Marginal Praxis:

Facilitating the Integration of Migrants within the City of Tshwane.

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Course Coordinator: Dr Jan Hugo
DPD801_Design Report

HUMANISING

INVISIBLE

VISIBLE

Transformation

REFUGEE ORGANISATION GOALS

PID

DESIGN THEORY

Cross-comparison

Child-Centered

Public Generosity

THEORETICAL FRAMEWORK

SITE LOCATION

IOM

Visibility

Design for public good

Support Empower

DECENTRALISED NETWORK

PID PRAXIS THEORY

POLICY & SERVICES

LOCAL CONTEXT

Resistance

Othering

CURRENT CONDITIONS

Fear Mongering

THE ISSUE

REFUGEES OUTSIDE UNHCR HEAD OFFICE

Peripherial Loctions
Silence

Xenophobia
Stigmatising

Vulnerability

INDIVIDUAL NARRATIVES

DEHUMANISING

CONCEPT MAPPING

Timeline

1996:
A new democratic South Africa signs the UN Refugee Convention

1998:
Refugee Act of South Africa signed into law by former president Nelson Mandela to allow South Africa to comply with international law
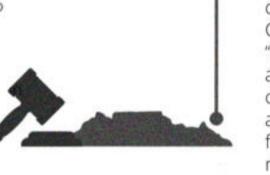
2002:
The South African government opened five Refugee Reception Offices across South Africa where asylum seekers could apply for asylum (Cape Town, Durban, PE, Johannesburg & Pretoria)

2008:
Xenophobic violence breaks out across the country. Home Affais attempts to assist individuals. Musina RRO established as a means to try and address capacity issues

2010:
The South African government starts to close Refugee Reception Offices across the country. Crown Mines, JHB in 2010. PE in 2011, CT in 2012

2012:
Asylum system under immense strain in South Africa. Permits for asylum seekers valid for 1-6 months menas Cape Town based refugees have to navigate to offices in different provinces, during adjudication which takes several years to finalise

2012:
Lengthy & complex litigation is initiated in an attempt to demand the South African government re-opens the Cape Town Refugee Reception Office.

2017:
Supreme Court of Appeal finds the decision to close the Cape Town RRO "substantively irrational and unlawful". The court orders DHA to reopen and maintain a fully functional refugee reception office in or around the Cape Town area.

2018:
Asylum seekers at the Desmond Tutu refugee reception centre in Marabastad, Pretoria, say it is a *living hell* to come to the facility as they are subjected to ill-treatment and demands for bribes. The centre becomes one of the offices worst affected by the closure of the Cape Town and Port Elizabeth reception offices.

2019:
Refugees won't leave the UNHCR Pretoria offices, fearing attacks on foreign nationals. Dozens of foreign nationals gathered at the UN Refugee Agency's offices in Cape Town, asking for help to leave South Africa. The refugees in Pretoria demand protection after clashes between locals and foreign mainly in Gauteng, where at least 12 people were killed.

2022:
Dozens turned away as refugee office reopens two years after the COVID19 pandemic. Since 26 March 2020, there has been no way for refugees to apply for asylum, and people who already had refugee or asylum-seeker status have been unable to renew or replace their permits and papers. The "family joining" process – granting refugee status or a similar secure status to family members accompanying a recognised refugee – also stopped.

2023:
Refugees evicted from UNHCR offices in Pretoria. The 33 families of refugees were given an option to voluntarily go to Lindela, a detention centre for undocumented immigrants. They refused. After refusing the offer, police promised to come and forcefully remove them.

THE ISSUE

What does life without a Refugee Reception Office mean?

For a person seeking asylum to a Refugee Reception Office is a matter of survival. Without an office, asylum seekers must travel to different provices every two to six months to renew their papers.

This is a journey which must be completed with every member of a family seeking asylum, again and again until their final status can be determined. This is a process which takes five years on average and in some instances up to eighteen or twenty years.
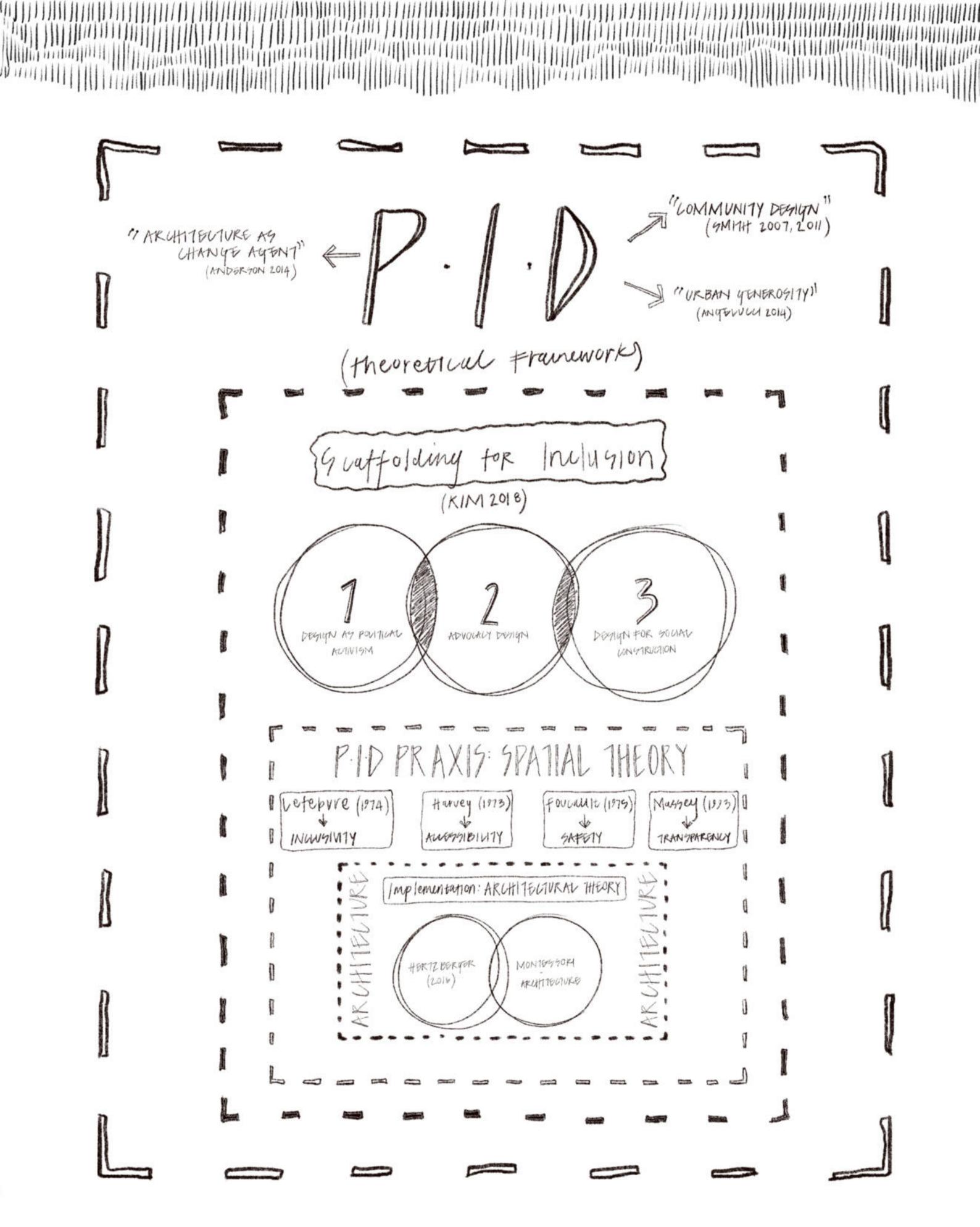
This is something we cannot accept.

To date there are no signs of RRO (Refugee Reception Office) in Cape Town being reopened

home affairs

Department:
Home Affairs
REPUBLIC OF SOUTH AFRICA

REPUBLIC OF SOUTH AFRICA
REFUGEE IDENTITY CARD

FOREINERS MUST GO BACK HOME

AS A REFUGEE CHILD I HAVE NO FUTURE IN SA

P·I·D

(theoretical framework)

"ARCHITECTURE AS CHANGE AGENT" (ANDERSON 2014) ←

→ "COMMUNITY DESIGN" (SMITH 2007, 2011)

↘ "URBAN GENEROSITY" (ANGELUCCI 2014)

Scaffolding for Inclusion

(KIM 2018)

1 DESIGN AS POLITICAL ACTIVISM

2 ADVOCACY DESIGN

3 DESIGN FOR SOCIAL CONSTRUCTION

P·I·D PRAXIS: SPATIAL THEORY

Lefebvre (1974) ↓ INCLUSIVITY	Harvey (1973) ↓ ACCESSIBILITY	Foucault (1975) ↓ SAFETY	Massey (1993) ↓ TRANSPARENCY

ARCHITECTURE

Implementation: ARCHITECTURAL THEORY

HERTZBERGER (2016)

MONTESSORI ARCHITECTURE

ARCHITECTURE

THEORETICAL FRAMEWORK

"Design for Broader Public Good"
(Feldman 2013)

Architect-Facilitator

Design for Social Construction

"Design serving the disadvantaged"
(Smith 2007, 2011)

Advocacy Design

"Community Design"
(Smith 2007, 2011)

Pro Bono Services

Grassroots Design Practice

Design as Political Activism

Open-Source Design

"Socially Responsible Design"
(Kim 2018)

Overlaping "Scaffolding

Participatory Action Research & Practice

Design for Collective Capability

PUBLIC INTEREST
DESIGN

DESMOND TUTU
REFUGEE RECEPTION CENTRE

home Affairs
Department
Home Affairs
REPUBLIC OF SOUTH AFRICA

NO
ENTRANCE
EXIT ONLY

Pretoria CPD

Krugersdorp

Lindela
Repatriation Centre

FACILITATION

International Organization for Migration

IOM • OIM

Agency	Mandate	Role
Migration	Migration	Migration
Logistics	Management	Services
	Humanitarian Aid	Logistics &
	Data Collection	Support
		Data Analysis
		Coordination
		Advocacy
		(IOM 2019)

United Nations High Commisioners for Refugees

UNHCR

Agency	Mandate	Role
Refugee Assistance	Protect Refugees	Refugee Protection
Protection	Find Solutions	Legal Support
Legal Aid	Advocate	Human Rights
Advocacy		Advocacy
		(UNHCR 2022)

United Nations Children's Fund

unicef

Agency	Mandate	Role
Child-Centered	Child Rights	Child Protection
Protection	Survival	Education
Health & Education	Development	Health Care
		Nutrition
		Child Welfare
		(UNICEF 2018)

Child Welfare

Access to Basic Services

Durable Solutions

Humanitarian Principles

Advocacy and Awareness

Community Empowerment

Protection and Safety

Coordination

KEY STAKEHOLDERS

Blessing

I am from Moz

I want to go back to my children

I have no money for transport

My husband was arrested for no papers

I am alone

I am scared

My Name is

Serrvious
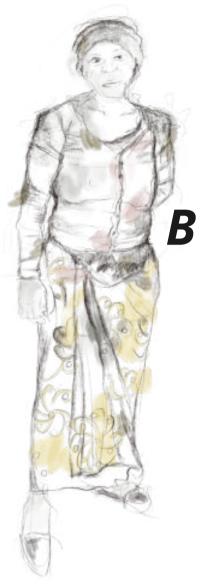
I am from Malawi

I have been living here for 10 years

It is to expensive to travel home and see my daughter

I am your brother

I am

Barbra

I am from Somalia

I have two small boys

They sleep cold at night

Our papers are invalid

My husband has no job

We are stuck

**We need help
We need hope**

My name is
Faith
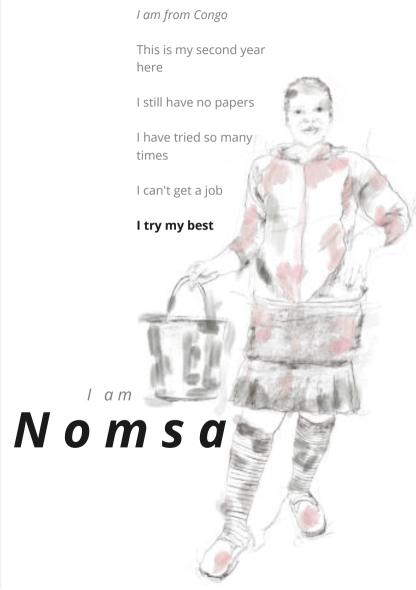
I am from Zim

I left my children behind last week to find a better life for them here

I have no job

My husband has no job

I am your neighbour

I am from Congo

This is my second year here

I still have no papers

I have tried so many times

I can't get a job

I try my best

I am

Nomsa

Ali

I am born to Congolese refugee parents.

