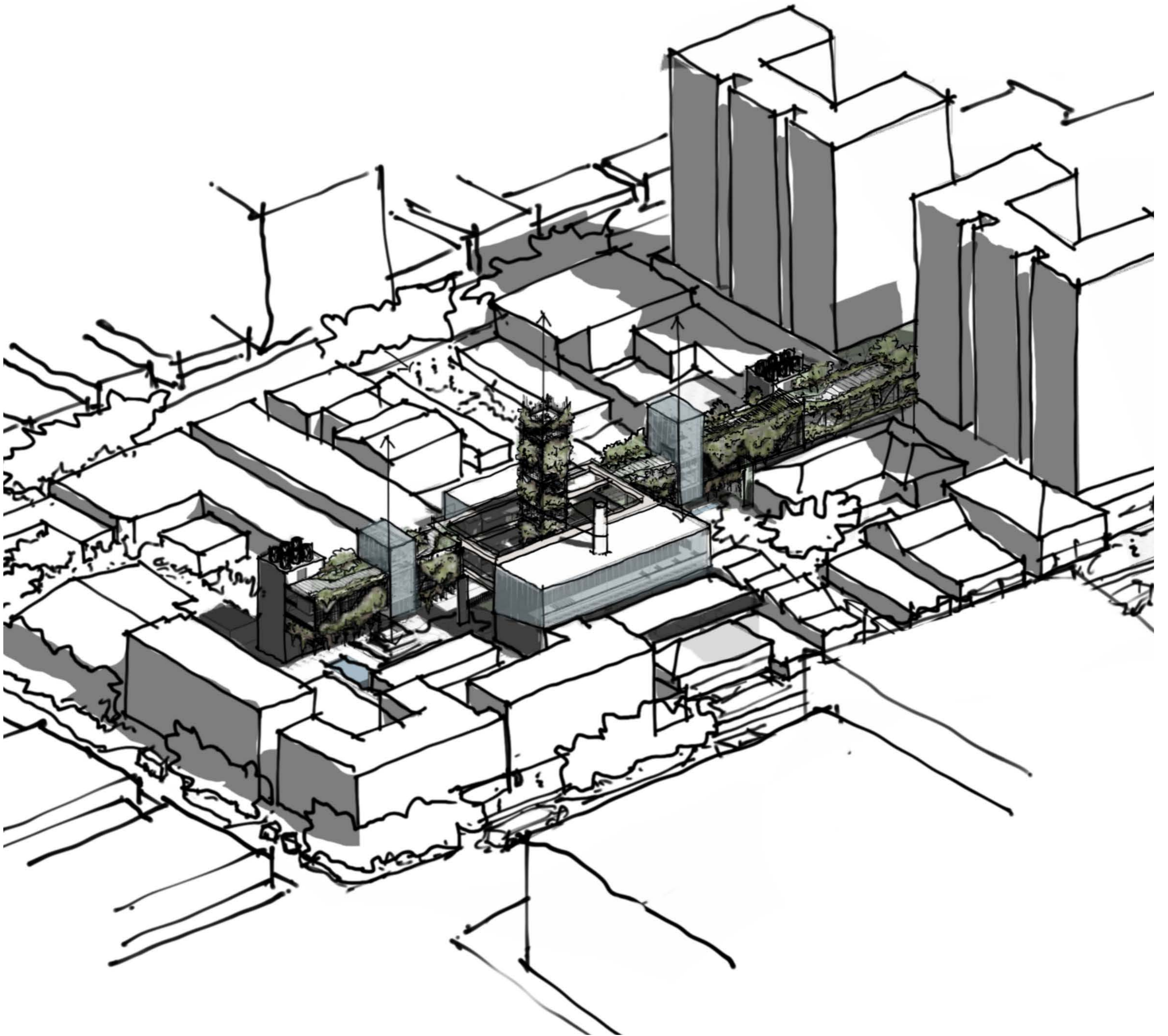


# KATLEHO HEALING CENTRE

An architectural strategy for the design integration of Traditional and Modern Healing for GBV survivors through food production in the city of Pretoria, South Africa.

## KATLEHO

The term Katleho is a common Sotho name that translates to *success* and *prosperity*. It conveys the idea of thriving or excelling, going beyond mere survival to a state of flourishing or accomplishing goals.

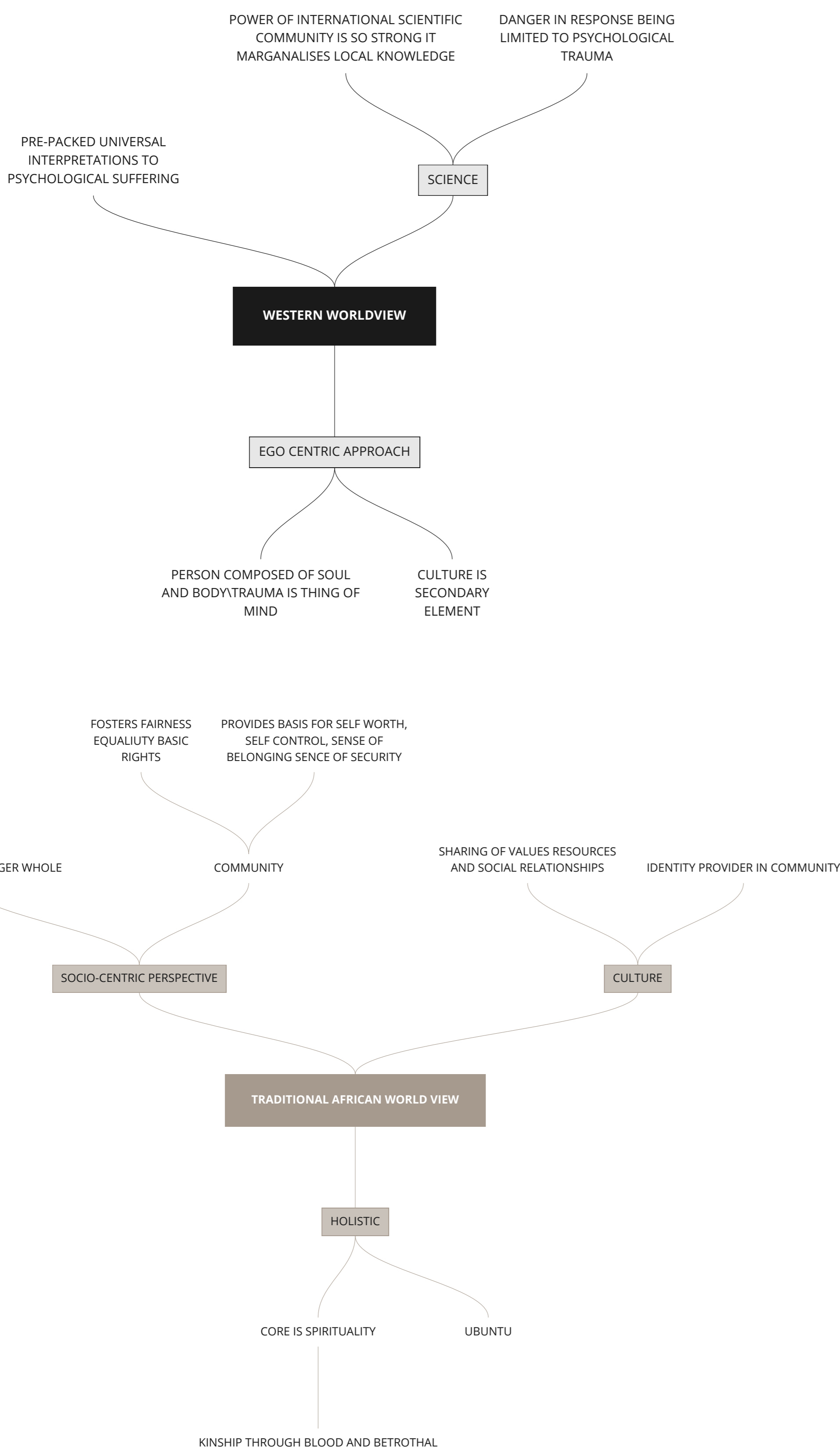
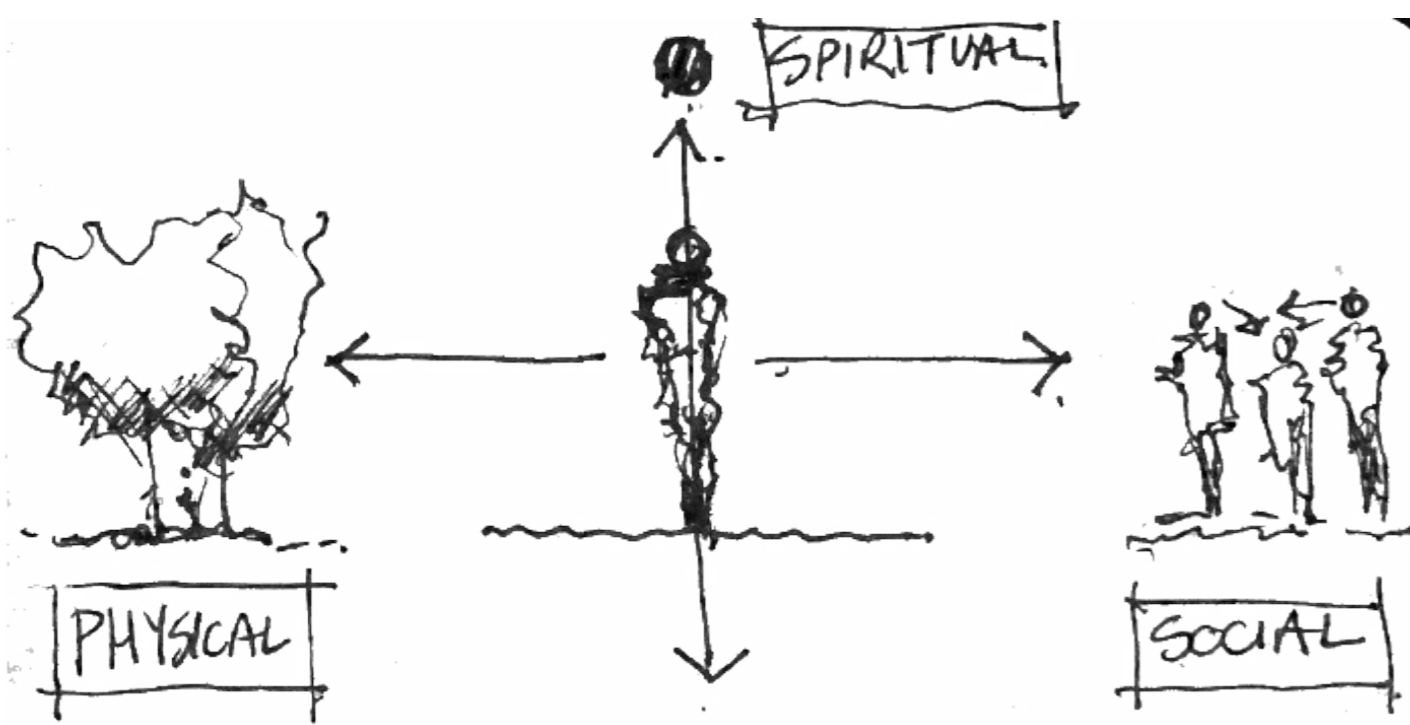


# VICTIMS POINT-OF-VIEW

According to Sinko & Saint Arnault (2019), the African worldview on healing is holistic, emphasizing the interconnectedness of physical, emotional, spiritual, and social well-being. It views healing as a communal process involving support from the community and connection to cultural beliefs, in contrast to the Western approach that focuses on individualized medical and psychological interventions. For survivors of GBV in South Africa, healing involves reconnecting with oneself, others, and the world, often through self-sufficiency, spiritual growth, and community engagement.

Posttraumatic growth is central to this healing journey, where survivors find meaning in their trauma, rebuild their identity, and regain control over their lives. They may use self-care practices, spiritual beliefs, and community support to manage their symptoms and foster autonomy (Sinko & Saint Arnault, 2019). African Religion (AR) offers a culturally relevant healing framework that focuses on community and spiritual connections, providing an alternative to Western methods that may not align with local values (Hemshorn de Sanchez 2003).

Despite these approaches, barriers like limited resources, shame, and cultural perceptions hinder GBV survivors' recovery. In communities like Mamelodi, the lack of accessible, culturally relevant mental health services and stereotypes about therapy prevent many from seeking help (Ruane 2010). Integrating traditional healing practices into psychological care, making it more community-focused and affordable, could bridge these gaps, offering a more resonant way to address trauma for survivors in South Africa (Ruane 2010; Hemshorn de Sanchez 2003).



# CURRENT PRACTICE

Women's shelters in South Africa, while providing critical support to survivors of GBV, fall short in addressing the full scope of long-term healing needs. These shelters mainly focus on short- to medium-term solutions, offering safe accommodation for up to six months, along with essential services like three meals a day, toiletries, childcare, and counseling. However, the healing process at these shelters largely concentrates on immediate safety, trauma acknowledgment, and initial processing of the experience. What is missing is a structured approach to long-term healing, particularly the integration of survivors back into society. The lack of comprehensive reintegration programs means that many women leave these shelters without adequate support to fully rebuild their lives and establish sustainable independence. Without ongoing mental health care, community support, and economic empowerment strategies, survivors face significant challenges in maintaining their progress and truly breaking free from the cycle of abuse. Expanding the focus to include long-term healing and reintegration is essential to create a more effective pathway to lasting recovery and empowerment.

**Saartjie Baartman Centre  
Cape Town**

Figure 06: Saartjie Baartman Centre, Cape Town (Google Earth 2024)  
24-hour emergency shelter (safe accommodation)  
Short and medium term residential care  
Childcare services  
Counselling, mental health support, legal and economic empowerment services  
Children's counselling  
Research in gender-based violence  
Job Skills training  
Legal advice

(saartjiebaartmancentre.org)

**Mali Martin Polokegong Centre  
Pretoria**

Figure 07: Mali Martin Polokegong Centre, Pretoria (Mali Martin n.d.)  
Developmental social services: safety, security, counseling, support, medical and educational assistance  
Outreach work: prevention, court assistance  
Empowerment programmes: social skills, training skills, children's program, support groups.  
Perpetrator Programme at the court.  
Human Trafficking safe house.

**Frida Hartley Shelter  
Johannesburg**

Figure 08: Frida Hartley Shelter, Johannesburg (Google Earth 2024)  
Job-skills training  
Accommodation up to 6 months  
3 meals a day  
Monthly toiletries  
Counselling and life skills training  
Entrepreneurial skills training

(fridahartley.org)

## CURRENT HEALING PROCESS

### 1. Acknowledgement



### 2. Safety



### 3. Processing



### 4. Integration



Limited in current shelters in South Africa

# A SHIFT IN WOMEN'S ROLES IN SOCIETY

Historically, women's roles in society have shifted dramatically—from being gender complementary in pre-historic times to becoming patriarchal and limiting during the colonial period and introduction of Westernisation in post-apartheid South Africa. Today, in a post apartheid South Africa, women have limited access to education and contradictingly, women in power threatens the parirchy system that still exists. South African culture today has become a mixture of tradition and alien elements, leading to a misinterpretation of women's roles in society.



**HUNTER-GATHERERS**  
Gender complimenting roles



**COLONIALISM & WESTERNISATION**  
Control  
Power  
Ownership

Capitalism & economic corrolation introduced  
Relationship shift to hierarchy  
SA became a patriarchy society



**POST-APARTHEID**  
Women have **limited access to education**  
Women in power **threatens the parirchy system** that still exists  
Contemporary African culture has become a **mixture of tradition and alien elements**

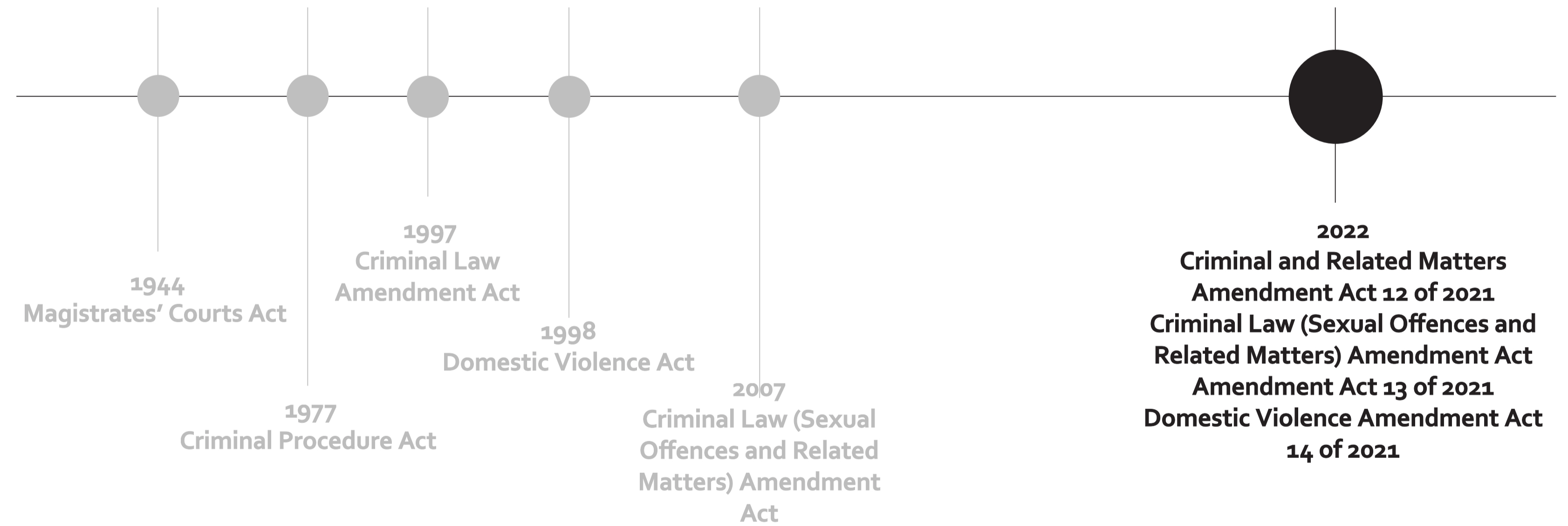
# CURRENT SYSTEMIC FAILURES

## LEGISLATION

The Sisterinlaw (2021) report highlights the persistence of GBV in South Africa due to **poor implementation of relevant legislation**. It criticizes the lack of urgency by the South African Police Service (SAPS) in addressing GBV, with victims often being sent back to resolve issues with perpetrators, rather than receiving the support required by the Domestic Violence Act (DVA) or Sexual Offences Act (SOA). A study by Tshwaranang found that many police officers lacked sufficient knowledge about the provisions and their responsibilities under the DVA. According to Vetton (2017), domestic violence is often treated as a social crime, which diminishes its seriousness in the eyes of SAPS members. **This poor response discourages victims from reporting GBV, further eroding public trust in the criminal justice system.**

## POLICY

In 2020, the South African government launched the National Strategic Plan on Gender-based Violence and Femicide (NSP-GBVF), aiming to tackle the high levels of GBV and femicide in the country. President Cyril Ramaphosa acknowledged the severe impact of these issues on the national conscience. According to HSRC (2023) Despite political will, progress has been hindered by challenges such as insufficient funding, budget constraints, and lack of effective coordination among government departments. Police and government staff have received inadequate training on legislative changes, while there are too few GBV desks at police stations and insufficient rape kits. Additionally, shelters for GBV survivors have faced a lack of financial support, limiting their ability to provide necessary care.



National Strategic Plan on Gender-based Violence and Femicide (NSP-GBVF) pillars.



**PILLAR 1**  
Accountability  
Coordination  
Leadership



**PILLAR 2**  
Prevention  
Rebuilding Social Cohesion



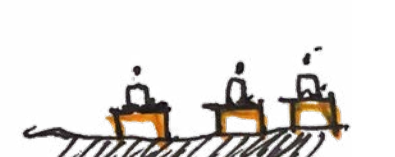
**PILLAR 3**  
Justice Safety  
Protection



**PILLAR 4**  
Response Care  
Support  
Healing

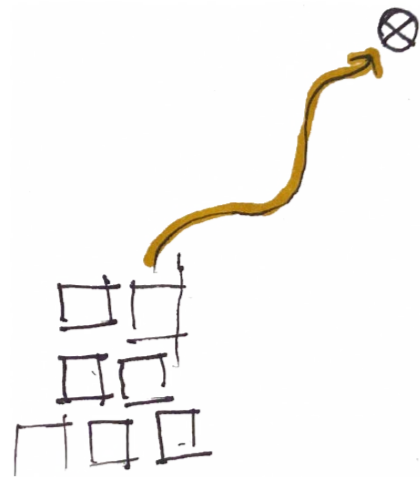


**PILLAR 5**  
Economic Power

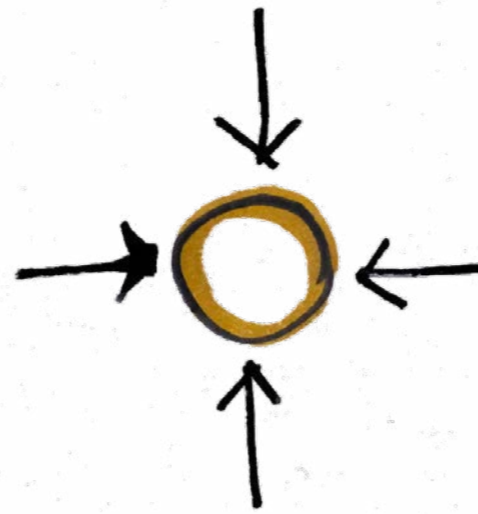


**PILLAR 5**  
Research  
Information Management

# PROBLEM STATEMENT



De-centralised location of shelters  
Lack of transport



Western approach to healing, unrelatable  
to majority of victims

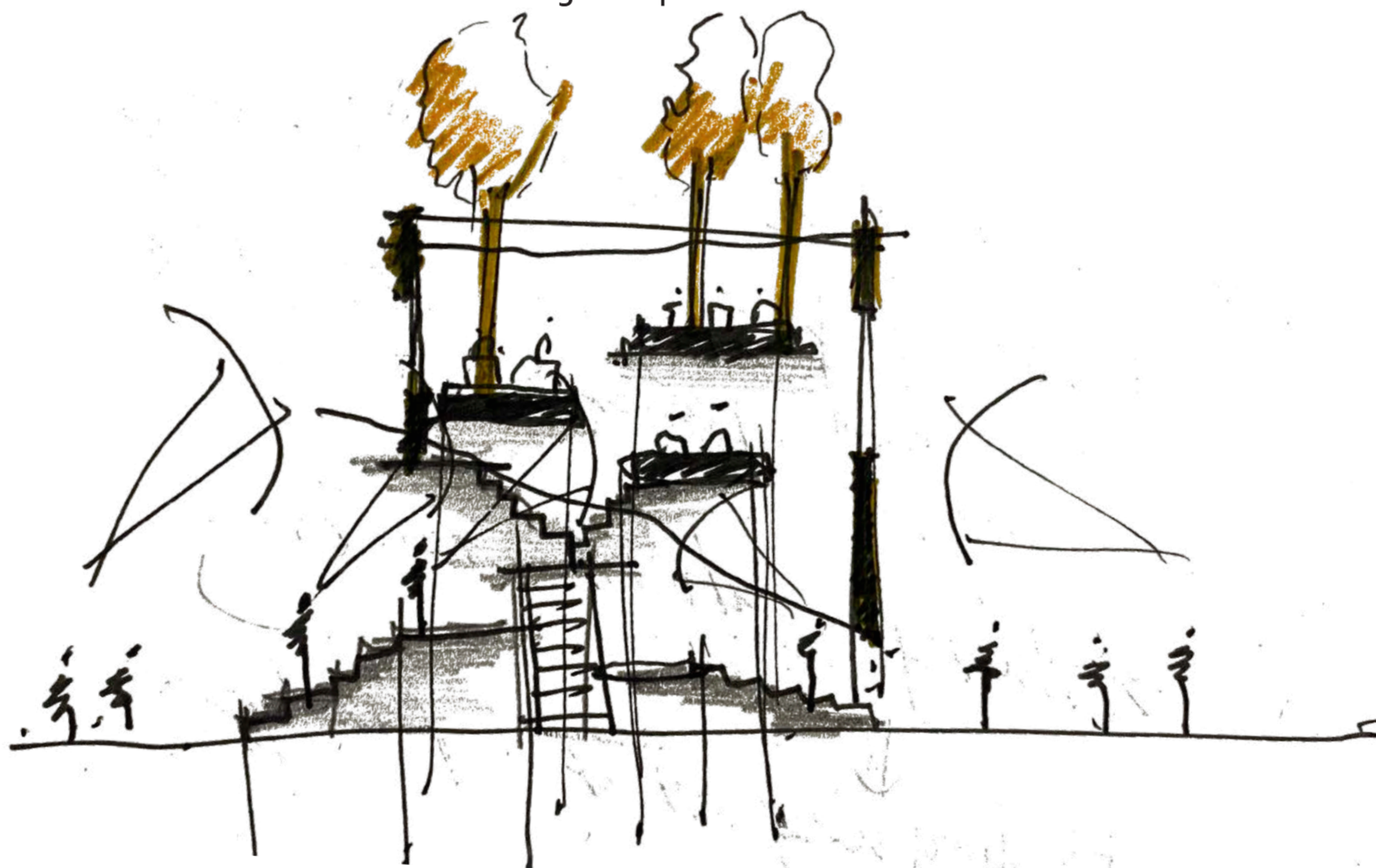


Conditions of current shelters  
Overcrowded

Women's roles have evolved from complementary functions in primitive societies to domestication during Colonialism, and now to a complex status in the Post-Apartheid era. Today, many women face significant challenges, including unemployment, limited educational access, and economic dependence, which heighten their vulnerability to Gender-Based Violence (GBV).

Despite various government policies aimed at addressing these issues, research highlights critical gaps, such as inadequate funding, unclear implementation strategies, and insufficient attention to cultural practices. Current healing practices and support centers for GBV survivors often neglect cultural backgrounds, accessibility, and social cohesion. Additionally, there is a lack of focus on long-term recovery and the obstacles involved in rebuilding lives after trauma.

This proposal aims to address these shortcomings by creating inclusive spaces that empower survivors and promote community building. By facilitating reconnection with oneself, others, and the world, the design will support a comprehensive healing and reintegration process.



# PROPOSED TREATMENT PROCESS

The proposed healing process facilitated within the intervention was adapted from the nature of GBV healing through survivor narratives in Sinko & Arnault (2019). This includes:

1. Reconnecting with the Self - Rebuilding identity, self-worth, and overcoming self-doubt.
2. Reconnecting with Others - Reestablishing relationships, trust, and finding support within communities.
3. Reconnecting with the World - Creating a purposeful life and releasing negativity, often through religious or spiritual beliefs.

To facilitate these stages of healing, the project utilises the food production process as a framework, drawing parallels between healing and the stages of production, post-production, and consumption.

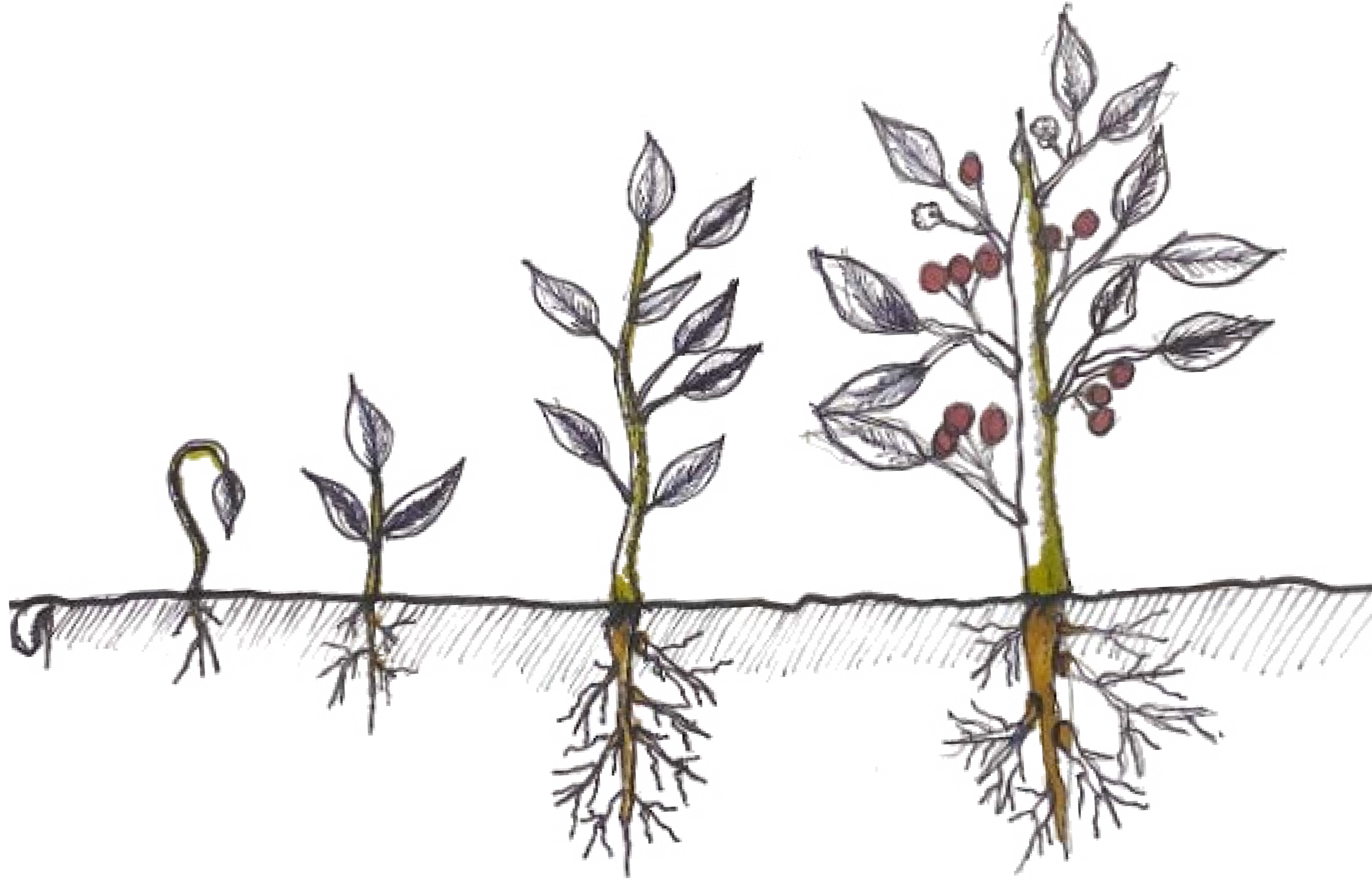
By adopting this method it allows the opportunity for growth and skills development while engaging with others of similar circumstances, all to reach the common goal of social integration, economic independency and empowerment for victims of GBV.

## Importance of Agriculture and Cooking in the Healing Process

Agriculture and cooking play powerful roles in trauma recovery by restoring identity and resilience. A 2018 (Kalia 2022) study shows that individuals cope better with trauma when their social identities remain intact, which is essential in addressing cultural trauma arising from conflict, oppression, and displacement. Reconnecting with food traditions and oral narratives provides survivors with a sense of continuity and belonging.

Through the center's agricultural program, participants grow produce and traditional medicinal plants, connecting them to ancient gender roles as gatherers and reinforcing their bond with nature. This approach draws from indigenous knowledge, which has long empowered women and holds therapeutic value. Additionally, the center will serve as a training and archival hub, preserving this knowledge for future generations.

Cooking, too, supports resilience by allowing survivors to rediscover their identities through food rituals, fostering a calming and meditative practice in kitchens that become sanctuaries. The sensory experience of preparing and sharing food—tied to memory through smell, taste, and texture—evokes comfort and nostalgia, bridging past and present, and healing emotional wounds. Together, agriculture and cooking ground survivors in a restored sense of self, identity, and community.

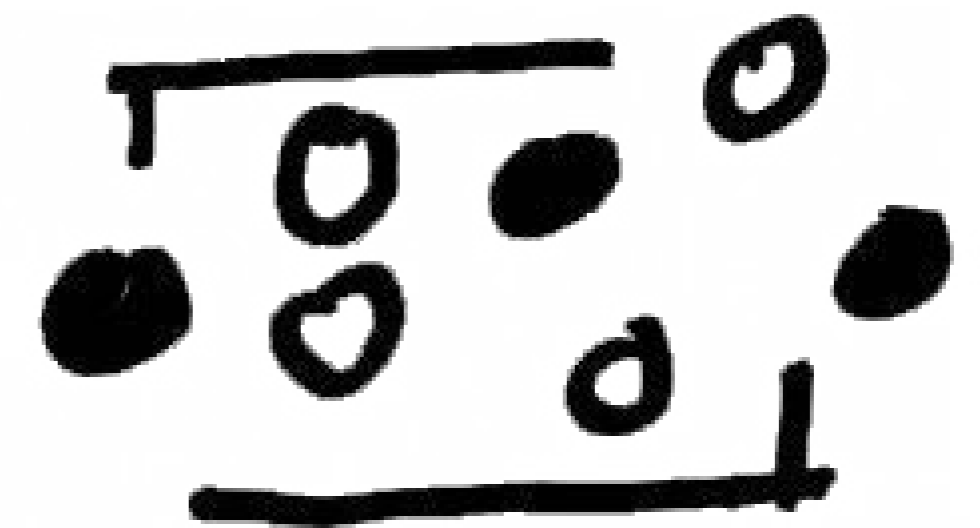
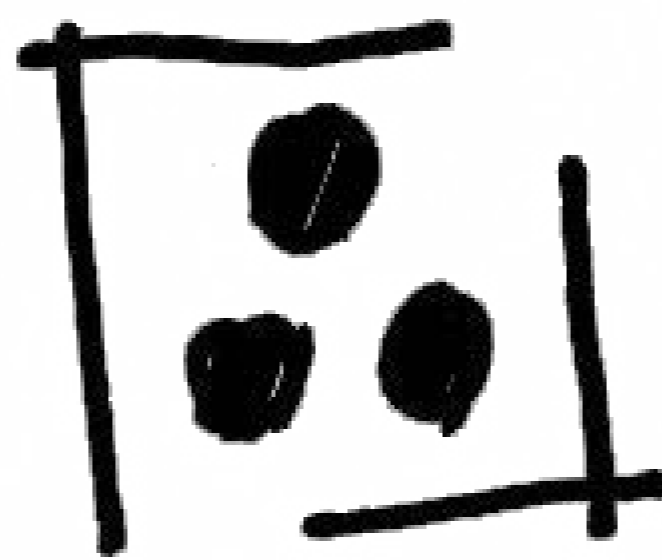
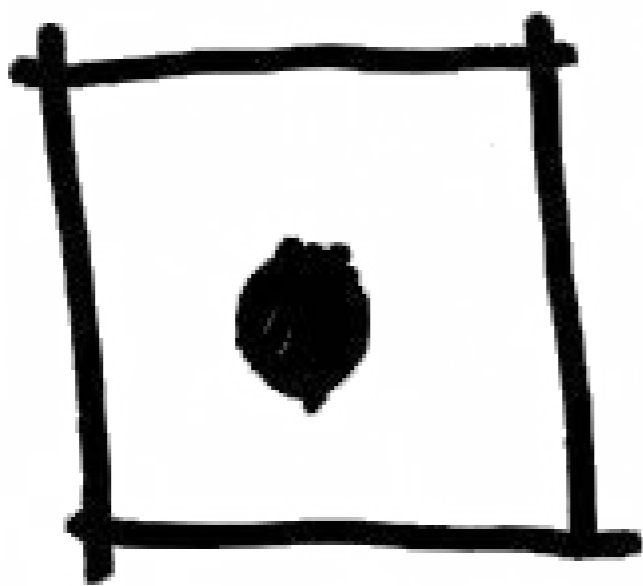


STAGE 01  
SELF

STAGE 02  
OTHERS

STAGE 03  
WORLD

STAGES



## THE FOOD PRODUCTION PROCESS

FACILITATOR

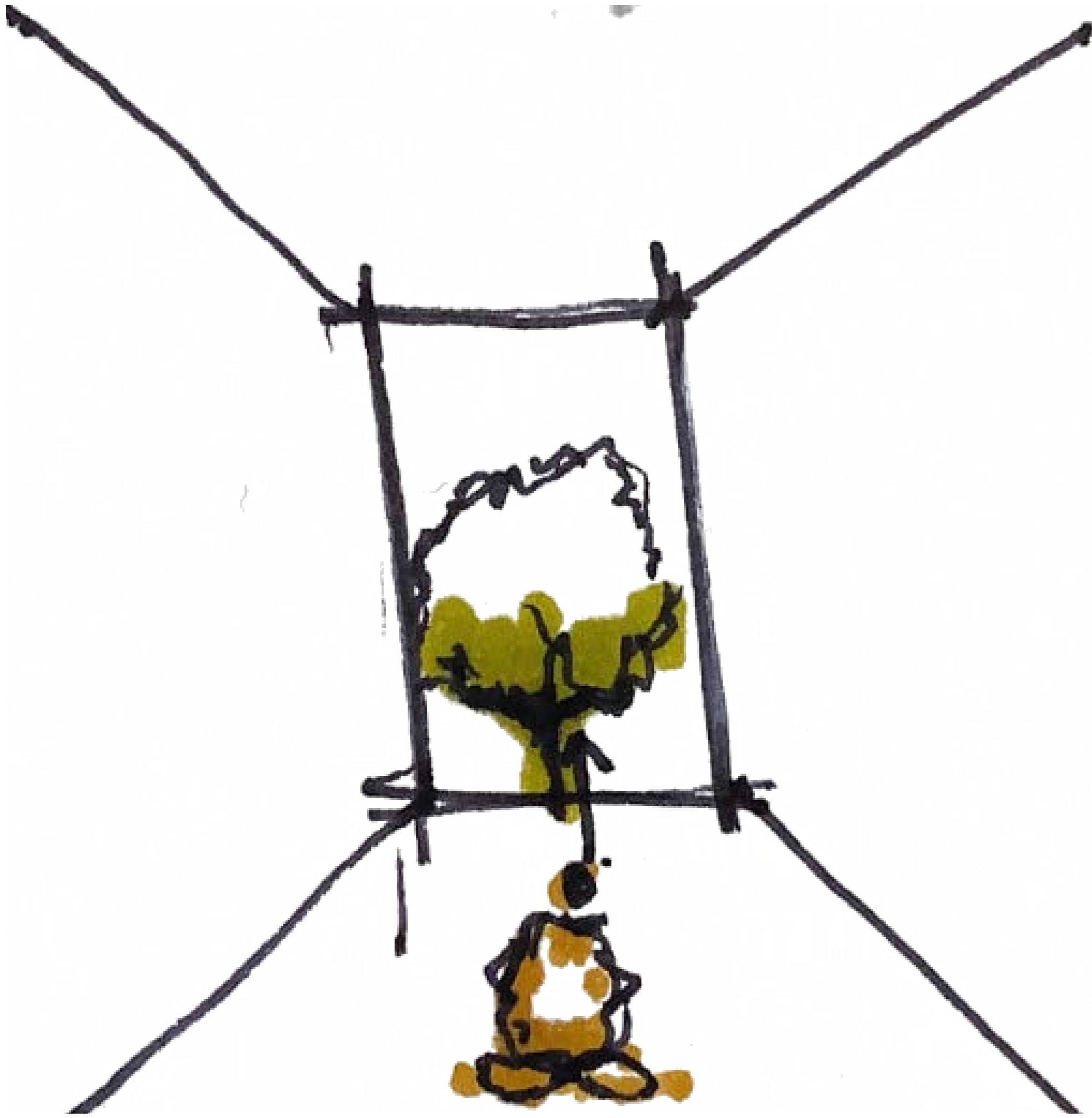


# DESIGN APPROACH: EVERYDAY RITUALS

Rituals provide grounding in a disconnected world, helping individuals reconnect with their bodies, focus on the present, and calm overwhelming thoughts. Engaging in intentional rituals fosters connection with others and appreciation for daily moments, like light streaming through a window.

Ter Kuile (2020) highlights how everyday rituals bring meaning, connection, and spiritual fulfillment, offering healing and a sense of togetherness. Jones (2016) explores how rituals shape spaces, categorizing them as religious, civic, domestic, and more. Their work suggests that space design should support intentional activities that aid in recovery.

This design philosophy emphasizes *doing together* as essential for trauma healing, aligning with African cultural practices that prioritize community, shared experiences, and collective well-being.



## RITUALS AS A DESIGN CONSTRUCT

The intervention integrates the healing power of rituals into its design, using a scale of ritual significance to prioritize activities in food production. Rituals are grouped as spiritual, pragmatic, and functional, each guiding space design.

- \_Spiritual rituals require spaces connected to nature and light, supporting deep cultural or social significance.
- \_Pragmatic rituals support spiritual rituals with practical design elements for everyday use.
- \_Functional rituals focus on ensuring basic operational needs are met.

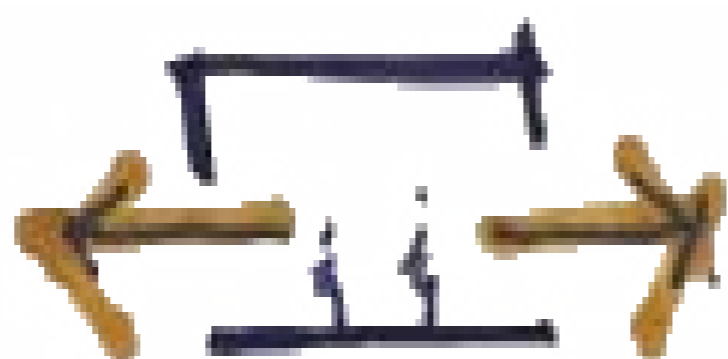
**FUNCTIONAL**

PUBLIC  
FUNCTIONAL LIGHTING  
OPERATIONAL SPACE  
COMPLIANCE



**PRAGMATIC**

SEMI-PUBLIC  
PRACTICAL  
LIGHTING  
SUPPORTIVE SPACE  
COMMUNAL



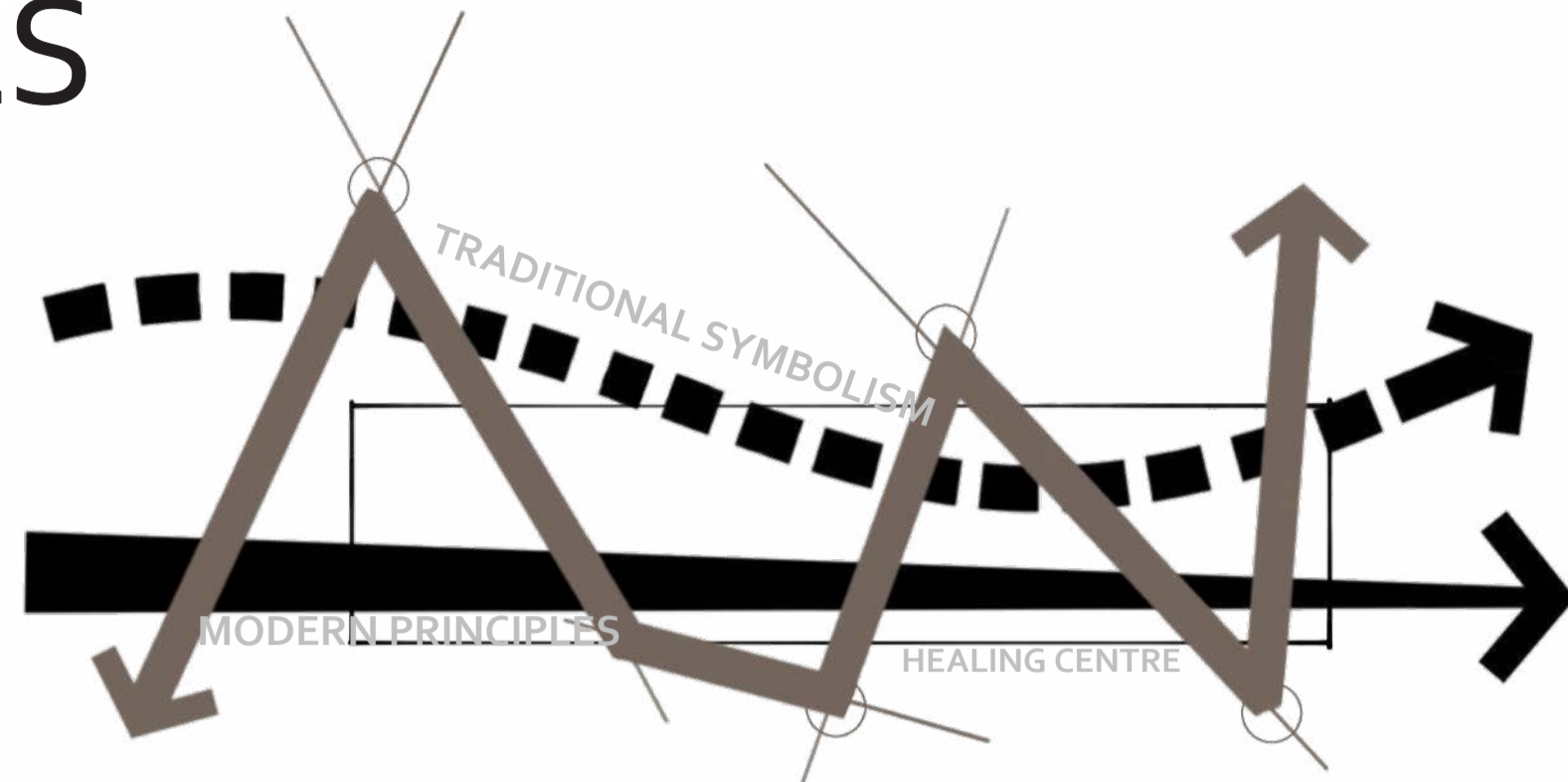
**SPIRITUAL**

PUBLIC  
INSPIRATIONAL  
LIGHTING  
MOMENTS IN  
SPACE  
CONNECTION TO  
NATURE



# THEORETICAL FRAMEWORK: INTEGRATION OF TRADITIONAL AND MODERN PRINCIPLES

The design framework for the healing center draws from South African traditional symbolism, Indigenous Knowledge Systems, and contemporary design principles established by renowned architects for crafting inspired ritual spaces. This approach bridges the gap between Western healing methodologies and traditional practices, fostering a holistic healing environment deeply relevant to the South African context.



