

# ADVANCED HOUSING DESIGN

DWELLING GRADUATION STUDIO 2021/2022

Research on urban dwelling typologies that support multiple forms of care at home



# MORE TIME FOR CARE

## TUTORS

Olv Klijn, Ferry Adema  
& Anne Kockelkorn

## STUDENT

Linda Hammerschlag  
4552644

FACULTY OF ARCHITECTURE & BUILT ENVIRONMENT

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# 01 Introduction

## 1.1 Problem statement

### **Social reproduction**

On Wednesday 29 September this year, the Dutch public broadcaster NOS posted an article showing that women in Dutch society are champions in part-time work which is correlated to the wage and pension gap between men and women. The article mentions how women have to choose part-time work in order to balance paid work with care work at home. On top of that women mostly work in sectors like health where the income and pensions are lower than the sectors like construction where mostly men work with a higher income and pension. This struggle to provide and care for a household that includes members who are children, elderly, sick or disabled is what Fraser & Jaeggie (2018) call a “crisis of care” in which social reproduction is pushed to its limit. In general, there is a difference made between production and social reproduction in a capitalist economy and society. The common understanding is that production entails wage labour and social reproduction is the labour involved in maintaining and continuing social systems. From a feminist perspective, social reproduction highlights the unpaid labour of child-bearing, child-raising to caring for the elderly. In contrast to the general understanding, it is productive and valuable labour performed mostly by women both in the home and outside in neighbourhoods, associations and public institutions. Since the labour is unpaid there is a power imbalance where these workers are dependent on paid workers or social programmes.

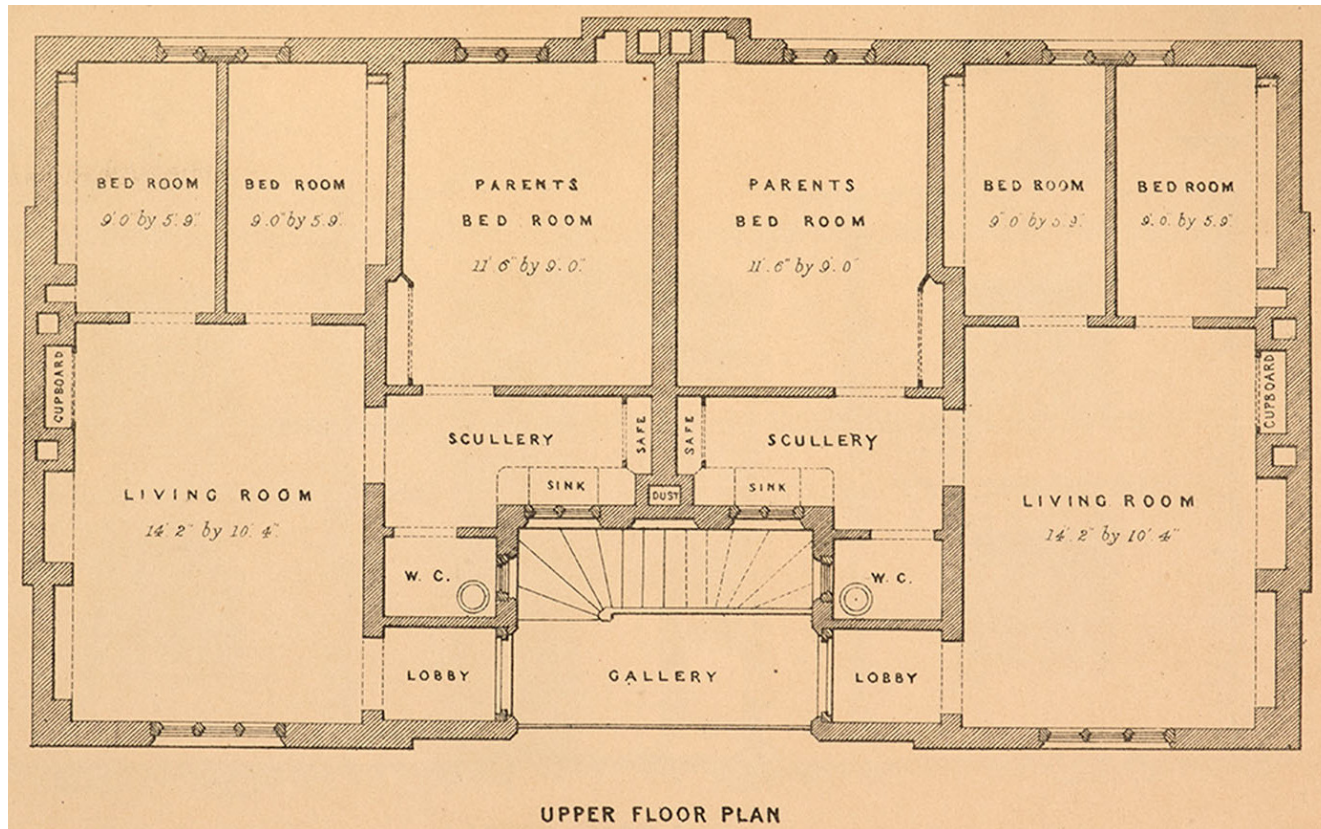
On 2 July 2014, the Second Chamber of the Dutch government published a parliamentary paper about how our society is transitioning from a

welfare state into a participation society. This change has an impact on the means of social reproduction by limiting and stopping certain care facilities for people who need assisted-living housing. With this change, more social reproduction labour has to be done by family members, organisations and municipalities. It means that people who are currently struggling with balancing their time between work and care will experience more difficulties.

### **(Material) feminist theory**

A problem that women face when providing care is that most of the labour happens in the isolation of their home. Whereas in the time until the 17th century it was common for production and social reproduction to take place together in the home or a communal building. Social reproduction was a social activity that involved a collective effort. The split between production and social reproduction happened with the development of capitalism, specifically liberal capitalism which came to function in the 19th century. Social reproduction was no longer a shared activity but the sole responsibility of a mother in a household hidden away inside the home and architecture was designed accordingly.

An example of the mentality in the second part of the 19th century is the floorplan in figure I by Henry Roberts for his Model Houses which he presented at The Universal Exhibition that took place in London in 1851. The aim was to improve the poor living conditions that the lower classes lived in by providing each household with an independent kitchen and water closet. But by introducing this concept women no longer had a space to forge social bonds while cooking,



washing, taking care of children and crafting instead, the housewife spent all the time doing these tasks in isolation in her apartment. This change in architectural and urban design sparked multiple feminist movements such as communitarian socialism, domestic feminism and material feminism. For this research, I am interested in the feminist critique by material feminists which Dolores Hayden wrote about in her book *The Grand Domestic Revolution: a history of feminist designs for american homes, neighborhoods and cities in 1982*. These feminists are part of the first wave of feminism that spread the initial message of gender inequality with their main focus on how capitalism and patriarchy affect the lives of women and how they can empower women through better architecture along with economic initiatives. I would like to find out how these feminist perspectives can be translated to the 21st century and inspire a housing concept that addresses the crisis of care of this time.

### Co-operative housing tenure

Related to housing is the current problem of the unaffordability of housing which in turn increases the struggle of households to pay for housing and formal care. The speculation of housing prices in the Netherlands has led to the housing market being inaccessible to people who earn too much for social housing and not enough for the high prices that the private market is asking of buyers and renters (Stojiljkovic, 2021). This is where co-operative housing becomes interesting to introduce in the Netherlands. In cities such as Zurich co-operative housing has been a long tradition and has resulted in stable and affordable prices for housing and keeps the housing market accessible for all households (Boudet, 2017). There are a few co-operatives in Amsterdam that have succeeded in realising their project, but none yet exist in Rotterdam. Therefore it would be interesting to research the possibilities and advantages of co-operative housing to achieve a new dynamic between production and social reproduction spaces.

Top  
Figure 1 Henry Roberts Model Houses, 1851

## 1.2 Research question

Personally, my family and I know the struggle of caring for an elderly grandmother who can not move out of her home. My aunt helps her out the most. She lives alone and helps take care of my grandmother who is no longer capable of fully managing on her own. There is also a formal caregiver who comes by every morning. With the distance between my grandmother's home and my parent's home, it gets difficult to take the time to visit her and help out. This problem has been a part of our lives for a long time and always made me wonder about how care could be organised differently.

For this research I would like to explore the following question; How can a fourth wave feminist housing concept with co-operative housing tenure organise social reproduction spaces to support low-income families who need more time for care?

Sub-questions:

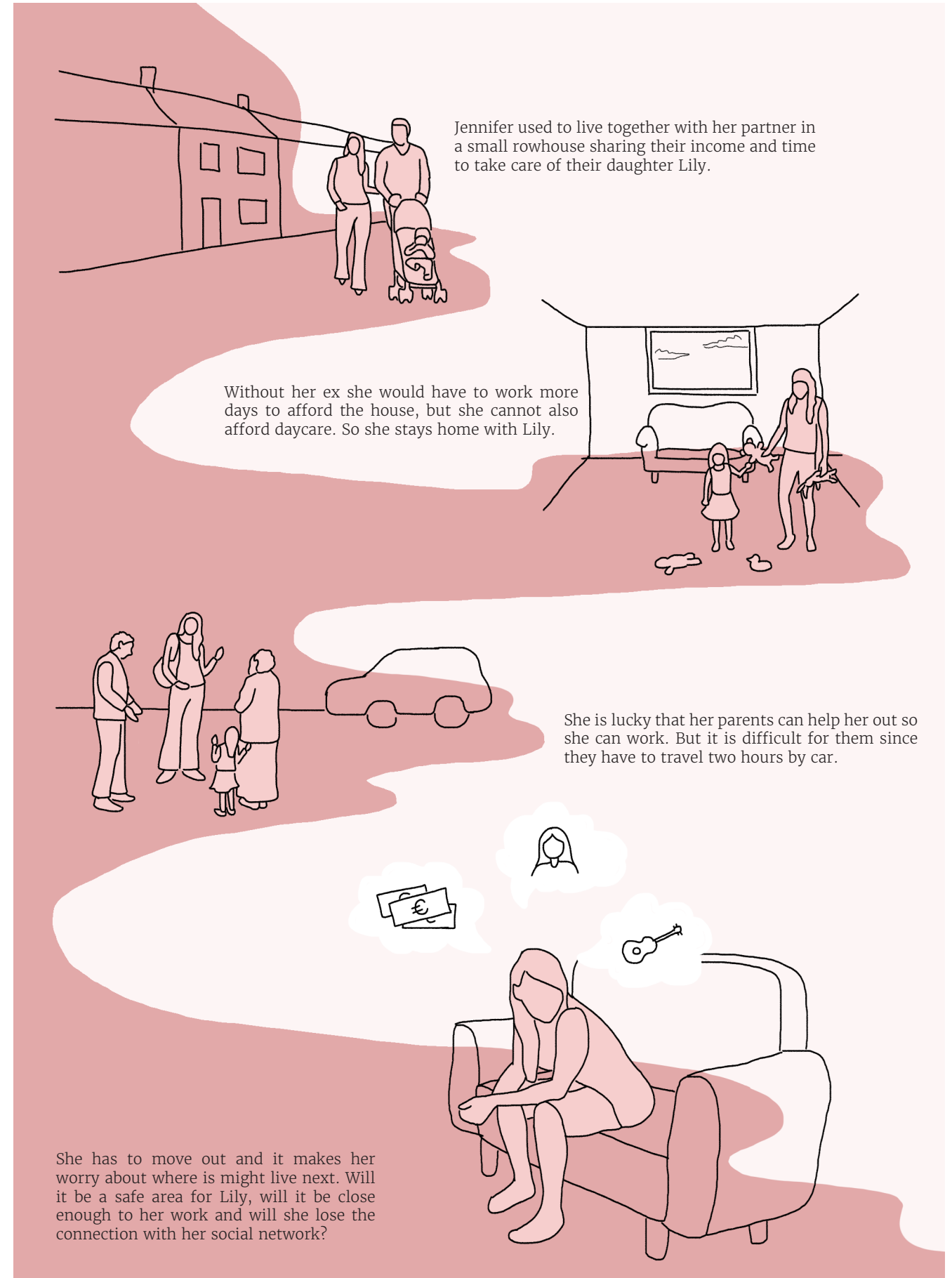
How have materials feminists addressed the struggles with social reproduction labour and how can it be translated into a fourth wave feminist perspective on housing?

How have architects of co-operative/collaborative housing projects designed housing to support evolving family structures and forms of care?

## 1.3 User groups

For this research, I will focus on low-income households with family members who are children, elderly, sick or disabled. These include two-parent or single parents who work full-time, part-time or stay at home and also singles or couples who have family members outside of their household who need care. The rising struggles of care affect low-income households the hardest, but this does not exclude households with middle incomes since the struggle comes from the combination of money, time and distance.

To explore the experience of the user more in-depth in relation to spatial design I will use a graphic novel as my medium. The graphic novel follows the life of Jennifer. She is a 38-year-old nurse who grew up in the east of the Netherlands. 10 years ago she moved to Rotterdam with her partner. With their combined income, they bought a rowhouse together and soon after started a family. This first part of the graphic novel portrays the struggle Jennifer goes through after separating from her partner. At the end of the research, the second part of the graphic novel will show how her situation changes inside the new housing concept.



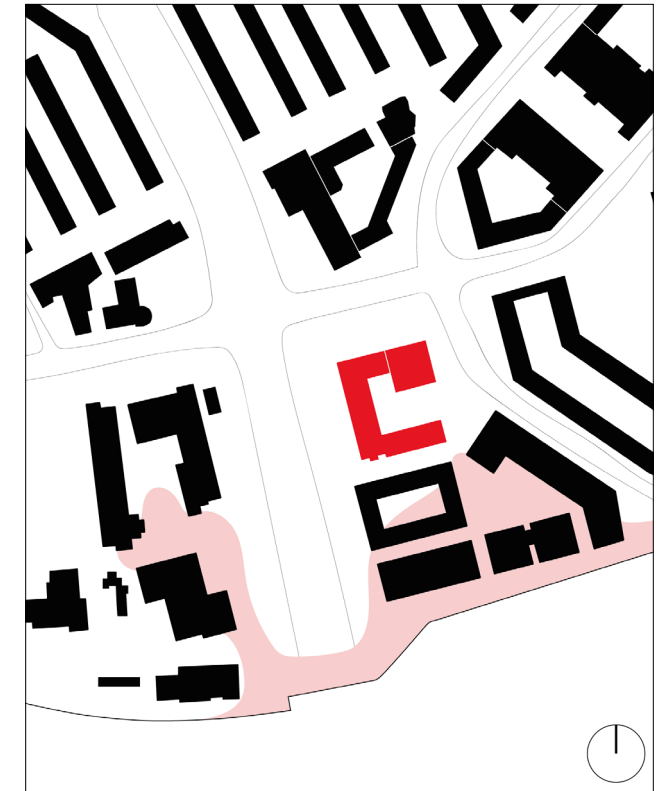


## 1.4 Design project

My intention for this research is to implement the findings into a housing concept that can be used for my design project in the Advanced housing studio. The project is located in the north part of Rotterdam near the central station. For the studio, my group made a master plan for the site which is one of the entrances to the neighbourhood Blijdorp north of the train tracks (see page 104). Within this site, I work on the design for the red building in figure IV. It is an existing building that I plan to transform. The existing building is named the Homobonus and was built in 1938 by Gerard Holt. The space was meant for a collective of retail traders who were struggling against large scale department stores. It is a nice connection that this building can again serve to support those struggling and have an impact on the neighbourhood. Besides the history, the location is also ideal to experiment with a feminist housing concept that connects housing, workplaces and facilities because it is located at the intersection where most of the facilities for the neighbourhood are clustered.



Top  
Figure II Homobonus in 1940 from the north-west side



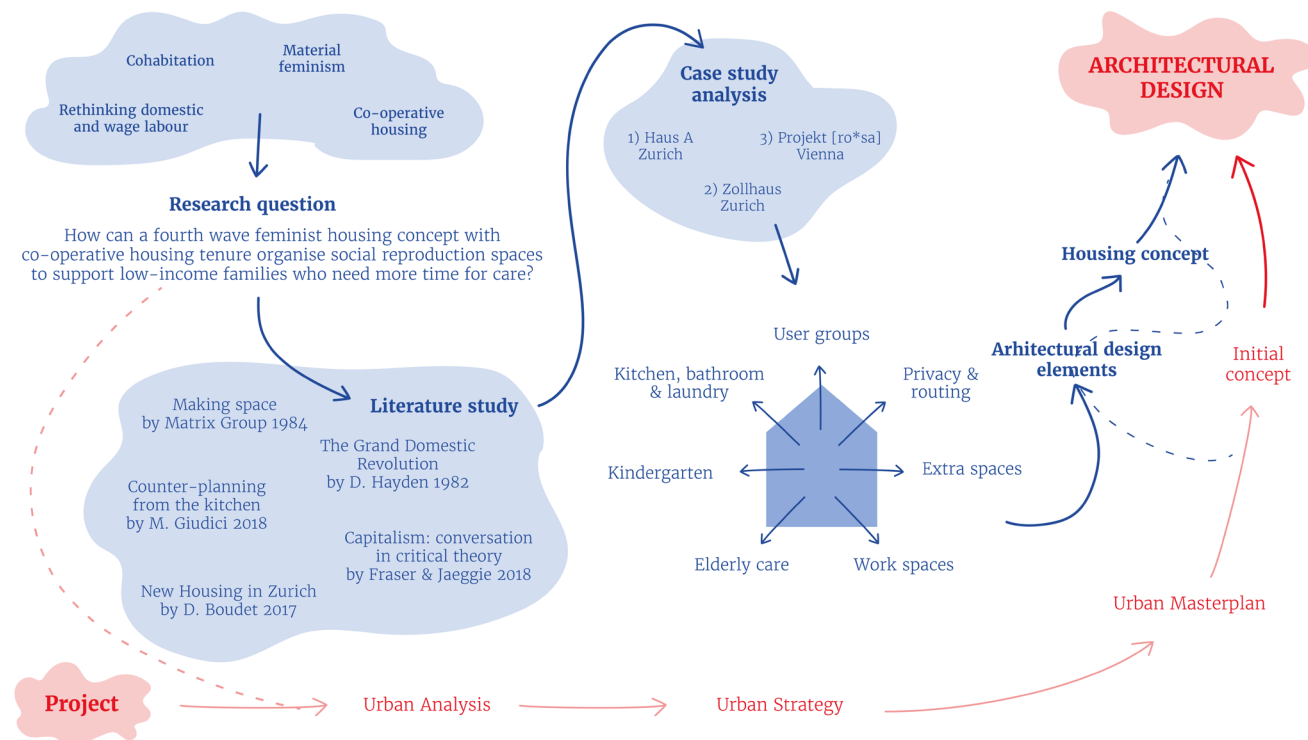
Bottom  
Figure III Situation plan

## 1.5 Methodology

For the first part of the research, I dive into the history of material feminist architecture and its relation to capitalism by using literature research. The relation between the crisis of care, architecture and economy is explained in the books by Fraser and Jaeggi (2018) and Hayden (1982). By exploring the influence of a capitalist economy on the social reproduction and family dynamics and how material feminist architects responded to the struggle of providing care, I can get a better understanding of the influence and achievements of the first wave feminist architects. I will finish the literature research by including insights from recent articles on all the waves of feminism and the feminist perspective on the importance of social reproduction.

For the second part, I use 3 case studies to analyse the impact of rethinking the placement of spaces meant for social reproduction on providing care and financial independence. For the analysis, I make use of articles and books written about the projects and articles by the architects that explain their vision for living in the future.

The methodology scheme in figure IV shows the steps of my research in relation to my design process and where they influence each other.



## 1.6 Framework

### Material feminism

The theory of material feminism is an important part of this research and my bibliography includes multiple pieces of articles and books on material feminist theory and other feminist perspectives related to social reproduction. For this research, the book *The grand domestic revolution* (1982) by Dolores Hayden forms the base for this literature. She is an American professor of architecture, urbanism and American studies and is also an urban historian, architect, author and poet. Her first works were published in the 1970s' during the second wave of feminism and her work has since included topics of feminism related to architecture and urban planning. Her book *The grand domestic revolution* (1982) is an important part of feminist and architecture literature because it explains in depth the relation between feminist architecture and the different aspects of society such as social change, culture, gender roles, power structures and capitalism. Her definition of material feminism will be used in relation to other pieces of feminist literature on social reproduction to create a perspective from which the case studies can be analysed.

### Production and reproduction

The definition of production and social reproduction is as defined by Fraser and Jaeggi in their book *Capitalism: a conversation in critical theory*. The first author of the book is Nancy Fraser an American professor of philosophy, critical theory and feminism born in 1947. She started her career in 1969 and published essays, articles and books as part of the second wave of feminism. Her recent work. The second author is Rahel Jaeggi she is a German professor of practical and social philosophy born in 1967. She graduated in 1996 in the midst of the third feminism wave. From what I can find, both professors explore aspects of society and the economy and relate it to the discourse on feminism and emancipation. Because material feminism includes the relation between capitalism and gender discrimination, the literature from Fraser and Jaeggi works well with it by defining the relation between capitalism and the zones that make up a society. The split between production and reproduction and how it is a core element of capitalism and together with the spirit of profit are important aspects mentioned in the book and relate back to the literature of Hayden (1982) and the problem of speculation in housing.

Left  
Figure IV Methodology scheme



## 02 Material feminism in the fourth feminism wave

In this chapter, I will answer the following subquestion: How have material feminists addressed the struggles with social reproduction labour and how can it be translated into a 21st-century feminist perspective on housing? First I will contextualise social reproduction in the different phases of capitalism which will explain the challenges the material feminist were facing in the 19th century. Then I will summarise the different movements related to and within the material feminist theory. I will highlight from each movement the ideal or aim and include projects, diagrams or drawings that help visualise it. I will conclude this chapter by creating my perspective on fourth-wave feminism in architecture by relating the ambitions of the first wave feminists with those of the third wave feminists and integrating developments in neoliberal capitalism related to care and housekeeping labour.

### 2.1 Social reproduction in the four phases of capitalism

The concept of social reproduction did not exist before capitalism and the dynamics of who is involved and where it takes place change based on how production functions in a specific phase of capitalism. In this summary, I use the literature of Fraser & Jaeggi (2018) to summarise how social reproduction operates in the different regimes of capitalism. In the book, Fraser & Jaeggi define four phases of capitalism which can be seen as stages in which an earlier regime has to deal with a problem and transforms itself into a new regime. I relate the dynamics of family dynamics with social reproduction labour to the mode of production in chronological order from mercantile capitalism to liberal capitalism, state-managed capitalism and present-day financialised neoliberal capitalism.

#### **Mercantile phase**

The initial phase of capitalism is the mercantile phase from the 16th to the 18th century. In this regime, there is an internal/external division in which the absolutist rulers regulate the internal commerce and profit from plunder and long-distance trade outside their territory based on “the law of value”. The dynamics of social reproduction are not changed by capitalism which is situated in villages where an extended kin network works together based on the local customs and religious practices. Under this regime, families combine care and work within the home at times even in the same room and use common places to combine their efforts together with others making it a social undertaking. (Fraser & Jaeggi, 2018)



Top

Figure 1 Weverswerkplaats by Johannes van Ouderogge, 1651

### **Liberal capitalism**

With the rise of the Industrial Revolution mercantile capitalism transformed into liberal capitalism from the 19th century to the beginning of the 20th century. Instead of the internal commerce regulated by the state, economies were created in which the production and exchange seemingly operated autonomously and free from political control based on the mechanism of supply and demand. The creation of factories leads to the creation of production and social reproduction which split life into two separate spheres of “the factory” versus “the home”. (Fraser & Jaeggi, 2018)

### **State managed capitalism**

After World War II liberal capitalism changed into the regime of State managed capitalism until the end of the 20th century. In this regime, welfare states were introduced in which states used public power to actively address the damage done in World War II in the hopes to secure the conditions for sustaining private capital accumulation and pre-empting further crises and revolution. In these welfare states services and facilities related to social reproduction are internalised in the state and make it part of domains managed by capitalism. In this regime, the “family wage” was introduced as a response to previous wages in liberal capitalism which were not enough to support a family. The aim of the family was to enable the housewife to take full-time care of her children and the house which also reinforced women’s dependence on men and heteronormative gender roles. (Fraser & Jaeggi, 2018)

### **Financialised neoliberal capitalism**

Lastly, there is the present-day regime of financialised neoliberal capitalism. The shift from state managed to financialised neoliberal capitalism is not as drastic as with previous phases that transitioned through events such as revolutions and world wars. Instead, the previous order is replaced bit by bit with financialised neoliberal capitalism. To most, it seems that the economy now operates separately from the state. When in reality the state has changed the political regulation of how economies can transgress the territorial borders of states. This impacts the power of influential states over other states and the locations where production takes place to facilitate this transnational economy. The change in production goes hand in hand with a drop in wages making it impossible to support a family on a single salary. The previous family wage is therefore no longer possible and there is now a new wave of feminism criticising the dependency of women on men as the breadwinner that creates the new ideal of the two-earner family. This is not an idealistic situation similar to the family wage ideal because it obscures the rise of work hours needed to support a household. It makes it harder for families with only one potential wage earner or households which include children, elderly, sick or disabled people. It means that a second person has to split their time between social reproduction labour and wage labour. Together with the retraction from the state providing public services, the financialised economy is creating a crisis of care where social reproduction is pushed to its limit. (Fraser & Jaeggi, 2018)



## 2.2 Material feminist theory through liberal capitalism

At the time of liberal capitalism, the creation of the two spheres leaves women isolated in their homes. The inequality and lack of autonomy of women start the first wave of feminism. In this wave, there are multiple feminist movements with different backgrounds that have specific strategies for social reproduction labour and women's equality. For my research, I am interested in the material feminism theory, but before I dive into their theory I also summarise the communitarian socialist and domestic feminist movements that happened prior to it and influenced it. For each movement, there are founders, problems they address, a vision that addresses it according to their values and a spatial strategy or realised project.

### Communitarian socialist

The movement was started by Robert Owen in England in 1813 and influenced projects in the US beginning in 1820. Charles Fourier continued the movement in France around 1840. Communitarian socialists did not agree with traditional domestic life which they found isolating, wasteful and oppressive. Therefore they initiated communities that combined the labour usually done by individual farmers, industrial workers and housewives. Their idea was to improve the work environment, have equal wages and have all individuals involved in all three areas of work. These model communities were designed with collective facilities for domestic tasks that make equality between men and women possible and showed how an egalitarian society could function. There were two kinds of communities that either contained nuclear families which retained some degree of private family life or organised

the members as one large family. The first kind of community provided families with private apartments and access to communal spaces such as kitchens, dining rooms and nurseries. The second kind of community housed its members in rooms or dormitories that connected to a kitchen, dining room and nursery. In these experimental communities, the communitarian socialist managed to end the isolation of the housewife and made household labour a recognised specialisation at the level of agriculture and industrial production. Hayden (1982) remarks how in reality even though the work environments did improve for the women in these communities, they rarely received equal pay.

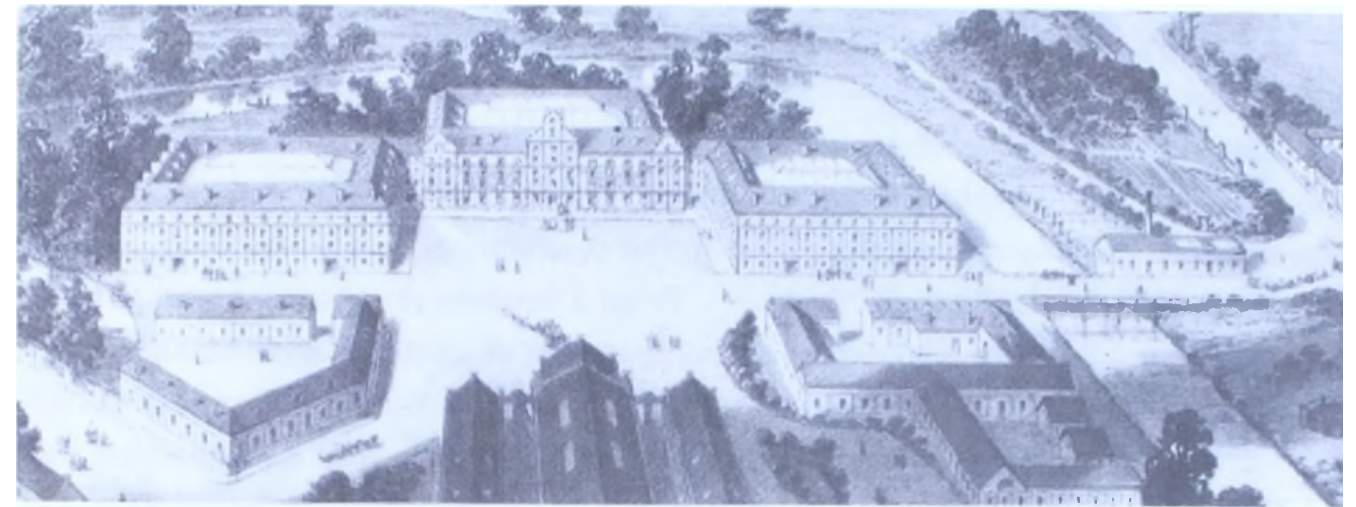


Figure 2 The settlement

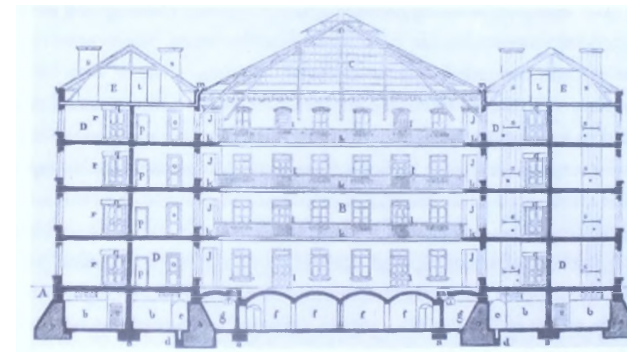


Figure 3 Section

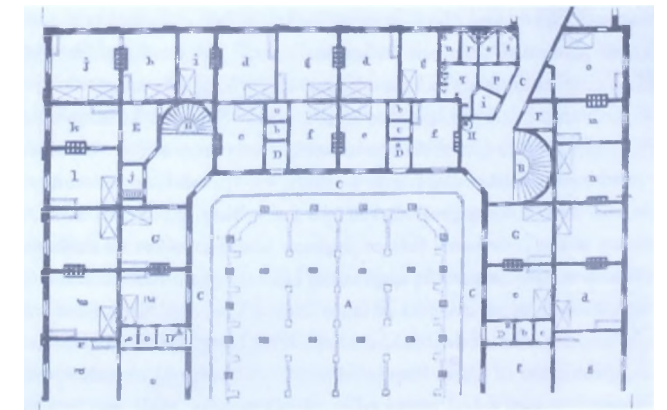


Figure 4 Half of the floorplan

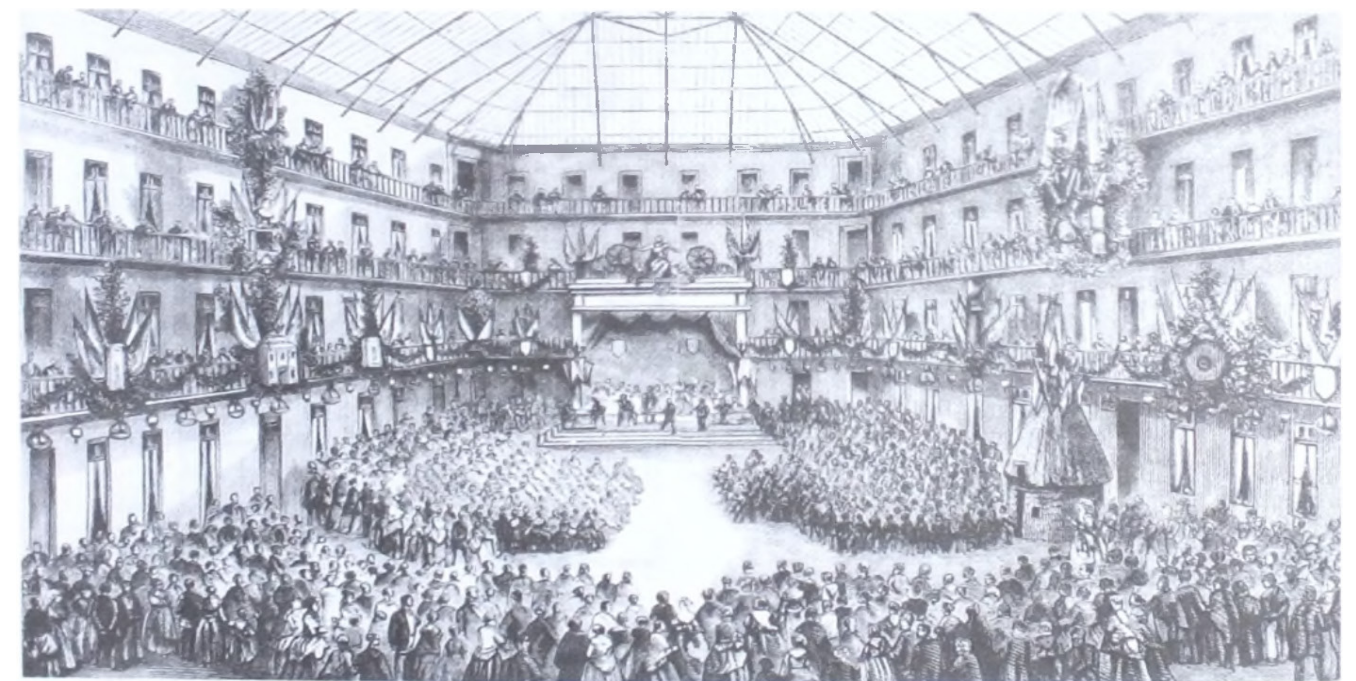


Figure 5 Inside the atrium



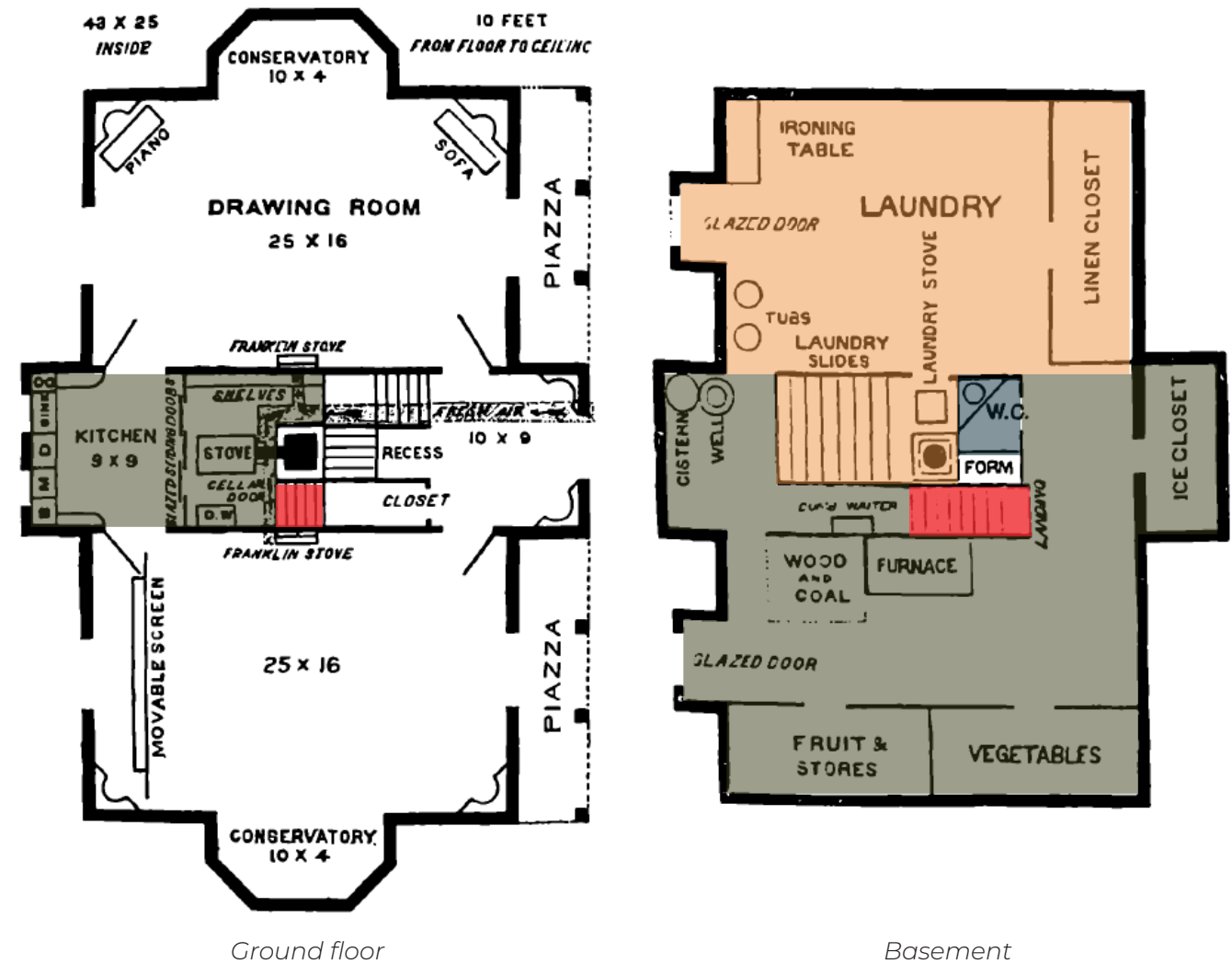
**Domestic feminist**

Instead of going against the liberal capitalist economic and social system like the communitarian socialist, Catharine Beecher and Harriet Beecher Stowe proposed a different design to increase women’s power through women’s self-sacrifice and domestic isolation which works within the existing system. They focused on homes in suburban areas where women should demand control over domestic life from housework to training their children and providing refuge for men. They argued that women have a greater capacity for self-sacrifice and thus are entitled to rule the home while not disturbing the world and economic system that men rule outside of the home. Their goal was to bring the women’s profession of social reproduction to the same level of desire and respect as the professions of men. In 1869 they published their designs for “The American Woman’s Home” and “The Model Christian Neighbourhood” in their book *The American Woman’s Home*. The woman of the home was described as the minister of the home who without the aid of servants managed all the social reproduction tasks inside the house. (Hayden, 1982)

The plan for “The American Woman’s Home” contains a basement and ground floor where the technical equipment and spaces for cooking and laundry are specified. The basement seems to function as the support for the housewife’s duties on the ground floor. Where she can work in solace in the basement on the laundry and prepare food and water and she can work in the kitchen while staying in contact with her children, husband or guest in two rooms on either side of the kitchen. This

design makes it possible for the housewife to have full control over all the cooking, laundry and cleaning tasks and perform them to a high standard with efficiently placed and good equipment. It almost seems like a small business which does correspond with Beecher and Stowe’s thought that housekeeping should be a profession. But the self-sacrifice of the housewife does mean that she has no time for personal time since keeping up with the housekeeping would take the whole day. And most of the work she does would in this plan be hidden away in the basement.