I have not left Gauteng in my life.

I do not have citizenship.

I can't pay my studies.

I am a South African just like you.

HUMANISING

Pretoria CBD

Hatfield

Sunnyside

Vietman
Lebanon
Brazil
Cuba
Kenya
Russia
Brooklyn
Ethiopia
Philipines
Yugoslavia
Yemen
Romania
Mexico
Bosnia
Lesotho
Palestine
Qatar
Ireland
Ethiopia
Spain
Switzerland
Chile
Groenkloof
Equador
Suites
Turkey

Trinidad & Tobago
Waterkloof
Jordan
Seychelles
Panema
Algeria
Chad

☐ Current IOM Regional Office for Southern Africa
■ Embassies

I O M + V I S I B I L I T Y

08

Sunnyside Welcoming Node
WHO: Surrounding existing refugee community
WHY: Established refugee community
WHAT: High density node
HOW: Closely situated to main transport routes

Silverton - Mamelodi Node
WHO: Mamelodi community
WHY: Link between informality to the inner city
WHAT: High density node on main transport route
HOW: Active transport route activates service use

Desmond Tutu Refugee Centre - Alterations
WHO: Marabastad & CBD
WHY: Familiar node to refugees
WHAT: Distribution point for referral to other nodes across the city
HOW: Additions & Alterations

Brooklyn Node
WHO: Parents with children in the city
WHY: Encourage visibility of IOM among member states
WHAT: Low density model to humanise the experience
HOW: Visible on the ground community integration

Node of Exploration

Menlyn Node
WHO: Working class in close proximity
WHY: Close proximity to economic exchange
WHAT: Satellite Office
HOW: Opportunity for networking

Plastic View Node
WHO: Transient community
WHY: Lack of access to basic services & good livelihoods
WHAT: Temporary Satellite Office
HOW: Volunteer post for locals

DECENTRALISED NEXUS

Mobility & Access

Legend:
- Public Access
- Proposed Site
- Private Gated Community
- Gated Community with Public Access
- Local Brooklyn Nodes
- Main Vehicular Routes
- Enclosed & Semi Enclosed Roads
- Taxi Rank

Map labels:
- Access to Main Vehicular & Bus Routes
- Access to Hatfield Node & University of Pretoria
- Access to Metro Station & BRT Routes
- Access to N1: Main Vehicular & Bus Routes
- Access to N14 & Tshwane Metro Station

Public Activity

Legend:
- Existing Urban Fabric
- Proposed Site
- Public Open Green Space
- Consentrated Public Activity
- Local Brooklyn Nodes
- Main Vehicular Routes

LOCAL CONTEXT 11

Land Use

Legend (Land Use):
- ■ Residential Typologies
- ■ Formal Trade Typologies
- ■ Educational Typologies
- ■ Mixed Use Typologies
- ◯ Local Brooklyn Nodes
- ‑‑ Main Vehicular Routes
- ■ UNHCR & UNICEF South African Headquarters
- ■ Proposed Site
- ■ Informal Trade Typologies
- ■ IOM South African Headquarters

Tshwane Spatial Development Framework 2018

Legend (Tshwane Spatial Development Framework 2018):
- ■ Proposed Site
- ■ Linear Zone for Densification
- ■ Existing Urban Fabric & Future Urban Development Areas
- ■ Future Bicycle Lane Routes
- ◯ Local Brooklyn Nodes
- ‑‑ Main Vehicular Routes

LOCAL CONTEXT

Pienaar Street

Waterkloof Street

THE SITE

Care Facilities - Clinic and Dispensary run by the University of Pretoria COPC Research Unit (Community Oriented Primary Care), provides access for initial health screening and medication.

Documentation Facilities run by IOM in collaboration with government, assist refugees with needed registration, applications, legal frameworks, renewals, and status determination.
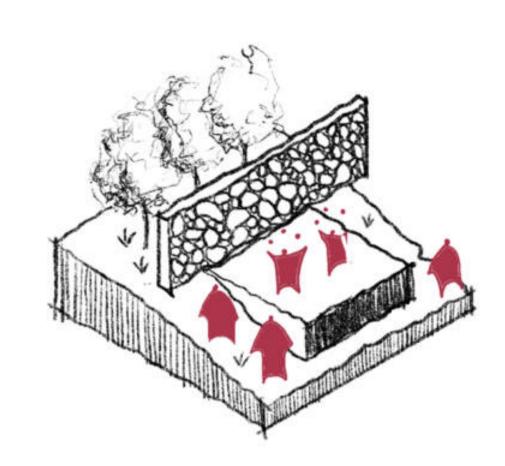
Formal Meeting Spaces (NGO's/IOM/UNHCR/ UNICEF/Member States) encourages discussions, contributions and solutions, strengthening refugee integration into society.

Emergency Care Stay Facilities run by the University of Pretoria COPC Research Unit (Community Oriented Primary Care), provide a safehouse for those who need chronic care. The duration of stay varies from one night to three, whilst the stakeholders assist in finding appropriate hospital/care placement.
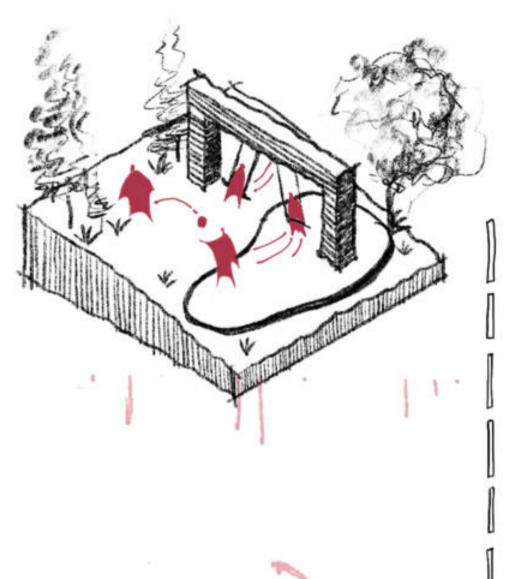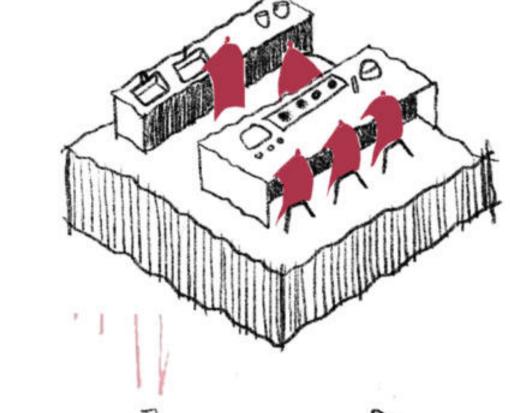
Private Consultation Areas/Offices run by IOM, to provide assistance on a humane & intimate scale, whilst remaining visually linked to other offices for a sense of accountability and safety.

Public Event Space providing opportunity for community gathering, fund raising events, political discussions, public preformances, and private/public lectures facilitated by the IOM.

Play Areas encouraging spontanious interaction among children and parents, building a network and community.

A Food Court provides nourishment to the user after a long journey of travelling, funded by the IOM and run by volunteers from the community.

Gathering Spaces encourage networking and community building.

Workshop Facilities hosted by the IOM/UNHCR/UNICEF provide needed information of outreach programs, housing hosts, and transport to placement facilities for futher integration after being welcomed in the centre.

P R O G R A M M E

A language of *welcome*
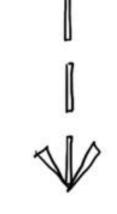
_01
Henri Lefebvre

Three interconnected dimensions of space - perceived space, conceived space, and lived space - guides the architectural intervention as a framework for understanding the social and cultural aspects of space, to encourage a responsive intervention within its context & promote **democratic and inclusive** forms of spatial production.

These dimensions are produced within the project through **social practices and power relations** (Lefebvre 1974).

Social Exclusion

_02
David Harvey

Designing and building cities that are inclusive and accessible to all members of society, regardless of their social, economic, or cultural background is realised through the "Right to the City" by working closely with communities to understand their needs and priorities, and by designing spaces and structures that reflect those needs and priorities.

By prioritising **social justice, democracy, and accessibility,** the project can facilitate an inclusive urban environment that benefits all members of society (Harvey 1973).

Understanding Needs

_03
Michel Foucault

Foucault explores how institutions are designed and operated to exert power and control over individuals, creating spaces that are highly disciplined and regulated, with strict rules and surveillance systems to ensure compliance. Architecture is thus a tool to reinforce power relationships and maintain social control, and the implications of these practices negate individual freedom and encourage autonomy (Foucault 1975).

From this spatial theory, the project aims to use architecture as a tool for passive safety through a humanitarian lense, rather than forced control through rigid power relations.

Enforce Social Control

_04
Doreen Massey

The way space is organised and structured can either reinforce or challenge existing power relations. Power relations are embedded in space not only through overt forms of control, but also through processes of exclusion and marginalisation (Massey 1993).

Through a nuanced understanding of current power relations, the project aims to challenge these structures by providing transparency within programme, space, and interface.

Challenging Existing Stigmas

Design for *Inclusivity*

Accessible Public *Space*

Fostering a Sense of *Safety*

Design for *Transparency*
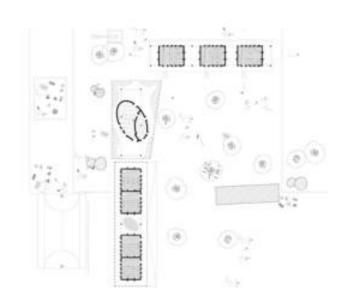
KEY SPATIAL THEORY

KEY ARCHITECTURAL THEORY

Herman Hertzberger
Montessori-Architecture

Hertzberger, H., 2008. Space and Learning
Lawrence, S & Stæhli, B., 2023.
Montessori Architecture:A Design Instrument for Schools

Plan	Exterior	Interior	Transitional	Feature

Primary and Secondary School, Gando, Burkina Faso
Diébédo Francis Kéré, 2008
(Montesorri-Architecture 2022)
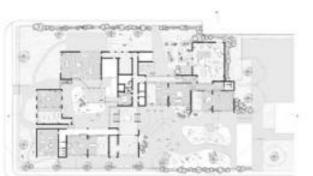
METI Primary School, Rudrapur, Bangladesh
Anna Heringer, Eike Roswag, 2006
(Montesorri-Architecture 2022)

Stichting Casa School, Pijnacker, Netherlands
Tessa Wessels, 2011
(Montesorri-Architecture 2022)
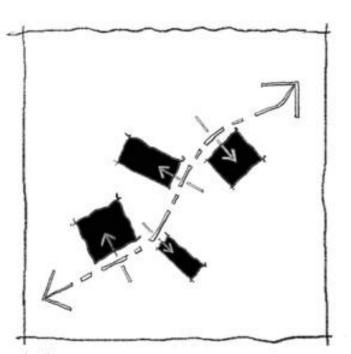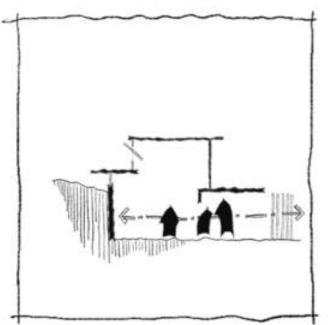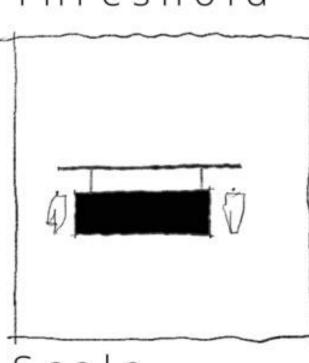
DESIGN INFORMANTS

Movement

Clear Primary Indicator

Movement is clearly established through a single, accessible line where programme intersects movement for visibility.

