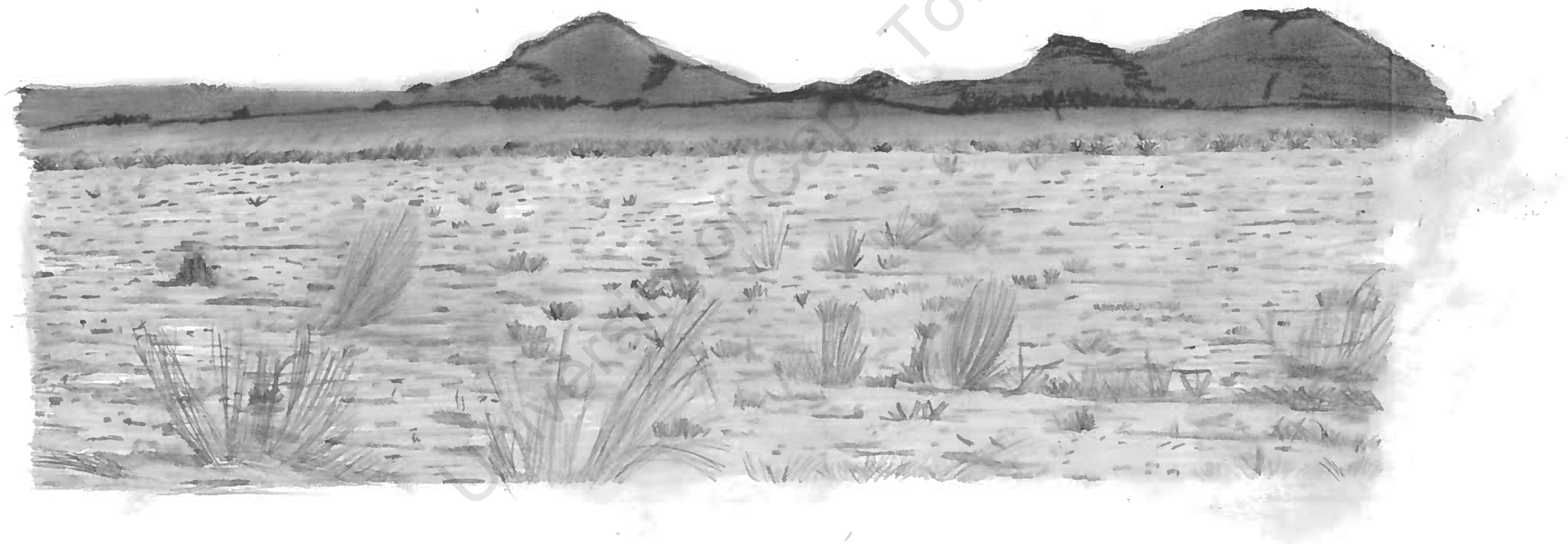
ARCHITECTURAL HEALING SPACES

How Design Protects, Rehabilitates Survivors of Abuse



University of Cape Town

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2023

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STUDENT NAME: Teegan Isola
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Acknowledgments

To those closest to me

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FIGURE 1 Integration of Interests (by author)

Abstract

This dissertation delves into an exploration of the profound potential of architectural interventions in facilitating the healing process for survivors of abuse, with a particular focus on women and children. Acknowledging the significance of environments that promote user comfort, personal control, privacy, sensory engagement, and a connection to nature, the study recognises the pivotal role these factors play in psychological well-being, especially for victims of domestic violence.

Motivated by a deep understanding of the impact of domestic violence and trauma, this dissertation is dedicated to the creation of healing spaces for women and children. Its primary objective is to investigate how architecture can actively support the mental healing process of individuals. The project centres on the idea that spatial interventions can act as catalysts for creating dignity, healing, and restoration for survivors of abuse.

At the heart of this endeavour is the establishment of a sanctuary, designed to provide women with a safe, nurturing, and empowering environment to recover from past traumas and develop essential life skills, ultimately fostering personal growth and self-sufficiency. The sanctuary offers a range of spaces, including areas for counselling, workshops, communal activities, and private reflection, seamlessly harmonising with the natural surroundings.

The project combines therapeutic healing practices with practical skills training, empowering women on their journey to recovery. This comprehensive training covers a diverse array of areas, from business and entrepreneurship to agricultural and computer skills, equipping women to take control of their own healing and future.

Set against the backdrop of a women-run farm in the Sandveld region of the Western Cape, the design explores the juxtaposition between refuge and reveal, striving to strike a balance between safety and comfort, while fostering a profound connection with the natural world. Through the strategic layering of spaces, materials that signify both solidity and transparency, and a dedication to integrating the built environment with the natural landscape, the project exemplifies the potential of architecture to serve as a catalyst for healing, restoration, and transformation, offering nurturing not only to its inhabitants but also to the landscape.

"Dignity is to design what justice is to law and health is to medicine. In the simplest of terms, for me, dignity is about knowing your intrinsic worth and seeing that worth reflected in places you inhabit. It's about being primed for your full potential.

Dignity is a kid in rural China learning in a colourful classroom that makes him feel valued and piques his curiosity. Dignity is a public space in Atlanta where young and old, rich, and poor alike mingle, celebrate, and play. Dignity is a cancer patient in a light-filled hospital ward in rural Rwanda with lots of natural airflow to support her healing.

Almost nothing influences the quality of our lives more than the design of our homes, our schools, our workplaces, and our public spaces. Yet design is taken for granted. People don't realize they deserve better or that better is even possible." (Cary, 2008)

Introduction

Inspired by the exert from John Cary's book "Design for Good", my design research aims to understand how spatial interventions can act as catalysts for creating dignity, healing, and restoration for survivors of abuse. This exploration revolves around the idea that architectural character within spaces can facilitate skills development, personal growth, and knowledge sharing, ultimately nurturing a sense of dignity, identity, and healing.

This paper aims to determine how aesthetics and architecture can create environments that are conducive to healing and the healing process. This research is not a reflection of how architecture can heal independently but it is rather a reflection on how the manipulation of space can act as catalysts in providing healing environments that affect the psychological and physical behaviour of a person.

At its core, this project compels us to delve into the foundational principles of architectural design. It prompts us to explore the ways in which spaces can be structured, and configured to yield environments that nurture mental and emotional healing. The goal is to harness the inherent power of architecture to positively impact the psychological and physical well-being of survivors. Spaces that lack user comfort, control, privacy, sensory engagement, and a connection to nature tend to hinder the healing process.

These concerns are especially pronounced for victims of domestic violence, magnifying their psychological impact. Therefore, this dissertation aims to investigate how architecture can support the mental healing process of individuals and transform structures into healing architecture.

Through an exploration of trauma-informed design, therapeutic architecture and shelter design considerations, this dissertation establishes a design framework that aims to shed light on the importance of fostering healing, creating a sense of place and belonging, and utilising spaces to protect and empower survivors of domestic violence.

PART ONE
THEORY

01. Issue

Buildings have historically prioritised orderliness and functionality, often overlooking the psychological and educational needs of their occupants. (Milovanovic, 2017) Many architectural designs exhibit repetitive layouts, poor daylighting, restricted views, and endless corridors, creating sterile and unwelcoming environments. These spaces unintentionally exacerbated the stress and anxiety experienced by individuals dealing with mental, emotional, and traumatic stress. This realisation prompted architects, researchers, and designers to reconsider their approach to building design.

Recognising the adverse effects of such environments, professionals in the field began to explore how architecture could serve as a means of therapeutic intervention. They observed that individuals in these spaces experienced heightened levels of stress, anxiety, and isolation, all of which hindered the healing process.

This realisation prompted a shift in architectural design philosophy where architecture could act as a second form of therapy. (Andrade & Delvin, 2015) Architects and designers began to adopt a user-centric approach, prioritising occupants' comfort and well-being. They understood the significance of natural light and integrated larger windows and skylights to maximise its presence. Outdoor views became accessible, creating a connection to nature that had been lacking. Additionally, they created open, inviting spaces that fostered social interaction and sensory engagement.

These architectural transformations were driven by a growing body of research and empirical observations, shedding light on the detrimental impact of sterile building environments on individuals facing stress and trauma. The focus shifted from mere functionality to the creation of healing spaces that nurtured the mental and emotional well-being of their occupants. As a result, architecture began to function as a complementary form of therapy, redirecting the attention of vulnerable individuals away from their anxieties and towards the nurturing and rejuvenation of their immediate surroundings. The thoughtful design of interior spaces played a pivotal role in alleviating stress and supporting the path to recovery. (Andrade & Delvin, 2015)

These architectural strategies have been a central focus of this dissertation, shaping its exploration into creating an architectural environment that fosters mental and emotional well-being. The aim is to understand how these strategies can imbue the architecture with a sense of therapy and healing.

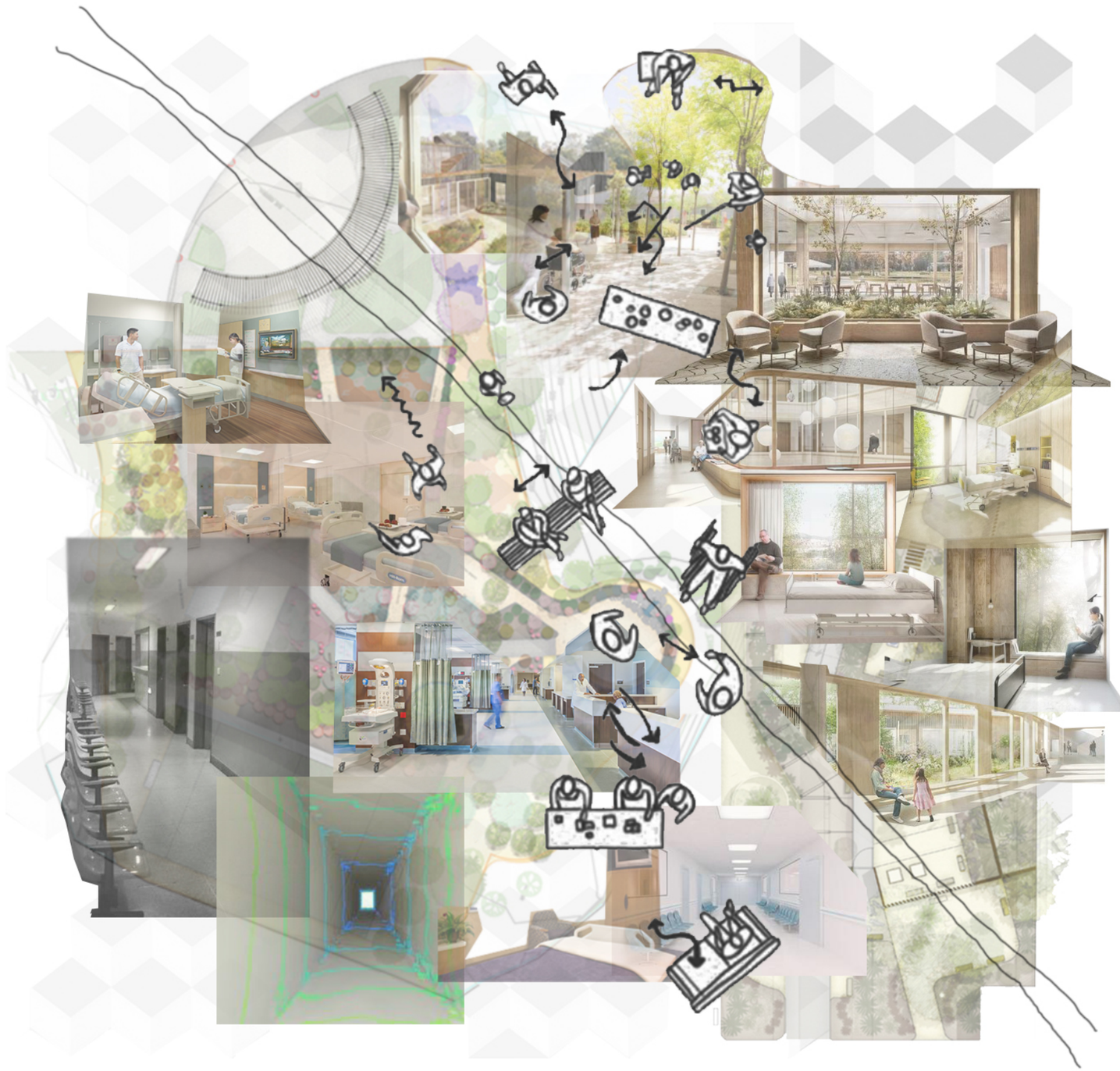


FIGURE 2 Shift in Focus (by author)

02. Making a Healing Environment – The Role of Architecture in Healing

Buildings wield profound influence over individuals' well-being, particularly in the context of trauma. Strategic design considerations can lead to the creation of therapeutic and trauma-sensitive environments that address various facets of the human experience. While these environments cannot directly induce healing, they can foster behaviours and emotions conducive to healing. The built environment has the capacity to evoke physical and emotional responses such as happiness, joy, and relaxation, while also enhancing individual control and functionality—factors that can pave the way for healing. (Cary, 2017)

Creating a healing environment involves crafting a physical and psychological space that nurtures the well-being, comfort, and recovery of individuals grappling with physical or emotional challenges. It entails the careful design of spaces, taking into account the distinct needs and experiences of the people who will inhabit them, with a primary focus on alleviating stress, mitigating anxiety, and facilitating the healing process. (Cary, 2017)

This exploration begins with a foundational understanding of the terms at its core: healing, therapeutic architecture, and trauma-informed design. According to the Oxford English Dictionary, "heal" is defined as "to cause (a wound, injury, or person) to become sound or healthy again." (Oxford University Press, 2009) The concepts of 'healing architecture' and 'therapeutic architecture' are deeply entrenched in human well-being, embodying the notion that well-designed architectural environments can influence the process of healing. (Akuneho & Napoleon, 2021) In parallel, 'trauma-informed' design signifies a conscientious approach that takes into consideration the impact of trauma on individuals and seeks to create spaces that are sensitive and responsive to their needs. (Gill, 2019)

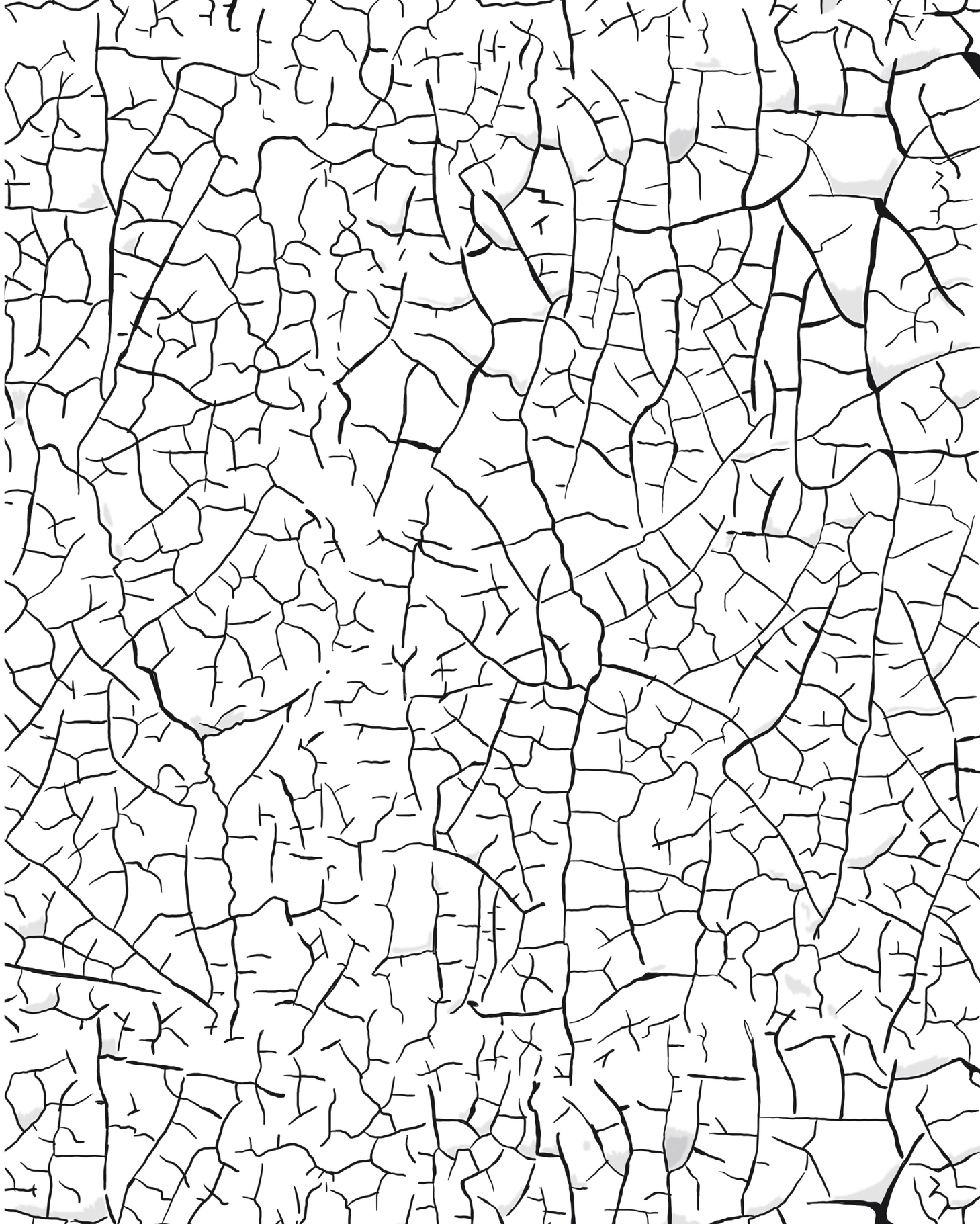


FIGURE 3 | Healing the Wounds (by author)

03. Trauma-Informed Design

Trauma-informed design entails the integration of trauma-informed care principles into the design process, aiming to craft physical spaces that prioritise safety, well-being, and healing.

This entails acknowledging the influence of the physical environment on identity, self-worth, and dignity, as well as its capacity to facilitate empowerment. This concept recognises the deep connection between our physical surroundings and our physiological and emotional well-being. It acknowledges the influence that our physical environment can have on our attitudes, moods, and behaviours (Dietkus 2022) Moreover, it emphasises that purposeful design and upkeep of healing environments can empower individuals and prevent re-traumatisation among those who have already endured substantial trauma. (Gill, 2019)

At its core, trauma-informed design seeks to facilitate healing and enhance the physical health, mental well-being, and overall wellness of individuals and their communities. (Dietkus 2022)

Acknowledging that trauma resides within the body and realising that our bodies react to physical space before our minds can process it, highlights the pivotal role of the built environment in shaping our encounters with trauma. (Grabowska et al., 2021)

While there is no single way to be trauma-informed, the design process involves the incorporation of trauma-informed care principles. These principles were initially developed by the Substance Abuse and Mental Health Services Administration (SAMHSA) and have recently been brought into the realm of design.

The objective of these principles is to develop physical spaces that prioritise safety and well-being and facilitate healing. (Trauma Informed Design. n.d.) Some established guiding principles of trauma-informed care include:

Safety: Ensuring physical and emotional safety for individuals, both staff and clients, by creating an environment that minimises the potential for re-traumatisation and harm. (Guhl, 2022)

Design spaces that prioritise physical and emotional safety. This includes providing clear wayfinding, well-lit areas, secure entryways, and spaces that reduce the risk of harm or re-traumatisation.

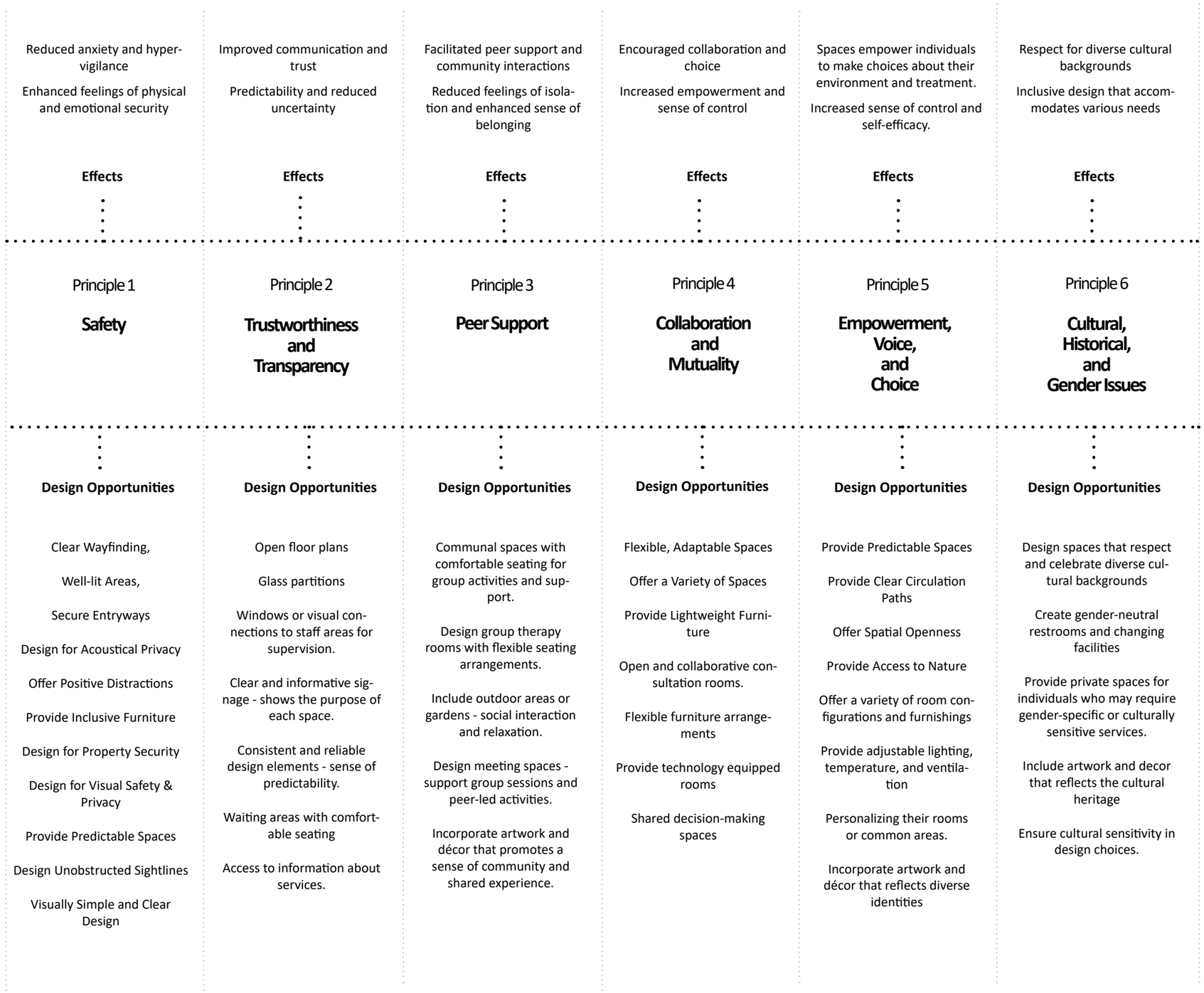


FIGURE 4 Trauma Informed Design Principles (by author)

Trustworthiness and Transparency: Building trust through transparent and reliable interactions, communication, and expectations, allows individuals to feel safe and secure. (Shopwork Architecture, Group 14 Engineering and University of Denver Center for Housing and Homelessness Research, 2020)

Ensure that the design and layout of spaces are transparent and predictable. Clearly communicate the purpose and function of different areas within a building to create a sense of trust and reliability. (Guhl, 2022)

Peer Support: Offering opportunities for peer support, can foster a sense of belonging and understanding among those who have experienced trauma. (Shopwork Architecture, Group 14 Engineering and University of Denver Center for Housing and Homelessness Research, 2020)

Create spaces that facilitate peer support and interaction. Design communal areas, gathering spaces, and group therapy rooms where individuals can connect with others who have shared experiences. (Guhl, 2022)

Collaboration and Mutuality: Encouraging collaborative and mutually respectful relationships between service providers and users, empowering users to be active participants in their care. (Shopwork Architecture, Group 14 Engineering and University of Denver Center for Housing and Homelessness Research, 2020)

Foster collaborative environments within the architecture. This may involve designing shared decision-making spaces, consultation rooms, or meeting areas that promote respectful interactions between service providers and clients.

Empowerment, Voice, and Choice: Acknowledging and promoting the importance of individual empowerment, voice, and choice in decision-making related to their own recovery. (Shopwork Architecture, Group 14 Engineering and University of Denver Center for Housing and Homelessness Research, 2020)

Design spaces that empower individuals to have a say in their environment. Offer choices in room layouts, furnishings, and décor, allowing individuals to personalise their spaces and exercise control over their surroundings.

Trauma-Informed Design Framework



FIGURE 5 | Trauma-Informed Design Framework (Shopworks Architecture Group et al. 2020)

Cultural, Historical, and Gender Issues: Recognising the impact of culture, history, and gender on an individual's experience of trauma and tailoring services to be culturally sensitive and gender-responsive.

Incorporate cultural sensitivity and gender responsiveness into the design. Ensure that the architecture reflects diverse cultural backgrounds and experiences, providing spaces that are inclusive and respectful of individual identities and histories. (Trauma Informed Care Research Centre, 2009)

The objective of the trauma-informed design process is to create a building that not only meets the basic needs of its occupants but also fosters healing and growth on a person's journey towards stability. Adopting a trauma-informed approach is essential to ensure that individuals moving through these spaces encounter environments that are responsive to their needs and prioritise fundamental principles of mental health maintenance and overall well-being. (Shopwork Architecture, Group 14 Engineering and University of Denver Center for Housing and Homelessness Research, 2020)

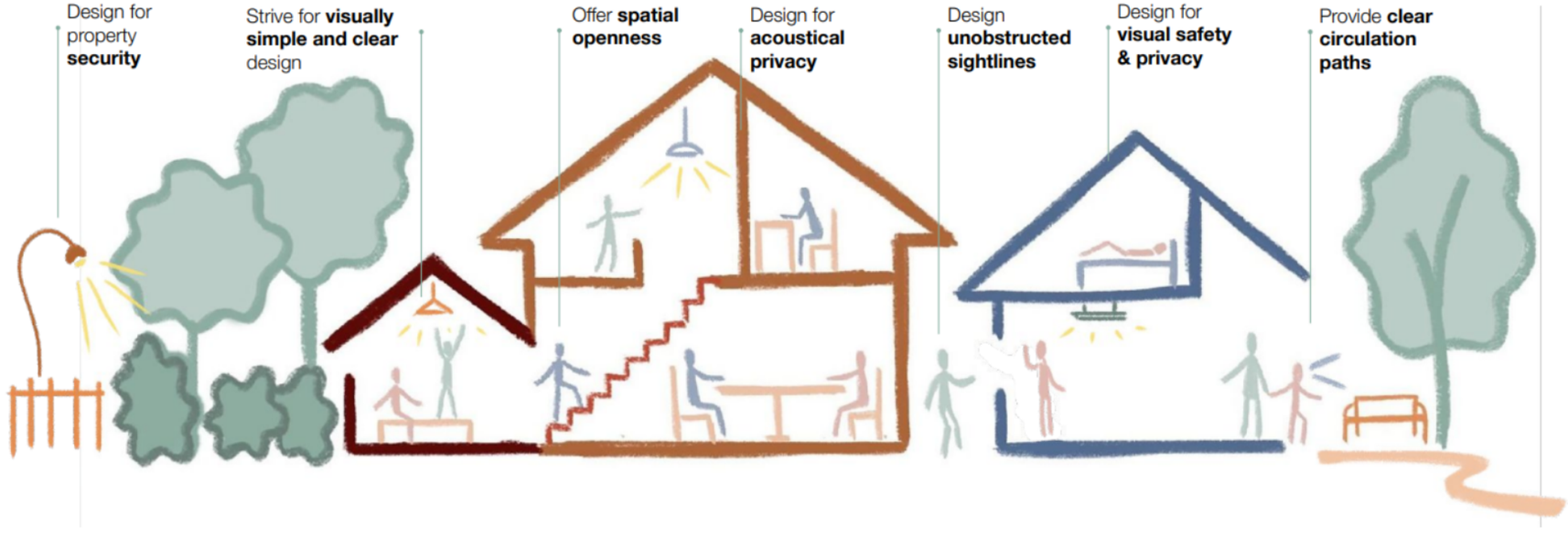


FIGURE 6 | Resilient Communities (POAH, n.d.)

Case Study A

Providence at the Heights
Shopworks Architecture
Aurora, Colorado
2012

The Providence at the Heights (PATH) project exemplifies a profound incorporation of trauma-informed design (TID) principles throughout its development. From its inception, the project embraced the values of TID, recognising the importance of creating spaces that prioritise safety, healing, and empowerment. (Shopwork Architecture, Group 14 Engineering and University of Denver Center for Housing and Homelessness Research, 2021)

Visionary Leadership and Understanding: Project leaders had a deep understanding of the difficulties faced by individuals re-entering society after incarceration. Many members of the team had personal experiences with incarceration. This direct understanding informed the design process and the recognition of the shared experiences of trauma and the need for healing.

Integrating Lived Experience: The project actively integrated the voices and experiences of individuals who had been formerly incarcerated. This inclusion allowed for first-hand experiences to guide design decisions, making the building more relatable and empathetic to the residents. (Shopwork Architecture, Group 14 Engineering and University of Denver Center for Housing and Homelessness Research, 2021)

The project also implemented TID values across various aspects of design. This includes:

Safety: The design prioritised safety by creating wide hallways, open stairwells, and an advanced access control system to ensure residents felt secure.

Healing: Elements of biophilia, which explores how nature aids in healing, were extensively incorporated into the design. Natural materials, wood accents, and colour schemes inspired by nature were utilised to create a soothing and restorative atmosphere.

Community: Spaces were intentionally designed to foster community, with areas for gatherings, community spaces, and shared interests.

Transparency: Open amenity spaces and large windows were incorporated to communicate a message of transparency and openness.



FIGURE 7 TV Lounge (Shopworks, n.d.)

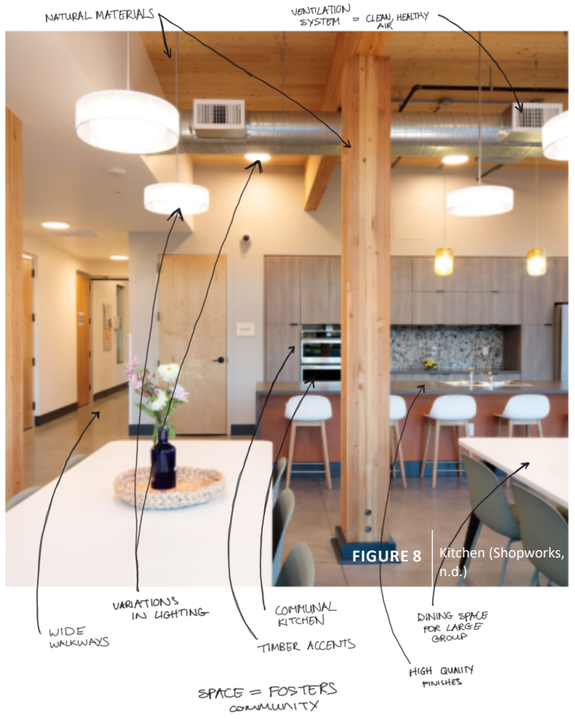


FIGURE 8 Kitchen (Shopworks, n.d.)



FIGURE 9 Dining and Reading (Shopworks, n.d.)

Respect and Worth: High-quality furnishings were used to communicate respect and worth to the residents, ensuring that quality was prioritised over quantity.

Harmony with Surroundings: The project aimed to integrate seamlessly with its surroundings, choosing materials and colours inspired by the adjacent landscape.

Aspirational Design: Mirrors placed strategically throughout the building aimed to inspire residents to envision their evolving lives positively. (Shopwork Architecture, Group 14 Engineering and University of Denver Center for Housing and Homelessness Research, 2021)

The PATH project not only incorporated but truly embraced TID principles at every stage, recognising the importance of safety, healing, and empowerment in designing spaces that facilitate the recovery and thriving of individuals who have experienced trauma and homelessness.


FIGURE 10 Exterior Façade and Garden Paths (Shopworks, n.d.)

04. Therapeutic Architecture

In our evolving understanding of health and well-being, therapeutic architecture emerges as a design philosophy that profoundly impacts the quality of human life. Therapeutic architecture, as described by Chrysikou (2014), is a “people-centred, evidence-based discipline.” It aims to identify spatial elements that interact with individuals’ physiology and psychology. The core principle of therapeutic architecture revolves around relating to the occupants.

Architectural spaces have a direct influence over emotions, making well-designed environments instrumental in natural healing processes. A therapeutic atmosphere, as defined by the American Psychological Association, provides acceptance, empathic understanding, and unconditional positive regard. It encourages individuals to express their thoughts, behaviours, and emotions freely and constructively. In such environments, people feel at ease discussing sensitive topics like trauma, fostering a sense of safety. (Chrysikou, 2014)

Therapeutic architecture does not claim to directly heal people; instead, it harnesses architectural manipulations of structures and spaces to enhance environmental factors like sound, colour, views, scent, and light. This philosophy underscores the profound impact of architectural designs that cater to both physiological and psychological needs. Such designs foster improved interpersonal interactions and deepen the sense of purpose within therapeutic architecture. (Mazuch & Stephen, 2005)

By re-imagining our built spaces as contributors to well-being, we have the opportunity to create environments that support healing, promote holistic wellness, and empower individuals to thrive. In embracing the principles of healing and therapeutic architecture, we embark on a journey towards spaces that not only heal but also inspire and nurture the human spirit. (Zohby, n.d.)

Creating an optimal therapeutic environment necessitates the consideration of the following design principles. These principles encompass various elements of internal and external environments:

Principle 1	Principle 2	Principle 3	Principle 4	Principle 5	Principle 6
Light	**Sensory Engagement**	**Privacy and Dignity**	**Form/Shape**	**Well-Being and Safety**	**Nature**
Sense of orientation Boost energy levels Circadian rhythm Improves productivity Lowers depression Increased comfort Increases motivation.	Positive distraction Reduces anxiety + tension Increases creativity Engages the senses Creates a calming atmosphere Enhances focus Enchances cognitive function.	Personal control Sense of security Sense of ownership Lowers stress Maintains sense of self-worth and autonomy Promotes emotional well-being. Enhance trust in the process	Sense of orientation Improves way-finding Reduces anxiety Positive distraction Promote feelings of comfort, and openness Alleviate feelings of confinement	Reduces physical hazards Sense of protection and security Improves trust Increases relaxation Improved emotional well-being Reduces anxiety and fear	Reduce stress, Lower blood pressure, Enhances overall mental well-being Positive distraction Engages the senses Increases comfort Increases creativity
Effects	**Effects**	**Effects**	**Effects**	**Effects**	**Effects**
Design Opportunities	**Design Opportunities**	**Design Opportunities**	**Design Opportunities**	**Design Opportunities**	**Design Opportunities**
Maximize Natural Light Larger windows Skylights Light wells **Tunable Lighting** Adjustable lighting systems **Lighting Control** Provide occupants with control over lighting levels	**Soothing Natural Sounds** Flowing water Bird songs Gentle wind Sound-absorbing materials/ speakers **Texture Variety** Soft fabrics Natural wood Tactile surfaces **Aroma Control** Scent diffusers Choose from a range of natural aromas **Multi-Sensory Room** Dedicated multi-sensory rooms with controlled sensory stimuli	**Private Space** Design rooms or zones that provide privacy when needed, such as consultation rooms or private relaxation areas **Dignified Materials** Use high-quality, natural materials and finishes that convey a sense of dignity and respect **Individual Control** Adjustable blinds or Curtains, to customize their level of privacy Lockable Doors in rooms **Personalized Spaces** Personal belongings and decor	**Softened Edges** Incorporate rounded corners Curved furniture **Open Design** Avoid sharp angles/straight lines More organic, flowing shapes **Balanced Proportions** Strive for a harmonious balance between straight and curved forms in the design **Ergonomic Furniture** **Flowing Spaces** Minimize abrupt transitions	**Clear Signage** Clear wayfinding Well-designed signage **Non-Slip Flooring** Use slip-resistant flooring materials **Crisis Intervention** soft seating **Ergonomic Furniture** minimizes hazards supports mobility	**Biophilic Design** Indoor plants Living walls Natural materials **Nature Views** Orient rooms to offer views of nature, whether through windows or dedicated nature-inspired artwork **Outdoor Access** Gardens Courtyards Terraces **Natural Art** Nature-themed artworks, sculptures, and installations **Healing Gardens** Therapeutic gardens Sensory-rich landscapes

FIGURE 11 Therapeutic Principles (by author)

Light:
Light holds the power to significantly shape the healing journey of individuals. Nevertheless, an excess or deficiency of it can hinder occupants and hinder the recovery process (Day, 2004). In designing healing environments, it is crucial to maximise the use of natural light by thoughtfully planning architectural layouts. This involves optimising the placement and size of windows to allow sunlight to penetrate deep into the space. There should be ways to control light levels, such as adjustable blinds or curtains. (Zohby, n.d.)