Beecher and Stowe used *The Model Christian Neighbourhood* to provide the relation between the homes. In their model, the neighbourhood provided the homes with a town laundry, bakery and cooked food delivery service. In the mentality of using the best technologies available the common facilities made sense, yet it did weaken Beecher’s and Stowe’s vision of the powerful individual women. They strived for housewives to maintain the home by themselves, yet also supported them with facilities that would be run by other women.



Top  
Figure 6 Ground floor and basement of *The Woman's Christian Home*

- Legend**
- Stair to the basement
  - Kitchen and related storage
  - Laundry room
  - Toilet

**Co-operative housekeeping**

The material feminist movement was born out of the co-operative housekeeping movement by Melusia Fay Peirce, Marie Stevens Howland, and Mary Livermore who developed their work separately from each other but have similar grounds.

**Melusia Fay Peirce**

Peirce was focused on giving women the freedom to explore themselves and free themselves from the kitchen and dependence on men. In the 1870s she created an economic and urban proposal for women to unionise and make housekeeping a profession that unites servants and middle-class women. Pierce saw the opportunity for women to take control of the distribution and service industry which was on the rise and not yet dominated by men in the capitalist economy. She made a scheme of an urban plan with kitchenless homes that would support the economic plan of a non-profit housekeeping organisation. Her plan was that women should first establish co-operative housekeeping associations before implementing new urban plans and kitchenless architecture.

The diagrammatic plan in figure 8 is for a headquarters drawn by Beth Ganister. The building plan has three floors; a ground floor where products are sold and clients can come in, a first where production of food, cleaning and clothing services take place and a second for where the working women can relax, work out or have parties. The only physical input of the drawing for the architecture of such an association is the dumbwaiter that connects the kitchen with the dining and the use of movable

walls on the second to facilitate both small and large activities.

In the urban plan these associations are placed in the middle of the neighbourhood within a walking distance of the kitchenless houses, see C in figure 9. The composition of four houses is grouped together with an alley in between, see figure 7. The backs of the houses connect to the alley leaving no space for a backyard only a front yard. From what I understand in Hayden's (1982) text about Pierce, this composition on homes ends the isolation women experience in freestanding homes placed far from each other. This way people stay visible and can be quicker to make connections with their neighbours.

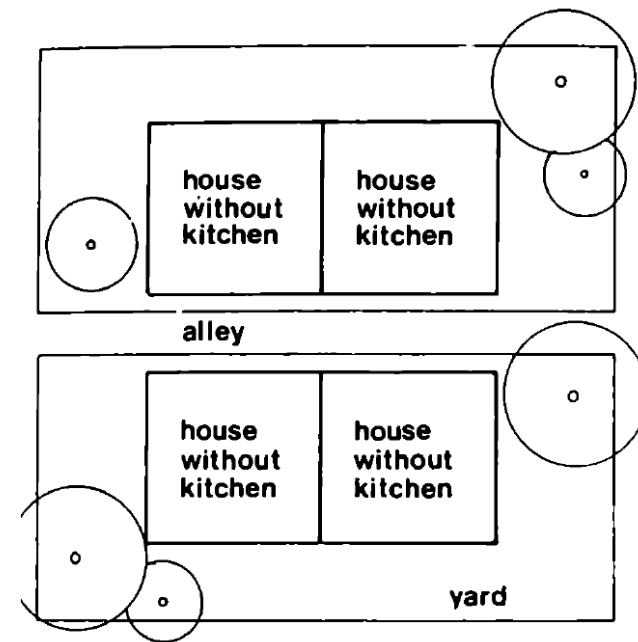


Figure 7 Composition of the kitchenless houses

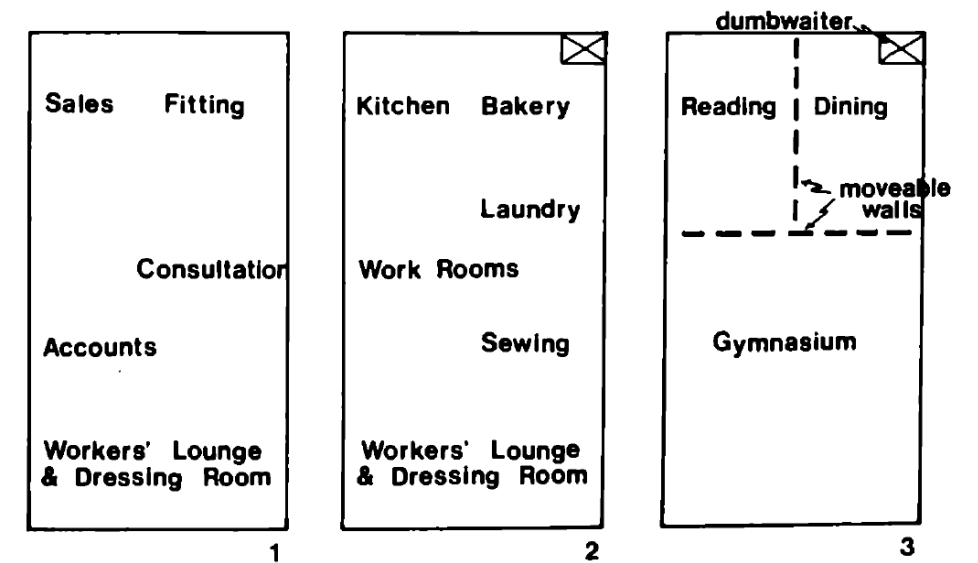
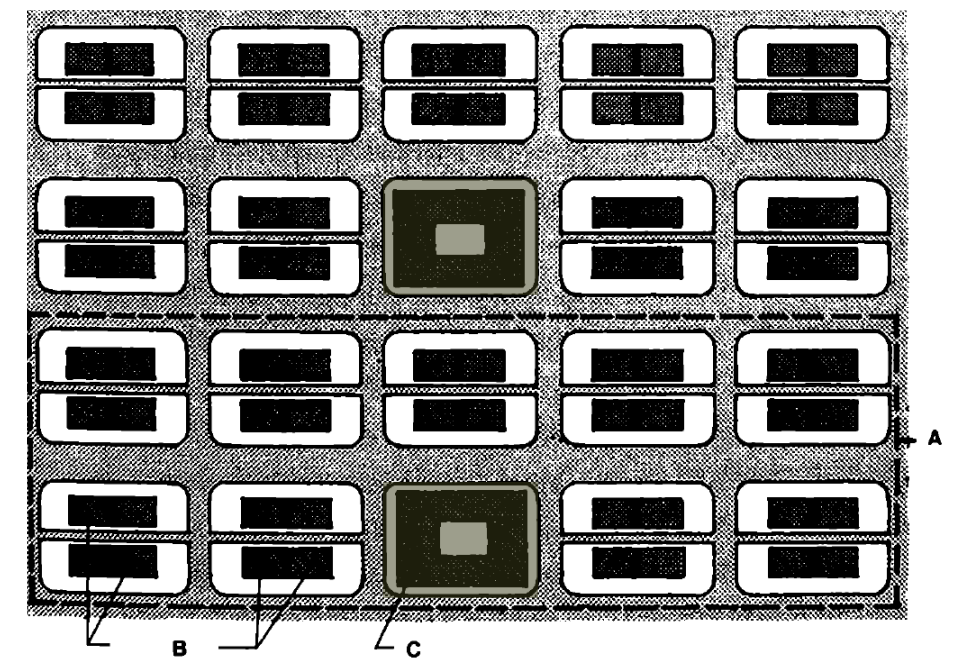


Figure 8 Floorplan for a co-operative housekeeping society



Legend  
 ■ C Housekeeping centre

Figure 9 Neighbourhood with kitchenless houses

### Marie Stevens Howland

Howland was an important influence from the 1870s onward inspired by Fourierist plans. She stepped away from domestic work to focus on child care from the perspective of employed women with children, not the full-time housewife. Her idea was to have women and men separated and to keep men in the lead of work and women in the home. With her idea, she called for the economic independence of women. In her opinion domestic work was to be a job for trained people and therefore focused on child care instead. Between 1850 to 1870 it was common for employed women to send their children either to orphanages or foster homes or to leave the children tied to a bed at home or on the streets during their working hours. Marie Stevens advocated for a better living arrangement where workers' housing

and child care is combined which is inspired by the Familistere by Charles Fourier. She was involved with the drawings for Topolobampo which is an urban plan containing apartment hotels, rowhouses with patios and freestanding cottages with adjoining co-operative housekeeping and other care and leisure facilities. In 1885 she made plans for a suburban neighbourhood (figure 11) which show more in detail the ideas which were also implemented in her urban design for Topolobampo.

The plan shows 8 kitchenless homes each designed slightly differently served by 2 co-operative housekeeping buildings that include a kitchen, laundry, bakery and dormitories for the trained staff of the facility. The plan preserves the family's privacy with a distance from the facility and their own dining room.

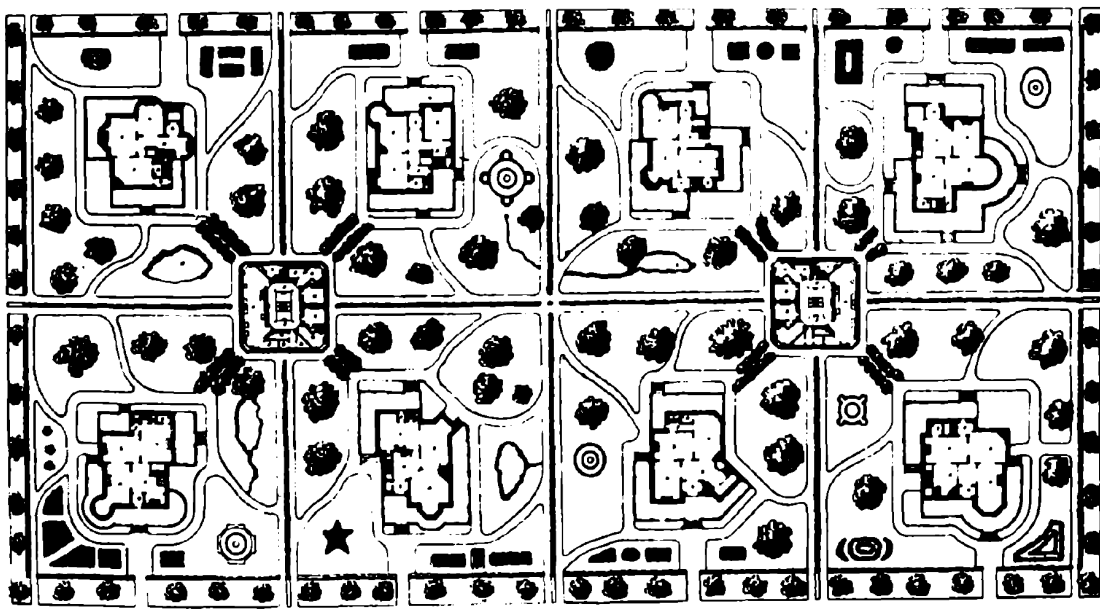


Figure 10 First plan of actual kitcheless houses in a suburban neighbourhood

### Charlotte Perkins Gilman

Gilman was active from the 1890s onwards and strengthened the ideology of material feminism by advocating for a new form of domestic organisation to achieve improved motherhood. Her work was rooted in the works of Melusia Fay Peirce, Marie Stevens Howland and her grandmother Catharine Beecher. She succeeded in becoming a leading advocate for material feminism because she was able to connect suffragists' ideals within a capitalist society. Gilman proposed similar to Howland to have paid professionally trained domestic workers in charge of housekeeping and child-care organised by a business, not co-operations or associations. She believed that domestic work and child-raising can be done at a higher standard when done by professionals instead of 1 mother or a collective of families.

In her ideology, she incorporated the theories of social evolution by Fabian Socialists who believed that society will evolve when women who are greatly suffering are raised up since the suffering of one class means suffering for the others. Gilman integrated this her ideology by stating that confining women to household work and motherhood holds back human evolution. With her book *Women and Economics* she gained recognition for her ideas for a feminist apartment hotel. She envisioned women living in private suites without kitchens facilitated by cooking, dining, cleaning and childcare services, being able to work for economical independence and choosing voluntary for motherhood. Figure 11 shows an urban block based on Gilman's idea that families can live their own life while depending on a housekeeping business that supports the community

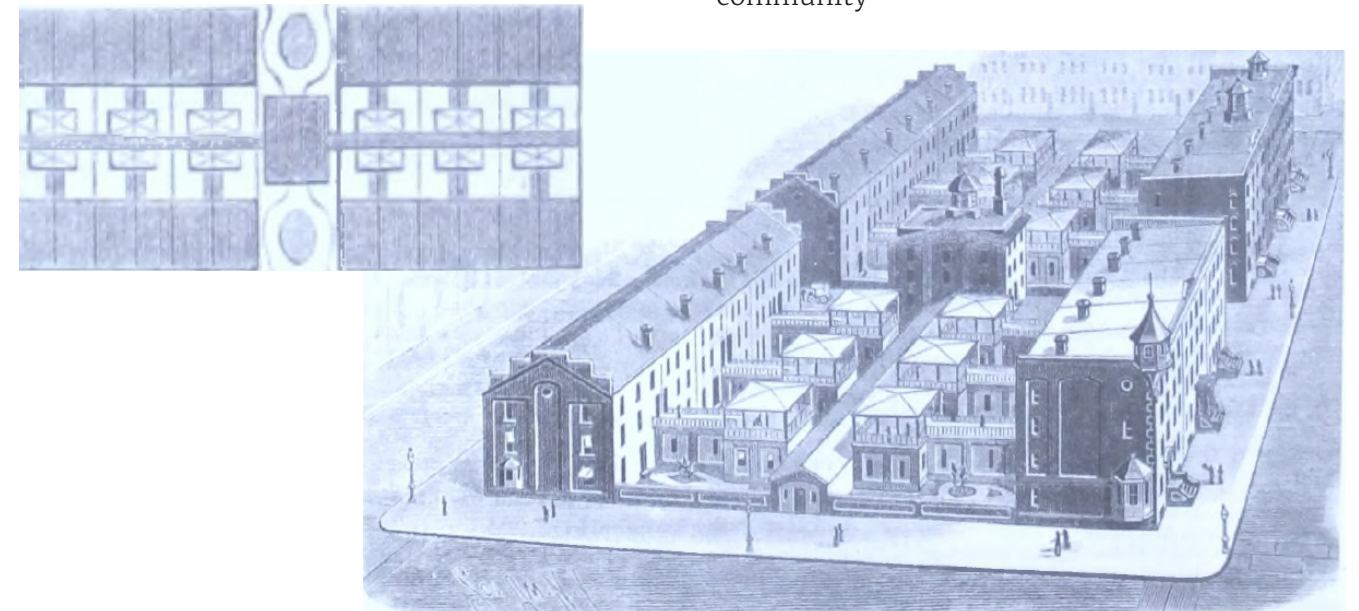


Figure 11 Block of one-family row houses served by a central kitchen by Leonard E. Ladd in 1890



### 2.3 Material feminist architecture in the 21st century

In this chapter, I focused on understanding the history of the material feminist theory and the possible reorganisation of social reproduction labour. The first wave of feminism from the 19th to the first decade of the 20th century made the first step towards equal rights for women and the autonomy of women in a male-dominated society. Material feminists contributed greatly by making the ideology of feminism seem feasible with their concrete ideas for housing. Material feminism came with interesting and challenging ideologies which in turn raised new challenges.

The second and third waves of feminism are in close relation to each other. The focus shifted towards the sexual liberation of women, gender roles and the inclusion of women in workplaces (Malinowska, 2020). Hayden (1982) concludes that a synthesis of material feminists and second/third wave feminism is needed for successful social reform. Where the material feminist theory achieved social and economical workplaces for domestic labour with recognition of its importance and fair compensation. The second wave of feminists focused on the sexual division of labour which cannot succeed without the inclusion of the spatial component of women's economic oppression. Both waves have a different focus on employed women or housewives which makes it difficult to find a common understanding because of the economic and domestic division (Hayden, 1982).

The 2010s mark the start of the fourth wave of feminism by using social media platforms that are now mainstream, more accessible and reach globally. The main focus is on fighting against sexual harassment and

violence against women. The movement is orientated on online activities and online communities to advocate for feminism and raise awareness past the borders of countries. The fight to get women into positions of power and close the wage gap between men and women continues from the third wave feminists and the mentality from the first wave remains, that by freeing women from gender roles and the home the lives of all people of any gender in society will be free. (Malinowska, 2020; Robertson, 2019)

Guidici (2018) points out how since the first decade of the 21st century there are feminist expressions in architecture that resemble nomadic typologies that do not want residents to adhere to a spatial design based on the preconfigured routine of the nuclear family. She mentions a few interesting current developments about how the home is used differently and how production and social reproductive labour are switching from the office and the home and vice versa. I find it interesting that Guidici (2018) calls the latest development a blurring of the line that separates production and reproduction spheres and spaces. To me, it looks like the relation between production and social reproduction is returning to some degree to the preindustrial spatial design of workhomes. Fraser (2018) adds to the discourse of production and reproduction that the emancipation of women is not possible if this gendered and divisive structure remains in society. The reunification of home and workspaces seems to me as an advantage to overcome the struggle of trying to balance two spheres that were structured with gender discrimination. It would benefit

all women from full-time employed women to women who divide their time between home and work to housewives.

What stands out to me in neoliberal capitalism is the rise in companies capitalising on the crisis of care with households running out of time to work, travel, cook, clean and care for their family. They offer their services as a solution to the problem instead of acknowledging what the material feminist already concluded. Even though material feminists also use the idea of housekeeping associations and companies they are accompanied by dwelling typologies that are part of that system of housekeeping. The problem remains that most of the homes in the Netherlands are built in urban plans that separate housing from facilities and businesses. Besides needing to balance time between work and family, it also takes more time and money to travel to the necessary facilities which gets harder when involving children, elderly or disabled people. Introducing new urban plans based on the ideas of material feminism is difficult to achieve since most cities like Rotterdam are focused on densification, not expansion. The approach would have to be to focus on adapting the existing urban environment to become a 15-minute city based on the work of Carlos Moreno.

With these factors in mind, I will conclude this chapter by answering the question of what a fourth wave feminist suggestion to reorganise social reproduction labour in urban housing. I find that the idea of a feminist apartment hotel would be suitable for the site and master plan I am working on which is a single building within an existing urban area that can serve to support its residents and the neighbourhood. Before addressing the services of the building, an important aspect is how

this system of housing works in relation to capitalist society. I agree with Fraser that it is not possible to overcome gender inequality in a system that has it integrated into it. With this project, I feel I can use co-operative tenure to have a basis for the system that is not profit-oriented but aims for longevity and accessibility. I like Gilman's point that women should not completely focus on taking control of the domain of housekeeping and care to generate economic independence and equality. Although women will still be drawn to jobs in the care sector, feminism advocates for the inclusion of all genders in any field. Thus working in the services in the building should be open to more than just the residents of the building and in turn, the resident should not be completely dependent on the services by removing the kitchens and bathrooms. The services should be divided into two scales based on that the essential services should be close to the home and the public services should be reachable within a 15 min travel in the neighbourhood. The essential services are the elderly care with nurses, cooking, cleaning and urban farming which are limited to the residents of the building. The public services are the kindergarten/daycare, guestrooms/short-stay rooms, library and workspaces. The integration of different types of workspaces seems vital to me because of the change in the relation between work and home and the access it gives residents to find a working environment that suits them. By offering optional services and workspaces directly available in the building, households and families can make arrangements that suit their care, housekeeping and social needs while maintaining the privacy of families within the home.

## 03 New dynamic of home and work

In this chapter, I will answer the following subquestion: How have architects of co-operative/collaborative housing projects designed housing to support evolving family structures and forms of care? For this part of the research I use the following three projects; Haus A by Duplex architekten, Zollhaus by Enzmann Fischer Partner and Projekt [ro\*sa] by Köb & Pollak architecture. I will look into the user groups and the vision the architects have for them and analyse different aspects of the building related to care and work. These are the topics; kitchen, bathroom & laundry, kindergarten, elderly apartments, workspaces, extra spaces and privacy & routing. Throughout the research, I will relate the findings to my project and how they could be used in the design.

### 3.1 User groups

Why did I choose these specific projects? I based my decision for these projects on my interest in the co-operative mode of tenure and their focus on specific user groups and their struggles that are related to my user group. Haus A offers a new experimental living arrangement and dynamic for families, couples and singles. Zollhaus has an interesting take on living arrangements for singles and a strong connection to its neighbourhood. Since all the projects are located in urban areas it is easy to relate them to the location of my design project. There is a difference between the three projects since Projekt [ro\*sa] is not a co-operative like Haus A and Zollhaus. It is realised as a collaborative housing project and shows how with a different tenure it can also realise affordable and accessible housing and in this case specifically for women who struggle financially. For each project, I look into the history/origin of the project, the vision of the architects/co-operation, what kind of future they see and which kind of user groups they focused on.



## 3.1 User groups Haus A

|             |   |
|-------------|---|
| Site        | Zurich  |
| Client      | Mehr als wohnen                                   |
| Architect   | Duplex Architects                                 |
| Realisation | 2015  |
| Programma   | 55 apartments, kindergarten/crèche and guestrooms |
| Area        | estimated 6.000 m <sup>2</sup>                    |

Haus A is a part of a larger experimental urban planning design with 13 buildings which was initiated by 35 smaller co-operatives who joined together as the large co-operative mehr als wohnen in 2007. They managed to acquire a plot of land on the outskirts of the city after winning a competition in which the architects futurafrosch and Duplex architekten managed to convince the municipality with their urban concept and the housing concept for Haus A with small clusters of household groups.

This concept comes from the vision that Duplex architekten describes in the book *Neue Standards Zehn Thesen Zum Wohnen* (Griffin, Bahner, & Böttger, 2016) in which Anne Kaestle explains how mobility has impacted the view of the current generation on ownership. Instead of the feelings of pride and accomplishment that the previous generation feels when owing something, the new generation feels burdened with possessions that obligate them. This new generation prefers the freedom of being able to choose without being limited by prior choices. This change in view and needs impacts people's relation with housing. Kaestle calls for the use of in-between spaces in housing concepts that belong to everyone that provide for accidental or intentional encounters between people. The in-between can balance a person's need for both identity and individuality and closeness

and distance. The precise spatial design inspired by this vision will be visible further in this chapter.

This vision addresses the problem of the living space per household reducing to the bare minimum and costs increasing to unaffordable heights. This problem is not limited to a specific kind of household but does affect those with a middle or lower income. For the reason mehr als wohnen divided it's usergroups into 50 percent families and the other half are students, young couples, singles and seniors. To make the project more accessible there is 20 percent subsidised housing for low income families and the possibility for assisted-living communities for disabled people.



© Johannes Marburg



© Johannes Marburg



## 3.1 User groups Zollhaus

|             |   |
|-------------|---|
| Site        | Zurich  |
| Client      | Genossenschaft Kalkbreite   |
| Architect   | Enzmann Fischer Partner   |
| Realisation | 2021  |
| Programma   | 52 flats, 2 200 m2 communal areas, 2 restaurants, cultural venue, nursery, kindergarten, shops, offices and 10 bedroom guesthouse |
| Area        | 15.470 m2   |

Competition for a plot of land alongside the railway tracks won by Kalkbreite for having a rich and diverse programme and the new hall dwellings and good credibility with the banks because 90 percent of the business and services programme was already rented out before construction. Before choosing an architect for the project the co-operation discussed the innovative concepts with working groups and the future users. After this Enzmann Fischer Partner won the architectural competition because they managed to realise the co-operations dream of three levels where public activities could interact with the co-operatives interventions.

Addressing the problem of housing shortage and the various forms of living with more communal desires. The aim of the co-operation was to provide as much housing as possible on the narrow plot. The co-operation made mostly traditional apartments suited for different kinds of households and there are apartments ranging from one bedroom to eight bedrooms. In order to do more than in their previous project in Kalkbreite they paid special attention to two new forms of living. The first are the hall dwellings for groups wishing to live communal and organise the space according to

their needs. The project has one large hall with 275 m2 for at least eleven persons and three smaller halls with 327 m2 for seven, five, and two persons. The co-operative also pays more attention to the elderly population and suitable housing and they included the communal living for old age project. The building has three communal housing spaces for elderly. They made space for 15 percent older than 65 and 15 percent for seniors between 50 and 65.





## 3.1 User groups [ro\*sa]

|             |  |
|-------------|--|
| Site        | Vienne   |
| Client      | Frauenwohnprojekt [ro*sa]  |
| Architect   | Köb & Pollak-architektur   |
| Realisation | 2009   |
| Programma   | 40 apartments, communal room, roofterras, sauna, launderette, bicycle and pram storage, estimated 5.500 m2 |
| Area        |  |

Architect Sabine Pollak of Köb & Pollak architecture is the initiator of the women's housing project [ro\*sa] to address the problem of needs of women in housing and that although their income is generally less than men they should still be able to live independently. This project does not have a co-operative housing tenure, it is a collaborative housing project that was financially supported by the municipality. I included the project because it has the same objective as co-operations to provide affordable housing and for its strong feminist objective. This project is specifically focused on emancipation women by renting out apartments solely to women who are allowed to have a partner move in with them but men are not allowed to rent an apartment on their name. Sabine Pollak presented her idea to a group of women which lead to the founding of Frauenwohnprojekt [ro \* sa] in 2003. Together the group formulated their ideas and wishes into concrete terms which were later used by Köb & Pollak in a competition. Even though they did not win the competition, they did convince the Vienna Housing Fund of the potential of the concept and were given a location in Vienna. The apartments are regulated by the housing association WBV-GPA and tenants get the possibility to buy the apartment after

10 years. Pollak also wrote a piece in Neue Standards Zehn Thesen Zum Wohnen about her vision of future living. Here she offers the corridor as a tool to address the problem of apartment typologies remaining the same even though people's lifestyles are changing. She leaves out any specific user group and focuses more on the possibilities of the corridor. She implemented her idea in her design for [ro\*sa] with a 3-metre wide corridor which serves as an extended living space that fosters social interaction between the tenants and can be used as an additional play area for the children. In order to make the most of the space she focused on the natural light, width, height and layout, materials, connections, views and insights of the space. The corridor makes it possible to reduce the size of the dwelling, lower the cost of rent and prevent the women from living in isolation.





## 3. 2 Kitchen, bathroom & laundry

### Scale of the apartment

There are 5-6 apartments inside a cluster. There are three types of apartments: studio, 1 bedroom and 2 bedrooms. Each has their own kitchen and bathroom. In these apartments residents get the minimal space needed for singles, couples or parent(s) with a child. There is no difference in bathroom sizes of 4 m<sup>2</sup>. The 1 and 2 bedroom apartments are about the same size, around 40 m<sup>2</sup> living space. The studio is the smallest with 20 m<sup>2</sup> living space. The architect focused on a sense of individuality for residents inside their apartment so it makes sense that each household gets their own small kitchen and bathroom so they can choose to retreat from the shared spaces.

The kitchen in two of the apartments function as the entrance to the apartment with no windows or visuals to other rooms unless the doors are left open. Only the one-bedroom has the kitchen inside the living space. The studio and one-bedroom apartment have the room to entertain guests. Although in the studio it happens inside the private space that also functions as the bedroom. In the one-bedroom there is separation which makes the bedroom more private than the living room. I wonder what it's like inside the 2 bedroom apartment where parent and child have their own room but not a room to come together since the kitchen does not have room for a dining table to sit and eat together. This means that one of the rooms is multifunctional or they only eat inside the shared living space of the cluster. This also means that if they have a guest over they would be similar as the studio have to be in the private bedroom. This does raise the question whether the bedroom is still a private room or if it is

now a space where social interaction with your community takes place, a question which Guidici (2018) asks in her work.

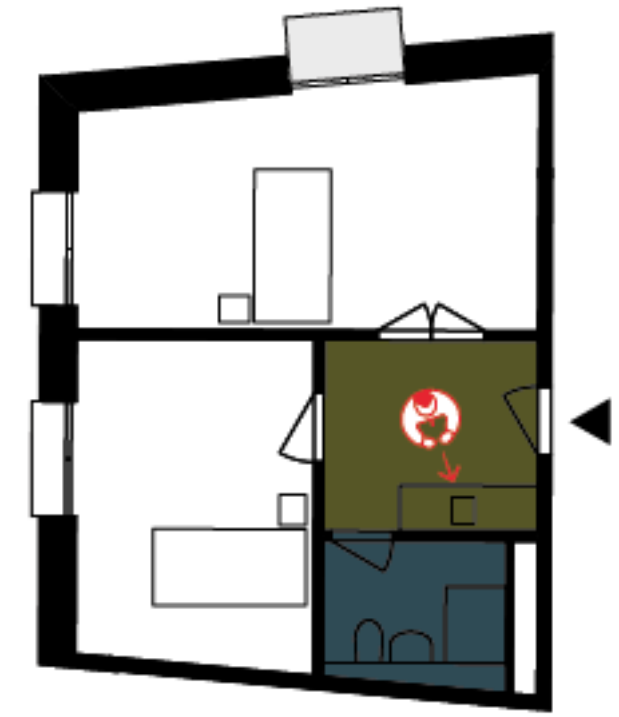
Top  
Analysis of kitchens, bathrooms and the  
laundry room inside Haus A  
1:100

#### Legend

- Personal kitchen
- Personal Bathroom



one-bedroom apartment



two-bedroom apartment



Studio

## 3. 2 Kitchen, bathroom & laundry

### Scale of the floor

Each floor has two clusters with an entrance to the central stairwell with one of the clusters having a separate stairwell for fire safety purposes. On each floor there is a laundry room which can be used by all the residents of the building. The room is separated from the stairwell by a glass door which makes it possible for residents to see inside and for those inside to connect with those outside the room. Each laundry room has space for four laundry machines or dryers and leave just enough space for users to move around and take their laundry out the machines. The width of the space is from 2 to 2,5 metre wide and probably comfortable for up to three people inside.

Each cluster has 5 to 6 households who share one kitchen, living space and bathroom. From the entrance residents walk into the shared living space. It is an open space with different nooks which have windows and balconies. In this space there is a large shared kitchen and space for a large dining table. Here residents can cook more elaborately, make use of different kitchen appliances or cook with other residents. It also offers a space where people can cook and entertain large groups. Each cluster has a shared bathroom which is tucked away beyond the shared wardrobe room. This bathroom has the only bathtub. It can be seen as the bathroom residents use once in a while to relax in a bathtub. It can also be used by parents to bathe small children. The bathroom is not bigger than the other bathrooms in the apartments.

It is interesting that although 50 percent of the households in Mehr als wohnen are supposed to be families in this layout there is only room for 2 families out of 11 households.



