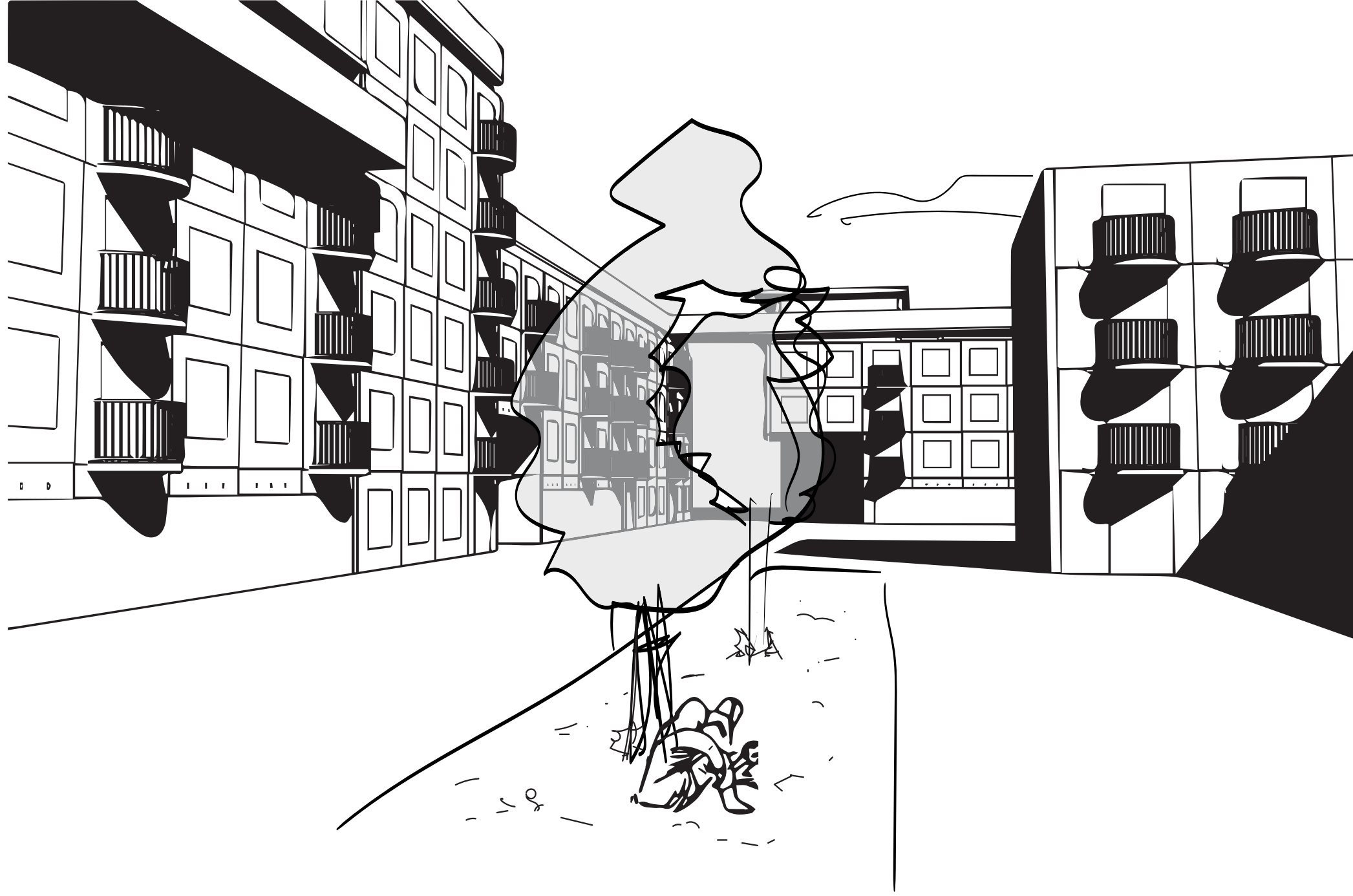
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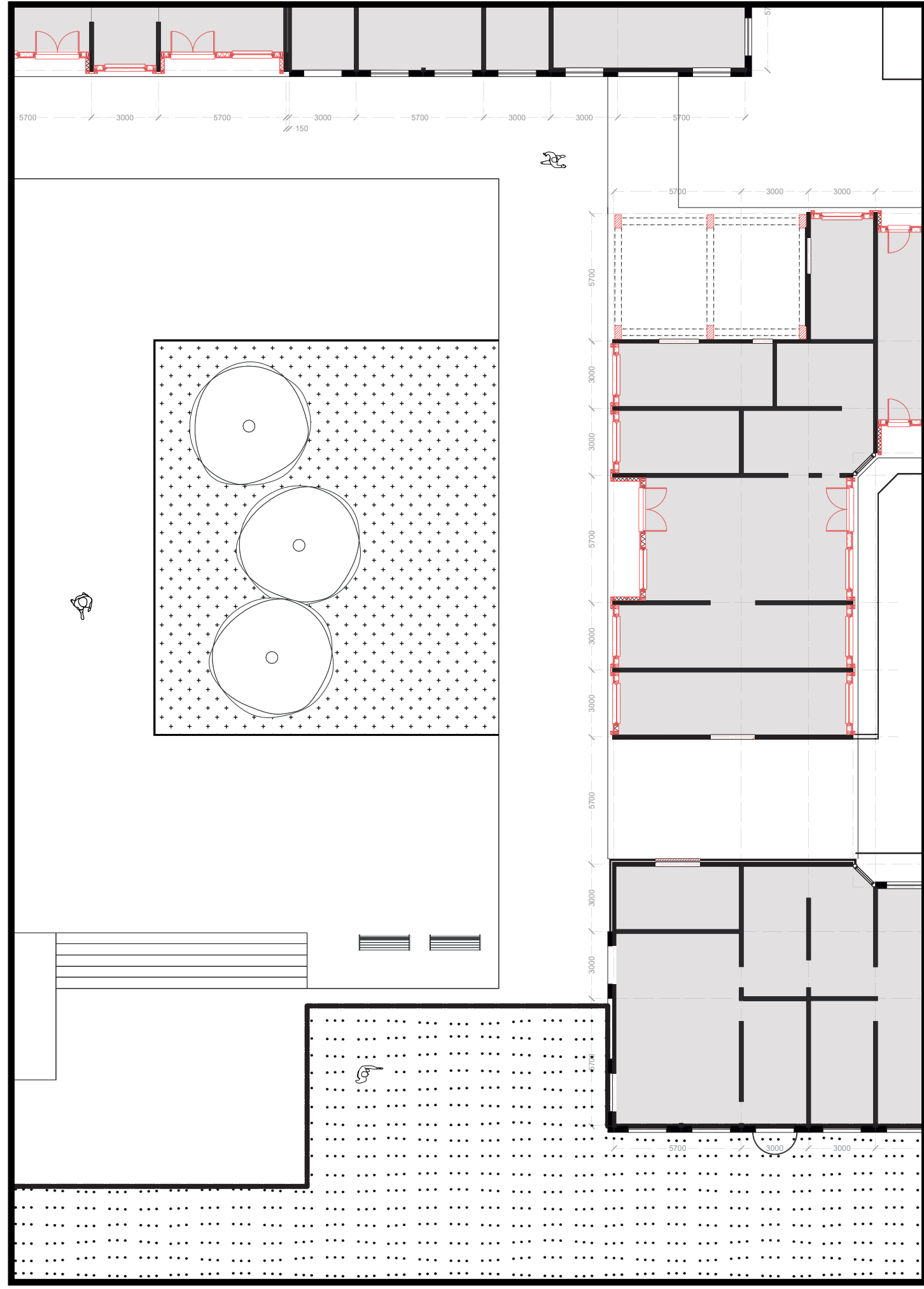
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# Design

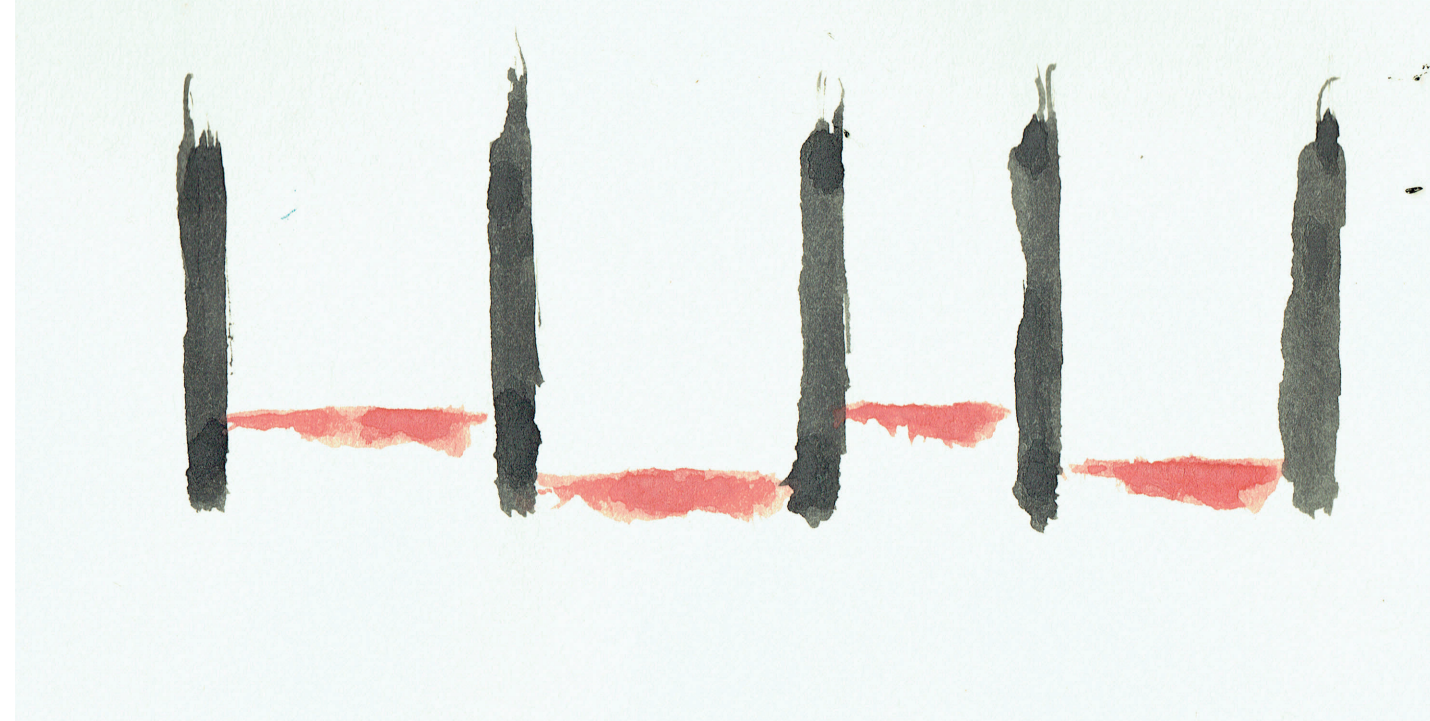
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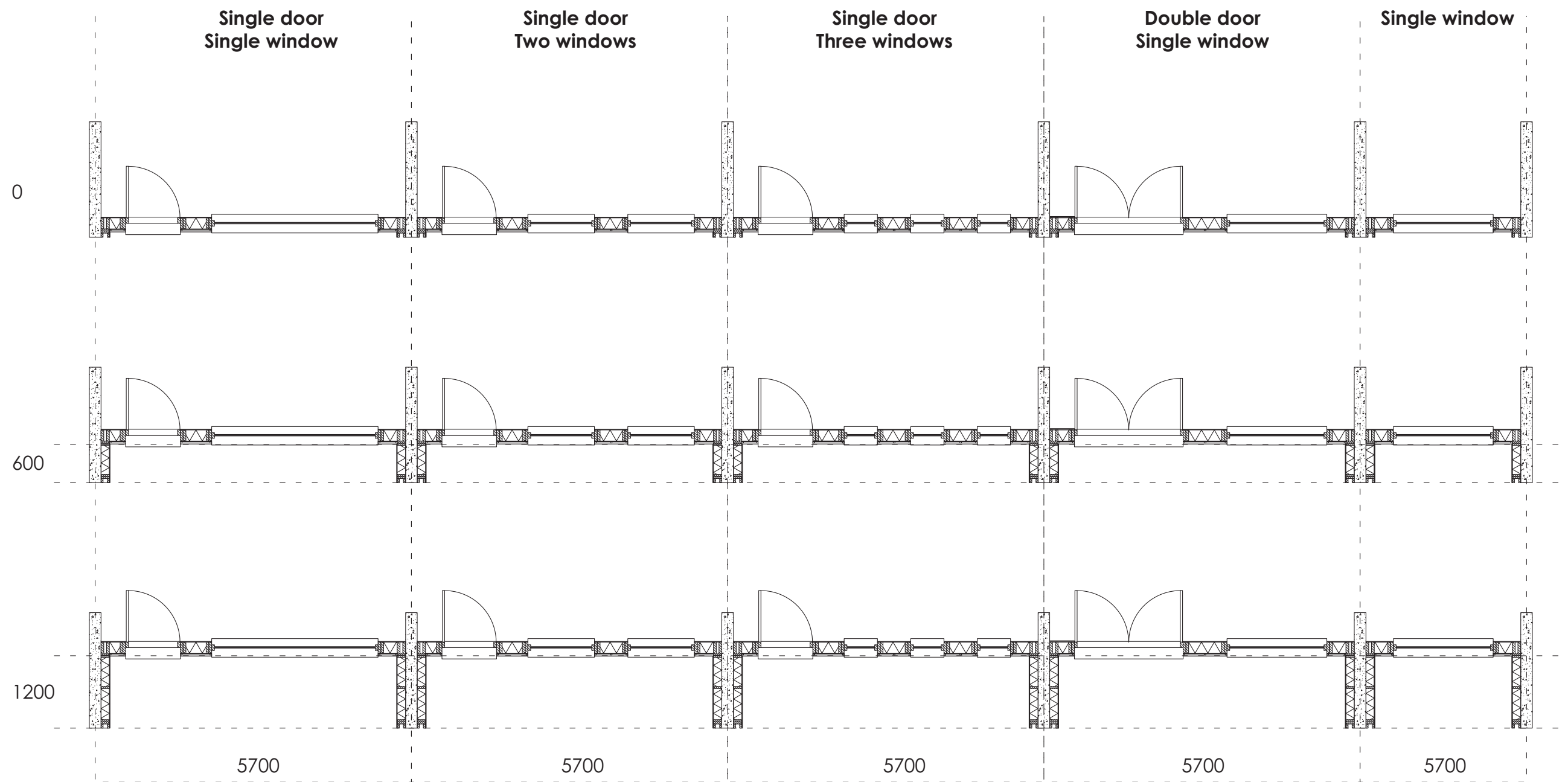
# Design