Access to daylight is not only vital for an individual's physical well-being but also for their emotional and spiritual health, with the aesthetic and physiological benefits intricately intertwined. The qualities of natural daylight and sunlight are clearly associated with a decrease in perceived stress levels, effectively serving as a natural mood enhancer. (Day, 2004)

Sensory Engagement:
Engaging multiple senses simultaneously is a fundamental principle in creating healing environments. Sensory engagement involves stimulating all human senses – sight, hearing, smell, taste, and touch. It's a holistic approach that goes beyond visual aesthetics alone, aiming to enhance overall well-being. (Day, 2004)

Architectural design can achieve sensory engagement by manipulating various elements such as colour, texture, lighting, sound, and scent. To create a healing environment that caters to sensory engagement, architects and designers must consider these factors. Sensory-engaged environments can provide a rich and holistic experience that promotes healing, relaxation, and overall well-being for their occupant. (Zohby, n.d.)

Privacy and Dignity:
Respect for privacy and dignity is fundamental in healing environments. This principle involves designing spaces that offer individuals a sense of personal privacy, whether through private rooms or partitions that establish personal territory. The layout and furnishings should respect modesty and cultural norms, particularly in communal areas.

Occupants should have the means to control their level of exposure to others, which can be achieved through the use of adjustable curtains or screens. Soundproofing measures should be integrated to maintain acoustic privacy, preventing the inadvertent sharing of private conversations. Lastly, the choice of furnishings should convey dignity and comfort, catering to various abilities and needs.



FIGURE 12 Centre for Journalism and Communication (Predock, A. 2020)



FIGURE 13 Magneten Sensory Garden (Autzen, K. 2017)



FIGURE 14 Playstudios Office Expansion - Hanoi (Thach, T. 2022)



FIGURE 15 Curvilinear light well (Ano, D. 2011)



FIGURE 16 Main waiting area & reception (Vyde. 2021)



FIGURE 17 7/11 Heatherwick Studio designs plant-filled Maggie's Centre in Leeds (Hufton + Crow. 2020)

Form/Shape:
Architectural layout and form significantly impact the healing environment. The configuration of interior spaces and their flow can significantly impact building users. Subtle adjustments in shape, such as gentle curves rather than sharp angles, can profoundly influence how people perceive and interact with spaces. While spaces defined by sharp corners might appear austere, curved forms often evoke feelings of safety and comfort. (Day, 2004).

Designers also need to create flexible layouts that can adapt to diverse uses and evolving needs without necessitating structural modifications.

Maximising the penetration of natural light, even in larger structures or spaces with deep floor plans, is crucial. Striving for designs that avoid the institutional, box-like appearance often associated with healthcare or therapeutic spaces is also important. Creating layouts that facilitate easy navigation while accommodating individuals with varying mobility levels is another key consideration. (Alamu Priya)

Well-Being and Safety:
Designing for well-being and safety involves a multifaceted approach. Ensuring physical safety and security through access control measures, surveillance, and emergency egress routes is essential. The design should prioritise holistic well-being, fostering emotional and social well-being in addition to physical safety. This involves creating spaces that support overall health and comfort.

Nature:
Incorporating nature into healing environments involves various design constraints. Biophilic design elements, such as indoor plants, water features, and natural materials, should be thoughtfully integrated within the architectural structure. Providing spaces with access to green environments, such as courtyards or gardens, allows occupants to connect with nature. (Day, 2014)

Maximising opportunities for individuals to enjoy views of the natural world, both near and far, from within the healing environment is important. The choice of building materials should evoke a connection to the natural world, enhancing occupants' sense of well-being. Lastly, consideration should be given to the ease of maintenance for any green or natural features to sustain their positive impact over time.
to the ease of maintenance for any green or natural features to sustain their positive impact over time.

Case Study B
Maggie Gartnaval
OMA Architects
Glasgow, Scotland
2011

Maggie's Gartnaval, designed by OMA, stands as a new centre for the Maggie's charity on the grounds of Gartnaval Royal Infirmary in Glasgow, Scotland. Its purpose is to provide emotional and psychological support to those affected by cancer in the greater Glasgow area. The centre incorporates several therapeutic principles to create an environment that provides emotional and psychological support to those affected by cancer. (OMA, 2011)

Light:
The centre's design maximises the use of natural light. Glazed walls offer views of the surrounding trees and the internal courtyard, and the building is carefully arranged to provide an abundance of natural light. This focus on natural light helps create a soothing and uplifting atmosphere. (Minner, 2011)

Sensory Engagement:
OMA's design emphasises creating a nurturing environment. The interconnected, interlocking rooms and the internal courtyard provide a variety of spaces for individuals to engage their senses. The fluid spatial sequence fosters a sense of community and encourages interaction among visitors. (Minner, 2011)

Privacy and Dignity:
The building's layout respects the privacy and dignity of cancer patients. The arrangement of interconnected rooms and the avoidance of insular, sterile spaces promote a sense of comfort and dignity. The community-focused design reinforces a shared understanding and empathy among cancer patients and their families. (Minner, 2011)

Form/Shape:
The centre's design revolves around a ring of interconnected spaces, comprising of counselling rooms, a large multipurpose area, a kitchen, a dining room, and offices. The intentional avoidance of isolated rooms fosters a fluent spatial sequence, reinforcing the empathetic community central to Maggie's philosophy. This configuration minimises the need for hallways and facilitates a more casual and at-home atmosphere and ensures an interplay of openness, retreat, and support, reinforcing the essence of the Maggie's program. (OMA, 2011)



FIGURE 18 8/8 Maggie's Centre, Gartnavel Hospital, Glasgow (Ruault, P. 2011)



FIGURE 19 3/8 Maggie's Centre, Gartnavel Hospital, Glasgow (Ruault, P. 2011)



FIGURE 20 11/12 OMA designed Maggie Gartnaval Opens Today (Ruault, P. 2011)

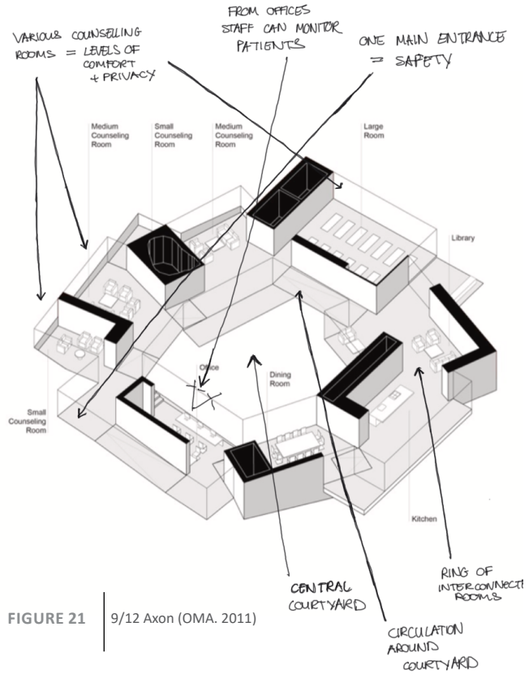


FIGURE 21 9/12 Axon (OMA. 2011)

Well-Being and Safety:
The design of Maggie's Gartnavel prioritises the well-being and comfort of cancer patients. It offers both intimate spaces, like counselling rooms, for personal moments, and open, spacious zones for communal use. The building has one main entrance, and the courtyard is only accessible from the inside, enhancing the safety and security of the space. The building's design focuses on providing nurturing and supportive spaces which contributes to a sense of well-being and comfort for its users. (Minner, 2011)

Nature:
The centre's design includes an internal courtyard with plantings and surrounding wooded hills, integrating nature into the healing environment. The landscaping, done by Lily Jencks, not only creates a meaningful sense of place but also fosters a nurturing environment for cancer patients and their families. Multiple biophilic principles are incorporated to maximise benefits for the patients. (OMA, 2011)

Overall, OMA's design for Maggie's Gartnavel demonstrates a thoughtful application of therapeutic architectural principles, creating a warm and welcoming environment that supports individuals affected by cancer in their journey to well-being and recovery.



FIGURE 22 12/12 OMA designed Maggie Gartnaval Opens Today (Ruault, P. 2011)

LIVING THROUGH THE ABUSE

Staying in a relationship in the hope that a partner will change. They stay because they act as a shield to protect their children. They sacrifice themselves to prevent their partner from abusing the children instead. They stay because they are dependent on that person for survival.

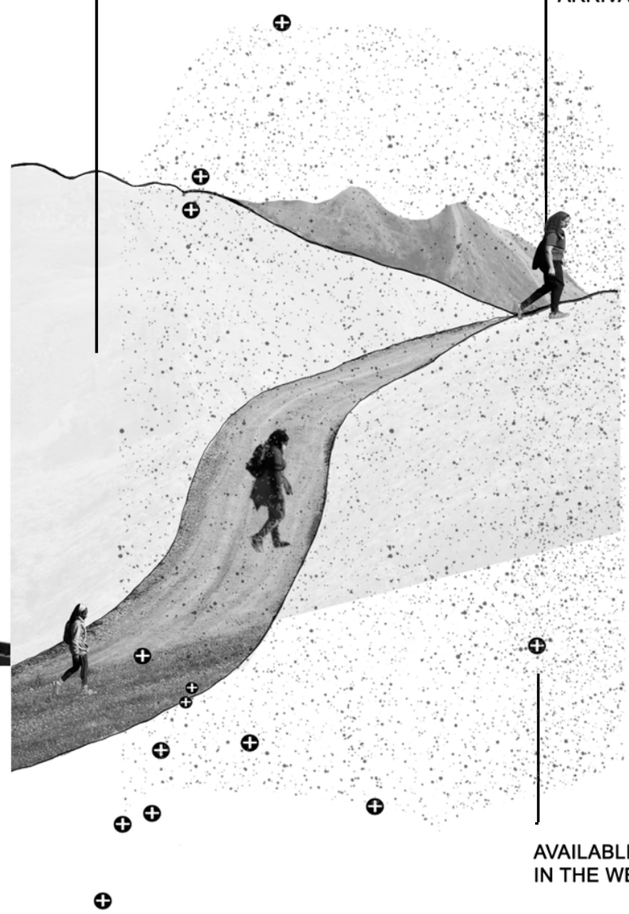
FINDING AN OPPORTUNITY TO ESCAPE.

Having an opportunity to escape and enables women to leave an abusive relationship.

JOURNEY TO SHELTER

ARRIVAL AT SHELTER





AVAILABLE SHELTERS
IN THE WESTERN CAPE

NEIGHBOURS

Reports often state that even though neighbours can hear their cries, they often don't do anything about it because it happens within private spaces. However, many

REPORTING ABUSE

Victims reporting abuse to officials . Numbers recorded of sexual violences in the Western Cape.

LONELY JOURNEY

Ending a significant relationship is never easy. It's even harder when you've been isolated from your family and friends,

LEAVING THE ABUSE

Women in need of protection can contact a shelter directly, or ask a social worker at the nearest regional office of the Department, or your nearest police station for assistance in contacting a shelter.

FIGURE 23 Journey of a Survivor | Leaving the Abuse (by author)

05. Domestic Violence and a Place of Refuge

To expand the research on trauma-informed design and therapeutic architecture, with a specific focus on creating a place of refuge for domestic violence victims, it is essential to delve deeper into the understanding of the needs of survivors, their response to trauma and their design requirements. By exploring these ideas, it uncovers innovative ways in which architectural design can profoundly impact the lives of survivors

Domestic violence

Across the World, Domestic Violence is a global epidemic that continues to affect women and girls psychologically, sexually, physically, and economically. It is an issue that is not isolated and occurs across all cultures, races, age groups and societies. In South Africa specifically, domestic violence is one of the most widespread human rights violations. One in every three women in South Africa has experienced some form of intimate partner violence in their lifetime. (Sparknews 2021) Consequently, domestic violence can also exert adverse effects on children and other members of the family.

> *"Domestic violence or intimate partner violence is a pattern of assaultive and coercive behaviours including physical, sexual and psychological attacks, as well as economic coercion used by adults or adolescents against their current or former intimate partners." (Women Against Abuse, n.d.)*

The consequences of domestic violence extend beyond physical injuries to severe psychological harm. These psychological injuries have a serious impact on a person's mental health. These victims experience a great deal of emotional pain, that often leaves them feeling distressed, anxious, sad, guilty, and angered. Prolonged exposure to abuse can also trigger symptoms of post-traumatic stress disorder (PTSD) and leave victims with low self-esteem and self-confidence. (Sinko, Schaitkin & Saint Arnault, 2021)

Recovery from the trauma is a gradual process that requires patience and time. Healing is a holistic journey that encompasses various dimensions of well-being, including mental, emotional, social, physical, and spiritual aspects. It's about actively striving for overall well-being by integrating one's experiences of violence into a renewed identity. (UN Women, n.d.) The healing process enables survivors to envision a future free from the constraints of their trauma, fostering meaningful connections and pursuing their aspirations without limitations. (Sinko, Schaitkin & Saint Arnault, 2021)

Along this process, survivors seek to rebuild their identity, reconnect with themselves, regain power and control over their lives, cultivate self-worth and a sense of belonging, rebuild healthy relationships, nurture hope, and ultimately find peace. (Sinko, Schaitkin & Saint Arnault, 2021)

How can architecture and design then be used to tailor environments to create spaces that ensure that victims feel safe, nurtured, and empowered within the shelter?

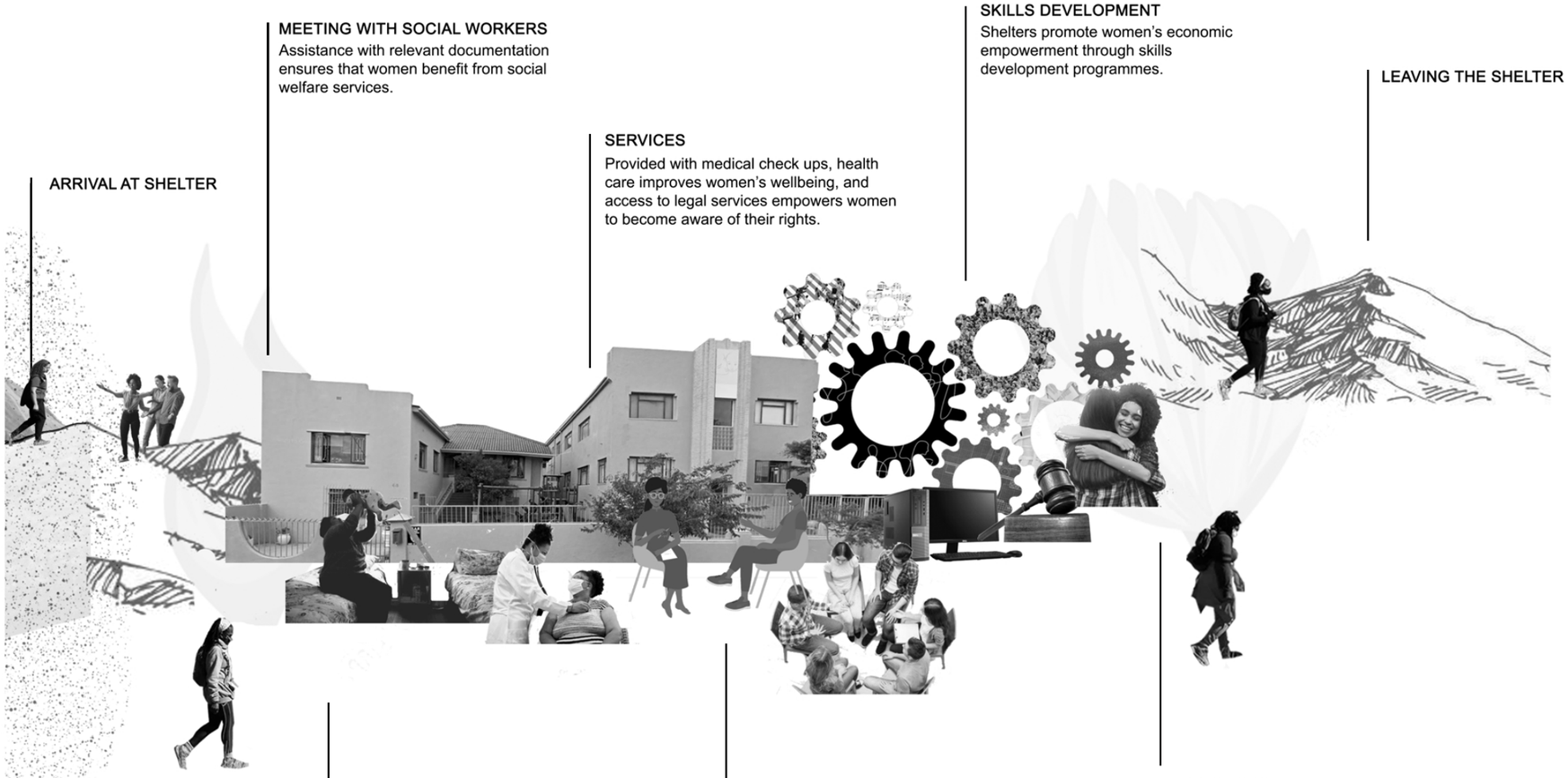


FIGURE 24 | Journey of a Survivor | In the Shelter (by author)

Place of Refuge | Design Considerations

Domestic violence shelters go beyond offering a secure haven by providing valuable resources, including counselling, healthcare services, skill development training, and empowerment programmes.

Building Dignity represents a dynamic partnership between the Washington State Coalition Against Domestic Violence (WSCADV) and Mahlum. Their vision is to demonstrate that, through a thoughtful design and collaboration process, domestic violence housing programs can influence the physical environment to align with their mission and values. Careful design can empower parents, cater to children's needs, and facilitate healing. It plays a pivotal role in helping survivors regain their sense of dignity and enables staff to focus on survivor-centred advocacy. (WSCADV & Mahlum, 2012)

Throughout the design process, the Building Dignity website which was set up by the WSCADV and Mahlum suggests five principles to consider when designing spaces for healing women and their children. (WSCADV & Mahlum, 2012)

Empower
Secure
Re[connect]
Parent
Harmonise

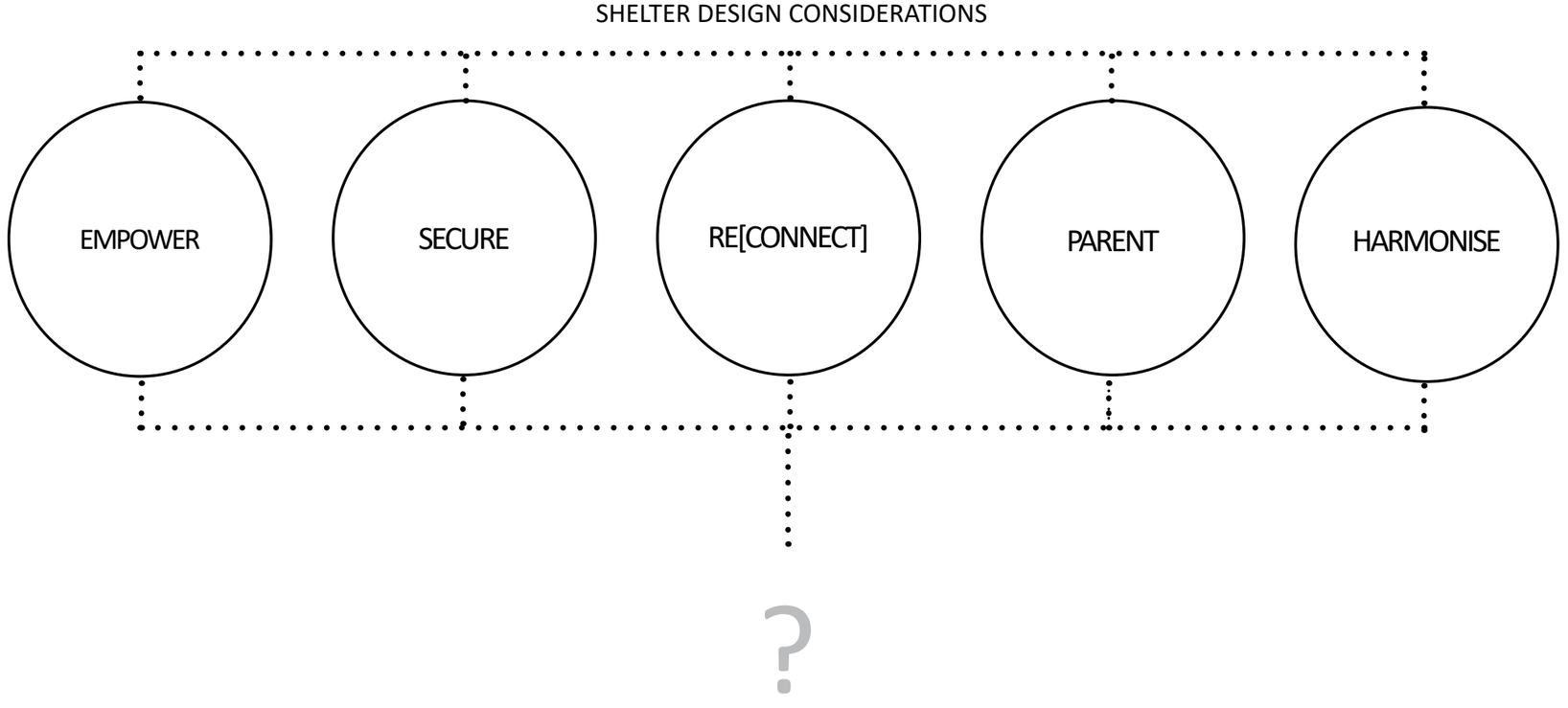


FIGURE 25 | Considerations (by author)

Empower

Site: When considering the site for a domestic violence shelter, assess its potential to support residents in regaining independence, economic opportunities, and social connections. Create a welcoming environment using culturally relevant colours, imagery, and references. Access to outdoor spaces, such as healing gardens, can promote well-being, reflection, and connection with nature. (WSCADV & Mahlum, 2012)

Communal Space: In communal spaces, provide visual access throughout the building to enhance autonomy. Quiet spaces outside residents' rooms increase privacy options, while alcoves allow individuals to create their own space within communal areas. Laundry facilities should be easily accessible. Library and information nooks allow private exploration, and flexible furnishings within communal spaces stimulate versatile use. (WSCADV & Mahlum, 2012)

Kitchen: Ideally, each family or resident should have their own kitchen for autonomy over food choices and meal timing. If communal kitchens are necessary, plan for multiple simultaneous users with ample floor space, generous countertops, wide clearances, multiple cooktops, generous refrigerator space, separate ovens and cooktops, multiple sinks, dishwashers, and pictographic labels. Storage for larger items is essential, and communal food storage should be located close to the kitchen. Flexible dining furniture allows residents to eat together or separately. (WSCADV & Mahlum, 2012)

Private: Private rooms for single women and families facilitate healing from trauma by offering increased privacy, reduced noise, and improved sleep quality. Design these rooms with locks to provide a sense of security. Beauty in shelter spaces is essential for inspiration and healing. Create rooms or units for people with pets and service animals and designate a "quiet room" for residents seeking respite from busy communal areas. Flexible furnishings are an important aspect of shelter design, even in the smallest spaces. Plentiful lighting in bedrooms, including overhead and task lighting. (WSCADV & Mahlum, 2012)

Staff: Within staff areas, ensure acoustically and visually separated spaces for private conversations, with small conference rooms for confidential discussions with residents and peers. Allow residents access to communal resources to affirm their dignity and save staff time. Create a healthy, non-toxic environment for both residents and staff and provide staff with the ability to adjust their workspace to meet their needs. (WSCADV & Mahlum, 2012)

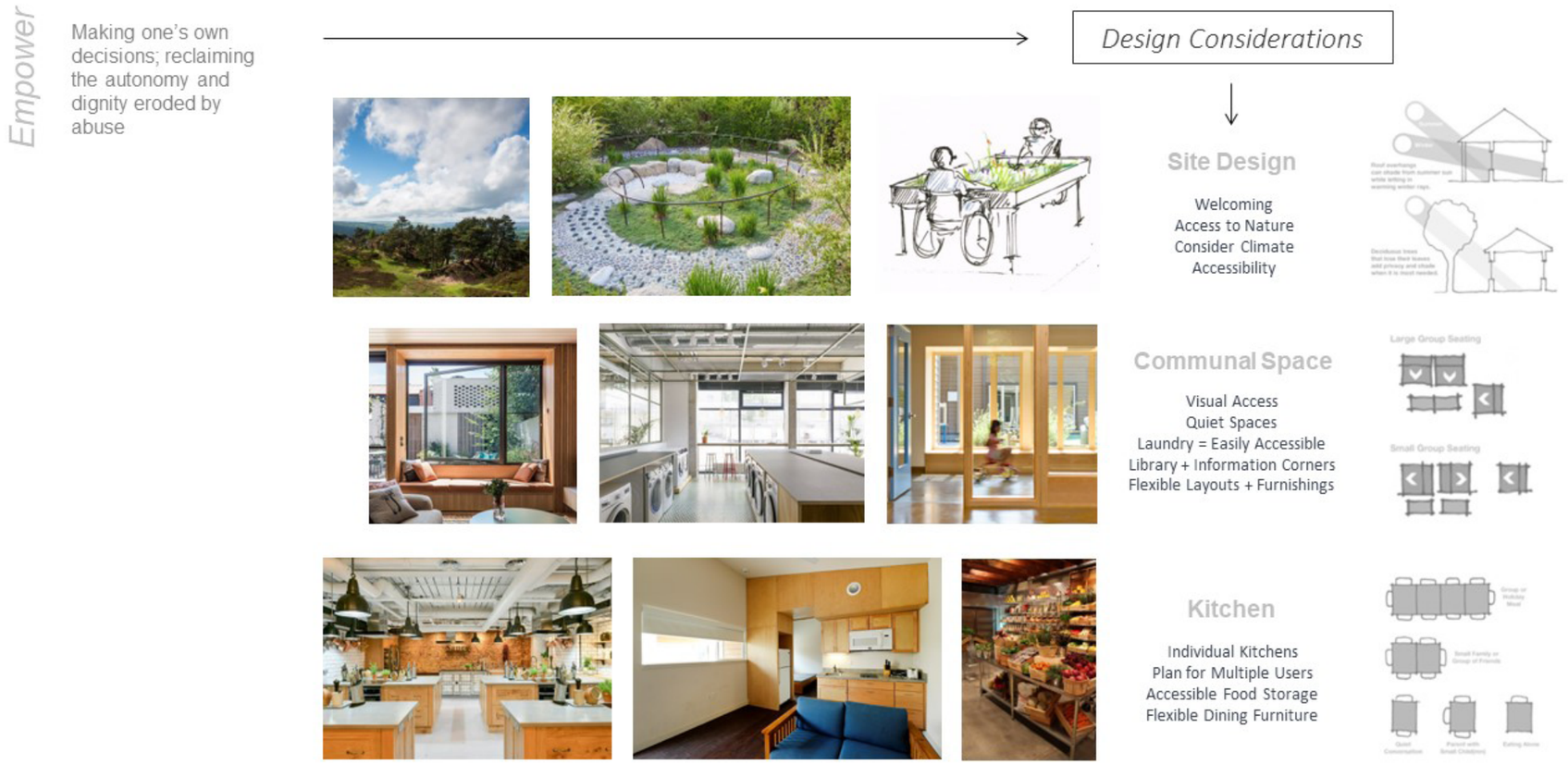


FIGURE 26 | Empower (by author)

Secure

Site: Creating a secure and supportive domestic violence shelter environment begins with careful site selection and design. Establishing clear boundaries with limited exterior visibility safeguards residents' privacy and security. Providing visible, protected outdoor play areas for children supports their well-being. Controlled access, using keycards, key fobs, and cameras, allows residents to come and go securely, reducing the need for staff monitoring. Panic buttons ensure immediate help when integrated into the security system, especially in non-24-hour staffed shelters. Concealing parking areas enhances resident confidentiality and safety, achieved through visual screens or enclosures. (WSCADV & Mahlum, 2012)

Communal Space: Communal spaces in a domestic violence shelter are vital for residents' well-being. Design should prioritise abundant daylight and outdoor views for a sense of connection while preserving security. Strategic window and skylight placement maximise natural light. Adjustable window blinds allow residents control over light and transparency. While visual connections to the outdoors aid healing, it's crucial to balance this with privacy. Excessive visibility from the shelter to the public can discomfort residents, especially those in recovery or facing danger. (WSCADV & Mahlum, 2012)

Kitchen: Visibility from communal kitchens is essential to allow for the supervision of children. This aspect ensures that children are safe and cared for, promoting their well-being within the shelter. (WSCADV & Mahlum, 2012)

Private Space: Designing private spaces within the shelter prioritises residents' health and comfort. A healthy interior minimises respiratory risks and asthma triggers, improving residents' quality of life. Airtight construction with insulated windows and foundations minimises dust and allergen intrusion. Effective ventilation systems remove stale air and filter fresh air. Regular maintenance, including filter changes, ensures proper system function. Low VOC materials, HEPA filter vacuums, and walk-off doormats maintain a clean and healthy environment. (WSCADV & Mahlum, 2012)

Staff: Security systems and resident-controlled access not only ensure residents' safety but also free staff from continuous monitoring of entrances and exits. These systems contribute to staff safety and security as well, allowing them to focus on providing support and assistance to residents rather than on monitoring access. (WSCADV & Mahlum, 2012)

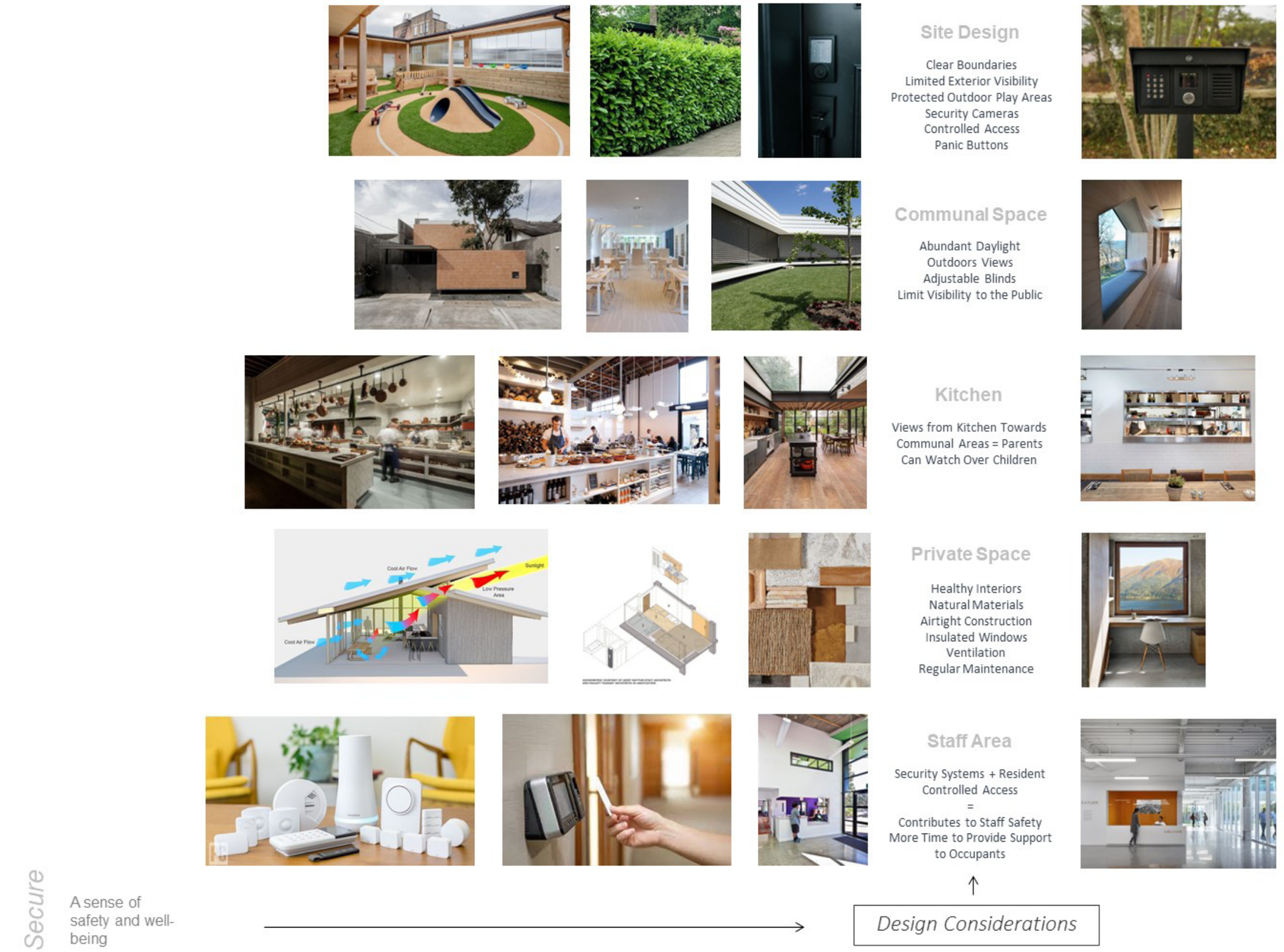


FIGURE 27 Secure (by author)

Re[connect]

Site: The site should allow varied levels of public access. Public areas like community meeting rooms open to the public can be used by residents for gatherings, workshops, or events. Art can act as a bridge to the community, conveying welcome and shared values. Partnering with local organisations to maintain outdoor spaces not only improves the quality of outdoor areas but also gets the community involved in supporting shelter residents. (WSCADV & Mahlum, 2012)

Communal space: Public meeting areas enable connections with the community. These spaces should be accessible to the community without compromising resident safety. They can be used for teaching skills and offering resources from the local community. Private gathering spaces are essential, whether in a single-family home shelter or apartment-style housing. Communal spaces on each floor of apartment buildings can balance privacy with socialisation. Providing spaces like a commercial kitchen, garage, workshop, or computer area can create economic opportunities for residents. (WSCADV & Mahlum, 2012)

Kitchen: An industrial or commercial kitchen can enhance residents' economic self-sufficiency. In some communities, making and selling traditional foods is a vital part of women's cash economy. Meeting health code requirements for food preparation is crucial when preparing food for public consumption. (WSCADV & Mahlum, 2012)

Private Space: Individual apartments allow residents to control their social interactions. They can choose when to invite others into their space, fostering a sense of independence and control. Features like dutch doors, shades, and shutters at entry points enable residents to manage their environment and social engagement easily. (WSCADV & Mahlum, 2012)

Staff Space: Locating computers adjacent to advocacy offices encourages advocate-resident interaction. Online access helps survivors reconnect with support systems and facilitates job searches. Residents' own computers or smart devices can be supported through strategic placement of Wi-Fi 'hotspots' in communal areas. (WSCADV & Mahlum, 2012)