Right  
Analysis of spaces inside a floor in Haus A  
1:250





## 3. 2 Kitchen, bathroom & laundry

### Scale of the building

Haus A has four floors of two clusters which share the communal laundry rooms. The ground floor has a communal toilet and bathroom with a bathtub which can be accessed through a room connected to the main hall of the building and also from the guest room cluster. For these households and clusters there is no large communal room specifically for the residents of Haus A. This means that the creation of social support and bonding happens inside the clusters. Here residents can support each other with meals, cleaning, health problems and check on each other. Between clusters this connection might not be as strong since the only communal place for them to meet is in the stairwell which is not designed as a place for activities. There is no fixed communal room for different residents from the cluster to come together. For these residents to be connected to larger communities they would have to go to public or communal places on the ground floor of the buildings in Mehr als Wohnen. In drawings of Haus A the ground floor is designed with a kindergarten and guest rooms. In the current execution of the plan it seems that the cluster guest rooms are realised and that instead of a kindergarten the space is used as a small exhibition or museum space.



© Anna Derriks

Right  
Analysis of kitchens, bathrooms and the laundry room inside Haus A  
1:500

#### Legend

- Circulation room
- Personal kitchen
- Shared kitchen
- Personal Bathroom
- Shared Bathroom
- Communal Bathroom
- Laundry room



## 3. 2 Kitchen, bathroom & laundry

### Scale of the apartment

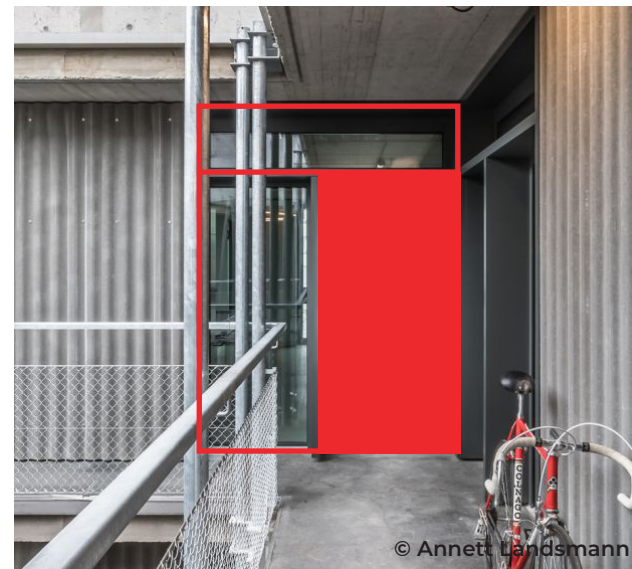
There are two buildings over which five different types of apartments are divided. The first building has an atrium which is surrounded by kitchenless studios, studios, apartments with 1-5 bedrooms and a new type called hallenwohnen. In the second building the apartments are connected to a stairwell with a short corridor around 2-metre wide. This building has kitchenless studios, studios, apartments with 1-8 bedrooms of which are for families or clusters of single seniors. From the floor plan it seems that all apartments are not designed to have a laundry machine inside.

The atrium is used as a circulation space where the apartments have their entrance. The atrium provides apartments with daylight from the interior facade. All the kitchens are placed close to the atrium and through the window next to the front door residents have a visual connection to the atrium and can interact with others outside.

The kitchenless studio is interesting. For them to cook they would have to use a communal kitchen. Both buildings have a communal room with a kitchen meant for all the residents. They would not have a small cluster of residents they consistently share a kitchen with, which does happen in the hallenwohnen en cluster apartments. These studios might be people who are mostly out of their home during the day, have no care responsibilities at home and do not work at home, thus only need a bedroom and bathroom.

The larger apartments have either one or multiple bathrooms which makes them ideal for either families or for a cluster of singles. The bedrooms are either big enough for a double bed and a workstation or a double bed

and room for seating from 12 to 16 m<sup>2</sup>. I have defined those with one bathroom as family orientated apartments and those with multiple as the communal living apartments for seniors. In these apartments the resident do not have a personal kitchen or bathroom and are therefore always reliant on the others in their cluster to form a cooking, cleaning and grocery schedule similar to how a family would function. Based on these types of apartments Zollhaus caters to three kinds of people; people who seek housing without any domestic programme, people who want to be able to be independent and people who want to be part of a group that supports and looks after each other.



Analysis of kitchens, bathrooms and the laundry room inside Zollhaus 1:100

- Legend**
- Personal kitchen
  - Personal Bathroom



Multiple bedroom apartment on the atrium



Cluster apartment on the corridor



Studio on the atrium



Kitchenless studio on the atrium



## 3.2 Kitchen, bathroom & laundry

### Scale of the floor

Enzmann Fischer Partner introduced the new housing concept of Hallenwohnen. It is similar to loft apartments with double high ceilings that give users the freedom to experiment with the space. With hallwohnen the idea is to have a communal hall for small or large groups that fill the space with small personal sleeping pods. The group is then free to organise and use the space in a way that fits the needs of the group. In this hall residents do not have their own bathroom and kitchen, thus they can only retreat from their community to a certain extent. On the left side of the floorplan is the hall with four fixed bathrooms and one kitchen. The other three halls are for small groups of two to five residents which are set up similar to the cluster apartments. These kinds of apartments are only suitable for people looking for a high level of community and involvement with other residents.

*Analysis of kitchens, bathrooms and the laundry room inside Zollhaus  
1:100*

#### Legend

- Circulation room
- Personal kitchen
- Shared kitchen
- Communal kitchen
- Personal Bathroom
- Shared Bathroom





## 3.2 Kitchen, bathroom & laundry

### Scale of the building

For the residents inside the first building they can find a communal kitchen on the fourth floor which is not accessible or visible for the public. The inside of the room is visible from the atrium and can extend activities into the atrium. The room is directly visible from the stairwell and can host small and large groups. A place where residents can organise themselves, create social bonds and have activities involving cooking. It probably feels quite communal to the residents living in the first building.

The other communal kitchen is located in the second building on the second floor which is accessible by both the residents and the public. The co-operations means for this floor to foster interactions between residents and people from the neighbourhood. This room is 3,5 times bigger than the other communal kitchen. It looks like this room is meant for larger events for the residents from both buildings. It stands out how both these communal kitchens and the shared kitchens by the hallenwohnen and cluster only have one stove and sink, making it unlikely that multiple people can cook food in the kitchen. Even though the communal kitchens are big enough for multiple people to prepare food.

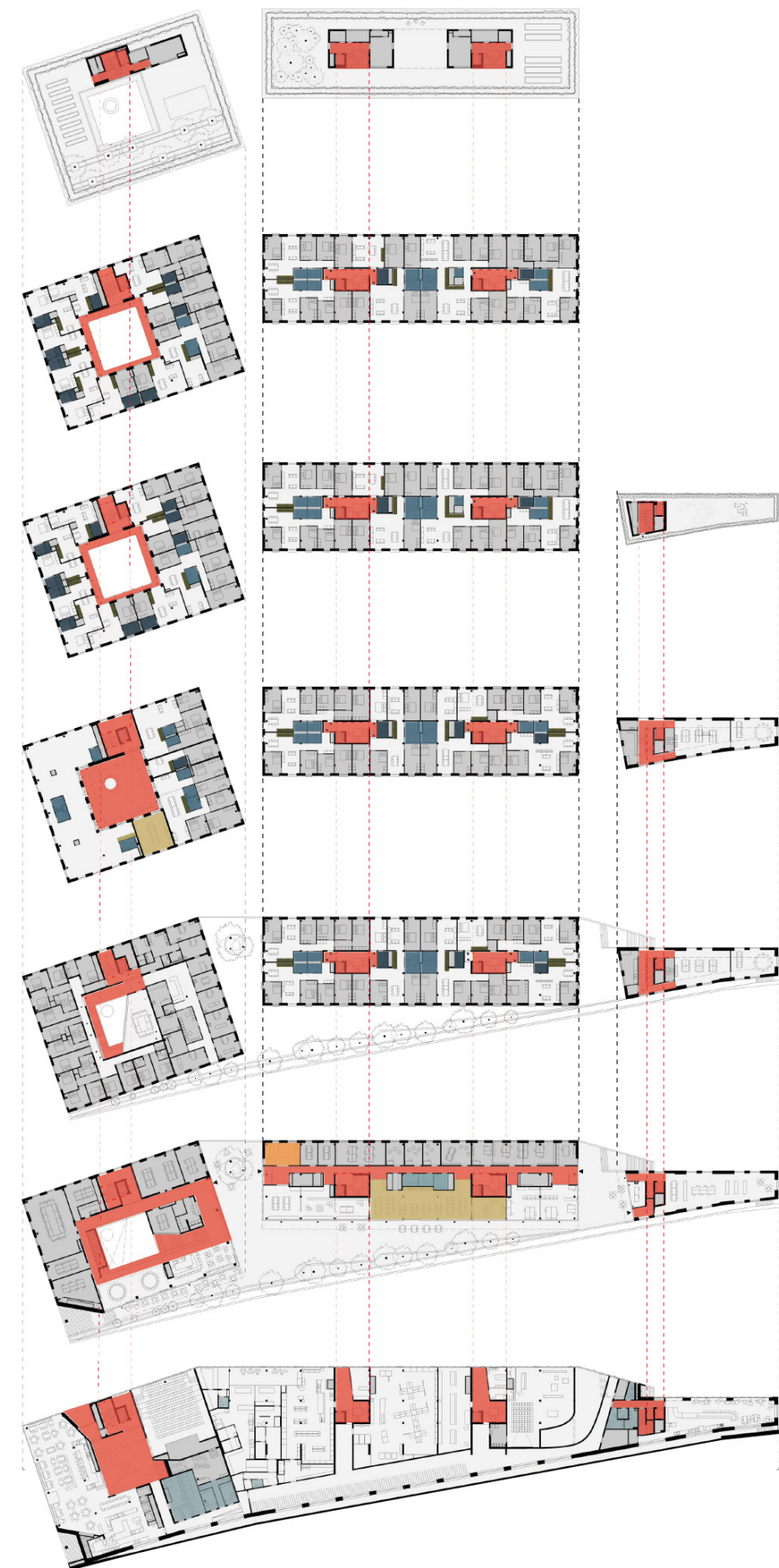
For the whole building there is one laundry room on the first floor in the second building. It is a large room that fits around 12 laundry machines and is set up like most commercial laundromats with rows of machines. It has room for both people who are using the machines and people who might be waiting. The room is right at the entrance on the corridor, thus it is both at a place where encounters can happen and has the space for people to have a conversation.



Right  
Analysis of kitchens, bathrooms and the laundry room inside Zollhaus  
1:500

#### Legend

- Circulation room
- Personal kitchen
- Shared kitchen
- Communal kitchen
- Personal Bathroom
- Shared Bathroom
- Communal Bathroom
- Laundry room



## 3. 2 Kitchen, bathroom & laundry

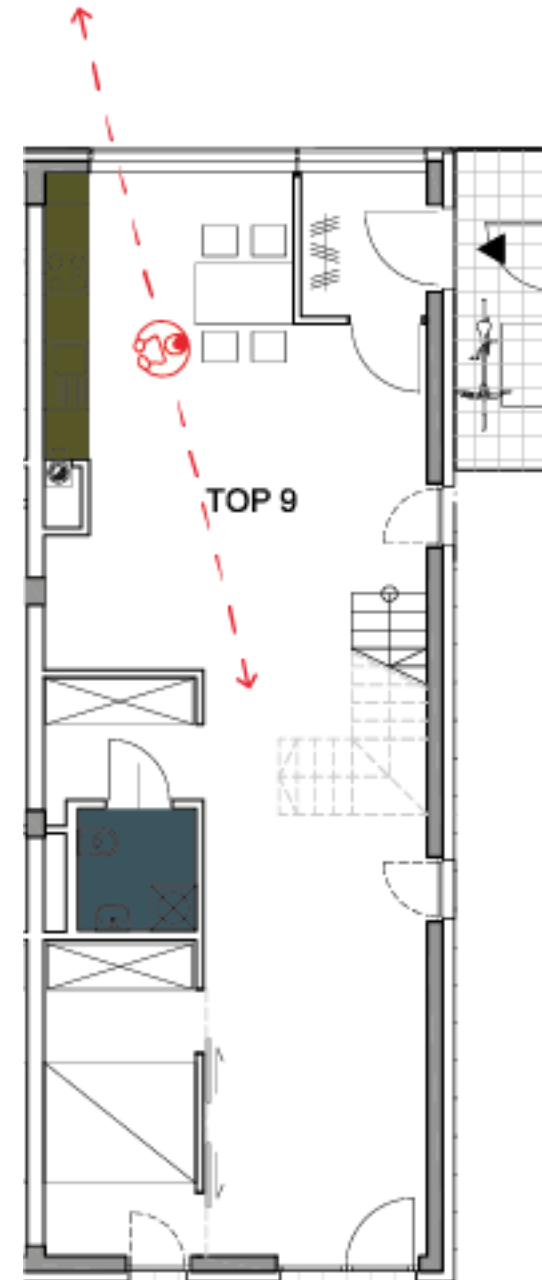
### Scale of the apartment

In [ro\*sa] there are three different kinds of houses from maisonnette, to studios & apartments along the corridor and one cluster with three apartments connected to the corridor.

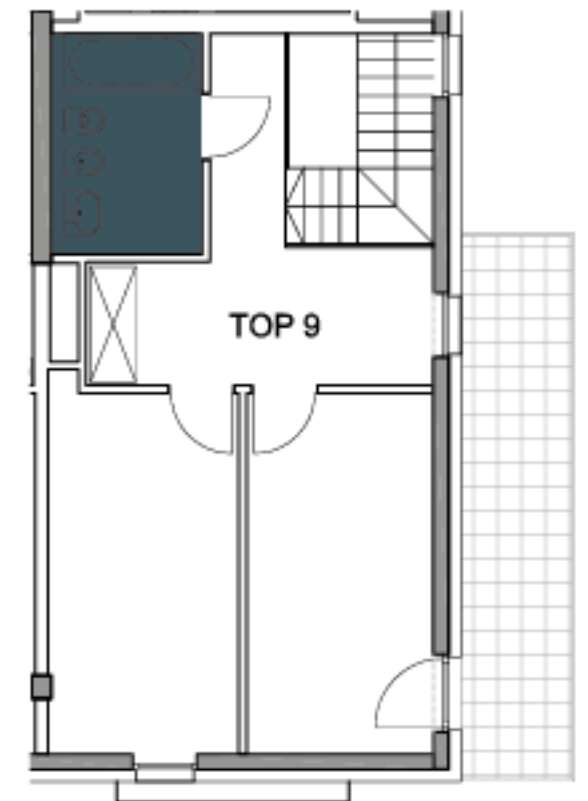
The 7 maisonnettes are located on the ground floor with their own front and back doors. Each maisonnettes has their own kitchen and bathroom and have a designated space for a laundry machine on the ground floor. These are made for families with one or two kids. The two bedrooms are always on another floor than the floor with the kitchen and living room on the ground floor. Some have an optional room such as shown on the right, which can be an extra bedroom or workspace. There are variations in the placement of the bathroom and separate toilet. The bathrooms include a bathtub; none of them have showers. These apartments have space for a laundry machine. The Kitchens are facing the street which connects people in the kitchen with people passing by outside. This places the living room in the back away from a connection with the neighbourhood and more private than the kitchen.



Inside a maisonnett with the bedrooms in the basement



Maisonnette on groundfloor



Maisonnette on first floor

Top  
Analysis of kitchens, bathrooms and the laundry room inside [ro\*sa]

#### Legend

- Personal kitchen
- Personal Bathroom





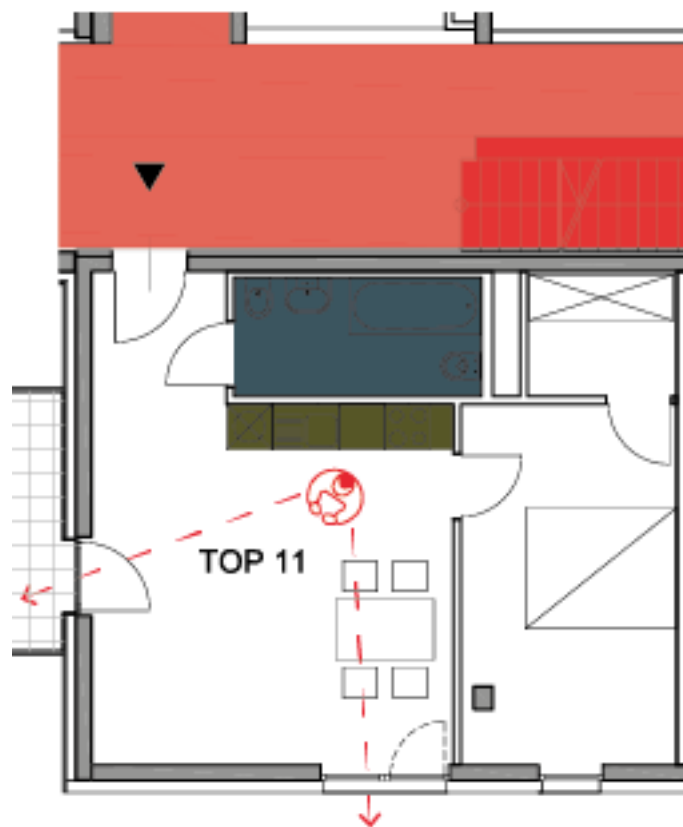
## 3.2 Kitchen, bathroom & laundry

### Scale of the apartment

The apartments on the corridor have their own kitchen and bathroom and no designated space for a laundry machine. The apartments are either studio or 1-4 bedrooms apartments with a living room with a kitchen. The kitchen is always placed inside the living room, never separate in an isolated room. When there are multiple bedrooms they are all the same size around 13 m<sup>2</sup> making no distinction between parents and children bedrooms. The bathrooms are 4,5 m<sup>2</sup>. In the smaller apartments the laundry machine can be placed inside the kitchen while the other larger apartments have a spot in the bathroom.

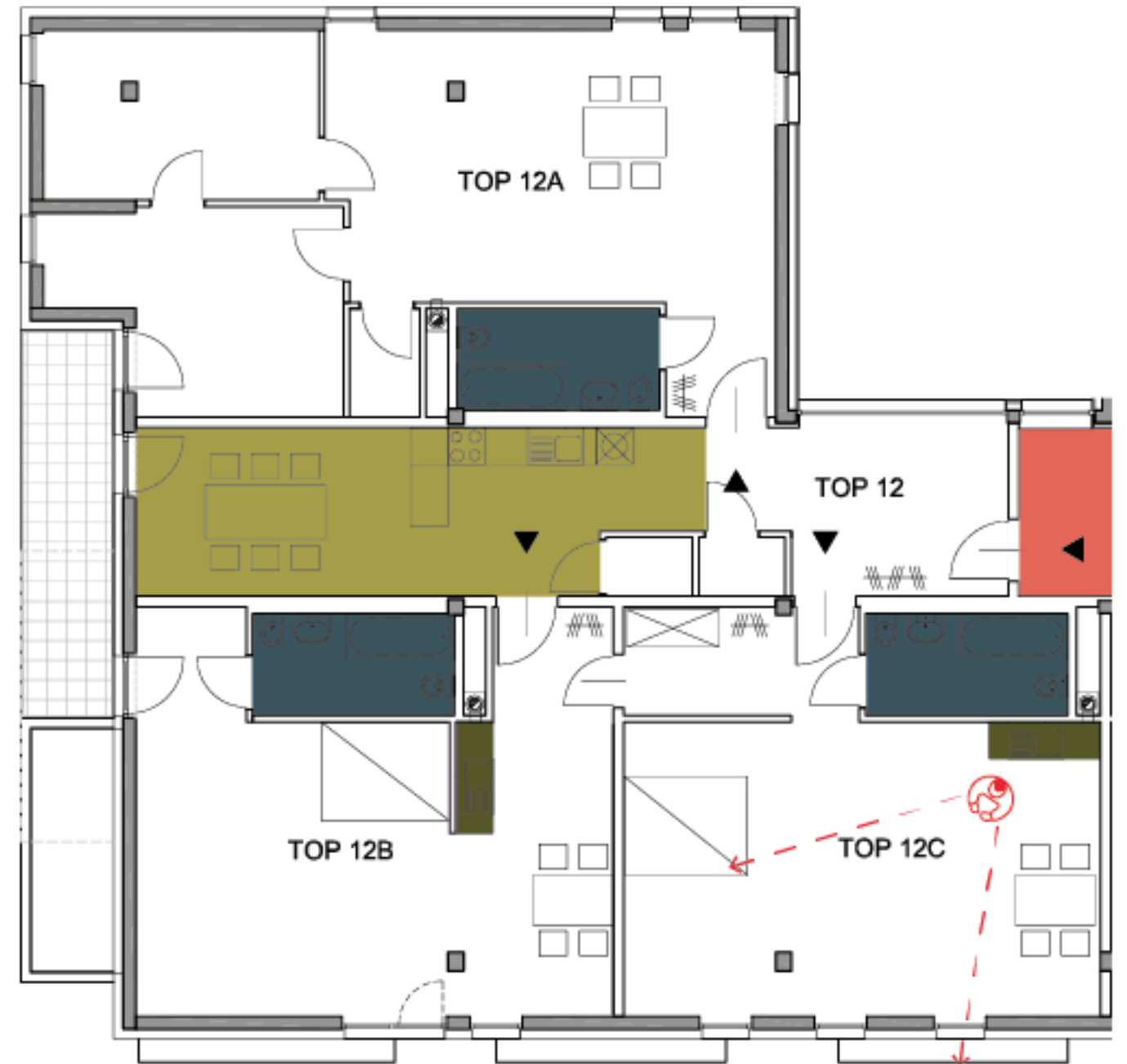
The cluster of three households has a shared kitchen with a spot for a laundry machine. They share an entrance which leads into the shared kitchen which makes contact with the other residents important. From the kitchen there is a shared balcony. The apartments have their own bathrooms and do not share one. One apartment does not have a kitchen and has to use the shared kitchen. The other two have their own kitchen and also have a door that connects the two.

What seems odd to me is that none of the apartments have a visual on the corridor. All the rooms that do not need daylight are placed along the corridor which makes sense, but it contradicts the aim of the corridor as described by Sabine Pollak. In this design the apartments are very private and the corridor does offer a space to connect with others. But being inside the corridor other residents would not be able to see what happens inside and perhaps join the conversation or other scenario.



1-5 bedroom apartment along the corridor

Top  
Analysis of kitchens, bathrooms and the  
laundry room inside [ro\*sa]  
1:100



Cluster of 3 apartments

#### Legend

- Personal kitchen
- Personal Bathroom



## 3.2 Kitchen, bathroom & laundry

### Scale of the floor

In the design of [ro\*sa] Pollak describes the corridor as the main space that connects the residents and offers space for encounters and meetings and even kids to play. In the floor plan and the picture of the corridor it is visible that the room is light and spacious. A regular corridor has to be a minimum of 1200 mm (NEN artikel 4.12) which gives people the room to pass wheelchair users. A 3-metre wide corridor would be comfortable to pass each other while others are having a conversation. The design of the floor does not facilitate residents to come together for social reproduction activities such as cooking, dining or child raising. There are no communal rooms, only a corridor that connects the residents. It is an in-between space meant to overcome the barrier between private home and communal rooms by having a space for daily interaction between residents. It provides residents the ability to start interactions and

potentially support each other in child raising with playtime and keeping an eye out for other kids.



Picture of the corridor with windows looking to outside and openings in the floor that make the room feel spacious and also allow people to communicate over two floors.

Top  
Analysis of kitchens,  
bathrooms and  
the laundry room  
on the first floor of  
[ro\*sa]  
1:250

#### Legend

- Personal kitchen
- Shared kitchen
- Personal Bathroom



## 3.2 Kitchen, bathroom & laundry

### Scale of the building

On the ground floor there is a communal kitchen close to the entrance to the building. It is visible from the front of the building for residents to see if people are inside. Also from the corridor there are sightlines into the communal kitchen. It provides the residents who want more community activities with a space to come together surrounding food. It is a large room of 56 m<sup>2</sup> with access to the communal terrace.

The laundry room is located on the roof. It has a laundry machine, dryer and a sink. In the floor plan there is room for four machines yet in the picture there are only two which would suggest that it is not a space where multiple residents can do their laundry at the same time. It seems more like a space out of necessity for residents that do not own a laundry machine or dryer.

Overall the project offers residents with different kinds of private apartments that suit different needs, with a spacious and light circulation, with extra rooms and facilities that they can not finance themselves and the option to join a community and organise small activities.



Inside the laundry room

Right  
Analysis of kitchens, bathrooms and the laundry room inside [ro\*sa]

#### Legend

- Circulation room
- Personal kitchen
- Shared kitchen
- Communal kitchen
- Personal Bathroom
- Communal Bathroom
- Laundry room



## 3. 2 Kitchen, bathroom & laundry

### Conclusion

In these case studies, the difference in living arrangements depends on whether each apartment has a household with a family, couple or single-person or the apartment houses singles that form a household together. What is common in Zollhaus and Haus A is that multiple households form a community that can support each other within apartments such as the Hallwohnen and cluster apartments.

I can identify three scales of living arrangements.

1) singles join to be 1 household that shares the kitchen and bathrooms and everyone has a personal sleeping space. Users have a set group of people you manage the apartment with

2) Households such as families, couples and singles are connected with a shared living space with kitchen and bathroom facilities. Users have more independence and can choose how to participate in the shared space

3) Households inside independent apartments can choose to connect with other households in communal spaces. Users are free to participate in activities in the communal spaces.

For my project, I would like to have a difference in families/households to have the privacy to control their lives in their apartments and clusters of singles who might find it easier to combine their lifestyles.



## 3.3 Kindergarten

### Scale of the building

The kindergarten is located on the ground floor for residents of Mehr als wohnen and for families in the neighbourhood. It has 6 different dayrooms, a lunchroom with kitchen, a storage room with a direct connection to outside and four toilets. The rooms are connected with wide hallways that can be used for seating. There are two entrances, one inside to the common entrance and one connected to the stairwell of the residents. It does not have its own entrance from the street and seems to use the west entrance as its main entrance. This entrance is at the end of a sightline from outside the site of Mehr als wohnen which makes it a visible entrance and accessible for people coming from the neighbourhood. There is no direct outdoor playground for the children. What I like about this placement for the kindergarten is the strong visual connection between the outdoor area around the ground floor and the interior of the kindergarten. Parents are able to see their children and the children can see the activities happening outside on the squares.



Top  
Site plan of Merh als wohnen with the ground floors of all the buildings

Right  
Analysis of rooms and facilities inside Haus A for the residents.  
1:500

#### Legend

- Circulation room
- Kindergarten

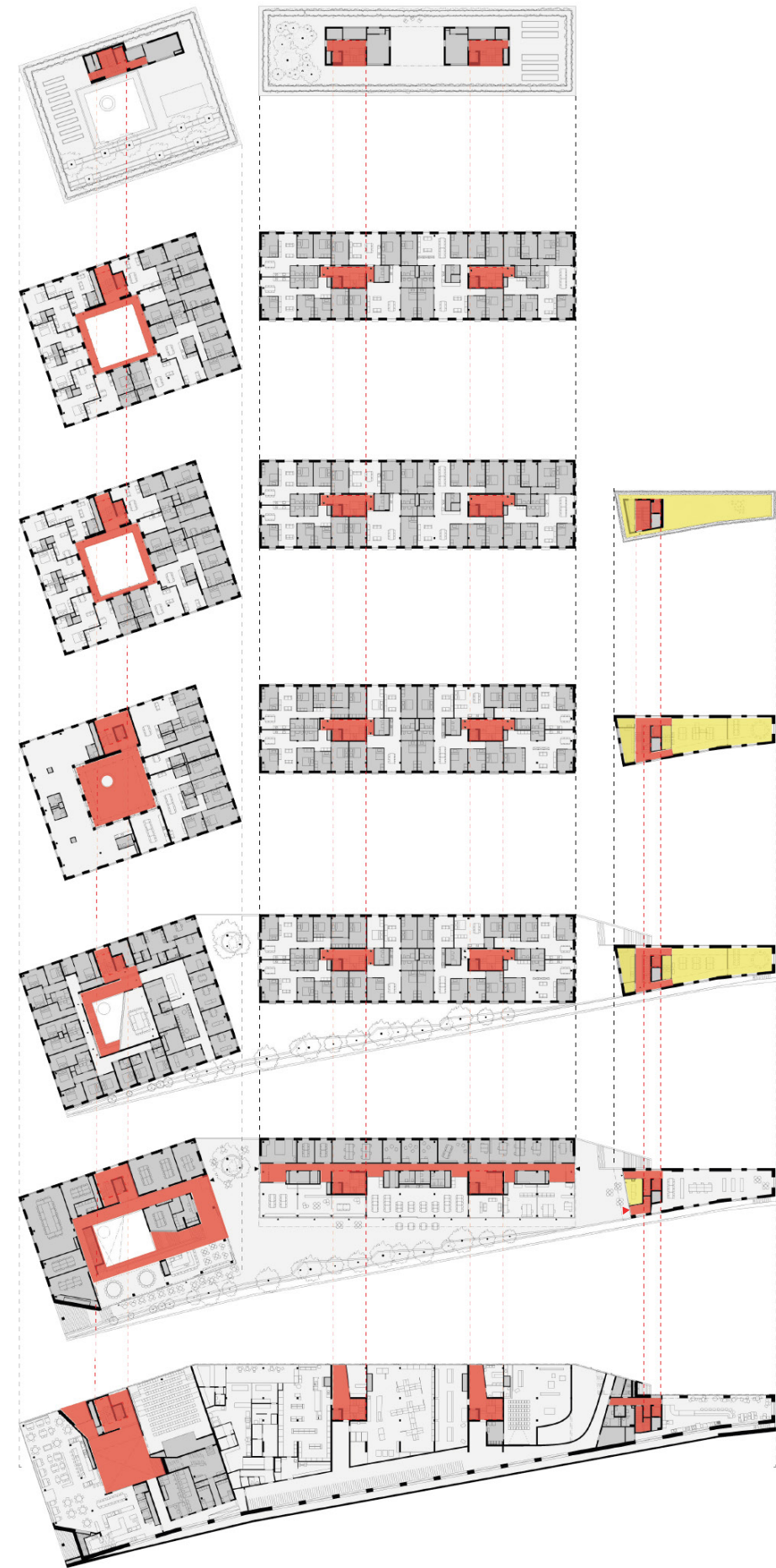




# 3.3 Kindergarten

## Scale of the building

The kindergarten is located in the smallest building on the top two floors. It has 4 rooms, a kitchen, storage rooms and an outside play area on the roof. The entrance is on the first floor. So residents will have to walk over the terrace that connects all three buildings and pass by the facilities on the first floor and see or encounter people on their way to the kindergarten. From the terrace on the first floor and the ground floor it is not very visible what happens inside. You might only be able to see if a person or child were to stand close to the window. The rooftop is a nice addition for the children since it is located in a densely built area at a distance from any parks.



Right  
 Analysis of the kindergarten inside Zollhaus for the residents.  
 1:500

**Legend**

- Circulation room
- Kindergarten



## 3.3 Kindergarten

### Conclusion

Haus A shows the benefits of placing a kindergarten on the ground floor. It has a good connection between outside activities and the children inside and the common entrances which is easy for residents to access and meet other parents/residents. A little side note is that in the context of Haus A there is no outside play area directly adjacent for the children to play safely. Zollhaus solves this by placing the kindergarten on top of public facilities creating direct access to the rooftop play area. This does make the kindergarten less visible and connected to the activities around it. It also gives people dropping off their children multiple routes to get to the entrance giving them the choice of whether they want to be around more or fewer people.

## 3. 4 Elderly apartments

### Scale of the floor

The co-operation made extra effort to have housing for seniors project called Communal living in old age. In the first building there are 1/2 shared living apartments per floor and in the middle building there are 4-5 shared living apartments per floor. The rooms are meant to be occupied by singles not couples. Each resident in the apartment gets about 12 to 16 m<sup>2</sup> rooms and shares a minimum of two 4,5 m<sup>2</sup> bathrooms and an open kitchen and living room around 70 m<sup>2</sup>. The layout feels a lot like how an apartment for a family would be set up. It does not offer any other space outside the bedroom that would be more private from the shared living space. Even though the living space is shaped like a L, the experience is still that it is one space. Thus I find that the corner bedroom does not have to be separated from the other bedrooms. The resident in that bedroom would always have to pass through the shared space to enter their room thus having no private or discreet way to come home. I made an adjusted floor plan for the bottom left corner apartment where I switched the placement of the living room and the corner bedroom. This way the residents have a small hall that gives them a private route to the bedroom and also separate the bedrooms more from the shared living space blocking the sound and the visual of residents leaving or entering their bedroom. What I find interesting is that the residents do not have a private bathroom and share a kitchen with one stove and sink. It is similar to most student flats which makes it possible for the seniors to be either very involved with their roommates or choose to be less involved depending on the needs of the seniors.



Top  
Analysis of kitchens and bathrooms inside the elderly apartments in Zollhaus  
1:250

Right  
Floorplan that I adjusted. I switched the place of the living room and the corner bedroom.  
1:100

#### Legend

- Circulation room
- Personal kitchen
- Shared kitchen
- Personal Bathroom
- Shared Bathroom

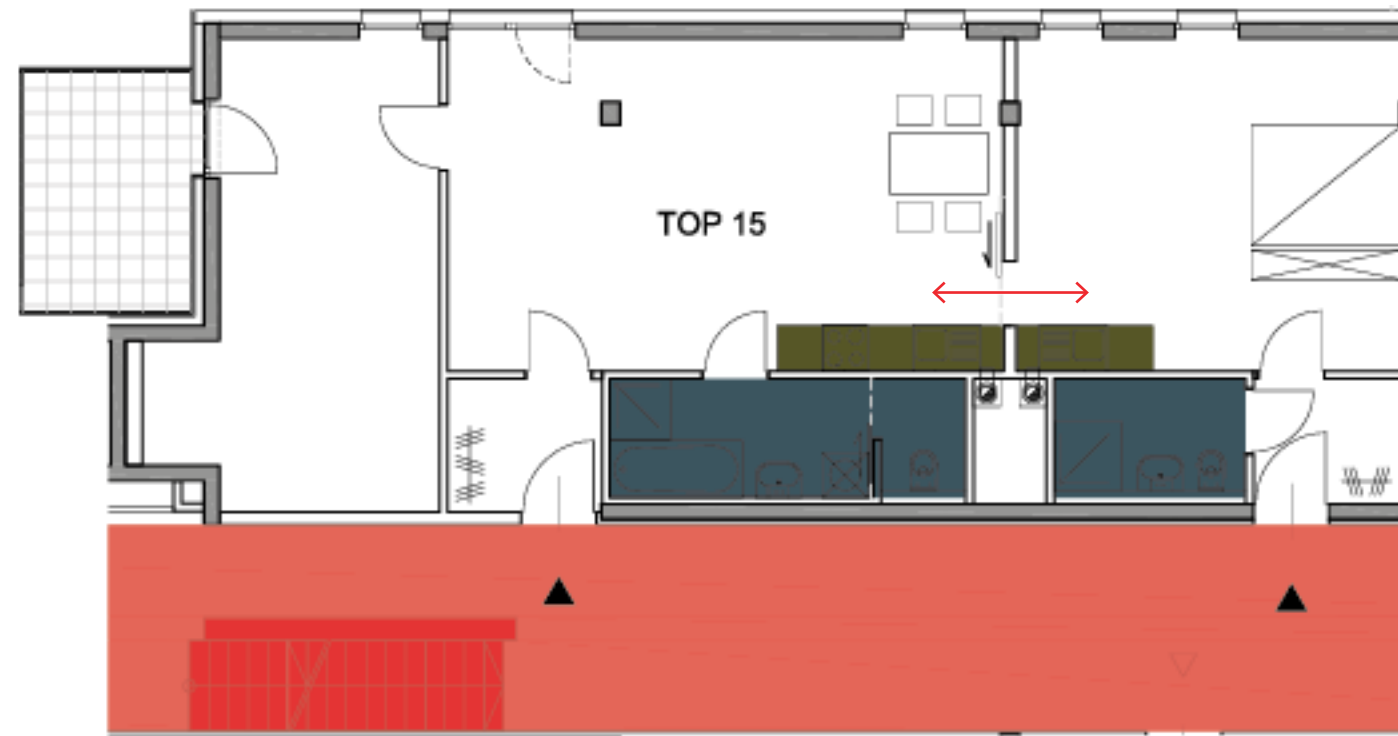




## 3.4 Elderly apartments

### Scale of the apartment

There is one kangaroo apartment inside [ro\*sa]. It is a kind of apartment that makes it easy for adult children to live with and take care of their parent(s). Also it would make it easier for parents to help with taking care of their grandchildren. The main apartment has a 20 m<sup>2</sup> bedroom with 30 m<sup>2</sup> living room and through a door it connects to a studio of 22 m<sup>2</sup> which has its own entrance from the corridor. Each person or couple has their own bathroom and kitchen which gives them the opportunity to live and undertake their own tasks or chores. And the interior door connecting the two makes it easier for them to stay in contact and support or check on each other while keeping the feeling of independence. Since the main apartment only has one bedroom the idea is probably that an elderly parent needs some level of care and by living together with their adult child it becomes easier to keep an eye on the parent and also makes it less lonely for both. It is an interesting type of apartment that is still uncommon in the Netherlands. It would attract people who want to stay close to their parents without taking away the feeling of independence from them.