## Life on the ground



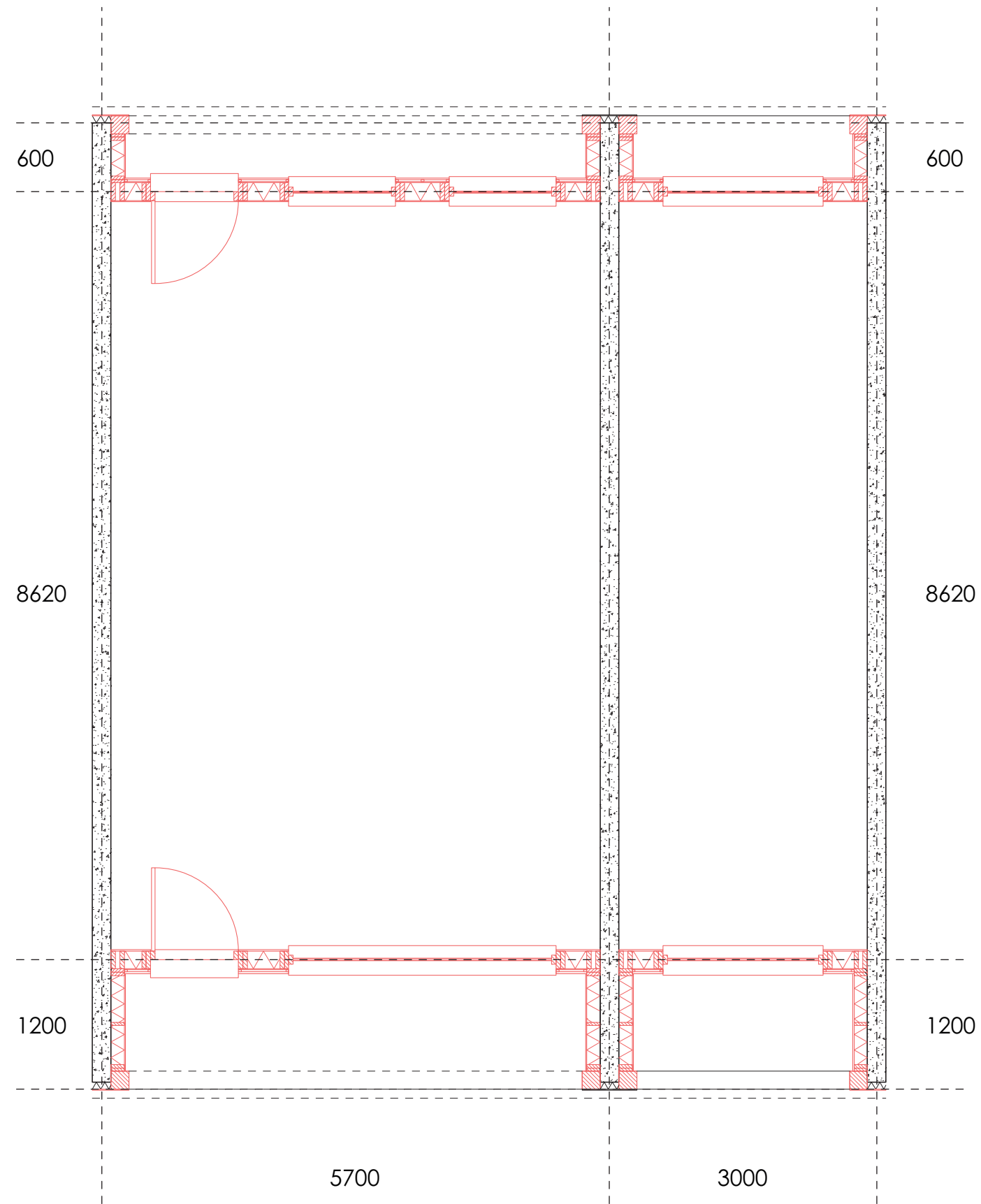
# Design

## Life on the ground



# Design

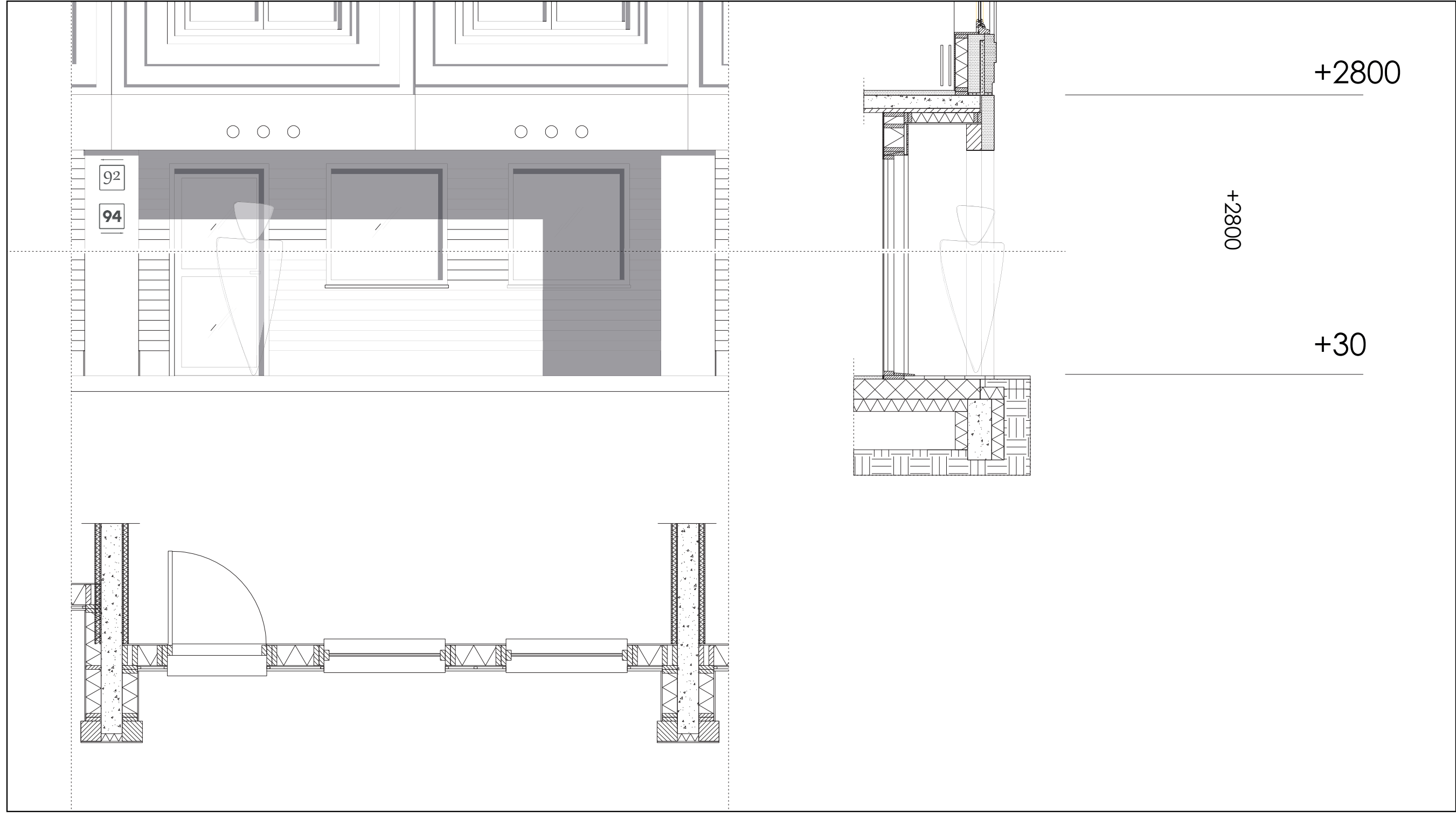
## Life on the ground





# Design

## Life on the ground

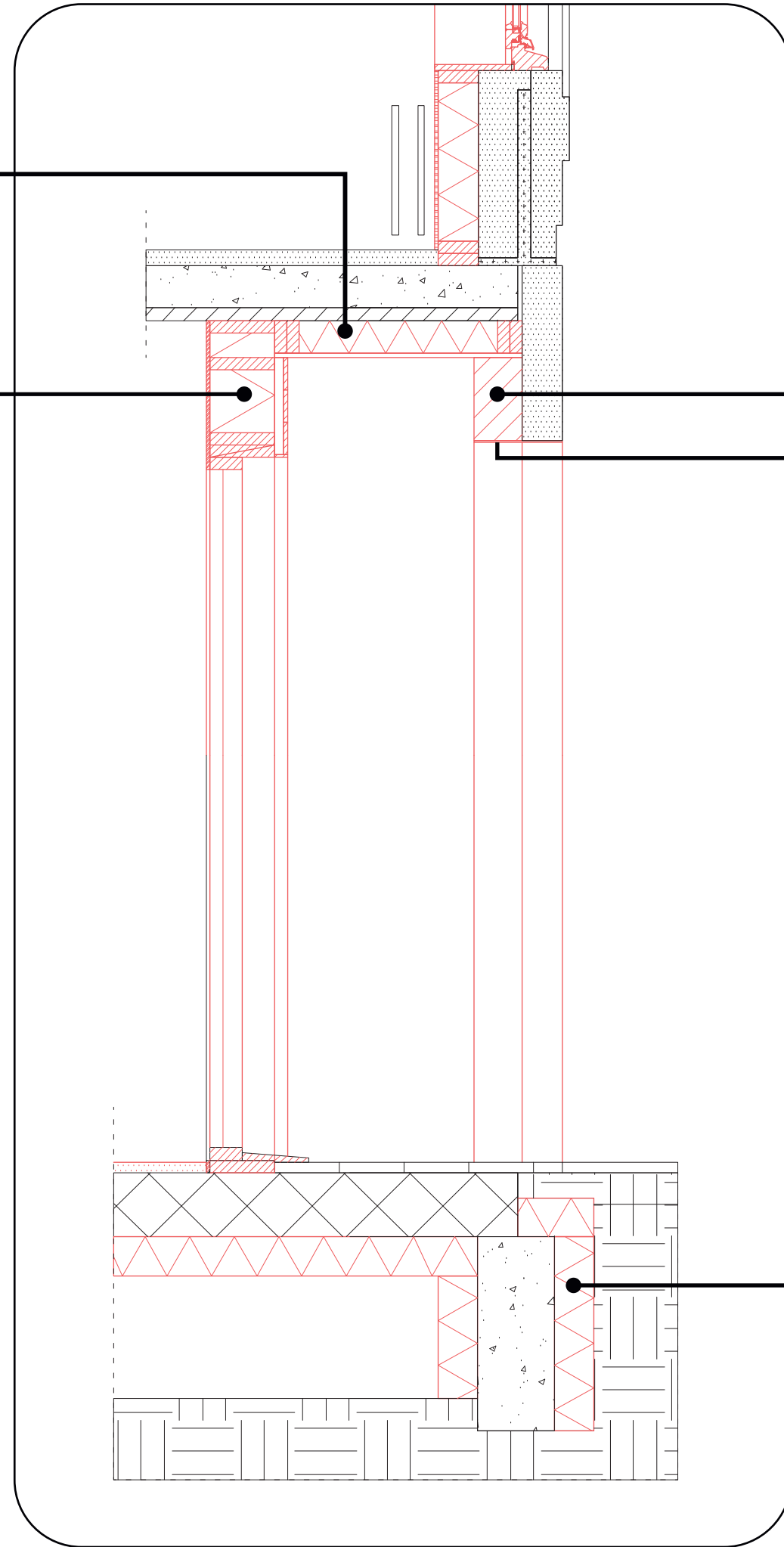




Isolation runs out into loggia as a thermal break

Timberframed new facade structure

Iso; 150mm Isovlas  
 $R_c = 4 \text{ W/mK}$



200x150mm wood beam

Metal substructure for existing facade beam

Additional isolation on foundation/crawl space

120mm isovlas  
 $R_c = 3$

# Design

## Life on the ground



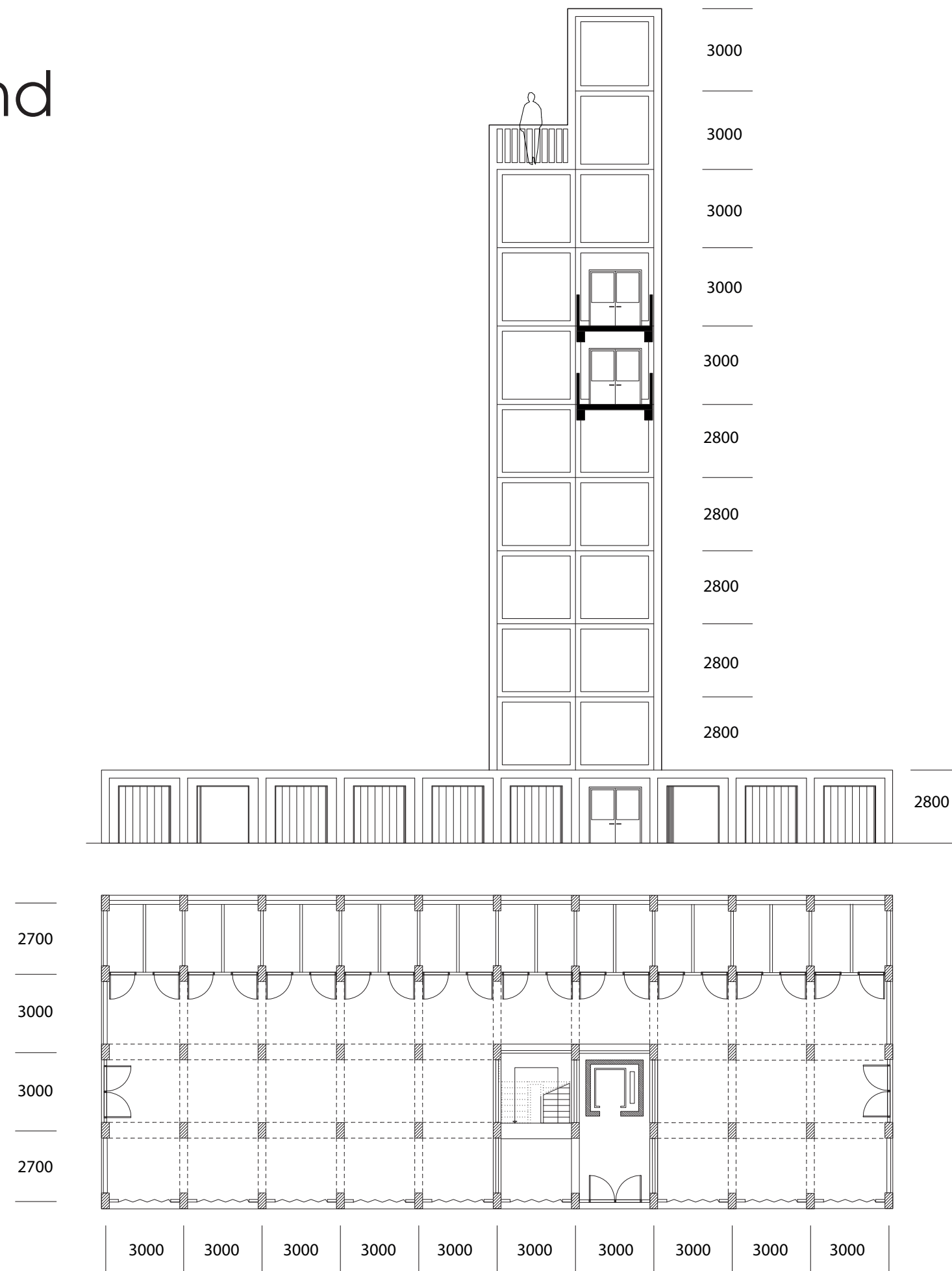
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Life on the ground



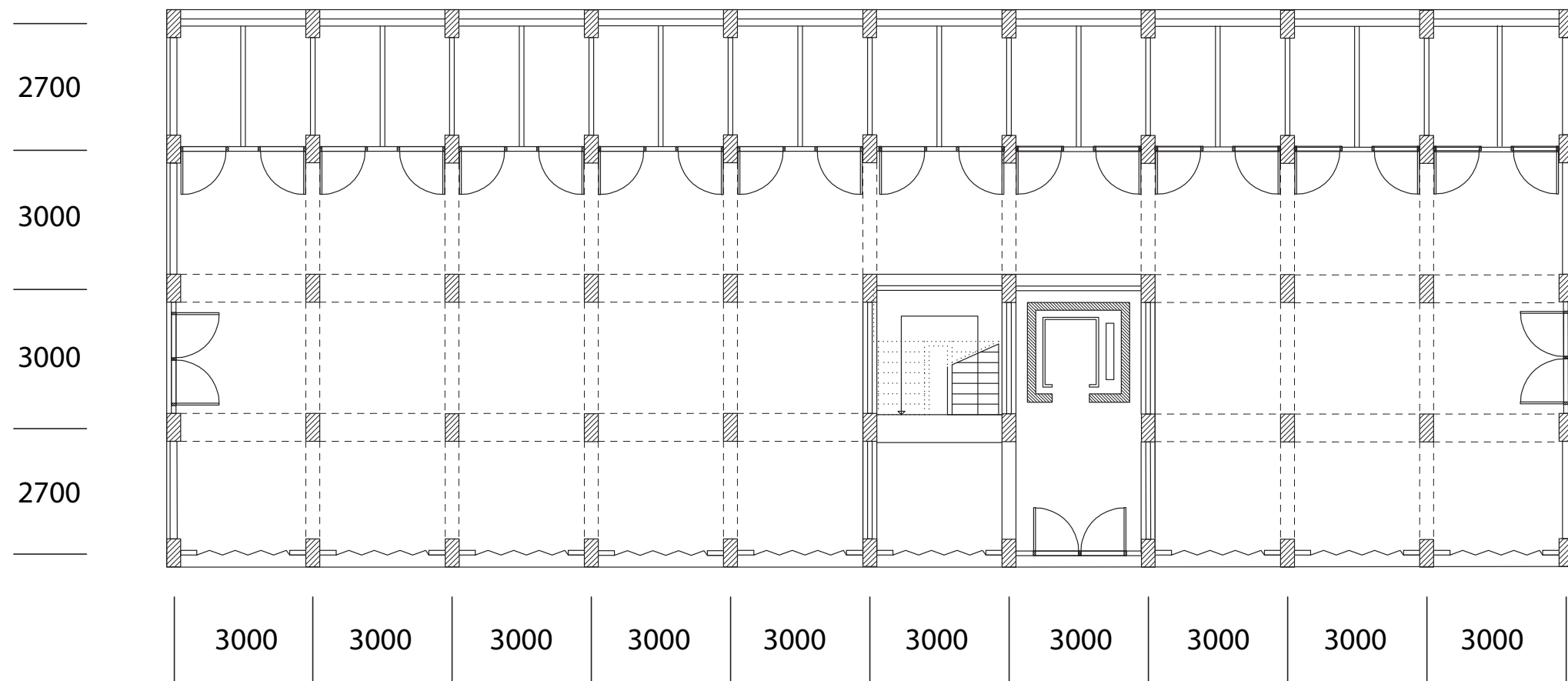
# Design

## Life on the ground



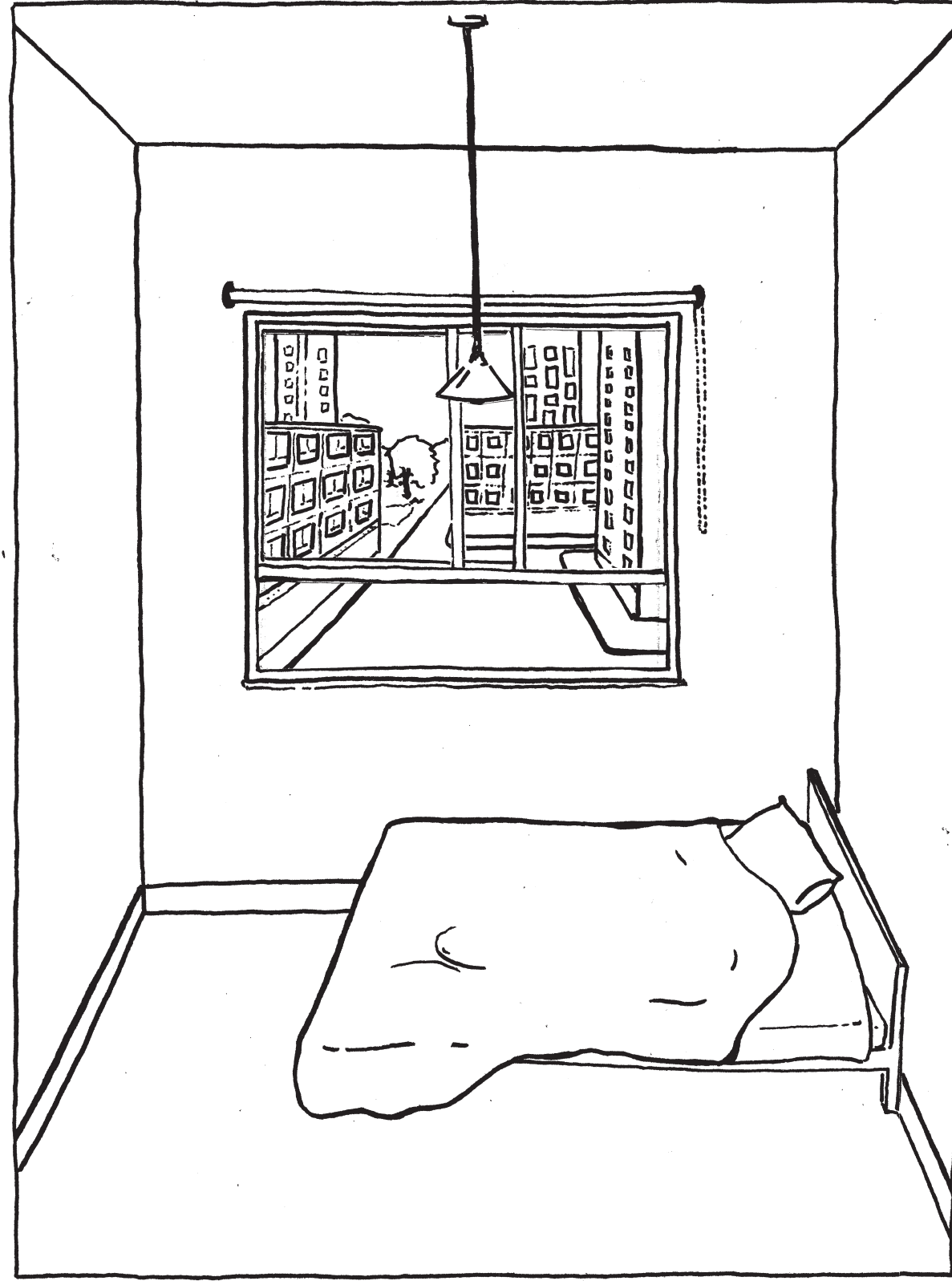
# Design

## Life on the ground



# Design

## Life in between



# Design

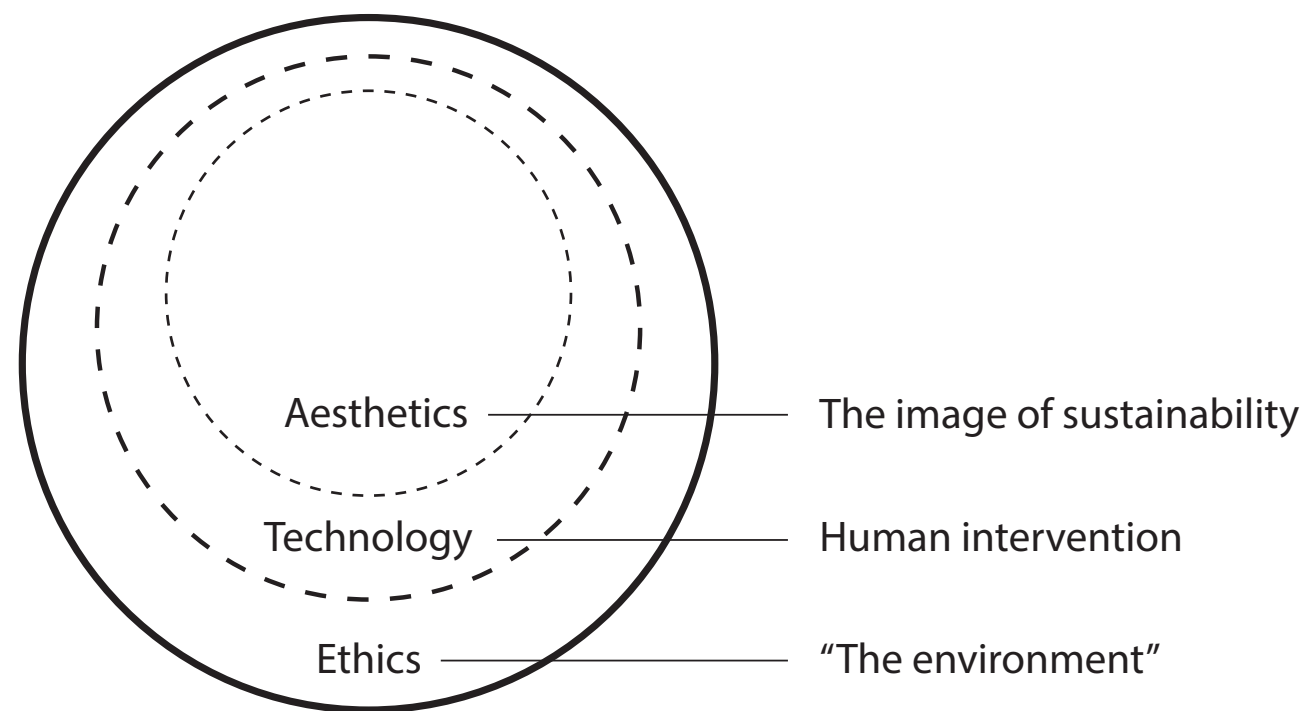
## Life in between





# Design

## Life in between



How can sustainable design mitigate psychological effects of urban life?

How can the material value of Heesterveld be taken advantage off in a redesign?

How can architecture be designed to keep grounded in its environment, profiting from natural processes?

# Design

## Life in between



Waste heat from nearby data centres / industry  
4 PJ / 314.246 households

Cooling potential from Gaasperplas

Solar and wind in from rural land  
1,36 PJ / 106.843 households

# Design

## Life in between

### Local energy source potential

#### Electricity

Solar on 60% of roofs  
0,72 PJ / 57.350 households

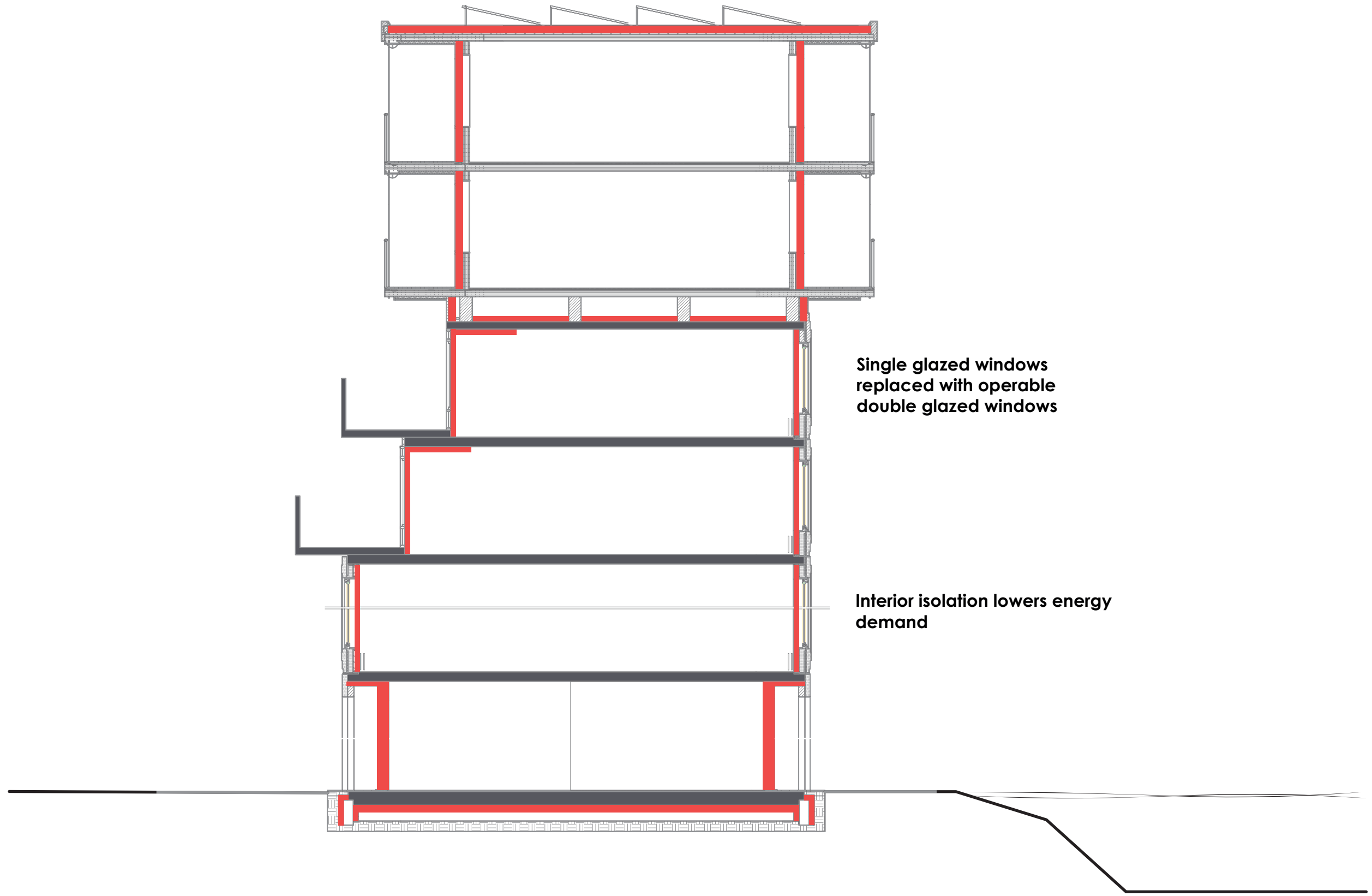
#### Heat

Biogas  
Hydrogen  
Surface water  
Solar boilers  
Geothermal  
Heat-Cold storage



# Design

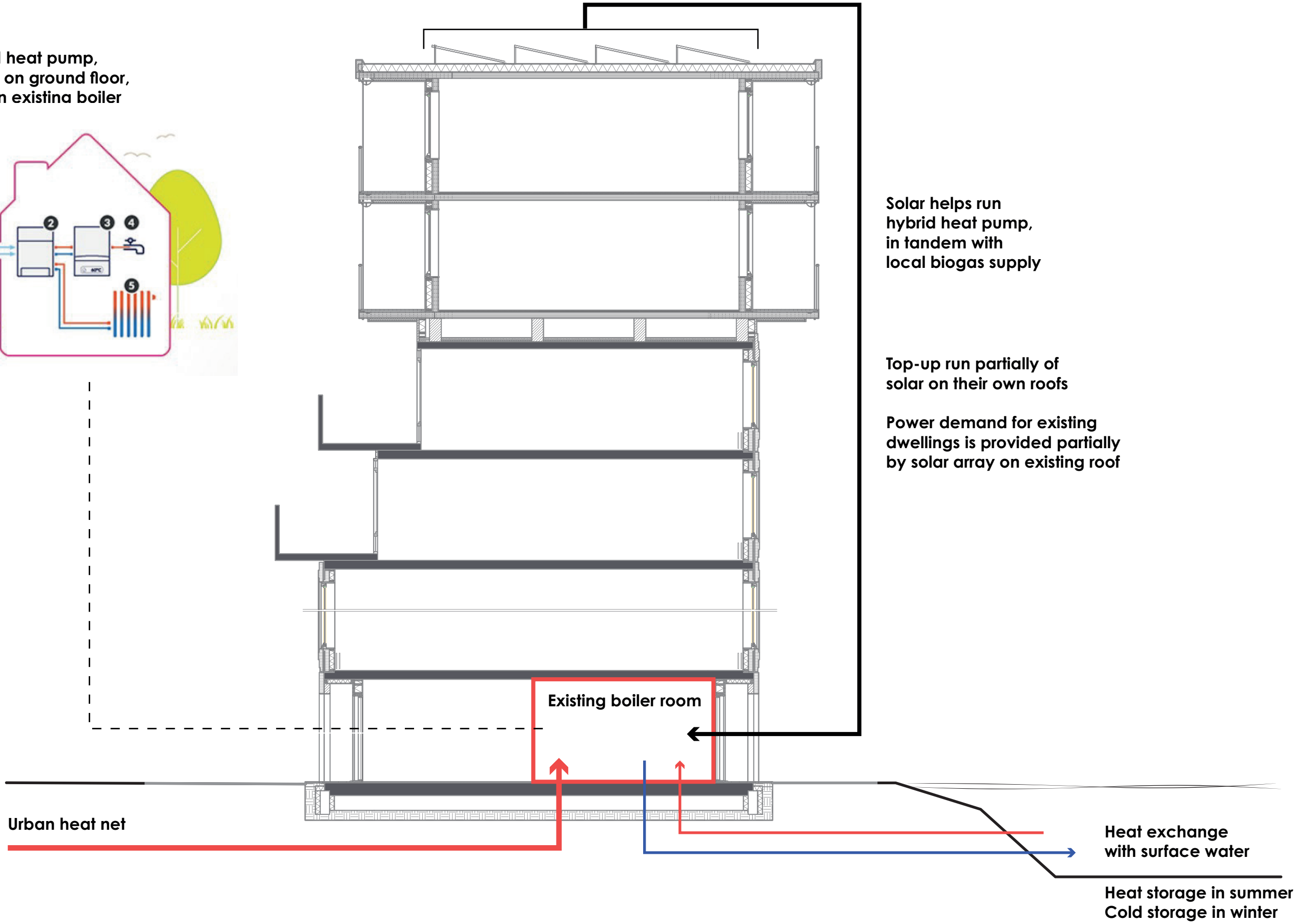
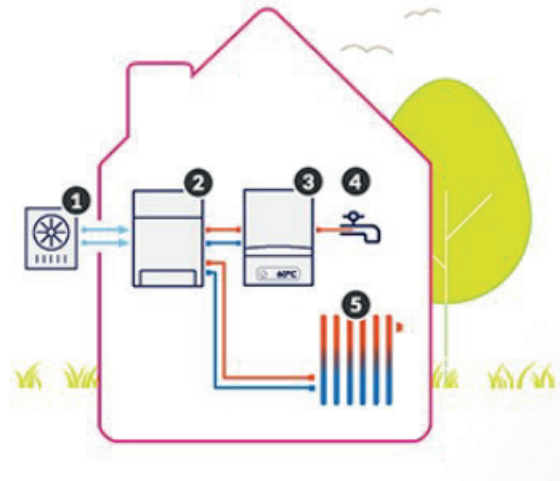
## Life in between



