



# SPACES OF POWER

Addressing women's space  
claiming and public space  
participation through  
gender-sensitive design in  
Rotterdam South

# COLOPHON

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# ABSTRACT

Many studies have researched the effects of gender inequality in many different fields. In the field of architecture however, it has proven a struggle to translate the social to the spatial domain. Through a combination of a literature study, interviews and site visits this thesis aims to answer the question “*How can a gender-sensitive spatial design in Rotterdam South stimulate women’s space claiming and public space participation?*”. In part 1, the research shows gender inequality negatively affects women’s space claiming and public space participation. Walking practices, memory and (lack of) control — the three factors in space claiming — are shaped by gender roles, collective experiences of unsafety and street harassment as well as the male hegemony. Public space participation is affected as well: women use the public space in a mobile manner, task-oriented manner or do not use it at all. Female perception of public space is generally more negative and feelings of unsafety are more common. Additionally, women continuously scan their environment, meaning the maintenance and design of the public space are vital to gender-sensitive design.

In Rotterdam South and Bloemhof, the gendered aspects of space claiming and public space participation are clearly present and the outcomes of the literature review are confirmed by the interviews and location analysis. Gender-sensitive design can contribute to a more women-friendly urban environment, empower them to partake more often in the socio-spatial domain, and encourage a sense of social safety, social control as well as encourage the (extended) use of the public space, thus stimulating women’s space claiming and public space participation. The research outcome helped create principles for the design process and other design guidelines, which are provided in chapter four and the attachment *Blueprints for Change*. In part 2, these principles and guidelines are applied to a real context and design, showing the possibilities of gendermainstreaming. This goes to show, spatial designers can now design female *Spaces of Power*.



# FOREWORD

As a woman myself, I have always had an interest in the lived experience of women. Growing up, I saw the important role women hold in communities; from the moms on the school yard, to all the female teachers I had in elementary and high school, to the women volunteering at my sports club. Women were a big part of my life — much more than men — and I grew up emulating their traits and behaviours.

Once I got a bit older, I started to question more and more the gendered aspects of my childhood. Why were there only moms on the school yard to pick up the children? Why were almost all my teachers women, save for the science courses in high school? Why did my sport club — which was only able to run due to all the female volunteers — only have men on the board?

All my life I have been surrounded by these strong female figures, but I also started to see their struggles. Much of the work they did went unnoticed, the mental load was never ending, and their contributions were often taken for granted. They received very little credit or praise, save for maybe once a year a mother's day gift from their child, made in school per the idea of — of course — a female teacher.

What was maybe worse was I started to experience the same struggles: gendered standards, expectations and inequalities that affected my day to day life. Around this time is when I connected to feminists online; they put words to what I was already feeling, made me feel seen and gave where possible tools to deal with sexism. The further I delved into feminist theories, the more I saw the role women play in society and communities. They are an uncredited driving force, made of all these amazing, yet complex women — all with their own stories.

All this unseen work, unseen struggles and these unseen women are my personal motivation. I wish for them to feel seen and heard, and repay them just a bit for the ways they have made my life better without me even realizing. My personal passion can be found in the field of architecture, so this is where I hope to make a change and hopefully make the built environment more woman-friendly.

While an architectural intervention cannot change what is a much larger societal, cultural issue, I hope that with this graduation project I can make women's lives just a little bit better, make just a little progress towards a more equal society and, of course, shine a light on these amazing women that do so much for our communities.



# **PART 1**

## **RESEARCH REPORT**

# ACKNOWLEDGEMENTS

This report was written under the guidance of my first mentor Wing Yung and research mentor Dr. Leo Oorschot. They have helped me set up this graduation thesis and inspired me to continue this topic. They have provided feedback, references, and helped fine-tune my research.

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Finally, I would like to give special thanks to the women in my life. They have been my inspiration and they have been my support. This thesis goes out to you.

# ABOUT THIS REPORT

You are about to read a graduation thesis of the TU Delft Master of Architecture. It was written under guidance of the graduation studio Veldacademie. The Veldacademie studio is a collaborative effort between the TU Delft and the research institute Veldacademie.

The topic was decided upon by the student (the author). Throughout the year, there are several deadlines during the graduation process, the first of which is the P1 deadline — the finalizing of the research plan. The second deadline is the P2 deadline, which concludes the research phase of the graduation process, resulting in an independent report on the chosen topic. P3-P5 will be the design part of the graduation process and will focus on creating an architectural, spatial design, using the information gathered in the research phase.

This version of the report was made for the P2 deadline, which means the research is considered complete, but the design phase has not yet begun. Please keep this in mind while reading the report.

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# INTRODUCTION

*“There is no social control in Rotterdam and that makes it feel unsafe.”*

*“I don’t go out after dark.”*

*“I wouldn’t have felt safe without my boyfriend there.”*

*“I avoid parts of the city because of frequent street harassment.”*

*“I try to walk only where other people are walking, so I am always surrounded by people — just in case you know?”*

*“I avoid a lot of streets [...] Rotterdam is too anonymous and I don’t feel at home in the city.”*

*“Some streets in Rotterdam have very dark patches; I always have to be very conscious of people around me, maybe take my headphones out to listen for footsteps.”*

Upon sharing the topic of my master thesis with the women in my environment and during my interviews these were some of the responses I got; they paint a bleak picture of the current reality in Rotterdam. Women feel unsafe, unwelcome, and uncomfortable; and no woman reading this will be surprised. In Rotterdam South this is especially the case: the report ‘Ruimte voor Meiden op Zuid’ paints a bleak picture of street harassment, social unsafety and a general unwelcoming feeling specific to women (Schram et al., 2024). The effects of gender and gendered experiences of the city are ubiquitous and are tied directly to women’s space claiming and public space participation.

The effects of gender on space claiming have been researched previously by Fenster (2005) and Beebeejaun (2017), stating: *“urban planners have created gendered environments that are predominantly suited to the needs of men and the heteronormative family.”* (Beebeejaun, 2017, p.323). The same is true for public space participation as this is shaped by gendered use and perception. As a consequence of gender, women claim space and participate in the public space to a lesser degree than their male counterparts, inhibiting their (social) mobility, harming their general quality of life and restricting their rights to the city.

While there have been some studies on the effects of gender on the experience and use of the built environment, few have been able to bridge the gap between the social spheres of gender and the spatial, practical sphere of the built environment. This report aims to address that gap and will focus on the effects of gender on women’s space claiming and public space participation and suggest design principles and guidelines for a gender-sensitive design in Rotterdam South or elsewhere. Through the application of these measures, spatial designers will be able to design female Spaces of Power.



# 01

# FOUNDATIONS OF INEQUALITY

## GENDER IN THE BUILT ENVIRONMENT

**The main theme of this thesis is the effects of gender in the built environment. How this topic will be approached is outlined in this chapter in the form of a research plan. The introduction has introduced the problem statement, so the next paragraphs will delve into the research aim and relevance. The theoretical framework will outline the concepts of gender, space claiming, and public space participation. After, the research questions and some definitions will be explained. The sub-chapter methodology will describe the methods used: a literature review, a site analysis and interviews. Finally the scope and the expected output of the thesis — design principles and guidelines — will be discussed.**

### Research aim

The aim of this research is twofold. For one, this research aims to shine a light on the connection between gender inequality and women's use of the public or common built environment. This report will continue to prove

not only the lower degrees of space claiming as a result of gender, but also the harmful effects of gender inequality on women's participation in the public realm — be it spatially or socially. Secondly this research aims to illustrate how design may worsen or — inversely — alleviate the harmful effects of gender inequality and how gender-sensitive design principles or guidelines may be followed to stimulate female space claiming and public space participation.

A literature review will address gendered space claiming and public space participation in a socio-spatial context and build a foundation for the successive fieldwork. Fieldwork will focus on the women of Rotterdam South, their stories, and their socio-spatial needs.

### Relevance

The discussion of gender in the built environment is not a new topic, but a topic where more research is still necessary. Contrary to the belief of some, sexist designs and social standards are still prevalent and deserve a special focus rather than be absorbed in the ambiguous

us terms of diversity and inclusivity or effaced by whataboutism(Beebeejaun, 2017).

Action on all scales and domains of public life is necessary to achieve equality. This report aims to address a gap in the literature concerning gender-sensitive design measures. A limited amount of studies have been done on the translation of the social domain of gender to the spatial expression (like Beebeejaun, 2017 and Kern, 2021) and limited design measures have been offered up as well(like Schram et al., 2024 or nearly 50 years ago Hayden, 1980). However, a (larger) set of design principles and guidelines — especially tied to space claiming and public space participation specifically — seems to still be missing. This report aims to address that gap and provide handholds for gender mainstreaming the design of public space.

## Theoretical framework

### GENDER

Gender describes certain social characteristics based on norms, behaviours and roles predetermined by the predominant societal culture (adapted from World Health Organization, 2024). Gender does not equal biological sex, but biological sex does often lead to the assignment of certain gender roles (World Health Organization, 2024).

In Rotterdam South, the predominant culture adopts a binary system, meaning ones gender is either male or female. However, gender identity is much more complex than this structure would lead one to believe (Beebeejaun, 2017). For one, gender is comprised of social norms and values that are subjected to change, so the binary itself is comprised of fluid definitions. Secondly, gender would be more accurately interpreted as a spectrum; one can still identify as a woman while not performing femininity to the utmost extent. Finally, there are some whose gender identity lies outside of the Western gender binary and wish to occupy a separate space.

However, while gender(identity) is a social construct, it still affects the everyday life. This thesis is aimed at researching gendered effects

within the Western binary system, meaning this thesis will adopt the accompanying language; this is not out of agreement with the Western binary system or as a form of symbolic violence, but rather because it is this hegemon that holds the most influence and is most widely accepted in Rotterdam South. When referring to women or men, this thesis refers to those who identify with this gender identity; when referring to biological sex, the term biological woman or biological man will be used.

### SPACE CLAIMING

Space claiming has been a topic of debate in many planning-related professions. Well-known concepts such as Lefebvre's rights to the city, the right to everyday life and inclusive design all refer to (degrees of) space claiming.

Space claiming describes an act of micropolitics in which the right to the urban environment is “mediated in tension with other users of the city”(Beebeejaun, 2017, p.328). The right to the urban environment may include the right to physically inhabit public space, but also includes social ownership such as a sense of belonging; a sense of welcoming produced by space. Space claiming attributes to the perception of safety, security, access and inclusivity and can be perceived as a sense of familiarity (Beebeejaun, 2017; Fenster, 2005; Doff & Snel, 2022). Space claiming is primarily a subconscious act, but, as stated, a contentious one as multiple people or groups may claim the same space by performing temporal actions(Beebeejaun, 2017).

De Certeau describes tactics or body activities performed through the body space (Fenster, 2005) that imbue personal meaning and create a sense of belonging, like walking through an urban environment. Repetitive presence in space stakes a claim, albeit temporarily, on more than just a physical plane as ‘past memories and present emotions’ get entangled with the space (Beebeejaun, 2017; Fenster, 2005). The urban environment is made up of these spatial acts performed by various groups of urban dwellers, collectively reaching an agreement. This claim of urban rights based on

emotional responses can exacerbate bias, prejudice and uphold hierarchies: “The valuing of some social groups over others is maintained through our interactions and access to differentiated spaces of the city” (Beebejaun, 2017, p.325; supported by Fenster, 2005).

To summarize, space claiming is not merely spatial, it is — maybe more so — a social process of ‘belonging’. For the purposes of this study, going forward space claiming will be used interchangeably with a sense of belonging, familiarity, and feelings of ownership. Moreover, when discussing degrees of space claiming in relation to women, a higher degree of space claiming would be considered a positive as this expresses they feel a sense of belonging and feel involved in their communities (Fenster, 2005). The inverse, low degrees of space claiming, is seen as negative since this means women do not feel personally involved in their environment and generally feel ‘out of place’. For the purposes of this research, there will be a focus on *space claiming of the public space*.

## **PUBLIC (SPACE) PARTICIPATION**

Closely related to space claiming of the public space is public space participation, meaning participation in the enjoyment of the public space. Per the definition of UN-Habitat (2018), public space consists of all places that are used or owned publicly without a profit motive and are accessible to all. This may include any spatial configuration within four typologies: streets, open public spaces, public facilities and markets (UN-Habitat, 2018). This definition includes amongst others public amenities, like squares, public toilets or community centres; open amenities, like parks or squares; but also edge spaces, like sidewalks or roadsides. To further narrow down the definition of public space, immaterial public facilities and commercial space are excluded, as well as the private domain (private instances, dwellings or amenities).

The UN-Habitat report continues: “Public space as a common good is the key enabler for the fulfilment of human rights, empowering women and providing opportunities for youth”

(UN-Habitat, 2018, p.3). Public space is an important part of everyday life and to participate in it and to what degree of enjoyment is a large factor in quality of life. Participation in the public space includes active acts of use (i.e. recreation, exploitation) as well as passive (i.e. passing through, transport). It may also include engaging in the community like neighbourhood barbecues, holiday festivities and more. Public space participation in this report will refer to making either passive or active use of the public space or public amenities as well as partaking in community related activities or acts.

In this thesis I hypothesize that gender-sensitive design can increase women’s public space participation and increase degrees of space claiming. An architectural intervention may increase the general quality of life, the social cohesion and the involvement of women in the neighbourhood.

## **Research question**

With the research aim and the theoretical framework in mind, the research question goes as follows:

**“How can a gender-sensitive spatial design in Rotterdam South stimulate women’s space claiming and public space participation?”**

In order to answer this question several sub questions and the following report structure have been constructed.

### **Chapter 1 (current)- Foundations of Inequality: gender in the built environment**

- How can gender-sensitive spatial design in relation to gendered space claiming and public space participation be researched?

### **Chapter 2- Room of her Own: gendered space claims and public space participation**

- How is space claiming gendered in relation to the built environment?
- How is public space participation gendered in relation to the built environment?

### Chapter 3- Bridging the Gender Gap: connecting Gender and Rotterdam South's Bloemhof

- What is the current demographic, spatial and social situation in Bloemhof?
- How do women in Rotterdam (South) experience gendered space claims and public space participation?
- How do gendered experiences display in Bloemhof?

### Chapter 4- Claiming the Commons: principles of gender-sensitive design

- What gender-sensitive design principles or guidelines simulate women's space claiming and public space participation?

#### Attachment 1- Women in Rotterdam South: interview summaries

#### Attachment 2- Blueprints for Change: guidelines for a gender-sensitive built environment

## Definitions

The following concepts and terms will be used throughout the thesis and will be considered existing knowledge moving forward.

### GENDER MAINSTREAMING

Gender mainstreaming is a term used to describe measures for ensuring gender equality. It refers to establishing any action or policy in such a way that different genders are accounted for equally. (Oxford Reference, n.d.)

### DIVERSITY

Per the definition of the Oxford dictionary: "Diversity is intended to suggest ranges of multiple differences" (Oxford Reference, n.d.). Diversity refers to who is represented or who is present. It can refer to a variety of personal characteristics like gender, age, ethnicity, sexuality, neurodivergence or physical ability to name a few. A group of people may be diverse in one way and be homogenous in a different way, for example: a group of people can be diverse in ethnicity, but not in sexuality if every one of these people is heterosexual.

## INTERSECTIONALITY

Intersectionality is a concept first coined by the scholar Kimberlé Crenshaw, who said: "Intersectionality is a lens through which you can see where power comes and collides, where it locks and intersects. It is the acknowledgement that everyone has their own unique experiences of discrimination and privilege." (Columbia Law School. 2017).

The concept of intersectionality is a continuation of the concept of the *Matrix of domination* coined by Patricia Collins in 1989 (Blackfeminisms. 2019). Collins describes four domains (structural, disciplinary, hegemonic and interpersonal) and how they can relate to power structures, like how for example a man generally holds more power and has more advantages than a woman (Blackfeminisms. 2019). Crenshaw added a different dimension to this concept, as power structures are not binary, it 'locks and intersects'. There are different spheres of inequality: while a man holds more power than a woman, a white woman holds more power than a black woman; meaning that the black woman is not just disadvantaged because of gender, but also because of race. Recognizing these interlocking spheres of inequality is intersectionality (see figure 1.1).

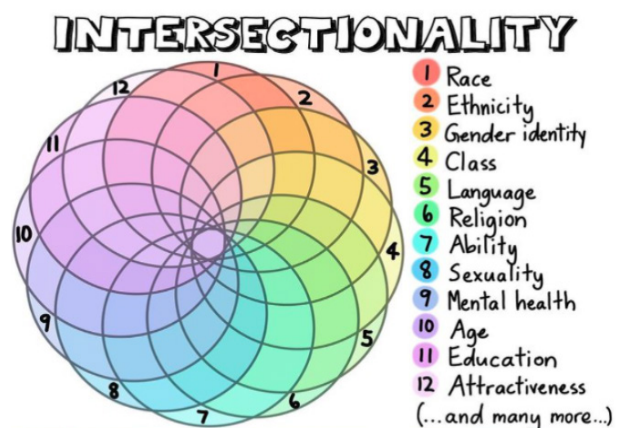
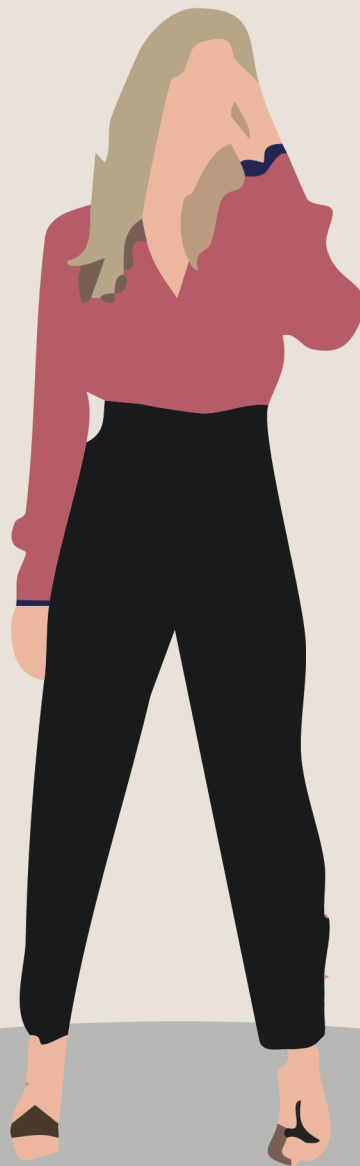


Figure 1.1: A visualisation of intersectionality (adapted from Duckworth, n.d.)

### THE WOMEN OF ROTTERDAM SOUTH OR BLOEMHOF

Throughout this thesis, the phrasing 'women of Rotterdam South' or 'Zuid' will appear as a nomen for the group of women at the centre of this research. Adversely, the women of

How can a gender-sensitive spatial design in Rotterdam South stimulate women's space claiming and public space participation?



Rotterdam South cannot be defined by a single profile. While they may be demarcated by their gender and their place of living (further narrowed down in the subchapter *Scope*), they are a diverse group of women: each of them is different, with her own stories and experiences. The women of Rotterdam South do not have a single identity. Rather, living in Rotterdam South is merely a part of their identity. For the purposes of this research this diverse group of women is captured under one expression, but it is important to see this group of study through an intersectional lens.

## Methodology

Throughout the research, several research methods were applied in a ‘research for design’ approach (See figure 1.1). For chapter 2, *Room of her own*, a literature review was conducted. This literature review forms a theoretical basis on the topic of gender in relation to space claiming and public space participation in the built environment. It adds to the contextual framework and further expands on the problem field.

In the following chapter, *Bridging the Gap*, a fieldwork approach was used to connect the theory to the site of Rotterdam South, specifically the neighbourhood Bloemhof, and

its inhabitants. A series of semi-structured interviews was conducted with female community representatives (similar to a case study); one is compiling a database of projects made by female designers (Brunschoot, 2024), one works for a participation initiative aimed at girls (Clous, 2024), another interview is with a parent council of a community of mothers (*Mama’s Garden*, 2024) and finally the ‘*Stadsma-rinier*’ of Bloemhof has also been interviewed (Riemersma, 2025). It was the hope that by interviewing selected women as spokespeople for a larger following, a larger collection of profiles could be enveloped in the study. The interviews were semi-structured and had a person-based approach, aimed at qualitative rather than quantitative data collection. The interviews were summarized (see attachment ‘*Women in Rotterdam South: interview summaries*’) and the gathered information was individually and collectively compared to the literature, and linked to the theoretical framework so that it could be translated to guidelines in the final chapter.

In addition to the interviews, a site in Bloemhof was analysed through site visits as a form of mapping. Throughout a longer stay at the designated site, the passersby and users were mapped; including the behaviours and presences that were visible, but also those that were

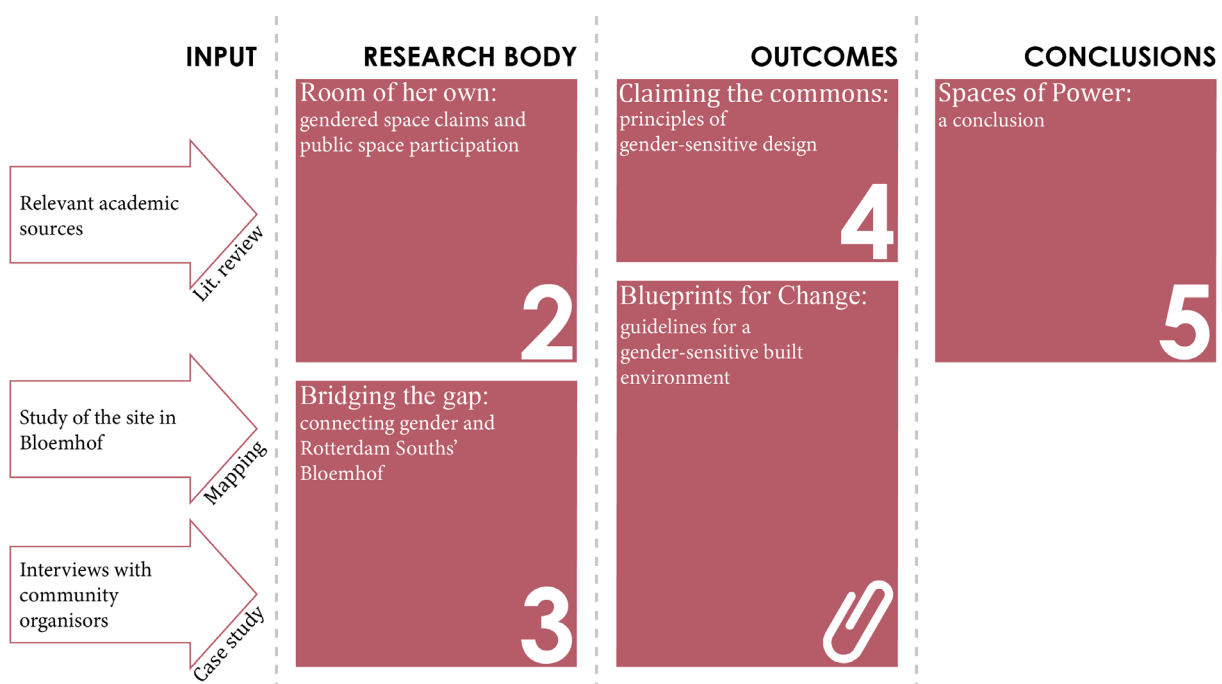


Figure 1.2: Methodology and structure of the thesis

not visible. The observations are transcribed in chapter 3 and preliminary conclusions are drawn.

Chapter 2 and 3 comprise the building blocks that were used to create Chapter 4, Claiming the Commons, which outlines the most important design principles and guidelines. The attachment ‘Blueprints for Change: guidelines for a gender-sensitive built environment’ is the full collection including description of all the principles and guidelines collected throughout the study. These principles and guidelines shape the elements and boundaries with which a gender-sensitive design may be created. Chapter 5, Spaces of Power, concludes the study, discusses the results and reflects on the research process and methodology.

## Scope

The literature study in *Room of her Own* is a review of current academic sources on the topic of gender and public space participation or space claiming. Keywords used in the search for academic sources include variations between *gender(ed)*, *women*, *inequality*, *public space*, *participation*, *space claiming*, *gender-sensitive*, *belonging*, *right to the city*, *design*, *urban*, and *Rotterdam*. Few sources were found that were applicable to Rotterdam specifically so this keyword was dropped and more generalised sources were used.

For the third chapter, Bridging the Gap, interviews were conducted with women who are active in their community. This community may include Rotterdam or one of Souths’ specific neighbourhoods. The interviewees may be women of all walks of life, including any age group and any social group as long as they work for or volunteer at an initiative aimed at or focussed on women. These women or rather initiatives were gathered through word of mouth, by visiting feminist events or by searching the web. As explained previously, women are those who identify with this gender identity. Possible interviewees that do not fit these criteria will be rejected from the pool.

Spatially, the thesis is focussed on Rotterdam

South — specifically Bloemhof — with the exception of the literature review, which is aimed at a more generalised theoretical background such as the urban scale or the wider design landscape. Included in the term Rotterdam South are the neighbourhoods *Feijenoord*, *Afrikaanderwijk*, *Hillesluis*, *Tarwewijk*, *Bloemhof* and *Oud-Charlois*. In *Bridging the Gap*, the scale is narrowed to a site in Bloemhof, specifically the street *Putse Bocht* and the *Violiersplein*.

Finally, it should be noted that this thesis is written from the perspective of the field of architecture and the built environment. It is geared towards creating a set of guidelines meant for a building design and is thus aimed at the spatial dimension. Whereas this thesis sometimes overlaps with the field of sociology or even cultural anthropology, it was not made with this specific outset in mind.

Keep in mind also, the goal of this thesis is to form the basis for a graduation project, which means that the study is conducted in a short timeframe and geared towards an eventual building design.

## Output

In chapter 4, Claiming the Commons, the research part of the ‘research for design’ approach is concluded in the form of gender-sensitive design principles and guidelines i.e. handholds for gender mainstreaming spatial design. These principles are a translation of the information gathered in chapter 2 and 3 to the spatial dimension and include principles for the design process, design guidelines, programmatic guidelines, a recommended site, and recommended building type. They may be specific to Rotterdam South or the site in Bloemhof considering the targeted interview groups, or they may be applicable to a wider range of projects. These design principles and guidelines become the elements with which a final, gender-sensitive public space design may be created.



# 02

## ROOM OF HER OWN

### GENDERED SPACE CLAIMS AND PUBLIC SPACE PARTICIPATION

**This chapter goes to show women exhibit lower degrees of space claiming and public space participation than their male counterparts. They are less like to experience feelings of belonging and in general spend less time outside of their home and workplace, especially after dark. At the base of this occurrence lie gendered effects. This chapter delves into the question 'How are space claiming and public space participation gendered?' and reviews literature on the topic.**

#### Space claiming and gender

*How is space claiming gendered in relation to the built environment?*

As explained in the definitions, space claiming refers to a spatial and emotional sense of belonging developed by daily practices. It describes the often subconscious act of staking a claim by physically or emotionally 'owning' a space by for example repetitious walks or a continued presence in the public space. As space claiming in many ways comes forth from

social dimensions such as the hegemonic culture, norms and values, a connection has been proven between the act or sentiment of space claiming and gender.

Fenster(2005) names three main factors that concern degrees of space claiming: walking practices, memory, and power relations and control. As propped up by de Certeau and others in Beebeejaun (2017), walking practices create an 'everyday sense of belonging', but Fenster continues to explain that walking practices are gendered "as women's daily walking routine is usually dictated by their household gendered divisions of roles, e.g. taking care of the children, doing the shopping, working in the vicinity to the home"(Fenster, 2005, p.253). The gendered walking patterns are even more affected by motherhood status (Fenster, 2005; Kern, 2021; Mama's Garden, 2024 ).

Secondly, memory is connected to a sense of belonging; accumulated knowledge and experiences, as well as the 'shared symbolism of a community' may enhance or diminish space

claiming. One's own 'affiliations, beliefs, and ideology' and these memories or — differently put one's own culture and identity — are factors and so are the accompanying cultural gender norms. Fenster(2005) concludes that a sense of belonging is collective, which also encapsulates the collective memory and experiences of women in the public space, which are painted by the likes of (fear of) street harassment (Rijnmond, 2017; Schram et al., 2024; Beebeejaun, 2017), violence against women (Beebeejaun, 2017), gendered 'boundaries' controlled by primarily male 'cultural guards' (i.e. modesty dress codes) (Fenster, 2005; Schram et al., 2024), and the dominant male hegemony and presence (Beebeejaun, 2017; Fenster, 2005; Clous, 2024).

Finally, the dominant culture determines who may easily claim space, making 'belonging' not just a topic of gender, but also of class, race and so forth<sup>1</sup>. Public space has a hegemonic ownership; "The "public" is perceived as the white, middle- or upper-class, heterosexual male domain. [...] women belong to the "private" only." (Fenster, 2005, P.246, supported by Beebeejaun, 2017; Brunschot, 2024). Because of the cultural-symbolic power relations and male control, women (or other 'weaker' and minority groups) are relegated to other, often lower quality spaces: "this is because cultural construction of space has inherent in its symbolism the legitimacy to exclude women from power and influence" (Fenster, 2005, p.245, supported by Beebeejaun, 2017). It is noted that the exclusion of women in public space is present in most cultures (albeit to varying degrees) (Fenster, 2005) and upheld by the continued western gender binary (Beebeejaun, 2017), thereby decreasing women's accumulated knowledge, experiences, and finally memory — decreasing their sense of belonging and space claiming.

## Public space participation and gender

*How is public space participation gendered in relation to the built environment?*

As mentioned previously, participation in the public space envelops passive and active acts of use. When researching gender and public space participation, however, gendered use is not the only factor to take into account. Directly affecting the use and thus the public space participation is the gendered perception of the public space, brought about by spatial (environmental) factors, societal factors and personal factors. As the scope of this report is the dimension of the built environment, in the next subchapters gendered use and the gendered perception of spatial factors is discussed.

### GENDERED USE OF THE PUBLIC SPACE

How different genders make use of the public space tends to differ. According to various studies, it has been hard to pinpoint exactly what women use public space for and what their corresponding needs are, but some studies like Schram et al. (2024) provide some insight.

Women use the public space as a medium rather than a separate space with its own identity: the public space is how they move from A to B. It is the space they travel through more than the space they inhabit. A few studies seem to subscribe to this idea: women use the public space while mobile. Women have a goal or reason to enter the public space, whereas men sometimes use to space without deeper intention but rather to just 'hang out' or have chance interactions. Women set a task or tie their existence in public space to daily responsibilities e.g. going grocery shopping, travelling to work. One exception applies, younger women or girls do sometimes enter the public space

<sup>1</sup> Through the lens of intersectionality and related to the topic of memory as well as power relations and control, it should be noted that the collective sense of belonging is also strongly affected by citizenship and immigration background; 'belonging' is often ambivalent to immigrants as their 'chain history' of familial and childhood memories was broken. Sense of belonging to immigrants is often coupled to their ethnic food and spices instead. (Fenster, 2005)

with the goal of interaction — though amongst themselves or in a passing manner — rather than in the static, chance way men and boys do. (Schram et al., 2024)

Additionally Schram et al. (2024) continues that women use the public space as a way to destress. Many of these destressing activities are continuing on the theme of women using the public space as a medium of mobility (i.e. walking through a park or greenspace, going for a run). Since women and girls are mobile in their use of the public space, they can be hard to track or study, but generally it can be said that women use public space less or in a less extended manner and gender is the underlying cause.

## **FEMALE PERCEPTION OF THE PUBLIC SPACE**

Research has shown that women are more likely than men to let perception of a space dictate their judgement of the environment. Generally speaking, women are more likely to judge their environment negatively, and are also more likely to have negative experiences than men (Schram et al., 2024). Negative perception results in women decreasing their presence and participation in public space or their refusal to participate at all (Fenster, 2005). Referring to the subchapter 'Space claiming and gender', women's lack of (extended) public space participation can very well be explained by gendered feelings of unsafety, danger and unwelcoming. In interviews and research done by, amongst others, Chicks and the City (Brunschot, 2024), 'I try not to go outside after dark' is often heard; the perception of the public space is generally negative.

In addition to societal and personal factors, perception is shaped by spatial characteristics (Schram et al., 2024). Chaney et al. (2023) has shown that women study their environment more than men: men look towards the centre of their field of vision and the direction they are walking, while women continuously scan the periphery and their environment. Designing women's peripheral environment is thereby vital for a positive perception.

Studies have shown that women take note of things such as vegetation density, visual focus points, pathway colour and texture (Ma et al. 2023); aesthetic attractiveness like lighting or sightlines and maintenance status like litter or graffiti as well as physical access like obstructing objects or easily accessible exits (Schram et al., 2024). Women and girls prefer sitting areas located near other people that give some (back) cover. This allows them to keep an overview while not being easily spotted themselves. Additionally, women have shown a strong preference to sitting arrangements where there are other seats across from them, as a linear arrangement makes them feel as if they were on display and as if this would invite more unwanted attention from men (Schram et al., 2024).

Women also scan their environment for what could be best described as safety in numbers or 'eyes on the street': surveillance in moderate amounts can increase their sense of safety, while excessive surveillance like large amounts of police or cameras can cause feelings of unsafety. 'Surveilling' service workers, like a store attendant or a gardener are most preferred and most beneficial to feelings of safety (Schram et al., 2024).

While Schram et al. (2024) emphasizes that a positive perception is not just formed by the absence of negative experiences, but also the presence of positive ones, feelings of safety are vital to perceiving a space positively especially for women. While societal and cultural issues remain at the base of gendered perception, female public space participation may increase by designing the spatial characteristics for the way women perceive a space (Schram et al., 2024; Ma et al., 2023).



# 03

## BRIDGING THE GAP

### CONNECTING GENDER AND ROTTERDAM SOUTHS' BLOEMHOF

**In this chapter the project site is introduced and a connection is made between the theory and Rotterdam (South). This chapter holds the outcomes of the interviews and the site mapping.**

#### Rotterdam Bloemhof: General background

*What is the current demographic, spatial and social situation in Bloemhof?*

Bloemhof is a pre-war neighbourhood in the South of Rotterdam. It consists primarily of high-density, but low-quality housing that needs to be replaced in the next years (Gemeente Rotterdam, 2024). Many dwellings are either small family homes or portico houses (Gemeente Rotterdam, 2024), were built around 1900-1925, and the majority (59%) are owned by housing corporations (AlleCijfers.nl, 2024).

The Bloemhof neighbourhood profile shows that both objectively and subjectively the neighbourhood underperforms when looking

at participation, self-sufficiency as well as the general experience of safety (Gemeente Rotterdam, 2024). It is not unreasonable to assume these negative effects disproportionately affect women. Looking at the inhabitants, Bloemhof is known for its diversity of people — many (descendants of) migrant workers — with about 150 different nationalities and about 80% non-native inhabitants (Gemeente Rotterdam, 2024). Large groups of people are of Turkish, Moroccan, Antillean or Surinam descent (AlleCijfers.nl, 2024). Compared to the rest of Rotterdam, the inhabitants in Bloemhof are slightly older and there are slightly more single parents (Gemeente Rotterdam, 2024). Many are of low (44%) or of medium-high (39%) education level, and many have a low income (AlleCijfers.nl, 2024; Gemeente Rotterdam, 2024).

While there is no information to be found on gendered effects in specifically Bloemhof, the report 'Women's emancipation: Next Level' paints a picture of Rotterdam in its entirety (Koendjibiharie, 2020). Like the other neighbourhood profile and through the lens of

intersectionality, it is reasonable to believe that the following gendered effects disproportionately affect women in Bloemhof compared to the rest of Rotterdam (low-income, lower-education, immigration background). For starters, women in Rotterdam are less likely to be financially independent than women in the rest of the Netherlands; they earn less than men and hold fewer top-positions in their fields. Women in Rotterdam do over half of the child care and rearing (67%) and women with children are more likely to have zero income. Women are more likely to combine formal education with a (part-time) job, but after graduation are more likely to not find a job or become incapacitated for work. The report concludes with the statement that women are experiencing a “lack of inclusive organisational cultures”. (Koendjibiharie, 2020)

## Gendered space claiming and public space participation in Rotterdam South

*How do women in Rotterdam (South) experience gendered space claims and public space participation?*

From the interviews a general idea can be formed of gendered space claiming and public space participation in Rotterdam South.

### SPACE CLAIMING IN ROTTERDAM (SOUTH)

Something that stood out during the interviews was evident from the subtext and the general understanding amongst the women: Rotterdam is a city of men. Going beyond that, the field of spatial design is one of men as well —both present and past— as women were for a long time not allowed to work in the field (Brunschoot, 2024). The first interviewee expresses that the city and its set-up is too big to feel a sense of belonging: the wide streets and large buildings lack human scale and offer no feelings of social control (Brunschoot, 2024).

The group of moms (Mama’s Garden, 2024) that were interviewed, felt more connected to their

neighbourhoods, evident also from the appreciative tone in their voices. They walk through their neighbourhoods regularly and consider them their home. Some mentioned they felt especially connected to their local parks (Zuiderpark) and the library. It seems that moms are more easily able to claim space as their children give them a reason to go out and submerge themselves in the public space. This, however, comes with a caveat: this is only true during daylight hours. After dark the women feel very unsafe and the spaces they frequented during the day are places they now avoid (Mama’s Garden, 2024).