*Kangaroo apartment*

*Right*  
*Analysis of kitchens and bathrooms inside the kangaroo apartment*  
 1:100

#### Legend

- Circulation room
- Personal kitchen
- Personal Bathroom



## 3. 4 Elderly apartments

### Conclusion

The current care system in the Netherlands depends on the elderly living at home and getting care from nurses from associations such as Buurtzorg, Zollhaus and Projekt [ro\*sa] show two ways the elderly can live instead of living alone. When seniors singles/couples still want to feel independent at the ages of 50, 60 or 70 there are multiple ways to live depending on the level of care/assistance they might need. It also depends on whether they have family members they could depend on. Most of the grandparents I know find it hard to completely depend on their family, do not want to lose the feeling of independence and usually live in the same city/village. In that case, a kangaroo apartment would be suitable where their adult children can easily keep an eye on them and support them. If they do not have a family to depend on they could live together with other single seniors, share housekeeping tasks and support each other. For my project, I can see the potential of both kinds of apartments. With the growing number of elderly in the Netherlands, a large percentage of apartments suited for the elderly would benefit many families.

# 3. 5 Workspaces

## Scale of the building

Inside the cluster there are no rooms dedicated as working spaces. The shared living space does allow room for residents to work at the tables or create a little study nook. The other option is having a desk inside the apartments which are big enough for it. For small or large groups of residents who have an initiative to undertake something it is possible to rent a room in one of the other buildings on the ground floor. In the drawings of the ground floor of Hause A the kindergarten is drawn as a set floorplan when in actuality the interior space is an open space which can be redesigned according to the use. This is better visible in the drawing of the site. The place and balance of the work and home spheres are divided by having all the communal and public facilities on the ground floors and the housing on top. But inside Haus A the shared living space and the apartment there is enough room for residents to create small working spaces suited for one to two persons. Thus the spheres can be more integrated on a small scale.

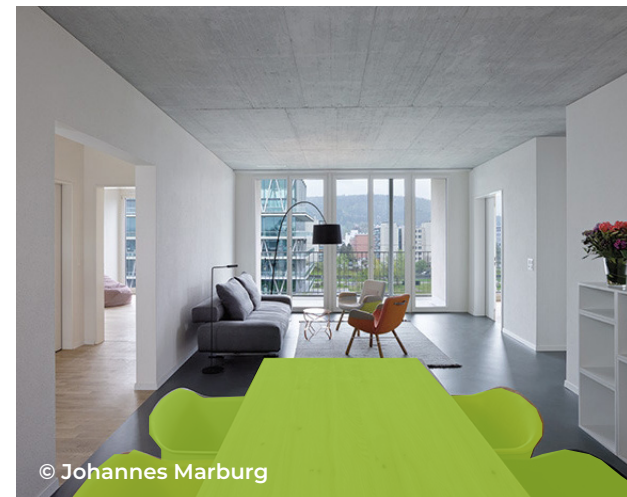


Top  
Site plan of Mehr Is wohnen with a zoomed in look of the ground floor of Haus A

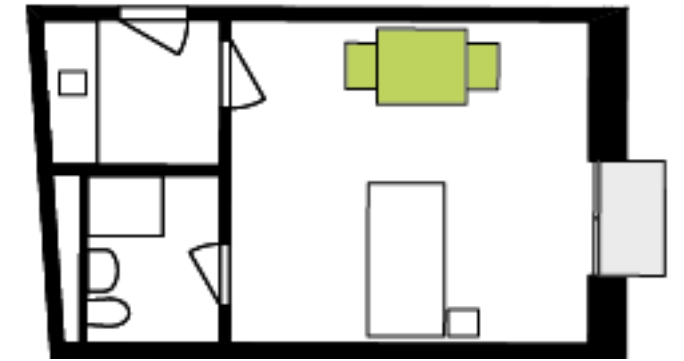
Right  
Floor plan of the apartments highlighting the possible workspace in the home 1:100

**Legend**

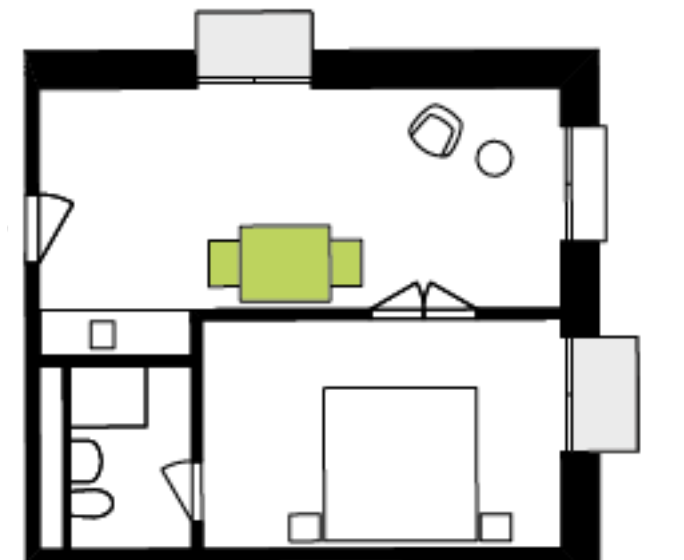
- Circulation room
- Work space



© Johannes Marburg



Studio



1 bedroom apartment



2 bedroom apartment

## 3.5 Workspaces

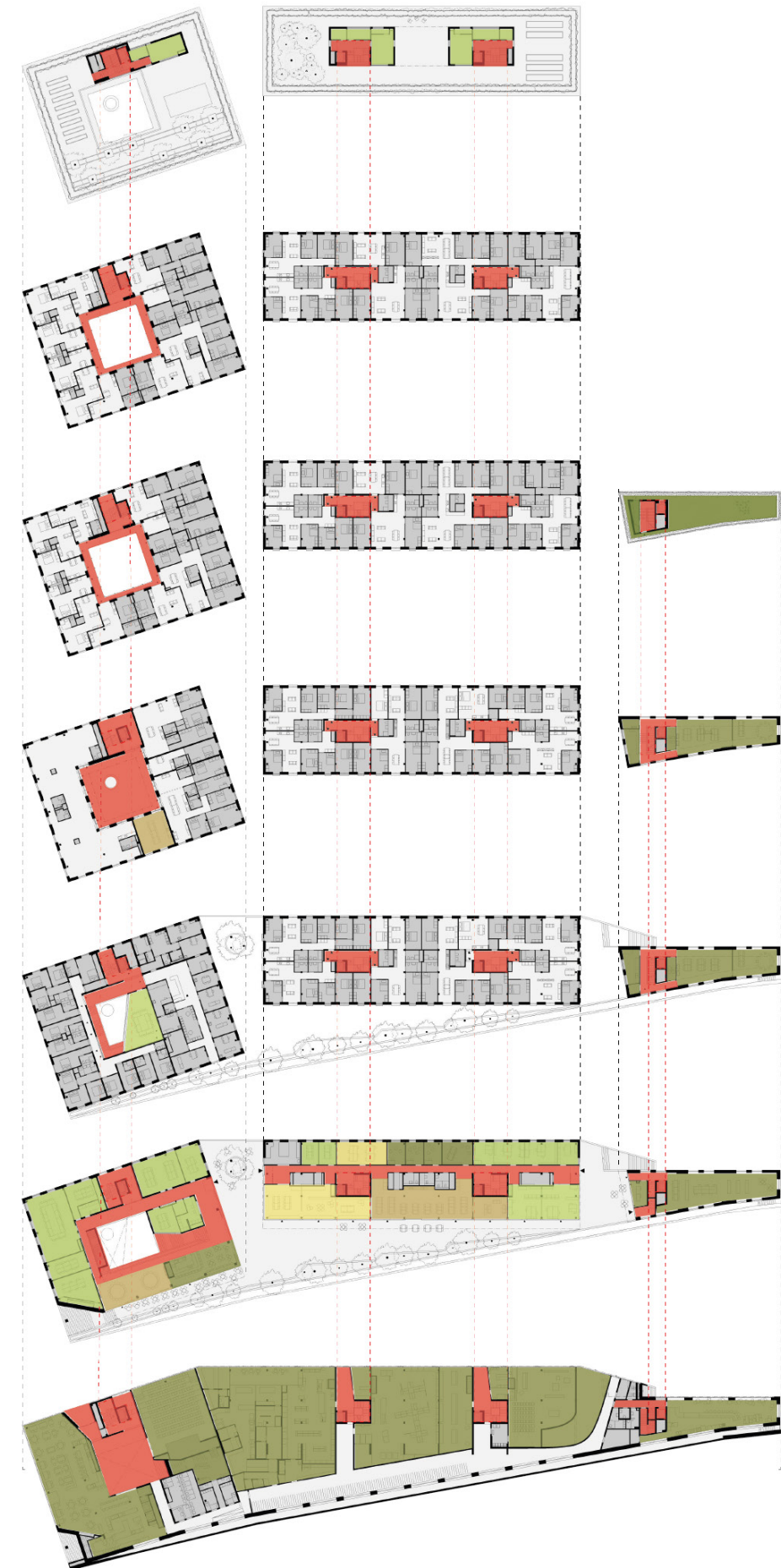
### Scale of the building

On the first three floors there are several types of workspaces that facilitate for the residents and the neighbourhood. It offers flexible rooms that can be rented out for personal use, meetings, hosting workshops or classes. There are two communal rooms that residents can use. I have not been able to find whether there are rules for what the room is allowed to be used for. With the amount of tables drawn I assume that residents are free to use the room as they need thus being able to use it as a workspace instead of having an office in their home. It is a good option compared to working in cafes or renting rooms because you do not have to buy a drink in order to stay there. Residents could also find a job working in the catering, culture or health and wellness facilities on the ground floor. In the case that residents want to work inside the apartment there is enough room for them to do so.

*Right*  
Analysis of work spaces inside Zollhaus  
1:500

#### Legend

- Circulation room
- Work space
- Catering, culture or health
- Association room
- Communal room

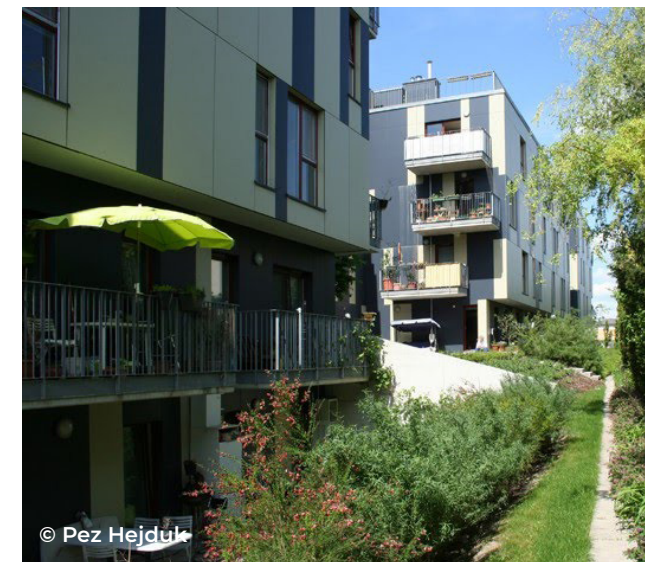




# 3.5 Workspaces

## Scale of the building

Inside the apartments there is the option to have an office room instead of a bedroom and since all the rooms are the same size the residents can choose themselves which room is more suitable for them. In the maisonnettes there is room on the ground floor that can be separated from the living room with two sliding doors. It can be the bedroom for the parents if they have two children in the other two bedrooms or it could be a home office. On the third floor there is a small office space where the association Frauenwohnprojekt [ro\*sa] gathers. There is not a focus on remerging the two spheres of work and home, but the apartments do offer space for a home office. With this project it seems that it is expected that the residents work elsewhere.



Right  
 Analysis of work spaces inside [ro\*sa]  
 1 Bureau of [ro\*sa]  
 2 Communal room  
 3 Possible home office

1:500

**Legend**

- Circulation room
- Work space



## 3. 5 Workspaces

### Conclusion

The difference in workspaces between the case studies is that Haus A and Zollhaus facilitate both the residents and their neighbourhood and Projekt [ro\*sa] is focused on its residents and the association. The existing building on my site was intended to support smaller retailers by forming an association and working together. It would fit the origin of the building and the aim of the master plan to use the workspaces in the existing building to facilitate both the residents of the building and the neighbourhood. This way it can help those in need of an affordable workspace for their business or to have a space outside their home to work. It should include different kinds of spaces; small/large flex rooms to rent daily/monthly, an open room with a cafe and facilities such as a library that are not found in the neighbourhood.



# 3. 6 Extra facilities

## Scale of the building

The focus is on the shared living and kitchen spaces inside the clusters. This space makes it possible to reduce the size of the private apartments and give the residents a larger living space than they could afford on the private market.

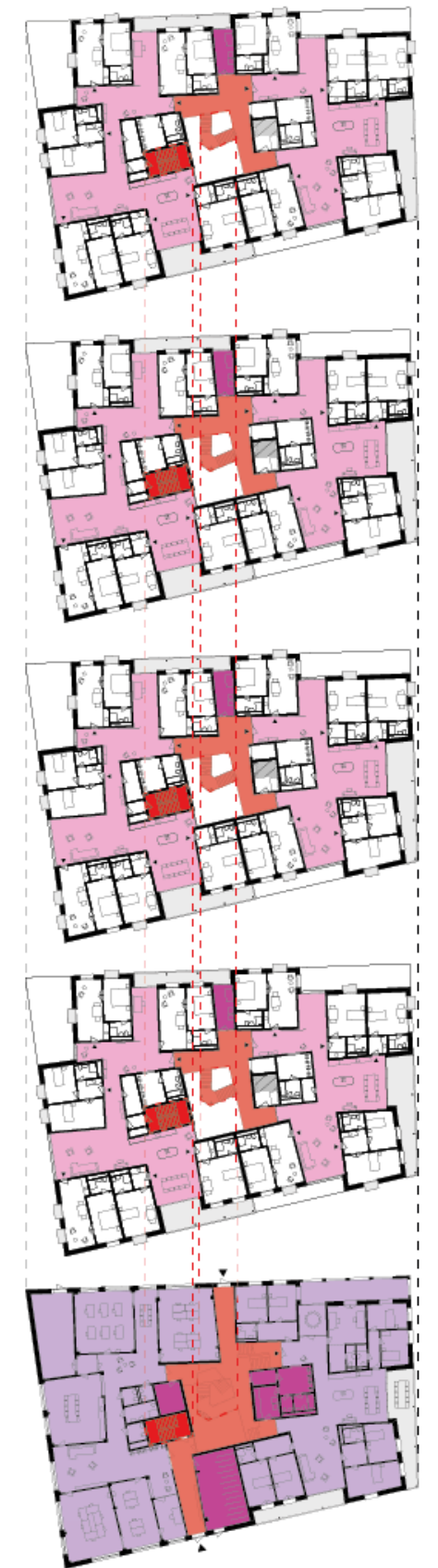
On the ground floor there is a cluster of guestrooms to be used by travellers or people invited by the residents to spend the night. It has the same facilities as the cluster but clearer defined as bedrooms. It also has a room big enough for up to 8 people to gather.



Right  
Analysis of extra shared/communal rooms  
inside Haus A for the residents.  
1:500

**Legend**

- Circulation room
- Shared living spaces
- Communal space
- Guest rooms
- Communal/public facility space

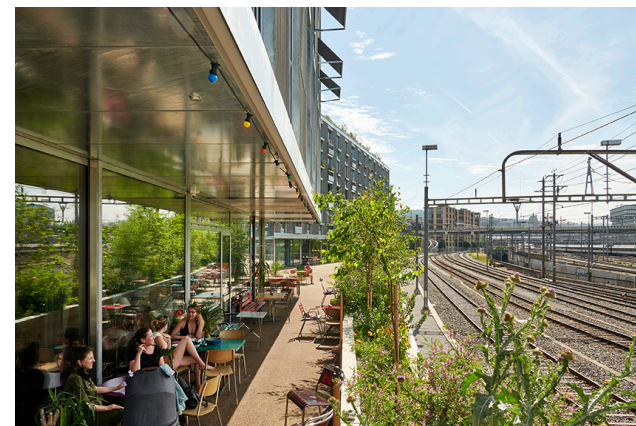




### 3. 6 Extra facilities

#### Scale of the building

There are several kinds of communal spaces and roof terraces meant for the residents. Then there is the diverse programme of catering, shops, culture and health and wellness. This programme is meant to support the neighbourhood and the residents while at the same time connecting the residents with the neighbourhood. I like the division of most of the public facilities on the ground floor and the flex rooms on the first floor. The public facilities include cafés, shops, ... and by putting them on the ground floor makes it easy for people to access them and is the kind of programme people are most likely to spontaneously go to when passing by in contrast to the flex rooms which probably have to be reserved beforehand.

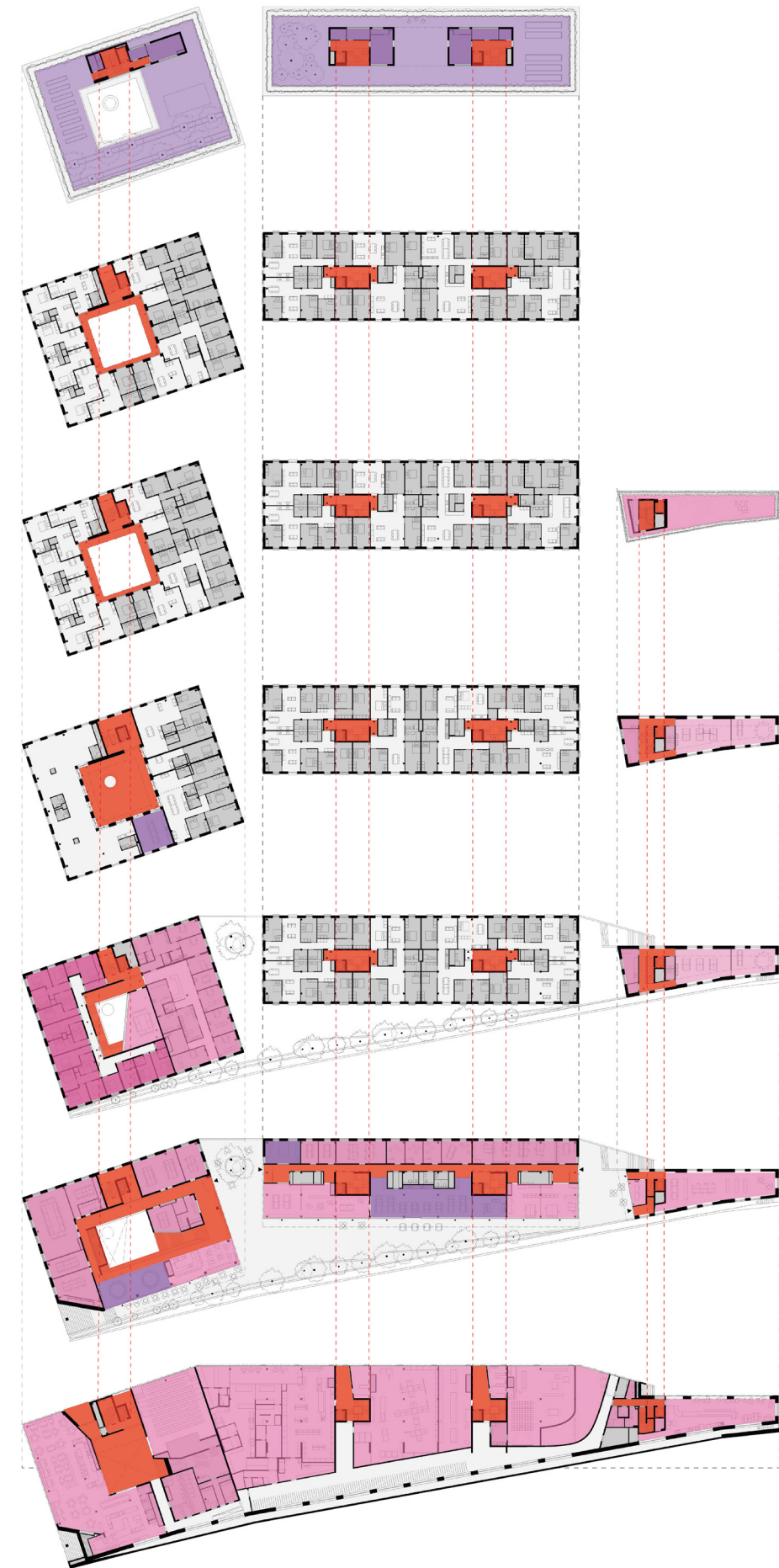


Above are pictures of the café and the terrace on the first floor.

Right  
Analysis of rooms and facilities inside Zollhaus for the residents.  
1:500

**Legend**

- Circulation room
- Extra communal spaces
- Guest rooms
- Public facilities





### 3. 6 Extra facilities

#### Scale of the building

The extra facilities in [ro\*sa] are focused on its residents and not on providing for the neighbourhood like in the other two case studies. The facilities include a communal room with a kitchen, a communal workshop in the basement, and a sauna and roof terrace.



Right  
Analysis of rooms and facilities inside [ro\*sa] for the residents.

- 1 Workshop
- 2 Communal room
- 3 Roof terrace
- 4 Sauna

**Legend**

- Circulation room
- Extra communal room
- Storage/parking



## 3. 6 Extra facilities

### Conclusion

All three projects offer extra spaces and facilities for different levels of communities. 1) The small and fixed community within a cluster apartment. These offer residents the opportunity to organise the social reproduction of the households together. 2) Communal rooms are available for all the residents which makes a large, diverse and changing community. This provides the opportunity for more casual and optional arrangements to socialise activities such as cooking, laundry and leisure. 3) Public spaces where communities within the neighbourhood can be created which can be loose from the community of residents. These spaces are set up for economic reasons, have room for encounters between residents and the neighbourhood and support the neighbourhood with care services and workspaces outside the home. It also gives room for initiatives by groups/associations. For my project, I can use the three levels of community to offer spaces that feel like a different part of home so it does not end at the front door but continues throughout the building. Also with the extra spaces, co-operative housing gives low-income households more space to use than they could afford on the private market.



## 3.7 Privacy and routing

### Scale of the building

Public ground floor and four floors of clusters. Two entrances at the ground floor. Very visible public functions from outside. From inside the stairwell you can see into the public spaces. It connects the residents to the spaces and also for easy access to them. I can imagine it to be a lively space where there can be activity from the morning to the night. People leave and enter in the morning. The public space is used during the day. People come back home or go out in the evening.

The stairwell connects all the clusters and the communal laundry rooms. It is an open and light space comfortable for encounters to happen and people to chat with each other. They can move out of the way of people walking in the stairwell. When you walk through the stairwell there are sightlines into the shared living spaces of the clusters. This makes the people inside the cluster able to observe what happens inside the stairwell. Also it makes the stairwell feel more lively with the view of other people's activities.

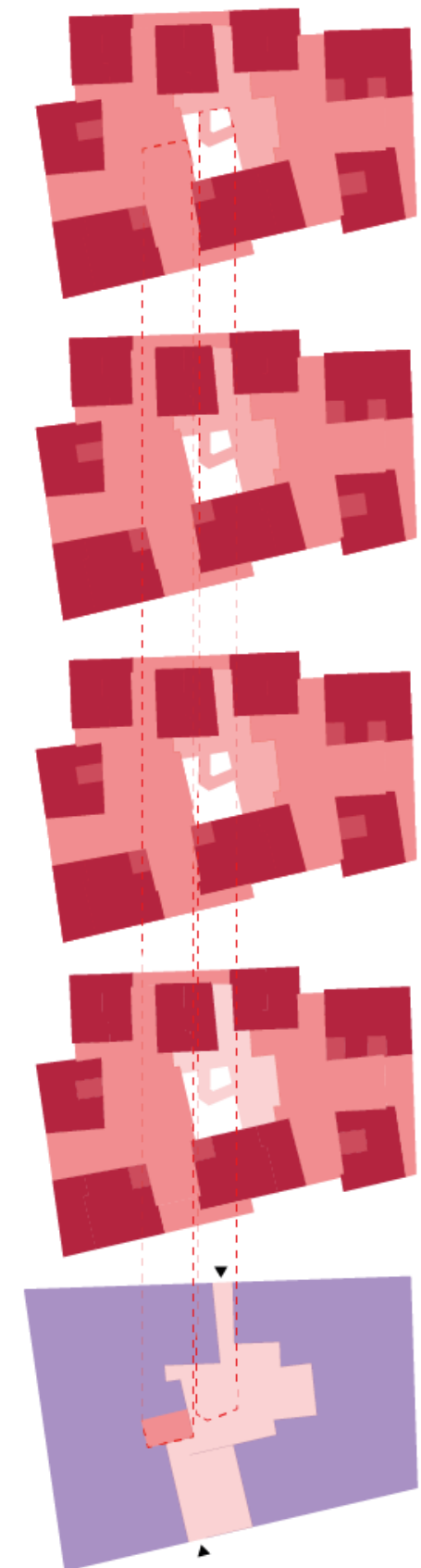


Top  
View from the stairwell into the kitchens of the clusters.

Right  
Analysis of the transition between communal, shared and private spaces.  
1:500

#### Legend

- Communal space
- Shared space
- Border of private space
- Private space
- Public space



# 3.7 Privacy

## Scale of the floor

On each floor the cluster has one entrance. For residents to get to their private apartment they have to walk through the shared living space. Which means that when other residents are inside the space they will know who might be at home. But from the apartment it is possible not to leave your apartment since you have your own kitchen bathroom so you have the option to pull yourself back from the group.

Each entrance to an apartment is connected to a different nook of the shared living space. The studios and two bedroom apartments have the kitchen as a buffer zone between the shared space and the private space. This buffers the sound from the shared living space into the apartment and vice versa.

The one bedroom apartments have private living space with the kitchen directly connected to the shared living space.



Right  
Analysis of the transition between communal, shared and private spaces.  
1:100

**Legend**

- Communal space
- Shared space
- Entry of private space
- Private space





## 3.7 Privacy

### Scale of the building

Two sole levels of public and communal spaces. In the first building the entrance to the apartments is through the same atrium that it used to connect all the public and communal facilities. There is no option to evade all these other people on your way up.

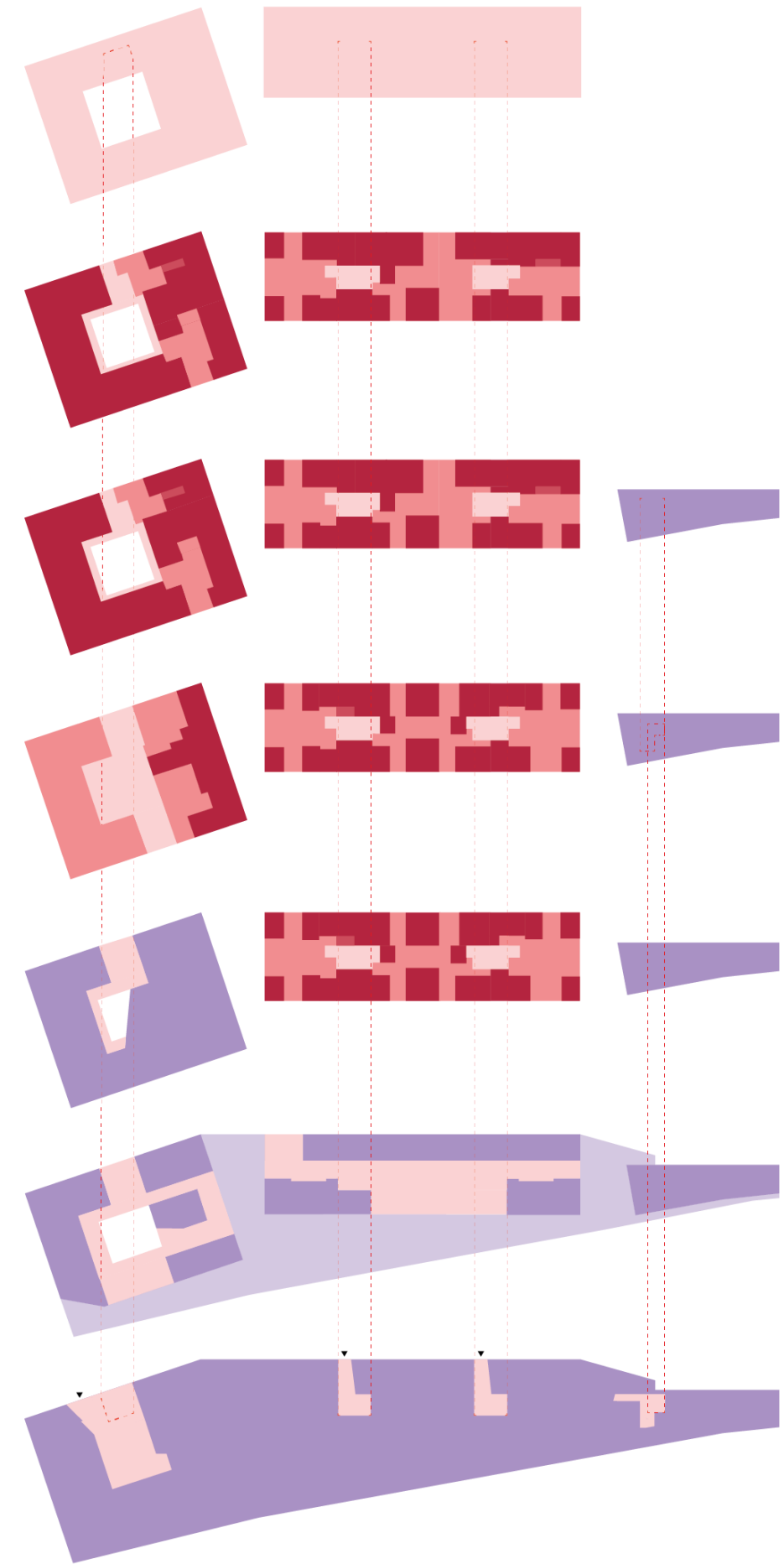
The entrance to the apartments in the second building is either directly from the street providing a route that is only for residents or through the corridor on the first floor where there are public facilities and thus you would come across more people.

When you look at the building in these layers you see that there are two kinds of communal spaces where residents can gather. It is either around the first floor which is in contact with the public and the neighbourhood. Or they can go to the rooftops which are solely for the residents. Here it would feel more a private area for the residents and I can imagine it to be less crowded than around the first floor.

*Right*  
Analysis of the transition between communal, shared and private spaces.  
1:500

#### Legend

- Communal space
- Shared space
- Entry of private space
- Private space
- Public space
- Public space outside

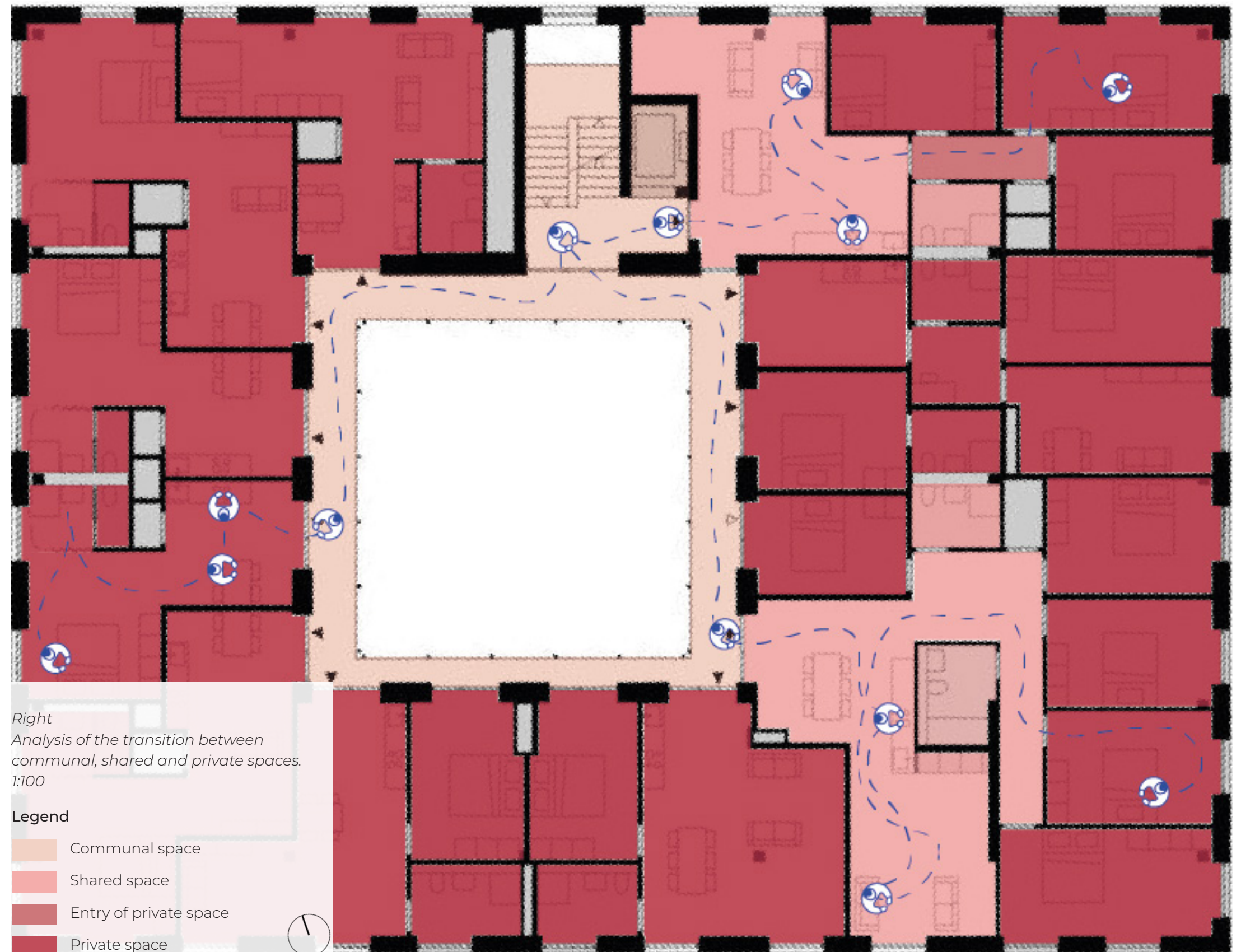


## 3.7 Privacy

### Scale of the floor

In this floor plan there are three kinds of apartments.; studio/one bedroom apartment, family apartment and shared living apartment. The studios and one bedroom apartments are for singles and couples, they share no other than the communal atrium. Their private space looks directly into the atrium and people in the atrium can also look directly into the whole apartment.