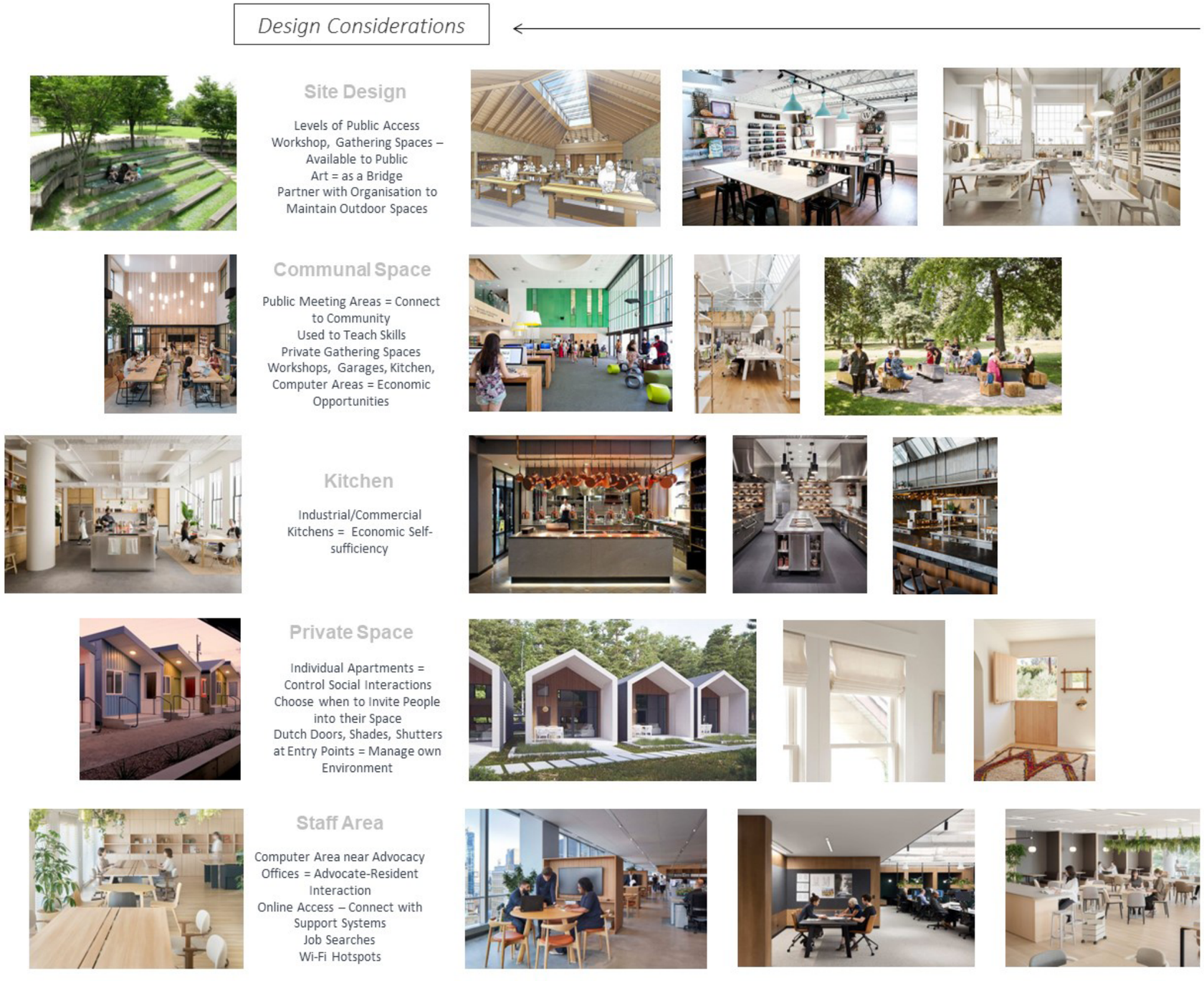


FIGURE 28 | Re[connect] (by author)

Parent

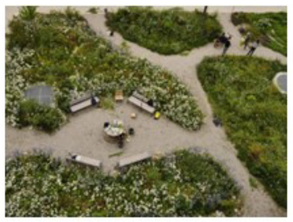
Site: The site should facilitate parents' supervision of their children. Clear sightlines between spaces like the kitchen and outdoor areas enable parents to prepare meals while keeping an eye on their children. Pathways and looped designs encourage outdoor exploration for children. Integrate comfortable seating areas adjacent to outdoor play spaces. (WSCADV & Mahlum, 2012)

Communal Space: Clear sightlines support children's supervision. They provide access to play areas while a parent prepares meals and encourage age-appropriate autonomy. Intimate spaces, like reading nooks and study areas, offer focus and bonding opportunities. Separate spaces for teens address their unique needs. Flexible furniture accommodates various activities and age groups, fostering comfort and control. Play areas or alcoves for young children apart from the main living space allow energy release. (WSCADV & Mahlum, 2012)

Kitchen: Individual kitchen/dining areas grant residents freedom and control over their meals. Less crowded kitchens ensure child safety when close to parents cooking. Child safety features should be integrated into the kitchen layout. (WSCADV & Mahlum, 2012)

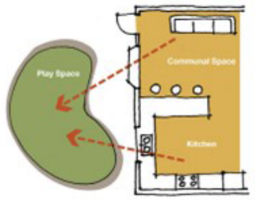
Private Space: Private rooms create healthier family dynamics and routines. Individual units allow for quality family time, stronger parent-child bonds, and easier parenting. Flexible spaces and shared amenities accommodate diverse family sizes. (WSCADV & Mahlum, 2012)

Staff Space: Child-friendly areas within advocacy spaces help parents connect with advocates while protecting children from sensitive conversations. Visual accessibility with acoustic separation ensures both parent-advocate interaction and children's comfort. (WSCADV & Mahlum, 2012)



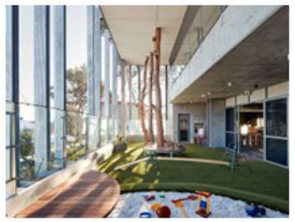
Site Design

Parent Supervision of Children
Clear Sightlines
Pathways + Looped Design = Encourage Exploration
Comfortable Seating







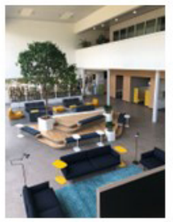


Communal Space

Clear Sightlines
Intimate Space – Offer Bonding Opportunities
Separate Space for Teens Flexible Furniture
Play Areas for Young Kids





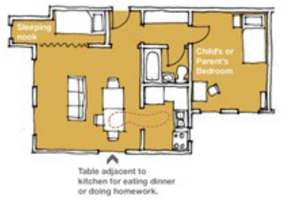






Kitchen

Individual Areas = Grant Freedom
Less Crowed = Child Safety
Child Safety Features









In-Line Unit Plan
1,269 sq. ft. | 4 Bedroom | 2 Bath

Private Space

Private Rooms = Healthier Family Dynamic
Allow for Quality Time
Flexible Spaces + Shared Amenities Accommodate Diverse Family Size







Staff Area

Child Areas within Advocacy Areas = Help Parents Connect to Advocates
Visual Accessibility
Acoustic Separation





Parenting, supervising, and opportunities for bonding with children

Design Considerations

Parent

FIGURE 29 | Parent (by author)

Harmonise

Site: To create a versatile environment for domestic violence shelter residents, it's crucial to consider distinct spaces for various activities and age groups. Differentiation through ground markings and material changes is essential for play, sports, gardening, and adult gatherings. Striking a balance between larger, lively group spaces and quiet spots is vital. Additionally, all-weather spaces should be designed to cater to year-round use, accommodating various seasons and climates. (WSCADV & Mahlum, 2012)

Communal Space: In communal areas, the separation of high-stimulus noisy zones from low-stimulus quiet areas is essential to allow activities without disruptions. Adequate restrooms reduce stress and enhance dignity, especially during morning and evening parenting routines. Ensuring private bathrooms or sufficient shared facilities aids families in their daily routines, including childcare. Acoustic control through well-sealed walls and sound panels fosters privacy and peace. (WSCADV & Mahlum, 2012)

Kitchen: Providing individualised lockable storage within the kitchen addresses several issues, from food allergies to conflicts over missing items. More kitchen space diminishes conflicts, and each family ideally should have its own locking refrigerator. Ample kitchen space improves the overall kitchen experience within the shelter. (WSCADV & Mahlum, 2012)

Private Space: In shared living quarters, considering scale is crucial, particularly in larger shelters. Smaller-scale communal living is more manageable for residents and advocates. Personalisation options, like customising doors and living spaces, help residents express their cultural identity and improve wayfinding. Incorporating inspirational elements, such as naming rooms after powerful women, fosters a sense of belonging. (WSCADV & Mahlum, 2012)

Staff Space: Creating welcoming environments in staff areas that support survivor-centred advocacy is vital. Minimising power differentials between advocates and residents through equitable seating encourages respectful relationships. The inclusion of art enhances the environment's beauty and cultural inclusion. Generous and convenient storage helps advocates meet resident needs, and small adjacent storage areas ensure easy access in urgent situations. Secondary storage facilities further enhance convenience for both staff and residents (WSCADV & Mahlum, 2012).

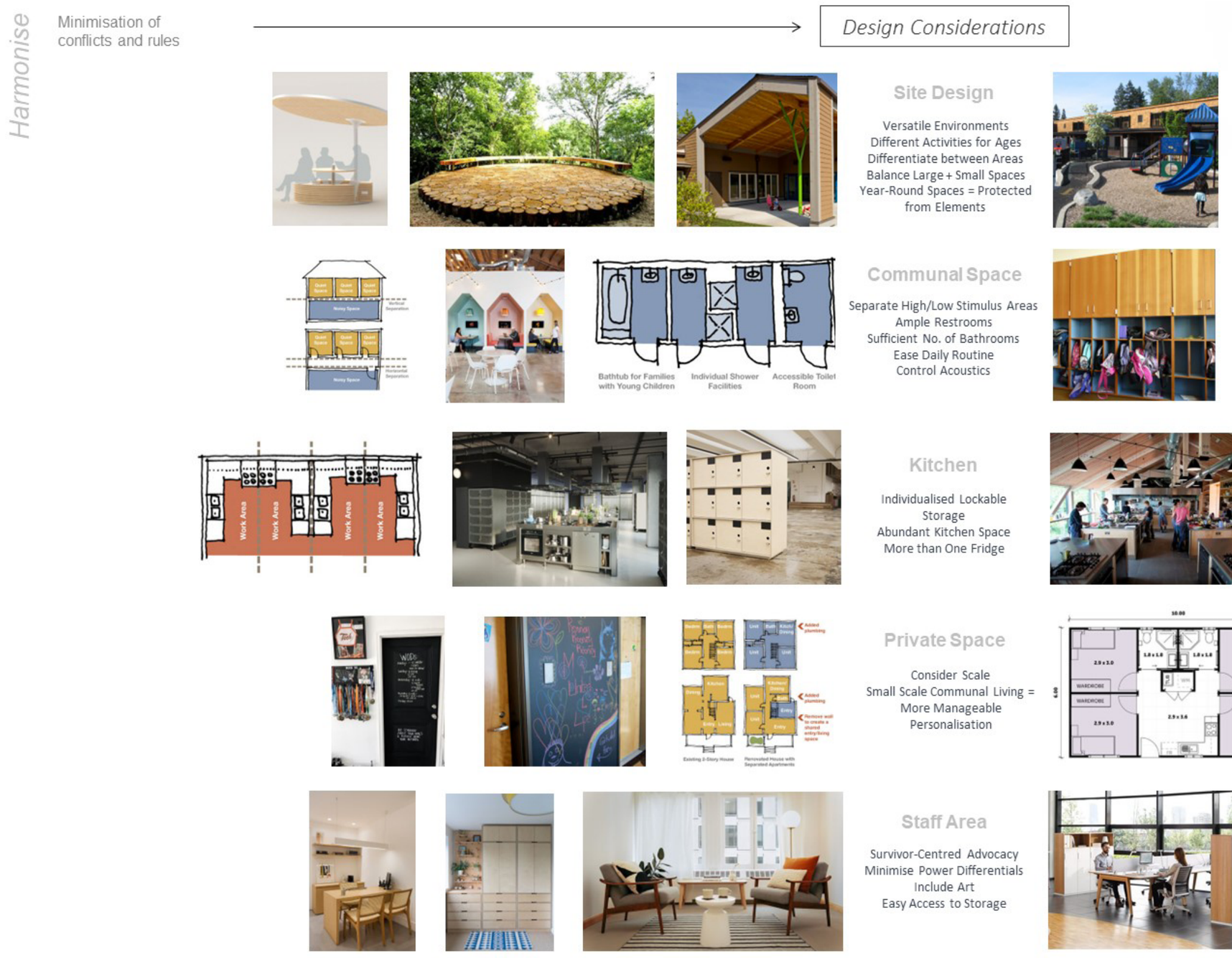


FIGURE 30 | Harmonise (by author)

PART TWO

06. Making Place | Building a Framework

Designing domestic violence shelters that serve as safe havens for survivors of abuse is a complex and sensitive endeavour. It goes beyond creating physical spaces; it involves the creation of environments that empower residents, provide security, and promote healing and recovery.

This multifaceted approach combines principles from trauma-informed design, therapeutic architecture, and a range of design considerations to ensure that shelters not only offer safety but also foster a sense of empowerment, reconnection with the community, and holistic well-being.

By addressing the physical, emotional, and psychological needs of residents, shelters can play a crucial role in supporting the recovery and empowerment of survivors. This framework not only offers a roadmap for architectural considerations but also underscores the importance of creating spaces that inspire hope, foster independence, and ultimately contribute to the healing journey of those seeking refuge from domestic violence.

The following design framework will serve as guiding principles throughout the project.

- Architecture for Placemaking Interventions
- Creating a Sense of Belonging and Home
- Harness Nature's Potential to Soothe and Restore
- Architecture – A Safety Provider
- Empowerment

By integrating these elements, the design framework ensures a comprehensive approach to domestic violence shelter design that prioritises empowerment, security, and healing. This approach addresses the multifaceted needs of residents and facilitates their healing and recovery from trauma.

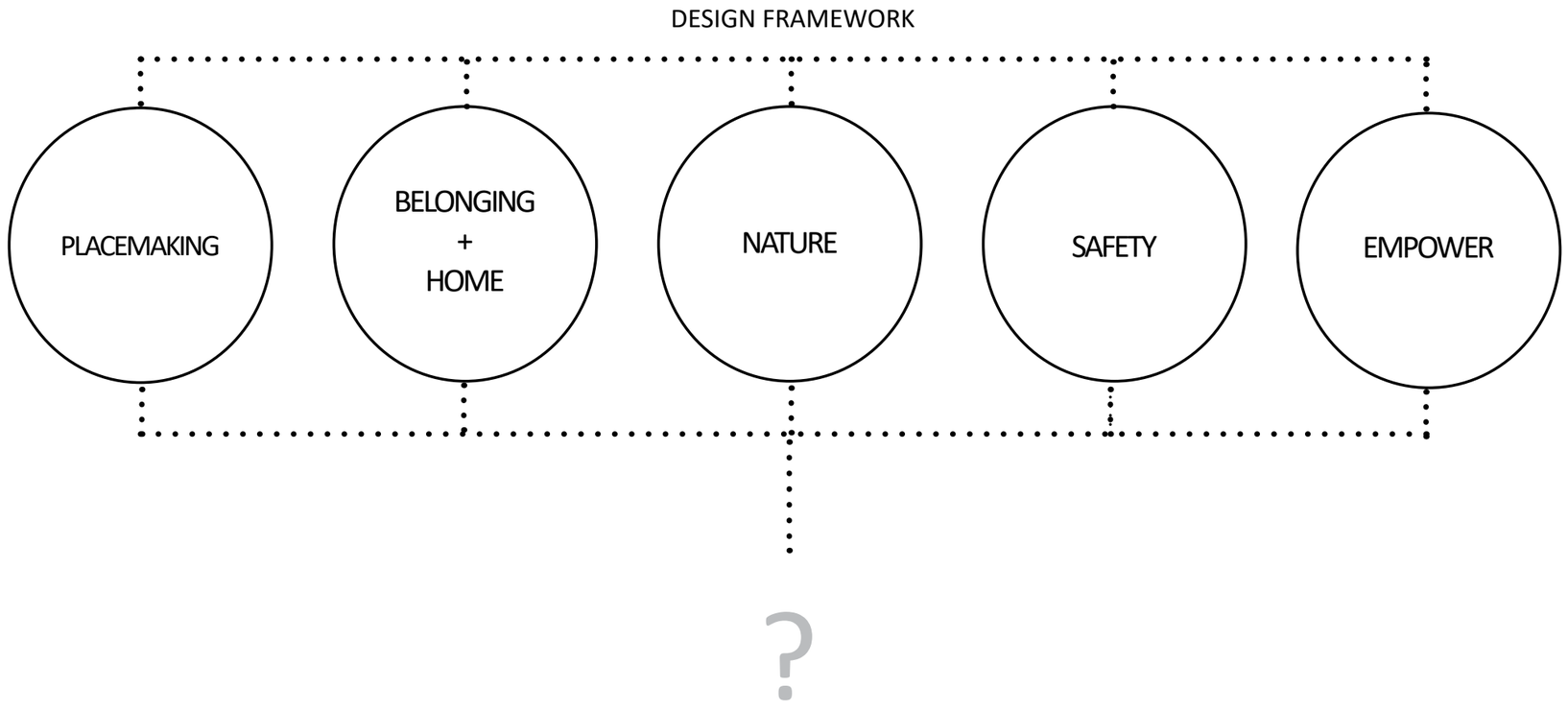


FIGURE 31 | Design Framework (by author)

Architecture for Placemaking Interventions

Placemaking is the process of transforming spaces into places. It is the act of interventions that provides a sense of place. “It involves both physical and social interventions that aim to enhance the quality and character of a location” (Minnaar, 2019)

Placemaking goes beyond physical structures and encompasses a range of elements like social interactions, functions, activities, accessibility, connectivity, comfort, and aesthetics, all of which come together to foster connections among people. At its core, placemaking revolves around individuals, their requirements, dreams, and aspirations, heavily relying on active community involvement. (Moreira & Duduch, 2021)

Placemaking plays a vital role in creating spaces of healing for domestic violence victims by prioritising, privacy, dignity, comfort, rehabilitation, community, and support. It is important for spaces to emphasise the emotional and subjective aspects of a place which allows architects to design spaces that consider the needs and experiences of the survivors. By understanding the trauma and negative experiences they have endured, architects can create environments that promote healing, safety, and a sense of security. (Toolis, 2017)

In the context of this project, designing healing environments for survivors of abuse is a delicate yet crucial endeavour. Placemaking, as part of the design framework, can transform domestic violence (DV) shelters into sanctuaries that prioritise comfort, community, privacy, dignity, and cultural sensitivity.

By using the four key points of What Makes a Place Great: - Access and Linkages, Comfort and Image, Uses and Activities, and Sociability, placemaking can be used to design a carefully considered sanctuary for domestic violence survivors.

Access & Linkages: In the context of a domestic violence sanctuary, ensuring accessibility means providing a discreet entrance for survivors and their children, keeping it away from potential abusers’ attention. Public transport connections should be available but discreetly located to protect the anonymity of those seeking shelter. High-security measures should be in place to prevent unauthorised access while maintaining a sense of privacy. (Project for Public Spaces, 2007)

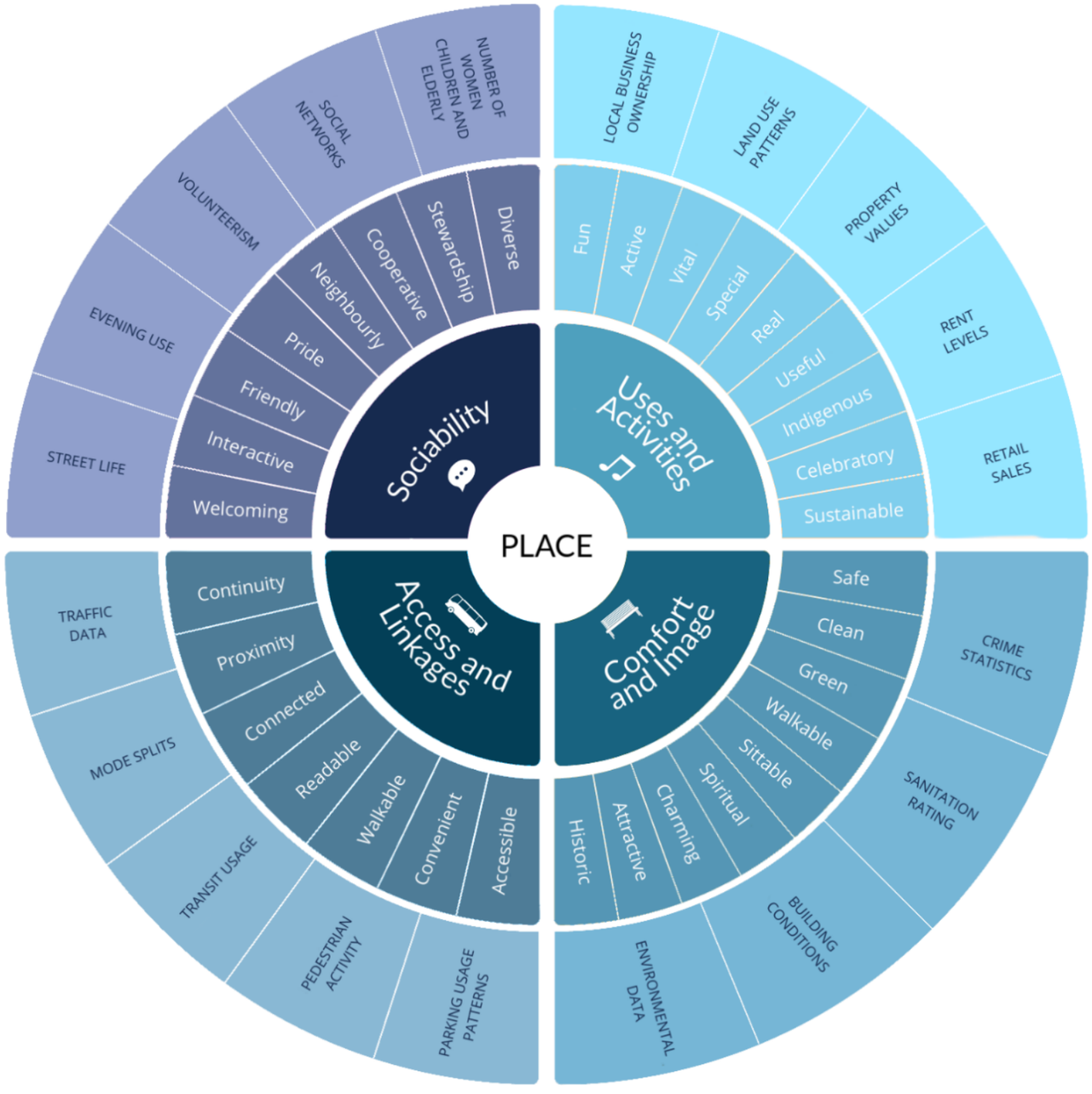


FIGURE 32 What Makes a Great Place? (Project for Public Spaces, 2023)

Comfort & Image: Creating a comfortable and inviting atmosphere is essential to help survivors feel supported. The sanctuary should be designed to convey a sense of calm, cleanliness, and a soothing environment. This can be achieved through well-maintained interiors, serene colour schemes, and comfortable furnishings. Providing spaces to sit, relax, and reflect is crucial, ensuring that survivors can find solace within the facility. (Project for Public Spaces, 2007)

In the pursuit of creating these spaces, the shape and form of a place also plays a fundamental role. Architectural elements can significantly influence the emotional comfort of survivors. By incorporating gentle curves instead of sharp angles, shelters can evoke feelings of safety and comfort. Such subtle adjustments in the layout can profoundly affect how individuals perceive and interact with the space. The goal is to make survivors feel at ease, minimising the institutional, box-like appearance often associated with healthcare environments. (Day, 2004).

Uses & Activities: Diverse and therapeutic activities are central to the healing process for survivors. Designing spaces that offer a variety of activities, such as counselling rooms, group therapy areas, recreational spaces, and gardens, ensures that individuals have opportunities for engagement. Incorporating play areas for children, quiet rooms for meditation, and communal areas for social interaction can provide a well-rounded set of activities to support survivors on their journey to recovery. (Project for Public Spaces, 2007)

Sociability: In terms of sociability, these places should encourage the formation of a healing community. Beyond the basic provision of safety, these spaces should be designed to foster a sense of community. Common areas, shared kitchens, group therapy sessions and communal rooms should be carefully crafted to promote interactions among survivors as they can promote a sense of togetherness among residents. By creating environments where residents can connect, share experiences, and support each other, placemaking ensures that these sanctuaries for women become more than just protective structures; they become spaces for healing and community. Designing the facility to promote interaction among survivors can help build a support system that extends beyond their stay. (Project for Public Spaces, 2007)

Additionally, another key factor to consider is the need to respect the privacy and dignity of the residents. The design should offer private rooms or partitions, establishing personal territories that protect an individual's privacy. To maintain acoustic privacy and ensure that sensitive conversations remain confidential, soundproofing measures should be integrated into the architecture. The choice of furnishings is also critical, as they must convey a sense of dignity and comfort while accommodating diverse abilities and needs. This approach ensures that survivors feel safe and respected within these spaces. (Moreira & Duduch, 2021)

In conclusion, placemaking in domestic violence shelters is not merely a matter of structural design; it is an endeavour to create environments that promote physical, emotional, and cultural healing. Through the careful integration of these factors, placemaking ensures that survivors of abuse find solace and support in these spaces. It transforms domestic violence shelters into sanctuaries where individuals can embark on their journeys toward healing and recovery.



FIGURE 33 Fostering Healing Through Placemaking - The Feel of Spaces(by Author)

Creating a Sense of Belonging and Home

The concept of belonging and the notion of home extends beyond the physical structures; it encompasses emotional and psychological connections that give rise to feelings of comfort, safety, and familiarity. Within the framework of these environments, design and architecture assume a pivotal role in evoking a sense of belonging and a profound sense of home.

Belonging, according to bell hooks in her book “Belonging: A Culture of Place,” transcends mere physical presence; it is a deep spiritual and emotional connection to a place. It goes beyond the tangible and delves into the realm of feeling at home, safe, and rooted in the community. Furthermore, hooks maintains that feeling at home is not confined solely to the physical space but extends to the emotional and psychological bonds individuals form with their surroundings. It’s a profound sense of comfort, safety, and familiarity that stretches beyond the walls of a house or a specific location. Feeling at home is about finding a sense of belonging, acceptance, and connection within the spaces we inhabit. (hooks, 2008)

In Gaston Bachelard’s “The Poetics of Space”, the idea that home is more than a physical space is reaffirmed. Home for Bachelard is a place of connection and belonging. It’s where we anchor memories of comfort, protection, and belonging. (Bachelard, 1969) However, for survivors of domestic violence, the concept of home may have become synonymous with fear and trauma. Therefore, designing spaces that redefine the concept of home is crucial for their healing process.

Well-designed spaces that cater to specific needs can empower individuals by fostering a sense of equality and inspiring creativity and problem-solving. In the context of survivors of domestic violence, this means providing safe, supportive, and empowering spaces that encourage interaction, collaboration, and the building of new healthy friendships and relationships. (Suval, 2018)

Hooks challenges the notion that feeling at home is solely determined by physical attributes or material possessions. Instead, she encourages a more holistic understanding that encompasses emotional well-being, cultural identity, and a sense of being part of a larger community. Feeling at home involves creating spaces and communities that welcome diversity, challenge oppressive structures, and foster a sense of shared humanity.

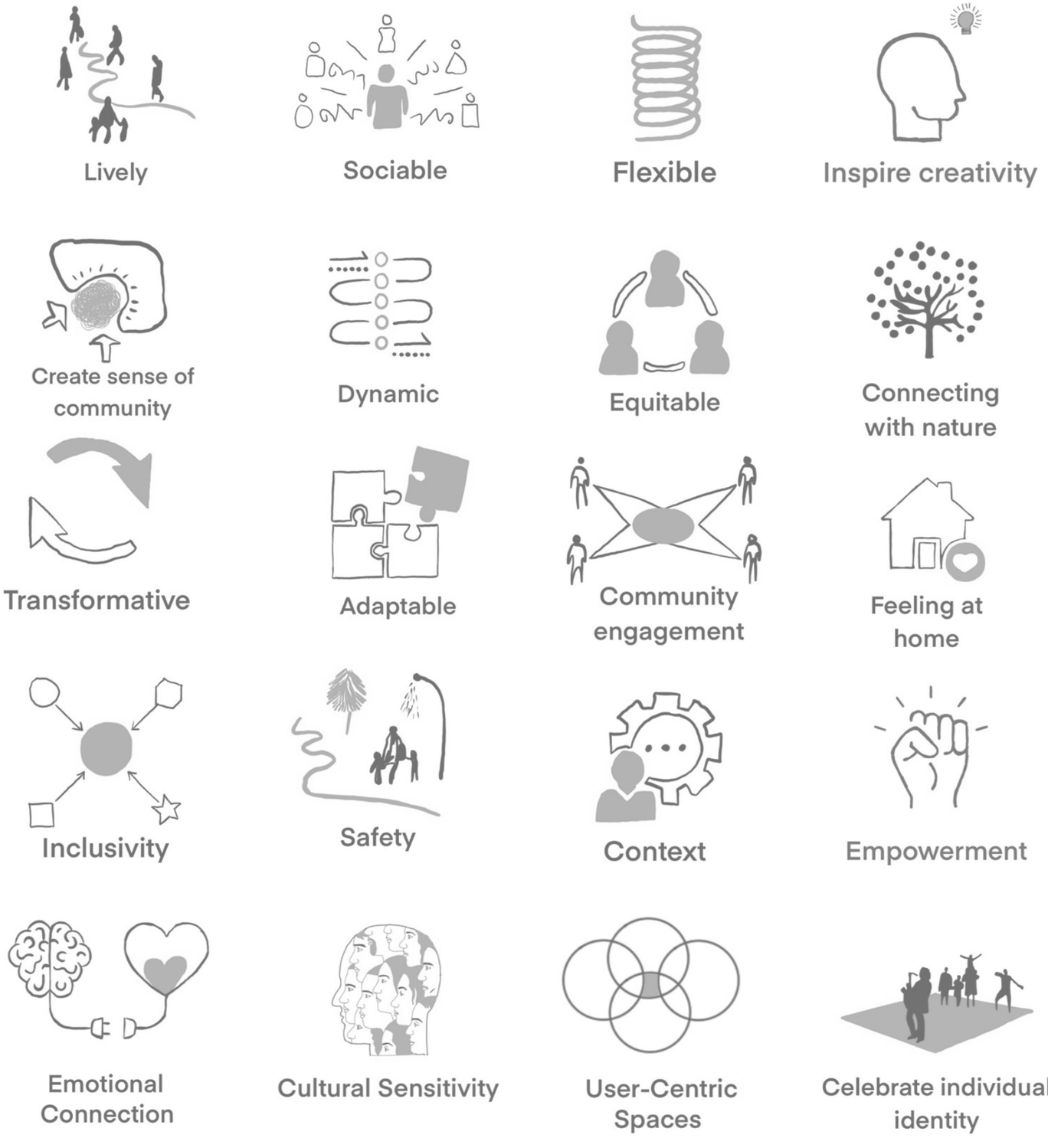


FIGURE 34 Aspects of Belonging (By Author)

Creating a sense of belonging and home for survivors of domestic violence can be achieved by integrating some of the following elements into the architectural design of shelters and support facilities:

Residential Elements: To transform the shelter environment into a place that resembles a home rather than an institutional setting, the architectural design should focus on creating a warm and inviting atmosphere. This can be achieved using comfortable furnishings, warm colours, and personal touches. Incorporating elements such as cosy sofas, soft lighting, and familiar decorations can help survivors feel at ease and more at home.

Community Spaces: Designs should include communal areas where survivors can come together, interact, and share their experiences. These spaces can be designed with comfortable seating arrangements, inviting colours, and a layout that encourages social interaction. By fostering a sense of community and support, survivors are more likely to feel like they belong to a caring and understanding group. (EndCAN, 2023)

Personalisation: Empowering survivors to personalise their living spaces is a key element in creating a sense of ownership and belonging. Architectural design should allow for customisation of individual living areas, such as bedrooms or personal storage spaces. This might include providing wall space for photographs, shelves for personal items, and the flexibility to arrange furniture according to individual preferences. (Whitwham, 2020)

Cultural Sensitivity: One should recognise that survivors' experiences of trauma are deeply intertwined with their cultural backgrounds and personal histories. Therefore, the architecture should be inclusive, respecting and reflecting diverse cultural perspectives. This may involve creating designated prayer or meditation rooms, spaces for cultural rituals, and the use of culturally relevant artwork or decor. By acknowledging and respecting cultural diversity, survivors will feel respected and understood. (hooks, 2008)

Flexibility and Adaptability: The architectural design should prioritise flexibility and adaptability to meet the evolving needs of survivors as they progress in their healing journey. This can be achieved by creating multifunctional spaces that can be easily reconfigured to accommodate different activities and support requirements. Moveable furniture, partition walls, and flexible room layouts enable survivors to use the space as needed at various stages of their recovery. (Whitwham, 2020)

Inclusivity: Architectural design should embrace inclusivity to ensure that all survivors, regardless of their abilities, can access and utilise the facilities. This involves implementing universal design principles, which include features such as ramps, wider doorways, accessible restrooms, and tactile signage. Inclusivity promotes equality and support, making all survivors feel welcome and valued. (Whitwham, 2020)

By integrating these elements into the design of shelters for survivors of domestic violence, it is possible to create an environment that not only offers physical safety but also fosters emotional well-being and a profound sense of belonging and home. Survivors will feel respected, empowered, and supported, enabling them to begin the healing process in a space that truly understands their needs and preferences.



FIGURE 35 Making a Belonging Environment (By Author)

Harnessing Nature's Potential to Soothe and Restore

Our natural environments can affect our well-being. They have the ability to reduce or increase our stress, in turn impacting our bodies. What we hear, see and experience throughout our lives, changes not only our moods but also impacts our endocrine, immune, and nervous systems. A direct experience with nature is a tonic for physical and psychological well-being. (Richard-Hamilton, 2021)

'Being in nature, or even viewing scenes of nature, reduces anger, fear, and stress and increases pleasant feelings.' (Delagran, 2023) Not only can nature make you feel better emotionally, but it also helps your physical well-being. Studies over the years reveal that spending time in nature or having contact with scenes of nature can provide a respite for overactive minds, it increases our psychological well-being and provides us with a sense of meaningfulness and vitality. (Delagran, 2023)

Nature can help survivors of domestic violence manage and face their traumas by providing stress reduction, emotional healing, grounding, and a sense of empowerment. Being in nature encourages mindfulness and offers social support, fostering resilience and hope. Integrating nature-based experiences into a survivor's healing journey can enrich their overall support system. (Moore & Van Vliet, 2022)

Biophilic Design

The integration of nature into design has become a powerful approach to creating environments that support human health and well-being. This approach is known as biophilic design, where it seeks to connect people with nature and natural elements in the built environment.

Biophilic design seeks to create spaces that are restorative, healthy, inspirational and functional. This approach draws on the innate human affinity for nature and aims to foster a deeper connection to the natural world within the built environment, leading to improved health, productivity, and overall satisfaction with the spaces we inhabit.