## RITUAL SPACE DESIGN

Understanding ritual design and its spatial qualities

### LOUIS KAHN INSPIRED RITUAL

According to Kohane (2001), Louis Kahn's concept of **inspired ritual** suggests that architecture should transcend functionality to inspire intentional, meaningful actions. Kahn believed that well-designed spaces could elevate everyday activities—like gathering, working, or learning—into rituals with deeper cultural or spiritual significance. In this view, architecture becomes a catalyst for connection and reflection, where the layout, light, and atmosphere foster deeper connections with others and the environment.



1. Place man at centre. Ritualistic space is closed equidistant about man

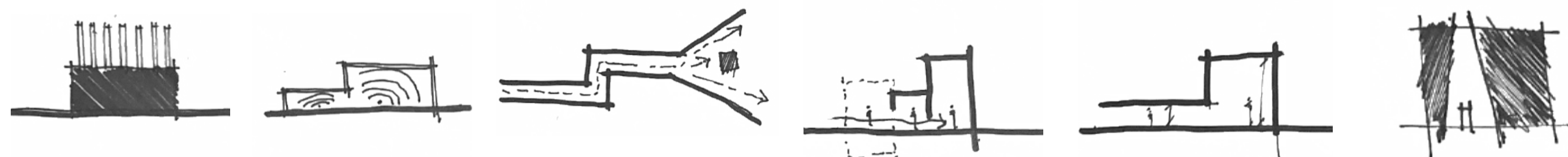
2. Movement and transition is inspired ritual. Regular movement to contraction - to open new dimension of ritual space

3. Choreography of space - use ramps, terraces, stairs to destination. Orchestrate sequence of movement through space and time

4. Flexible vs guided ritual - design space to guide and invite towards ritual. Open plan lacks a sense of spatial order derived from rituals

### PETER ZUMTHOR ATMOSPHERES

Zumthor (2008) in *Atmospheres* focuses on how architectural spaces evoke emotions and sensory experiences. He believes that the essence of a building lies in its ability to create an atmosphere that deeply resonates with people. Zumthor emphasizes the importance of materiality, light, sound, and texture in shaping these atmospheres. He carefully considers how materials feel, how light enters a space, and how sound behaves within a building to create environments that engage all the senses. Ultimately, Zumthor's approach is about crafting experiences through architecture, where every element contributes to a cohesive and powerful sense of place.



1. Material presence of things

2. Sound of spaces

3. Between composure and seduction

4. Tension between interior and exterior

5. Levels of intimacy

6. The light on things

### LE CORBUSIER LIGHT MATTERS

According to Schielke (2015), evident in the work of Le Corbusier, light was not just a functional necessity but a tool to create drama, highlight materials, and enhance the experience of a space. In his designs, Le Corbusier often used large windows, skylights, and other elements to manipulate natural light, creating dynamic contrasts between light and shadow. This interplay emphasized the form and structure of his buildings, as well as the way people experienced the spaces within them. Light, in his view, could transform a room, giving it a spiritual or emotional dimension and making architecture a living, breathing entity.



1. Light and shadow to highlight different spaces and functions

2. Level change creates individual spaces in communal setting, implying intimate connections between individual and spiritual world

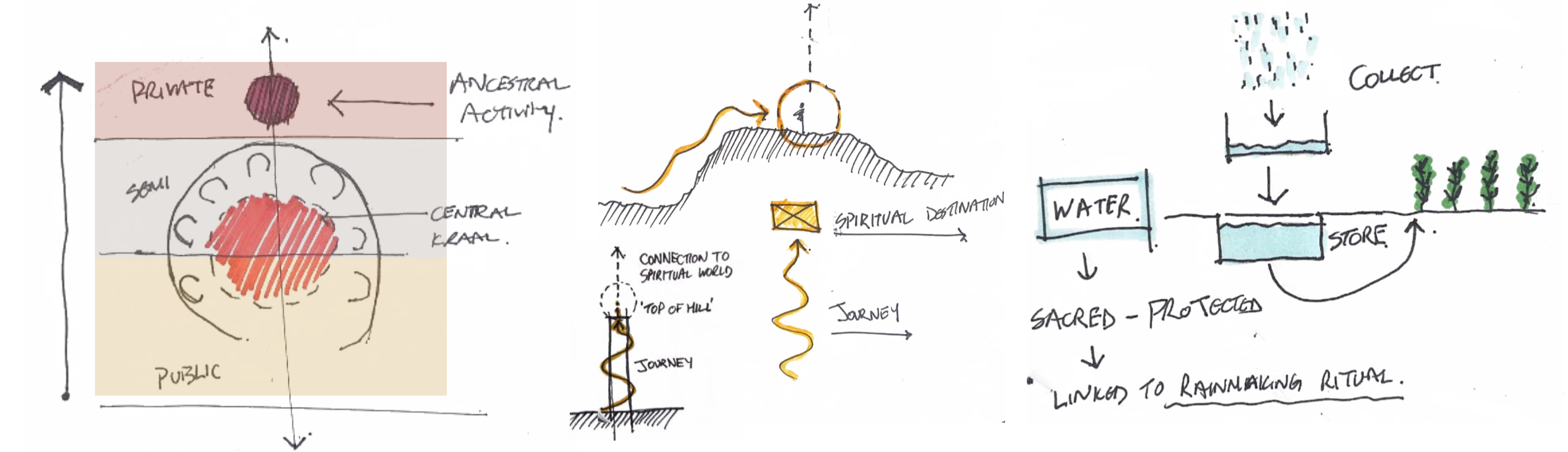
3. Ethereal light appear to be everywhere and is created through different types and sizes of openings that diffuses light

4. Orchestrated light helps guide movement through space

## TRADITIONAL PRACTICE AND INDIGENOUS KNOWLEDGE

Maltitz and Yonas (2024) discusses how indigenous agricultural practices can empower women in rural South Africa by offering control over agricultural decisions, resource management, and nutrition. However, challenges such as modern farming methods and the loss of indigenous knowledge limit their full potential. Research in the Northern and Eastern Cape revealed barriers like heavy workloads and lack of access to credit. The article suggests combining indigenous knowledge with modern practices and documenting these traditions to improve women's empowerment and promote gender equality.

Huffman's (2012) study of pre-colonial Southern African societies also emphasizes the roles of women, noting clear gender divisions in residential zones, with women occupying the outer areas. Rituals, such as rainmaking, reinforced social and sacred order. Both works underscore the value of preserving indigenous practices for empowerment and cultural continuity.



### KEY CONSIDERATIONS:

- \_ ANCESTRAL CONNECTION
- \_ RAIN-MAKING RITUAL
- \_ SACREDNESS OF WATER
- \_ PROJECTION OF CROPS
- \_ TRADITIONAL MEDICINAL GARDEN FOR HEALING AND RAIN MEDICINE

According to Manyuchi (2014) kitchens in Shona and Ndebele societies are culturally significant, serving both practical functions and roles in rituals and family gatherings. Traditionally separate or semi-detached, kitchens are used for ceremonies like placing a coffin before burial or for ancestor communication during events like marriages. Their warmth also made them spaces for childbirth and caring for the sick.

Structurally, kitchens were built with poles, mud, and woven twigs, with walls plastered and decorated with symbols. While modern kitchens often use bricks and cement, traditional features like thatched roofs remain. Shona and Ndebele kitchens share basic structures but differ in decoration. Ndebele kitchens are more elaborately adorned, with unique features like clay pot holes and cow dung flooring, which have both functional and ritual significance.

### KEY CONSIDERATIONS:

- \_ KITCHEN:
- CENTRAL FIRE PLACE - SYMBOL OF INDEPENDANCE
- CHIKUVA - ANCESTRAL COMMUNICATION
- GRINDING STONE
- EDGE SEATING
- PLACE OF HEALING
- \_ COMMUNAL EATING

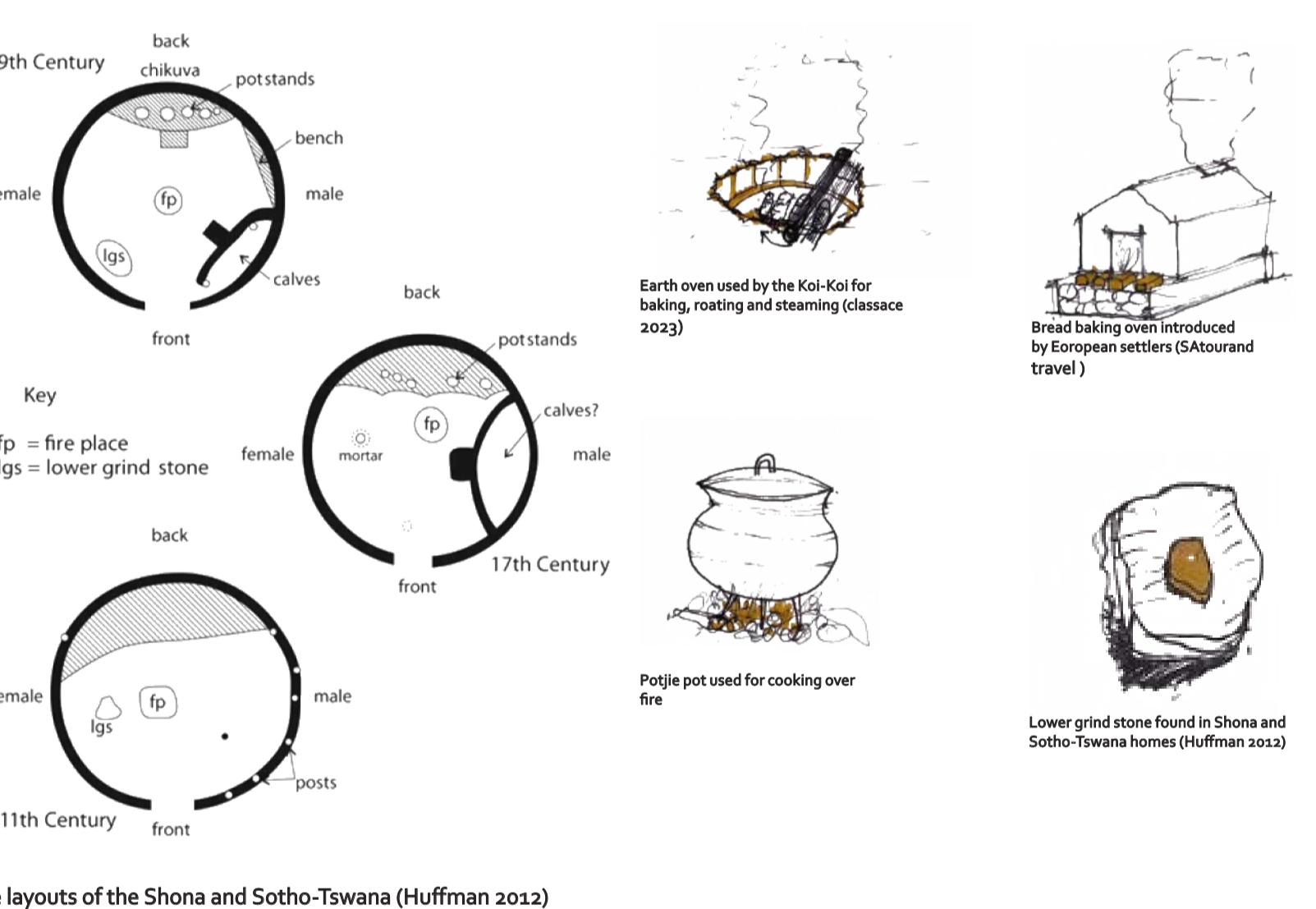
### IMPORTANCE OF THE PUBLIC SPACE

The courtyard in Tswana culture is a vital public space for social interaction and communal activities, often described as *the heart of the dwelling* (Steyn 2015; Tau 2001). It serves as a central area for family gatherings, meals, and cultural rituals, with a fire typically at its core. The courtyard, or lolwapa and segotlo, is also used for cooking, particularly in households without modern stoves, where improvised setups like drums for coals are common (McLean 2015).

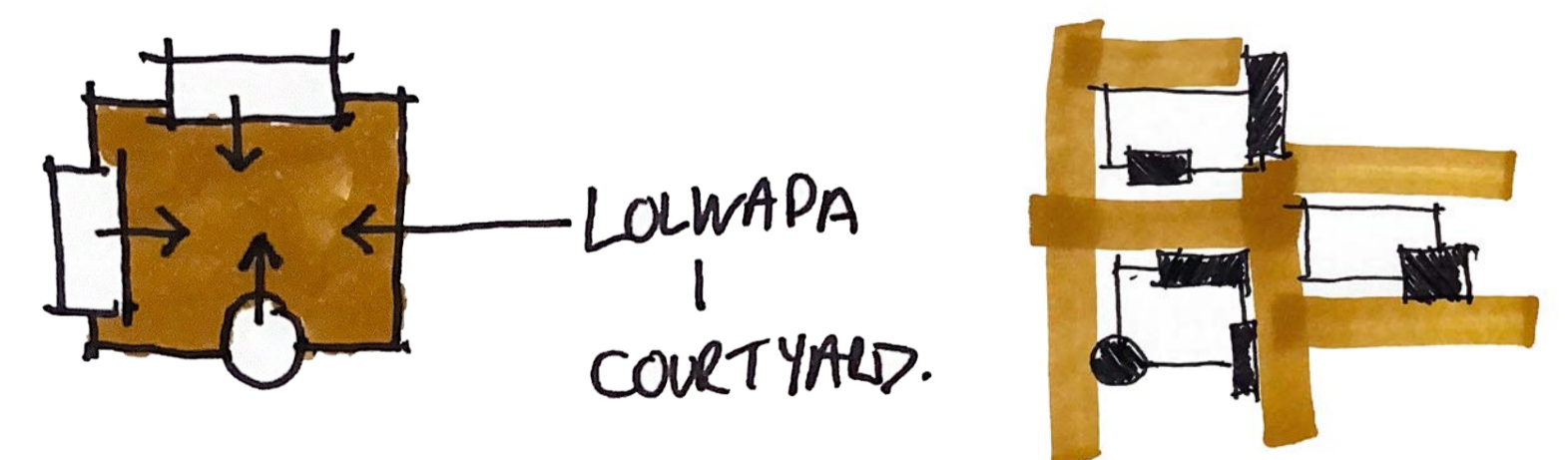
This shared space strengthens community ties by bringing together family members, elders, and guests, fostering communication and cultural continuity.

### KEY CONSIDERATIONS:

- \_ LOLWAPA - COURTYARD
- GATHERING
- FIRES MADE
- GUEST AND FAMILY ACTIVITY
- \_ COURTYARD MANAGES PUBLIC VS PRIVATE
- \_ CORRIDORS ORGANISE FLOW AND MAINTAINANCE



House layouts of the Shona and Sotho-Tswana (Huffman 2012)



# CONTEXT

## THE CITY OF PRETORIA

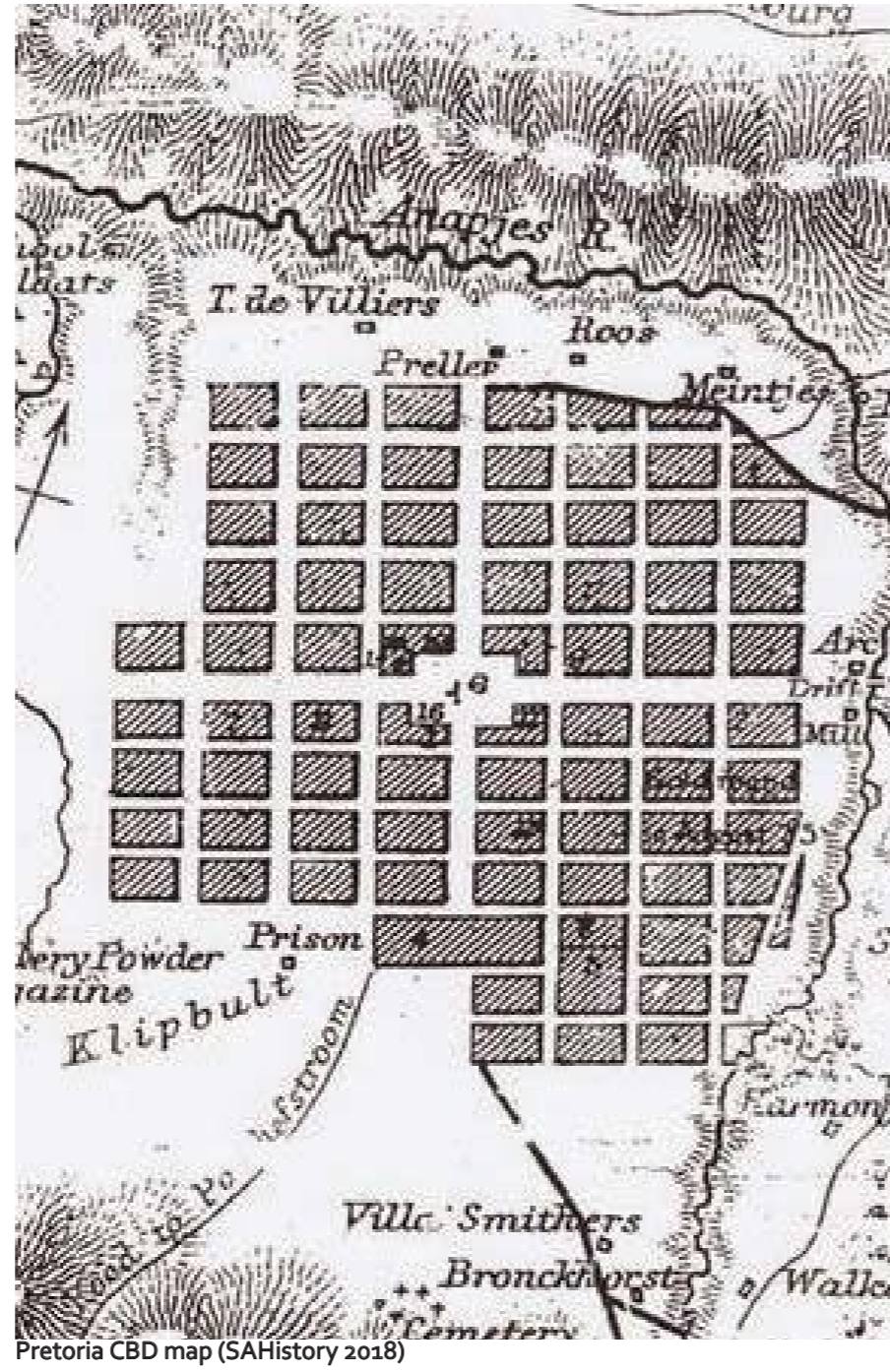
Issues of concern:

### Grids

Pretoria's urban layout follows a north-south and east-west axis, with Church Square as the central communal hub where these axes intersect. The city's distinctive blocks, measuring approximately 216 x 140 meters, are considerably larger than those in most other South African cities, where blocks average around 70 x 70 meters. Early in Pretoria's development, the elongated blocks necessitated the creation of narrow alleys to improve pedestrian flow and create a finer urban grain (Jordaan, 1990). However, this planning has led to long walking distances between blocks. In areas where building facades are inactive or unwelcoming, this contributes to unsafe environments for pedestrians.

### Latent space

The urban design of Pretoria, with its large blocks and wide streets, often creates an uninviting environment for pedestrians due to the vast scale. Additionally, the city's development has led to a fragmented urban fabric, where buildings are often disconnected from one another, creating isolated "islands" rather than a cohesive, walkable environment. This fragmentation further diminishes the sense of continuity and pedestrian accessibility within the city.



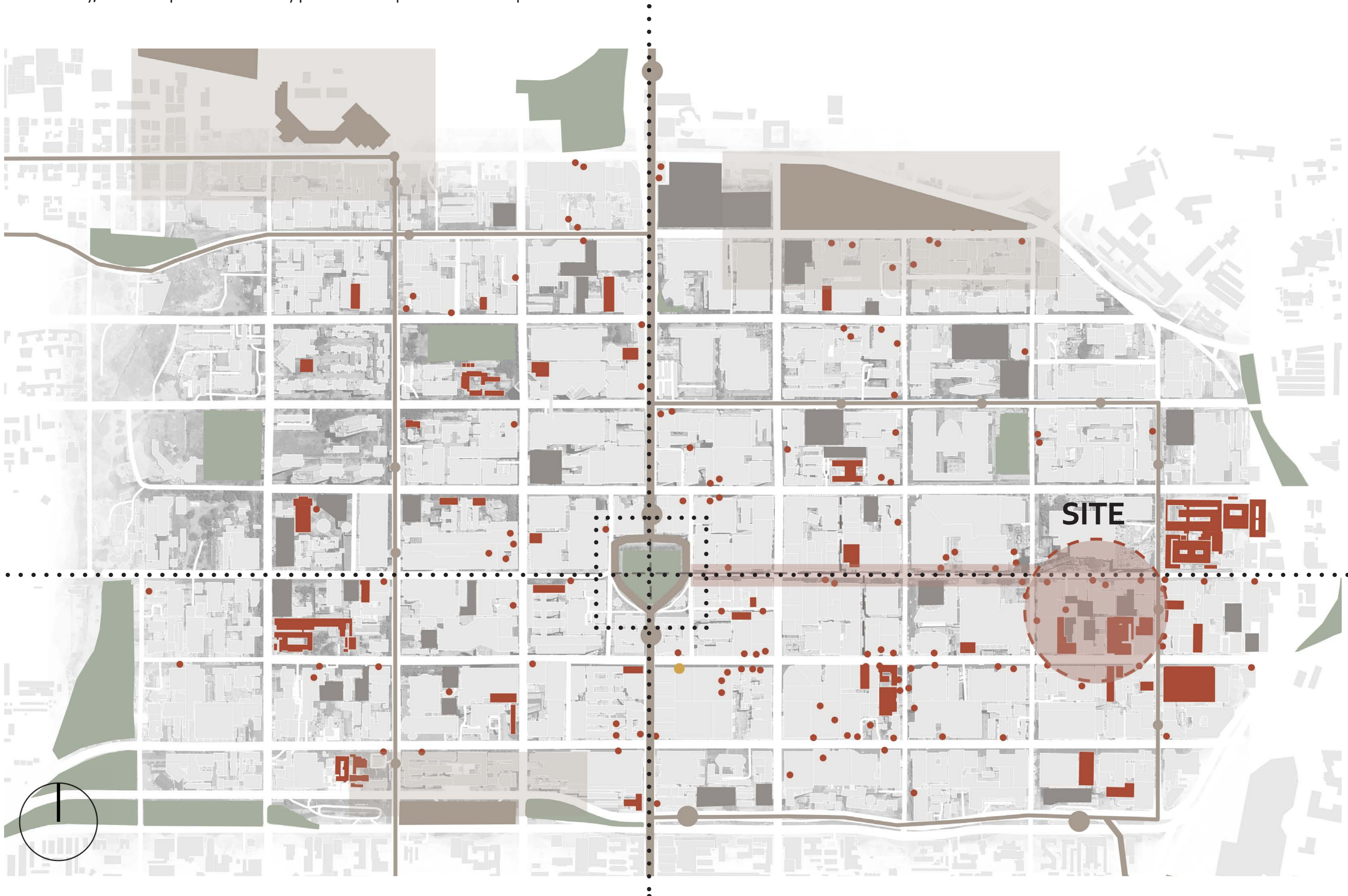
Pretoria CBD map (SAHistory 2018)



Map of Pretoria CBD showing the inner latent spaces (Author 2024)

## CONTEXT ANALYSIS

To identify opportunities, the Pretoria CBD was analyzed with a focus on uncovering areas for growth and potential. Several underutilized parking lots and latent spaces were observed, highlighting key opportunities along existing pedestrian streets and public transport networks. These areas are already home to numerous restaurants, food establishments, and educational facilities, aligning with the design proposal's objectives. Notably, there is only one women's shelter within the CBD, emphasizing a need for more supportive spaces. This analysis helped select an appropriate site and identified food networks and educational facilities as valuable resources to integrate into the project. Additionally, the latent spaces within the city present further potential for development.



## LEGEND

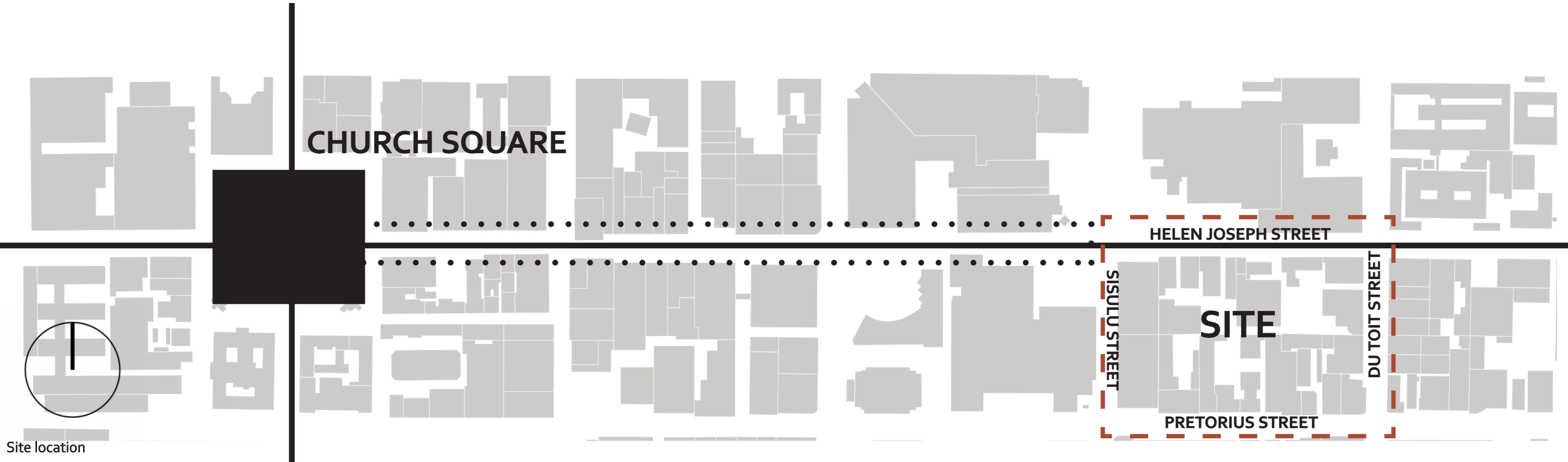
- EDUCATION FACILITIES
- PUBLIC TRANSPORT NETWORK
- RESTAURANTS
- UNDERUTILISED PARKING LOTS
- PEDESTRIAN STREETS
- WOMEN'S SHELTERS

# SITE

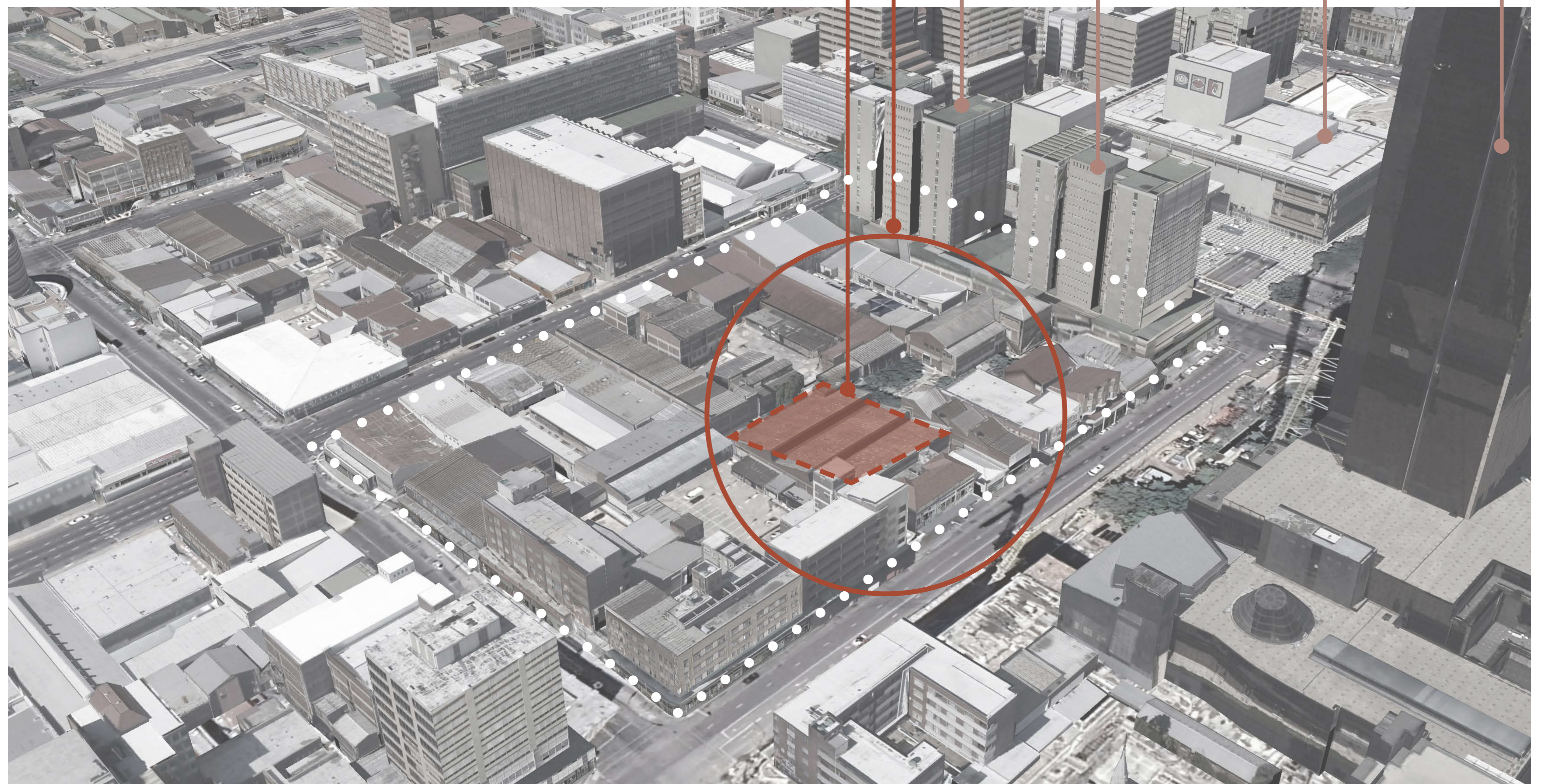
## SITE ANALYSIS

The site for the Healing Centre is located within the city block bordered by Helen Joseph, Du Toit, Pretorius, and Sisulu Streets. The State Theatre is situated to the west of the block, while the Reserve Bank lies to the north. A pedestrianized section of Helen Joseph Street extends from the western edge of the block towards Church Square. The site currently features a mix of uses, including educational, residential, retail, and entertainment spaces. A key portion of the block houses 012 Central, a creative hub with retail spaces, restaurants, and event venues that host monthly markets.

However, the block is also home to a number of underutilized and derelict buildings, leading to inactive street edges and creating unsafe environments for pedestrians. Surrounding the block is a large presence of informal traders and food vendors. The latent space within the block has been identified as the site for the Healing Centre, serving as a prototype for urban redevelopment in a city marked by abandoned parking lots, underutilized public spaces, and vacant buildings.