Both the family apartment and the shared living apartments have the living room on the atrium. This way all the apartments have the daytime rooms along the atrium which helps with people keeping an eye out on the atrium and on neighbours. The difference between the two is that the family apartment has a short hall that separates the bedrooms and bathroom from the living room. The shared living apartment is on this floor and on most of the apartments in the second building, not including a hall that separates the shared and private spaces. In most of these apartments residents have to walk through the shared living space before entering their bedroom which is similar to the order of rooms in Haus A. The big difference is that these residents do not have their own bathroom and kitchen thus when people are home they will be able to see each other throughout the day. They will not be able to retreat as much as the residents in Haus A are able to.





## 3.7 Privacy

### Scale of the building

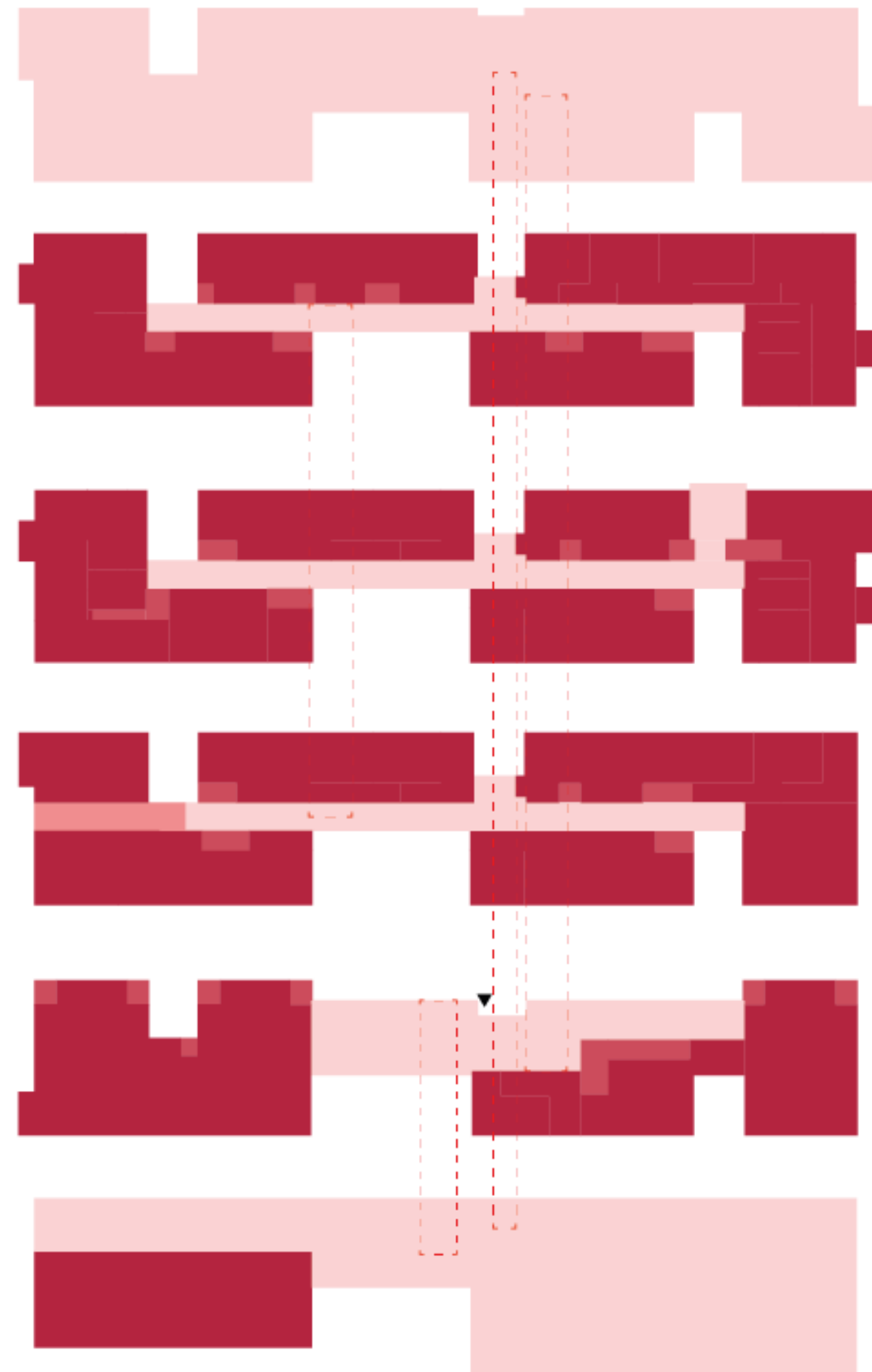
The first thing that stands out compared to the other two case studies is that there are no public facilities included in this project. It is interesting that Sabine Pollak mentions the change of lifestyle in which people no longer seek complete anonymity but want to include the public more into their life. She talks about the boundaries between private living spaces and communal living spaces and how architects need to find new ways these can be integrated into each other. Although she does mention the neighbourhood as a part of the public sphere, the design for [ro\*ssa] does not include space for the public to walk into the building uninvited. From what I can find on their website I can imagine that there might be events organised in the communal room on the ground floor. But architecturally the building does not invite neighbours to use the building.

Her aim is to remove women from isolation in traditional homes. In this project I find that she succeeds in giving residents homes that offer singles, couples or families the minimum they need in a way that suits them while also giving them communal spaces where they can spend the domestic part of life together with other residents. As she mentions in (source) by reducing the amount of private space these can be rented out for lower prices for low income households. She feels that reducing private space needs to be balanced with more communal spaces to bring richness into the lives of the residents.

*Right*  
Analysis of the transition between communal, shared and private spaces.  
1:500

#### Legend

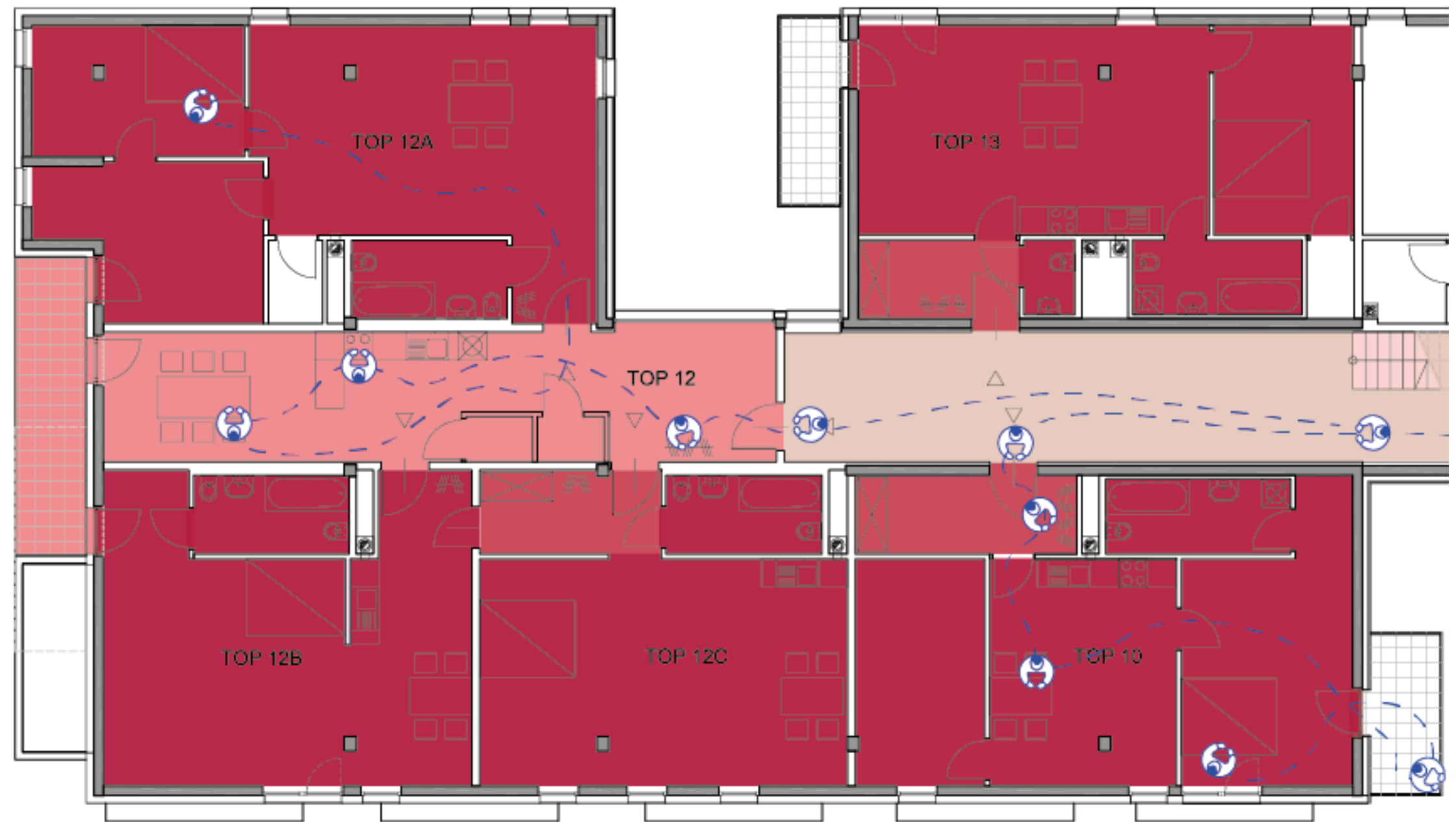
- Communal space
- Shared space
- Entry of private space
- Private space



## 3.7 Privacy

### Scale of the floor

Looking at the apartments I want to take a closer look at the floor with the cluster apartment and compare it to the other apartments on the corridor for single households. These apartments either have an entry space that is separated with a wall from the living room or the entry flows right into the living room. With the small entry hall to the apartments it separates the apartment even more from the corridor. Pollak speaks of anonymity changing into community yet the apartments inside [ro\*sa] shuts them off from the rest of the building not being able to interact with others unless they walk in the corridor or use their balcony. The cluster apartment has the same kind of relation to the corridor. The shared kitchen is treated in the same manner as the corridor with its access to the private rooms with no visual connection. Although here it is more logical since the residents already share a room which they all enter through and is the place for them to socialise.



Top  
Analysis of the transition between  
communal, shared and private spaces.  
1:100

#### Legend

- Communal space
- Shared space
- Entry of private space
- Private space



## 3. 7 Privacy

### Conclusion

The relation between the individual and community is clearly visible in the sequence and sightlines between communal to private spaces. All three projects give each household privacy within the home from the communities outside it. I like the connection between the apartments of Zollhaus and Haus A with the vertical circulation space. They both have sightlines from the kitchen into the open circulation space and give users an experience similar to looking out onto the street and being aware of activity outside of their home. This takes away the anonymity users would usually experience at the entrance of their apartment. Instead, these projects have an interior space/ atrium that is visible to all the residents and offers space for facilities and activities. In Zollhaus residents can cover the window and have more privacy and in Haus A the window can not be covered which is reasonable since it is a window into a shared space, not a private space. For my project, I will aim to create a circulation space and entry to the home that is a light, personalised and visible space. For residents to experience the circulation space as a street that offers them more than just a passage and to be able to see it from inside the home.

# 04 Conclusion

## 4.1 Fourth wave feminism housing concept

I started this research with the question; How can a fourth wave feminist housing concept with co-operative housing tenure organise social reproduction spaces to support low-income families who need more time for care? By exploring the feminist theories of material feminism and those of the second and third waves, I have gained a better understanding of the history of the struggles with social reproduction and where to focus on when trying to reform it. The different movements also brought to light related issues of equality, classicism and racism. The first wave of feminists managed to utilise architecture to realise their ideas for gender equality, but some also maintained the separation between gender and exclusion of lower-class citizens. The second and third wave feminists managed to further equal access of all genders to domains dominated by men, but they lost the spatial connection as to why women are economically obstructed from financial independence. So although they managed to place women in positions of power they still left women responsible for the home.

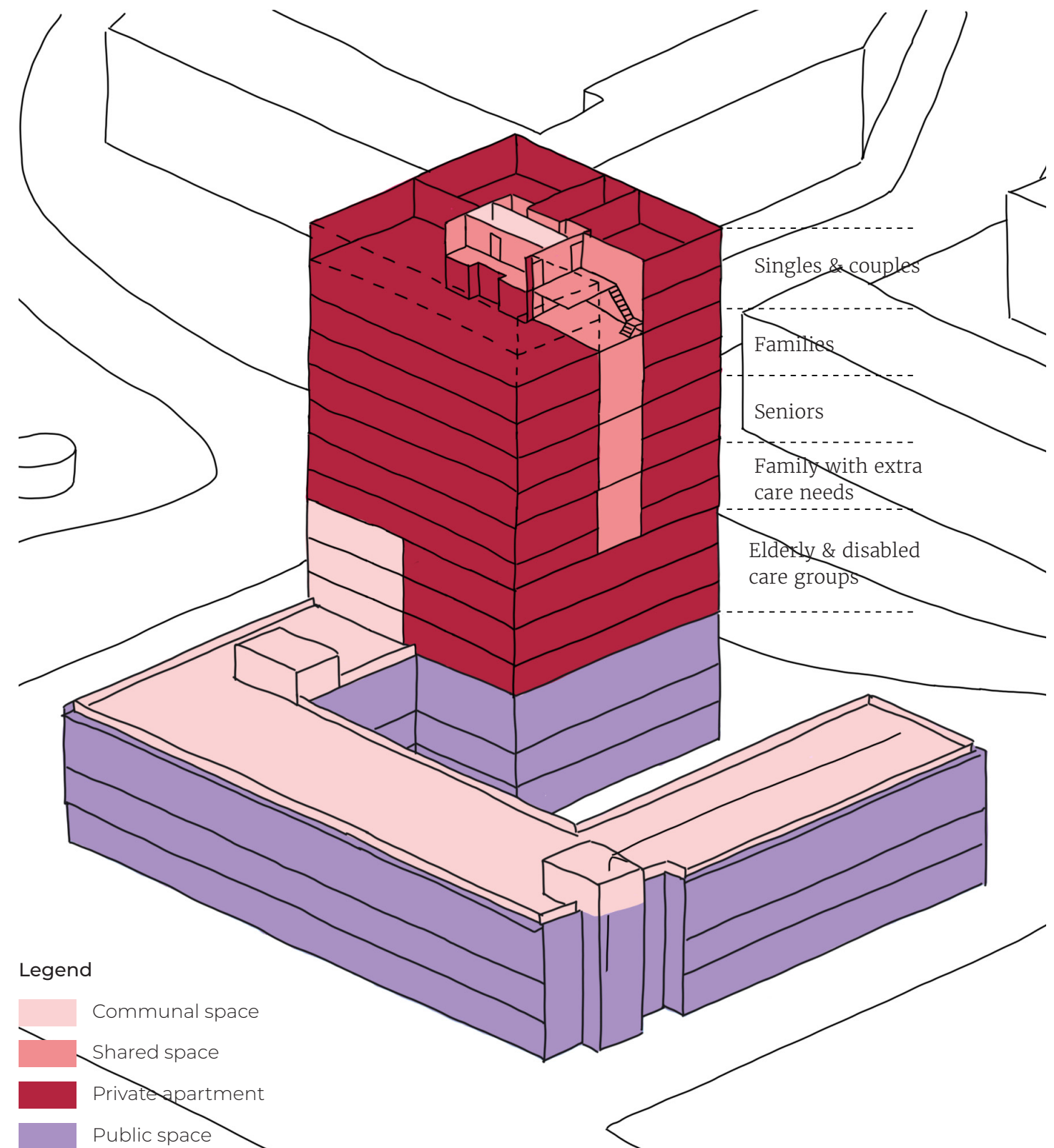
Now during the fourth wave, there is a crisis of care related to the distance between facilities and housing, the speculation of real estate and the financial disadvantages of women. Based on the feminist theories I concluded that I could address this by creating an apartment building with a housing concept that does not conform to the mentality of capitalist society. It should have facilities that support the residents and neighbourhood with housekeeping, care, building communities and employment opportunities.

The first part of the housing concept

is to integrate the awareness of the fourth wave of the conflict between the ideology of intersectional feminism and white feminism regarding the role of women, gender, sexuality and family. Based on the apartments in the case studies, I find it important that the apartments are directly connected to the circulation space. This way getting placed in the housing is more accessible than having to match residents together.

This decision leads to the placement of a shared space that connects two floors with 8 to 12 apartments and is accessible from the corridor. This is a similar idea to the clusters in Haus A that share a living space between their apartments. The difference is that the shared room is optional and the residents first encounter their front door, not the shared space. In this concept, there are five household groups that are free to use the space as they see fit.

The last part is the services, facilities and financial system of the housing concept. By using co-operative mode of tenure it can provide support and access to affordable and nearby care and workspaces that empowers a person's ability to have financial stability and have the essential time needed to care for family and for themselves. The projects of the material feminist have systems that work within their urban plan or the apartment hotel without mentioning the existing surroundings. This concept offers it to both the residents and surrounding neighbours.

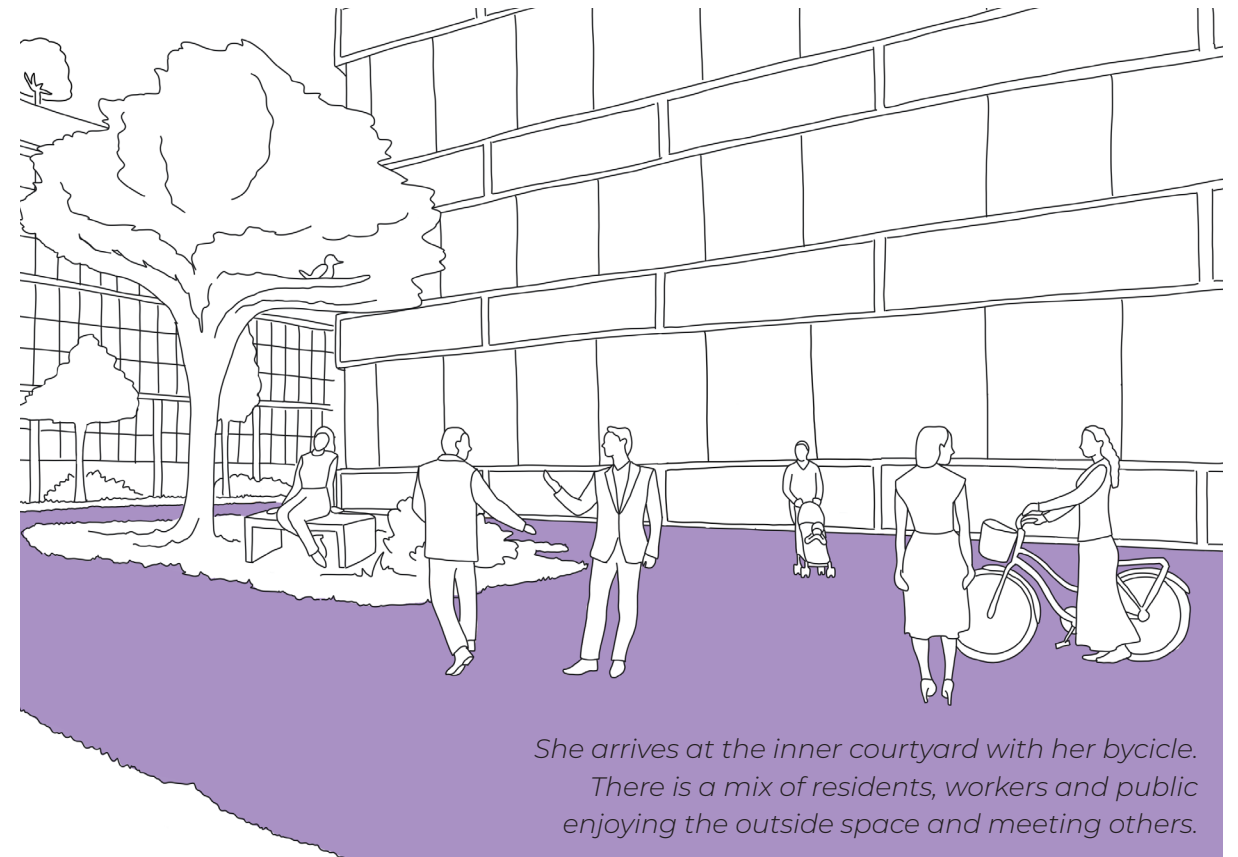




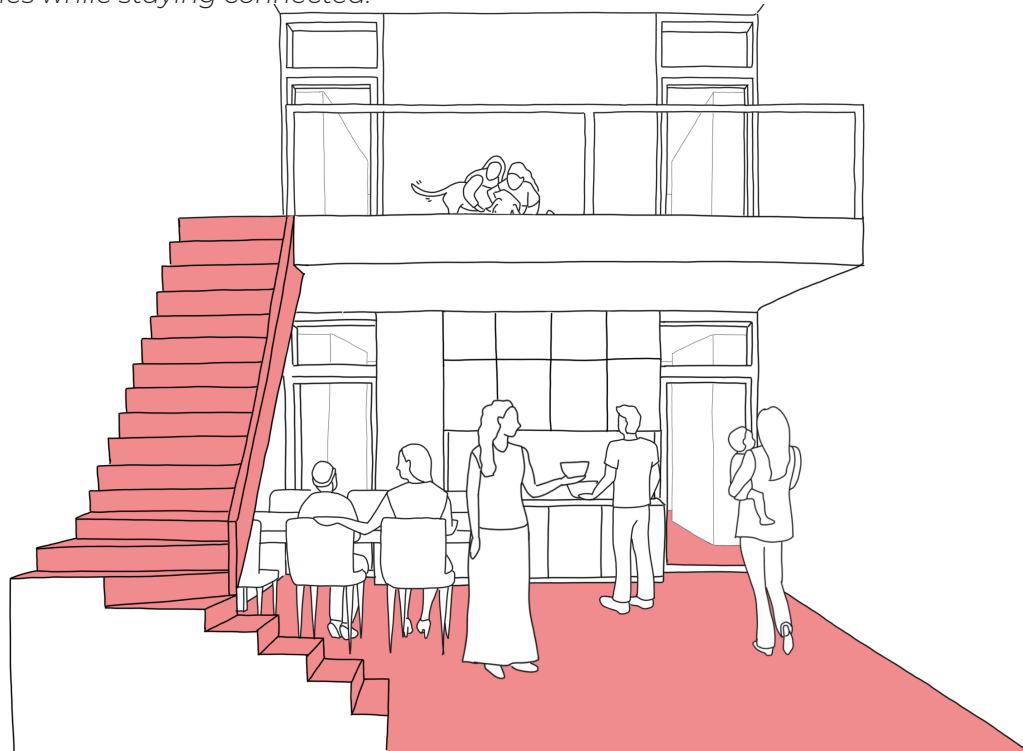
# Graphic novel

## 4.2 Graphic novel

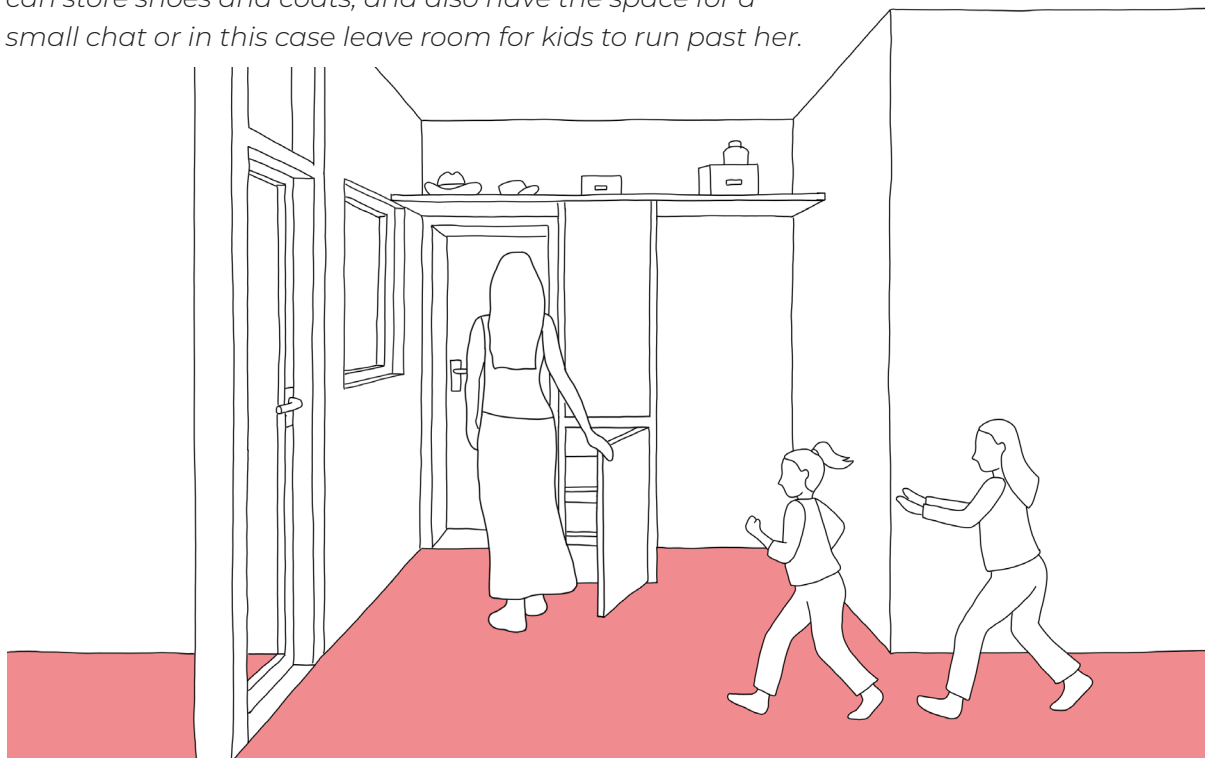
The graphic novel continues with Jennifer and her daughter Lily after moving into the Homobonus housing co-operative. As a nurse working in a nearby hospital, she works long and odd hours. On one of those days, she worked during the weekend and could leave her daughter under the supervision of one of the neighbours on her floor. As she returns home she travels through the different spaces and transition areas of the building.



The shared room connects the households. Here the neighbours come for activities or in this case dinner together. With two floors there is room for different kinds of activities while staying connected.



In the hall each resident has small front door space where can store shoes and coats, and also have the space for a small chat or in this case leave room for kids to run past her.



From the kitchen there is a small window into the hall to see visitors, neighbours or her daughter. She can also see into the living room where her daughter is playing by herself.



As the day comes to the end she can retreat into her bedroom, share some last stories before bedtime and enjoy the view onto her small balcony garden.



# I Design

## Project statement

From the urban analysis it stood out that the public space on the site felt neglected and that it might be related to the lack of connection between buildings, plinths and its surrounding. For the area to be a lively and well functioning space, healthy living concluded that the public space must be transformed into a space residents can have an impact on and can appropriate. This transformation can in turn help implement initiatives that help biodiversity and fight water and heat problems. These are mostly the physical impact I would like to achieve with my building, but what I also found interesting are current political economic problems that disturb neighbourhoods such as Blijdorp and the city of Rotterdam. The analysis concluded how housing prices make housing inaccessible for a large range of households and that this leads to people feeling pushed out of their city and losing their social network. With my project I envision how households who currently have little choice find my project where they can have a house in a central place in Rotterdam and also adjust their home and use facilities according to their personal needs. These households who used to struggle to pay their rent or buy a house while at the same time struggling to find time to care for family members, can now have housing at a fair price

and also easily make connections with other residents and build a social support network. This will also be a place where people with a care need can get easily accessible and diverse care at home which is otherwise hard to get because the current care system is reaching its limit.

## The role of my project in relation to the urban masterplan

A big part of the masterplan is focused on forging connections between people, with the site and to the rest of the neighbourhood. My plot plays an important part in connecting our site to the other side of the intersection. The aim is to achieve this connection through resembling the programme and also offering facilities such as workspaces, gathering spaces and a library that are currently not in the area. This programme is meant to improve the liveliness of the site and to foster accidental encounters and meetings between residents, passerbys or people drawn by the programme.

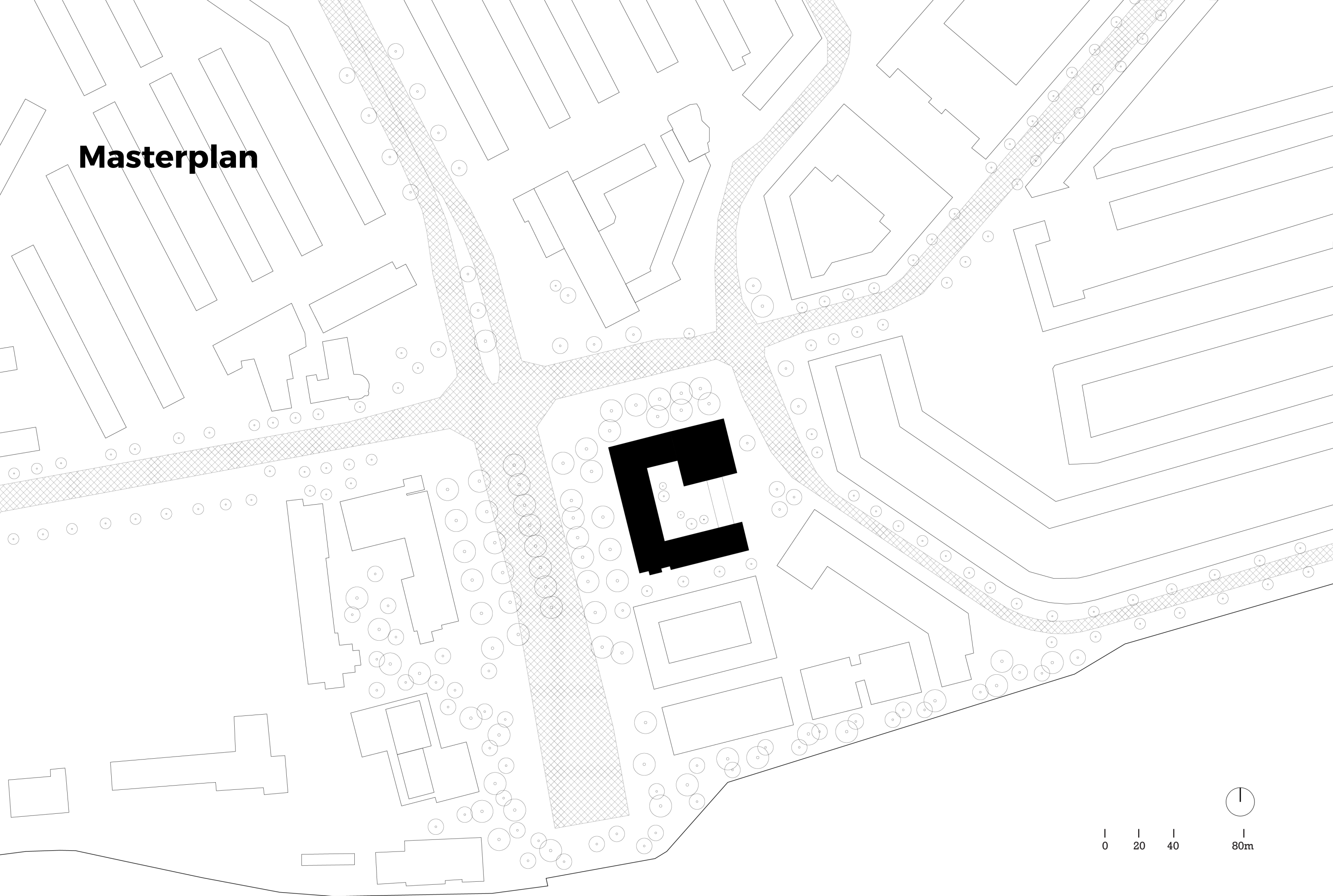
## The profile of the dwellers and tenure

Intergenerational housing with Co-operative housing tenure

Low-income households with;

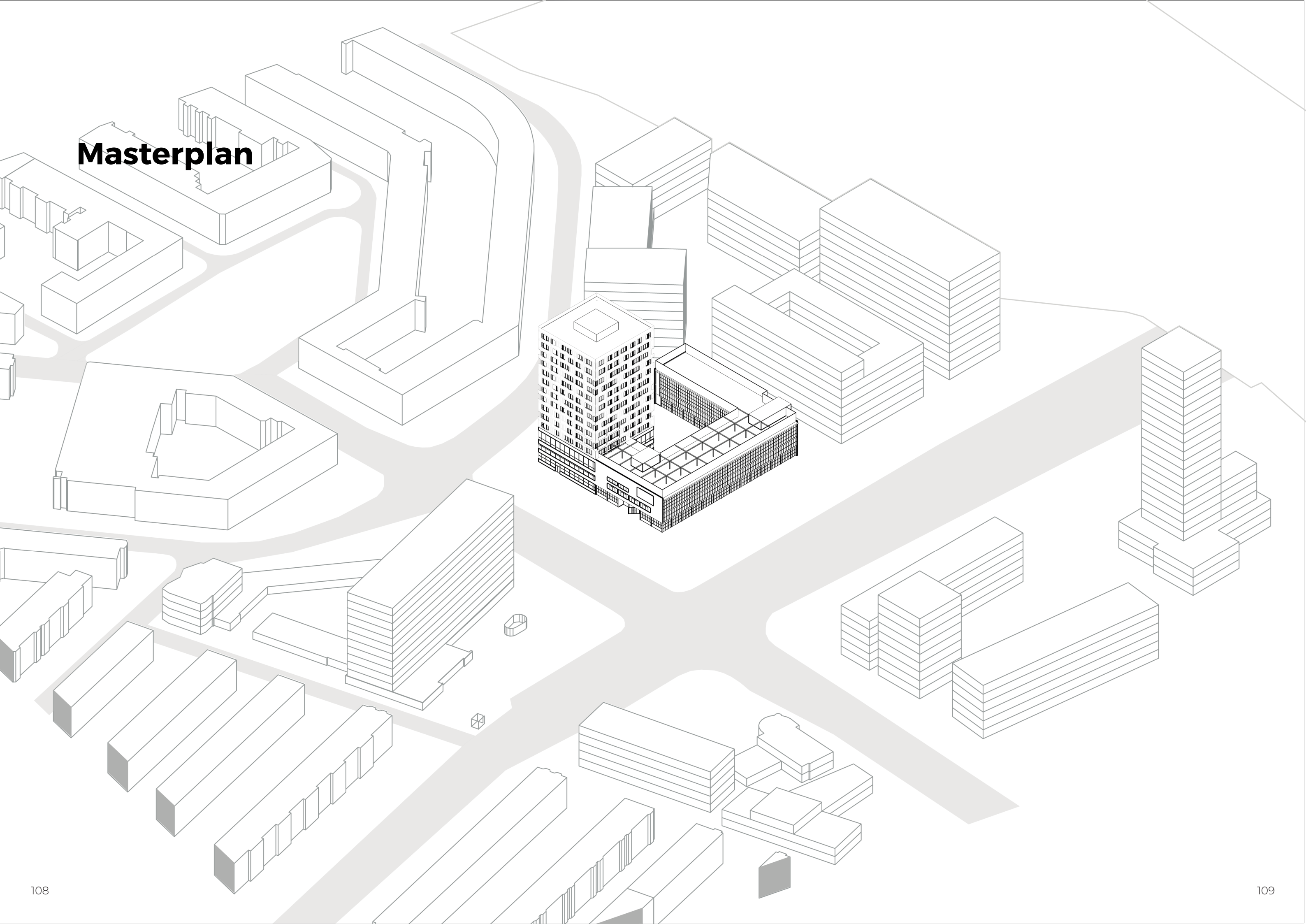
- Two-parent or single-parent families, including those with sick or disabled children
- Singles and couples from starters to seniors
- Elderly and disabled people who need assisted-living