The women in the other interviews echoed the same sentiment (Brunschoot, 2024; Clous, 2024). Many young girls are scared to go out at night and avoid doing so unless necessary: when men or boys are the dominant group present, they are intimidated (Clous, 2024; Schram et al., 2024). The importance of female-only spaces is highlighted, since the domineering presence of men is driving off women and girls especially (Clous, 2024; Riemersma, 2025). Girls in particular are a more vulnerable group when it comes to space claiming: they do not remain in the public space longer than necessary for their travel from A to B and thus lay no claims (Riemersma, 2025).

To summarize, the interviews go to show that space claiming is not merely tied to gender but also tied to the day-night cycle. Additionally, some groups of women can more easily claim space than others. Value is found also in the presence of female-only spaces, as domineering male presence prevents women and especially young girls from claiming space (especially after dark).

### PUBLIC SPACE PARTICIPATION IN ROTTERDAM (SOUTH)

As the theory demonstrated, female use of the public space is mobile (Schram et al., 2024), which appears to ring true in Rotterdam South still. Most all of the women who have been interviewed expressed they usually walk around the (outdoor) public space, only sometimes stopping at a playground or to have a chat with

someone from their social group(Clous, 2024; Mama's Garden, 2024). Women's use of the public space plummets after dark as many feel too unsafe to still participate (Brunschot, 2024, Clous, 2024; Mama's Garden, 2024).

Many women use the public space to travel from A to B, but the use of transit is also where obstacles lie e.g. metro stations are often inaccessible primarily to mothers with kids or pram (or those with mobility aid)(Mama's Garden, 2024). For each woman participation or use is centred around different goals, like childcare but also social outings or culture related recreation(Clous, 2024; Mama's Garden, 2024).

While the women each have a different perception of the neighbourhoods in Rotterdam South during the day (some favourable, some less favourable), they agree that after dark they perceive the neighbourhoods as negative (Brunschot, 2024; Clous, 2024; Mama's Garden, 2024), some even naming they are continuously scanning the environment for threats (Brunschot, 2024; Mama's Garden, 2024). This perception is partly in response to the reputa-

tion of Rotterdam South — creating a vicious cycle — though one remarks: “all the bad things you see and hear in the news are happening, but it is not the only side of these neighbourhoods. There are many good things to be found like for example the close knit community”(paraphrasing, Mama's Garden, 2024). This woman grew up in Bloemhof and always felt at home and safe as she knew everyone and everyone knew her: people looked after each other (Mama's Garden, 2024).

The generally negative perception and the limited social and physical accessibility of the public space in Rotterdam South make it so that female public space participation is low or at the very least lower than their male counterparts.

## Gender inequality on display

*How do gendered experiences display in Bloemhof?*

In order to get a better idea of the display of gender inequality in Rotterdam South, specifically Bloemhof, a site was selected and some data

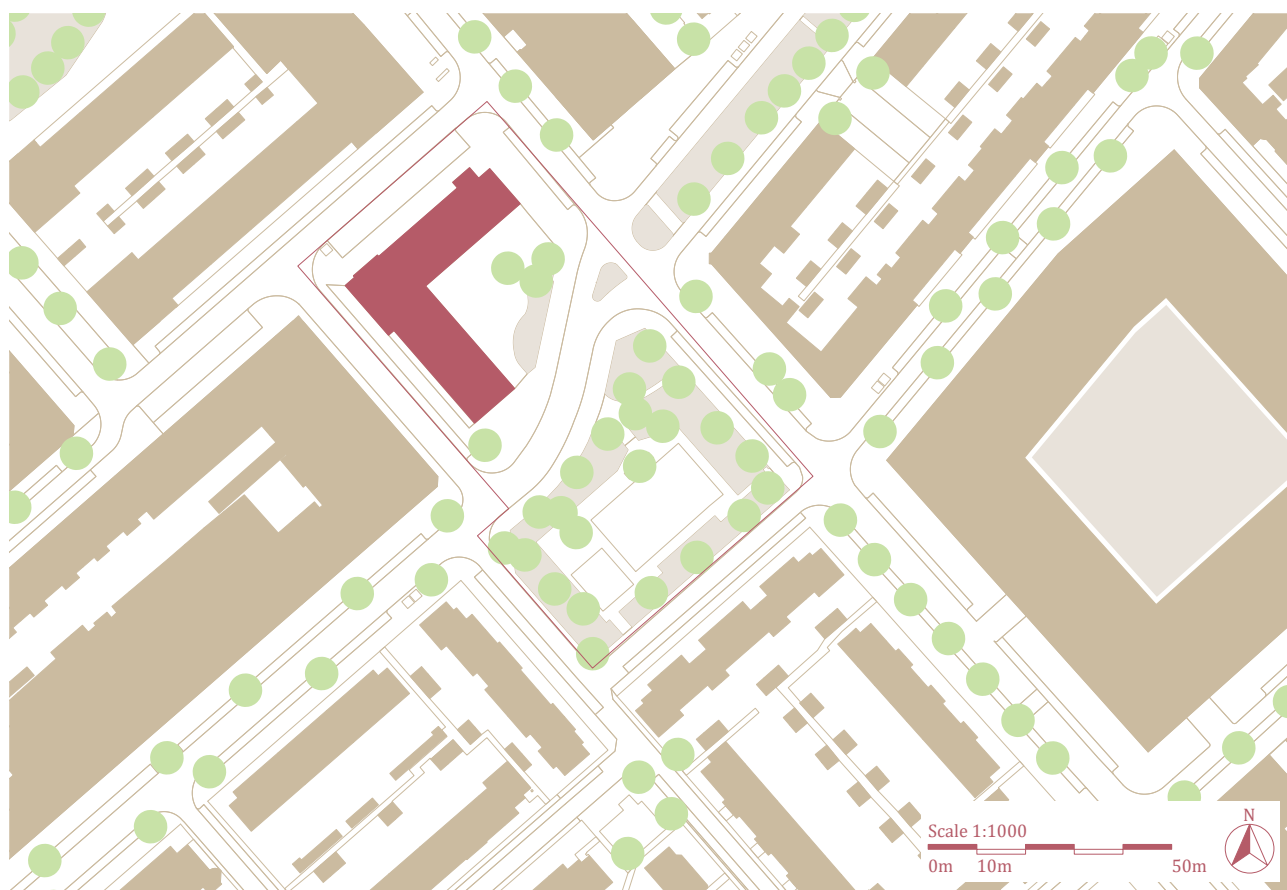


Figure 1.3: The location of analysis, Putsebocht, 1:1000

was gathered. The selected site is an old neighbourhood centre at the Putse Bocht 85 (see figure 1.3). To the front of the site there is a little square with playground and across the street a small 'park' with a playground and soccer field (Violiersplein). A little further down the street are some shops like a bakery and supermarket of different 'nationalities' (some Turkish, some Polish etc.). During two separate site visits at two different times (Monday 16-09-2024 eleven o'clock and Thursday 18-12-2024 two o'clock) information was gathered. While two visits are not enough for representative data, a picture can be painted of the site and some (preliminary) statements can be made.

1. There are way less women on the site than men; the site is male-dominated
 

During both site visits a count was made of all the people entering or passing through the site. While there were significantly more people in the streets during the second site visit, the same was true for both visits: there were twice as many men as women (8/3; 33/17). Notably, the Turkish bakery at the corner drew a lot of male foot traffic as well as the garage next door. The male foot traffic consisted of men of all ages.
2. There are many elements at the site that research has shown are detrimental to female sense of (social) safety; the site is unwelcoming towards women
 

Elements include: graffiti, a sign with rules to prevent nuisance, abandoned furniture, car tires against the façade with weeds, weeds growing in between the tiles as well as green deposit, anti-burglary spikes and anti-public urination plates on the building, uneven sidewalks, too expansive undefined space, closed curtains and windows boarded shut, dark nooks and porticos, little streetlighting, signage broadcasting camera presence, peeling paint, multiple signs damaged by age, male dominated areas like the garage, water nuisance, trash in greenery and on the street

The next chapter and the attachment 'Blue-

*prints for Change: guidelines for a gender-sensitive built environment* will delve deeper into these elements.

3. The women on the street are young adults (est. 20-35)
 

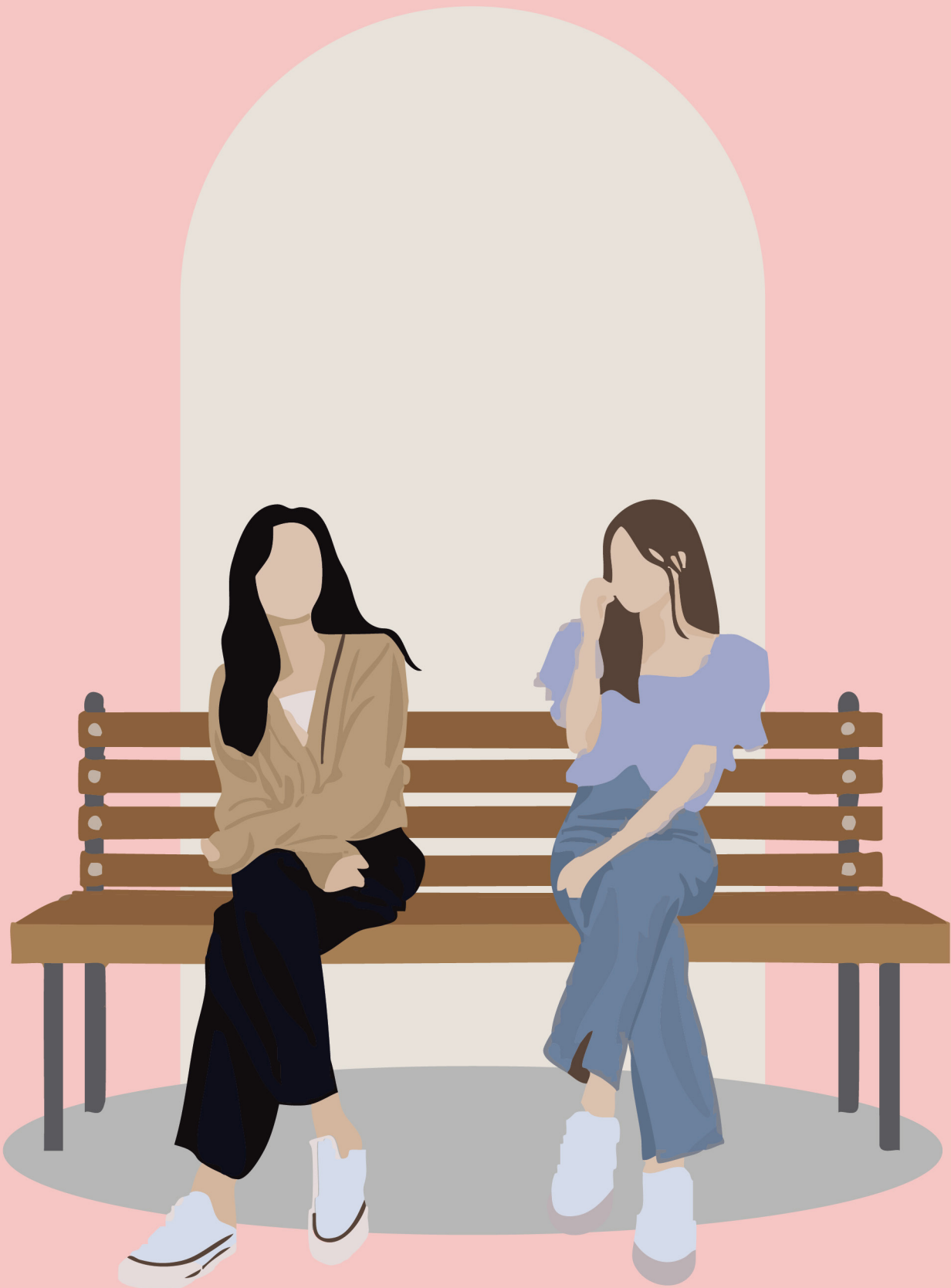
There was only one female age group present on the site, however drawing a conclusion seems overeager as the site visits were during school hours and it is well known that elderly people stay indoors more when it is wintery, cold and wet. There were however fewer young kids on the site than originally expected: there are two playgrounds and a soccer field but during both site visits they were only being used once by a mom and toddler. This was likely also related to the bad weather. Additionally, weather was likely also a factor for the car traffic: the first site visit when it was sunny, there were virtually no cars, but during the rainy second site visit there were many.
4. The shops nearby draw some foot traffic, but not all: the supermarket and the Turkish bakery are important yet gendered community destinations
 

Some shops in the street did not draw any foot traffic during presence at the site, but the Turkish bakery and supermarket did. Surprisingly, there was a clear gender divide: the women went to the supermarket and returned with larger bags of groceries and the men went to the Turkish bakery and left with only some pieces of bread likely for their lunch that day. The gender roles were apparent: the men take care of themselves on the short term and the women take care of their household for the longer term. The overt presence of traditional gender roles in Bloemhof was confirmed by Riemersma (2025): she told an anecdote of how during an evening for community participation most women suddenly left partway through as they had to go home to get started on dinner.
5. There is some social control with the passersby, but no active, constant oversight:

there are not enough 'eyes on the street'

The site was visited twice and to any outsider the author was loitering, taking pictures of buildings, peering through windows and making notes whenever people were passing by. Despite this weird behaviour — clearly resembling the act of casing a building for a burglary — no second glances were spared or comments were made. While part of this is surely white privilege and the author's non-threatening status as a woman, this also signalled that there was no real oversight. Additionally, there were many closed curtains and boarded up windows on the site compounding this feeling.

In terms of gender-sensitive design, there are still many improvements to be made to the site and to Rotterdam South as a whole. The next chapter will expand on the design principles and guidelines to make the site more women-friendly.



# 04

## CLAIMING THE COMMONS

### PRINCIPLES OF GENDER-SENSITIVE DESIGN

In this chapter design principles for a gender-sensitive design will be explained, providing handholds for gender mainstreaming in spatial design. This chapter will be supplemented with the attachment '*Blueprints for Change: guidelines for a gender-sensitive built environment*', where the list of principles and guidelines will be expanded on and illustrated. This chapter will discuss only the most valuable or important lessons learned from the gathered literature and the four conducted interviews (see attachment '*Women in Rotterdam South: interview summaries*') in order to answer the question: "What gender-sensitive design principles or guidelines simulate women's space claiming and public space participation?".

#### Principles for the design process

Before continuing with the design guidelines, first the most important principles for the de-

sign process will be highlighted.

#### DIVERSITY AND INTERSECTIONALITY

Design with a diverse team and beware of designing only for ones personal life style or social group: take into account different backgrounds like religion, culture, (dis)ability etc. (Brunschot, 2024) Keep in mind that women and girls come from various walks of life and how this may affect their use of the public space (i.e. motherhood, degree of conformity with gender norms)(Mama's Garden, 2024; Schram et al., 2024). Be aware also of different coping techniques girls and women use and lean into them, offering them for example sheltered 'hiding places' (Schram et al., 2024). Finally, ensure girls are represented in the design as they are frequently forgotten(Rie-mersma, 2025).

#### PARTICIPATION

Where possible, involve the local women and community in the design process and make sure they know their contribution is valued (Clous, 2024). Let the community help with



Diversity and Intersectionality



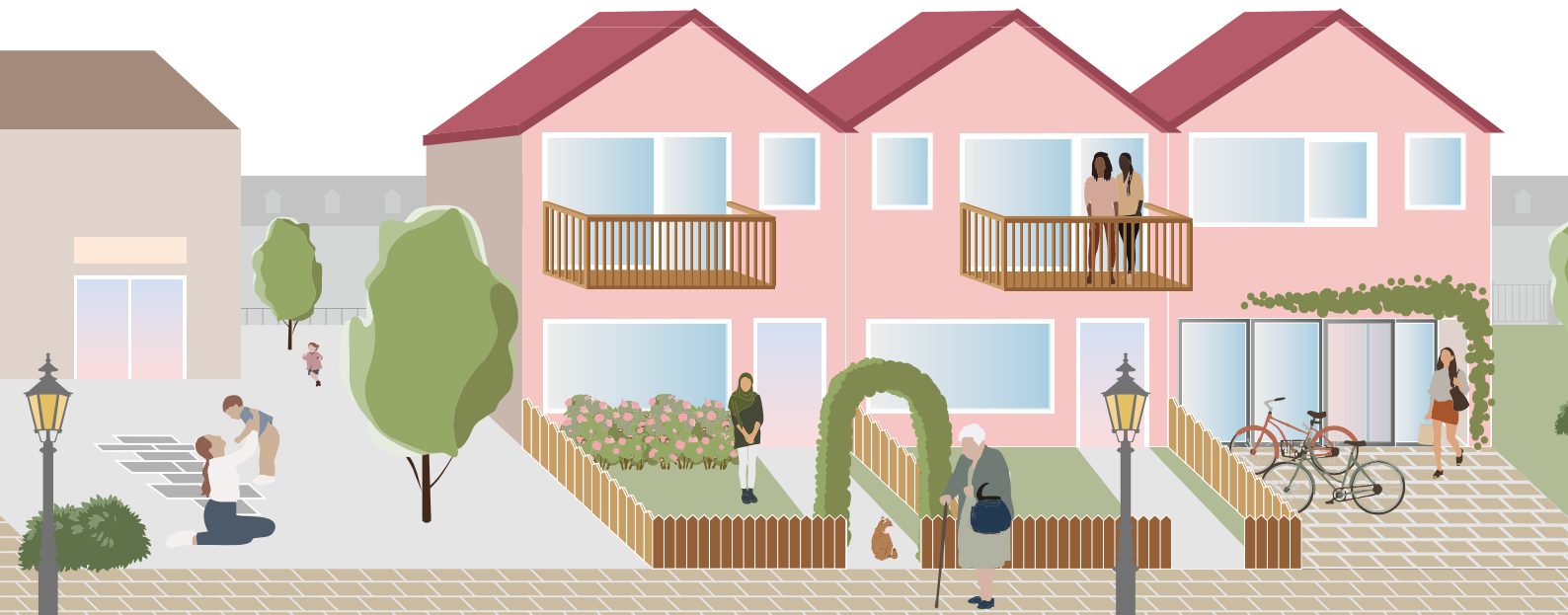
Participation



Maintenance



Support



(small) parts of the realisation and give them responsibility so they feel responsible for the building(Clous, 2024). Allow for longer lead times and invest time in engaging and building lasting relationships with the community: work from reciprocity (Schram et al., 2024). For the scheduling of meetings keep in mind the effect of traditional gender roles on availability(Riemersma, 2025).

## MAINTENANCE

Design for maintenance (e.g. no corners where the vacuum does not fit, windows that open inwards for cleaning). Unruliness and disorderly spaces are detrimental to social safety (Brunschot, 2024), whereas well maintained areas are advantageous(Ma et al., 2023).

## SUPPORT

Support local initiatives either by spatial programming or by involving them in the participation process. Involving local initiatives that are part of the community core or social safety net ensure the building fits the communities needs and will furthermore benefit the building launch. (Mama's Garden, 2024)

## Design guidelines

The design guidelines are boundaries or tools one may use to design for a gender-sensitive project. Some guidelines are recommendations, whereas others are design flaws that designers should avoid. Again, for more expansive guidelines or explanations, consult the attachment 'Blueprints for Change: guidelines for a gender-sensitive built environment'.

## OVERVIEWS

Ensure there is enough overview by including a study of sightlines and visual focus points (Mama's Garden, 2024; Schram et al., 2024; Ma et al., 2023). Include signage and use daylight to help the user navigate (Brunschot, 2024).

## SUPERVISION AND SURVEILLANCE

Design and program the public space for the natural presence of 'eyes on the street'(Brunschot, 2024; Schram et al., 2024), whether formal or informal oversight (Mama's Garden, 2024). Design spatial flows so anonymous crowds can be avoided and design windows aimed at the street or public space (Brunschot, 2024). Designing for overviews increases informal supervision as women are able to see other passersby (Ma et al., 2023).

## LIGHTING

Make sure the public space is well-lit (Brunschot, 2024; Clous, 2024; Schram et al., 2024; Ma et al., 2023). Avoid designing tunnels or other dark passage ways(Brunschot, 2024) and be especially wary of bad lighting in the outdoor environment (Clous, 2024; Mama's Garden, 2024).

## ACCESSIBILITY

Accessibility in terms of gender-sensitive design or design for women primarily involves measures pertaining to social accessibility, but also measures that may affect physical accessibility when mobile or travelling with kids. Ensure multiple entrances and exits and make them obvious, add non-linear seating areas, make sure the public space is compact and



everything is within walking distance (keep in mind, walking distance is relative and may be shorter for mothers for example), and finally, make sure there are no obstacles along the way (social or physical, like no ramps for prams or tiles jutting out) (Schram et al., 2024).

### MEANING

Design for lively, meaningful places or design multifunctional spaces that users themselves can easily imbue with their own meaning (space claiming) (Brunschoot, 2024; Schram et al., 2024). Unclear, vague spaces may invite feelings of social unsafety and instead of stimulating a lively environment become abandoned (Clous, 2024; Schram et al., 2024).

### GREEN SPACES

Green spaces have proven positive psychological effects, but for women the disadvantages may outnumber the advantages as dense greenery may decrease their feelings of social safety (Mama's Garden, 2024; Schram et al., 2024; Ma et al., 2023). Instead, design with moderate vegetation density (transparent and no low hanging branches or tall shrubbery at eyelevel)(Ma et al., 2023), thereby keeping the overview and preventing dark areas (Brunschoot, 2024; Schram et al., 2024).

## Programmatic guidelines

When compiling the program of requirements for a public space, take the following guidelines into consideration.

### DIVERSITY AND INTERSECTIONALITY

Keep in mind different needs that come with different backgrounds (Brunschoot, 2024, Schram et al., 2024) but know that gender is leading in women's experience of space(Riemersma, 2025).

### VARIETY

Program for a variety of activities for a variety of people (Schram et al., 2024) at a variety of times (24hours programming) to increase women's sense of social safety.

### CODE OF CONDUCT

Introduce a code of conduct (or encourage the building owner to) that prohibits alcohol use, drug use or smoking on the premises, as this increases social unsafety and often leads to nuisance. (Schram et al., 2024; Riemersma, 2025)

### FREELY PROGRAMMABLE SPACE

Add superfluous square meters so that users can imbue the space with their own meaning and personally preferred program(Brunschoot, 2024).

### PROGRAMMED SPACE

The public building or space should be clear in use and its function should be established by programmatic elements (Brunschoot, 2024; Schram et al., 2024). This seems contrary to the previous guideline, but the most beneficial outcomes may be found in balancing the two.

### CULTURAL VALUE

Adding a cultural program to the space — be it a market, a workshop space, library or something else entirely — can link a space to women and their communities(Clous, 2024). Tie the cultural program to daily responsibilities or destressing activities to attract women even more (for example a dance space)(Schram et al., 2024).

### PAID VERSUS FREE PROGRAMS

To address both lower income and medium to higher income groups of women, the program should not just be diverse in activities but also in costs. Program for free activities and allow free access to the premises. (Clous, 2024; Mama's Garden, 2024)

### ACCESSIBILITY

Accessibility is important when designing for any (public) space, but especially when designing for women: keep in mind their greater need for privacy and 'hiding spots', needs that come with the physical demands of motherhood, and the effect of gender in combination with religion (e.g. prayer room away from men)(Brunschoot, 2024).



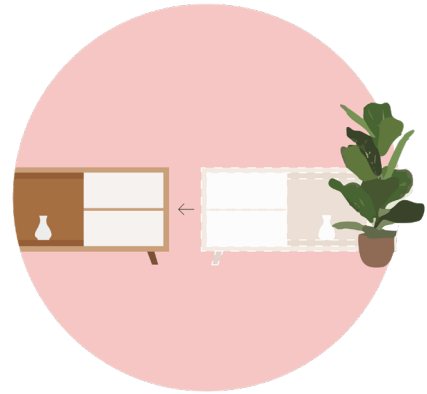
Diversity and Intersectionality



Variety



Code of conduct



Freely programmable space



Programmed space



Cultural value



Paid versus free programs



Accessibility



Building over open space



Semi-public over public or private



Large or multiple smaller ones

## Recommended site

From the literature and interviews some recommendations regarding the project site came forward. While designers often have no choice in site, spatial planners may use these recommendations while designing public space.

Most important, when designing for women, is the set-up of the public space: it should be designed to keep oversight and overview (Brunschoot, 2024; Mama's Garden, 2024; Ma et al., 2023; Schram et al., 2024) and not be too spacious (Brunschoot, 2024; Clous, 2024). Moreover, it should be easily reachable (Clous, 2024; Mama's Garden, 2024; Schram et al., 2024), close to (the target) neighbourhoods in a place with preferably a safe reputation (Schram et al., 2024) and not right beside a park, so women are not obligated to pass through it after dark (Mama's Garden, 2024). Traffic control/ safety is also an important factor for especially mothers with smaller kids and elderly women: separated infrastructure and parking for bikes, scooters etc. will help keep the sidewalks clear of obstacles and dangerous situations (Riemersma, 2025). In the direct environment of the project, it would be preferable if there were amenities women can tie to their daily task and responsibilities (e.g. pharmacy, supermarket, school) and the project is preferably not (located next to) a square as women do not use them but intimidating groups of men do (Riemersma, 2025). Some options for more suitable outdoor spaces for women may be gardens or courtyards. Perhaps unsurprisingly, there was a clear

## Recommended building type

preference in the interviews for the design of a semi-public building. Unsurprisingly, since the research has shown that women prefer spaces with (informal) supervision, overview and areas that are well maintained and lit: public buildings can — as opposed to open public space — easily fit within these wishes. Semi-public, as opposed to public, means that the building is open only to those considered

the target group (those who have a 'reason' to be there), meaning 'dangerous strangers' will be kept out. Suggestions for this semi-public building include a neighbourhood centre, after school care or a neighbourhood kitchen (Mama's Garden, 2024). Additionally, the literature also highlights the value of having wide-spread smaller facilities, as they have a wider reach as well as offer more 'eyes on the street' for social safety (Schram et al., 2024).



# 05

## SPACES OF POWER

### A CONCLUSION

***“How can a gender-sensitive spatial design in Rotterdam South stimulate women’s space claiming and public space participation?”***

Through a combination of a literature study, interviews and site visits it has become clear gender plays a large role in the way the built environment is used and experienced. Gender inequality negatively affects women’s space claiming and public space participation. Walking practices, memory and (lack of) control — the three factors in space claiming — are shaped by gender roles, collective experiences of unsafety and street harassment as well as the male hegemony. Public space participation is affected as well: women use the public space as a medium of mobility tied to their daily responsibilities e.g. grocery shopping, traveling to work. Women need a reason or goal to leave their home. Sometimes this reason is to destress, however, female perception of public space is generally more negative and feelings of unsafety are more present, having the opposite effect. Additionally, women continuously scan

their environment, meaning the maintenance and design of the public space are vital to gendered perception, use and finally public space participation as women may choose to make less use or even avoid the public space all together.

In Rotterdam South and Bloemhof, the effects of gender on space claiming and public space participation are clearly present. For one, the data collected in the Bloemhof neighbourhood profile shows low degrees of social safety, self-sufficiency, and participation. The aspects and effects described in the literature review are confirmed by the interviews and the site analysis. The women mention their feelings of unsafety (especially after dark) and there seems to be a generalized understanding amongst the women that Rotterdam and the public space is for men. The same sentiment is visible at the site: there are twice as many men as women. Additionally there are many spatial aspects and social aspects that make the site women-unfriendly, negatively affecting their space claiming and public space participation.

Gender-sensitive design can contribute to a generally more women-friendly urban environment and empower them to partake more often in the socio-spatial domain. Gender-sensitive design can encourage a sense of social safety, social control as well as encourage the (extended) use of the public space, thus stimulating women's space claiming and public space participation. Through the application of the principles and design guidelines, spatial designers will be able to design female Spaces of Power.

## Discussion

This research report is part of the graduation process of the TU Delft Master of Architecture and was thus created within a short time frame. Due to the shorter time frame, the data sets collected are small (four interviews and two site visits) and while collected with care, may not be representational, especially in relation to the incredibly diverse neighbourhood of Bloemhof. The interviews were conducted with woman of different races, backgrounds, religions, relationship status, parenthood, education level, and likely also income level, but none were for example elderly, meaning there are some gaps. Tied to representation is also the likelihood of the authors personal bias: while the study was conducted with the best intentions and intended integrity, it may still be biased from the viewpoint of the white, native-Dutch, highly educated woman.

Future studies would benefit from a larger group of respondents — especially from different neighbourhoods — as it would be interesting to study the gendered effect per neighbourhood instead of all of Rotterdam or a small site. Additionally, the principles and guidelines are not verified in practice, but may be an interesting subject for the continuation of a similar study. Where the main focus of this study was the spatial principles and guidelines, future studies may also focus on social principles and guidelines.

Finally, it would be remiss to not raise the question of 'how much can gender-sensitive design really achieve?'. As stated in the run-up

to the study, gender inequality is a complex theme and part of a larger socio-cultural problem. While there is definite value in supporting women with spatial design — or at least not compounding the effects of gender — it remains just that: support. By no means will gender-sensitive design principles or gender mainstreaming 'solve' gender inequality, but it may instead contribute just a little towards a shift in thinking and culture.

## Graduation process reflection

Being in the graduation studio Veldacademie has contributed to both personal and professional growth. For one, I learned a lot about conducting fieldwork e.g. how it is hard to conduct an interview without influencing the interviewee as well as how to embed oneself in a pre-existing network. I found that looking for sources and interviewees is more easily done in a face-to-face manner instead of sending emails or any other way of indirect communication.

Moreover, throughout the research process I had to learn how to balance the diverse and sometimes heavy course load. Fieldwork studies are not merely sitting behind a laptop reading and typing, but consist of a lot of different activities (some more relevant than others): I have been to two exhibitions, two talk shows, three presentations, a tour, and have conducted four interviews. Never have I approached a study this way before and structuring my planning accordingly could be challenging at times, especially in the short timespan of two months in which we had to do the entire study. The short timespan also meant I had to manage expectations, primarily my own, as I tend to set very high standards.

While the process was not all roses, I really enjoyed exploring a topic I was already interested in in a thorough manner and meeting all these amazing people along the way. It was certainly baffling sometimes how many of the things described in the literature about gendered behaviour I was 'guilty' of, like safety work, tying my presence in public space to daily tasks, and always scanning the environment similar to

the study by Ma et al. (2023). These realisations came with many funny moments, as well as moments where sometimes the direness of the situation or the sadness of these behaviours really hits you. In many ways this study was not just about the women of Rotterdam South anymore, but also became about me.

I am very grateful for all the women that were with me throughout the process, shared their experiences, were a pillar of support, and a source of continuing inspiration and motivation. Special thanks also go out to those who gave me academic support, like my mentors and the staff from the Veldacademie (see Acknowledgements). With all this support I was able to complete this study and wound up with an outcome I am proud of and which will hopefully live up to the amazing women I have met.



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**WOMEN IN  
ROTTERDAM  
SOUTH**

# WOMEN IN ROTTERDAM SOUTH: INTERVIEW SUMMARIES

## INTERVIEWEE OVERVIEW

Below a short description is given per interviewee, describing their relation to the topic of gender and women in Rotterdam.

### **SOFIE VAN BRUNSCHOT**

#### **GEBOUWEN DOOR VROUWEN**

Sofie van Brunschot is a spatial designer active in public outreach regarding all matters architecture. She has founded the initiative ‘Gebouwen door Vrouwen’ (Buildings by Women); she collects projects designed by female designers and reports on them in a neutral, objective manner. She is putting together a database for these projects in an attempt to shine a spotlight on these women as well as reach a wider audience than just other designers by reporting on these projects in a low-threshold manner (like Instagram and tours).

### **VEERLE CLOUS**

#### **CHICKS AND THE CITY**

Veerle Clous is active as project leader at Chicks and the City, an initiative aimed at girls and their emancipation by the production of media (i.e. podcasts, Instagram or even research reports in cooperation with the municipality). Chicks and the City tackles many topics related to gender — some that are even considered taboo — and offers a space for girls to express themselves, find their passions and develop themselves. Clous herself is active on the topic ‘Street harassment in Rotterdam’ and also working on the Rotterdam theme year ‘50 years of women’s emancipation’.

### **PARENT COUNCIL**

#### **MAMA’S GARDEN**

Mama’s Garden is an initiative in Bloemhof that is aimed at mothers specifically. It is a community, where mothers can find support or just have fun while they navigate parenting or other challenges in their life. The women

can lean on each other and help each other at weekly meetings or join other activities and workshops. The parent council consisted of five mothers: all had multiple young children, some were single parents, and some were still pursuing formal education. These were all mothers from Rotterdam South, some from Bloemhof.

### **NIENKE RIEMERSMA**

#### **‘STADSMARINIER’ BLOEMHOF**

Nienke Riemersma is the ‘Stadsmarinier’ in the neighbourhood Bloemhof; a unique position that functions as the link between the ‘government and street’. She may act of behalf of the municipality of Rotterdam to quickly address problems in the neighbourhood and is able to pass information directly to higher levels of policymakers in order to achieve quick results. Riemersma is deeply embedded in the community in Bloemhof and has been working with the topic of gender in the built environment; researching how to improve the neighbourhood for women.

# WOMEN IN ROTTERDAM SOUTH: INTERVIEW SUMMARIES

## BRUNSCHOT, 2024

On 03-12-2024 I, Desirée Trommelen, conducted an interview with Sofie van Brunschot. Below follows the summary of this interview, per the language in which it was conducted (Dutch).

Sofie van Brunschot is initiatiefnemer van gebouwen door vrouwen: een organisatie die zich richt op het archiveren en in het zonnetje zetten van vrouwelijke architecten of stedenbouwkundige. Het doel hiervan is steeds meer aandacht te vestigen op dit onderwerp, omdat vrouwen nog steeds erg ondervertegenwoordigd zijn in het veld. Sofie schijnt een spotlicht op deze vrouwelijke ontwerpers en is begonnen in Rotterdam.

Ze schrijft op een neutrale, objectieve wijze over de projecten en maakt hiermee een soort database waarmee ze hoopt zoveel mogelijk mensen te bereiken. Er is al redelijk wat academisch onderzoek, maar zij hoopt met gebouwen door vrouwen op een laagdrempelige manier het meer 'doorsnee' publiek te bereiken. Door middel van Instagram en tours maakt ze dit thema voor het hele publiek bereikbaar.

Zelf heeft ze 7 á 8 jaar gewerkt bij een architectenbureau. Ze zou de architectuurwereld niet vrouwvriendelijk noemen. 'Hoge werkdruk, lage waardering, lage vergoeding en ook hoge eisen.' Ze noemt dat zeker als vrouw dit vaak moeilijk is te combineren met de rest van het leven en de doorstroom naar hogerop. Hoewel ze deze eisen en verwachtingen niet anders inschat dan die van mannen in het beroep, geeft ze wel aan dat er nog steeds dingen zijn in de maatschappij die vrouwen benadelen die zich vervolgens doorzetten naar hun professionele leven. Wel noemt ze een verschil in behandeling, zo noemt ze een voorbeeld over een collega architecte die met haar jonge, pas net afgestudeerde werknemer naar de bouwplaats ging, waar vervolgens de opzichter zich iedere keer zich tot deze mannelijke werknemer richtte in plaats van naar haar, de architect. Ze stelt dat er zo nog veel meer voorbeelden zijn.

Sofie geeft aan dat ze denkt dat de gevolgen van deze mannenwereld soms moeilijk te zien zijn. Ze geloofd niet dat er een verschil ligt tussen de uitvoerende kundigheid van mannelijke en vrouwelijke architecten. Wat je wel ziet is dat persoonlijke achtergrond en bagage wel een verschil maakt, niet per se alleen gender maar bijvoorbeeld ook religieuze achtergrond. De sector is weinig divers, maar je ontwerpt vanuit wat je kent. Zo zou een atheïstisch iemand er minder snel aan denken een gebedskamer te maken en een man minder snel aan een kolfruimte. Op het gebied van gender kwam Sofie met een grappig voorbeeld: zo had zij een toren ontworpen met een mooie plint waar toevallig een hoekje in zat, maar vervolgens kwam haar twee mannelijke bazen met de opmerking 'oh nee, dat is echt een pishoekje'. Dit gaat overigens ook de andere kant op, zo heeft Sofie vaker een stokje gestoken voor ontwerpvoorstellen met glazen trappen, spiegellende vloeren of glazen vloeren, omdat de mannelijke ontwerper niet had gerealiseerd dat dit betekende dat er bij vrouwen onder de rok kon worden gekeken. Zulke kleine dingen lijken basaal, maar tellen echter wel op voor de ervaring van vrouwen in de gebouwde omgeving.

