ARCHITECTURE STUDENT CONTEST

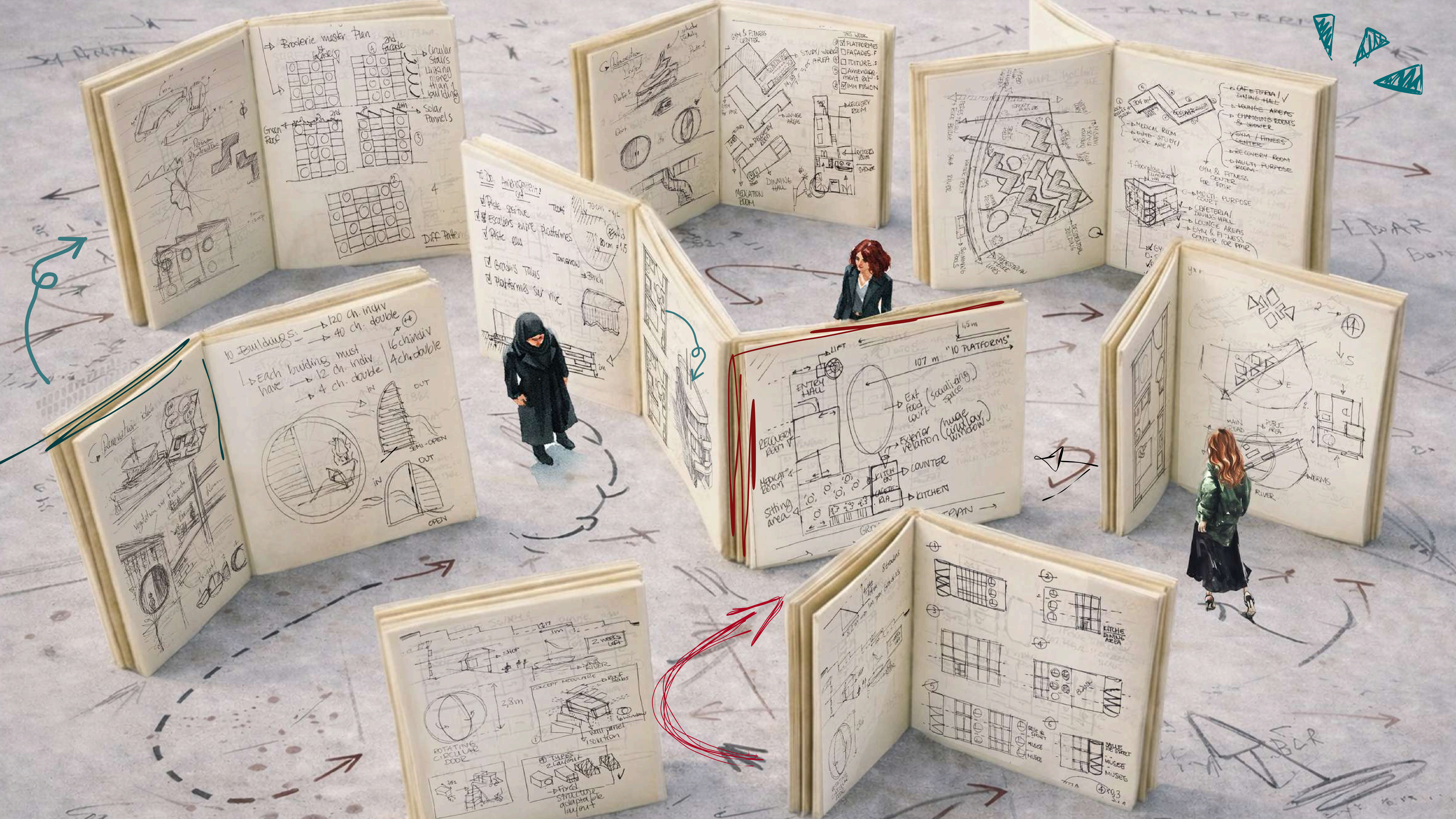
21st INTERNATIONAL EDITION, BELGRADE 2026

NATIONAL SCHOOL OF ARCHITECTURE OF TETOUAN

MOROCCO

TEACHER :**ROMANI ZAID**

TABLE OF CONTENTS



Broderie master Plan
Circular Stairs linking more than 1 building
Solar Pannels
Green Roof
Diff Patterns
10 Buildings
120 ch. indiv
40 ch. double
Each building must have
12 ch. indiv
4 ch. double
16 ch. indiv
4 ch. double
OUT
IN
SEMI-OPEN
OPEN
107 m
"10 PLATFORMS"
LIFT
ENTRY HALL
Ext food court (socializing space)
Exterior relation (huge window)
RECOVERY ROOM
MEDICAL ROOM
COUNTER
KITCHEN
Sitting area
MEDICAL ROOM
AUDIO-STUDY/WORK AREA
CAFETERIA/DINING HALL
LOUNGE AREAS
CHANGING ROOMS & SHOWER
GYM / FITNESS CENTER
RECOVERY ROOM
MULTI-PURPOSE ROOM
GYM & FITNESS CENTER
MULTI-PURPOSE COURT
CAFETERIA/DINING HALL
LOUNGE AREAS
RIVER
ROTATING CIRCULAR DOOR
2,8m
CONCEPT MODULAIRE
2 weeks left

AREA ANALYSIS

SAVA THREAD

AREA ANALYSIS

BELGRADE

Belgrade (Београд), the capital of Serbia located in Southeastern Europe, is a city that unfolds at the confluence of the Danube and Sava rivers, revealing an urban landscape shaped by millennia of history. At every corner, the past dialogues with the present: medieval fortresses stand alongside modernist buildings, and Byzantine churches blend with Art Nouveau façades. This duality gives the city a unique character, where heritage and contemporaneity overlap with boldness.

A city of contrasts and energy, Belgrade is distinguished by its lively public spaces and vibrant cultural life. Markets, riverbanks, surrounding hills, and cafés are filled with encounters and constant human flows. This balance between memory and urban movement offers fertile ground for imagining architectural interventions that respect history while introducing new experiences into everyday life.

HISTORY

ARCHITECTURE AND SPORT

Serbian architecture reflects a strong mix of historical layers shaped by Byzantine, Ottoman, Austro-Hungarianand modern experimentation, with Brutalism playing a major role in its 20th-century identity.

The presence of bold Brutalist style, characterized by massive geometric forms, exposed concrete (béton brut), and sculptural monumental expressions.

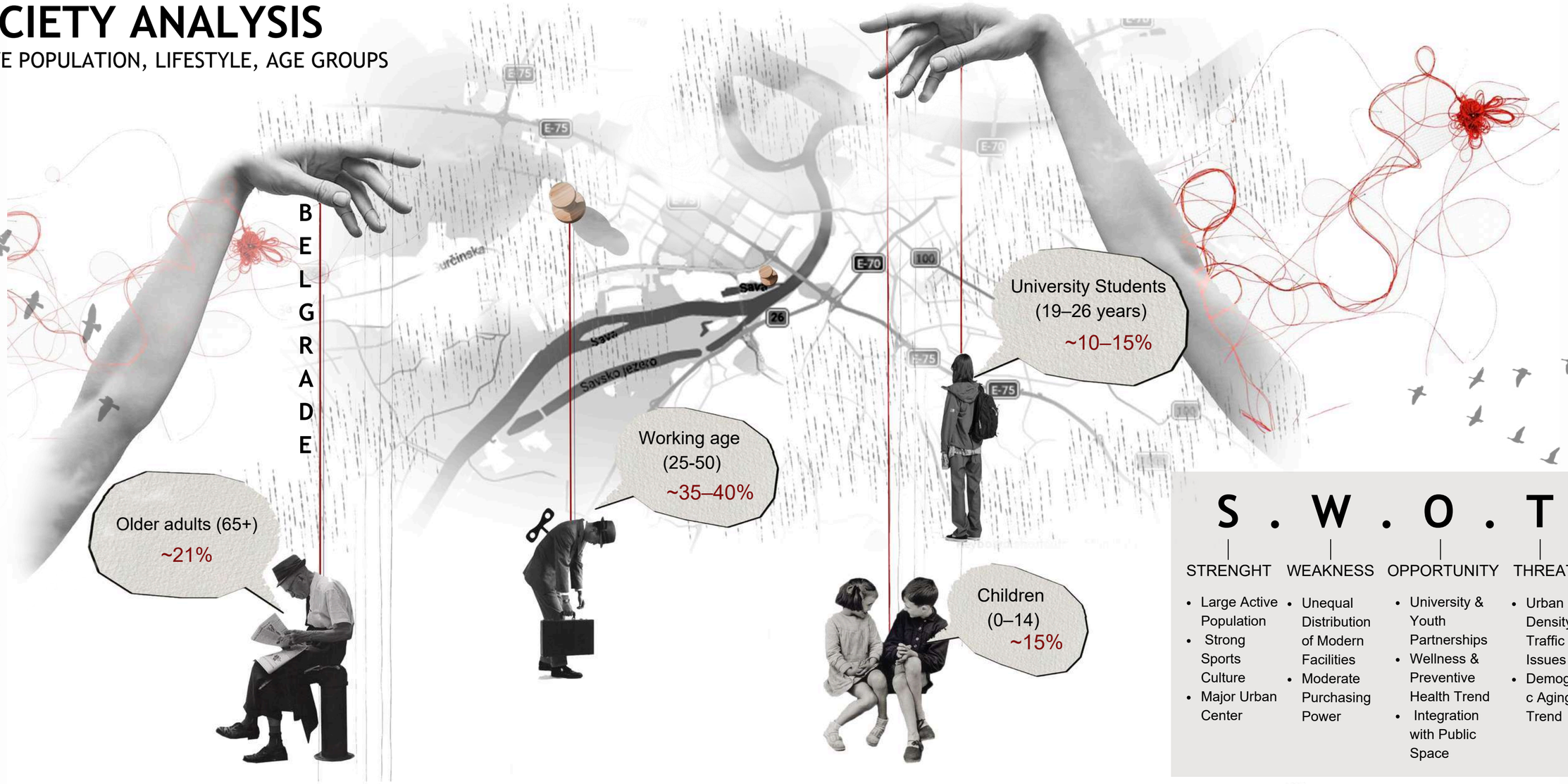
In cities like Belgrade and Novi Sad, these raw concrete structures coexist with traditional stone and brick buildings, creating a powerful urban contrast. This Brutalist legacy remains an important visual and cultural component of Serbia's architectural image.

SERBIA'S SPORT IDENTITY is built on resilience, talent, and strong national pride.
The country has produced globally recognized champions like Novak Djokovic and Nikola Jokić...

Team sports such as basketball, football, and water polo are deeply embedded in society, making sport not only a physical activity but a powerful symbol of unity and international representation for Serbia and the country is historically dominant in water polo.

SOCIETY ANALYSIS

ACTIVE POPULATION, LIFESTYLE, AGE GROUPS



S . W . O . T

STRENGHT	WEAKNESS	OPPORTUNITY	THREATS
• Large Active Population • Strong Sports Culture • Major Urban Center	• Unequal Distribution of Modern Facilities • Moderate Purchasing Power	• University & Youth Partnerships • Wellness & Preventive Health Trend • Integration with Public Space	• Urban Density & Traffic Issues • Demographic Aging Trend

- ~45–50% PARTICIPATE IN PHYSICAL ACTIVITY
- STRONG YOUTH AND UNIVERSITY SPORTS CULTURE
- INCREASING DEMAND FOR RECREATIONAL + HYBRID SPORT SPACES

ENVIRONMENTAL ANALYSIS

PYGMY COMORANT

- Pygmy Cormorant – protected species (EU Birds Directive)
- Winter habitat: up to 10% of European population along Sava River, Belgrade
- Key habitat: riparian willow forests and wetlands (roosting and feeding)

AIR QUALITY ISSUES

- Air quality issues: high winter pollution from coal heating, traffic, and industry
- PM2.5 & PM10 frequently exceed safe levels
- Government efforts: gradual transition to cleaner energy

GREEN SPACES

- Green spaces: Kalemegdan Fortress park, urban forests
- High ecological value: river ecosystems
- Threats: urban expansion impacting biodiversity

WATER & FLOOD RISK

- Water & flood risk: rivers shape landscape but pose flooding hazards
- Historical floods: major events in 2014
- Riverbank developments: e.g., Belgrade Waterfront raise sustainability concerns
- Need: resilient urban planning and flood management

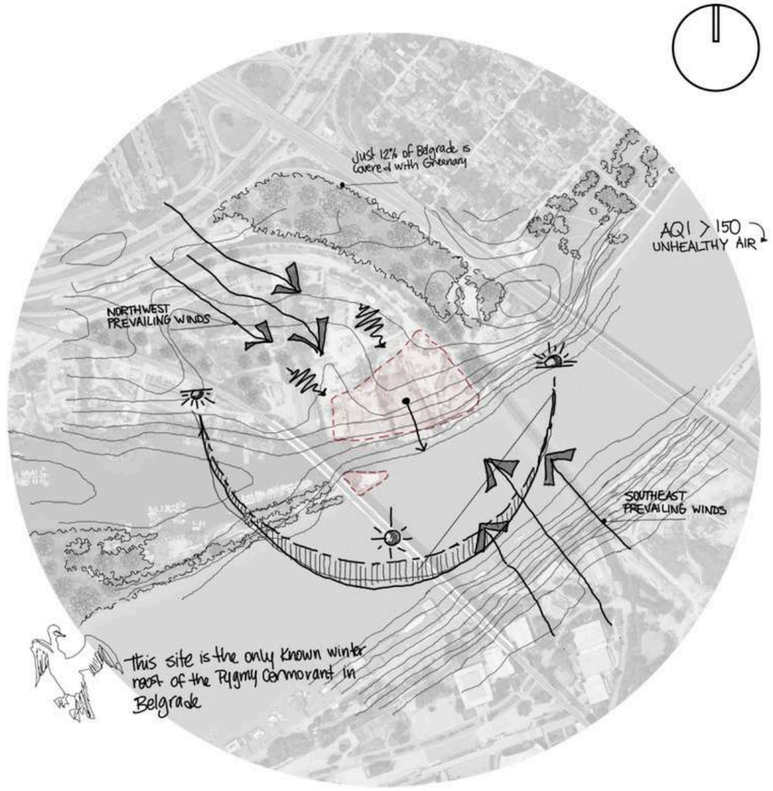
MAINTAINING THE GREEN CORRIDOR

- Linear green corridor that mediates between dense urban development and the Sava River.
- Ensure environmental buffering from adjacent road infrastructure.
- The park supports informal recreational activities and contributes to the ecological and social sustainability of the area.

AREA ANALYSIS

URBAN CONTEXT

The site is located along the Sava River, between Belgrade's former industrial zone and the new Waterfront district. It covers around **2.6 ha** and **acts as a transition** between dense urban areas and open river landscapes. The site is accessible by secondary road and pedestrian paths so it lacks strong transport links. Nearby landmarks such as **the Old Railway Bridge** and **Ada Ciganlija** strengthen its urban identity. Surrounded by industrial heritage, new developments, and **ecological corridors**, it holds strategic value for Belgrade's **future riverfront growth**.



CLIMATIC & ECOLOGICAL CONTEXT

The site benefits from **strong southern** sunlight and prevailing winds from the southeast and northwest, ideal for **natural ventilation**. A green buffer along the river supports local biodiversity, including the **protected pygmy cormorant**. The area's proximity to a cement factory introduces industrial noise and air pollution, which can be mitigated through vegetation and material choices. Its flat topography and **open views toward the Sava** make it suitable for integrating architecture with nature. The physical setting invites a **sustainable and climate-responsive design** approach.

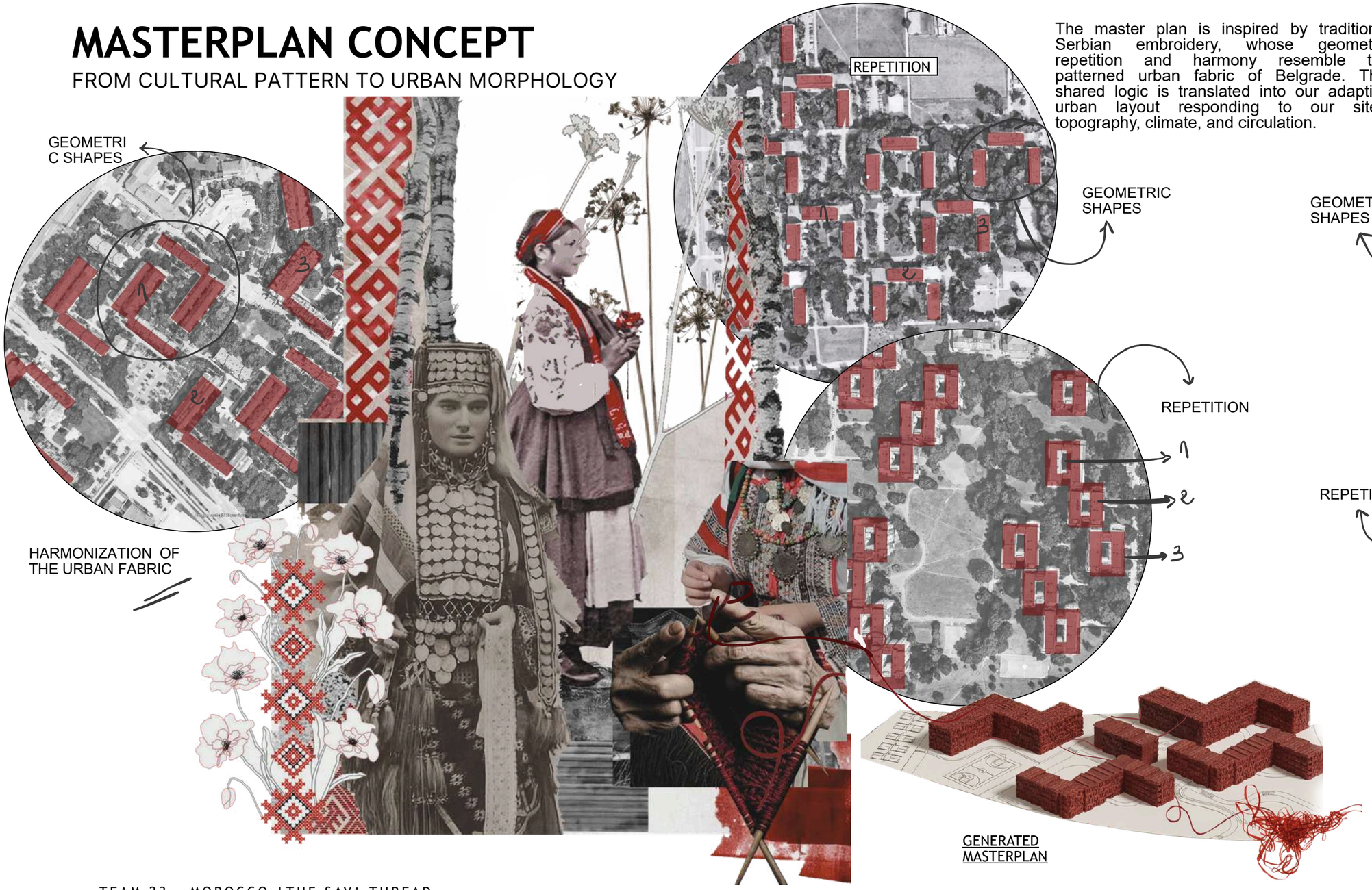
NEW PROPOSAL

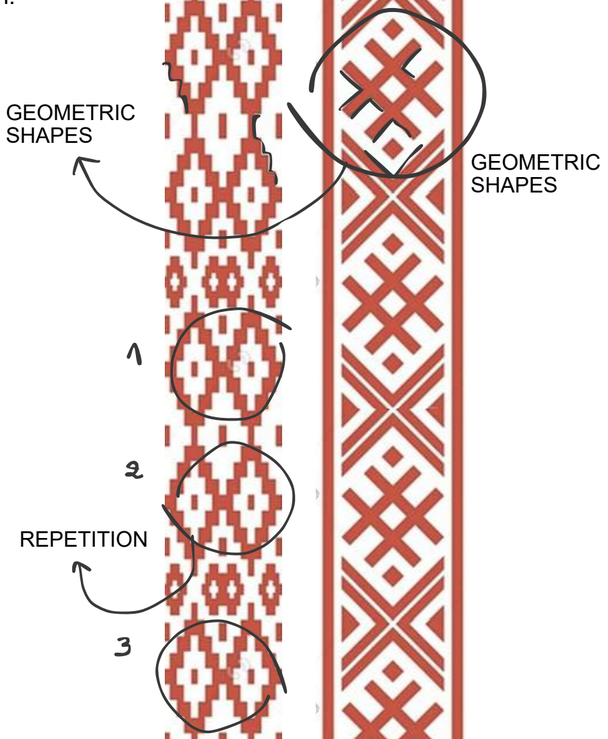
SAVA THREAD

MASTERPLAN CONCEPT

FROM CULTURAL PATTERN TO URBAN MORPHOLOGY

The master plan is inspired by traditional Serbian embroidery, whose geometric repetition and harmony resemble the patterned urban fabric of Belgrade. This shared logic is translated into our adaptive urban layout responding to our site's topography, climate, and circulation.



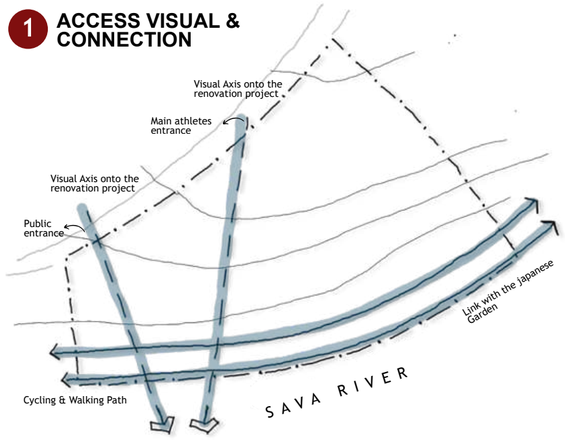


IMPLEMENTATION STRATEGIES

ACCESS, PATTERN, ZONING

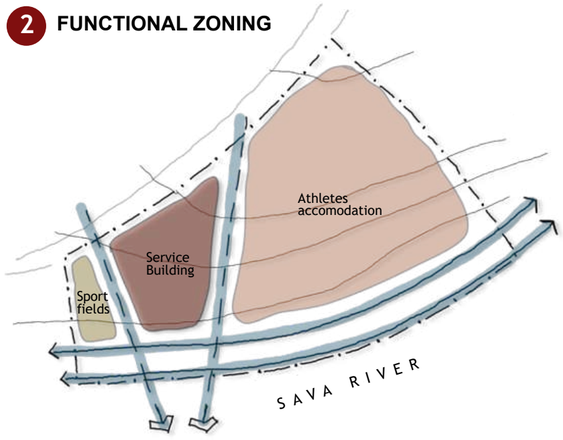
N

1 ACCESS VISUAL & CONNECTION



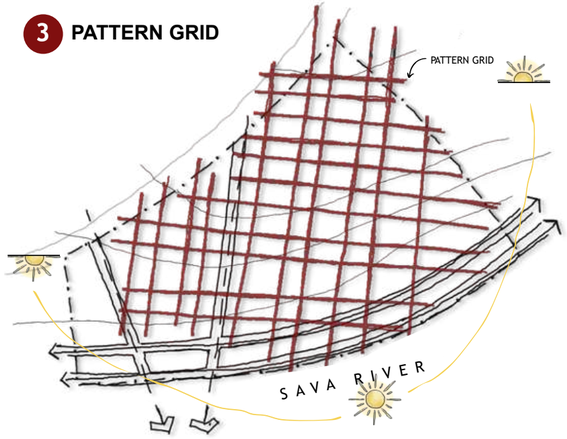
Primary access axes organize entrances, **visual connections to the renovation project**, and pedestrian and cycling links to the Japanese Garden and waterfront.

2 FUNCTIONAL ZONING



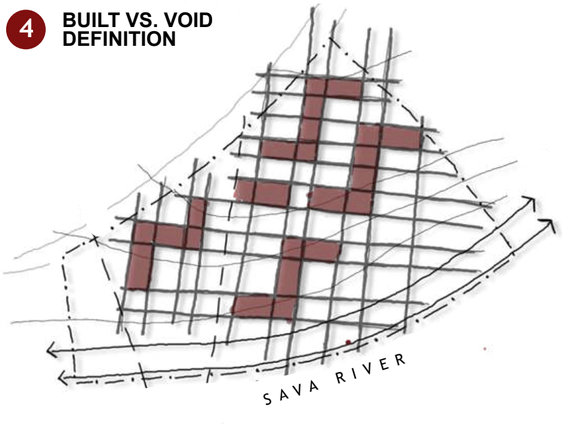
The main axes structure the site into **three programmatic zones**: athletes' accommodation, service buildings, and sports fields, arranged according to their **level of privacy**.

3 PATTERN GRID



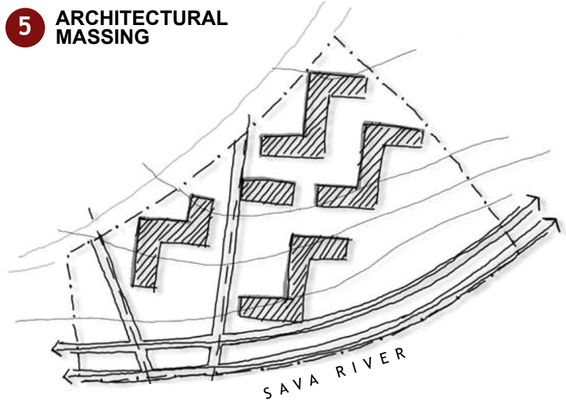
A climate-responsive pattern grid is generated from sun orientation, wind conditions, and site geometry, inspired by **Serbian patterns**.

4 BUILT VS. VOID DEFINITION



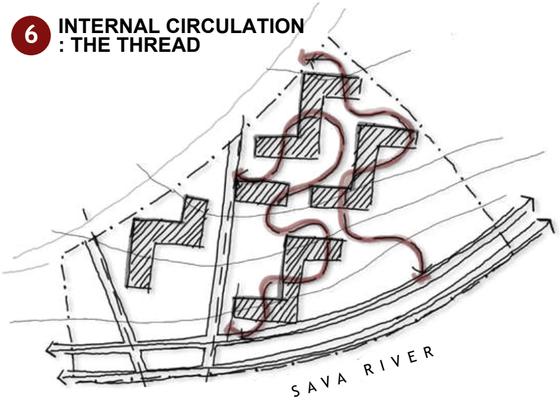
The grid defines buildable areas and open voids, regulating density, ventilation, and visual permeability.

5 ARCHITECTURAL MASSING



Building volumes are positioned according to the grid to ensure coherent orientation, spacing, and program evolution.

6 INTERNAL CIRCULATION : THE THREAD



A continuous **thread-like path** connects buildings and open spaces, structuring internal circulation across the site.