# Design

## Life in between

Hybrid heat pump, intake on ground floor, runs on existing boiler



Solar helps run hybrid heat pump, in tandem with local biogas supply

Top-up run partially of solar on their own roofs

Power demand for existing dwellings is provided partially by solar array on existing roof

Urban heat net

Heat exchange with surface water

Heat storage in summer  
Cold storage in winter

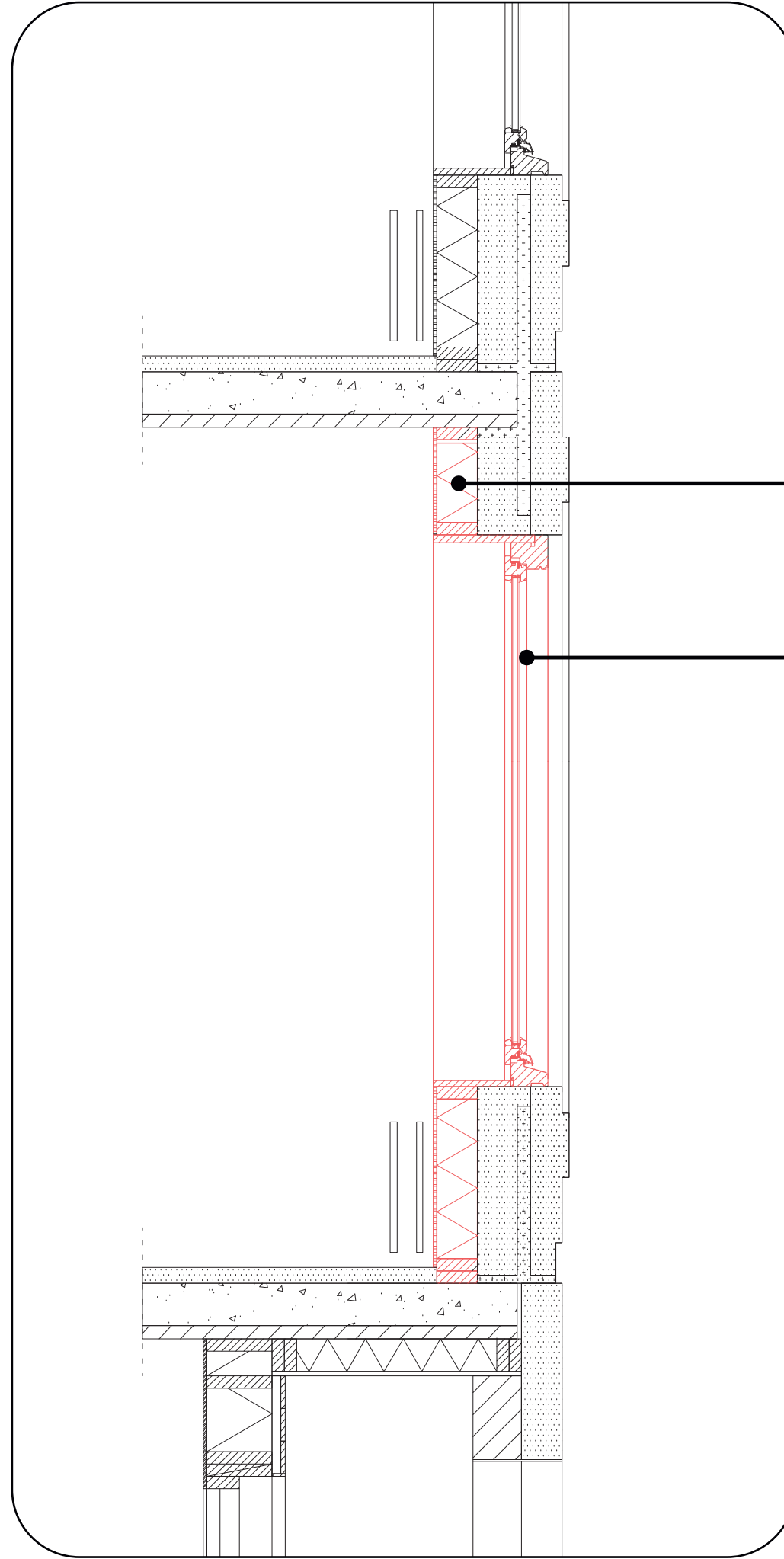
# Design

## Life in between

Where is the heritage value?