Op stedelijk niveau is er ook meer vertegenwoordiging nodig en moet de vraag worden gesteld: 'voor wie wordt er ontworpen?' Specifiek voor vrouwen ontwerpen blijft een moeilijke vraag. Sofie geeft aan dat ontwerpen met een divers team erg belangrijk is en dat veiligheid altijd moet worden meegenomen. Als architect heb je tegenwoordig weinig vrijheid meer, maar als het mogelijk is raadt ze aan

om altijd wat ongeprogrammeerde ruimte in te plannen; ontwerp niet voor 1 gebruik. Als architect moet je je niet voornemen dat je alles weet te voorspellen en weet wat de gebruiker allemaal wil, en juist plannen voor hun persoonlijke invulling. Zelf hecht ze ook veel waarde aan daglichtintrede en gebouwen die ook een duidelijke functie hebben met speciaal ontworpen elementen voor die functie.

Qua vrouwonvriendelijke ontwerpen noemt Sofie dat heel Rotterdam onveilig voelt. Hier draagt ze zelf de impact van het bombardement tijdens de tweede wereldoorlog voor aan. Daar is toen veel eerst onvrijwillig en toen vrijwillig geruimd; er zijn grote autowegen aangelegd en de stad is heel ruim opgezet. Hierdoor verlies je de sociale controle en de menselijke schaal. Voornamelijk 's nachts voelt ze zich erg onveilig, met name in van die gesloten steegjes of straatjes die eigenlijk alleen worden gebruikt voor laden en lossen. Het is daar donker, er zijn geen ramen en je hebt geen overzicht. Een specifiek gebouw is moeilijk te noemen, maar toen ik zelf het gebouw van civiele techniek op de TU Delft campus gaf als voorbeeld, was hier erg snel overeenstemming mee. Ze voegt toe; het gebouw is opgetild en een grote zware kolossus. Het voelt niet uitnodigend en erg anoniem. Ook heeft het gebouw een soort 'tunnels' onderdoor die erg onprettig aanvoelen. Ze gaf aan dat tunnels überhaupt een vervelend iets zijn, denkend aan een bepaalde tunnel in Rotterdam, vooral als ze erg vies en onverzorgd zijn. Ook draagt ze het voorbeeld aan van wederopbouw wijken. De bergingen op de begane grond en dus de gesloten plint in combinatie met heel veel open lucht en groen en daardoor anonimiteit, maakt dat de sociale veiligheid erg slecht is. Vooral in combinatie met slechte verlichting.

Het tegenovergestelde, vrouw vriendelijke ontwerpen, was eveneens een moeilijke vraag, maar snel opperde Sofie het belang van gebouwschaal. 'als je jezelf kan relateren aan het gebouw — als de schaal niet te groot is en de afstand tot het gebouw niet te groot is — voelt het meteen een stuk prettiger'. Een gebouw moet niet te ver terug liggen. Vervolgens noemt Sofie een onderzoek waar men de oogbeweging heeft gevolgd van mannen en vrouwen: hieruit bleek dat vrouwen constant hun omgeving en periferie scannen, terwijl mannen gewoon star vooruit kijken daar waar ze naar toe lopen. Vrouwen letten dus veel meer op hun omgeving, hoogstwaarschijnlijk door de sociale onveiligheid. Hoe verzorgder en netter de omgeving er uit ziet — alsof er wordt gezorgd voor de omgeving — hoe veiliger het daar voelt. Ook kwam nog even ter sprake de ervaring van de zwangere vrouw: op het moment dat een vrouw zwanger is of net een kind heeft gehad komt dat met bepaalde behoeftes, zoals een ruimte om te kolven (zodat dat niet in de bezemkast hoeft) of werkende liften om met de kinderwagen in te stappen.

Gender kan — zeker wanneer men het heeft over zwangerschap — effect hebben op iemands carrière. Of dit is door het missen van een groot event door zwangerschapsverlof of omdat een vrouw niet gekozen wordt voor een positie onder de aanname dat zij uiteindelijk met zwangerschapsverlof gaat (zelfs al is dit tegen de wet). Gender heeft zeker mee gespeeld en speelt nog steeds mee in de architectuur wereld, zelfs al schromen sommige vrouwen om dit zo zeggen. Neem als voorbeeld stedenbouwkundige Lotte Stam-Beese die van de Bauhaus was geschopt vanwege een affaire met de getrouwde, veel oudere en machtigere directeur. Nu is Lotte Stam-Beese wel in de ontwerpwereld gebleven, maar per de 'leaky pipeline' zijn er ook veel meer vrouwen waar dit niet het geval was. Dit riep bij mij de vraag op; is het zo dat vrouwen niet anders ontwerpen dan mannen of hebben ze er in de mannenwereld nooit de mogelijkheid tot gekregen en zijn 'afwijkende ideeën' de kop in gedrukt?

Als Sofie een gebouw mocht ontwerpen voor alleen vrouwen zou ze inspiratie halen uit de R.V.S. flat van Wilhelmina Jansen: een flat ontworpen voor alleenstaande, werkende vrouwen. Deze flat had allerlei slimme toepassingen voor het huishouden zoals ramen die naar binnen klappen voor ramen wassen, een doorgeefluik voor de boodschappen, granieten vloeren in de natte ruimtes en heel veel opbergruimte. Sofie geeft wel aan dat het tegenwoordig anders ligt omdat er niet meer 1 profiel is,

namelijk dat van de huisvrouw; gendernormen zijn veranderd of wellicht verminderd (in ieder geval in haar kring), dus wellicht dat wat vrouwen nu allemaal doen te breed is om gericht op te kunnen ontwerpen.

## Conclusies

### DESIGN PROCESS:

- Ontwerp met een divers team
- Ontwerp niet alleen voor je eigen sociale groep, maar houdt ook rekening met behoeftes van andere groepen met bijvoorbeeld andere religie, levensstijl etc.
- Neem het beheer van het gebouw mee: wanordelijkheden zorgen voor een verminderd gevoel van veiligheid

### DESIGN GUIDELINES:

- Geen 'tunnels' (donkere doorgangen)
- Goede verlichting
- Overzichtelijke inrichting van de ruimtes
- Het gebouw ligt een beetje naar achter t.o.v. de stoep maar niet te ver per de menselijke schaal
- Functies in de plint/ de plint wordt geactiveerd
- 'transparante' gevels met ramen ('eyes on the street')
- De gebouwschaal is afgestemd op de menselijke schaal; het is geen kolossus
- Uitnodigende ingang
- Geen doorzichtige of spiegelende vloeren/ trappen (zelf toegevoegd; geen roosters waar hakken in blijven haken)
- Geen 'pishoekjes'
- Maak de details ook gebruiksvriendelijk (volledig te openen ramen, geen hoekjes die te nauw zijn voor de stofzuiger, doorgeef luiken T.S.V. flat)
- Groen is goed, maar zorg dat dit de omgeving niet onoverzichtelijk/ te donker maakt

### PROGRAMMATISCH:

- Algemeen: houdt rekening met diversiteit en verschillende achtergronden
- Niet geprogrammeerde ruimte voor eigen invulling
- Functie van het gebouw/ de ruimte wordt bevestigd door programmatische vaste elementen (bv. Inbouwkast)
- Kolfruimte
- Gebedsruimte
- Toiletten met een genderneutrale verschoontafel

### RECOMMENDED SITE:

- Openbare ruimte is niet te ruim opgezet
- De openbare ruimte is overzichtelijk

# WOMEN IN ROTTERDAM SOUTH: INTERVIEW SUMMARIES

## CLOUS, 2024

On 03-12-2024 I, Desirée Trommelen, conducted an interview with Veerle Clous. Below follows the summary of this interview, per the language in which it was conducted (Dutch).

Veerle Clous werkt sinds september bij Chicks and the City, wat 20 jaar bestaat. Sinds anderhalf jaar zijn zij bezig met professionalisering, waaronder Veerle die daarbij is ingehuurd. Veerle is projectleider van een project over seksuele straatintimidatie en een project over 50 jaar vrouwen emancipatie voor het themajaar Rotterdam. Ze werkt veel samen met mediamakers, videograven en een productieassistent, een voormalige ‘chick’.

Chicks and the City is een mediaplatform voor meiden tussen de 15 en 25 jaar. Ze zetten projecten op waar deze meiden de uitvoerende handen zijn. Het zijn meiden van allerlei verschillende achtergronden, opleidingsniveaus etc. en uit heel Rotterdam, maar allemaal willen ze graag iets doen voor zichzelf. Chicks and the City geeft ze een stem door bijvoorbeeld interviews, podcast en allerlei media projecten waar ze met veel mensen mee in aanraking komen, zoals mensen op straat of de gemeente Rotterdam. De zogenaamde ‘chicks’ doen hier allerlei vaardigheden mee op en kunnen zichzelf verder ontwikkelen; iets waar ze de rest van hun leven nut van hebben.

De community en de sfeer zelf is hierbij ook erg belangrijk. Sommige meiden komen er via-via bij en anderen vinden Chicks and the City zelf door bijvoorbeeld workshops op scholen of het vinden van hun media. Ze komen ook elke maand samen voor bepaalde activiteiten, zoals bijvoorbeeld samen schilderen. Samen iets creëren en zo elkaar leren kennen is erg waardevol. Veel meiden houden er diepe vriendschappen aan over. Chicks and the City is een initiatief met een lage instap, maar ze bespreken wel veel grote onderwerpen, met name rondom gender.

Veerle geeft aan dat hun focus vooral ligt op iedereen die zich identificeert als vrouw en eigenlijk ook exclusief zijn in die zin. Dit is omdat er te weinig plekken zijn voor meiden om samen te komen in een veilige, warme omgeving om zichzelf te uitten en nieuwe mensen te ontmoeten. Chicks and the City biedt hen deze ruimte — voor zowel de stereotype vrouwelijke, ‘lichte’ dingen zoals fashion of nagellakken, maar ook grote onderwerpen zoals alleenstaand moederschap, armoede of heftige menstruatieproblemen — onderwerpen die normaal (in het huishouden van de ‘chicks’) taboe zijn. De meiden vinden veel herkenning en ondersteuning. Zelf geeft Veerle aan vooral genderongelijkheid te voelen wanneer het gaat over met name communicatie omdat daar toch veel gender constructen aan de basis liggen. Gender bepaald veel een hiërarchie en komt met vooroordelen en aannames. Neem als voorbeeld mannelijke voornamenwoorden als standaard; een klein iets maar kleine dingen maken het geheel.

De meiden die bij Chicks and the City komen, zijn veelal meiden die met meer te maken hebben dan genderproblematieken. Bij Chicks and the City is intersectionaliteit een groot thema; veel meiden ondervangen problemen of komen met ervaringen gevormd door meerdere achtergronden (zoals eerder genoemd bijvoorbeeld armoede, maar ook bijvoorbeeld immigratieachtergrond, religie etc.) . Deze onderwerpen kunnen vrij worden besproken en de meiden krijgen ondersteuning die bij hen past — ofwel emotioneel ofwel praktisch voor hun ambities. Ook als ze het even niet weten is het ook goed; dat er een omgeving is waar ze zich kunnen uitten is het meest belangrijke.

Ondanks alle verschillende achtergronden weet Chicks and the City toch de meiden te verenigen. Veerle wijdt dit aan drie verschillende dingen, namelijk de gezellige, laagdrempelige activiteiten (1), de boodschap dat de input van de meiden leidend is (2) en de meiden zelf de uitvoerder laten zijn van hun ideeën (3). De organisatie werkt dus vooral in een faciliterende rol: ze worden hierin veel vertrouwen gegeven en veel eigen autonomie.

Qua gebouwwensen vindt Veerle het moeilijk om namens de meiden te spreken zonder hun expliciete input, maar geeft wel een paar suggesties. Zo noemt ze een opnamestudio, een mooie buitenplek, een stylisten afdeling voor voorbereidingen op opnames, een kleedkamer, goede toiletten en het moet goed bereikbaar zijn. Over het algemeen geeft ze aan dat er voor vrouwen en meisjes niet genoeg (gratis) ontmoetingsplekken zijn. Chicks and the City doet nu onderzoek naar jongerenhubs en zijn gevraagd door de Gemeente Rotterdam om hun advies of deze hubs bevorderlijk zijn voor hun doelgroep. Dit onderzoek is nog volop gaande dus er is nog geen uitkomst, maar al wel is bekend dat het vooral jongens zijn die gebruik maken van deze hubs, waardoor meiden die plekken juist gaan mijden omdat dit erg intimiderend werkt.

Wat de meiden vooral zoeken bij Chicks and the City is een plek om zich te uitten en nieuwe mensen te ontmoeten. Uiteindelijk groeit dit naar meer, zoals zelf hun eigen stempel ergens op drukken, leren waar hun passie ligt en waar ze verder mee willen. Zeker omdat veel meiden die aansluiten problemen hebben thuis of daar niet helemaal de support krijgen die nodig is, is Chicks and the City zowat een schakel gaan spelen in het sociale vangnet. De impact werd vooral duidelijk uit het 20 jarig jubileum toen verschillende meiden hun dank uitten.

Chicks and the City heeft voor zichzelf een progressieve ‘bubbel’ weten te bouwen. Diversiteit is een belangrijk thema en acceptatie en tolerantie staan hoog in het vaandel (vooral in de culturele sector). Wanneer we ruimer kijken — naar Rotterdam in het geheel — geeft Veerle wel aan dat dit echt niet over het algemeen het geval is; er zijn ook veel bubbels waar het tegenovergestelde waar is. Rotterdam is ook veel in het nieuws voor negatieve zaken. Politiek gezien heeft ze het idee dat er veel polarisatie plaats vindt met de gevolgen van dien. In bepaalde plekken blijft bewustzijn over gender(problematiek) achter of wordt dit niet besproken; de normen en waarden liggen anders en deze groepen zijn moeilijk te bereiken.

Ruimtelijk gezien is Veerle niet erg bekend in Rotterdam, aangezien ze hier alleen werkt en niet woont. Wel geeft ze aan dat ze wel een groot verschil merkt met overdag en 's nachts. Als het ruim op is gezet of slecht verlicht, voelt dit niet erg veilig. Ze geeft aan dat ze zelf weinig gebruik maakt van de openbare ruimte, tenzij ze een doel heeft (bijvoorbeeld van en naar werk). Opvallend (voor mij) was dat Veerle het openbare vervoer noemde als veilige plek, terwijl ik zelf ook veel signalen heb gehad uit mijn eigen omgeving dat dit juist een plek is die stress oplevert. Het museumpark noemt Veerle ook als prettige plek zowel als de geactiveerde havengebieden zoals de Nieuwe Haven of bijvoorbeeld een theater aan het water, waar het altijd gezellig druk of levendig is.

## Conclusies

### DESIGN PROCESS:

- Bevorder participatie en bevestig de boodschap dat hun input leidend is
- Laat de gemeenschap gezamenlijk zelf (kleine) dingen uitvoeren (bijvoorbeeld helpen met perken aanplanten of een muurschildering maken) en maak ze zo (deels) verantwoordelijk voor het project
- Algemeen: zorg dat de gebouwfuncties niet (allemaal) betaald zijn en er ook gratis activiteiten zijn

### **DESIGN GUIDELINES:**

- Maak ruimtes afzonderlijk van jongens/ mannen
- Het gebouw is goed bereikbaar
- Goede verlichting
- Het gebouw stimuleert levendigheid

### **PROGRAMMATISCH:**

- Algemeen: zorg dat het programma een culturele waarde heeft
- Opnamestudio (of andere programma specifieke ruimtes)
- Stylist/ make-up tafels/ spiegels (of andere programma specifieke ruimtes)
- Kleedkamers (of andere programma specifieke ruimtes)
- Een mooie buitenplek
- Degelijke toiletten

### **RECOMMENDED SITE:**

- Openbare ruimte is niet te ruim opgezet

### **RECOMMENDED BUILDING TYPE:**

- Semi-publiek gebouw: het gebouw is open voor iedereen behorende tot de doelgroep

# WOMEN IN ROTTERDAM SOUTH: INTERVIEW SUMMARIES

## MAMA'S GARDEN, 2024

On 09-12-2024 I, Desirée Trommelen, conducted an interview with the parents council of Mama's Garden. Below follows the summary of this interview, per the language in which it was conducted (Dutch).

De ouderraad van Mama's Garden werd online gehouden. Moeders konden vrij aansluiten en uiteindelijk zaten we met vier moeders in de meeting. Een van de organisators was zelf ook moeder, wat het totaal 5 maakte. De moeders waren in de range van ongeveer 25 tot 50 jaar oud en hadden veelal jongere kinderen tussen de 2 en 11 jaar oud. Elk van de moeders had meer dan 1 kind, namelijk 2. Onder de bevraagden waren enkele moeders nog bezig met hun educatie en benoemde ook een enkele alleenstaande moeder te zijn. Er heerste een fijne sfeer en de vrouwen voelde zich duidelijk met elkaar verbonden.

Op de vraag welke problemen de vrouwen veel tegenkomen als ze met hun kinderen op pad gaan, komt snel de Rotterdamse metro naar voren. De vrouwen wonen in Rotterdam Zuid en reizen veel met de metro, maar vinden dit allen erg eng. De liften werken vaak niet, zijn vies en ruiken naar plas, en zijn te krap voor de moeders met twee kinderen en een kinderwagen. Vaak moeten ze met hun kinderen en de kinderwagen in hun armen toch de trap pakken en dit is erg gevaarlijk omdat ze makkelijk kunnen vallen (zelf deed mij dit denken aan Malaysia Goodson, de jonge moeder die ter gevolge van zo'n val kwam te overlijden in een metrostation in New York enkele jaren geleden). Ook benoemde de vrouwen de korte tijd om in te stappen en uit te stappen; een van de moeders vertelde zelfs een verhaal over hoe haar kinderen op het perron stonden, maar zij zelf achterbleef in de metro en de deuren niet meer open gingen. Deze gebeurtenis heeft haar heel veel angst aangejaagd en ze is nu nog steeds erg bang dat het weer gebeurt. De andere moeders sluiten zich hier bij aan; tijdens de corona periode waren de timers van de deuren anders afgesteld, wat voor de moeders heel fijn was, maar nu is dat niet meer zo. Ondanks dat zij klachten hebben ingediend, wordt er niets mee gedaan.

Als de moeders door hun wijk wandelen ervaren ze weinig problemen. Overdag voelen ze zich veilig — al wordt er wel benoemd dat ze veel om zich heen kijken, omdat er wel eens rare figuren lopen. 's Nachts of eerder in het donker is dit minder het geval. Qua ontmoetingen geven de moeders verschillende dingen aan. Eén moeder is meer terughoudend; zij spreekt alleen af met haar eigen cirkel voor bijvoorbeeld een logeerpertijtje of speeldade voor de kids. Wel komt zij bij Mama's Garden — al is ze dan nog hyperalert — maar als ze met de kinderen naar buiten gaat doet ze dit niet met het expliciete doel met andere buiten haar cirkel te socialiseren. Wel benoemd ze de naschoolse opvang, waar de kinderen kunnen knutselen of spelletjes doen en dat soms de ouders daarbij mogen blijven.

De andere moeders hebben een andere insteek en vinden het juist prettig om erg actief te zijn met de kids en andere ouders te ontmoeten. Zo wordt de bibliotheek (specifiek het voorleesuurkje), het park en de markt vlakbij de bibliotheek genoemd. De moeders geven aan ook veel met de kinderen door de wijk te wandelen en schromen dan niet om ook een keer een andere ouder aan te spreken, al is misschien het doel niet meteen een vriendschap.

Mama's Garden is voor deze moeders ook een belangrijk onderdeel van hun gemeenschap en vangnet. Hier kunnen ze connecties maken met andere ouders, kunnen ze ouderzorgen en dingen rond de opvoeding bespreken, maar organiseren ze ook leuke activiteiten. Deze activiteiten zijn dus niet

alleen voor de kinderen, maar ook voor de moeders ('Je bent niet alleen moeder, maar ook je eigen persoon'). Een van de moeders beschrijft zo Mama's Garden als sparmoment en emotionele regulatie; er is ruimte om je te uitten en om even met jezelf en anderen in te checken. Een van de moeders is nog niet zo vaak bij Mama's Garden, maar hoopt vaker te kunnen gaan in de toekomst om juist deze gemeenschap en deze deelmomenten te kunnen ervaren.

Wanneer de vrouwen worden gevraagd wat zij graag in een gebouw speciaal voor hen zouden zien komen al snel een aantal suggesties op tafel. Het eerste wat werd geroepen was een ballenbak (voor de kinderen niet de ouders werd gegrapt) en voor de ouders een prettige lounge. Deze ruimte moet sfeervol zijn en graag willen ze een koffiecorner erbij. Vervolgens werd er geroepen op een 'escape room', waar hard om werd gelachen. Het is belangrijk voor de moeders om ook een plek te hebben om zich terug te trekken en dat er dan iemand is die overzicht houdt en let op de kids. Over het algemeen noemde moeders de behoefte aan overzichtelijke ruimtes, zodat zij zelf iets verder kunnen zitten maar wel de kinderen in de gaten kunnen houden. Een van de moeders beschreef een gebouw waar ze recentelijk was waar ze zich erg fijn bij voelde. Dit gebouw had een grote open ruimte, grote ramen en veel licht, een koffiezet apparaat met snacks aan de linkerkant, aan de rechterkant een leesgedeelte met poefen of kleine matrasjes, iets verder links een parcours met balans wipwap en grote stenen, om de hoek een zandbak met 'magisch zand' voor de zintuigen. Weer iets verder zit een teken en klei ruimte en nog iets verder weer een liggedeelte. Je moet er wel zelf bij zijn, maar de openingstijden daar zijn ruim en de entree is gratis. Ook werden daar af en toe voorleesurtjes gehouden.

Voor henzelf zouden de moeders graag iets willen wat selfcare uitnodigt zoals een beauty of skincare ruimte. Ook een yogaruimte of sportzaaltje zouden ze fijn vinden, zo hebben ze bij Mama's Garden laats gebokst, wat ze allemaal erg leuk vonden. Bij Mama's Garden hebben ze een simpele multifunctionele ruimte, maar wel geven ze aan af en toe gebruik te maken van andere initiatieven in het gebouw, zoals bijvoorbeeld de werkplaats waar ze een workshop figuurzagen hebben gedaan.

Op de vraag of er nog overige opmerkingen zijn of dat ze nog iets mee willen geven, komen er nog wat thema's opborrelen. Zo wordt benoemd dat de parken die overdag zo leuk zijn in het donker eng zijn en dat er te weinig (politie) toezicht is. Er wordt een gebouw aangehaald speciaal voor moslimvrouwen, maar heel veel wisten ze hier niet over. Ook Bloemhof — de wijk waar mijn project komt — kwam nog even ter sprake. Een van de moeders is hier opgegroeid. Bloemhof is erg multicultureel, maar wel een grote familie. Het negatieve wat in het nieuws genoemd wordt gebeurd ook, maar is niet de enige kant van Bloemhof. De gemeenschap is hecht en toen zij hier woonde had ze nooit problemen want iedereen kent elkaar en helpt elkaar. Ze geeft aan dat Bloemhof wel iets van een buurthuiskamer en sportvoorzieningen kan gebruiken. Hierop wordt het oude buurthuis Kamelia aangehaald. Dit is 20 jaar geleden gesloten vanwege bezuinigingen en staat sindsdien leeg, maar had een belangrijke rol in de wijk. Er werd veel georganiseerd voor jongeren en samen gekookt (ook voor ouderen en door veel verschillende culturele groepen). Toen dit wijkcentrum wegging waren de jongeren erg boos en voelde ze zich erg verloren. De vrouwen zijn benieuwd of met een nieuw ontwerp dit misschien weer tot leven kan worden gebracht.

## Conclusies

### DESIGN PROCESS:

- Algemeen: zorg dat de gebouwfuncties niet (allemaal) betaald zijn en er ook gratis activiteiten zijn
- Ontwerp voor diverse doelgroepen en achtergronden
- Support initiatieven die functioneren als sociaal vangnet of kern

### **DESIGN GUIDELINES:**

- Grote ramen, lichte ruimtes
- Overzichtelijke ruimtes
- Toezicht in de omgeving ofwel formeel (politie), ofwel informeel (iemand die even op de kinderen let)
- Goede (buiten) verlichting
- Zachte en diverse oppervlakken

### **PROGRAMMATISCH:**

- Grote lift
- Comfortabele lounge of huiskamer
- Ballenbak
- Een ruimte met weinig prikkels
- Koffie/ snack uitgifte punt
- Leesgedeelte met zachte oppervlakken en voorleesuurttjes
- Knutsel-/ crearuimte
- Lig- of slaapruijnte voor kinderen
- Zandbak en/of speelparcours
- Yoga- of sportzaal
- Wellnessruimte
- Aangename groenruimte (goed verlicht)
- Buurtkeuken

### **RECOMMENDED SITE:**

- Goed bereikbaar
- Niet direct naast een park (zodat vrouwen daar niet verplicht doorheen moeten 's Nachts)

### **RECOMMENDED BUILDING TYPE:**

- Buurtcentrum
- Naschoolse opvang
- Deel-/ wijkkeuken

# WOMEN IN ROTTERDAM SOUTH: INTERVIEW SUMMARIES

RIEMERSMA, 2025

*On 07-01-2025 I, Desirée Trommelen, conducted an interview with Nienke Riemersma, Stadsmarinier Bloemhof. Below follows the summary of this interview, per the language in which it was conducted (Dutch).*

Nienke Riemersma is Stadsmarinier in de wijk Bloemhof in Rotterdam Zuid. Stadsmarinier is een term die 20 jaar geleden is bedacht voor deze specifieke en bovendien unieke rol. Mevrouw Riemersma beschrijft de rol van Stadsmarinier als die van een buitenboordmotor van de gemeente Rotterdam. De Stadsmarinier is een losse schakel die zich buiten de gebruikelijke bureaucratie bevindt en in plaats daarvan rechtstreeks werkt voor de burgemeester om zo sneller verschillende problematieken aan te kunnen pakken. De Stadsmarinier kan zich 'vrij' bewegen en kan belangrijke zaken direct voorleggen aan de wethouders of de burgemeester en dus snel schakelen tussen de gemeenschap of praktijk en de beleidvoerders van Rotterdam: 'tussen de straat en de staat'. Ook kunnen de Stadsmariniers zelfstandig handelen; in de wijk zelf mogen zij actie ondernemen hoe zij dit nodig achten namens de Gemeente Rotterdam.

Aangezien Mevrouw Riemersma direct betrokken is bij de gemeenschap in Bloemhof, is zij ook direct betrokken bij het onderwerp gender of vrouwen in Rotterdam Zuid. Ze geeft aan veel genderproblematieken te herkennen in Bloemhof. Onder andere is zij betrokken geweest bij onderzoeken naar de veiligheidsbeleving in Bloemhof (onder andere bij de Strevelsweg), waaruit bleek dat gender een grote rol speelt in gevoel van onveiligheid: vrouwen ervaren onveiligheid in een compleet andere orde van grootte dan mannen. Dit heeft direct gevolg op de participatie van vrouwen in de openbare ruimte: 'je ziet ook geen vrouwen in het straatbeeld'. Met name bij de Strevelsweg bleek dat vrouwen door gender gerelateerde effecten hier niet kwamen. Het is een erg masculiene omgeving en er zijn veel mannen die rondhangen wat intimiderend werkt. Bovendien zijn er problemen op deze locatie met alcohol misbruik, wildplassen en straatintimidatie. De enige reden dat er soms vrouwen kwamen was vanwege hun verantwoordelijkheden of dagelijkse taken (kinderen naar school brengen of gebruik maken van de pakketservice).

Naar aanleiding van dit onderzoek, wil Mevrouw Riemersma en haar team met de vrouwen uit de buurt de ruimte anders inrichten, zodat zij deze zo hopelijk meer gaan gebruiken. Meer vrouwen in het straatbeeld geeft minder overlast, maar het inverse is dus waar op de Strevelsweg. Mevrouw Riemersma stelt dat er nog veel aandacht nodig is voor vrouwen in de buitenruimte en benoemt daarbij ook specifiek jongere meiden. Hierbij noemt ze dat jonge mannen goed in beeld zijn: deze zijn actief bij de wijkhubs en worden benaderd vanuit verschillende initiatieven, specifiek dienend het tegenwerken van overlast. Meiden daarentegen zijn een groep waar helaas nog weinig over bekend is: (parafrasering) 'Meiden verdienen heel erg die aandacht en de ruimte om hun talenten te ontwikkelen zowel als hun rol te vinden in de maatschappij. Tevens zien we ook dat jeugdcriminaliteit onder meiden aan het stijgen is betreffende specifieke misdaden zoals 'exposing' terwijl zij simultaan ook gevoeliger zijn voor algeheel slachtofferschap — dit is een ontwikkeling die moet worden tegengegaan.'

Mevrouw Riemersma geeft aan dat meiden te weinig aandacht hebben gehad, dus nu ligt daar juist de focus op. In Bloemhof zijn er niet genoeg initiatieven en plekken voor meiden, met name omdat ze eigenlijk een eigen plek willen (qua gender, maar ook culturele achtergrond). Meiden willen

ook niet per se een plek in hun eigen wijk, omdat ze zich vaak juist uit het zicht willen onttrekken van anderen uit hun cirkel van bekenden. Meiden uit de Rotterdamse meidenraad geven aan graag samen te willen koken en zouden ook graag een koffiekar met barista willen voor pleinactiviteiten en daar dan mee helpen. Ook is bij de meiden en de jongensraad het thema onveiligheid ter sprake gekomen: de jongens ervaren zelden gevoelens van onveiligheid — maar snappen anderzijds dat zij dit gevoel wel kunnen opwekken bij anderen — terwijl voor meiden de gevoelens van onveiligheid erg aanwezig zijn. Meiden zijn heel bewust bezig met hun route plannen van A naar B, bijvoorbeeld om zo Zuidplein te kunnen ontwijken (coping, safety mechanismes). Wel zien de meiden ondanks de onveiligheid toch hun wijk als hun wijk, wat verassend is omdat ze eigenlijk de openbare ruimte niet/ nauwelijks gebruiken. Mevrouw Riemersma geeft aan dat de meiden geen antwoord hebben als ze wordt gevraagd wat ze ruimtelijk anders zouden willen op bijvoorbeeld de pleinen in Bloemhof, want ze komen immers niet op die pleinen: de pleinen in Bloemhof zijn ‘van de mannen’ en de meiden leggen geen claim op deze ruimtes. In het zeldzame geval dat meiden wel aanwezig zijn op de pleinen is dit meestal in combinatie met hen bekende jongens en levert dit meteen overlast en vervelende situaties op. Een groep meiden die daar bijvoorbeeld vredig zit te kletsen komt niet voor. Jonge moeders bezetten die pleinen overdag wel en dat is erg gewenst, want dat zorgt dan meteen voor meer veiligheid.

Qua verschillende achtergronden heeft Mevrouw Riemersma niet per se het idee dat er op het ruimtelijk vlak verschil zit in de behoeftes en wensen van vrouwen. Wat er besproken wordt in het interview is naar haar idee eigenlijk de universele ervaring van de vrouwen; iedere vrouw voelt zich onveilig door dezelfde dingen (zo komt het Zuidplein veel naar voren ongeacht achtergrond). Wel merkt ze verschil op het sociale vlak, bijvoorbeeld wat sociaal acceptabel wordt gevonden op het gebied van daten en relaties bij de ene groep is taboe in de andere groep. Naar haar idee maken de verschillende achtergronden of culturele normen en waarden ook veel meer verschil op sociaal vlak voor de vrouwen dan voor de mannen.

Naast Zuidplein, andere onveilige plekken in Bloemhof die worden genoemd zijn het Verhageplein (informele naam, bevindt zich op het raakpunt van de Putse Bocht en de Putse Laan) en de Strevelsweg. Verder — over mijn geselecteerde locatie — is er op de Putse bocht veel verkeersoverlast op de straat, veel bezorgscooters die over de stoepen rijden en het leeft er niet, wat nadelig is voor de beleving van met name vrouwen. Opvallend is dat de Strevelsweg enorm naar voren komt in de cijfers en dus op papier de meest vrouw-onvriendelijke plek in de wijk is, terwijl dit niet de ervaring is van Mevrouw Riemersma. Bovenaan haar lijst staat toch echt het Verhageplein: ‘daar is het echt altijd mis’ (parafrasering). Naar haar idee zit hier een enorm ‘dark number’: het is daar zo enorm onveilig en vrouw onvriendelijk dat ze er überhaupt niet meer komen, waardoor het ook niet meer zichtbaar is in de cijfers.

De oplossing voor Mevrouw Riemersma lijkt simpel: meer vrouwen in het straatbeeld. Meer vrouwen op straat zorgt voor meer gevoelens van veiligheid en veel minder onrust. Echter is dit precies waar zich de vicieuze cirkel bevindt: het is te onveilig vrouwen dus komen er ze niet, waardoor het weer onveilig wordt en zo door.

Bij het aanhalen van de locatie Putsebocht en de observaties daar (2 keer meer mannen dan vrouwen aanwezig; mannen halen een enkel broodje en vrouwen die halen tassen vol boodschappen voor het hele gezin), komt het onderwerp gendernormen naar de voorgrond. In Bloemhof zijn de traditionele gendernormen nog heel erg aanwezig: de vrouwen zijn de verzorgers voor man, gezin en huis. Er zijn daardoor veel vrouwengroepen, speeltuingroepen en ook een Wijkpastoraat — de laatste twee eigenlijk groepen voor moeders. Mevrouw Riemersma merkte deze genderrollen ook op bij participatie-bijeenkomsten: ‘als wij avonden organiseren {...} merkten wij dat vrouwen eerder weggingen

want die moesten nog koken thuis'. Door deze traditionele genderrollen hebben vrouwen ook op een heel letterlijke wijze minder inspraak in hun wijk.

## Conclusies

### DESIGN PROCESS:

- In het geval van participatie, plan de ontmoetingsmomenten op een gunstig tijdstip met gevoel voor de bestaande traditionele genderrollen (i.e. niet tijdens kook-/maaltijden)
- Geef aandacht aan meiden: neem ze mee als specifieke doelgroep in het ontwerp
- Houdt rekening met verschillende achtergronden, maar weet dat gender leidend is in ruimtelijk ontwerp

### DESIGN GUIDELINES:

- Gedragscode in openbare ruimtes: geen alcohol, drugs etc. toegestaan
- Maak ruimtes afzonderlijk van jongens/ mannen

### PROGRAMMATISCH:

- Gemeenschappelijke keuken
- Koffiekar

### RECOMMENDED SITE:

- Een locatie met weinig verkeersoverlast
- Een locatie met gescheiden infrastructuur voor scooters en fietsen (zodat die niet op de stoep rijden)
- Dingen te koppelen met dagelijkse activiteiten in de buurt, zoals een supermarkt, basisschool of apotheek
- Vrouwen zijn minder waarschijnlijk dan mannen om gebruik te maken van pleinen. Mogelijke alternatieven voor buitenruimtes zijn tuinen, hofjes etc.



**BLUEPRINTS  
FOR CHANGE**



# BLUEPRINTS FOR CHANGE

Guidelines for a  
gender-sensitive built  
environment

# COLOPHON

Blueprints for Change: guidelines for a gender-sensitive built environment

Attachment of 'Spaces of power: Addressing women's space claiming and public space participation through gender-sensitive design in Rotterdam South'

Graduation thesis  
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# INTRODUCTION

*“I don’t go out after dark.”*

*“I avoid parts of the city because of frequent street harassment.”*

*“I wouldn’t have felt safe without my boyfriend there.”*

*“I try to walk only where other people are walking, so I am always surrounded by people — just in case you know?”*

These responses paint a bleak picture of the current reality in Rotterdam. Women feel unsafe, unwelcome, and uncomfortable; and no woman reading this will be surprised. The effects of gender and gendered experiences of the city are ubiquitous, and are tied directly to women’s space claiming and public space participation.

The effects of gender on space claiming have been researched previously by Fenster(2005) and Beebeejaun(2017), stating: *“urban planners have created gendered environments that are predominantly suited to the needs of men and the heteronormative family.”*(Beebeejaun, p.323, 2017). The same is true for public space participation as this is shaped by gendered use and perception. As a consequence of gender, women claim space and participate in the public space to a lesser degree than their male counterparts, inhibiting their (social) mobility, harming their general quality of life and restricting their rights to the city.

While there have been some studies on the effects of gender on the experience and use of the built environment, few have been able to bridge the gap between the social spheres of gender and the spatial, practical sphere of the built environment. In ‘Blueprints for change: guidelines for a gender-sensitive built environment’ a translation has been made which addresses that gap.

This booklet has been compiled in tandem with the graduation project '*Spaces of Power: Addressing women's space claiming and public space participation through gender-sensitive design in Rotterdam South*' and acts as an attachment to this study. The research report *Spaces of Power* holds all background information and academic substantiation. This booklet, however, has been written so that it may be read independently from this graduation project as a way of gender mainstreaming one's project. While an independent booklet, one will find direct similarities with the original graduation report (e.g. the recommended site and building type chapter remain the same).

This booklet offers design guidelines and principles for a gender-sensitive design of a *public space*. Note, the information used to compile this information comes from a literature review, site analysis of Bloemhof (a neighbourhood in Rotterdam South) and a series of interviews of female community organisers and experts based in Rotterdam. The guidelines and principles may apply to public space in general, but some will apply more readily to a public building than, say, a public outdoor space.