Sense of Embrace

Natural light is controlled through one singular interface, leaving the other vertical planes to contrastingly embrace the user through stereotomic solid planes.

Light

Threshold

Layered Transparency

Thresholds are transparent ecouraging visibility, whilst layered for a sense of privacy to the user.
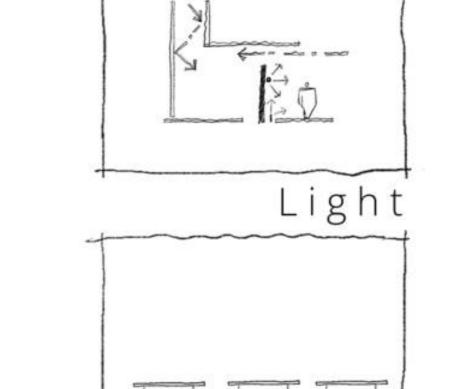
Textures for Warmth

A single colour is used throughout the space for uniformity, applied to various textures for welcoming a sense of warmth into the space.

Material

Scale

Human Centered

Scale attempts to convey a sense of intimacy and safety to the user through reducing the scale of interior spaces from the exterior.
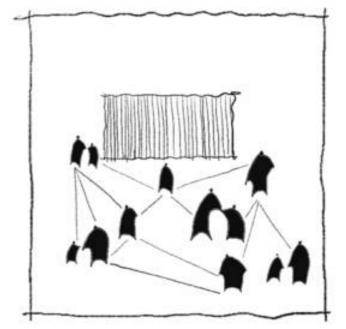
Agency

Moveable furniture and an open floor plan convey a sense of ownership and agency to the user, navigating through *community* in their own way.

Community

Language of *welcome*
Understanding Form; Space; The user

CATALOGUE

DESIGN PROVOCATION

LITERATURE

exploring current conditions

→ Prompt!

RESEARCH REPORT

SITE VISITS

EMPATHY

INITIAL exploration

UUC 2022 & 2023 PLASTIC VIEW

DAILY EXPERIENCE (UNHCR)

REFLECTION
overlapping scaffolding for inclusion

1·7·0 KIM (2018)

1. MODELS

ARCHITECTURAL exploration

1. 2. 3.

2. DRAWING

3· SPATIAL EXPLORATION

ITERATION 1

REFLECTION

ITERATION 6

REFLECTION

REFLECTION

ITERATION 2

ITERATION 5

REFLECTION

REFLECTION

ITERATION 3

REFLECTION

ITERATION 4

ITERATION PROCESS

Emerging Design Variables

Planted Roof Tops

Climatic Resilience:
_Urban Heat Island_Storm Water Drainage
Regenerative Potential:
_Landscape

Learning from Local Vernacular

Climatic Resilience:
_Cool Interior
_Covered Walkways encouraging Pedestrian movement
_Fostering a local identity

Existing Design Variables

Accesible Roof Tops

Cultural Topology:
Using the Land
Natural Topology:
Connect with Indigenous Landscape
Continuing the natural slope of the landscape

Reuse of Local Materials

Technology Techtonics:
_Using industrial technology to span distances without columns
Indigenous Thinking Typology:
_Reaction to harsh Lowveld sun
_Fostering a sense of African Identity & placemaking

Emerging Design Variables

Water Catchment

Climatic Resilience:
_Filtering and reuse of water on site for public generosity.
Redress of Imperialism:
_Address notions of segregation in Pretoria.
Service Provision System:
_Water for site user & public
Regenerative potential:
_Water system relies on natural resources

Public Generosity & Inclusion

Economic & social Foothold
_Public interface for trading
Service Provision System
_Services for site user & surrounding community
_Site as catalyst for a sense of belonging & community

Existing Design Variables

Passive Cooling Principles

Natural Topology:
_Following & adjusting to site slope
_Manipulating cool air from South
Indigenous thinking Typology:
_Using excavation as cooling method.
Visual Techtonics:
_Limiting views for privacy of the vulnerable user of the space
_Solid vertical elements to foster a sense of safety and protection.

Diversity of belonging

Cultural Topology:
_Synthesis of Pretoria vernacular, international language & indigenous architecture
Natural Topology:
_React to the site through design principles aimed at lowveld
Industrial Thinking Typology:
_Using advanced technology to speak to the international elements of architecture; concrete; steel; glass
Indigenous Thinking Typology:
_Using indigenous systems and local craftsmenship to speak to the indigenous elements of architecture; wood; sand; clay; brick
Visual Tectonics:
_Spatial layout mimicing the indigenous gathering typologies
_Architectural language belonging to all

KEY ELEMENTS

ITERATION

Parti Diagram indicating core movement and form of project

Natural Materials
Excavated from site to create half walls letting light in from above

Catalyst for Integration
Excavating soil
Soil reused as building material
Vernacular building technology

Public Accessibility
Guided Movement
Reduced to the human scale on streetscape
Transport node on public interface

→ PRIVATE - REFUGEES
→ CHILDREN UNICEF
→ PUBLIC - MARKET/RETAIL

ITERATION

Extended anchor point on site

Natural Materials
Excavated from site to create half walls letting light in from above

Structural steel column supporting cantilever cast in situ reinforced concrete coffered slab.

Using the natural slope of the site to relay water to tanks for public use

Semi concealed structure with timber frame construction with polycarbonate sheeting.

Public Accessibility
Guided Movement
Reduced to the human scale on streetscape
Transport node on public interface

Walls: Timber Frame construction
Roof: Timber frame construction with wattle ceiling concealing polycarbonate roof sheeting.

Floated clay flooring from excavated soil on site

Cast in situ reinforced concrete wall with 340mm facebrick ribbon above

Recycled facebrick paving from demolished structure expressing South African local vernacular

Structural steel column supporting cantilever cast in situ reinforced concrete coffered slab.

Semi concealed structure with timber frame construction with polycarbonate sheeting.

135mm Treated Gum poles with 600x200 cast in situ concrete footing

Catalyst for Integration
Excavating soil
Soil reused as building material
Vernacular building technology

Public Accessibility
Guided Movement
Reduced to the human scale on streetscape
Transport node on public interface

Movement guided by landscape

135mm Treated Gum poles with 600x200 cast in situ concrete footing

600mm Rammed earth wall from excavated Soil on site

Cast in situ flat reinforced contrete slab to carry wight of landscaping. Waterproof for planting. Parapet to conceal soil & waterproofing

Tensioned Aluminium cables for vertical landscaping as interactive facade

Exterior: 220mm Facebrick Light well
Interior: Plastered & painted white light well

600mm Rammed earth wall from excavated Soil on site

Sealed facebrick water catchment for rainwater as irrigation

Cast in situ flat reinforced contrete slab to carry wight of landscaping. waterproof for planting. Parapet to conceal soil & waterproofing

ITERATION

Base Case:
Desmond Tutu Refugee Centre, Pretoria CDB

Undefined **Entrance**
Intimidating **Scale**
Security through Fencing
Lack of **Signage**

Lack of Protection from **Climate**
Community **Exclusion**
Harsh **Transitional Edge**
Public **Inaccessibility**

Forced **Movement**
Power Imbalance
Hierarchy of Control
Lack of **Ownership**

Indicators + Measures

Surveillance + Visibility	Owned Spaces	Defined Access + Safe Movement	Image + Aesthetics	Maintenance + Management	Physical Barriers
Entrances	Hierarchy	Emergency Access	Design Language	Material Quality	Fence Condition
Scale	Ownership	Signposted	Climate	Material Source	Public Accessibility
Passive Surveillance	Power Imbalances	Pedestrian Movement	Community Inclusion		
Transitional Edge					
Lighting					

Applied

Prenaar Str

Waterkloof Str

BUILDING PERFORMANCE

Surveillance + Visibility

Owned Spaces

Defined Access + Safe Movement

Image + Aesthetics

Maintenance + Management

Physical Barriers

Public:
Restaurant serving community

Semi-Private
Communal Kitchen serving refuge seekers

Emergency Access

Kitchen

Dining Facilities

Storage

WC

Entrances

Fence Condition

Outside Dining Facilities
Transitional Edge

Vegetable Garden
Ownership

Coffee Shop

Drinking Fountain

Community Inclusion

Pedestrian Movement

Public Accessibility

Pedestrian Movement

Emergency Access

Kitchen

WC

Outside Dining Facilities

Dining Facilities

Community Inclusion

Vegetable Garden

Ownership

Entrances

Public Accessibility

Approach

Not to Scale
Final Iterated Ground Floorplan

Not to Scale
Final Iterated First Floorplan

Hierarchy of Importance

Climate

Design Language

Private

Lighting

Lighting

Passive Surveillance

Material Source

Climate

Public

Fence Condition

Not to Scale
Section AA

BUILDING PERFORMANCE

A language of welcome

01 Hierarchy of interconnected spaces

Sequential spaces are explored through pace and the elements which foster a sense of secure orientation within it (Mostafa 2022). Orientation for the user is explored through directional spaces on one central movement spine and differentiating between floor plane, and roof plane heights (Montessori-Architecture 2023).

02 Local materials

Natural materials of excavated soil from site, wood, stone, and textiles are explored to foster the feeling of comfort and warmth within the user experience. Materials conveying sensory comfort encourages the sense of safety for the user, in turn creating opportunity for interaction (Montessori-Architecture 2023). Children are highly attuned to the tactile quality of the building surfaces around them. There is inherent beauty in the roughness, simplicity, modesty and intimacy of natural substances such as wood or stone.

03 Articulation of space and form

Unstructured spaces animated by circumstance that can be transformed to suit any new situation are nestled by relatively structured, inclusive, containing elements. The unstructured communal areas become anchor points for users to settle down on their journey, through a presence of communal cohesion, embraced by the built fabric (Hertzberger 2016).

04 Transitional spaces between inside & outside

Threshold is explored through overlapping the public and private realms, inviting passers-by through a sense of duality and transparency. The threshold stands as its own platform, where two worlds overlap rather than a stark demarcation (Hertzberger 2016). This overlap in public and private realms contributes to the idea of sharing space, and forming part of a collective society.

05 Connecting function of circulation space & floorplane

Articulated circulation, through one primary movement route, orientates the user on site, without the need for signage, conveying legibility, and accessibility to users speaking different languages. This articulated route provides an inclusive, safe, efficient, and engaging user experience (Mostafa 2022). Open floor plans and transparent materials are explored, to create a sense of transparency, inclusivity and accessibility to the user, serving the public interest. Open floor plans convey a sense of accountability and communication among users, creating a trust-building environment. The free floor plan encourages new freedoms and potentials as a result of reconfigured social space, giving agency in one's own contexts. This realises Lefebvre's idea of the appropriation of space as an essential component of the right to the city as participants use their own everyday practices to produce space (Anderson 2014).

06 Openings

Light reaches interior spaces from clerestory ribbons, where the interior is enveloped in stereotomic vertical planes, embracing the user as a gesture to safety and security (Hertzberger 2016).

07 Accessibility for children

Stimulating the senses of the children using the site, is considered throughout interior and exterior spaces including water, sand, landscaping, and play structures. Sensory stimulation encourages engagement among children playing, building connections and fostering a sense of community among users (Montessori-Architecture 2023).

08 Observation without intrusion

The terraced landscape offers pockets of seclusion & safety, for users within the site, observing the street edge from above (Montessori-Architecture 2023).

09 Flexibility

Flexibility in space is explored, encouraging spaces that can easily be adapted for various purposes, such as meetings, workshops, or social gatherings. This flexibility encourages a range of activities to take place, for smaller intimate gatherings to larger public events, as well as different activities for different age groups of children (Anderson 2014).