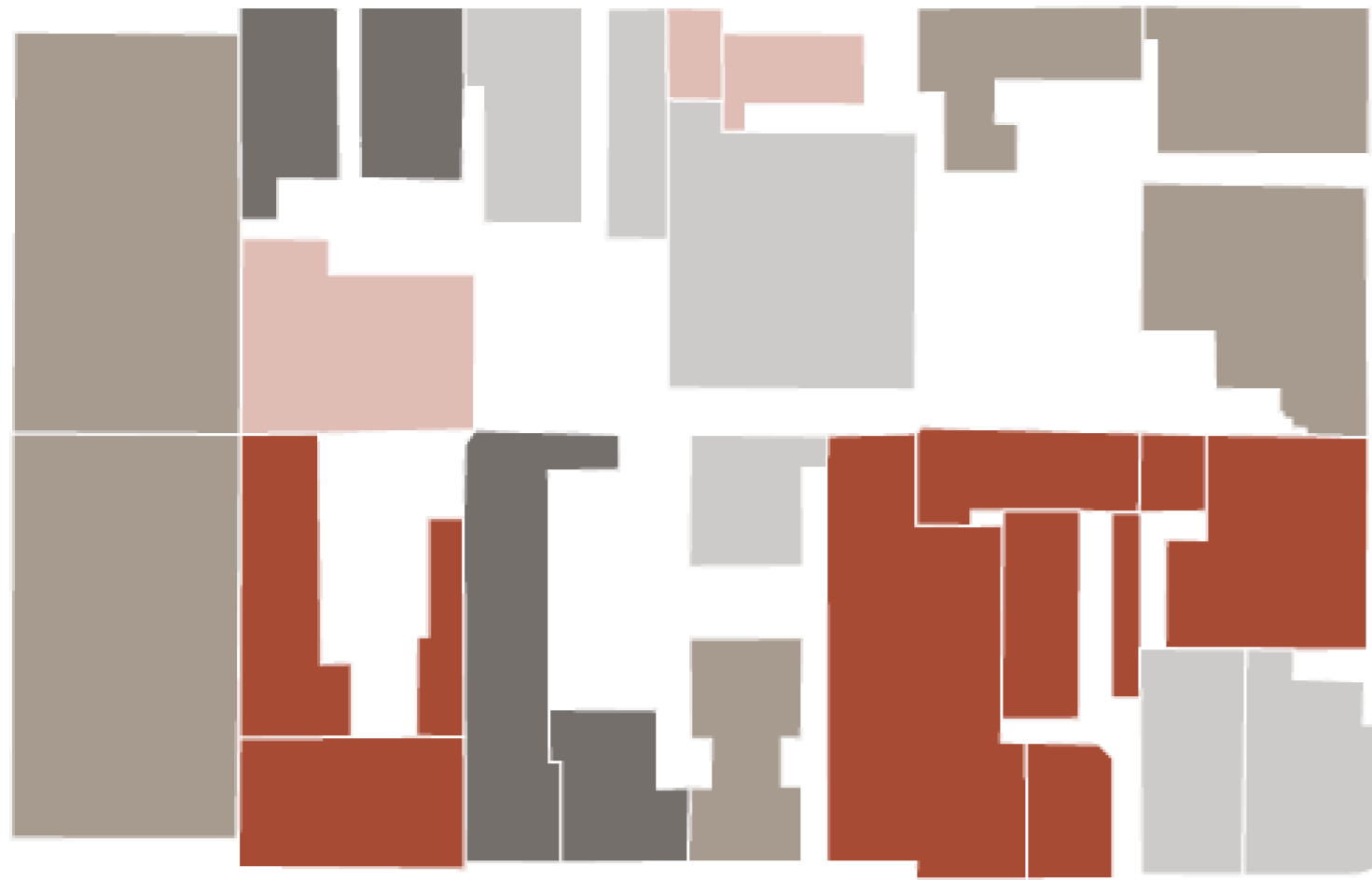
## Site features



## Site conditions

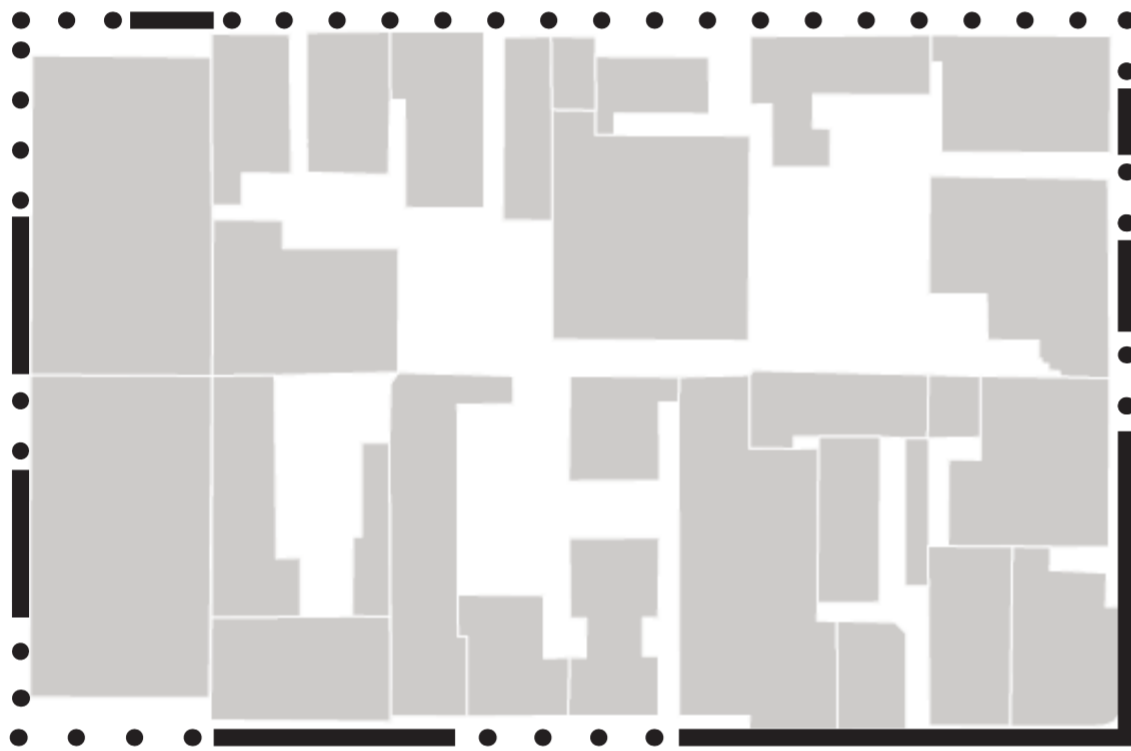


## USES



- RESIDENTIAL
- EDUCATIONAL
- RETAIL
- RESTAURANTS
- UNINHABITED

## EDGE CONDITIONS



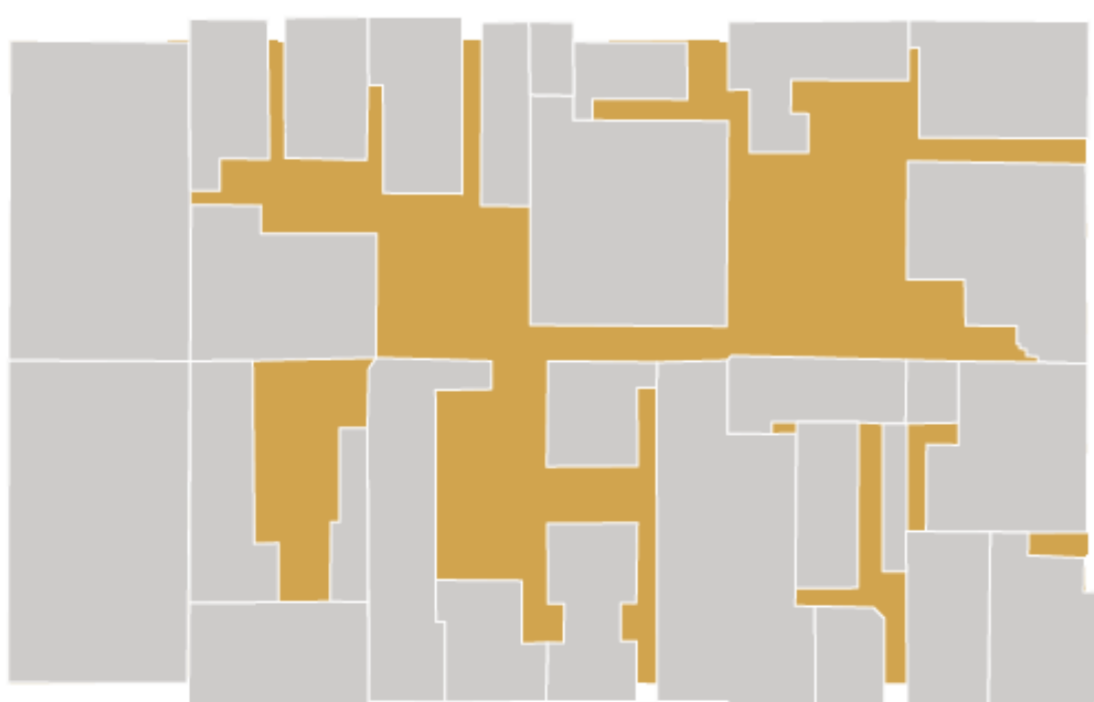
- ACTIVE
- SECLUDED

## HERITAGE BUILDINGS

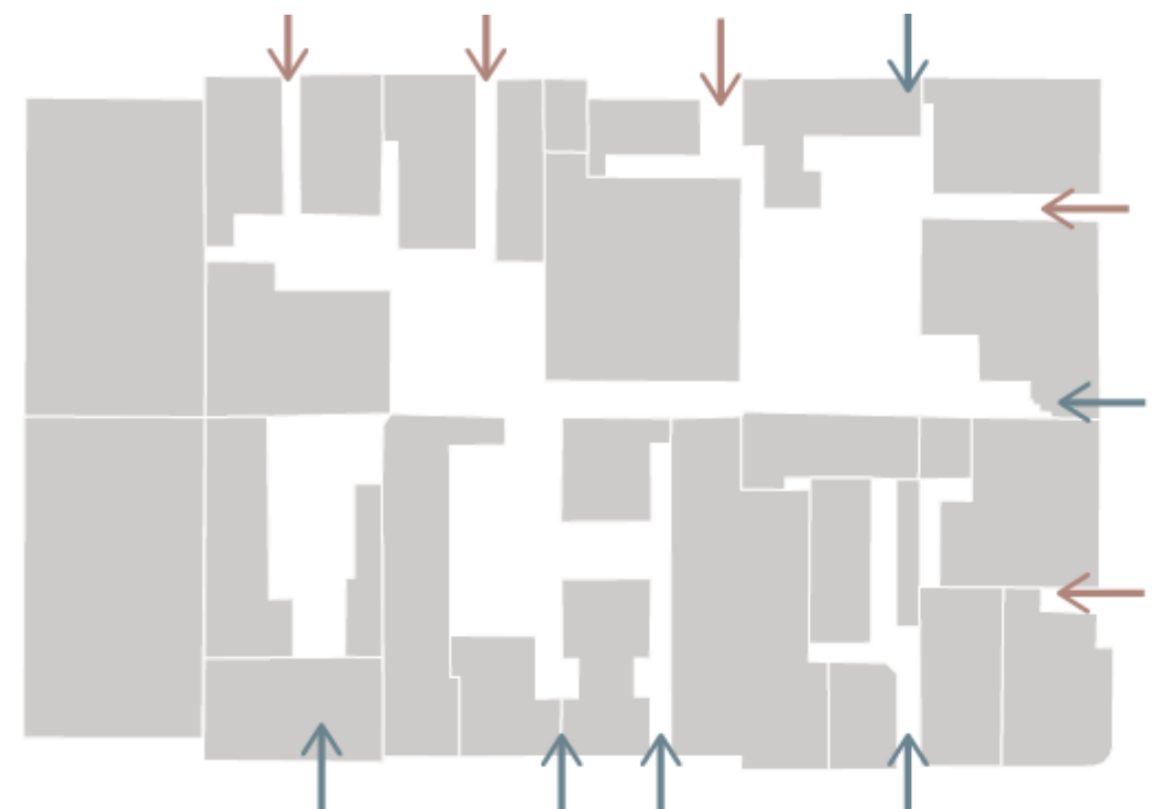


- 60+ YEARS
- UNINHABITED

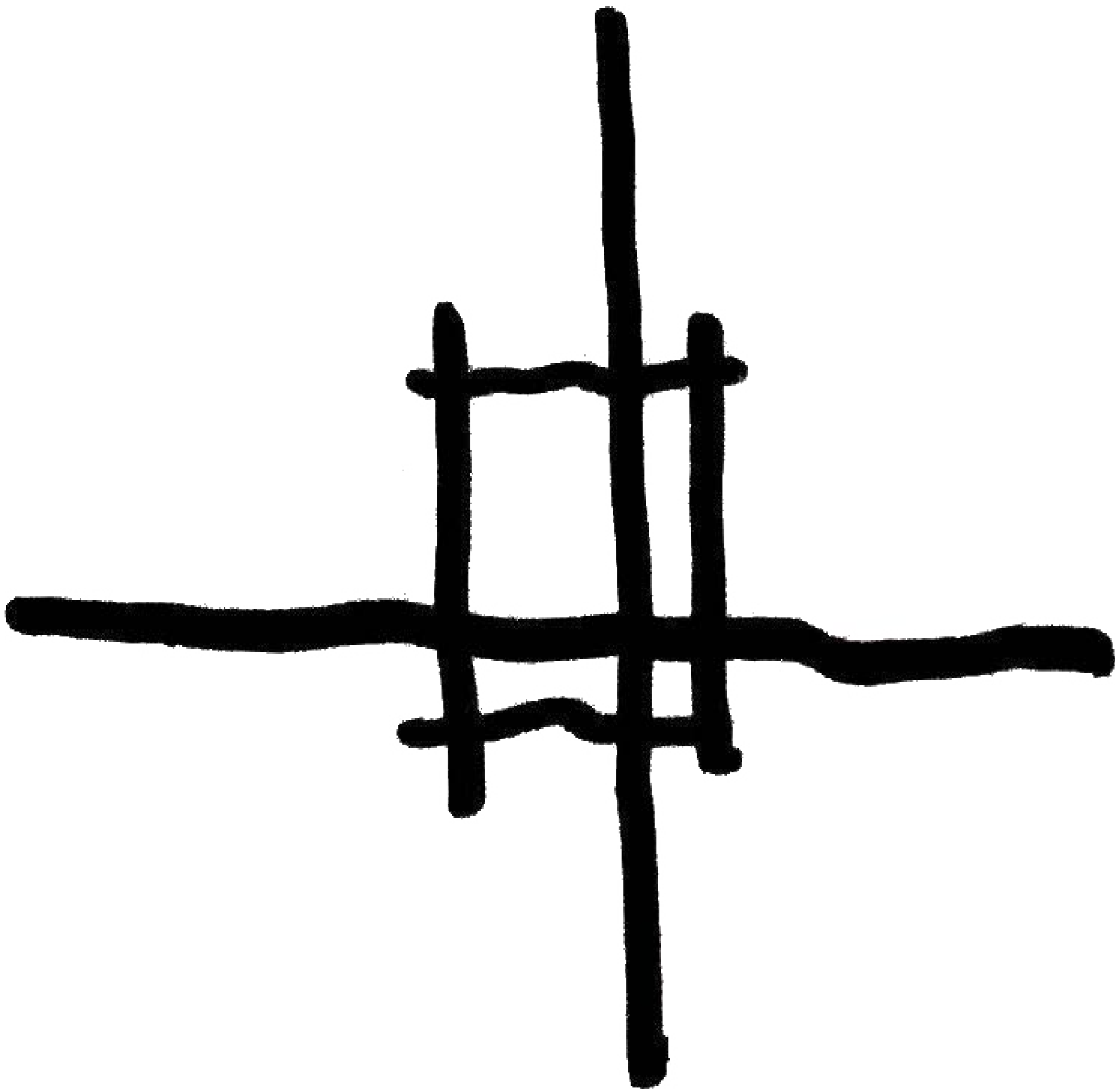
## LATENT SPACE



## ACCESS



- PEDESTRIAN
- VEHICLE

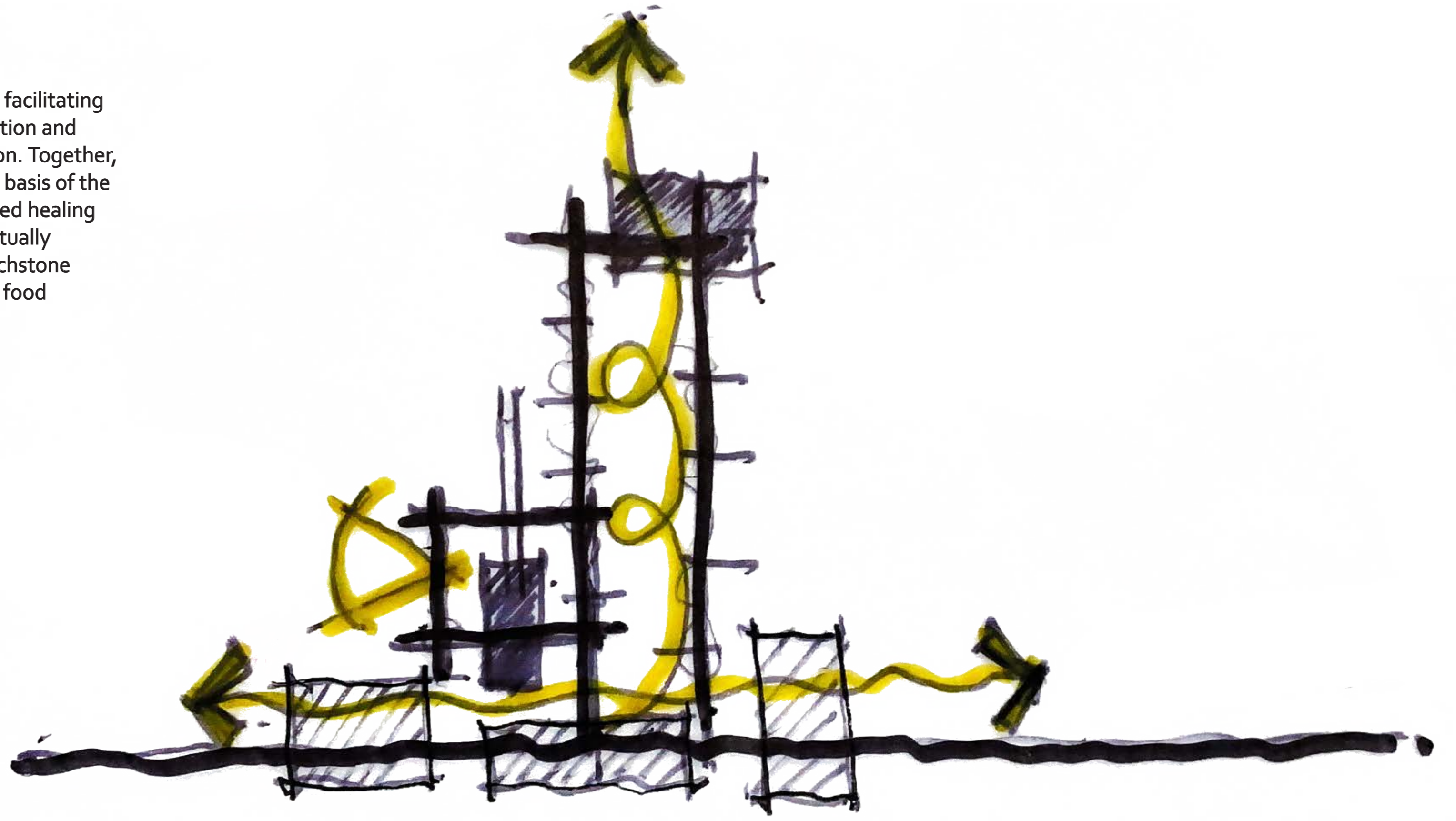


*AS ABOVE, SO BELOW*



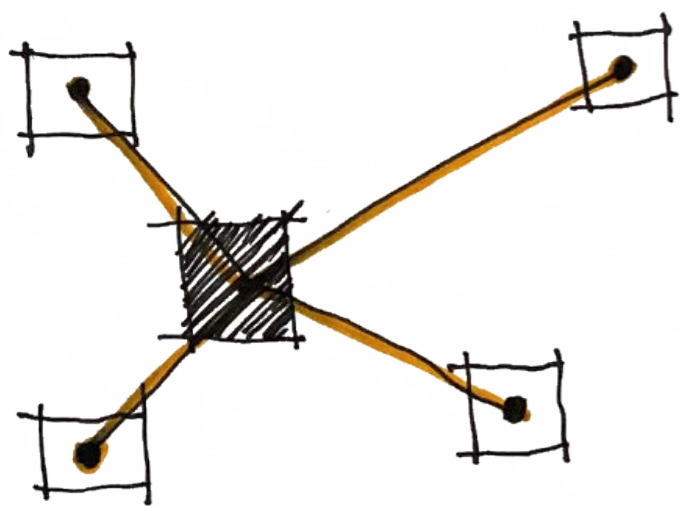
# CONCEPT

The concept of the intervention involves 3 key elements: facilitating a connection to the spiritual world, the hearth for protection and growth and the ground as a platform for social integration. Together, under the facilitation of food production, these form the basis of the architectural intervention in order to facilitate the proposed healing process. Symbolism drawn from appropriate and contextually relevant South African traditional practices acts as a touchstone and mediator between the two processes of healing and food production.

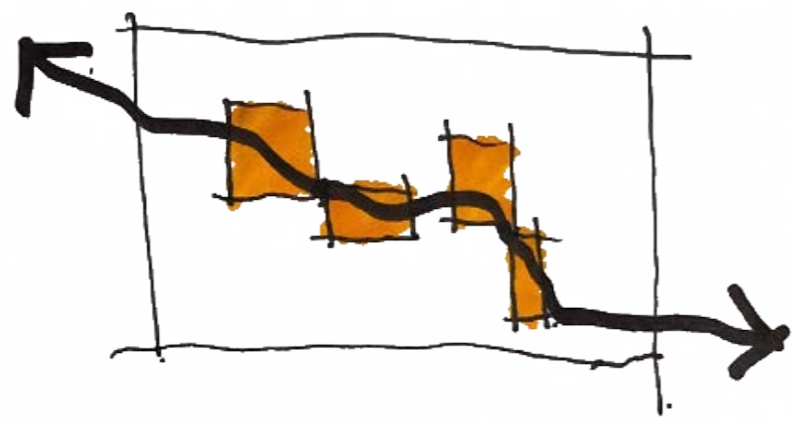


Concept section

## INFORMANTS



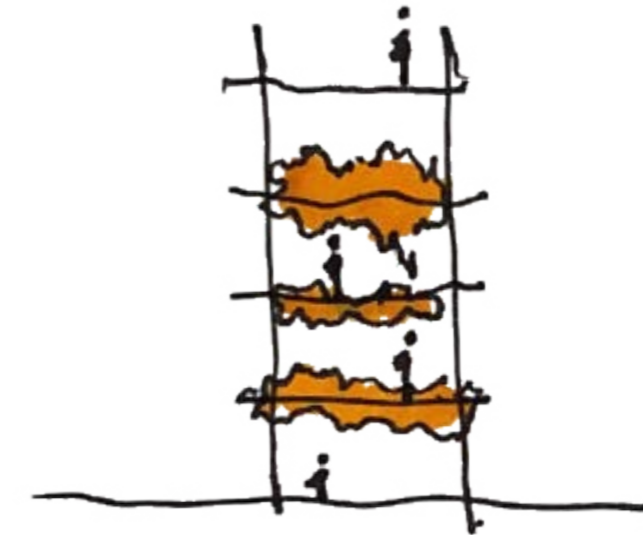
NETWORK OF EXISTING SYSTEMS



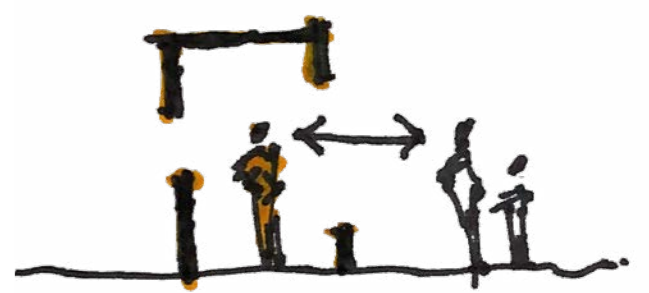
SPACES IN BETWEEN



NEW + EXISTING AS A SYSTEM

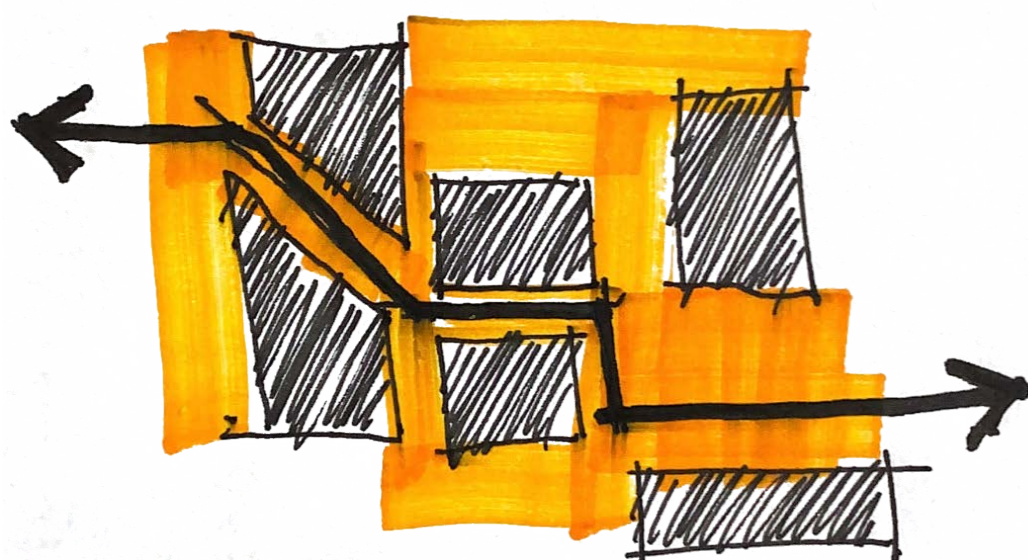


BUILDING AS PRODUCTION VESSEL



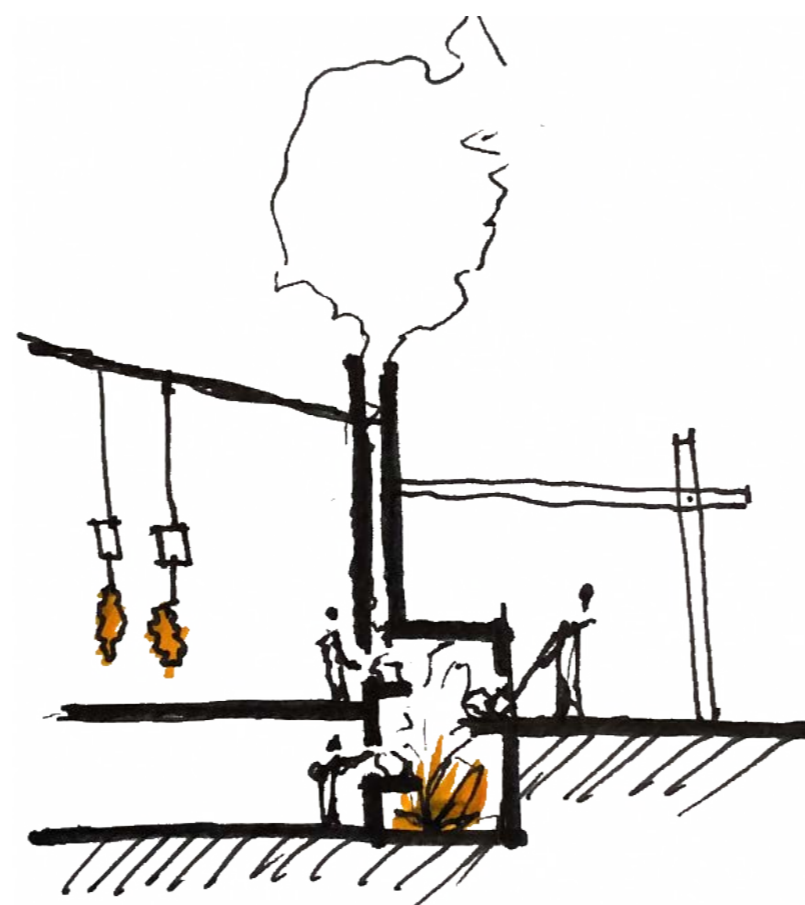
ARCHITECTURE AS SOCIAL FACILITATOR

## CONCEPT APPROACH



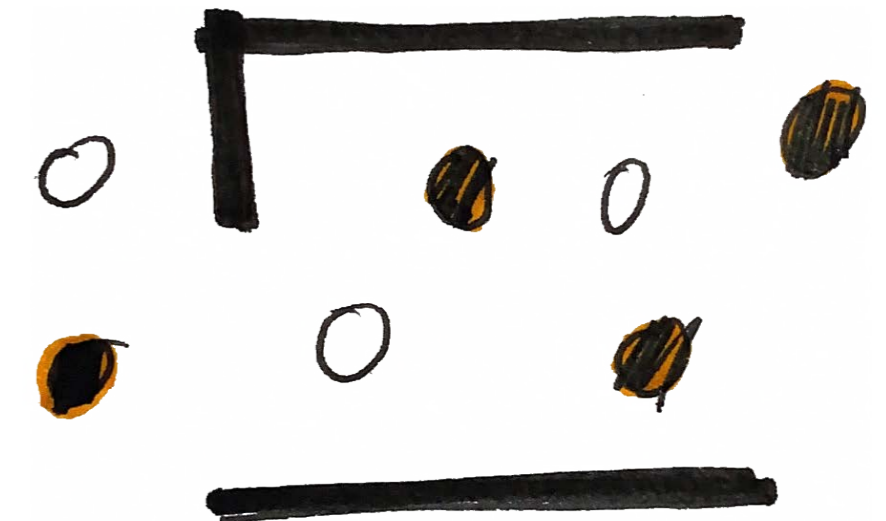
### RE-DEFINING

accessing the space between historic buildings as potential for development to enhance the inner city. Creating a pedestrianised city within the city.



### RE-INTRODUCING

an architectural language defined by the craft of traditional spaces and productive space

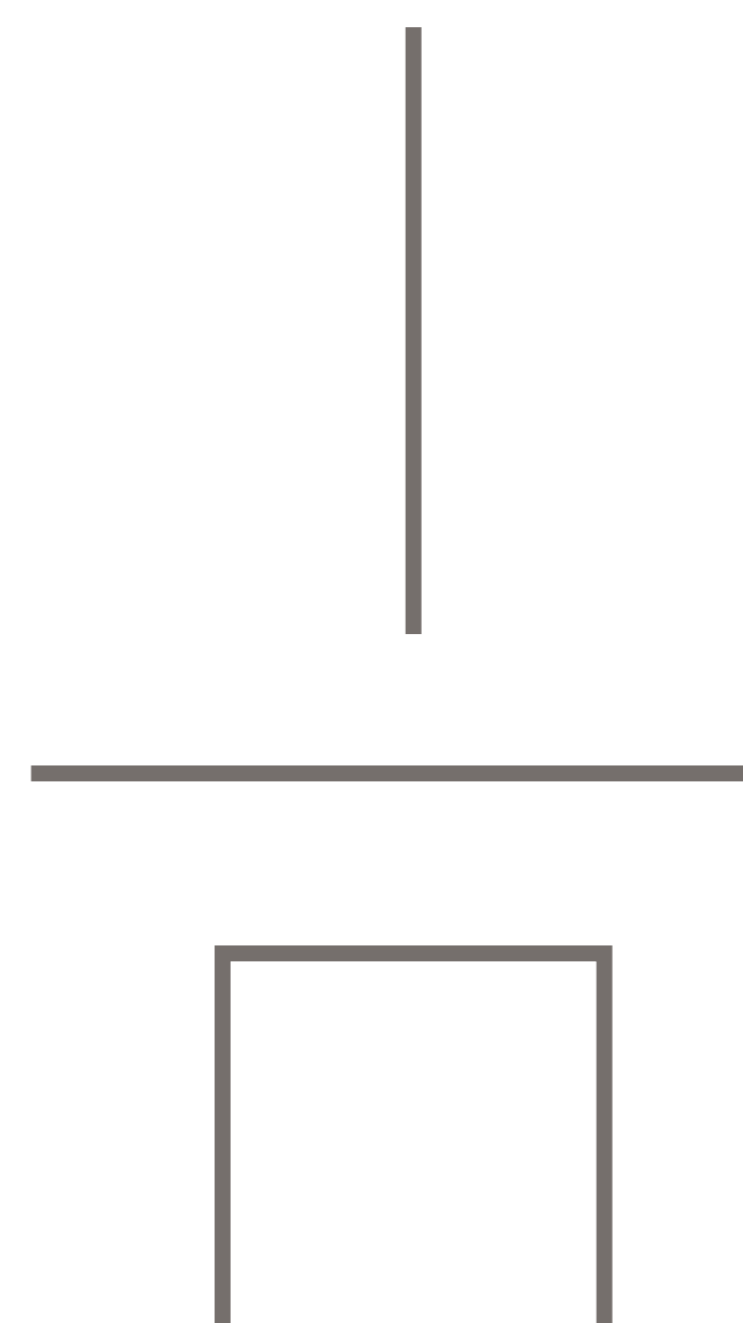
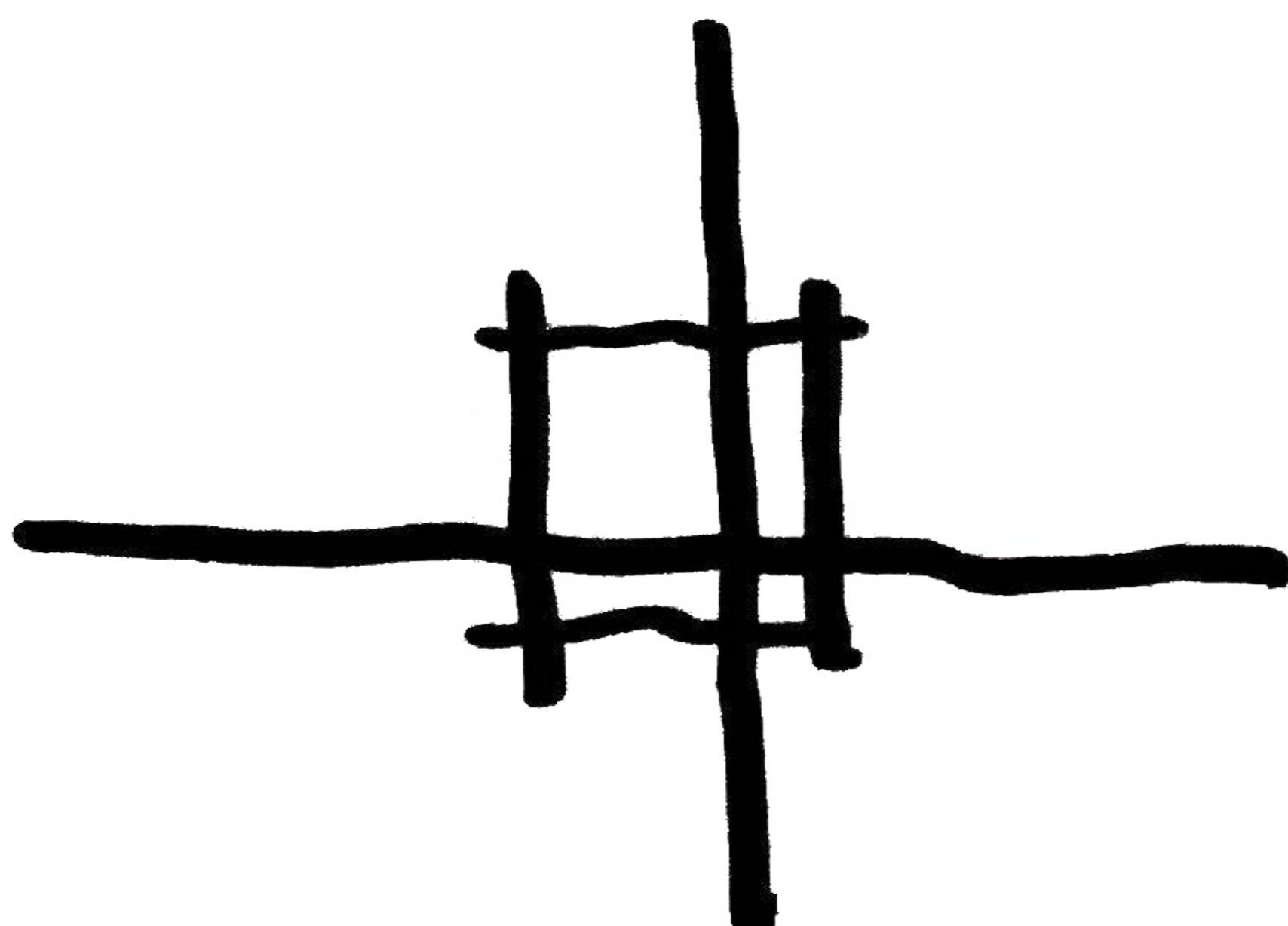


### RE-INTEGRATING

architecture as facilitator for empowerment, knowledge exchange and community building

## CONCEPT DIAGRAM

AS ABOVE, SO BELOW



CONNECTION TO THE SPIRITUAL WORLD

GROUND AS A PLATFORM FOR INTEGRATION

THE HEARTH FOR PROJECTION AND GROWTH

# TREATMENT PROCESS

## Stage 1: Healing through Urban Agriculture

This stage introduces an urban agriculture program that combines traditional and modern techniques like hydroponics, aeroponics, and vertical farming. Sustainable and low-water, this method helps participants reconnect with nature by nurturing plants. The open, grid-like structure creates a calming, misty environment that reflects onto the public spaces while providing private, tranquil areas within for the rehabilitants, symbolizing spiritual growth.

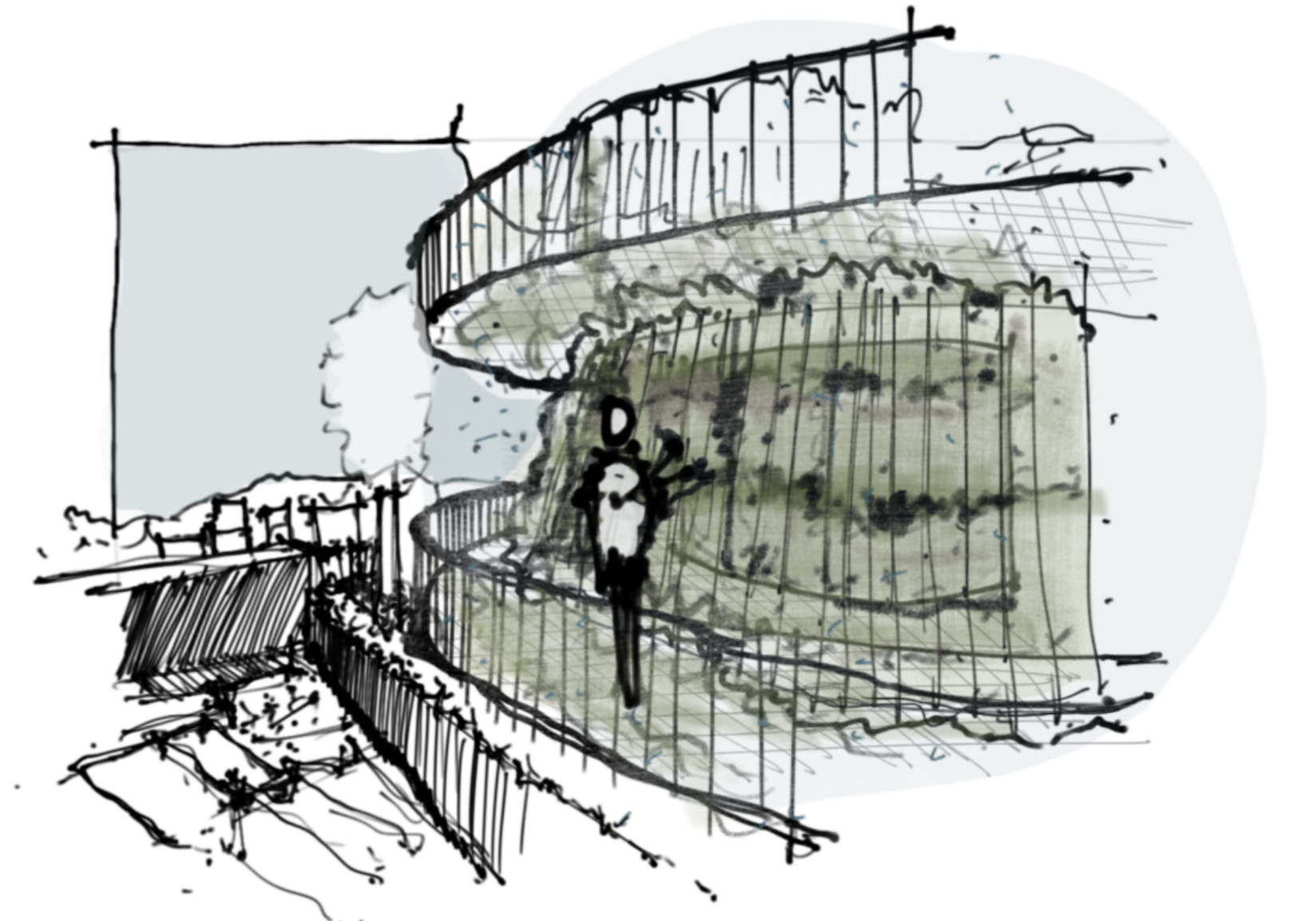


Figure 26: Initial sketch of Stage 01 atmosphere (Author 2024)

## Stage 2: Harvesting and Culinary Integration

In this stage, participants harvest and prepare produce from the urban farm for communal kitchens, where they explore traditional and new recipes. Cooking and sharing meals together strengthens a sense of belonging and connection, fostering emotional healing and resilience.



Figure 27: Initial sketch of Stage 02 atmosphere (Author 2024)

## Stage 3: Public Integration

In the final stage, participants gain practical skills and confidence by sharing their produce with the wider community through local markets and restaurants. This stage provides opportunities for economic involvement and social integration, as the women build connections, share their stories, and gain empowerment by contributing to society. The process emphasizes self-sufficiency and community involvement, helping survivors reclaim their place in the community while fostering economic independence.

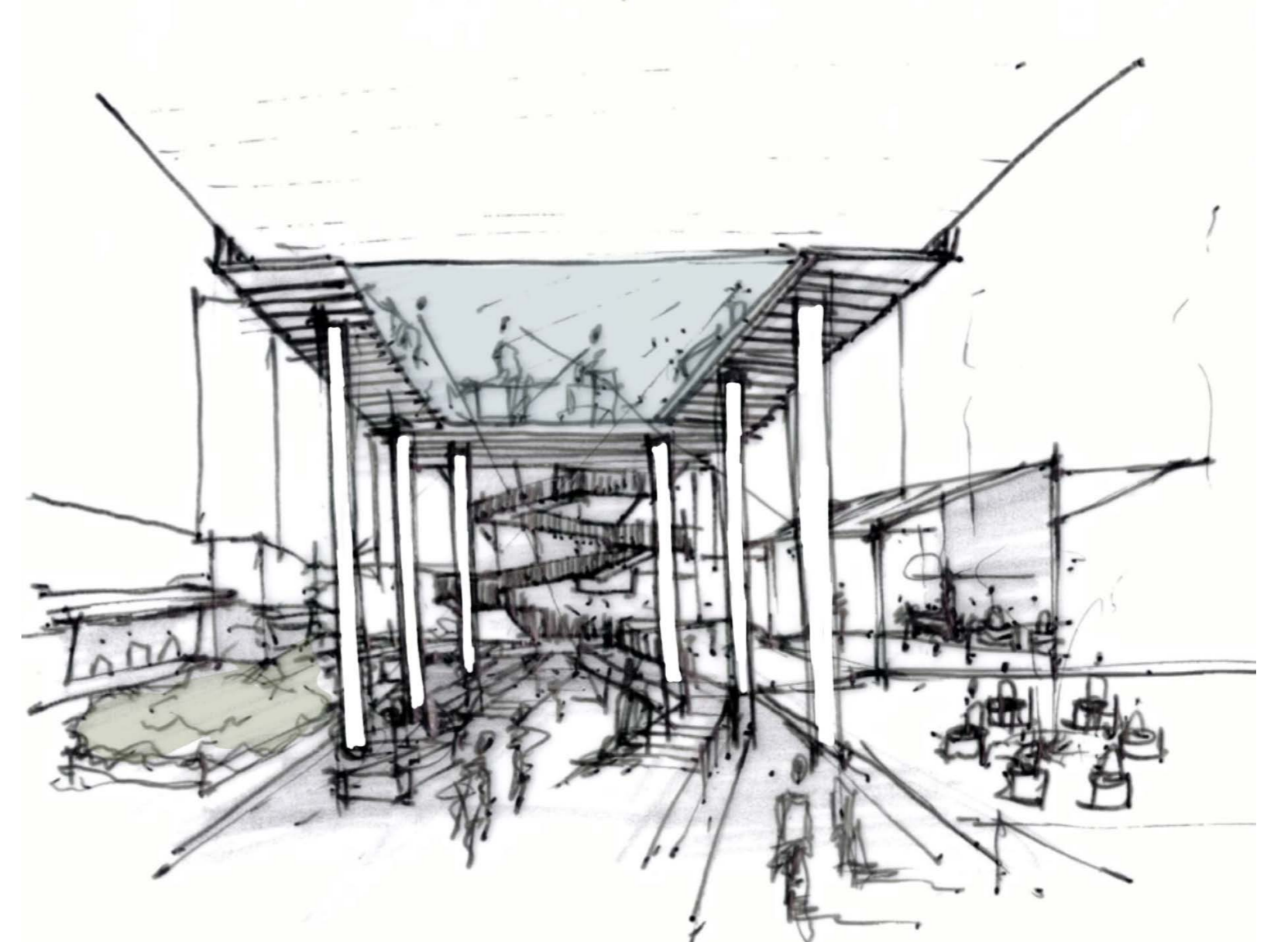
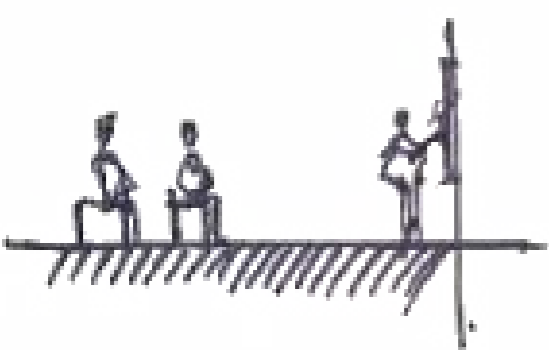


Figure 28: Initial sketch of Stage 03 atmosphere (Author 2024)

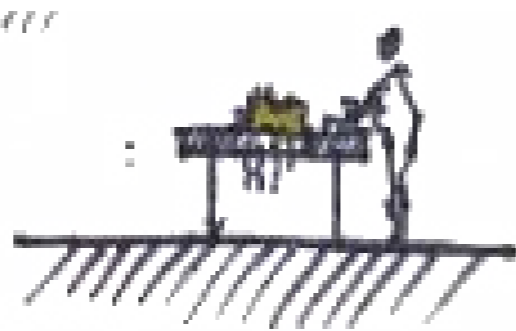
### WEEK 01 - INTRODUCTION AND TRAINING



INTRODUCTION AND TRAINING

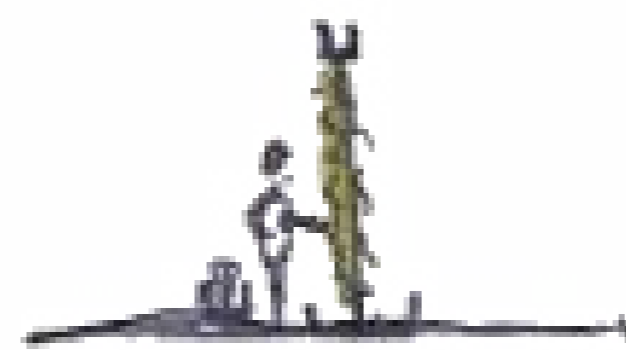


DEMONSTRATION AND PRACTICAL TRAINING



SEED PROCESSING AND PREPARATIONS

### WEEK 02 - 13 - GROWING



PLANTING AND MAINTAINANCE

### WEEK 14 - HARVESTING



HARVESTING



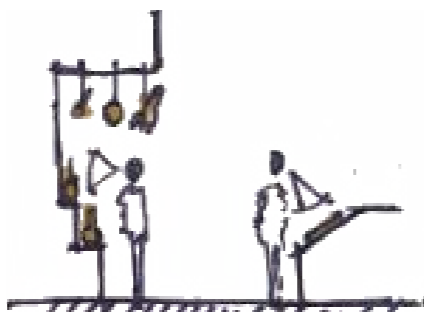
POST-HARVEST SORTING, DRYING AND STORAGE