# Masterplan





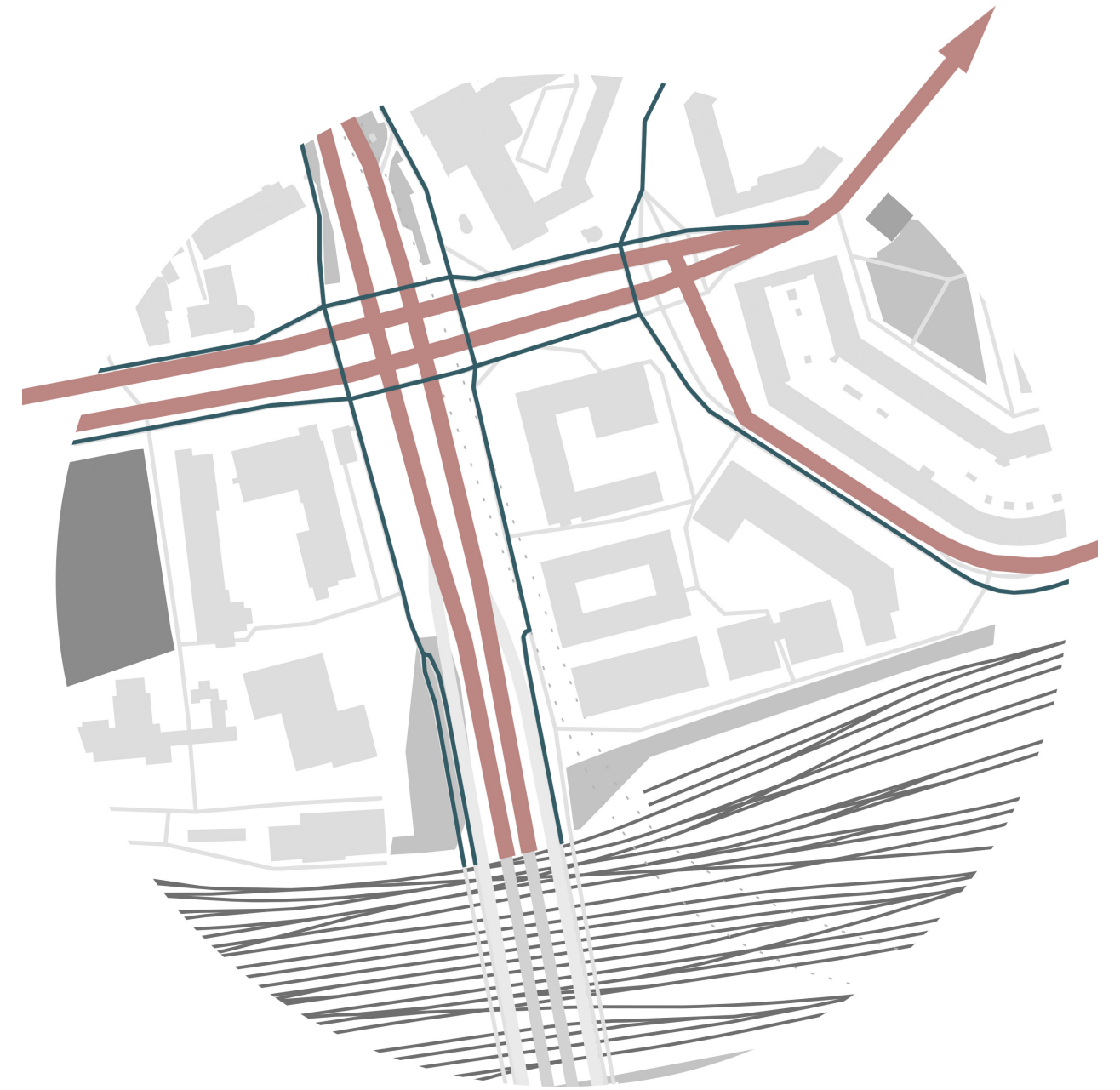
# Masterplan



# Masterplan / Ambitions



*Connenction with the intersection*



*Car and bicycle routes*



## Masterplan / Ambitions



*Access points to the buildings*



*Monuments and open space*

## Masterplan / Ambitions



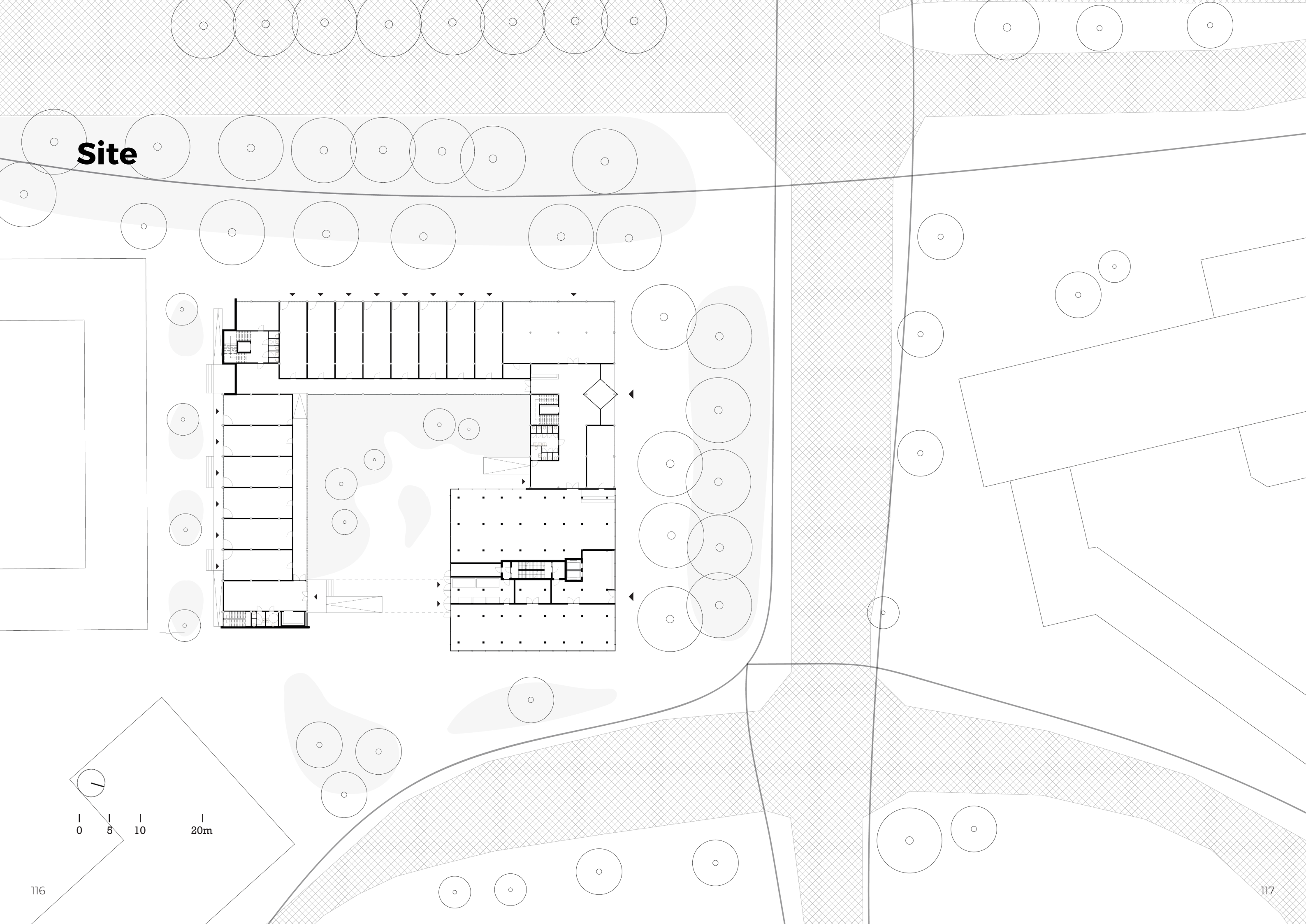
*Pedestrian circulation*



*Water infrastructure*

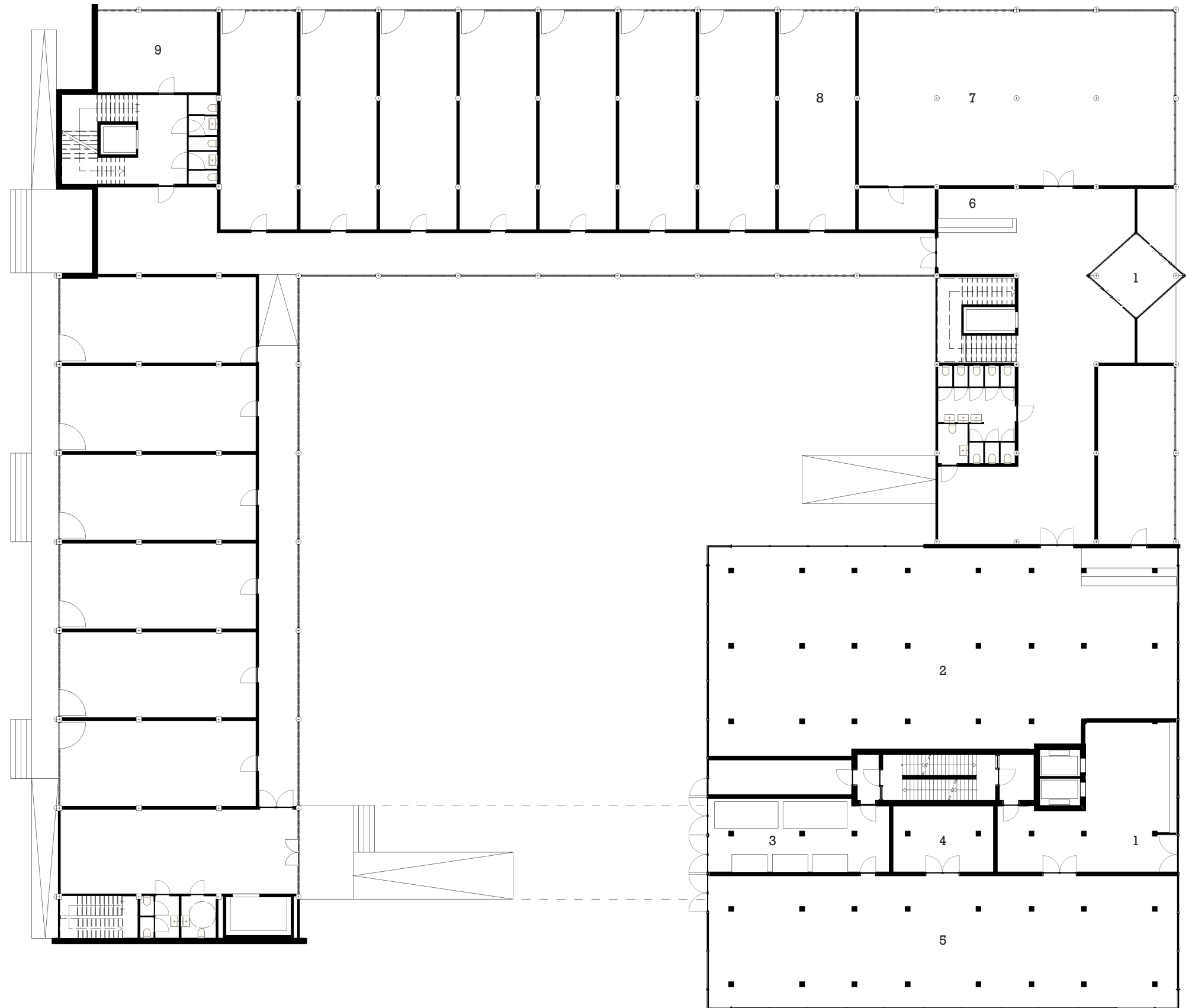


**Site**



0 5 10 20m

# Ground floor



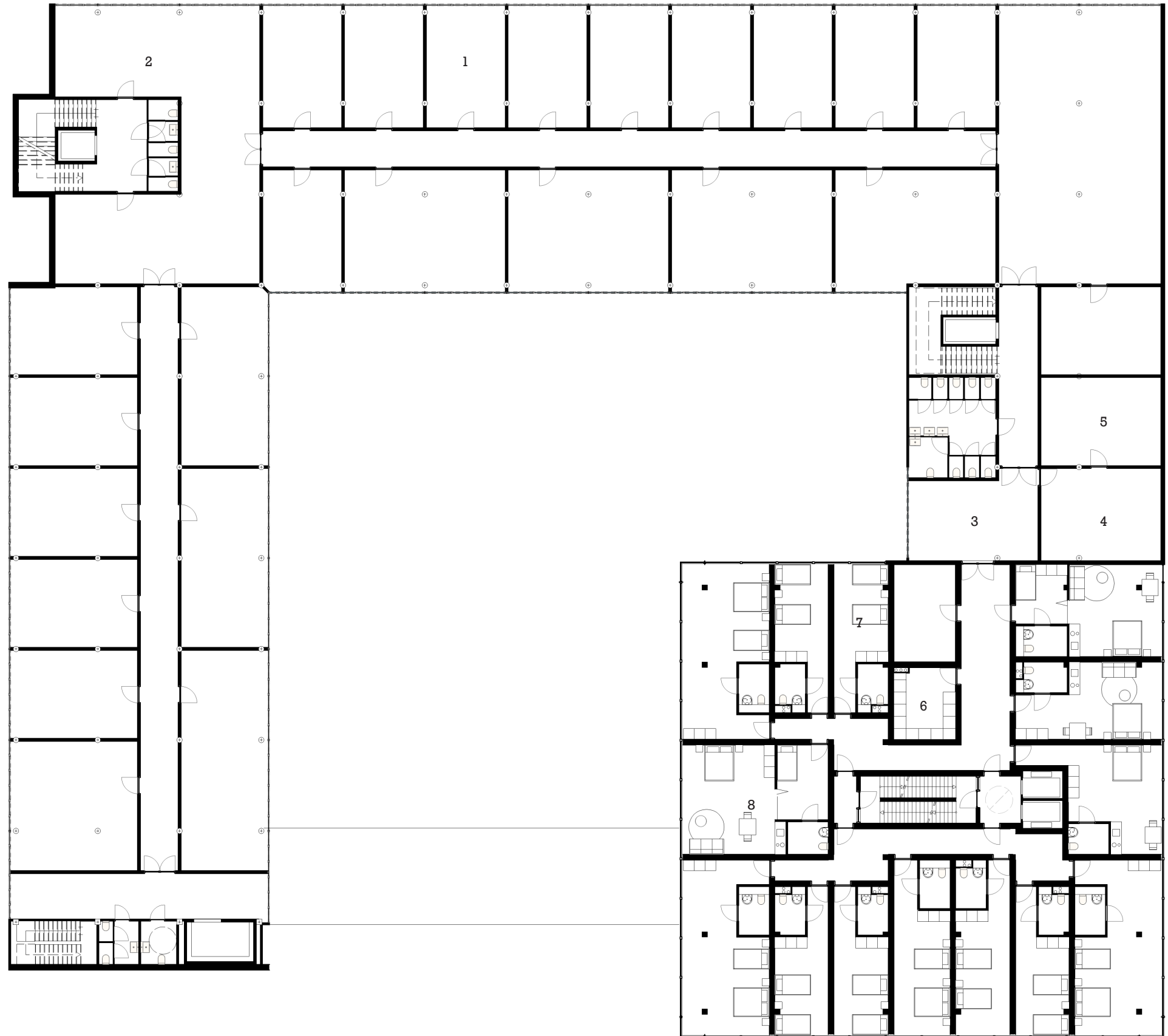
- 1 Entrance
- 2 Library
- 3 Waste storage
- 4 Technical room
- 5 Residential storage for vehicles
- 6 Service piont
- 7 Café
- 8 Shop/atelier
- 9 Break room



0 2 4 8m



# First floor

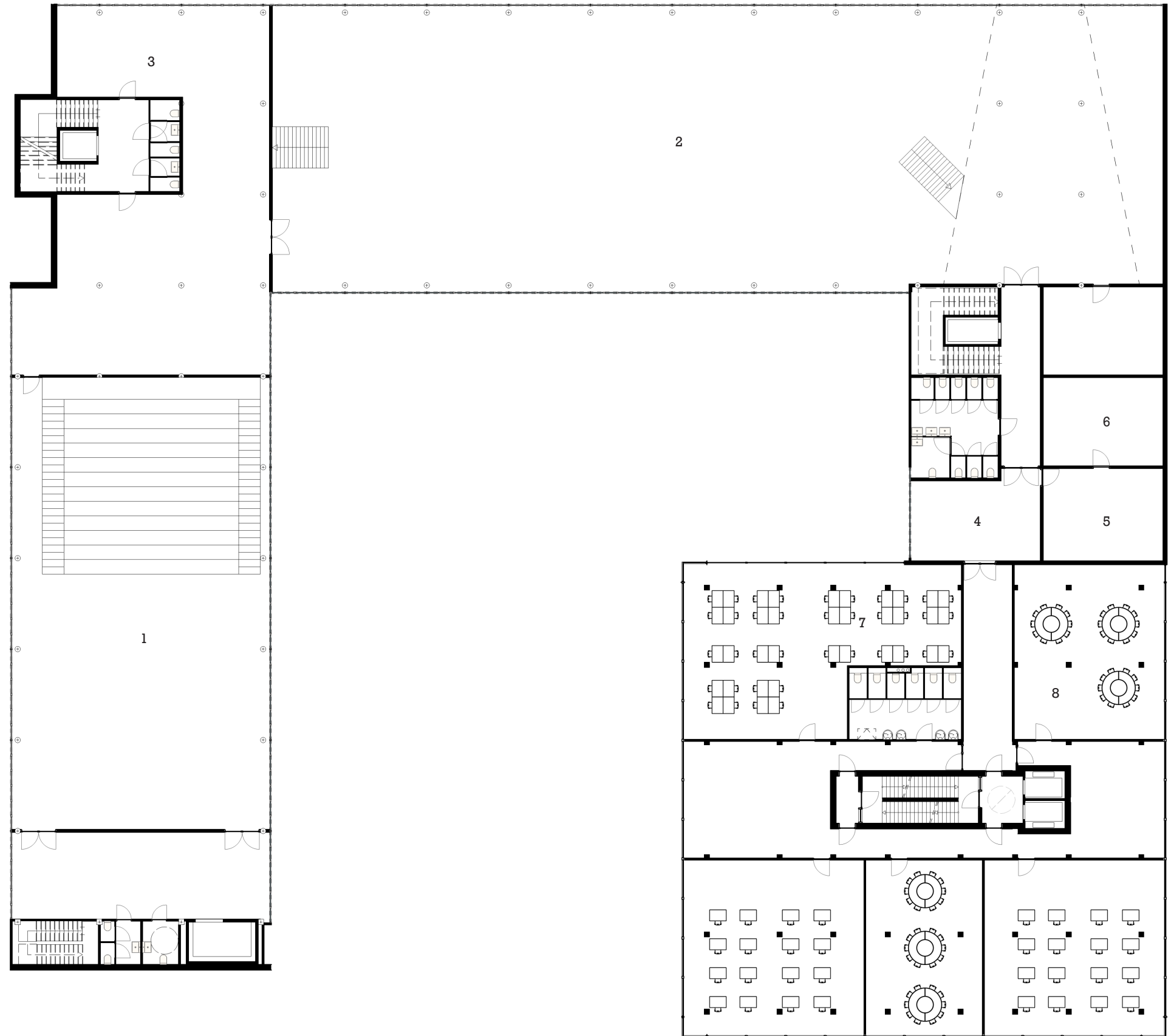


- 1 Offices/meeting rooms
- 2 Break room
- 3 Entrance guestrooms
- 4 Office
- 5 Breakroom
- 6 Storage
- 7 Guestroom
- 8 Short stay room



0 2 4 8m

# Second floor



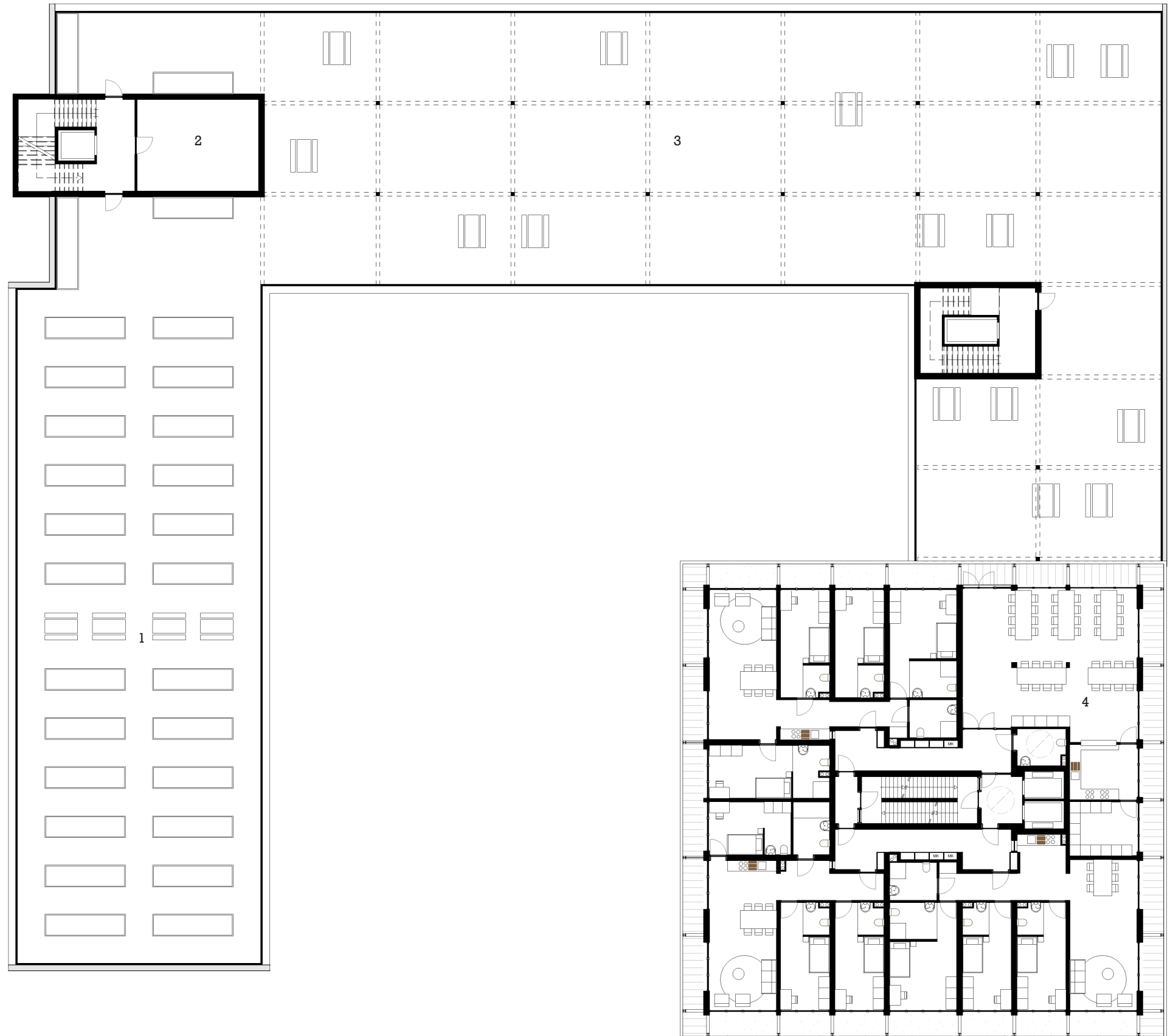
- 1 Lecture hall
- 2 Open creater space
- 3 Break room
- 4 Entrance childcare
- 5 Office
- 6 Storage
- 7 Kindergarten room
- 8 Daycare room



0 2 4 8m



# Third floor & rooftop

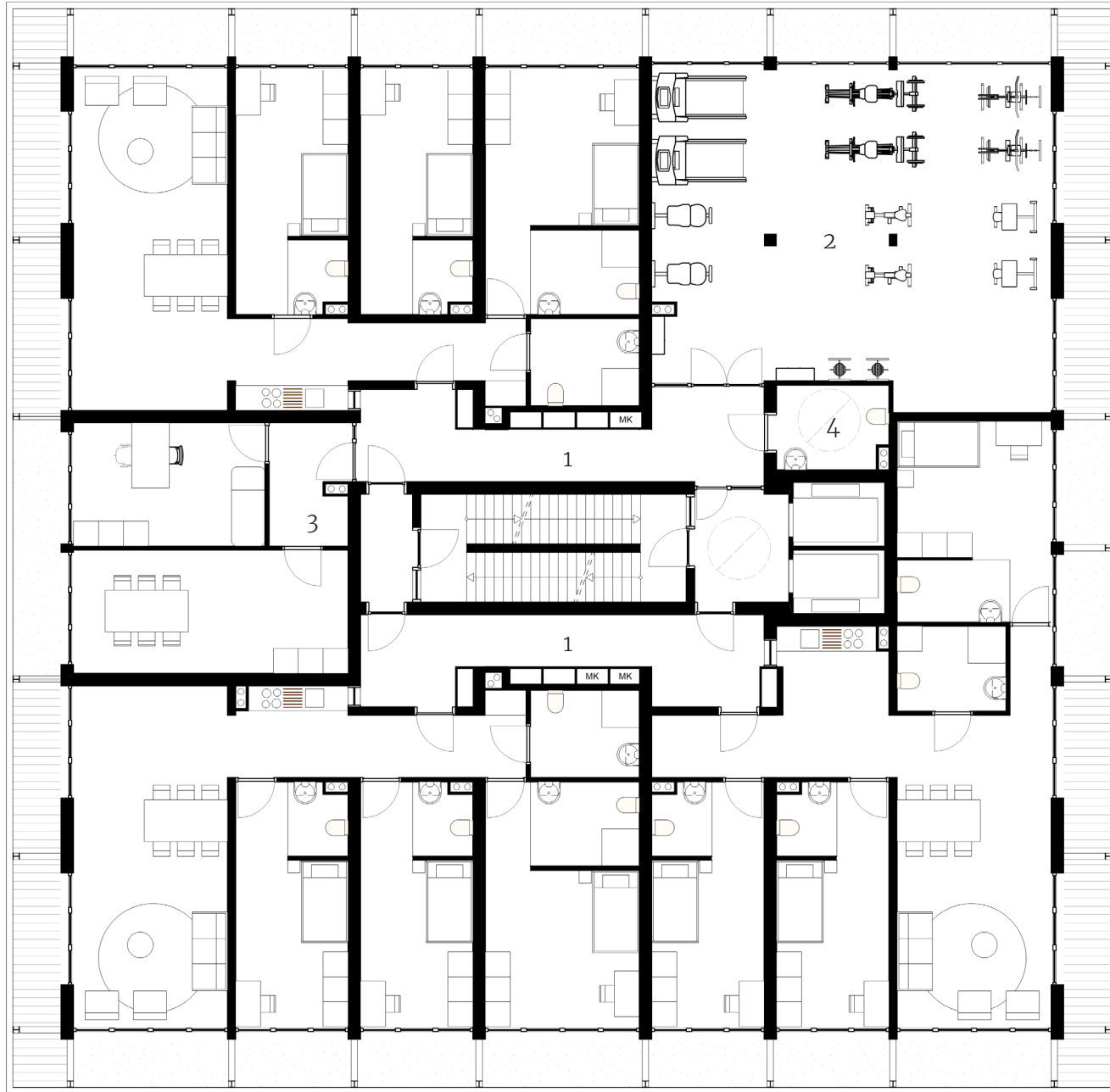


- 1 Urban farming
- 2 Roof storage
- 3 Leisure space
- 4 Co-op kitchen

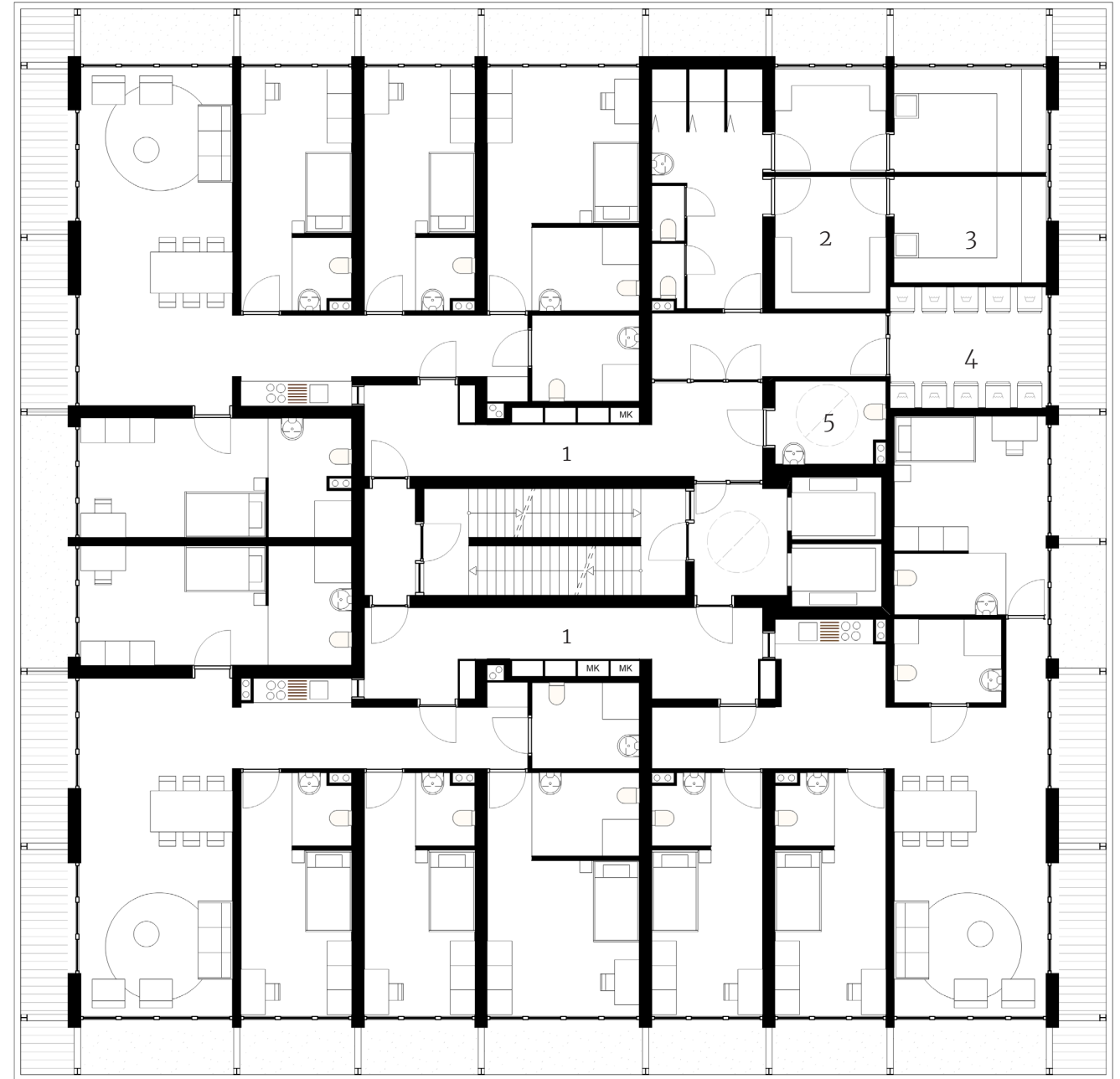


0 2 4 8m

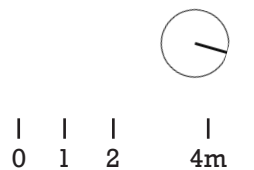
# Elderly & disabled care



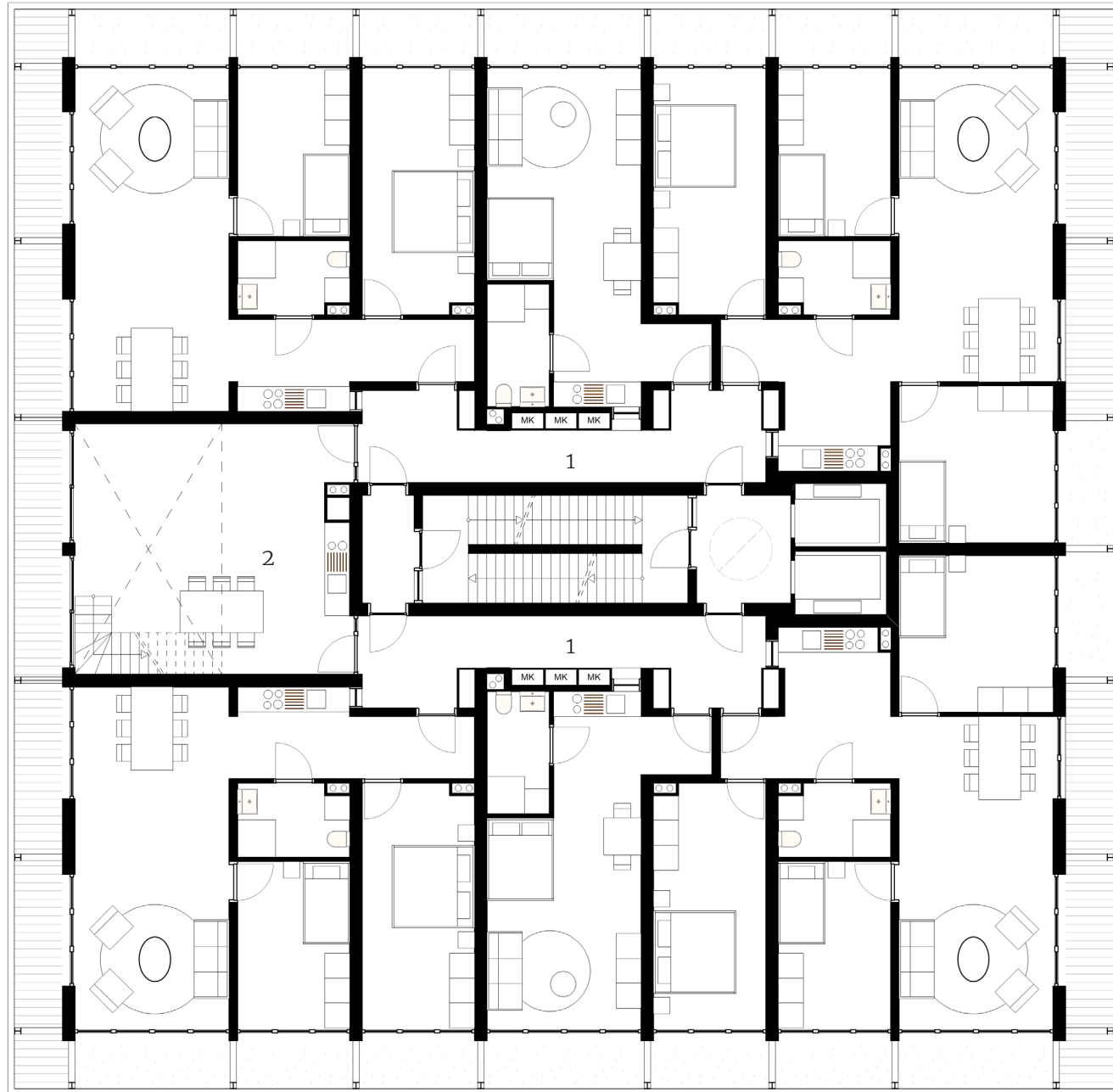
- 1 Hallway
- 2 Gym
- 3 Nurses office
- 4 Collective toilet