10 Independent self-care
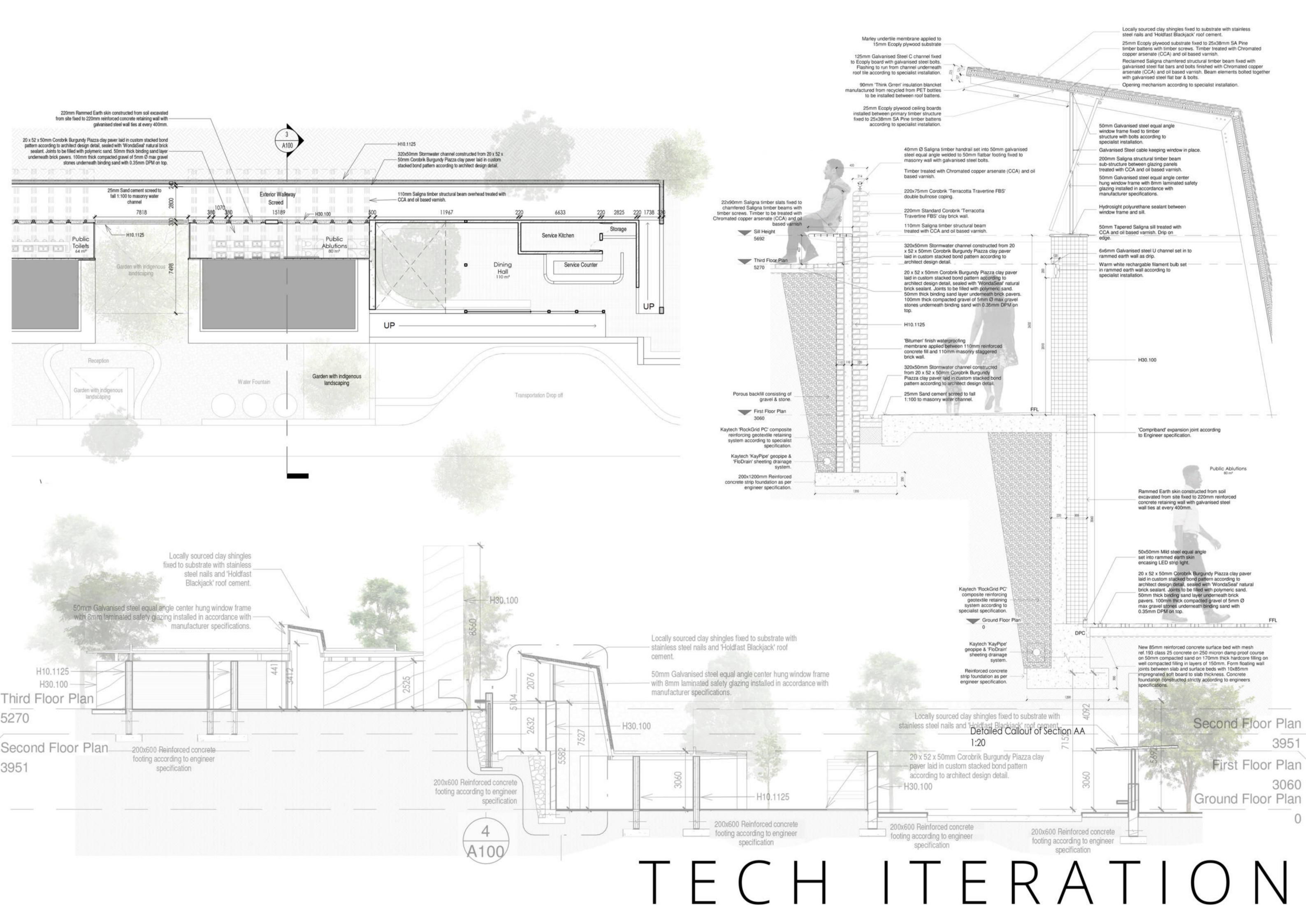
Scaled at Adult-and child ergonomics, to convey a sense of responsibility and ownership to the user (Montessori-Architecture 2023).

11 Grounds as a habitat
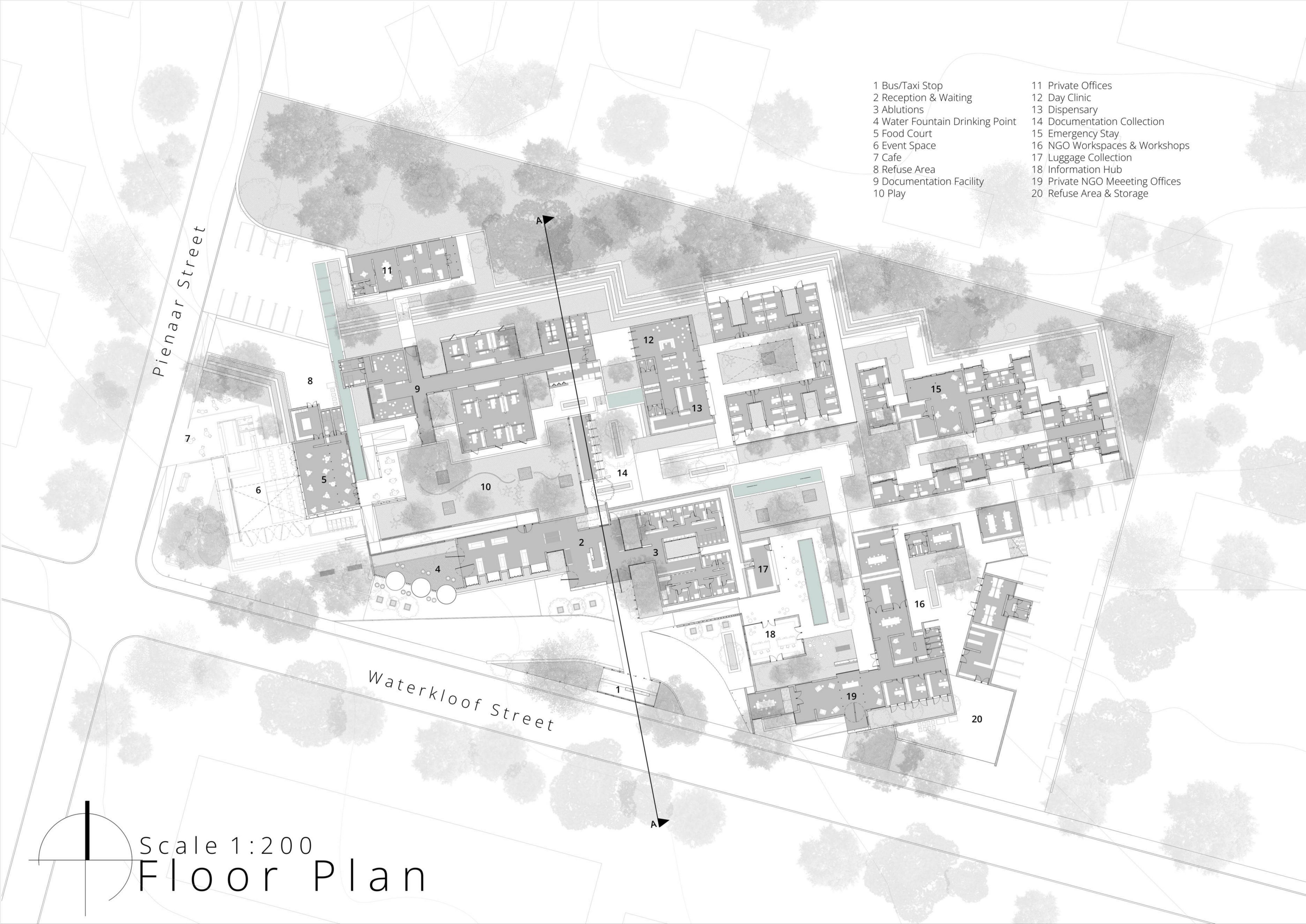
Indigenous landscaping is proposed to enhance the welcoming atmosphere, woven in between outdoor seating areas to provide a sense of calm and serenity for the user, whilst providing shade and reducing erosion. Playscapes run adjacent to the primary circulation route for continuous passive surveillance on children. Indigenous landscaping is a tool used to convey a narrative aimed at generating and balancing positive social, institutional, environmental and economic change (Anderson 2014).

12 Daylighting

Natural light is explored to create a warm and welcoming atmosphere. Where large overhangs protect the user from harsh climate factors. Interior lighting from above skylights is used as a tool to convey a sense of safety and security to the user, whilst nestled in their stereotomic surroundings. Lighting encourages inclusivity and accessibility for the user, making their journey effortless on site. Light is also drawn into interior spaces for warmth and comfort (Montessori-Architecture 2023).

KEY DESIGN THEORY

Marley undertile membrane applied to 15mm Ecoply plywood substrate

125mm Galvanised Steel C channel fixed to Ecoply board with galvanised steel bolts. Flashing to run from channel underneath roof tile according to specialist installation.

90mm 'Think Grren' insulation blanket manufactured from recycled from PET bottles to be installed between roof battens.

25mm Ecoply plywood ceiling boards installed between primary timber structure fixed to 25x38mm SA Pine timber battens according to specialist installation.

Locally sourced clay shingles fixed to substrate with stainless steel nails and 'Holdfast Blackjack' roof cement.

25mm Ecoply plywood substrate fixed to 25x38mm SA Pine timber battens with timber screws. Timber treated with Chromated copper arsenate (CCA) and oil based varnish.

Reclaimed Saligna chamfered structural timber beam fixed with galvanised steel flat bars and bolts finished with Chromated copper arsenate (CCA) and oil based varnish. Beam elements bolted together with galvanised steel flat bar & bolts.
Opening mechanism according to specialist installation.

50mm Galvanised steel equal angle window frame fixed to timber structure with bolts according to specialist installation.

Galvanised Steel cable keeping window in place.

200mm Saligna structural timber beam sub-structure between glazing panels treated with CCA and oil based varnish.

50mm Galvanised steel equal angle center hung window frame with 8mm laminated safety glazing installed in accordance with manufacturer specifications.

Hydrosoft polyurethane sealant between window frame and sill.

40mm Ø Saligna timber handrail set into 50mm galvanised steel equal angle welded to 50mm flatbar footing fixed to masonry wall with galvanised steel bolts.

Timber treated with Chromated copper arsenate (CCA) and oil based varnish.

220x75mm Corobrik 'Terracotta Travertine FBS' double bullnose coping.

220mm Standard Corobrik 'Terracotta Travertine FBS' clay brick wall.

110mm Saligna timber structural beam treated with CCA and oil based varnish.

50mm Tapered Saligna sill treated with CCA and oil based varnish. Drip on edge.

6x6mm Galvanised steel U channel set in to rammed earth wall as drip.

Warm white rechargable filament bulb set in rammed earth wall according to specialist installation.

22x90mm Saligna timber slats fixed to chamfered Saligna timber beams with timber screws. Timber to be treated with Chromated copper arsenate (CCA) and oil based varnish.

320x50mm Stormwater channel constructed from 20 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail.

20 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top.

H10.1125

'Bitumen' finish waterproofing membrane applied between 110mm reinforced concrete fill and 110mm masonry staggered brick wall.

320x50mm Stormwater channel constructed from 20 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail.

25mm Sand cement screed to fall 1:100 to masonry water channel.

Porous backfill consisting of gravel & stone.

Kaytech 'RockGrid PC' composite reinforcing geotextile retaining system according to specialist specification.

Kaytech 'KayPipe' geopipe & 'FloDrain' sheeting drainage system.

200x1200mm Reinforced concrete strip foundation as per engineer specification.

Kaytech 'RockGrid PC' composite reinforcing geotextile retaining system according to specialist specification.

Kaytech 'KayPipe' geopipe & 'FloDrain' sheeting drainage system.

Reinforced concrete strip foundation as per engineer specification.

'Compriband' expansion joint according to Engineer specification.

Rammed Earth skin constructed from soil excavated from site fixed to 220mm reinforced concrete retaining wall with galvanised steel wall ties at every 400mm.

50x50mm Mild steel equal angle set into rammed earth skin encasing LED strip light.

20 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top.

New 85mm reinforced concrete surface bed with mesh ref. 193 class 25 concrete on 250 micron damp proof course on 50mm compacted sand on 170mm thick hardcore filling on well compacted filling in layers of 150mm. Form floating wall joints between slab and surface beds with 10x85mm impregnated soft board to slab thickness. Concrete foundation constructed strictly according to engineers specifications.

Public Ablutions 80 m²

Sill Height 5692
▽ Third Floor Plan 5270
▽ First Floor Plan 3060
▽ Ground Floor Plan
FFL
DPC
FFL

220mm Rammed Earth skin constructed from soil excavated from site fixed to 220mm reinforced concrete retaining wall with galvanised steel wall ties at every 400mm.