MASTER PLAN

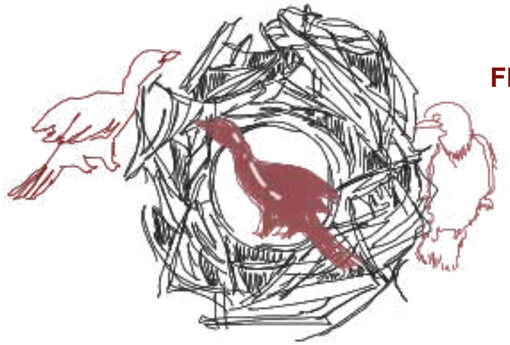
LIVING, TRAINING, CONNECTING

1. Main entrance & bicycle parking
2. Athlete's residential blocks
3. Athletes Hub
4. Multi-sport court
5. Outdoor courts complex
6. Boutiques / Shops
7. Sailing and yachting base
8. Kayaking Launch
9. Outdoor swimming pools
10. Rainwater retention swale
11. Pedestrian & cyclist bridge

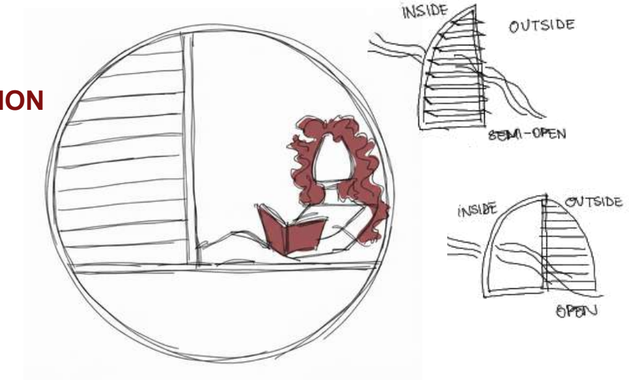
WINDOW NEST

BETWEEN SHELTER AND AIRFLOW

SAINT-GOBAIN GLASS



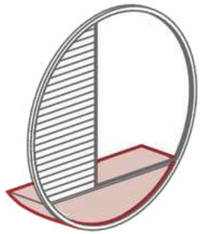
FROM BIOMIMETIC INSPIRATION TO HABITABLE WINDOW



The nest as a spatial principle, a **circular**, **enveloping** and **protective** form, open to the outside.

The window becomes a **space to occupy**, a thickened threshold where one can sit, **between interior and exterior.**

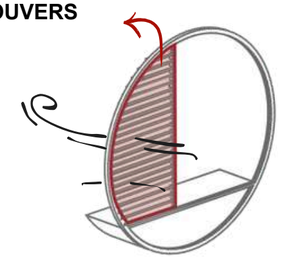
INTEGRATED CLIMATIC DEVICE



THE INHABITABLE BASE

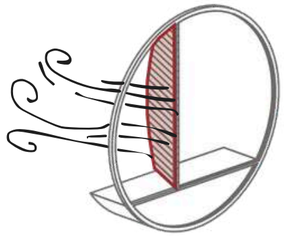
The thickened lower section provides a comfortable seating threshold between interior and exterior.

OPERABLE VENTILATION LOUVERS



MINIMAL OPENING

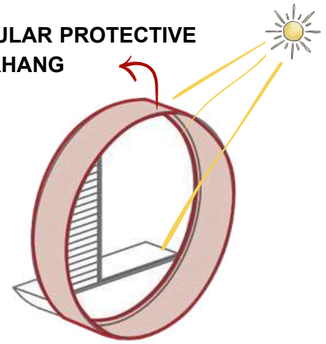
Operable louvers are partially rotated to allow controlled airflow



FULLY OPEN

Louvers are fully opened to maximize wind and daylight penetration into the space.

CIRCULAR PROTECTIVE OVERHANG



SEASONAL PROTECTION

A circular overhang regulates solar exposure, shading in summer and permitting sunlight in winter.

COOL-LITE XTREME 70-33 #4 / PLANITHERM XN #7

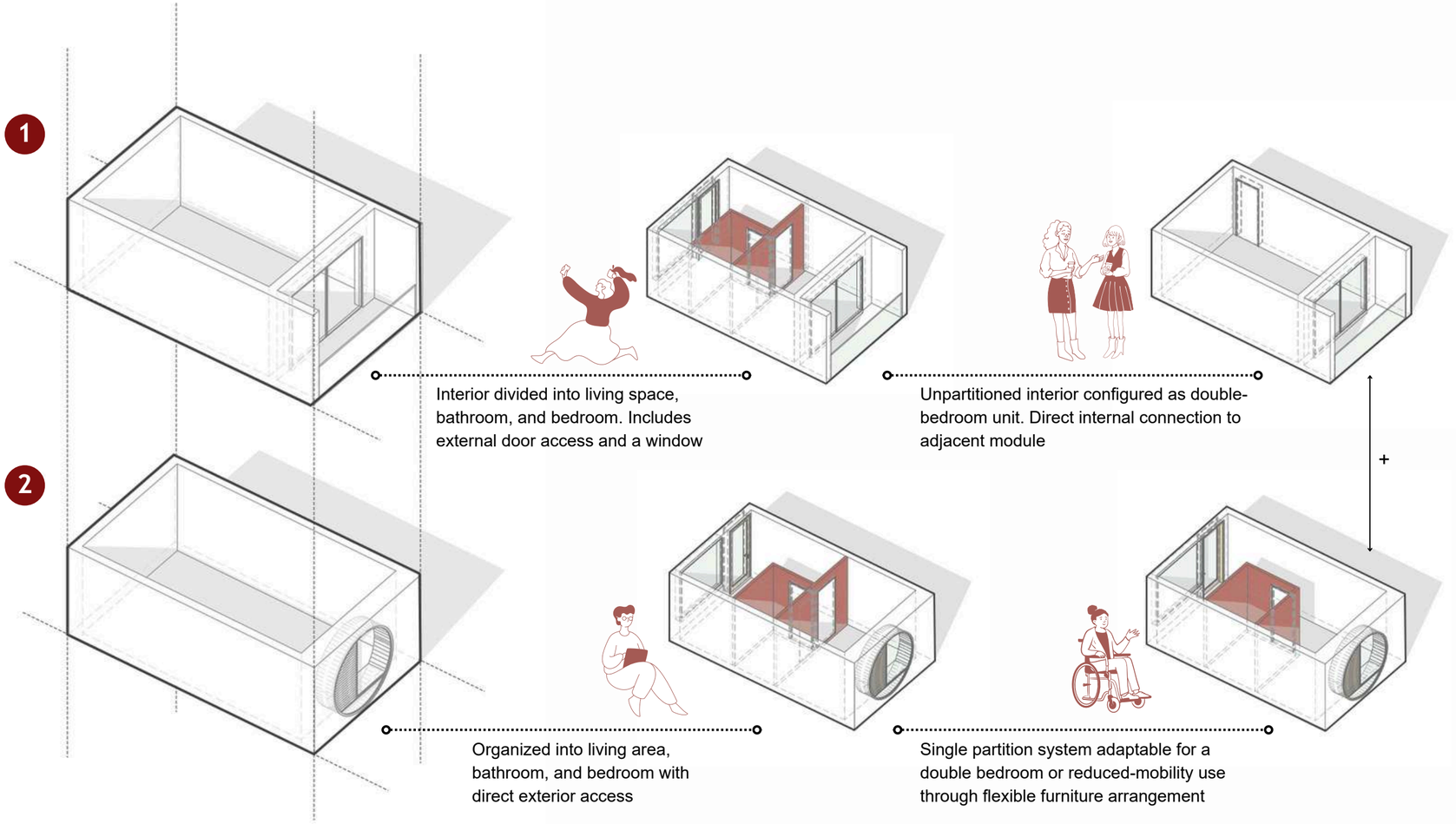
ADAPTIVE MODULAR CONCEPT

UNIT TYPOLOGY AND SPATIAL CARIATIONS

The housing strategy is based on a single adaptable unit designed to respond to different spatial needs. Through internal reconfiguration, the module accommodates a single room with a window, a balcony variation, or a fully accessible layout. When duplicated, the unit evolves into a double-bedroom configuration, maintaining coherence while increasing capacity.

BALCONY MODULE

Structural unit with integrated balcony opening.
Designed as a flexible spatial container



THE NEST MODULE

Structural unit defined by circular facade opening. Acts as complementary typology within the system.

ADAPTIVE MODULAR CONCEPT

OFF-SITE CONSTRUCTION STRATEGY

1 PREFABRICATION

The **CLT** modules are **CNC-fabricated** in a controlled factory environment, ensuring **precision**, and optimized structural performance.The CLT acts as a carbon sink storing approximately **0.8–1 ton of CO_2 per cubic meter of wood.**

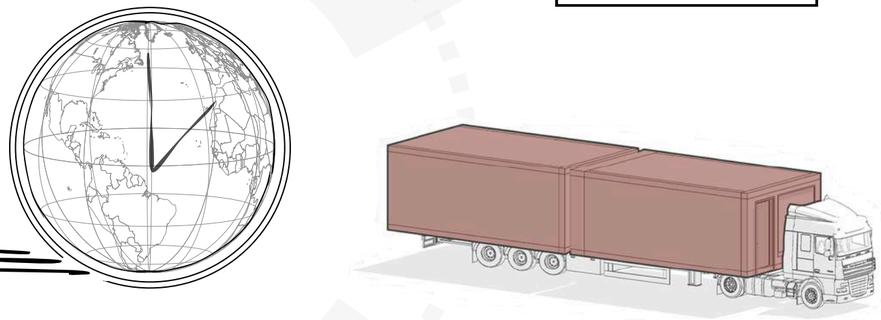
⇩ **SHORTEN** TIMELINES BY **30–40%** THROUGH PARALLEL PRODUCTION

⇩ **REDUCE** WASTE BY **60–70%**

2 TRANSPORTATION

The prefabricated modules are transported in **optimized loads**, minimizing delivery trips and heavy on-site logistics.

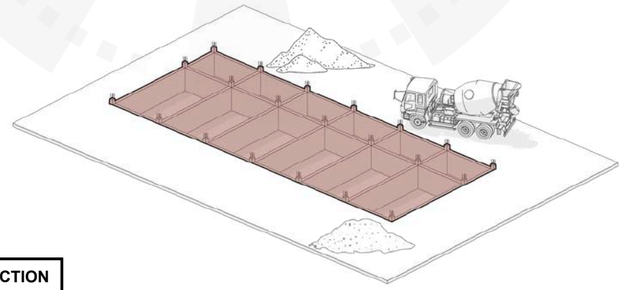
⇩ **LOWER** TRANSPORT-RELATED EMISSIONS BY AROUND **20–30%**



3 FOUNDATION INSTALLATION

While modules are fabricated off-site, lightweight foundations are prepared simultaneously, with **Chryso Enviromix and Eco-active** reducing the carbon footprint.

⇩ **UP TO 50% REDUCTION IN CO2 EMISSION**

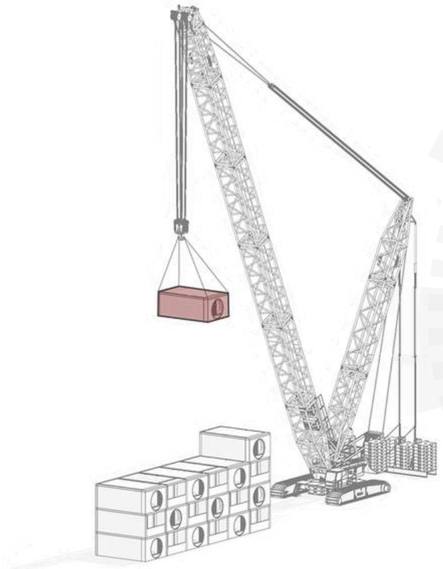


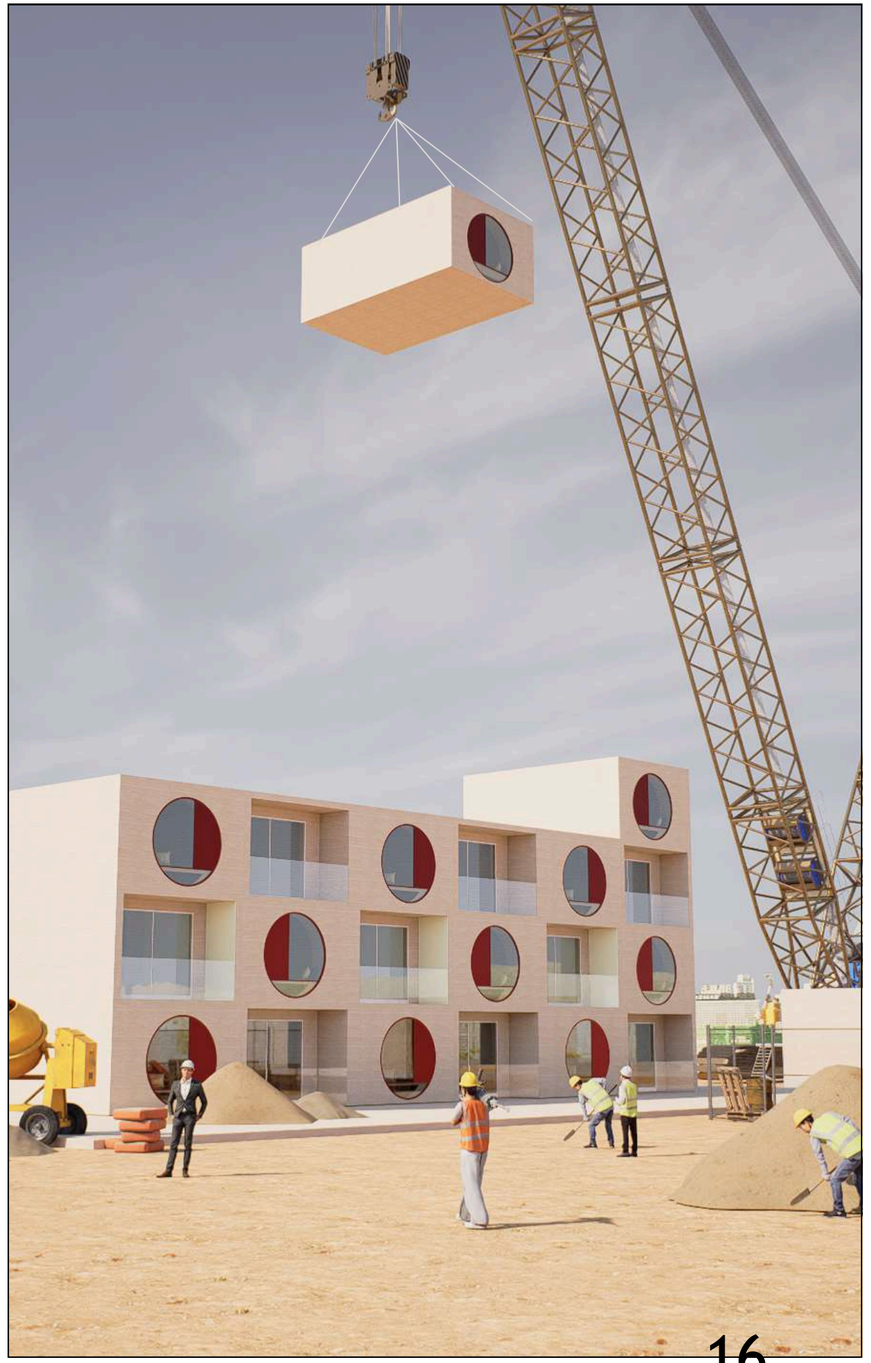
4 ASSEMBLY

Modules are craned into position and mechanically fixed, creating a fast and dry construction process with minimal wet trades.

⇨ **REDUCES** ON-SITE CONSTRUCTION TIME BY **UP TO 50%**

⇨ **REDUCES** CONSTRUCTION POLLUTION BY 3**0-50%**





CNC: Computer Numerical Control **CLT:** Cross-Laminated Timber

WHY CLT ?

Energy and Carbon

CLT - LOW CARBON FOOTPRINT

Resources and circularity

WOOD - RENEWABLE RESOURCE

Health and safety on jobsites

PREFABRICATION - EASY INSTALLATION, SAFER FOR BUILDERS

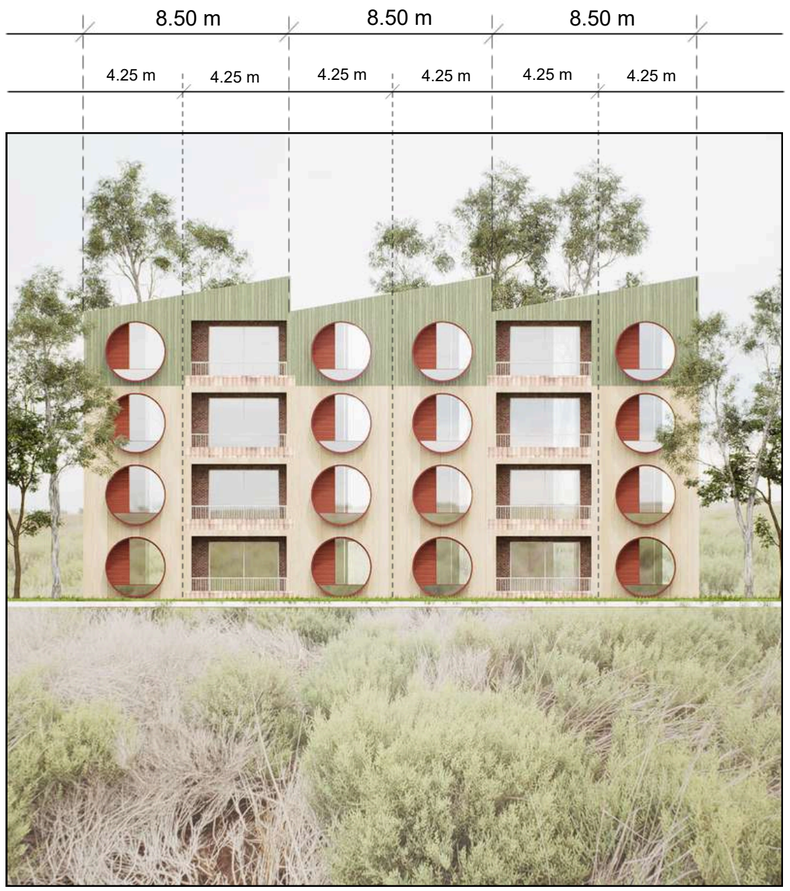
Fire safety

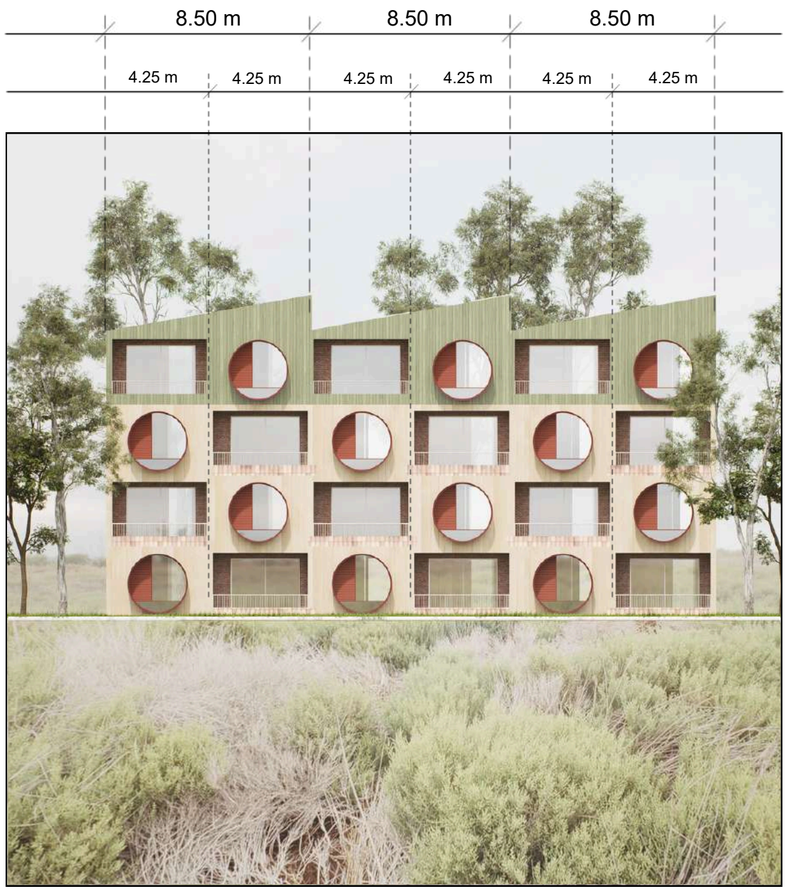
RIGIPS - FIRE-RESISTANT PLASTERBOARDS

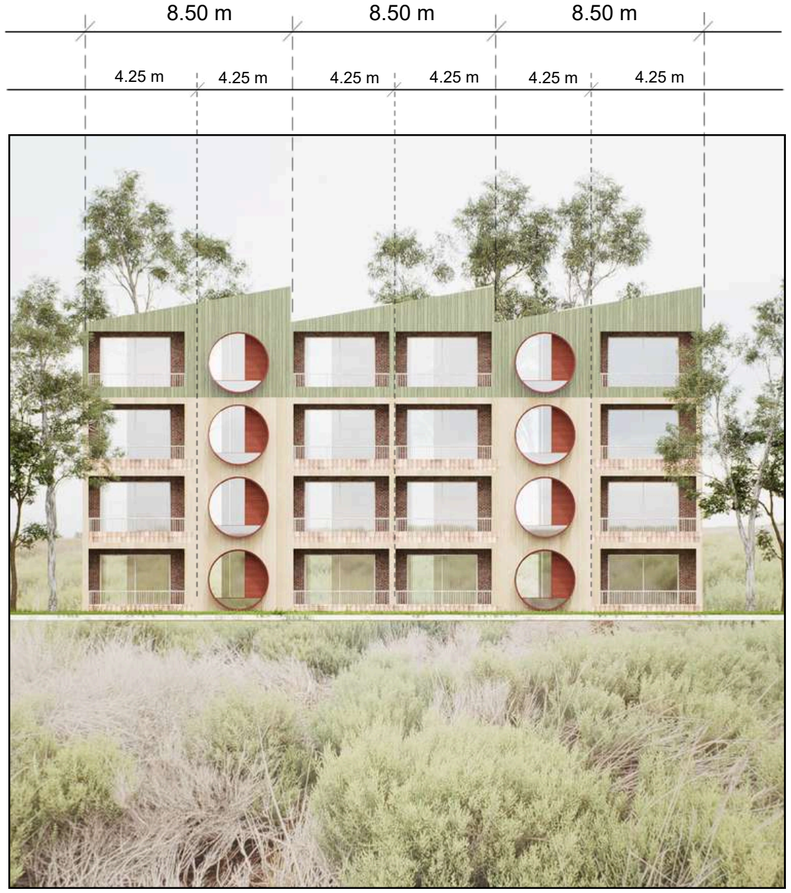
MODULAR FACADE COMPOSITION

CONTROLLED DIVERSITY THROUGH MODULARITY

Based on the two modular units, the facade composition is reconfigured into three distinct arrangements. This controlled variation prevents repetition while ensuring visual unity and design consistency.

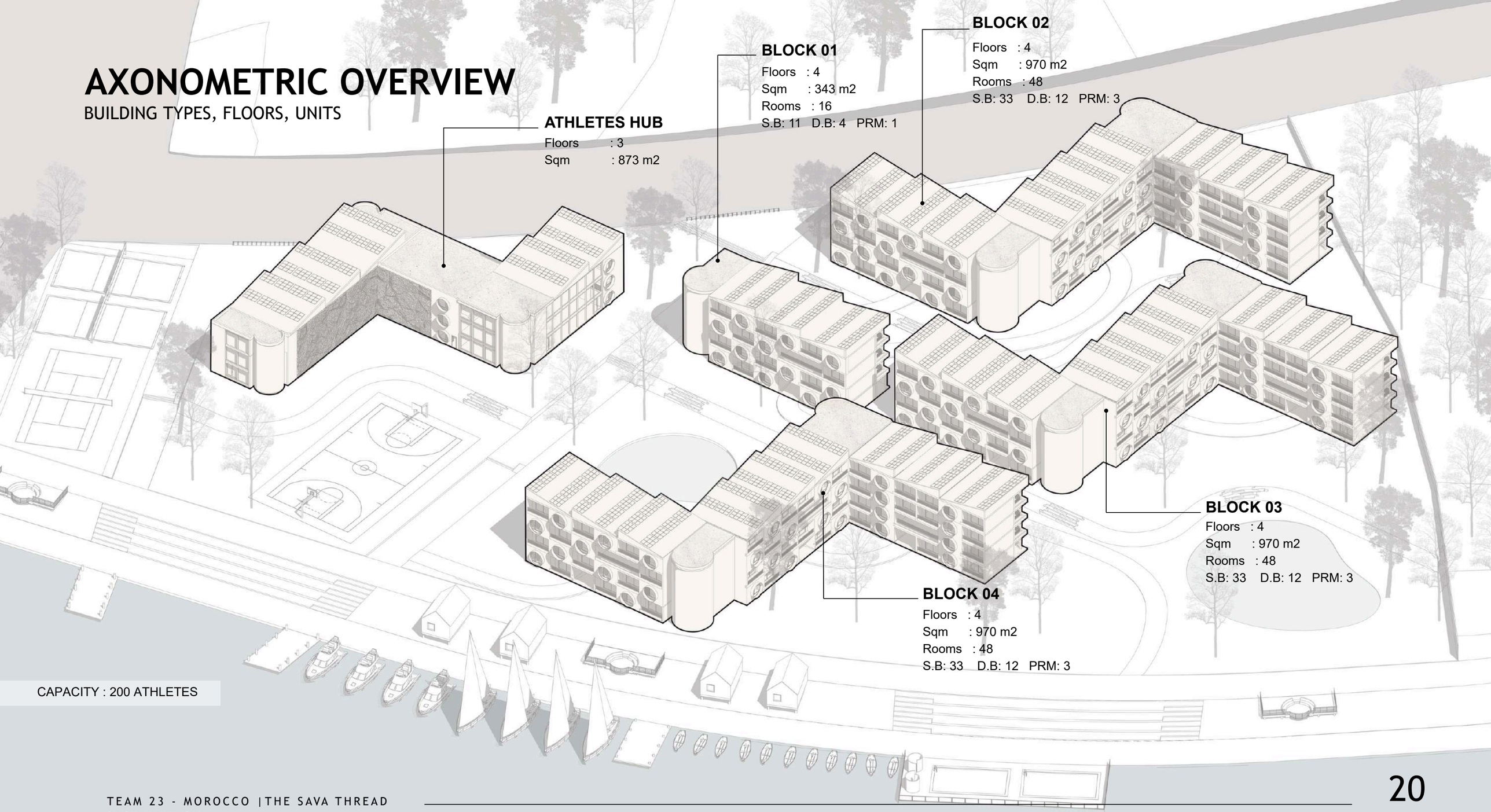






AXONOMETRIC OVERVIEW

BUILDING TYPES, FLOORS, UNITS



ATHLETES HUB
Floors : 3
Sqm : 873 m2

BLOCK 01
Floors : 4
Sqm : 343 m2
Rooms : 16
S.B: 11 D.B: 4 PRM: 1

BLOCK 02
Floors : 4
Sqm : 970 m2
Rooms : 48
S.B: 33 D.B: 12 PRM: 3

BLOCK 03
Floors : 4
Sqm : 970 m2
Rooms : 48
S.B: 33 D.B: 12 PRM: 3

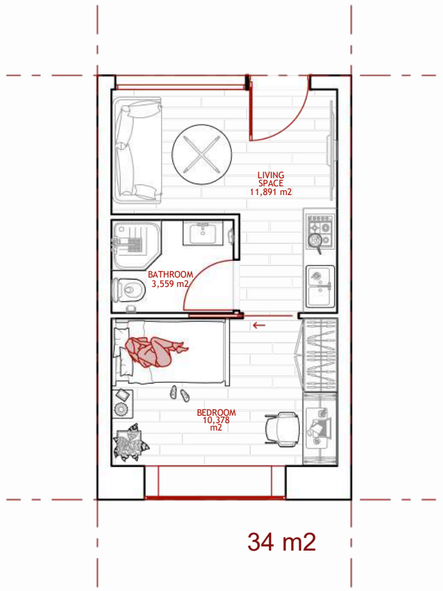
BLOCK 04
Floors : 4
Sqm : 970 m2
Rooms : 48
S.B: 33 D.B: 12 PRM: 3