### WEEK 15 - TRAINING

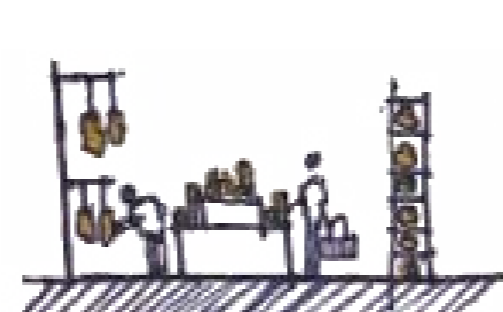


REHABILITANTS RECIEVE TRAINING BY COMMUNITY MEMBERS ON THE CRAFT OF COOKING

### WEEK 16 - 20 - COMMUNAL COOKING & EATING



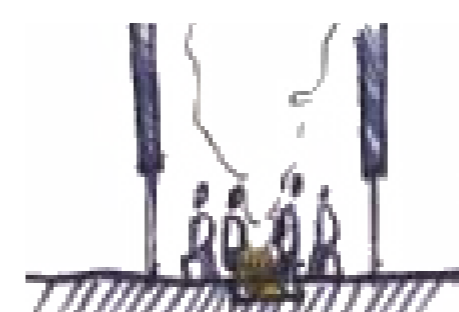
REHABILITANTS DRAW INSPIRATION FROM OLD RECIPES IN THE ARCHIVES



PICKING OF INGREDIENTS



COMMUNAL COOKING AND SHARING OF RECIPES/ TECHNIQUES



REFELCTION AROUND A FIRE



COMMUNAL EATING



REHABILITANTS PREPERATION FOR THE MARKET

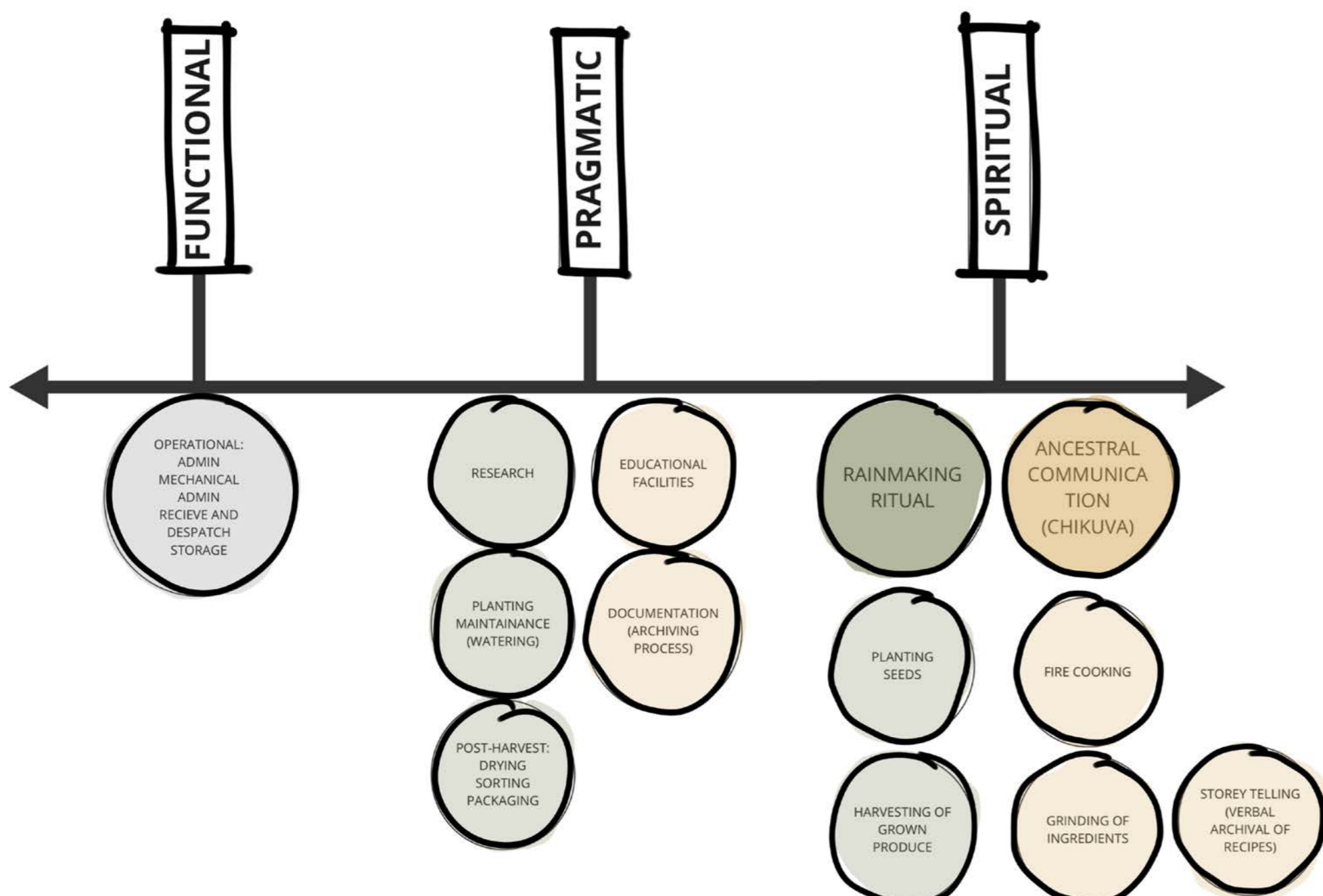
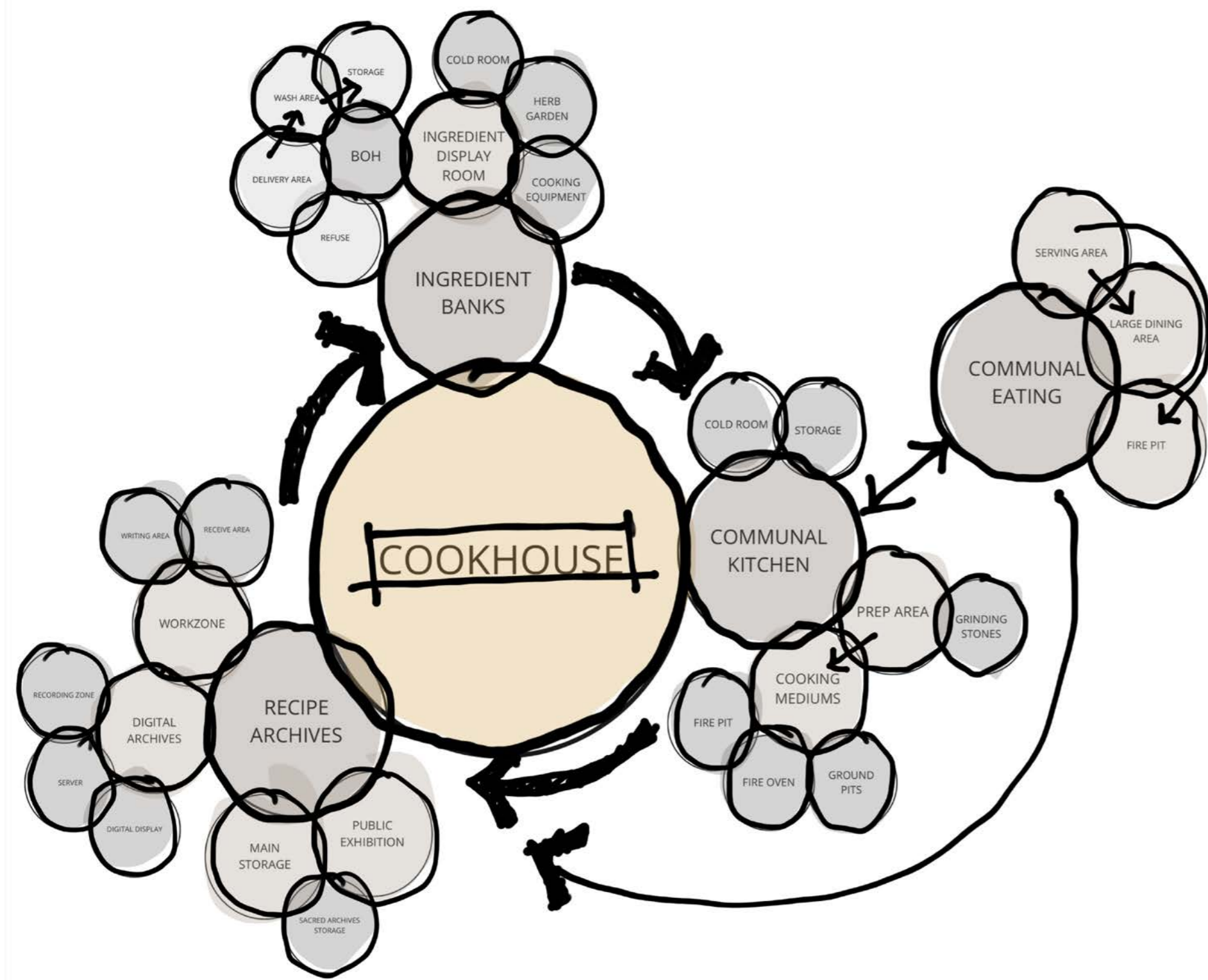
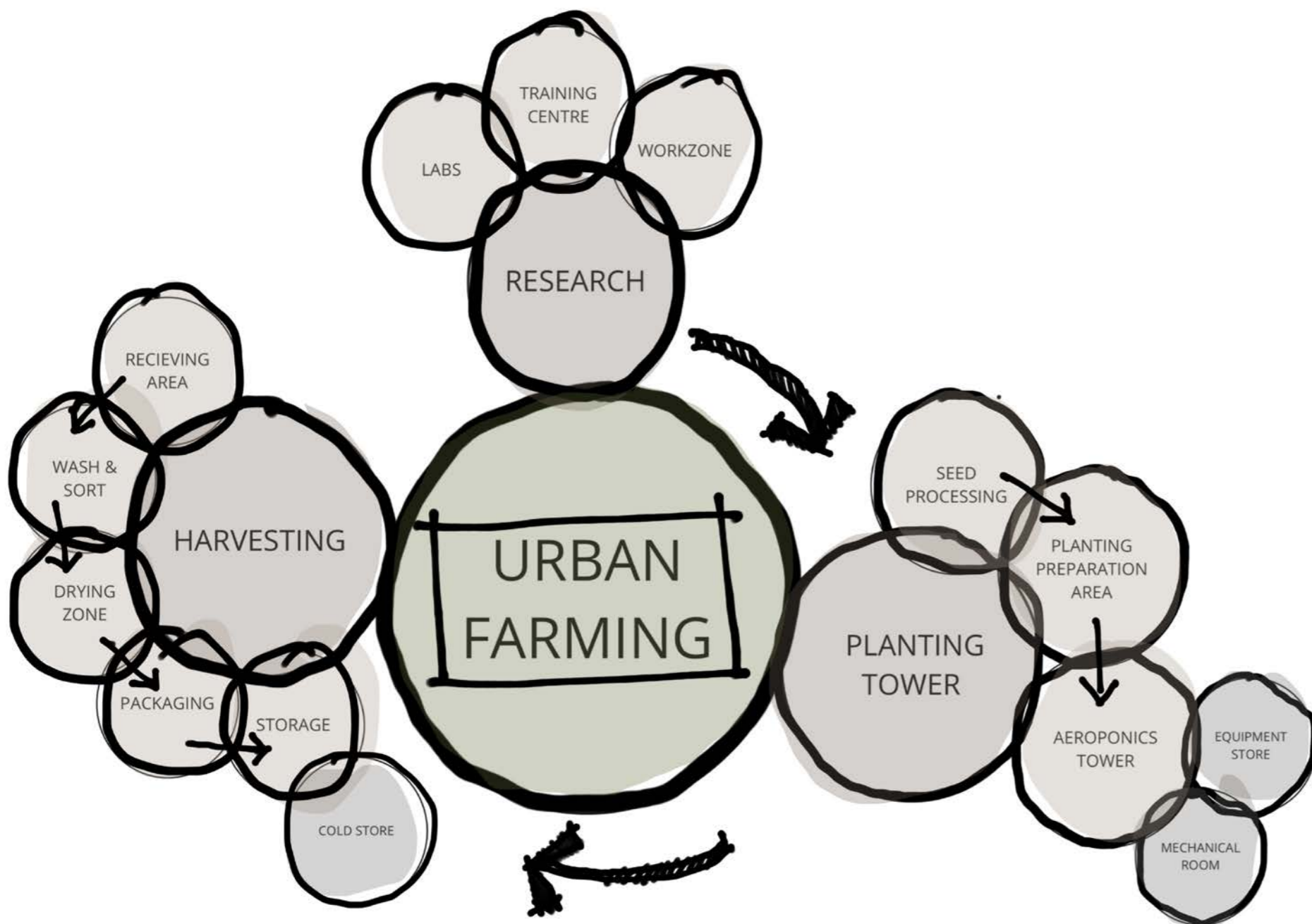
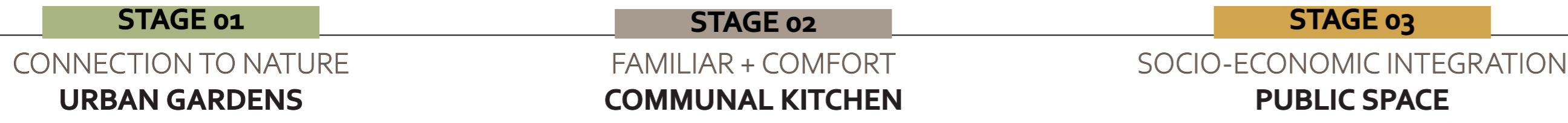
### WEEK 20-28 - MARKET



INTEGRATION WITH THE PUBLIC THROUGH FOOD MARKETS

# PROGRAM

The center hosts a range of programs to support the healing process, blending both spiritual and practical approaches. To ensure the space promotes healing while remaining functional, each program was evaluated based on its primary purpose and placed on a spectrum of core functions. This approach enabled a holistic design of the building that meets both emotional and practical needs.



## STAGE 01

- PLANTING
  - Aeroponics
  - Hydroponics
  - Verticle Farming
  - Planting Beds

- HARVEST FACILITY
  - Receiving And Processing Area
  - Storage
  - Washing Area
  - Sorting Area
  - Drying Area
  - Packaging Area
  - Equipment Store
  - Cold Store

- LABS
  - Seed Processing
  - Germination Area
  - Experimentation Labs
  - Research Facility

- OTHER
  - Ablutions
  - Offices
  - Staff Area

## STAGE 02

- COMMUNAL KITCHENS
  - Cooking Area
  - Ingredient Bank
  - Storage
  - Cold Store
  - Wash and Prep Area
  - Demonstration Kitchen
  - Communal Eating Area

- OTHER
  - Ablutions
  - Archives

## TREATMENT

- Traditional Healer Consultation Rooms
- Therapist Consultation Rooms
- Medicinal Gardens
- Rooftop Ritual Space

- OTHER
  - Ablutions

## STAGE 03

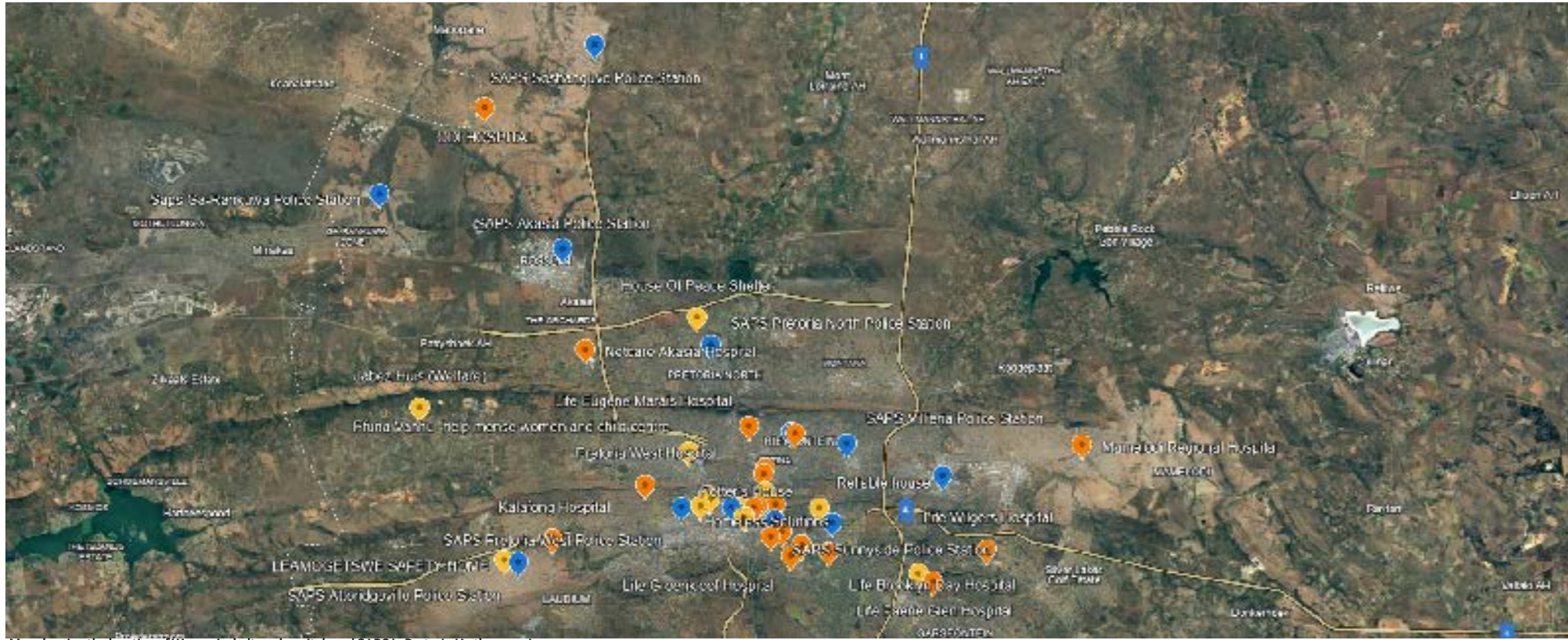
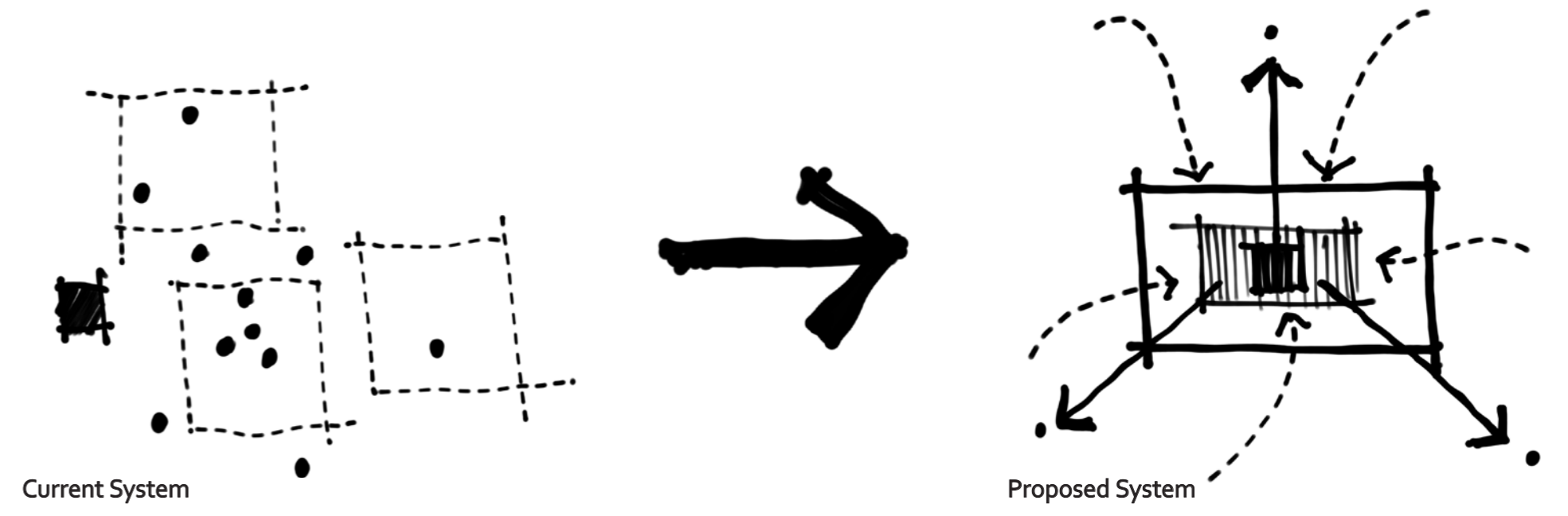
- PUBLIC SPACE
  - Food and Craft Market
  - Reception
  - GBV Command Centre
  - Exhibition Space
  - Public Urban Gardens
  - Retail
  - Office Space
  - Restaurants
  - Informal Market Space
  - Water Treatment Plant

- OTHER
  - Ablutions

# PROGRAM EXPANSION

According to Crimestatssa, the areas in Pretoria with the highest rates of reported sexual assault are Shoshanguwe, Mamelodi, and Pretoria Central. However, response systems are primarily concentrated in Pretoria Central, making its central location within the CBD an ideal site for a coordinated network of healing programs. Currently, the response system is decentralized, with the GBV Command Centre located in Salvokop. This proposal aims to create a centralized healing network led by the GBV Command Centre, which will be relocated to the new Katleho Healing Centre.

For immediate response, the network will include key partners such as SAPS, Louis Pasteur Hospital, and Mediclinic. Additionally, a short-term shelter in the CBD provides temporary housing for victims, allowing them to access critical support services like legal assistance, therapy, counseling, and medical care. Once initial needs are met, survivors will transition to the Katleho Healing Centre for medium- to long-term healing support and accommodation. This network will similarly expand into areas located further and facilitate immediate and long term response.



Map showing the location of Women's shelters, hospitals and SAPS in Pretoria (Author 2024)



Heat map of areas with the highest reports of sexual assault (Author 2024, derived from Crimestatssa)

## PROPOSED PRETORIA CENTRAL NETWORK

As part of a broader urban intervention, this network seeks not only to heal its users but also to contribute to the healing of the city itself. The plan involves creating a pedestrian-friendly network through existing city blocks, providing safe, green public spaces, secure access to public transportation, and safe routes to educational facilities across the city. The network is strategically designed around food establishments to ensure continuous activity and natural surveillance, fostering a safer, more connected urban environment.

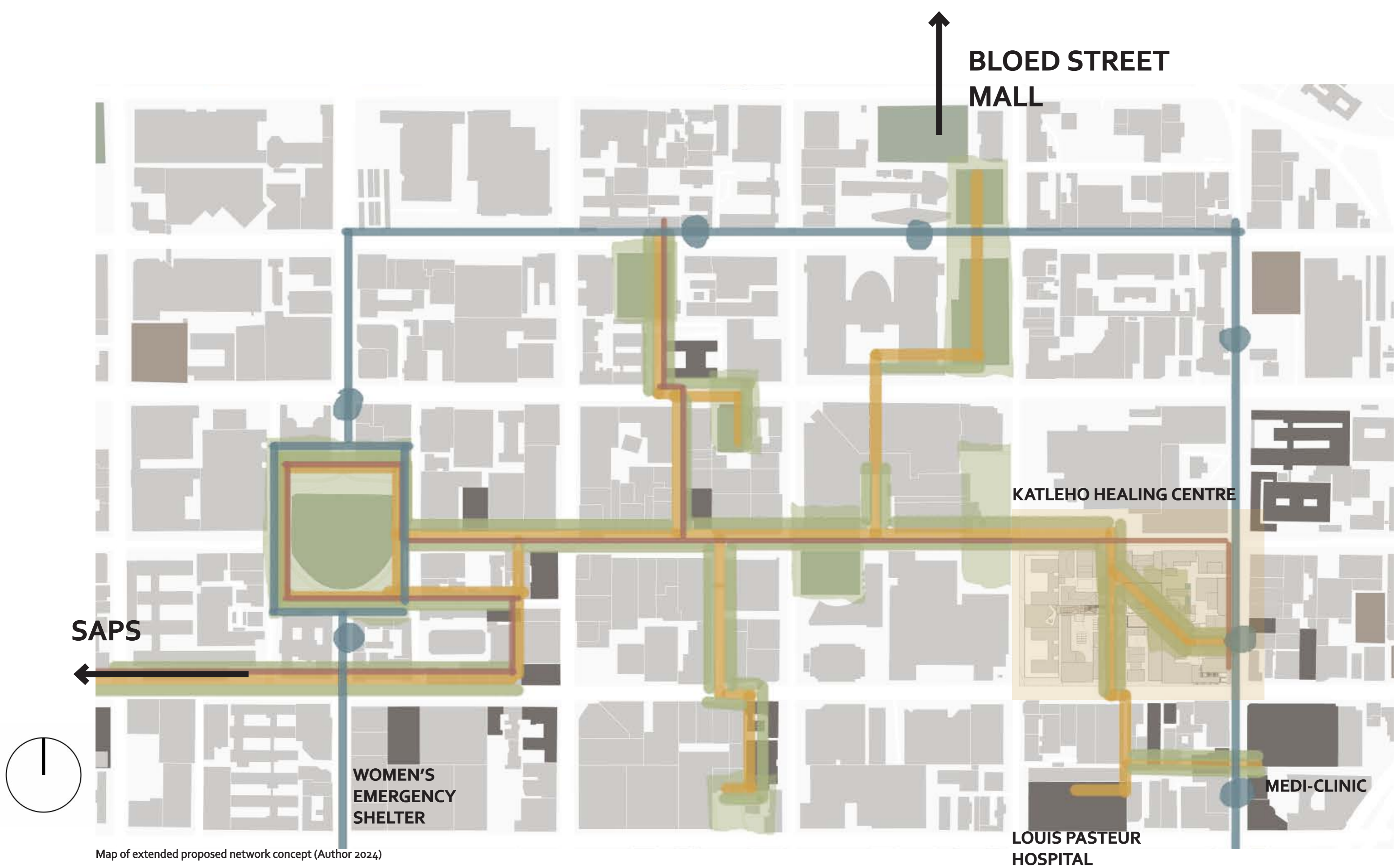


Map of proposed network (Author 2024)

**SHORT TERM HOUSING**  
KOPANO MANYANO

**MEDIUM TO LONG TERM HEALING**  
KATLEHO HEALING CENTRE  
GBV COMMAND CENTRE

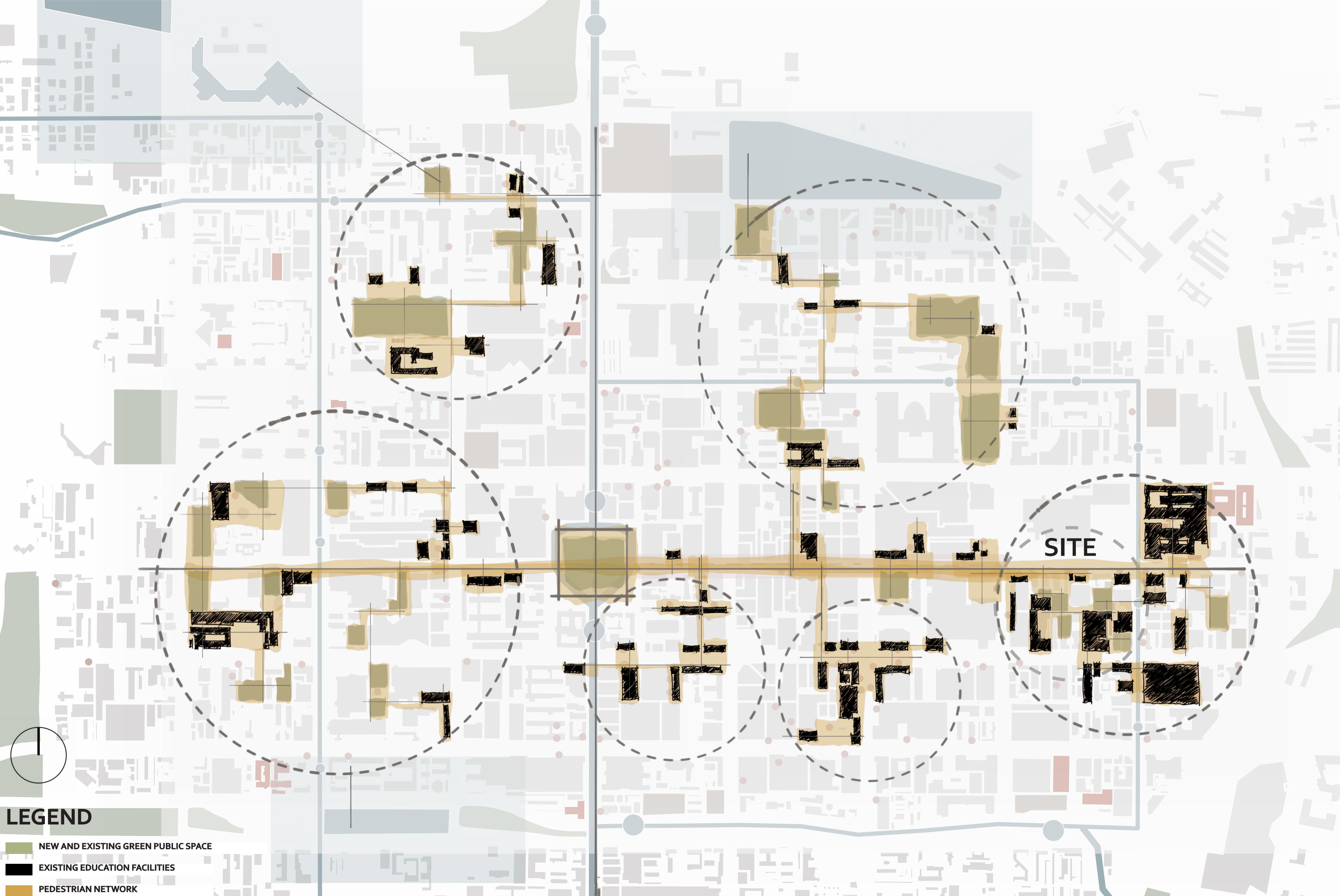
**IMMEDIATE RESPONSE**  
SAPS  
LOUIS PASTEUR HOSPITAL  
MEDICLINIC



Map of extended proposed network concept (Author 2024)

# URBAN INTERVENTION

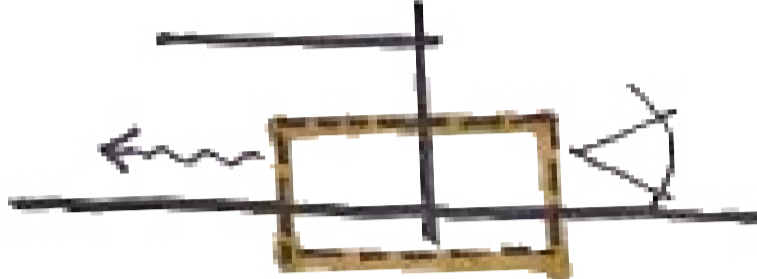
This urban intervention proposes a network of systems strategically integrating educational facilities, food establishments, and public green spaces along public transportation routes. By aligning these key amenities with a proposed new pedestrian transit corridors, the intervention promotes safety accessibility, fosters community engagement, and encourages sustainable urban living. This interconnected system enhances the daily lives of residents by providing convenient and safe access to learning opportunities and recreational spaces while reducing dependence on private vehicles and supporting environmental resilience.



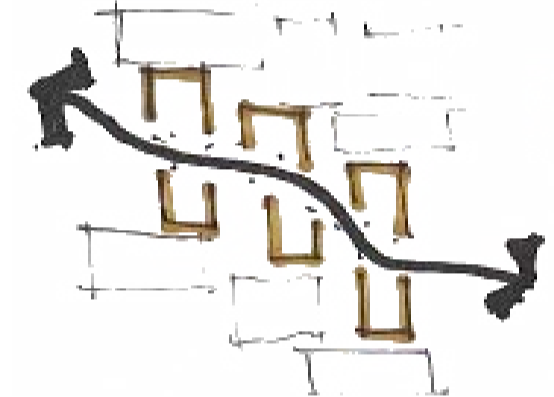
- LEGEND**
- NEW AND EXISTING GREEN PUBLIC SPACE
  - EXISTING EDUCATION FACILITIES
  - PEDESTRIAN NETWORK

## STRATEGY

**1 HERITAGE**  
Re-define existing to contribute towards the activation of a pedestrian appropriate zone



**2 PEDESTRIANISED STREET**  
Activate spaces between buildings within city blocks to create a pedestrian city within a city



**3 SERIES OF PUBLIC SPACES**  
Use public spaces as a way of guiding movement and organisation



**4 EYES ON THE STREET**  
Strategically organise programs to offer pasive surveillance 24/7 towards pedestrian zones and routes



**5 STRUCTURAL INTEGRATION**  
Water and landscaping act beyond features, and rather add to an integrated system through water cleaning and urban agriculture for public use



# BUILDING PERFORMANCE:

Assessing the level of city-making of the proposed public space and new healing centre design in Pretoria CBD

## CRITERIA FOR ASSESSMENT: CITY-MAKING ARCHITECTURE

What is City-Making Architecture?

City-making architecture or city-making strategies encompass the role of architecture in constructing, altering, and maintaining the urban environment (Enia and Martella 2019:157). Gehl (2010:32) states that the basic elements of city architecture are movement space and experience space, emphasizing that human mobility and human sense form the basis for designing cities.

Enia and Martella (2019:157) elaborate on the architect's role in city-making, describing them as capable of revitalising a place through deliberate and meticulous interventions. The authors emphasize that architects rediscover the human being as the primary protagonist of architecture, using human needs and experiences as the central criterion for their interventions. This approach shifts focus of design in the city from mere objects to the interplay between place and people, prioritising the creation of spaces that resonate with human activities and interactions.

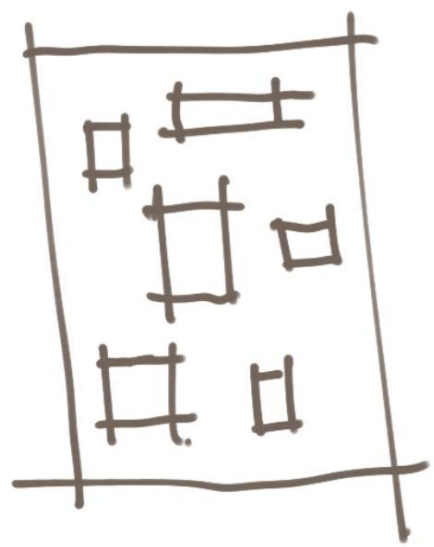
The principles of city-making was the most appropriate form of assessment for the project as the project is located within the city of Pretoria and deals with public space and creating safer space. The proposed project is a medium to long term Healing Centre for survivors of Gender-Based Violence. and deals with the intergration of survivors back into society through an empowerment and economic opportunity

## ASSESSMENT INDICATORS

Various City-making indicators were defined as necessary in order for a building, or series of buildings to make a positive contribution towards the urban environment in which it sits. The indicators were defined through the work Montgomery (1998) and substantiated by the insights of Gehl (2010) and Lynch (1996):

1. **Proximity** - The distance between programmes linking spaces vertically and horizontally
2. **Diversity** - Mix of uses, 247 operational hours
3. **Adaptability** - appropriation, flexibility of space
4. **Scale and proportion** - consideration of human scale, ratio of building height to street width, intimacy of space
5. **Interface** - permeability, articulation, activation, welcoming
6. **Pedestrian conditions** - lighting, well-defined pathways, street furniture, refuge space, walkable, shading, public amenities, safety buffer between pedestrians and vehicles
7. **Sustainability** - materiality, water harvesting, facade condition, solar, green infrastructure, internal courtyards)

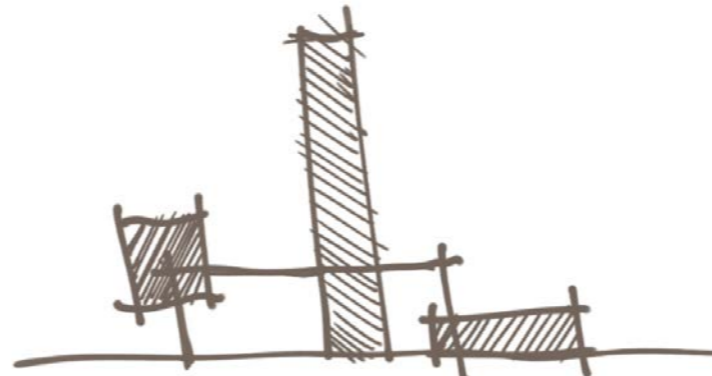
PROXIMITY



DIVERSITY



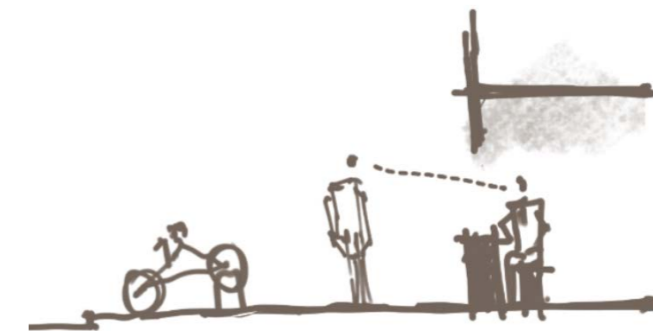
ADAPTABILITY



SCALE AND PROPORTION



INTERFACE



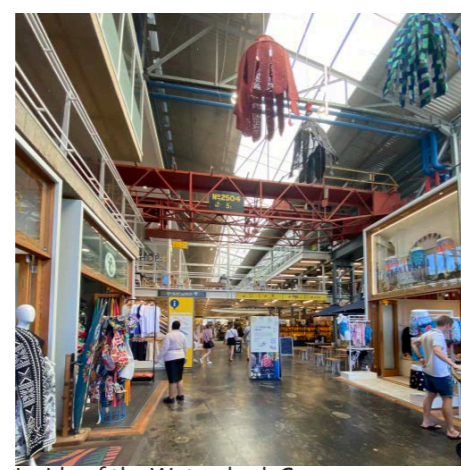
PEDESTRIAN CONDITIONS



## PERFORMANCE FRAMEWORK

A study of various urban precedents defined a framework for reference to determine the building performance in its contribution towards city-making. These precedents are either of a significant and well-known urban projects or have been carefully assessed using a city-making criteria list that measures the success of project in terms of contributing towards city-making. By assessing these precedents it allowed for an in-depth understanding of the indicators and how it was and can be achieved in various contexts and scenarios.

### WATERSHED WOLFF ARCHITECTS



Inside of the Watershed, Cape Town (Author 2024)

TOPIC	PROJECT EXECUTION	DIAGRAM
PROXIMITY	• Programmes are in close proximity through placement Directly adjacent and above each other	
DIVERSITY	• Diversity of uses achieved through the incorporation of both small businesses and developing larger businesses • Inclusion of market spaces and food establishments ensures operational hours run from early hours till late	
ADAPTABILITY	• Existing building reused as shell of new development	
SCALE AND PROPORTION	• Appropriate scale achieved through fragmenting the existing 12m high shed into 3 stories	
INTERFACE	• Transparent and active interface. • Pedestrian street passes through businesses and market spaces on ground floor creating an arcade typology	
PEDESTRIAN CONDITIONS	• Exclusive pedestrianised street with no vehicular disturbance • Centrality of pedestrian street creates a safe environment to walk through as the surroundings offers surveillance • Natural light brought in by completely opening up the entrance and exit, replacing existing roof sheeting with clear sheeting. The projection of the market space and businesses artificial lighting onto the street. • Surface treatment of the pedestrian walkway (existing paving) is different to the surface treatment of the programmed spaces.	
SUSTAINABILITY		
CONTEXT	• By keeping the existing building's shell, the building remains appropriate in its context characterized by a series of industrial buildings	

Assessment of the Watershed in terms of its city-making property (Author 2024)

### JEWEL CITY GASS ARCHITECTS



Image of portion of Jewel City in Johannesburg (Gass 2020)

TOPIC	PROJECT EXECUTION	DIAGRAM
PROXIMITY	• Programmes are spread over 6 blocks, all linked by a pedestrianised street, acting as a spine for the precinct.	
DIVERSITY	• The diversity is achieved through the mix of residential, retail, commercial, sport facilities and a school.	
ADAPTABILITY	• Open plaza/market spaces on the street is designed for adaptability to changing programme. it can be used as a market space, gathering space etc.	
SCALE AND PROPORTION	• the buildings in the precinct range in scale (from a 12 storey building to a single story building), creating balance in the urban fabric of the precinct. • building overhangs reduces the scale indifference for the users.	
INTERFACE	• permeability created on the ground floor • movement routes in the buildings are permeable to the public, creating visibility and eyes on the street.	
PEDESTRIAN CONDITIONS	• the pedestrianised street as been cleared from all vehicular access, making it safe for pedestrians at all times. • the street contains places for congregation, refuge and rest. the strategic use of street furniture and landscaping elements makes this possible.	
SUSTAINABILITY		
CONTEXT	• retaining of historical buildings in the precinct connects the new precinct to its historical fabric.	

Assessment of Jewel City in terms of its city-making property (Da Encarnaçãu 2024)

### 138 JAN SMUTS C76 ARCHITECTS



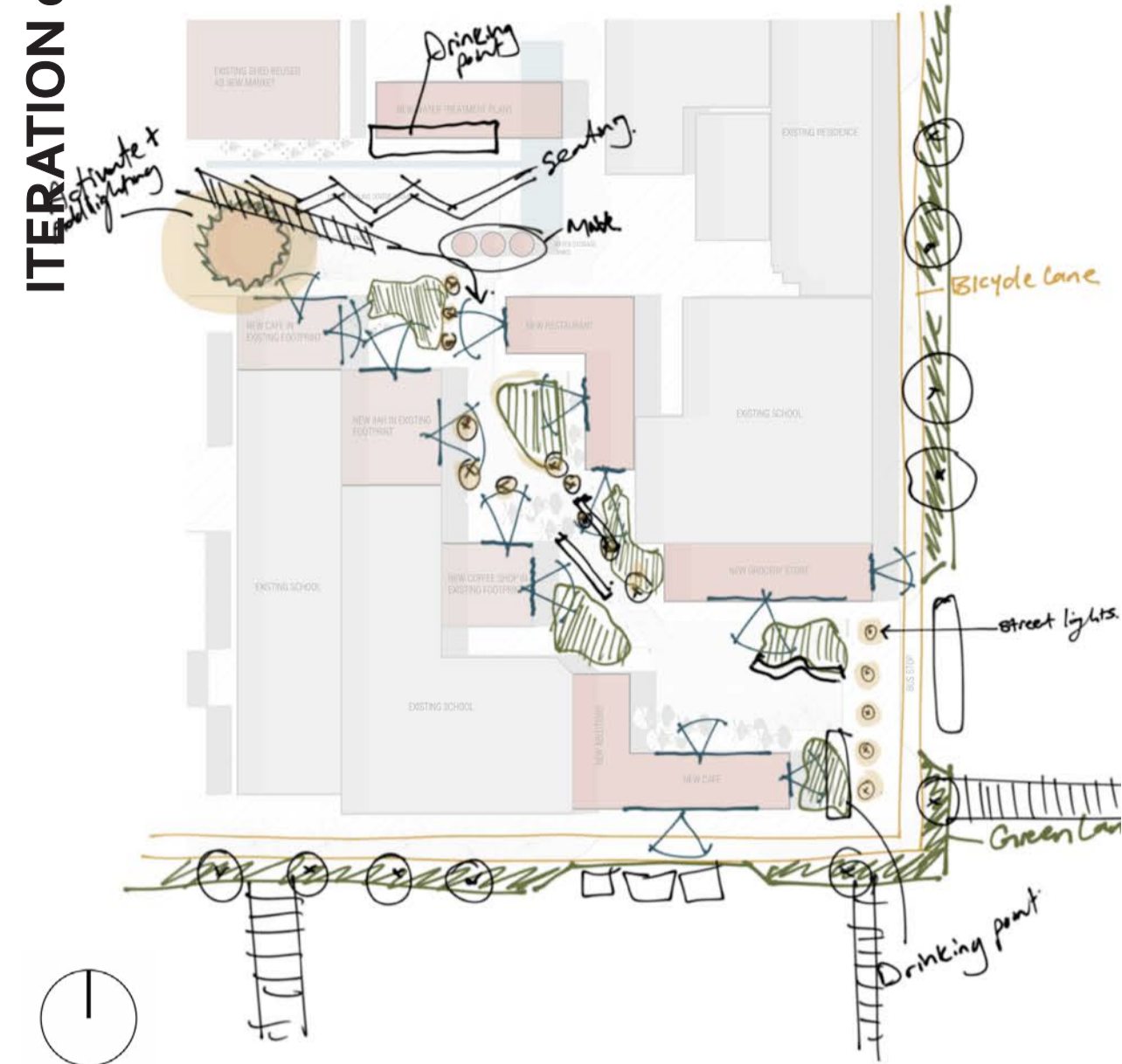
Image of 138 Jan Smuts, Johannesburg (Verwey 2017)

TOPIC	PROJECT EXECUTION	DIAGRAM
PROXIMITY	• The building programs are vertically mixed, with a commercial and cultural ground floor and a residential floors above. Between all floors, building offers cross pollination through double volumes	
DIVERSITY	• The precinct offers two functions: commercial, cultural and residential. Programs are not 247 operational, but do operate until late hours. Residential portion does offer surveillance onto the property and street.	
ADAPTABILITY		
SCALE AND PROPORTION	• Building is 6 stories high with each story about 2.8 to 3 m high.	
INTERFACE	• Precincts site only offers one entrance (physical permeability), but is balanced out with the fully semi-transparent street facade.	
PEDESTRIAN CONDITIONS	• Shaded walkway on the ground floor facade is provided • Pathways are well defined.	
SUSTAINABILITY	• Natural Passive design through zig-zag silhouetted roof brings in northern light into double volume floors • Dormer roof allows for natural ventilation throughout the double volume floors • Perforated brick facade controls natural lighting and provides natural cooling	
CONTEXT	• The use of the brick and pattern relate to the contextual history of Johannesburg	

Assessment of 138 Jan Smuts in terms of its city-making property (Ndlovu 2024)

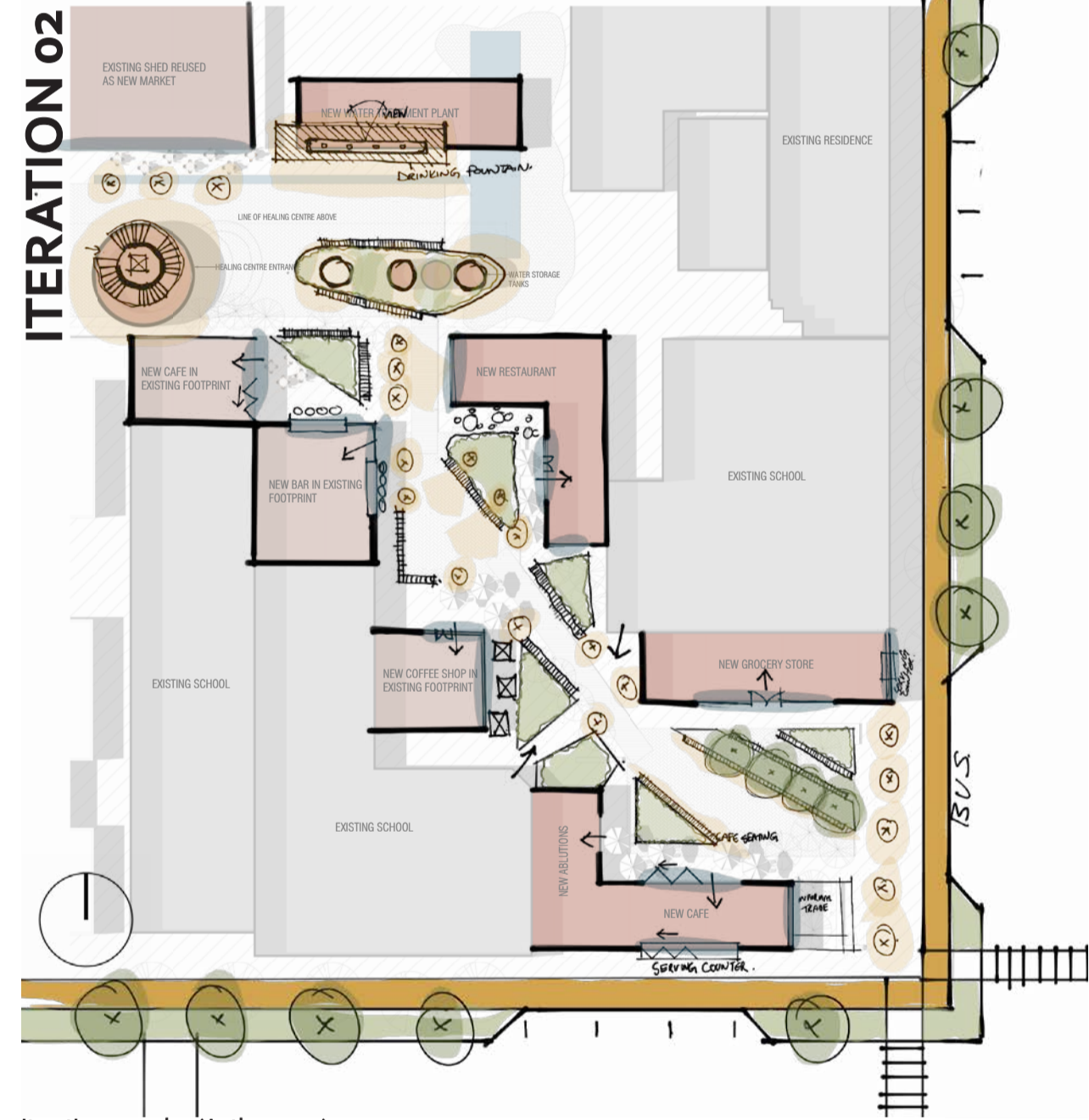
# ITERATIONS

## ITERATION 01



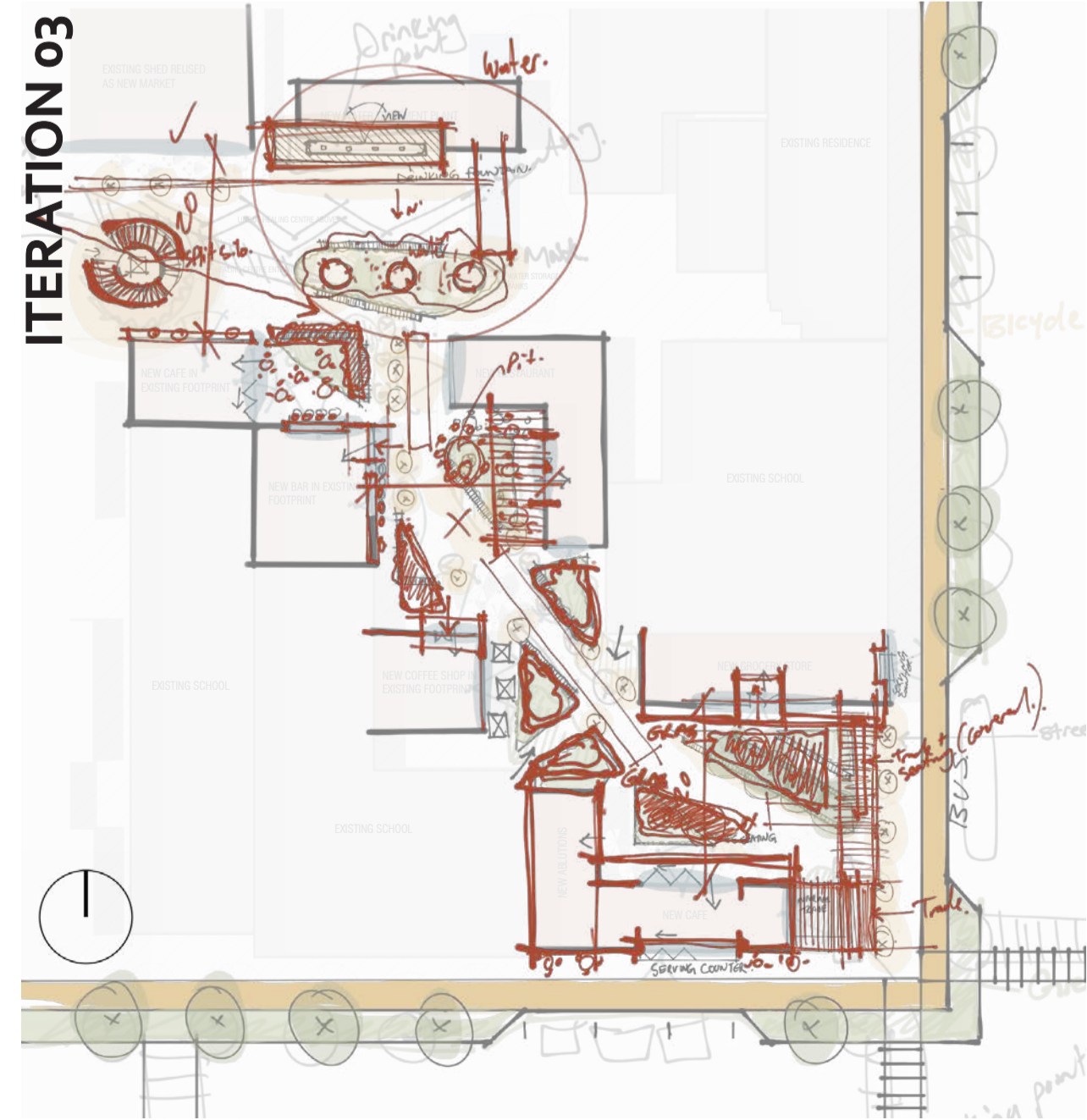
Iteration 1 on plan (Author 2024).