20 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top.

25mm Sand cement screed to fall 1:100 to masonry water channel.

320x50mm Stormwater channel constructed from 20 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail.

110mm Saligna timber structural beam overhead treated with CCA and oil based varnish.

H10.1125
H30.100

Exterior Walkway Screed

Public Toilets 64 m²

Garden with indigenous landscaping

Reception

Garden with indigenous landscaping

Water Fountain

Garden with indigenous landscaping

Transportation Drop off

Public Ablutions 80 m²

Dining Hall 110 m²

Service Kitchen

Service Counter

Storage

UP
UP
UP

7818 380 380 15189 500 11967 220 6633 220 2825 220 1738 330

2800 330
7498
1070

Locally sourced clay shingles fixed to substrate with stainless steel nails and 'Holdfast Blackjack' roof cement.

50mm Galvanised steel equal angle center hung window frame with 8mm laminated safety glazing installed in accordance with manufacturer specifications.

Locally sourced clay shingles fixed to substrate with stainless steel nails and 'Holdfast Blackjack' roof cement.

50mm Galvanised steel equal angle center hung window frame with 8mm laminated safety glazing installed in accordance with manufacturer specifications.

Locally sourced clay shingles fixed to substrate with stainless steel nails and 'Holdfast Blackjack' roof cement.

20 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail.

H30.100
H10.1125
H30.100

Third Floor Plan
5270

Second Floor Plan
3951

200x600 Reinforced concrete footing according to engineer specification

200x600 Reinforced concrete footing according to engineer specification

200x600 Reinforced concrete footing according to engineer specification

200x600 Reinforced concrete footing according to engineer specification

200x600 Reinforced concrete footing according to engineer specification

Detailed Callout of Section AA
1:20

Second Floor Plan
3951

First Floor Plan
3060

Ground Floor Plan
0

8560 3412 2525
441
2076 2632 5104
5582 7527
3060
3060
715 591 4092

H10.1125
H30.100

4
A100

3
A100

TECH ITERATION

Waterkloof Street

UNHCR
Headquarters

UNICEF
Headquarters

Pienaar Street

Korean
Cultural Centre

Scale 1:500
Locality Plan

Pienaar Street

Waterkloof Street

1 Bus/Taxi Stop
2 Reception & Waiting
3 Ablutions
4 Water Fountain Drinking Point
5 Food Court
6 Event Space
7 Cafe
8 Refuse Area
9 Documentation Facility
10 Play

11 Private Offices
12 Day Clinic
13 Dispensary
14 Documentation Collection
15 Emergency Stay
16 NGO Workspaces & Workshops
17 Luggage Collection
18 Information Hub
19 Private NGO Meeeting Offices
20 Refuse Area & Storage

Scale 1:200
Floor Plan

Detail Section labels (right of section):

220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern as coping on reinforced concrete upstand.

Drip on end.

Growing medium soil on top of sand layer on top of Kaytech "RockGrid PC" composite geotextile on top of "Flownet" polyethylene drainage mesh, on top of 30mm pavers to protect waterproof layer, on top of 19mm sand layers on top of 2x layers of heat-welded bituminous waterproof membrane on top of 255mm reinforced concrete slab. Slab to ta[p]er to end.

Saligna timber louvres fixed to concealed galvanised steel metal plate cast into overhead reinforced concrete slab according to specialist installation.

Polycarbonate LED downlight recessed in timber box according to electrician installation.

Saligna window sill box to soffit with hydrosight polyurethane sealant between box and soffit.

100mm x 30mm Saligna timber pivot louvres as window threshold between exterior and interior according to specialist installation. Timber to be treated with CCA and oil based varnish.

Saligna timber pivot louvres fixed to timber substructure as per specialist installation.

50mm Tapered Saligna sill treated with CCA and oil based varnish. Drip on edge.

220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern as coping fixed to concrete wall infill.

330mm Standard Corobrik 'Terracotta Travertine FBS' clay brick cavity wall with concrete infill according to engineer specifications.

220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top.

Porous backfill consisting of gravel & stone.

120mm Kaytech 'KayPipe' geopipe & 'FloDrain' sheeting drainage system.

300x900mm Reinforced concrete foundation as per engineer specification.

Detail Section labels (left of section):

Saligna timber window box with 50mm x 50mm timber sub-structure according to specialist installation. Saligna timber to be chamfered at edge and treated with CCA and oil based varnish.

255mm Reinforced concrete slab on well compacted subgrade according to engineer specifications.

'Compriband' expansion joint according to Engineer specification.

Kaytech 'RockGrid PC' composite reinforcing geotextile retaining system according to specialist specification.

Scale 1:20
Detail Section 01

Numbered legend:

1. 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top of 85mm reinforced concrete slab.

2. 85mm Reinforced Concrete Slab with floated finish according to engineer specification.

3. 100mm Sand surface bed.

4. 30mm continuously graded medium grade asphalt on 100mm thick G2 base compacted to 100% MOD AASHTO density on 125mm thick G5 subbase compacted to 95% MOD AASHTO density on 150mm thick G9 upper selected subgrade compacted to 93% MOD AASHTO density on 150mm thick G10 lower selected subgrade compacted to 93% MOD AASHTO density on 150mm RIP & recompact to 90% MOD AASHTO density.

5. Ramp with 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM.

6. Reinforced concrete stairs according to engineer specifications.

7. 170mm Weather step.

8. Indigenous landscaping.

9. 330mm Reinforced concrete wall according to engineer specifications.

10. 330mm Standard Corobrik 'Terracotta Travertine FBS' clay brick cavity wall.

11. 22 x 90mm Saligna timber slats fixed to galvanised steel sub frame with metal screws bolted to 85mm concrete plinth. Timber to be treated with Chromated copper arsenate (CCA) and oil based varnish.

12. 100 x 100mm Saligna structural timber column sub-structure between glazing panels treated with CCA and oil based varnish.

13. 100 x 50mm Parallel Flange Channel encasing 100 x 100mm Saligna column at every third interval at interior fixed to masonry cavity wall.

14. 200 x 200mm concrete breezeblocks set in 10mm reinforced concrete rods.

15. 100 x 100mm Saligna timber slats fixed to galvanised steel sub frame with metal screws bolted to 330mm masonry cavity half wall. Timber to be treated with Chromated copper arsenate (CCA) and oil based varnish.

16. 100mm solid Saligna pivot door frame installed in accordance with manufacturer specifications.

17. 50mm Saligna door frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

18. 50mm Saligna door frame with frosted 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

19. 100 x 100mm Saligna structural timber column bolted to precast concrete footing treated with CCA and oil based varnish.

20. 700mm Saligna exterior lighting bollards bolted to concrete footing according to specialist installation.

21. Custom made Saligna seating sill according to specialist installation.

22. 100 x 30mm Saligna timber pivot slats as window threshold between exterior and interior according to specialist installation.

23. 10 000 liter 0,8mm thick galvanised corrugated steel water tank fitted with 720gsm potable liner with 400mm manhole as storage for filtered rain water collection for public use.

24. 500mm Saligna countertop fixed to masonry footing according to specialist installation.

25. Custom shopfitted furniture as per architect detail and specialist installation.

Reception Floor Plan labels: Ramp, Water Drinking Fountain, Booth, Planter, Waiting Area 164 m², Reception & Baggage Drop off 134 m², Entrance, Interior Circulation, Ablutions 123 m², Hand Wash Basin, Urinals, Storage, BIC, Exterior Walkway, Service Access, Exterior Circulation, Seating Planter

Scale 1:100
Reception Floor Plan

Labels on Detail Section (top)

220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern as coping.

25mm gravel on screed to fall to outlet cast on insulating material with 10mm compressible at edge on bitumen layer on 255mm reinforced concrete slab according to engineer specifications. Slab to taper to end.

200mmx200mm concrete breezeblocks set in 10mm reinforced concrete rods

Solid block course concrete footing according to specialist installation

'Compriband' expansion joint according to Engineer specification.

Porous backfill consisting of gravel & stone.

DPC on 125mm reinforced concrete slab according to engineer specification with.

Kaytech 'RockGrid PC' composite reinforcing geotextile retaining system according to specialist specification.

1000mm Kaytech 'KayPipe' perforated geopipe.

120mm Kaytech 'KayPipe' geopipe & 'FloDrain' sheeting drainage system.

200x1200mm Reinforced concrete strip foundation as per engineer specification.

100mm Kaytech 'KayPipe' geopipe & 'FloDrain' sheeting drainage system with hydrostatic relief valve to water tanks at lowest point on site.

220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern as coping.

Growing medium soil on top of sand layer on top of Kaytech "RockGrid PC" composite geotextile on top of "Flownet" polyethylene drainage mesh, on top of 30mm pavers to protect waterproof layer, on top of 19mm sand layers on top of 2x layers of heat-welded bituminous waterproof membrane on top of 255mm reinforced concrete slab.

Galvanised Steel cable keeping window in place.

50mm Saligna window frame with 8mm centre hung laminated safety glazing installed in accordance with manufacturer specifications.

100x100mm Saligna structural timber column sub-structure between glazing panels treated with CCA and oil based varnish.

100x50mm Parallel Flange Channel encasing 100mm x100mm Saligna column at every third interval at interior fixed to masonry cavity wall.

50mm Saligna window frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

50mm Tapered Saligna sill treated with CCA and oil based varnish. Drip on edge.

Hydrosight polyurethane sealant between window frame and sill.

22x90mm Saligna timber slats fixed to galvanised steel sub frame with metal screws bolted to 85mm concrete sill. Timber to be treated with Chromated copper arsenate (CCA) and oil based varnish.
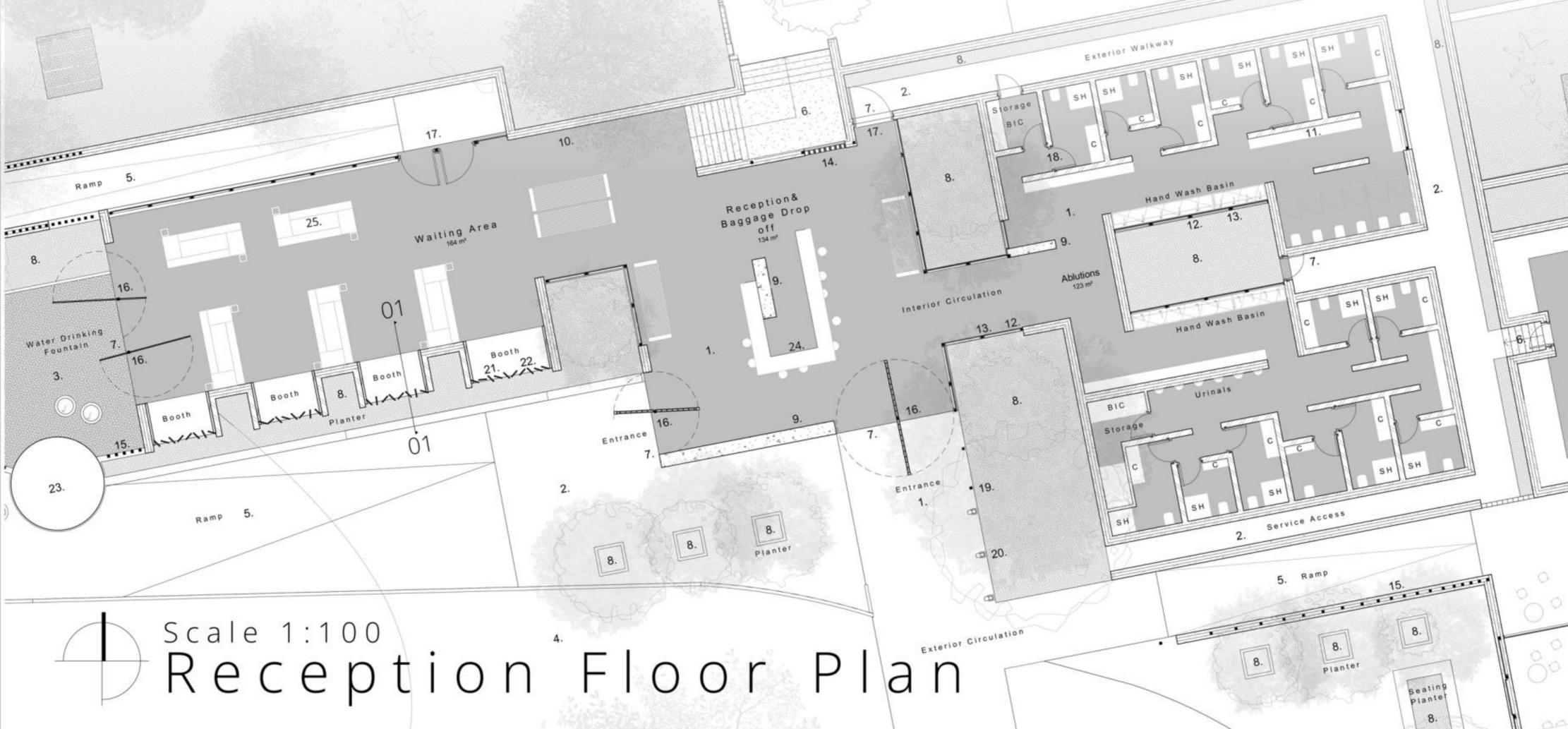
220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top of 255mm reinforced concrete slab.