150mm isovlas  
 $R_c = 4 \text{ W/mK}$

New, operable, double  
glazed window

In line with existing  
isolation line



# Design

## Life in between



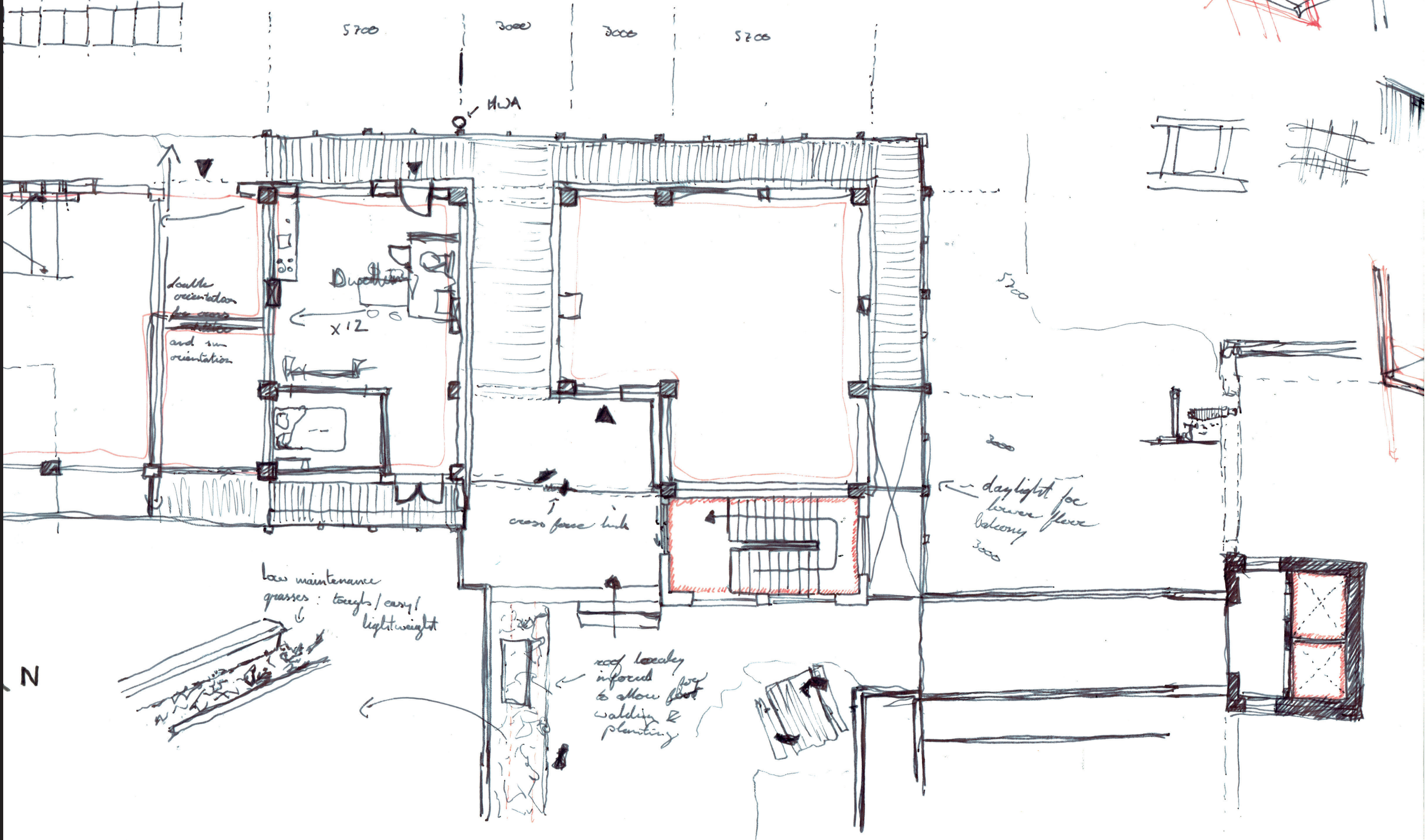
# Design

## Life in between



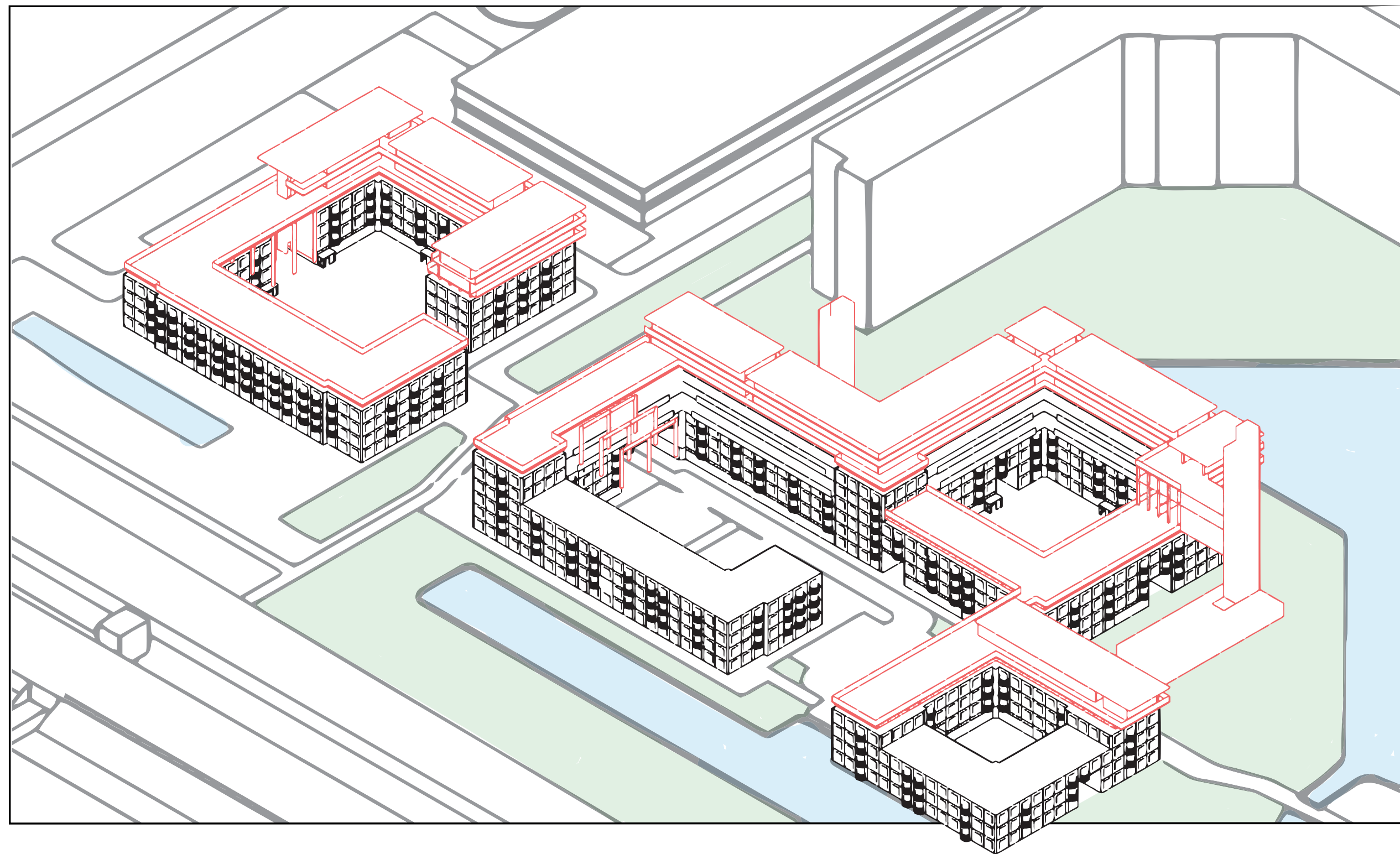
# Design

## Life on top



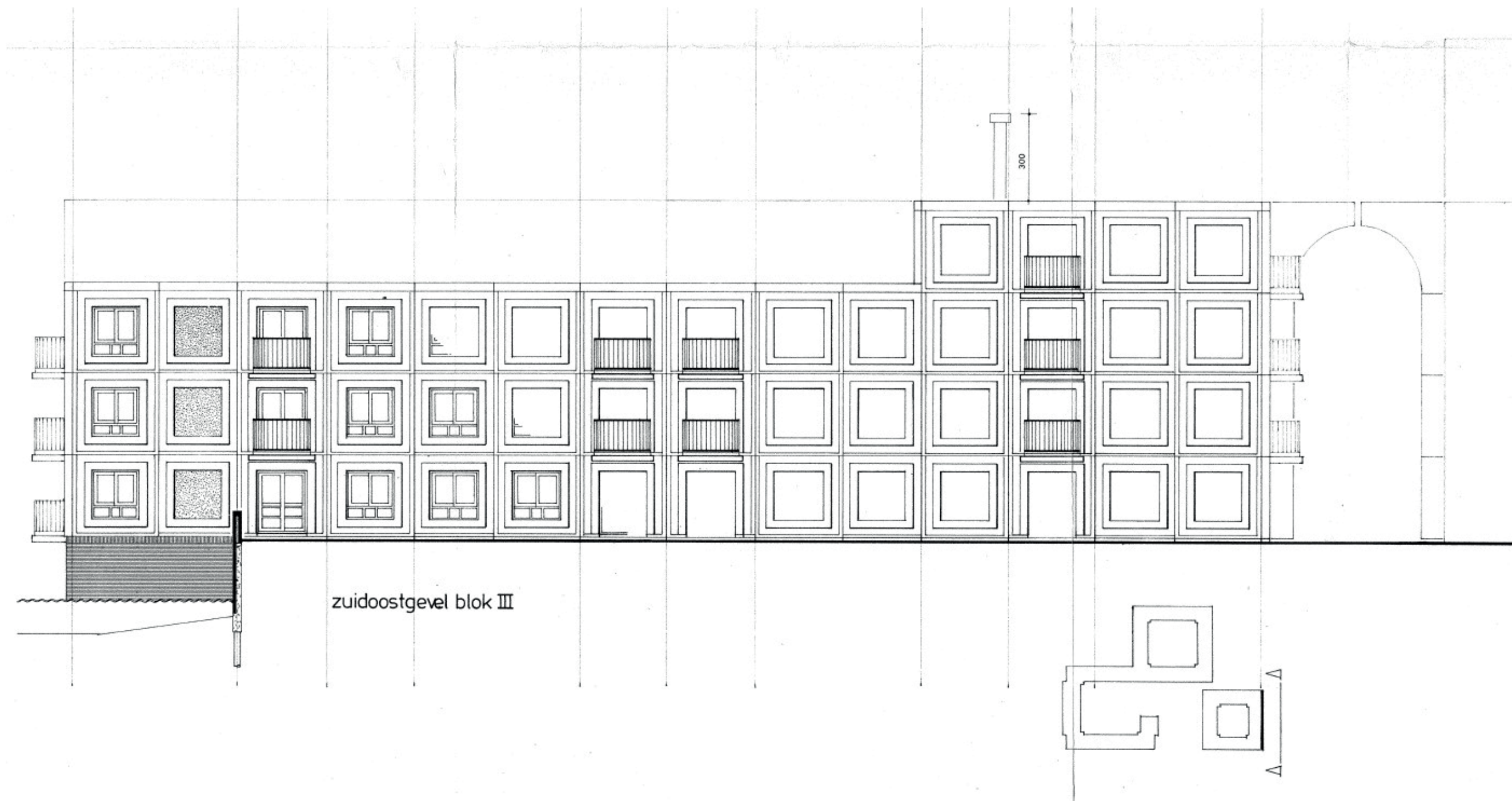
# Design

## Life on top



# Design

## Life on top



# Design

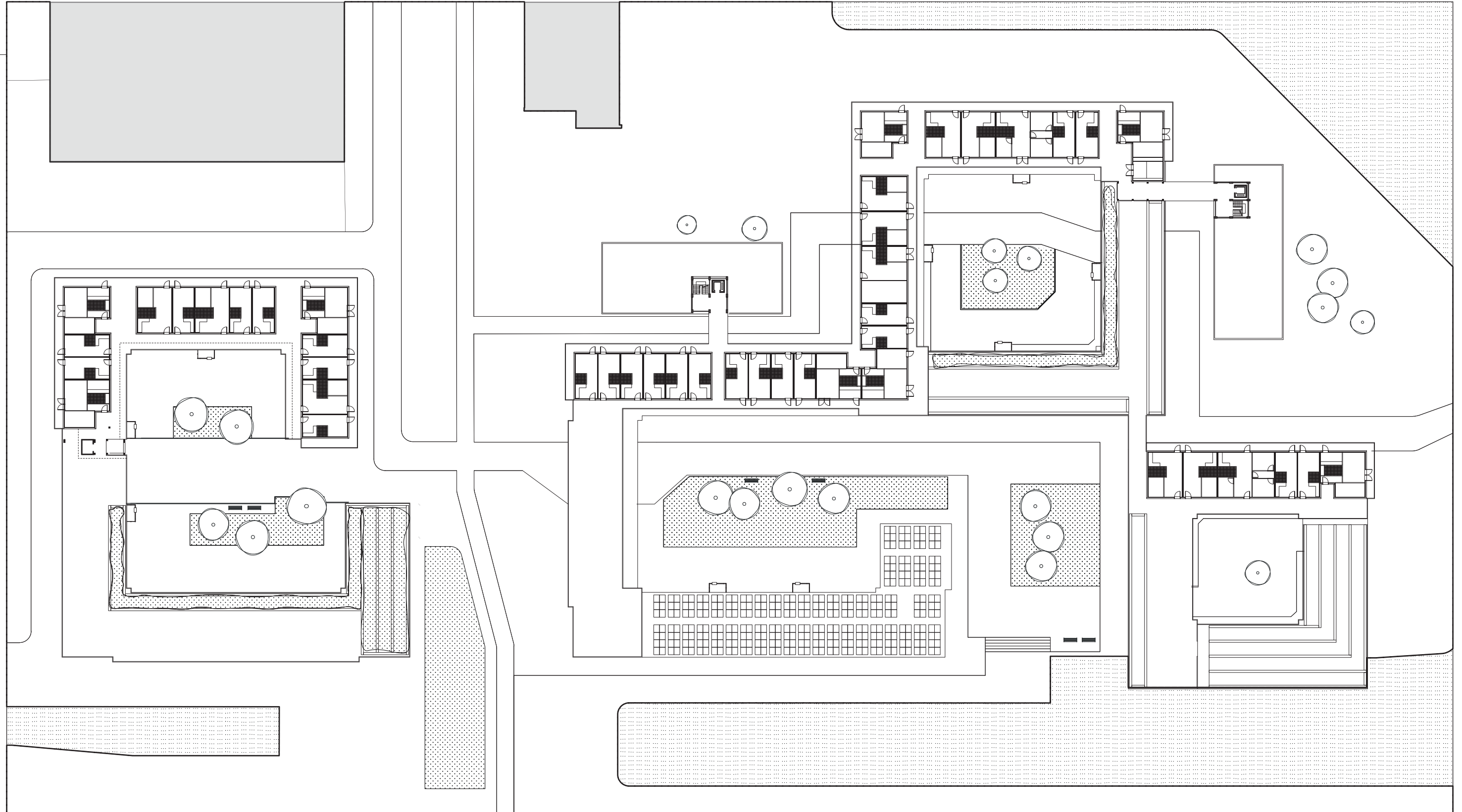
## Life on top



Public housing in Russia,  
Built under Chroesjtjov

# Design

## Life on top

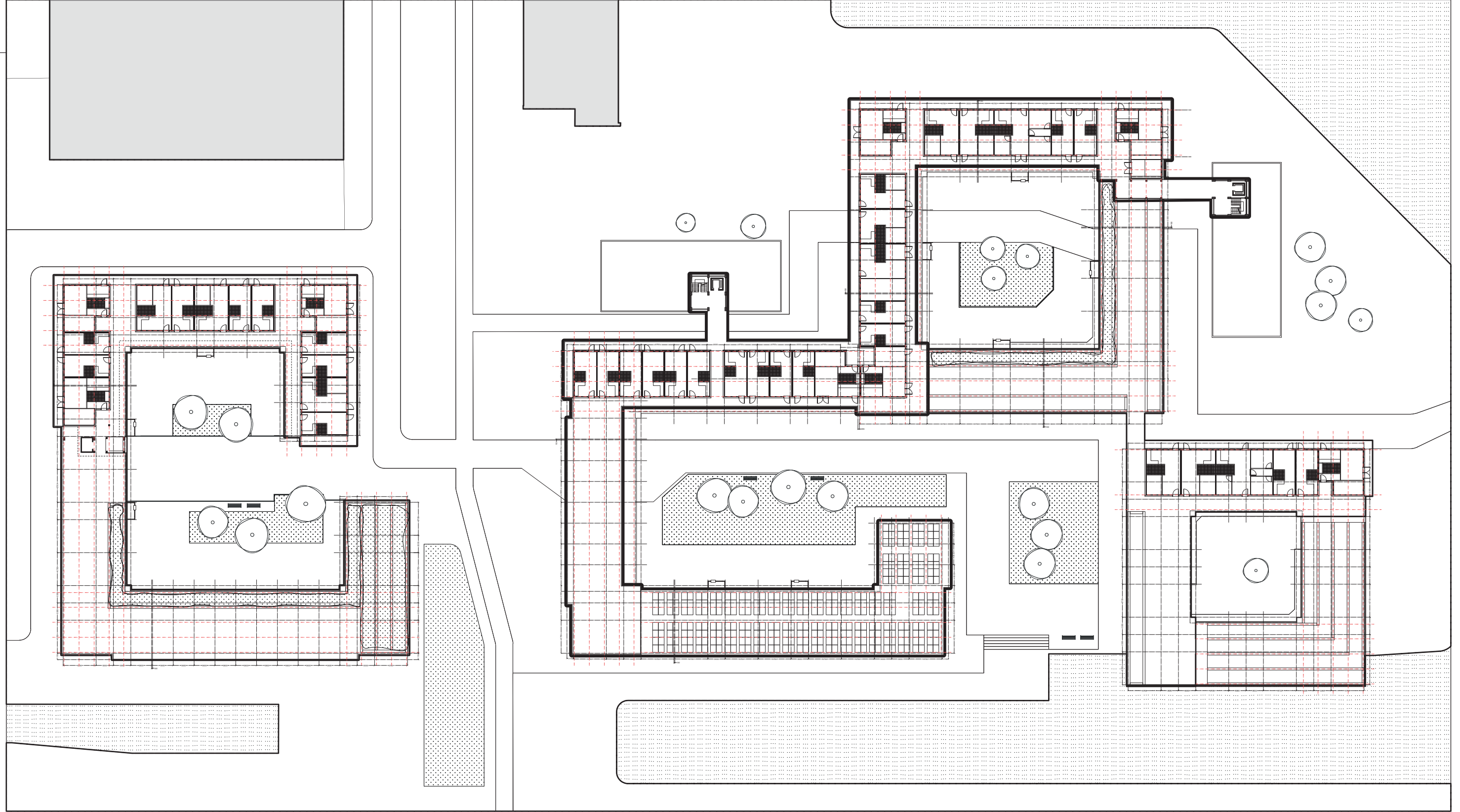


82 dwellings spread over two floors



# Design

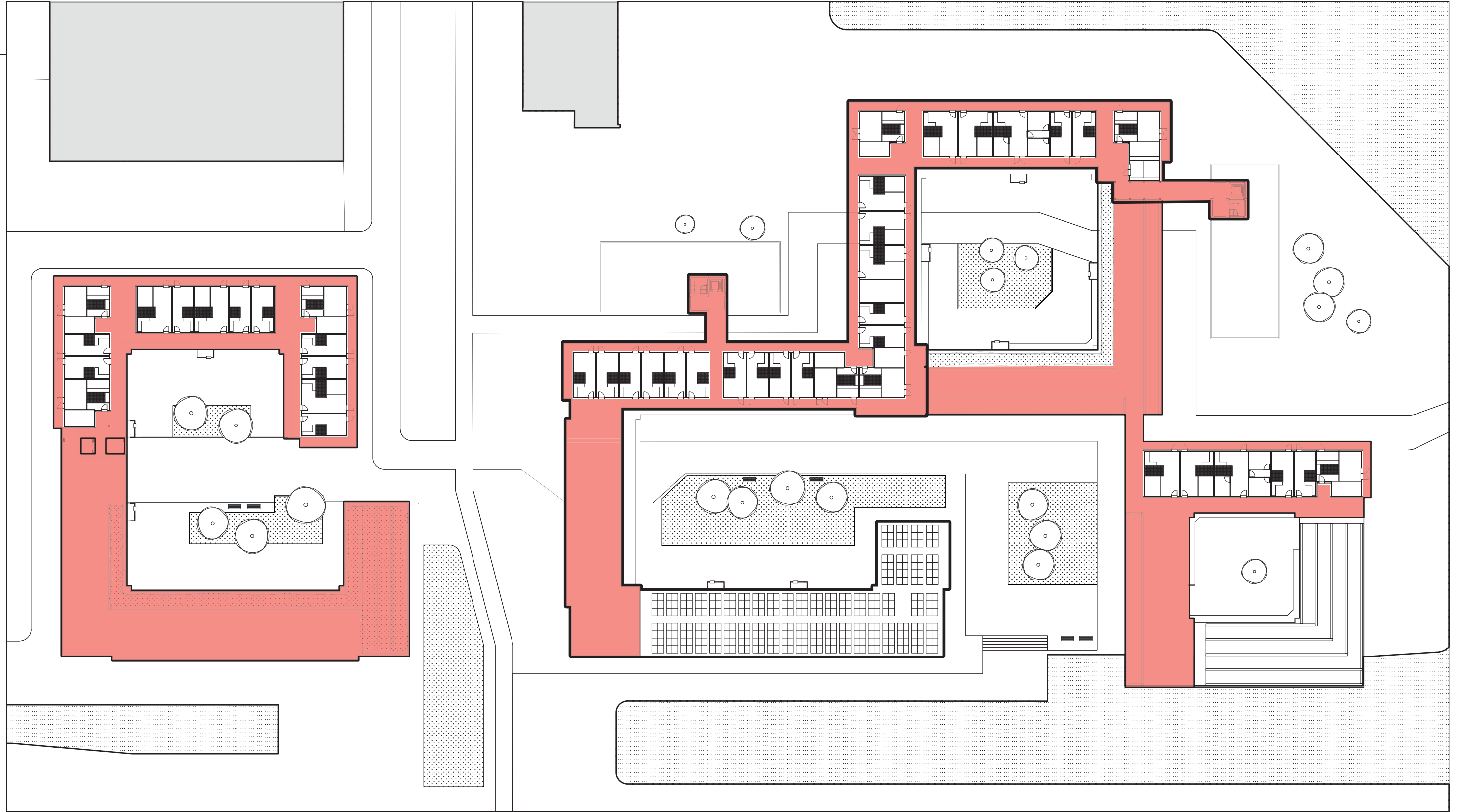
## Life on top





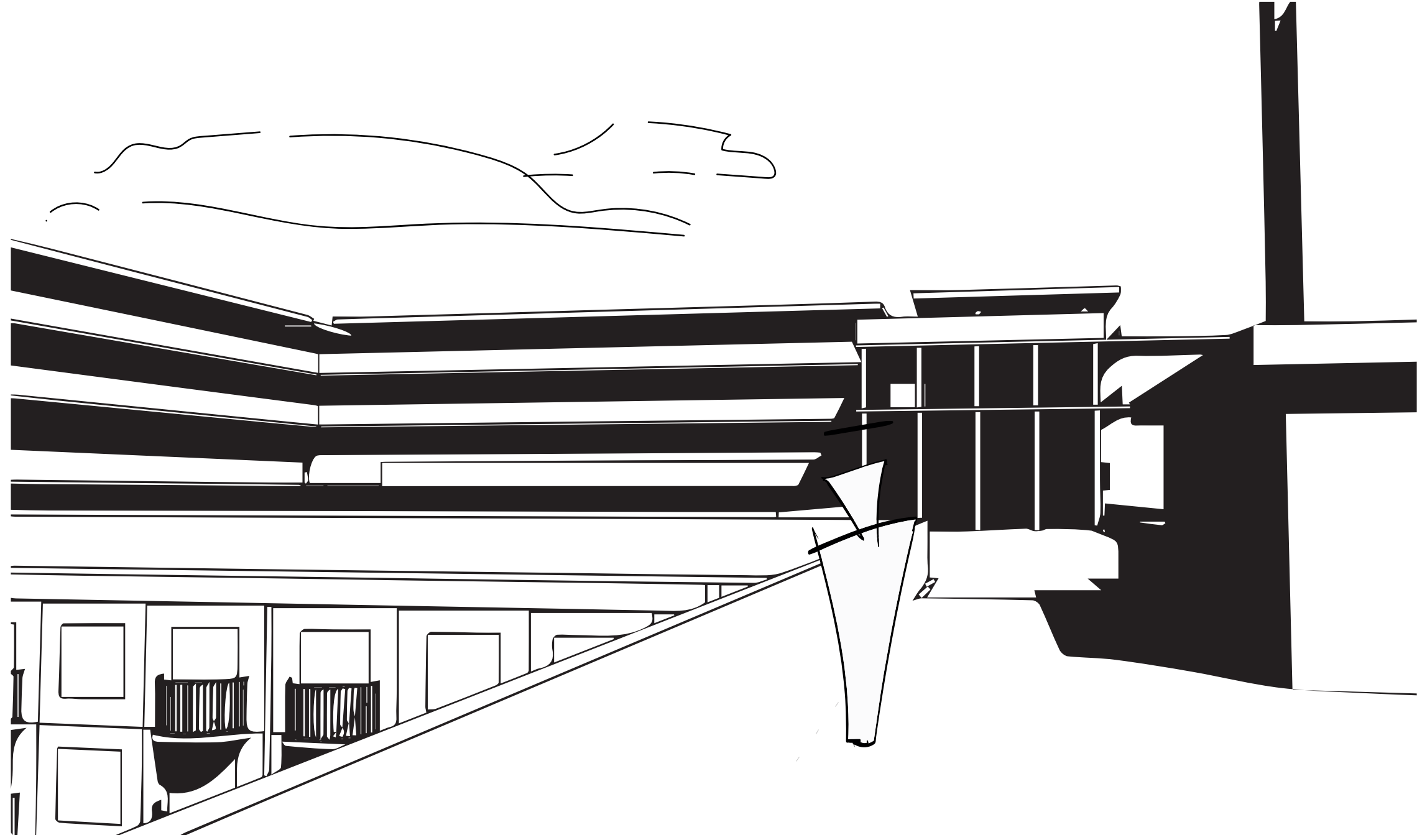
# Design

## Life on top



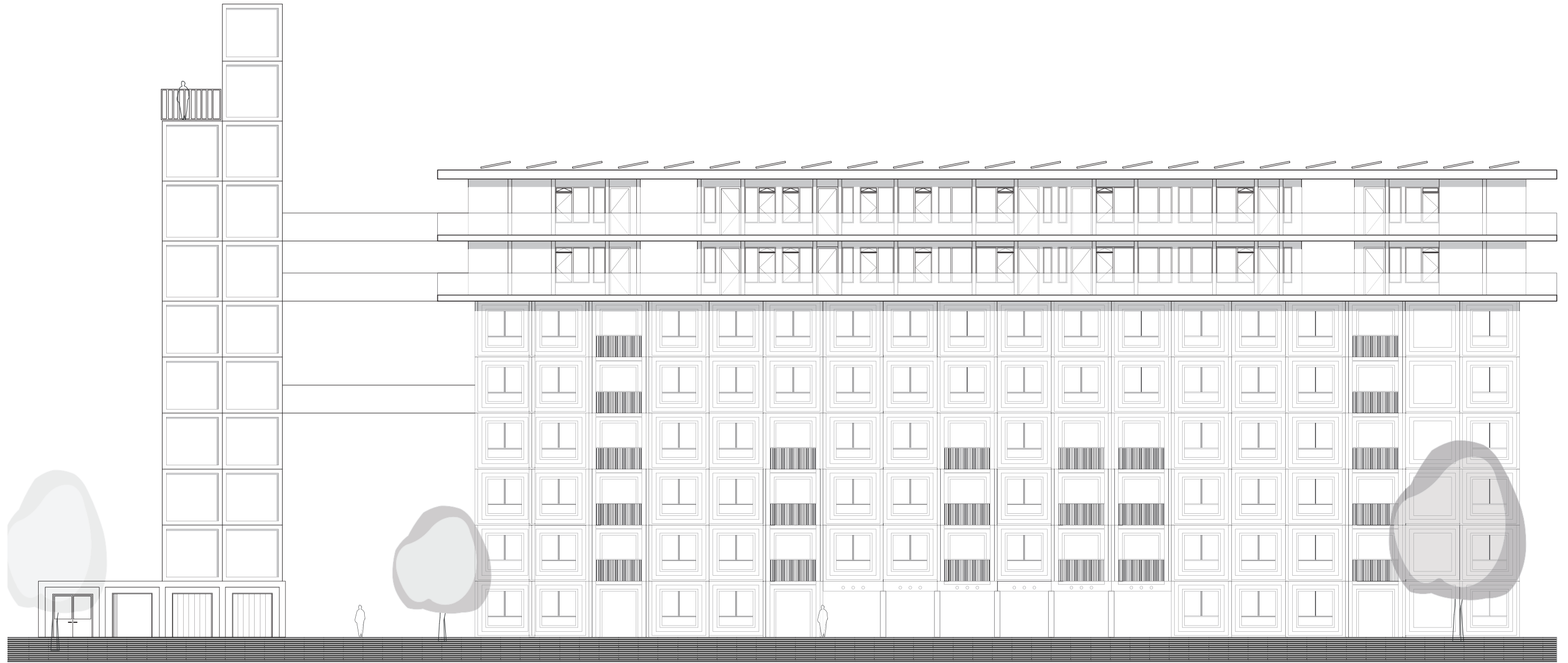
# Design

## Life on top



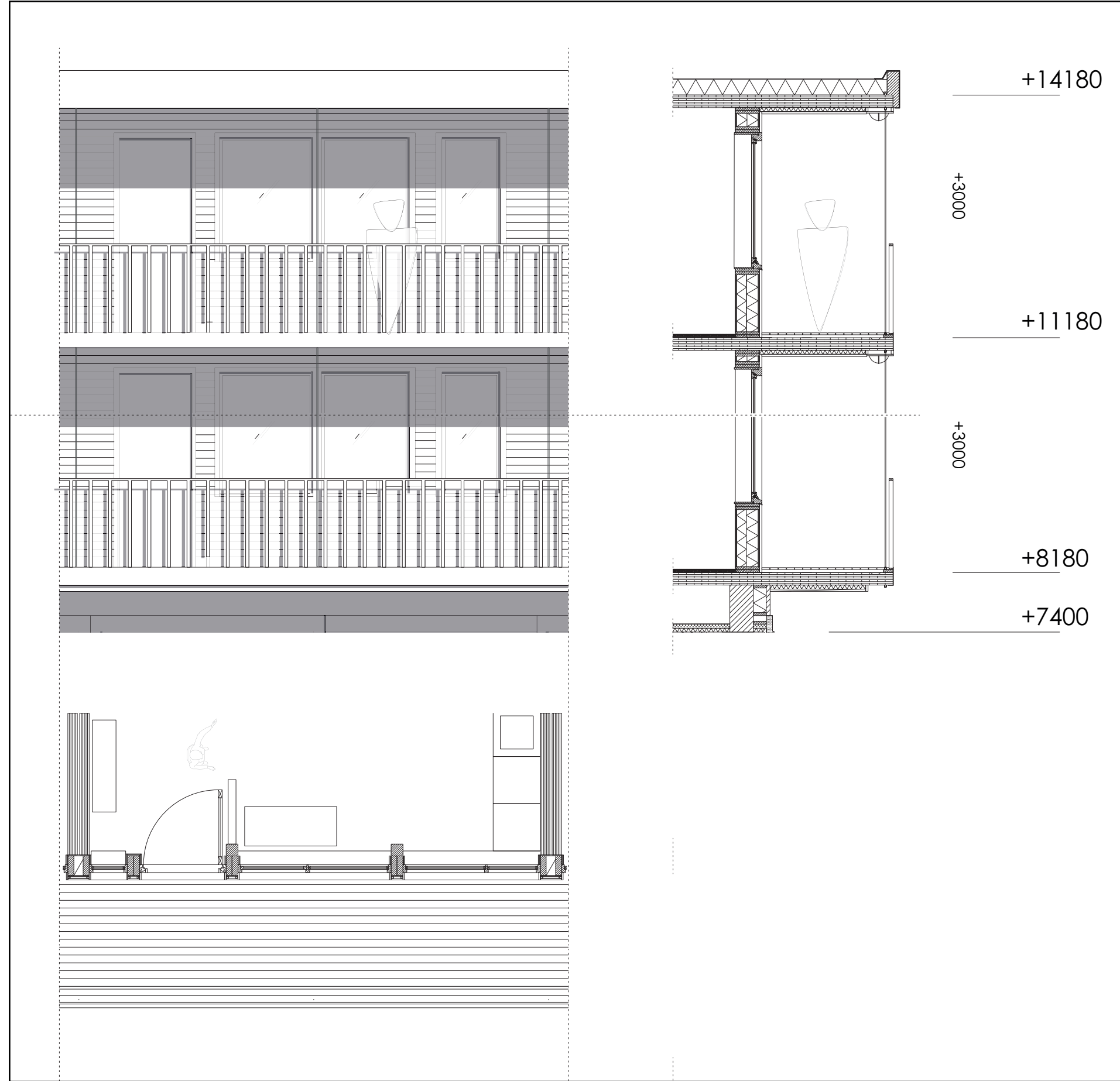
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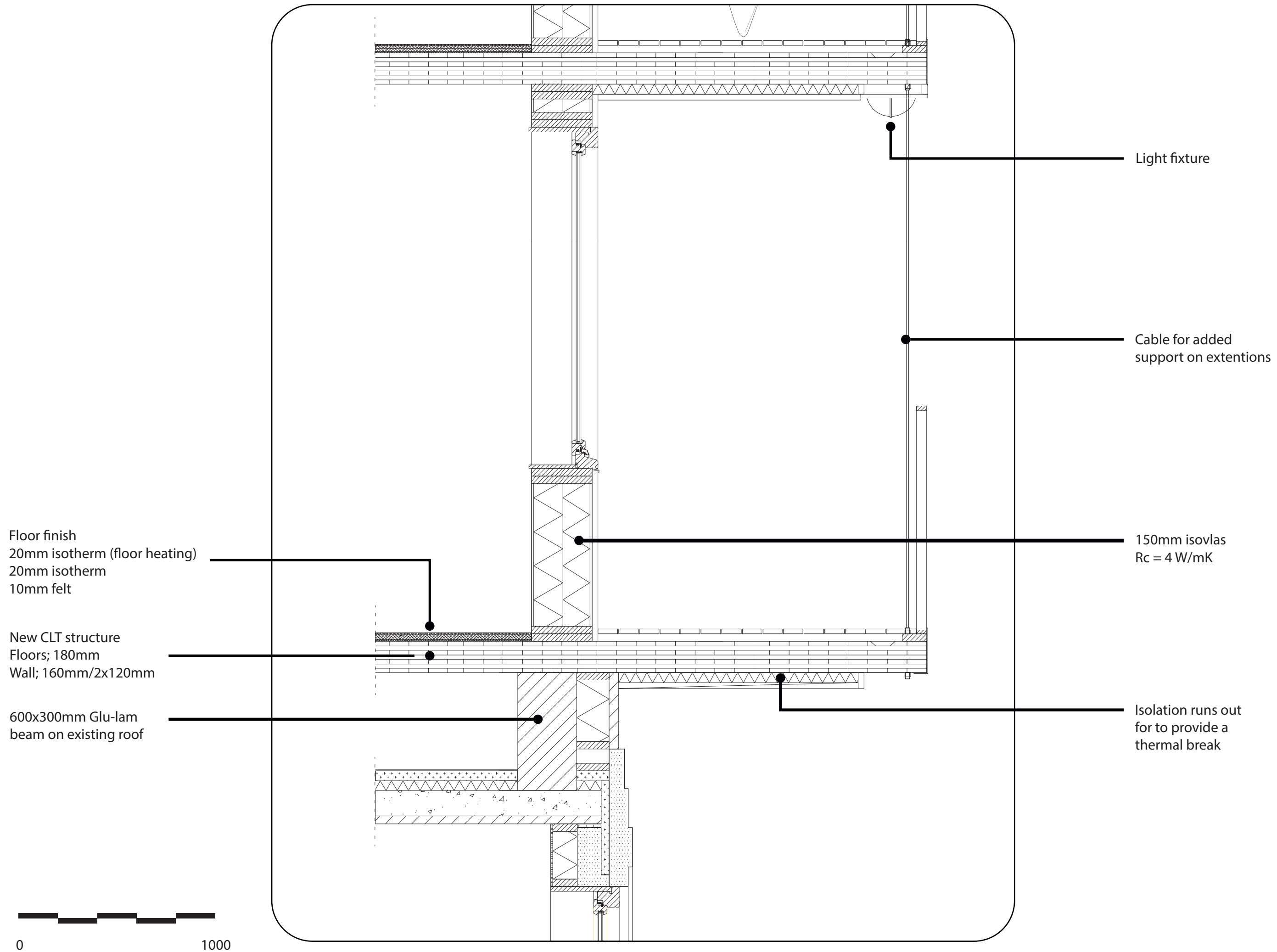
## Life on top