## ITERATION 02

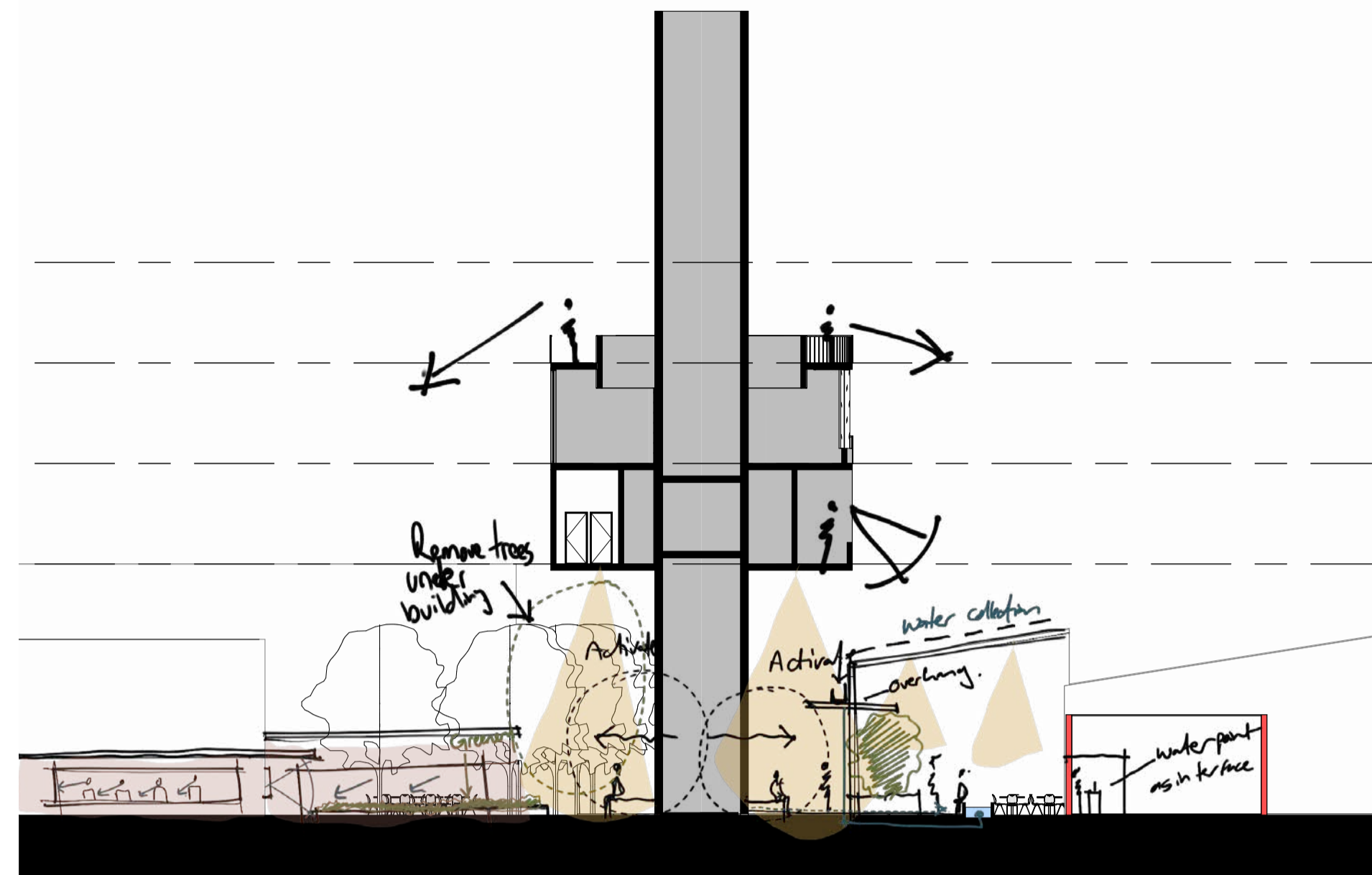


Iteration 2 on plan (Author 2024).

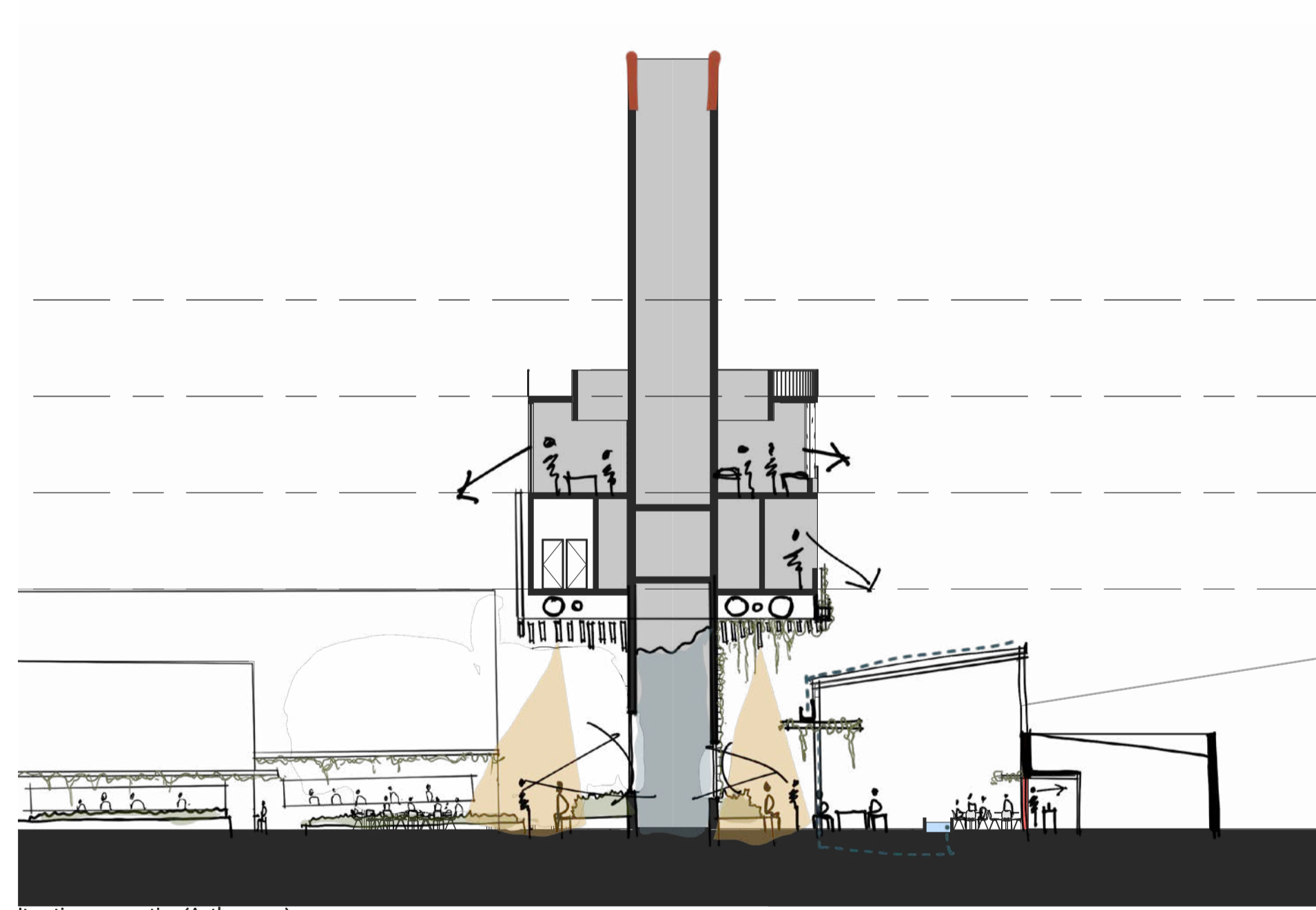
## ITERATION 03



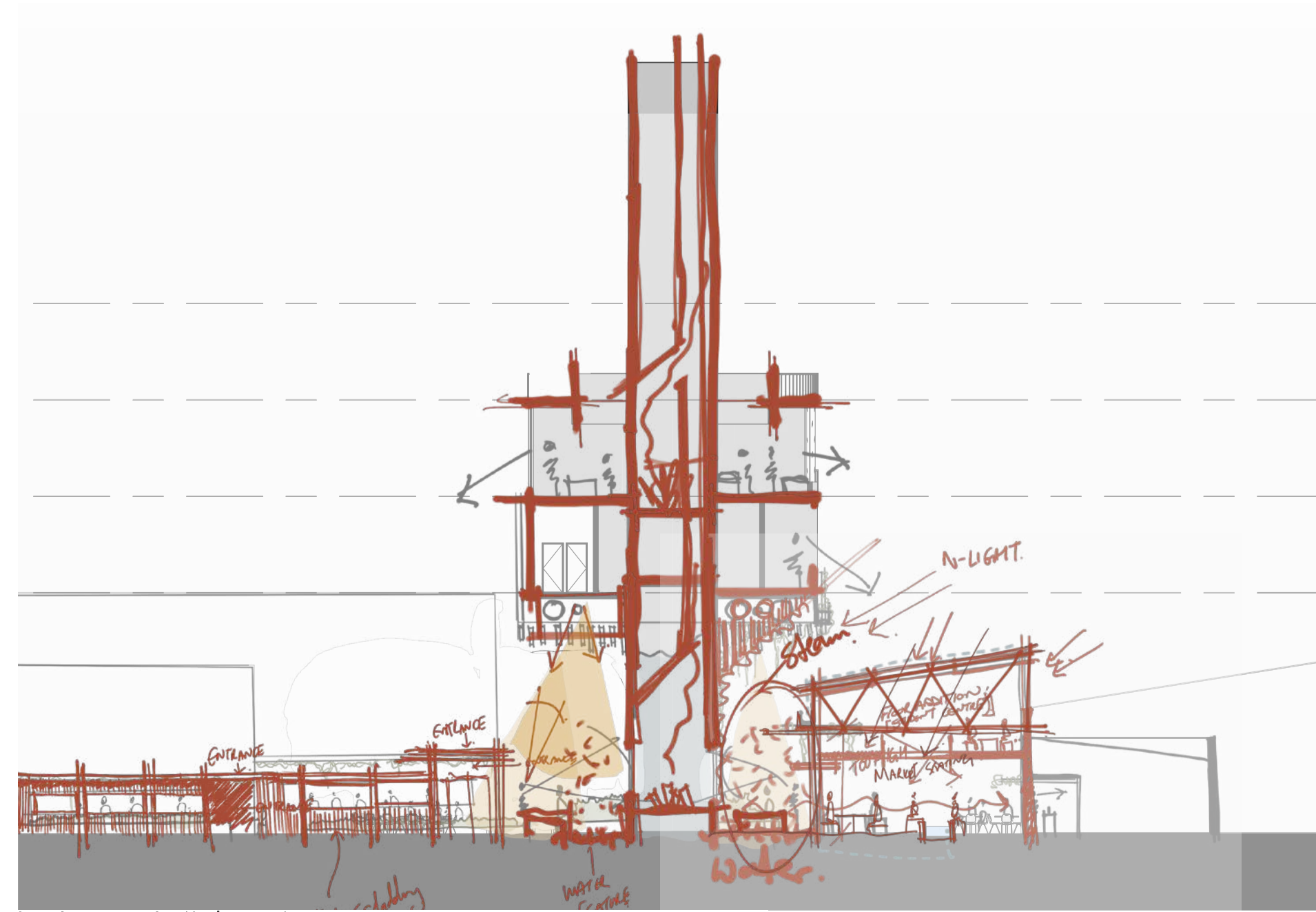
Iteration 3 on plan (Author 2024).



Iteration 1 on section (Author 2024).



Iteration 2 on section (Author 2024).



Iteration 3 on section (Author 2024).

Iteration 1 on plan shows the overlaying of the following:

1. Highlighting where surveillance is required
2. The inclusion of landscaping along the side walks and within the site block
3. Adding seating
4. Depicting which interfaces need activation and transparency
5. Lighting

Iteration 01 on section overlaid the relation between the new building and the existing context. Consideration was given to the following:

1. Height and scale of building in proportion to public space below.
2. Transparency to offer surveillance.
3. The buildings contribution to the public space in terms of surveillance and lighting
4. The addition of landscaping to create more comfortable pedestrian environment
5. The inclusion of public amenities such as water drinking fountain.
6. The interaction of the building with the public.

Iteration 2 on plan saw the implementation of the points raised in iteration 01. This saw the addition of primarily lighting, landscaping, defined pathways and facade treatments.

On the section, the implementation saw the utilisation of architectural unifying elements across the site to create a more cohesive pedestrian environment. It also explored the opportunity of creating interactivity and visuals into the healing centre so that the public can experience parts of the healing process. The water treatment process was added as a sustainability measure that is also exposed to the public in the form of water features and drinking fountains.

Iteration 3 included the following on plan:

1. Defined and articulated entrances.
2. Defining spaces to gather and pause
3. Platforms for informal trade near the bus stop.
4. Shade and seating at the bus stop.
5. Defining the level of intimacy of public squares.
6. Directing movement strategically for surveillance and exposure to the new healing centre building

On the section, iteration 3 considered the following:

1. Material differentiation between old and new
2. the addition of vertical architectural elements to break up the horizontality of the design
3. Introducing relevant programmed public spaces such as fire pits that serve as more than a feature.

## BASE CASE: INITIAL DESIGN TO BE ITERATED

TOPIC	CRITERIA	SCORE
PROXIMITY	1. Programmed spaces are diverse horizontally and complementary programmes are placed vertically.	1
	2. There should be a unifying architectural element connecting programmes	0
	3. Programmes should be placed in close proximity to each other (compact)	1
	4. Responsive public spaces should be included as supporting spill out spaces	0
	5. Entrances to appropriate programmes should be orientated to face a common space	0
DIVERSITY	6. The diversity of uses should include necessary uses, optional uses, and social uses (appropriate to the users).	1
	7. Include recreational uses and/or platforms for informal trade to foundational uses	0
	8. Include diverse operating hours to encourage 24/7 use	1
ADAPTABILITY	9. Programmes should be strategically placed to support passive surveillance during 24hours	0
	10. Allow for flexibility of space (leeway) to accommodate agency for sub-uses	0
	11. Consider adaptive reuse of existing building stock to facilitate new development	1
	12. Use landscaping elements to create an appropriate human scale environment	0
SCALE AND PROPORTION	13. Include intimate entrances to mitigate larger spaces	0
	14. Ground floor height to street edge ratio should be 1:1 or 1:2	1
	15. In a campus environment with multiple buildings the levels of intimacy between buildings should be: for small scale intimacy: 3-6 meters for medium scale intimacy: 6-15 meters for large scale intimacy: 15+ meters	0
	16. Overhangs should be 1 story high above ground level, not higher than 3m. Height to Width ratio of overhangs should be around 1:1	0
	17. Introduce of programmed public spaces to reduce the scale of the public space.	0
	18. Ground floor height should be larger than the above floors	1
	19. Building interface should include human scale elements to fragment large buildings	0
	20. Articulate the form of buildings to create safer public space	0
	21. Articulate building interface to create welcoming entrances	0
	22. Activate interface	0
INTERFACE	23. Include visual and/ or physical permeability	0
	24. Visual (materiality) variation included in interface	0
	25. Vertical elements included in interface to breakup horizontality	0
PEDESTRIAN CONDITIONS	26. Within the public realm articulate movement and places to stay	0
	27. Differentiate pedestrian pathways based on primary and secondary movement (materiality, landscaping)	1
	28. Places to stay should include: seating, shading, landscaping	1
	29. Between vehicular routes and pedestrian routes include buffers.	1
	30. Provide appropriate public amenities (water point, wifi zone, public ablutions, charging points)	1
	31. Include expressed sustainable practices contributing the city as a whole (water harvesting, solar, landscaping)	1
<b>TOTAL: 12 / 31</b>		

## SCORECARD AFTER ITERATION 2: INITIAL DESIGN TO BE ITERATED

TOPIC	CRITERIA	SCORE
PROXIMITY	1. Programmed spaces are diverse horizontally and complementary programmes are placed vertically.	1
	2. There should be a unifying architectural element connecting programmes	1
	3. Programmes should be placed in close proximity to each other (compact)	1
	4. Responsive public spaces should be included as supporting spill out spaces	1
	5. Entrances to appropriate programmes should be orientated to face a common space	1
DIVERSITY	6. The diversity of uses should include necessary uses, optional uses, and social uses (appropriate to the users).	1
	7. Include recreational uses and/or platforms for informal trade to foundational uses	0
	8. Include diverse operating hours to encourage 24/7 use	1
ADAPTABILITY	9. Programmes should be strategically placed to support passive surveillance during 24hours	1
	10. Allow for flexibility of space (leeway) to accommodate agency for sub-uses	0
	11. Consider adaptive reuse of existing building stock to facilitate new development	1
	12. Use landscaping elements to create an appropriate human scale environment	1
SCALE AND PROPORTION	13. Include intimate entrances to mitigate larger spaces	1
	14. Ground floor height to street edge ratio should be 1:1 or 1:2	1
	15. In a campus environment with multiple buildings the levels of intimacy between buildings should be: for small scale intimacy: 3-6 meters for medium scale intimacy: 6-15 meters for large scale intimacy: 15+ meters	0
	16. Overhangs should be 1 story high above ground level, not higher than 3m. Height to Width ratio of overhangs should be around 1:1	0
	17. Introduce of programmed public spaces to reduce the scale of the public space.	0
	18. Ground floor height should be larger than the above floors	1
	19. Building interface should include human scale elements to fragment large buildings	1
	20. Articulate the form of buildings to create safer public space	1
	21. Articulate building interface to create welcoming entrances	1
	22. Activate interface	1
INTERFACE	23. Include visual and/ or physical permeability	0
	24. Visual (materiality) variation included in interface	0
	25. Vertical elements included in interface to breakup horizontality	0
PEDESTRIAN CONDITIONS	26. Within the public realm articulate movement and places to stay	0
	27. Differentiate pedestrian pathways based on primary and secondary movement (materiality, landscaping)	1
	28. Places to stay should include: seating, shading, landscaping	1
	29. Between vehicular routes and pedestrian routes include buffers.	1
	30. Provide appropriate public amenities (water point, wifi zone, public ablutions, charging points)	1
	31. Include expressed sustainable practices contributing the city as a whole (water harvesting, solar, landscaping)	1
<b>TOTAL: 24 / 31</b>		

# DESIGN OUTCOME

## FINAL DESIGN: SCORECARD AFTER THE ITERATION AND IMPLEMENTATION PROCESS

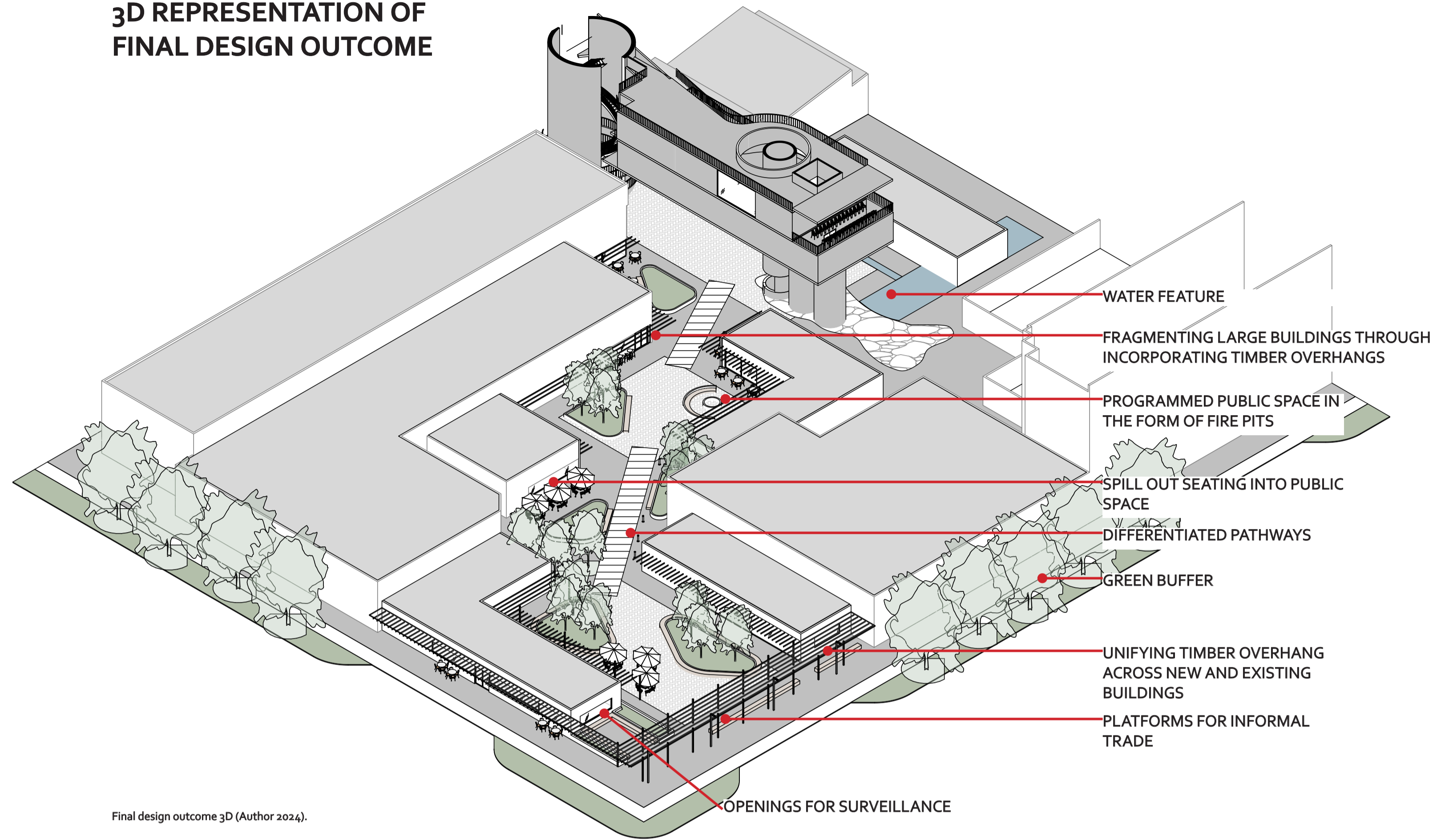
TOPIC	CRITERIA	SCORE
PROXIMITY	1. Programmed spaces are diverse horizontally and complementary programmes are placed vertically.	1
	2. There should be a unifying architectural element connecting programmes	1
	3. Programmes should be placed in close proximity to each other (compact)	1
	4. Responsive public spaces should be included as supporting spill out spaces	1
DIVERSITY	5. Entrances to appropriate programmes should be oriented to face a common space	1
	6. The diversity of uses should include necessary uses, optional uses, and social uses (appropriate to the users).	1
	7. Include recreational uses and/or platforms for informal trade to foundational uses	1
ADAPTABILITY	8. Include diverse operating hours to encourage 24/7 use	1
	9. Programmes should be strategically placed to support passive surveillance during 24hours	1
	10. Allow for flexibility of space (leeway) to accommodate agency for sub-uses	1
SCALE AND PROPORTION	11. Consider adaptive reuse of existing building stock to facilitate new development	1
	12. Use landscaping elements to create an appropriate human scale environment	1
	13. Include intimate entrances to mitigate larger spaces	1
INTERFACE	14. Ground floor height to street edge ratio should be 1:1 or 1:2	1
	15. In a campus environment with multiple buildings the levels of intimacy between buildings should be: for small scale intimacy: 3-6 meters for medium scale intimacy: 6-15 meters for large scale intimacy: 15+ meters	0
	16. Overhangs should be 1 story high above ground level, not higher than 3m. Height to width ratio of overhangs should be around 1:1	1
	17. Introduce programmed public spaces to reduce the scale of the public space.	1
	18. Ground floor height should be larger than the above floors	1
	19. Building interface should include human scale elements to fragment large buildings	1
	20. Articulate the form of buildings to create safer public space	1
	21. Articulate building interface to create welcoming entrances	1
	22. Activate interface	1
	23. Include visual and/or physical permeability	1
24. Visual (materiality) variation included in interface	1	
PEDESTRIAN CONDITIONS	25. Vertical elements included in interface to breakup horizontality	1
	26. Within the public realm articulate movement and places to stay	1
	27. Differentiate pedestrian pathways based on primary and secondary movement (materiality, landscaping)	1
	28. Places to stay should include: seating, shading, landscaping	1
	29. Between vehicular routes and pedestrian routes include buffers	1
	30. Provide appropriate public amenities (water point, wifi zone, public ablutions, charging points)	1
	31. Include expressed sustainable practices contributing the city as a whole (water harvesting, solar, landscaping)	1
<b>TOTAL: 30 / 31</b>		

## PLAN OF FOCUS AREA AFTER ITERATIONS



Final design outcome plan

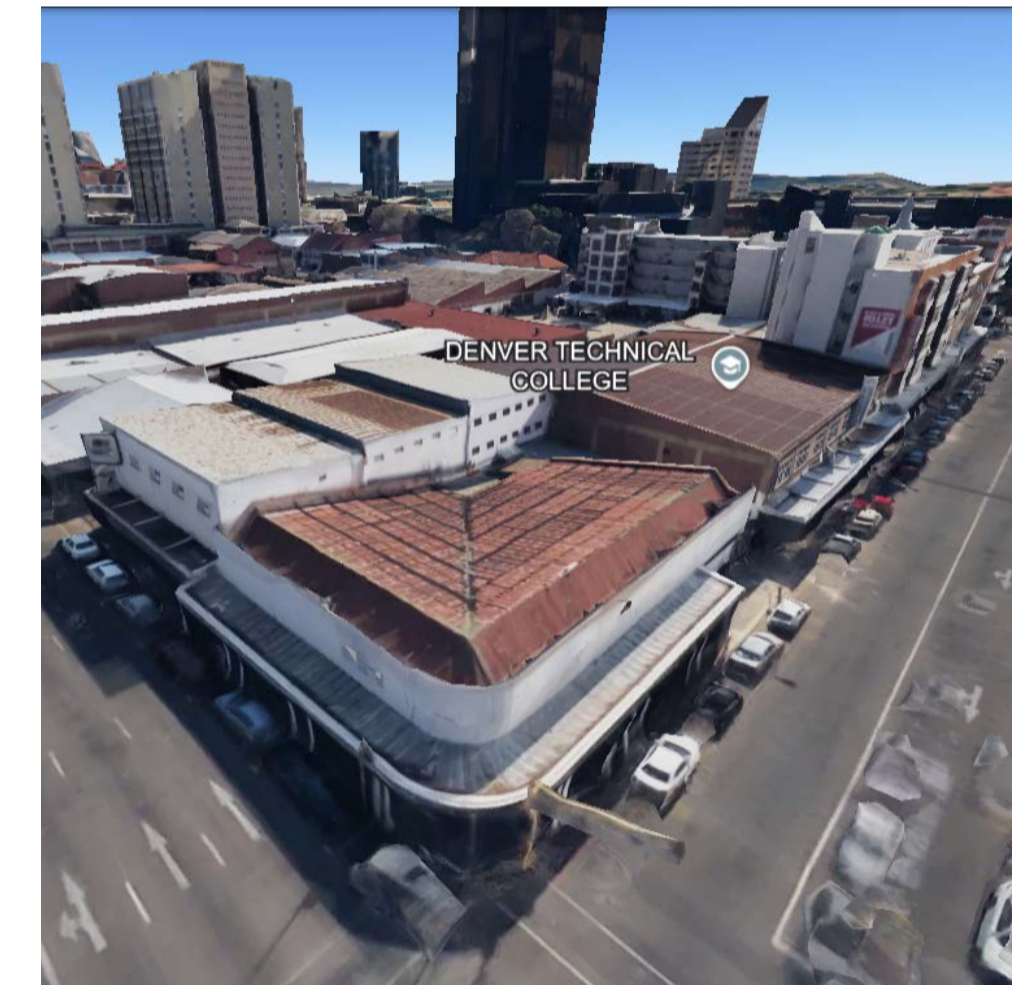
## 3D REPRESENTATION OF FINAL DESIGN OUTCOME



Final design outcome 3D (Author 2024).

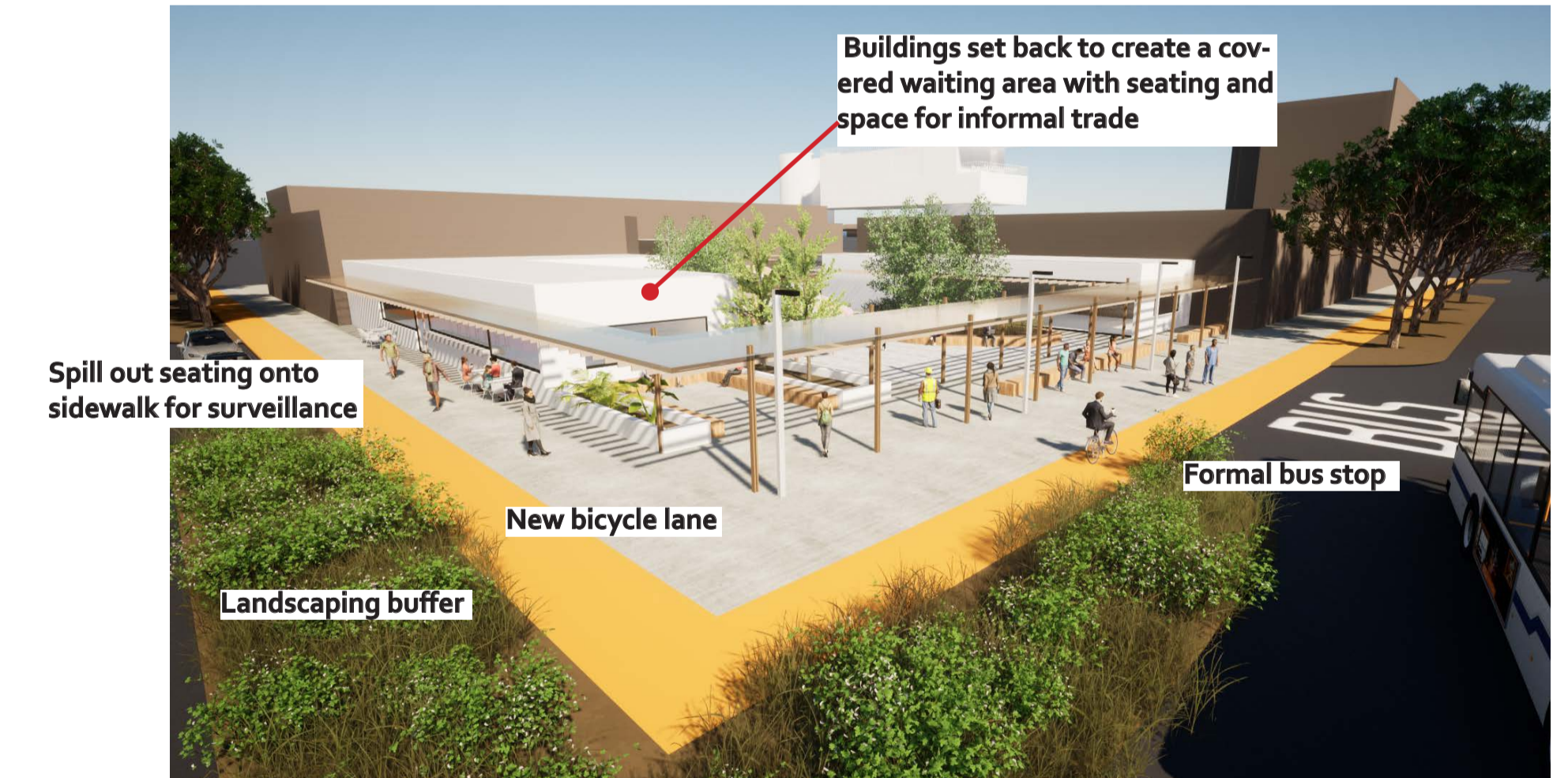
## BEFORE AND AFTER VISUAL REPRESENTATION OF FINAL DESIGN OUTCOME

Existing corner of Pretorius and Du Toit Street: Derelic buildings, vehicle dominance, no landscaping, no formal bus stop



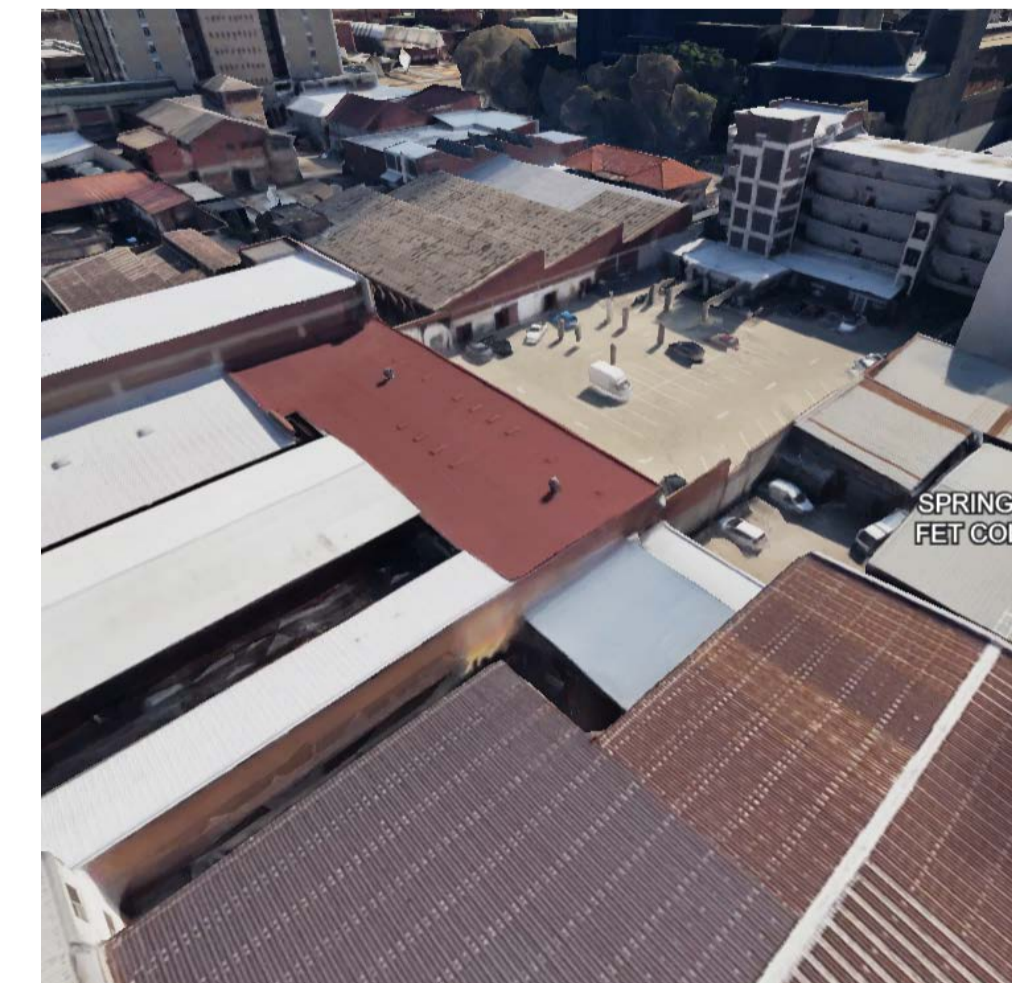
View of a street intersection in Pretoria CBD (Google Earth 2024).

Proposed new corner of Pretorius and Du Toit Street:



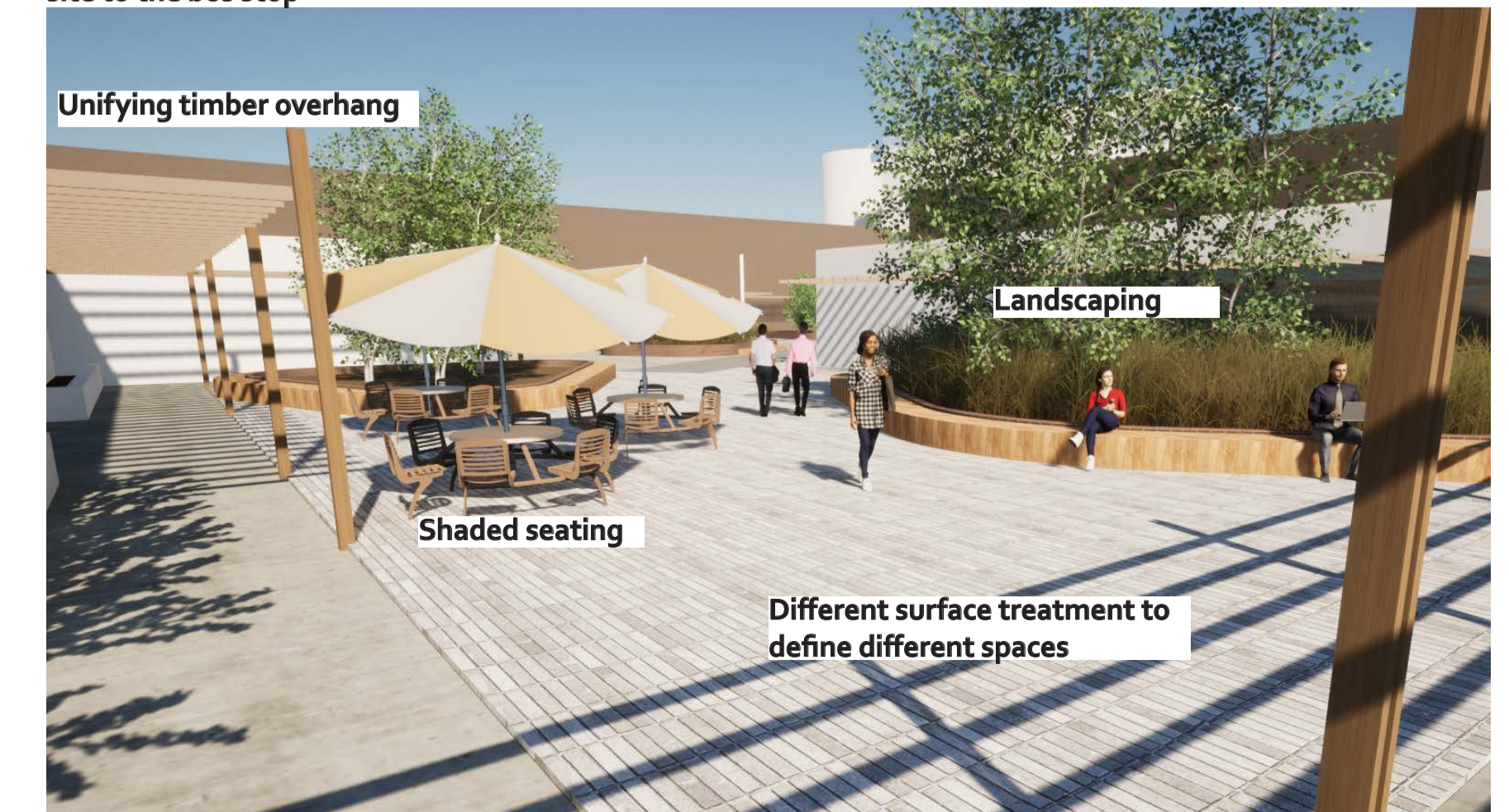
Final design outcome visual (Author 2024).