It is through the readings of "Biophilic Design: The Theory, Science, and Practice of Bringing Buildings to Life" by Stephen R. Kellert, Judith H. Heerwagen, and Martin L. Mador, as well as "The 14 Patterns of Biophilic Design" by Terrapin Bright Green that I explore a series of approaches to implementing biophilic principles into the design process. (See Figure 36)

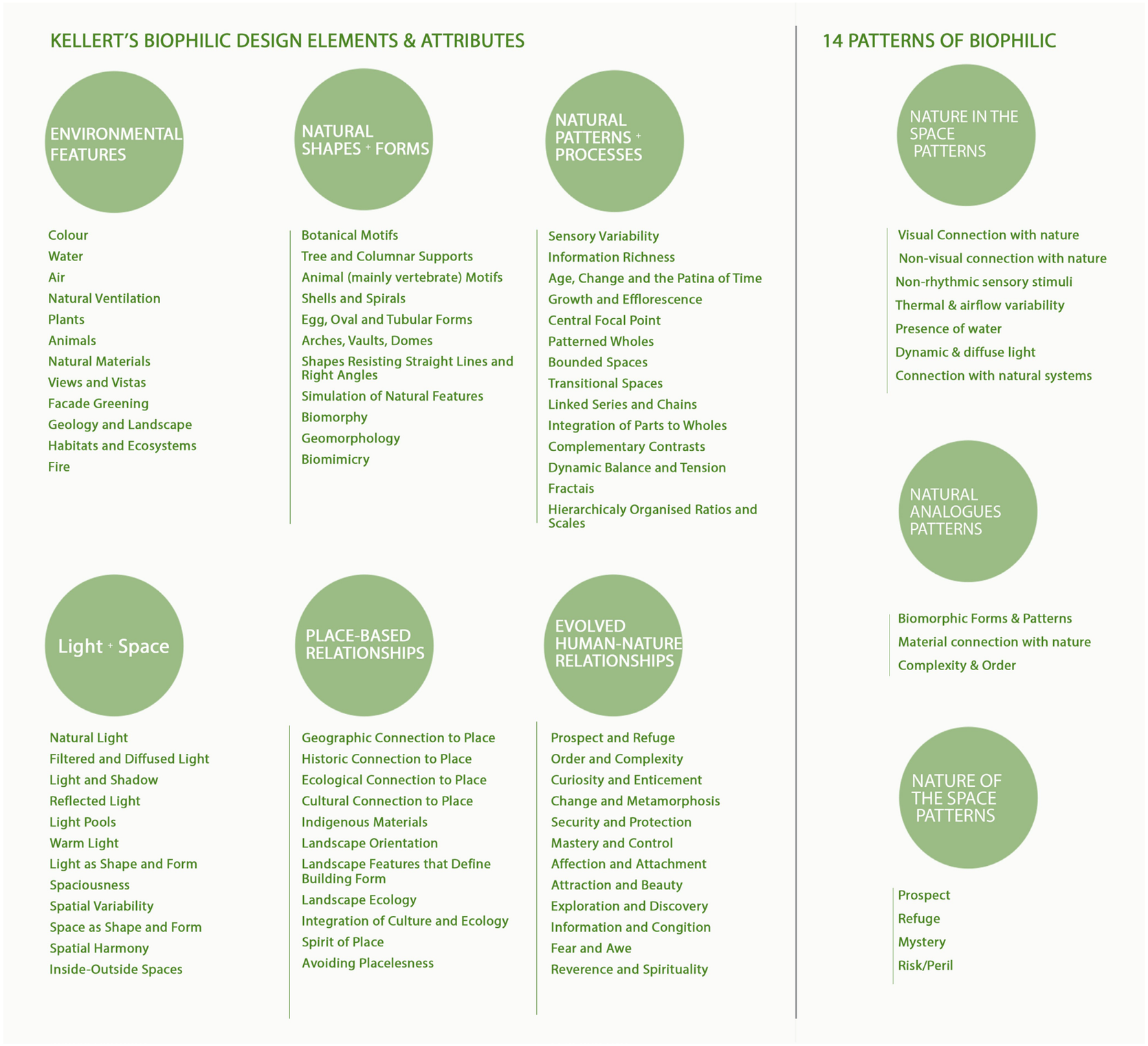


FIGURE 36 Biophilic Principles (Kellert & Terrapin Bright Green, adapted by Author)

These books provide insights into the theories of biophilic design where both sources promote well-being, stress reduction, improved cognitive function, increased creativity, enhanced productivity, and overall human health. (Kellert et al., 2008) By incorporating these principles and patterns, spaces become more biophilic, enhancing the occupants' experience and promoting a harmonious relationship with the natural world. (Browning et al., 2014)

Through the understanding of both sets of principles and patterns, I was able to extract components to create a set of design implementations more specific to enhance the overall healing and well-being of survivors of domestic violence.

These include:

Natural Light: Maximise access to natural light throughout the building. Large windows, skylights, and well-placed openings can bring in abundant daylight. Exposure to natural light can improve mood and reduce stress, which is crucial for survivors of domestic violence. (Browning et al., 2014)

Views of Nature: Incorporate views of natural elements such as gardens, green spaces, or water features. Views of nature can provide a sense of connection to the outside world and create a tranquil environment. For security reasons, ensure that these views are not visible from the outside to protect the privacy of the residents. (Kellert et al., 2008)

Indoor Plants: Introduce indoor plants to various spaces within the building, such as communal areas and individual living spaces. Plants not only improve air quality but also create a calming and nurturing atmosphere.

Natural Materials: Use natural and tactile materials in the building's design and furnishings. Wood, stone, and other natural materials can evoke a sense of warmth and comfort. They can also have a grounding effect on residents. (Browning et al., 2014)

Biophilic Colours and Patterns: Choose colours and patterns that mimic nature, such as earth tones, greens, and blues. These colours are known to have a calming influence. Nature-inspired patterns and artwork can also be used to bring a touch of the natural world indoors. (Kellert et al., 2008)

Integration of Water Features: Incorporate water features like indoor fountains or reflective pools. The sound and sight of water can have a soothing effect, reducing anxiety and stress. (Browning et al., 2014)

Outdoor Spaces: Design safe and secure outdoor spaces like courtyards or gardens where survivors can spend time outdoors. These spaces can serve as places of respite and provide opportunities for grounding and reflection. Ensure that survivors have access to outdoor nature, such as walking paths or seating areas, which can promote relaxation and healing.

Natural Ventilation: Where possible, provide natural ventilation options. Allowing fresh air to flow through the building not only improves air quality but also creates a more pleasant and healthful environment. (Browning et al., 2014)

Therapeutic Gardens: Create therapeutic gardens designed with features like sensory gardens, labyrinth walks, or spaces for mindfulness and meditation. These can serve as spaces for self-care and reflection.

Biophilic Art and Graphics: Incorporate art and graphics that feature natural scenes and elements. These can help bring the outdoors in and contribute to a soothing atmosphere. (Kellert et al., 2008)

Eco-Friendly and Sustainable Design: Design the building with sustainable and eco-friendly principles in mind. Sustainable design aligns with biophilic principles by emphasising a connection to the natural environment.

By incorporating these concepts into the architectural design of a building for survivors of domestic violence, supportive, healing environments can be created that help them reconnect with nature, reduce stress, and promote overall well-being. (Macur, 2020)



FIGURE 37 Biophilic Considerations for DV Shelters (by Author)

Architecture – A Safety Provider

In our world today, where the pace of life is often hectic and there are always demands for our time, the importance of having places that make us feel safe cannot be overstated. Feeling safe in our surroundings is a fundamental human need that contributes to our overall well-being, enabling us to thrive and lead fulfilling lives. The meaning of safety can vary depending on context and person but in general, 'safety refers to the physical well-being of individuals.' (Kiełek, 2022)

There is an apparent need for places free from "triggers" and "micro-aggressions". These are words or cues that can remind people of traumas that they have confronted, or prejudices about who they are. In a world full of triggers, architecture can be used to create places that are free from these issues.

Feeling safe is paramount, particularly for those healing from trauma. Safety provides a vital sanctuary where individuals can rebuild and mend. It acts as a catalyst for the healing process, alleviating anxiety and ensuring emotional well-being. In secure environments, survivors of domestic violence can find the stability needed to regain control over their lives. Safety becomes a beacon of hope, enabling them to rediscover their strength, reconnect with others, and rebuild shattered trust. It is a cornerstone for mental and physical health, ultimately fostering a path towards recovery, resilience, and the restoration of their sense of self.

There are certain elements architecture can implement to make people feel mentally and socially safe. Many of these principles have been employed by architects over the years, such as designing spaces that provide places with views out to nature or creating places that have weight and solidity to them that makes itself apparent, all the while opening out in a way that makes it clear where you are.

The design and arrangement of buildings, the choice of materials, the layout of spaces, and the incorporation of safety features all contribute to shaping our perception of safety. When architecture is thoughtfully designed with safety in mind, it has the power to instil a sense of trust, comfort, and ease within individuals who inhabit those spaces.

By utilising the following strategies, architecture and design can create safe spaces for victims of domestic violence:



FIGURE 38 | Safety Features (by Author)

Physical Security Measures: This involves incorporating features like secure access control systems (key cards, codes, or biometrics), reinforced doors, and alarm systems to ensure that unauthorised individuals cannot easily enter the building. (Kiełek, 2022)

Visibility and Sightlines: Design with clear lines of sight, meaning that spaces are laid out in a way that reduces hidden or secluded areas. This design approach helps minimise the risk of attackers lurking unseen.

CCTV and Lighting: Install security cameras (CCTV) and appropriate lighting throughout the building. Surveillance cameras serve as a deterrent to potential threats, while good lighting is essential for residents' safety and can deter criminals by making it clear that the environment is well-monitored. (Kiełek, 2022)

Privacy Balance: While it's crucial to ensure safety, it's also important to allow residents some level of control over their privacy. This could include providing curtains or blinds for windows so that residents can regulate their exposure to the outside.

Secure Outdoor Spaces: Design secure courtyards or gardens, surrounded by fencing or walls, where residents can spend time outdoors safely, away from potential threats. (Kiełek, 2022)

Safe Entry and Exit: Make sure that the building's entrances and exits are well-lit, easily monitored, and have clear signage. This helps residents navigate safely and find their way in and out of the building.

Proximity to Services: Locate the building close to essential services, such as police stations, medical facilities, and counselling centres. This ensures that survivors have easy access to the support they may need during emergencies.

Inclusive Design: An inclusive design approach involves creating an environment that is accessible to all residents, regardless of their physical abilities. This promotes inclusivity and safety for everyone. (Kiełek, 2022)

Community Spaces: Design secure, welcoming community areas within the building. These spaces encourage a sense of belonging and protection among the residents. They also serve as places for support and interaction among survivors, which can be essential for their healing process.

These design considerations collectively aim to create an environment where survivors of domestic violence feel protected, supported, and safe, allowing them to start the healing process in a secure and nurturing space.

Architecture as a Source of Empowerment

The journey to healing after enduring domestic violence is intricate and deeply personal for women. Beyond emotional and psychological recovery, the physical spaces where survivors seek refuge are vital to their sense of empowerment. Design and architecture play pivotal roles in crafting environments that not only facilitate healing but also empower women on their path to recovery.

Survivors often grapple with a loss of control over their lives, but empowerment through design allows them to regain authority over their environment. It's not merely about shaping physical spaces but crafting sanctuaries that nurture and empower. (UN Women, 2020)

These environments offer survivors a chance to reclaim control, seek safety, connect with others, and rebuild their lives. Architecture symbolises the empowerment they deserve, paving the way for a brighter, more self-assured future. In this journey, architecture and design play vital roles in creating spaces that emphasise safety and empowerment for domestic violence survivors. These spaces foster choice, control, peer support, safety, and a supportive community. (Keim, 2019)

By utilising the following strategies, architecture and design can create spaces that contribute to empowerment:

Choice and Control: Giving women a say in the design of their environment is paramount. Allowing them to choose room layouts, furnishings, and décor empowers them to exercise control over their surroundings. This choice extends beyond aesthetics; it represents the ability to shape their living space and regain a sense of autonomy. (Keim, 2019)

Safety in All Dimensions: The paramount consideration for survivors is safety, both in terms of physical security and emotional well-being. The architectural design should be underpinned by features that promote safety, including secure entrances, well-lit areas, and access control. The assurance of safety, on both a physical and emotional level, sets the foundation upon which empowerment can be built.

Supportive Community: Spaces should be thoughtfully designed to encourage community and mutual support. Empowerment often thrives in a community. Designing Communal areas, group rooms, group therapy rooms, and shared kitchens provides a platform for connection and interaction with others who have shared experiences. Peer support is a powerful tool in the healing process. It is within these interactions that survivors often discover strength and solidarity, bolstering their journey towards empowerment. (Keim, 2019)



FIGURE 39 | Empowerment (by Author)

Privacy and Boundaries: While community spaces are vital, it is equally crucial that the design respects individual privacy. Survivors need spaces where they can retreat, when necessary, especially during the initial stages of healing. Creating rooms that afford privacy and personal space is a significant aspect of empowerment. (Keim, 2019)

Flexibility and Adaptability: Healing is an evolving process, and the architecture should mirror this dynamism. Spaces that can be adapted and reconfigured allow survivors to use their environment in accordance with their evolving needs. This adaptability is key to ensuring that the space continues to support their journey toward empowerment.

Cultural Sensitivity: Survivors hail from diverse cultural backgrounds, and their experiences are deeply intertwined with these origins. Therefore, architectural design should embrace cultural sensitivity by acknowledging and respecting various cultural perspectives. This might involve designated spaces for cultural practices or the inclusion of culturally relevant artwork, fostering an environment where women feel understood and respected.

Inclusivity: An essential aspect of empowerment is inclusivity. The design should be accessible to all, regardless of their physical capabilities. Implementing universal design principles ensures that all survivors can access and utilise the facilities. Inclusivity promotes equality and support, making all survivors feel welcome and valued.

Empowerment to Rebuild: Beyond safety and community, architecture can provide survivors with resources to rebuild their lives. Designing spaces that incorporate areas for vocational training, education, and career development empowers survivors to gain independence and self-sufficiency, an integral part of their journey towards empowerment. (Keim, 2019)

By integrating these strategies, architecture contributes to the restoration of survivors' autonomy, self-esteem, and overall empowerment, fostering a nurturing environment where they can heal and rebuild their lives.

Case Study C

Women's Opportunity Centre
Sharon Davis Design
Kayonza, Rwanda
2013

The Women's Opportunity Centre in Kayonza, Rwanda, designed by Sharon Davis Design, exemplifies the application of the above-mentioned theoretical lenses in creating a strong sense of belonging for the community. The site, located in a rural community still recovering from war and conflict, aims to empower women through education and economic development and supports them in their healing journey from past traumas. The Centre exemplifies the transformative power of architecture in supporting survivors of gender-based violence and is carefully designed to address the specific needs and experiences of the women in Kayonza. (Cary 2017)

The design team engaged with the women, forming an intimate connection through translators. They listened to the women's stories and daily activities, gaining insights into their lives and the hardships they endured. Understanding the community's history and culture allowed the project to become a symbol of hope and a place of deep connection for these women. This deep understanding of the community's history and culture also laid the foundation for a design that resonated with the women and their experiences. The architecture, deeply rooted in traditional Rwandan design, evokes a strong sense of belonging and pride. (Sharon Davis Design 2013) (Figure 30)

The Women's Opportunity Centre authentically embraces local architectural and cultural influences (Figure 31) Drawing inspiration from traditional Rwandan villages, the Women's Opportunity Centre exudes a sense of security and familiarity. The circular arrangement of pavilions radiating from a central gathering space creates a sense of security and shared community. Seventeen pavilions radiate from a central gathering space, offering areas for various activities and encouraging social interaction and community engagement. At the front of the centre, a high brick wall protects the occupants from outside dangers with two entrance gates and a guard house to monitor activity, adding to the centre's sense of safety. (Figure 32)

Pathways lead towards a covered gathering place that serves as a civic space for various activities, which encourages social interaction and community engagement. These pathways enhance the experience of the centre and encourage social interactions among them.



FIGURE 40 9/44 Women's Opportunity Center / Sharon Davis Design (Felicella, 2013)



FIGURE 41 5/44 Women's Opportunity Center / Sharon Davis Design (Felicella, 2013)



FIGURE 42 11/44 Women's Opportunity Center / Sharon Davis Design (Felicella, 2013)

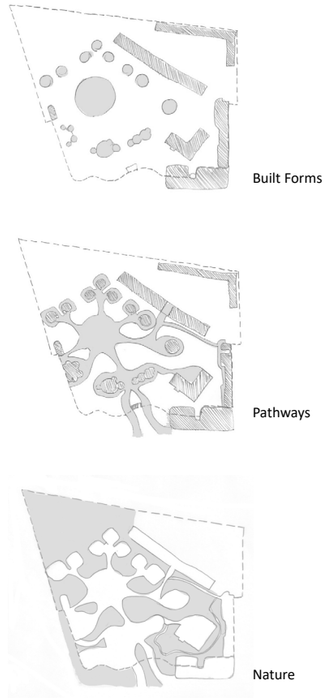


FIGURE 43 Diagrams of Sits Connection with Nature, Pathways and Built Forms (by Author)



FIGURE 44 4/44 Women's Opportunity Center / Sharon Davis Design (Felicella, 2013)

The roofs of each building overhang, providing additional shaded spaces for women to meet and interact. Nature played a pivotal role in the project, where the Centre embraced the natural environment, incorporating sustainable building practices and nature-based solutions. The design integrates environmentally friendly functions, such as rainwater collection, solar power generation, and composting toilets. An integrated farming initiative further strengthens the connection to the land, as women learn organic techniques for commercial production. The use of local materials, such as handmade bricks by local women, enhances the sense of identity and connection to the place. (Sharon Davis Design 2013) (Figure 34)

By incorporating the principles of placemaking, the Women's Opportunity Centre has become more than just a building; it has become a space to belong, to feel at home. (Figure 35) The women form deep connections with this place, as it empowers them to teach others and spread their newfound skills throughout the community, creating a positive and lasting impact on women's self-empowerment and self-sufficiency in the region. As a place of empowerment, the centre serves as a hub for daily classes on income generation, animal husbandry, brickmaking, and processing techniques. Beyond education, the women are provided with a market space to sell their textiles, baskets, jewellery, and food, enabling them to generate income and shape their future. This multi-functional, environmentally friendly centre acts as a support mechanism for women. It encourages them to become self-supportive and self-sufficient. This place reshapes and rebuilds identities and helps them to improve their quality of life. It holds within it a strong sense of place. (Sharon Davis Design 2013)

'For many of the women, this is more than a women's centre. They feel at home here. It is their place. It is very, very meaningful. They have their own spaces, their own corners, their rooms where they sit or work, where they keep their tools. It is really very meaningful for them' (Cary 2017)

Not only does the centre offer job training and skills development but it also acts as a place of healing, reshaping identities, and improving the quality of life for women in Kayonza. (Sharon Davis Design 2013) The Women's Opportunity Centre exemplifies the transformative power of architecture in supporting survivors of gender-based violence and communities healing from war and conflict.

Case Study D

The Women's House of Ouled Merzoug
Building Beyond Borders
Idelsane, Morocco
2019

The Women's House of Ouled Merzoug, designed by students from Hasselt University in 2019, serves as a community space for women in the Ouled Merzoug village, Morocco. The Women's House is a prime example of placemaking, as it was designed in close collaboration with the local community, particularly the women who would use the space. By involving the women in the design process and celebrating local craftsmanship, the project transforms the site into a meaningful and empowering place for the women of Ouled Merzoug.

The Women's House provides a haven for women to come together, learn, work, and share their stories, crafts, and culinary skills. The Women's House serves as a community space that fosters a strong sense of belonging and inclusivity. It is strategically located in the centre of the village and designed to be accessible and welcoming to all women in the community. By engaging local women in the design process and creating flexible, adaptable spaces that cater to their needs, the project empowers the women and strengthens their connection to the house.

The design of the Women's House was carefully aligned with the natural topography of the land, following the ridge of the hill. This strategic placement allows the building to capture both the sunset and the sunrise, symbolically embracing the passage of time and the continuity of life. Sustainability was a key focus for the university students, who used local materials and adopted bioclimatic design principles. The incorporation of gardens and a terraced garden that filters rainwater adds to the connection with nature and enhances the overall well-being of the space. The integration of natural elements and craftsmanship also promotes a deeper appreciation for the local environment and cultural heritage. (Pintos, 2019)

Entering the Women's House through the central courtyard, known as the "cour," visitors find themselves in a space that serves as a meeting place and the heart of the community. The "cour" connects two main volumes: the "atelier des femmes" for workshops and the "boulangerie commune" for baking activities. These spaces were thoughtfully designed to be flexible and adaptable, catering to the village women's diverse needs and empowering them to take ownership of the house. The "cour" and gardens act

FIGURE 45 5/33 Women's Opportunity Center (Noceto, 2019)



FIGURE 46 2/33 Women's Opportunity Center (Noceto, 2019)



FIGURE 47 4/33 Women's Opportunity Center (Noceto, 2019)

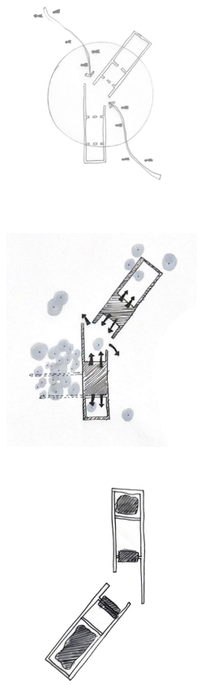


FIGURE 48 Diagrams showing the Connection to the Public, Access to Nature and safety Measures (by Author)

as in-between spaces that facilitate social interactions and various activities and allow the women to engage in communal activities, storytelling, crafting, baking, and more, further strengthening their sense of community and connection to the place.

The design of the Women's House prioritises safety and security for the women using the space. Its central location and the use of natural materials contribute to a sense of safety and comfort for the users. the internalised courtyard also contributes to a sense of safety. (Pintos 2019)

The Women's House takes pride in celebrating local craftsmanship and cultural identity. The architecture seamlessly integrates local materials and architectural elements that resonate with the cultural identity of the village. The use of natural materials like adobe bricks and eucalyptus beams exemplifies the integration of traditional building techniques. Additionally, the house features artistic contributions from local women, including interior curtains and light fixtures, adding a touch of familiarity and significance to the space.

The project creates a deeply meaningful and empowering space where the women of Ouled Merzoug can gather, learn, and find a sense of belonging. The project showcases how thoughtful design and involvement of local communities can result in spaces that empower, restore, and positively impact the well-being of its users.



FIGURE 49 8/33 Women's Opportunity Center (Noceto, 2019)

Case Study E

The Ada and Tamar House - Shelter for Victims of Domestic Violence
Amos Goldreich Architecture, Jacobs Yaniv Architects
Tel-Aviv, Israel.
2015.

In the heart of Tel Aviv, the Ada and Tamar De Shalit House stands as a testament to architectural innovation that transcends mere design. This shelter for women and children fleeing domestic abuse in Israel is more than just a building; it represents a comprehensive approach to healing and recovery for survivors. (Mairs, 2019)

The architects recognised that creating a physical space was not enough. This shelter is a place that nurtures a sense of belonging and home. It introduces the concept of a “small village,” where each family is provided with a separate, small “house” within the larger structure. It strikes a delicate balance between privacy and community, acknowledging that a sense of home is more than walls and a roof—it is about feeling connected and safe.

Nature plays a therapeutic role in the shelter’s design, notably through the central courtyard and surrounding gardens. This green sanctum offers a peaceful and restorative space that harnesses the soothing power of nature to help survivors on their journey to healing and recovery. (Mairs, 2019)

The architects placed a significant emphasis on creating a secure and protective external façade, while the inner aspect overlooks the internal courtyard. This design choice is crucial in providing a safe environment for the occupants, given the vulnerable and often traumatised state of the victims. The layout, the use of robust materials like silicate bricks, and the inner courtyard help ensure that the shelter is both secure and comforting.

The design empowers survivors by giving them a sense of control and ownership over their living space. Not only do they have their family units, but they also share responsibilities and duties within the community. This model instils a sense of empowerment, helping survivors rebuild their lives with newfound confidence and support. (Mairs, 2019)

The Ada and Tamar De Shalit House is not just a building; it is a sanctuary, a safe haven, and a model for architectural interventions focused on creating a nurturing, empowering, and secure space for survivors of domestic violence. In a world where the need for such sanctuaries is tragically universal, this shelter sets a remarkable precedent for what can be achieved through architecture, a source of healing and hope. (Mairs, 2019)



FIGURE 50 17/25 Shelter For Victims Of Domestic Violence (Geron, 2018)



FIGURE 51 7/25 Shelter For Victims Of Domestic Violence (Geron, 2018)



FIGURE 52 2/25 Shelter For Victims Of Domestic Violence (Geron, 2018)

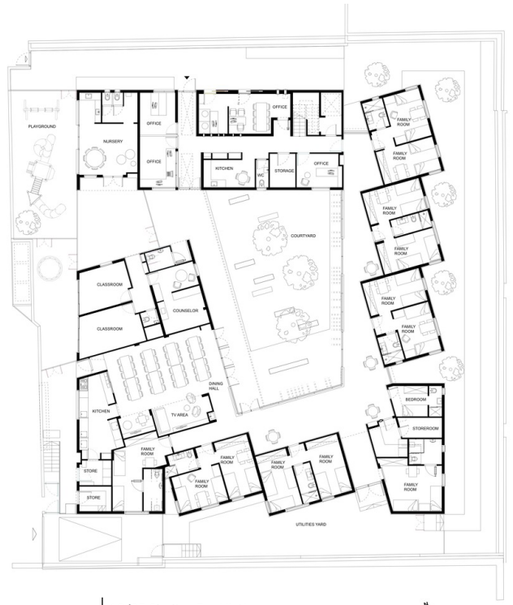


FIGURE 53 18/25 Shelter For Victims Of Domestic Violence (Geron, 2018)



FIGURE 54 1/25 Shelter For Victims Of Domestic Violence (Geron, 2018)

08. Ideas to Take Forward

In our pursuit of understanding how spatial interventions can serve as catalysts for dignity, healing, and restoration for survivors of abuse, it is evident that the power of architecture is profound and transformative. This research has explored the intricate dynamics of architectural design and the profound impact it can have on individuals, particularly those on a journey to heal from trauma.

The design of domestic violence shelters as safe havens for survivors of abuse is a multifaceted and sensitive endeavour, extending far beyond mere physical structures. It encompasses the creation of environments that prioritise the safety, empowerment, healing, and overall well-being of those seeking refuge.

The design framework presented not only serves as a guide for the rest of this design dissertation but also lays the groundwork for practical implementations to grow. This framework underscores following key principles:

- Architecture for Placemaking Interventions: Shelters should not merely be utilitarian structures but should incorporate thoughtful design elements that promote a sense of place, belonging, and community.
- Creating a Sense of Belonging and Home: Survivors should feel like they belong and are at home in these shelters, a critical factor in their recovery journey.
- Harnessing Nature's Potential: Nature has a soothing and restorative quality that can aid in the healing process, and integrating natural elements into shelter design is crucial.
- Architecture as a Safety Provider: The design should prioritise safety and security, ensuring that survivors can rebuild their lives without fear.
- Empowerment: Shelters should be spaces where survivors feel empowered to take control of their lives and build a brighter future.

The development of this design framework was the culmination of a thorough exploration, encompassing therapeutic architecture, trauma-informed design, and considerations specific to shelter design.

Each topic provided essential insights into the creation of spaces that facilitate healing for domestic violence survivors. This theoretical journey has navigated through theory and technology, programs, sites, and design considerations, with each aspect adding a layer of insight into the critical mission of fostering healing, creating a sense of place and belonging, and utilising spaces to protect and empower survivors of domestic violence.

The fusion of these elements offers a holistic approach to domestic violence shelter design, addressing the complex needs of residents and fostering their healing and recovery from trauma. This theoretical research aligns seamlessly with the context, serving as a solid groundwork from which a successful building can emerge and develop.

PART THREE

09. Programme

1000 Women

The 1000 Women Trust is a nonprofit that is dedicated to empowering women, increasing awareness about domestic violence, and promoting human rights.

The initiative is committed to education and awareness, organising workshops and campaigns to challenge harmful gender stereotypes and promote healthy relationships. They actively collaborate with various organisations to advocate for policy reforms and improve support systems. The initiative also provides resources, counselling, and legal assistance in the hope of empowering survivors to break free from abuse and build a future free from violence.

In the last year, the Trust has partnered with the Ruben Richards Foundation and Namakwaland Sitrus to establish a women-run farm. This joint venture known as the 1000 Women Farm is set to provide education and economic opportunities for women in the region. As the operation expands, the farm will undergo development to include both a processing and packaging facility, as well as the addition of a solar farm. This development will enhance the farm's capacity and offer opportunities for further skills development.

An opportunity arises to build upon this foundation by establishing a sanctuary for vulnerable mothers and children, providing a safe space for them to heal, regain control, and rebuild their lives. As my theoretical research has revealed, an essential part of this transformative journey is the development of essential life skills.

The 1000 Women Farm will form part of this transformative journey as it acts as an integral component of the skills development and empowerment program, offering survivors the chance to explore various skill sets. This option will be available to women who aspire to venture into the agricultural sector, but it is by no means mandatory.

Through this joint venture, the Farm and Sanctuary will work in conjunction while retaining their distinct identities, ensuring that each program operates as its own entity. This unique approach underscores the commitment to providing comprehensive support to survivors, encompassing skills training, vocational education, counselling, healthcare, and empowerment programmes. By incorporating these spaces, the Sanctuary aims to empower survivors with the skills needed to achieve independence and self-sufficiency.

The farm's role as part of the empowerment program is to not only offer educational opportunities but also to impart a diverse set of skills that can benefit the women staying at the Sanctuary. This approach underscores the importance of holistic support, ensuring that survivors have access to resources that empower them on their path to recovery and self-reliance.



FIGURE 55 | 1000 Women Farm Partnership (by author)

Design Brief

Working in conjunction with the 1000 Women Initiative, the project establishes a Sanctuary for Women away from society where these women are not only provided with the necessary tools to recover from their traumatic experiences but are also taught meaningful skills to help empower their recovery process.

The building will serve as a sanctuary that provides a safe, nurturing, and empowering environment for women to heal from past traumas and develop new skills, fostering personal growth and self-sufficiency. The facility offers various spaces for counselling, workshops, communal activities, and private reflection, seamlessly integrating with the natural surroundings.

The initiative combines both therapeutic healing practices and practical skills training in an effort to empower women along their journey. This training encompasses diverse areas, from business and entrepreneurship to agricultural and computer skills, empowering women to take charge of their own recovery and future.

The programme for the sanctuary consists of four sections:

1. Housing:

Providing secure and supportive residential spaces for survivors. Accommodation for 60 women and children. Along with housing for caretakers and guests. Small-scale communal living, where two to three people share a bathroom and kitchenette. These spaces are adaptable to accommodate families.

2. Communal Living:

Fostering a sense of community and shared support among survivors. Spaces include a large kitchen which accommodates multiple users at once, dining space for all 60 people, a TV lounge, recreational computer space, a daycare facility and spaces for older children. It is important to balance these spaces with contemplative smaller areas for personal reflection.

3. Healing:

Creating spaces dedicated to emotional and psychological recovery. Where residents have access to psychologists, doctors and other practitioners. Spaces include healing and sensory gardens, offices, contemplation spaces group therapy rooms and a gym.

4. Skills Development:

Empowering survivors with skill development and knowledge. Offering agricultural training in connection with the 1000 Women Farm for those who are interested, as well as solar repair training. Other areas –include business, entrepreneurial, and computer skills training . Spaces to gather and share knowledge will also be included as well as workshop spaces to encourage making.

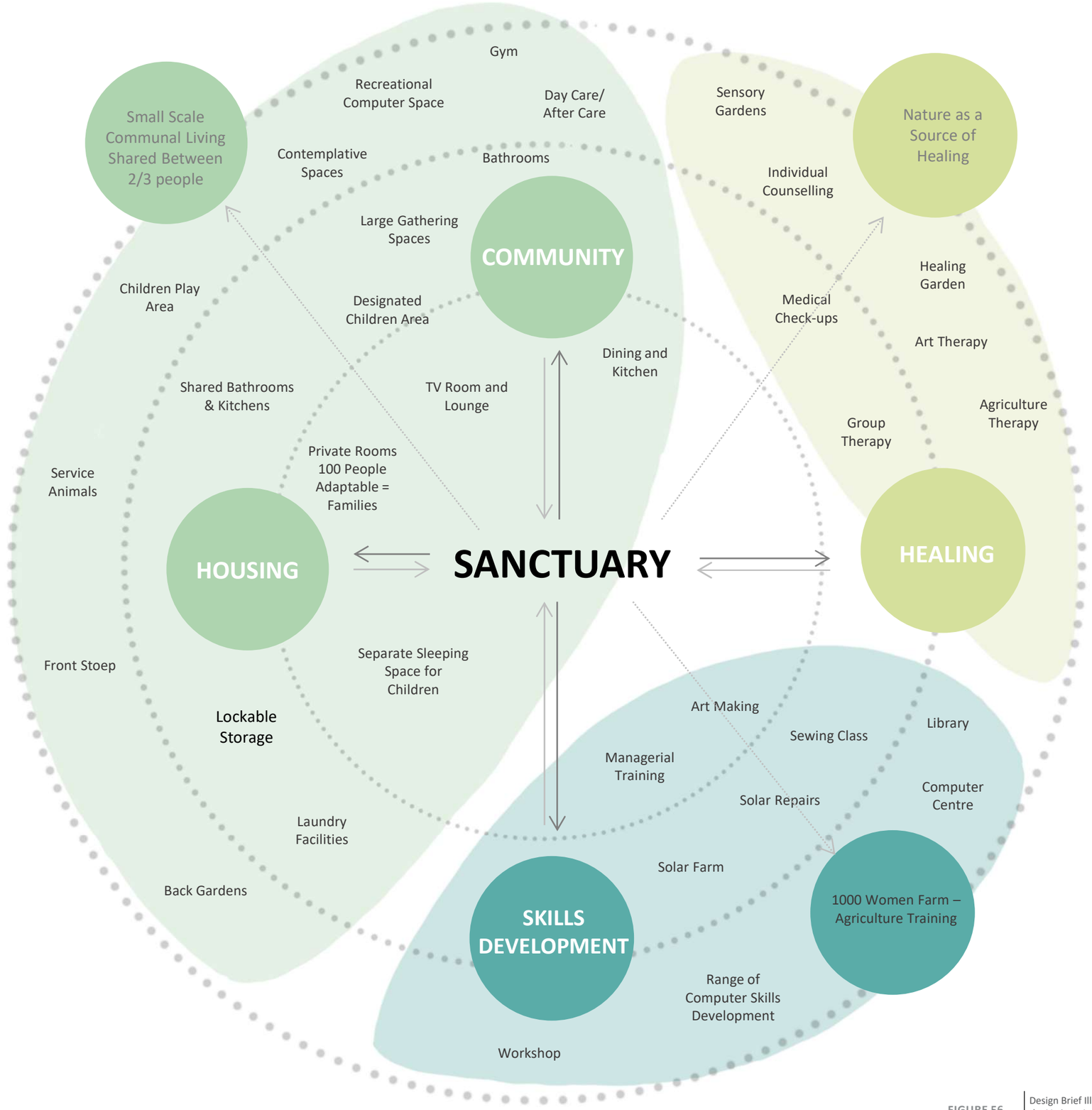


FIGURE 56 Design Brief Illustrating the Various Activities (by author)

Accommodation Schedule

Housing

Double Storey Units - 2 Bedrooms	[60 sqm x 40]
Single Storey Units - 2 Bedrooms	[40 sqm x 20]

(Each unit comes with a kitchenette, bedroom, bathroom, and a small lounge/eating space)

[3200 sqm]

Communal

Shared Kitchen	[80 sqm]
Lounge TV Room	[50 sqm]
Dining Room	[300 sqm]
Day Care + Sleeping Facilities	[80 sqm]
Outdoor Play Space	[40 sqm]
Recreational Computer Space	[10 sqm]
Reading Alcoves.	[10 sqm]
Fitness Space	[20 sqm]
Laundry	[15 sqm]
Storerooms	[20 sqm]
WC	[15 sqm]

[640 sqm]

Healing

Individual Counselling Rooms	[10 sqm x 3]
Therapy Room	[10 sqm x 3]
Examination Room	[10 sqm x 2]
Group Counselling Room	[50 sqm]
Art Room	[30 sqm]
Storage	[10 sqm]
WC	[3 sqm x 4]

[182 sqm]

Workshop Spaces

Computer Lab	[60 sqm]
Workshop/ Skills Development	[100 sqm]
Teaching Space	[60 sqm]
Library	[60 sqm]
Storage Rooms	[25 sqm]
WC	[15 sqm]

[320 sqm]

Outdoor Spaces

Vegetable Patch (20 sqm per person)	[3000 sqm]
Outdoor Contemplation Spaces	[10 sqm x 10]
Gathering Spaces	[200 sqm]
Healing Garden	[400 sqm]
Walking Paths	[100 sqm]

[3800 sqm]

Care Takers

Bedroom x 2	[15 sqm]
Lounge/Dining	[7 sqm]
Kitchen	[5 sqm]
Bathroom	[10 sqm]
Outdoor Space	
	[52 sqm x 2] = [104 sqm]

Guest Accommodation

Potential Space for Visiting Doctors, Psychiatrists to Stay Overnight.	[60 sqm]

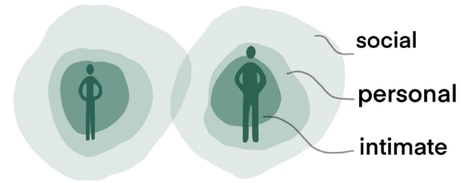
[164 sqm]

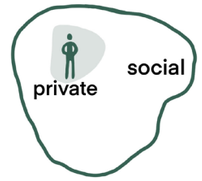
Staff

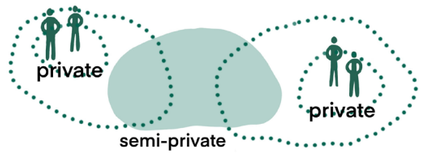
Changerooms	[20 sqm]
Offices	[50 sqm]
Kitchenette	[10 sqm]
Common Room	[20 sqm]
WC	[6 sqm]

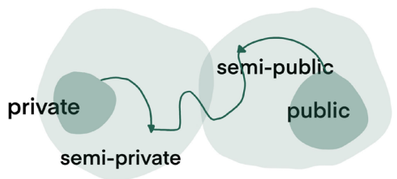
[106 sqm]

Total	**[8412 sqm]**
Site Capacity	**[113300 sqm]**
	[11.33 ha]









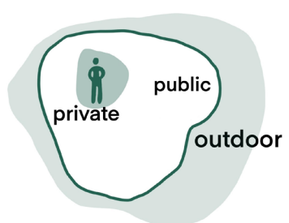


FIGURE 57 Levels of Public and Private Space (by author)

Design Framework |Summary

Architecture for Placemaking Interventions:

- Discreet entrances and high-security measures.
- Well-maintained interiors, calming colour schemes, and comfortable furnishings.
- Therapeutic spaces for counselling, group therapy.
- Encouraging a healing community through common areas, shared kitchens and group therapy sessions.