CAPACITY : 200 ATHLETES

HOUSING FLOORPLANS

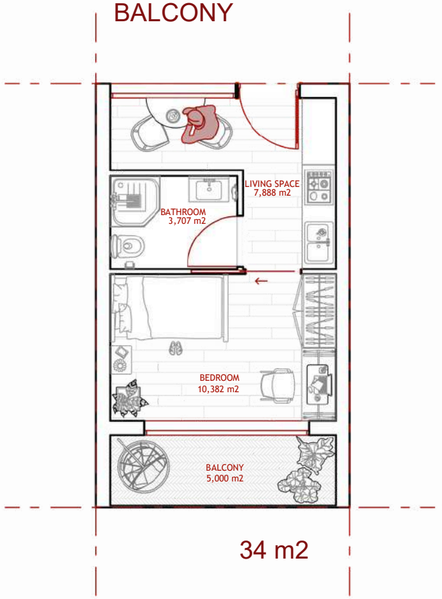
ONE MODULE, MULTIPLE LIVING SCENARIOS

SINGLE BEDROOM WITH A WINDOW



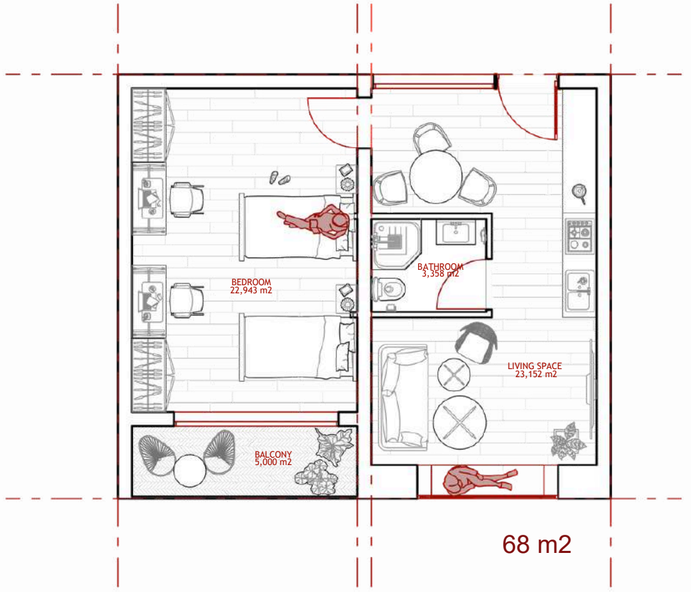
34 m2

SINGLE BEDROOM WITH A BALCONY



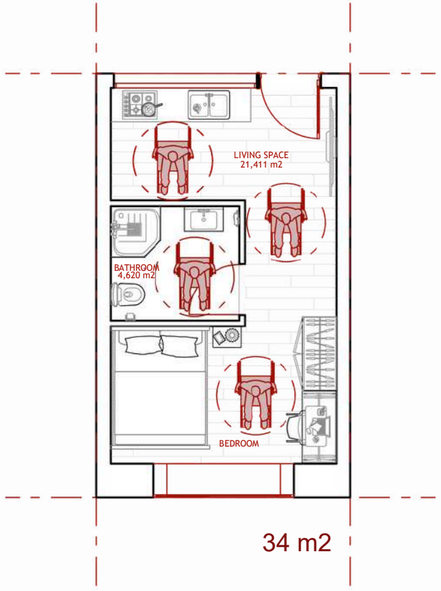
34 m2

DOUBLE BEDROOM



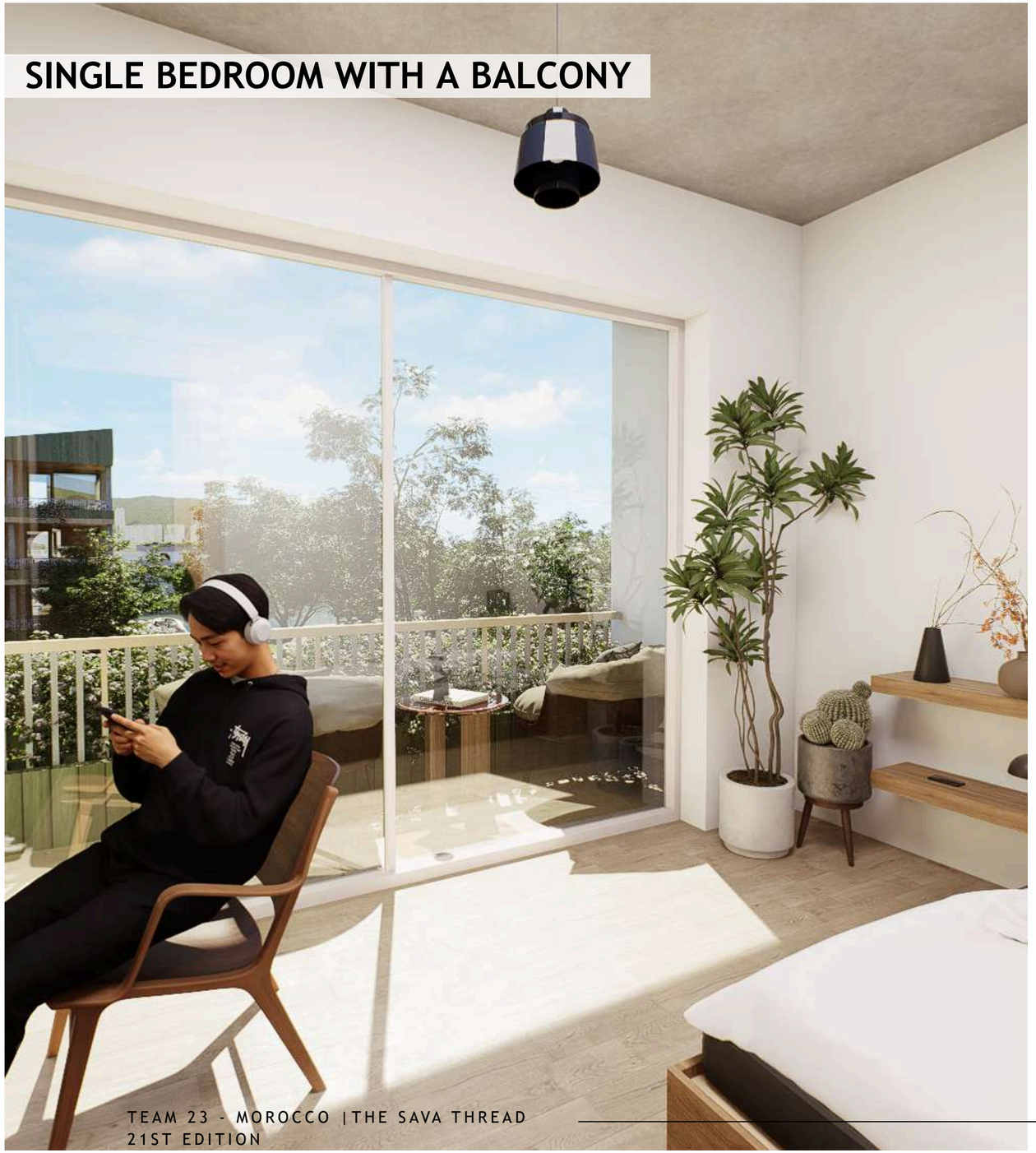
68 m2

DISABLED ACCESS ROOM

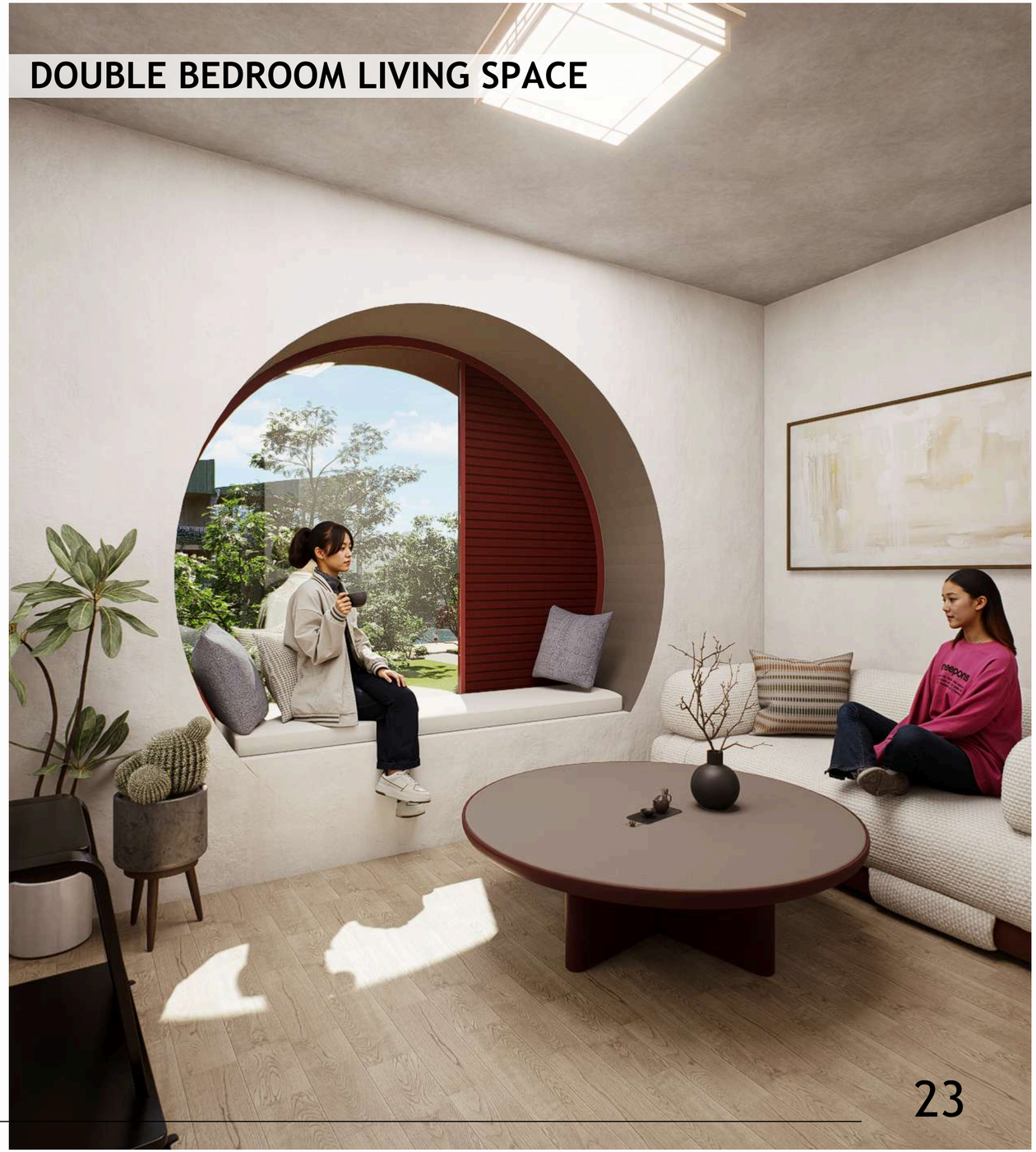


34 m2

SINGLE BEDROOM WITH A BALCONY

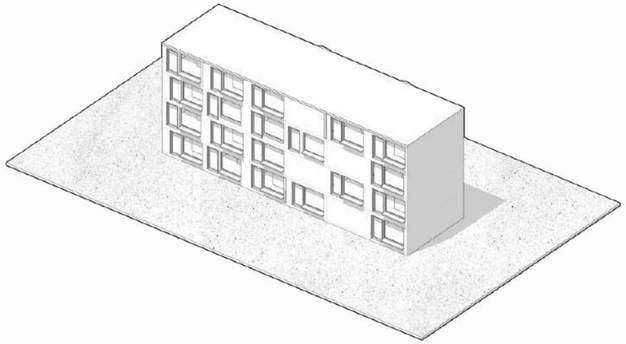


DOUBLE BEDROOM LIVING SPACE



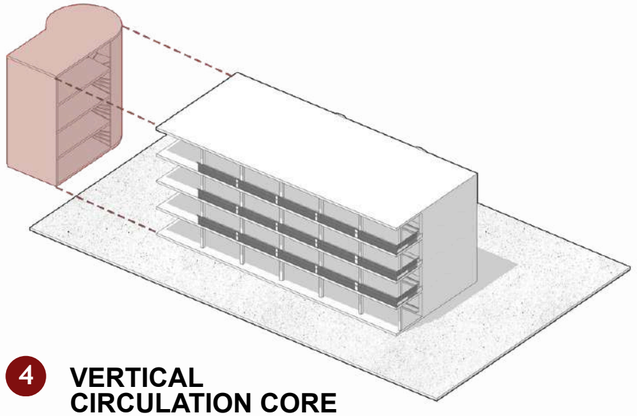
MODULAR SPATIAL EVOLUTION

STRUCTURING COMMUNITY, THROUGH MODULAR MANIPULATION



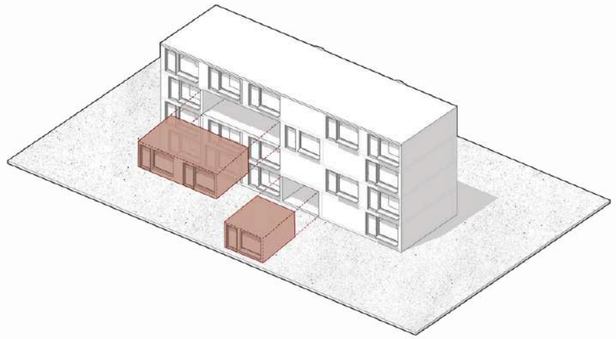
1 MODULAR ASSEMBLY

Individual housing modules are aggregated to form a compact residential block. Repetition of a prefabricated structural grid ensures construction efficiency.



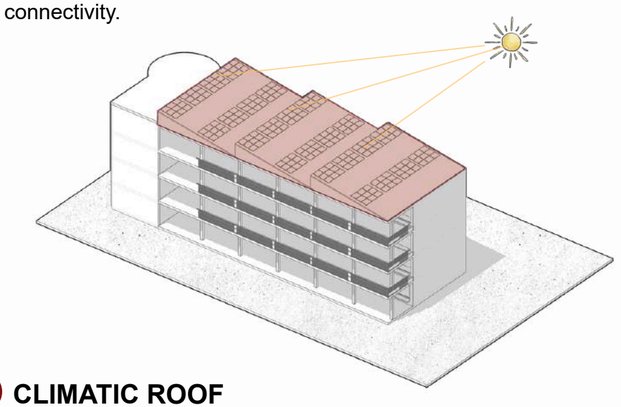
4 VERTICAL CIRCULATION CORE

A **prefabricated vertical circulation** core (stairs and elevators) is connected to the main volume.



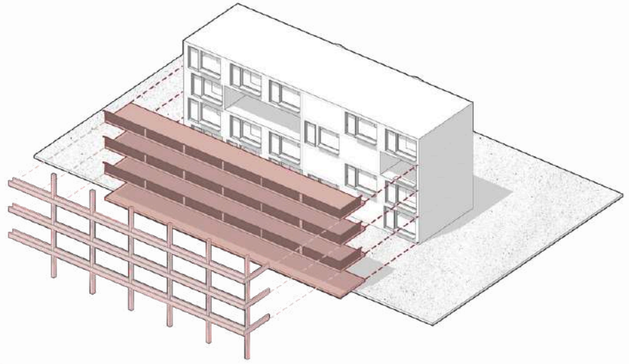
2 COLLECTIVE SOCIAL VOID

Three units are subtracted to enhance spatial porosity. This intervention forms a **shared gathering space** and a **through-building passage**, reinforcing social interaction and site connectivity.



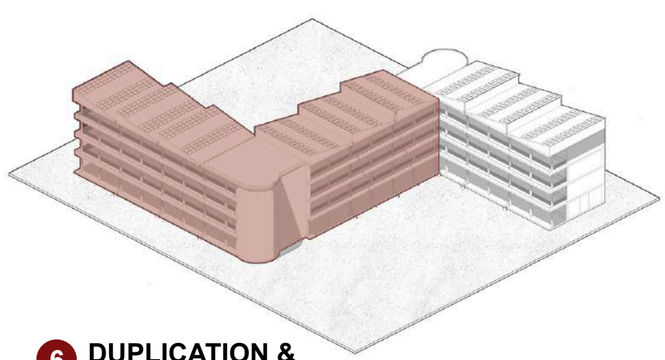
5 CLIMATIC ROOF STRATEGY

The inclined roof references the site's industrial memory is equipped with **photovoltaic solar panels** oriented to optimize solar exposure. Its slope enhances **rainwater drainage**.



3 CIRCULATION PLATFORMS & STRUCTURAL FRAMEWORK

External circulation decks and **structural steel** post are attached to the façade. Integrated **planter trays** allow vegetation to extend vertically across the structure

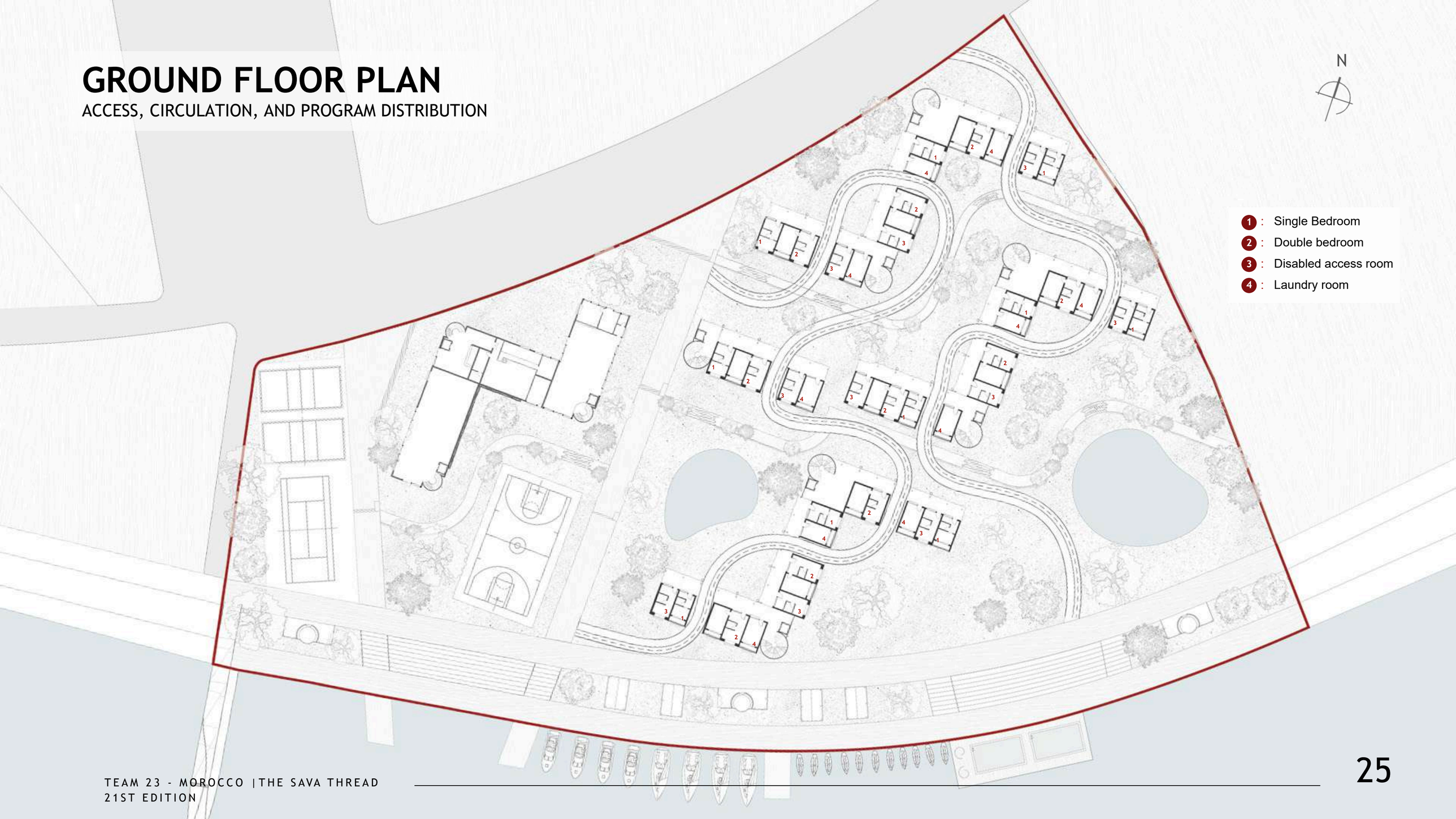


6 DUPLICATION & ORIENTATION STRATEGY

New blocks emerges from the same modular framework, reconfigured to produce a **distinct spatial arrangement**, rotated to generate an adaptable urban pattern.

GROUND FLOOR PLAN

ACCESS, CIRCULATION, AND PROGRAM DISTRIBUTION



ADAPTIVE PRIVACY GLASS

FLUID BOUNDARIES OF SPACE

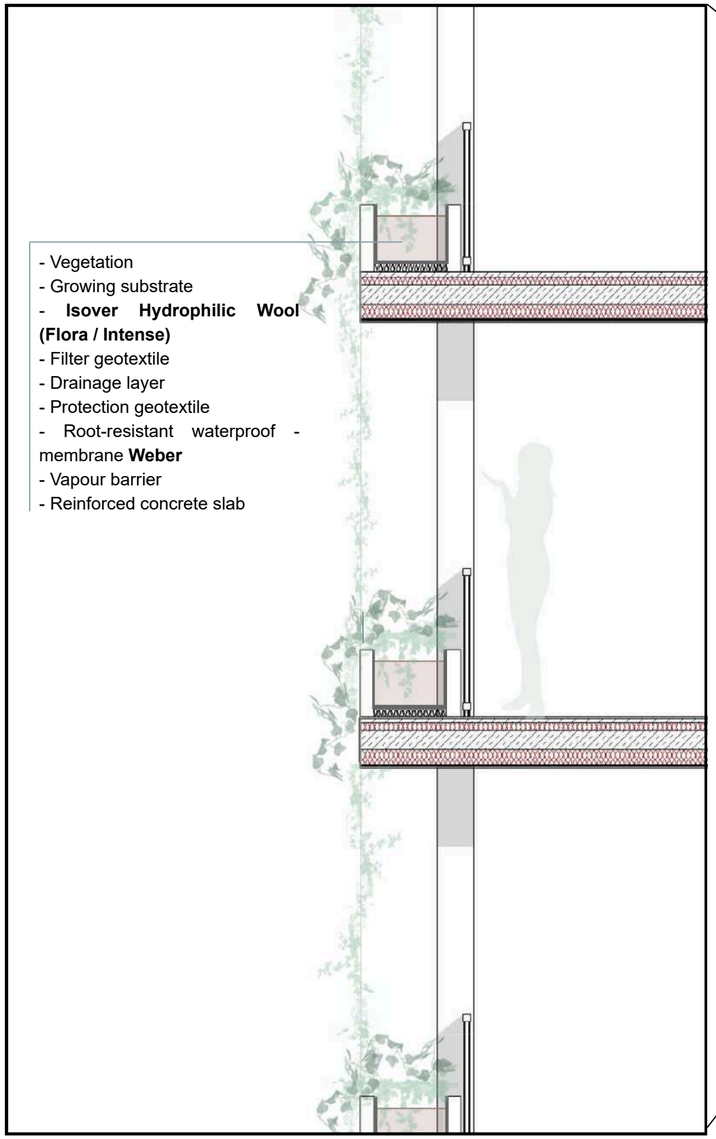
An adaptive glazing system that **changes transparency** through electrical stimulation, allowing dynamic control of **light, privacy, and thermal performance** without mechanical elements.

BEFORE

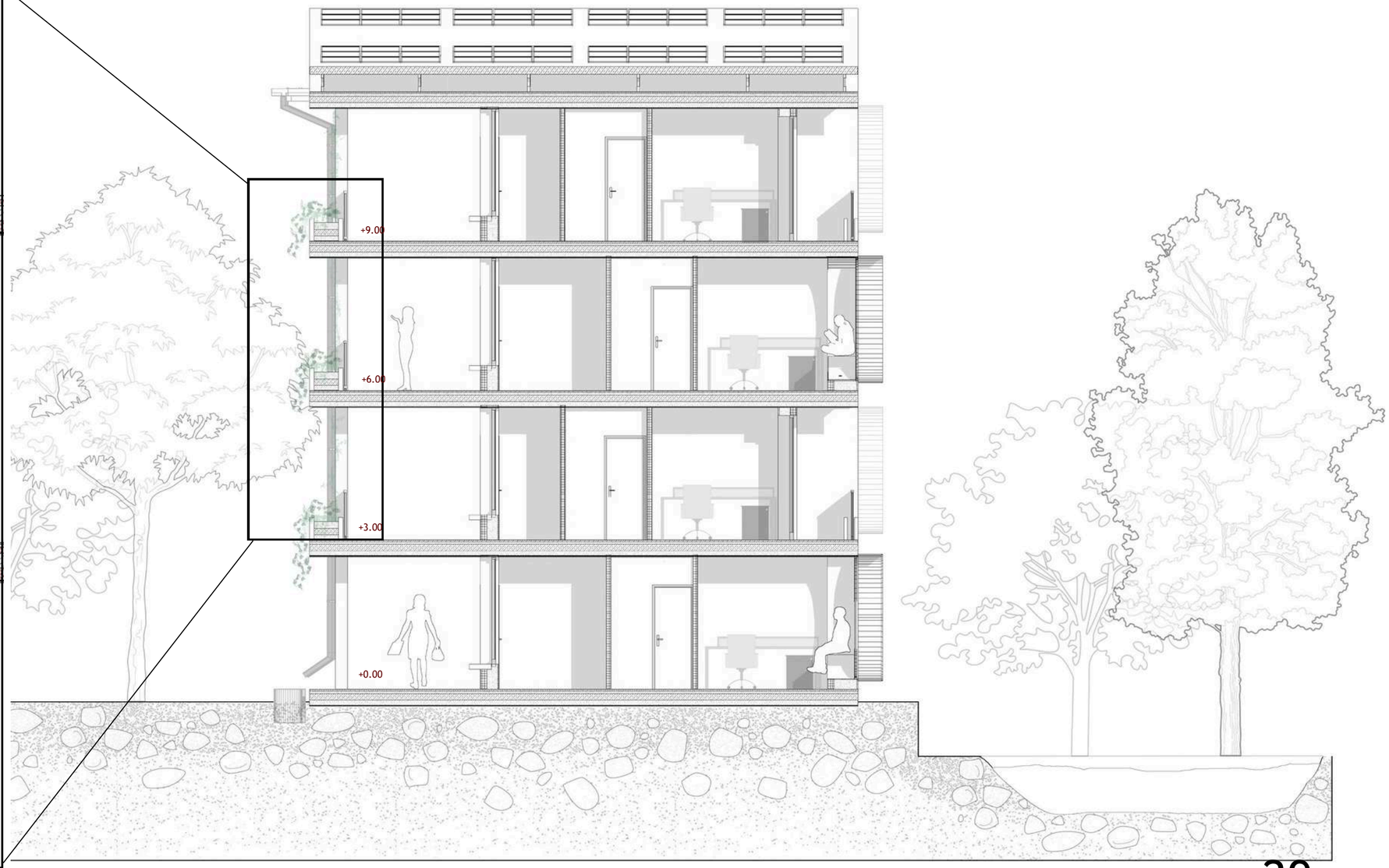
AFTER

DETAIL SECTION

WALLS, FLOORS



- Vegetation
- Growing substrate
- **Isover Hydrophilic Wool (Flora / Intense)**
- Filter geotextile
- Drainage layer
- Protection geotextile
- Root-resistant waterproof membrane **Weber**
- Vapour barrier
- Reinforced concrete slab

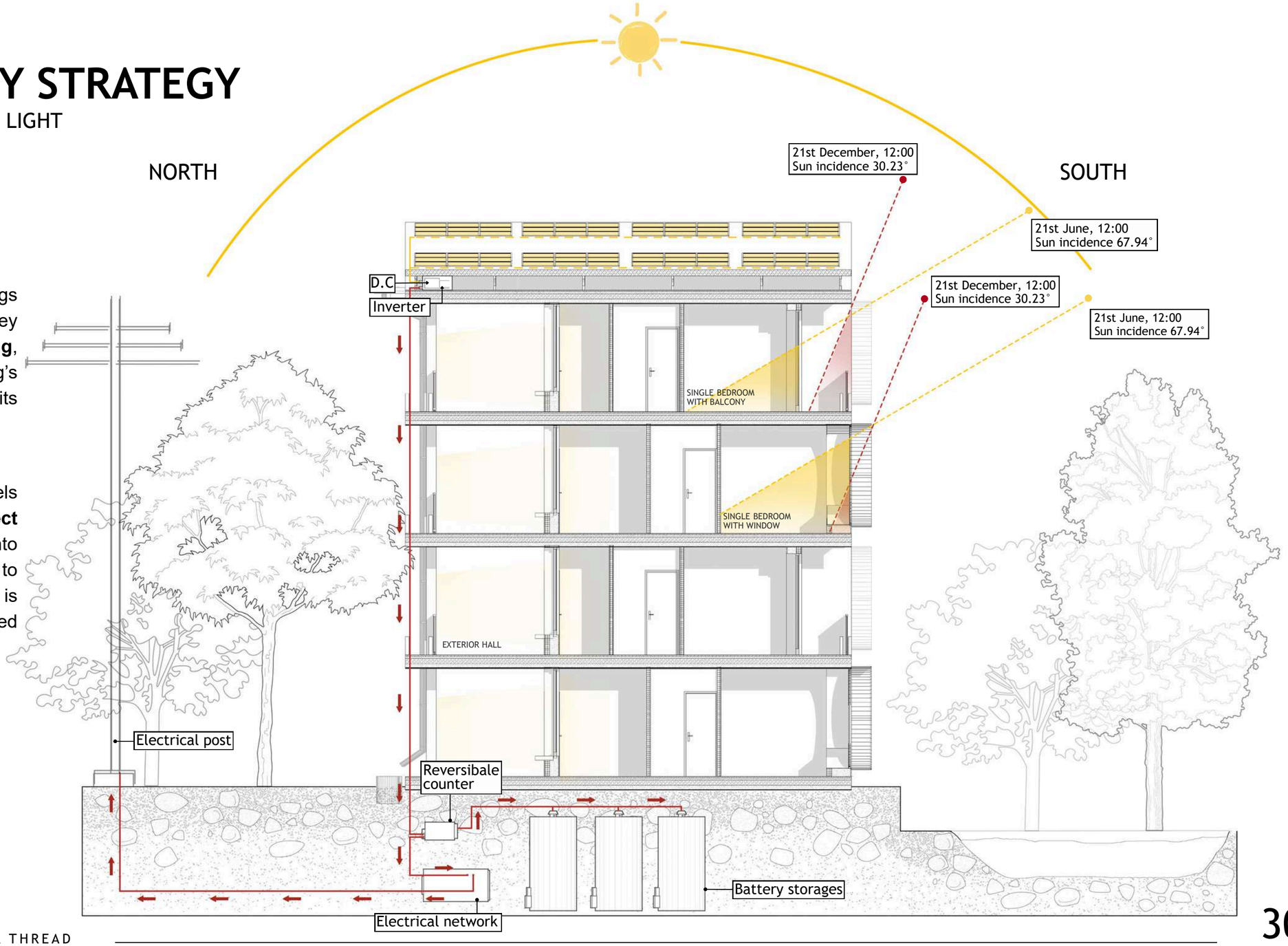


SUSTAINABILITY STRATEGY

PHOTOVOLTAIC AND INTERIOR LIGHT

The **south orientation** and openings provide optimal daylight. In winter, they **capture solar** energy for passive **heating**, while in summer the building's configuration **creates shading** that limits heat gain.