'Compriband' expansion joint according to Engineer specification.

330mm Standard Corobrik 'Terracotta Travertine FBS' clay brick cavity wall.

'Bitumen' finish waterproofing membrane applied between 110mm reinforced concrete fill and 330mm masonry cavity brick wall.

Scale 1:20
Detail Section 02

1. 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top of 255mm reinforced concrete slab.

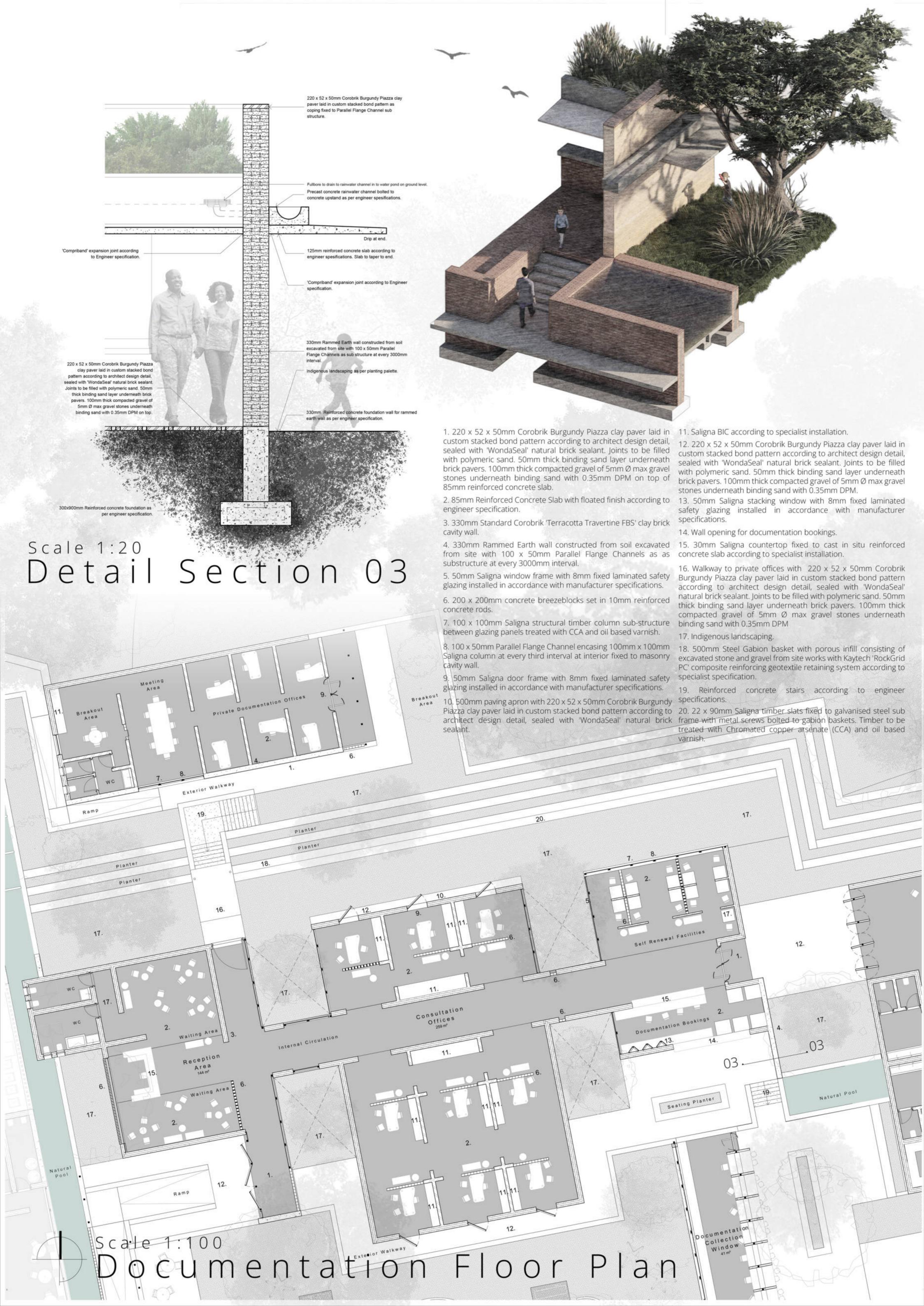2. 85mm Reinforced Concrete Slab with floated finish according to engineer specification.

3. 330mm Standard Corobrik 'Terracotta Travertine FBS' clay brick cavity wall.

4. 50mm Saligna window frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

5. 200 x 200mm concrete breezeblocks set in 10mm reinforced concrete rods.

6. 100 x 100mm Saligna structural timber column sub-structure between glazing panels treated with CCA and oil based varnish.

7. 100 x 50mm Parallel Flange Channel encasing 100 x 100mm Saligna column at every third interval at interior fixed to masonry cavity wall.

8. 50mm Saligna door frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

9. 22 x 90mm Saligna timber slats fixed to galvanised steel sub frame with metal screws bolted to 85mm concrete sill. Timber to be treated with Chromated copper arsenate (CCA) and oil based varnish.

10. 170mm Weather step.

11. Ramp with 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top of 85mm reinforced concrete slab.

12. Reinforced concrete natural pool connected to borehole on site. Water to be filtered by flora and piped to water catchment tanks on lowest point on site for public use.

13. Indigenous landscaping.

14. 500mm Steel Gabion basket with porous infill consisting of excavated stone and gravel from site works with Kaytech 'RockGrid PC' composite reinforcing geotextile retaining system according to specialist specification.

15. 22 x 90mm Saligna timber slats fixed to galvanised steel Gabion basket concrete footing. Timber to be treated with Chromated copper arsenate (CCA) and oil based varnish.

Scale 1:100
Food Court Floor Plan

Kitchen 28 m²

WC WC

Refuse Area Asphalt

Patio

Food Court 327 m²

Ramp

02

Patio

Play

Scale 1:20
Detail Section 03

Annotations on detail section:

- 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern as coping fixed to Parallel Flange Channel sub structure.
- Fullbore to drain to rainwater channel in to water pond on ground level.
- Precast concrete rainwater channel bolted to concrete upstand as per engineer spesifications.
- Drip at end.
- 'Compriband' expansion joint according to Engineer specification.
- 125mm reinforced concrete slab according to engineer spesifications. Slab to taper to end.
- 'Compriband' expansion joint according to Engineer specification.
- 330mm Rammed Earth wall constructed from soil excavated from site with 100 x 50mm Parallel Flange Channels as sub structure at every 3000mm interval.
- Indigenous landscaping as per planting palette.
- 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top.
- 330mm Reinforced concrete foundation wall for rammed earth wall as per engineer specification.
- 300x900mm Reinforced concrete foundation as per engineer specification.

Keynote legend:

1. 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top of 85mm reinforced concrete slab.

2. 85mm Reinforced Concrete Slab with floated finish according to engineer specification.

3. 330mm Standard Corobrik 'Terracotta Travertine FBS' clay brick cavity wall.

4. 330mm Rammed Earth wall constructed from soil excavated from site with 100 x 50mm Parallel Flange Channels as as substructure at every 3000mm interval.

5. 50mm Saligna window frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

6. 200 x 200mm concrete breezeblocks set in 10mm reinforced concrete rods.

7. 100 x 100mm Saligna structural timber column sub-structure between glazing panels treated with CCA and oil based varnish.

8. 100 x 50mm Parallel Flange Channel encasing 100mm x 100mm Saligna column at every third interval at interior fixed to masonry cavity wall.

9. 50mm Saligna door frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.
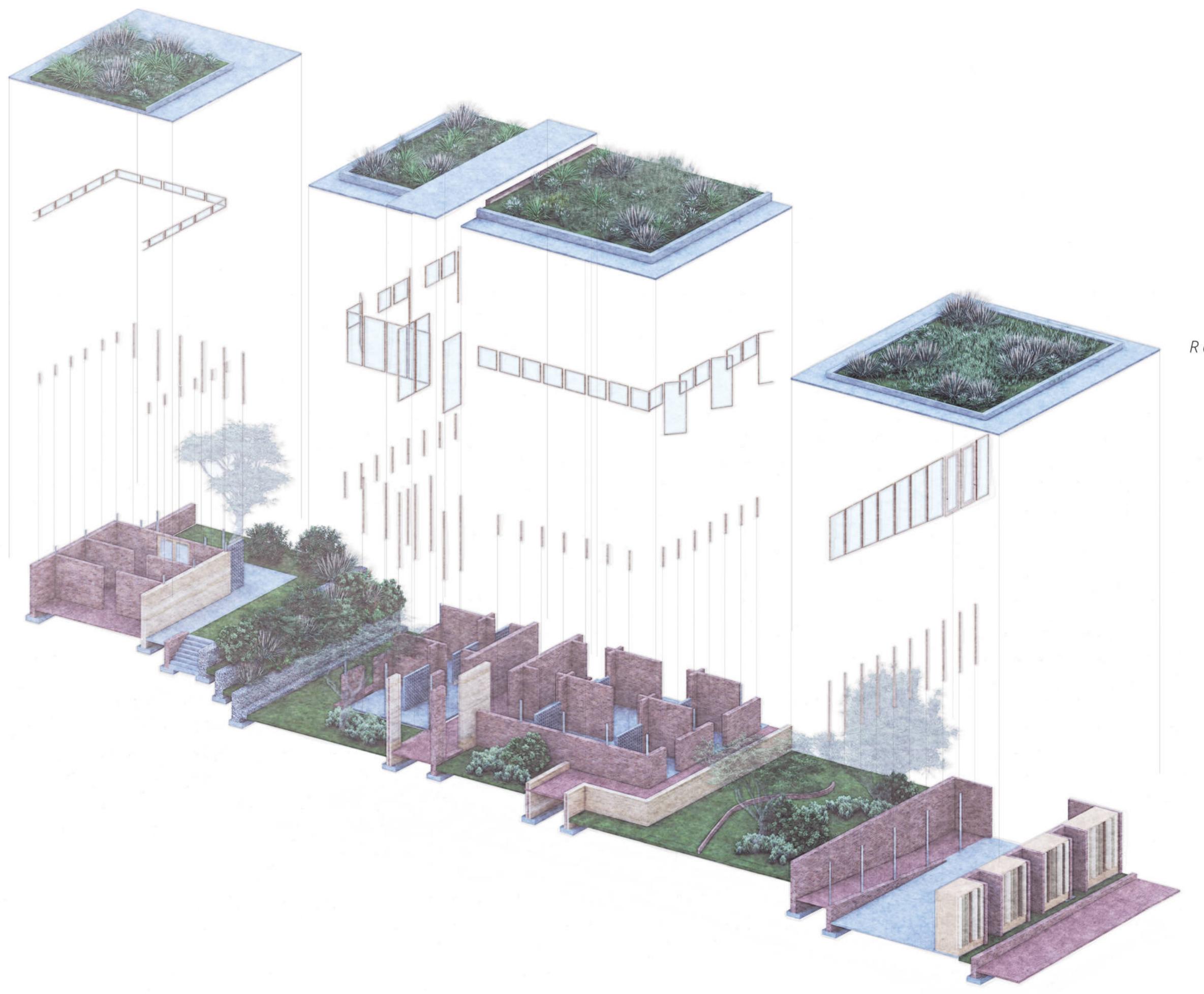
10. 500mm paving apron with 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant.