Existing parking lot between buildings



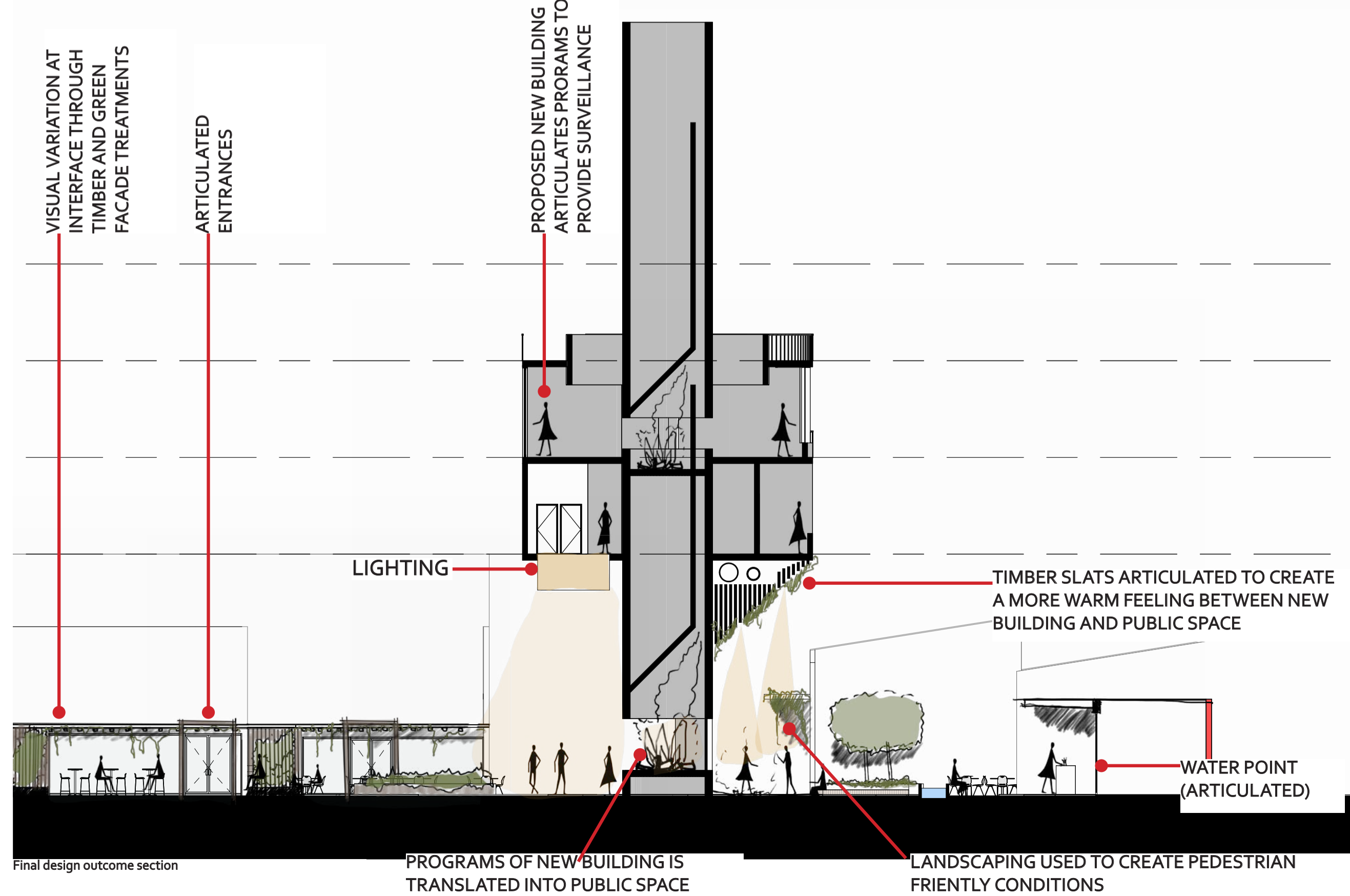
View of site (Google Earth 2024).

Proposed new food village between and in existing buildings, creating an active and safe route through the site to the bus stop



Final design outcome visual (Author 2024).

## SECTION A

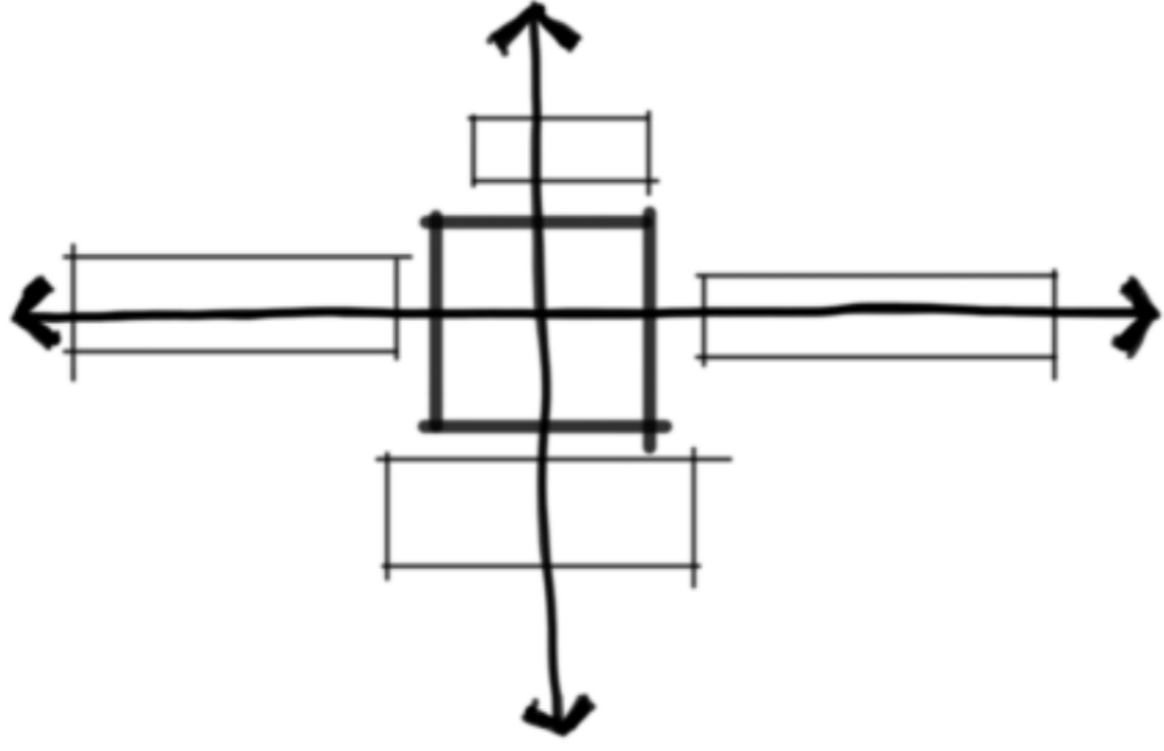


Final design outcome section

PROGRAMS OF NEW BUILDING IS TRANSLATED INTO PUBLIC SPACE

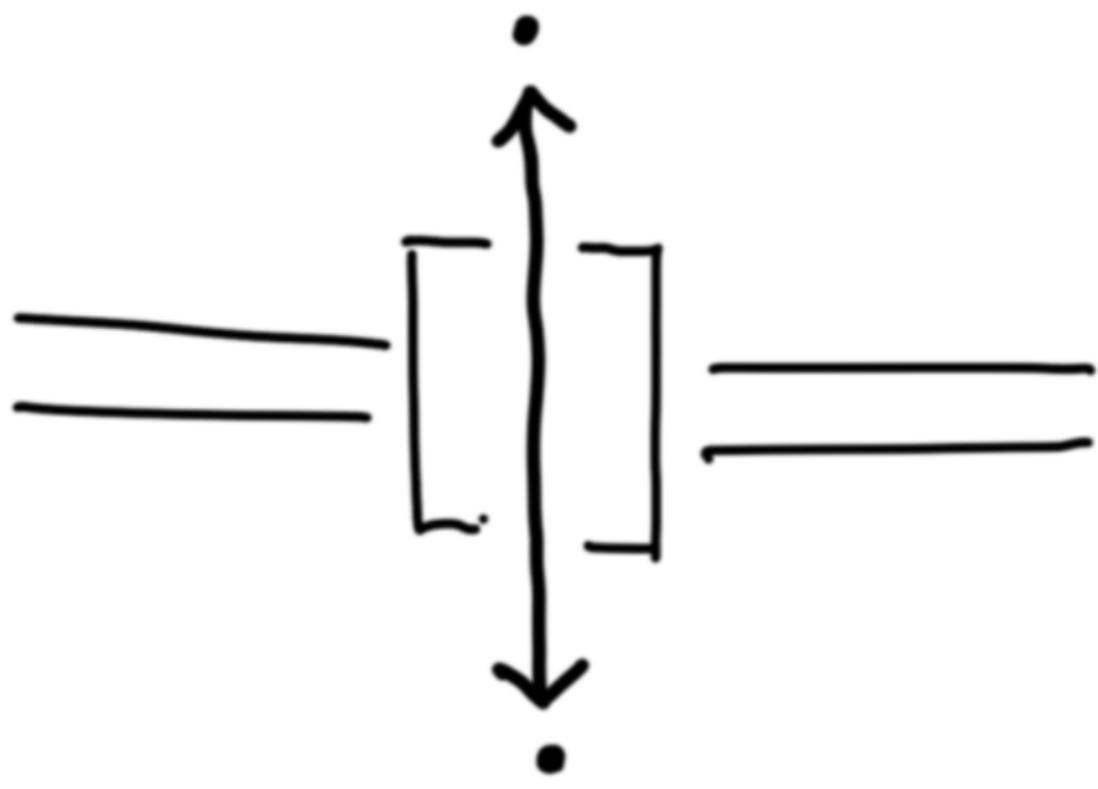
LANDSCAPING USED TO CREATE PEDESTRIAN FRIENDLY CONDITIONS

# DESIGN PRINCIPLES



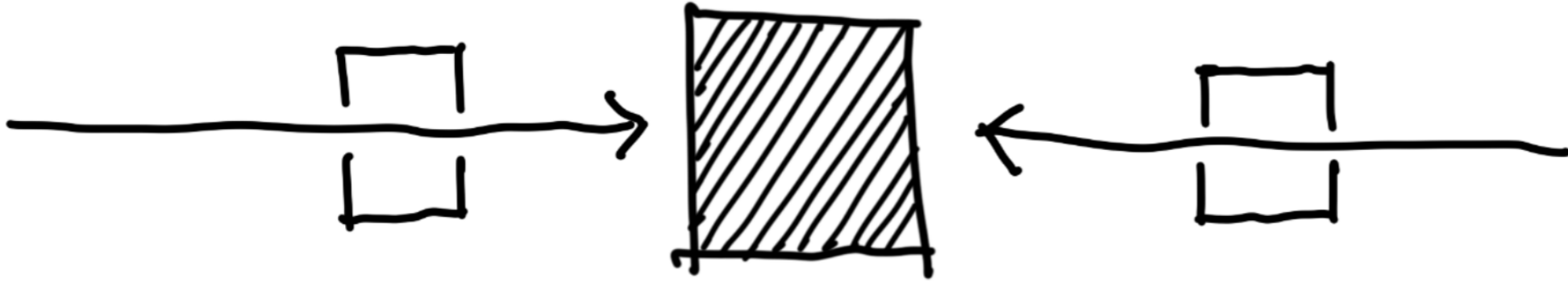
## ORGANISATION

The proposed design adopts a central organisation



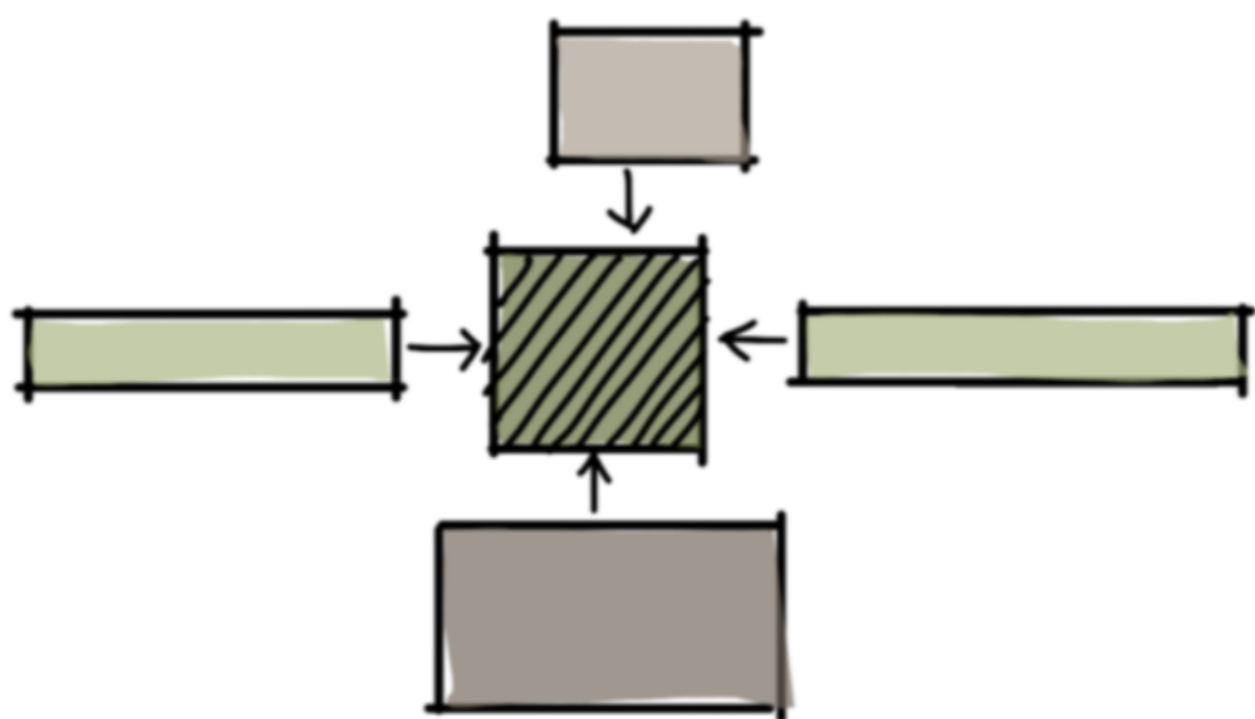
## HIERARCHY

Hierarchy is established through centrality, placing the most significant and spiritually resonant space at the heart of the design.



## CIRCULATION

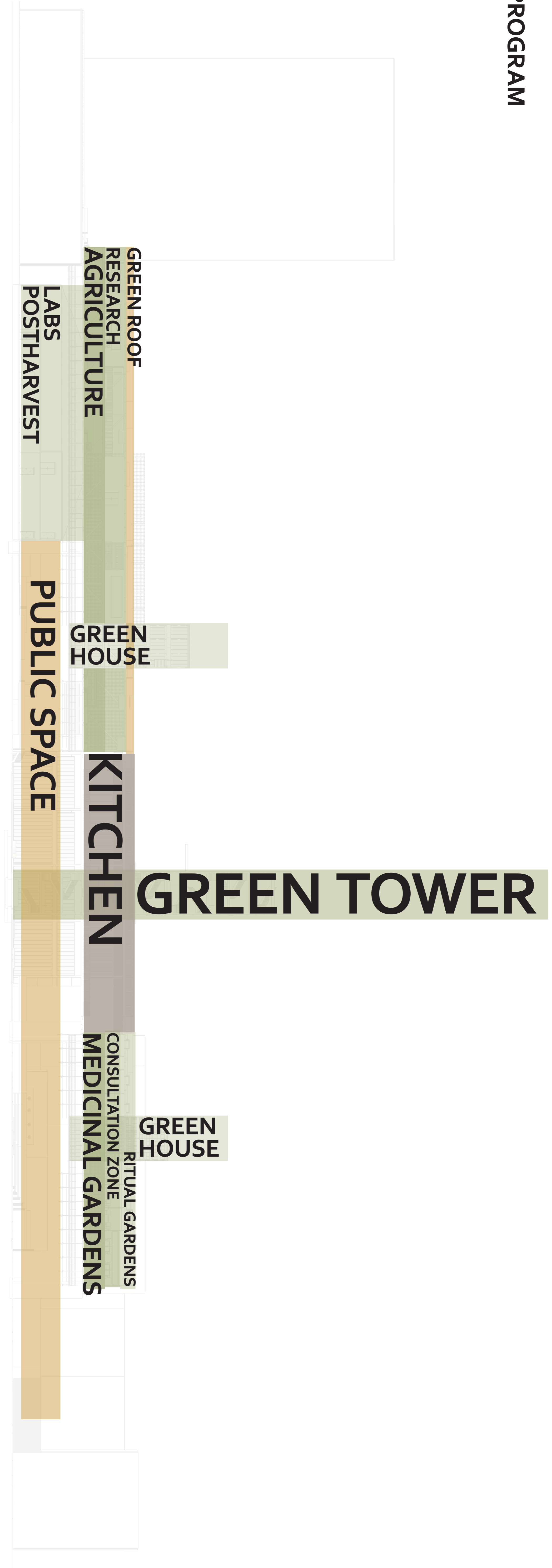
The circulation design draws inspiration from Louis Kahn's concept of ritualistic movement, where pathways are thoughtfully guided by light, spatial containment, and thresholds. In the proposed design, users are continually oriented toward light, creating a journey that enhances their sense of purpose and progression through the space.



## PROGRAM ORGANISATION

Programs are organised around the central atrium where primary circulation occurs.

# PROGRAM



# DESIGN DISSECTION

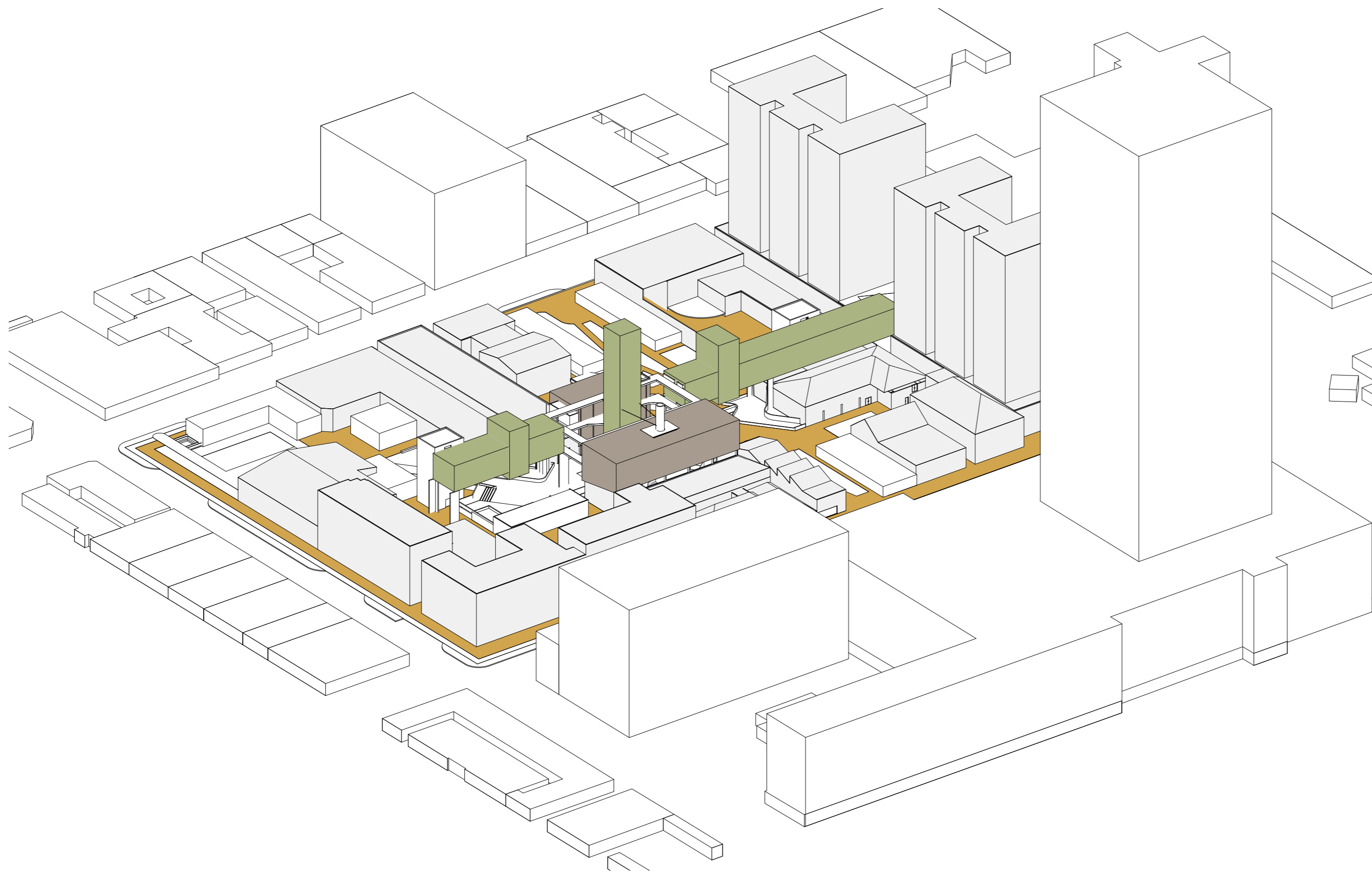
## SITE DEVELOPMENT

The proposed site intervention involves selectively removing a few existing structures to open up the area, following a thorough assessment of their heritage value and current condition. Most of the removed structures consist of temporary elements like carports. Several buildings have been repurposed in an adaptive manner, expanding the program into the public space. Newly constructed elements are designed to float above existing ones, minimizing disruption to the current structures and respecting the public space.



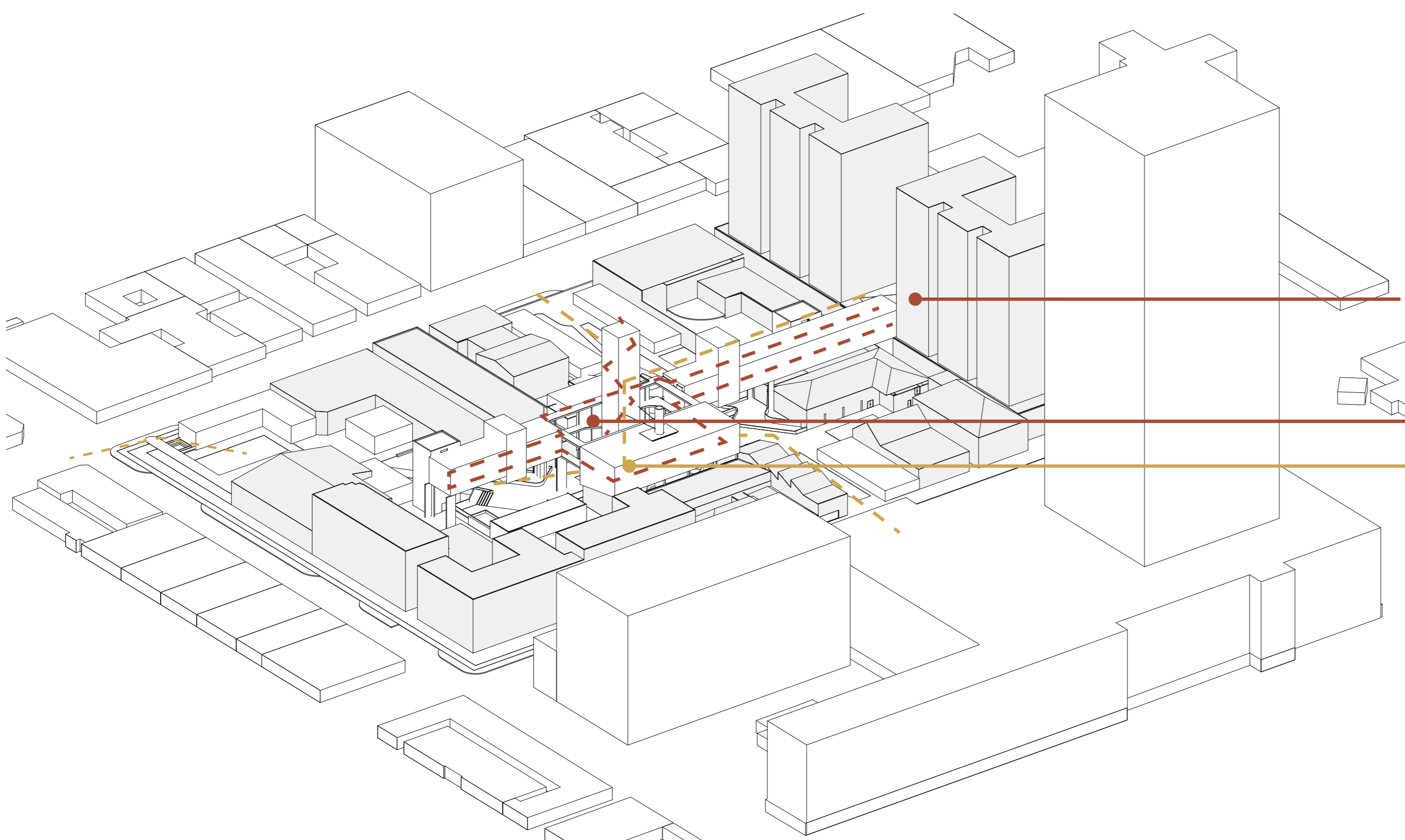
- EXISTING
- NEW ABOVE EXISTING CONTEXT
- NEW
- ADAPTIVE REUSE
- DEMOLISHED

## MASSING



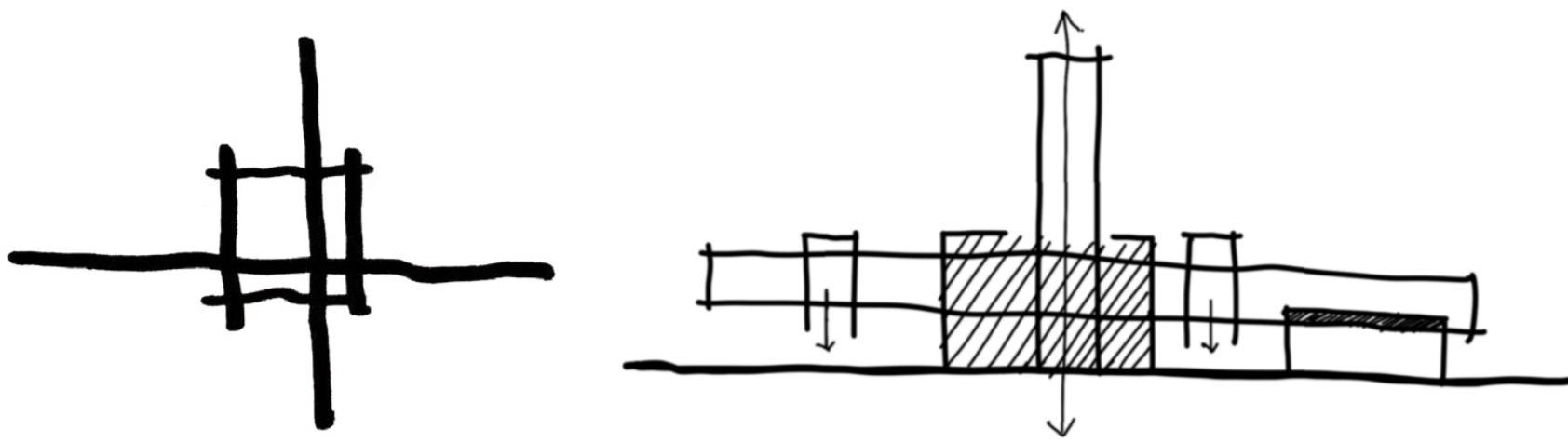
- STAGE 01  
URBAN ARGICULTURE
- STAGE 02  
COMMUNAL KITCHENS
- STAGE 03  
PUBLIC SPACE

## CIRCULATION & ACCESS



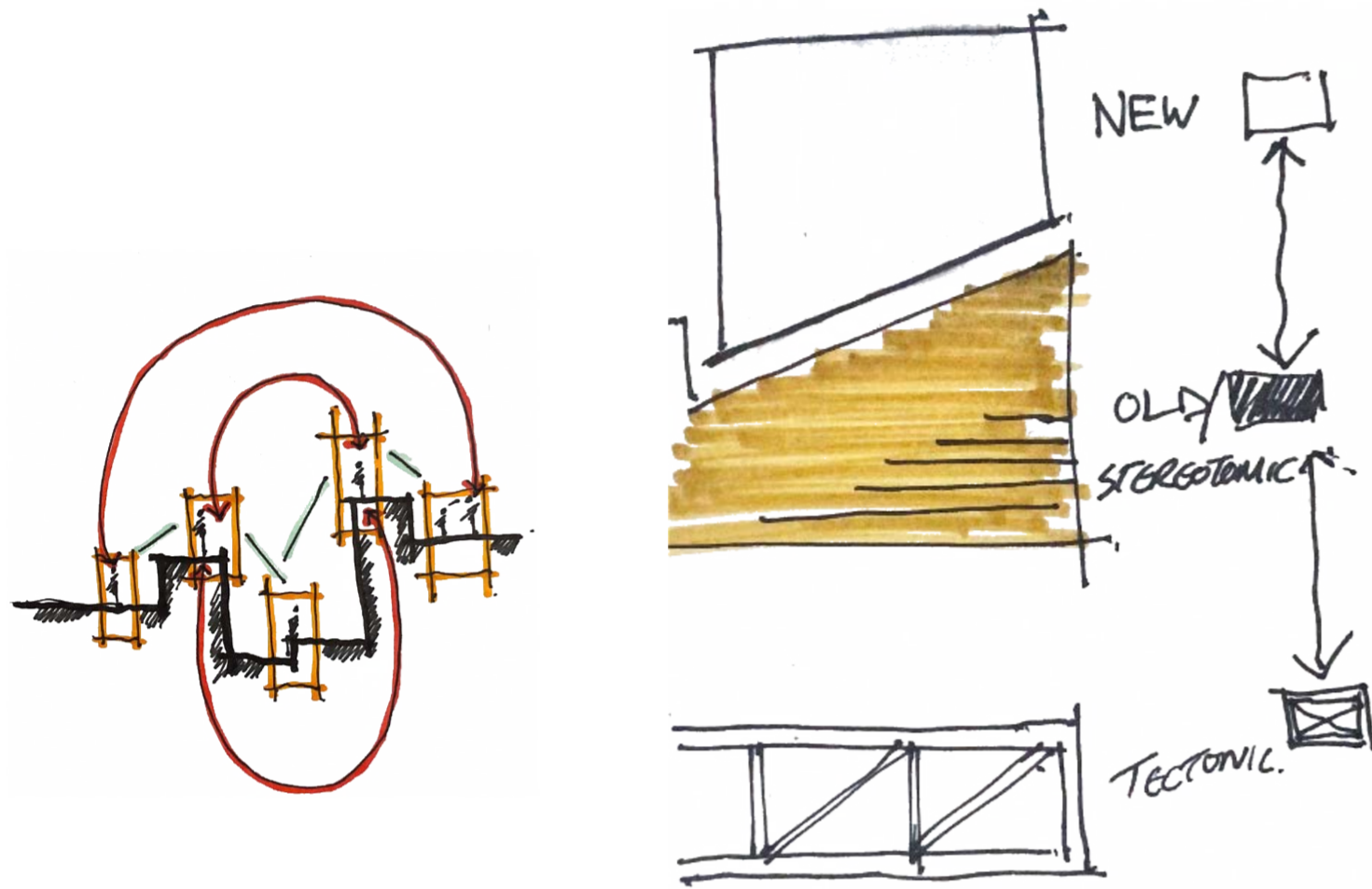
- REHABILITANT ACCESS FROM RESIDENCE
- REHABILITANT PUBLIC ACCESS POINT
- TOWER AND GREEN ROOF PUBLIC ACCESS POINT

# TECHNICAL CONCEPT



## GROUNDING

The technical intention is a translation of the concept *as above so below*, it ensures a continuous connection to the ground, both visually and physically, through the containment of space above and below. This integration creates a sense of grounding, linking the two environments seamlessly.

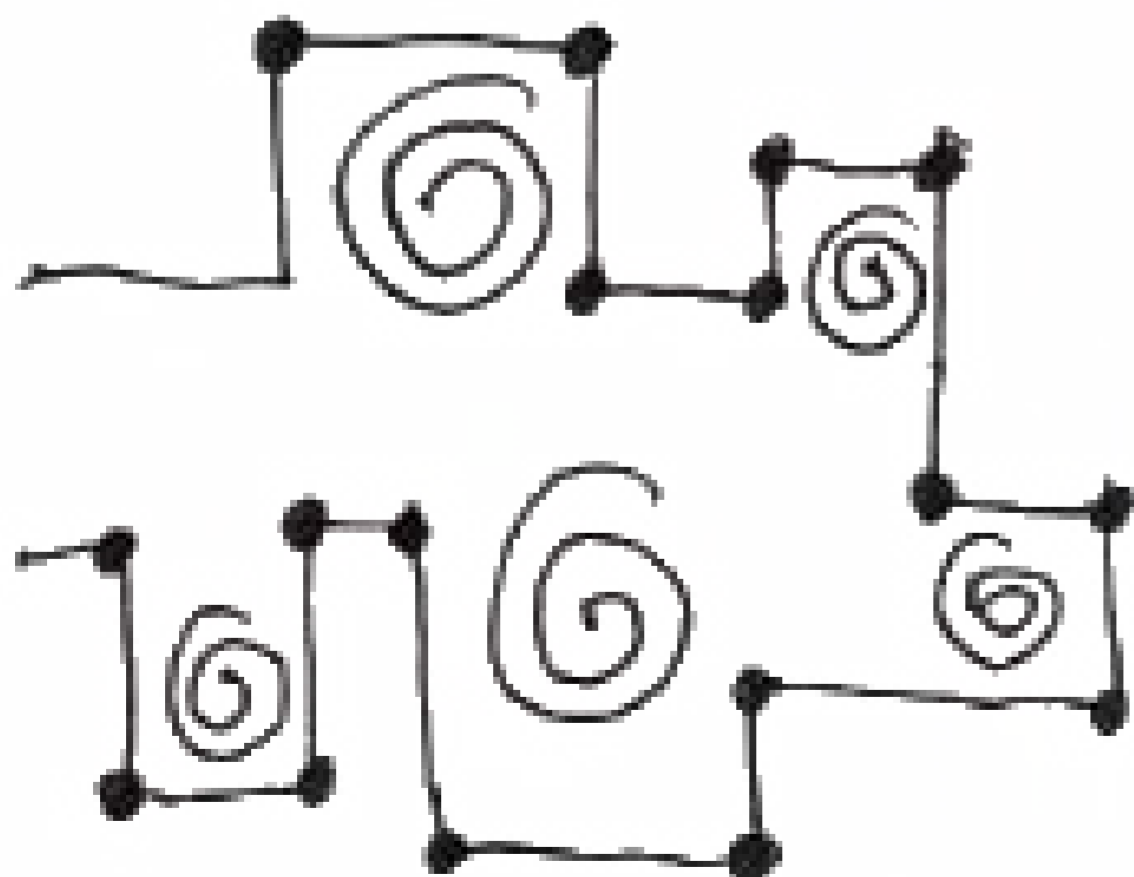


## DIALOGUE

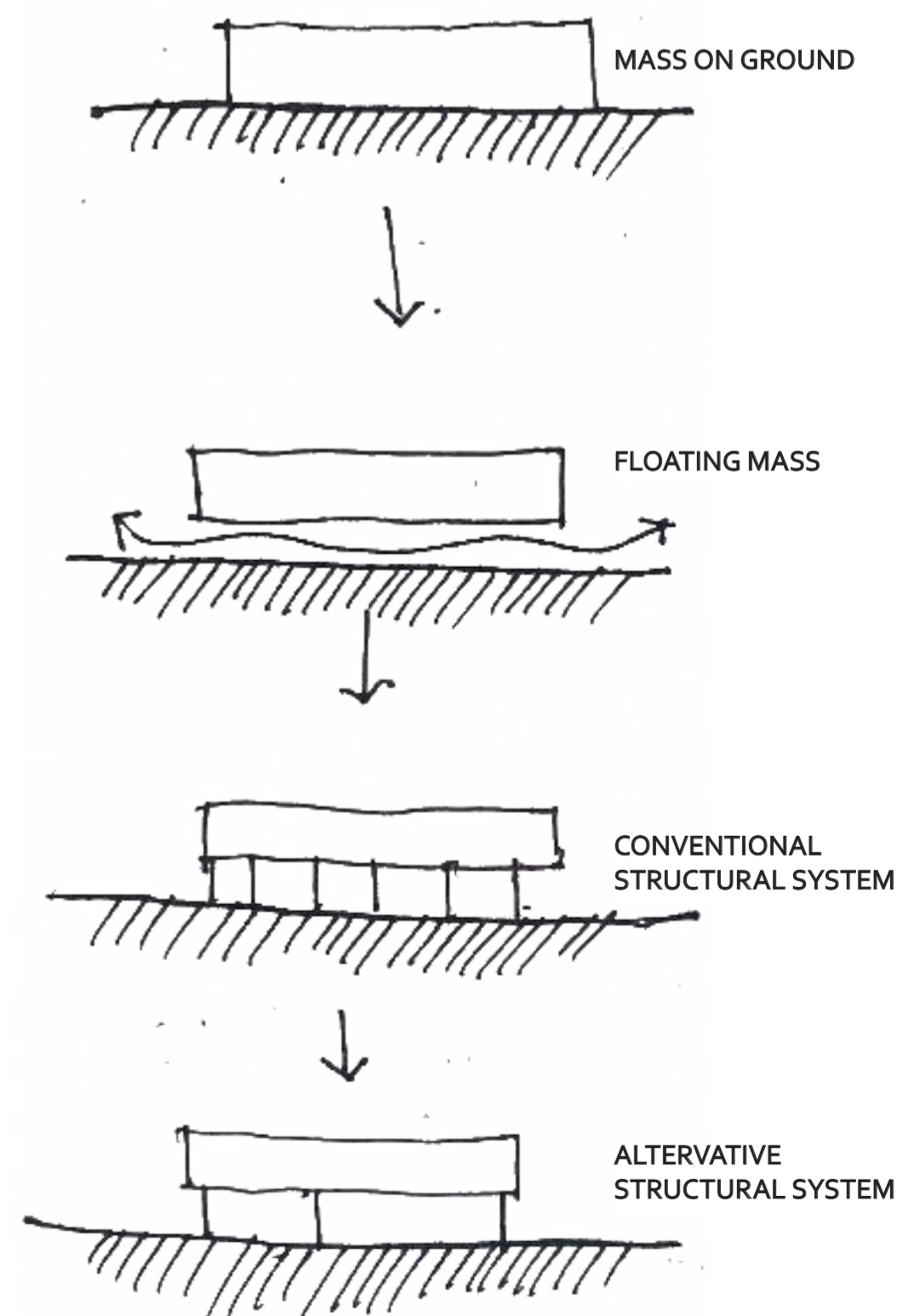
The technical concept is based the aesthetics of new meets old, and the dialogue between. Form, material and structural presence creates a contrast between existing and new, in a manner which carefully considers the value of the existing.

# STRUCTURAL APPROACH

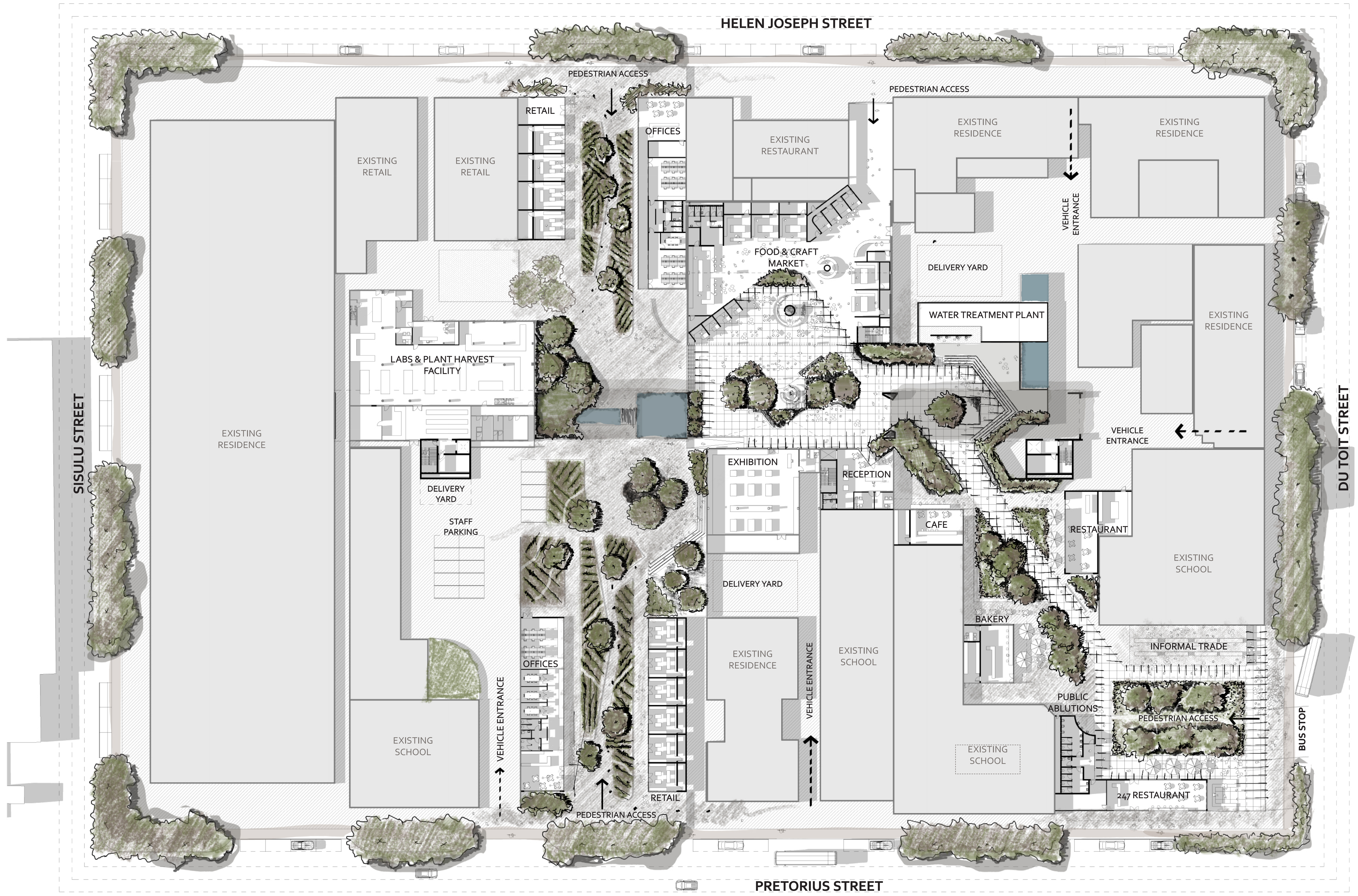
The structural system is inspired by Christopher Alexander's Pattern Language of "structure follows social space." This principle shapes the design, where the structural system supports the social and ritual functions of the center.