Creating a Sense of Belonging and Home:

- Communal areas = encourage interaction and support.
- Allowing survivors to personalise their living spaces.
- Incorporating culturally relevant elements.
- Designing spaces that can adapt to changing needs.
- Ensuring accessibility for all, regardless of abilities.

Harnessing Nature's Potential to Soothe and Restore:

- Maximising access to natural light.
- Incorporate views of natural elements.
- Use natural and tactile materials, calming colours and patterns.
- Creating outdoor spaces for self-care, relaxation and reflection.
- Promote a connection to the natural environment.

Architecture as a Safety Provider:

- Ensure secure access control and reinforced doors.
- Design spaces with clear lines of sight.
- Installing surveillance cameras and appropriate lighting.
- Designing secure outdoor areas.
- Ensuring accessibility for all.

Architecture as a Source of Empowerment:

- Allowing survivors to shape their living spaces.
- Ensuring physical and emotional safety.
- Designing spaces for peer support.
- Adapting spaces to changing needs.
- Incorporating diverse cultural perspectives.
- Ensuring accessibility for all.
- Designing spaces for education and vocational training.

Room Requirements

Standard room layout for counselling spaces include::

- Opt for multiple seating options, including couches and chairs, to create a stress-free environment.
- Avoid ‘confrontational seating,’ where seats directly face each other, which can make clients uncomfortable.
- Position chairs at right angles, possibly with a small coffee table in front, to foster a comfortable connection.
- This arrangement allows clients to engage with you or shift their gaze without feeling threatened.
- Enhance the space with light-coloured wall paint, natural wood furniture, and ample natural lighting.(BetterHelp Editorial Team, 2023)

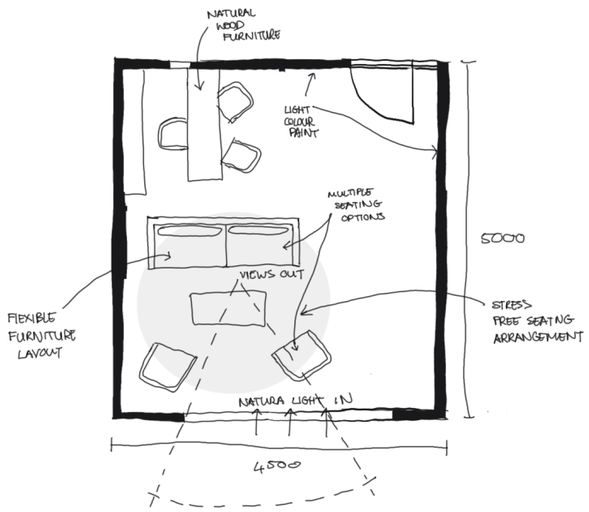


FIGURE 58 | Counselling Room Requirement (by author)

Standard room layout for medical rooms include:

- Equip the room with essential medical tools and equipment for patient assessments.
- Maintain a clean and hygienic environment with easy-to-clean surfaces and hand hygiene facilities.
- Ensure comfortable seating, privacy, and a calming atmosphere for patients. Face to face interaction across a desk is best
- Provide storage for medical supplies, equipment, and patient records.
- Comply with safety standards, ensure accessibility, and have emergency equipment available.
- Include a patient bed for examinations with a curtain for added privacy and patient comfort
- Make provisions for additional seating

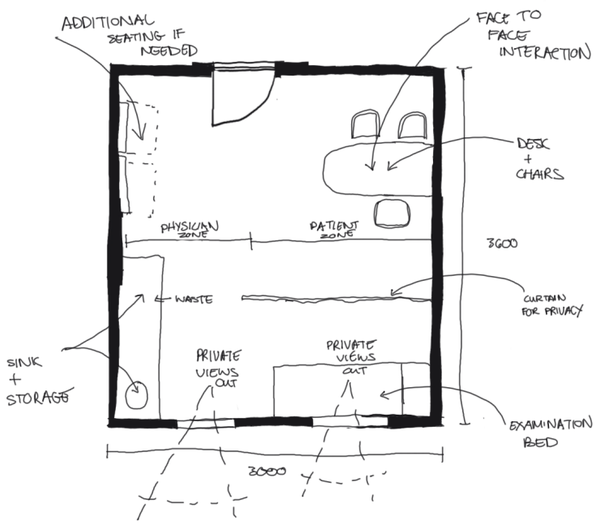


FIGURE 59 | Medical Room Requirement (by author)

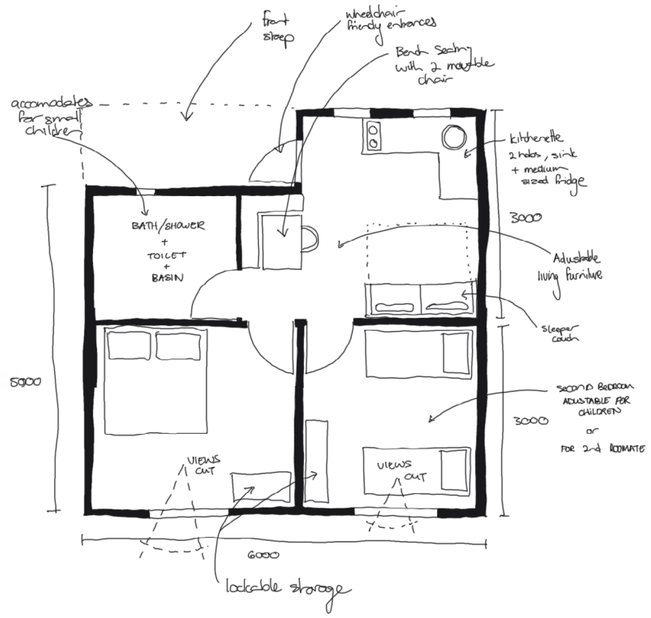
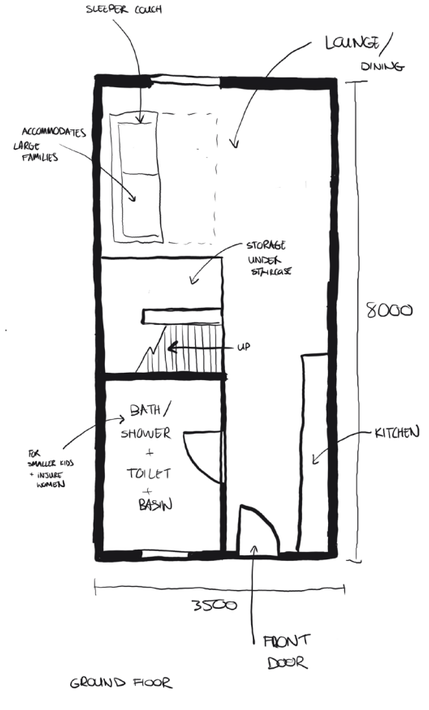


FIGURE 60 | Typical Single Storey Layout (by author)

Layout of Typical Communal Living Requirements:

- Bedrooms: Each bedroom should be designed to accommodate more than one person, making it suitable for both single residents and mothers with children. Bunk beds or additional bedding options should be provided to accommodate families while ensuring privacy.
- Bathroom: The bathroom can be designed to have features that allow for child-friendly use, such as bathtubs and safety measures.
- Kitchen/Lounge/Dining Area: The communal area can be designed with a family-friendly layout. It should include a kitchen where residents can prepare meals for themselves and their children. The lounge area should have comfortable seating and space for children to play. The seating should also double as an additional sleeping space for larger families. The dining area should have a table that can accommodate families during meal times and double as a homework or work space.
- Access to private garden is important and having a welcoming entrance is also necessary.



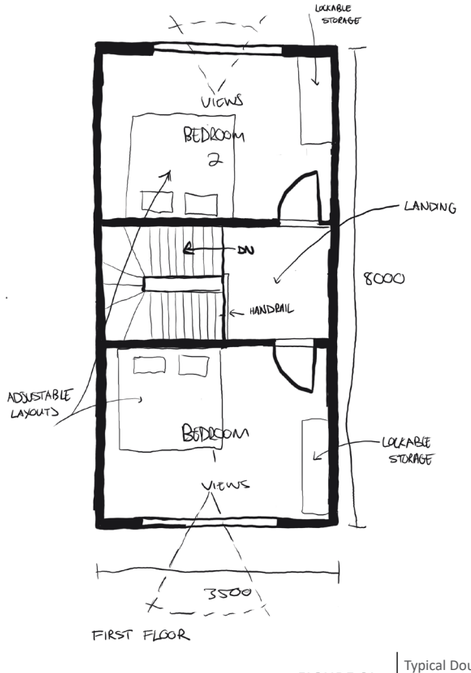


FIGURE 61 | Typical Double Storey Layout (by author)

PART FOUR



10. Site

Brief History

Graafwater is a small town in the Western Cape Province of South Africa, known for its rich history and picturesque surroundings. Its name, which translates to “Digging for Water,” reflects the challenges early settlers faced in securing this essential resource. Situated between Clanwilliam and Lamberts Bay, Graafwater was established in 1910 as a pivotal railway junction. Its primary purpose was to facilitate the transportation of agricultural goods from Clanwilliam and seafood products from Lambert’s Bay.

The town is located in the northern expanse of the Sandveld region which is known for its wide-open spaces, adorned with breathtaking fynbos, lush indigenous vegetation, hardy shrubs, and reeds. During the spring season, the landscape transforms into a vibrant tapestry of wildflowers.

Despite the challenging agricultural conditions marked by low rainfall and sandy soil, farming in the area predominantly revolves around sheep and cattle. However, the Sandveld is also favourable for beekeeping, potato cultivation, sunflowers, and even some wheat farming nearer to the Swartland.

FIGURE 62 Relationship between the site, the organisations and existing shelters in the Western Cape (by author)

Context

The site is located 7km south from the town of Graafwater in the Sandveld region. (30km West of Clanwilliam towards Lamberts Bay) It is situated on a working farm owned by Namakwaland Sitrus and leased by the 1000 Women Farm Project. The Farm, known as Goliatskraal, produces a range of vegetables with the intended purpose of developing a fully operational processing and packaging farm run and managed by women.

This chapter explores the topographical features and examines factors influencing the design process. The analysis includes both a macro-scale assessment of the larger area and a micro-scale examination of specific site elements, such as vegetation types, conservation areas and existing features.

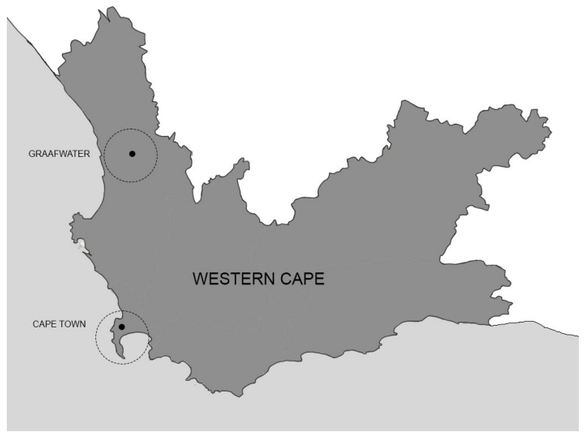


FIGURE 63 Distance from Cape Town (by author)

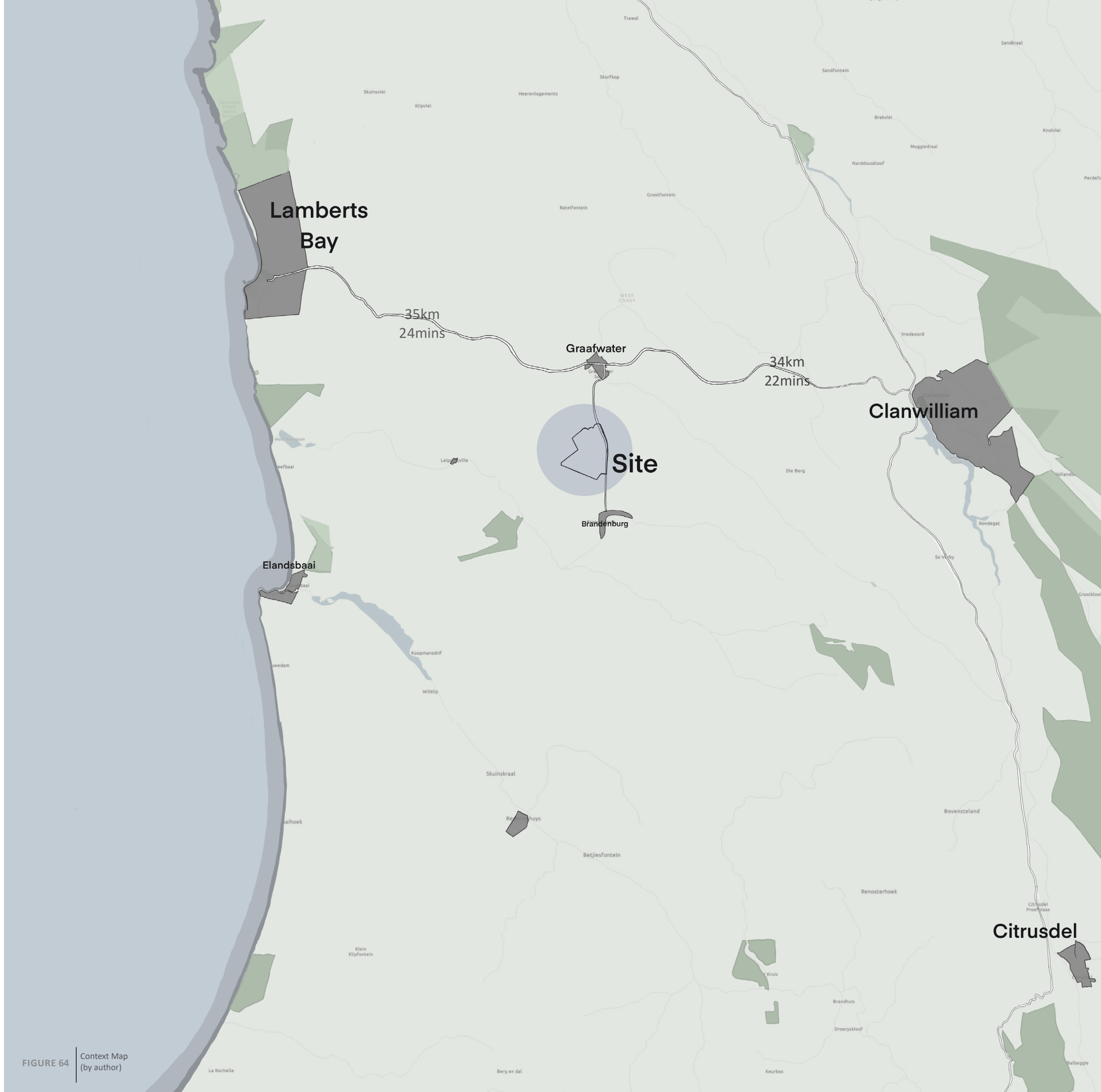


FIGURE 64 Context Map (by author)

Site Location

The site location is approximately 7km (5min drive) from Graafwater and is walking distance from the proposed processing and packaging plants on the farm. The farm borders a large critically bio-diverse area which allows the site to connect more with nature.

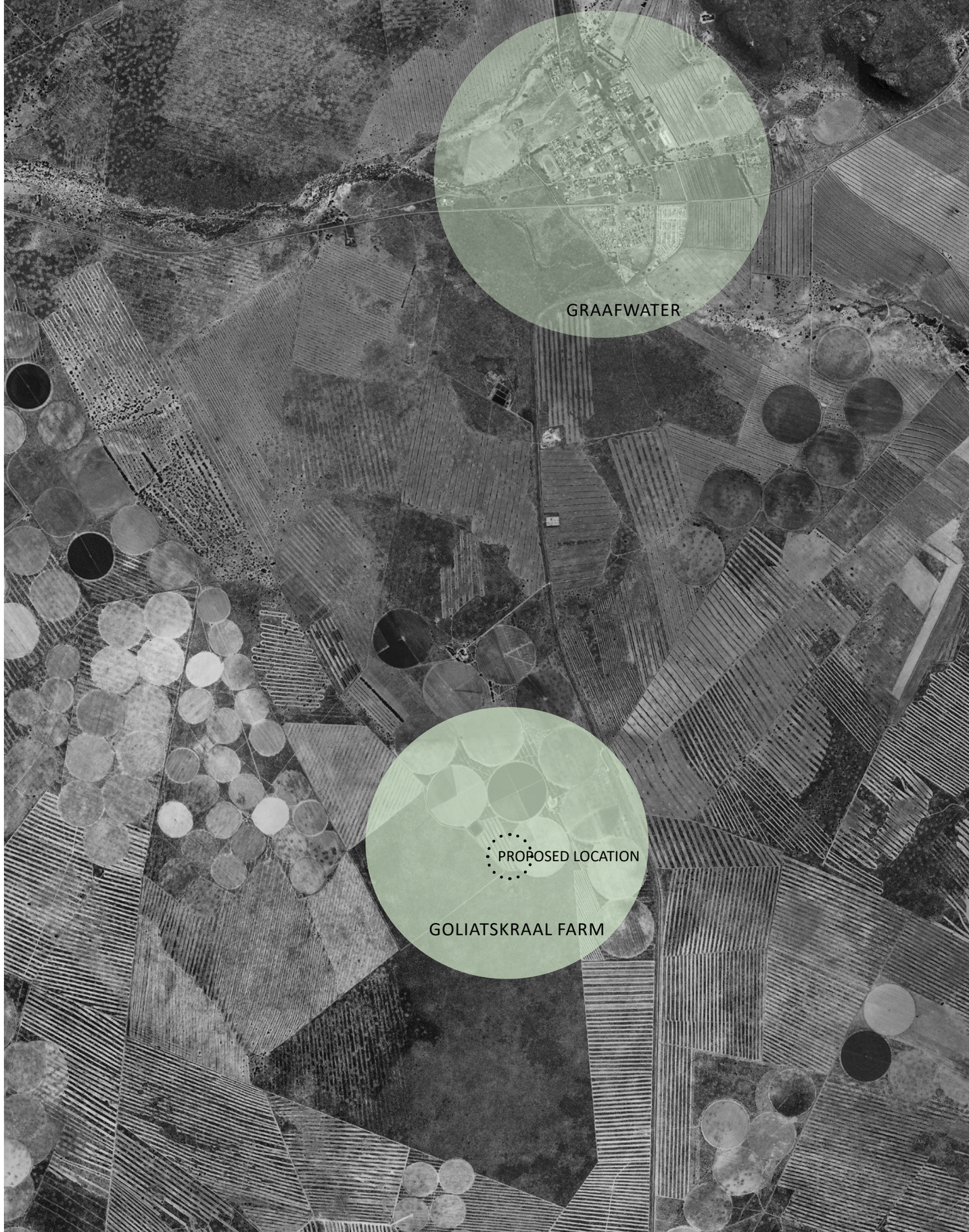


FIGURE 65 Site Location in Comparison to Graafwater (by author)

Sensitivity Zones

A portion of the site is part of the Leipoldtville Sand Fynbos ecosystem **(these are the sensitivity zones)**

Figure 66 shows the **Critical Biodiverse Area (CBA)** category, this area requires the preservation of natural habitats to meet biodiversity targets. Low-impact, biodiversity-sensitive land uses are suitable for this area. **No buildings allowed**

Figure 67 shows another undeveloped portion which falls under the **Ecological Support Areas** category, this area plays a crucial role in supporting the CBA.

The objective is to maintain these areas in a functional and natural state while ensuring that biodiversity objectives and ecological functioning remain uncompromised. The main goal is to preserve the natural areas and minimise any further loss of habitat.

The site also features gentle slopes and a seemingly flat plain, with a steep incline forming the dam walls.

Water scarcity is a challenge, and the farm relies on the dam for water since more boreholes are not possible due to the lack of water rights.

Soil conditions consist of red and yellow, sandy well-drained soils with a high base status. 15% of the soil is comprised of clay and the depth to clay is >= 750mm.

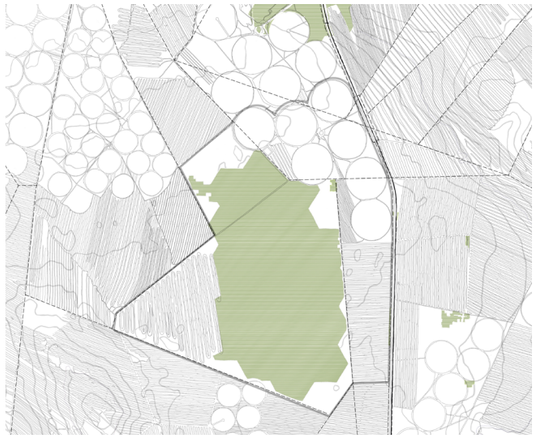


FIGURE 66 Critical Biodiversity Areas (by author)

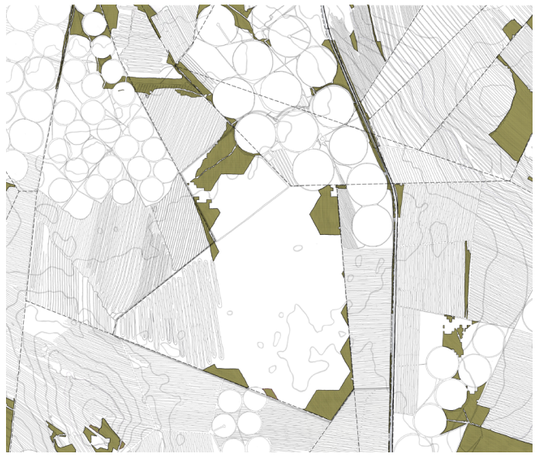


FIGURE 67 Ecological Support Areas (by author)

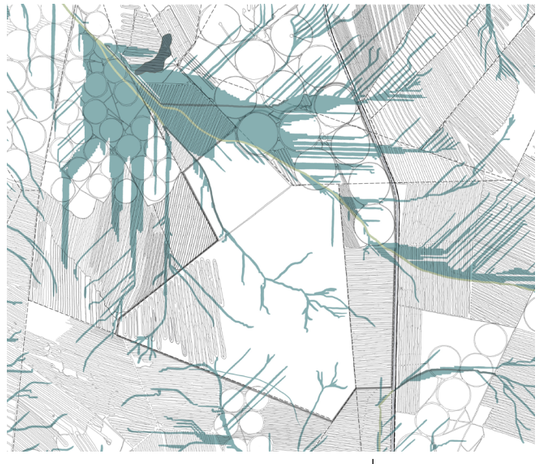


FIGURE 68 Surface Flow Accumulation and Wetland (by author)



FIGURE 69 Agricultural Crops (by author)



FIGURE 70 Storage Shed (by author)



FIGURE 71 Growth of Potatoes (by author)

Economic Activity

Economic activity on the farm and in the greater Graafwater area primarily consists of farming. The region farms a diverse range of crops, with many of them destined for processing plants in Clanwilliam and Lamberts Bay.

On the specific farm site, circular pivot irrigation is employed for the cultivation of crops such as potatoes, rooibos, and mielies. However, it's important to note that the surrounding fields have been neglected and are now overgrown.

Decoding the Farm

PIVOT IRRIGATED CROPS

ARTIFICIAL DAM

OLD FIELDS

ERF BOUNDARY

RAILWAY

SEASONAL WETLAND

SITE BOUNDARY

DIRT ROADS AND PATHWAYS

ESTABLISHED

COMMERCIAL ANNUAL CROPS | RAIN-FED

OVERGROWN

CRITICAL BIODIVERSITY AREAS

ROADS AROUND CROPS

EXSITING STRUCTURES

ECOLOGICAL SUPPORT AREAS

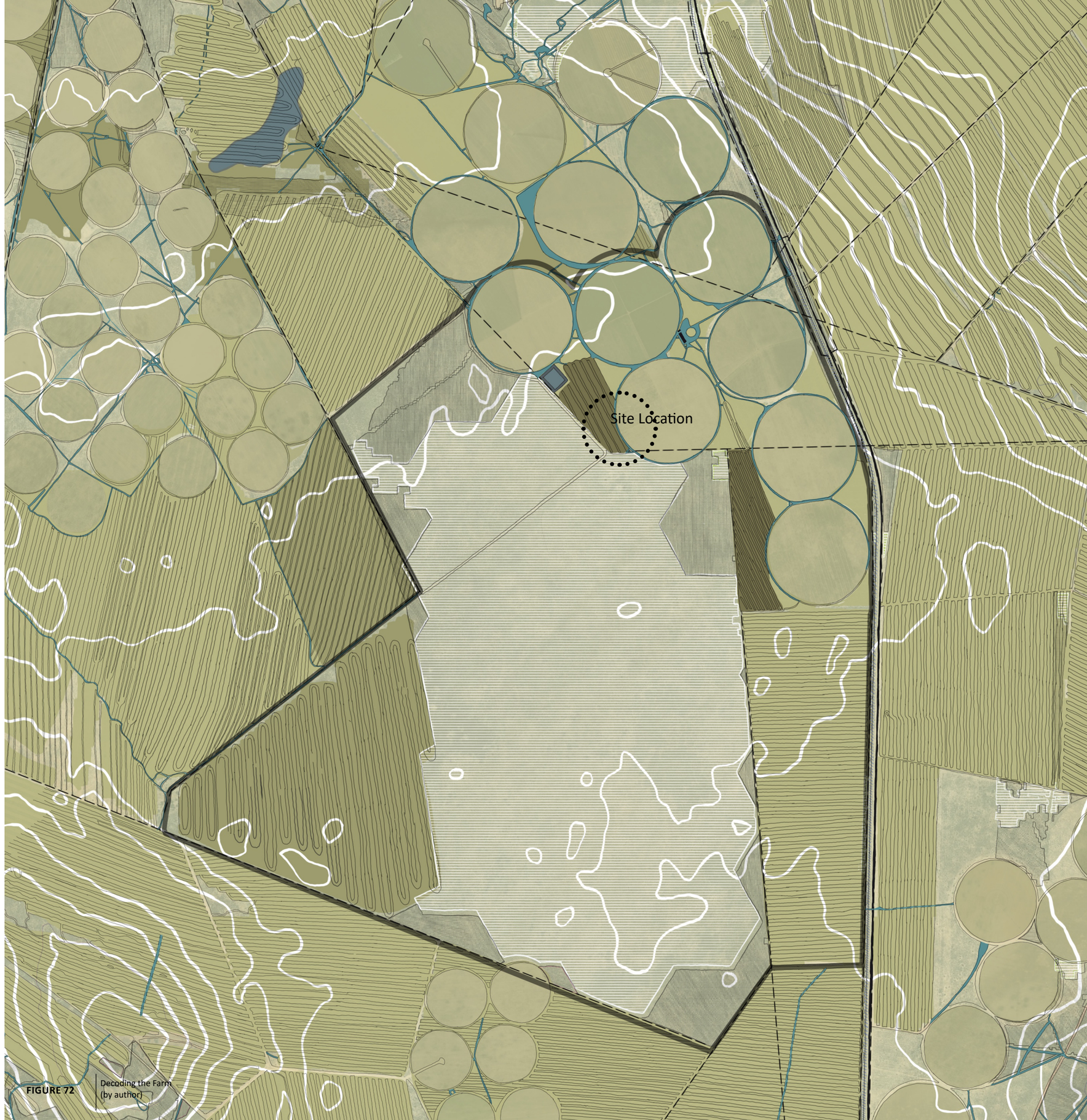
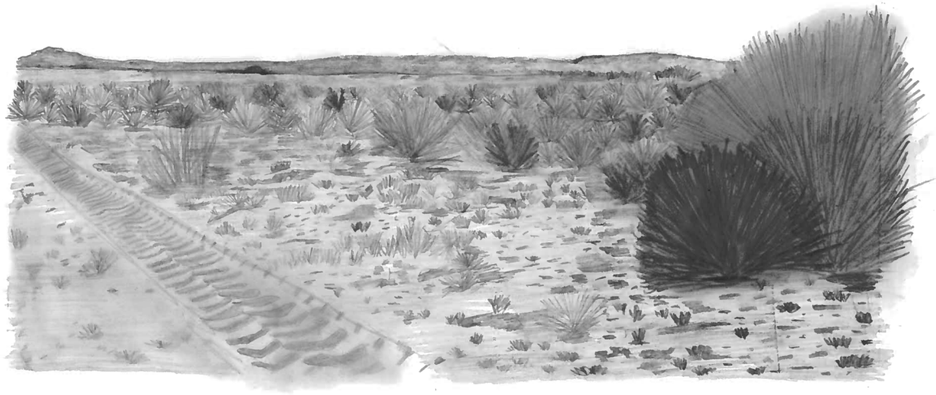
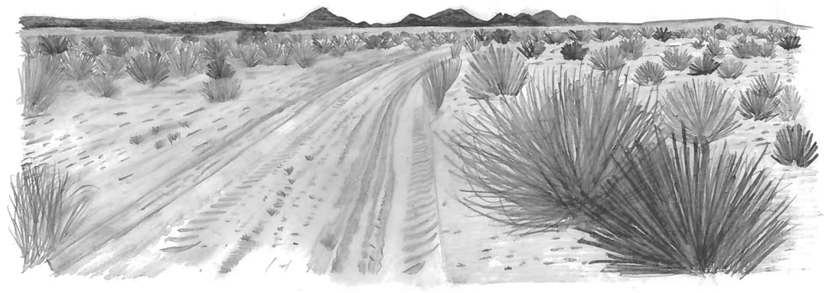
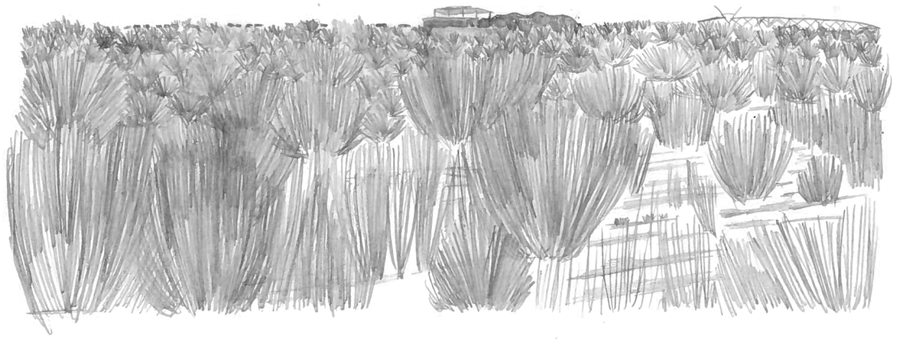
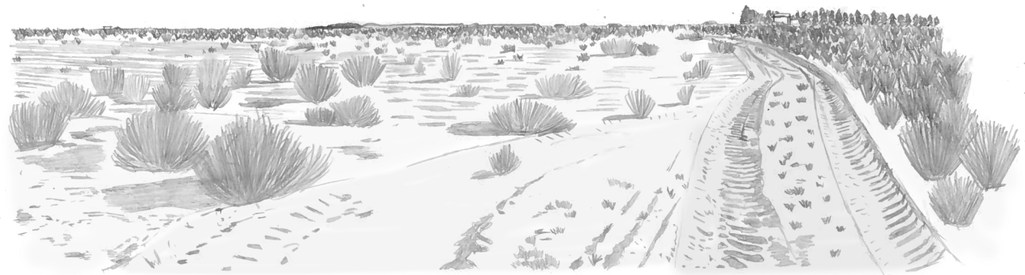


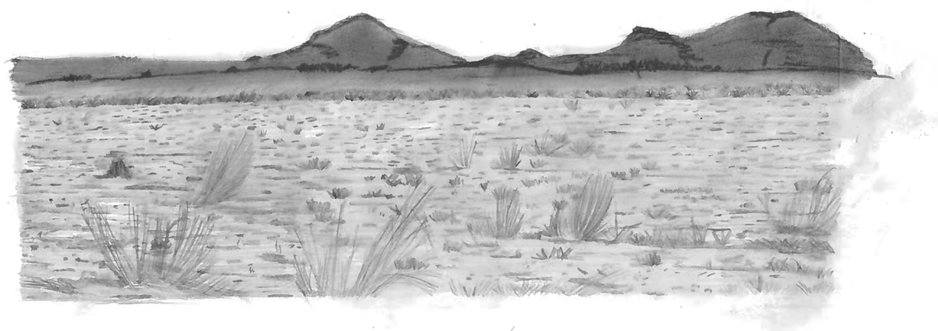
FIGURE 72 Decoding the Farm (by author)











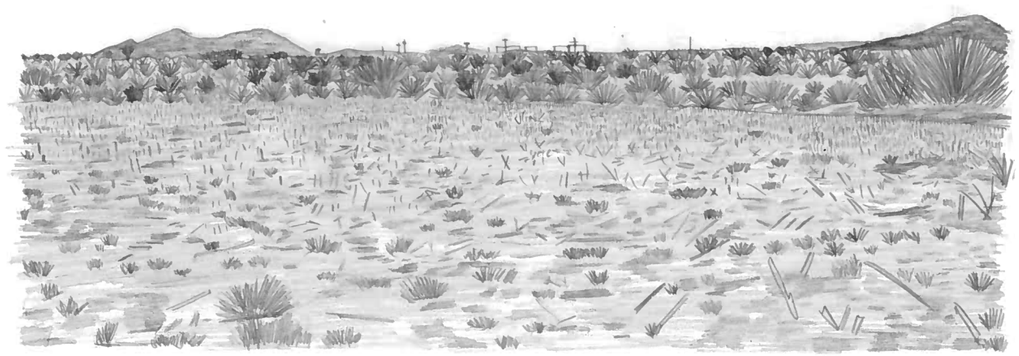


FIGURE 73 | Perspectives of Place (Author, 2022)

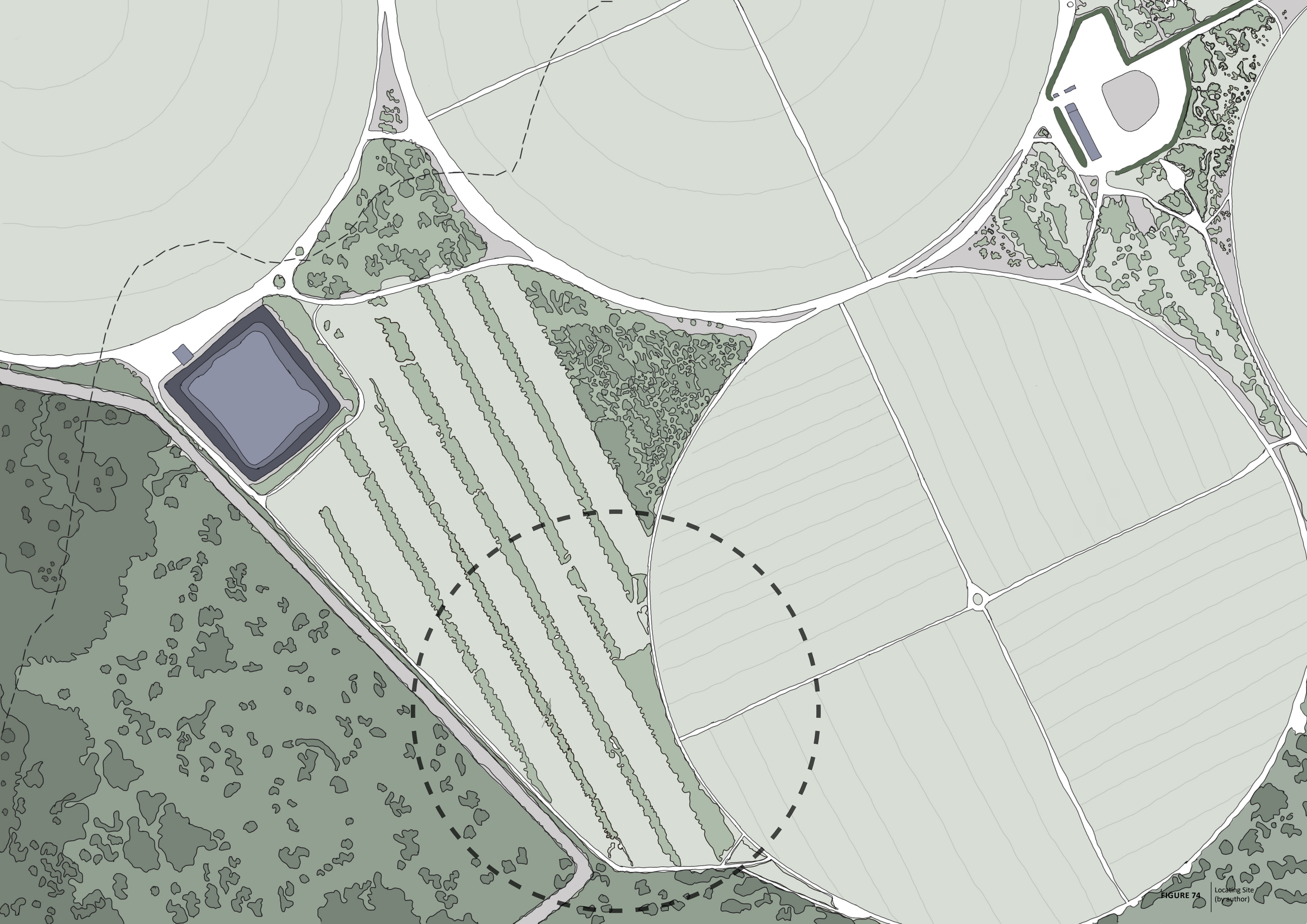


FIGURE 74 Locating Site (by author)

16. Site Conditions

Visiting the site in person provided invaluable insights into its conditions, wildlife, water features, conservation areas and scenic views. The firsthand experience was truly extraordinary, reinforcing my appreciation for the privilege of designing within this location. It underscored the importance of enabling others to encounter this landscape in its natural state. It also heightened my awareness of the site's fragility, emphasising the need for the building to harmonise with the ecological system rather than disrupt it.