# Design

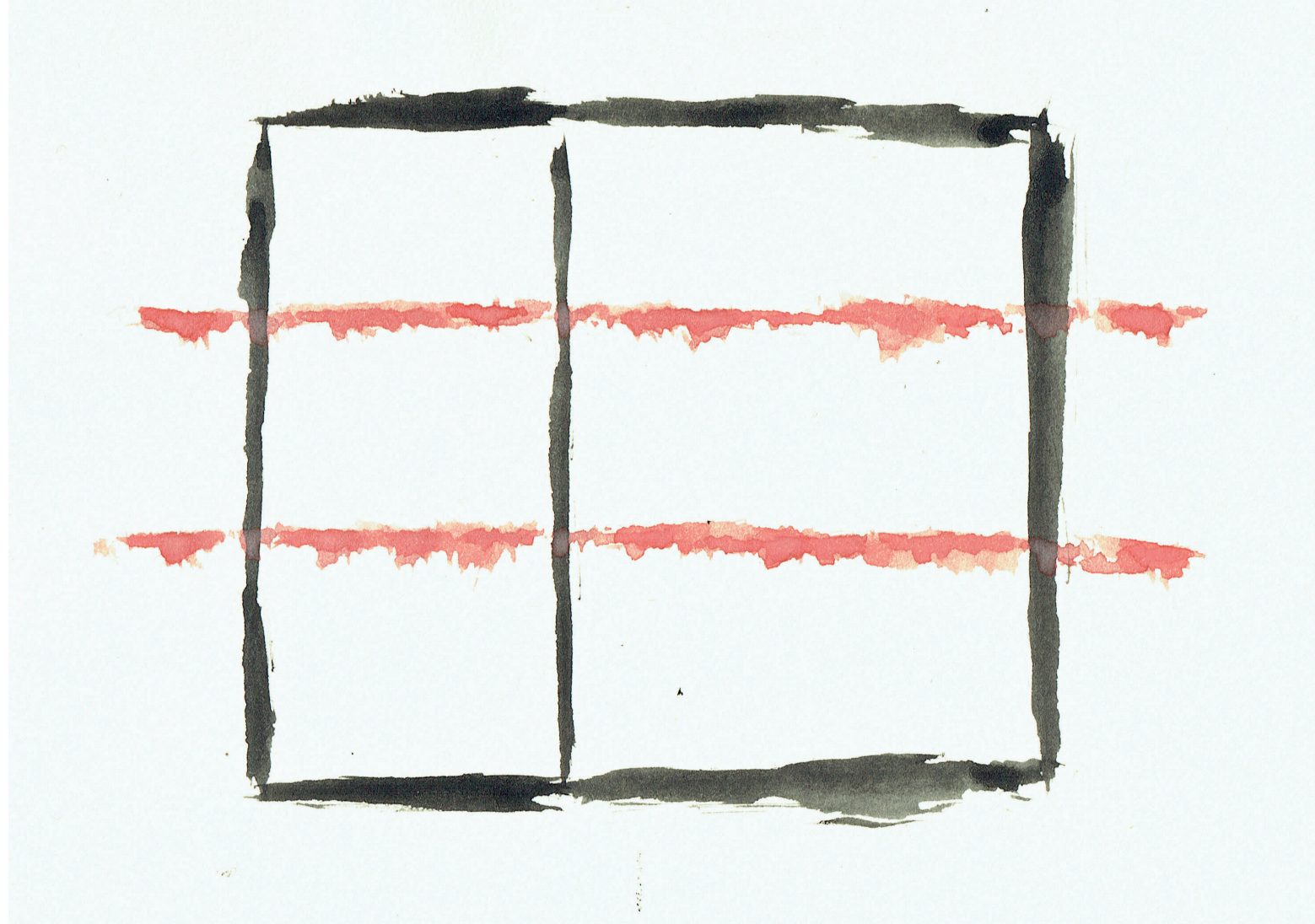
## Life on top

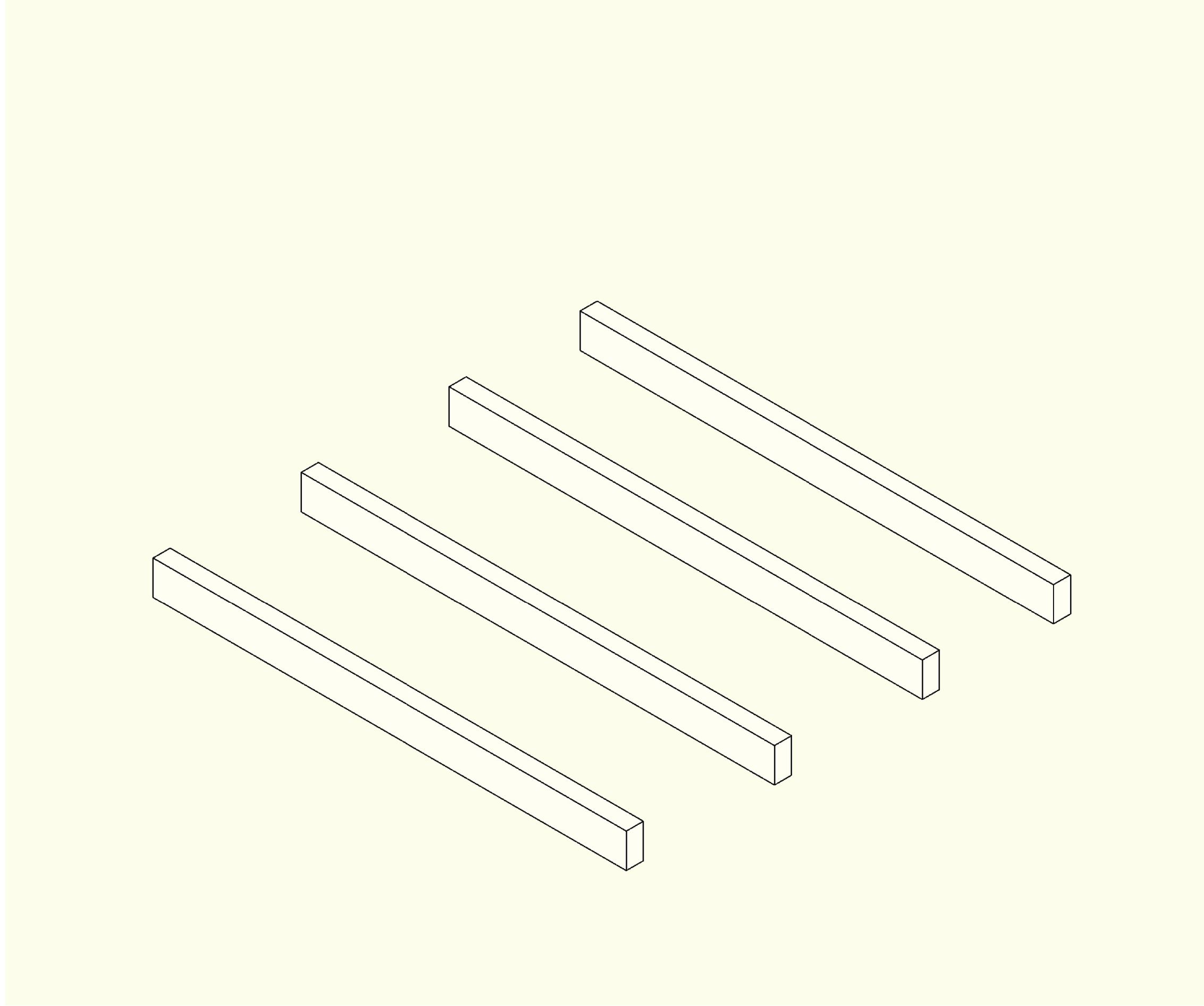


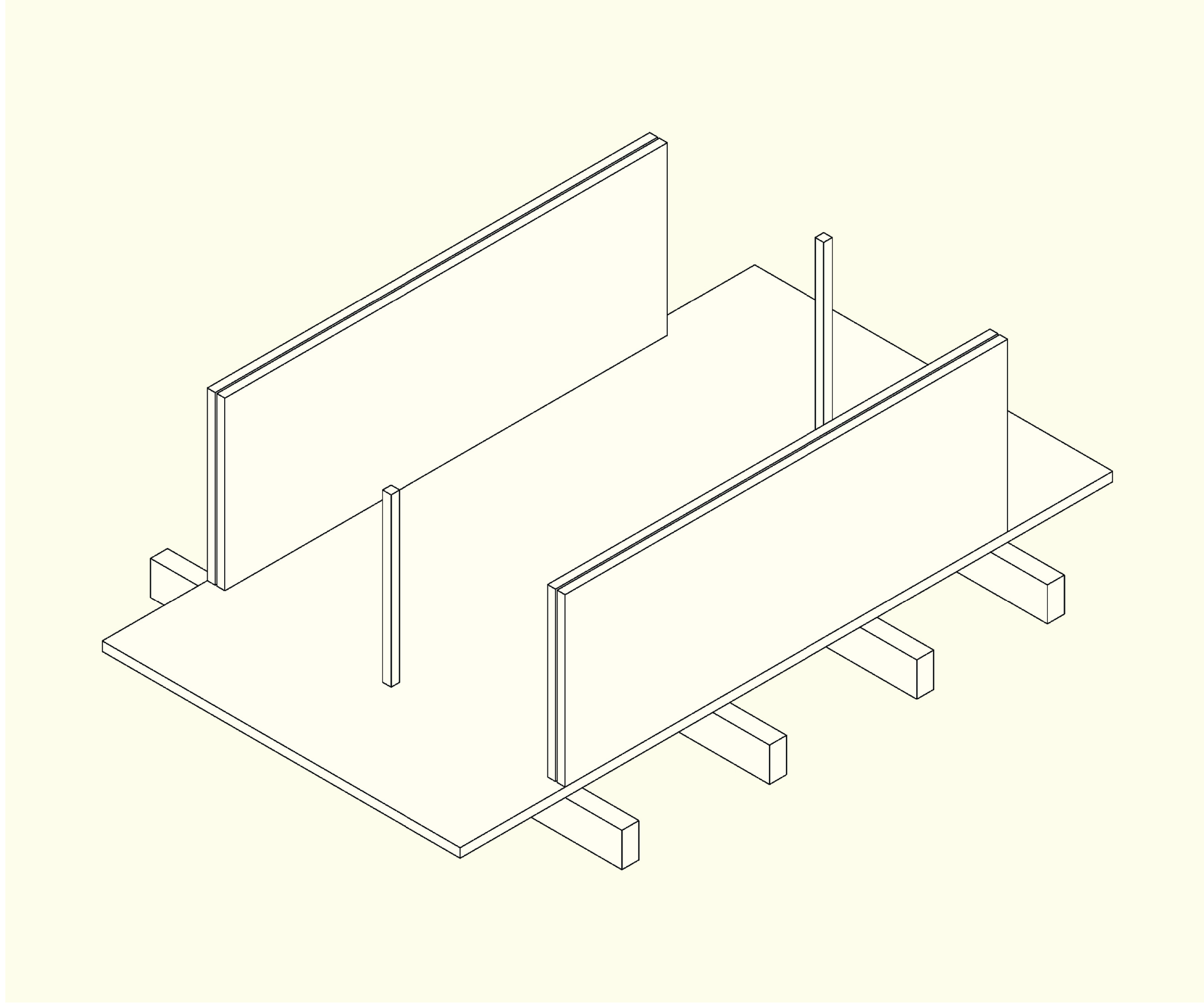


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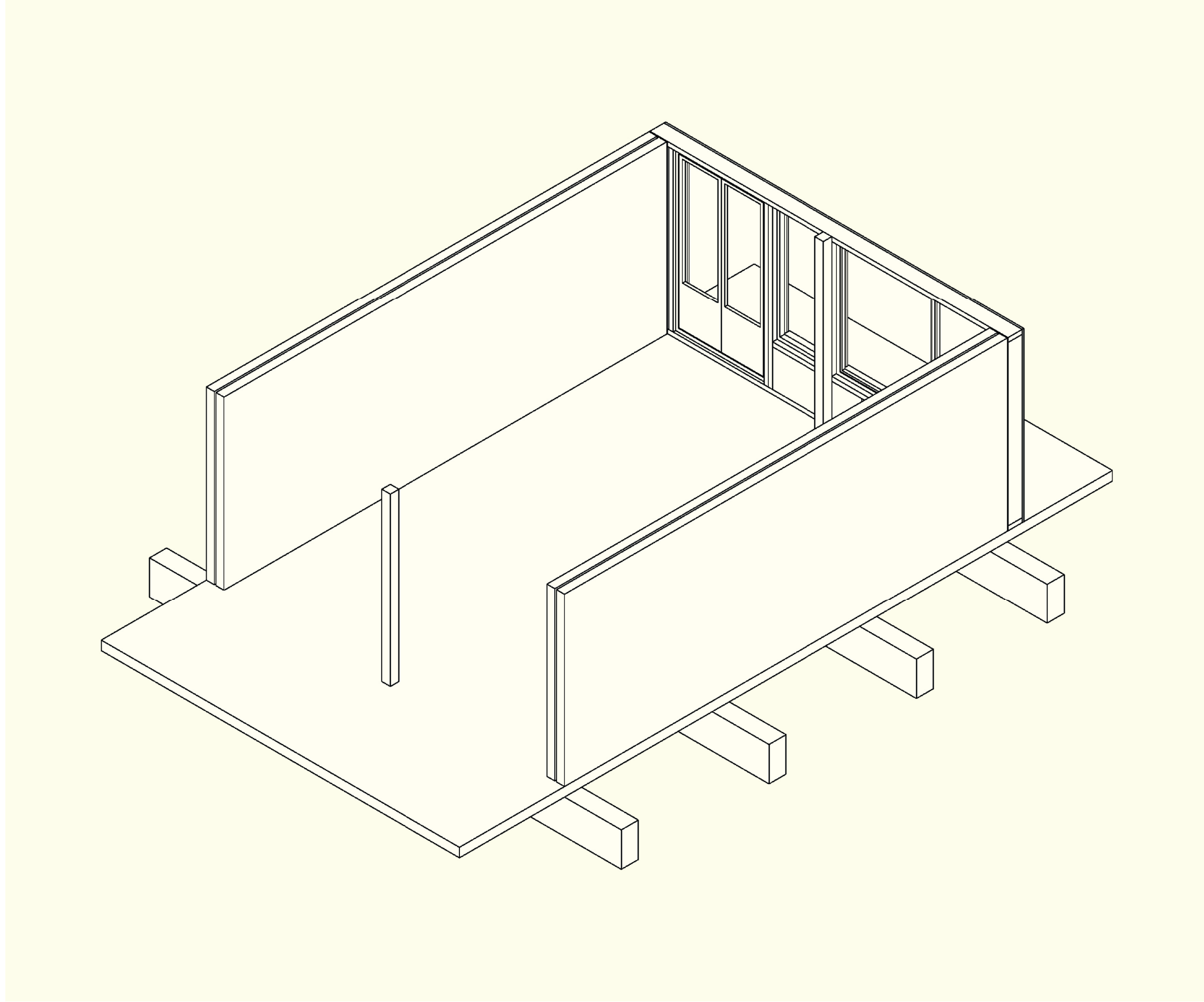
## Life on top

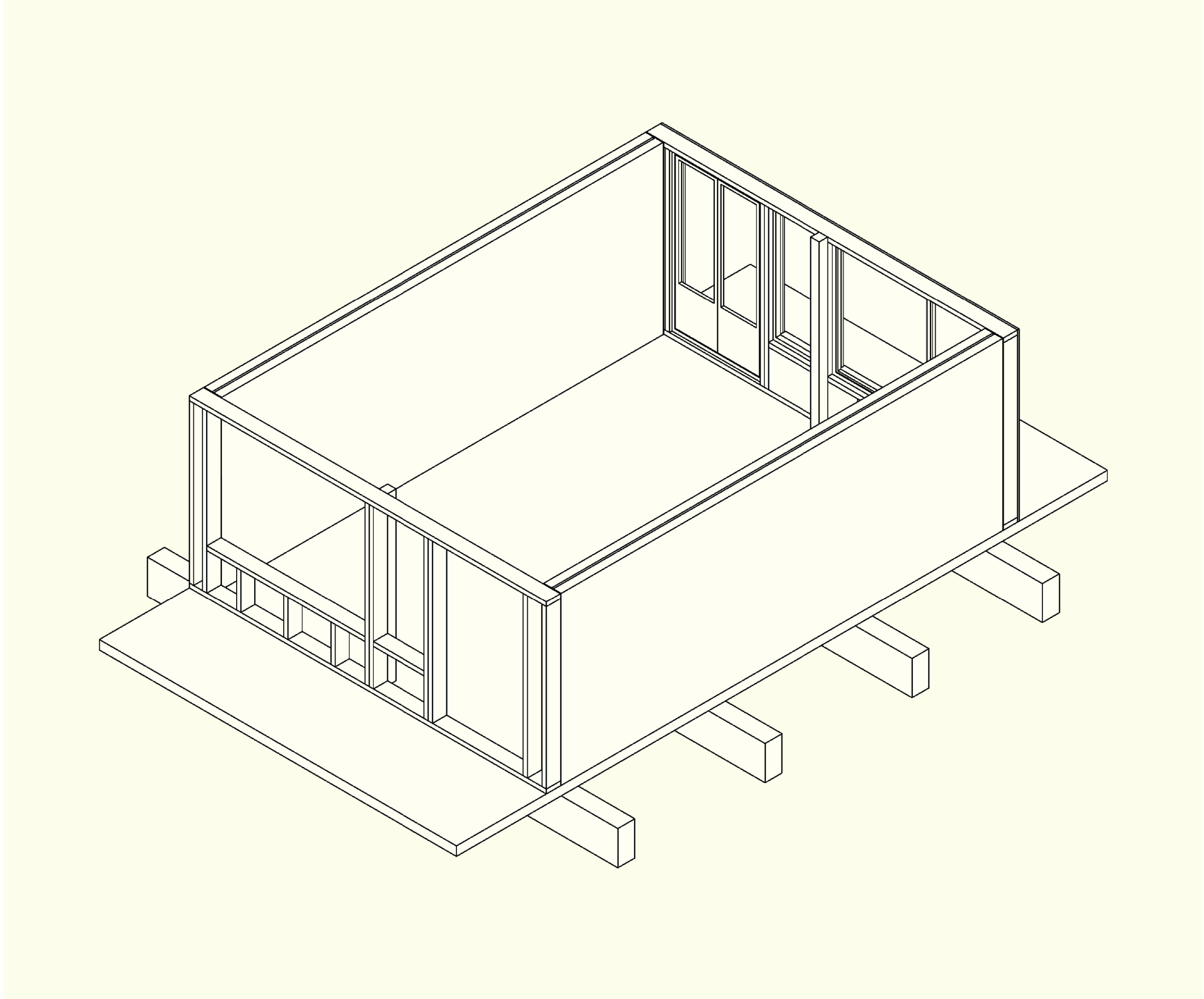


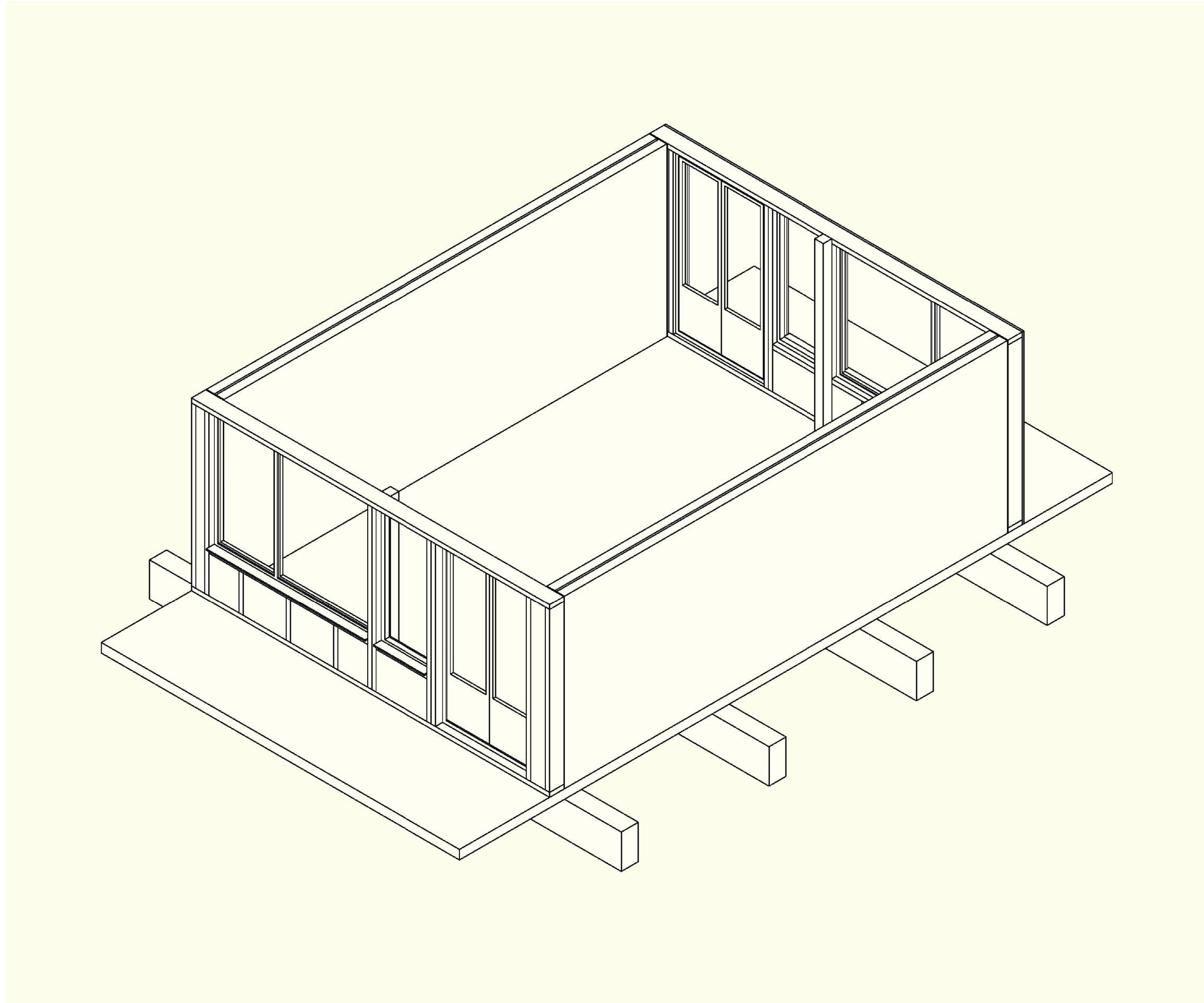


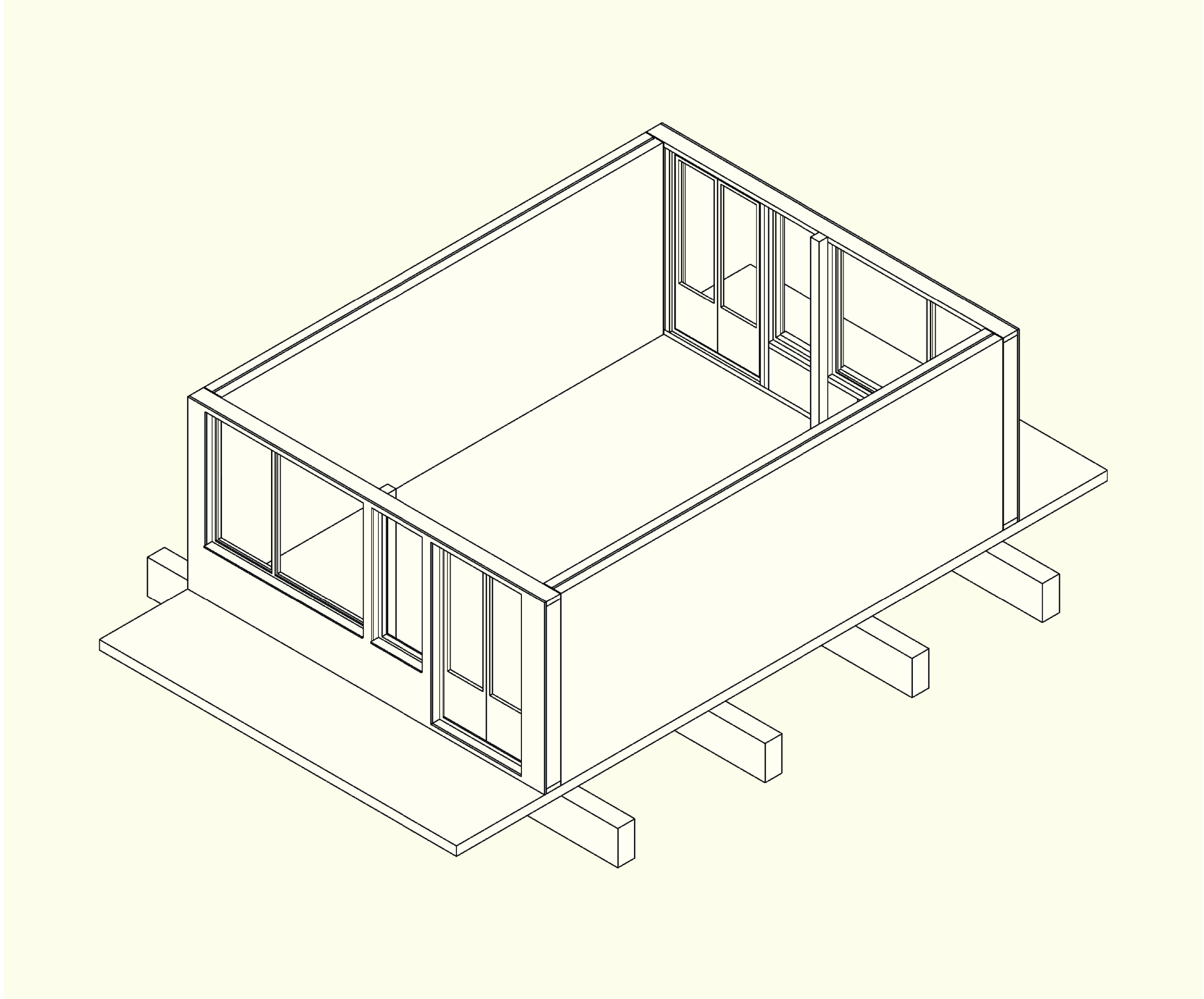






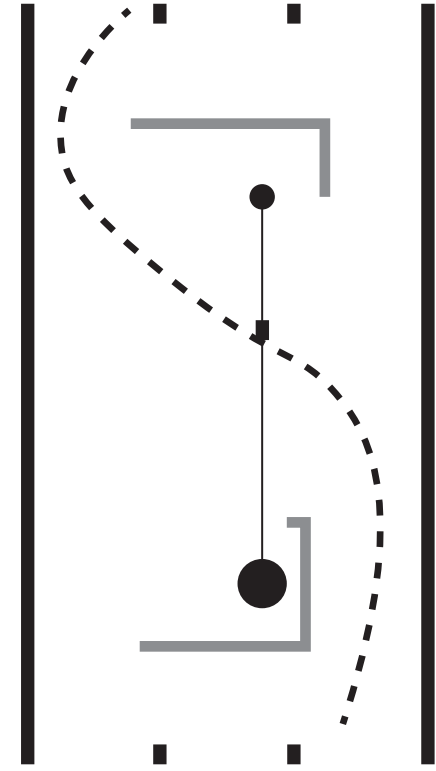
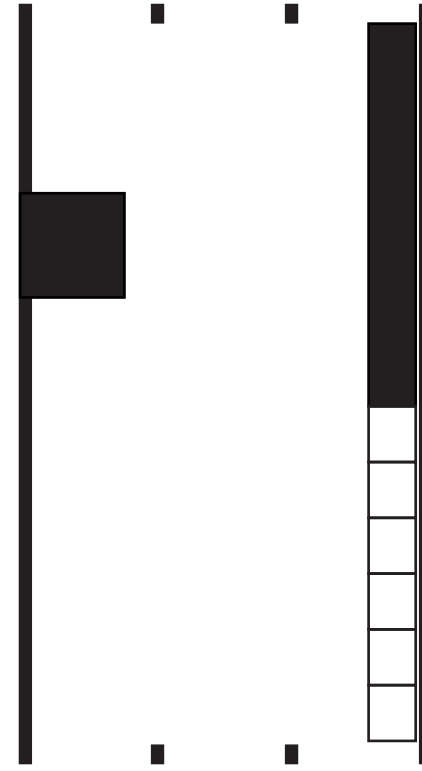
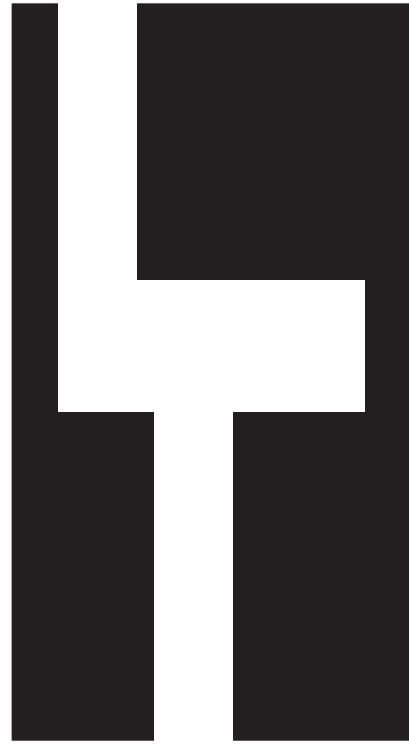