# 01

## PRINCIPLES FOR THE DESIGN PROCESS

### 1.1 - Diversity and intersectionality

Design with a diverse team and beware of designing only for one's personal life style or social group: take into account different backgrounds like religion, culture, (dis)ability etc. (Brunschoot, 2024, Mama's Garden, 2024; Schram et al., 2024). Different walks of life affect women's (frequency of) use of the public space. Take for example religion: Muslimas would need a prayer room away from men and oriented towards Mecca for their daily prayers. In the case of motherhood as a second example, mothers need a space to change diapers or a children's corner to keep the kids occupied.

Designing for diverse backgrounds in relation to gender also means designing for different degrees of gender conformity: *designing for women does not equal designing for 'femininity'*. Some women might really enjoy a make-up room, whereas others would not enjoy it at all and prefer a more 'masculine' program like a

game room. Designing for the diversity of gender and general intersectionality means getting to really know the target group of the project.

Moreover, when designing for intersectionality (or for gender) it is important to be aware of different coping techniques or safety work (e.g. avoidance, wearing headphones, phoning a friend) and lean into them so the spatial design may offer some comfort and sense of social safety (Schram et al., 2024). Women and girls have, amongst others, need for shelter or hiding places from which they can observe without being observed as well as a sense of social control ('eyes on the street') (see chapter 2 for more). Beware, young girls especially are often forgotten in spatial planning, so ensure their incorporation in the project (Riemersma, 2025).

### 1.2 - Maintenance

Design for maintenance in the early stages of the project as unruliness and disorderly spaces are detrimental to social safety (Brunschoot, 2024), whereas well maintained areas are

advantageous (Ma et al., 2023). These effects disproportionately affect women and are thus vital considerations for gender-sensitive design. Maintenance design includes designing for cleaning (e.g. no corners where the vacuum does not fit, windows that open inwards for cleaning), durable materials that are easy to upkeep (e.g. painting wooden window frames is a yearly undertaking, stone tiles in the kitchen do not damage easily), as well as flexible design so broken elements can be replaced easily or damage is preventable (moveable furniture, easily accessible technical installations, no large blank walls which may attract graffiti or other vandalism etc.) (Brunschot, 2024). Maintenance transcends physical maintenance and should also include organisational maintenance — like staffing or activity scheduling — though not strictly relevant to a spatial designer, it is worth mentioning.

### 1.3 - Participation

Where possible, involve the local women and community in the design process and let them help with (small) parts of the realisation of the project (like painting a mural or planting gardening beds). By engaging the community, they feel more responsible for the building and are more invested in the project, increasing their sense of belonging (Clous, 2024). Allow for longer lead times and invest time in building warm relationships with the community by approaching community initiatives, organizations or neighbourhood centres. This is often the fastest way to immerse oneself in the community. Build lasting relationships based on their terms, reciprocity, and understand their need to be heard. For example, have a final check-in session after the project or participation phase even if you may not directly benefit (Schram et al., 2024). Throughout the process, make sure the women know their contribution is valued and leading for the design (Clous, 2024).

When planning a meeting make sure these are planned with consideration of traditional gender roles. If the meetings were for example planned around mealtimes women may leave earlier to start the cooking while meetings in

the weekend often mean that women are watching the kids. Arranging for food and on-site childcare may mitigate some of these gendered standards. (Riemersma, 2025)

### 1.4 - Support

As stated, local initiatives and organisations may help a spatial designer embed themselves in a community; they become part of the social safety net and cores of the community. A public building project designed for gender-sensitivity also supports local initiatives, especially those aimed at or run by women, as they encourage a sense of belonging and often also public space participation (Mama's Garden, 2024). Spatial designers may design the building and its program to suit or house the initiatives. In turn, the initiatives housed in the project may ensure a successful building launch through their pre-existing community ties.



1.1 - Diversity and Intersectionality



1.2 - Participation



1.3 - Maintenance



1.4 - Support

# 02

## DESIGN

### GUIDELINES

#### 2.1 - Overviews

As the research has shown, women are more likely to experience street harassment and thereby feelings of social unsafety than men. Part

of their coping mechanisms and safety work is scanning their environment, taking note of possible exit routes and keeping track of the people in their environment. Gender-sensitive design should lean into these coping mecha-



nisms in the hopes of increasing their sense of social control and safety. When designing a space, include a study of sightlines and visual focus points; design the space to be 'legible' and clear in its overview. Visual focus point like signage, design with daylight or decorative elements help navigate and familiarize, while opening up the space lessens the fear of 'hidden threats' and offers control. Design the visual focus points to be at eye-level so the women's gaze can be level or drawn upwards: 'downwardly elements' such as colourful paving have negative effects. Additionally, design spatial flows so anonymous crowds can be avoided and design windows aimed at the street or public space.(Mama's Garden, 2024; Schram et al., 2024; Ma et al., 2023, Brunschot, 2024)

## 2.2 - The buffer and female scale

In the case of a public building design, it is important for there to be a buffer between the building and the street. For one, a buffer between a building and the street helps relate to the female i.e. human scale: walls are not flush to the sidewalk and elements in the buffer can offer a middle height between sidewalk and roof. Additionally, the windows should be a small distance from the sidewalk which

will decrease the likelihood of people being compelled to look inside, thereby making the women feel 'looked at'. Furthermore, related to the female scale, it is important that the building is not too big or even colossal, especially regarding length. When a building is (too) long it imposes a walking direction and offers less escape routes on the street than if there were side streets. (Brunschot, 2024)

## 2.3 - Supervision and surveillance

In addition to keeping an overview, oversight is also an important part of gender-sensitive design as 'eyes on the street' increases social safety. Spatial designers should design and program the public space for the natural presence of 'eyes on the street'(Brunschot, 2024; Schram et al., 2024), whether formal or informal oversight(Mama's Garden, 2024). Examples of formal oversight might be police or enforcers. While some women may prefer the presence of formal oversight like police, an intersectional design should be critical of this option as law enforcement disproportionately targets people of colour as a result of bias and police presence may thus yield far more disadvantages than advantages(Brunschot, 2024). Informal oversight on the other hand can be any other people like



service workers — women's preferred form of oversight — or even neighbourhood inhabitants. Keep in mind that designing for overviews increases informal supervision as women are able to see other passersby and vice versa (Ma et al., 2023).

## 2.4 - Women-only activities and spaces

Surveillance may also threaten a gender-sensitive design, particularly when done by men. As mentioned in Fenster (2005) and Bee-beejaun (2017), men are the 'cultural guards', meaning even just their presence works as a way of policing women and controlling their behaviour. Women and, even more so, young girls will become hyperaware of and alter their behaviour, feel more obligated to perform gender roles, and will often in addition also start performing safety work. For this reason a gender-sensitive design project should encourage women-only activities and women-only spaces, where women and girls can escape these 'prying' eyes and allow themselves to be more vulnerable (Clous, 2024; Riemersma, 2025). Keep in mind that some building functions are more sensitive concerning male surveillance like dressing rooms and the spaces where women work out. Balancing the keeping of an overview, offering a shelter/ hiding space, and

withdrawing women from male oversight can be challenging at times; therefore the application of semi-transparent materials like meshes and curtains is recommended.

## 2.5 - Lighting

Gender is the determining factor in the perceived threat level of a space: to women dark spots or places are seen as a possible place of danger. Make sure the public space is well-lit (Brunschot, 2024; Clous, 2024; Schram et al., 2024; Ma et al., 2023) and be especially wary of bad lighting in the outdoor environment as many women mention parks and green areas as places they avoid after dark (Clous, 2024; Mama's Garden, 2024). Avoid designing tunnels or other dark passage ways also (Brunschot, 2024). It is still important to design dark (green)spaces for flora and fauna. It is the task of the spatial designer to try and find a balance between gender-sensitive design and design for biodiversity.

## 2.6 - Design with daylight

Good daylight design is important for any user (Brunschot, 2024). However, for women it carries more weight. As explained, dark spots are detrimental to their experience of safety, but studies also suggest that there is a connection between the daylight exposure of women and



their mental state and productivity: daylight is more important for their good moods and their productivity than it is for men (YouGov & Velux, 2018). Moreover, from the interviews, the aesthetic value of daylight was mentioned as well as the importance of daylight for the legibility of the space (Mama's Garden, 2024).

## 2.7 - Activate the plinth

By placing functions in the plinth of a building it can be activated. This increases the 'eyes on the street' and makes the environment less dark as light filters through the windows. When the function is public or even tied to daily responsibilities (like a supermarket) it may also increase the public space participation and general liveliness on the streets. Buildings should have an inviting entrance and their function should be clear from its exterior. An important note: using the plinth for, say, businesses may also exacerbate negative effects if their closing hours align: a lively shopping street may easily become a dark, empty and anonymous street at night. (Brunschot, 2024)

## 2.8 - Accessibility

Accessibility in terms of gender-sensitive design or design for women involves primarily measures pertaining to social accessibility, but also measures that may affect physical

accessibility when mobile or travelling with kids. Many elements designed for accessibility benefit multiple groups of women like mothers with a pram, women with a disability or elderly women. Built ramps, an elevator, raised crossings, automatic doors and larger bathroom stalls with hooks on the door. Eliminate obstacles like jutting tiles and make sure the public space is compact and everything is within walking distance. Keep intersectionality in mind: walking distance is relative and may be shorter for certain groups. Ensure multiple, clear entrances and exits, provide enough (free) public bathrooms, and add non-linear seating areas as linear seating arrangements make women feel as if they are on display and an easy target for street harassment. (Schram et al., 2024).

## 2.9 - Meaning

Women's participation in the public space is tied to their daily responsibilities and goals. By designing lively, meaningful places that are clear in its function or use, women may more easily tie their goals to the space. Another option is designing multifunctional spaces that users themselves can easily imbue with their own meaning so they can shape them to fit their personal needs. When women imbue a space with meaning or tie it to their routines, they participate in space claiming (Brunschot,



2024; Schram et al., 2024). Keep in mind that (too) unclear, vague spaces may invite feelings of social unsafety and may become abandoned instead of stimulating a lively environment (Clous, 2024; Schram et al., 2024).

## 2.10 - Zoning

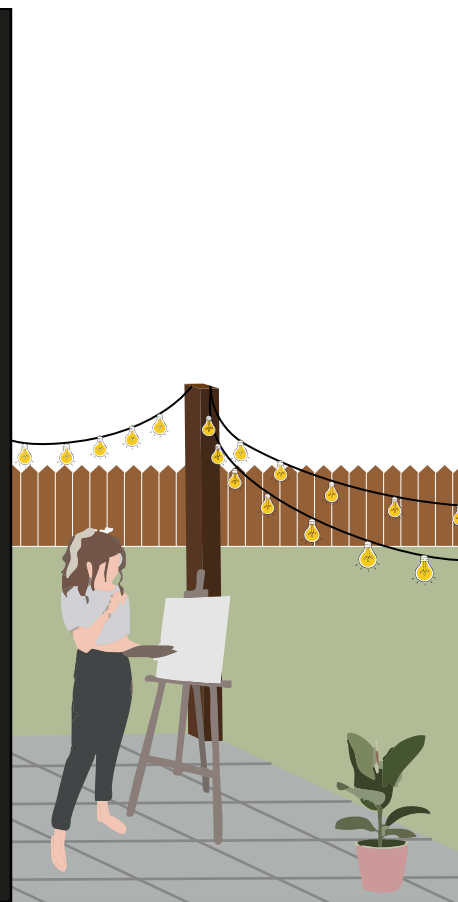
One way to assign meaning and functions to a project could be to work with zoning. Different zones can on one hand function as a permeable buffer between varying degrees of privacy and assign meaning in that sense, but may on the other hand also provide a handhold when assigning functions (Brunschoot, 2024). For example, there can be a zone meant for more relaxing activities, a zone for kids or a zone for creating.

## 2.11 - Green spaces

Green spaces have proven positive psychological effects, but for women this is more nuanced. Greenery that is too dense or too tall may decrease feelings of social safety due to limiting overview and the creation of dark spots. Instead, design with moderate vegetation density and only low or above eye-level planting (including no low hanging branches or tall shrubbery). (Mama's Garden, 2024; Schram et al., 2024; Ma et al., 2023; Brunschoot, 2024)

## 2.12 - Don'ts

In addition to the 'do's' there are also some 'don'ts' when it comes to gender-sensitive design. Be wary of transparent or reflective floors or stairs as women may wear skirts and dresses. Ensure people cannot easily look up their skirt. Additionally, women may choose to wear heels, so if one chooses to design with rasters, make sure the meshes are small so heels do not get caught. Keep in mind also male behaviour that is off-putting and damaging to women's feelings of safety like public urination: do not design a building with 'peeing corners' (a nook with a blank corner away from general view). (Brunschoot, 2024)





I am sitting in the garden enjoying the good weather

Ouch! I wish I hadn't worn my heels today!



3.1 - Diversity and Intersectionality



3.2 - Variety



3.3 - Code of conduct



3.4 - Freely programmable space

# 03

## PROGRAMMATIC GUIDELINES

### 3.1 - Diversity and intersectionality

Keep in mind different needs that come with different backgrounds (i.e. prayer rooms, wheelchair ramps) (Brunschoot, 2024, Schram et al., 2024), but know that gender is leading in women's experience of space. During the interviews in the study it was found that women, regardless of age, ethnicity, immigration background etc., mentioned the same elements or places in Rotterdam South they disliked. Riemersma recognized the same during her time spent researching similar topics: while the women may be different in any other way, there is a surpassing unity in their experiences of gender. (Riemersma, 2025)

### 3.2 - Variety

Program for a variety of activities for a variety of people (Schram et al., 2024) at a variety of times (24 hours programming) to increase women's sense of social safety. By ensuring there are no dominant social groups (Beebeejaun,

2017), more women will feel welcome. Diverse activities will help achieve said goal. When designing a public building, make sure it is not vacant too often as that will have an undesirable effect on the street: the street will become dark, anonymous and there will be no informal oversight.

### 3.3 - Code of conduct

Studies and the interviews have shown that activities in public which include drugs, alcohol or cigarettes are off-putting to women (supposedly since they are more often harassed on the street by intoxicated men). These activities increase feelings of social unsafety and increase nuisance. Introduce a code of conduct (or encourage the building owner to) that prohibits alcohol use, drug use or smoking on the premises. (Schram et al., 2024; Riemersma, 2025)

### 3.4 - Freely programmable space

Add superfluous square meters so that users can imbue the space with their own meaning

and programs. Extra space allows for flexibility: by allowing women to arrange or furnish spaces as they desire they will feel more connected to the space and will be more likely to lay a claim on it. (Brunschot, 2024)

### 3.5 - Programmed space

The public building or space should be clear in use and its function should be established by programmatic elements. This seems contrary to the previous guideline, but the most beneficial outcomes may be found in balancing the two. Too much ambiguity can lead to a space remaining empty, by adding specific elements such as built-in shelves, a counter or some pieces of furniture, women have a starting point when assigning meaning and use. (Brunschot, 2024; Schram et al., 2024)

### 3.6 - Cultural value

Adding a cultural program to a space – be it a market, a workshop space, library or something else entirely – can link a space to women and their communities. Figure out what the women in the community need most and align the project to that need, so that women may tie the public space to their daily tasks and responsibilities and are thus more likely to use it. Consider also that women use the public environment to destress, which in turn may tie into a cultural program like a space for dance classes. (Clous, 2024; Schram et al., 2024)

### 3.7 - Paid vs. free programs

To address both lower income and medium to higher income groups of women, the program should not just be diverse in activities but also in costs. Program for free activities and allow free access to the premises. (Clous, 2024; Mama's Garden, 2024)

### 3.8 - Accessibility

(social) Accessibility is important when designing for any (public) space, but especially when designing for women; the next paragraph offers some suggestions. Design sheltered 'hiding places' from where women can keep an overview without being seen themselves (through for example meshes), design for pri-

vacy and refrain from designing linear seating areas (Schram et al., 2024). Moreover, design a building to have multiple entrances/ exits women can use when they feel threatened. Incorporate a pumping room and gender neutral changing tables (Brunschot, 2024), an elevator large enough for a pram, parent and (multiple) kids as well as a low stimuli room for women to ground themselves (Mama's Garden, 2024). Finally, design toilet stalls without any gaps in the door or cubicle (Clous, 2024) and allow spaces for religious women like a prayer room (Brunschot, 2024).

### 3.9 - Common 'wants'

During the interview some functions and programmatic elements were mentioned that were more specific to the women or groups personally. While they cannot be generalized to all projects, some were mentioned more commonly. The following lists are some functions designers can consider.

#### Commonalities in interviews and literature regardless of group

- Coffee cart or coffee corner with some smaller bites
- Comfortable seating areas: living room or lounge
- Attractive, decorative elements like art, water features or other visually attractive elements
- Comfortable outdoor spaces: aesthetically attractive, well-lit and green. The outdoor space should be kept in view and secured by informal oversight.
- Collective kitchen area for the neighbourhood or open for reservation by social groups and initiatives.

#### Young girls

- Make-up tables/ -room
- Recording studio for podcast and social media videos
- Dressing rooms
- Coffee cart

#### Moms with young kids

- Arts and crafts space
- Yoga- or gym space



3.5 - Programmed space



3.6 - Cultural value



3.7 - Paid versus free programs



3.8 - Accessibility

- Spa and Wellness to de-stimulate
- For the kids: Reading area with soft surfaces for the kids, reading hour, sleeping room with cribs and beds for young kids, a sandbox, play parkour, ball pits, changing tables.



### 3.9 - Common 'wants'

# 04

## RECOMMENDED SITE

From the literature and interviews some recommendations regarding the project site came forward. While designers often have no choice in site, spatial planners may use these recommendations while designing public space.

Most importantly, when designing for women, is the set-up of the public space: it should be designed to keep oversight and overview (Brunschot, 2024; Mama's Garden, 2024; Ma et al., 2023; Schram et al., 2024) and not be too spacious (Brunschot, 2024; Clous, 2024). Moreover, it should be easily reachable (Clous, 2024; Mama's Garden, 2024; Schram et al., 2024), close to (the target) neighbourhoods, in a place with, preferably, a safe reputation (Schram et al., 2024) not right beside a park, so women are not obligated to pass through it after dark (Mama's Garden, 2024). Traffic control and safety is also an important factor, especially for mothers with smaller kids and elderly women: separated infrastructure and parking for bikes, scooters etc. will help keep the sidewalks clear of obstacles and dangerous

situations (Riemersma, 2025). In the direct environment of the project, it would be preferable if there were amenities women can tie to their daily task and responsibilities (e.g. pharmacy, supermarket, school) and the project is preferably not (located next to) a square as women do not use them but intimidating groups of men do (Riemersma, 2025). Some options for more suitable outdoor spaces for women may be gardens or courtyards.



Building over open space



Semi-public over public or private



Large or multiple smaller ones

# 05

## RECOMMENDED BUILDING TYPE

Perhaps unsurprisingly, there was a clear preference in the interviews for the design of a semi-public building. Unsurprisingly, since the research has shown that women prefer spaces with (informal) supervision, overview and areas that are well-maintained and lit: public buildings can – as opposed to open public space – easily fit within these wishes. Semi-public, as opposed to public, means that the building is open only to those considered the target group (those who have a ‘reason’ to be there), meaning ‘dangerous strangers’ will be kept out. Suggestions for this semi-public building include a neighbourhood centre, after-school care or a neighbourhood kitchen (Mama’s Garden, 2024). Additionally, the literature also highlights the value of having wide-spread smaller facilities, as they have a wider reach as well as offer more ‘eyes on the street’ for social safety (Schram et al., 2024).





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# PART 2

## DESIGN PORTFOLIO

# ABOUT THIS PORTFOLIO

You are about to view a graduation portfolio of the TU Delft Master of Architecture on the topic of gender-sensitive design. The portfolio consists of the work produced in the second half of the research-for-design graduation process. This part follows the research part and entails an architectural design based on the research outcomes: design principles and guidelines.

The topic of gender is a social one, but as part of the graduation requirements the design also had to meet certain building technology standards. This includes structural design, technical design, climate design, and designing for sustainability. Because of these additional requirements, not every drawing will relate directly to the topic of gender. These drawings will have their own separate chapter.

Moreover, as this design is part of a graduation process, not all design guidelines outlined in the report '*Spaces of Power*' and the attachment '*Blueprints for change*' are applicable and some had to be adapted. That said, the contents of the report and attachment are considered essential knowledge: it is not recommended to read this portfolio independently.

The second half of the graduation process has three deadlines: P3, P4 and P5. These deadlines were part of the graduation assessment as well as an opportunity for peer- or mentor feedback. The design process contained many iterations, but the portfolio contains the final design only.

# INTRODUCTION

The research report has shown that gender is leading in how we experience the built environment. Gendered effects are what drives the difference between men and women when it comes to degrees of space claiming and public space participation, negatively affecting women. Though socio-cultural problems lie at the basis of these occurrences, the report names design guidelines and principles which will allow for a gender-sensitive design.

This portfolio continues to illustrate what a gender-sensitive design might entail by translating these design guidelines to practice. This is done through the design of neighbourhood centre Magnolia. This design is but one of many possibilities: the guidelines allow for a lot of variety and many different spatial expressions. The neighbourhood centre is located in Bloemhof, and its design shows how gender-sensitive design guidelines can be applied in a real context.

Through a series of visualizations and technical drawings the design will be explained. Following the structure of chapter four of the research report 'Spaces of Power' and the attachment 'Blueprints for change' an extensive overview will be provided. It goes to show how gender mainstreaming can mitigate cultural problems with real-life, practical approaches.

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# 0 PROJECT OVERVIEW

## AN INTRODUCTION TO NEIGHBOURHOOD CENTRE MAGNOLIA

**This chapter provides an overview of the gender-sensitive building design of neighbourhood centre Magnolia. It serves as a quick start guide to understanding the building and its general set-up. Later chapters will delve into details based on this general building knowledge. The following subchapters will expand on the neighbourhood Bloemhof, the site, spatial context (Kamelia), building massing, masterplan, building scope, naming, floorplans, and the building architecture.**

### The neighbourhood Bloemhof

Bloemhof is one of the neighbourhoods in Rotterdam south, located in Feijenoord next to the neighbourhood Tarwewijk. Bloemhof is a neighbourhood with a lot of opportunities, but also one with various challenges, like poverty and general unsafety or climate problems like the UHI- effect. Moreover, Bloemhof is one of the neighbourhoods in Rotterdam that is being threatened by soil subsidence: many houses do

not have a foundation and will either need to be renovated or, more likely, demolished.

The research has shown that traditional gender roles are prevalent in Bloemhof and feelings of unsafety are ubiquitous. Many women find the neighbourhood inaccessible or do not want to go out after dark. However, not every woman thinks negatively of their neighbourhood: there are a lot of small communities to be found and women who are born in Bloemhof feel a strong to “their home”. These values are to be kept in the new design, while the negative experiences will be mitigated.

For more in depth background information regarding demographics, neighbourhood history, and subjective neighbourhood experience please refer to *Part 1, Chapter 3 - Rotterdam Bloemhof: general background*.

### The site

The project site (figure 0.1) is in the North of the neighbourhood, which is the part of the neighbourhood with a lot of multi-level hou-

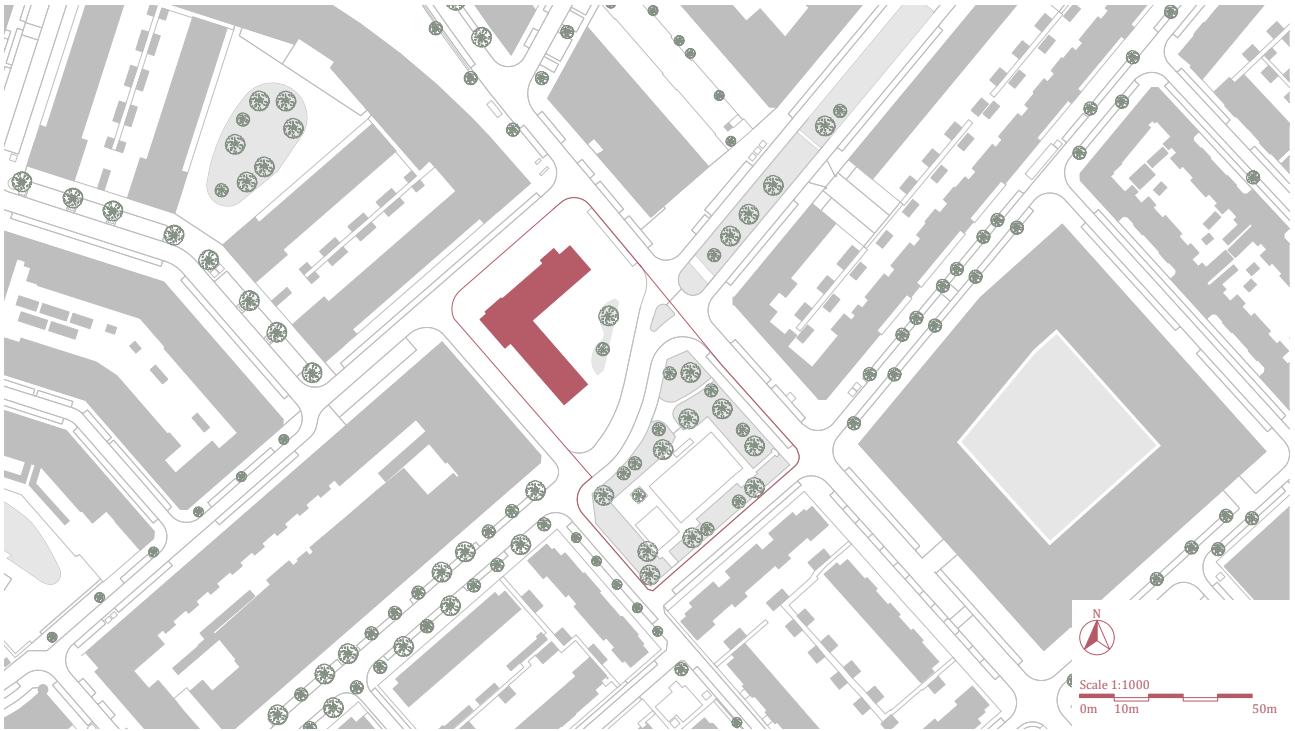


Figure 0.1: Design location, Putsebocht, 1:1000



Figure 0.2: The old building of Kamelia, previously a neighbourhood centre

sing. The site currently consists of two plots: one is a square ('Violiersplein') with a football cage, and one holds the old neighbourhood centre Kamelia. These separate plots will be joined by removing part of the road ('Putse bocht') Directly surrounding the plot are mostly residential areas, but to the Southwest of the plot there is a small shopping street with amenities like a small supermarket, a hairdresser and more. This block, however, suffers from soil subsidence and will at some point be renovated or demolished, displacing people and businesses.

## Spatial context and Kamelia

As mentioned, part of the current site is the building of what was previously neighbourhood centre 'Kamelia' (figure 0.2). This building has held no official function for almost two decades and is currently in use as anti-squatter dwellings. The building of Kamelia is a hundred years old (built 1926) and was originally an elementary school. Over the years it has changed functions multiple times and though a recognizable building in Bloemhof, an intervention is needed to bring it back to life.

The new design will partially reuse the building<sup>1</sup>. A lot of the architectural quality can be found in the facades facing the square, so these two facades will be used in the new design. The facades will honour the old building and its identity: the visitors of the new building will still recognize the familiar landmark.

To add some more to the larger context of the site, the buildings in the surrounding were analysed. Many buildings are made of the traditional red clay brick and decorated using varying bonds. It is not uncommon for buildings to have a contrast in colour between the plinth and upper floors, and blue ceramics and colours can be found on facades throughout the neighbourhood.

<sup>1</sup> A disclaimer applies when looking through the lens of sustainable design. Broadly speaking, the building is in not too bad a shape. It has some less than desirable features like blind walls, brick calcification, and hostile architecture. Moreso, it also performs bad energetically speaking (energy label G) and will need a second skin. That said, smaller more sustainability-friendly interventions than the one taken in this graduation project could also suffice, like say, a renovation. However, as the goal was to make a gender-sensitive design and not perform a renovation, the personal decision was made to demolish a large part of the building instead.

## Building massing

The building massing concept consists of six steps (figure 0.3). As mentioned, the two current plots will be merged into one and two of Kamelias facades will be reused. Using this façade, a courtyard was created, enclosing the previous front square. Extra building mass was added to the southern part of the plot, in which a square was 'hollowed out', creating a protective 'embrace'. An alleyway was made alongside the courtyard, connecting the existing shopping street to the North-East of the neighbourhood.

Housing program was added on top of the buildings to match the building height to that of the built environment. Rooftop terraces were added by removing part of the mass, creating a gentle sloping motion.

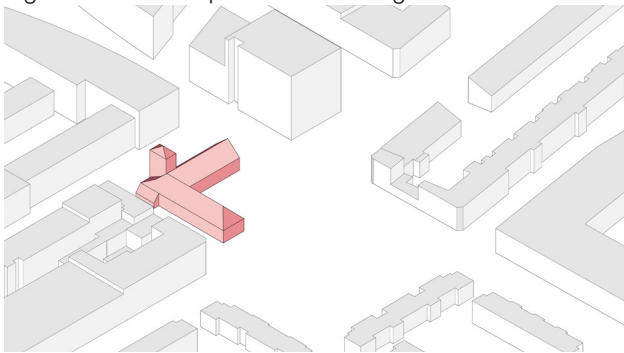
Extra circulation was added to the courtyard and square: the courtyard was encircled by an indoor walkabout, and the square was wrapped in an outdoor walkabout by lowering the water square, creating a height difference. Finally, extra greenery was added in the form of tree lines and pocket parks, combatting the UHI-effect.

## Masterplan

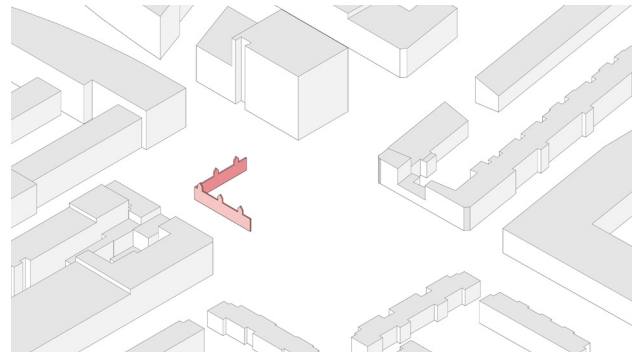
The masterplan (figure 0.4) shows the new building mass in the context of the site, showing its two halves. The left half of the building holds the neighbourhood centre and its courtyard. Inside the neighbourhood centre there are functions like a public library, a neighbourhood kitchen and much more (see *Floorplans*). On top of the building there are dwellings with their own roof terraces, in addition to the roof terrace of the neighbourhood centre.

The right half of the building and site has amenities, terraces, a playground and a water square (see 2.12 – *Don'ts* for extra information)

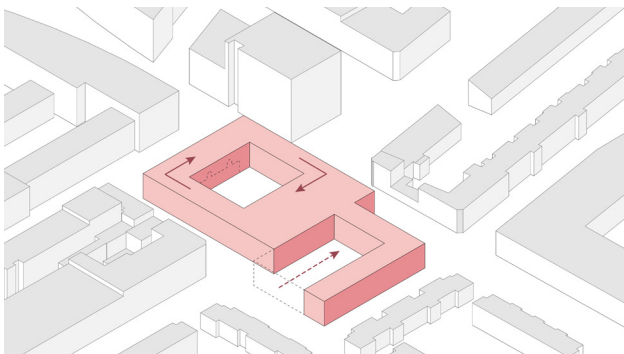
Figure 0.3: Concept for the building mass



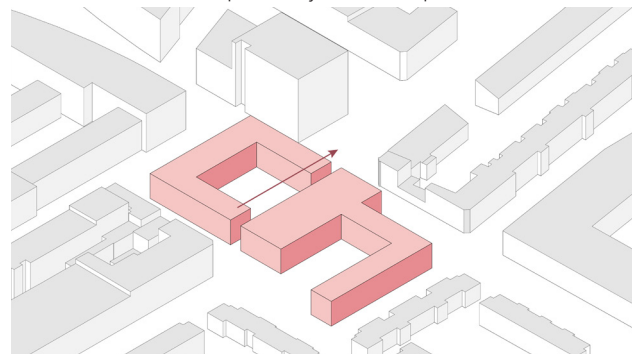
0- Current situation, neighbourhood centre Kamelia



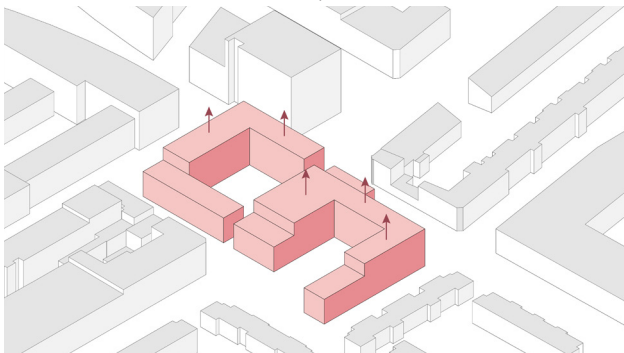
1- Partial demolition Kamelia, two facades remain upright. These facades form the corner of what was previously the front square



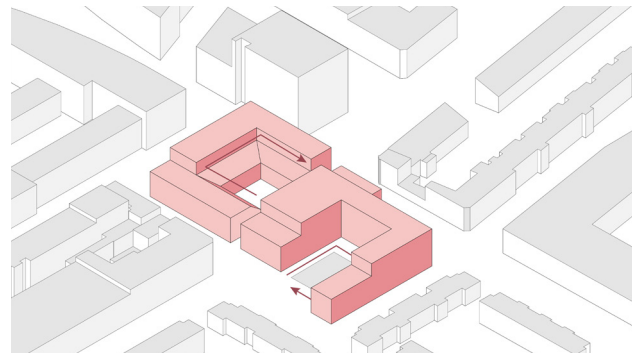
2- Corner from Kamelia is mirrored, forming a courtyard. The south part of the plot is filled with amenities and a square is 'hollowed out'



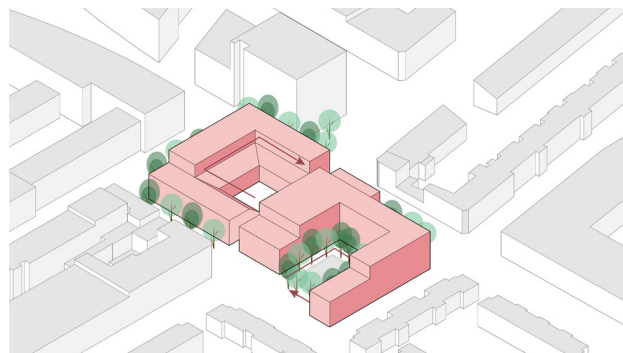
3- The courtyard is opened up by addition of an alley, connecting the shopping street to the North-East of the neighbourhood



4- Additional dwellings are added to the program to combat the housing shortage and add 'eyes on the street'



5- The square -now a watersquare- and the courtyard gain a walkabout: one is covered and indoors, the other is open and outdoors



6- Final building mass, greenery and pocket parks are added

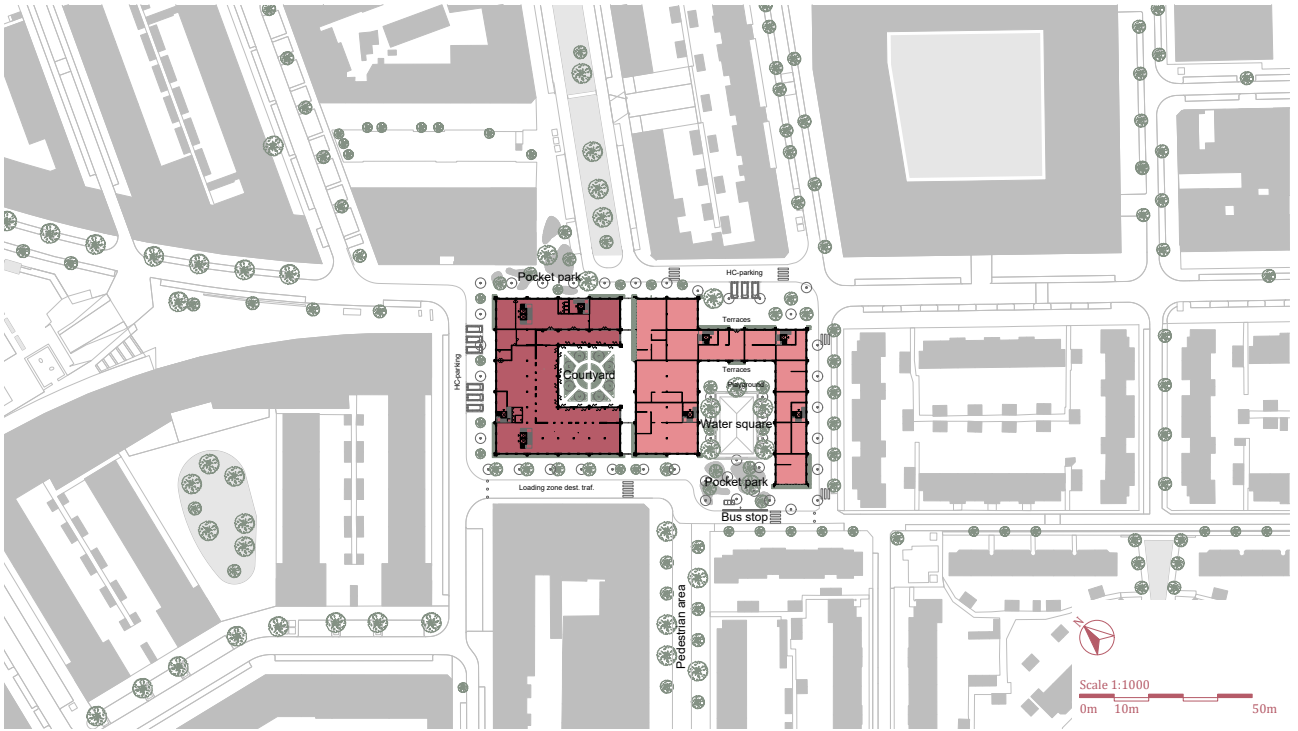


Figure 0.4: Masterplan of the site, the two halves show the neighbourhood centre and the area with amenities

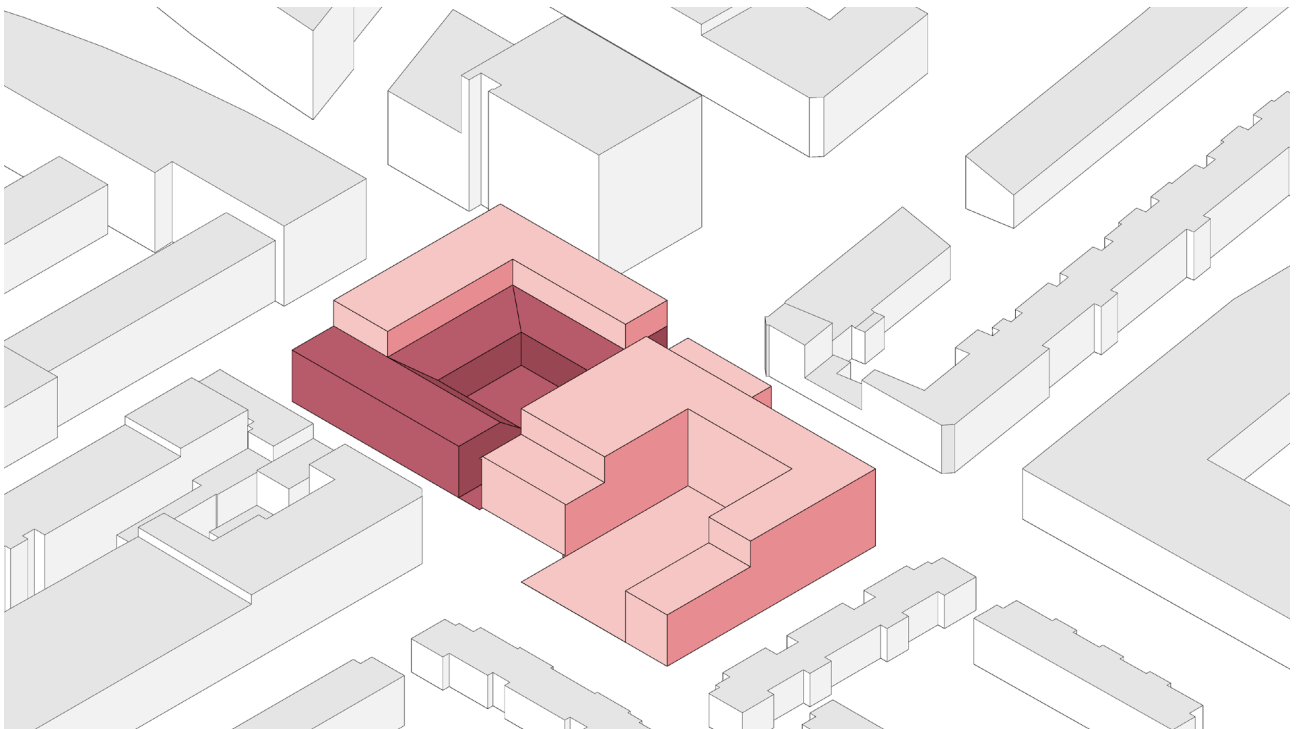


Figure 0.5: Scope of the design project, bordeaux red: inside of project scope, light pink: outside of project scope

on the ground floor and dwellings in the top two floors. Amenities include a supermarket, pharmacy, restaurant, hairdresser and more. The space in the program allocated to these dwellings and amenities is meant to mitigate displacement, as many of Bloemhofs' inhabitants or businesses will need to move as a consequence of soil subsidence.