Roof-mounted **photovoltaic** panels capture solar energy and produce **direct current (DC)**, which is converted into **alternating current (AC)** by an inverter to supply the building. The electricity is distributed to all floors and can be stored in **batteries**.

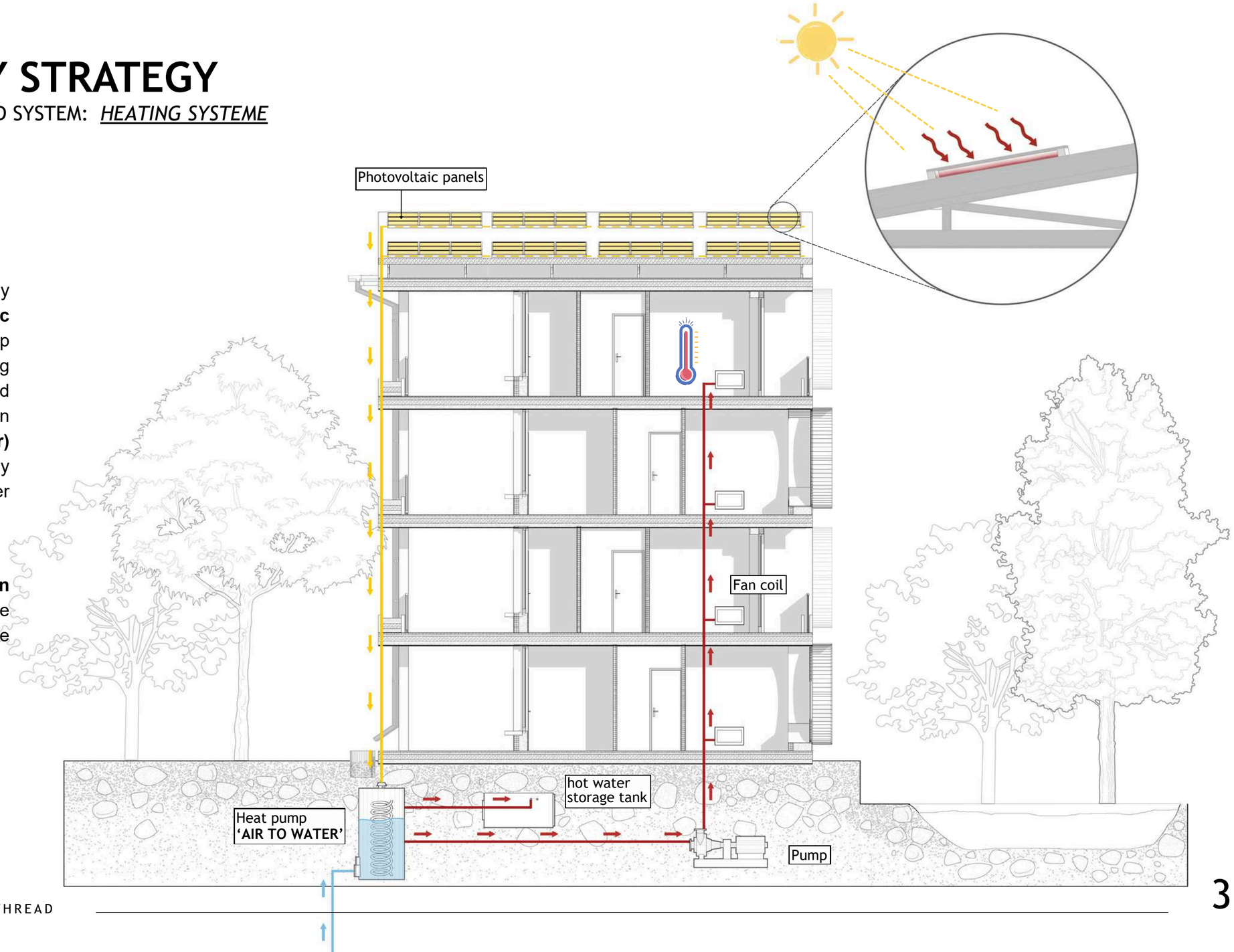


SUSTAINABILITY STRATEGY

PHOTOVOLTAIC THERMAL HYBRID SYSTEM: *HEATING SYSTEME*

A **10-centimeter gap** is intentionally maintained between the **photovoltaic** (PV) panels and the roof surface. This gap serves as a **solar heat collector**, allowing the sun's heat to warm the air trapped beneath the panels. This warm air is then directed into a **heat pump (air-to-water)** system, which extracts the thermal energy and elevates the temperature of the water in the secondary circuit.

The heated water is circulated through **fan coil units**, which release warm air into the interior spaces, effectively raising the building temperature.

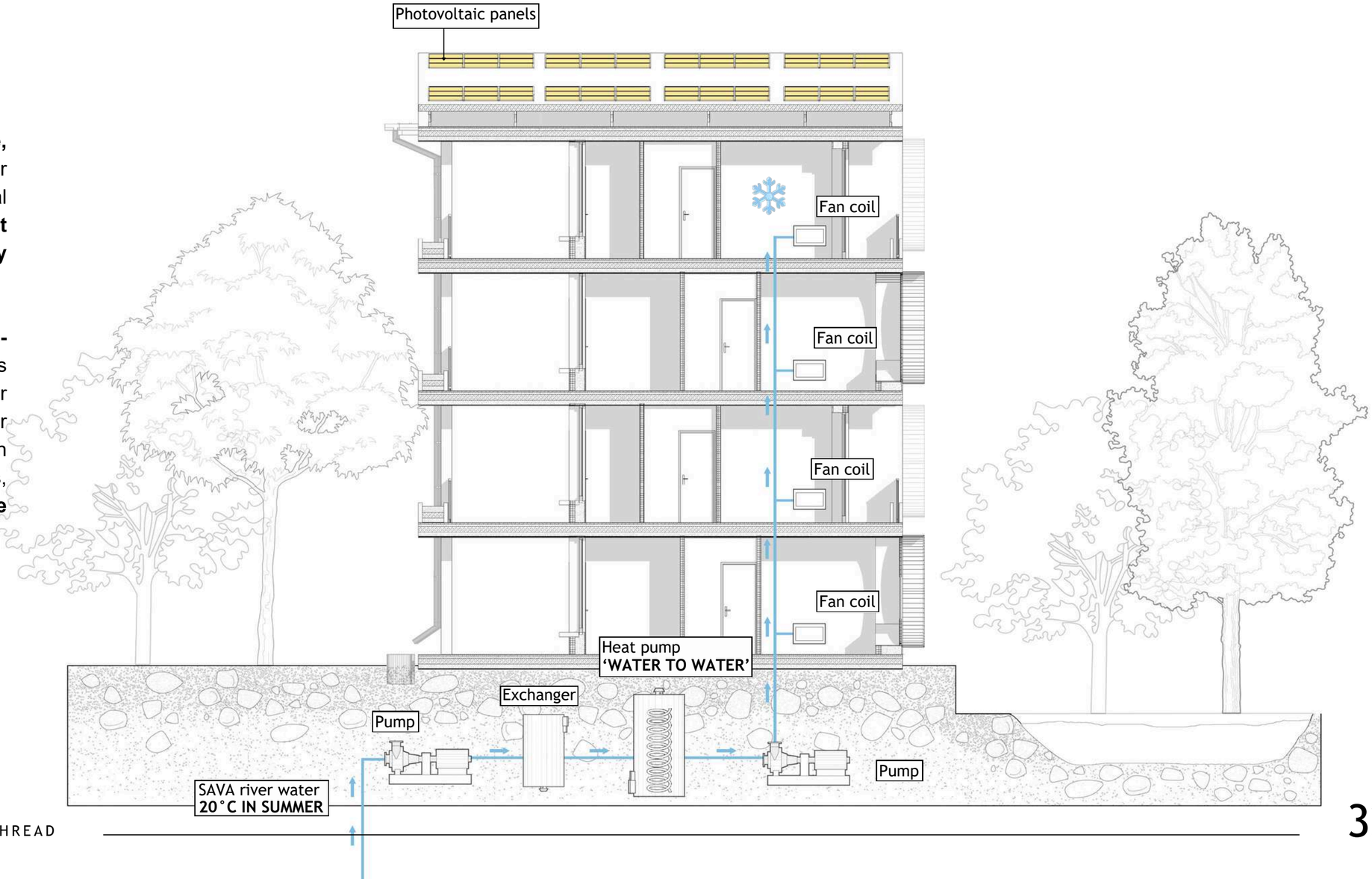


SUSTAINABILITY STRATEGY

PHOTOVOLTAIC THERMAL HYBRID SYSTEM: *COOLING SYSTEME*

The Sava River acts as a **renewable, passive cooling source**. Cold river water is drawn into the building's mechanical system, first passing through a **heat exchanger**, which allows **thermal energy** to transfer.

The chilled water then enters **water-to-water** heat pumps, which further lower its temperature to the desired level for indoor comfort. Finally, this chilled water circulates through **fan coil units**, which blow cool air into the interior spaces, maintaining a **comfortable temperature for occupants**.

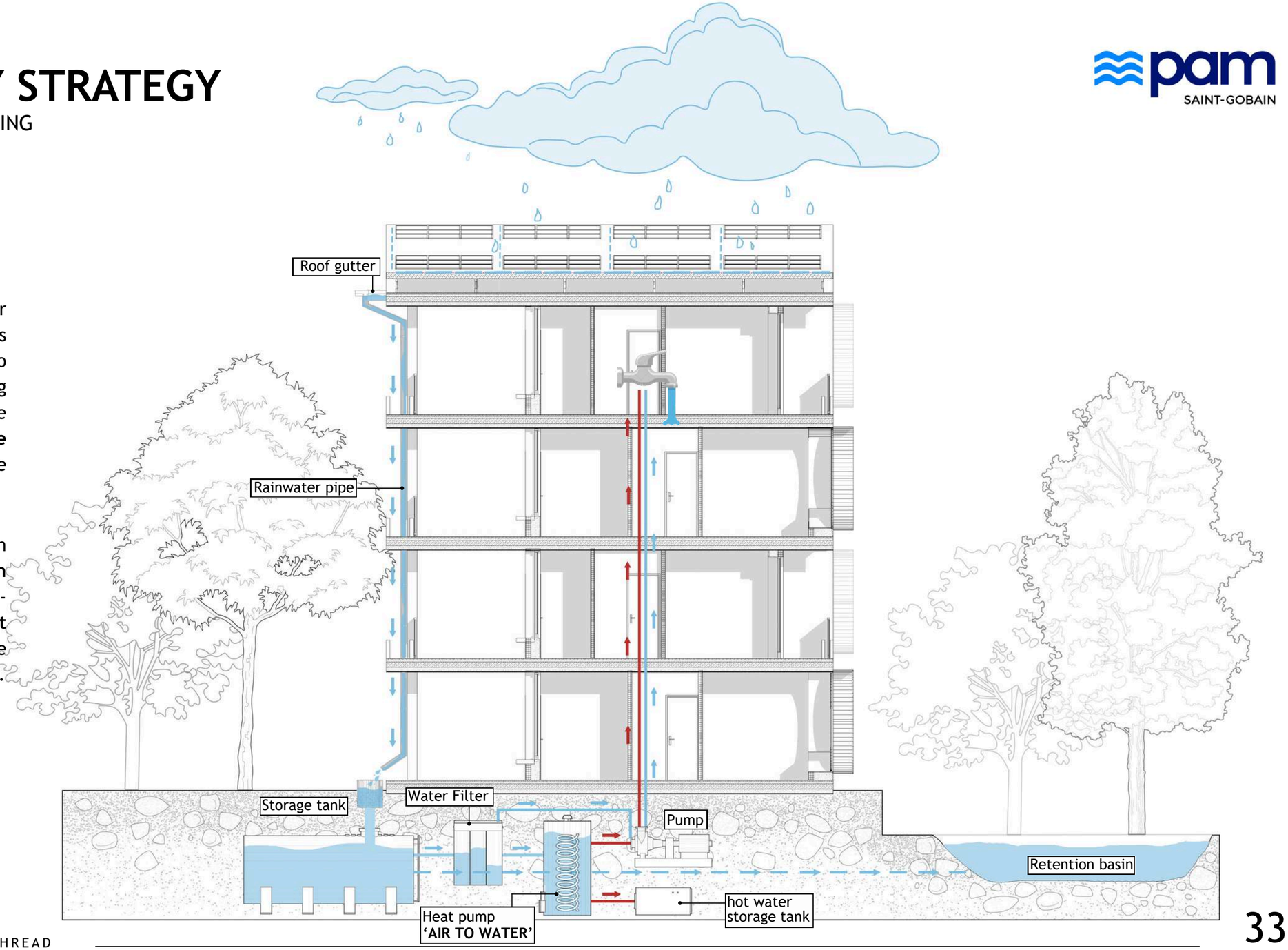


SUSTAINABILITY STRATEGY

RAINWATER HARVESTING & HEATING

The inclined roof helps collect rainwater and **efficiently channels** it in pipes toward a unique **central drain** and into an underground **storage tank** minimizing losses and concetrating the colletion. The water is then **filtered to remove impurities** before being reused in the building system.

Excess rainwater is redirected through drainage ducts to a large **retention basin**. This basin temporarily stores run-off during heavy rainfall, helping **prevent flooding** and ensuring effective **stormwater management** across the site.

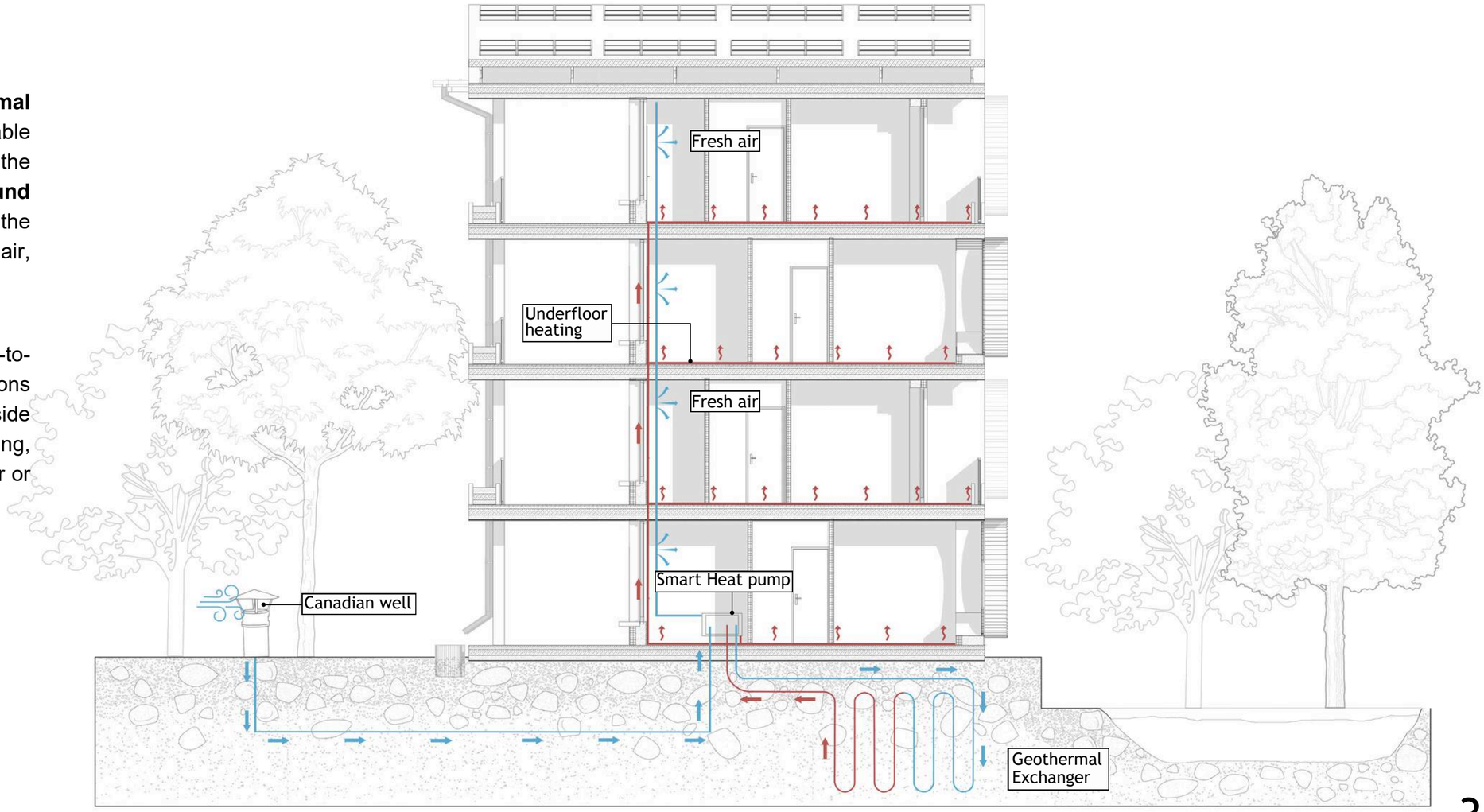


SUSTAINABILITY STRATEGY

GEOTHERMAL HEATING/COOLING & CANADIAN WELL

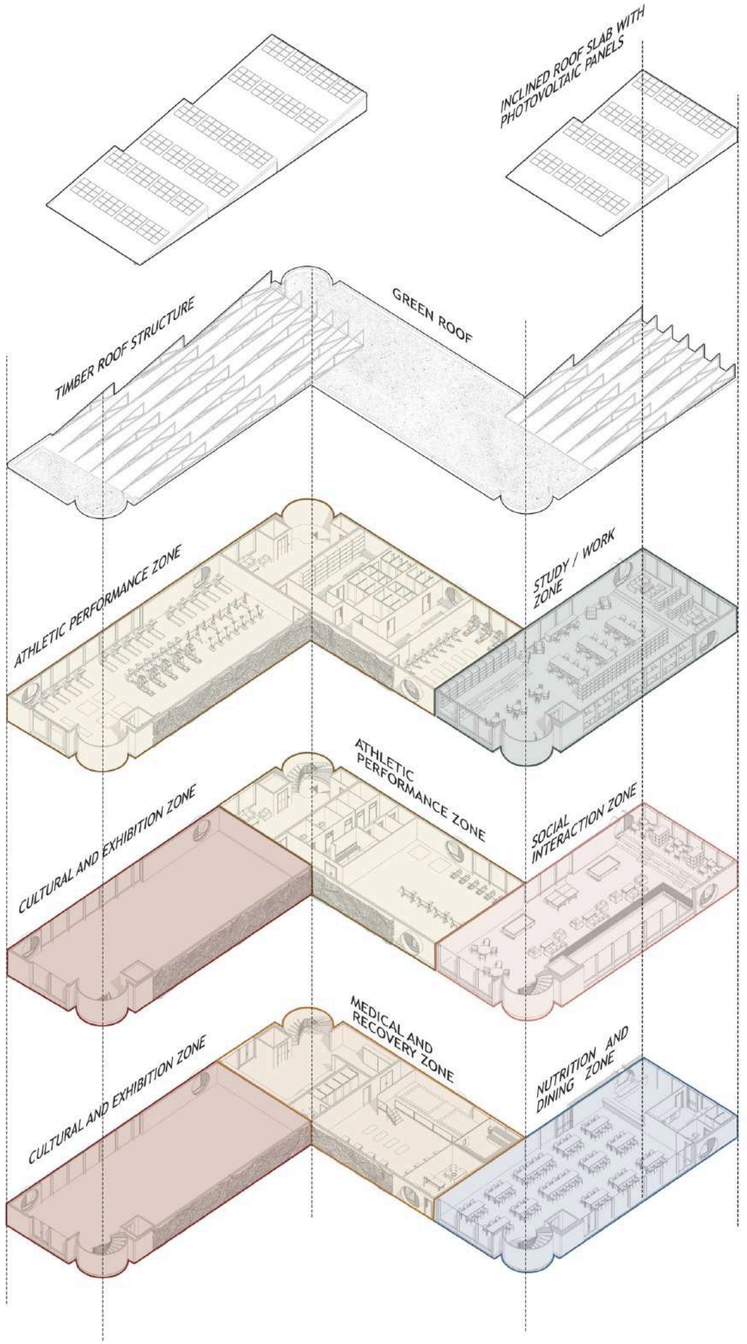
The project incorporates a g**eothermal heat exchanger** as part of a sustainable heating system. The system exploits the relatively stable **underground temperatures**: during colder months, the ground remains warmer than the air, providing a reliable **source of heat**.

For ventilation, a **Canadian well** (earth-to-air heat exchanger), which preconditions incoming **fresh air**. Air from outside passes through the underground ducting, where it exchanges heat with the cooler or warmer soil depending on the season.