11. Saligna BIC according to specialist installation.

12. 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM.

13. 50mm Saligna stacking window with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

14. Wall opening for documentation bookings.

15. 30mm Saligna countertop fixed to cast in situ reinforced concrete slab according to specialist installation.

16. Walkway to private offices with 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM

17. Indigenous landscaping.

18. 500mm Steel Gabion basket with porous infill consisting of excavated stone and gravel from site works with Kaytech 'RockGrid PC' composite reinforcing geotextile retaining system according to specialist specification.

19. Reinforced concrete stairs according to engineer specifications.

20. 22 x 90mm Saligna timber slats fixed to galvanised steel sub frame with metal screws bolted to gabion baskets. Timber to be treated with Chromated copper arsenate (CCA) and oil based varnish.

Floor plan labels:
Breakout Area, Meeting Area, Private Documentation Offices, Breakout Area, WC, Ramp, Exterior Walkway, Planter, Planter, Planter, Planter, Waiting Area, Reception Area 144 m², Waiting Area, WC, WC, Internal Circulation, Consultation Offices 259 m², Self Renewal Facilities, Documentation Bookings, Natural Pool, Natural Pool, Seating Planter, Ramp, Exterior Walkway, Documentation Collection Window 41 m², 03

Scale 1:100
Documentation Floor Plan

Detail Section 04
Scale 1:20

Event Space Floor Plan
Scale 1:100

Floor plan labels:
Indigenous Landscaping
Ramp 4.
Break Out Space
Break Out Space
Ramp
Ramp 4.
04 Ramp 4.
Cafe Orders & Kitchen 29 m²
Order Window
WC
WC
Information & Refreshment Desk
Auditorium 279 m²
Sound Room 19 m²
Storage 9 m²
Rest Room 19 m²
Indigenous Landscaping
Ramp 4.

Section annotations (left diagram):
25mm gravel on screed to fall to outlet cast on insulating material with 10mm compressable boarding at edge on bitumen layer on 255mm reinforced concrete slab according to engineer specifications.

255mm reinforced concrete slab and beam. Slab to taper to end.

Drip at end.

100 x 100mm Saligna structural timber column sub-structure between glazing treated with CCA and oil based varnish.

50mm Saligna window frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

100 x 100mm Saligna structural timber column sub-structure between glazing treated with CCA and oil based varnish.

100mm Saligna sliding window frame panel with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM on top.

40mm Ø Saligna timber handrail set into 50mm galvanised steel equal angle welded to 50mm flatbar fixing fixed to masonry wall with galvanised steel bolts. Timber treated with Chromated copper arsenate (CCA) and oil based varnish.

50mm Tapered Saligna sill treated with CCA and oil based varnish. Drip on edge.

Hydroseal polyurethane sealant between window frame and sill.

50mm Tapered Saligna sill treated with CCA and oil based varnish. Drip on edge.

Custom steel lipped channel with LED strip lighting according to electrician installation.

85mm reinforced concrete surface bed according to engineer specifications.

'Comprband' expansion joint according to Engineer specification.

6 x 6mm Galvanised steel U channel set in to rammed earth wall as drip.

330mm Rammed Earth wall constructed from soil excavated from site with 100 x 50mm Parallel Flange Channels as sub-structure at every 3000mm interval.

Warm white rechargeable filament bulb set in rammed earth wall according to specialist installation.

Indigenous landscaping as per planting palette.

330mm Reinforced concrete foundation for rammed earth wall as per engineer specification.

300 x 900mm Reinforced concrete foundation as per engineer specification.

300 x 900mm Reinforced concrete foundation as per engineer specification.

Legend (right column):

1. 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver laid in custom stacked bond pattern according to architect design detail, sealed with 'WondaSeal' natural brick sealant. Joints to be filled with polymeric sand. 50mm thick binding sand layer underneath brick pavers. 100mm thick compacted gravel of 5mm Ø max gravel stones underneath binding sand with 0.35mm DPM .

2. 85mm Reinforced Concrete Slab with floated finish according to engineer specification.

3. 20mm Saligna hardwood flooring according to specialist installation.

4. 220 x 52 x 50mm Corobrik Burgundy Piazza clay paver on compacted soil to 1:12 accessible ramp in accordance with SANS 10400 requirements.

5. 300mm Reinforced concrete steps according to engineer specifications.

6. 330mm Rammed Earth wall constructed from soil excavated from site with 100 x 50mm Parallel Flange

7. 330mm Standard Corobrik 'Terracotta Travertine FBS' clay brick cavity wall.

8. 350mm Reinforced concrete wall according to engineer specifications.

8. 50mm Saligna door frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

9. 500mm Steel Gabion basket with porous infill consisting of excavated stone and gravel from site works with Kaytech 'RockGrid PC' composite reinforcing geotextile retaining system according to specialist specification.

10. 200 x 200mm concrete breezeblocks set in 10mm reinforced concrete rods.

11. 50mm Saligna window frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

12. 100 x 50mm Parallel Flange Channel encasing 100 x 100mm Saligna column at every third interval at interior fixed to masonry cavity wall with 100 x 100mm Saligna structural timber column sub-structure between glazing panels treated with CCA and oil based varnish.

13. 50mm Saligna window frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

14. 50mm Saligna door frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

15. 100mm Saligna sliding window frame with 8mm fixed laminated safety glazing installed in accordance with manufacturer specifications.

16. 30mm Saligna countertop fixed to cast in situ reinforced concrete slab according to specialist installation.

17. 450 x 550mm Custom built seating boxes fixed to reinforced concrete slab according to architect detail and specialist installation.

18. Custom shopfitted [or built-in] furniture as per architect detail and specialist installation.

19. 100mm solid Saligna pivot door frame installed in accordance with manufacturer specifications.

20. 600 x 220mm 'WoodUpp' Akupanels in colour 'Classic Oak' fixed to 330mm masonry retaining wall according to specialist installation.

21. 3230 x 2020mm 'JK Thin' fixed-frame screen according to specialist installation.

Masonry cavity walls provide a regulated interior climate for the user and echoes the built fabric of the surrounding context. The textured surface is used in its raw form, and conveys a sense of warmth, stability and permanence to the user. The scale of the humble brick speaks of humility and non intimidation establishing a welcoming and approachable atmosphere.

Masonry Vertical Plane

Rock and sand excavated on site, is reused as building material for rammed earth as well as stone walls, for earth stewardship and sustainable practice (Kim 2018). These solid elements act as vertical privacy devices, to convey a sense of stability and safety to the user (Montessori-Architecture 2023).

Rammed Earth Vertical Plane

The concrete overhead plane as structural element becomes a system within itself, where planted roofs act as rainwater catchment and filtration, for public use at water fountain points on the street edge as a gesture of generosity to the public (Kim 2018).

Concrete Overhead Plane

The main circulation route for the user to meander on is emphaseized my masonry brick stacked bond pavers, orientating the user on their journey through a new country.

Masonry Walkable Plane

Rocks excavated from site are reused in steel Gabion baskets as retaining elements, nestling the user in the site, and conveying a sense of safety and privacy to the user.

Rock Retaining Elements

MATERIALITY

Concrete Planted Roof System

Concrete overhead plane supported by Parallel Flange Channels at every second timber column interval.

Saligna Timber Frame & Glazing

Timber window panes are set in-between the timber column framework.

Saligna Timber Columns

Saligna timber columns set halfway into concrete infill of masonry cavity wall. These timber columns act as the framework in which the glazing panels are set.
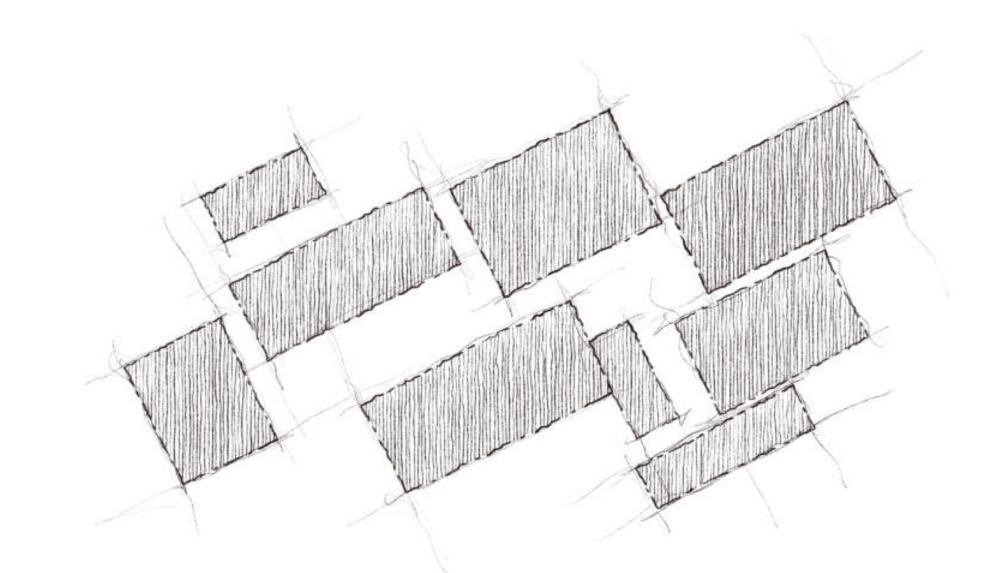
Parallel Flange Channels

Parallel Flange Channels at every second timber column interval to carry the load of the overhead concrete plane. The channel is fixed to a metal plate cast into overhead slab as well as set in the foundation of the masonry wall.