Looking to the surrounding area, the shopping street is now a pedestrian area (only destination traffic is allowed) and handicap parking and levelled crosswalks are added. Additionally, a bus stop has been added to increase reachability of the site and offer an alternative mode of transit. Notably, a lot of green has been added as well through flowering pocket parks and treelines along the site.

## Design scope

Due to the limited time assigned to the graduation process and the large plot and building mass, only part of the masterplan will be worked out in detail (figure 0.5). The scope is narrowed to the neighbourhood centre only (the left part of the building) excluding the extra dwelling program on the second floor.

## Naming: neighbourhood centre 'Magnolia'

The new neighbourhood centre will also receive a new name, as befitting its transformation. The neighbourhood centre will be named 'Magnolia'.

In Bloemhof (English translation: flower courtyard), the streets in the north of the neighbourhood have street names based on flowers e.g. 'Lavendelstraat' or 'Hyacintstraat'. The old neighbourhood centre Kamelias' name was also based on these street names as it is located on the 'Kameliastraat'. A new building with a new identity deserves a new name. This will also prevent confusion when the building is discussed. That said, the floral theme will be adopted in the selection of a new name.

The name Magnolia was chosen for multiple reasons. For one, some people consider the

Magnolia a companion plant to the Camellia as they flower at the same time in the spring. The Magnolia, however, has a second bloom in the summer, representing the new beginning of the old neighbourhood centre. Additionally, the Magnolia symbolises strength, beauty, and perseverance in many cultures. These symbolic attributes fit not just the history of the building, but also the neighbourhood and its inhabitants. Finally, the name Magnolia and the plants' pink flowers have a very (traditionally) feminine air, which connects to the theme of the graduation project: designing for women.

## Floorplans

On the following pages, the floorplans are shown. Magnolia has three floors (four if one counts the roof). The first spread shows the ground floor in its larger spatial context, including the part of the building that is out of scope. The following spreads show the ground floor and up in an isolated view.

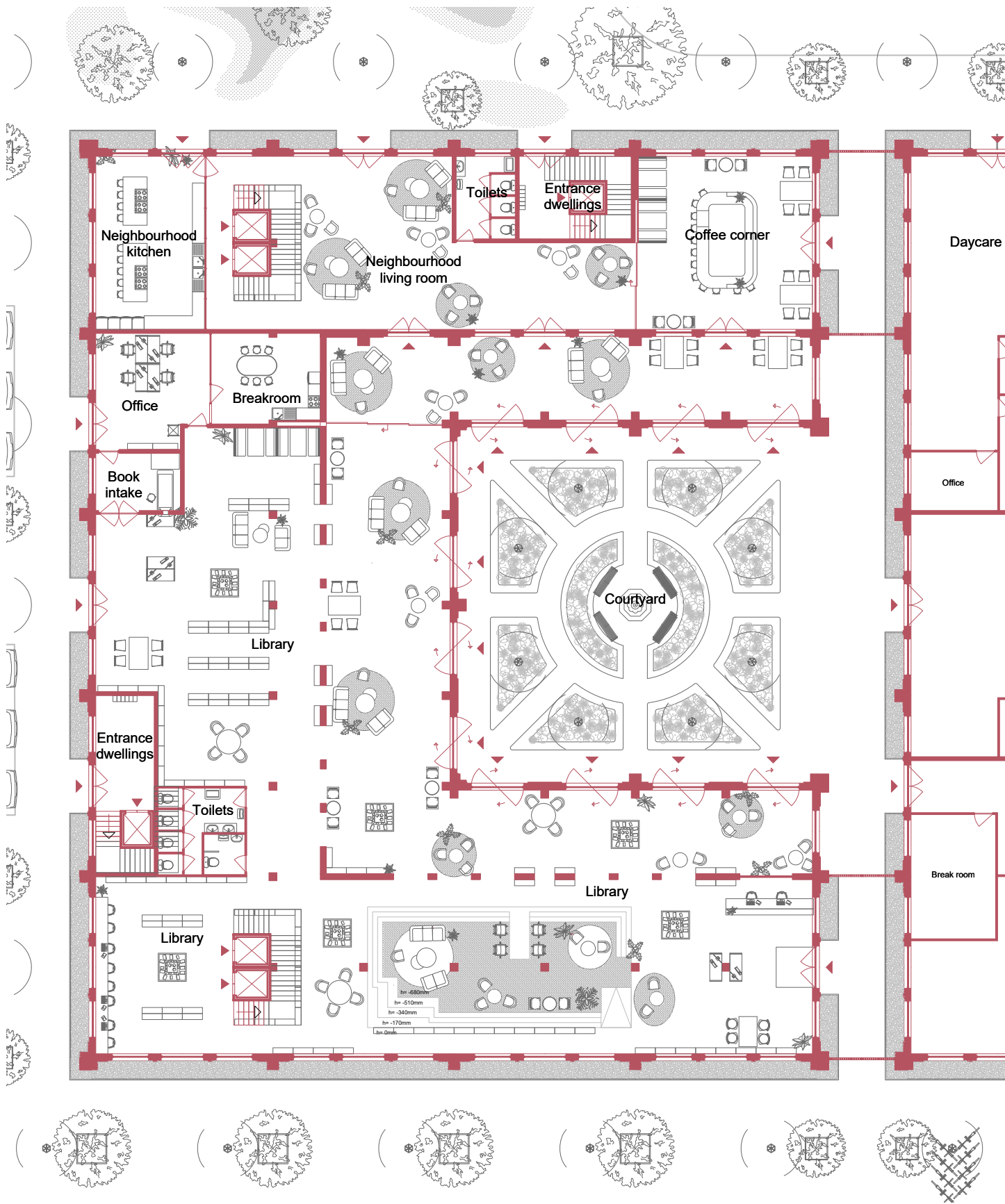
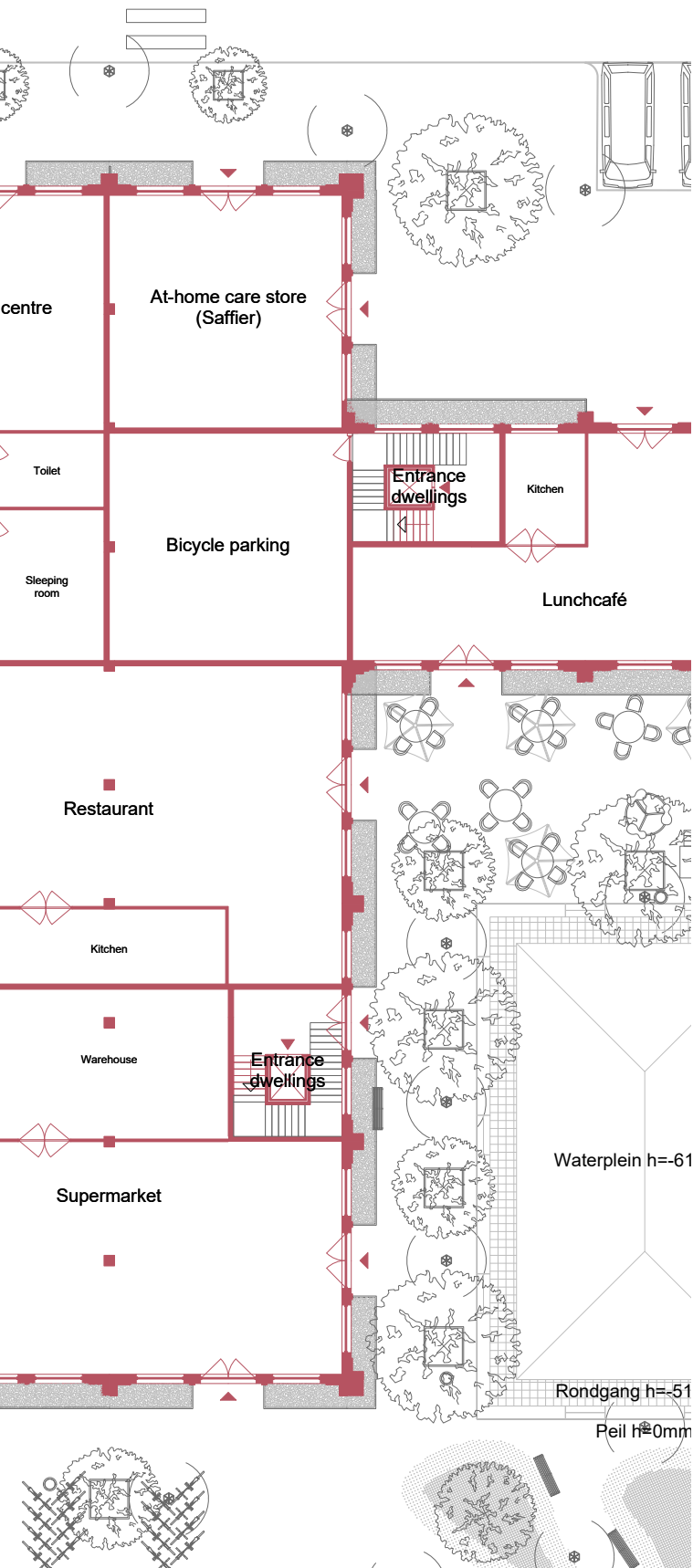


Figure 0.6: Ground floor with spatial context, scale 1:200

## THE GROUND FLOOR WITH SPATIAL CONTEXT

The ground floor of Magnolia has multiple entrances or exits, making the building easily accessible from all connecting routes in the direct environment (figure 0.6). Most entrances face the outside of the plot, but two entrances of the neighbourhood centre are connected to the alley as are some entrances of the amenities in the Masterplan. Because of these entrances, the plinth in the alley is activated, making it a lively, well-lit space instead of an empty, dark spot. As the alley can be closed when the building is closed, it will not become an unsafe place at night either.

Through the alley or through the building visitors can enter the courtyard. The courtyard resembles a cloister garden seeing as it has a walkabout and a flower garden. The flower garden is planted with native species and is centred around a small square with a fountain. From the courtyard, visitors can (re-)enter the building through the rotating doors.



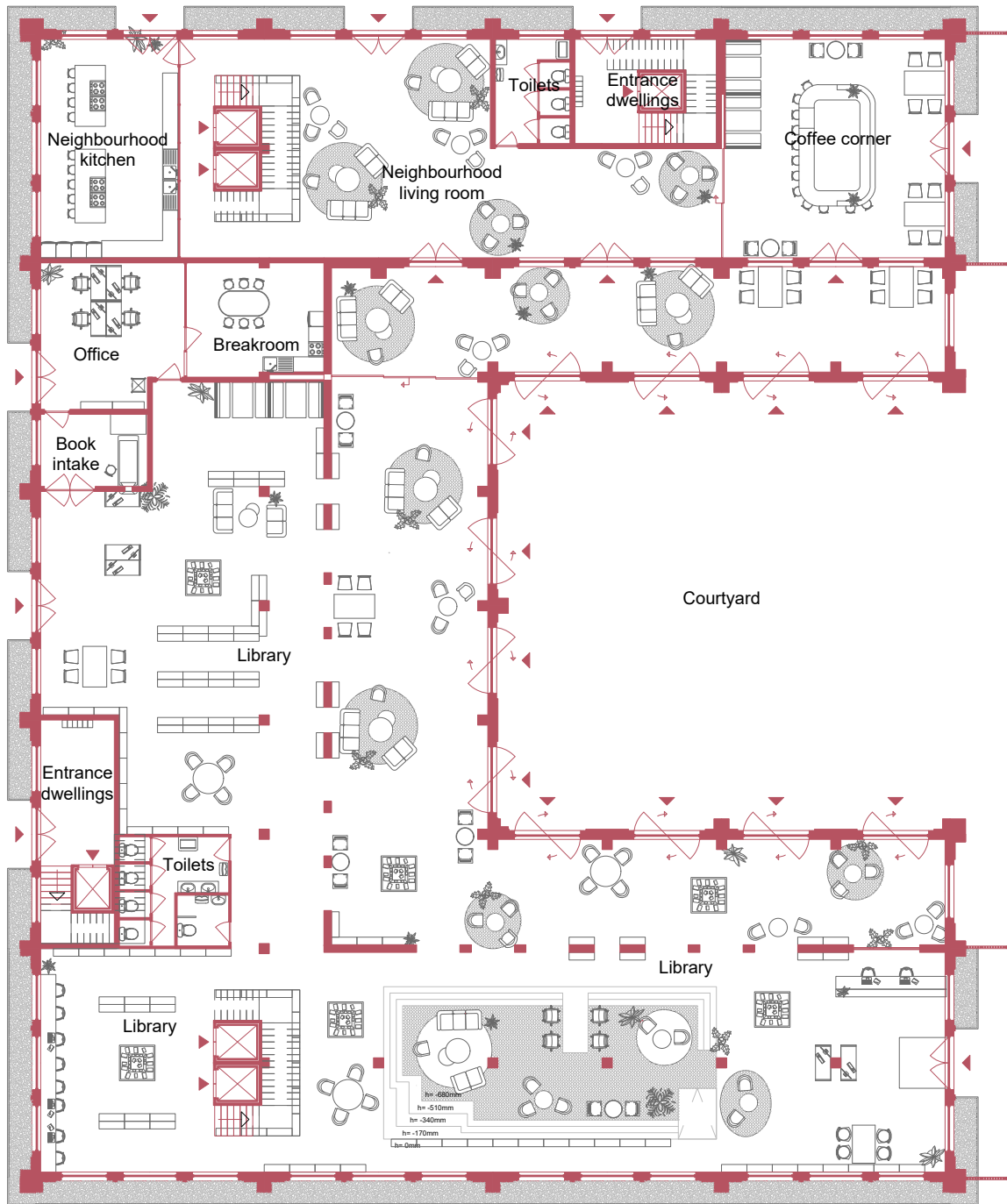


Figure 0.7: Ground floor without spatial context, scale 1:200

## THE GROUND FLOOR WITHOUT SPATIAL CONTEXT

From top to bottom, left to right, the program of the ground floor consists of a neighbourhood kitchen, neighbourhood living room, coffee corner, and a library (figure 0.7). The library area includes a back office, a lounge with reading spaces and, to the back of the building, study spaces and a lowered seating area. The liveliest functions —like the neighbourhood kitchen and the coffee corner— are placed on the building corners to activate the plinth. Additionally, there are the entrance stairwells for the dwellings (second floor) that prompt a continues flow of people. The different building functions are centred around a C-shaped hallway: the walkabout.

The walkabout is shaped by the exterior wall and the interior wall made from Kamelias old facades. The walkabout circles the courtyard and is the primary circulation route of the building, connecting the other neighbourhood centre parts to the library. To ensure these parts can also function separately, the walkabout can be parted by closing a sliding door. This means an event can be hosted in the neighbourhood living room while the library is closed, for example.

## THE FIRST FLOOR

From top to bottom, left to right, the first floor of Magnolia has the neighbourhood centre admin, a prayer room, neighbourhood living room, pumping room and a kids' corner (figure 0.8). It also has an installation room, a hallway with an overview of the walkabout, sport halls, and a staircase to the neighbourhood centre rooftop. On top of the ground floor library are a media room and study spaces overlooking the library entrance.

The first floor holds the more privacy-sensitive program elements of the neighbourhood centre. As the spaces are higher up, there is more visual cover (no people looking in from the street) and less coming and going of visitors. There is, however, still a strong connection to the ground floor as the walkabout is double the floor height and people on the first floor over-

look the ground floor walkabout. The hallway railing from which these people may overlook, is placed on the old facade of Kamelia: from the ground floor it looks as though these people are on Kamelias' old 'roof.

## THE SECOND FLOOR

The second floor of neighbourhood centre Magnolia primarily consists of dwelling program, which is considered out of scope (figure 0.9). The floorplan shows an outline of possible dwelling configurations (some with private terrace, some without) but holds no details. On this floor there is still some neighbourhood centre program, like a storage for rooftop functions, the rooftop terrace and the rooftop vegetable garden. The rooftop can be used for relaxation, to host events, or can be used by neighbourhood gardening initiatives. The rooftop terrace has views over the public street, the alley and a view of the sloping glass roof of the walkabout, and beyond that, the courtyard.

## THE THIRD FLOOR OR ROOF

The third floor or the roof of the building (not displayed) is a green roof. This green roof cools the PV-panels on top and increases their efficiency. Assuming an optimal south facing orientation, there is room for 633m<sup>2</sup> in PV-panels.

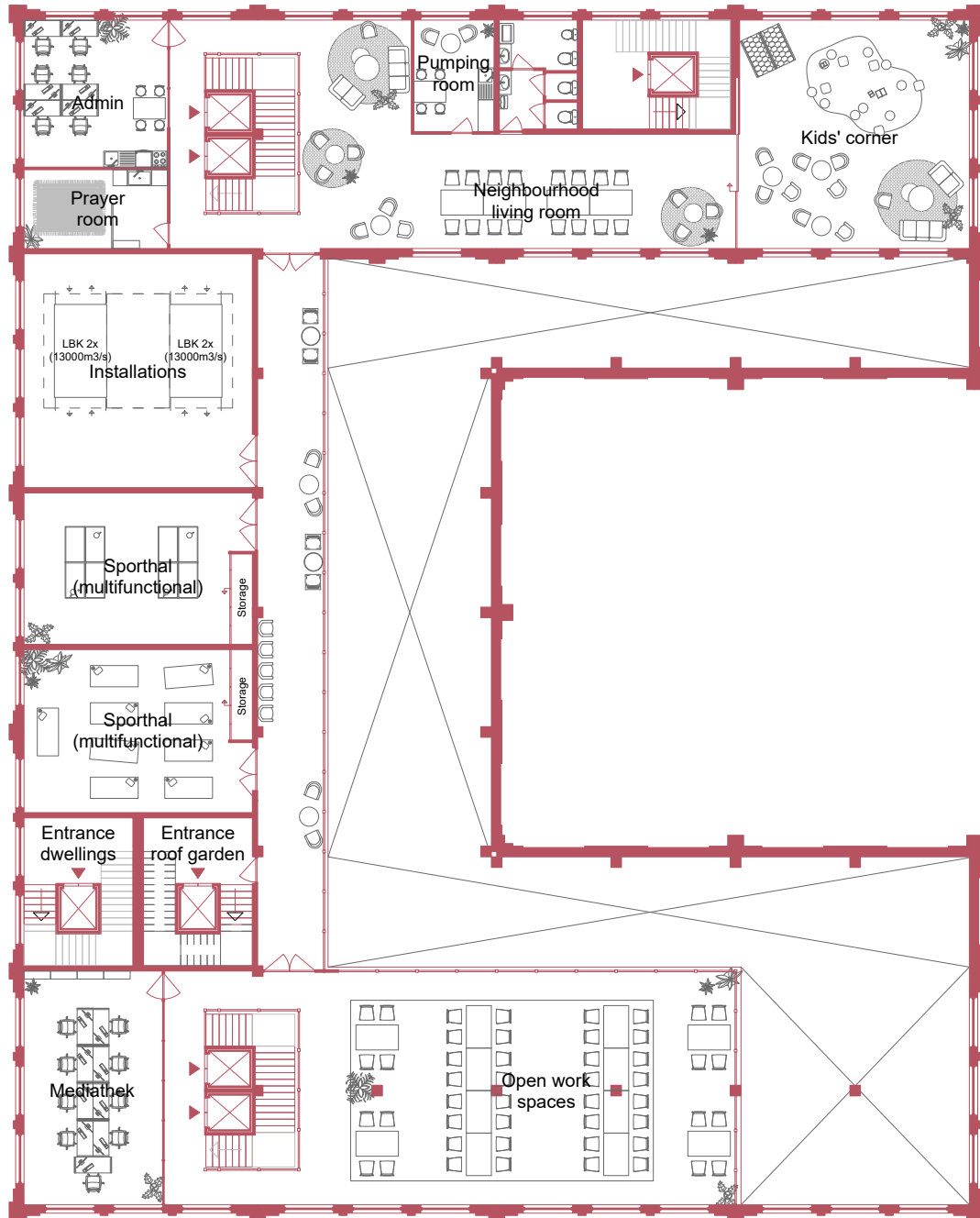


Figure 0.8: The first floor of the building, scale 1:200

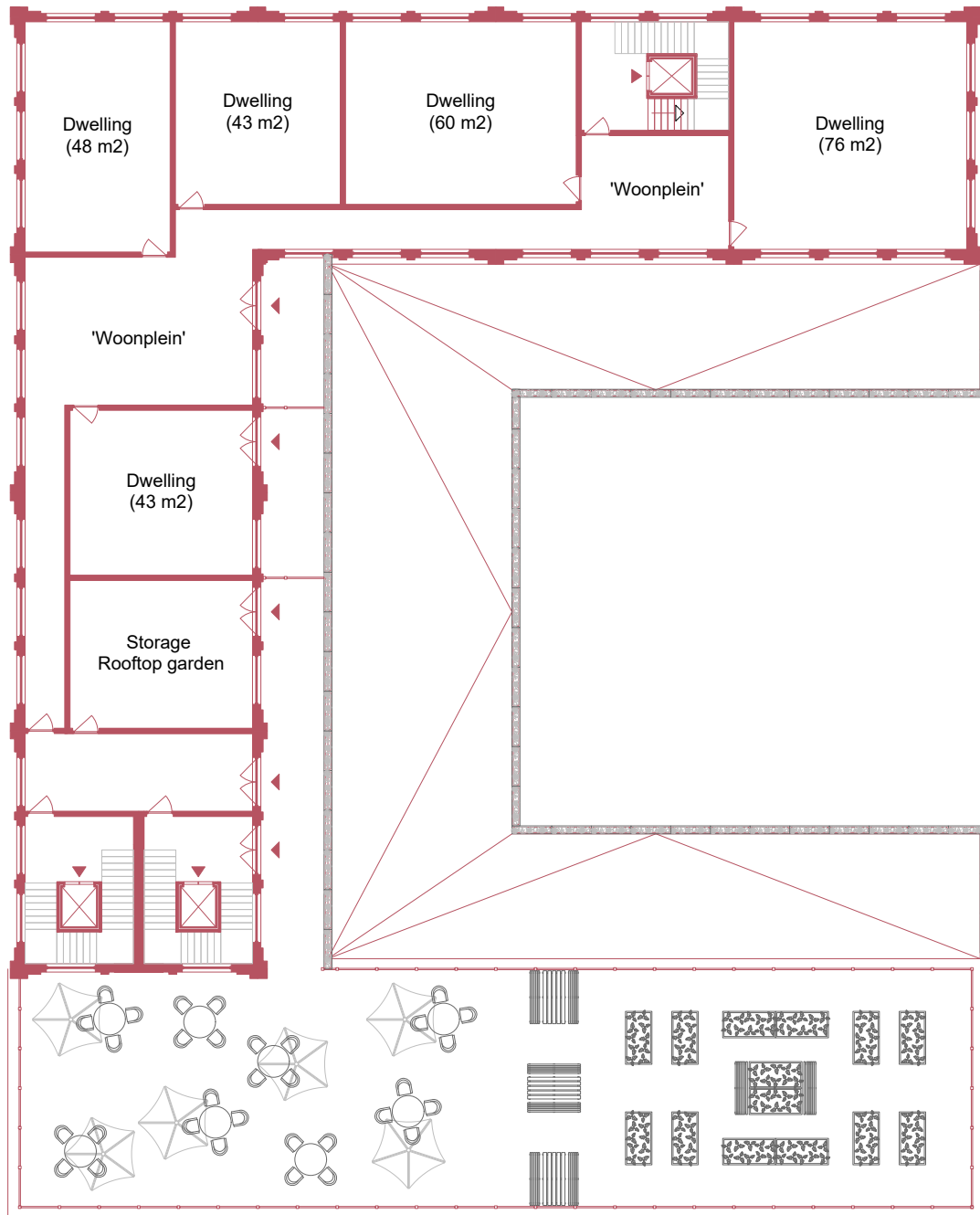


Figure 0.9: The second floor of the building, scale 1:200

## Architecture and the facade

Studies have shown that women are more aware of their surroundings than men, and a bad looking surrounding leads to negative perceptions. Designing for care, meaning and beauty contributes to positive perceptions, collective positive memories, and can draw women to the site. While opinions will vary and the perception of beauty is personal, the building was designed with care and holds a lot of different details. In this subchapter, the building architecture is outlined.

### REUSE KAMELIA

As explained before, Kamelia has been without official function for over a decade. The building is old and does not perform well energetically, so an intervention is needed. However, it has a lot of cultural and architectural value. The building is a landmark in the neighbourhood and the two facades bordering the square make for a pleasant environment. The facade has various brick bonds, and its arches and clear building rhythm of 'threes' give it a clear identity.

Figure 0.10 on the next page shows a 9m representative elevation of Kamelia and the new facade. Because the old facade does not perform well energetically—which is to be expected in a 100-year-old building—it needs a second skin: this formed the walkabout and the courtyard facade. This second skin adopts the architectural values of Kamelias' rhythm, its arches, and its brick bonds. The structural grid of this new facade is set to 4500mm, based on Kamelias structural grid, and as such the new facade openings aligns with the openings in Kamelias' facade. The brick bonds and arches match Kamelia, but the large doors to the courtyard (which rotate along their axes) and the fresh new colour make it more modern.

Kamelias' facade becomes an interior wall, and the glass roof of the walkabout makes the space between the new facade and the old a pleasant well-lit place to sit or read a book. The courtyard becomes a peaceful green oasis with plants cascading from the facade, a flower garden and a water feature.

### MAGNOLIAS' FACADES

The courtyard facade is different from the facade that faces the outside of the plot because the character of the space it borders is much different. The courtyard facade faces a sheltered green space, while the outward facing facade borders the public open street.

In the subchapter *Spatial context and Kamelia*, the materials in the sites' direct environment and Kamelias features were inventoried. Magnolias' design was made befitting this context (figure 0.11). Most noticeable is the blue green colour: as mentioned previously, there are a lot of blue colours and ceramics present in the spatial context and also many buildings in which the plinth has a different colour than the higher floors. The new design adopts these values through the use of glazed bricks so the building has a strong but not too contrasting identity in the neighbourhood.

Taken directly from Kamelias facade is the rhythm of threes in the facade openings and windows; the arches too are inspired by Kamelia. Typical for Rotterdam and Bloemhof is the different brick bonds. The plinth shares Kamelias Flemish bond, though with more depth as the heads of the glazed bricks extrude a little, providing lots of detail on eye-level. To the top, the facade and its brick bonds become simpler and smoother and the colour changes to the typical red-brown brick present in bloemhof, drawing less attention and thus offering more privacy on the higher floors.

The materials chosen convey mass and strength and thus feels protective, but the building does not feel uninviting because of the gentle detailing, soft round arches, and large windows. This inviting character continues in the interior as the arches and brick details are visible from the inside (figure 0.12), pulling the facade architecture inwards. Natural, warm materials make the interior soft in comparison to the heavy mass and protective layer of the facade. This selection in materials—both inside and out—work to tie the building to the spatial context and create pleasant spaces.

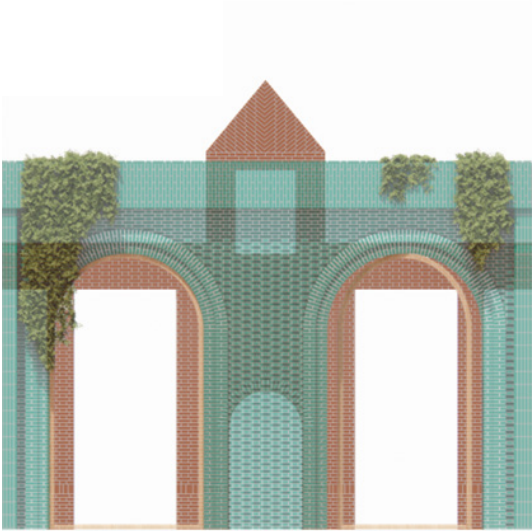


Figure 0.10: Kamelias's second skin

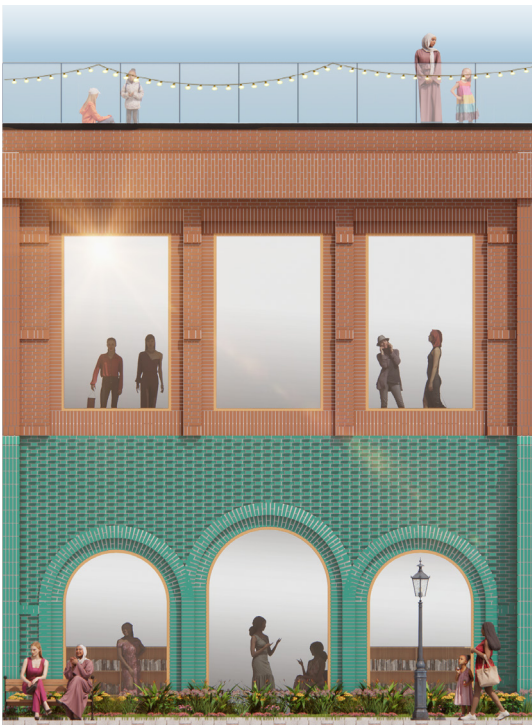
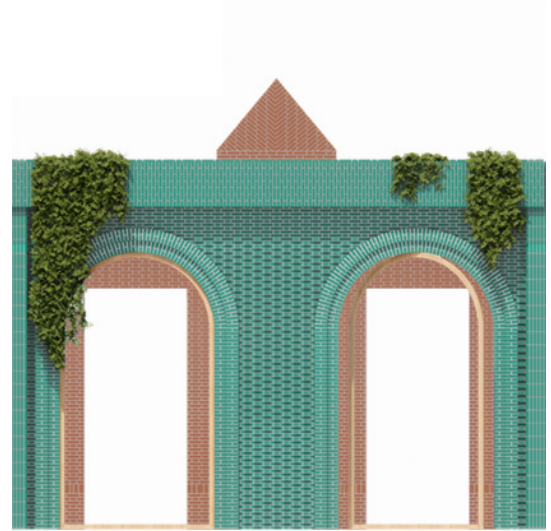


Figure 0.11: Elevation Magnolia (exterior)

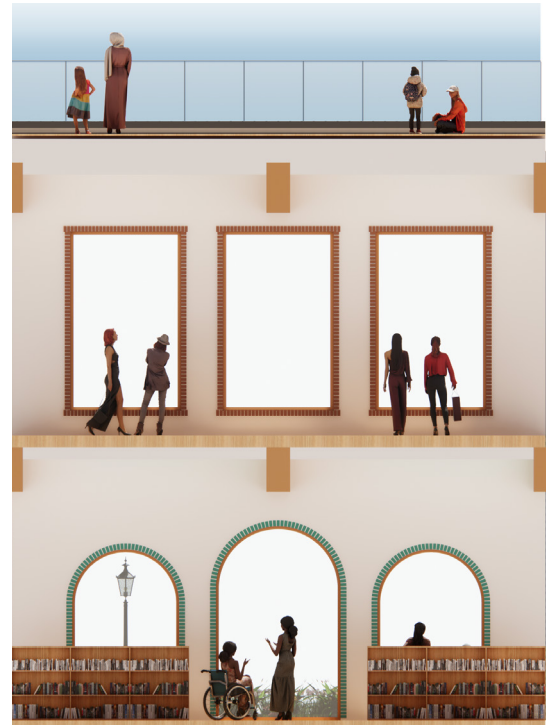


Figure 0.12: Elevation Magnolia (interior)

# 01

## PRINCIPLES FOR THE DESIGN PROCESS

As previously mentioned, not all principles and design guidelines could be applied to the design (process) as it is part of a graduation project. This most readily applies to the principles for the design process. In this chapter it is described how these principles were applied or adapted.