I began documenting various aspects, including the site's flora, fauna, and the panoramic views from which different vantage points enabled me to skillfully incorporate elements from the surrounding environment into the design.

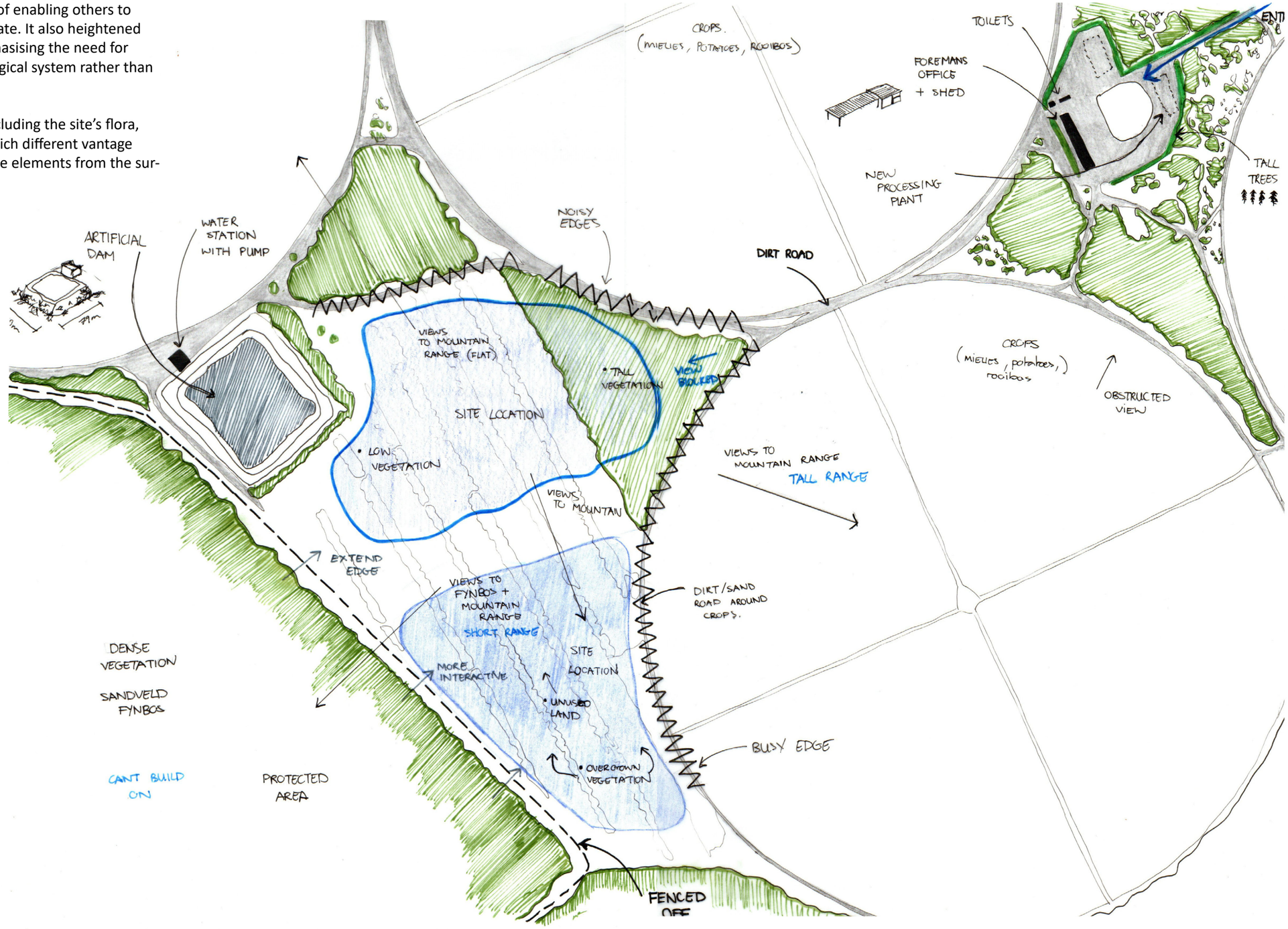


FIGURE 75 | Site Analysis (by author)

Site Images



FIGURE 76 | Tractor Shed
(Author, 2022)



FIGURE 79 | Existing Ablution Facilities
(Author, 2022)



FIGURE 82 | Walking Down the Main Entrance
(Author, 2022)



FIGURE 77 | Views from Foreman's Office
(Author, 2022)



FIGURE 80 | Conditions of Roads Around Crops
(Author, 2022)



FIGURE 83 | Mountain Views Out over the Site
(Author, 2022)



FIGURE 78 | Agricultural Dam
(Author, 2022)



FIGURE 81 | Overlooking Crops to Dam
(Author, 2022)



FIGURE 84 | Fence Protecting the Bio-diverse Area
(Author, 2022)

Site Vegetation

The Sandveld region of the Western Cape in South Africa is characterised by unique vegetation types and landscapes. Sandveld refers to sandy lowlands or plains, and the vegetation in this region is adapted to the specific conditions found there.

Key Vegetative types on the farm consist of:

Fynbos is a prominent vegetation type, especially in the critically biodiverse section of the farm. Shrubs, heathlands, and various types of small, hard-leaved plants can be seen.

Renosterveld is another important vegetation type in the Sandveld region. It features a mixture of shrubs and low-growing plants, adapted to the sandy soils and the seasonal rainfall patterns. This vegetation type is known for its rich biodiversity.

The sandy soils play a crucial role in shaping the vegetation. These soils often have low nutrient content, and the vegetation has adapted to these conditions. Growing produce is very difficult because of these soils. Vegetables such as corn, and potatoes grow well here.

The Western Cape, including the Sandveld region, experiences a Mediterranean climate with dry summers and wet winters. The vegetation in this region has adapted to these conditions, with many plants having drought-resistant features such as small, sclerophyllous leaves and deep root systems.



FIGURE 86 | Rooibos Tea Bush (Author, 2022)



FIGURE 87 | Potato Crops (Author, 2022)



FIGURE 88 | Pine Trees (Author, 2022)



FIGURE 85 | Drawings of Vegetation on Site (Author, 2022)



FIGURE 89 | Fynbos Blombush (Author, 2022)



FIGURE 90 | Large Restio Shrub (Author, 2022)



FIGURE 91 | Restio mixed with Rooibos (Author, 2022)



FIGURE 92 | Bobbejaankool (Author, 2022)



FIGURE 93 | Rows Rooibos growing inbetween Restio (Author, 2022)



FIGURE 94 | Small Restio (Author, 2022)



FIGURE 95 | Diamond African Daisy (Author, 2022)



FIGURE 96 | Dune Saladbush (Author, 2022)



FIGURE 97 | Zones of Vegetation (Author, 2022)

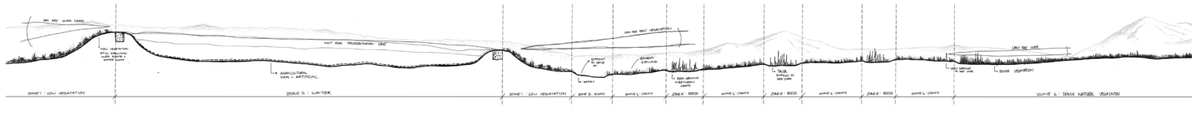


FIGURE 98 | Section Through the Landscape (Author, 2022)

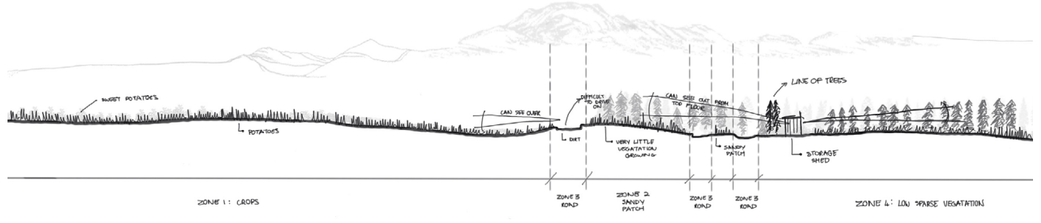


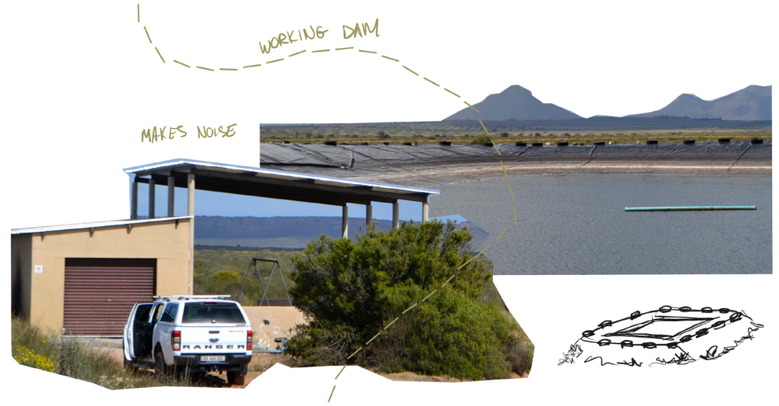
FIGURE 99 | Section Through the Landscape 2 (Author, 2022)

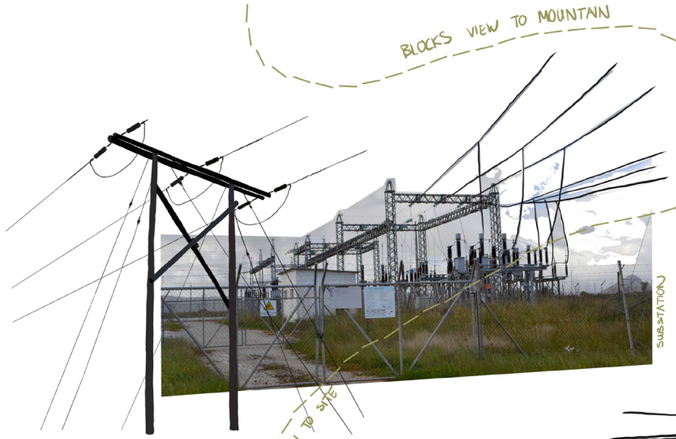
Moments and Events Around the Site

Treasure map - Moments and events around site











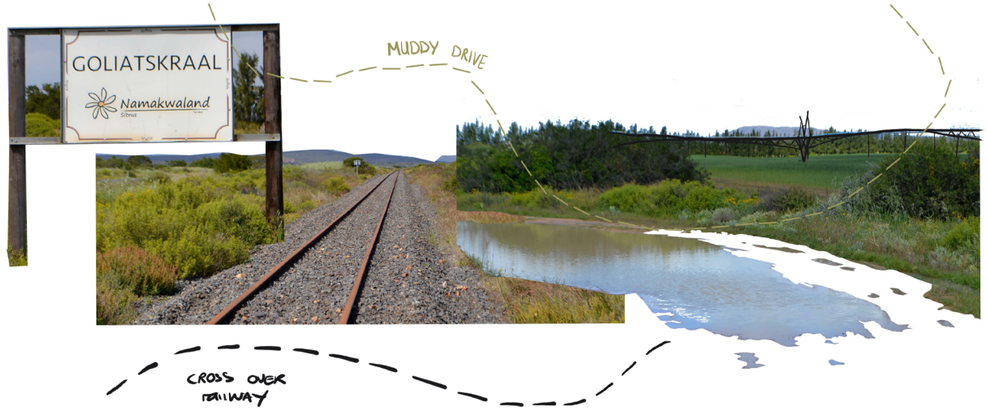




FIGURE 100 | Moments Around the Site (Author, 2022)

Working Development Proposal

Upon your arrival at the farm, an avenue of trees guides your path towards the processing and packaging plant, however, a new road is proposed which meanders off to the left, skirting the trees, and gracefully circumnavigating the central processing and packaging facility, providing options for how various people arrive on site. This road reconnects with the already existing sand roads. These extremely soft sand paths with be compacted to accommodate smaller vehicles.

The site itself was previously dedicated to rooibos farming and has been divided to make room for the Sanctuary. A newly established road between these two spaces will act as the dividing line and will also prevent vehicular access on the site thus safeguarding the critically biodiverse areas from vehicular intrusion.

The map itself not only reveals the routes and development plan but also the essence of the landscape—the best viewing points, the prevailing wind patterns, and the course of rain.

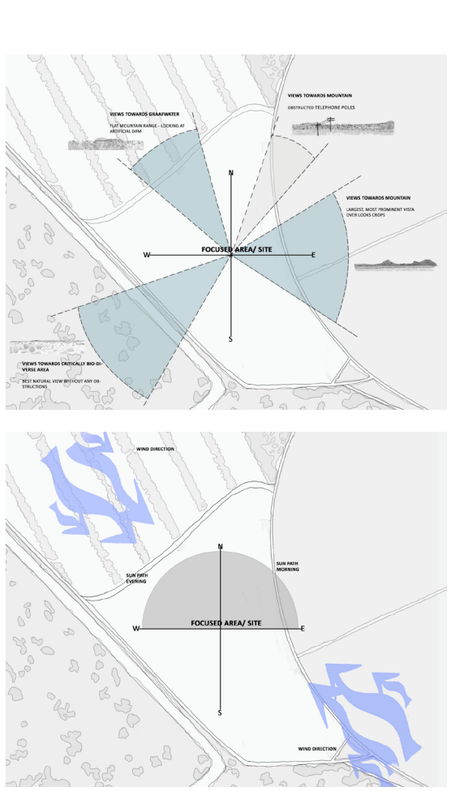


FIGURE 101 | Site Analysis Drawings (Author, 2022)

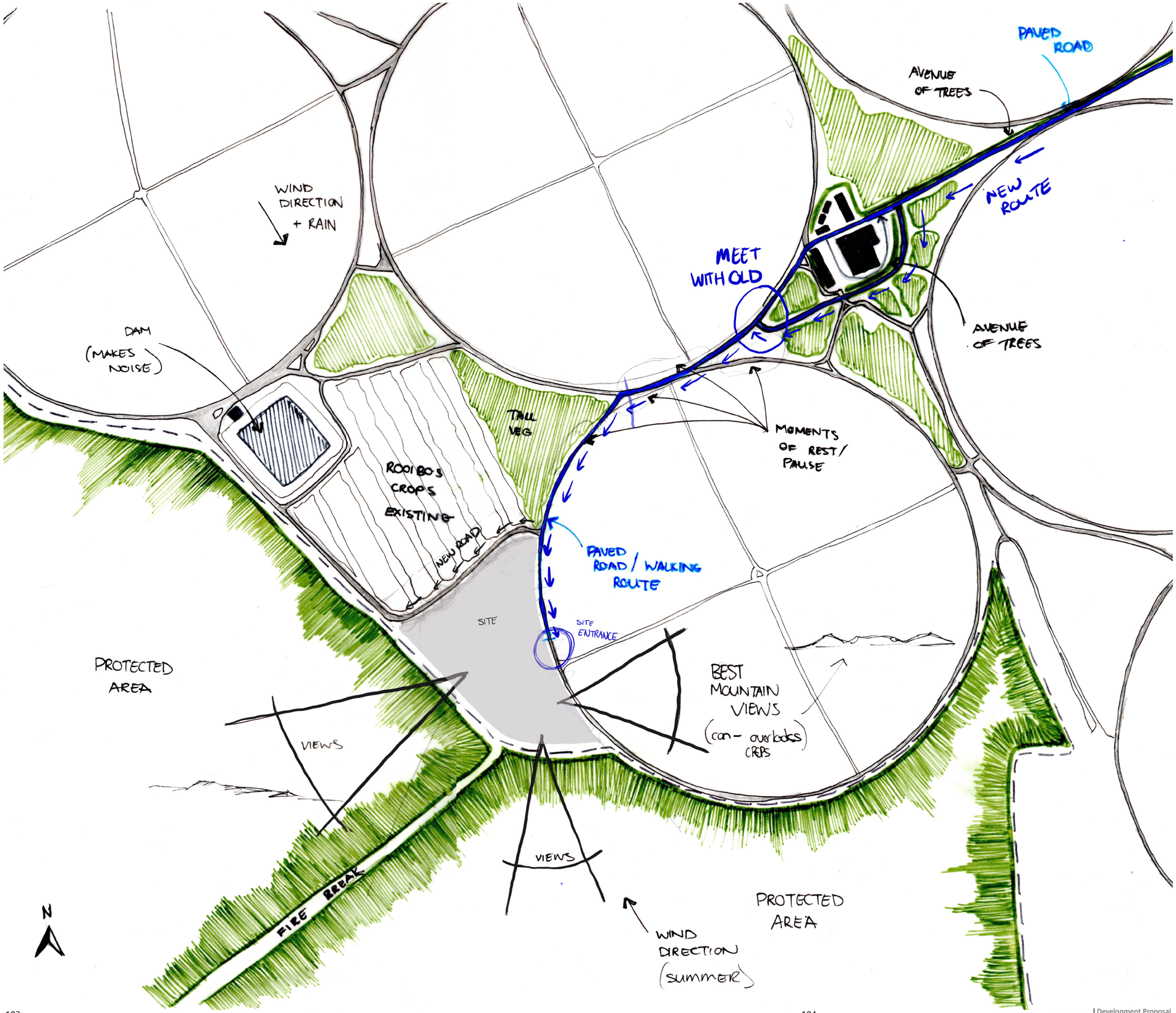


FIGURE 102 | Development Proposal (Author, 2022)

PART FIVE

11. Precedents |Response to Landscape

Case Study F

Coromandel Estate Manor House
Marco Zanuso
Lydenburg, South Africa
1975

The Africa Manor House has a similar approach towards the landscape as the approach I wanted the design to take. Blending into the surroundings the house seamlessly merges architecture with nature in Mpumalanga's challenging landscape. This 1970s stone residence was meticulously crafted to offer a cool and sheltered oasis. (Architizer, 2023)

The central spaces are connected to two courtyards, one richly planted with local flora to the west and a water court to the east,. The design emphasises visual connections to nature, ensuring each wing overlooks a garden or water, fostering a harmonious relationship with the environment. Thoughtful elements like a green roof and stone walls allow the house to blend seamlessly into the landscape while reflecting biophilic principles.

The house responds to the local climate and topography, providing shade, coolness, greenery, and water, and it creates a unique sense of place. Its distinctive arches anchor it in the landscape while blurring the line between indoor and outdoor spaces.

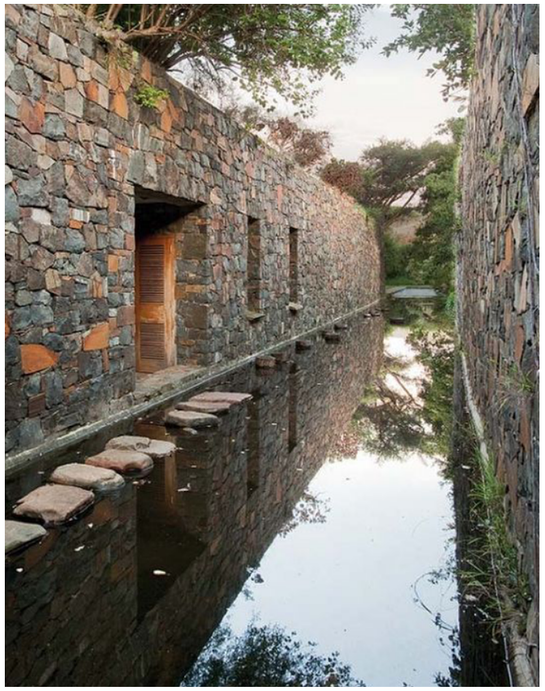






FIGURE 103 | Coromandel Estate Manor House (Dewald van Helsdingen, Architectural Photography, n.d.)

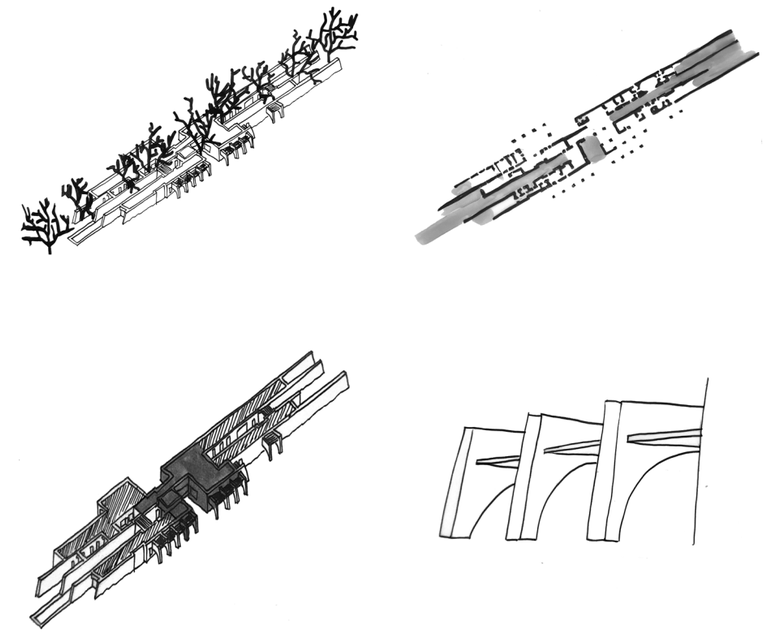


FIGURE 104 | Diagrams of Extending into the Landscape (by author)



FIGURE 105 | Coromandel Estate Manor House (Dewald van Helsdingen, Architectural Photography, n.d.)



FIGURE 106 | Coromandel Estate Manor House (Dewald van Helsdingen, Architectural Photography, n.d.)

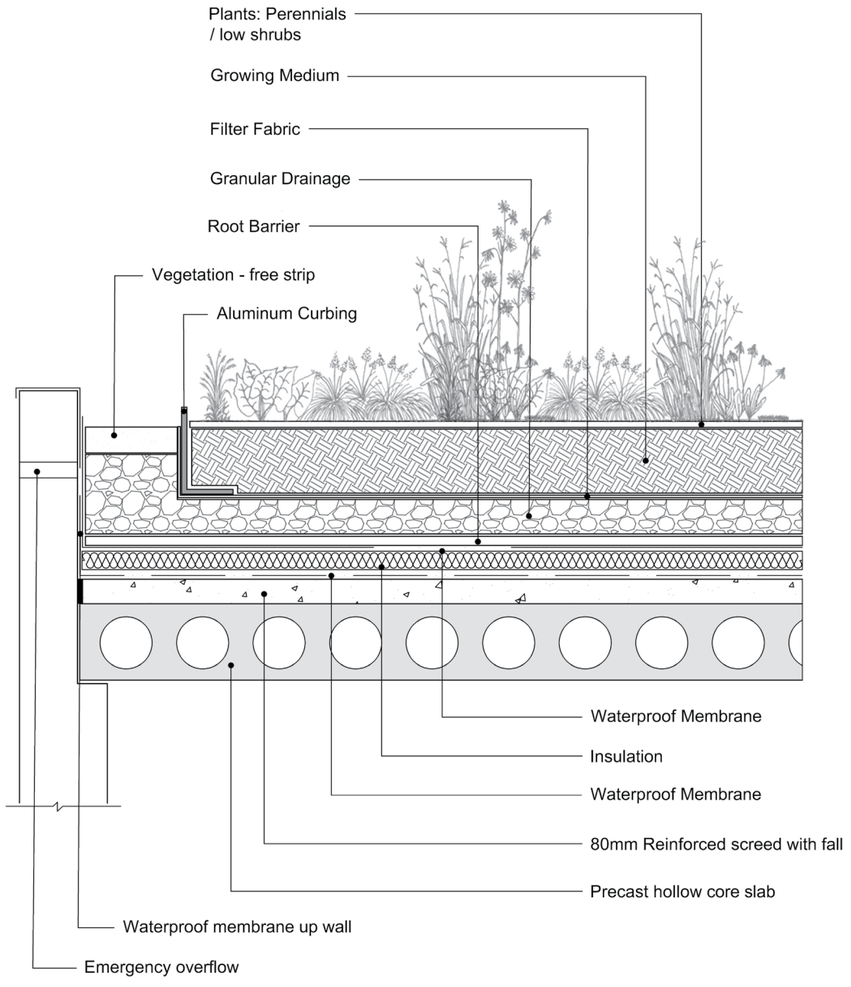


FIGURE 107 | Section of Green Roof Detail (by author)

Case Study G

Bell-lloc Winery
RCR Arquitectes
Spain
2007

The Bell-lloc Winery served as an inspirational reference due to its profound connection with the ground and the engaging pathway within the building, providing visitors with an immersive experience, allowing them to not only savour the wine but also to feel intimately connected to the earth.

The subterranean pathway guides visitors on a captivating journey through various facets of the design. This architectural marvel is not just a stationary structure; rather, it acts as a walkway, unveiling a multitude of distinct elements. (Bell-lloc Winery / RCR Arquitectes, 2014)

This precedent was particularly valuable, as it aligned with my vision to offer residents an experiential journey that enables them to connect with the landscape as they travel through the building.









FIGURE 108 Bell-lloc Winery / RCR Arquitectes (Pons, 2014)

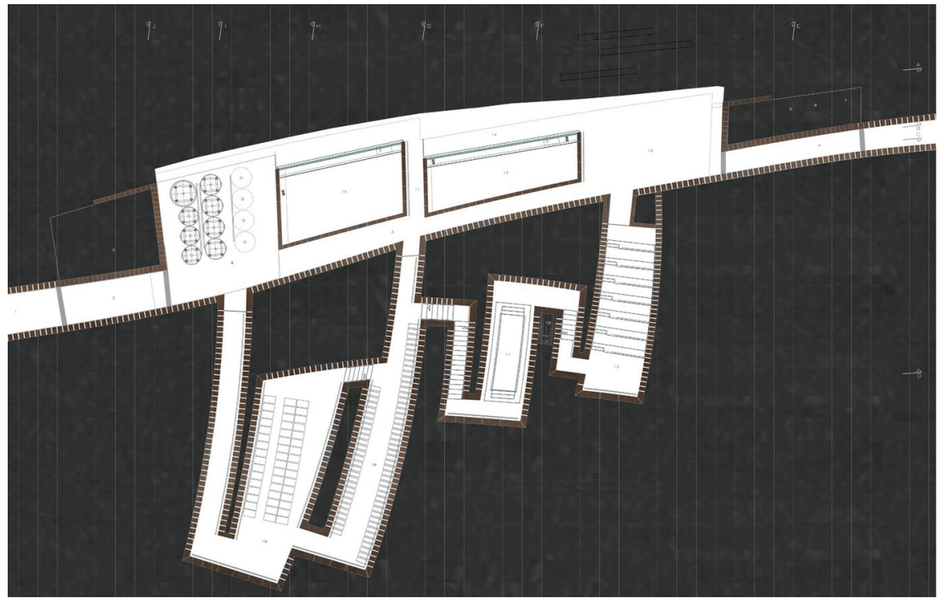


FIGURE 109 Bell-lloc Winery Floorplan (RCR Arquitectes, 2014)

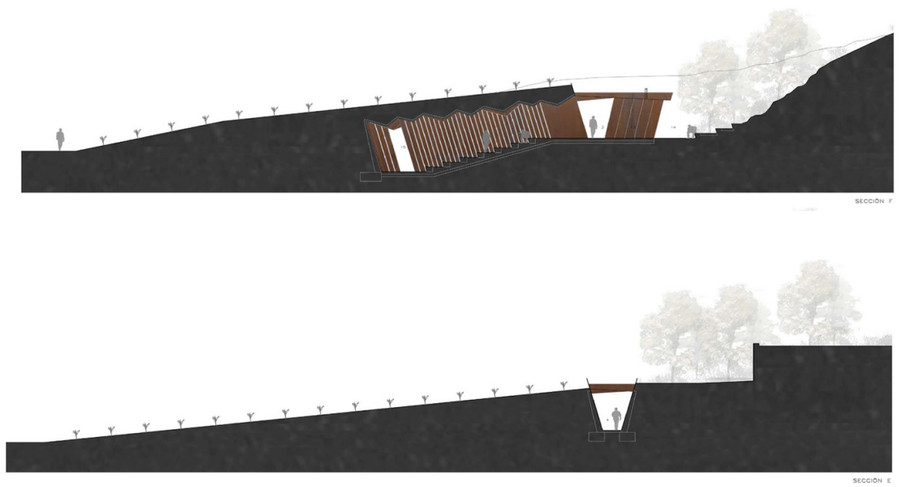


FIGURE 110 Bell-lloc Winery Sections (RCR Arquitectes, 2014)

PART SIX

12. Development

Developing an Architectural Approach
Concept 1 - Refuge/Reveal

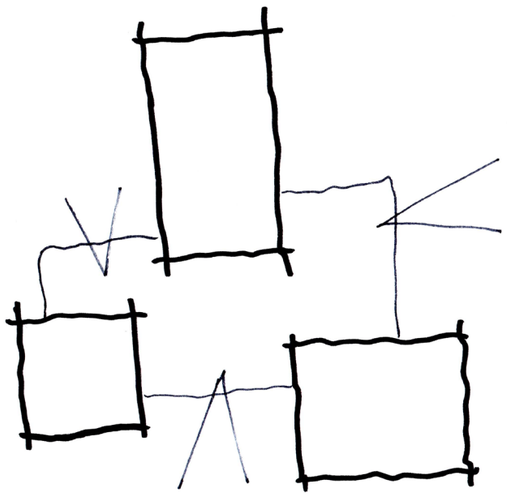
By building on the theoretical design framework and from the site responses, an architectural approach was developed. These concepts or approaches form the basis for the project.

The concept of Refuge and Reveal plays on multiple meanings. The aim is to incorporate nature and natural views while creating spaces that make women feel protected and secure. This concept seeks to balance the need for safety and comfort with a connection to the natural world.

This can also be played out through the use of levels where more protected, quiet spaces are placed lower into the ground and the more activated and busy spaces are place higher up, overlooking the landscape.

The Refuge zones would provide a sense of security and comfort, with features like private seating, soft lighting, and sound insulation to create a serene and protective atmosphere.

While the spaces that are revealed would prioritise maximizing natural views. The concept of “Reveal” could be realized through the thoughtful integration of architectural elements that frame and enhance the views.



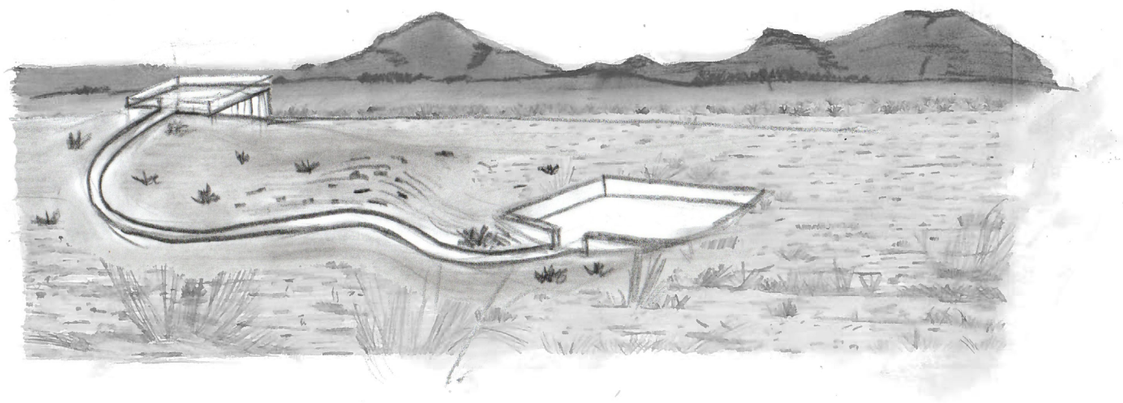


FIGURE 111 Refuge and Reveal within the Landscape (by author)

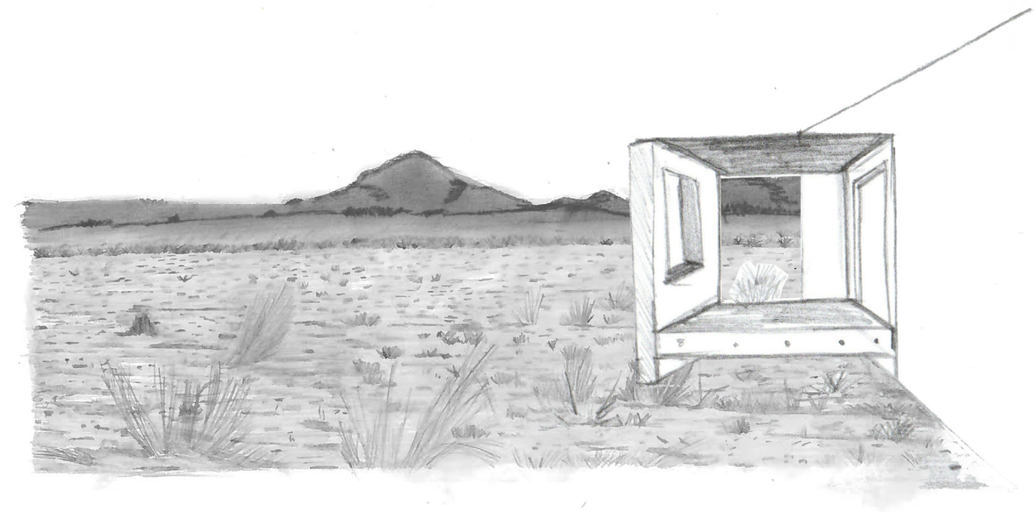


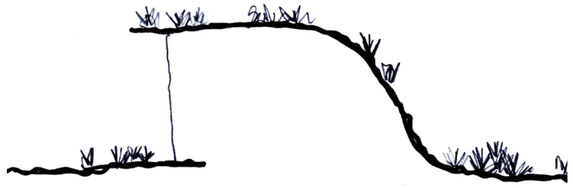
FIGURE 112 Refuge Extending into the Landscape (by author)

Concept 2 - Extension of the Landscape

The architectural concept of “Nature Integration” is centered around seamlessly blending the built environment with the natural world to create spaces that promote wellbeing, harmony, and sustainability.

This concept envisions the building seamlessly merging with the natural landscape. Materials excavated during construction are thoughtfully reintegrated into the design. This approach fosters an ongoing interaction between the environment and the architectural structure, effectively turning the building into an extension of the surrounding landscape. In this symbiotic relationship, the building harmonizes with its natural surroundings.