Masonry Cavity Wall with Concrete Infill

Masonry cavity is filled with concrete to act as support for the PFC & Saligna timber frame. The Masonry wall is left in it's natural finish.
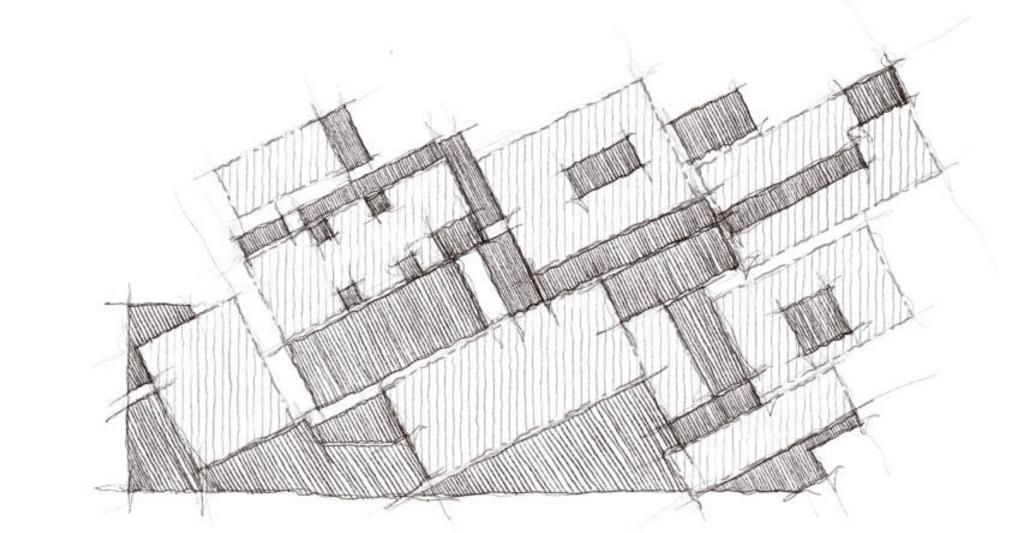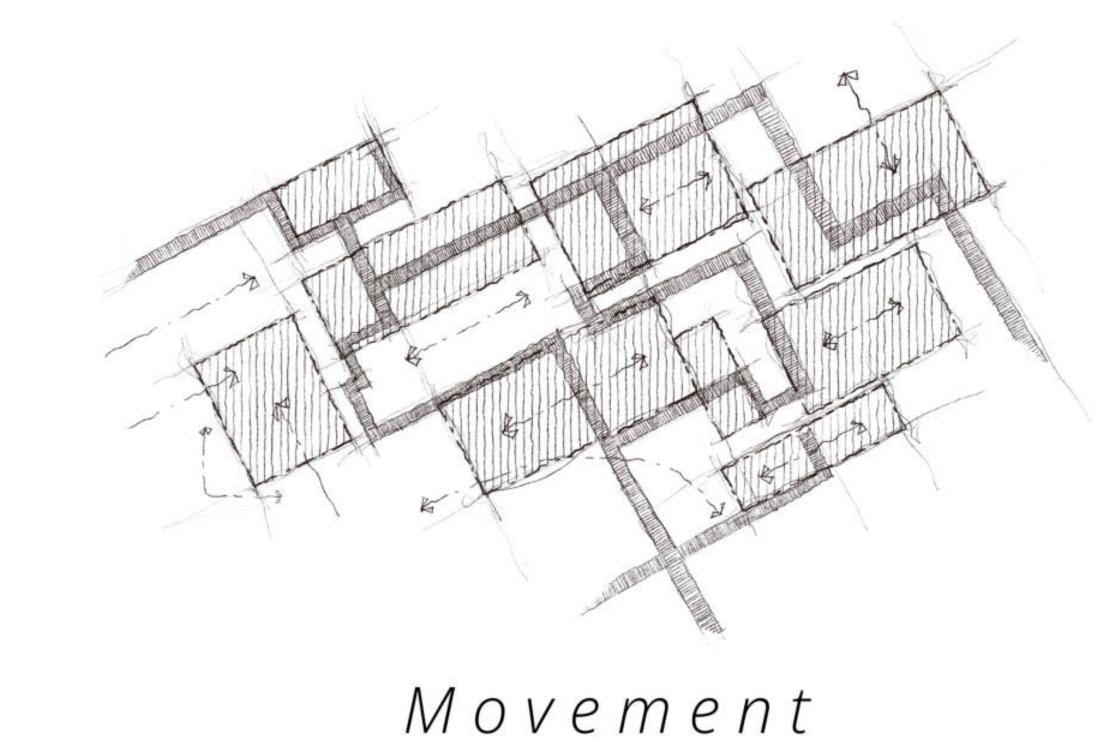
ASSEMBLY

Annual & Perennial Shrubs

Helichrysum
Rugulosum

Annual & Perennial Shrubs

Grasses

Aristida
Transvaalensis

Aloe
Pretoriensis

Cleome
Foliosa

Asparagus
Aethiopicus

Aloe
Viridiflora

Grasses

Water Plants

Eragrostis
Cunula

Cymbopogon
Validus

Digitaria
Eriantha

Louetetia
Simplex

Imperata
Cylindrica

Trachypogon
Spicatus

Heteropogon
Contortus

Water Plants

Lippia
Javanica

Gunniera
Perpensa

Phragmites
Australis

Cyperus
Margnatus

Agrostis
Eriantha

Medium & Large Trees

Acacia
Sieberana

Combretum
Erythrophylum

Ziziphus
Jujuba

Acacia
Caffra

Euclea
Crispa

Rhus
Lancea

Celtis
Africana

Combretum
Zeyheri

Acacia
Karroo

Protea
Simplex

Medium & Large Trees

1 Bus/Taxi Stop
2 Reception & Waiting
3 Ablutions
4 Water Fountain Drinking Point
5 Food Court
6 Event Space
7 Cafe
8 Refuse Area
9 Documentation Facility
10 Play

11 Private Offices
12 Day Clinic
13 Dispensary
14 Documentation Collection
15 Emergency Stay
16 NGO Workspaces & Workshops
17 Luggage Collection
18 Information Hub
19 Private NGO Meeeting Offices
20 Refuse Area & Storage

WELCOME

9

14

2

1

Scale 1:50
Section AA

Mass Arrangement
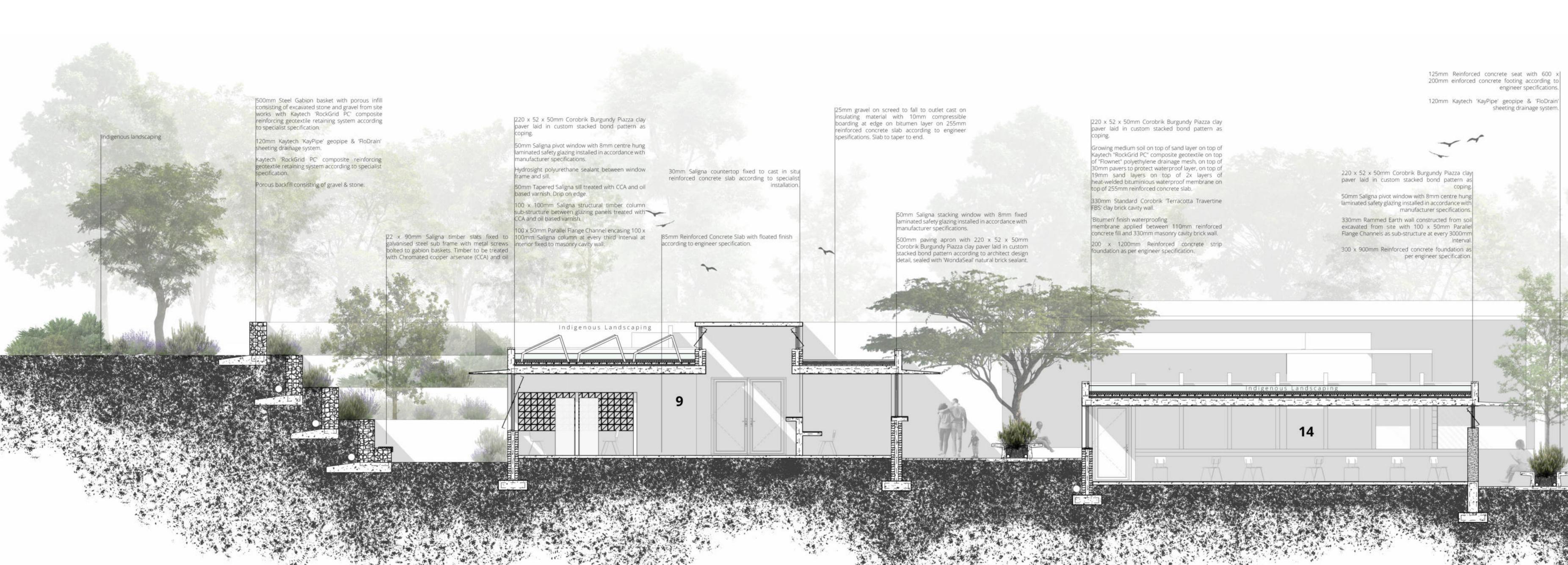
In-between Spaces

Movement

Primary Axis

1 Bus/Taxi Stop
2 Reception & Waiting
3 Ablutions
4 Water Fountain Drinking Point
5 Food Court
6 Event Space
7 Cafe
8 Refuse Area
9 Documentation Facility
10 Play

11 Private Offices
12 Day Clinic
13 Dispensary
14 Documentation Collection
15 Emergency Stay
16 NGO Workspaces & Workshops
17 Luggage Collection
18 Information Hub
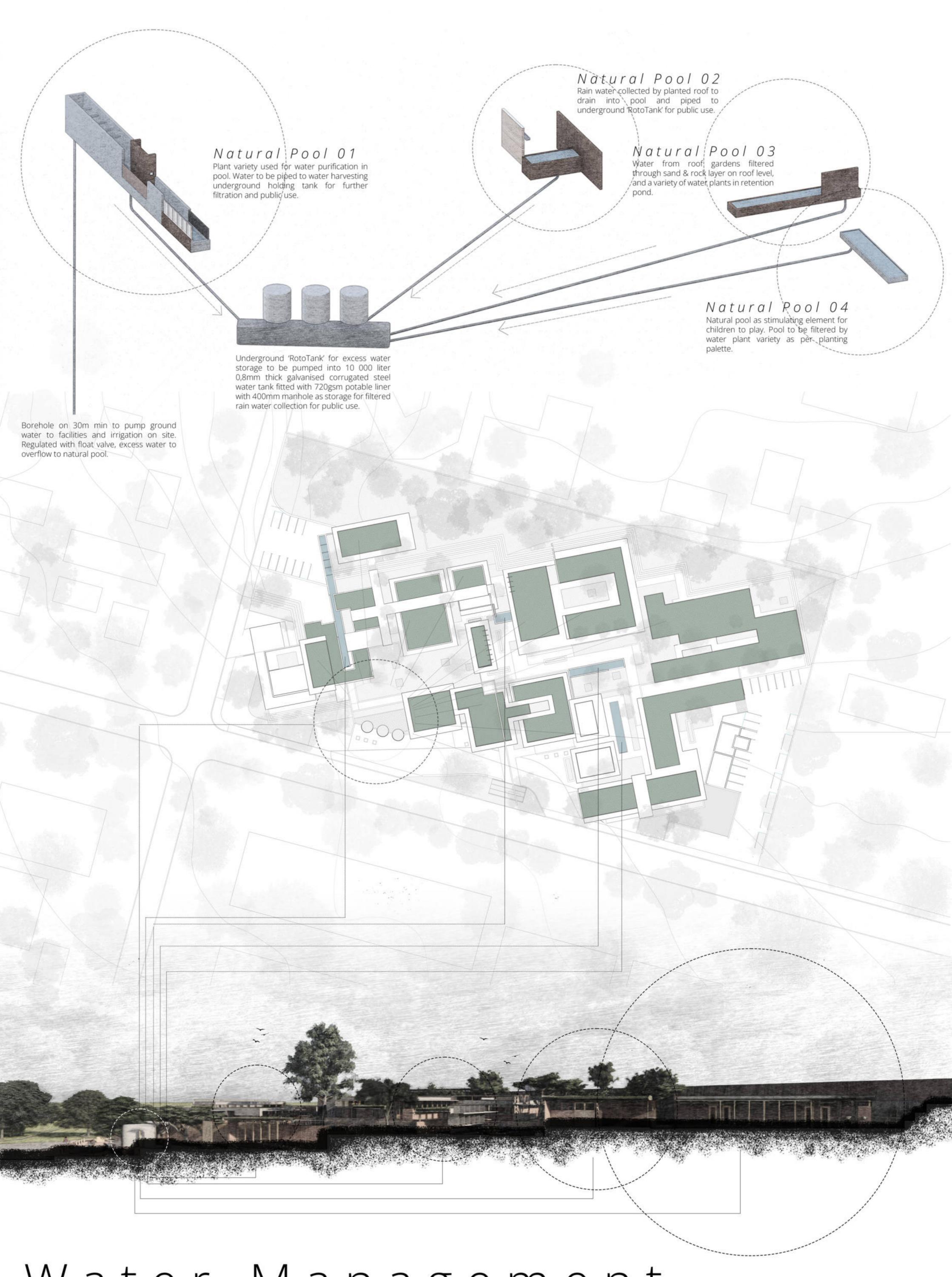19 Private NGO Meeeting Offices
20 Refuse Area & Storage

WELCOME

Scale 1:50
Technical Section AA

Natural Pool 01
Plant variety used for water purification in pool. Water to be piped to water harvesting underground holding tank for further filtration and public use.

Natural Pool 02
Rain water collected by planted roof to drain into pool and piped to underground 'RotoTank' for public use.

Natural Pool 03
Water from roof gardens filtered through sand & rock layer on roof level, and a variety of water plants in retention pond.

Natural Pool 04
Natural pool as stimulating element for children to play. Pool to be filtered by water plant variety as per planting palette.

Underground 'RotoTank' for excess water storage to be pumped into 10 000 liter 0,8mm thick galvanised corrugated steel water tank fitted with 720gsm potable liner with 400mm manhole as storage for filtered rain water collection for public use.

Borehole on 30m min to pump ground water to facilities and irrigation on site. Regulated with float valve, excess water to overflow to natural pool.

Water Management