### 1.1 - Diversity and intersectionality

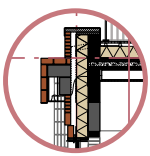
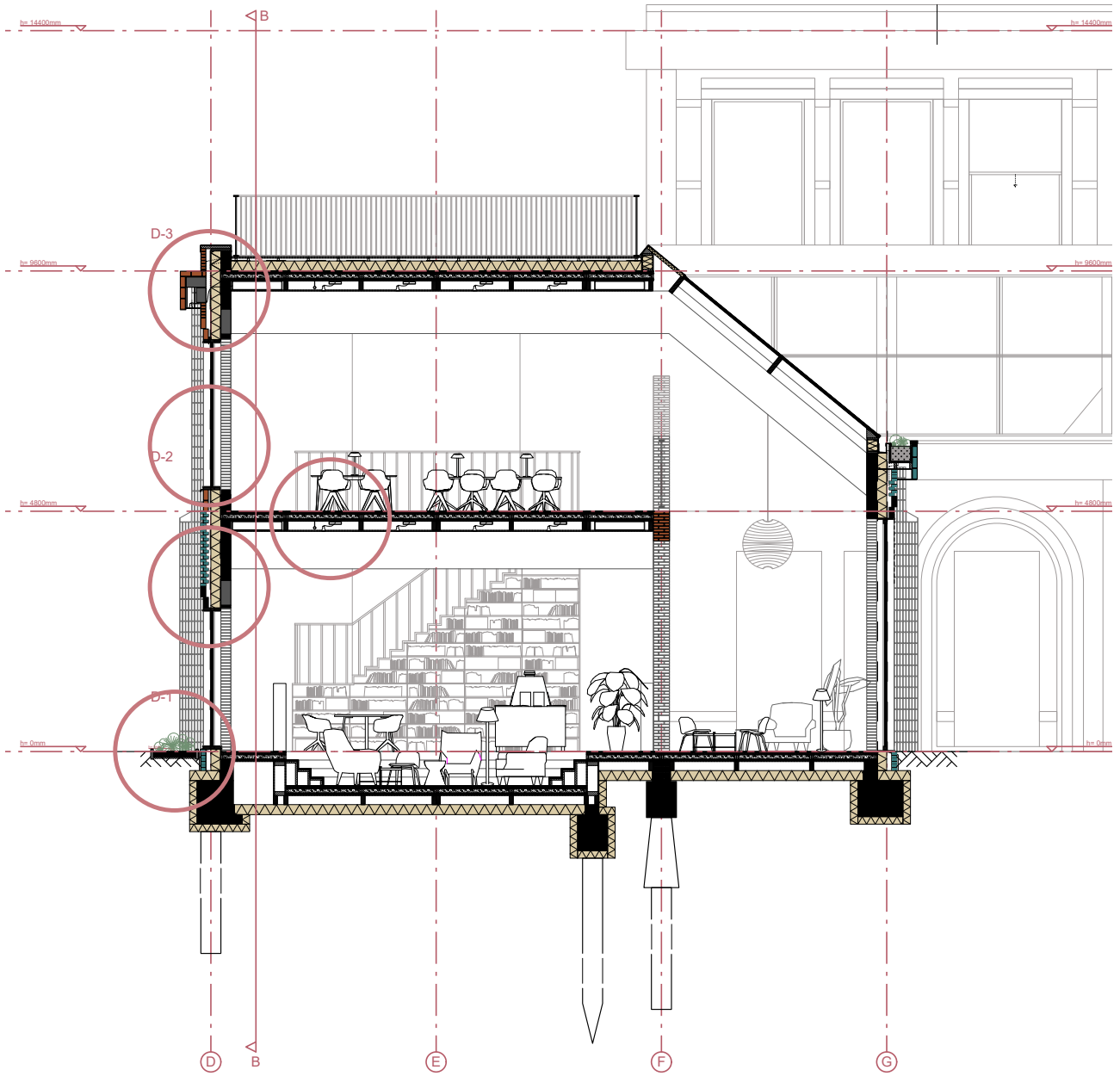
This principle by and large referred to the composition of the design team. However, as this is part of a graduate thesis, the work was done individually. That said, the design was made with intersectionality in mind. Information was gathered through interviews and research of the neighbourhood profile: this extensive research of the target group helped approach the project through different viewpoints and backgrounds.

In spite of these efforts, it is not unlikely for this project to still be limited through the lens of intersectionality, especially as the sample

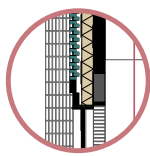
size of the interviews was limited and certain groups are harder to reach or gather data on due to for example language barriers. Being cognizant of these limits is important when reviewing this design portfolio.

### 1.2 - Maintenance

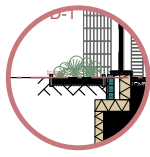
Maintenance or upkeep has been kept in mind throughout the project, especially when designing on a smaller scale (figure 1.1). The facade of the building comes with an overhang and there is greenery as a buffer between sidewalk and building to keep rain and dirt off the facade. Additionally, the facade material for the plinth (glazed brick) was selected not just for its long lifespan, but also for its smooth finishing: dirt is less likely to stick to glazed bricks and if anything, they can easily be cleaned. Additionally, the windows on the higher floors open inwards (which allows for easy washing), and there are no corners or nooks where a vacuum cannot fit. The building installations are hidden in the ceiling, so they do not gather as much dust, but the ceiling plates are moveable



Overhang (partially) keeps rain of facade and windows

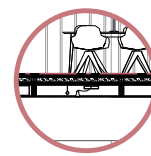


Windows open inwards for easy cleaning



Dirt and scale are less likely to stick to glazed bricks. Should it be necessary the bricks are easy to clean

The greenery throughout the project consists of biodiverse, native plants and flowers



Ventilation, lighting, sprinkler system, cables etc. are easily accessible for maintenance by removable ceiling plates

Figure 1.1: Technical section (1:80) with detail highlights of maintenance related elements

so there is still easy access if the installations need maintenance.

On the topic of organisational maintenance, responsibility is shared between different building owners and users. Care for the building and its functioning is assigned to the staff of the library, coffee corner, and neighbourhood centre. They are responsible for their own administration and operation, but larger building maintenance or events can be organized through a tenants' association.

### 1.3 - Participation

As this is a thesis project that will not be realized, participation in the traditional sense was not applicable. However, the interviews that have been conducted could very well be considered participation, though on a much smaller scale. The interview input is leading throughout the building design.

Getting these interviews meant enrooting in the scene and community, which did not come without challenge. Many people or neighbourhood initiatives did not respond to email, but instead many responded when personally approached at public (feminist) events. A face-to-face approach was most preferred and allowed a better communication of expectations, as some were hesitant and unsure if their knowledge would benefit the research.

Some interviewees were a bit intimidated by being interviewed by a university student, so bonds had to be formed to create a safe space and allow them to open up. As the research has shown, gender is leading in how women experience the environment, so showing the interviewees we shared that wavelength created trust and connection. To create that safe space, it was important there were no 'male cultural guards' present (women-only space): instead, the interviews were conducted in a space of mutual understanding and reciprocity.

### 1.4 - Support

The building program and spaces were created to support a variety of neighbourhood initi-

atives focussed on women (figure 1.2). This includes a gardening initiative, cultural dance initiatives, and initiatives focussed on cooking.

Moreover, support is also necessary on a larger neighbourhood scale. Bloemhof suffers from subsidence, and many dwellings and businesses will have to be renovated or demolished in the coming years. In the masterplan there is space for amenities and extra dwelling program, so the people or businesses who would otherwise be displaced could be rehomed in their neighbourhood.

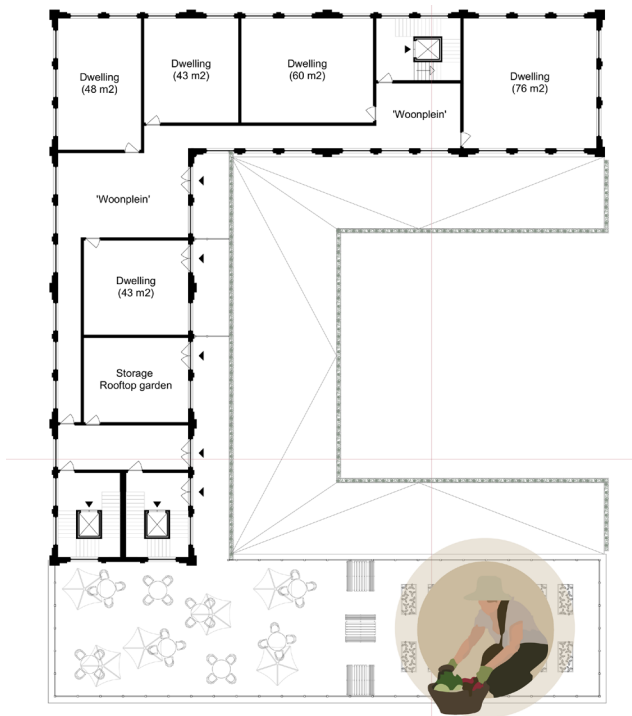
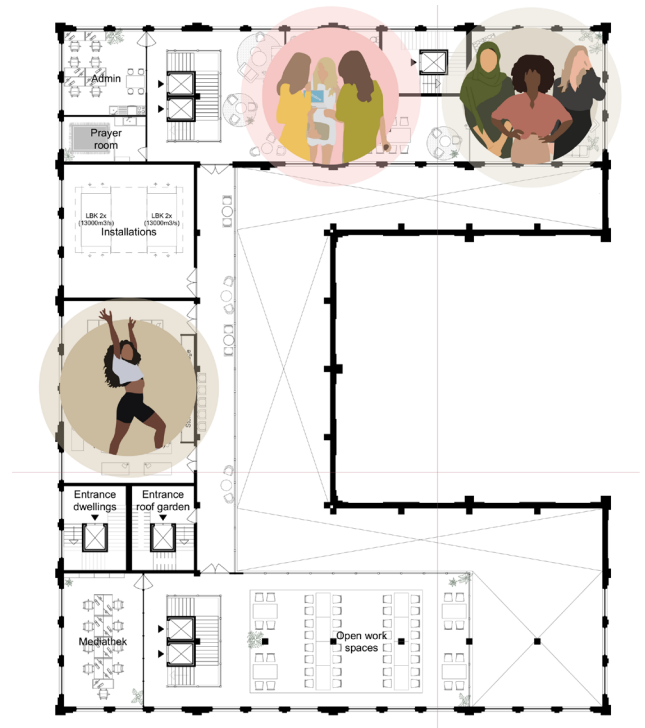
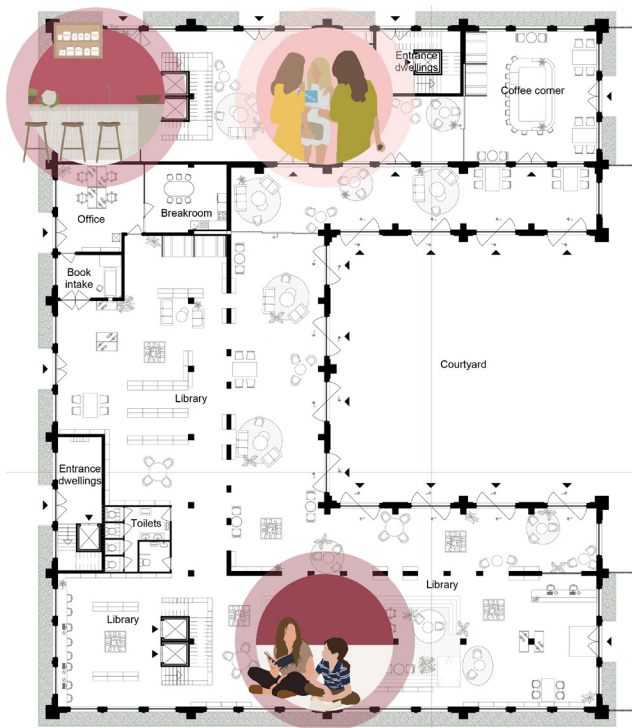


Figure 1.2: Designed-for neighbourhood initiatives (floorplans, scale 1:100)

# 02

## DESIGN

### GUIDELINES

**This chapter goes into the design guidelines a spatial designer can use to gender mainstream their project. Programmatic design guidelines are discussed in the following chapter, instead this chapter focuses on general design guidelines related to for example architecture, spatial compositions, and social design measures.**

#### 2.1 - Overviews

Magnolia was designed with the different sightlines in mind. To give some examples, on the ground floor the sightlines are long. The interior wall (the old facade from Kamelia) acts almost like a mesh with its many openings; this provides privacy but also lessens the fear of hidden threats. Sensitive functions, such as the sport halls, are on the higher floors so people on the street cannot look inside and there is visual cover. On the street on the other hand, the sightlines are long and open as the building has no indents and the building corners are mainly made of glass.

The project has many visual focus points, like

the statement staircase in the library, the walkabout with the facades from Kamelia and skylight, the signage (figure 2.1), and the fountain in the courtyard. The architecture of the facade is designed to keep the visual focus at eye-level as well (figure 2.2), by using a contrasting colour and a lot of detailing in the brick on the plinth of the building, while using a more simple and straightforward design for the higher floors. The architecture helps the inhabitants of the neighbourhood become familiar with the building, making Magnolia itself a visual focus point on neighbourhood level.

#### 2.2 - The buffer and female scale

The design includes a buffer between the sidewalk and the building in the form of greenery (figure 2.3). This increases the distance to the window and prevents people from looking in and women from feeling 'looked at'. At the building entrances there is a change in pavement which softens the border and makes the buffer more porous. The buffers are not too big



Figure 2.1: Building signage

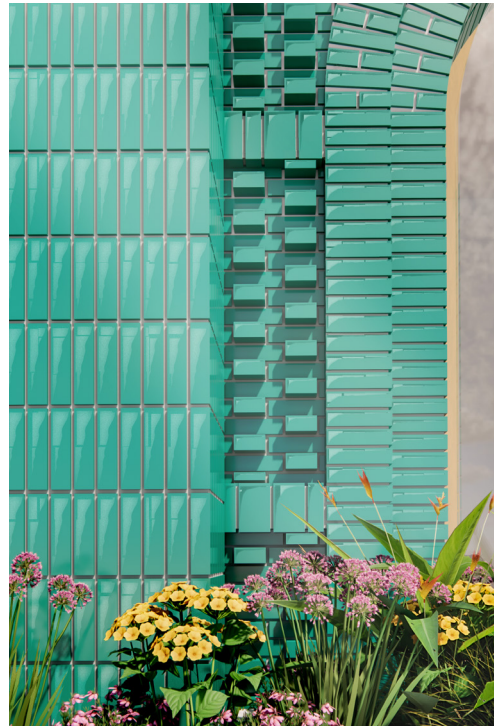


Figure 2.2: Facade at eye-level



Figure 2.3: The greenery buffer and building entrance

as the ground floor hold public program with no sensitive functions (no dressing rooms etc.), making the smaller scale more appropriate as to still encourage ‘eyes on the street’.

The scale of the building is also set to the female-scale. The longest building side is 45 meters long but does not feel colossal as there is variety in roof height and the facade is clearly legible. The facade has a clear rhythm of threes, vertical elements in the form of pillars, and a different colour material for the plinth, providing visual clarity. Additionally, the building is public and has multiple entrances or exits so women are not forced into one walking route and can ‘escape’ the street or take alternative routes (like through the neighbourhood centre alley).

## 2.3 - Supervision and surveillance

Throughout the design phase of the building, a lot of time was spent reflecting on how to design for ‘eyes on the street’ or, differently put, supervision and surveillance as this is one of the most effective safety measures when it comes to gender-sensitive design (figure 2.4). For one, the building has an activated plinth (see 2.7 – *Activate the plinth*) and large facade openings (figure 2.5).

Additionally, the program was selected with care as well: there are rooftop terraces, rooftop neighbourhood initiatives, and dwellings on

the higher floor; on the ground floor there are public functions and amenities. The master-plan program works to ensure 24hours activity spans: there is always activity at the site. This program also comes with informal oversight or supervision, like staff and service workers or even building security as is common in libraries nowadays. In addition, these functions make for a lively environment, so there will also be many visitors as informal surveillance.

## 2.4 - Women-only activities and spaces

As mentioned, the building houses a variety of neighbourhood initiatives focussed on women, some of which that are fully exclusive in that sense: some by choice or personal preference and some as the activities are gender-specific (many African cultures have women-specific cultural dances) (figure 2.6). Rooms in the building can be made women-only on demand for these activities, but also for spiritual or religious practices: the building has a prayer room which can be closed to men if the religion of the woman using it so requires.

Though not all building functions are exclusive to women, the program connects with the traditional gender roles in the neighbourhood through for example the kids’ corner, neighbourhood kitchen, coffee corner, and library. These functions will primarily attract women and (their) children.

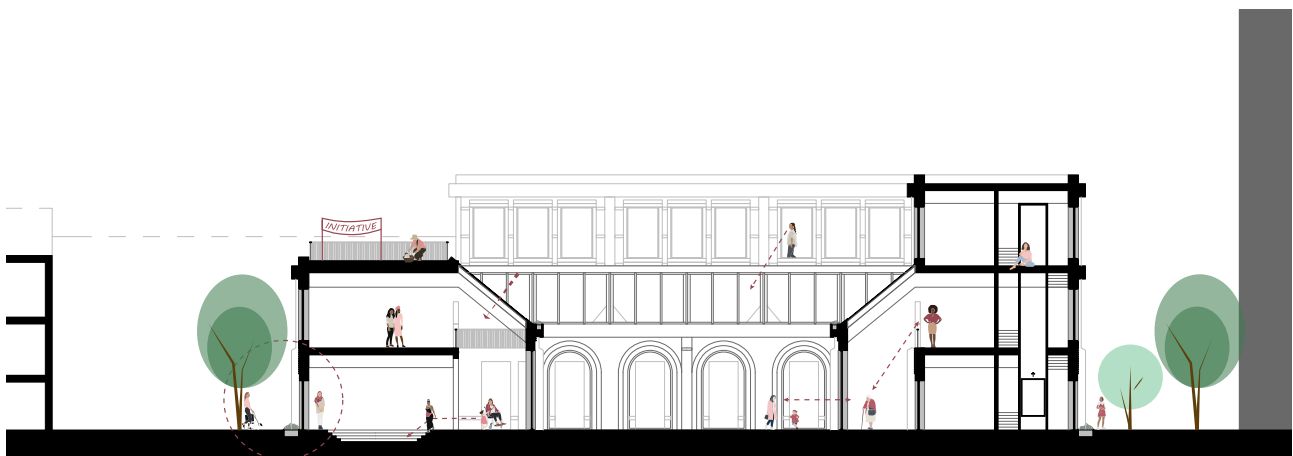


Figure 2.4: Eyes on the street, (informal) supervision and (informal) surveillance



Figure 2.5: View of the street in front of Magnolia (day)



Figure 2.6: Women-only dance activities

## 2.5 - Lighting

Lighting is important to the (perception of) safety in the building and its environment. With this in mind, the building is well-lit. The ceiling has built in spots, and the spaces include informal lighting like floor lamps and string lights, which allow for further personalisation.

Looking at the outdoors, Magnolias' facade (figure 2.7) is lit from the exterior through spots incorporated in the overhang, and street-lighting on the sidewalks (figure 2.8). Through spotlights and string lights, the rooftop terraces are lit as well. The courtyard is lit primarily by the light coming from the building and the fountain, as the courtyard is only open when the rest of the building is.

## 2.6 - Design with daylight

The building has large windows, and the walkabout has a glass roof (figure 2.9). The courtyard allows sun deep into the building, so even

at the deepest point in the building people are no more than 6 meters away from the nearest window. Aside from the fire escapes and the washrooms, all rooms receive natural lighting.

To prevent blinding light and overheating, the facade comes with overhangs which block the high-angled summer sunrays but allow the lower-angled winter sunrays entry to the building interior. Furthermore, the upper floors are equipped with sunscreens. They are set to automatically close at high lighting levels, but if the user wants, they can control the sunscreens with a manual override. This would especially benefit the computer room, as sunlight could render computer screens illegible.

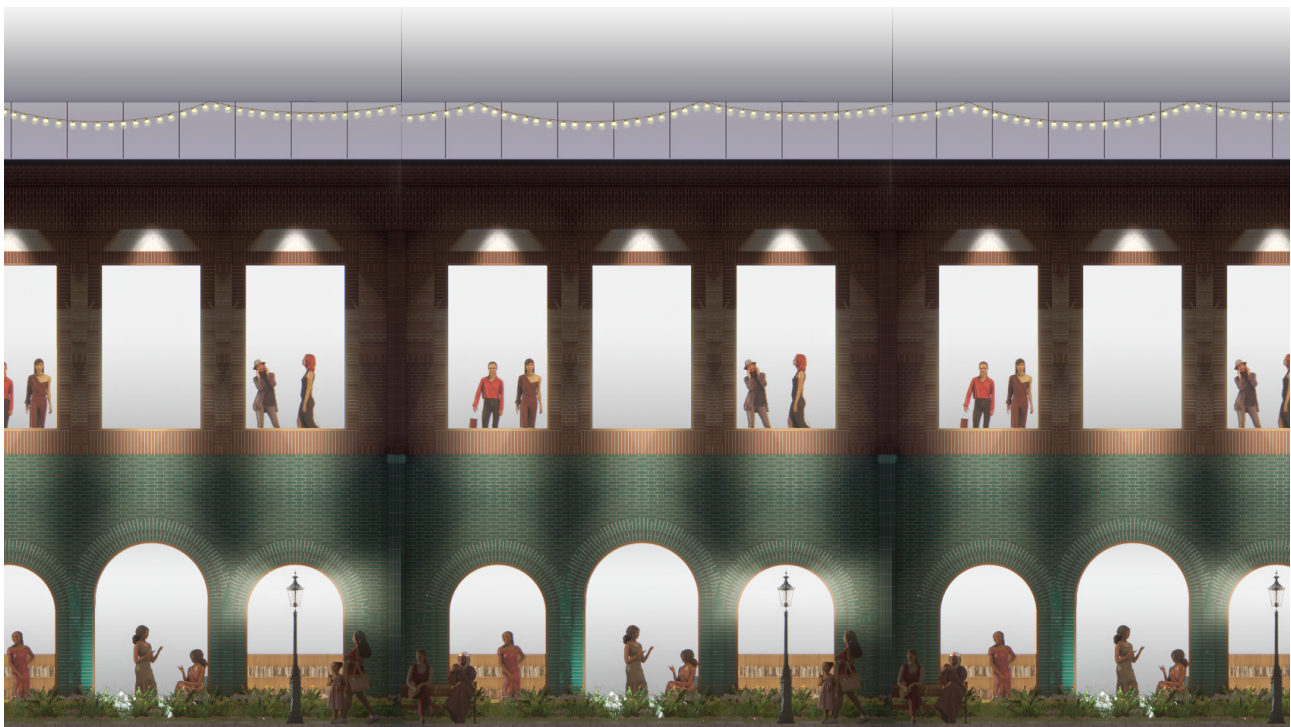


Figure 2.7: Lighting on Magnolias' facade



Figure 2.8: View of the street in front of Magnolia (night)



Figure 2.9: Walkabout with glass roof and large windows

## 2.7 - Activate the plinth

The ground floor program of Magnolia and the masterplan is (semi-) public and holds—in addition to the neighbourhood centre—a variety of amenities, including a library, supermarket, and other stores. This program is tied to daily responsibilities and as their opening hours differ, they keep the site activated for near the full 24hours cycle. Additionally, the building has multiple entrances and exits, is well-lit and there are large facade openings, which connect the building interior to the sidewalk. These features work together to activate the building plinth and ensure social control (figure 2.10). Over time, the safe reputation of the building will expand to the sidewalk and public streets.

## 2.8 - (social) Accessibility

Included in the building design are accessibility features. For starters, the building has no raised entrances: all doors are level to the ground. The only height difference (i.e. the lowered seating

area in the library) is outfitted with a wheelchair ramp (figure 2.11). Moreso, the toilets are supplied with gender-neutral changing tables and handicap stalls. The outdoor areas have paved pathways (no loose-lying mulch) and are wide enough for mobility aids. Additionally, the neighbourhood centre is equipped with two sets of elevators, and the dwellings are reachable by elevator as well.

In addition to physical accessibility, Magnolia is designed for social accessibility (see also 3.1 – *Diversity and intersectionality* and 3.8 – (social) *Accessibility*). For instance, the building is legible and easy to navigate as the spaces are centred around the courtyard in two ‘rings’ (see also 2.10 – *Zoning*) and the building is well-supplied with signing (see also 2.1 - *Overviews*).



Figure 2.11: Lowered seating area (library) with wheelchair ramp and bookcases doubling as railing

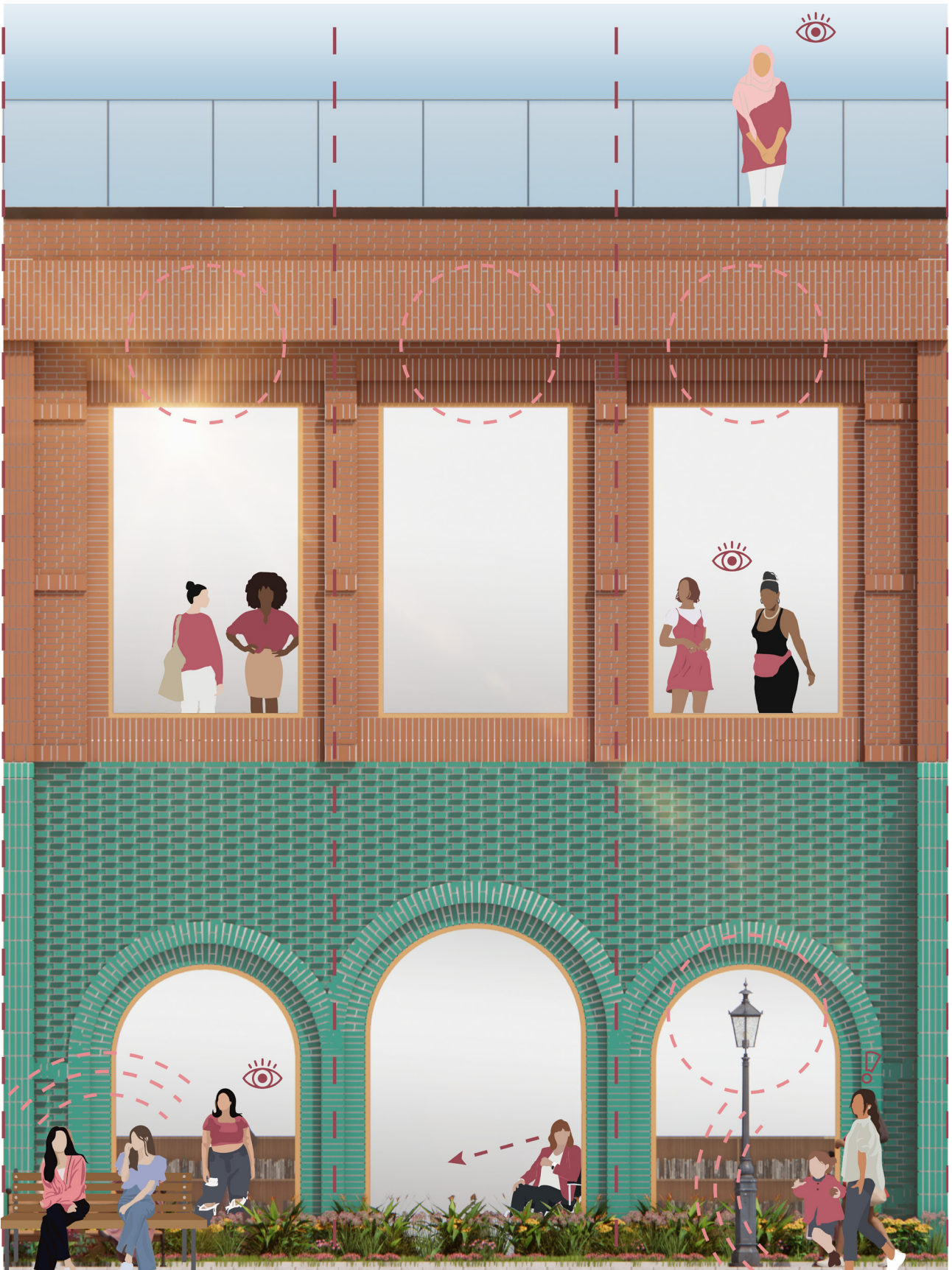


Figure 2.10: Elevation activated plinth and subsequent social control

## 2.9 - Meaning

One way in which Magnolias' design assigns meaning to its spaces is by furnishing. Take for example the library, where the bookcases give it a clear identity, or the neighbourhood living room, where the comfortable and soft seating areas create an atmosphere without urgency for the community. Through personalisation, personal meaning can be enhanced e.g. there is informal lighting like floor lamps, the users can control the buildings sunscreens, and furniture can be moved. Furthermore, the outdoor spaces hold a clear meaning as well: the courtyard functions as an oasis in the lively city of Rotterdam, shaped by its flowering gardens, water feature and seats.

A different word for meaning may be identity. The building and its architecture have been designed to (partially) adopt the identity of the neighbourhood and the old building of Kamelia. The materials used in the spatial context (blue ceramics and bricks) are used in the new buildings' facade and two of the facades from Kamelia are kept (refer to the chapter *Project Overview* for more in depth information). Using these elements to create familiarity helps the user connect their memories to the building, giving it meaning.

Finally, meaning is often assigned by the building program (see 3.5 – *Programmed space*), but meaning can be fluid as well: some spaces are multifunctional (see 3.4 – *Freely programmable space*). In the end, meaning is assigned by the users and their needs, but because the spaces are clear in function or legible, this is more easily accomplished.

## 2.10 - Zoning

How one experiences zoning is personal: for

some it is about physical space, whereas some tie zoning to their routines and habits. While subjective, the spatial design of Magnolia does come with a 'zoning plan' (figure 2.12 and 2.13).

The neighbourhood centre consists of interlocking rings centred around the heart of the building: the courtyard. Wrapped around the courtyard is the walkabout, which is the primary circulation route of the building. Connected to that primary circulation is the neighbourhood centre program; divided by an interior wall. Wrapped around that ring is the public street. The same is visible in the building section, only it becomes visible that the second-floor program holds dwellings, introducing a public versus private zoning in the vertical dimension.

There are more zones to be found on a smaller scale as well. As one could imagine, the different building functions could be seen as their own zone, or even arrangements of pieces of furniture can be seen as a 'spot'. Some areas could be considered zones if they are more private or sheltered and some zones have soft boundaries while others are clearly demarcated by interior walls. Using the spatial design as handholds, building users can imbue the building with their own zones and meanings.

The variety in zoning, overviews (see 2.1 - *Overviews*) as well as supervision and surveillances (see 2.3 – *Supervision and surveillance*) gives the spaces in the building different degrees of perceived safety or security. A space could be open (exposed feeling, long sightlines, anyone has access), sheltered (some back cover, overview and supervision) or shelter (back cover, visual cover, strong social control). While perception is personal, it is important for spatial designers to be aware of these degrees and explicitly design for variety (figure 2.14).

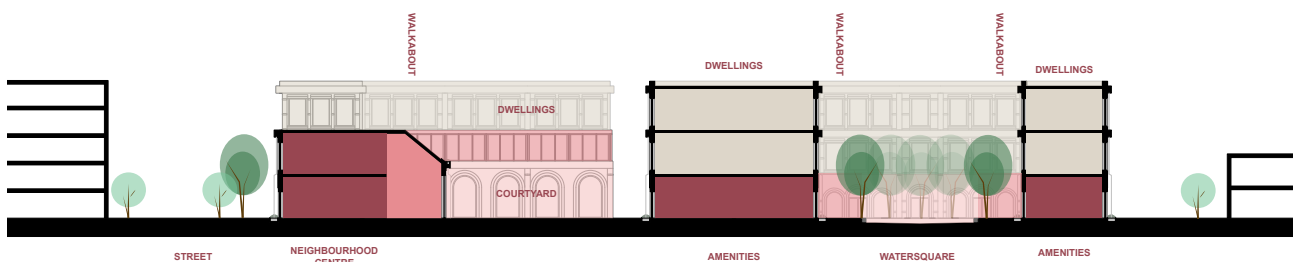


Figure 2.12: Masterplan zoning (section, scale 1:400)

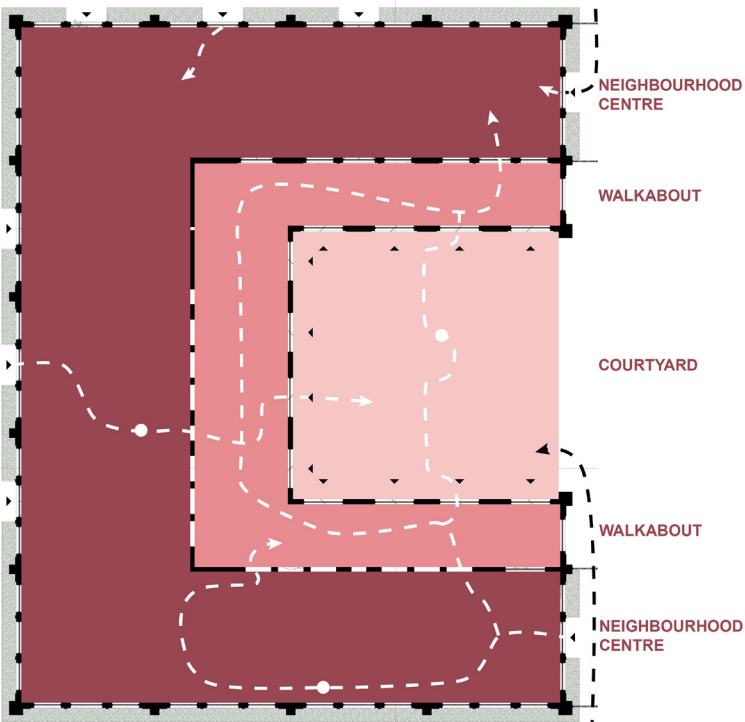


Figure 2.13: Zoning magnolia (rings) (floorplan, scale ~1:100)

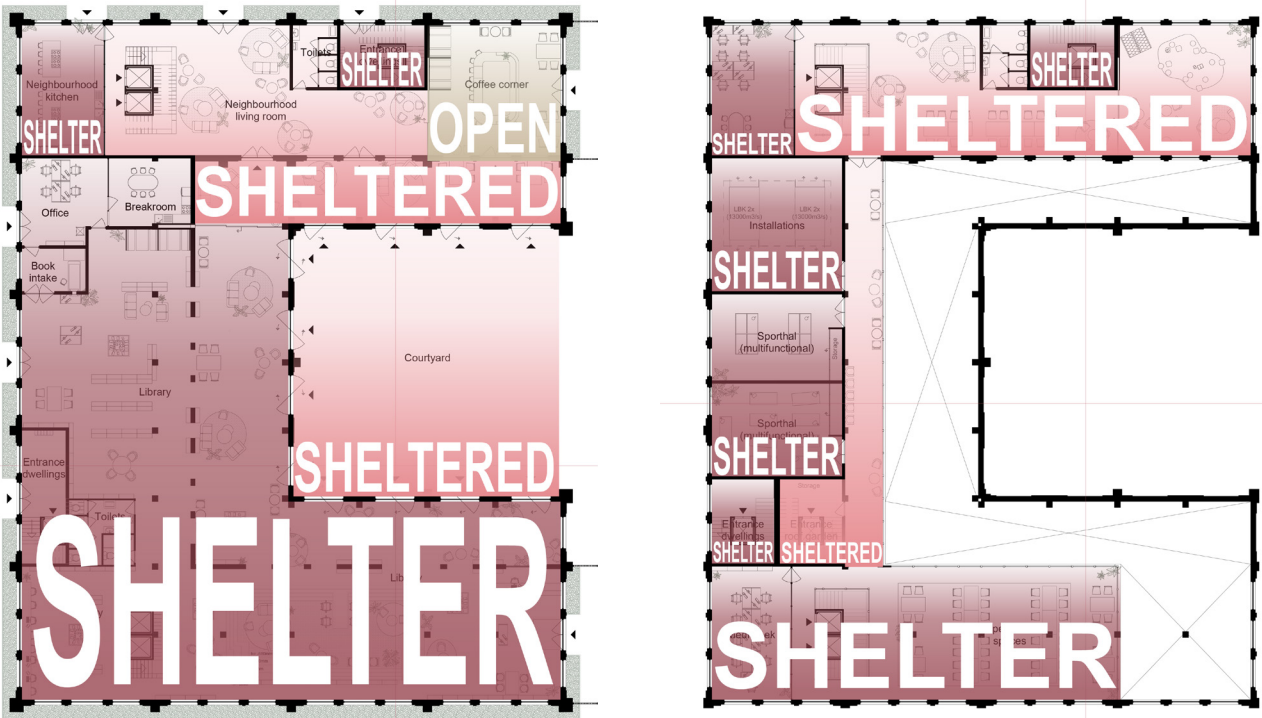


Figure 2.14: (subjective) perception of safety and security, first and second floor (floorplans, scale ~1:100)

## 2.11 - Green spaces

Included in the masterplan are four types of green spaces: the courtyard (figure 2.15), the pocket parks, the rooftop vegetable garden, and the treelines plus greenery buffer, which border the sidewalk, building, and water square. What these green spaces have in common is all vegetation is either above or below eye-level, maintaining open sightlines and preventing dark spots. The green spaces are well-lit through streetlights and informal lighting (string lights or light from neighbouring buildings), so are still safe at night. Additionally, all green spaces have a set program, like for example the gardens in the courtyard and on the roof, to prevent ambiguous outdoor spaces (see 2.12 – Don'ts).

## 2.12 - Don'ts

What is not there cannot be visualised, but with that said, some design choices were made in which an alternative was chosen instead of a 'don't'. The biggest alternative design choice was the application of a water square (figure 2.16).