STRUCTURE FOLLOWS SOCIAL SPACE  
PATTERN LANGUAGE - CHRISTOPHER ALEXANDER

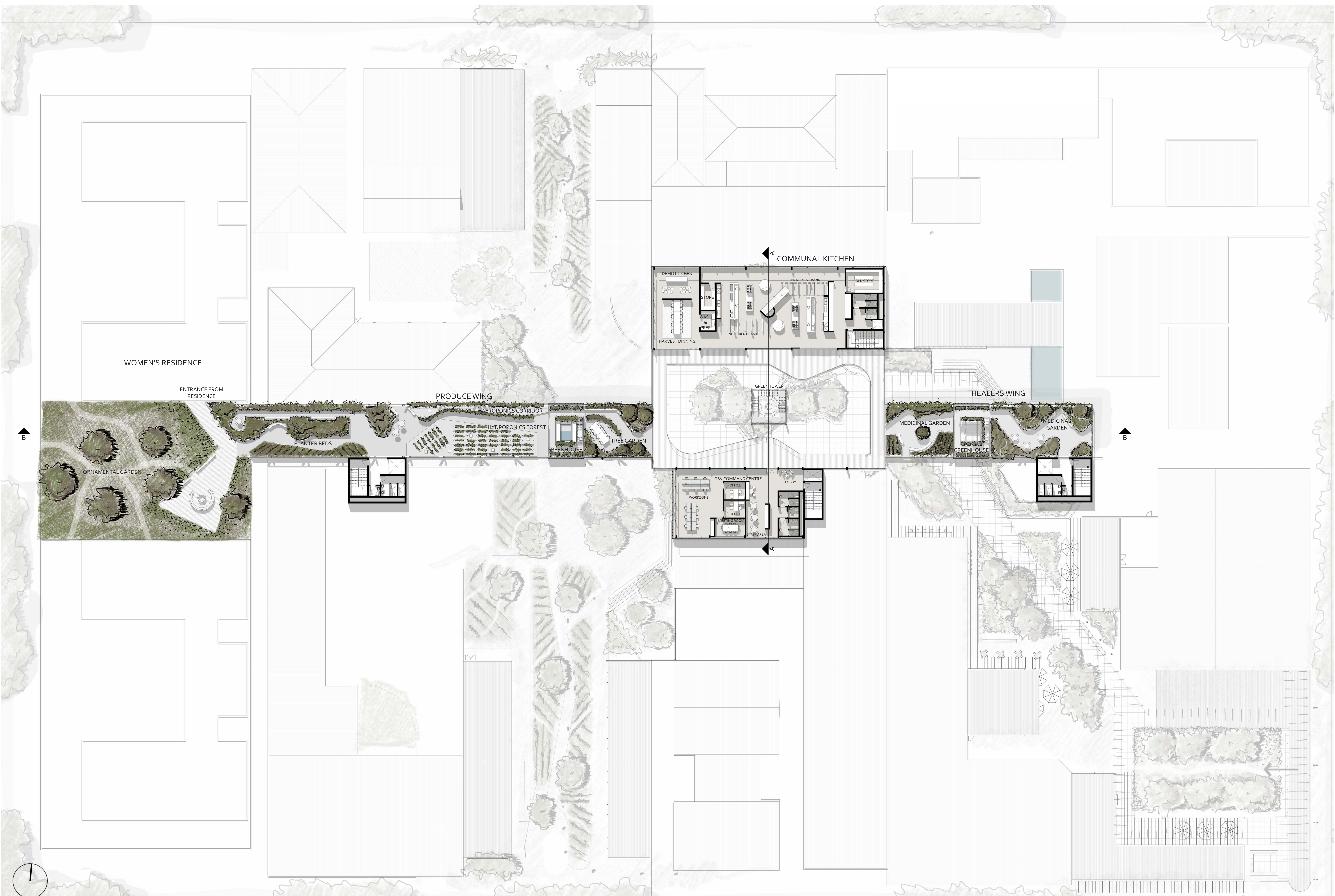


CONCEPT DEVELOPMENT OF  
STRUCTURAL SYSTEM

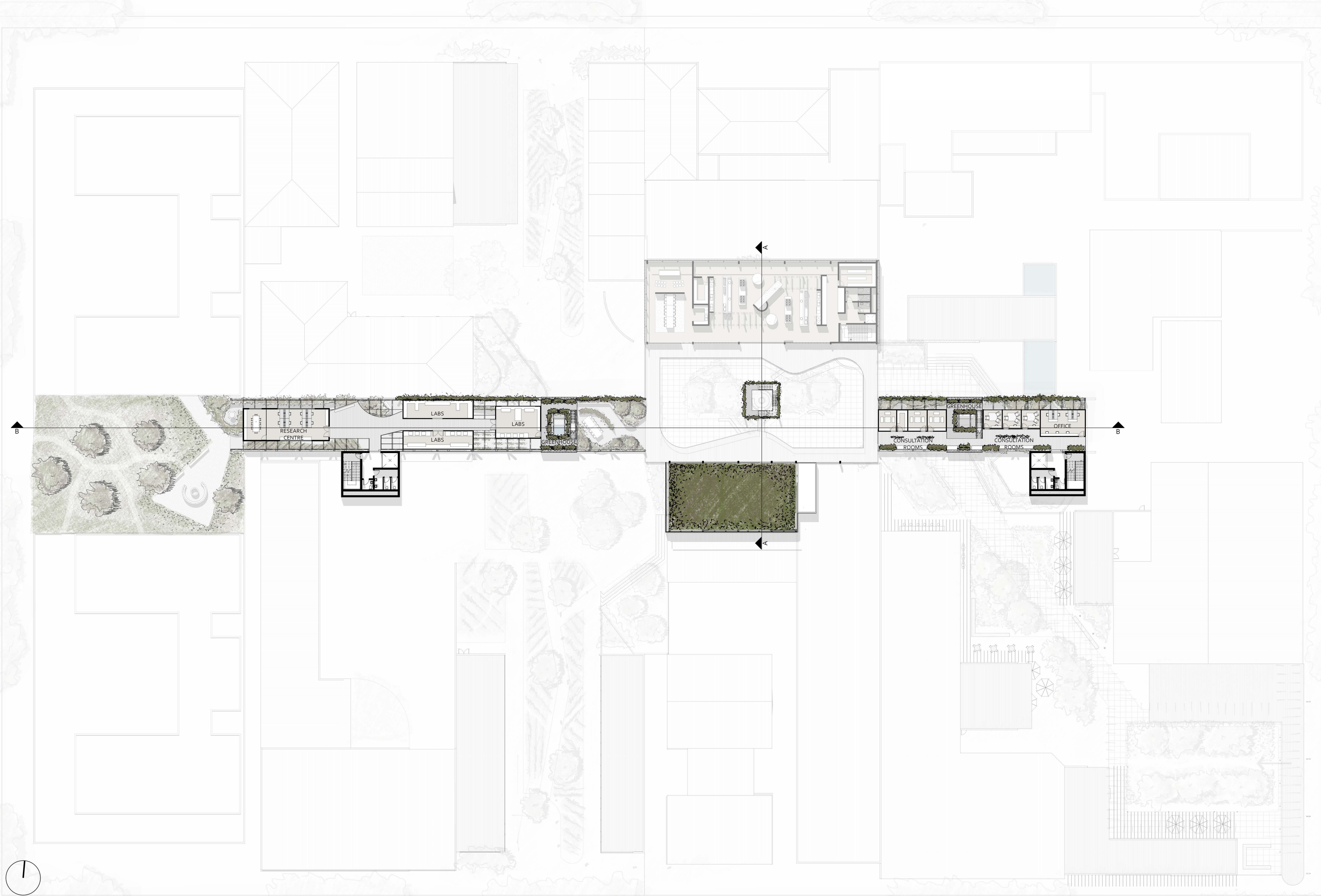



  
**GROUND FLOOR**  
**FULL DEVELOPMENT PLAN**

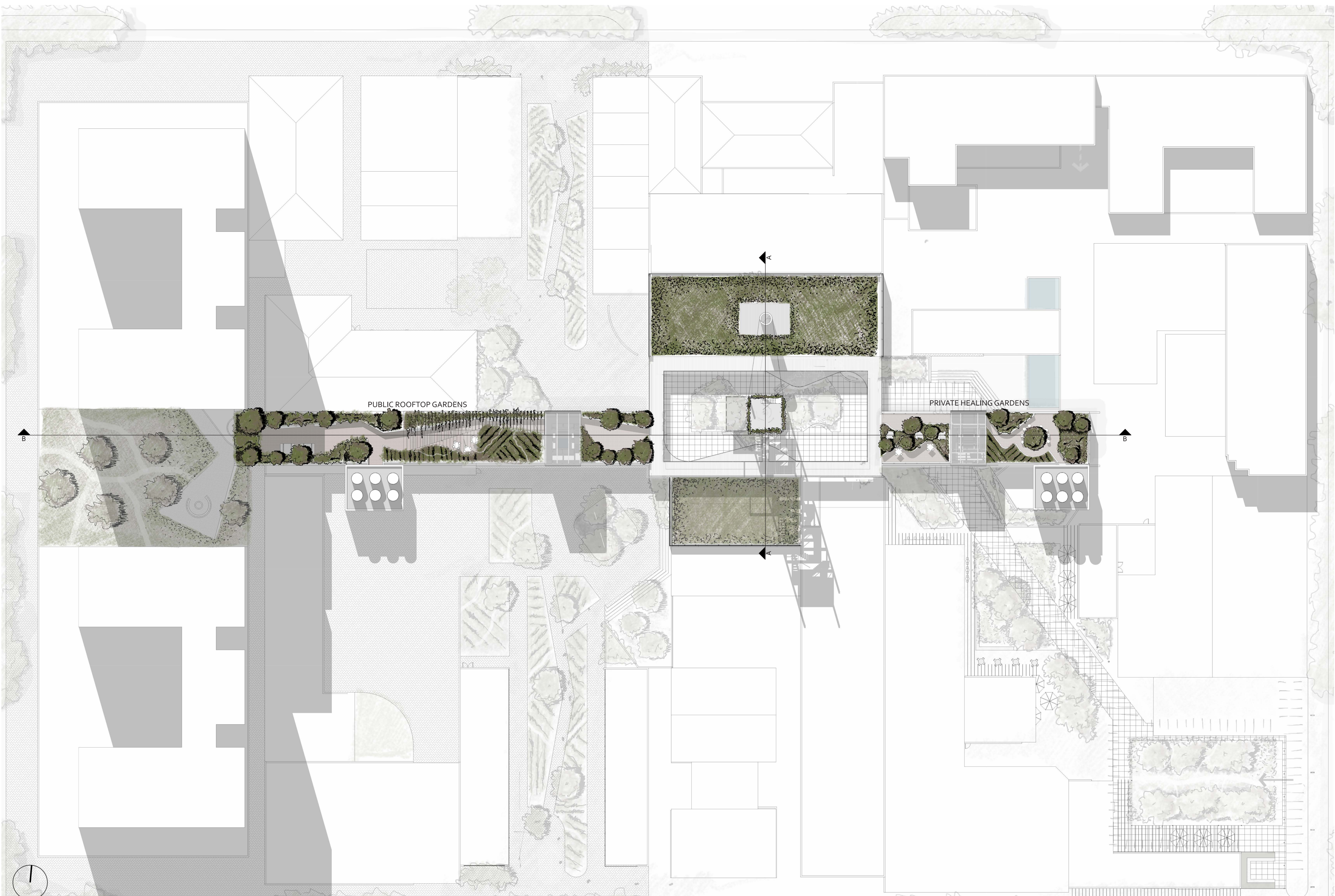




**FIRST FLOOR PLAN**  
SCALE 1:200



 **SECOND FLOOR PLAN**  
SCALE 1:200



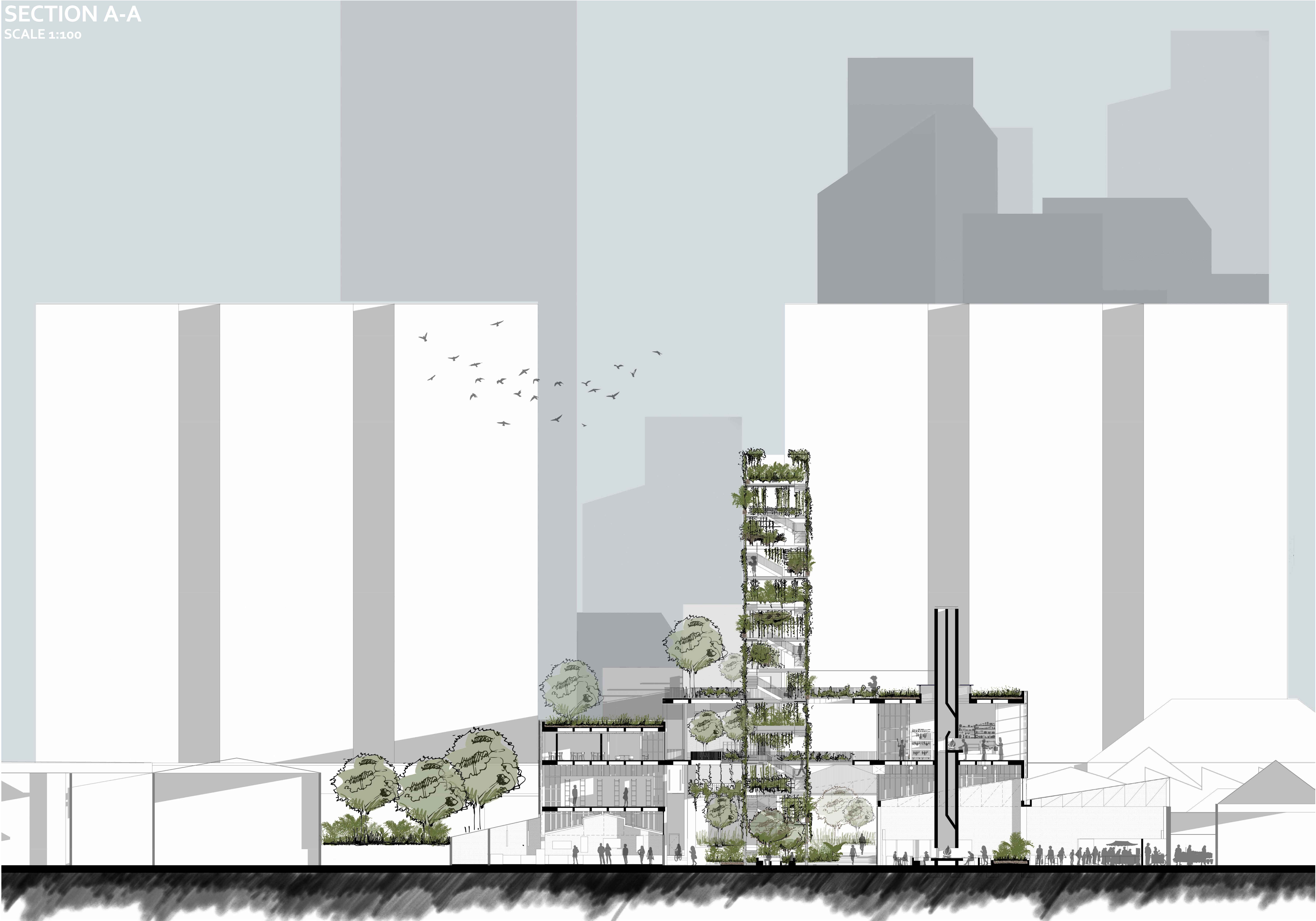
PUBLIC ROOFTOP GARDENS

PRIVATE HEALING GARDENS

  
**ROOF PLAN**  
SCALE 1:200

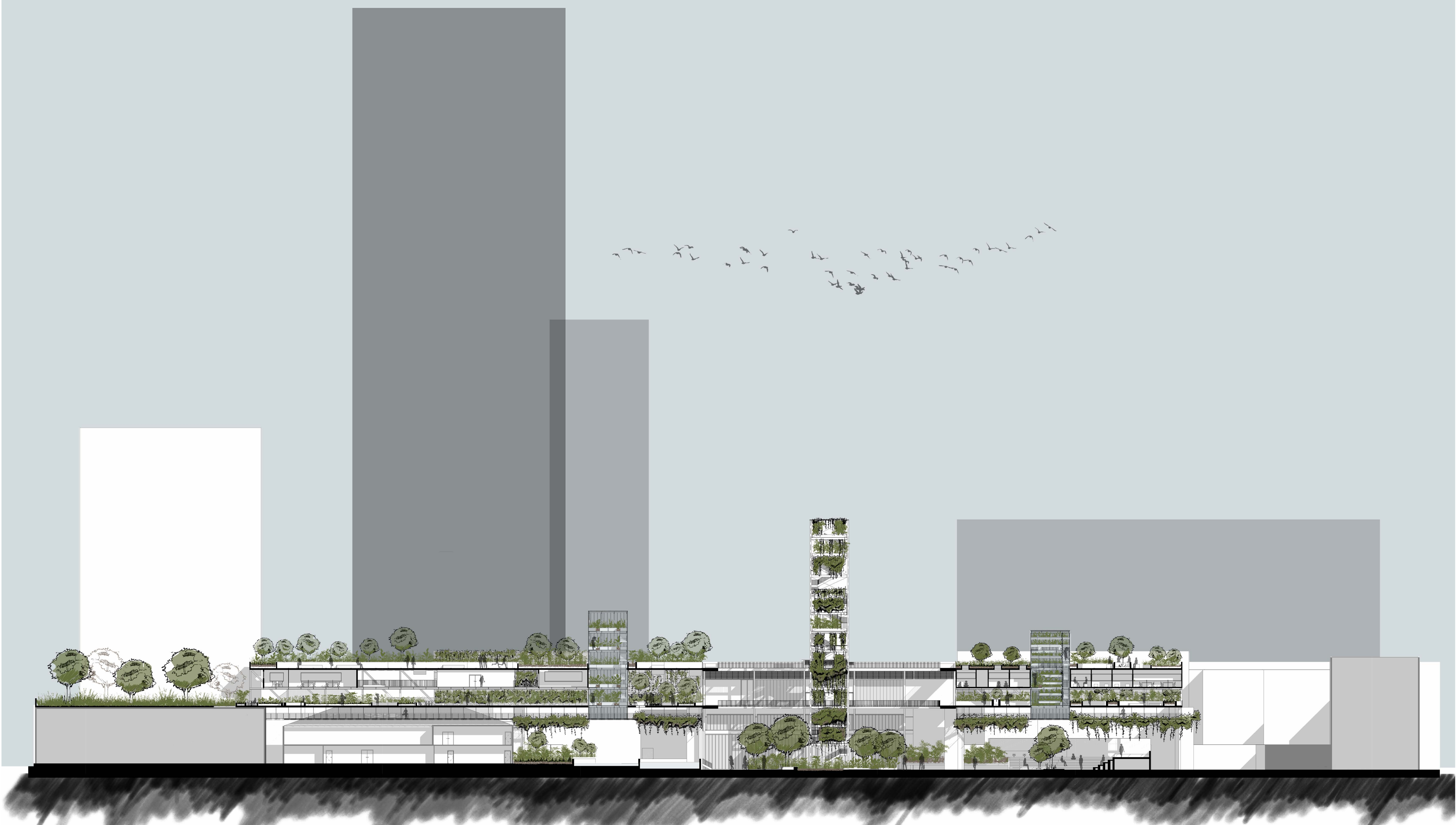
SECTION A-A

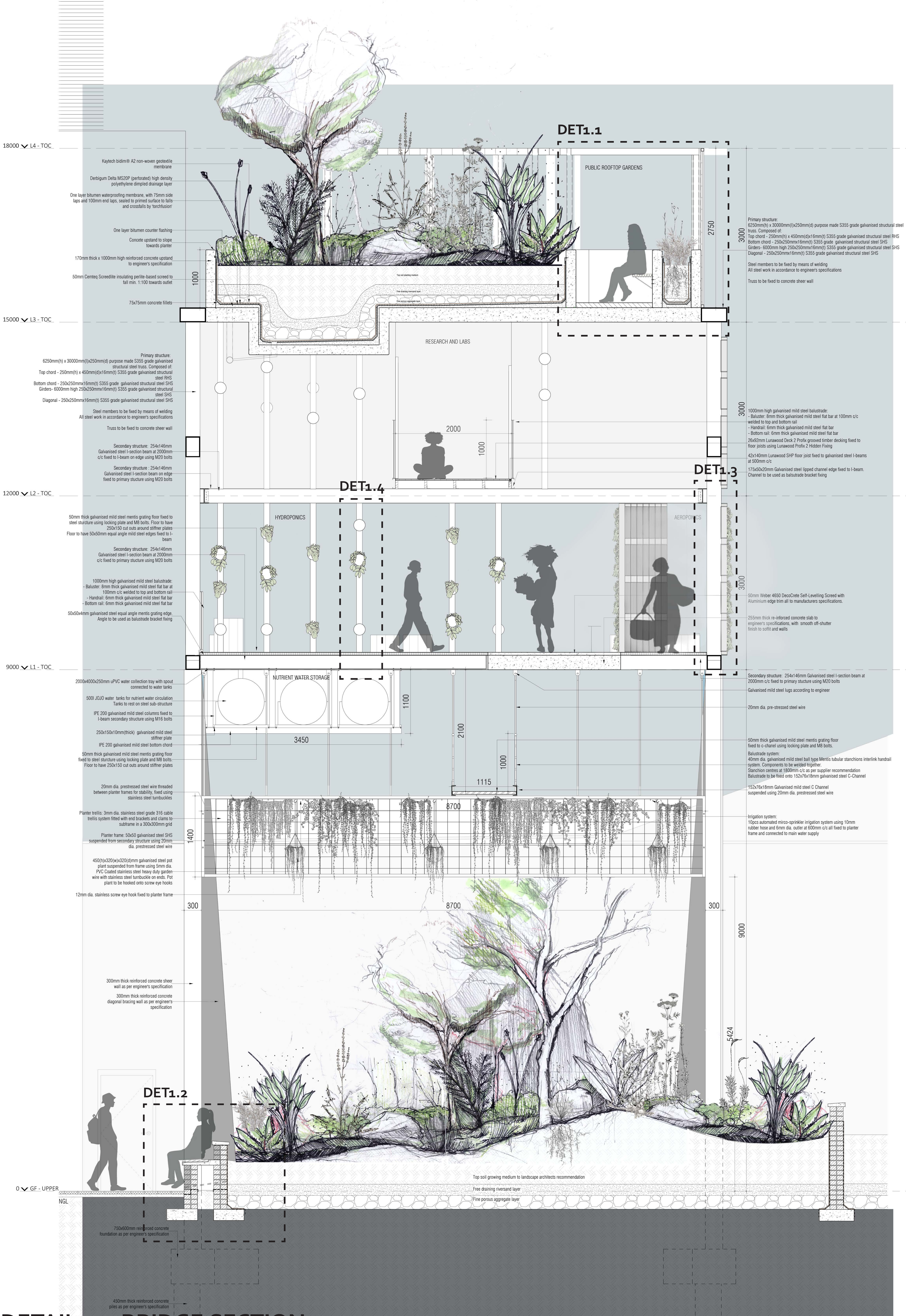
SCALE 1:100



SECTION B-B

SCALE 1:200





18000 ∇ L4 - TOC

15000 ∇ L3 - TOC

12000 ∇ L2 - TOC

9000 ∇ L1 - TOC

0 ∇ GF - UPPER

NGL

**DETAIL 01 BRIDGE SECTION**  
SCALE 1:20

**DET1.1**

PUBLIC ROOFTOP GARDENS

RESEARCH AND LABS

**DET1.4**

HYDRONICS

**DET1.3**

AEROPONICS

NUTRIENT WATER STORAGE

Kaytech bidim® A2 non-woven geotextile membrane  
Derbigum Delta MS20P (perforated) high density polyethylene dimpled drainage layer  
One layer bitumen waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by torchfusion  
One layer bitumen counter flashing  
Concrete upstand to slope towards planter  
170mm thick x 1000mm high reinforced concrete upstand to engineer's specification  
50mm Cemtek Screedlite insulating perlite-based screed to fall min. 1:100 towards outlet  
75x75mm concrete fillers

Primary structure:  
6250mm(h) x 30000mm(l) x 250mm(d) purpose made S355 grade galvanised structural steel truss. Composed of:  
Top chord - 250mm(h) x 450mm(d) x 16mm(t) S355 grade galvanised structural steel RHS  
Bottom chord - 250x250mm x 16mm(t) S355 grade galvanised structural steel SHS  
Girders - 6000mm high 250x250mm x 16mm(t) S355 grade galvanised structural steel SHS  
Diagonal - 250x250mm x 16mm(t) S355 grade galvanised structural steel SHS  
Steel members to be fixed by means of welding  
All steel work in accordance to engineers specifications  
Truss to be fixed to concrete shear wall

Secondary structure: 25x146mm Galvanised steel I-section beam at 2000mm c/c fixed to I-beam on edge using M20 bolts  
Secondary structure: 25x146mm Galvanised steel I-section beam on edge fixed to primary structure using M20 bolts

50mm thick galvanised mild steel mesh grating floor fixed to steel structure using locking plate and M8 bolts. Floor to have 250x150 cut outs around stiffener plates  
Floor to have 50x50mm equal angle mild steel edges fixed to I-beam  
Secondary structure: 25x146mm Galvanised steel I-section beam at 2000mm c/c fixed to primary structure using M20 bolts  
1000mm high galvanised mild steel balustrade:  
- Baluster: 6mm thick galvanised mild steel flat bar at 100mm c/c welded to top and bottom rail  
- Handrail: 6mm thick galvanised mild steel flat bar  
- Bottom rail: 6mm thick galvanised mild steel flat bar  
50x60x4mm galvanised steel equal angle mesh grating edge. Angle to be used as balustrade bracket fixing

200x400x250mm uPVC water collection tray with spout connected to water tanks  
500l JQUJ water tanks for nutrient water circulation  
Tanks to rest on steel sub-structure  
IFE 200 galvanised mild steel columns fixed to I-beam secondary structure using M16 bolts  
250x150x10mm(thick) galvanised mild steel stiffener plate  
IFE 200 galvanised mild steel bottom chord  
50mm thick galvanised mild steel mesh grating floor fixed to steel structure using locking plate and M8 bolts. Floor to have 250x150 cut outs around stiffener plates  
20mm dia. prestressed steel wire threaded between planter frames for stability, fixed using stainless steel turnbuckles  
Planter trellis: 3mm dia. stainless steel grade 316 cable trellis system fitted with end brackets and clamps to subframe in a 300x300mm grid  
Planter frame: 50x50 galvanised steel SHS suspended from secondary structure using 20mm dia. prestressed steel wire  
450(h)x320(w)x330(d)mm galvanised steel pot plant suspended from frame using 5mm dia. PVC Coated stainless steel heavy duty garden wire with stainless steel turnbuckle on ends. Pot plant to be hooked onto screw eye hooks  
12mm dia. stainless screw eye hook fixed to planter frame

300mm thick reinforced concrete shear wall as per engineer's specification  
300mm thick reinforced concrete diagonal bracing wall as per engineer's specification

**DET1.2**

Primary structure:  
6250mm(h) x 30000mm(l) x 250mm(d) purpose made S355 grade galvanised structural steel truss. Composed of:  
Top chord - 250mm(h) x 450mm(d) x 16mm(t) S355 grade galvanised structural steel RHS  
Bottom chord - 250x250mm x 16mm(t) S355 grade galvanised structural steel SHS  
Girders - 6000mm high 250x250mm x 16mm(t) S355 grade galvanised structural steel SHS  
Diagonal - 250x250mm x 16mm(t) S355 grade galvanised structural steel SHS  
Steel members to be fixed by means of welding  
All steel work in accordance to engineers specifications  
Truss to be fixed to concrete shear wall

1000mm high galvanised mild steel balustrade:  
- Baluster: 6mm thick galvanised mild steel flat bar at 100mm c/c welded to top and bottom rail  
- Handrail: 6mm thick galvanised mild steel flat bar  
- Bottom rail: 6mm thick galvanised mild steel flat bar  
26x92mm Lunawood Deck 2 Profix grooved timber decking fixed to floor joists using Lunawood Profix 2 Hidden Fixing  
42x140mm Lunawood SHP floor joist fixed to galvanised steel I-beams at 500mm c/c  
175x50x20mm Galvanised steel lipped channel edge fixed to I-beam. Channel to be used as balustrade bracket fixing

50mm Weber 4650 DecoCrete Self-Leveling Screed with Aluminium edge trim all to manufacturers specifications.  
255mm thick re-inforced concrete slab to engineer's specifications, with smooth off-shutter finish to soffit and walls

Secondary structure: 25x146mm Galvanised steel I-section beam at 2000mm c/c fixed to primary structure using M20 bolts  
Galvanised mild steel lugs according to engineer  
20mm dia. pre-stressed steel wire

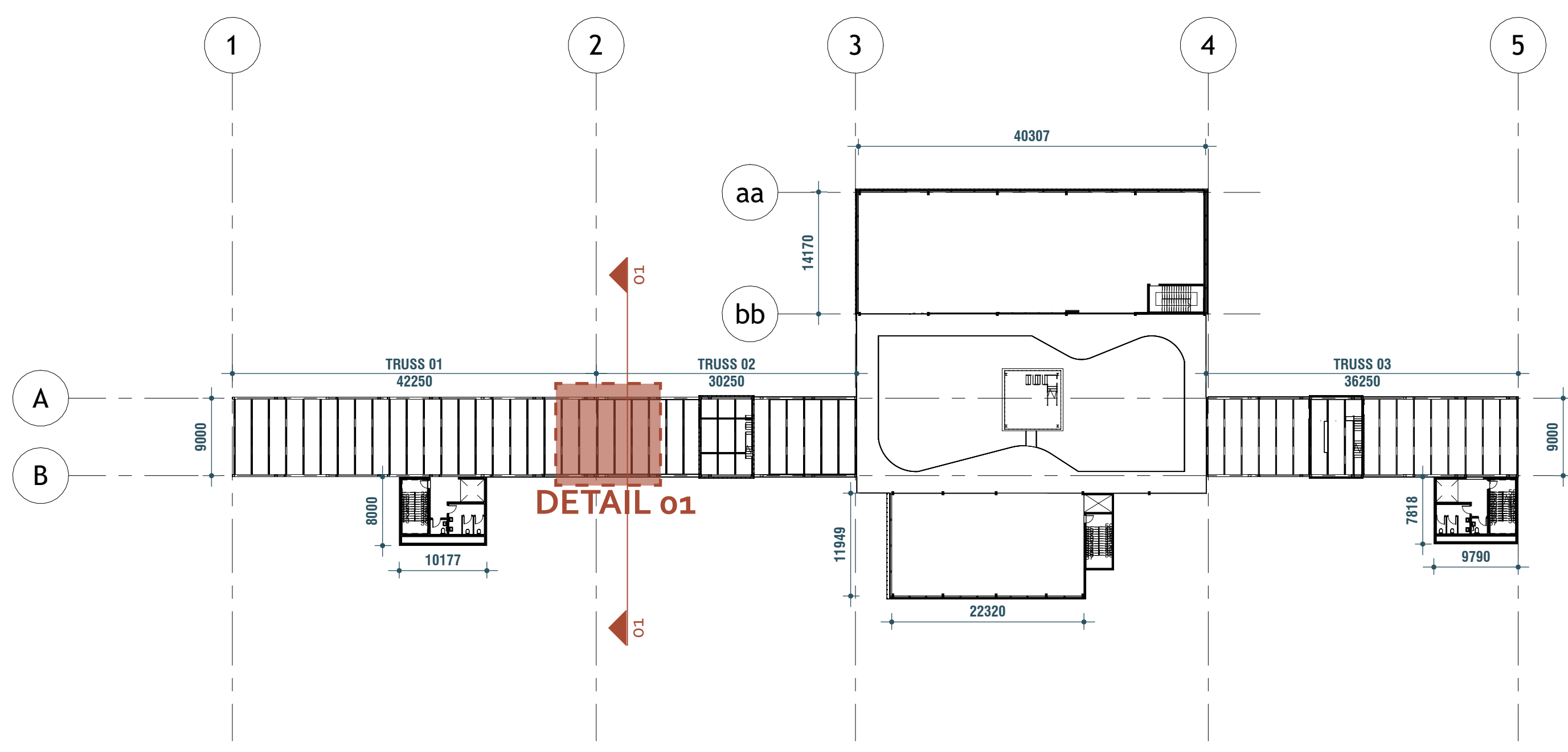
50mm thick galvanised mild steel mesh grating floor fixed to c-channel using locking plate and M8 bolts.  
Balustrade system:  
40mm dia. galvanised mild steel ball type Mantis tubular stanchions interlink handrail system. Components to be welded together.  
Stanchion centres at 1800mm c/c as per supplier recommendation  
Balustrade to be fixed onto 152x76x8mm galvanised steel C-Channel  
152x76x8mm Galvanised mild steel C Channel suspended using 20mm dia. prestressed steel wire

Irrigation system:  
10pcs automated micro-sprinkler irrigation system using 10mm rubber hose and 6mm dia. outlet at 600mm c/c all fixed to planter frame and connected to main water supply

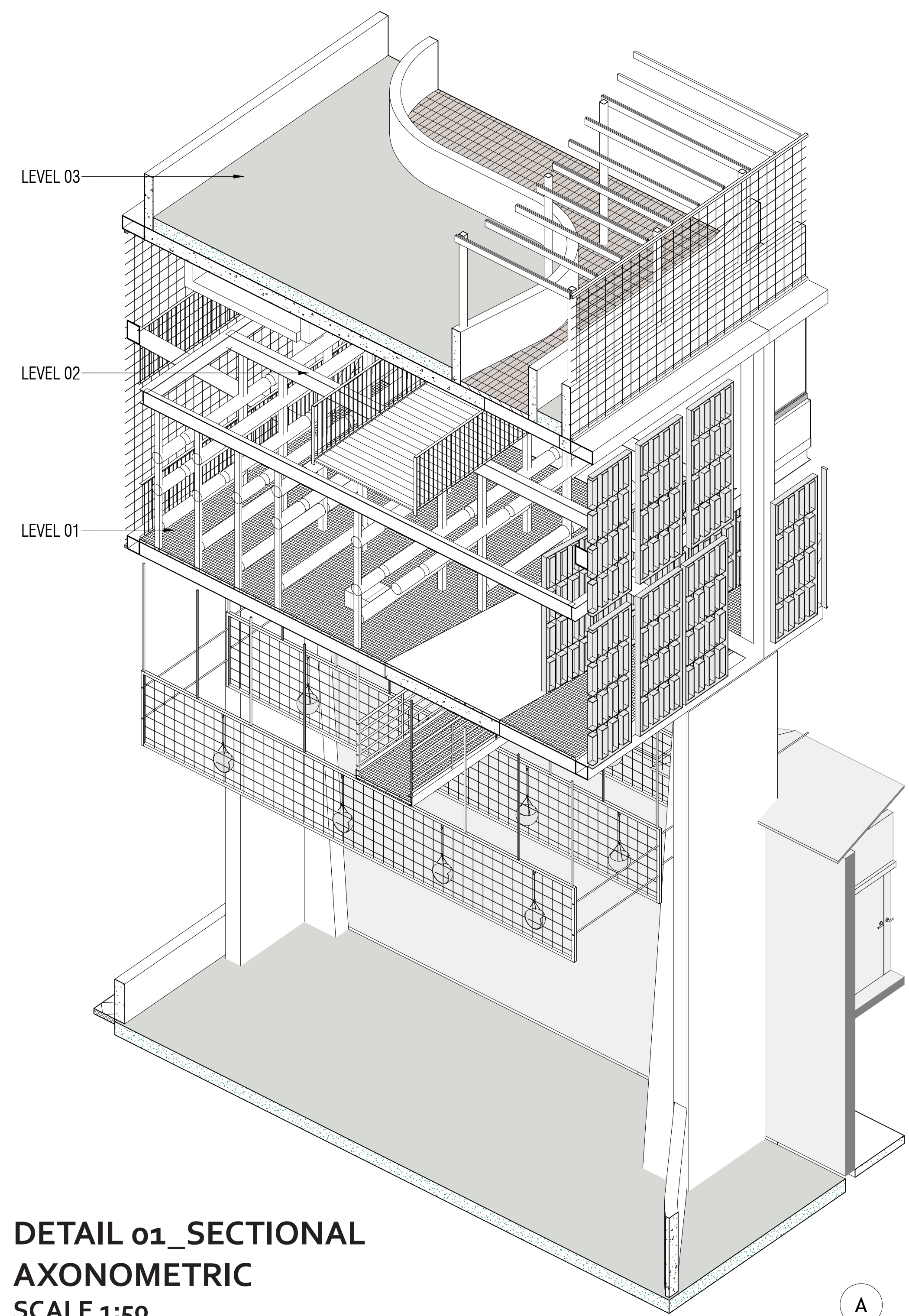
Top soil growing medium to landscape architects recommendation  
Free draining riversand layer  
Fine porous aggregate layer

750x600mm reinforced concrete foundation as per engineer's specification  
450mm thick reinforced concrete piles as per engineer's specification

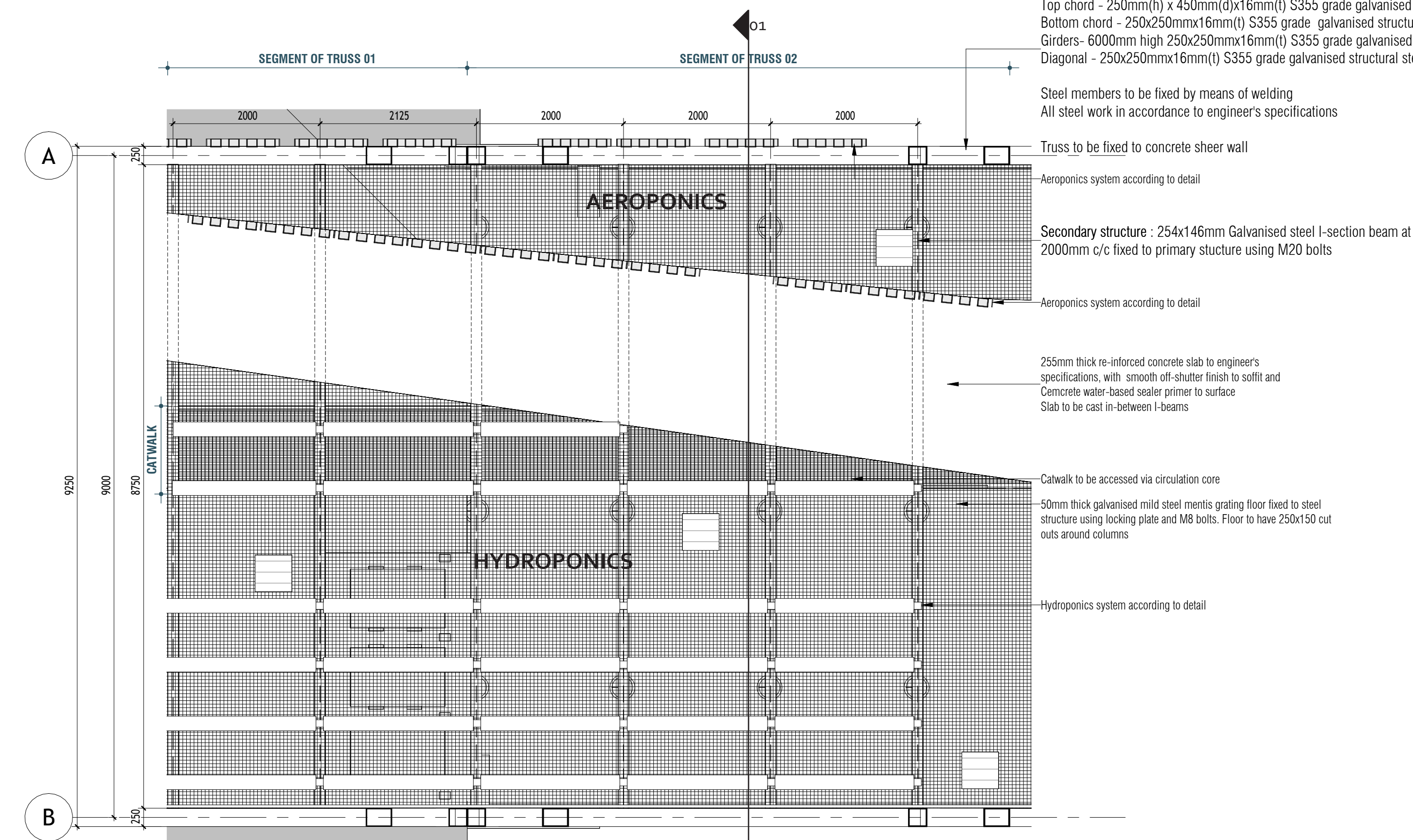




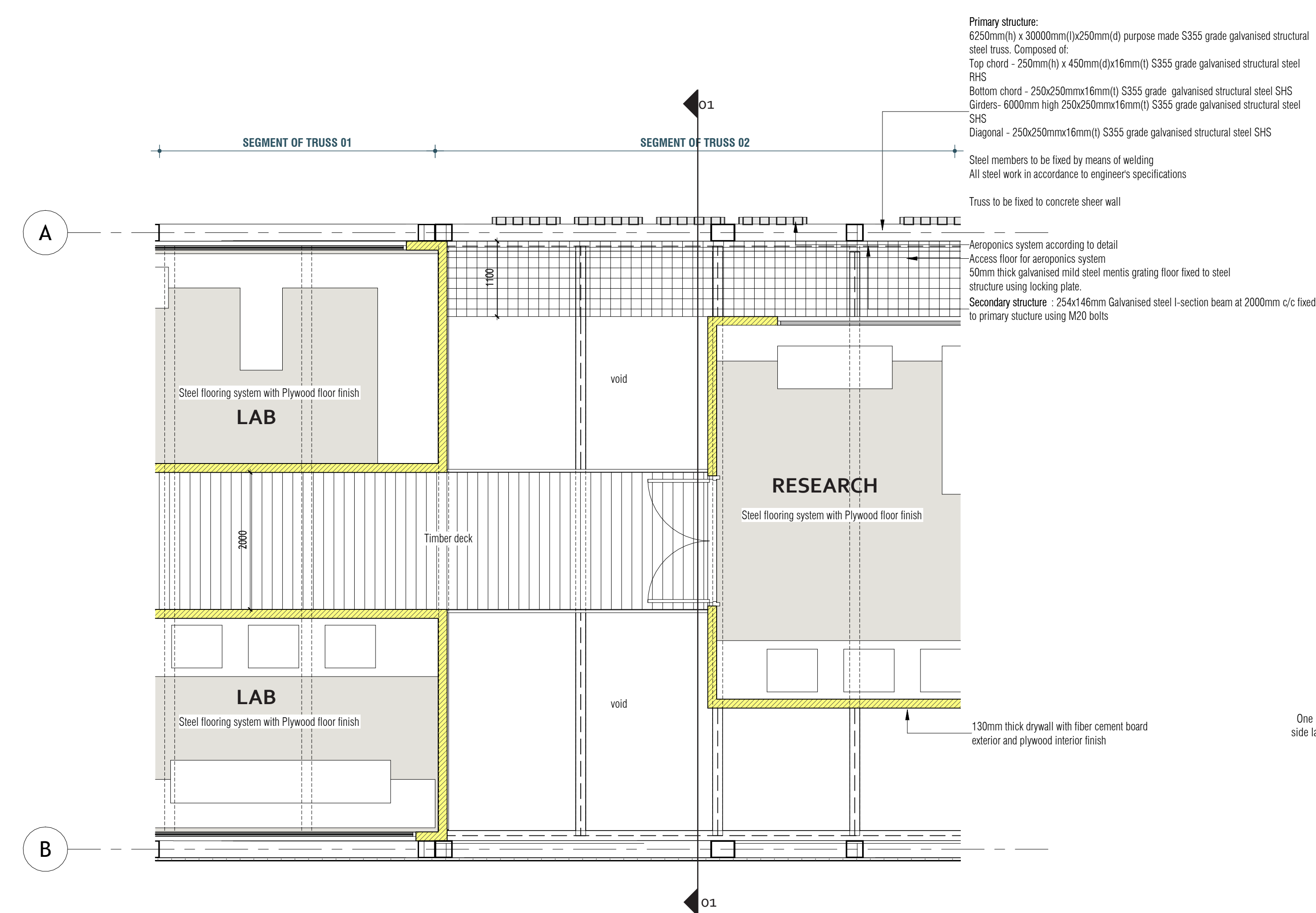
REFERENCE AREA FOR DETAIL 01  
SCALE 1:500