Victims of domestic violence often experience isolation and trauma. The building’s harmonious integration with the natural surroundings allows residents to feel more connected to the natural world, providing a sense of comfort, normalcy, and respite from the distressing experiences they have endured



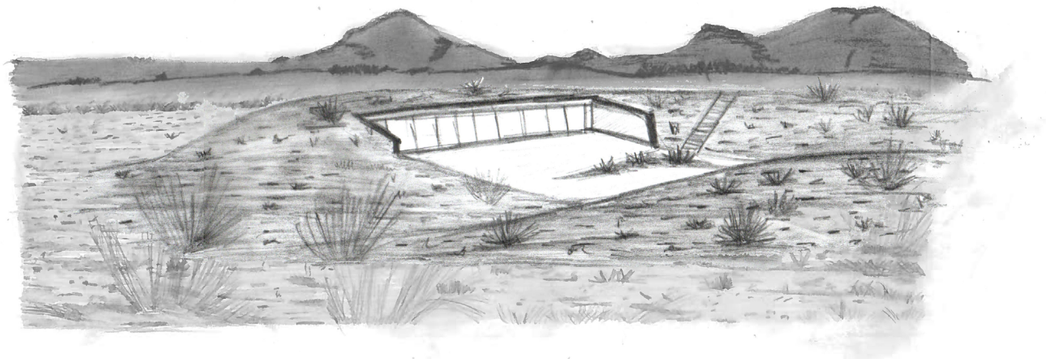


FIGURE 113 Building up the Landscape (by author)

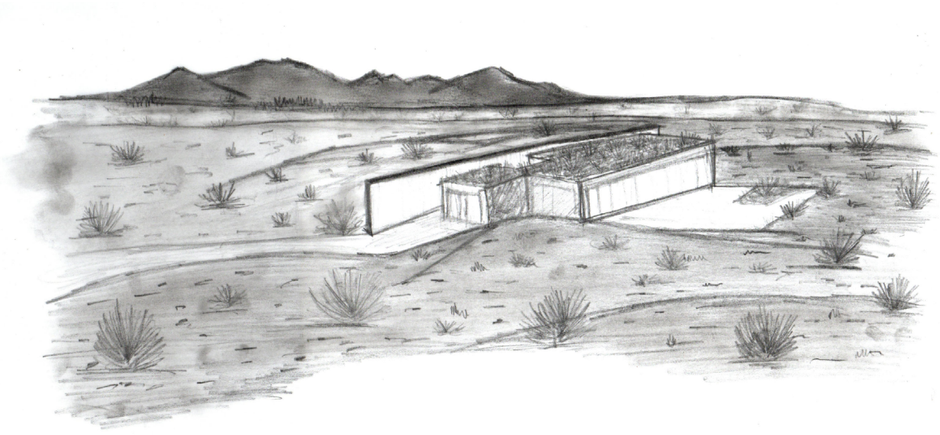


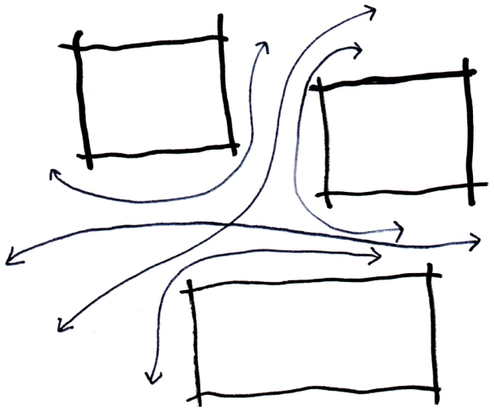
FIGURE 114 Cutting into the Landscape (by author)

Concept 3 - Route/Journey

The architectural concept of “Route and Journey” is a dynamic and experiential approach that focuses on guiding individuals through spaces while creating a meaningful and memorable journey.

The ‘Route and Journey’ concept for this sanctuary instills curiosity and empowerment in its occupants. The path residents take through the facility is purposeful, guiding them from intake and assessment to therapy sessions and communal support spaces.

Much like how a well-framed view sparks a desire to engage with the surroundings, the architectural journey encourages DV victims to engage with the supportive resources and services available to them. The design becomes an active participant in the healing process, offering a narrative of resilience and empowerment that helps residents regain control over their lives.”



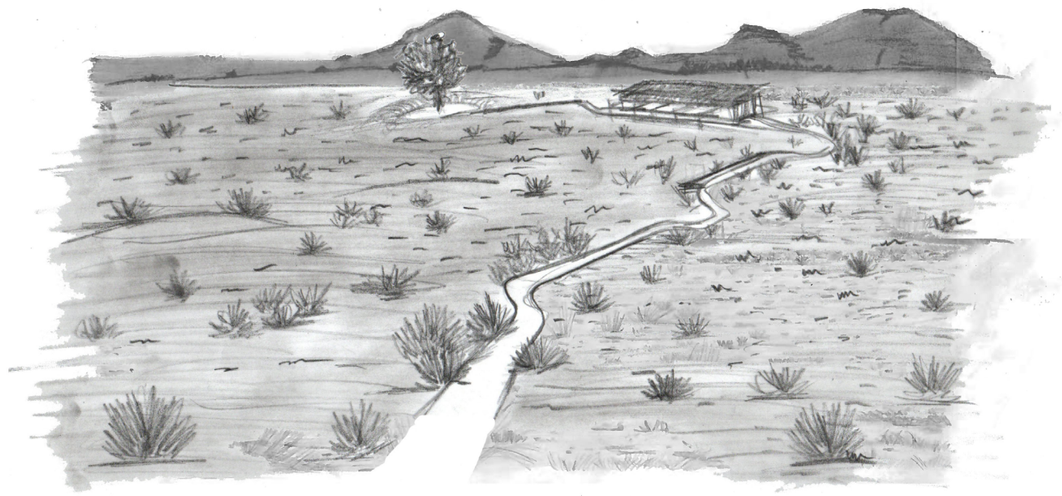


FIGURE 115 Creating a Journey Through the Landscape and Building (by author)

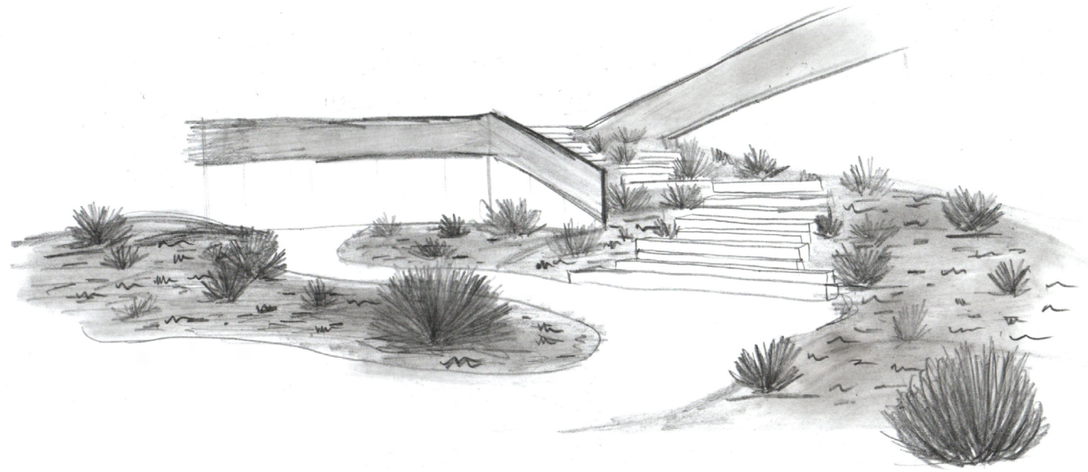


FIGURE 116 Journey through the Building (by author)

Conceptual Collages
Housing

The collage depicted below delves into the envisioning of a secluded sanctuary, specifically the accommodation units designed for women and children. This sanctuary seamlessly connects them to the serene landscape and provides them with picturesque views of the surrounding landscape.

In crafting the material palette, a delicate balance between tranquillity and warmth is sought, with a deliberate avoidance of any clinical sterility. Consequently, the collage explores the use of timber as a means to imbue the space with a softening effect, creating a soothing ambiance.



FIGURE 117 Atmosphere of Housing Interior (by author)

Conceptual Collages
Healing

The concept of “Refuge and Reveal” plays a pivotal role, aiming to seamlessly integrate natural elements and views while ensuring that women feel secure and protected. Within therapeutic spaces, the idea takes shape by designing quieter, more protected areas on lower levels, fostering a sense of refuge. These spaces incorporate features like private seating, soft lighting, and sound insulation to create a serene and protective atmosphere. Higher levels are dedicated to more active and vibrant spaces, offering panoramic views of the surrounding landscape through architectural elements that frame and enhance the natural vistas, fostering a connection with the outdoors.

In addition, considering the therapeutic process as a journey allows for the tailoring of spaces to the specific needs of individuals at different stages. The entrance area serves as the starting point, designed to create a welcoming and reassuring environment, guiding visitors on their therapeutic journey. Intermediate spaces provide opportunities for contemplation and introspection with elements like natural lighting and comfortable seating. Spaces for group therapy or medical consultations are inviting, open, and adaptable, accommodating a variety of therapeutic activities and interactions. Transitional zones act as emotional bridges between different phases of the healing journey.



FIGURE 118 Therapeutic Spaces - plays with the idea of refuge and reveal (by author)

Conceptual Collages
Gardens

Refuge and Reveal
Gardens can create refuge areas by strategically placing tall shrubs and trees to provide seclusion and privacy. These hidden nooks, concealed by lush vegetation, serve as safe, enclosed spaces for relaxation and contemplation. On the flip side, the garden design can reveal gradual vistas along winding pathways, inspiring a sense of wonder and discovery.

Route and Journey
Meandering garden paths guide visitors on a structured journey through the landscape, allowing them to experience the garden in a deliberate sequence. This journey can be further enhanced by creating distinct stages or chapters, each with its own purpose or theme. Transitional zones act as bridges between different garden features, facilitating reflection and a gradual shift in atmosphere along the journey.

Extension of the Landscape
Gardens can borrow scenic views from the surrounding landscape, extending the perception of space beyond their boundaries. By using native plants and flora that naturally thrive in the local landscape, gardens can blend seamlessly with the larger ecosystem. Additionally, creating habitats for local wildlife, such as birds and butterflies, turns the garden into an extension of the natural environment.



FIGURE 119 Healing Garden (by author)

Finding Form - Concept Sketches

Given the absence of an urban context that would typically define a building's form and placement on the site, I encountered a significant challenge in determining the direction of the structure's design. To overcome this challenge, I focused on crafting a seamless, uninterrupted route that would guide individuals on a compelling journey through both the surrounding landscape and the architectural space.

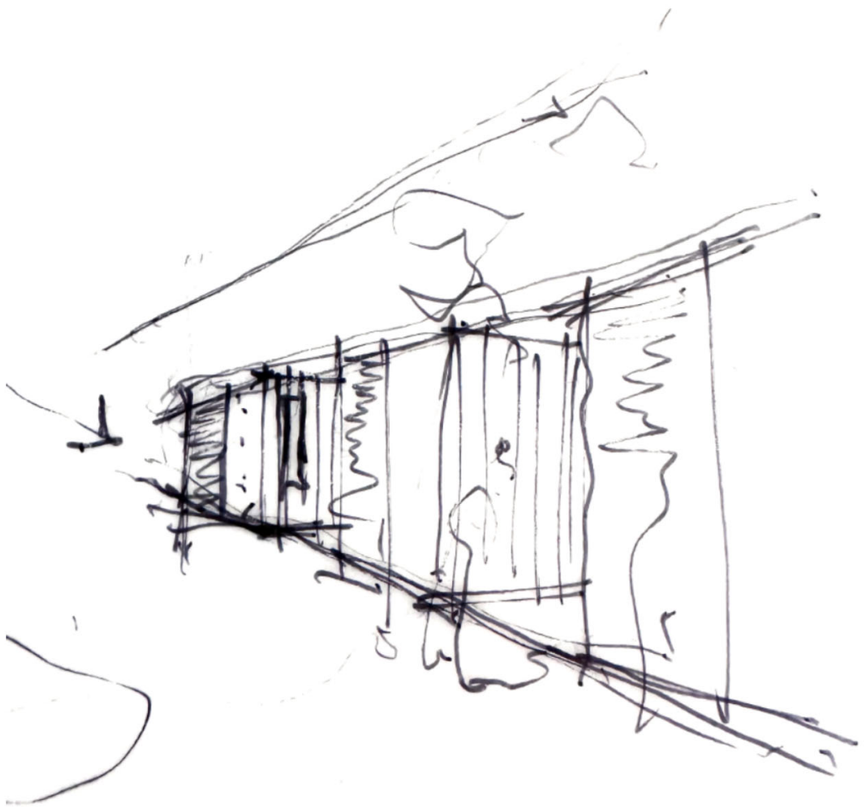
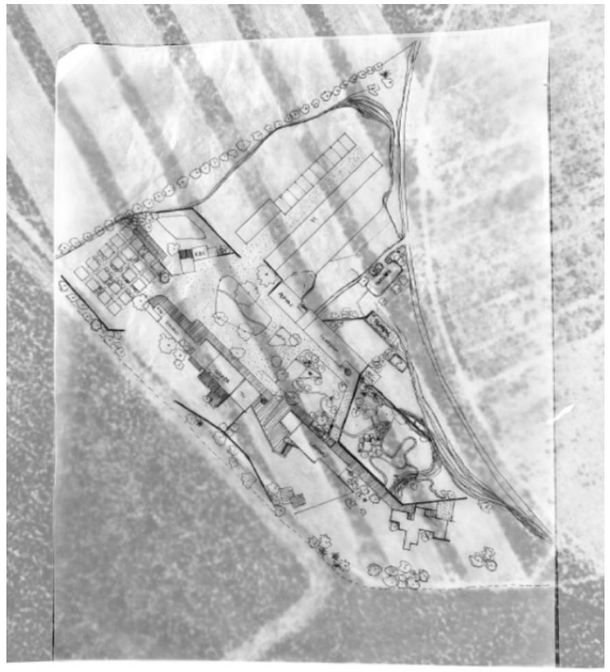
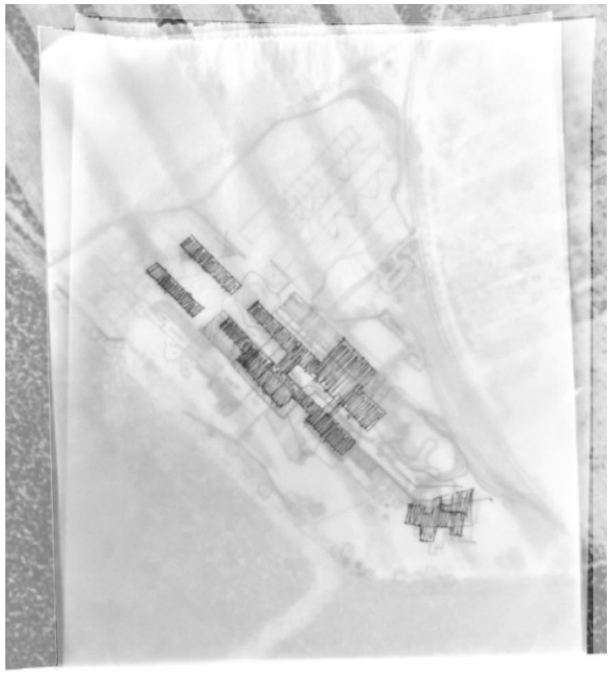
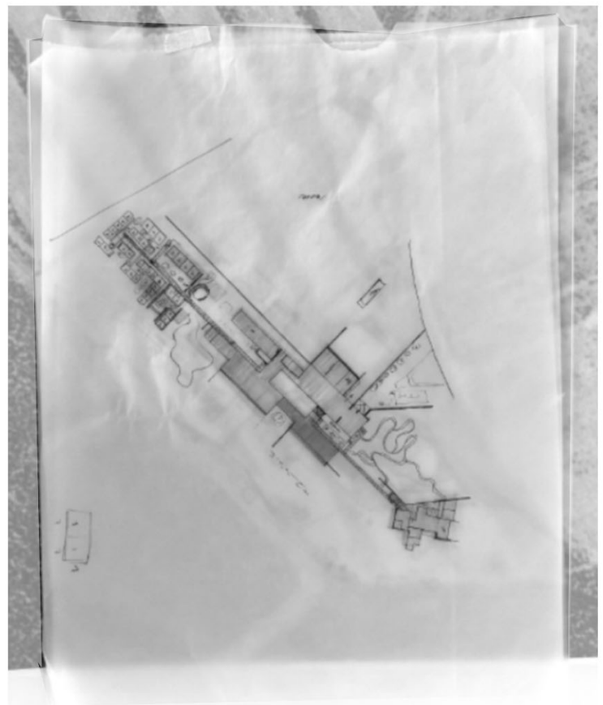


FIGURE 120 Preliminary Sketches (by author)









Finding Form - Model Making

Model making played a pivotal role in navigating the challenge posed by the absence of an urban context in defining the form and placement of the building on the site. Through iterative model iterations, I could explore how the structure would interact with the surrounding landscape. I focused on creating an uninterrupted, seamless journey for users—testing routes, sightlines, and spatial dynamics.

The tactile nature of model making allowed me to physically trace and refine the proposed route, ensuring a harmonious experience for individuals moving through the space.

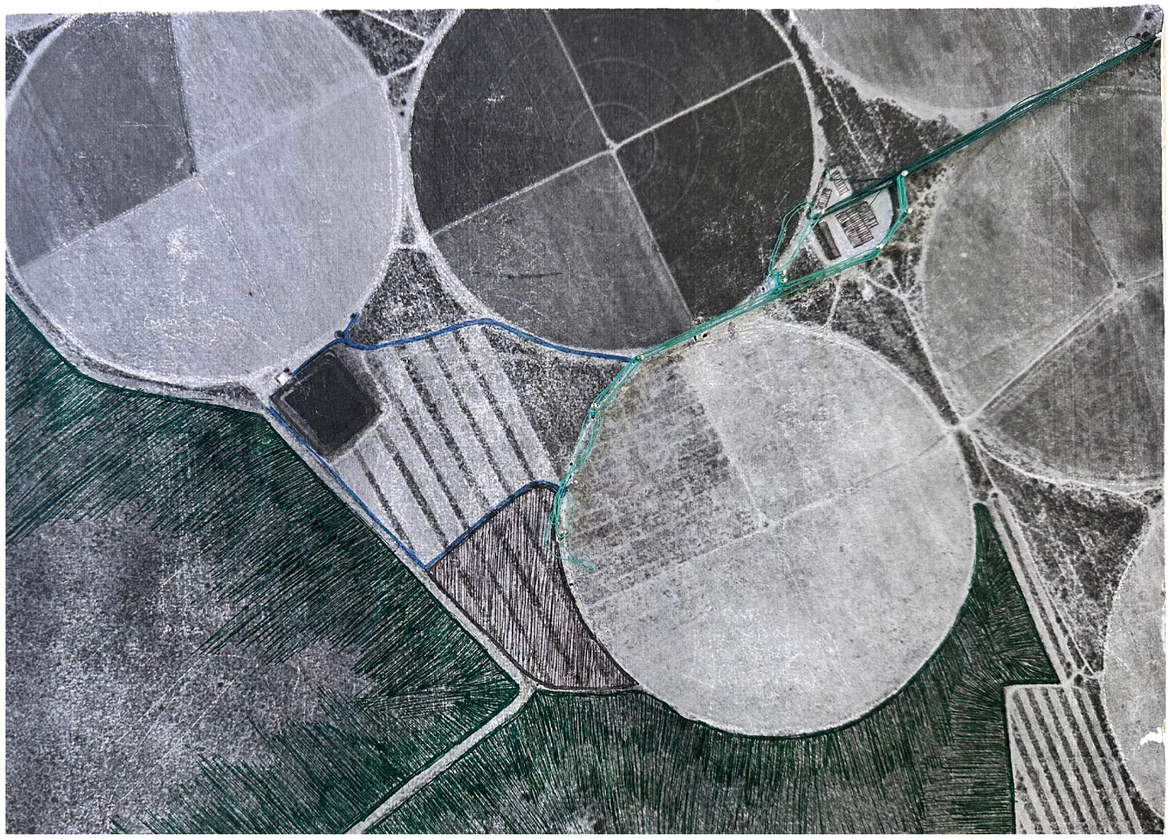
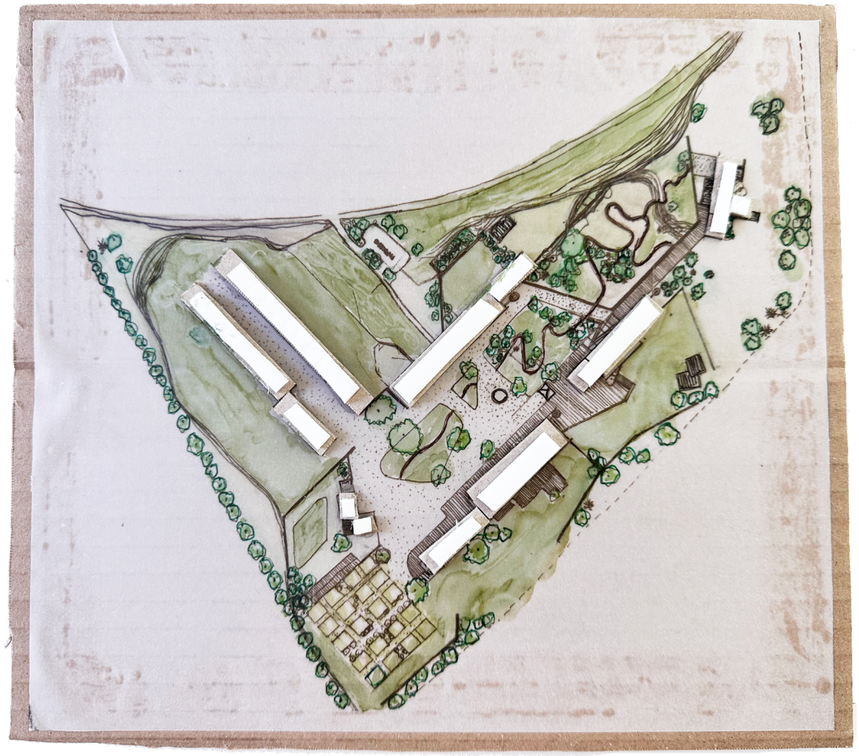


FIGURE 121 Urban Context (by author)



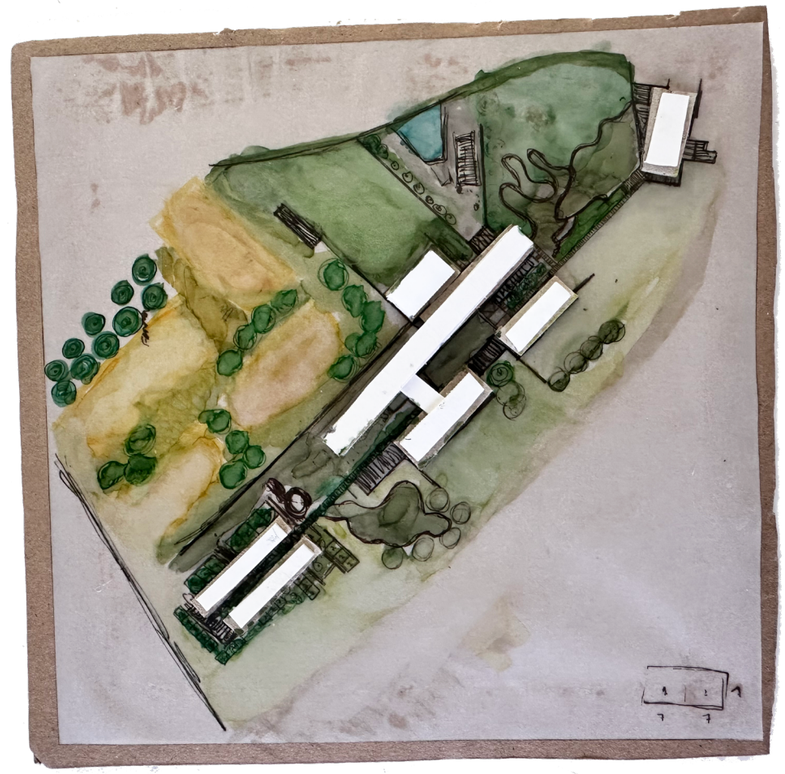


FIGURE 122 Layout Development (by author)

Preliminary Drawings

The ground floor plan offers a well-considered arrangement of spaces on split levels, carefully designed to provide varying degrees of privacy. The building is strategically oriented to offer captivating views of the mountains. Notably, the more frequently visited or public areas are situated at a higher level compared to the more private zones.

At the elevated level, there's convenient access to the computer centre, along with a split-level descent leading to the library. Upon returning to the entrance area, descending the steps from the entrance lobby guides visitors into a realm of more private communal living spaces. Sightlines between these areas are thoughtfully incorporated to enhance safety and a sense of protection.

Adjacent to the communal spaces, there's a dedicated children's day facility where lessons are provided for the younger ones, while after-school care is available for older children. Returning to the lounge area, residents have the option to ascend the stairs to their units, venture outside to additional housing, or traverse the hallway towards the dining spaces. In this area, a generously sized multipurpose space is provided, which can also serve for various other functions, complemented by a fully furnished kitchen.

Prior to entering the computer centre, visitors have the choice to step outside towards the healing centre. This area offers a range of both large and small spaces, staffed by professionals who are available to support individuals along their healing journey.

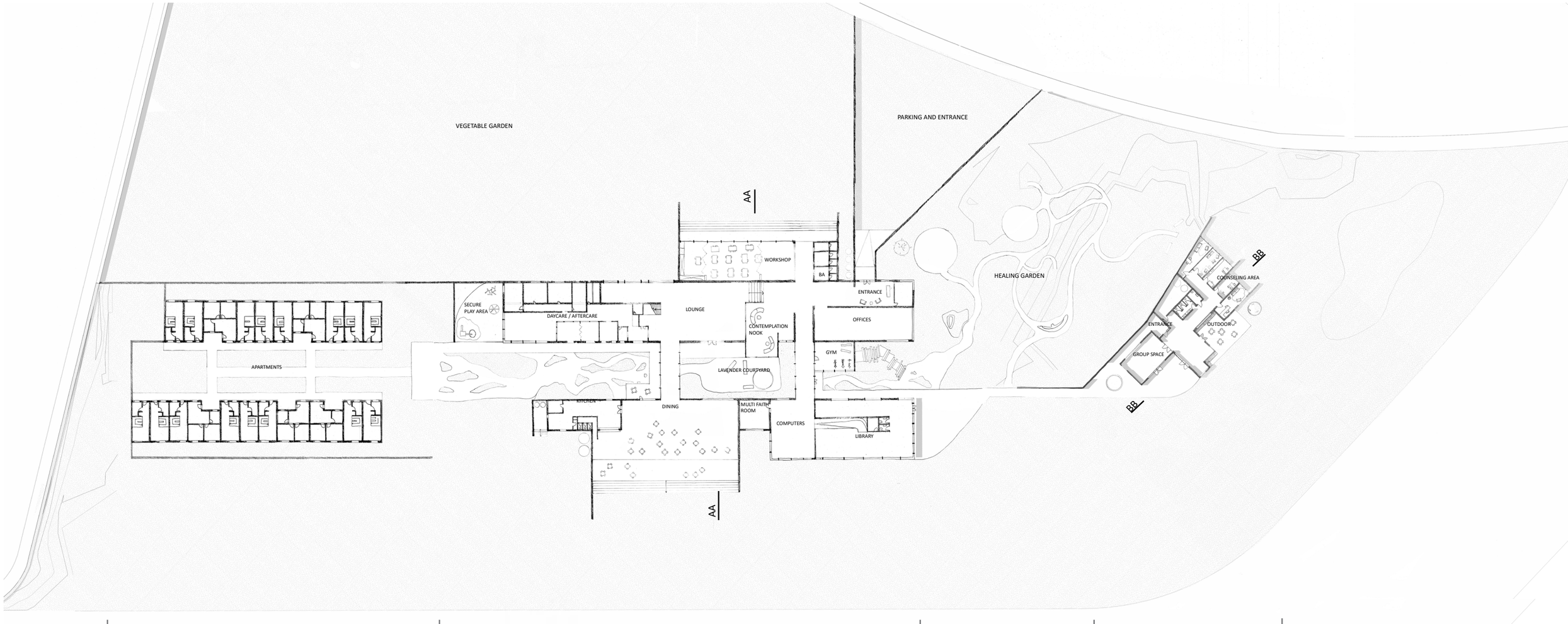


FIGURE 123 | Ground Storey Plan (by author)

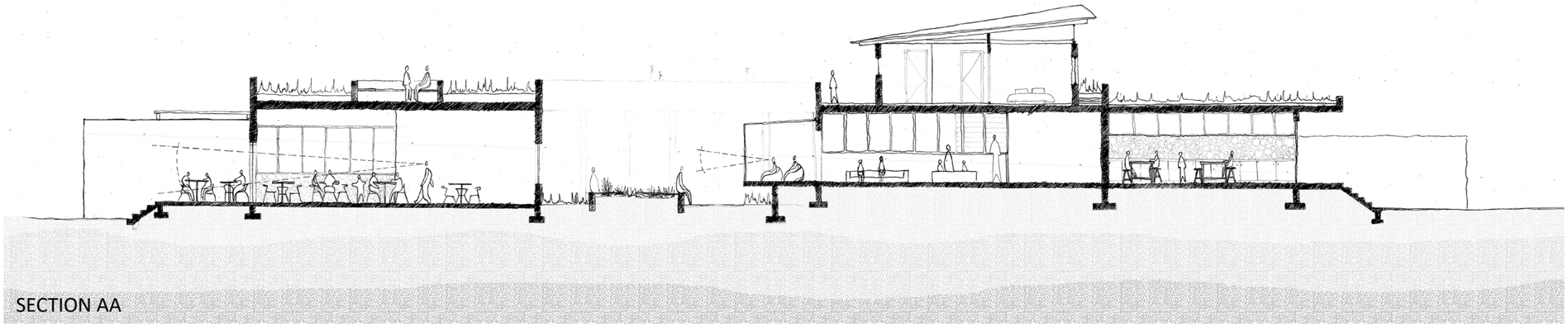


FIGURE 124 Section AA: through the Central Courtyard (by author)

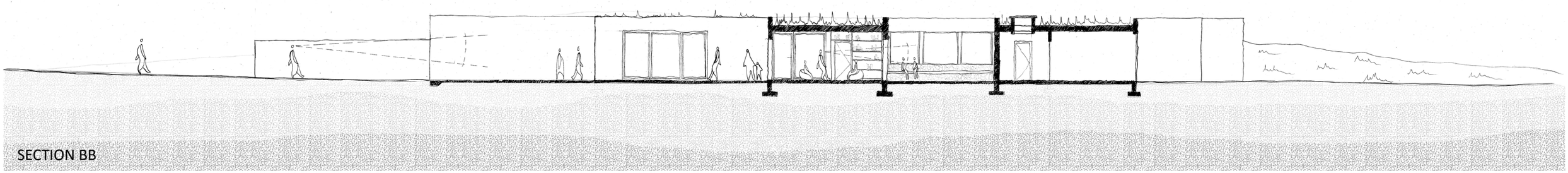


FIGURE 125 Section BB: Through the Healing Centre (by author)

Section AA offers an insightful view of the main building's interior layout. It intersects the workshop areas and the contemplation space, revealing the intricate relationship between the central courtyard and these meditative spaces. The design incorporates a clever play of split levels, skillfully balancing the dynamics of refuge and reveal. The building gracefully descends into the landscape at both ends, with long stone walls further strengthening the connection to the natural surroundings. Additionally, rooftop gardens provide serene contemplative areas, blending harmoniously with the architectural design.

Section BB delves into the therapeutic spaces, accentuating the presence of vegetated roofs. Within the interior, the spaces are thoughtfully diversified in size, aiming to create a sense of scale diversity and cater to a spectrum of activities. To ensure well-illuminated areas in the building's darker zones, cleverly designed light wells introduce additional natural light. Furthermore, large windows frame abundant views of the encompassing natural landscape, enhancing the overall experience within the structure.

Changing the Layout - Developing a New Form

Following the mock exam, I received valuable guidance from both examiners and lecturers. It became evident that the buildings required stronger integration with the natural landscape. This involved the creation of additional protected outdoor spaces, aiming to reduce the clinical ambiance within the building.

As a response, the building underwent a notable transformation, embracing concepts of reveal and refuge across various levels. This shift aimed to not only enhance the overall aesthetics but also foster a harmonious integration with the surrounding environment while emphasising the essence of refuge throughout the site.

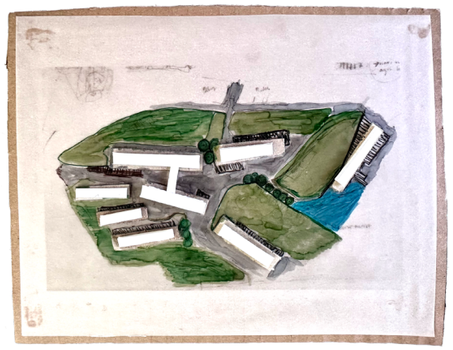




FIGURE 126 Restructuring the Layout (by author)

The New Form

Dividing the former structure enabled the creation of multiple buildings, each serving different purposes. Positioned to embrace the breathtaking mountain ranges, these buildings offer stunning vistas. This design aims to grant every building access to either serene garden landscapes or awe-inspiring mountain panoramas.

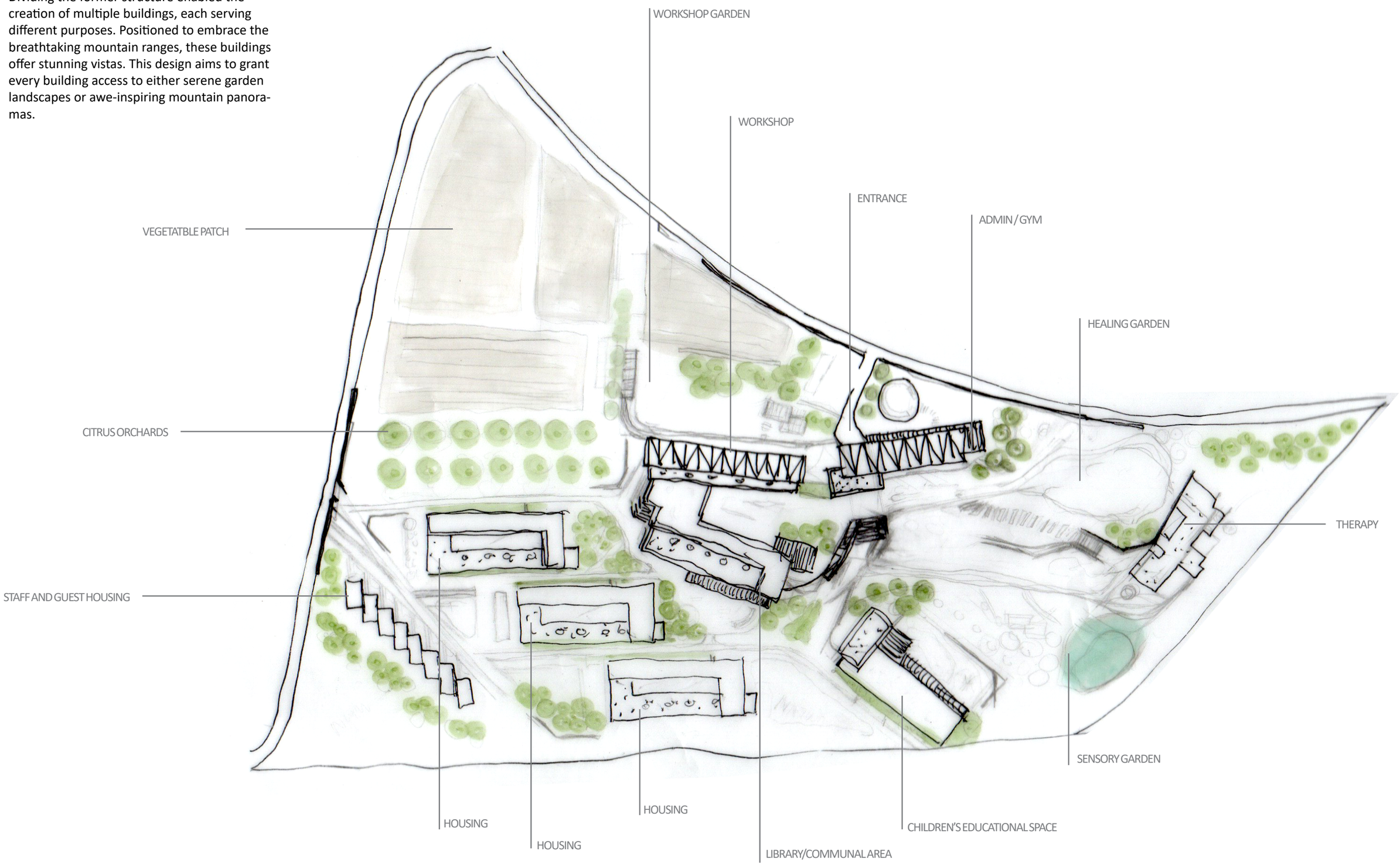


FIGURE 127 | Proposed Layout (by author)

Diagrams of Ordering

In the initial design phase, I utilised diagrams to convey the foundational concepts (refer to figures 128 to 131). These diagrams reveal the integration of conceptual ideas and the subsequent logic guiding the design.