When designing public outdoor spaces, open fields or squares are too ambiguous and may attract 'dangerous strangers', groups of intimidating men or incite loitering. This negatively impacts (the perception of) safety and increases the likelihood of street harassment. In the masterplan however, the building shape with the amenities created a square in the middle. A square would come with many advantages, like a visual connection to the storefronts across the square and easy maintenance. Moreover, a square would allow for multifunctional use like the hosting of a market, concert or event.

In Verona a solution was found where these advantages still applied, but women, kids, and families were the primary users, increasing safety on the streets, namely a water square. A water square is a 'sheet' of water which covers a paved undersurface. The surface slopes down towards the middle and the water depth would be about 15cm at most. The water square may also contain fountains, and the water is pum-

ped from the middle to the edges; creating a continuous movement. Filter installations will prevent pollution, and additionally the eyes on the street and activated plinth will help prevent spoliation through social control. A water square also has climate benefits: it decreases the UHI-effect, can offer storage for rainwater, and prevent flooding. It can even function in winter as the motion of the water will prevent freezing.

The water square creates a perfect play surface for young children and a place for people to cool down. It can be turned off on demand and still allow for multifunctional use of the space.



Figure 2.15: Courtyard Magnolia; a biodiverse garden planted with native flowers



Figure 2.16: Water Square Verona 'Fontana Arsenale'

# 03

## PROGRAMMATIC GUIDELINES

**The following chapter illustrates programmatic guidelines and design choices. It delves into the selection of program elements, the detailing, and their aims. For an overview of the programs' spatial composition, sizes and location, please refer to the floorplans in the chapter *Project overview*.**

### 3.1 - Diversity and intersectionality

As described in subchapter *Background Bloemhof* and *1.1 – Diversity and intersectionality*, the target group was studied. From this study came certain programmatic elements, which have been applied.

A prayer room has been added for religious or spiritual women. The room can be used by any religion or spirituality, but has some built in features specific to some religions to ensure that multifunctionality (e.g. carpets, a wash basin and a shoe rack) (figure 3.1).

Furthermore, the building is outfitted with gender neutral changing tables and a pumping room for nursing mothers. For these mothers there is also a kids' corner where their kids can safely play, while they can sit and relax (while the kids are still in their view) (figure 3.2). The building program was created also with neurodivergent and disabled people in mind (see 3.8 – (social) Accessibility).

Finally, some of the building program consist of multifunctional spaces (see 3.4 - *Freely programmable space*) which may be used to house program desired by social groups which slipped through the net of intersectionality.

### 3.2 - Variety

This programmatic guideline aims for a variety in building activities, opening hours, and users. Because of the variety in program (from the library to the neighbourhood centre to the neighbourhood initiatives) and opening hours on the plot, it is not unlikely that a large variety of building users will follow. An exception



Figure 3.1: Prayer room adaptable for multiple religions



Figure 3.2: kids' nook with play areas and nearby seating for parents

may apply to some social groups who are hard to reach, like those who suffer from language barriers, have low degrees of literacy, or do not know how to navigate the digital domain. To reach these groups, word-of-mouth is necessary.

### 3.3 - Code of conduct

The building and its program should come with a code of conduct to help prevent off-putting behaviour. The code of conduct will be set by the staff of the library, coffee corner and neighbourhood centre. Some standard rules will likely include no alcohol or smoking, though the neighbourhood centre may include special allowances for certain events.

### 3.4 - Freely programmable space

Freely programmable spaces allow for flexible building use and personalisation. For these reasons, the building has multiple multifunctional spaces. One of these multifunctional spaces are the sport halls: people can follow a variety of sport classes (figure 3.3), but the space could also be used to host workshops or small events,

like collections for charity or a movie night (figure 3.4). Moreover, the neighbourhood living room could —amongst many other possible functions— be used as an open-ended space for relaxation, a space for neighbourhood council meetings, or as voting station.

Freely programmable space can also be designed on a smaller scale. As mentioned before, people can personalize their environment through informal lighting, like floor lamps, operating the buildings' sunscreens, and the moving of furniture.

### 3.5 - Programmed space

Programmed spaces are clear in use, and their functions are established by programmatic elements. Part of the design is the lowered seating area in the library; the bordering bookshelves, tribunes, and comfortable lounge chairs make this a clear space for reading. The built-in bookshelves in the library staircase (figure 3.5) support this. Programmed space or elements include the built-in desks in the library, the coffee corner counter, kitchen facilities (neighbourhood kitchen and staff break rooms), and the mirrors hung in one of the sport halls.



Figure 3.3: The sporthal used for sport classes



Figure 3.4: The sporthal used as 'cinema' for movie nights



Figure 3.5: Programmed space, the bookcase stairs in the library

The outdoor (green) spaces have programmed spaces as well like decorative or biodiverse greenery, seating areas, or recreation areas (water square).

### 3.6 - Cultural value

Magnolia is not short in supply when it comes to cultural value. Cultural value can be generated through the cultural initiatives (like those aimed at dance), but also through the library (figure 3.6) which has a lot of social programs, like (Dutch) language courses, information points, (educational) readings or lectures, and computer classes. Additionally, the neighbourhood centre can host art classes, workshops, and neighbourhood events.

### 3.7 - Paid versus free program

Bloemhof is not a wealthy neighbourhood, so a lot of activities are free or unpaid and will be funded by the state (like the social programs in the library), donations or other funds and grants. The building can host representatives of (municipal) sources of information so people could learn how to request grants and funds for themselves, others, or their own neighbourhood initiatives. The neighbourhood centre could also be a site for outreach to help support people living in poverty through for example charity toy collections or cheap meals at the neighbourhood kitchen. By providing free access to the premises, removing the expectation that visitors must spend money, and by offering supportive activities, the building is made attractive for people of all financial backgrounds.

### 3.8 - (social) Accessibility

The building program is designed to be easily accessible both physically and mentally. Physical accessibility elements include design measure that make the building comfortable in use not just for disabled people, but for everyone like parents with prams, young children, and many more. Mental accessibility or social accessibility guidelines includes measures that lower the mental threshold of entering a space, thus increasing the degree of (social) participa-

tion for a large diversity of people.

As mentioned before, the building is accessible for wheelchair users and others with mobility aid. There are elevators, ramps, wide pathways, and no raised thresholds, but also handicapped parking and stalls.

The building offers a variety in stimuli. For example, the ground floor of the library is lively, has many bright colours and has many different textures, while the computer room and the study spaces on the first floor are more peaceful, and simple in their design and furnishing. This variety in stimuli will benefit people with neurodivergence. There is also variety in exposure: some seating areas are more sheltered than others. Some areas have more back cover or visual cover, and more introverted or neurodivergent people can retreat to these areas. Another element worth mentioning are the psychological advantages of greenery and water features; in other words, the courtyard is a psychologically advantageous space (figure 3.7). To summarize, there are many different types of seating and spaces for different personal preferences.

Included in social accessibility is also social sustainability, which is the long-term variant. Decades from now the building may need to change to suit the needs of the changing neighbourhood. The construction is designed so that the facades may be reused, but the floorplans and building structure can change. Because of the CLT-structure with dry connections and the column grid, interior walls and floors can be changed if necessary. For example, if the future neighbourhood needs a new space which is double floors in height, the flooring can be demounted and removed.

### 3.9 - Common Wants

From the interviews came some common wants. Not all, but many of these requested programmatic elements were applied to the building, including: the coffee corner, seating lounge, water features, comfortable outdoor spaces, a collective kitchen, a yoga or gym space, and a kids' corner which can easily be overseen.



Figure 3.6: Magnolia’s library which can be used for social programs



Figure 3.7: The courtyard with greenery and water features

# 04

## RECOMMENDED SITE

The site of the project has been introduced in the chapter Project overview. The site selection was not an easy task, as space was hard to come by in the urban, high-density neighbourhood of Bloemhof. From the few options, the site in Bloemhof North at 'Putse bocht' was selected. When looking at the recommended site guidelines, this location met a lot of the requirements, but there were challenges and was room for improvement still.

For starters, the site is surrounding by large housing blocks often with portico apartments, which decreases overview and at times impose a single walking route. Though these building blocks are often large, the section of the street has a pleasant scale: they are not too wide so when walking on the sidewalk one can still feel a connection to the opposite side of the street. This connection, however, is rarely present as there are a lot of cars in the neighbourhoods and especially after office hours the streets are filled with parked cars.

Also related to transportation, is the accessi-

bility of the site through public transit: most public transit can be found at the edge of the neighbourhood or the central axis of the 'Lange Hilleweg'. This means that the hearts of the neighbourhood are harder to reach, as there are no bus stops for example. When looking at the specific building site, the nearest public transit is a metro and tram at about 300-meter distance each. For this reason, the masterplan includes a new bus stop at the site for people with lower mobility and for people who wish to use the amenities at the site.

When looking at the topic of accessibility at the site, there are still some strides to be made. The sidewalks at the site are wide, which is beneficial for all types of pedestrian passersby. However, many sidewalks are in bad shape (likely due to the soil subsidence) and there are a lot of tiles jutting out, uneven slopes, and even holes (figure 4.1). Some of the sidewalks must be renewed to increase physical accessibility. Additionally, the site would benefit from separated infrastructure for bikes as speeding cars cause dangerous situations, and extra bicy-

cle parking as many people park their bike on the sidewalks, blocking the paths. To increase pedestrian safety the masterplan introduces a pedestrian zone as well as raised crosswalks.

With the selection of the site in Bloemhof, the reputation was also considered. While the site was not named specifically in the interviews (as either good or bad), it was at least not named amongst the most unsafe places in the neighbourhood. The amenities near the site made the site livelier than many other streets and with the new design there are no 'dark spots' nearby like open squares or parks, which benefits safety.



Figure 4.1: Site photo with damaged sidewalk, speeding cars, and in the background the large building blocks

# 05

## RECOMMENDED BUILDING TYPE

From the research came recommendations for the building type. The design guidelines were created to suite multiple types of buildings and spaces, but certain types or spaces are easier to gender-mainstream than others.

According to the research, a building design would be preferred to open spaces. The masterplan contains both, but the open spaces (the courtyard and water square) are located in the protective 'embrace' of the building. The neighbourhood centre could be perceived as both public and semi-public depending on one's viewpoint, but most importantly, comes with informal supervision which is important for perceived safety.

For this graduation project only one building has been designed. Nevertheless, similar buildings could be designed in different neighbourhoods. The building can be scaled down depending on the needs of the community, and functions could be spread throughout multiple, separate buildings. If similar buildings would be constructed in multiple places, their safe re-

putations may spread through the neighbourhoods and a gender-sensitive safety net could be created throughout Rotterdam (South).

# 06

## DISCUSSION AND REFLECTIONS

### Design reflection and discussion

The goal of the design phase of the graduation process was to translate the research conducted in the first half to an architectural design. It was meant to give expression to abstract design guidelines and principles, visualising their practical application. The design of neighbourhood centre Magnolia has done just that.

The design of Magnolia is but one of many ways the design guidelines and principles could be applied to a real context. Like any architectural expression, it is subject to design choices, context of the specific site, and personal style. This is something to be discussed and reflected on: are the selected design choices best for a gender-sensitive design? For example, the building could have been smaller: would this have been more beneficial in terms of for example oversight and social control? And what if the building were not a courtyard typology? Can outdoor or green spaces be women-friendly

when they are not in the protective embrace of the building? While the answers are not straightforward, these are all questions worth asking.

On a different note, way at the beginning of my graduation process I wrote the following in my research plan: “I am addressing a gap in the research between the social dimension (the study of gender and its effects) and the physical dimension (a spatial design). While the topic of gender is not new and there is quite some research on the topic, there have been very little attempts at translating gender theory to the field of urbanism and especially architecture. How does the built environment have effect on gender? / How is the built environment affected by gender? Question such as ‘How can a neighbourhood be designed with gender in mind?’ have been discussed a few times, but especially the architectural scale is neglected and —as far as I have been able to find— there has never been a set of gender sensitive design guidelines.”

Having created said set of design guidelines, the research gap has started to make a lot of sense as on further reflection one may also wonder: 'Is this building so much different than a non-gender-sensitive building?'. Metaphorically speaking, the situation could be compared to that of wheelchair accessibility of historic houses. Historic houses were not made with the outset of being wheelchair accessible: many contain steps, narrow doorways, and high thresholds. That said, occasionally, a historic building is wheelchair accessible by happy accident. The same goes for gender-sensitive design: sometimes a building performs well per the design guidelines even if this was not a specific goal of the designer.

The true difference lies not just in the practicality of the design guidelines and principles, but also in the building values. Say an architect assigns importance to their design goals, they may value an activated plinth 6/10 and clear zoning a 3/10. An architect who aims for a gender-sensitive design may instead value these goals differently, say an 8/10 and 7/10 respectively. The latter architect would be more likely to 'go to bat' for these gender-sensitive guidelines if the client or the budget would obligate them to and ensure these values make it into the final design. Gender mainstreaming translates values to actions, and finally, to the most beneficial spatial design.

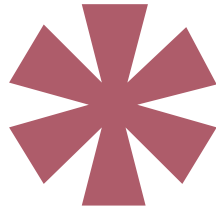
## Personal graduation reflection

In the Netherlands, it seems the topic of women's safety has now become one that is often spoken about as discussions have flared spurred on by news about femicides and the murder of the seventeen-year-old Lisa. When I started my thesis, I only really read about these topics in feminist spaces and even then, they felt almost taboo: women would talk to women only and their stories would certainly never be shared with men, after all 'it's a women's problem'. Then suddenly, after Lisa's murder hit the news, social media such as Instagram blew up with stories from women and their own experiences. It felt like the tip of the scale: (perceived)

unsafety and how the built environment can alleviate it —by for example preventing dark spots— was in the public eye.

People are becoming more and more aware of the gender disparity in terms of safety and the importance of changing the status quo. Part of that change would be designing the built environment with women and their safety in mind. It is my hope that my graduation project could help contribute —if even for a small part— to a built environment that is gender-sensitive and supportive of women and their needs.

Going forward, this graduation thesis will be published on the TU Delft repository. This means it will be made available not just to direct peers and mentors, but to a much wider audience. Optimistically, while (parts of) it is written in an academic style and in English (rather than my mother language Dutch), it will transfer well as it speaks to the lived experience of women and is supported by illustrations and examples. If anything, going forth I will take with me everything I have learned about gender-sensitive design. I will apply this knowledge in my own career and given time will start to design many more Spaces of Power.



# TECHNICAL DRAWINGS

Part of the graduation process is the technical design of the building. The design has to not only be relevant to the graduation research and topic but also has to be 'correct' and 'buildable'. To this end a set of technical drawings were made, displayed in this chapter/ attachment. This set includes drawings related to building technology, structural design, and climate design. Additionally, a sustainability approach was formulated in the form of a circularity strategy. Be aware, due to the size of the drawings and the legibility, some pages will be rotated.

# Inventory drawings Kamelia

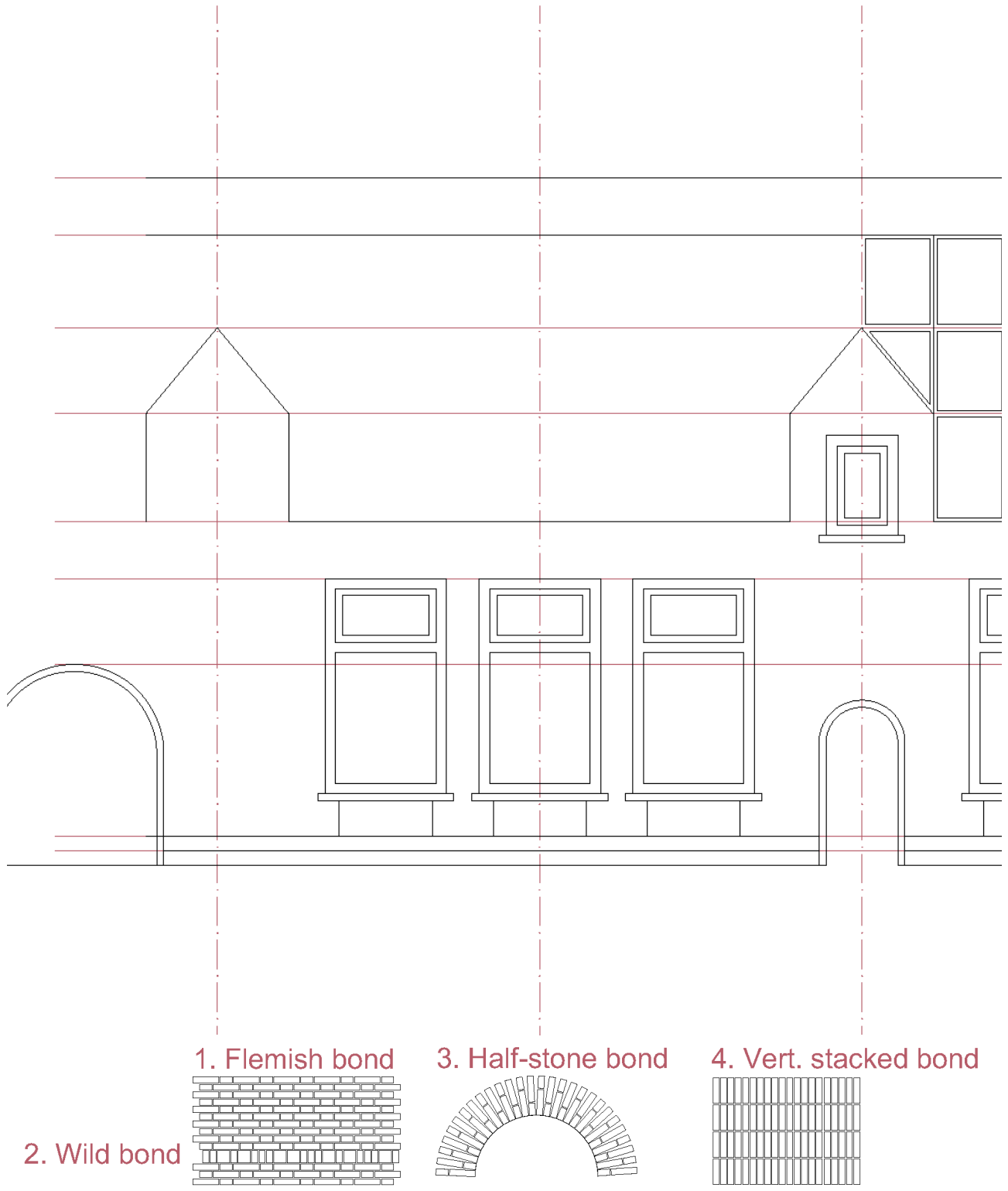


Figure 7.1: Inventory facade Kamelia

# Building elevations



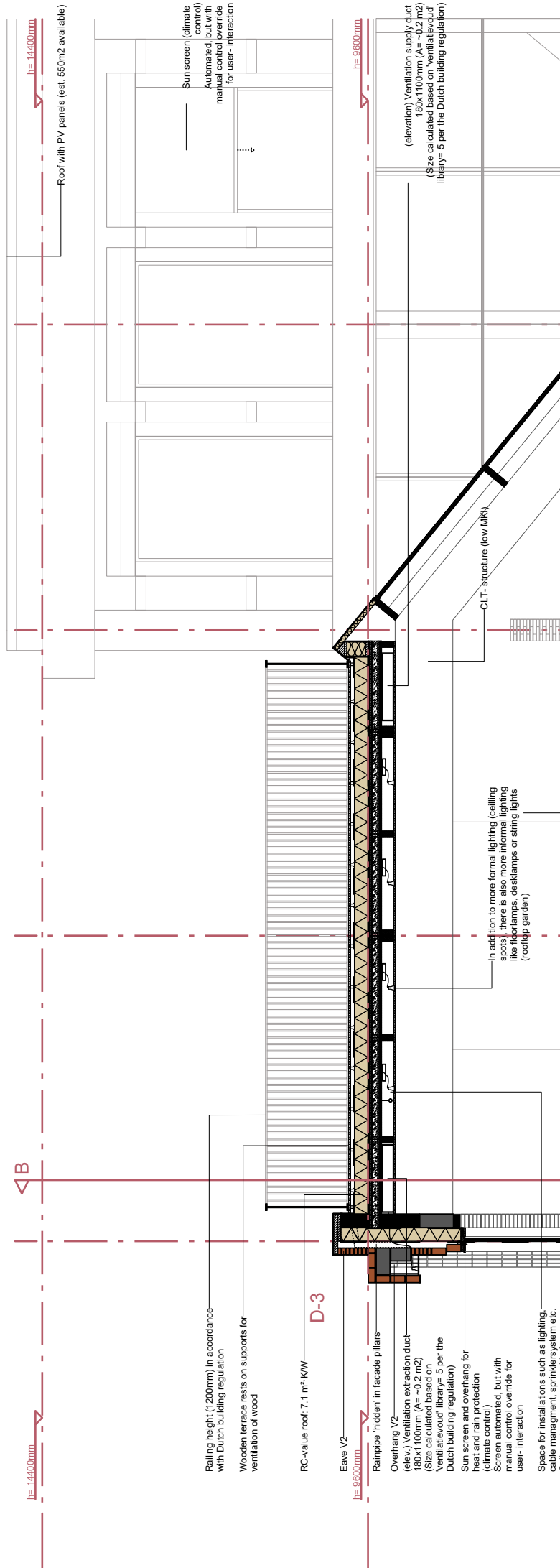
Figure 7.2: Masterplan elevation South- West (scale 1:800)

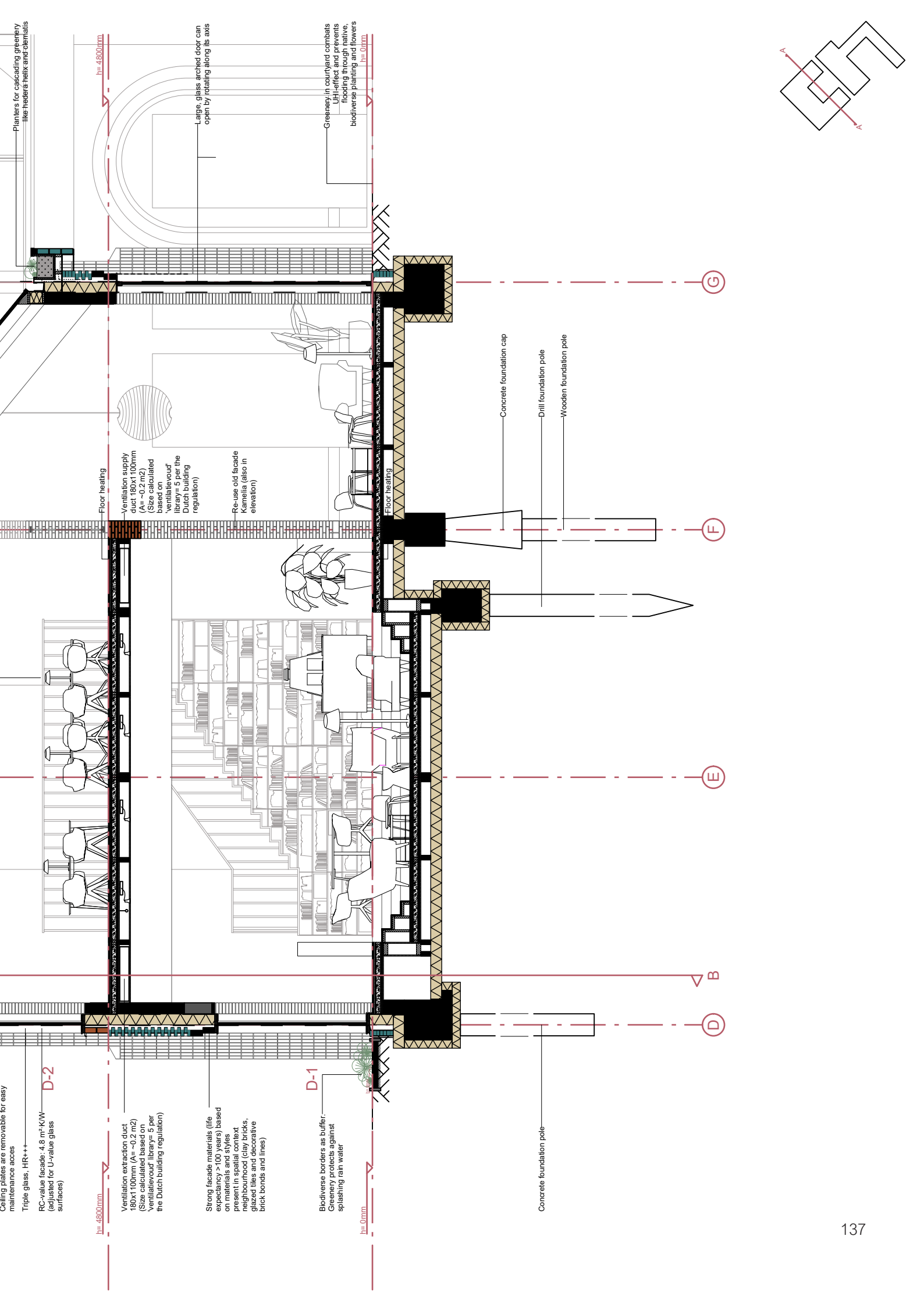


Figure 7.3: Magnolia elevation South- East (scale 1:800)

# Vertical section 1:80

## VERTICAL SECTION A-A





Planters for cascading greenery like hederera helix and clematis

h= 4800mm

Large glass arched door can open by rotating along its axis

Greenery in courtyard combats UHI-effect and prevents flooding through native, biodiverse planting and flowers  
h= 0mm

G

Concrete foundation cap

Drill foundation pole

Wooden foundation pole

F

Floor heating

Ventilation supply duct 180x1100mm (A= ~0.2 m2) (Size calculated based on 'ventilatievoed' library= 5 per the Dutch building regulation)

Re-use old facade Kamelia (also in elevation)

Floor heating

E

B

D

Ceiling plates are removable for easy maintenance access

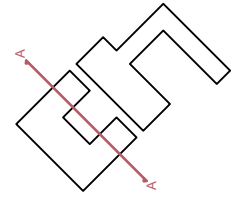
D-2 Triple glass, HR++ RC-value facade: 4.8 m²·K/W (adjusted for U-value glass surfaces)

Ventilation extraction duct 180x1100mm (A= ~0.2 m2) (Size calculated based on 'ventilatievoed' library= 5 per the Dutch building regulation)

Strong facade materials (life expectancy >100 years) based on materials and styles present in spatial context neighbourhood (clay bricks, glazed tiles and decorative brick bonds and lines)

D-1 Biodiverse borders as buffer: Greenery protects against splashing rain water  
h= 0mm

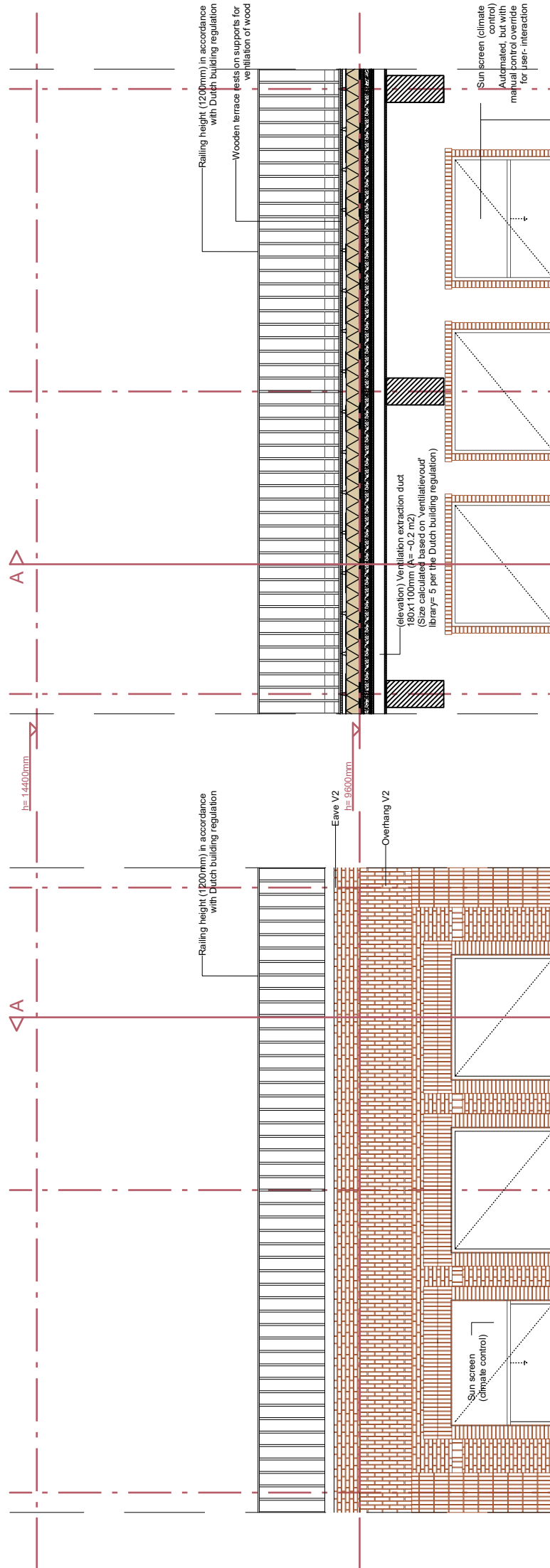
Concrete foundation pole

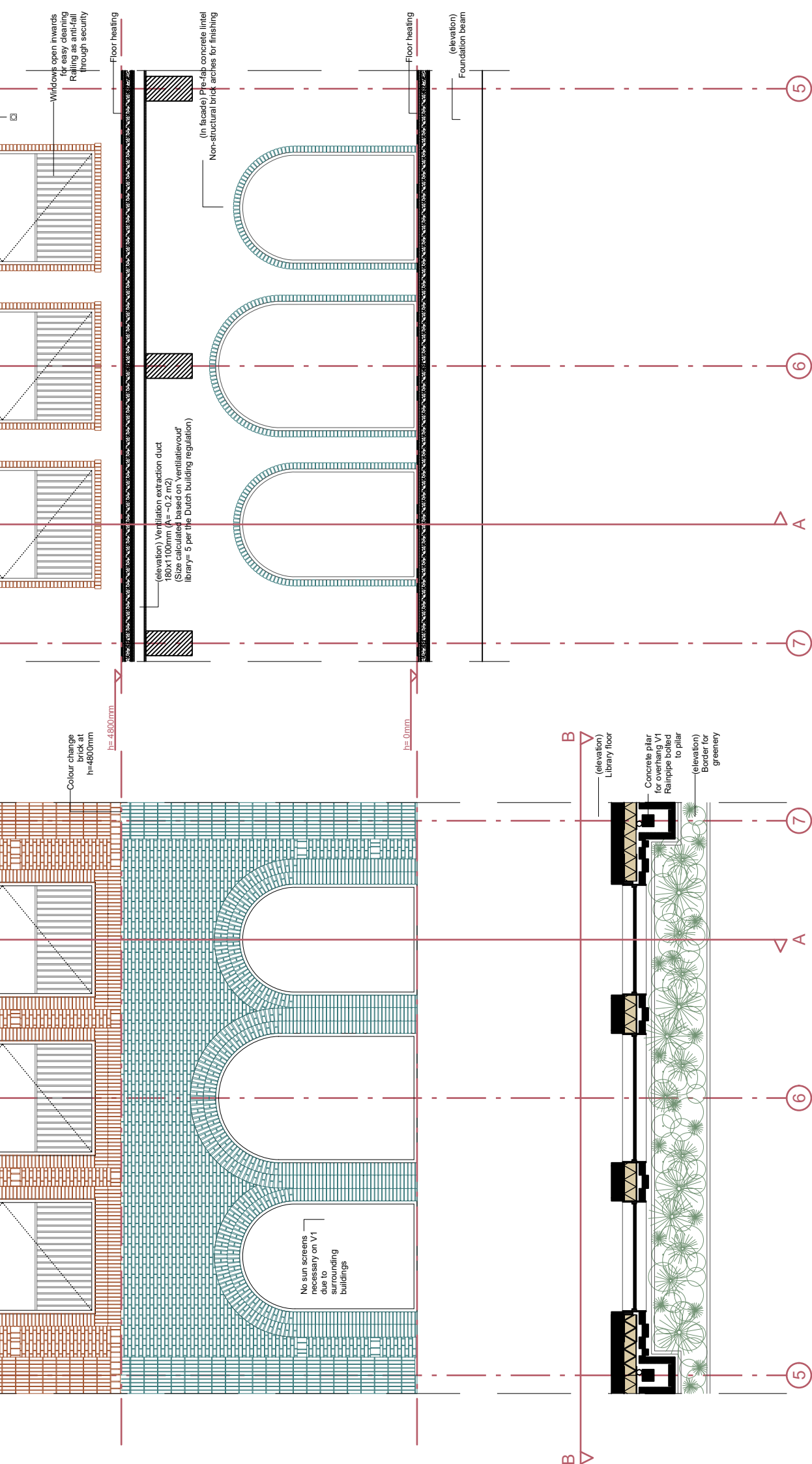


# Horizontal section and elevation 1:80

## ELEVATION EXTERIOR

## ELEVATION INTERIOR SECTION B-B





# HORIZONTAL SECTION

# Construction details

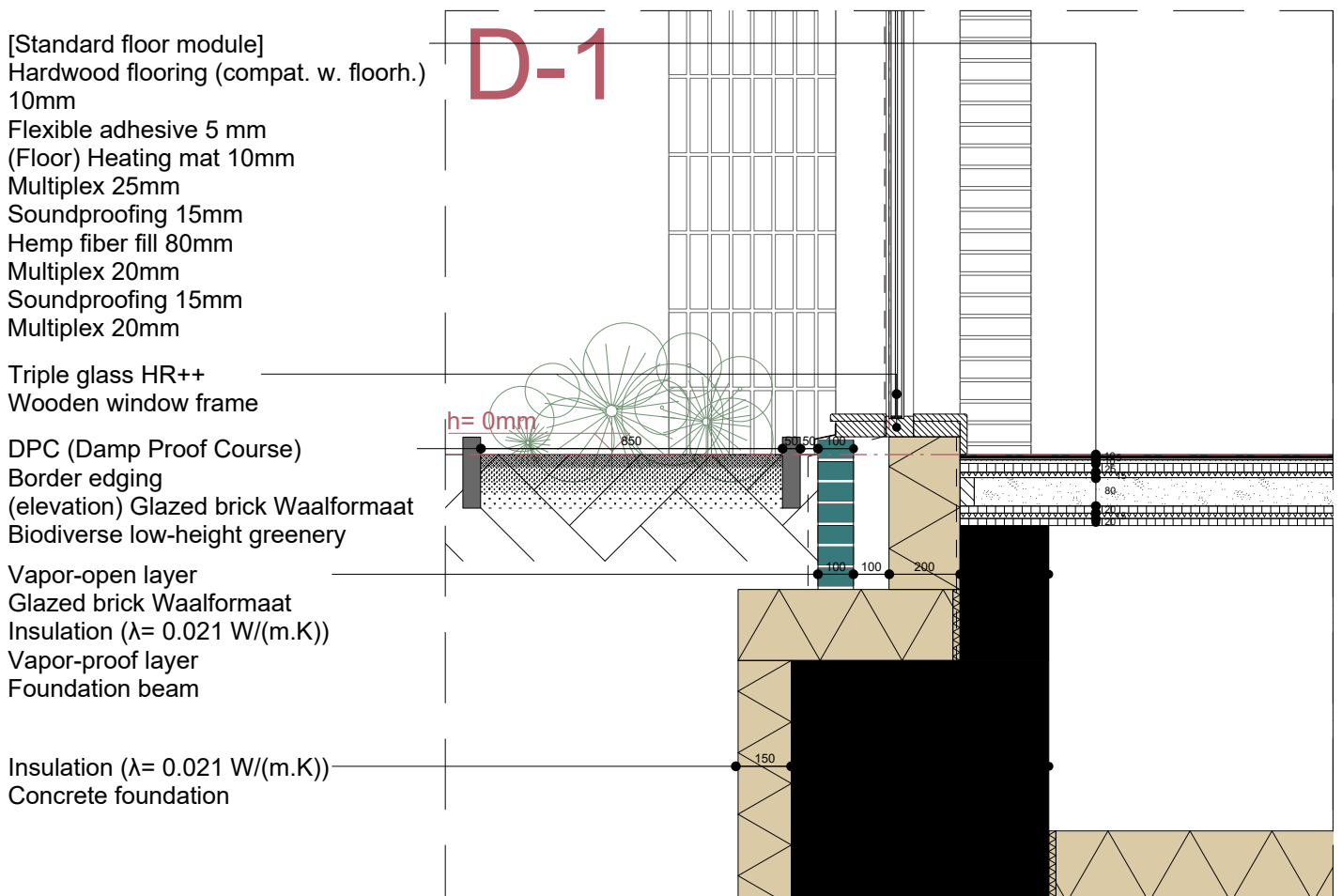


Figure 7.4: detail D-1, ground floor and foundation (scale 1:20)