ATHLETES HUB BUILDING

SPATIAL ANATOMY



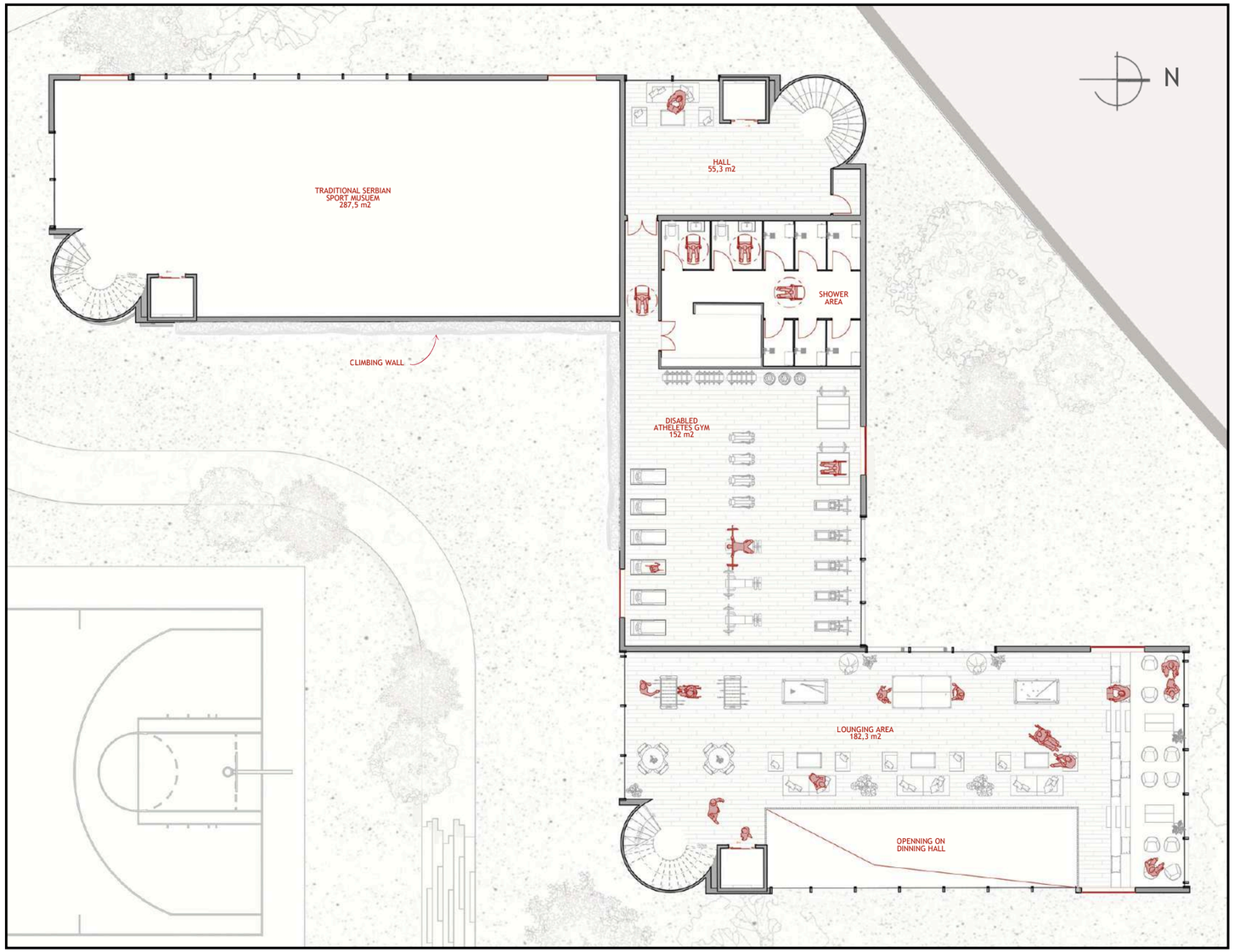
ATHLETES HUB FLOORPLANS

ONE BUILDING, MULTIPLE SHARED FUNCTIONS

DINNING HALL

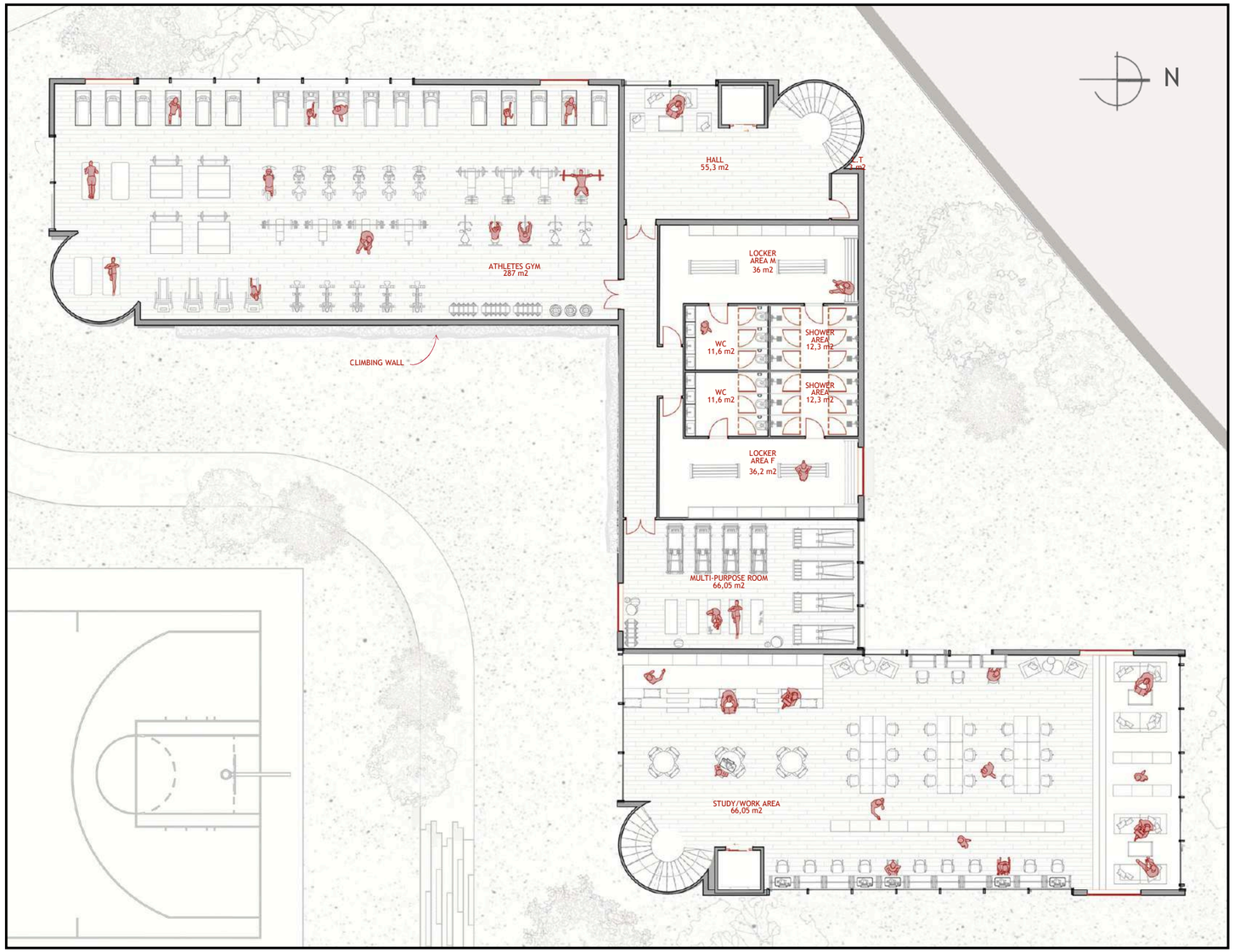
ATHLETES HUB FLOORPLANS

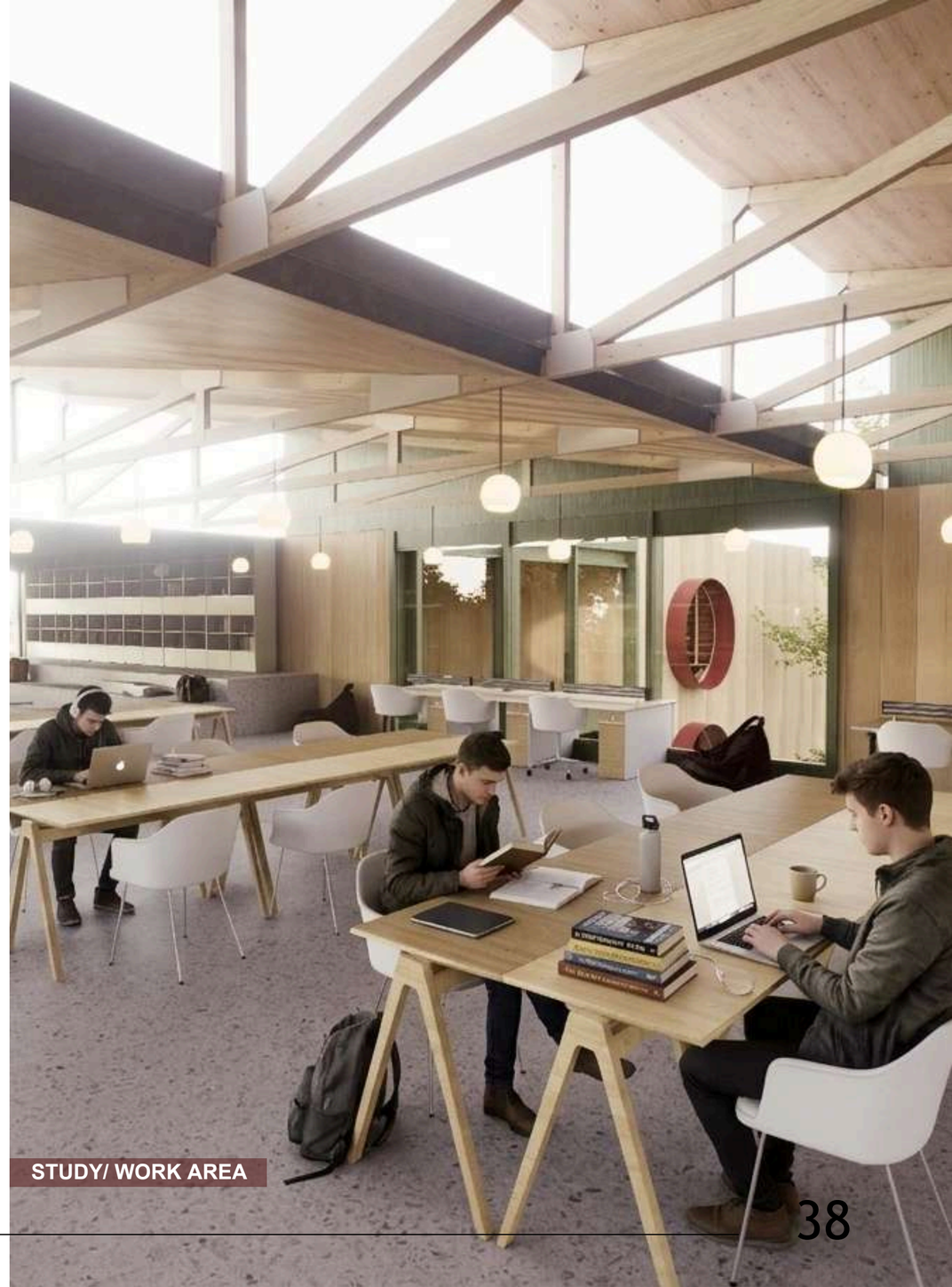
ONE BUILDING, MULTIPLE SHARED FUNCTIONS



ATHLETES HUB FLOORPLANS

ONE BUILDING, MULTIPLE SHARED FUNCTIONS



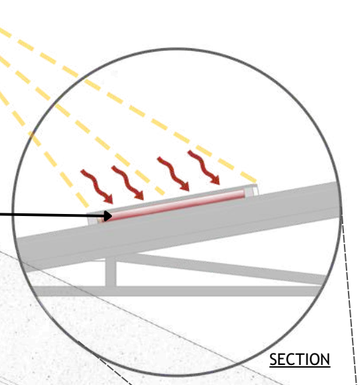


STUDY/ WORK AREA

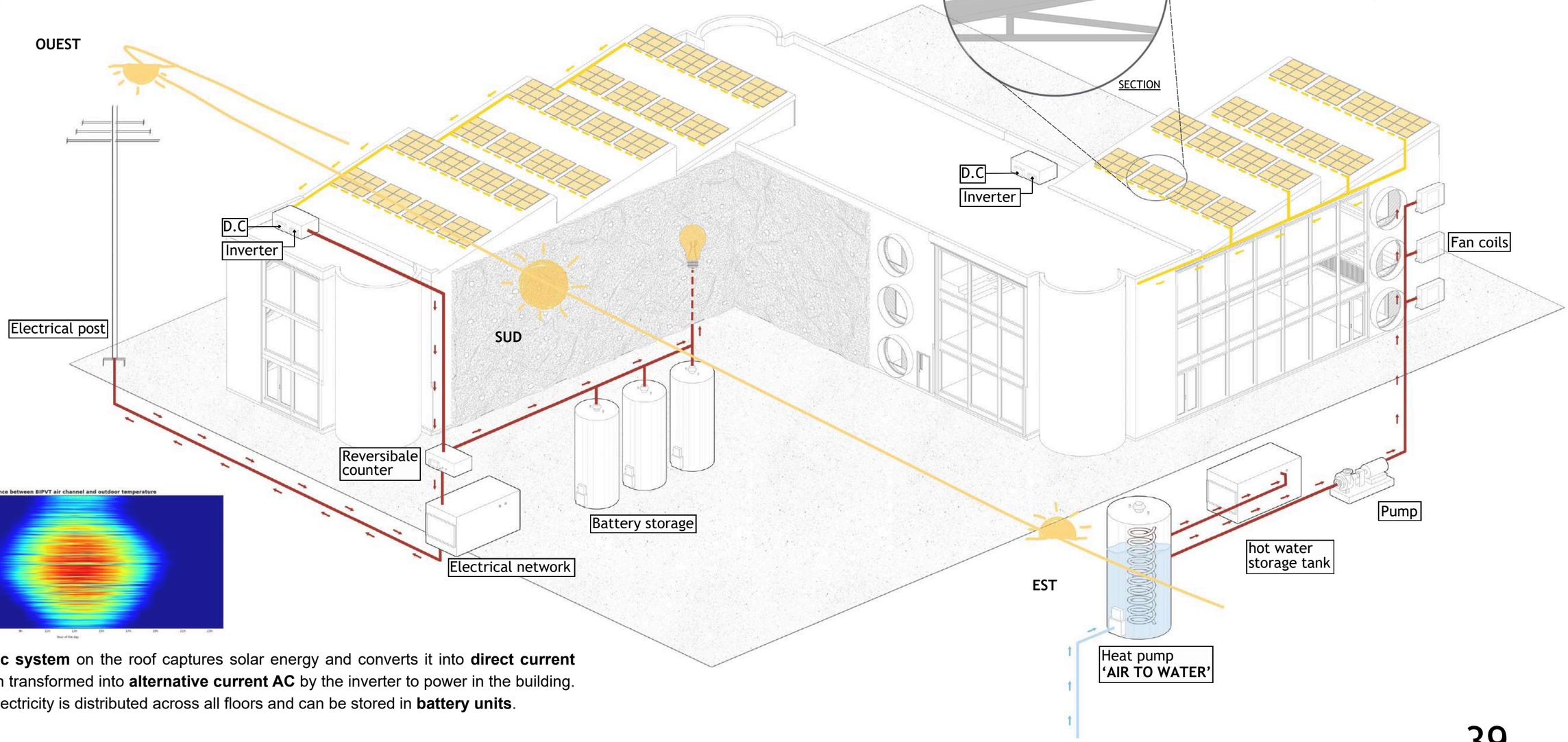
SUSTAINABILITY STRATEGY

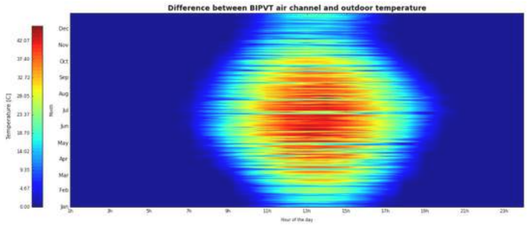
PHOTOVOLTAIC THERMAL HYBRID SYSTEM: *HEATING SYSTEME*

The heat is captured **behind the panels** and transferres to the building's **energy system**



In this project, the roof is designed with hybrid photovoltaic-thermal system, which means that **the solar modules produce both electricity and heat simultaneously**



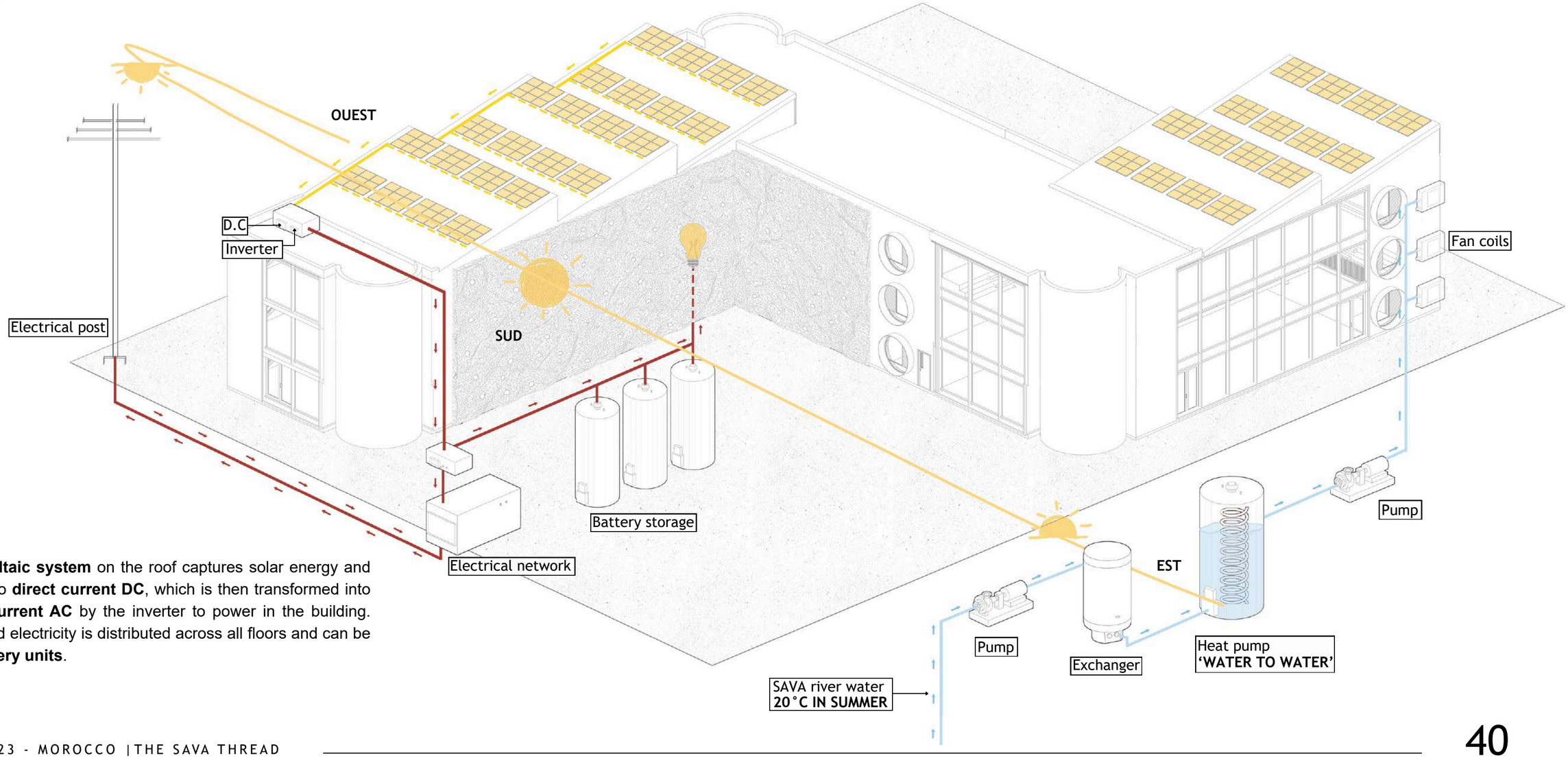


The photovoltaic system on the roof captures solar energy and converts it into **direct current DC**, which is then transformed into **alternative current AC** by the inverter to power in the building. The generated electricity is distributed across all floors and can be stored in **battery units**.

SUSTAINABILITY STRATEGY

PHOTOVOLTAIC THERMAL HYBRID SYSTEM: *COOLING SYSTEME*

The Sava River is used as a natural **cooling source**, which passes through a **heat exchanger** and a heat pump to chill the water circulating in the fan coils, **providing cool air** to the interior spaces.



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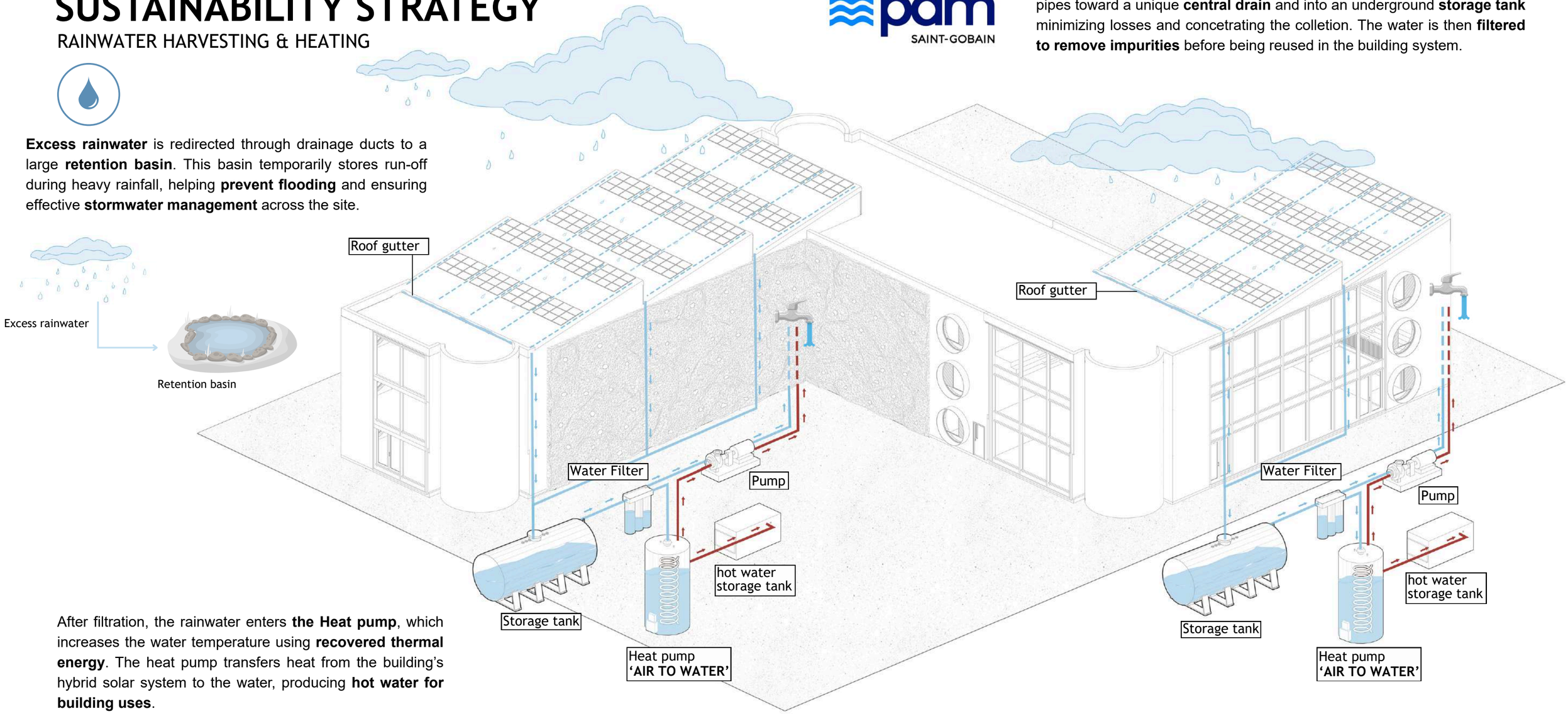


After filtration, the rainwater enters **the Heat pump**, which increases the water temperature using **recovered thermal energy**. The heat pump transfers heat from the building's hybrid solar system to the water, producing **hot water for building uses**.

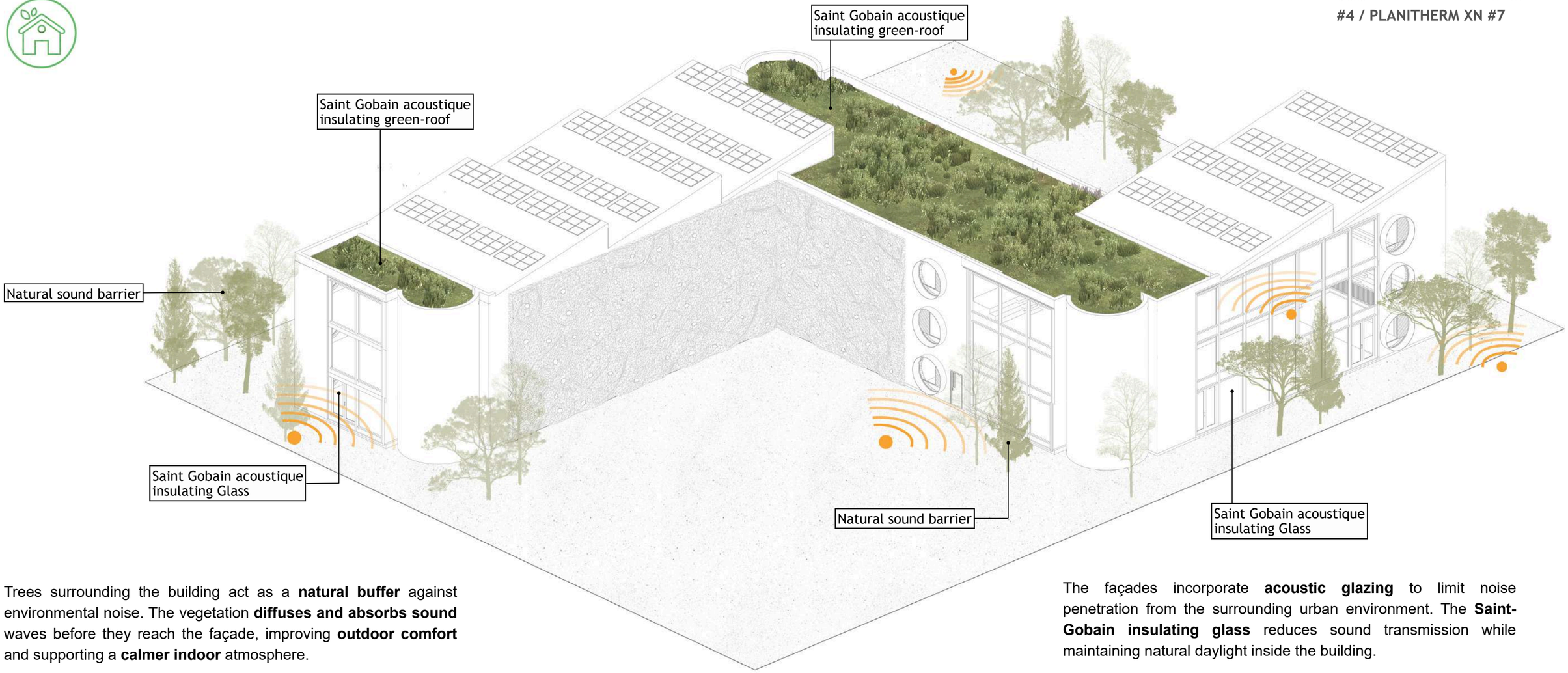
SUSTAINABILITY STRATEGY

SOUND-SHIELDED ENVIRONMENT

The building integrates a green roof that improves **acoustic and thermal performance**. The vegetation layer helps **absorb** environmental noise while the roof assembly **reduces sound transmission** into interior spaces.

SAINT-GOBAIN GLASS

COOL-LITE XTREME 70-33
#4 / PLANITHERM XN #7



Trees surrounding the building act as a **natural buffer** against environmental noise. The vegetation **diffuses and absorbs sound** waves before they reach the façade, improving **outdoor comfort** and supporting a **calmer indoor** atmosphere.

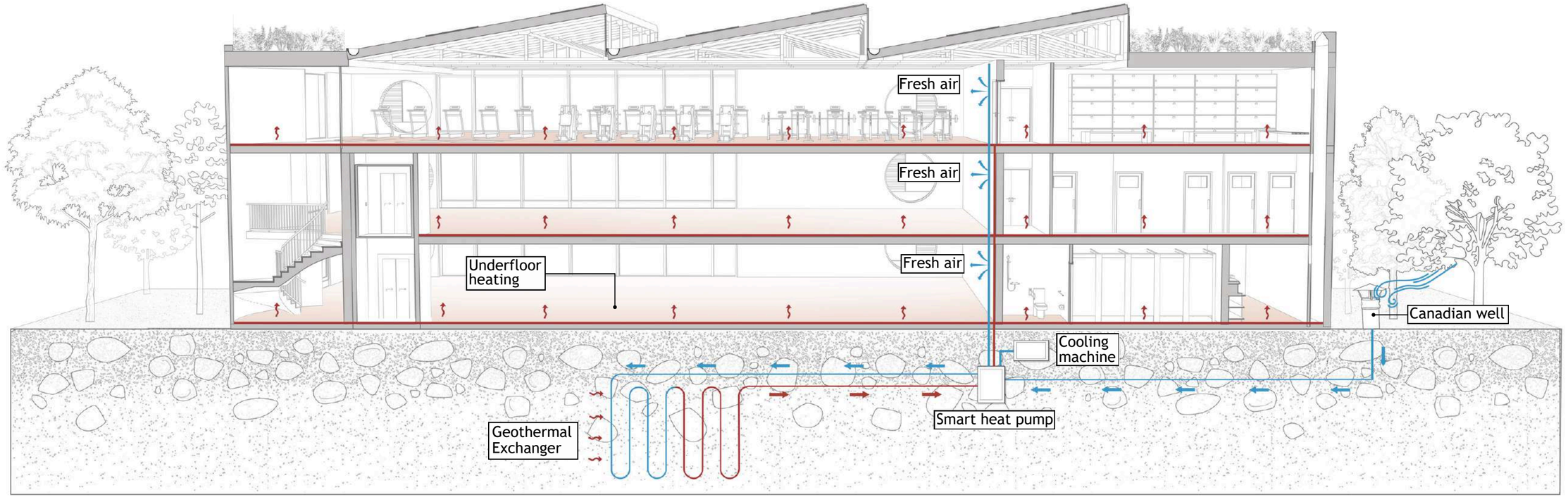
The façades incorporate **acoustic glazing** to limit noise penetration from the surrounding urban environment. The **Saint-Gobain insulating glass** reduces sound transmission while maintaining natural daylight inside the building.

SUSTAINABILITY STRATEGY

GEOTHERMAL HEATING/COOLING

low-energy, efficient system that ensures thermal comfort year-round.

This system uses the stable temperature of the ground to **regulate indoor climate**. A geothermal exchanger **(buried pipes)** circulates fluid underground, where it absorbs heat in winter and releases excess heat in summer.