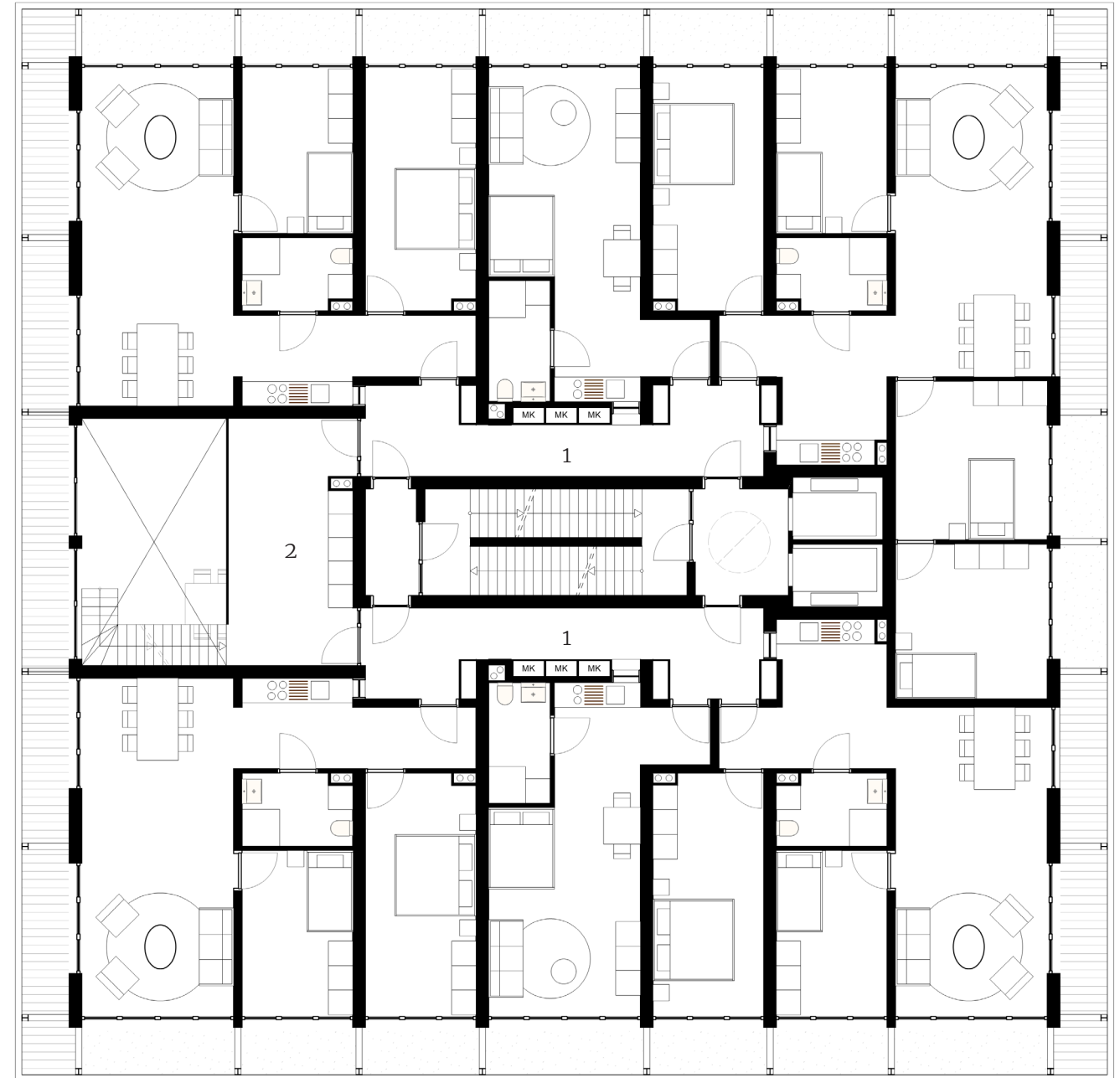
- 1 Hallway
- 2 Changing room
- 3 Sauna
- 4 Laundry
- 5 Collective toilet