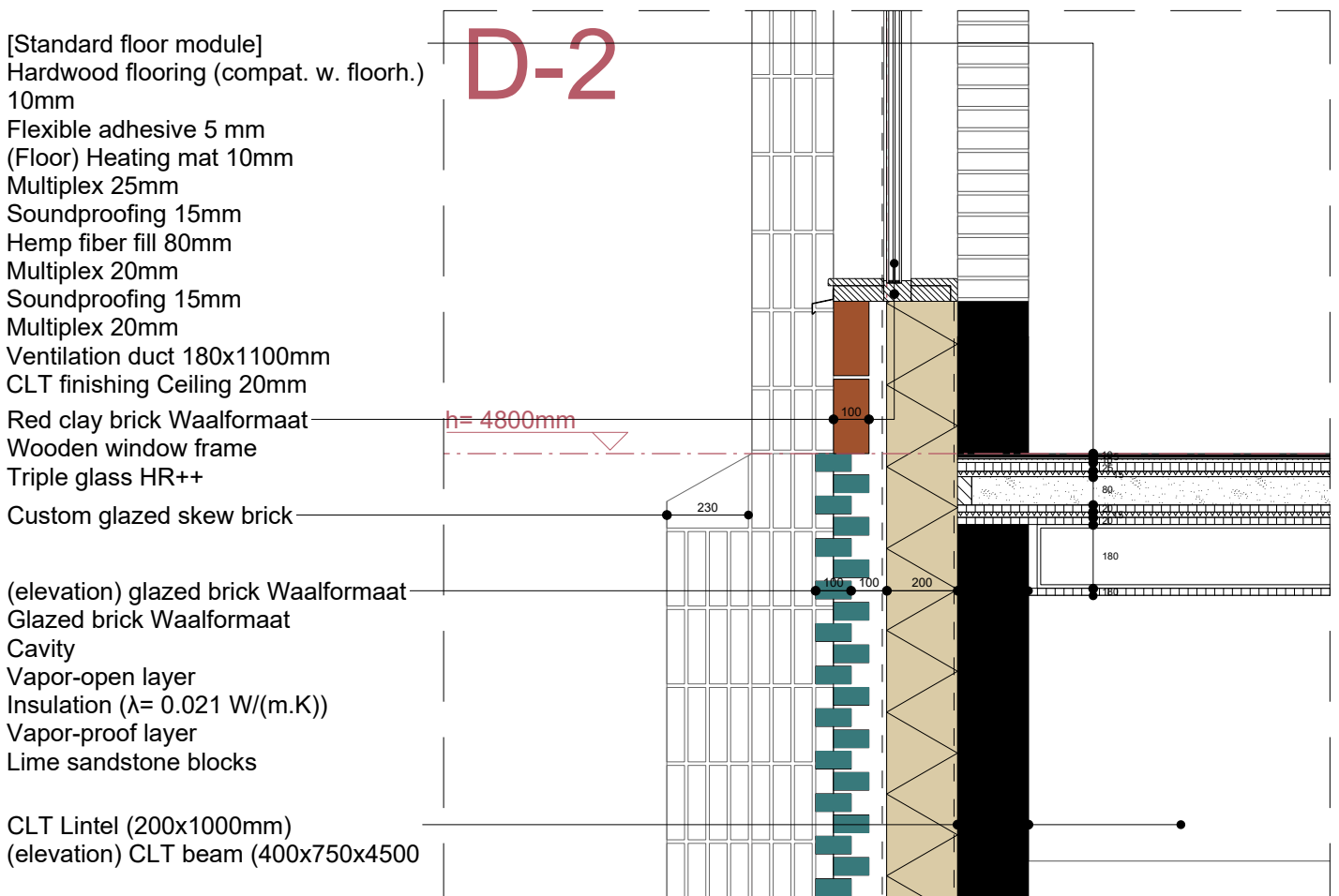


Figure 7.5: detail D-2, first floor (scale 1:20)

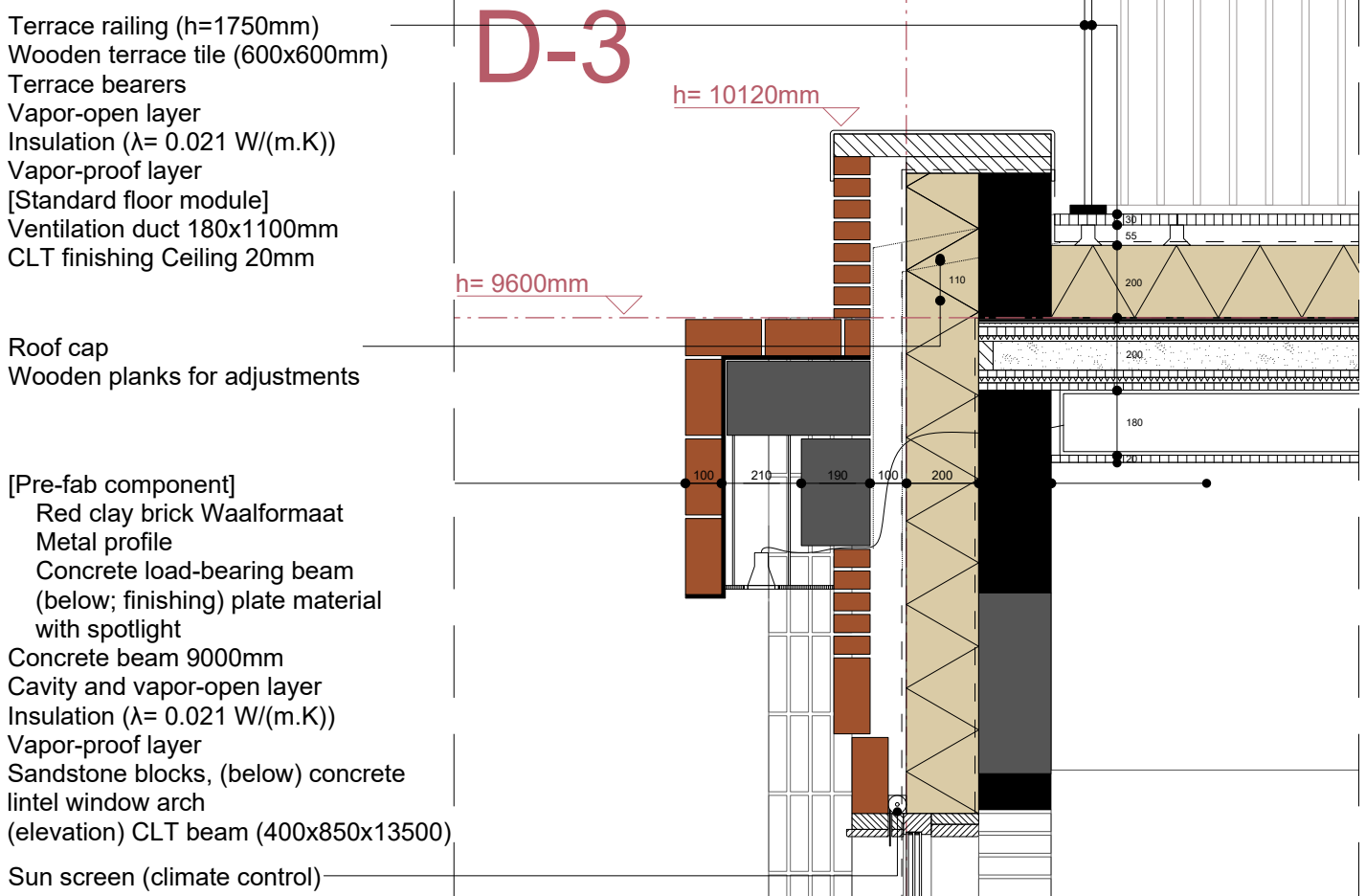
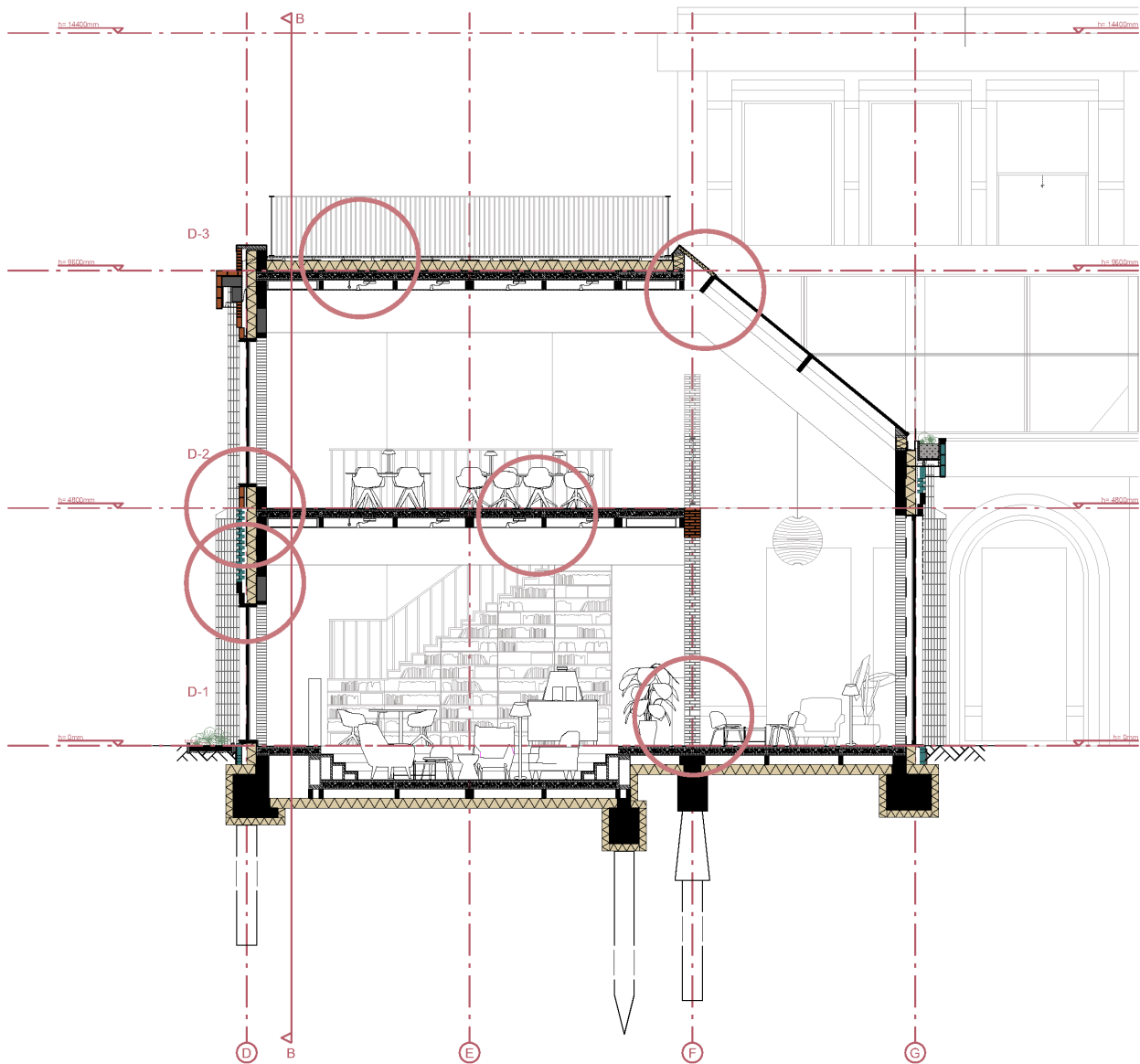


Figure 7.6: detail D-3, edge of roof (scale 1:20)

# Technical design - Materials



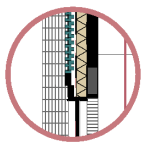
Wooden terrace (low ECI) (n: MKI) well-ventilated by placement on top of supports



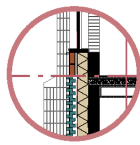
Wooden floor modules with bio-based materials like wood and hemp. Modules are demountable due to the dry connections.



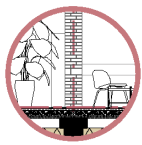
CLT- structure with dry connections (demountable) (low MKI)



Inner wall of (lime) sandstone blocks (low MKI) and prefab concrete lintels for the arches



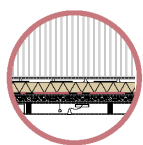
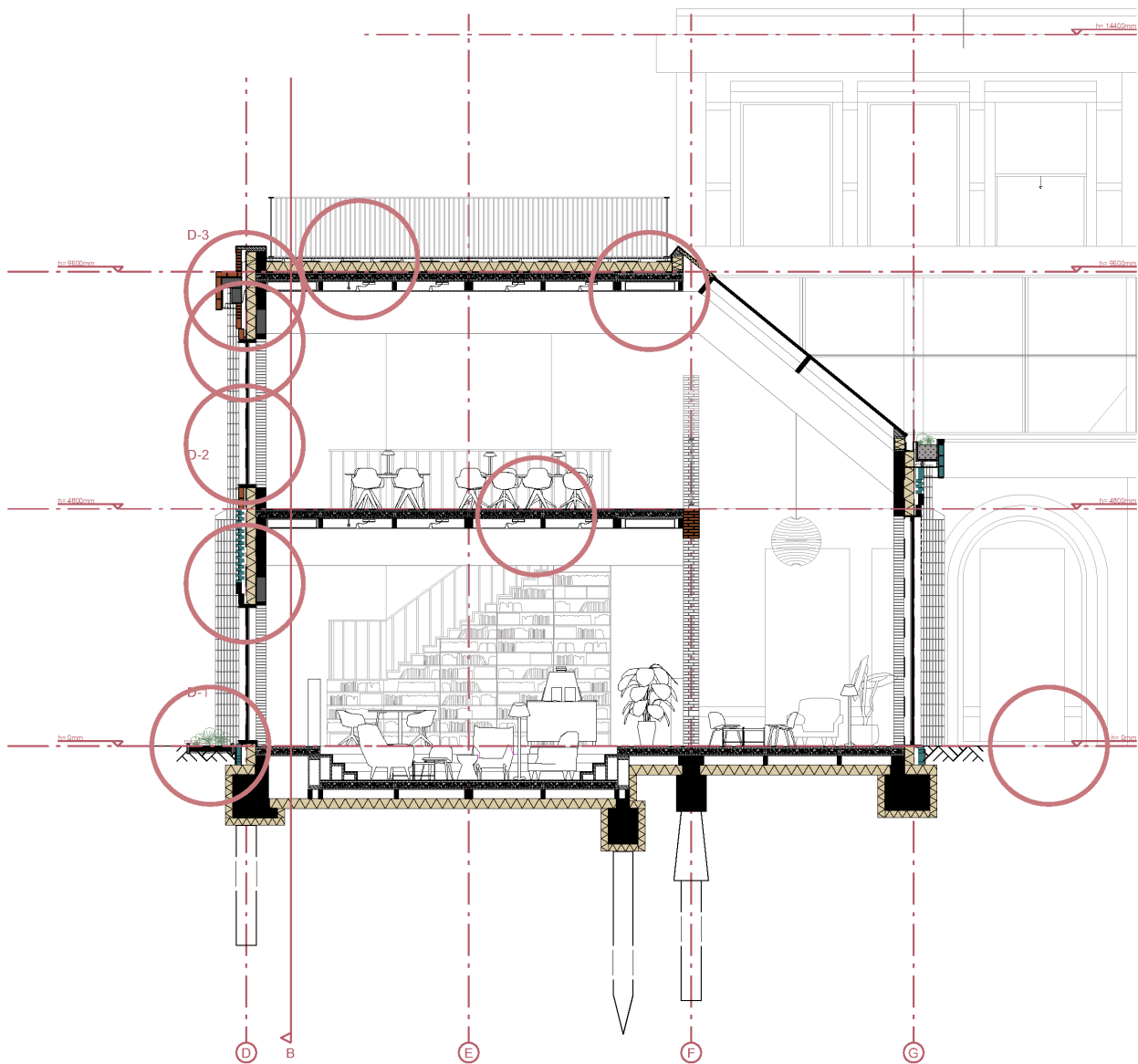
High quality facade materials with a long life expectancy (>100 years)



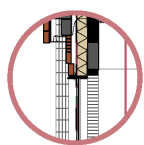
Reuse of the old facade Kamelia

Figure 7.7: Technical section (scale 1:80) with details on materials

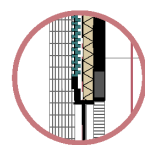
# Climate design - Heating and cooling



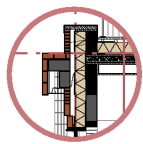
Rc Roof: 7.1 m<sup>2</sup> x K/W



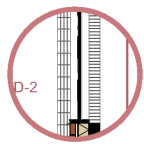
Automated sun screens prevent overheating (and blinding rays). First floor and up (ground floor is protected by surrounding buildings)



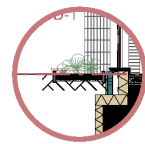
Rc Facade: 4.8 m<sup>2</sup> x K/W (accounted for U-value glass)



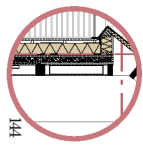
Overhang blocks high summer sun



Triple glas HR+++



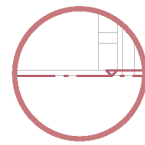
Greenery in the borders, trees on the sidewalk, and greenery and the fountain in the courtyard help combat UHI effect



Ventilation type D (mechanical supply and exhaust)



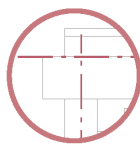
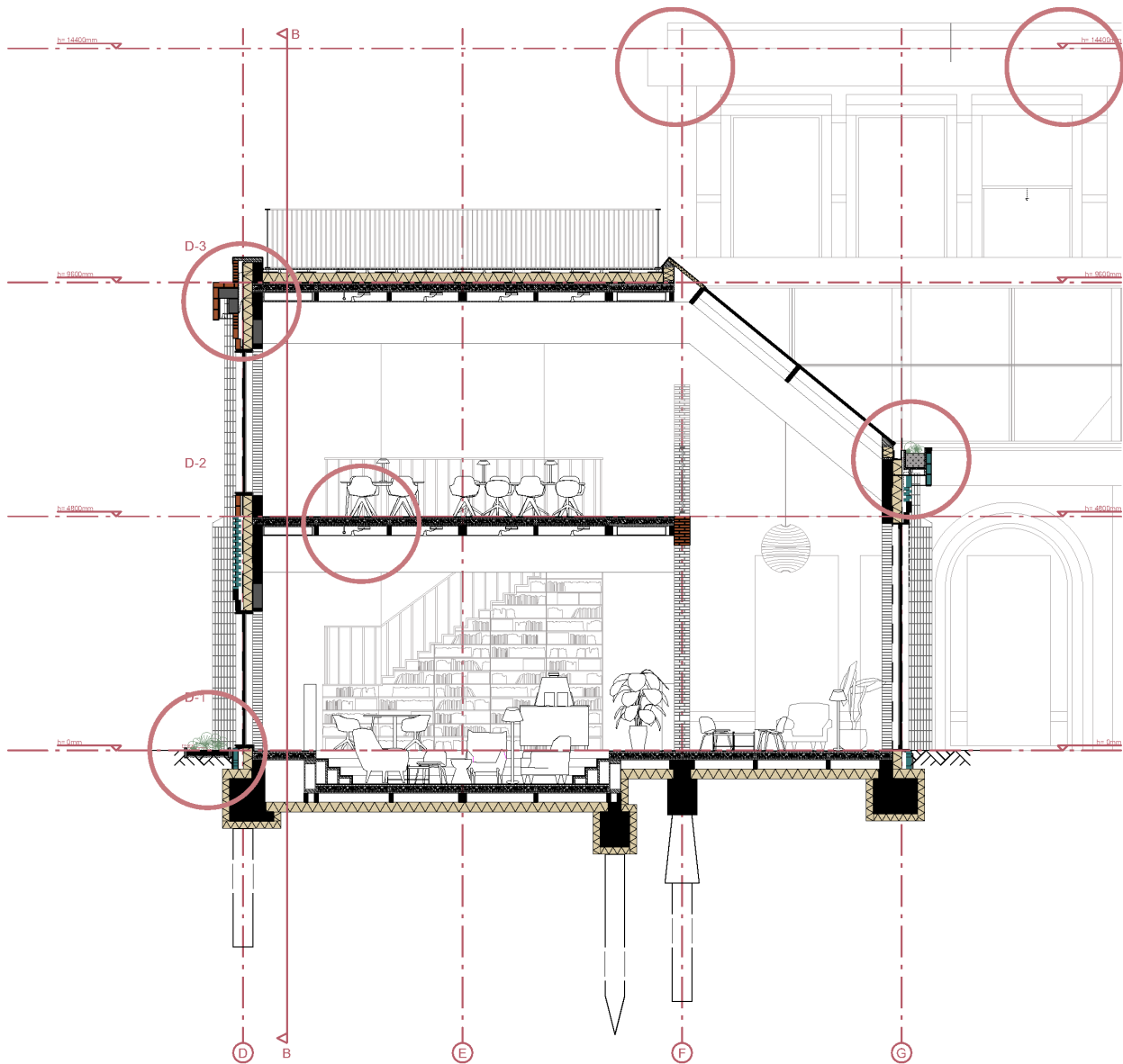
Floor heating with heat sourced from Rotterdam city heating



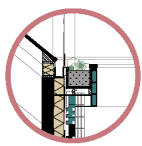
Courtyard serves as heat buffer in the winter, and cold buffer in the summer

Figure 7.8: Technical section (scale 1:80) with details on heating and cooling

# Climate design - Miscellaneous



Space for fauna on building ledges and green spaces



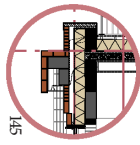
Planters on courtyard are supplied with rainwater and offer shelter for fauna



Roof with PV-panels (est. 550m<sup>2</sup> available)



Ventilation, lighting, sprinkler system, cables etc. are hidden from view in ceiling



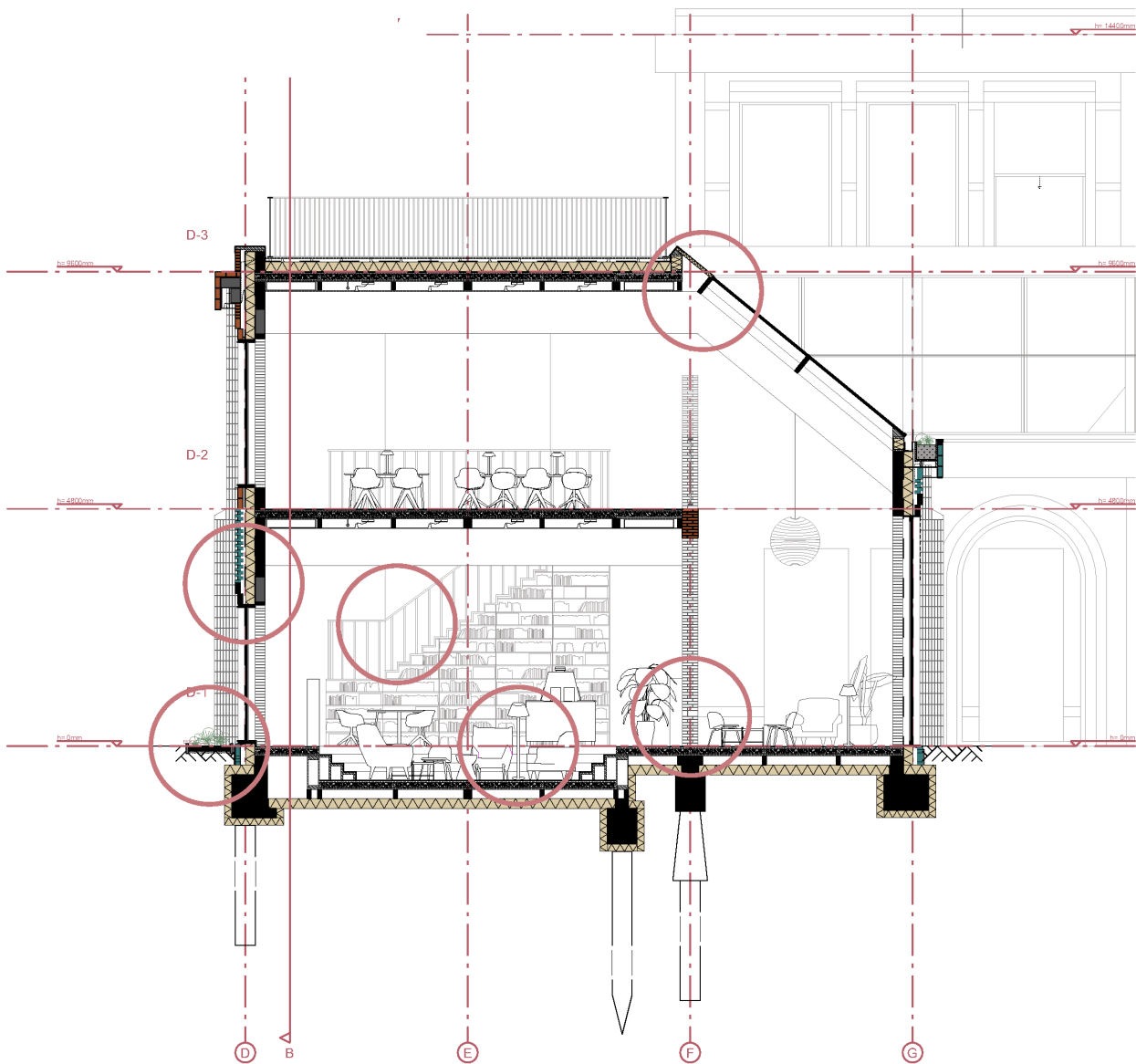
Rainwater drains from roof to green borders and prevents flooding



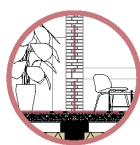
The greenery throughout the project consists of bio-diverse, native plants and flowers

Figure 7.9: Technical section (scale 1:80) with miscellaneous climate design details

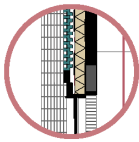
# Technical design - Social sustainability



Should Bloemhof require a different building, the internal structure can be demounted and the facade reused (dry connections)



Reuse of the old facade Kamelia connect the history of the neighbourhood to the new building. The facade is a familiar landmark



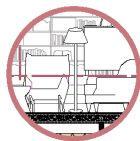
Facade materials are also present in spatial context, but more modern. They stand out while still offering familiarity



The greenery and water features throughout the project have psychological advantages



Safe and accessible building (e.g. elevators, wheelchair ramps, good ventilation, no raised flooring, fire exits/routes etc.)



Personal preferences possible in lighting (sun screens and informal lighting), seating and types of spaces

Figure 7.10: Technical section (scale 1:80) with details on social sustainability

## Technical design - Building structure

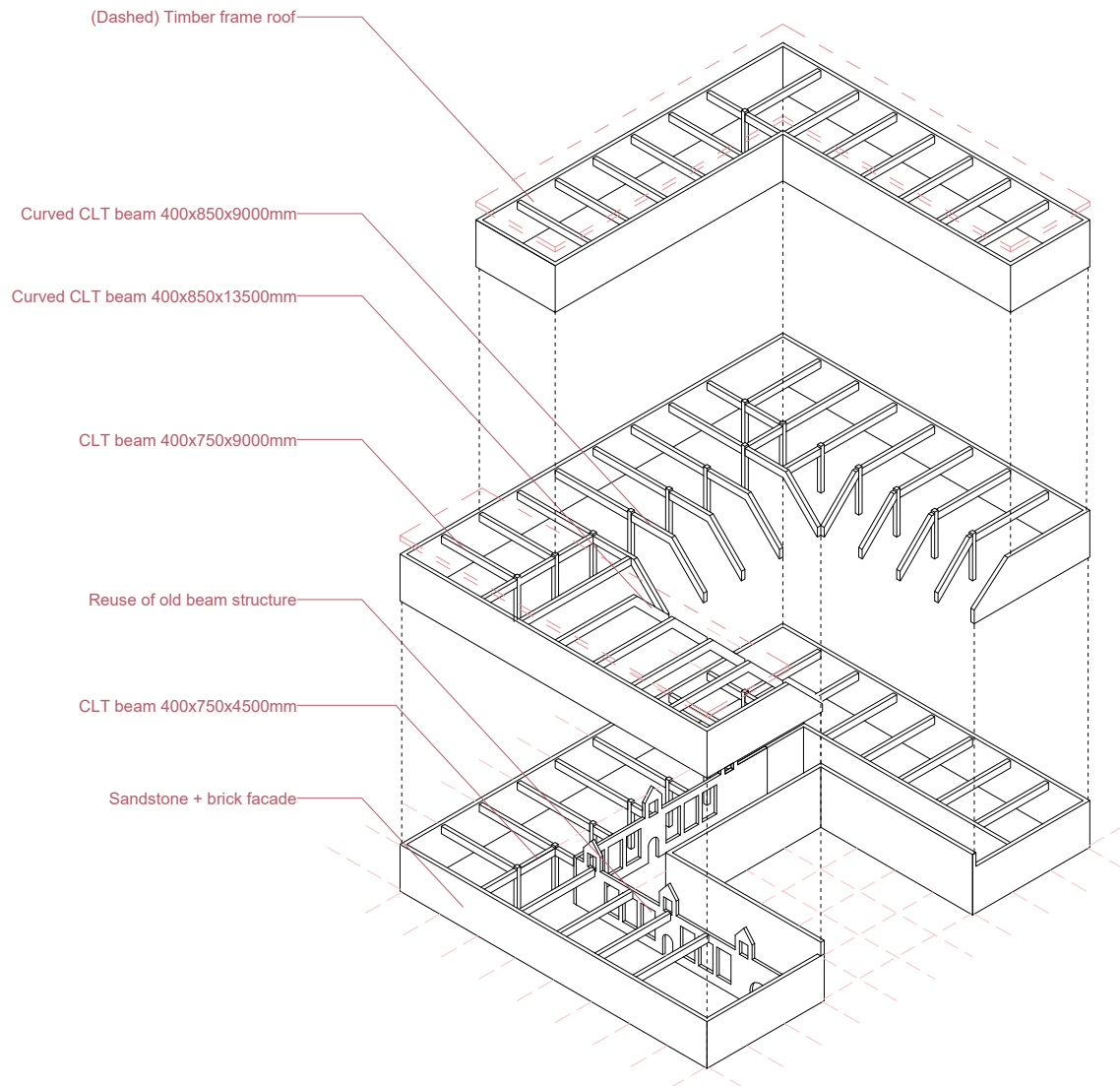


Figure 7.11: Exploded view of Magnolia's building structure

The structural grid is based on the expected structural grid of the old neighbourhood centre Kamelia of 4500x4500mm. Each floor has a height of 4800mm, exceeding the minimal requirement stated in the Dutch building regulations. This height was selected on the height of the facade of Kamelia as well as chosen for aesthetic, architectural purposes: creating large, open spaces for the public function like the library. Most beams span a distance of 9000mm (twice the grid size) and floors span 4500mm.

Some exceptions apply, like the curved

CLT-beams at the library walkabout, which are longer so no columns were necessary in the lowered seating area: maintaining the architectural integrity of the plan. Additionally, in the middle of the building there are small overhanging beams(1800mm), resting on a colonnade on both the ground and first floor; complementing the primary routes of the building while upholding the dwellings on the second floor. On the 'back' of the building, where there are no remains of Kamelia, the new building facade continues in the interior, creating a fire partition wall.

# Climate design - Fire safety and ventilation

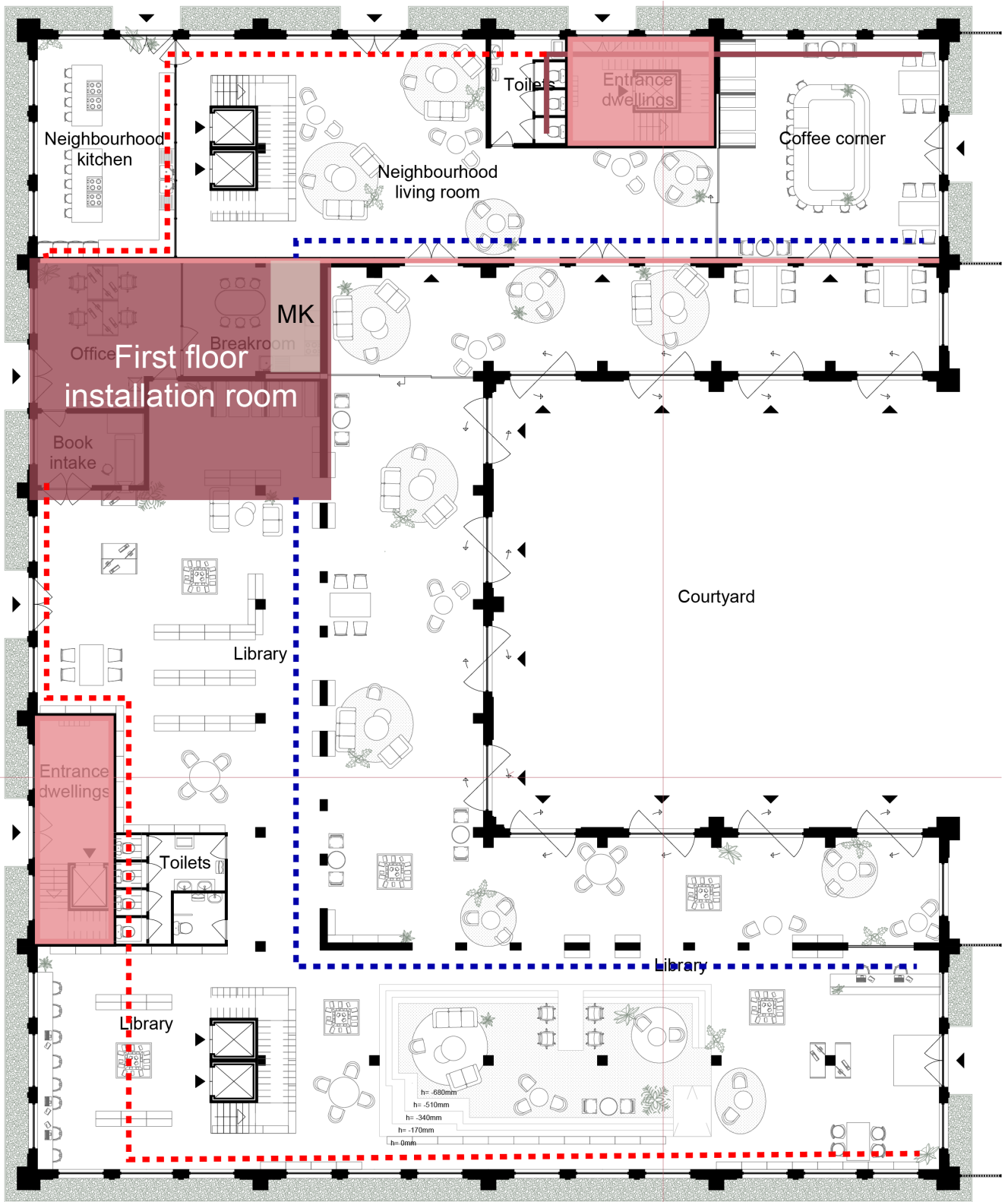








Figure 7.12: Floorplan with rough view of fire compartments and ventilation shafts (scale ~1:200)

-  Installation room
-  Groundfloor meter box
-  Fire partition wall
-  Fire compartment
-  Air exhaust
-  Air supply

## Circularity strategy

### R0- REFUSE

A new building with mixed program and a lot of square meters was necessary as large parts of the neighbourhood will need to be demolished or renovated due to issues with soil subsidence. Many inhabitants and businesses will need a new home when theirs become too damaged and unsafe.

### R1- RETHINK

While the issue of subsidence will eventually lead to demolition, demolishing too soon will lead to displacement. Instead of demolishing part of the neighbourhood for this project, a new space in the urban fabric was 'found'. By merging two plots (removing a road inbetween) and repurposing them, inhabitants could stay in their homes until after the project would be finished.

### R2- REDUCE

While a lot of new materials are used in the new building, it aims to reduce material use in the longer term by selecting high quality materials. They have a long lifespan (>100 years), so no new materials have to be added in the longer term- even if the building changes function. Additionally, the chosen materials perform better so less m<sup>3</sup> is necessary to achieve the desired effect (e.g. thinner insulation layers).

### R3- REUSE

Part of the old neighbourhood centre Kamelia has been reused: two of the facades, connected orthogonally, are still present in the new design. Aside from the removal of the windows, this was one-on-one reuse. Materials harvested from the demolishing of the remainder of the building can be used in other parts of the project: the harvested bricks are used to make the pathways of the pocket parks (see: masterplan).

### R4- REPAIR

### R5- REMANUFACTURE

## R6- REFURBISH

As mentioned, the facade the old Neighbourhood centre Kamelia has been reused. To allow for reuse, it also had to be (partially) refurbished. The old facade did not perform well energetically and needed a second skin: this was added in the form of the walkabout.

## R7- REPURPOSE

The old facade from Neighbourhood centre Kamelia has been repurposed and become an interior wall. Looking at the urban fabric the plot has been repurposed as well: the old functions are now replaced by a new building with a new program. The new building itself has been designed for the possibility of repurposing: the floorplans and internal building structures are flexible and allow for many different functions.

## R8- RECYCLE

## R9- RECOVER

The floors and CLT- structure are built using dry connections only. This means these materials are demountable and can be recover should this be necessary for say a change in building function.

## R10- REMINE