The **Canadian well** system preconditions fresh air before it enters the building. Outdoor air passes through **underground ducts**, where it naturally exchanges **heat with the soil**. In winter, the air is warmed by the ground; in summer, it is cooled.

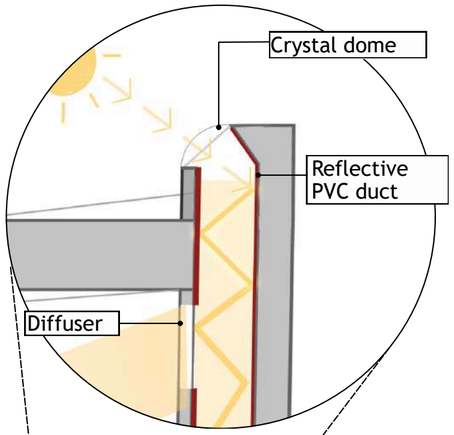
SUSTAINABILITY STRATEGY

NATURAL DAYLIGHT

21st June, 12:00
Sun incidence 67.94°

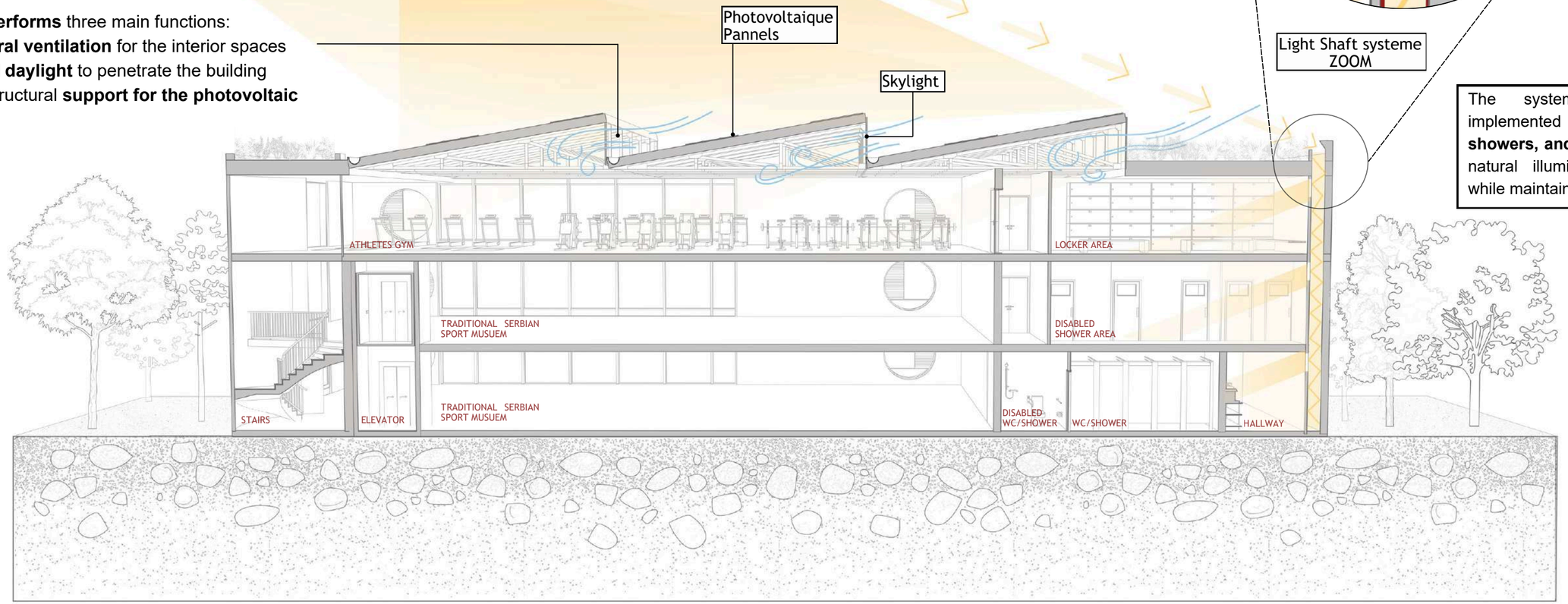
21st December, 12:00
Sun incidence 30.23°

The project integrates a **light shaft system**,This system consists of a **highly reflective vertical PVC duct** that captures daylight at roof level and transmits it through the building.



Light Shaft systeme ZOOM

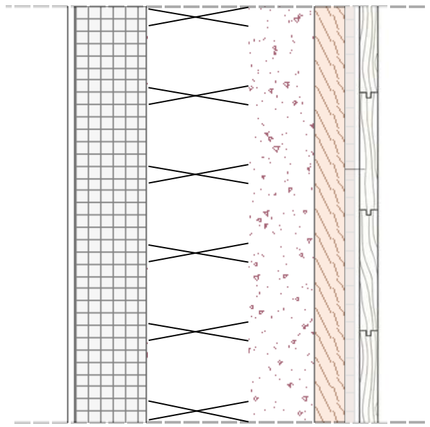
This **skylight performs** three main functions:
- Provides **natural ventilation** for the interior spaces
- Allows **natural daylight** to penetrate the building
- Serves as a structural **support for the photovoltaic panels**



The system is specifically implemented in **Locker areas, showers, and WC spaces**, where natural illumination is desirable while maintaining **visual privacy**

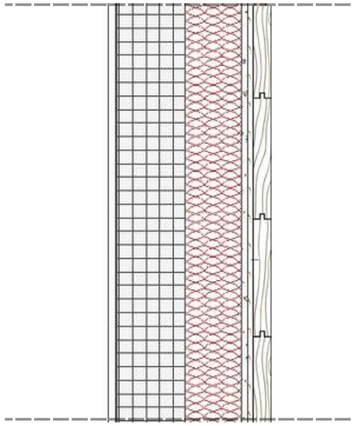
DETAIL SECTION

WALLS



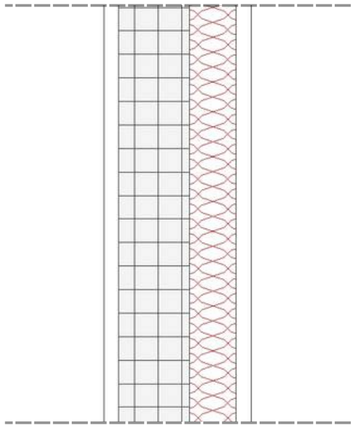
EXTERIOR WALLS 60CM

1. 12.5mm **Gypsum plasterboard DURAGIPS**
2. 0.2mm **ISOVER Vapor barrier Vario® XtraSafe**
3. 140mm **CLT element**
4. 240mm air gap
5. 136mm **Blown loose-fill cellulose insulation**
6. 60mm **Rigid wood fiber insulation panel**
7. 12.5mm **Treated wooden cladding**



EXTERIOR WALLS 25CM

1. 12.5mm **Gypsum plasterboard DURAGIPS**
2. 0.2mm **ISOVER Vapor barrier Vario® XtraSafe**
3. 140mm **CLT element**
4. 100mm **ISOVER Stone wool insulation**
5. 10mm **Oriented strand board (OSB)**
6. 10mm **Semi-hard wood fiber board**
7. 12.5mm **Treated wooden cladding**

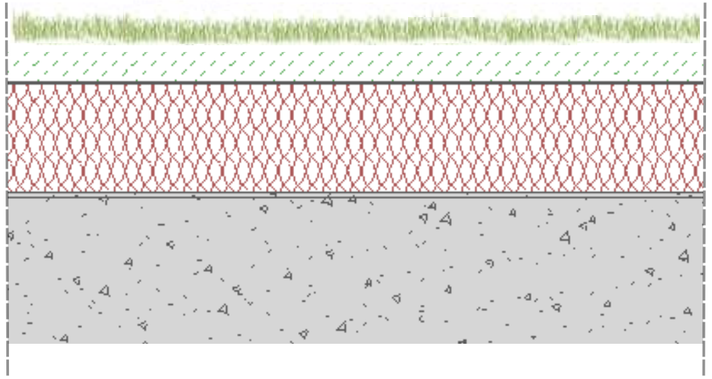


PARTITION WALLS

1. 12.5mm **Gypsum plasterboard DURAGIPS**
2. 40mm **ISOVER Stone wool insulation**
3. 60mm **CLT element**
4. 12.5mm **Gypsum plasterboard DURAGIPS**

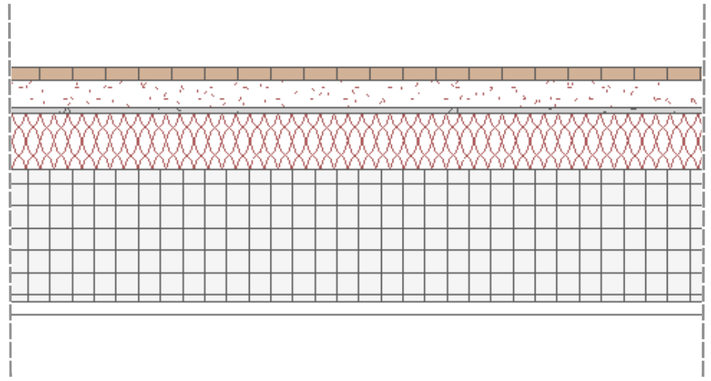
DETAIL SECTION

SLABS



GREEN ROOF

1. 40mm **Extensive green roof system (Knauf)**
2. 1.5mm **PVC-P roofing membrane reinforced**
3. **120mm ISOVER Stone wool insulation**
4. **Isover EPS 100 thermal insulation**
5. 0.2mm **ISOVER Vapor barrier Vario® XtraSafe**
6. **200mm Ready-mix concrete**



SLAB

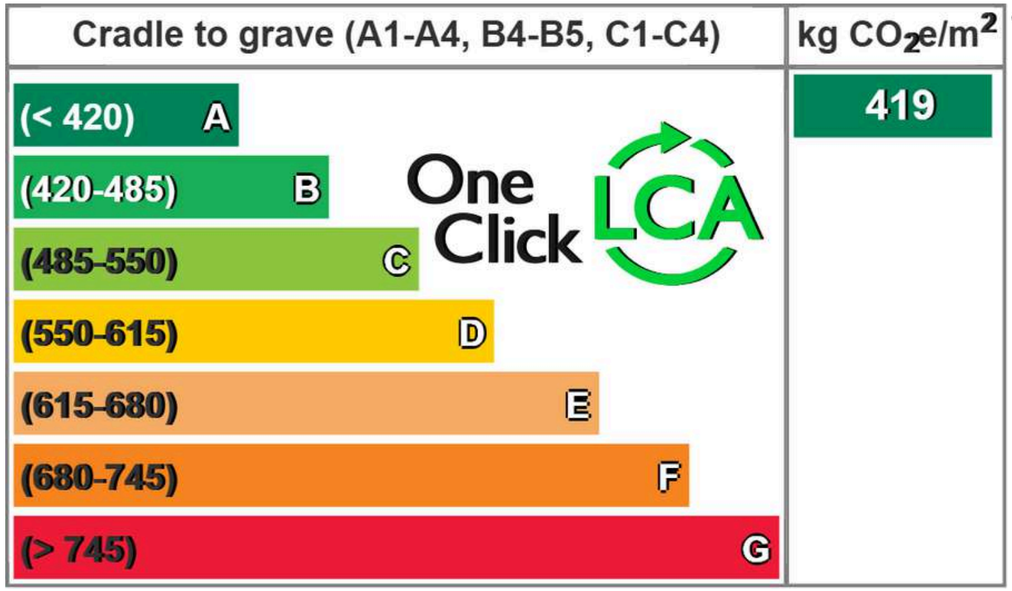
1. 12.5mm Parquet
2. 5mm **Gyvlon® THERMIOMAX Leveling screeds**
3. 25mm **Weberfloor 319**
4. 50mm glass wool insulation **Isover AKUSTO Isover AKUSTO TWIN**
5. 120mm **CLT element**
6. 12.5mm **Gypsum plasterboard DURAGIPS**

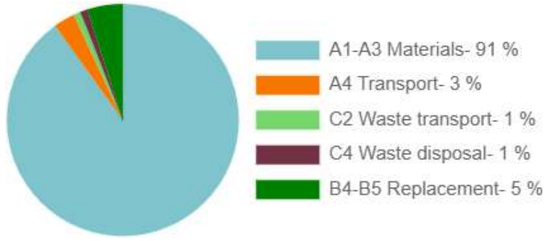
ENERGY EFFICIENCY CALCULATIONS

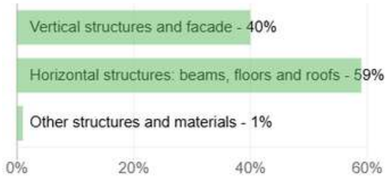
ON ONECLICK LCA

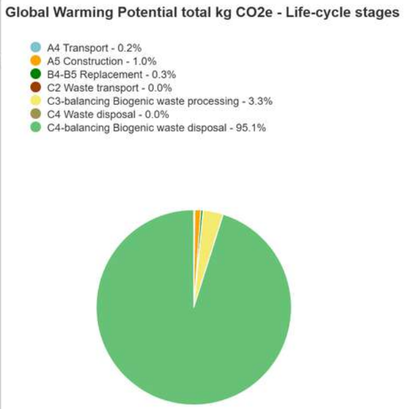
LIFE-CYCLE OVERVIEW OF GLOBAL WARMING POTENTIAL TOTAL

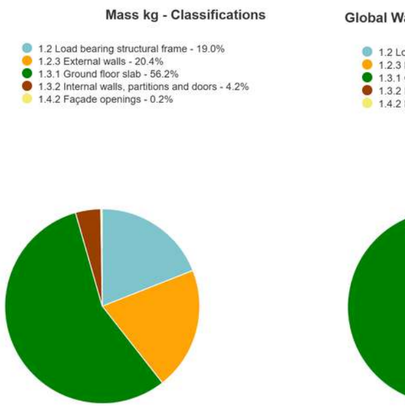
BIPVT (BUILDING-INTEGRATED PHOTOVOLTAIC/THERMAL)

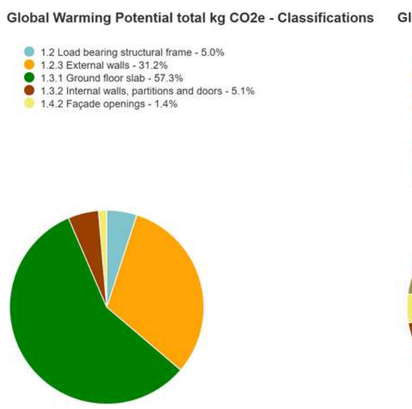


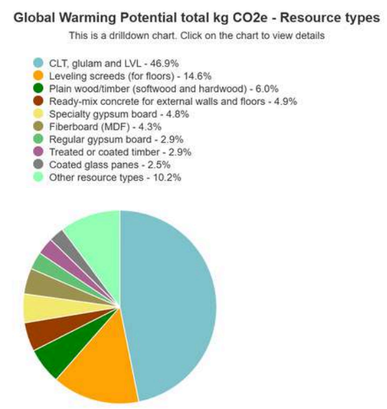


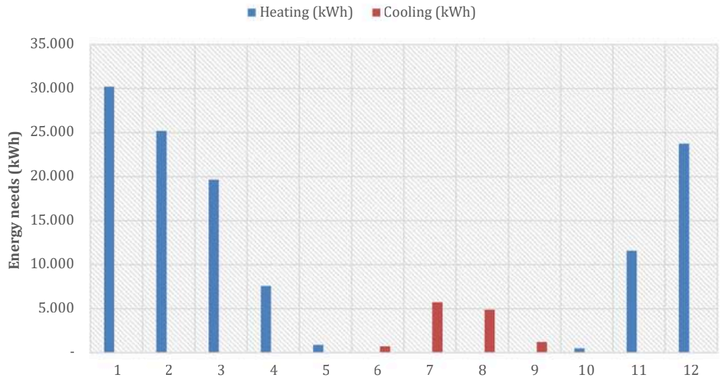


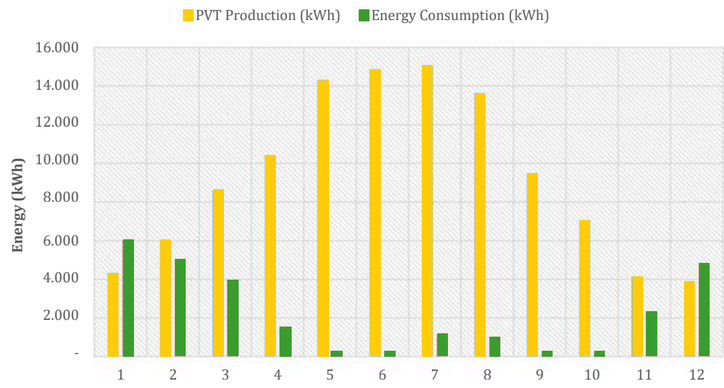












OUTDOOR SPORT

Positioned along the edge of the Athletes hub building, the climbing wall creates an active facade while providing a compact training surface for strength and endurance

Flexible multisport court supporting basketball, handball, football, and other activities.

Set at the periphery of the site, the tennis court benefits from a calmer conditions ensuring concentration.

Set within a secondary space, supporting group-based play and collective interaction.

Seasonal retention basin that transforms into a natural ice rink in winter.

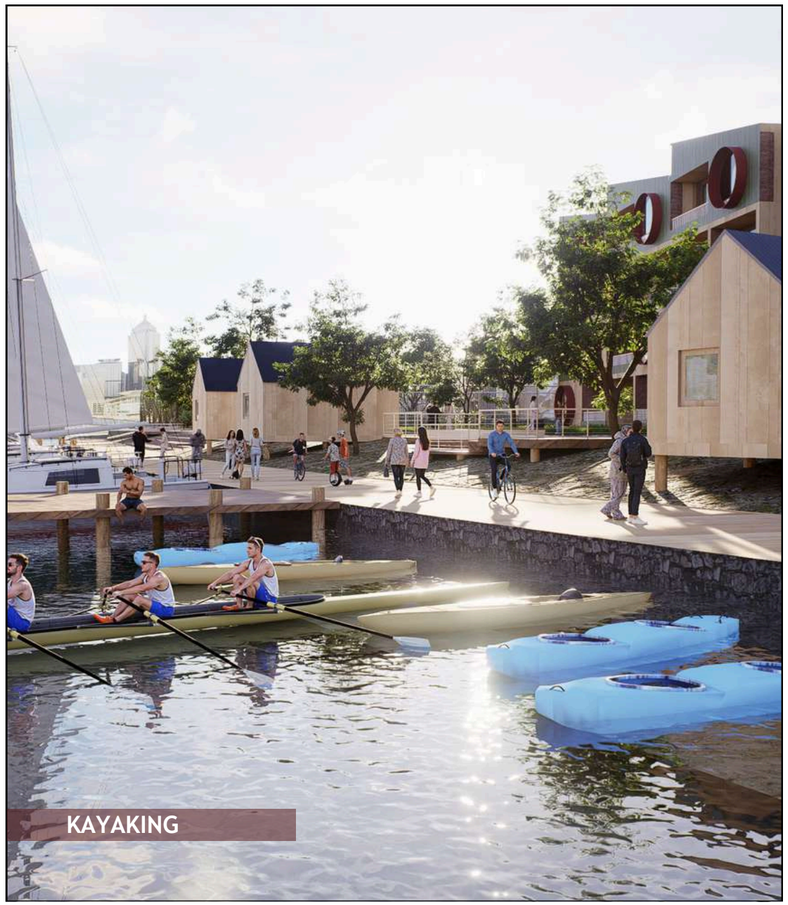
RIVERFRONT

Riverfront seating unfolds through a series of **extended decks** reaching toward the water, creating **continuous spaces** for rest and observation.

Along them, **raised platform**-like elements act as gathering points, offering **informal seating** and framed views over the river.

TOGETHER, THEY STRUCTURE A CALM PUBLIC EDGE, INVITING PEOPLE TO PAUSE, OBSERVE, AND ENGAGE WITH BOTH THE LANDSCAPE AND THE PROJECT.

AQUATIC SPORTS



KAYAKING

A lightweight and accessible water activity that allows users to explore the waterfront at a calm pace, strengthening the connection between people and the natural environment

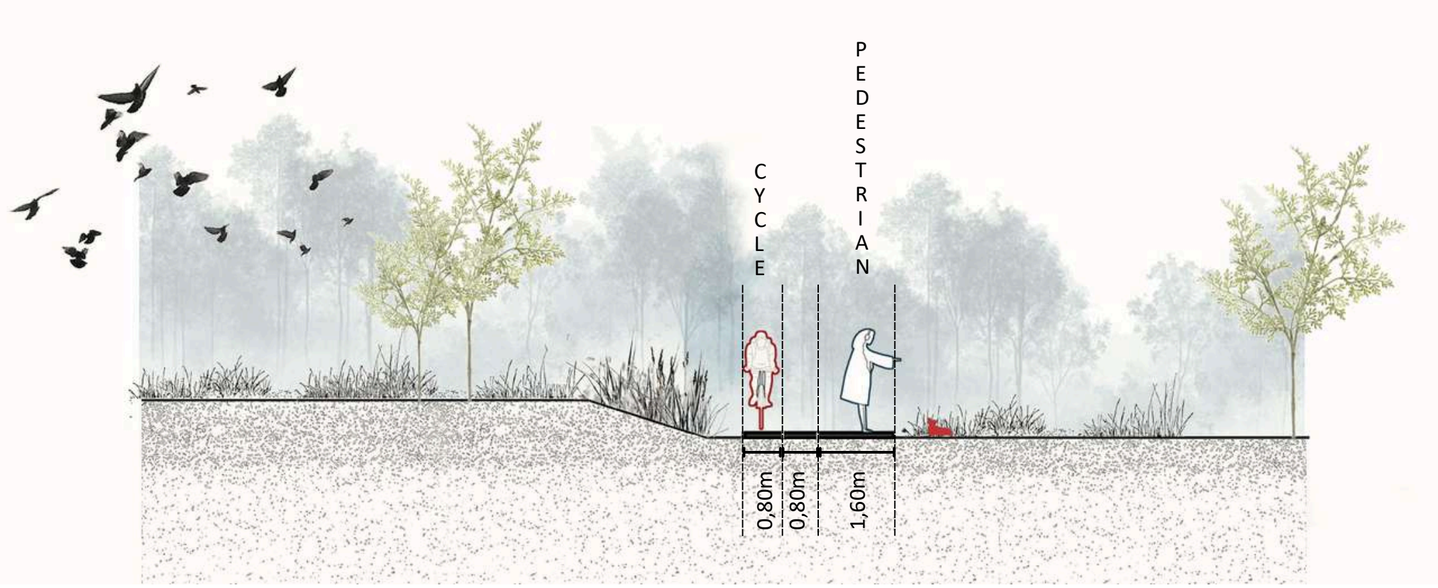
SWIMMING

An open-air swimming space integrated into the waterfront, offering recreation, relaxation. (heated in winter by the geothermal heating systeme)

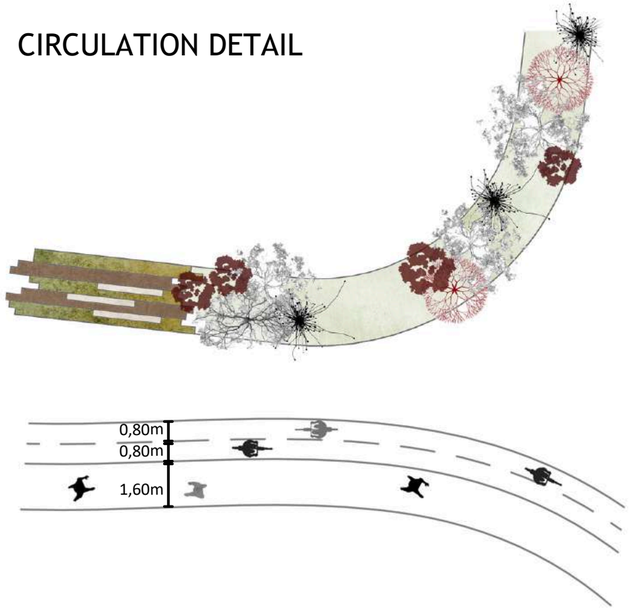
SAILING

A dynamic activity that uses wind power to navigate, activating the waterfront while creating a strong relationship between sport, water, and climate.

MOVEMENT THROUGH THE SITE

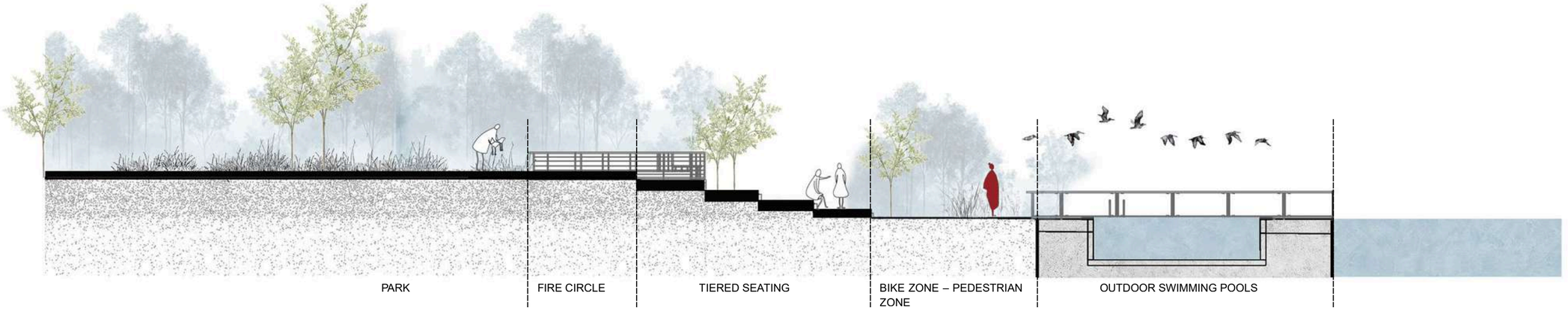


CIRCULATION DETAIL



CIRCULATION DETAIL

SECTIONS



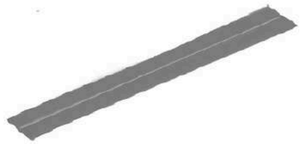
SERBIA'S SPORT IDENTITY is built on resilience, talent, and strong national pride, The country has produced globally recognized champions like **Novak Djokovic, Nikola Jokić, Ana Ivanović, Tijana Bošković ...**
Team sports such as basketball, football, and water polo are deeply embedded in society, making **sport not only a physical activity but a powerful symbol of unity and international representation for Serbia**.

THE BRIDGE

SAVA THREAD

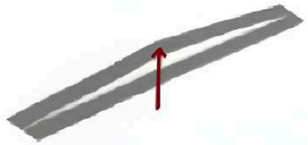
THE BRIDGE

CONCEPT



1 **CROSSED PATHS**

Separate lanes for pedestrians and bicycles, ensuring smooth circulation.



2 **FLOW SEPARATION**

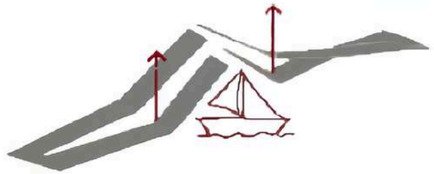
Clear division of pedestrian and bike traffic.

3 **BIRD HABITATS**

Spaces created by the crossing serve as nesting zones.