# Families with extra care needs



- 1 Hallway
- 2 Shared room

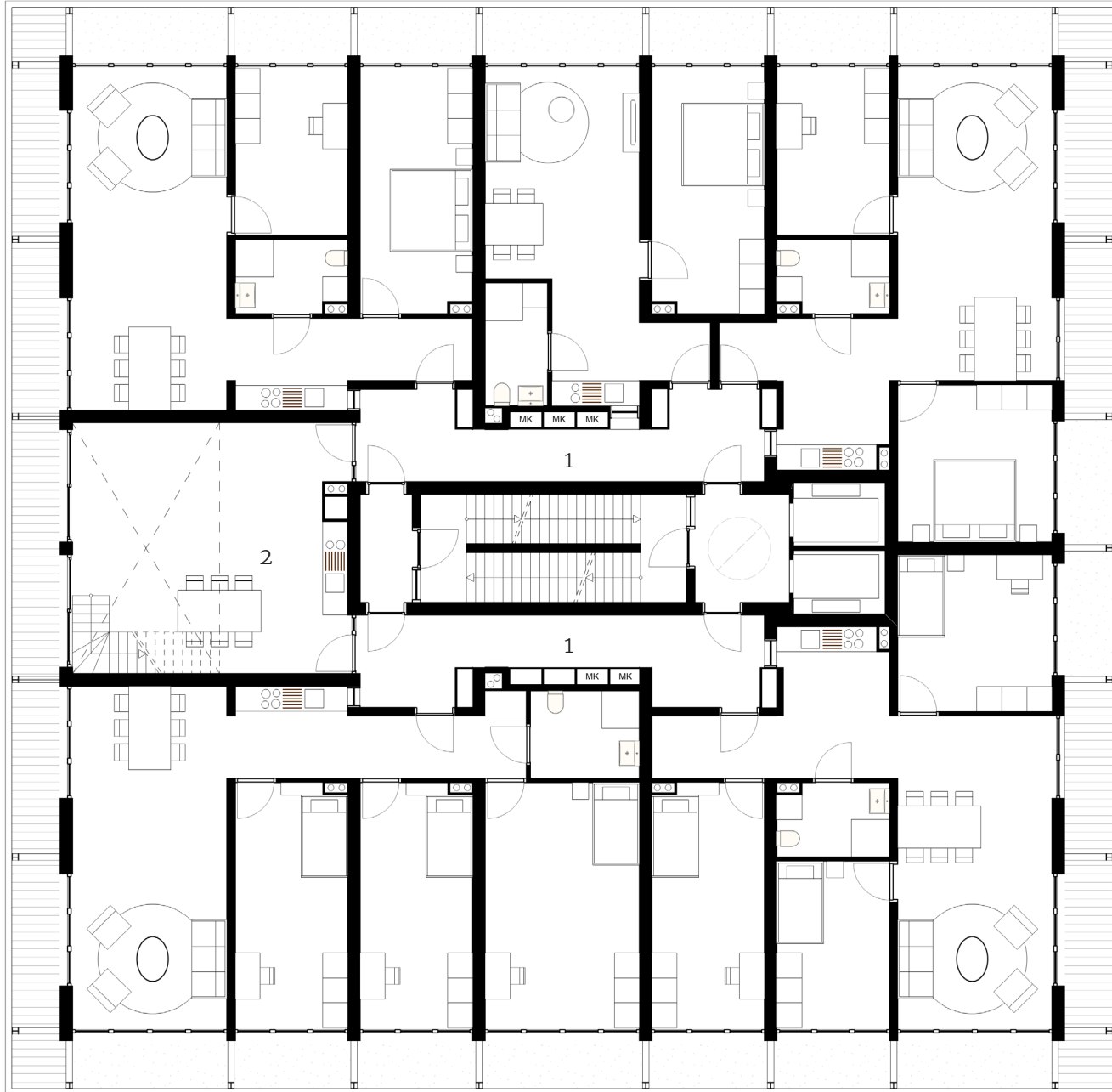


- 1 Hallway
- 2 Shared room

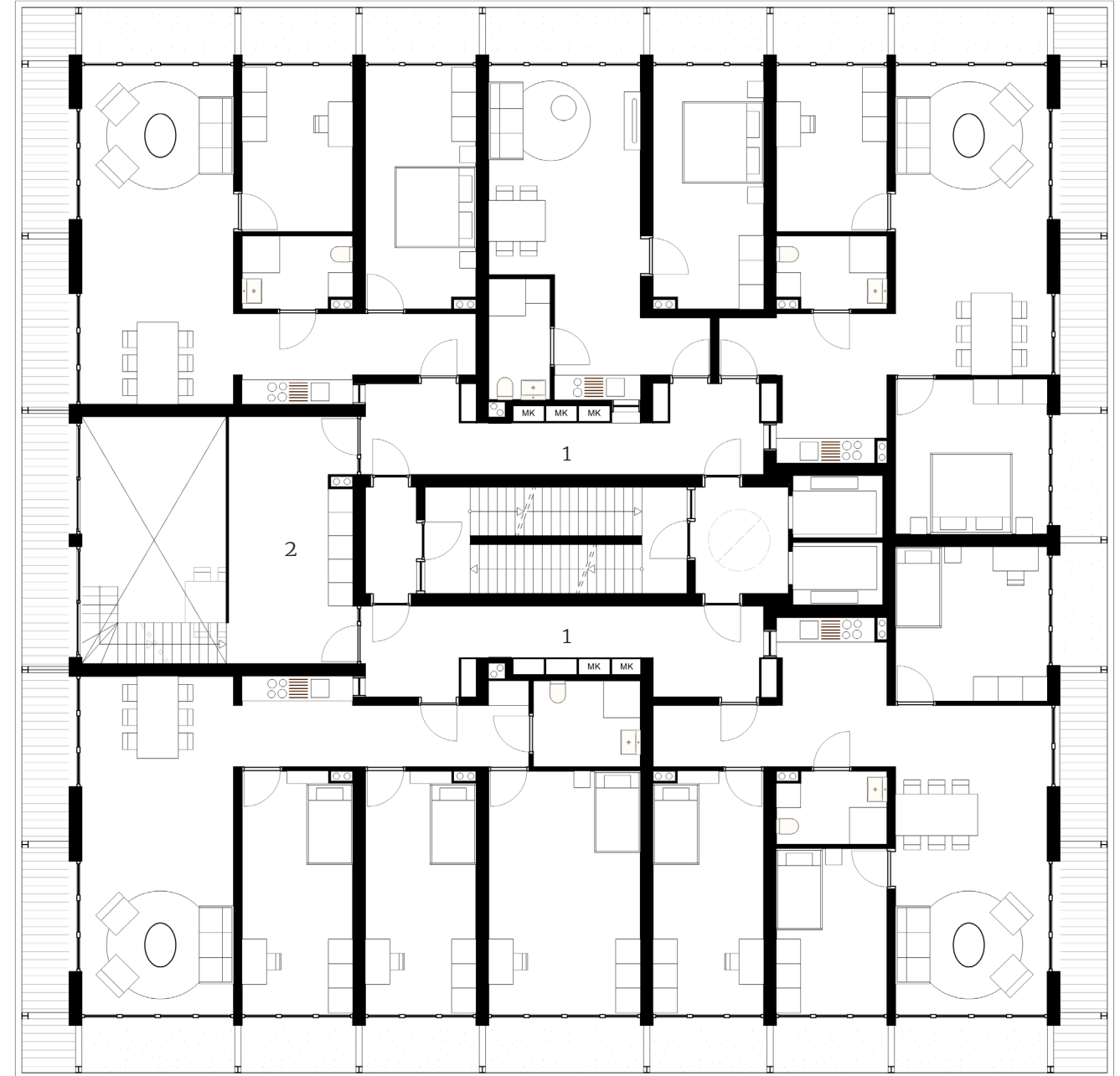
0 1 2 4m



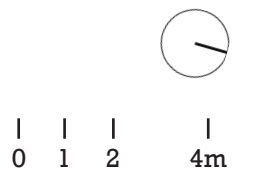
# Seniors



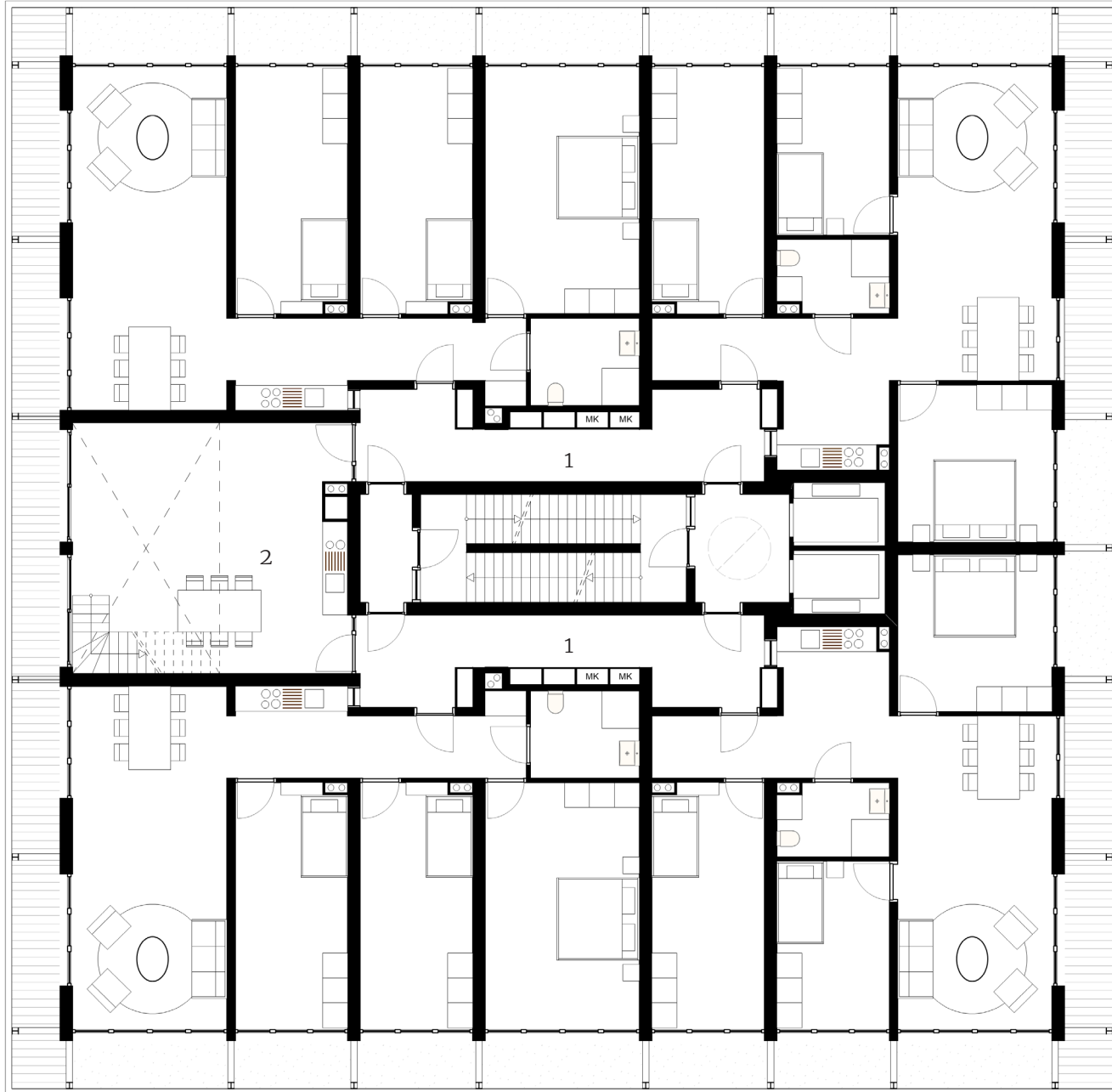
- 1 Hallway
- 2 Shared room



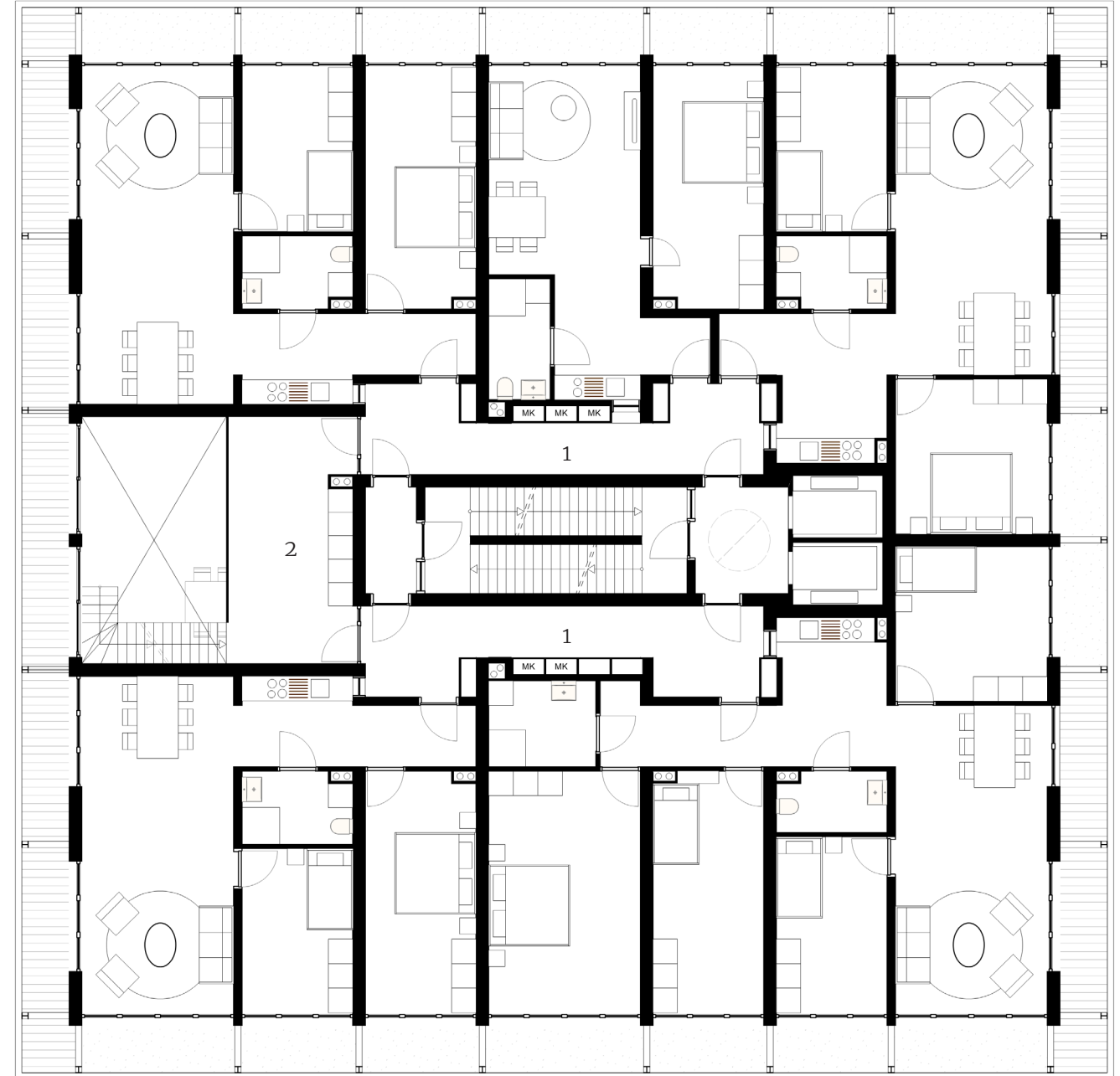
- 1 Hallway
- 2 Shared room



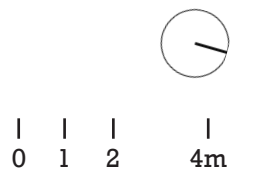
# Families



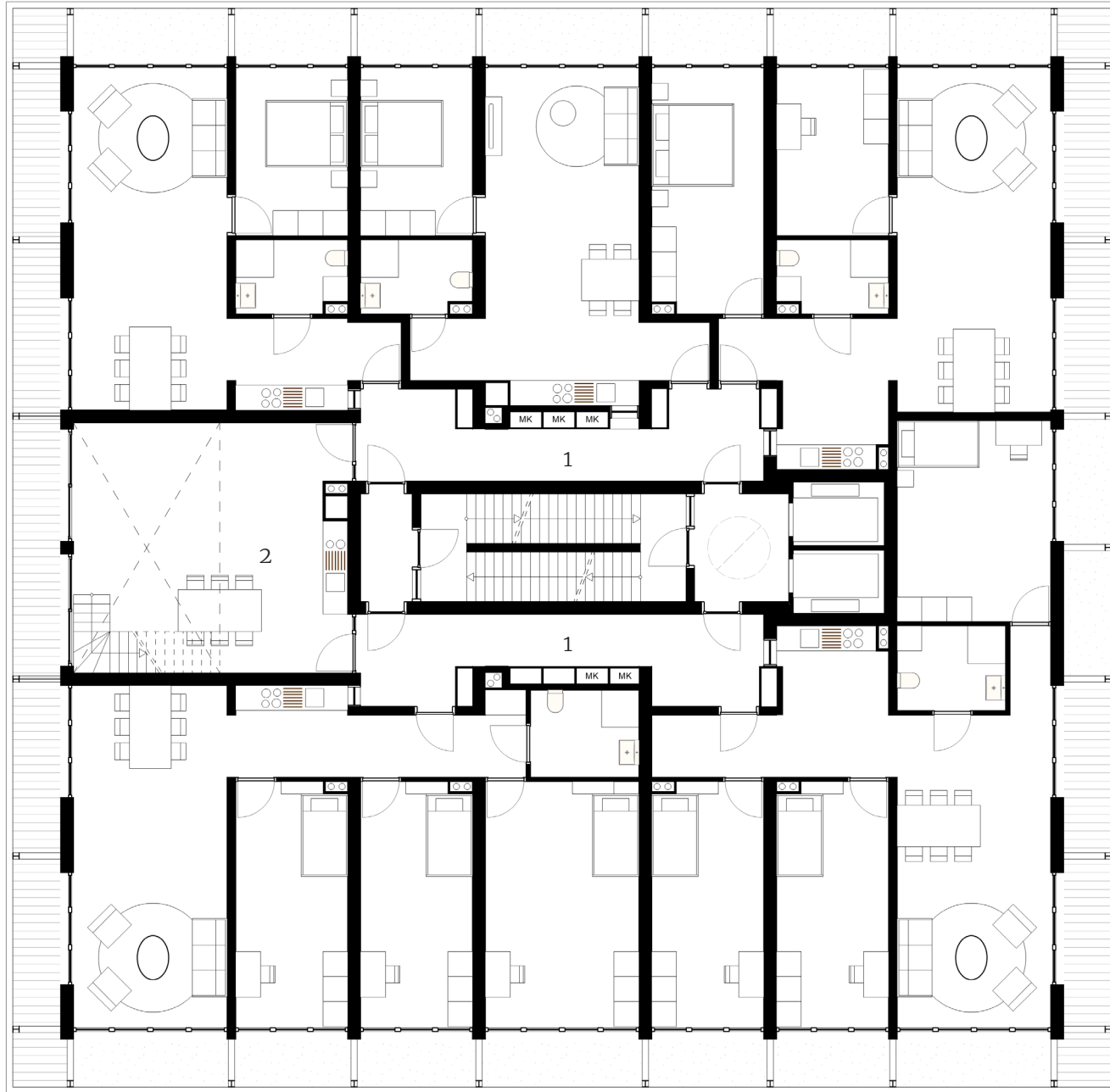
- 1 Hallway
- 2 Shared room



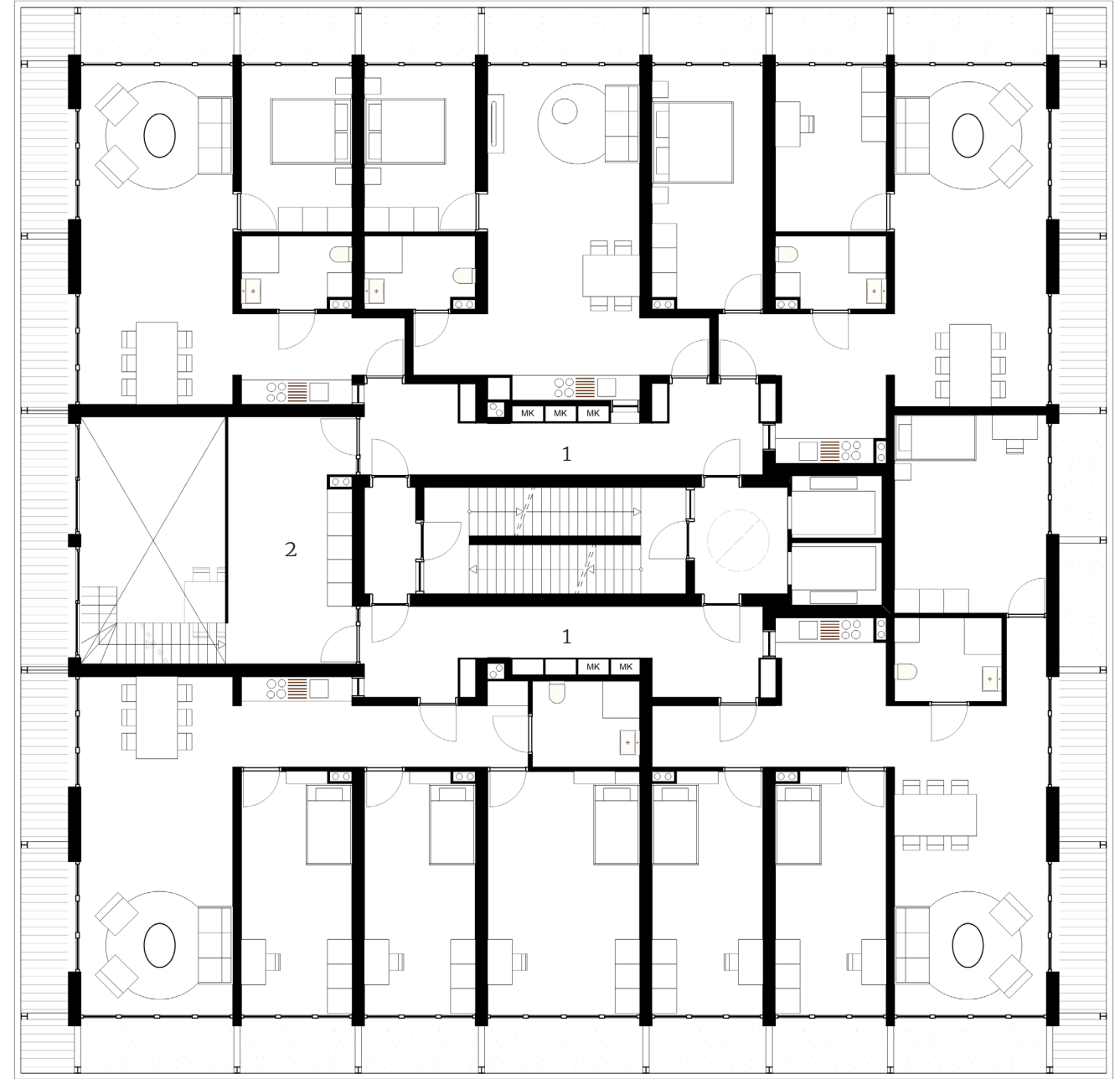
- 1 Hallway
- 2 Shared room



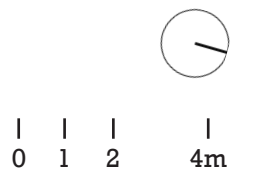
# Singles & couples



- 1 Hallway
- 2 Shared room



- 1 Hallway
- 2 Shared room





# Facades



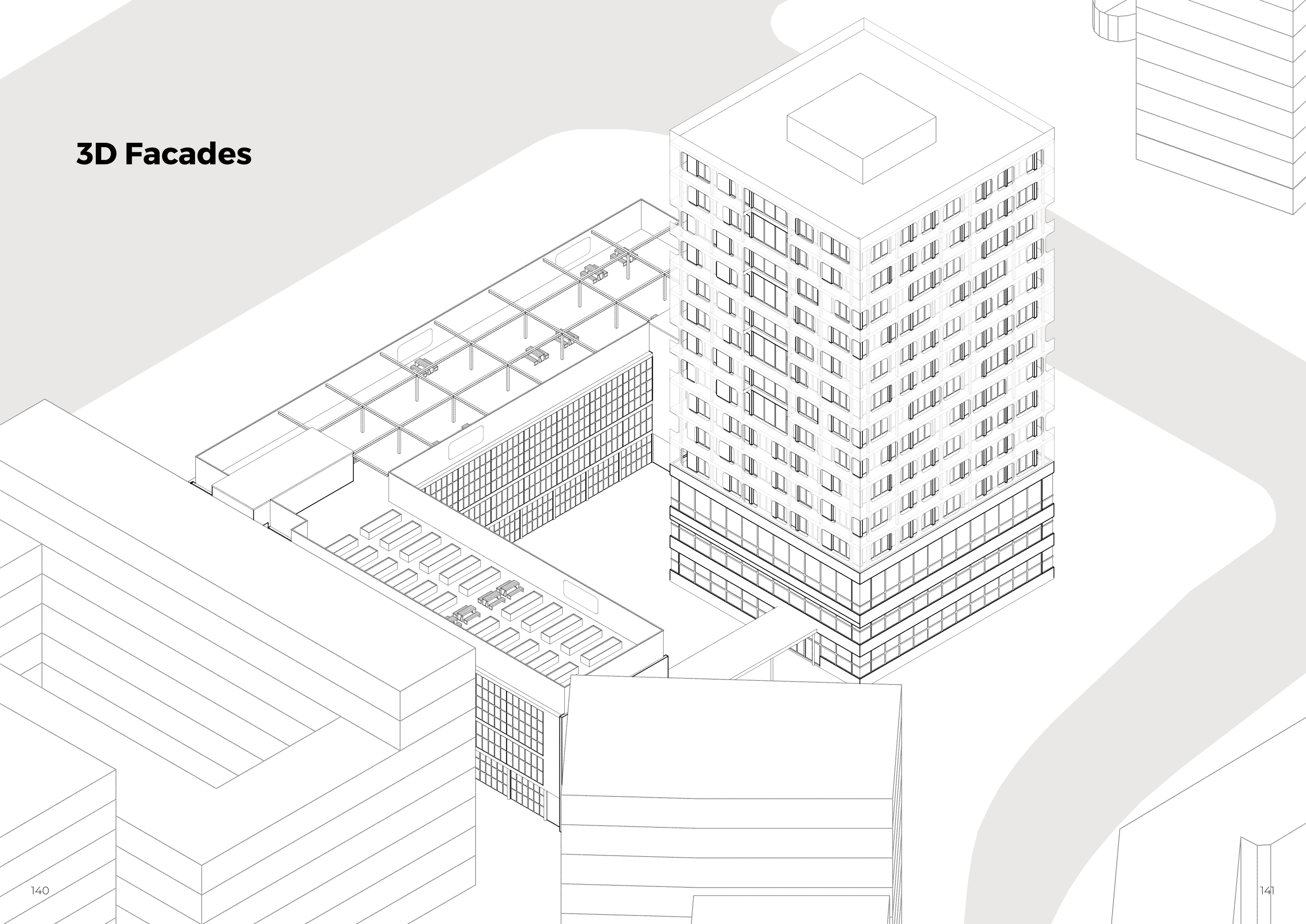


# 3D Facades



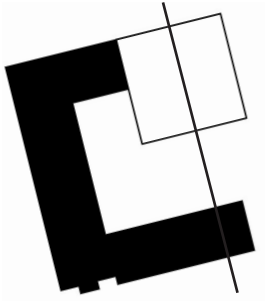


# 3D Facades

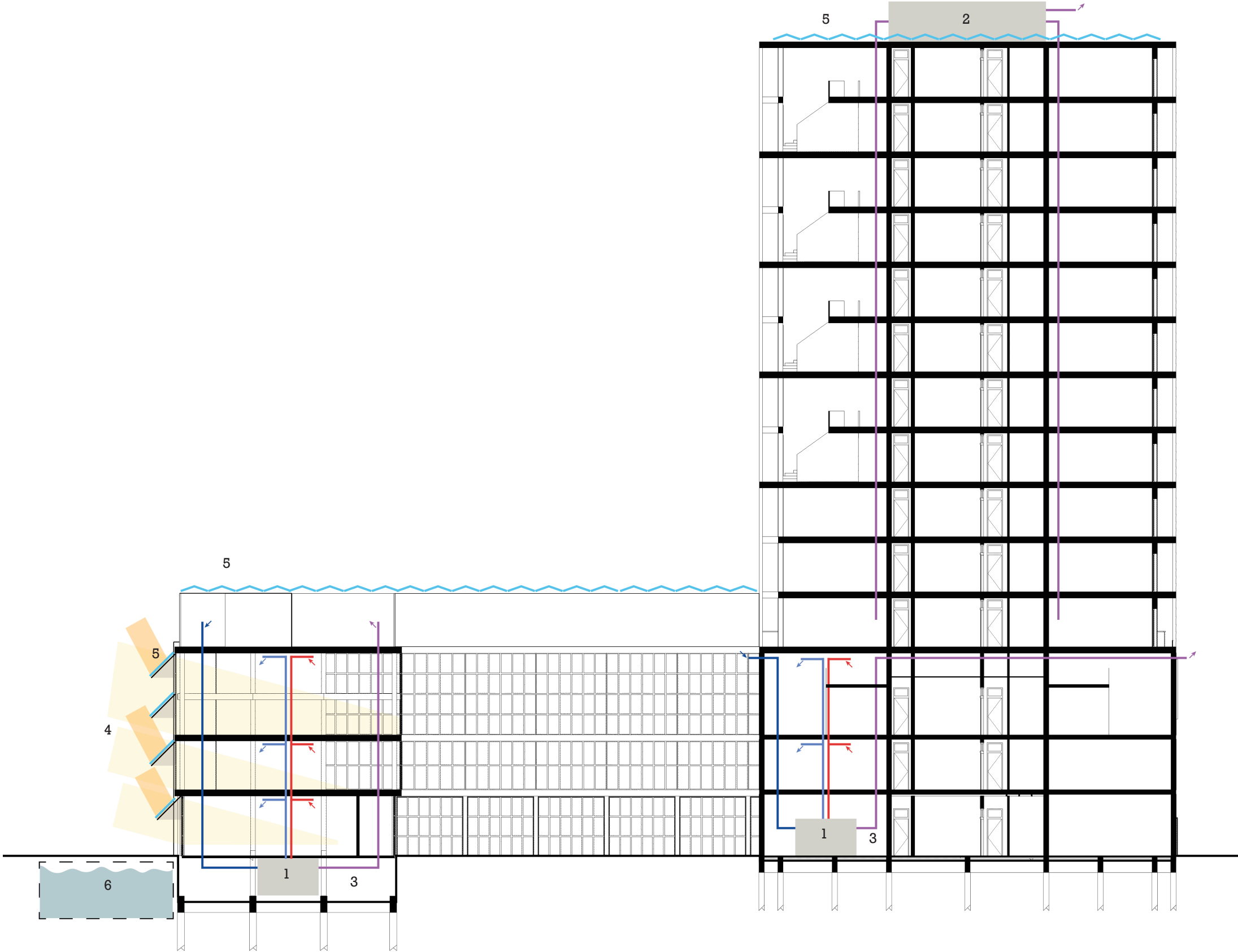




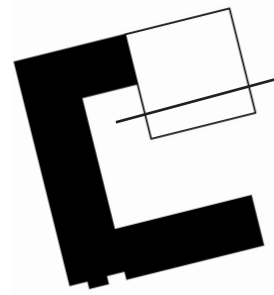
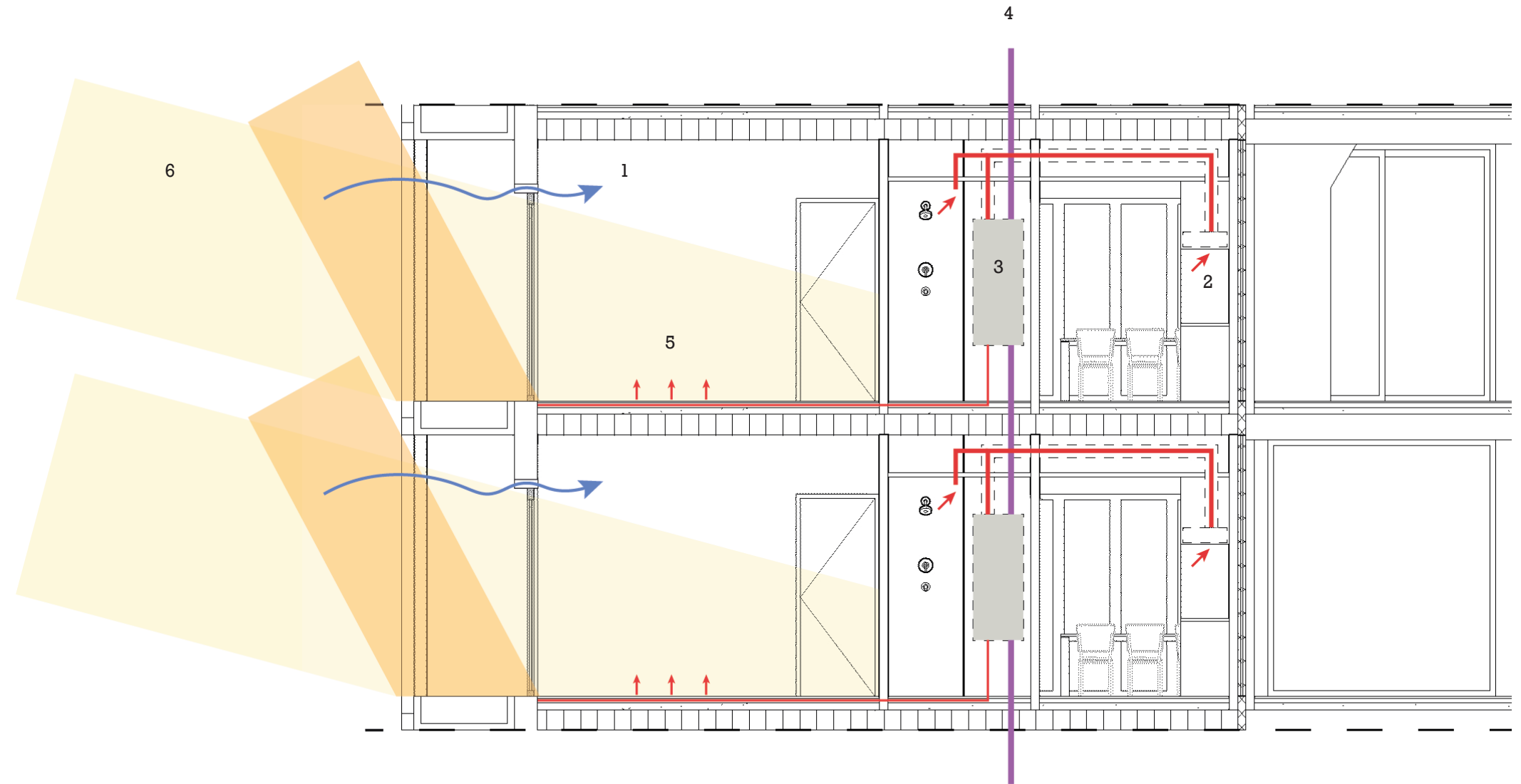
# Climate diagram



- 1 WTW ventilation
- 2 Ventilation output
- 3 Boiler for warm water
- 4 Shading
- 5 Solar panels
- 6 Water storage



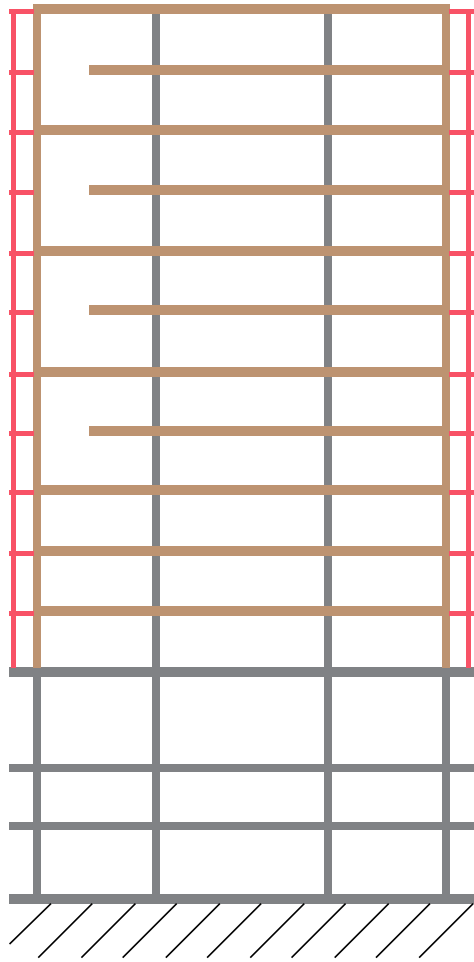
# Climate diagram



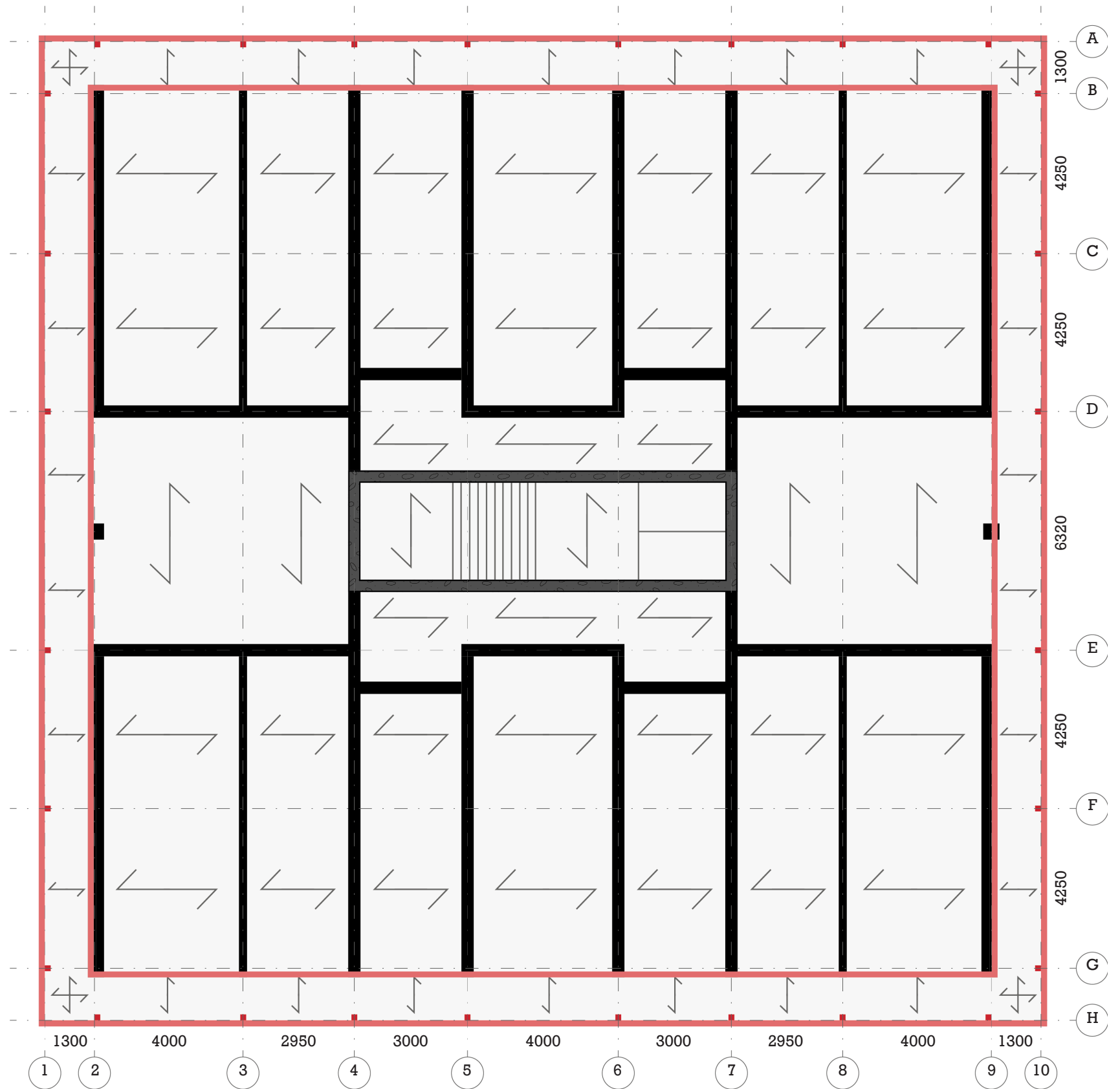
- 1 Natural ventilation
- 2 Warm air output
- 3 Air-water WP for warm water and floor heating
- 4 Ventilation output
- 5 Floor heating
- 6 Shading

# Construction diagram

Diagrammatic section

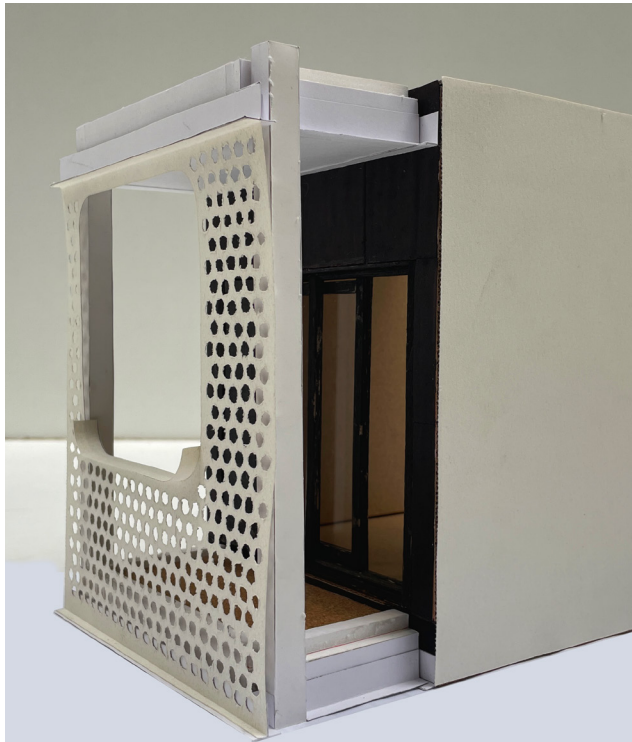


- Concrete
- DLT
- Steel
- DLT load-baring walls
- Concrete load-baring walls
- Steel colomns
- Steel beams

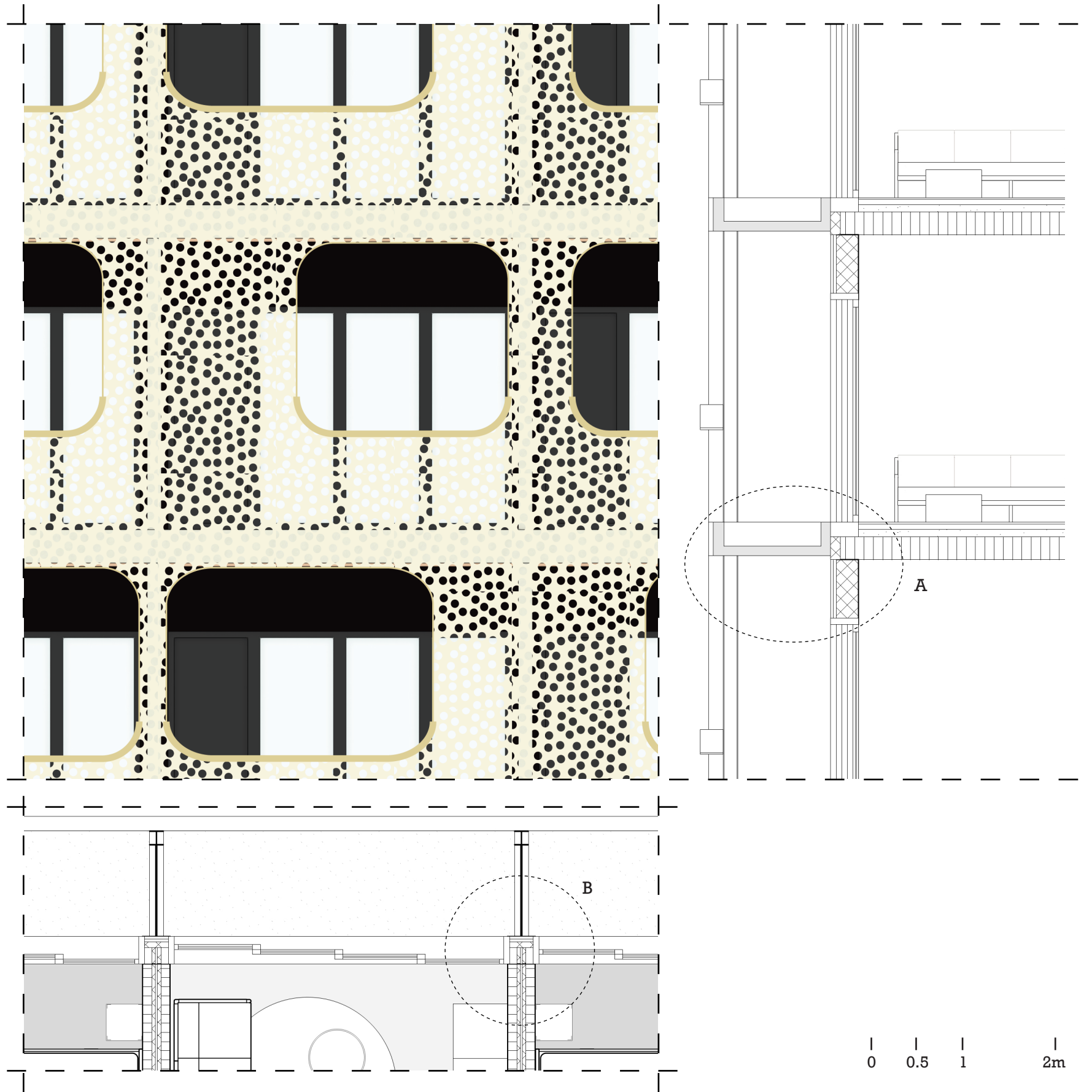




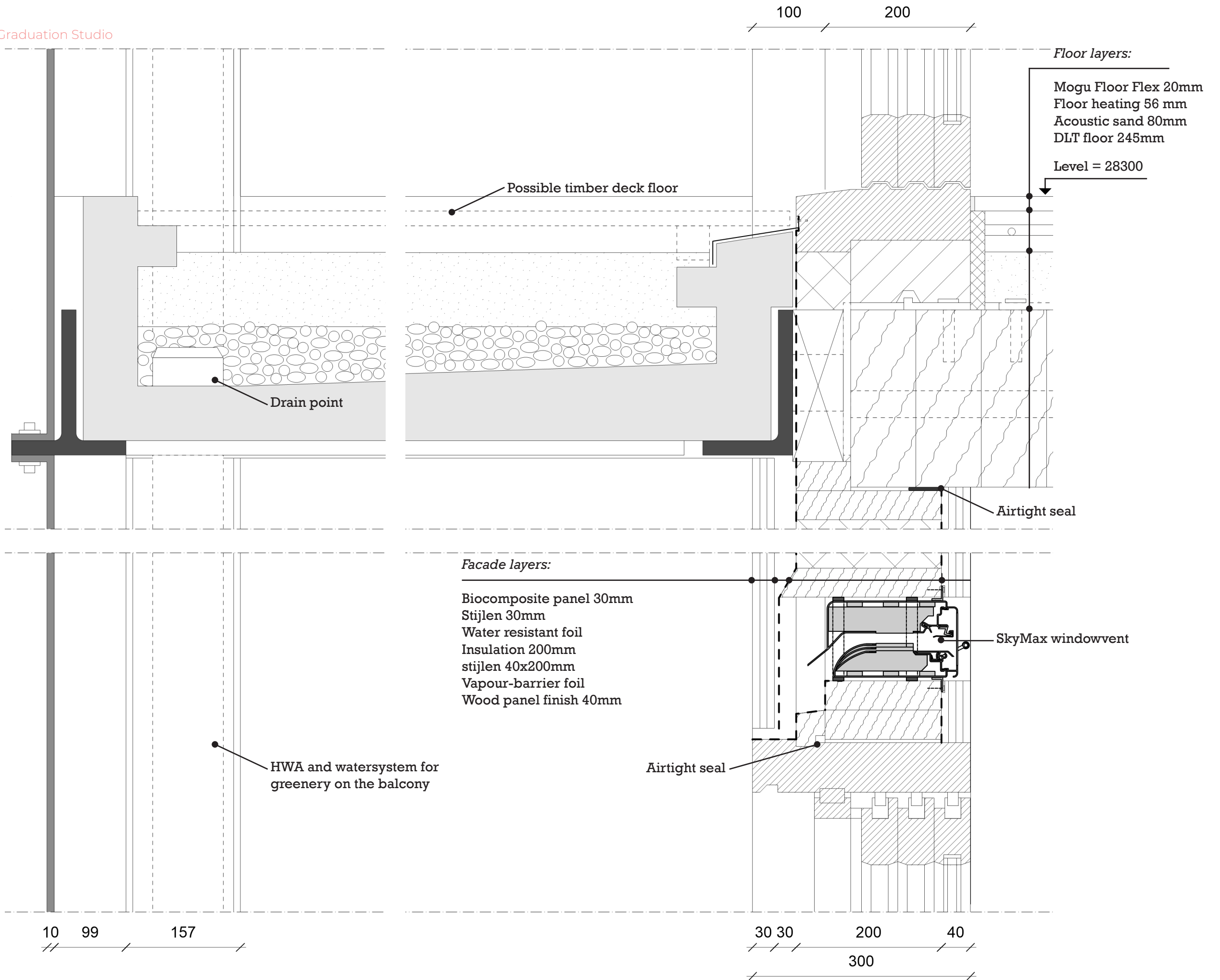
# Facade 1:50



Model 1:20

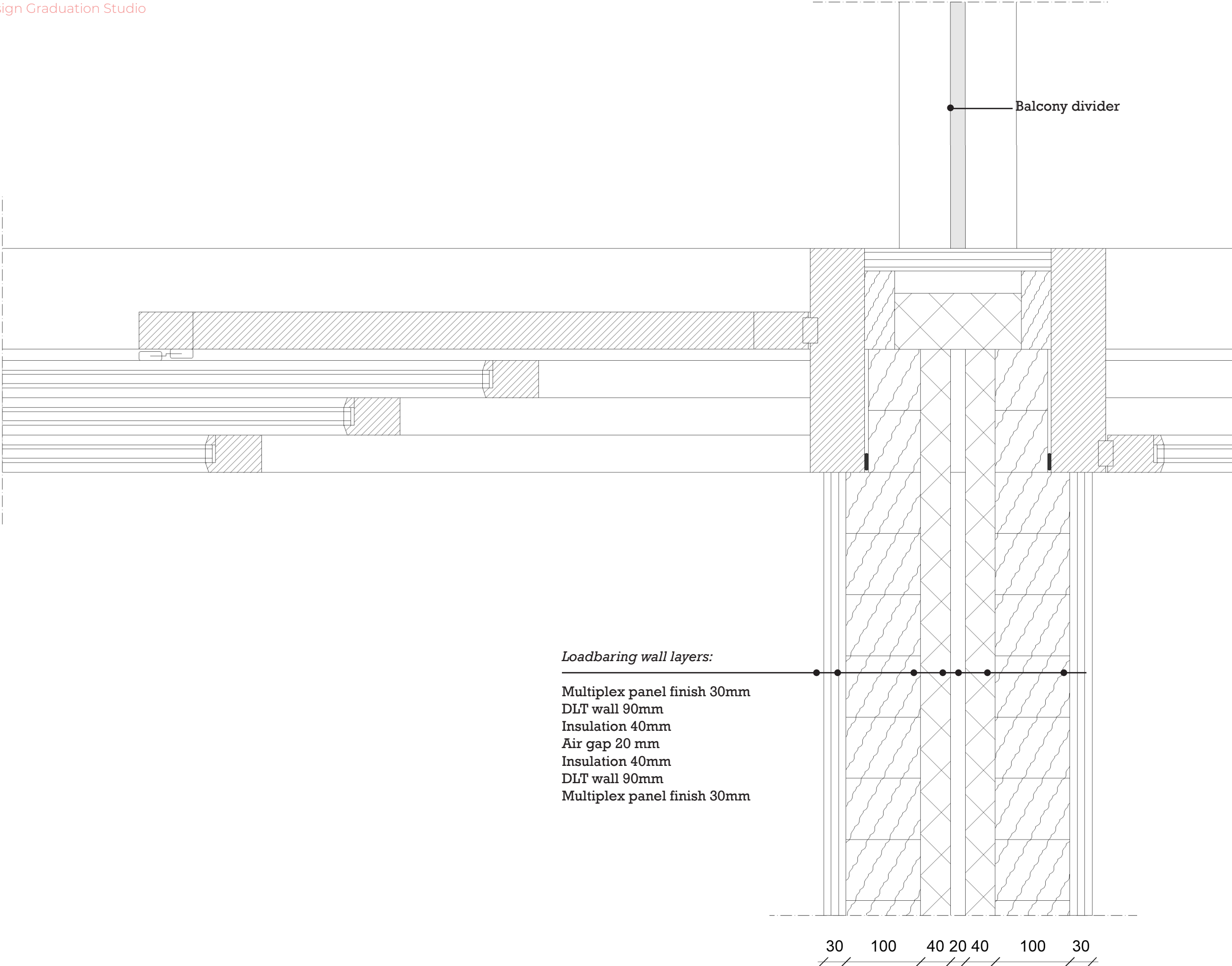


# Detail A



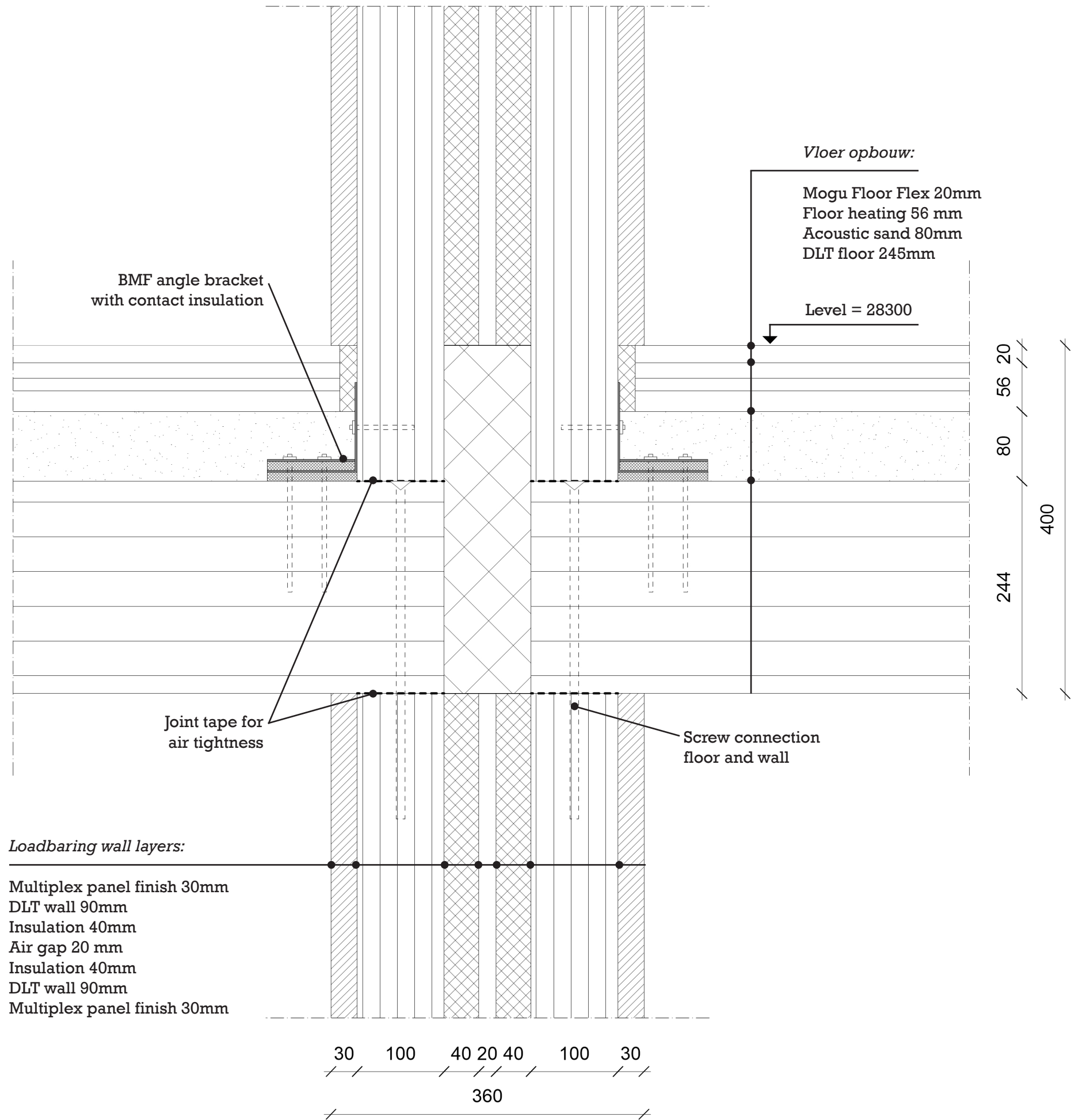
0 0.5 1 2m

# Detail B





# Detail C



0 0.5 1 2m

## II Reflection

### **Where do you situate your project within TU Delft?**

The Advanced Housing Design studio is focused on addressing social and ecological issues through new housing concepts. For my graduation project, I decided to research gender discrimination and the crisis of care related to housing and how a different mode of co-operative housing tenure could be the base for the solution. Housing is an essential part of architecture for me since it connects to how a person is able to live, work and experience life and is interwoven with all aspects of society. The research combines knowledge from architectural practices with academic literature from a feminist perspective on social reproduction and housing. With this approach, my research is situated within the academic scope of my architecture master track and master programme.

### **How are research and design interrelated within your entire graduation project?**

My graduation project started with the problem statement of my research and it quickly led me to an interest in combining housing with workspaces which led me to choose the plot in our masterplan site with an existing building the Homobonus. The building not only spoke to me because of the potential of its site and programme but also of its history. Research into the Homobonus showed that it was built in 1938 and designed by Gerard Holt. It was initiated by an association of retail traders who could not go up against large-scale department stores alone and it felt right to continue my project here with my co-operative housing focus. After deciding

on the location of my project there were two inputs for my design coming from the research insights and the conditions of the site. The goal of my research was to create a housing concept that would be specific to the site of my project. Through the housing concept, I defined design principles that impacted the organisation of the programme within the building, the interaction between the floors in the tower and the layout of the apartments. With my research, I set a lot of the basic conditions for the design in addition to the conditions of the site that determined the placement and programme of the tower. The research and the design of the project happened alongside each other and constantly fed back into each other leading to new and better insights that would lead to new conditions for the project. It took me a while to understand the feminist perspective more comprehensively than when I did at P2. After I finalised my research I had a more solid conclusion and vision for my project and I could use it to make definite design decisions which I could previously not make. The research conclusion helped me to have a basis that I could check all my further design decisions with to make sure I stayed focused on the essence of my project. For the past few weeks, my focus has been more on the architectural expression of my project and I noticed that the input of my research diminished and I focused more on the input from the existing site and building. My research input was defining the shape, layout and order of the spaces and after all those decisions were finalised it no longer played an important part in the decisions of the architectural expression. It was interesting to see how important the input of my research was for the basis of the design. Now that I am

preparing for P4 my research is important again not only to clearly explain in the presentation but also in the narrative of my story and show how I managed to express the vision of my research in my project design.

### **What is the relation between your research method and your gained research insights?**

The goal of my research method is to come to a better understanding of social reproduction issues and feminist architecture theories and turn the insights into principles for a fourth-wave perspective on housing. My research method consists of literature research on social reproduction and historic feminist architecture along with an analysis of three case studies which is mandatory in the studio. A large part of my research is looking into the elaborate literature by Hayden (1982) and Fraser & Jaeggi (2018) on the history of material feminism and social reproduction. Gender discrimination and the struggle with providing care is an old issue well documented since the 19th century and in my research, I reflect on this history in relation to current developments that focus on solving the crisis of care through services instead of better wages, work environments or better housing that suit and supports its users. The use of recent case studies adds insights into current developments in architecture and makes the conclusion in my research more relevant to our current situation with the crisis of care. With my research method, I try to balance the relevant history with the current events to create an understanding as comprehensive as I can achieve in the time that I have.

Personally, I would describe my research process as a valuable learning experience even

though the conclusion is not as scientific as a usual research paper. For me, the value of my research lies in having gained knowledge and a better understanding of feminist theories and perspectives that helped me create a relevant housing concept rooted in a long history of feminist architects. In addition, with this research I developed the skill to be able to develop my own critical perspective on the role of social reproduction in society. This is the kind of knowledge and skill I can take with me into my career as an architect and keep expanding as I continue to learn about it. As the topic of my research concerns the basic principles of what housing should be, I hope that my research can also inspire others to rethink the impact of housing women, households and care systems. I feel that my research can be seen as an example of how historic existing knowledge can be reevaluated with our current developments and zeitgeist. In this case, the material feminist theory and feminist literature on social reproduction are my choices of topics since their relation to architecture was unknown to me. As I share this knowledge with others in and outside the field of architecture I learned that I was not the only one unaware of this connection. Thus my research also has value in helping to bring awareness back to this important aspect of architecture and society.

### **How does your project relate to contemporary societal issues and challenges including the changing role of the architect?**

My project is aimed to see how it could fit into our current society by integrating insights about new family structures, home-work relations and how to make it a feasible project

with co-operative tenure. It assesses the development of the four waves of feminism and how it can translate into a housing concept that addresses the current problem of a crisis of care in a time of financialised neoliberal capitalism. The struggle with providing care is well documented since the 19th century, but currently it is reaching new heights (Fraser & Jaeggi, 2018). By focussing on a housing concept that makes housing affordable and collective, it opens options for households to not only have more time for care but also find ways that suit their lifestyle. This housing concept also gives a possible solution to the issue in the Netherlands of providing care for the growing number of elderly. The organisations providing care at home are already at their maximum capacity and are also experiencing the inconvenience of having to travel from home to home. The politicians call for architects to come up with the solutions to these issues but leave that architects alone can not realise the solutions to our societal issues. Sabine Pollak of Projekt [ro\*sa] is an example of how an architect can initiate the start of a project addressing gender discrimination and social reproduction issues.

**Discuss the ethical issues and dilemmas you may have encountered in doing the research, elaborating the design and the potential applications of the result in practice.**

I think inclusivity is an important topic that is related to ethical issues surrounding feminism and housing. The first wave of feminists achieved great accomplishments in giving women autonomy in a society dominated by men, but they also focused solely on the struggles of white middle-class cis women.

In the current fourth wave, the focus is on including the struggles and experiences of discrimination by people of different genders, races, sexuality, religions and economic backgrounds. With housing, the focus is largely on the economic background of a household and defining in which areas richer or poorer households live resulting in the segregation of demographic groups. My project does not have user groups with a large economic difference, but the co-operative housing examples in Zurich are known to exclude foreigners and people that are not similar to the residents of the co-operative. For my project with co-operative housing tenure, I aim to make the apartments accessible to anyone interested in a co-operative lifestyle. The first step in my project is to separate the families, starters and seniors into household groups but even within these groups, people will have differences. Therefore each group is not larger than 12 households and is small enough to make it manageable for neighbours to find a common understanding of each other's lifestyle and not feel the need to exclude certain people based on not fitting in with their lifestyle.



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