The first diagram (Figure 128) focuses on privacy levels in the sanctuary, distinguishing public, semi-private, and private spaces. Larger orange areas represent public zones connected to outdoors, yellow signifies semi-private zones like consultation and therapy spaces, while grey indicates the most private residential units. Nooks within these private spaces offer extra seclusion, creating retreats within communal areas. The more private areas are intentionally placed at the site's edges for enhanced seclusion away from public noise.

The second diagram (Figure 129) focuses on the flow within the site. The diagram illustrates how outdoor pathways are meticulously crafted to guide individuals on an immersive journey through the surrounding landscape. The design deliberately integrates these outdoor pathways to not just connect spaces but to create an experiential journey, allowing occupants to engage with and appreciate the natural environment as they move through it.

The third diagram (Figure 130) delves into the visual connections to nature. It highlights how the design strategically integrates views of the natural surroundings within the sanctuary. Large windows and carefully positioned openings aim to frame picturesque views of the landscape, allowing ample natural light to filter in. These intentional visual connections not only bring nature indoors but also create a sense of harmony and tranquillity, fostering a healing environment for occupants.

The final diagram explores the vital connection to nature, signifying the extension of the building's walls into the surrounding landscape. (Figure 131) Moreover, the site's layout aims to enhance the natural environment through the healing garden, effectively creating an elevated vantage point on top of the therapy building. This elevated position affords a panoramic view of the critically biodiverse area, offering a profound connection to the landscape.

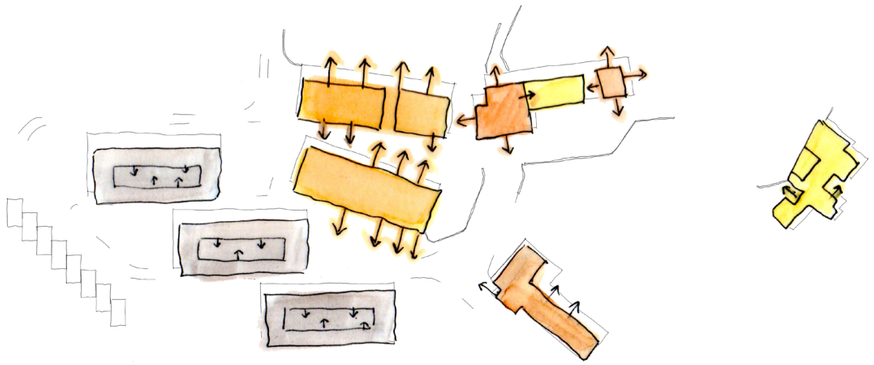


FIGURE 128 | Levels of Public and Private
(Author, 2022)



FIGURE 129 | Route and Journey
(Author, 2022)

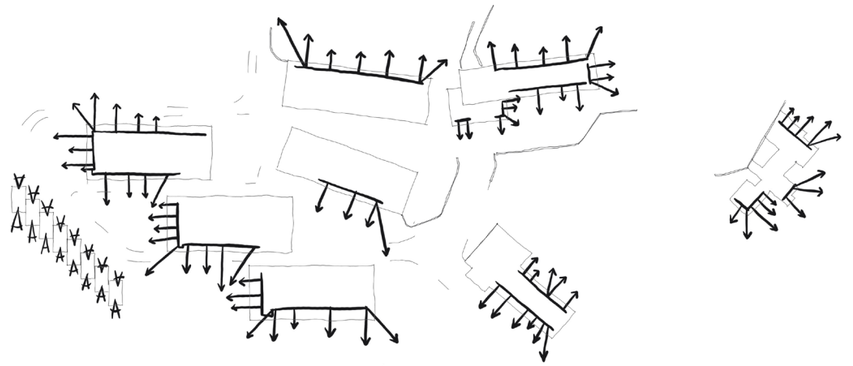


FIGURE 130 | Visual connection to nature
(Author, 2022)



FIGURE 131 | Connecting to nature
(Author, 2022)

PART SEVEN

13. Conclusion

This research journey has shed light on the profound impact that architectural design can have on creating healing environments. It underscores the dynamic and transformative nature of space, as it plays a pivotal role in influencing our mental and emotional well-being. The relationship between architecture and healing is undeniably powerful, with the capacity to offer solace, safety, and empowerment to survivors of abuse, propelling them onto a journey of recovery and self-discovery.

Architecture, as a healing force, presents boundless potential, offering individuals in need an opportunity for new beginnings and brighter horizons. The development of the design framework and its integration into the design concepts highlights the importance of a thoughtful and purpose-driven approach to creating effective healing spaces.

This dissertation journey has contributed valuable insights into the fundamental mission of nurturing healing, fostering a profound sense of place and belonging, and employing architectural spaces to protect and empower survivors of domestic violence. The core intention of the project is to design a healing environment that serves as a refuge and a source of empowerment for survivors. It aims to provide a secure and nurturing space where individuals can embark on their journey of healing, recovery, and self-discovery, promoting well-being, protection, and dignity.

Through considerate architectural design and a comprehensive program, the project intends to offer more than just shelter. It aspires to be a catalyst for personal transformation, offering spaces designed to provide solace, safety, and reconnection with nature. This project is a testament to the potential of architecture to empower survivors, helping them rebuild their lives and find renewed purpose and self-sufficiency.

The project has evolved into a building deeply rooted in the principles of refuge and reveal, journey and route, and the extension of the landscape. The architecture extends beyond physical structures, reflecting the profound symbiosis between design and well-being. The spaces within the building are dynamic catalysts for change, mirroring the transformative experiences of those who inhabit them.

With a comprehensive program and skills development initiatives, the project aims to provide not only shelter but also nurture resilience and self-sufficiency. It is a testament to the enduring human spirit, offering a sanctuary and a pathway to new beginnings.

Ultimately, this project intends to demonstrate the profound potential of architecture in supporting the healing process, both physically and emotionally. It embodies the belief that architecture can play a pivotal role in helping individuals overcome trauma and adversity, offering them a fresh start on their journey towards a brighter future. The building represents a beacon of hope, a place where healing, growth, and empowerment begin.



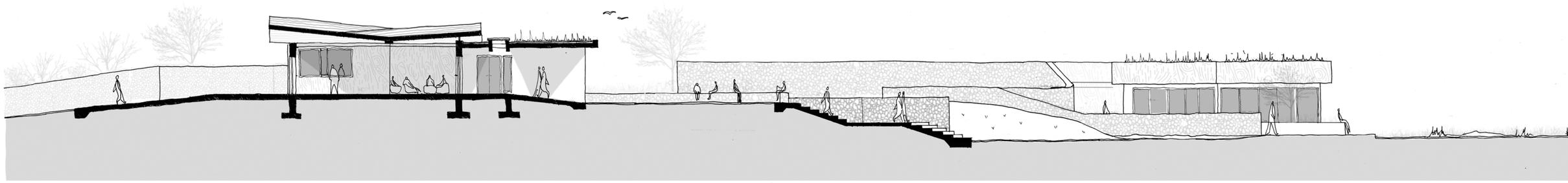
GROUND FLOOR
1:200



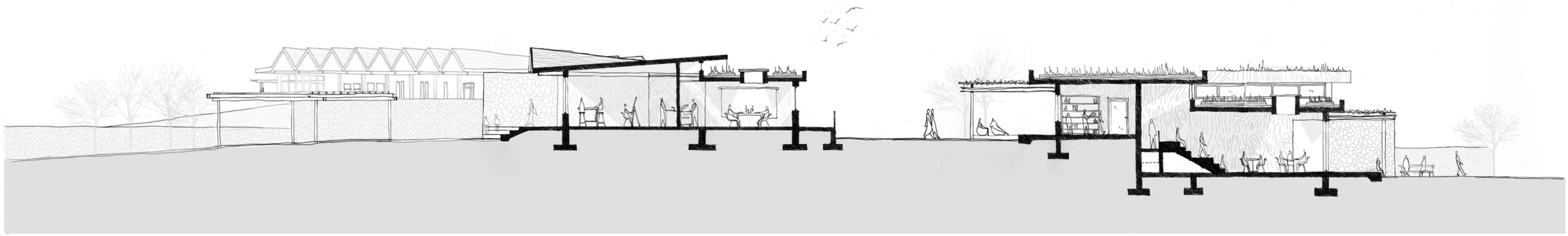
FIRST FLOOR
1:500



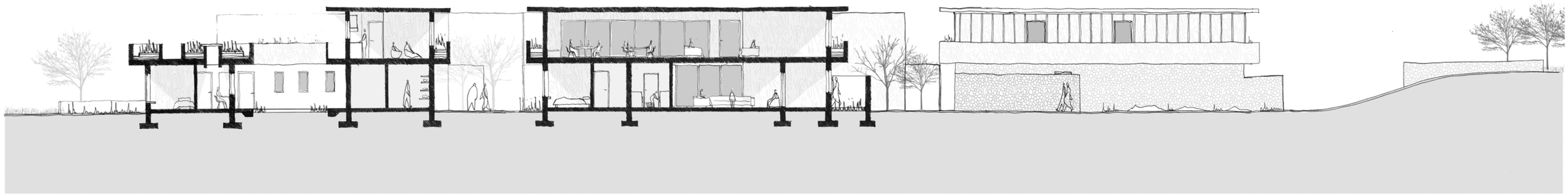
ROOF PLAN
1:500



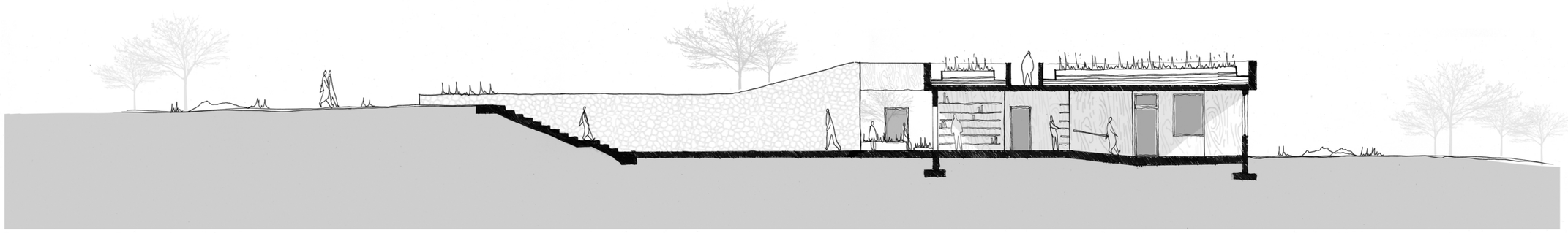
SECTION AA
1:100



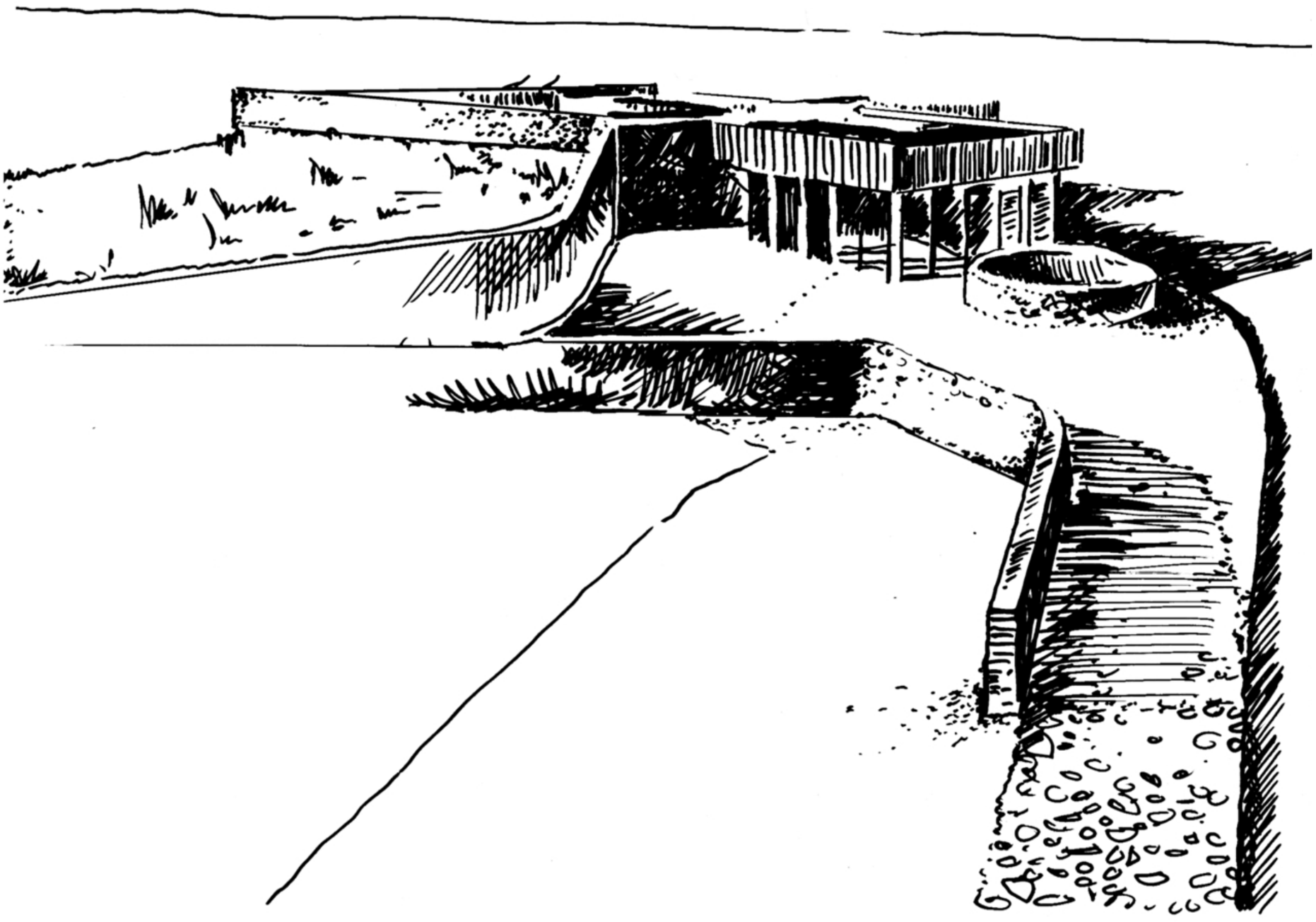
SECTION BB
1:100



SECTION CC
1:100

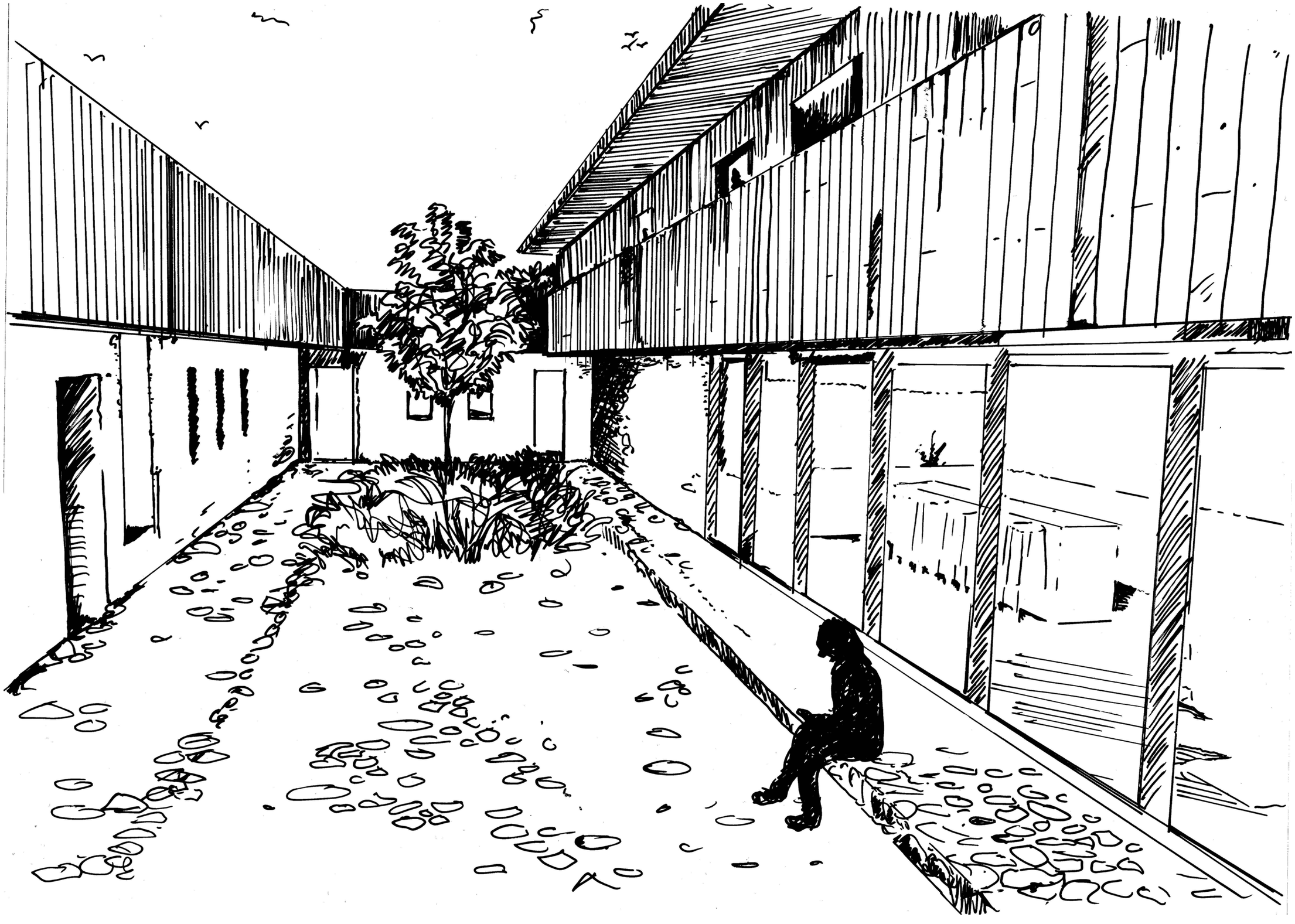


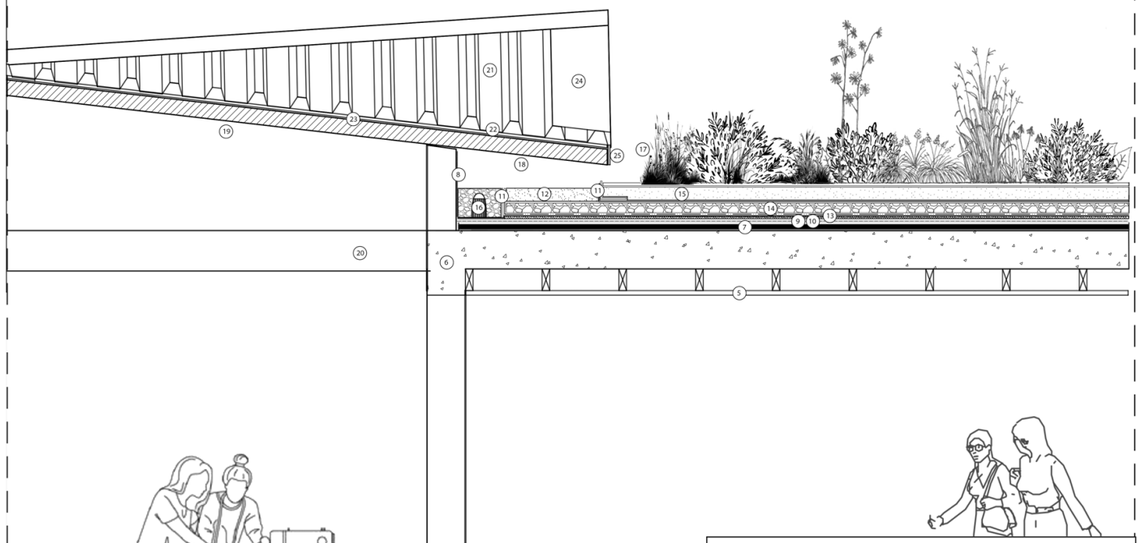
SECTION DD
1:100





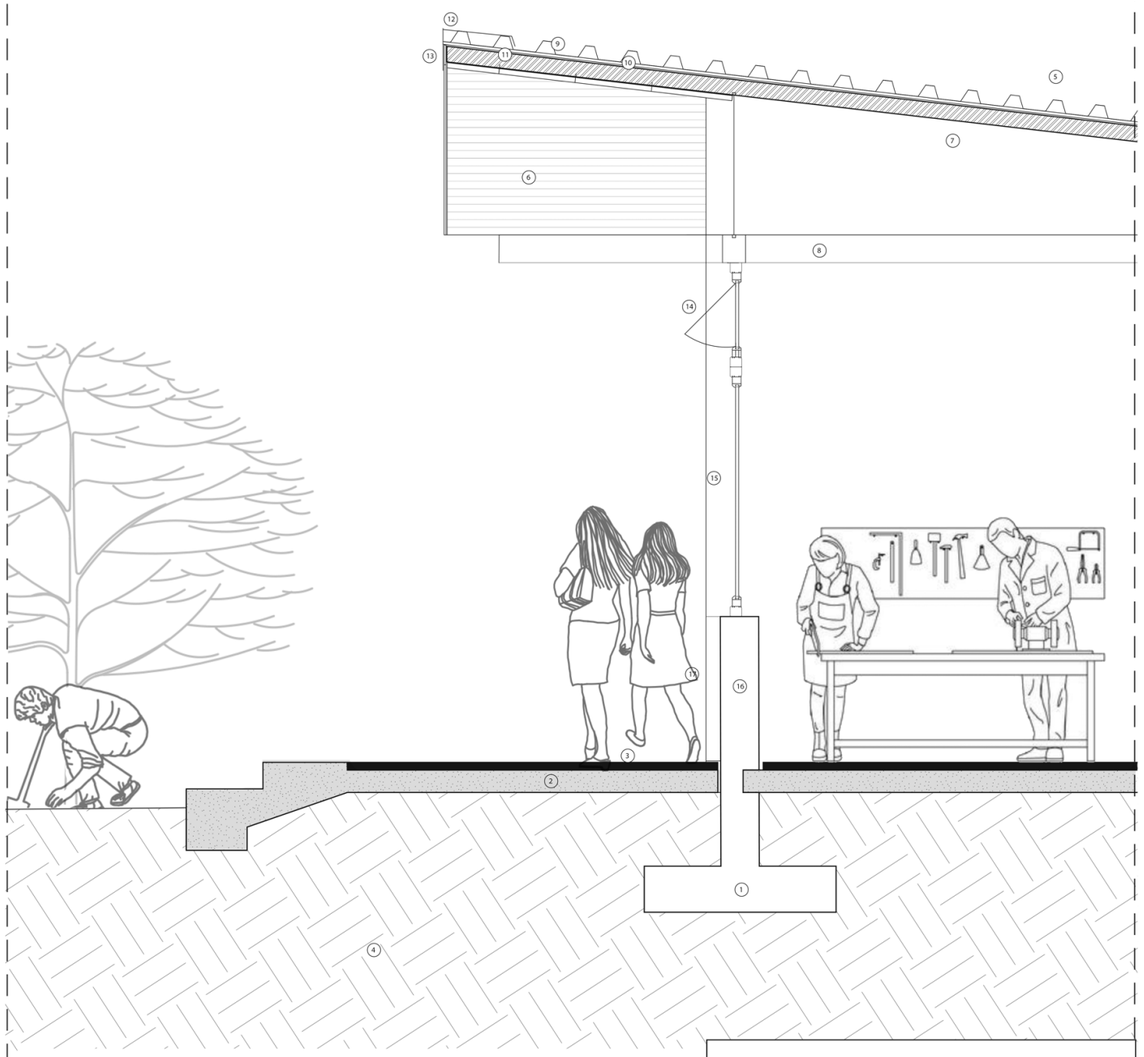






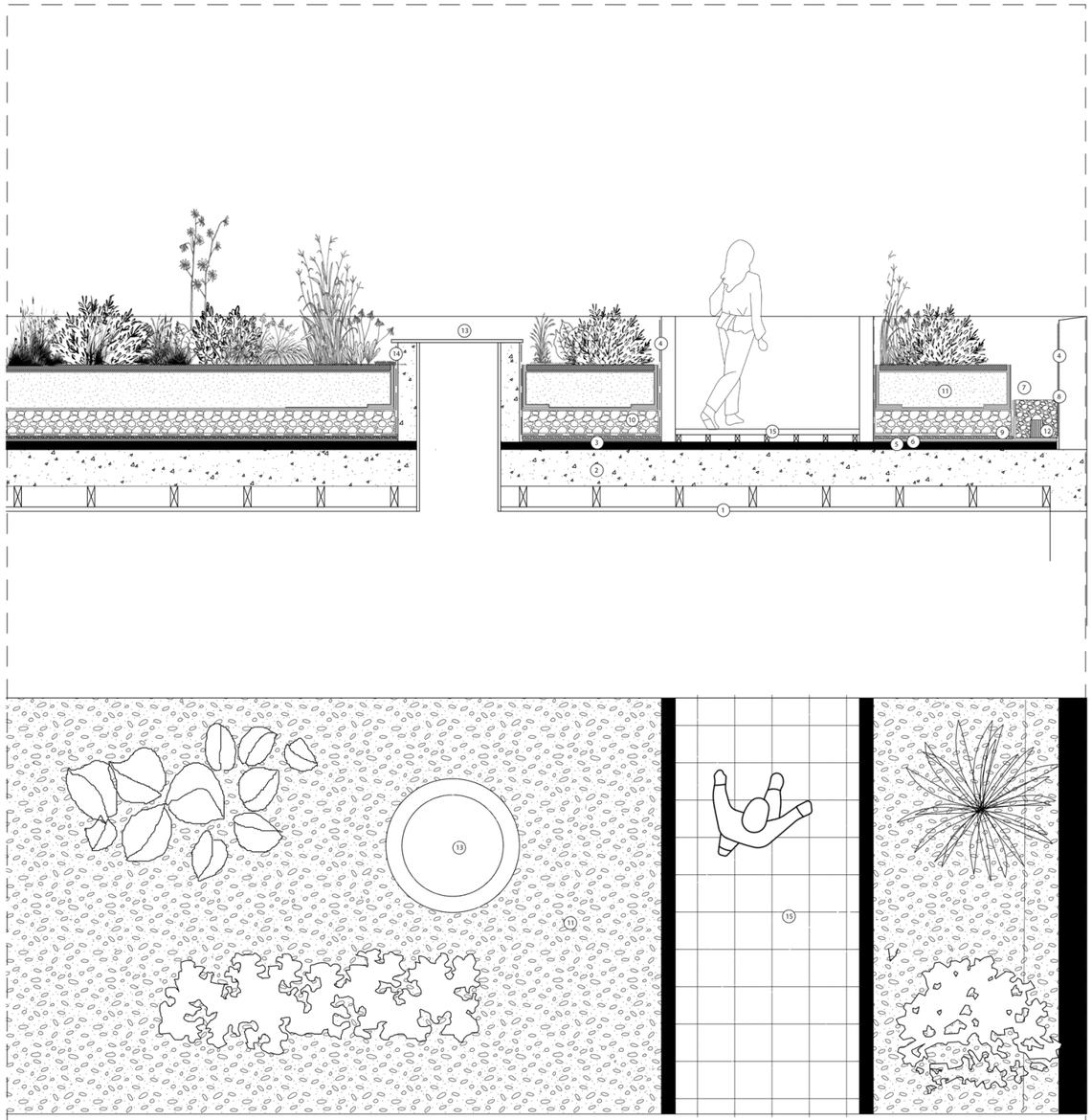
Work Shop Roof Connection
1:20

1 Foundation to Engineers Specifications
2 100 mm Reinforced Concrete Surface Bed
3 Screed flooring, Sealed
4 Compacted Fill
5 Ceiling Board
6 250mm Reinforced Concrete Slab
7 50mm Screed to Fall
8 Torched on Membrane up Parapet Wall
9 Protective Barrier
10 Root Barrier
11 Aluminum Curbing
12 Vegetation-free strip
13 Filter Fabric
14 Granular Drainage
15 Growing medium
16 Full Bore Drain
17 Rainwater from Roof to Fall into Valley Gutter and onto Green Roof
18 Underside of Roof Panel to be Cladded with Charred Timber Cladding Fixed to Battens
19 CLT Roof Panel Finger Joint to form Length. Fixed to Joist with Engineers Screws
20 CLT Joist to Engineers Details to support CLT Roof Panels. Fastened to CLT Column with Concealed Beam Holder
21 IBR Metal Roof Sheeting Fixed to Softboard
22 18mm Softboard Fixed to 100mm CLT Roof Panel @ 500 c/s to Allow for Ventilation
23 Vapor Barrier
24 IBR Steel Roof Sheeting Flashing Over Edge of CLT Roof Panel. Fixed at 500mm c/s
25 Barge Board Covered with Flashing



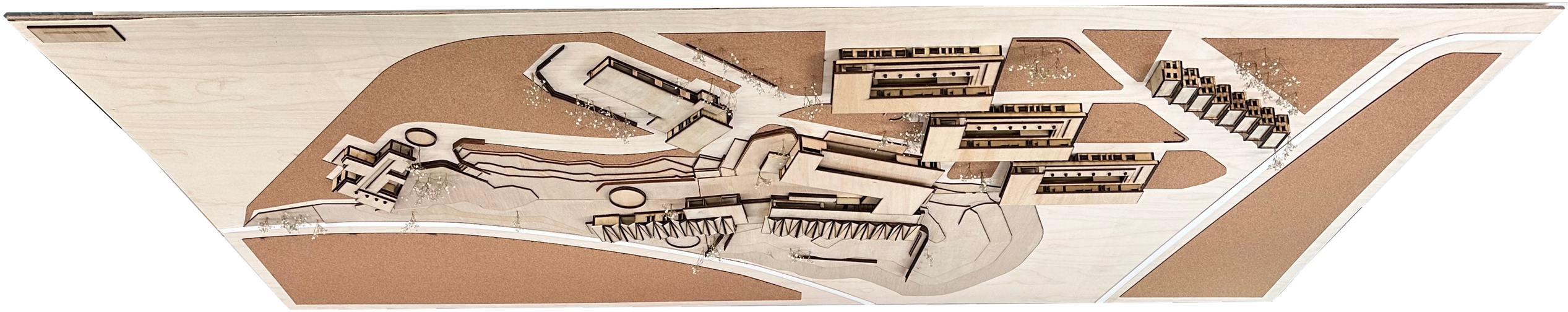
Work Shop Roof Connection 2
1:20

1 Foundation to Engineers Specifications
2 100mm Reinforced Concrete Surface Bed
3 Screed flooring, Sealed
4 Compacted Fill
5 Rainwater from Roof to Fall into Valley Gutter and onto Green Roof
6 Underside of Roof Panel to be Cladded with Charred Timber Cladding Fixed to Battens
7 CLT Roof Panel Finger Joint to form Length. Fixed to Joist with Engineers Screws
8 CLT Joist to Engineers Details to support CLT Roof Panels. Fastened to CLT Column with Concealed Beam Holder
9 IBR Metal Roof Sheeting Fixed to Softboard
10 18mm Softboard Fixed to 100mm CLT Roof Panel @ 500 c/s to Allow for Ventilation
11 Vapor Barrier
12 IBR Steel Roof Sheeting Flashing Over Edge of CLT Roof Panel. Fixed at 500mm c/s
13 Barge Board Covered with Flashing
14 Top Hung Aluminium Window to Manufacturers Detail
15 CLT Column Fixed to Concrete Surface Bed with Aluminium Plates | Exterior Face to be Clad in Steel
16 Loadbearing Cavity Brick Wall
17 Stone Exterior Finish



Work Shop Roof Connection
1:20

1 Ceiling Board
2 250mm Reinforced Concrete Slab
3 50mm Screed to Fall
4 Torched on Membrane up Parapet Wall
5 Protective Barrier
6 Root Barrier
7 Aluminum Curbing
8 Vegetation-free strip
9 Filter Fabric
10 Granular Drainage
11 Growing medium
12 Full Bore Drain
13 Skylight to Manufacturers Detail
14 Waterproofing Membrane up Wall
15 38mm Timber Decking





PART EIGHT

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Figure 5. Shopworks Architecture Group, 14 Engineering, University of Denver Centre for Housing and Homelessness Research. (2020) Trauma-Informed Design Framework. [Diagram] ArchDaily. Available at: https://www.archdaily.com/958099/form-follows-feeling-trauma-informed-design-and-the-future-of-interior-spaces [Accessed 12 June 2023]

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Figure 15. Ano, D. (2011) Curvilinear Light Well [Image]. DesignBoom. Available at: https://www.designboom.com/architecture/ryue-nishizawa-hiroshi-senju-museum-karuizawa/ [Accessed 12 October 2023]

Figure 16. Vyde. (2021) Main waiting area & reception [Image]. Behance. Available at: https://www.behance.net/gallery/112049311/Mind-over-matter [Accessed 12 October 2023]

Figure 17. Hufton + Crow. (2020) 7/11 Heatherwick Studio designs plant-filled Maggie's Centre in Leeds [Image]. Dezeen. Available at: https://www.dezeen.com/2020/06/12/heatherwick-studio-maggies-centre-leeds-architecture/ [Accessed 12 October 2023]

Figure 17. OMA. (2011) 7/11 Heatherwick Studio designs plant-filled Maggie's Centre in Leeds [Image]. Dezeen. Available at: https://www.dezeen.com/2020/06/12/heatherwick-studio-maggies-centre-leeds-architecture/ [Accessed 12 October 2023]

Figure 18. Ruault, P. (2011) 8/8 Maggie's Centre, Gartnavel Hospital, Glasgow. [Image] Architects Journal. Available at: https://www.architectsjournal.co.uk/archive/maggies-centre-gartnavel-hospital-glasgow-by-oma [Accessed 12 July 2023]

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Figure 20. Ruault, Philippe. (2011) 11/12 OMA designed Maggie Gartnaval Opens Today. [Image] ArchDaily. Available at: https://www.archdaily.com/173513/oma-designed-maggie-gartnaval-opens-today [Accessed 12 October 2023]

Figure 21. OMA. (2011) 9/12 Axon. [Diagram] ArchDaily. Available at: https://www.archdaily.com/173513/oma-designed-maggie-gartnaval-opens-today [Accessed 12 October 2023]

Figure 22. Ruault, P. (2011) 12/12 OMA designed Maggie Gartnaval Opens Today. [Image] ArchDaily. Available at: https://www.archdaily.com/173513/oma-designed-maggie-gartnaval-opens-today [Accessed 12 October 2023]

Figure 23. Author (2023). Journey of a Survivor | Leaving the Abuse [Collage]. Cape Town [2023, June]

Figure 24. Author (2023). Journey of a Survivor | In the Shelter [Collage]. Cape Town [2023, June]

Figure 25. Author (2023). Considerations [Diagram]. Cape Town [2023, June]

Figure 26. Author (2023). Empower [Collage]. Cape Town [2023, September]

Figure 27. Author (2023). Secure [Collage]. Cape Town [2023, September]

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UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA · UNIVERSITEIT VAN KAAPSTAD

2023/12/04

EBE/00155/2023

RE: Research Ethics Committee Project Approval Letter

Dear Teegan Isola,

Your application for ethics review of your project titled

Architectural Healing Spaces, How design protects, rehabilitates survivors of abuse

has been reviewed and evaluated by the

Engineering & Built Environment Committee.

You may proceed with your research project titled:

Architectural Healing Spaces, How design protects, rehabilitates survivors of abuse

Please note that should:

(i) any serious or adverse effects to participants occur and/or,

(ii) aspect(s) of your current project change and/or

(iii) any unforeseen events that might affect continued ethical acceptability of the project occur then you should immediately report this to the approving REC. You may be required to submit an amendment to this application, in order to determine whether the changed aspects increase the ethical risks of your project.

Based on the information supplied your application has been successful and is approved.

Please note the following additional conditions associated with this approval:

(i)

Regards,

Engineering & Built Environment Committee.