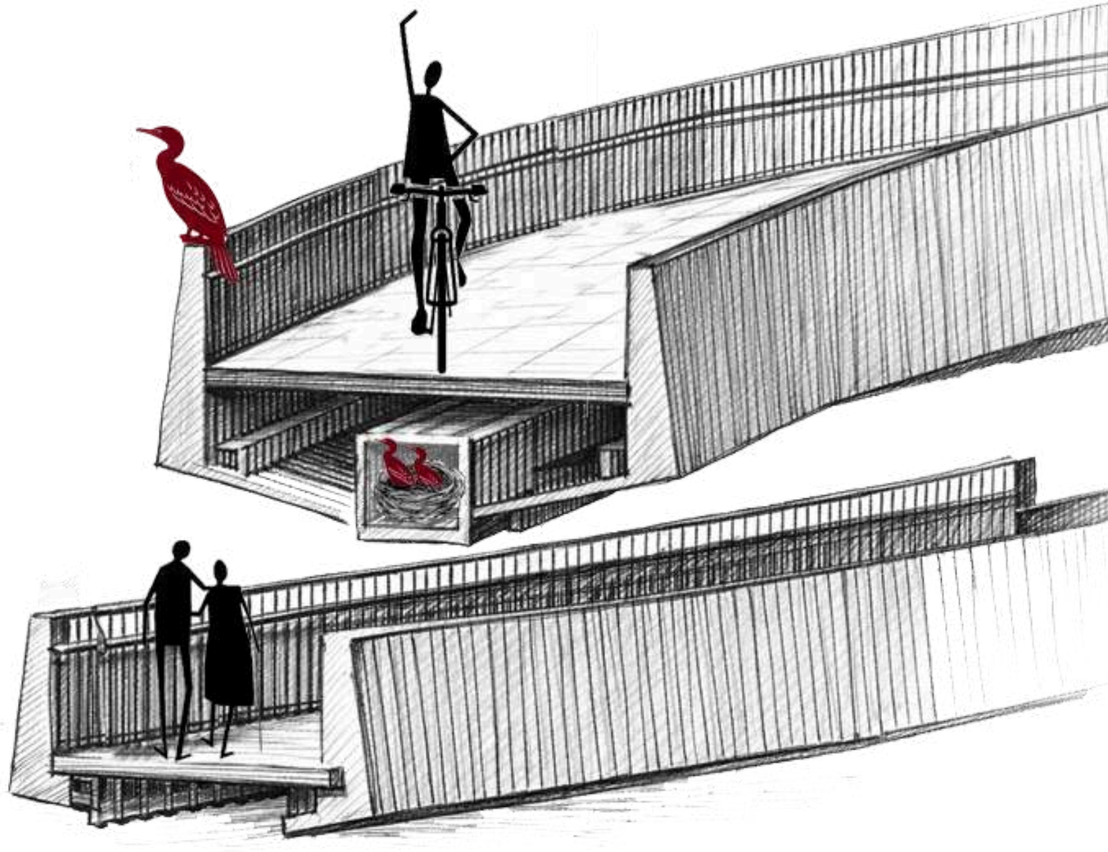
4 **BICYCLE PARKING & REST AREAS**

tegrated on both sides for convenience.



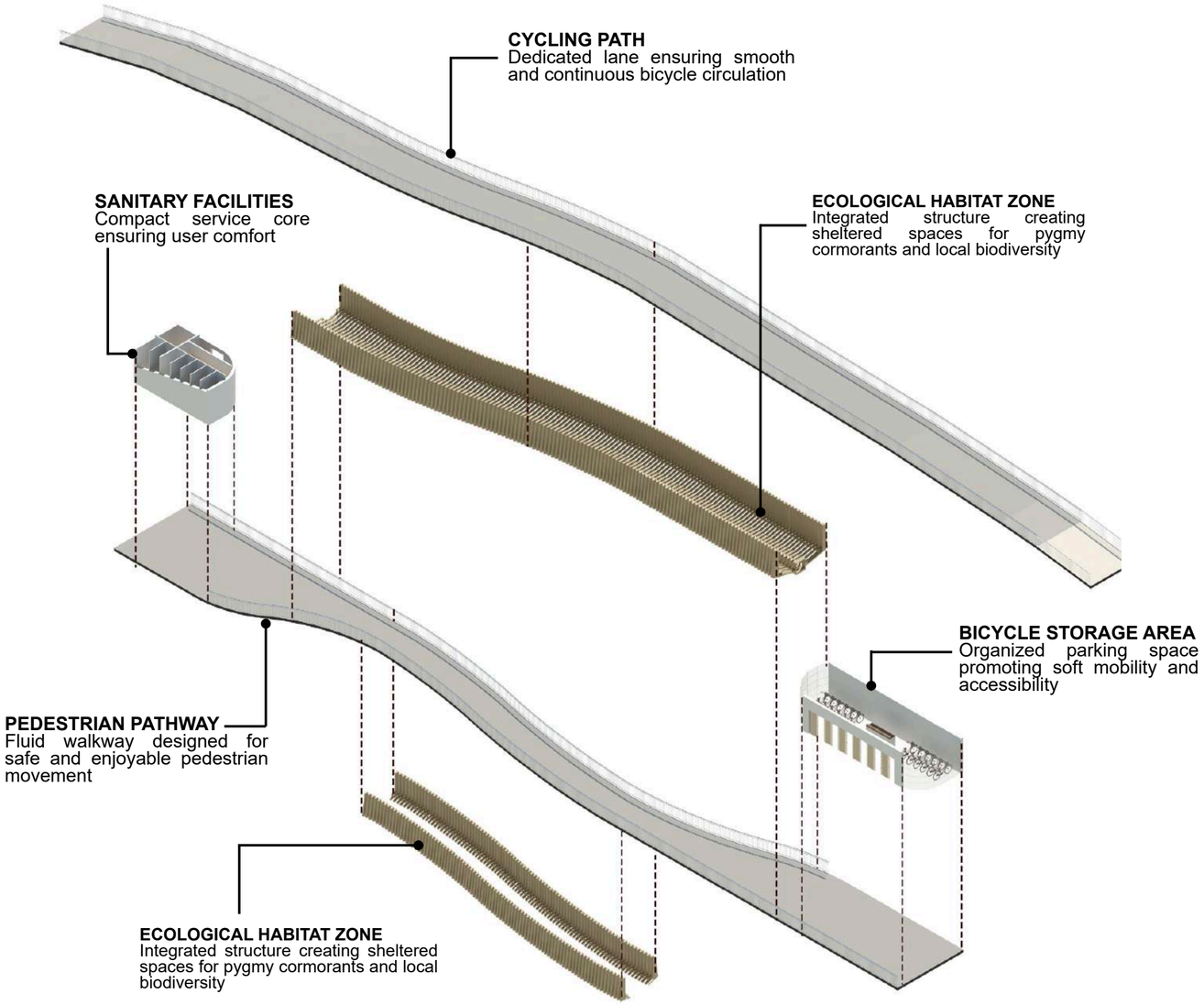
5 **OPENING BRIDGE**

Allows boats to pass while connecting the riverbanks



THE BRIDGE

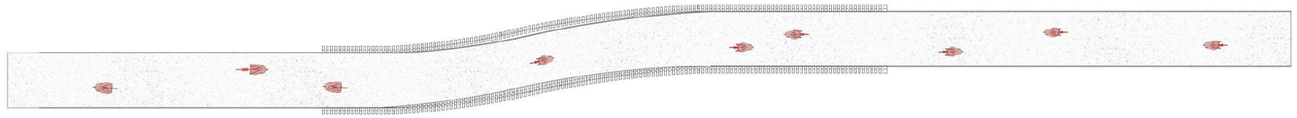
THE LIVING LINK



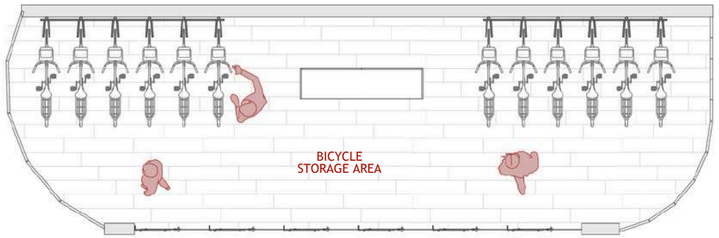
THE BRIDGE

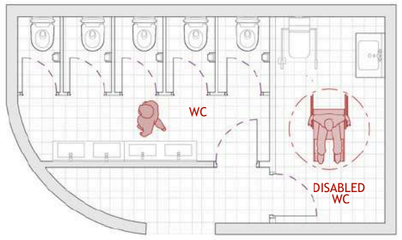
THE LIVING LINK

CYCLING PATH
-2nd floor-



PEDESTRIAN PATHWAY
-1st floor-





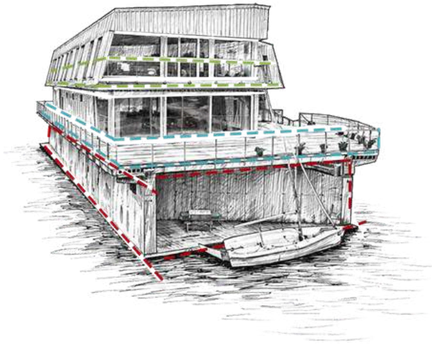

EVOKE

RENOVATION

SAVA THREAD

REVEALING THE YACHT CONCEPT

RENOVATION STRATEGY



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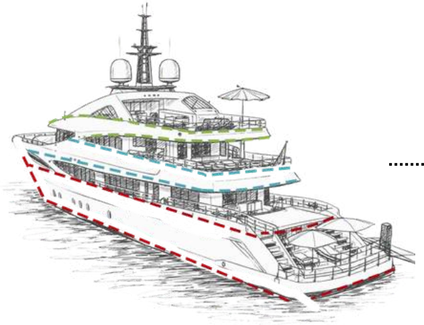
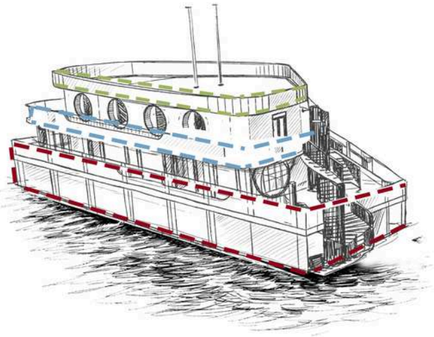




EXISTING BUILDING

The existing building already evokes the shape of a yacht, and the project preserves this form to maintain the identity and memory of the yachting club.

YACHT INSPIRATION

The yacht serves as the main design reference, with its stacked decks inspiring stepped levels and terraces that organize the spaces.

RENOVATION PROJECT

The renovation reinterprets the building as an architectural yacht through stepped volumes inspired by yacht decks, strengthening its maritime identity.

THE BRIDGE

DEMOLITION AND NEW CONSTRUCTION

TO BE DEMOLISHED

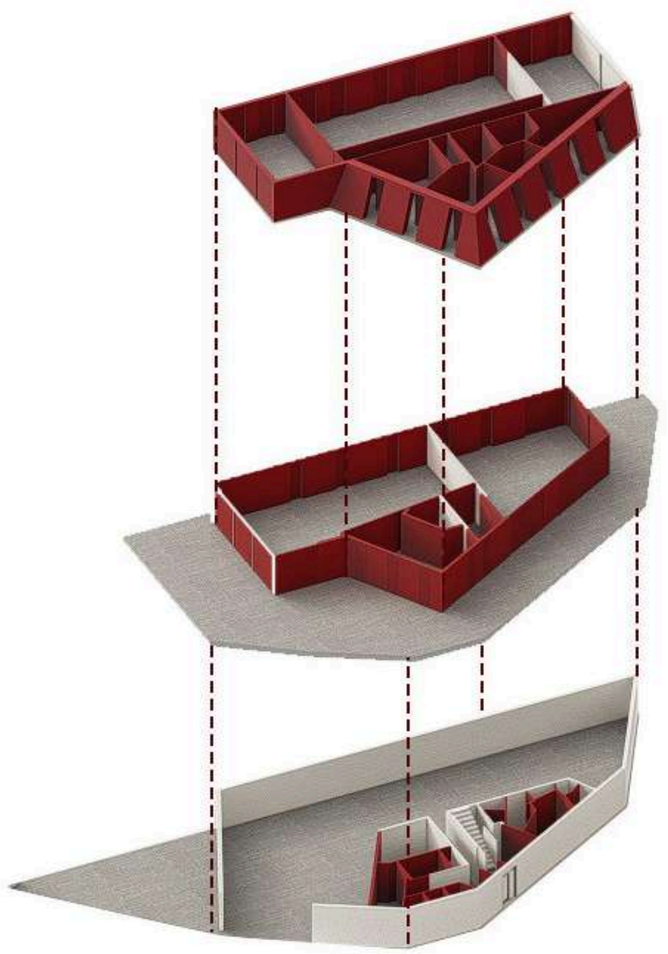
Our approach preserves walls aligned with the new vision, while reorganizing the interior—previously marked by disorder ,to restore clarity and coherence. Structural elements such as columns and staircases were maintained.

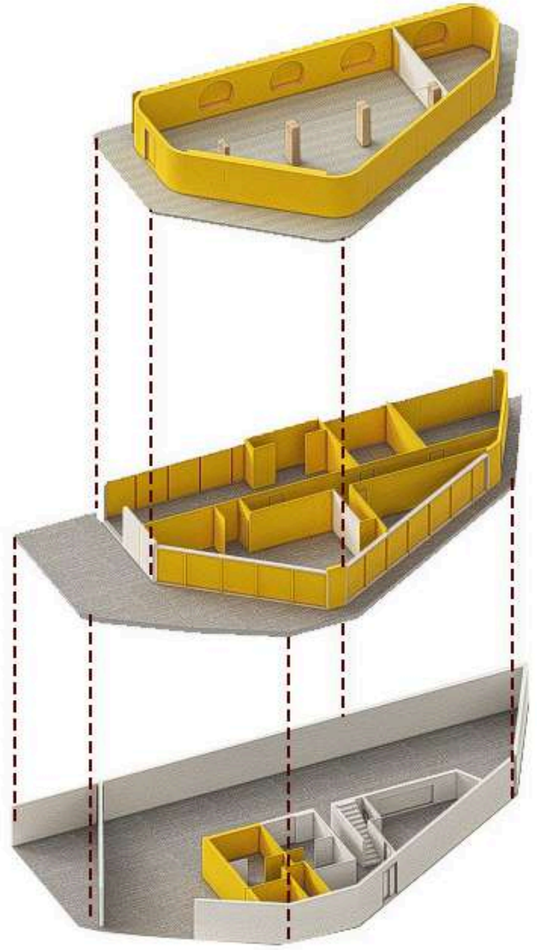
NEWLY BUILT

We aimed to harmonize the interior through a clear and coherent spatial division, improving both functionality and readability of the spaces. On the exterior, the treatment of the walls reflects and gives form to our main concept, inspired by a yacht, translating its fluidity and elegance into the architectural language.

TO BE PRESERVED

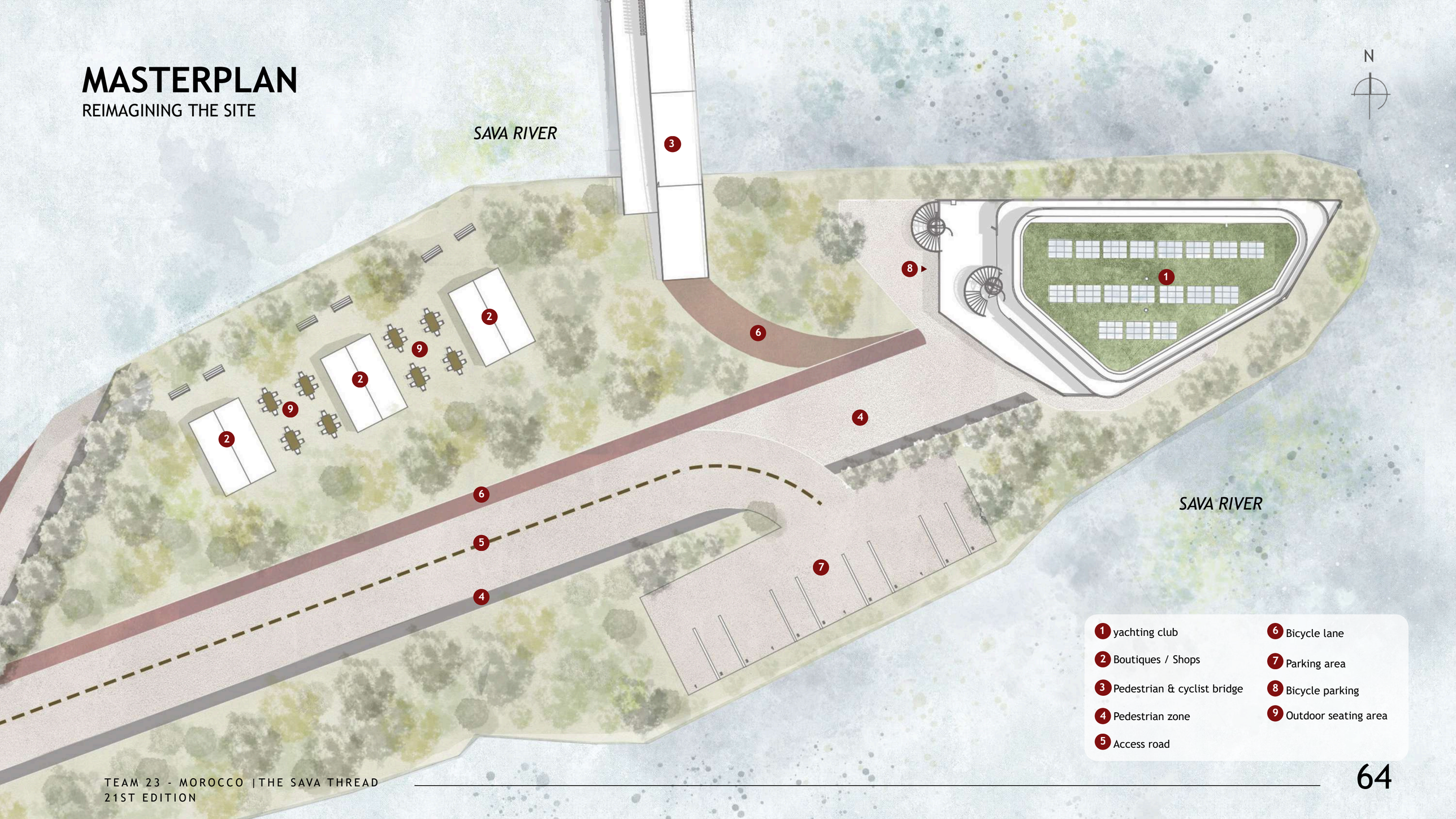
The rehabilitation followed a thoughtful approach, preserving all structural elements as well as the building's distinctive architectural features.





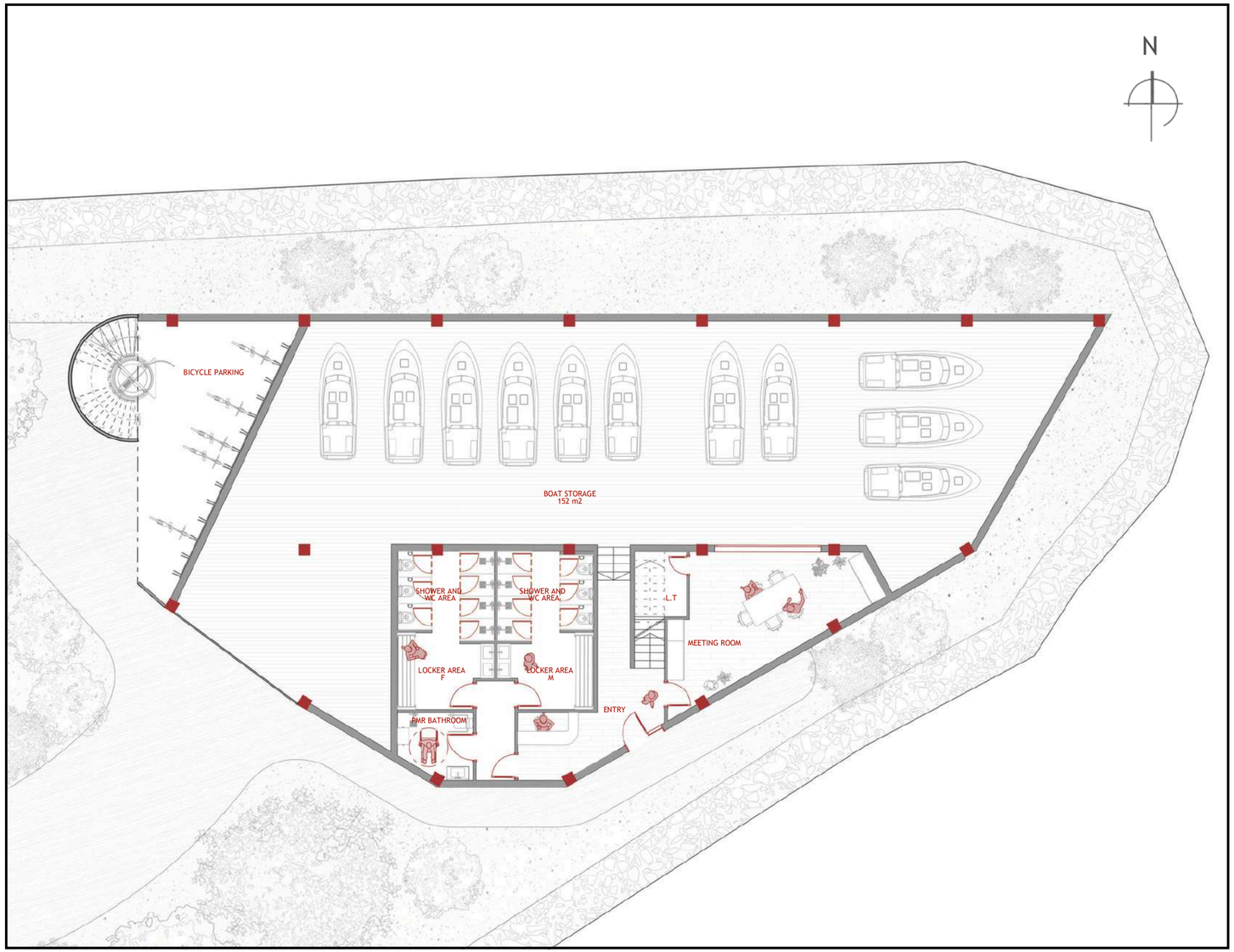
MASTERPLAN

REIMAGINING THE SITE



YACHTING CLUB FLOORPLANS

ONE BUILDING, MULTIPLE SHARED FUNCTIONS



YACHTING CLUB FLOORPLANS

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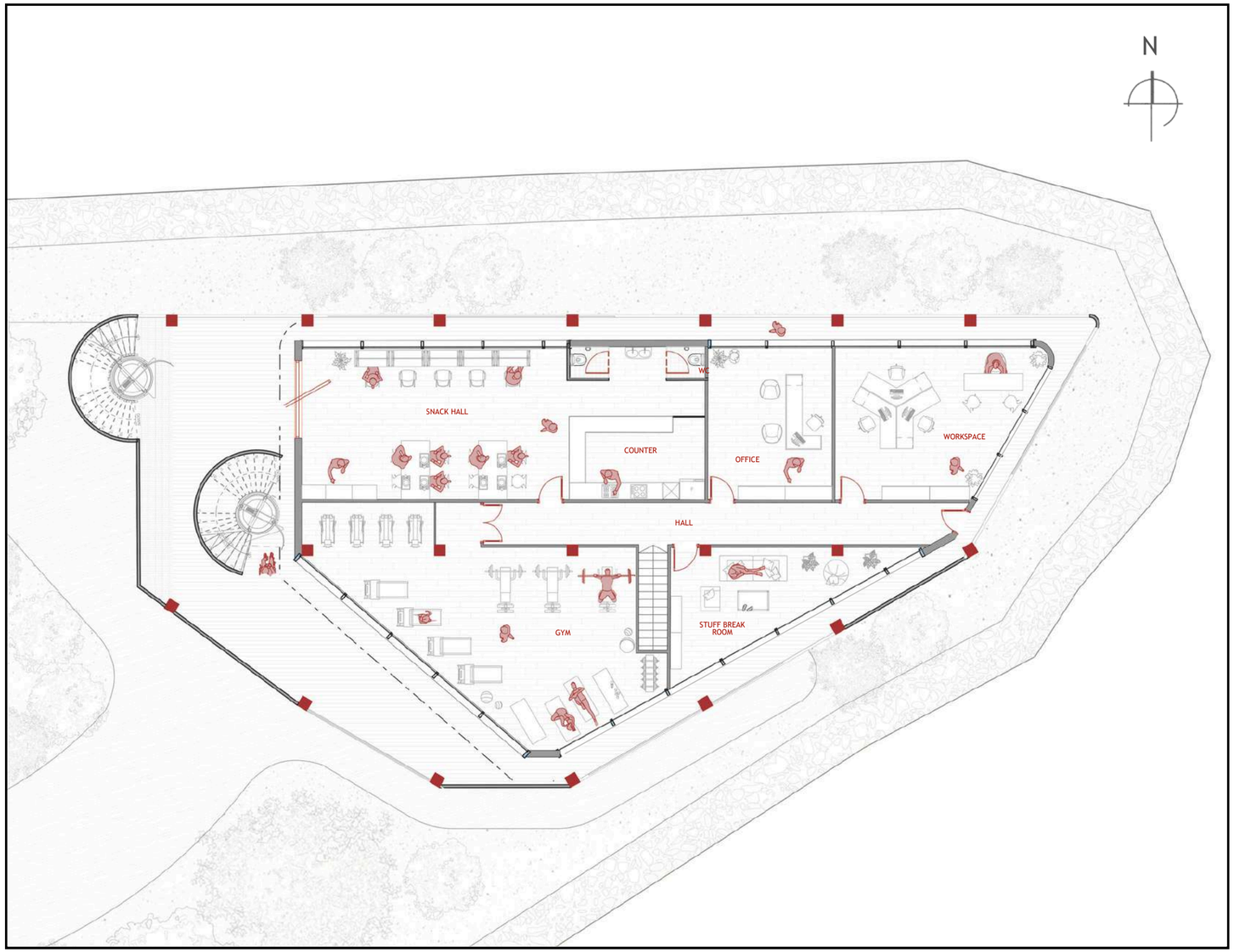

YACHTING CLUB FLOORPLANS

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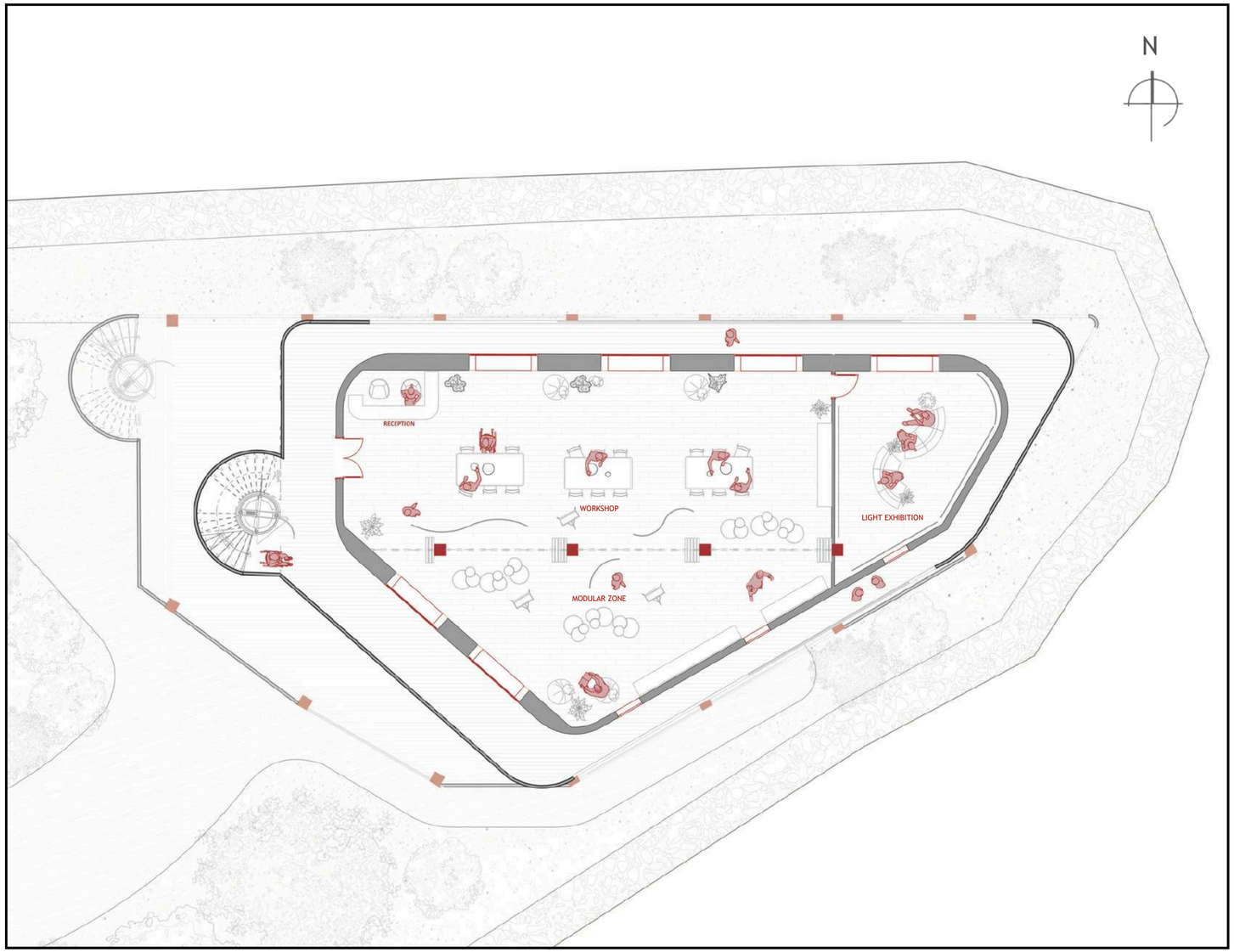
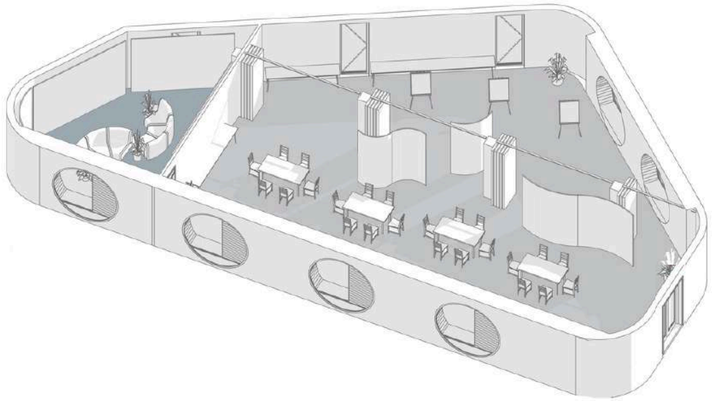


LONG-TERM ADAPTABILITY

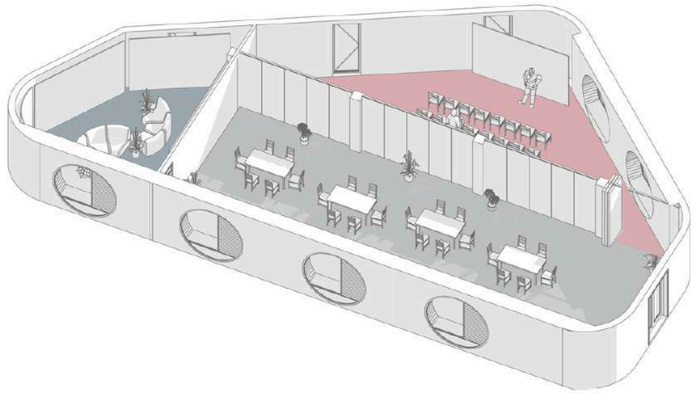
WHERE WALLS MOVE AND FUNCTIONS TRANSFORM

In a strategy aimed at maximizing spatial efficiency, the project incorporates a flexible, modular space through the use of movable partitions. These elements can open and close as needed, allowing the space to be easily reconfigured for different functions. This adaptability enhances the use of every square meter while creating a dynamic and evolving spatial experience for users.