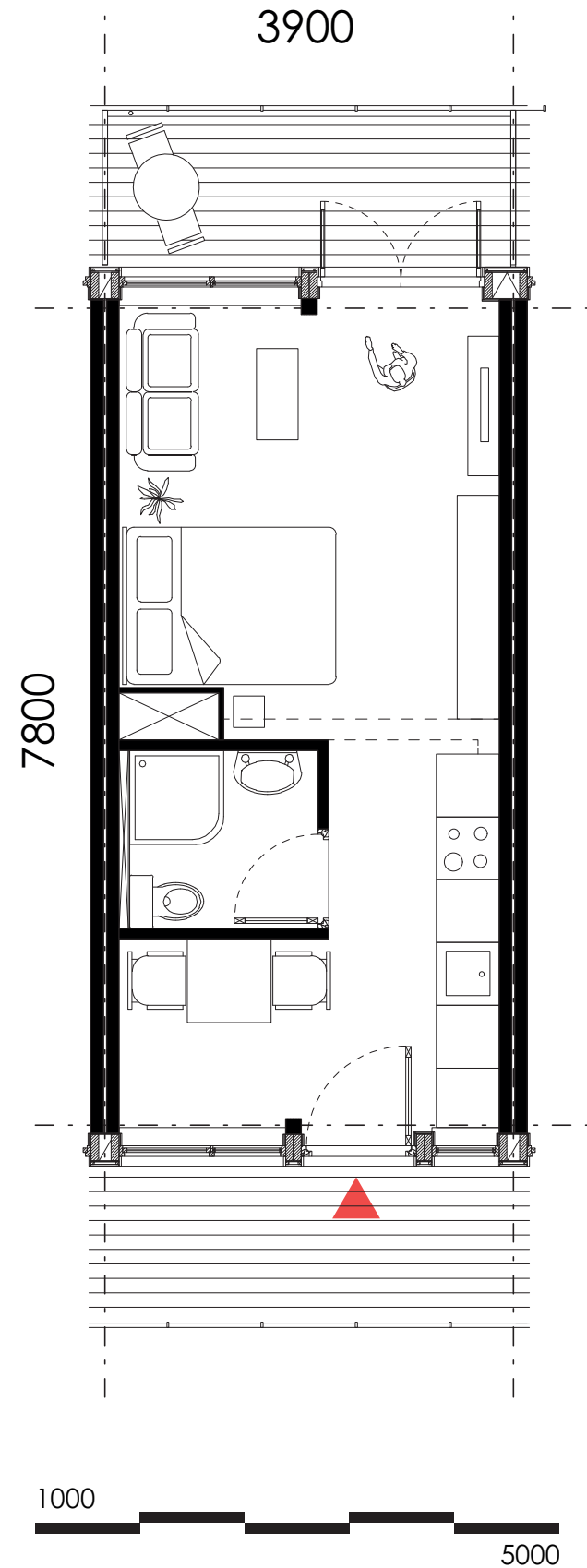
# Design

## Life on top

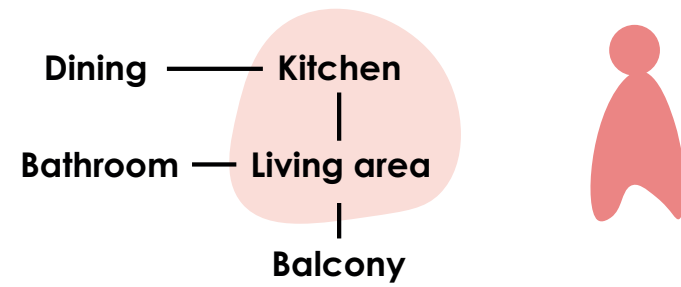


# Design

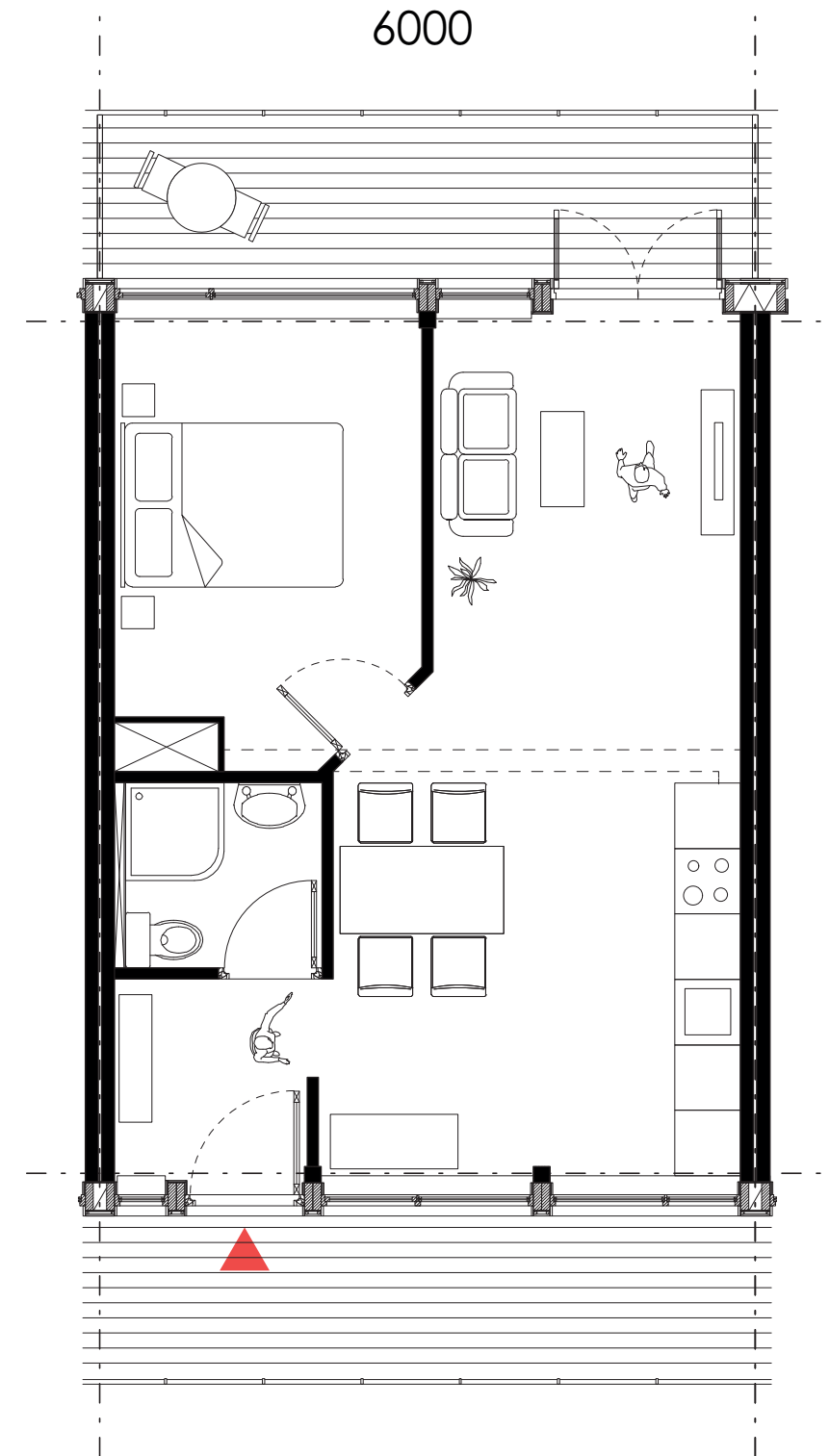
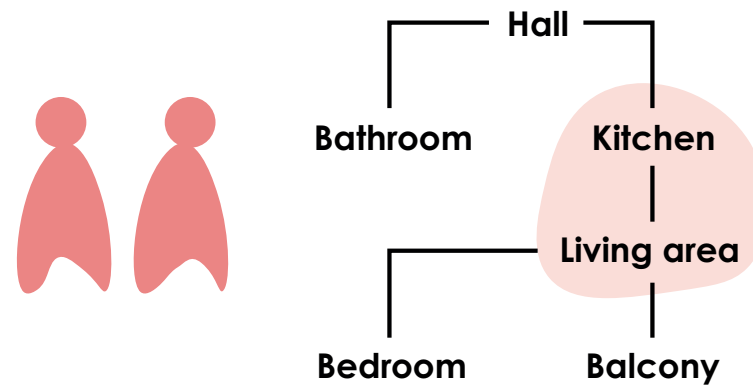
## Life on top



**Type A - 28.8m<sup>2</sup> / 6.4m<sup>2</sup> balcony**

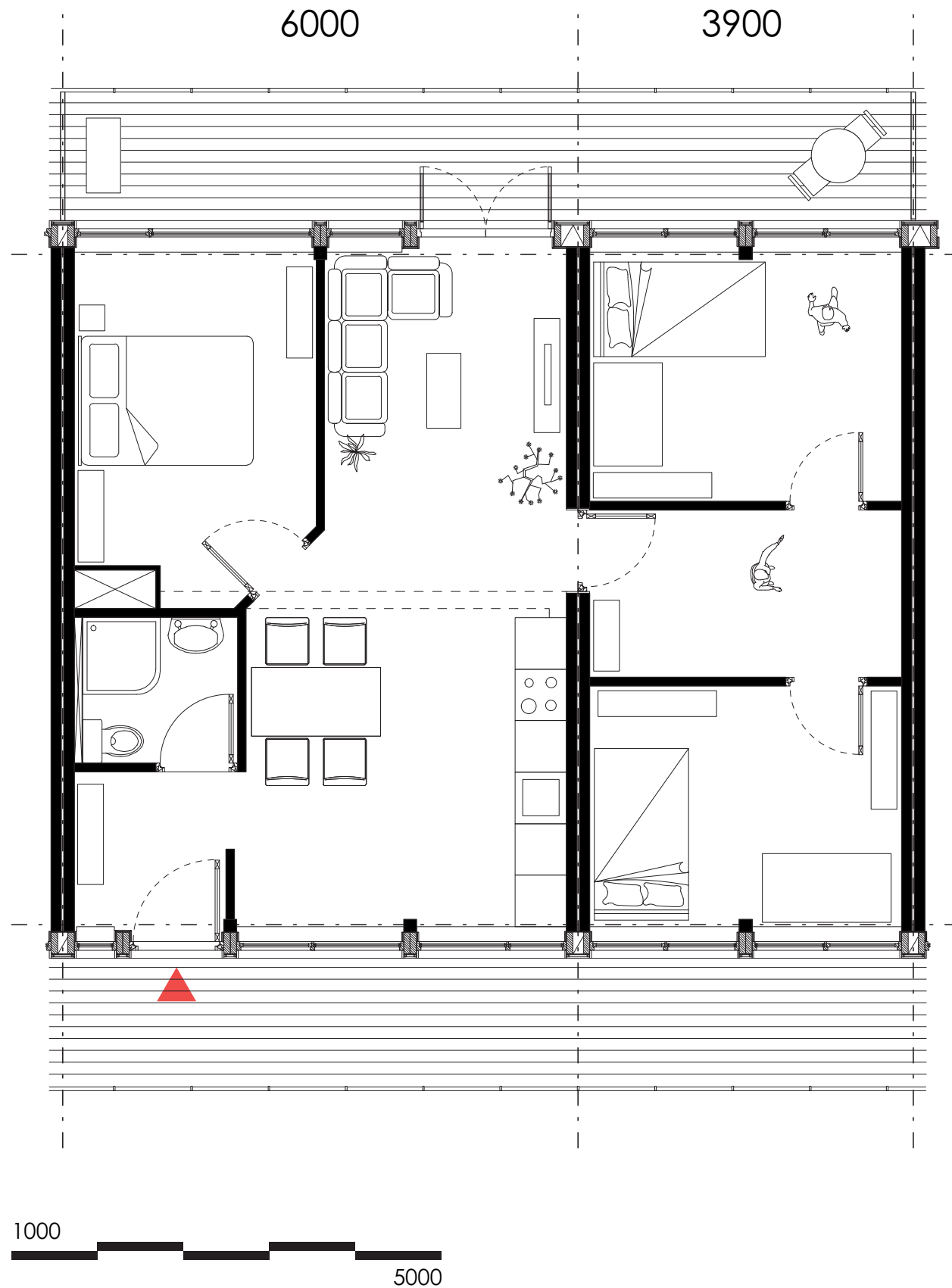


**Type B - 45.6m<sup>2</sup> / 10m<sup>2</sup> balcony**

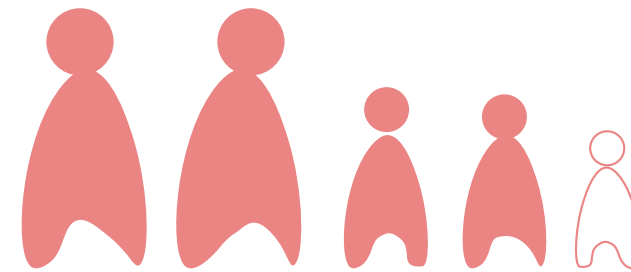
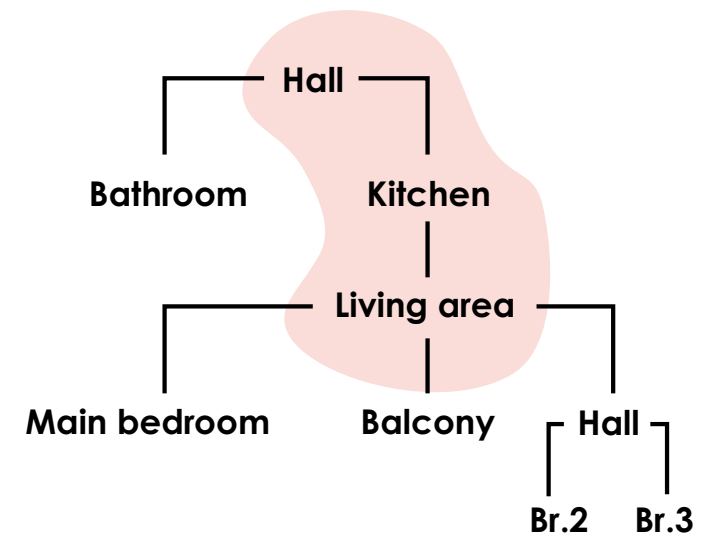


# Design

## Life on top

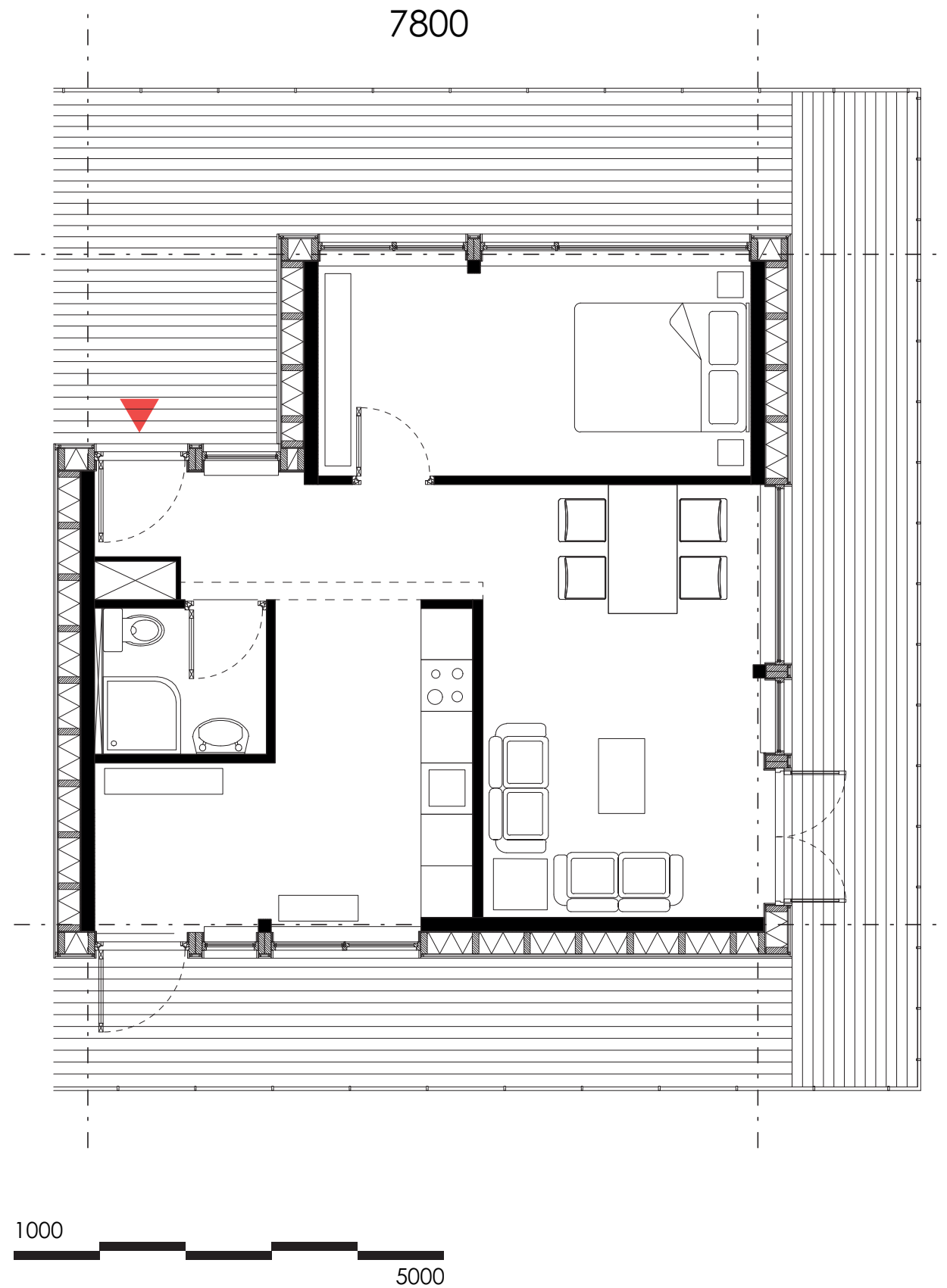


Type C - 76,6m<sup>2</sup> / 16m<sup>2</sup> balcony

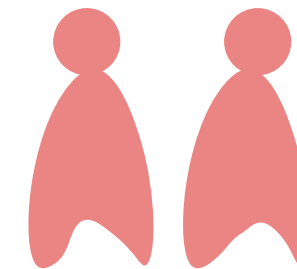
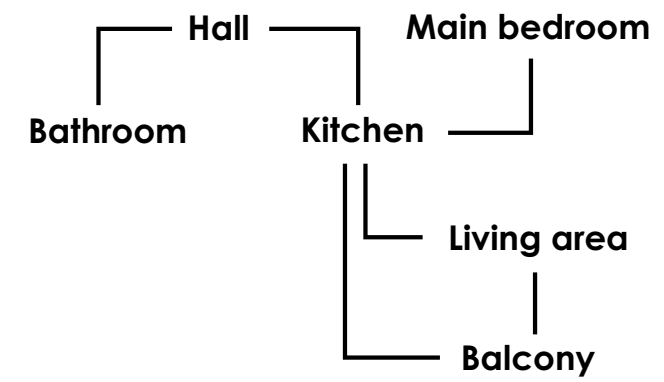


# Design

## Life on top



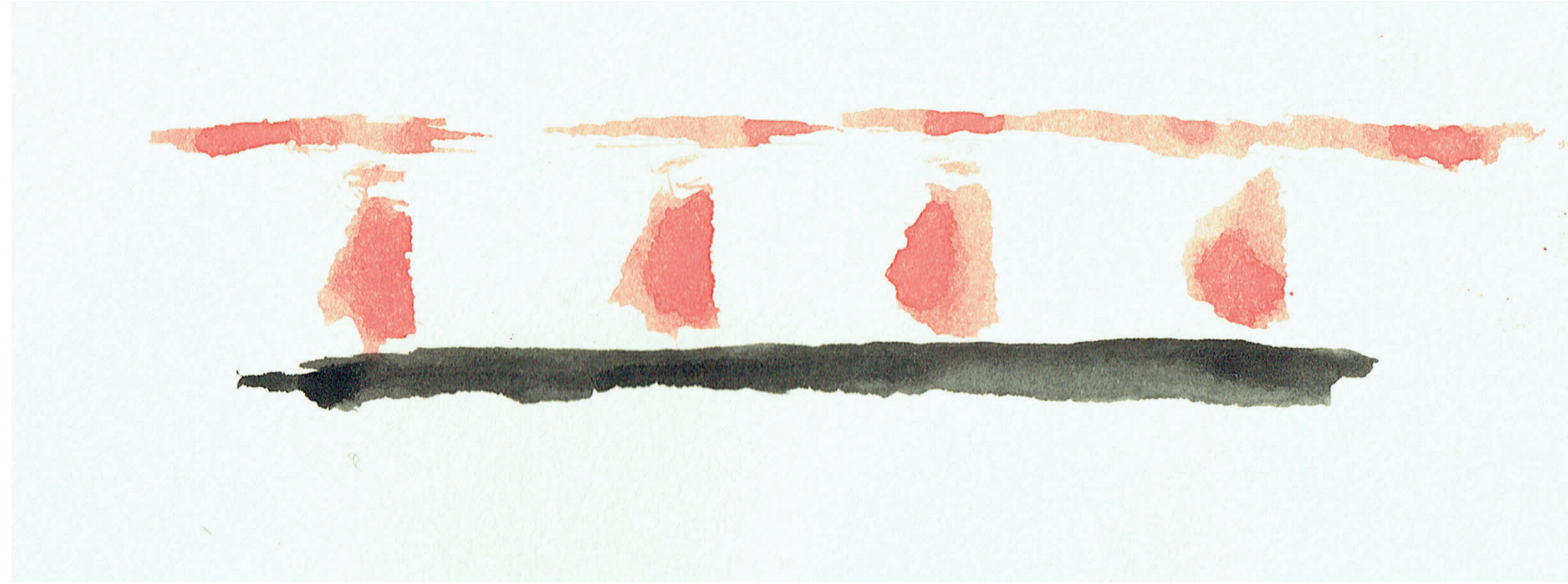
Type D - 53m<sup>2</sup> / 27,4m<sup>2</sup> balcony