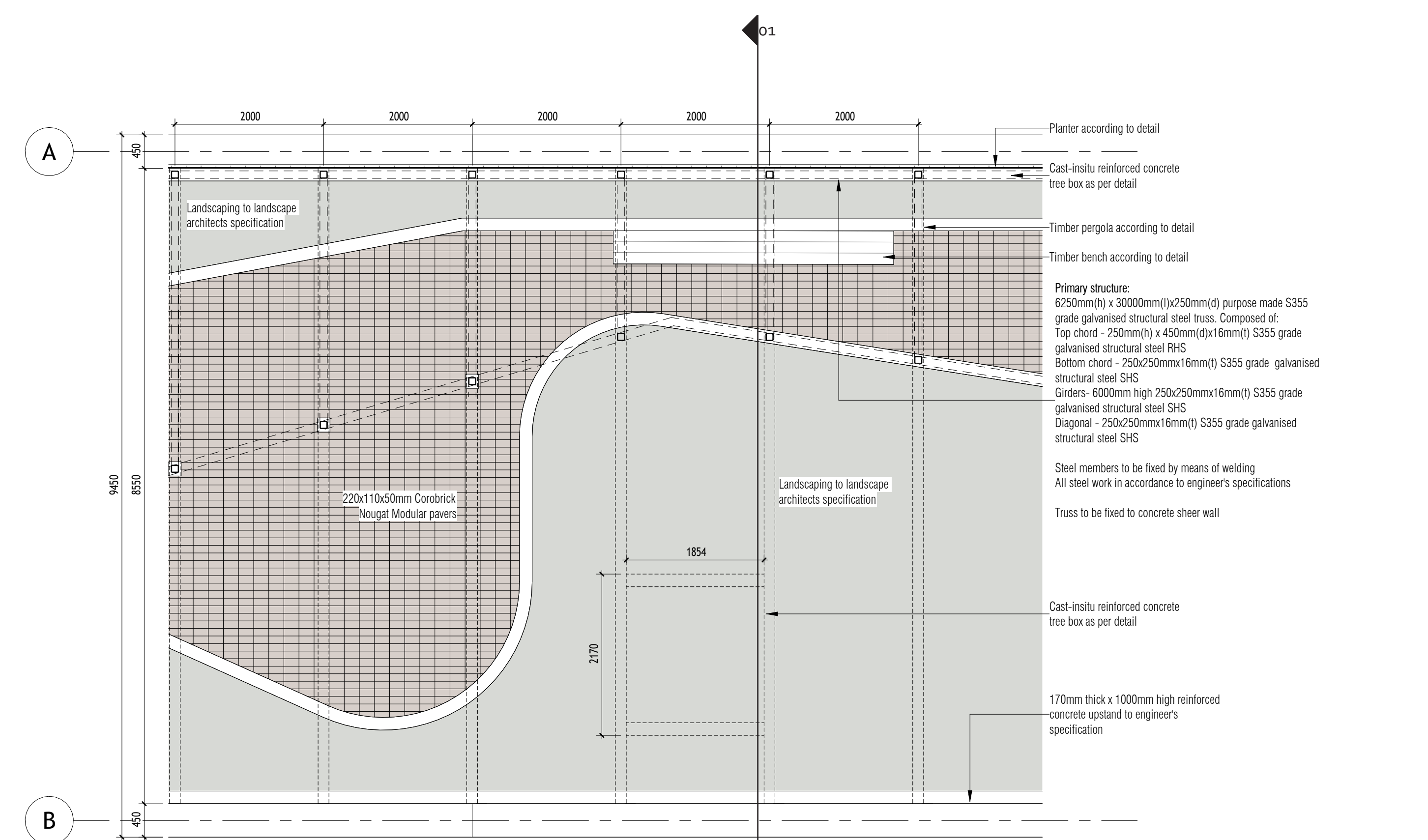
DETAIL 01\_SECTIONAL AXONOMETRIC  
SCALE 1:50



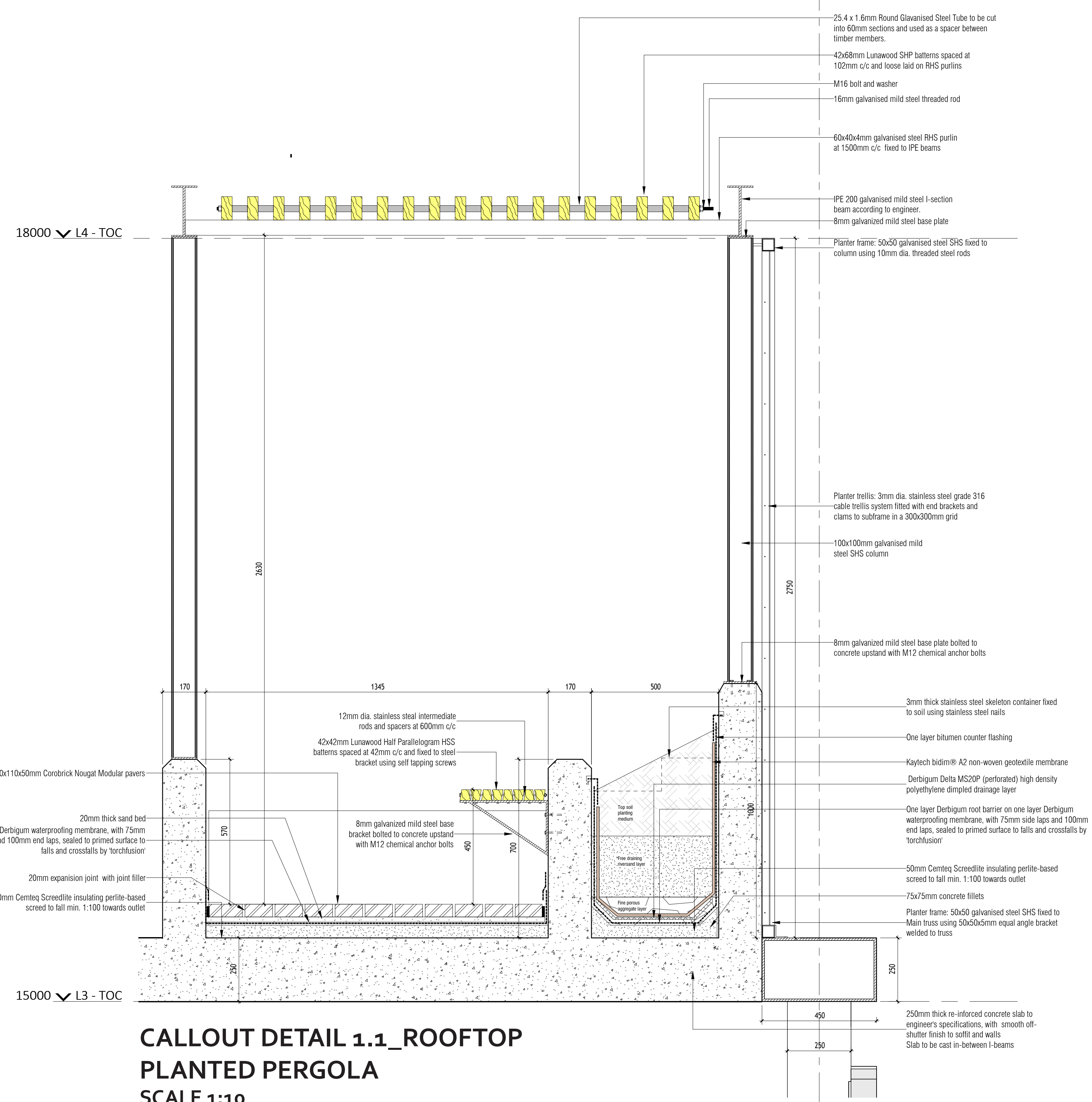
LEVEL 01\_CALLOUT PLAN  
SCALE 1:50



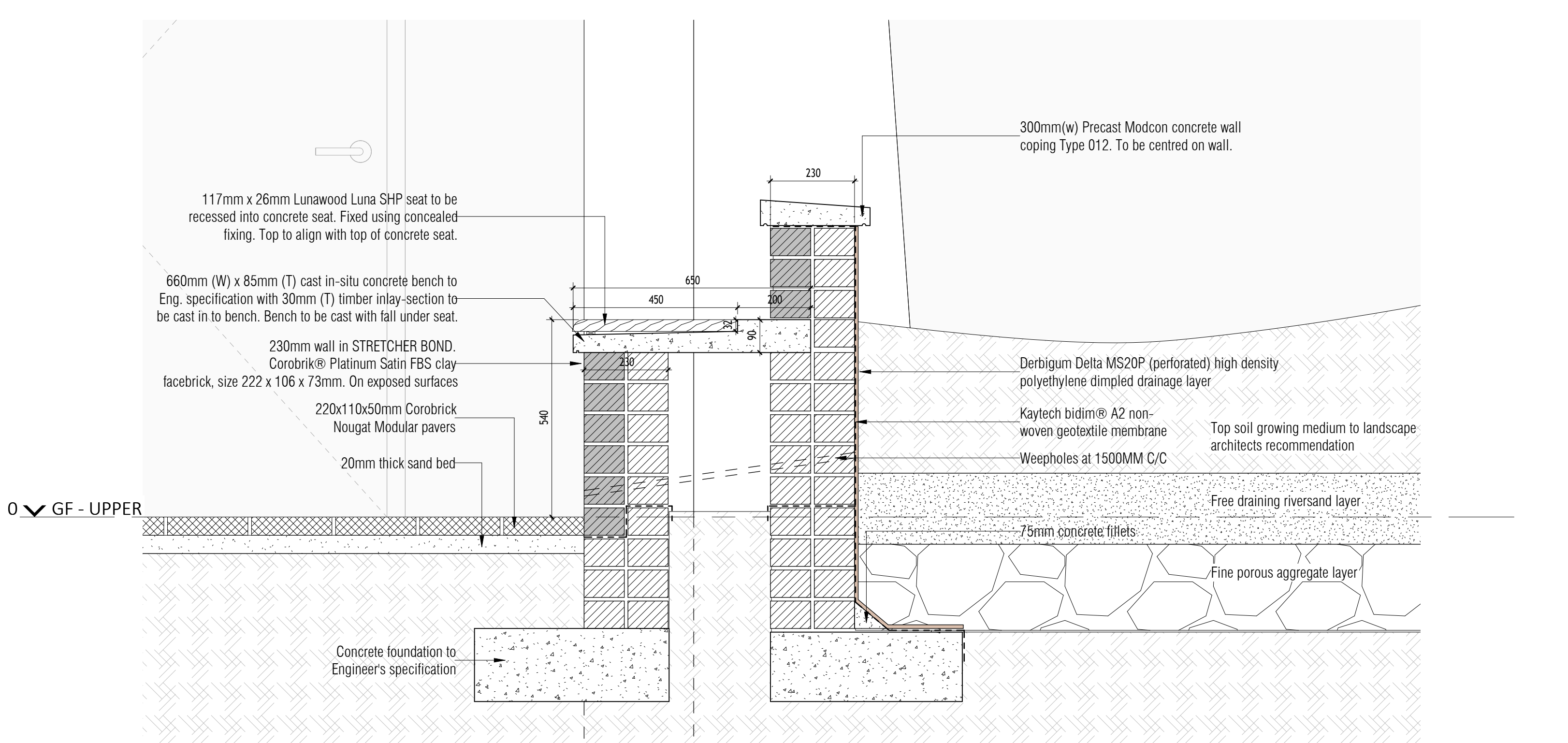
LEVEL 02\_CALLOUT PLAN  
SCALE 1:50



LEVEL 03\_CALLOUT PLAN  
SCALE 1:50

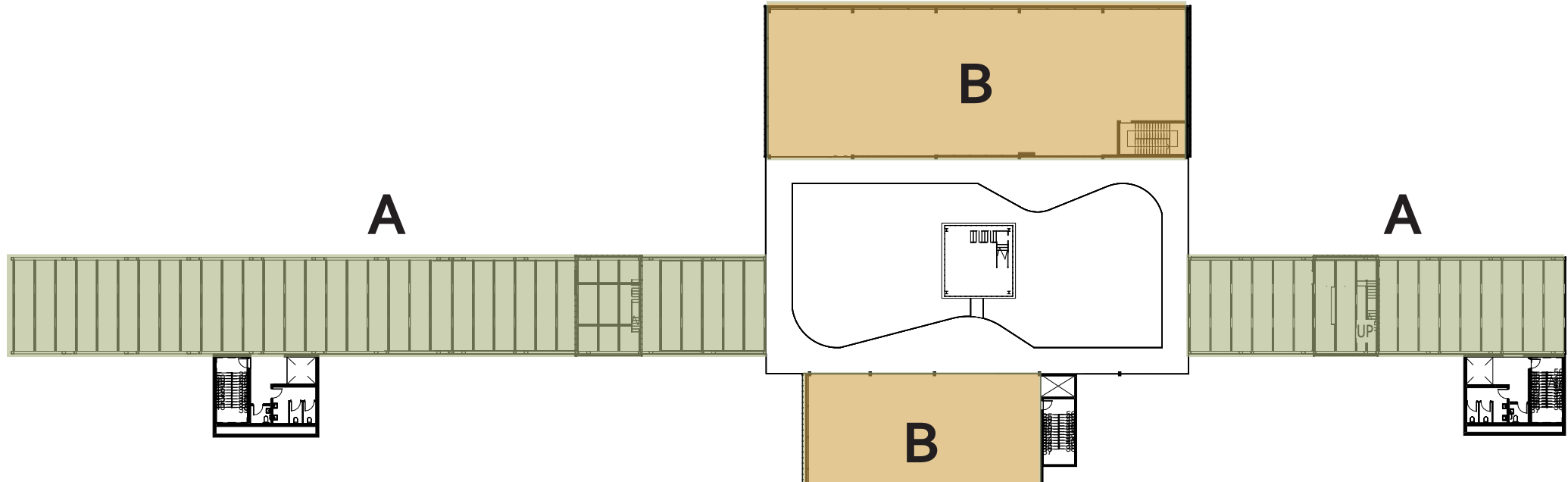


CALLOUT DETAIL 1.1\_ROOFTOP PLANTED PERGOLA  
SCALE 1:10



CALLOUT DETAIL 1.2\_PLANTER EDGE  
SCALE 1:10

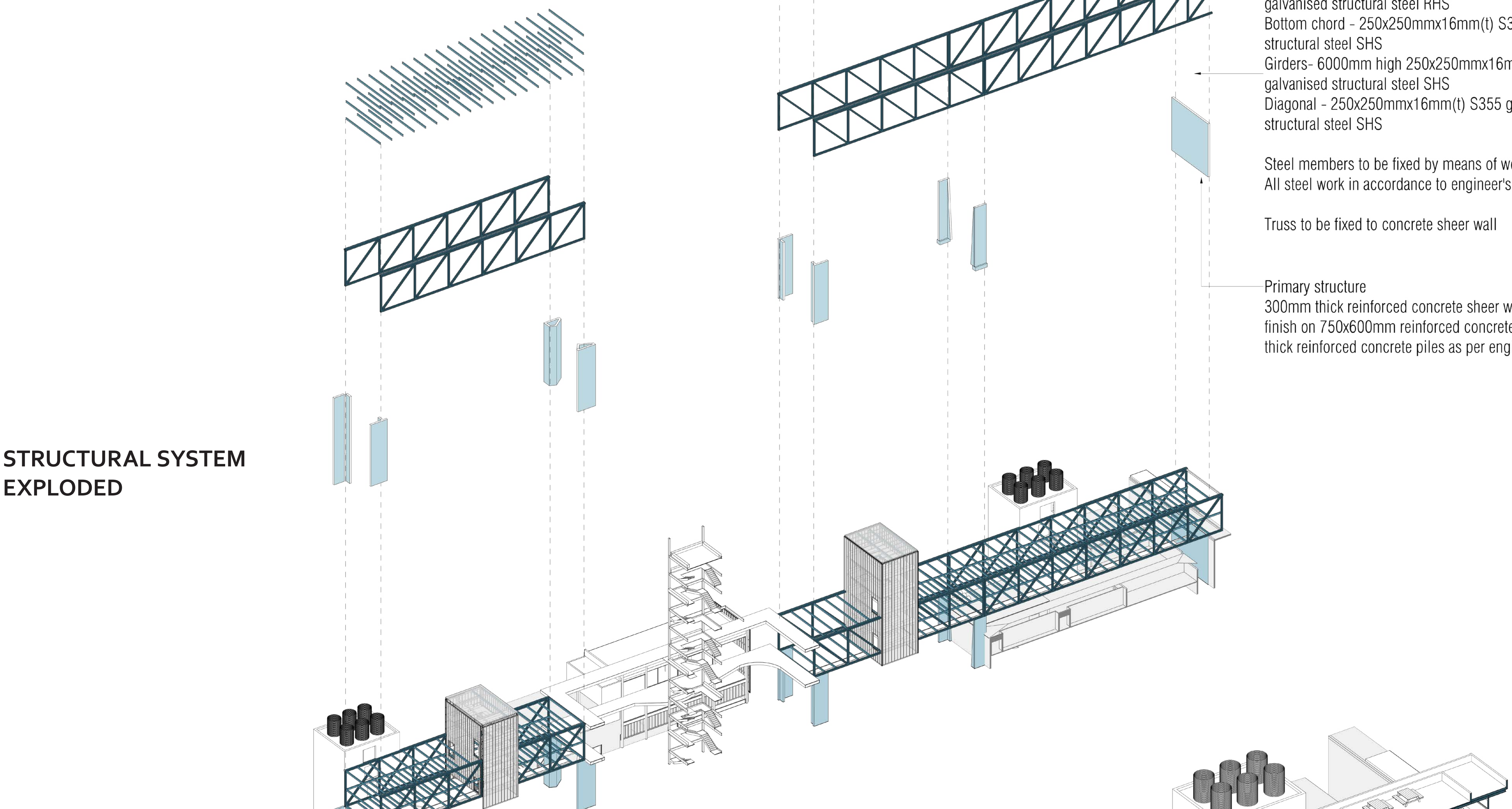
# STRUCTURAL SYSTEMS



STRUCTURAL SYSTEM REFERENCE

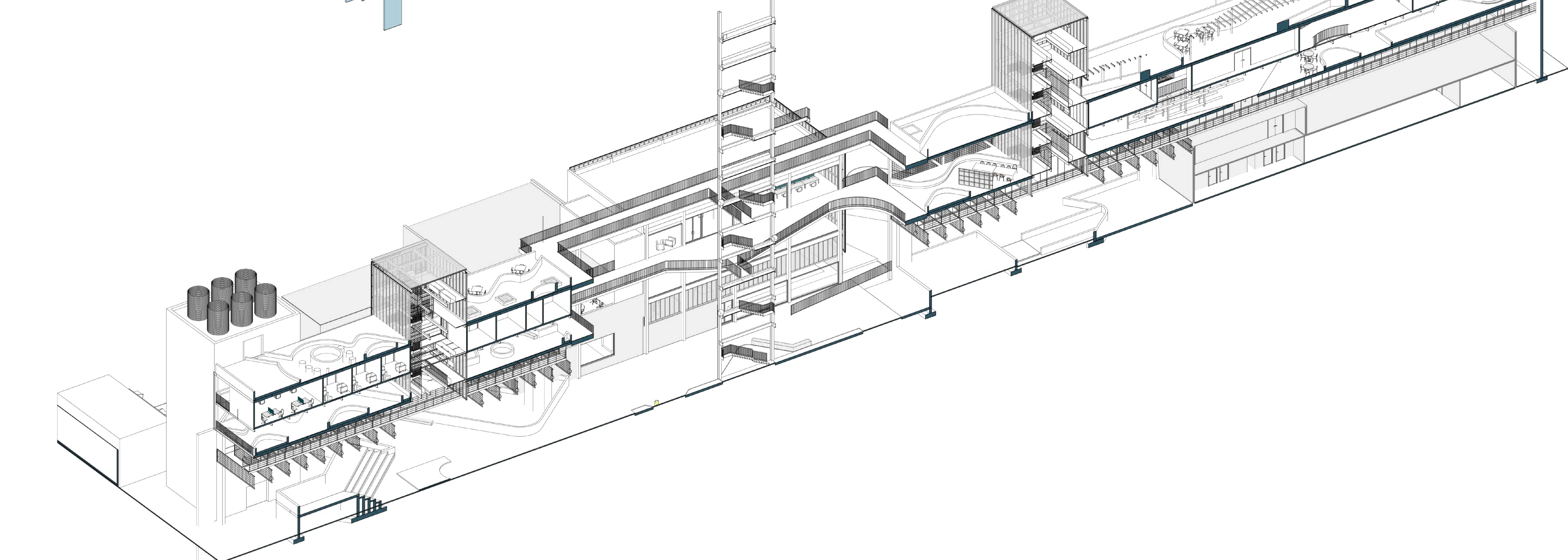
## STRUCTURAL SYSTEM A

New built, three storey high bridge spanning over length of the site block. Approach advocates for the least amount of structural obstruction to the ground floor public space.



STRUCTURAL SYSTEM EXPLODED

FULL AXONOMETRIC VIEW



SECTIONAL AXONOMETRIC VIEW

Secondary structure : 254x146mm Galvanised steel I-section beam at laid at 2000mm c/c intervals, fixed to primary structure using M20 bolts, all in accordance to engineer's specifications

Primary structure:  
6250mm(h) x 30000mm(l)x250mm(d) purpose made S355 grade galvanised structural steel truss. Composed of:  
Top chord - 250mm(h) x 450mm(d)x16mm(t) S355 grade galvanised structural steel RHS  
Bottom chord - 250x250mmx16mm(t) S355 grade galvanised structural steel SHS  
Girders- 6000mm high 250x250mmx16mm(t) S355 grade galvanised structural steel SHS  
Diagonal - 250x250mmx16mm(t) S355 grade galvanised structural steel SHS

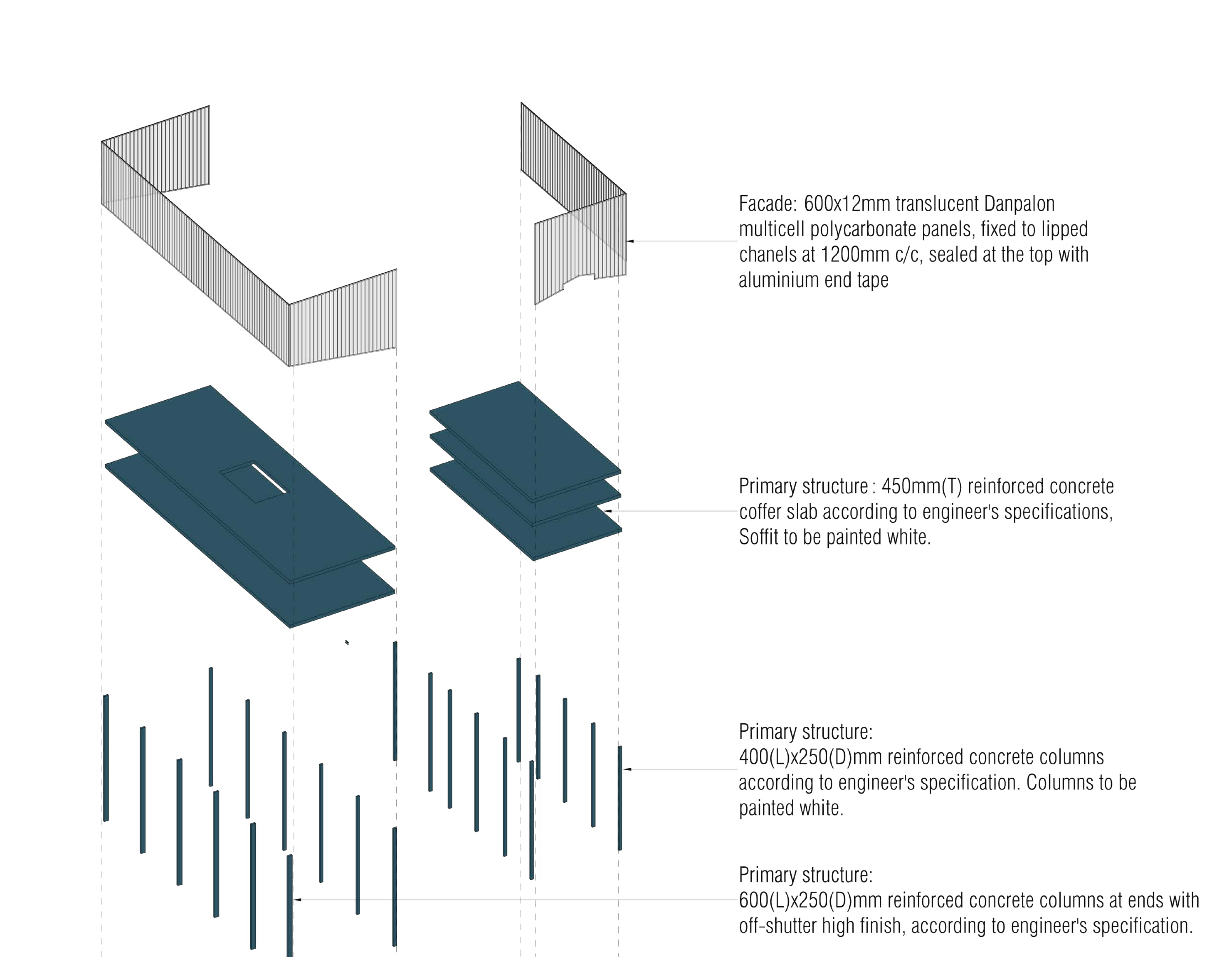
Steel members to be fixed by means of welding  
All steel work in accordance to engineer's specifications

Truss to be fixed to concrete shear wall

Primary structure  
300mm thick reinforced concrete shear walls with off-shutter high finish on 750x600mm reinforced concrete foundation on 450mm thick reinforced concrete piles as per engineer's specification

## STRUCTURAL SYSTEM B

New built over existing using an approach that pays tribute to existing forms on site



Facade: 600x12mm translucent Danpalon multicell polycarbonate panels, fixed to lipped chanel at 1200mm c/c, sealed at the top with aluminium end tape

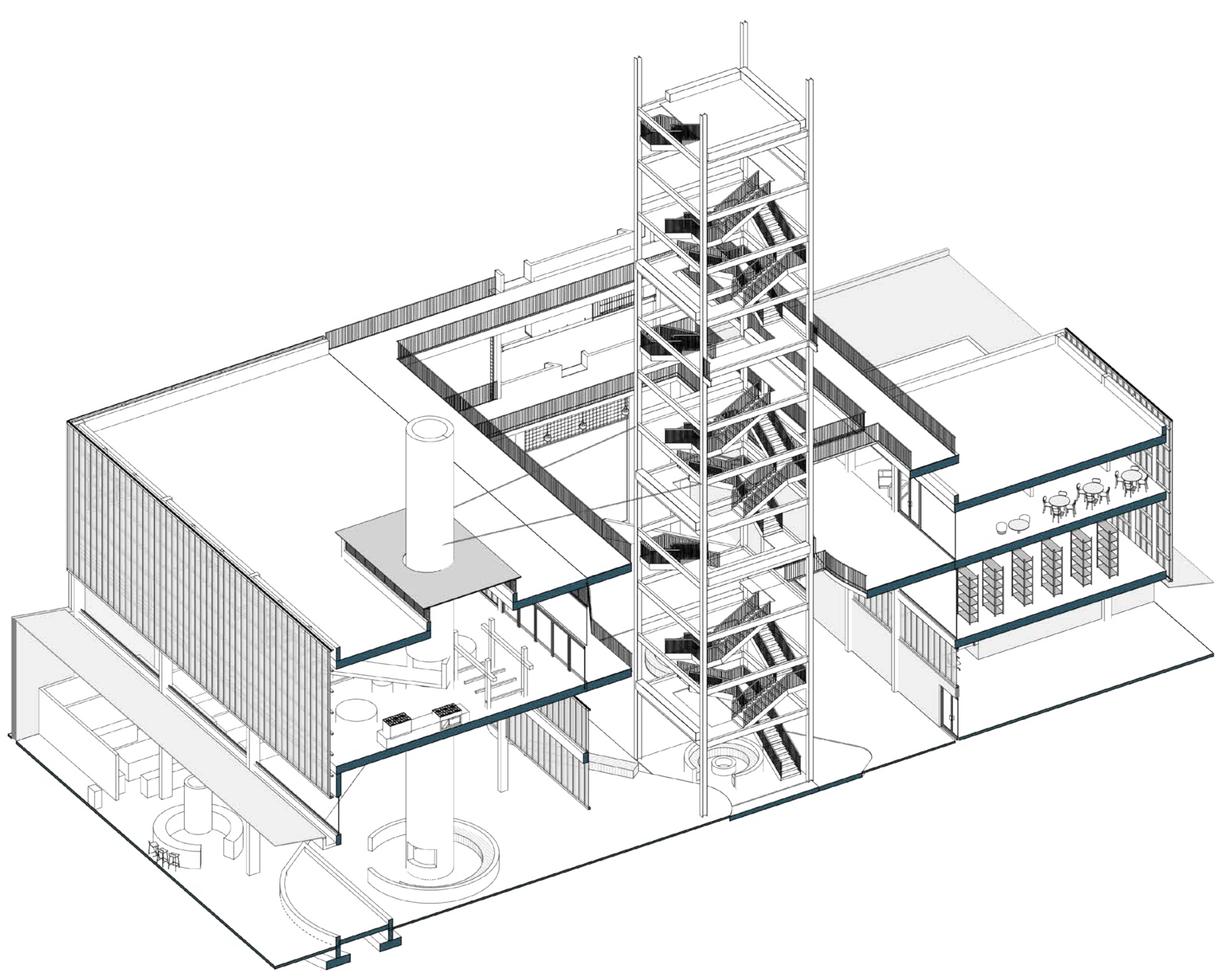
Primary structure : 450mm(T) reinforced concrete coffer slab according to engineer's specifications, Soffit to be painted white.

Primary structure:  
400(L)x250(D)mm reinforced concrete columns according to engineer's specification. Columns to be painted white.

Primary structure:  
600(L)x250(D)mm reinforced concrete columns at ends with off-shutter high finish, according to engineer's specification.

STRUCTURAL SYSTEM EXPLODED

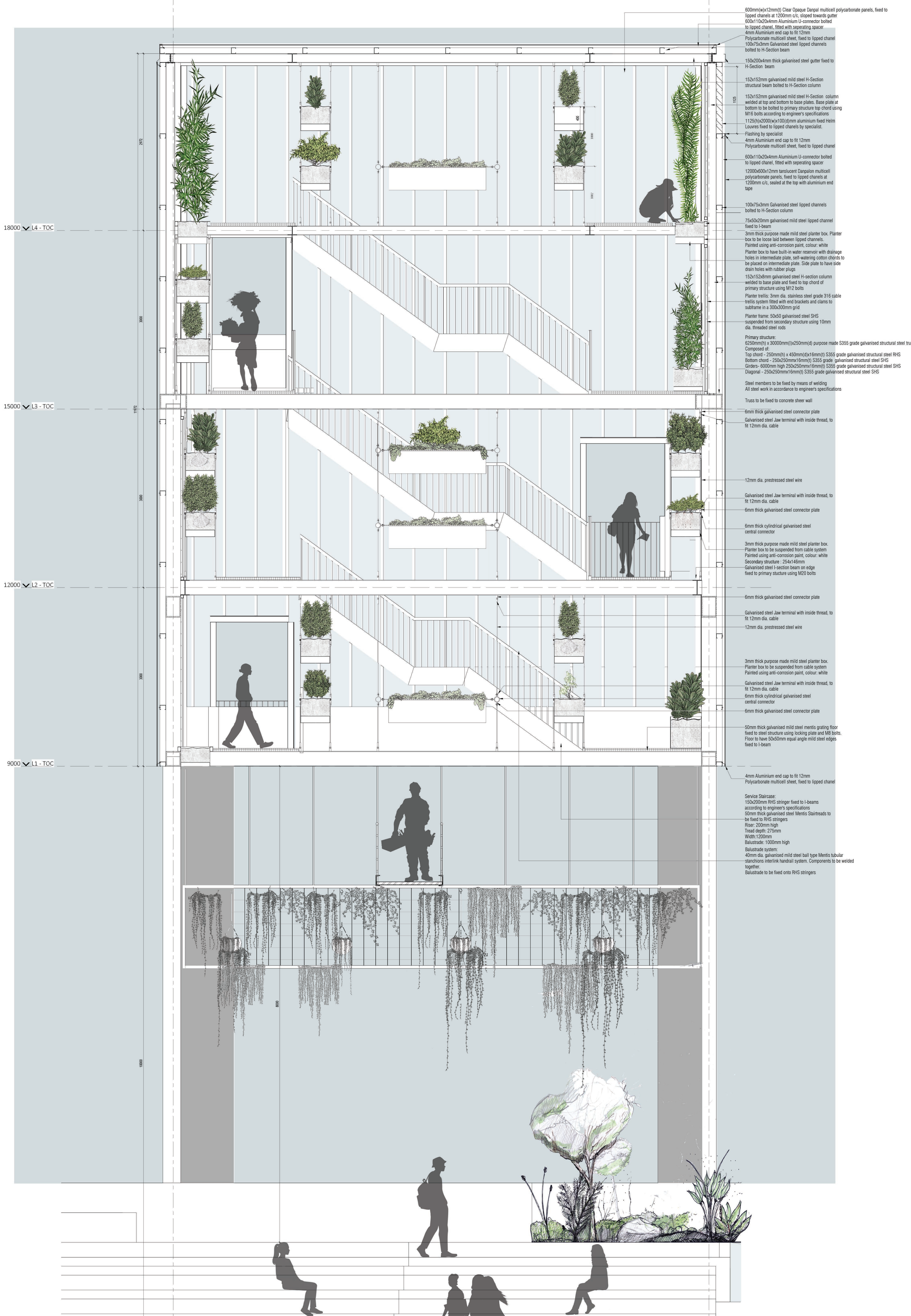
FULL AXONOMETRIC VIEW



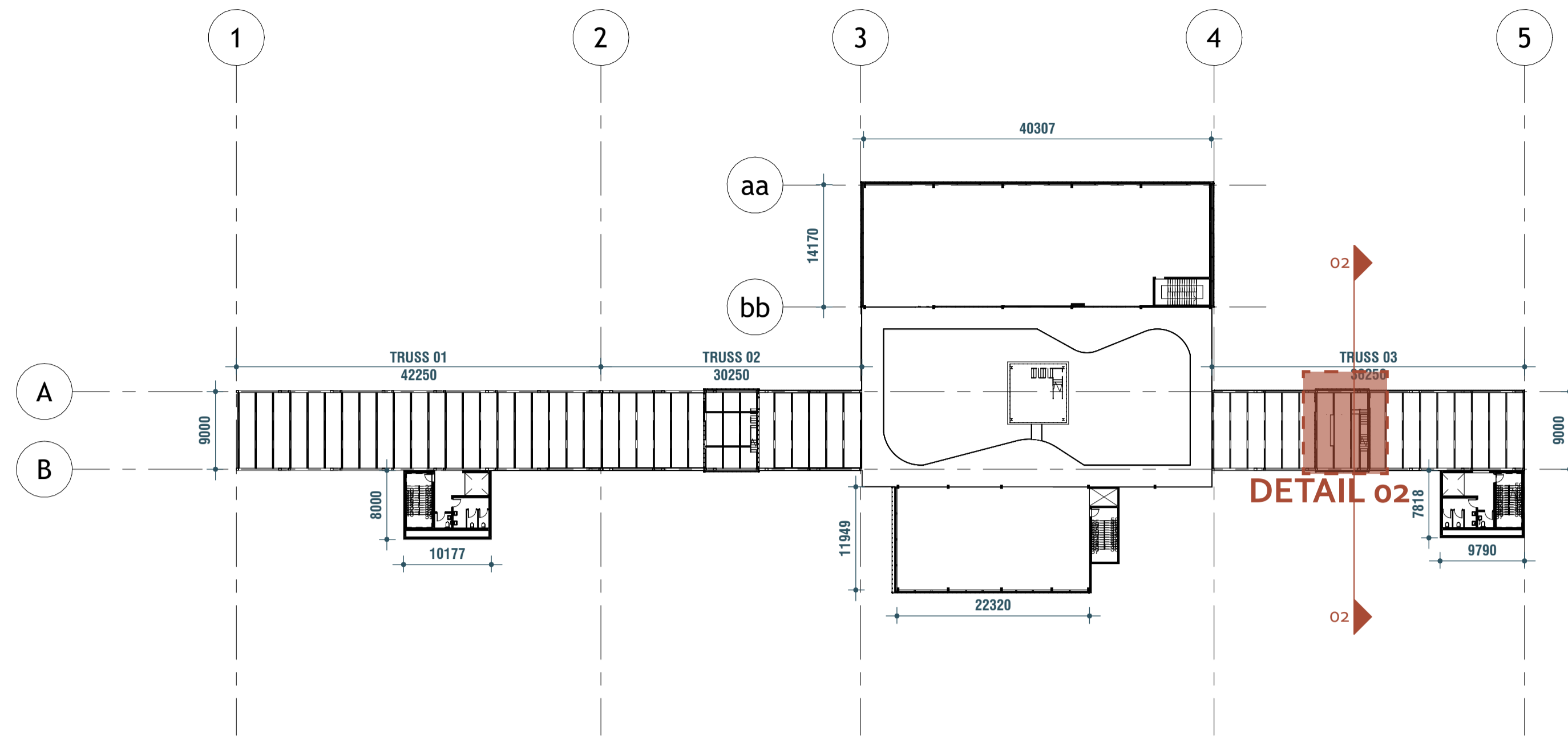
SECTIONAL AXONOMETRIC VIEW

A

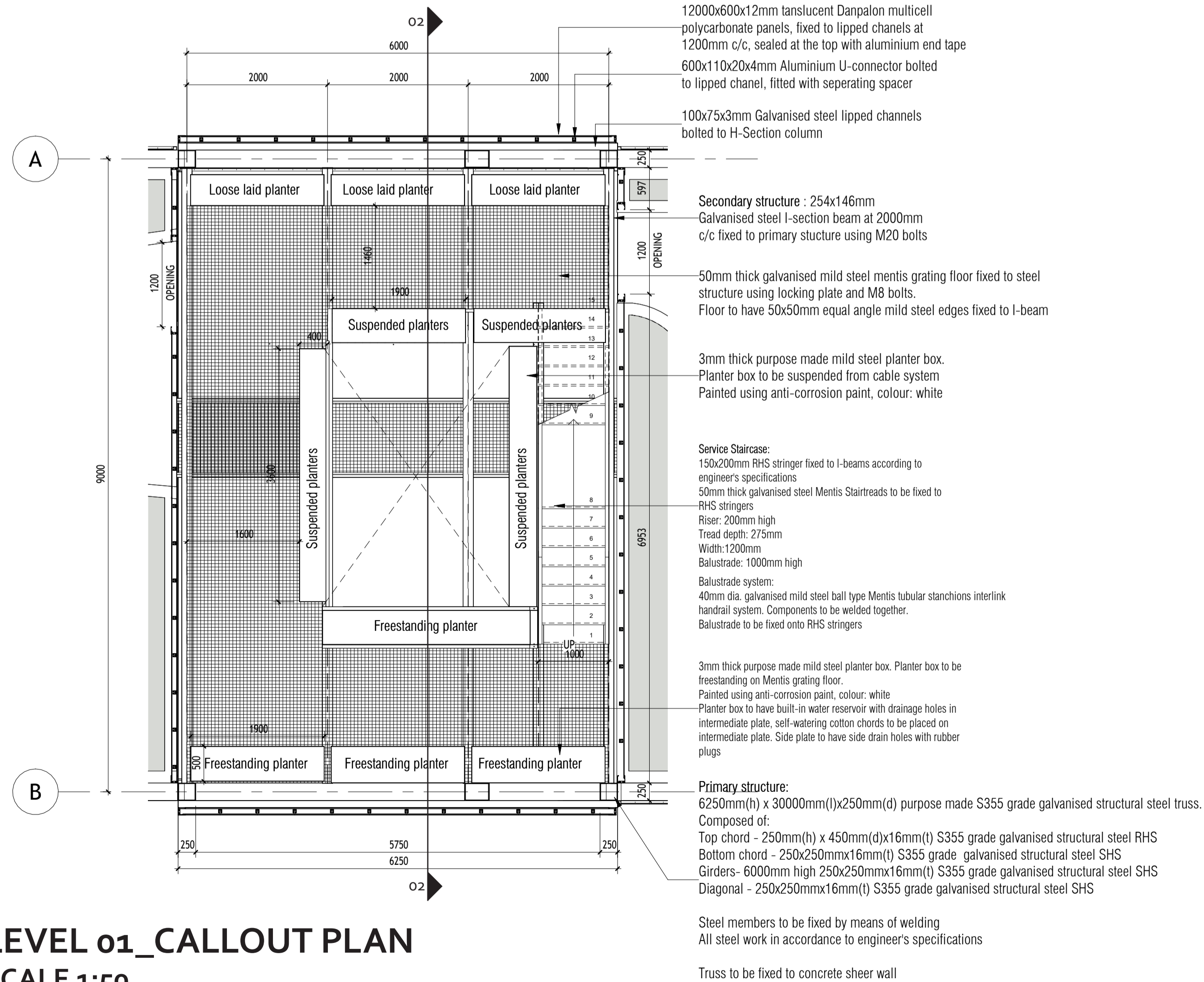
B



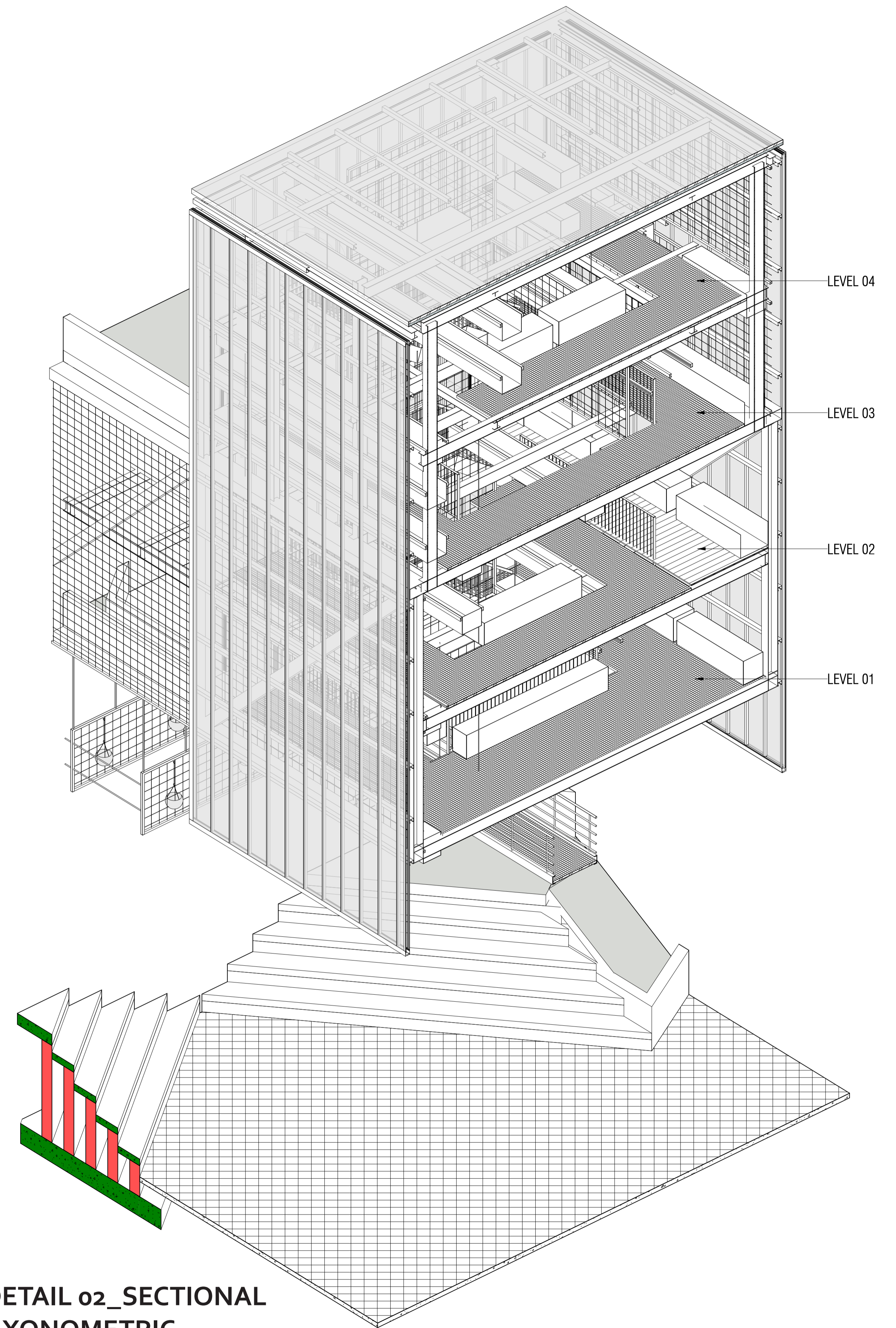
**DETAIL 02\_ GREENHOUSE SECTION**  
 SCALE 1:20



**REFERENCE AREA FOR DETAIL 02**  
SCALE 1:500



**LEVEL 01\_CALLOUT PLAN**  
SCALE 1:50



**DETAIL 02\_SECTIONAL AXONOMETRIC**  
SCALE 1:50