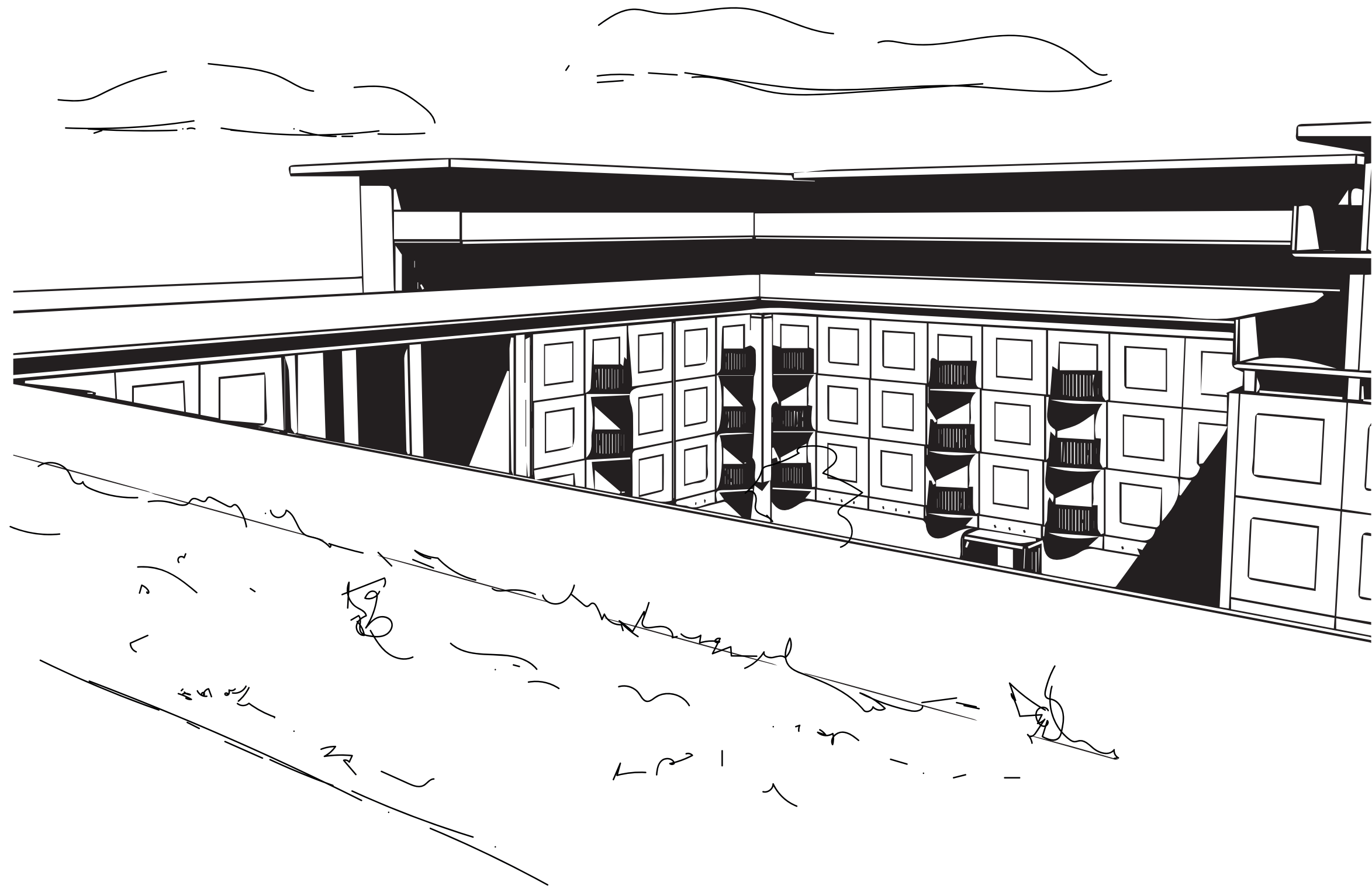
# Design

## Life on top



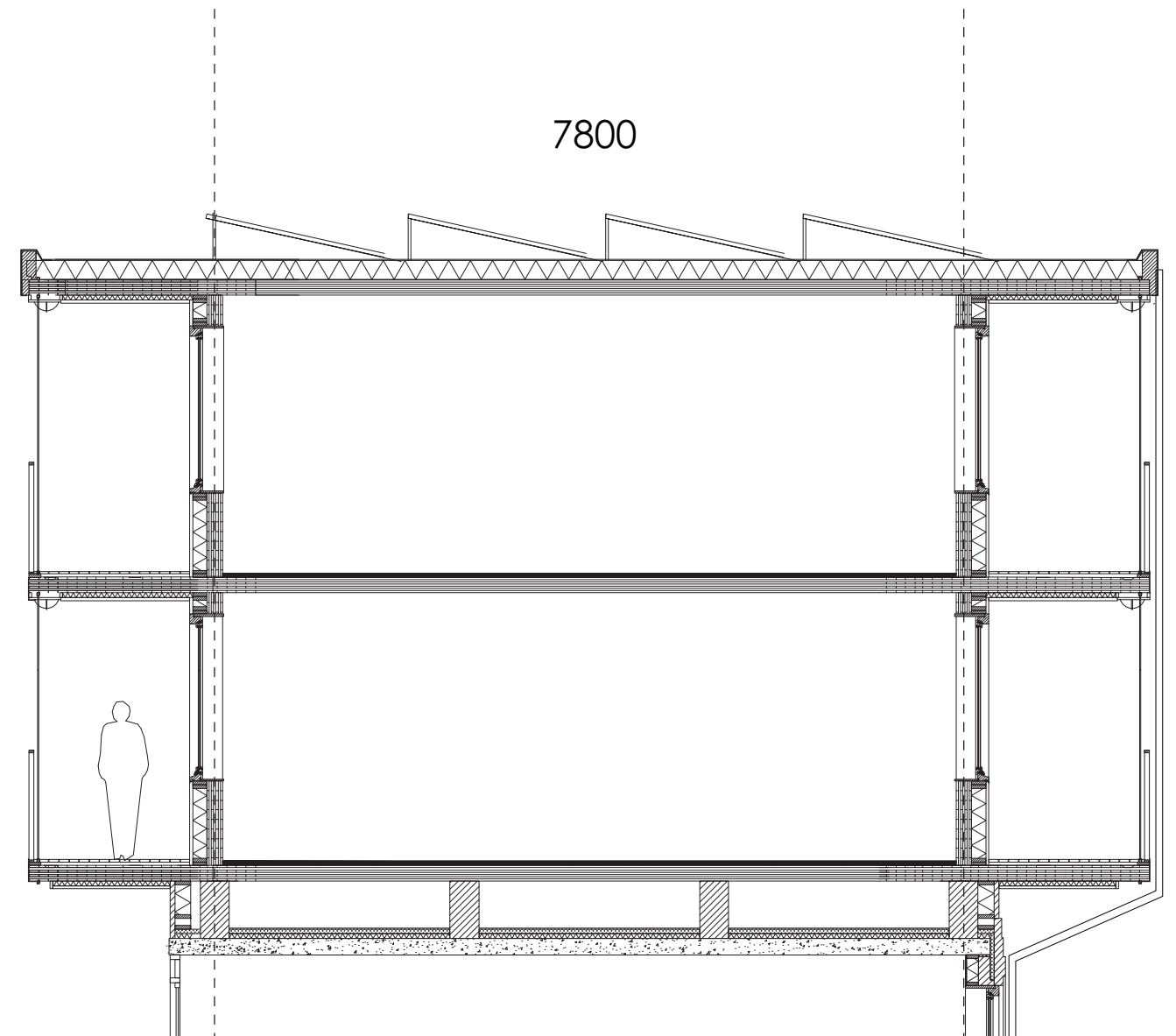
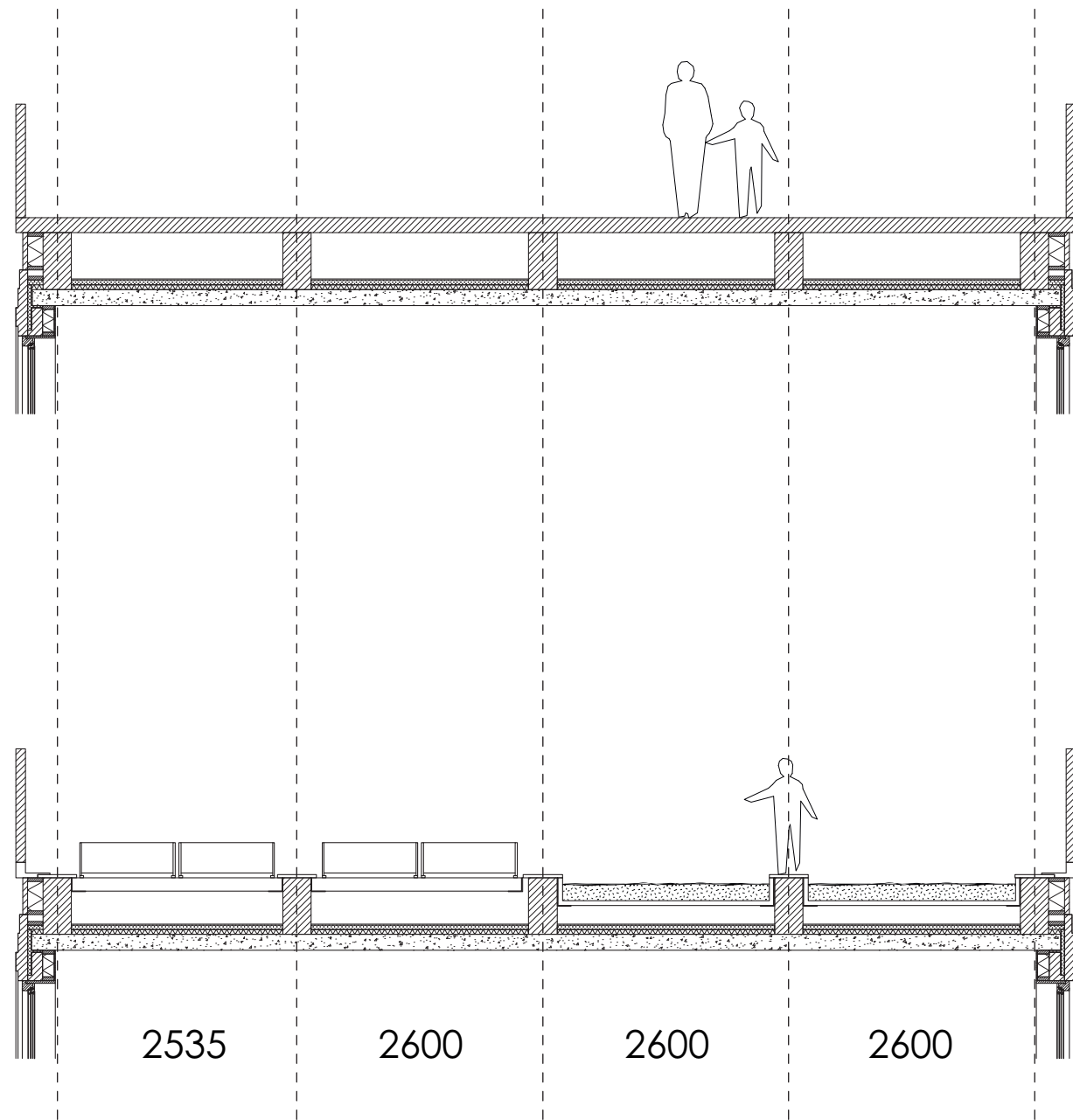
# Design

## Life on top



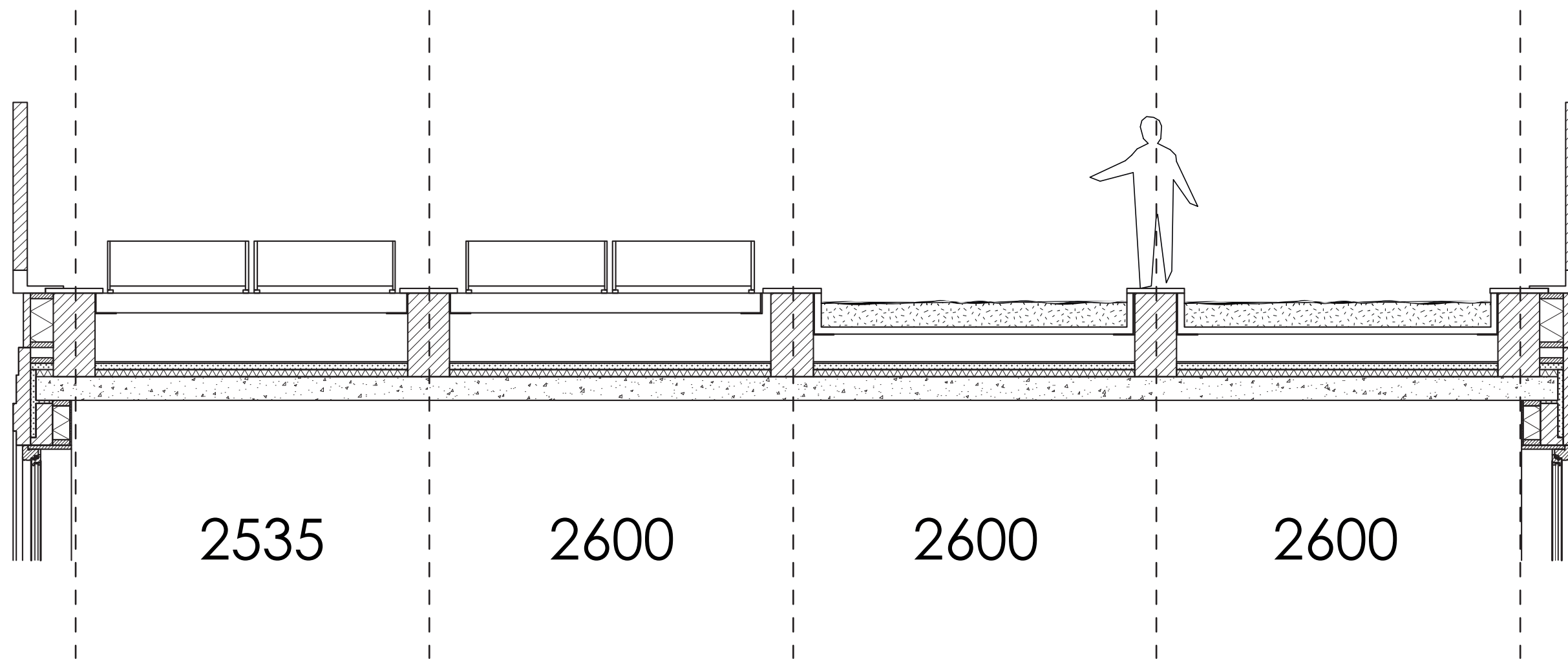
# Design

## Life on top



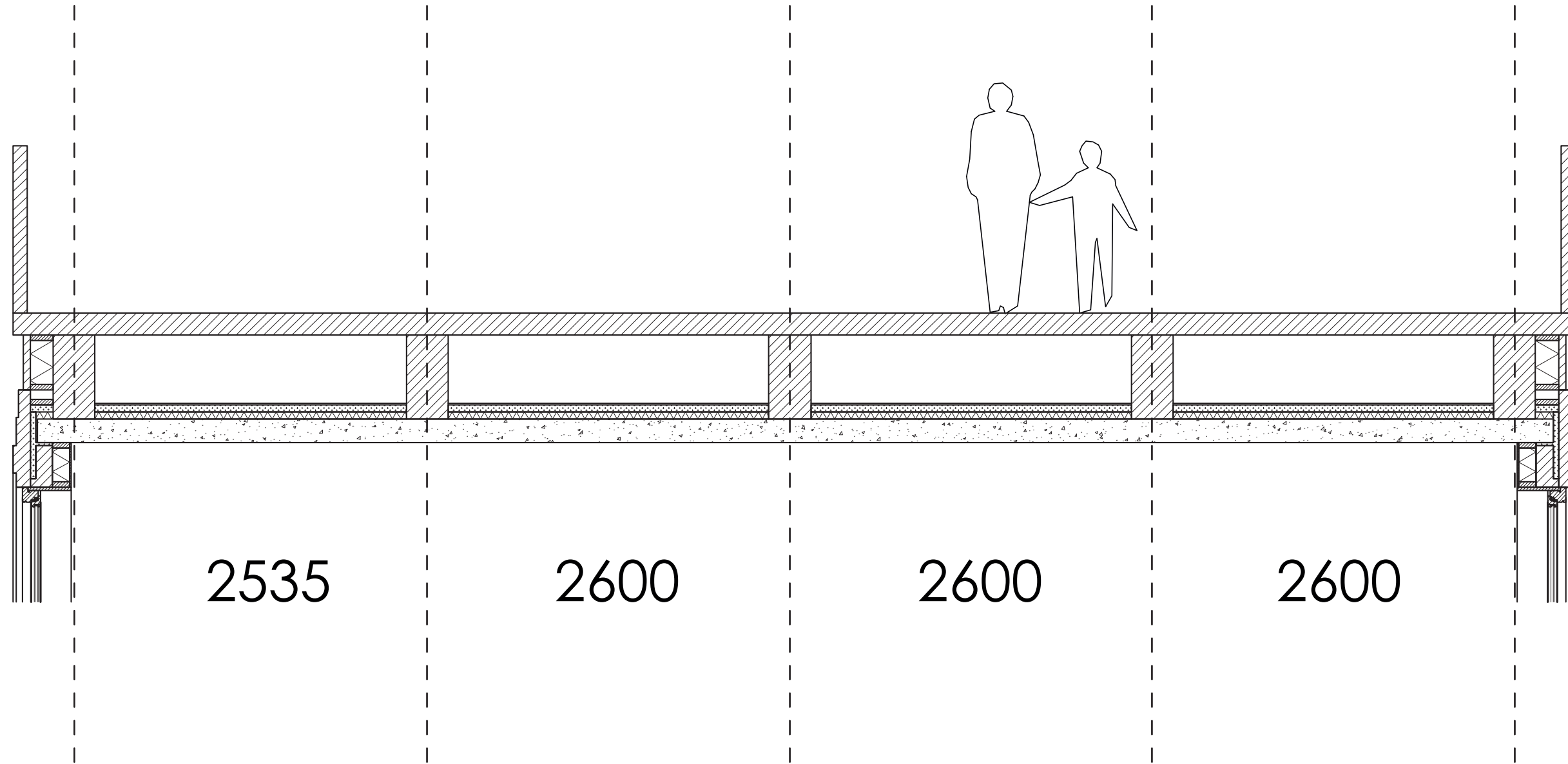
# Design

## Life on top



# Design

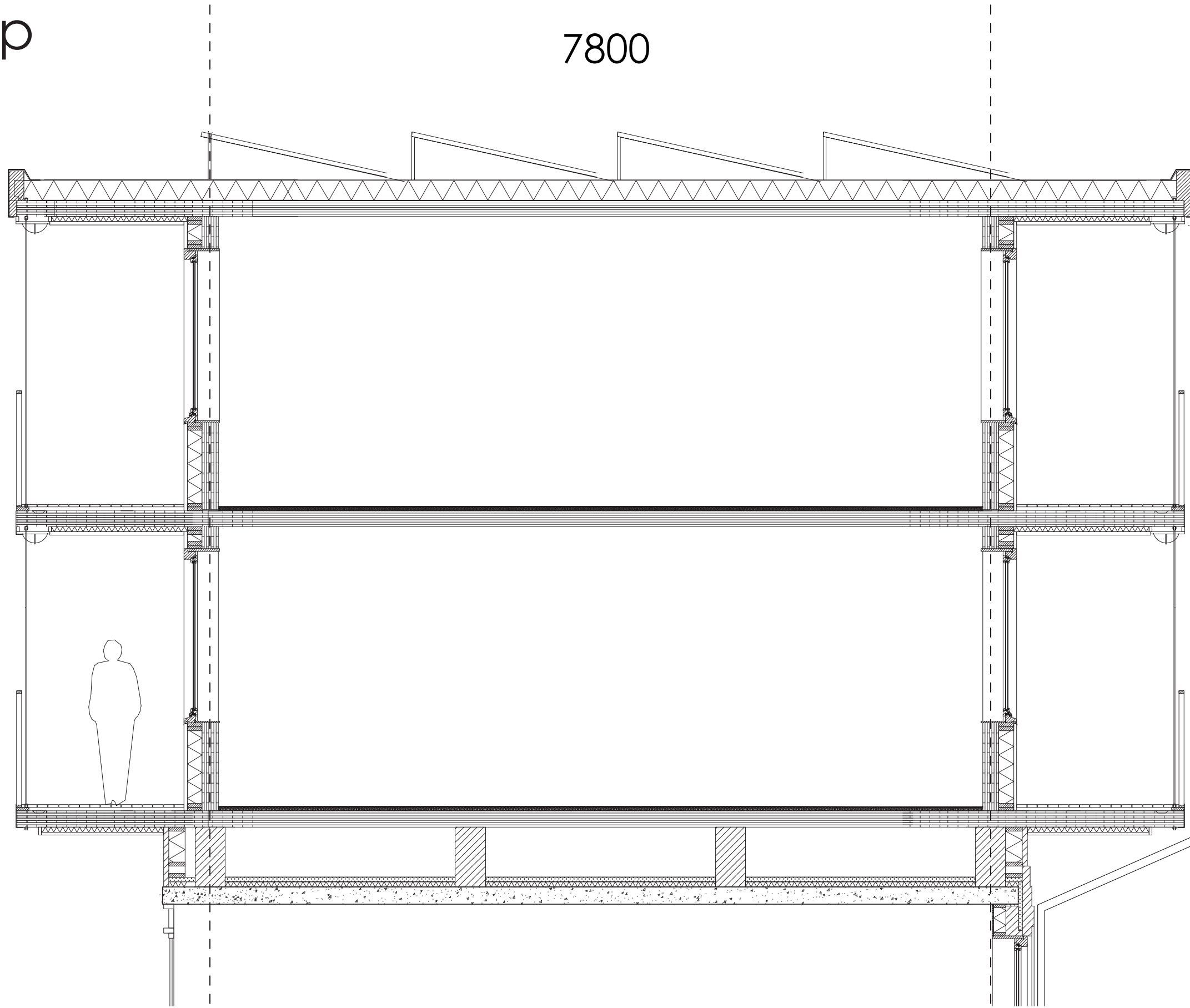
## Life on top

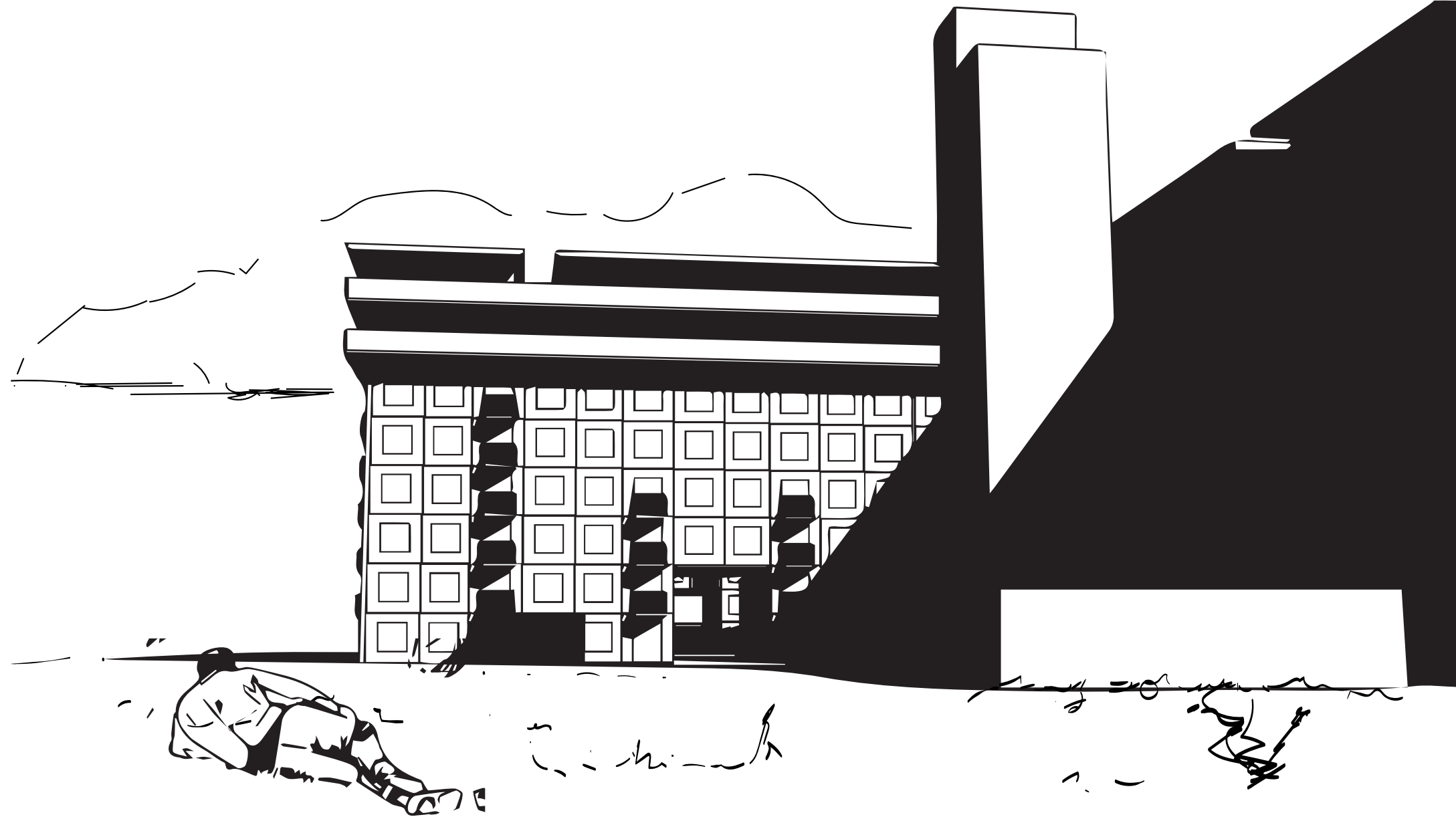


# Design

## Life on top

7800





# Reflection

**Affordability** is the balance in cost and quality.

=

Economy

Ecology

Social

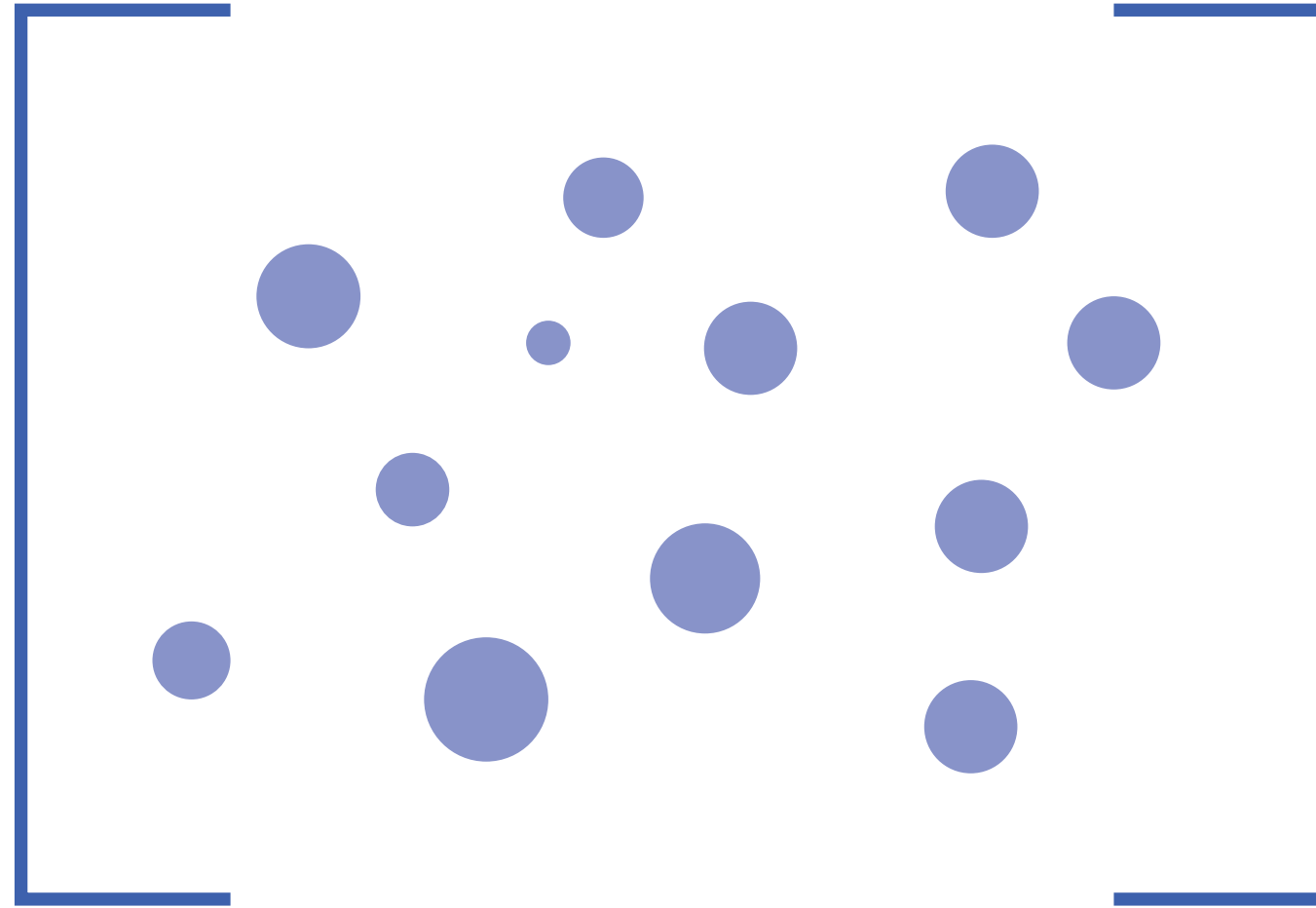
*“Securing some given standard of housing at a price or a rent which does not impose, in the eyes some third party, an unreasonable burden on household income.” (MacLennan and Williams, 1990, p. 9)*

*“Households should be able to occupy housing that meets well-established norm of adequacy at a net rent which leaves them with enough income to live on without falling below some poverty standard.” (Bramley, 1990b, p. 16)*



# Reflection

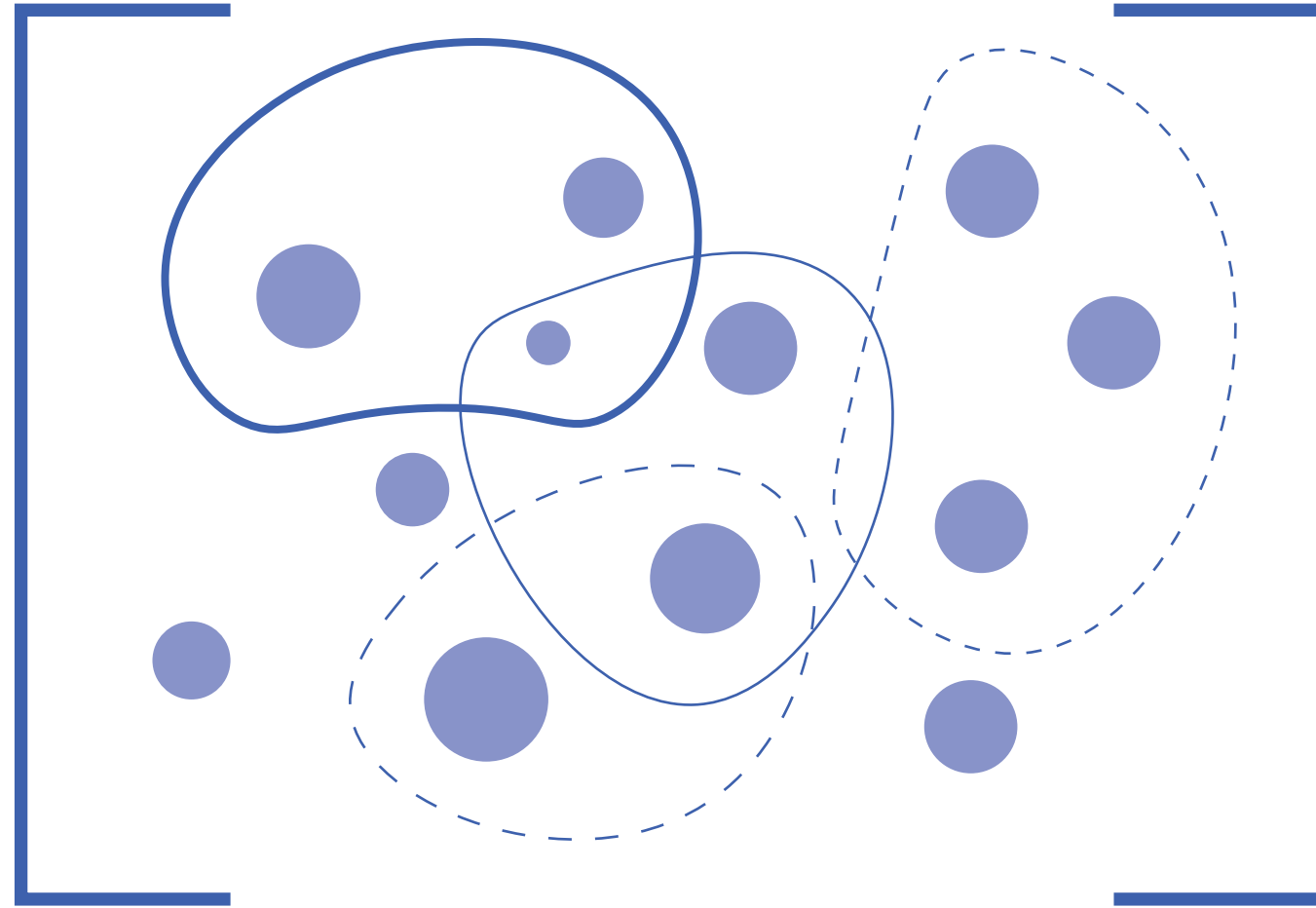
Identify



*cultural value*

# Reflection

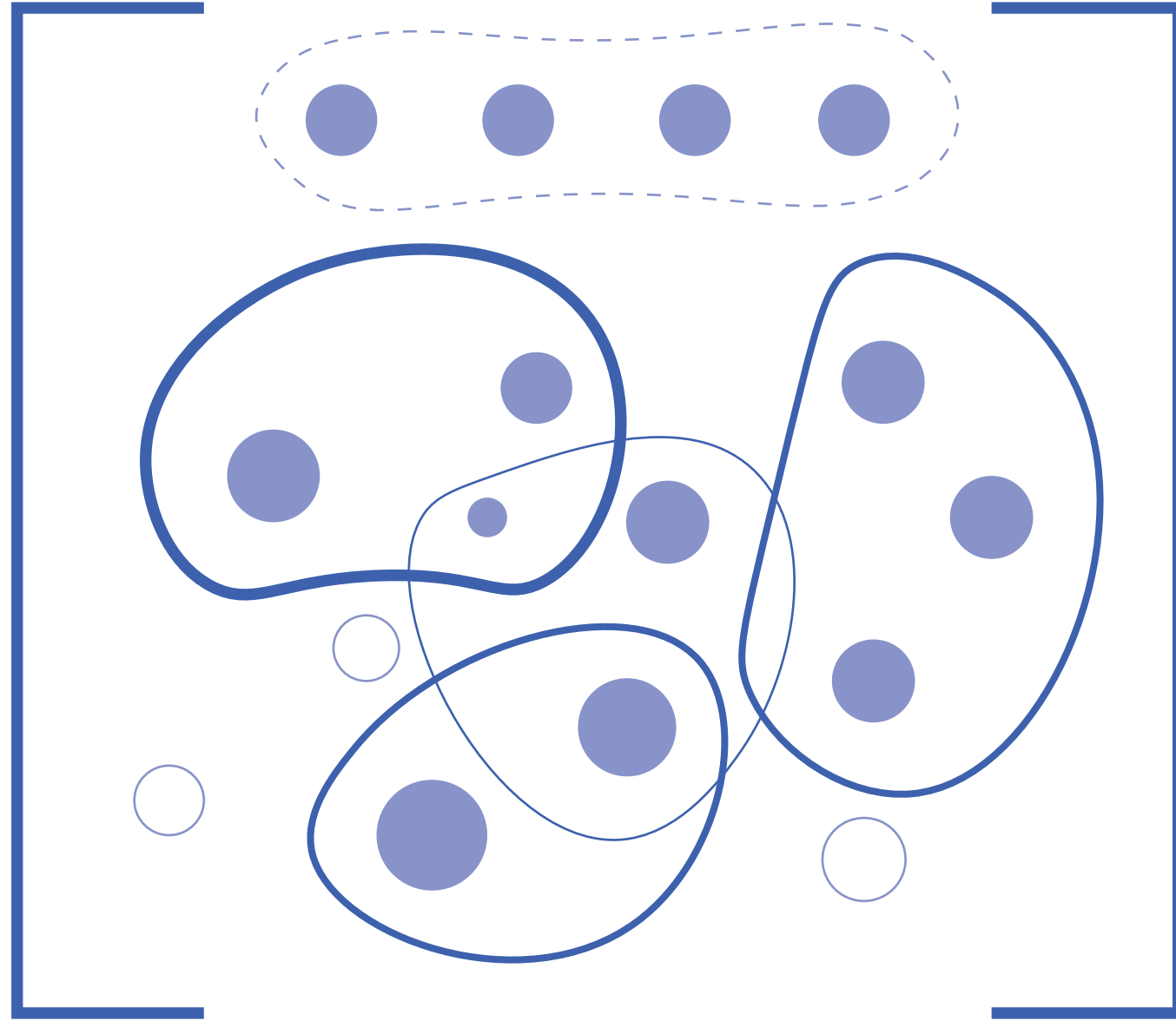
Identify



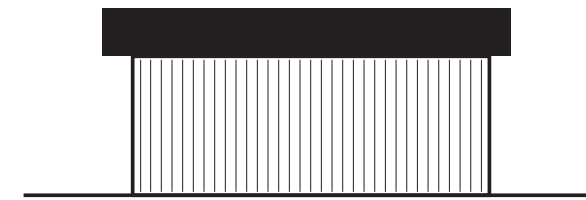
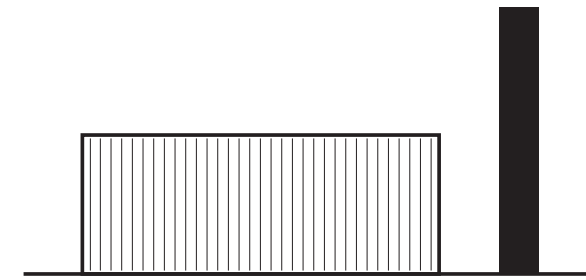
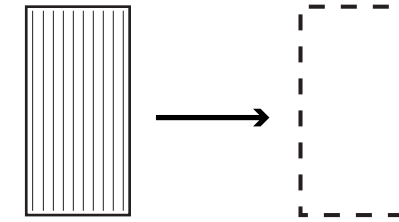
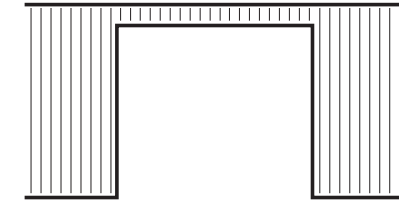
*heritage value*

# Reflection

act

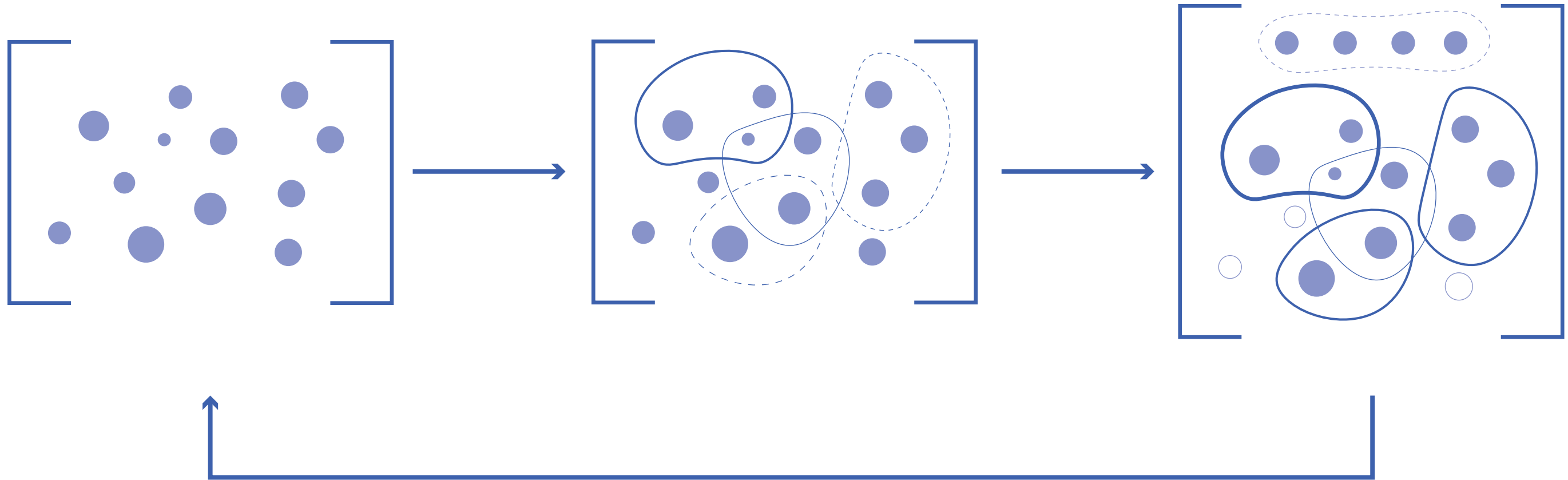


*consolidation & expansion*



# Reflection

Iterate



*reflection*

# Reflection

## **The relationship between research and design.**

My graduation project was done within the New Heritage studio. The focus in this studio is on 1980's public housing in the Bijlmermeer area in Amsterdam, specifically in the H-Buurt. These buildings have become problematic, but might still merit preservation or redesign. The studio focusses first on methods to identify existing value, and from goes on to re-interpreting those values for the future of the case studies.

The main question in the process gradually shifts from "Is this heritage?" to "If this still holds value, how can the building be made resilient?"

In my graduation project the relationship between research and design shifted, from an emphasis on research moving to a focus on design. The research itself consists of two different approaches. First, a bottom-up approach to identify existing problems/qualities in the H-Buurt. As we are dealing with a heritage question, but also with housing, it was important to get an insiders perspective on the current situation. Second, a literature based investigation on the topic of affordability was meant to outline a broader framework to base design decisions on.

Both these initial explorations have shifted to the background. While designing I started testing more against general ideas on urban design. The result of this process of research by design, is that the design is disjointed from the research on values and affordability.

While there is a certain distance, the ideas that are explored always served as informants for design decisions. The broad subject of affordability was quite early on determined to be an interplay of issues relating to economical, ecological and social issues. These three topics all relate to a certain quality that your housing situation provides. Looking at the case study, Heesterveld, these qualities are what drove the design.

The research on values then serves as input for specific things that the actors in the area appreciate or would like to see changed. This is the basic framework for formulating a design intervention.

For instance, from the cultural value research it was found that the ground floor at Heesterveld is seen as unsafe. Meanwhile, the municipality would like to see more public/commercial activity in the plinth. The proposed design solution for this particular problem is to open up the blind ground floor façades, where there are currently storage units. This intervention could help boost local economic activity in the area, which

has already proved to be possible with the earlier renovation of block 4 of Heesterveld. The increased activity on the ground provides additional eyes on the ground, improving the general security of the area. The ecological factor of affordability can also be interpreted from the point of view of the environment. So, when we intervene we should not place an additional burden on resources or contribute to carbon emissions. This informs the materiality and design principles underlying the intervention. This process of reflecting on the informants of design interventions and the boundaries set by issues relating to affordability could have been more rigorous throughout the design process. In the end, a lot of design decisions were intuitive at first and substantiated after. Nearing the end of the design process I find myself looking for arguments after the fact.

**The relationship between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS).**

The project focusses on developing a case study for affordable public housing, specifically in 1980's Dutch housing. The main objective of the studio is to identify the heritage value of these objects, if any. As the design process progressed, heritage has become less of an important informant than aspects relating to housing.

As I see it, the case study, Heesterveld, does not merit preservation for the ages for its cultural significance alone. Equally important are the embedded carbon in its structure and the housing stock it provides. It would be a waste to demolish the buildings. To keep the buildings functioning certain adaptations are needed, such as better façade insulation and a redesign for the ground floor.

**Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.**

The bottom-up strategy of researching existing cultural value in the area resulted in valuable instruments to do this kind of research. The scientific relevance of the research is the methodology that was developed throughout that process.

My personal research on affordability and the aspects that inform it turned out to be too broad to give a clear conclusion on the subject. In the line of inquiry it stopped short of provide actual input for design. Now, it

serves more as a broad underlying body of knowledge to fall back on. The relevance of my research applies to the way we deal with recent housing stock in general. By attempting to unravel the systems that caused the often negative image that projects like Heesterveld face, we can start to develop a methodology for dealing with these types of buildings. From the start of this project the question in the back of my head was why did this fail? And did it actually fail to the extent that we think it did? Investigating a project like Heesterveld, you start to see that these buildings function like a system. There are certainly a number of issues baked into the original design. But like the renovation of block 4 showed, it might suffice to make targeted interventions in this system, rather than tearing it all down and starting over.

The long term effects of these interventions should then be monitored. When necessary the system can be corrected again. Therefore, I tried to focus on process rather than product in this design proposal.

### **Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.**

Research on the mechanics of affordability, and the resulting case study aim to reflect on the way we design public housing. In the end, it is more about the principles that could power a sustainable regeneration of existing housing.

The subject of affordability is a useful way to drive this process of regeneration. It is not only linked to financial aspects, but also to environmental design and social aspects. It is not only about what a person can strictly afford in terms of money, but also about the burden certain aspects of your housing situation place on you.

As the topic is very broad it turned out to be difficult to set strict parameters for a (re)design. It would be interesting to relate the underlying system that forms affordability to the system that is a housing project. That being said, many of the design interventions are transferrable to similar housing blocks, at least in the Netherlands. With the role of the car becoming less in the future, being replaced gradually with public transit and car sharing initiatives, parking space can be freed up for pedestrians.

Similarly, the ground floor adjustments and top-ups are concepts that I see to be applicable to other redesigns.

As for the research itself, if the cultural value methodology is further developed, I think it can become a valuable tool for designers and planners to get a better grips of the workings of the area they are designing for. This method is flexible in the sense that mainly qualitative data is gathered, from which patterns emerge. As these patterns vary from neighbourhood to neighbourhood they provide valuable, location specific information when starting a redesign process.

**Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.**

The ethical issues in this project relate to a wide range of subjects, from housing accessibility too climate change. Doing this, looking back, I think this scope was too wide. The conclusions remain vague.

The research leading up to P2 consists of two parts. First in groups the cultural values in the area were studied. This involved fieldwork for a large part. Doing this with COVID-19 restrictions in place led to specific ethical issues. The distance between the area and the researcher was larger than is might usually have been. Ideally, we would have submerged ourselves in the area more to get a grips on what the workings of the neighbourhood. Now, interpretations are distanced. While interpreting the data our own biases about the Bijlmermeer should be very concisely separated from the information that was gathered.

On the other, doing ethnographic research there is risk of becoming to emerged in the studied subject, forming new biases as you go. So, COVID or not, a major requirement for the reliability of the conclusions is being aware of our position a researcher to the studied subject. To much distance plays into existing bias, to little distance might generate new bias.

In developing the design it was a nice underlying set of information, but I find it difficult to pinpoint the core the story. The cultural value research provided us with a large body of opinions and existing social patterns in the H-buurt area. The heritage value research shines a light on how to interpret the existing buildings and their surroundings in architectural terms. The research on affordability gives a similar broad frame-



work to reflect in current societal issues.

The largest problem during the design process was determining where the information was valuable for generating a physical design intervention.

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- Conclusions, images and further explanation on the collective research (Almere Haven & H-buurt) can be found in the report prepared for P1.*

## Images

- Figure 1: Dunning-Kruger Effect, own image
- Figure 2: Own image
- Figure 3: Own image
- Figure 4: Own image
- Figure 5: Scheme taken from collective research
- Figure 6: Scheme taken from collective research
- Figure 7: Scheme taken from collective research
- Figure 8: Own image
- Figure 9: Own image
- Figure 10: Taken from Kuipers, M., Jonge, W., & de Jonge, W. (2017). *Designing from Heritage*. TU Delft.
- Figure 11: Kuipers, M., Jonge, W., & de Jonge, W. (2017). *Designing from Heritage*. TU Delft.
- Figure 12: Own image

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