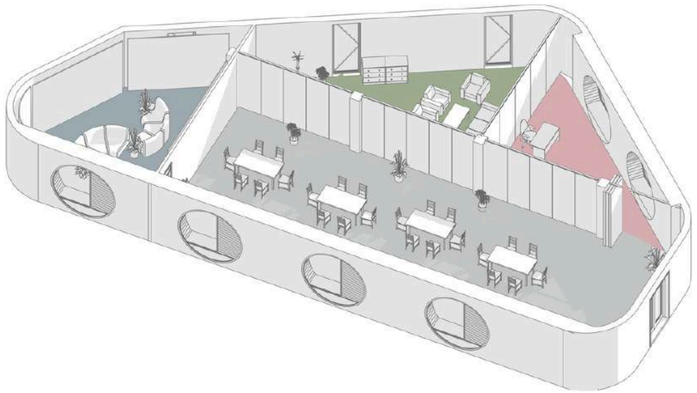
OPEN CREATIVE FIELD

Fully open configuration transforming the space into a flexible workshop and exhibition area, including a dedicated lighting exhibition room.



RECONFIGURABLE LEARNING SPACE

The space is partially transformed through movable partitions, creating an **additional room** suitable for classes, meetings, or collaborative activities.



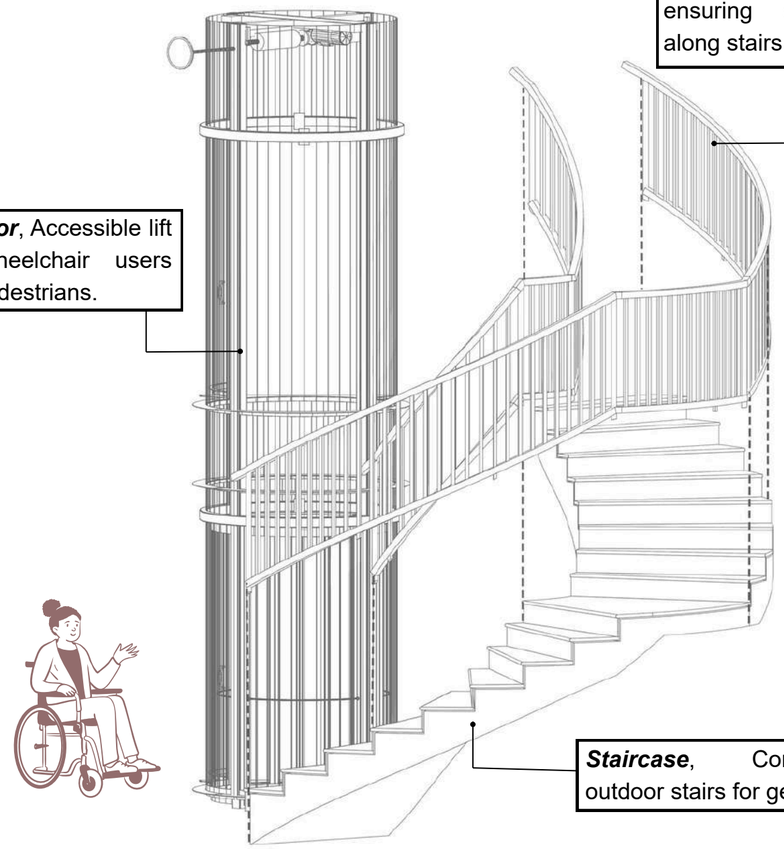
MAXIMUM SPATIAL OPTIMIZATION

Full reconfiguration of the space, generating **two additional rooms** to accommodate multiple functions and increase programmatic capacity.

MOVEMENT THROUGH THE SITE

OUTDOOR VERTICAL CIRCULATION

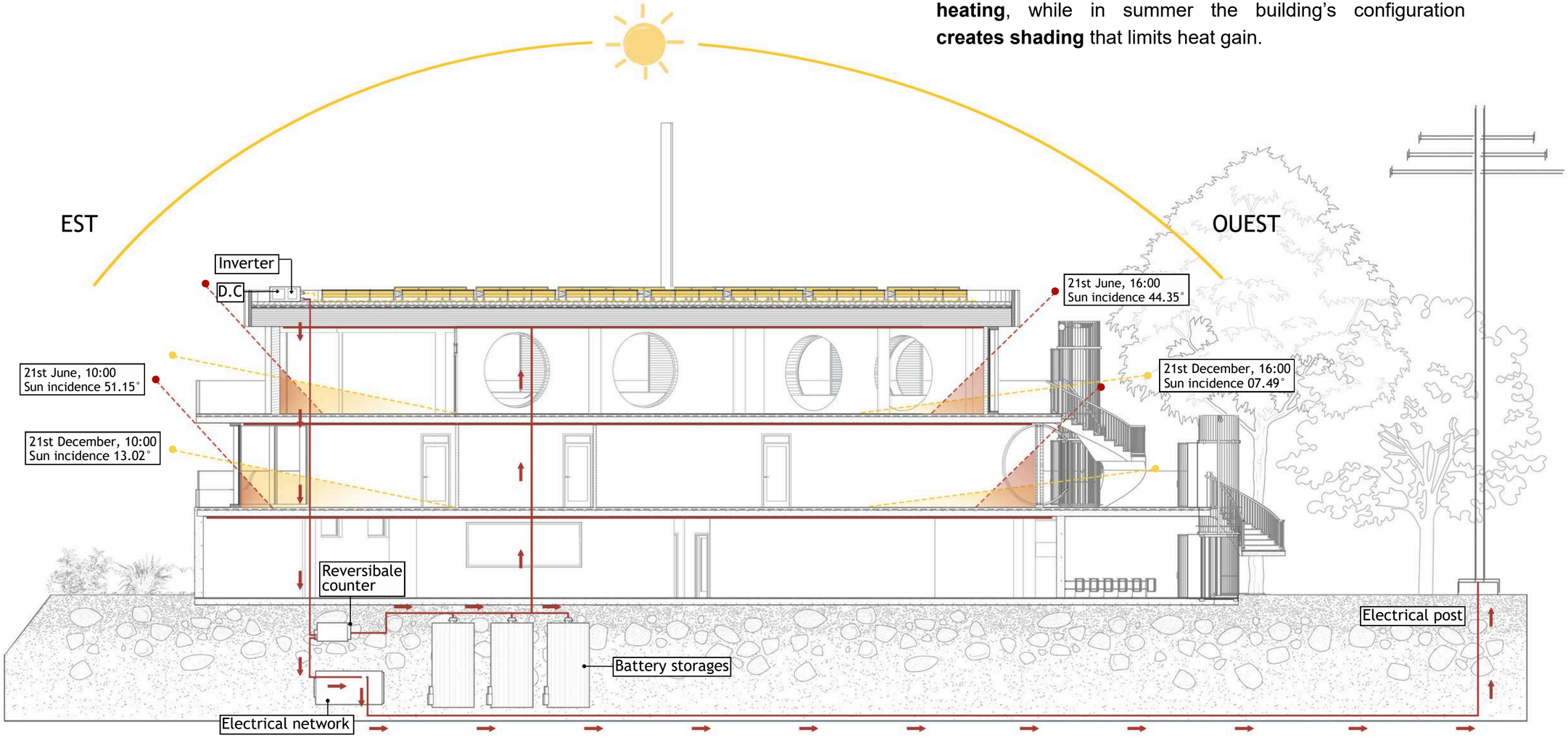
We added an outdoor elevator and stairs with safety guardrails, making the **renovated building fully accessible** to both pedestrians and wheelchair users.



SUSTAINABILITY STRATEGY

PHOTOVOLTAIC AND INTERIOR LIGHT

The **EST-OUEST orientation** and openings provide optimal daylight. In winter, they **capture solar** energy for passive **heating**, while in summer the building's configuration **creates shading** that limits heat gain.

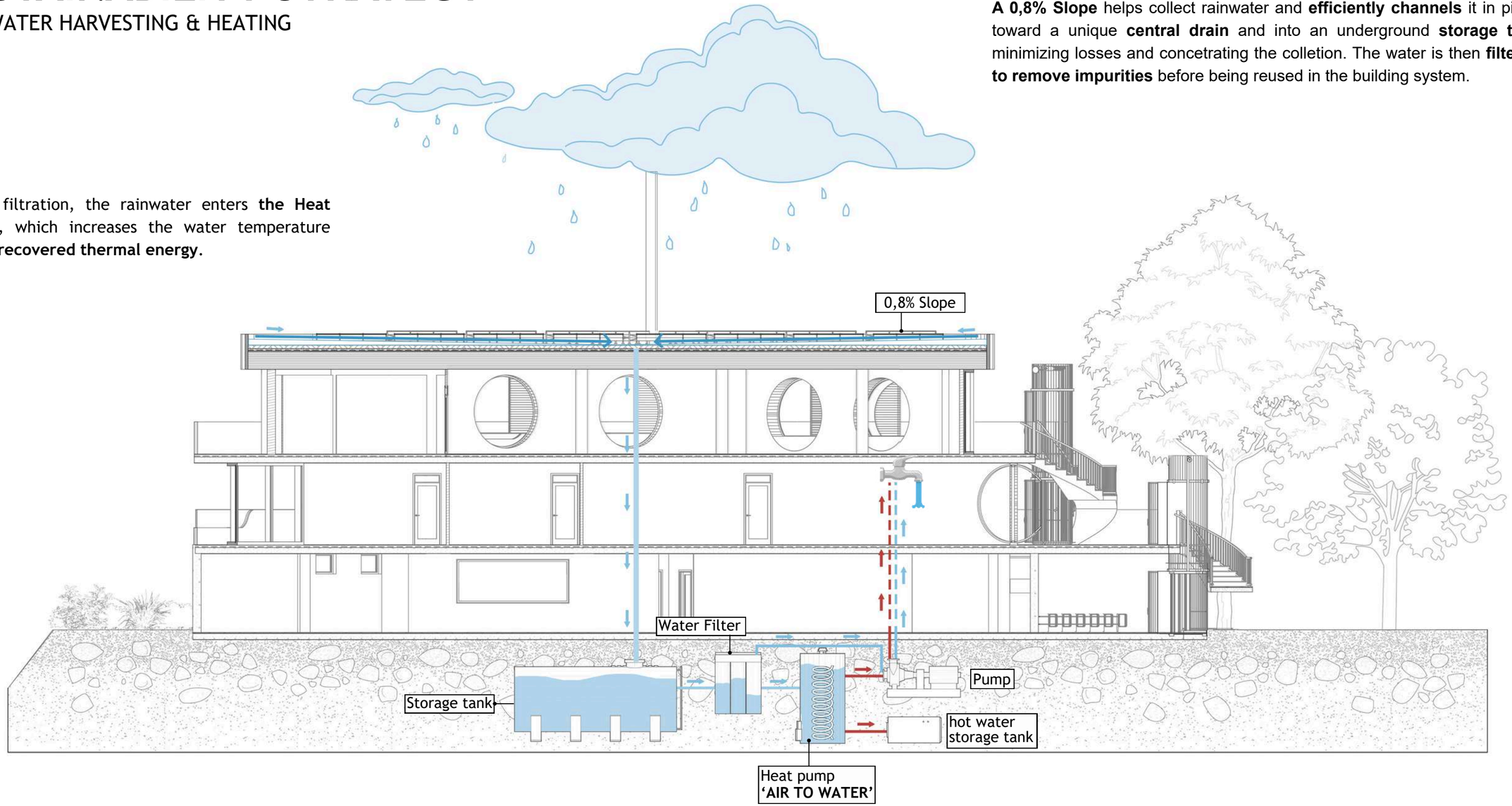


SUSTAINABILITY STRATEGY

RAINWATER HARVESTING & HEATING

A 0,8% Slope helps collect rainwater and **efficiently channels** it in pipes toward a unique **central drain** and into an underground **storage tank** minimizing losses and concetrating the colletion. The water is then **filtered to remove impurities** before being reused in the building system.

After filtration, the rainwater enters **the Heat pump**, which increases the water temperature using **recovered thermal energy**.

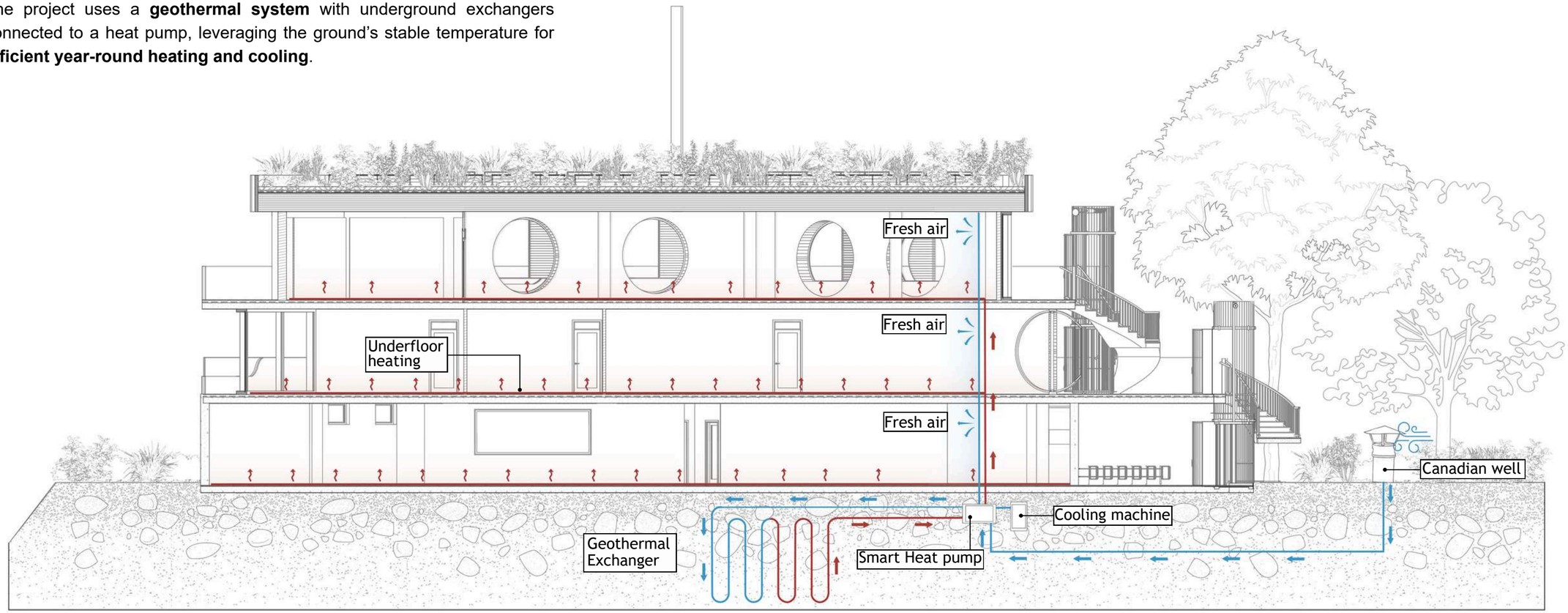


SUSTAINABILITY STRATEGY

GEOTHERMAL HEATING/COOLING

Energy is distributed through **radiant floor** heating, ensuring consistent indoor comfort with **reduced energy consumption**.

The project uses a **geothermal system** with underground exchangers connected to a heat pump, leveraging the ground's stable temperature for **efficient year-round heating and cooling**.



SUSTAINABILITY STRATEGY

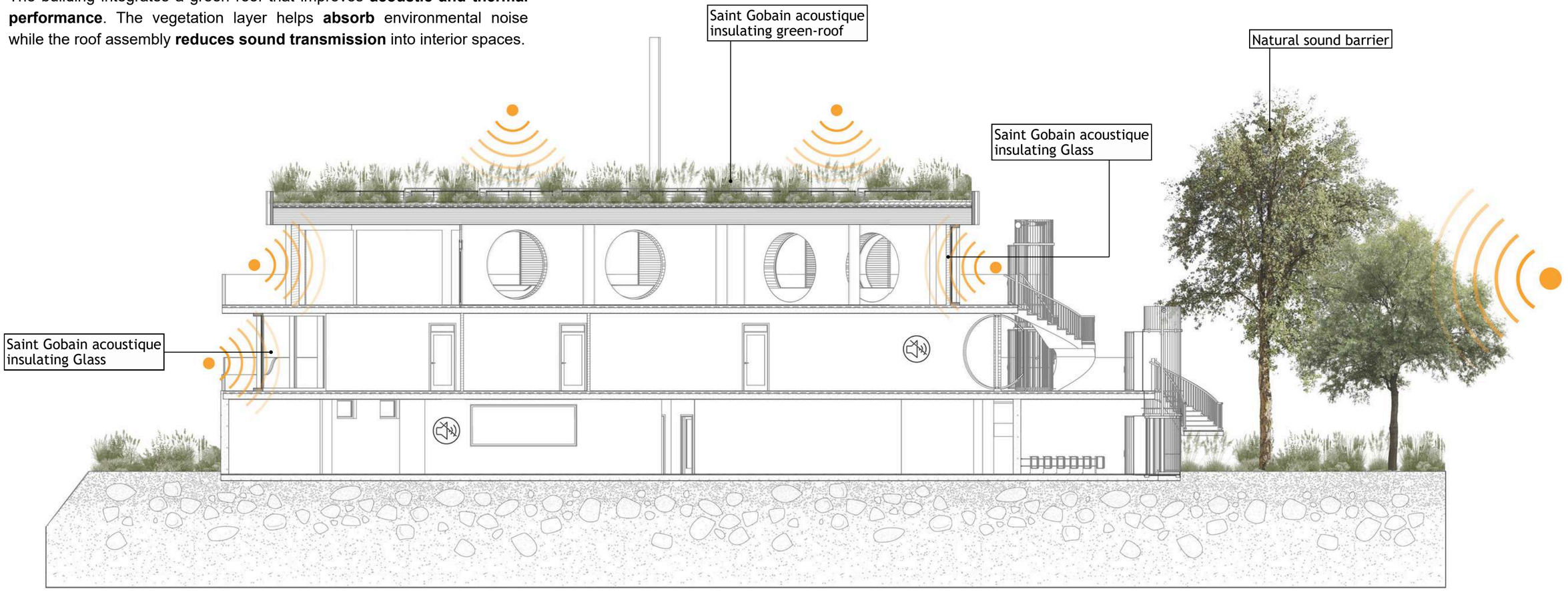
SOUND-SHIELDED ENVIRONMENT

Trees next to the building act as a **natural buffer** against environmental noise. The vegetation **diffuses and absorbs sound** waves before they reach the façade, improving **outdoor comfort** and supporting a **calmer indoor** atmosphere.

SAINT-GOBAIN GLASS

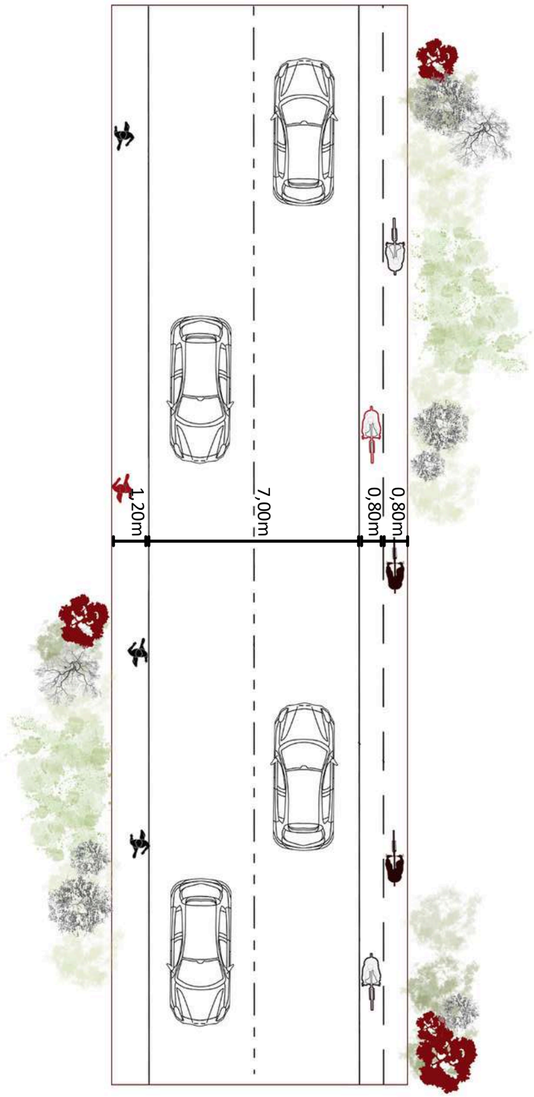
COOL-LITE XTREME 70-33
#4 / PLANITHERM XN #7

The building integrates a green roof that improves **acoustic and thermal performance**. The vegetation layer helps **absorb** environmental noise while the roof assembly **reduces sound transmission** into interior spaces.



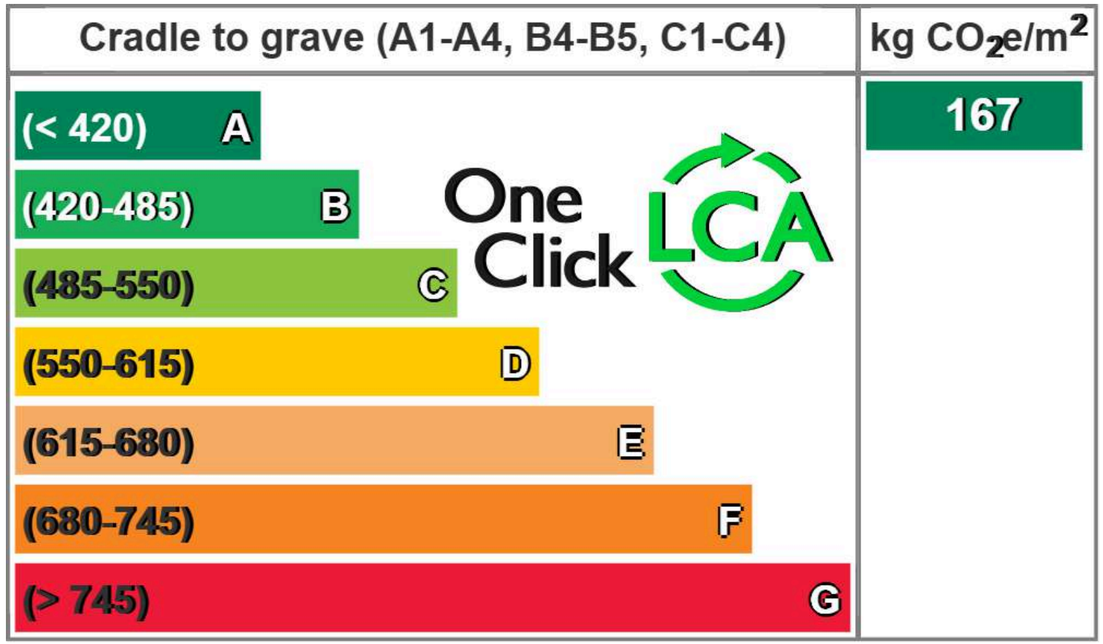
MOVEMENT THROUGH THE SITE

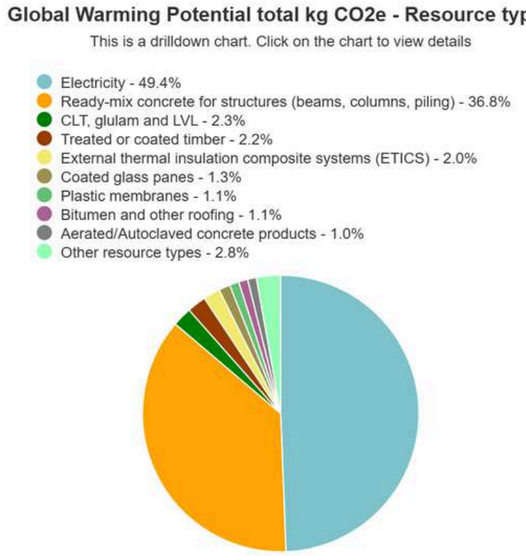
CIRCULATION DETAIL

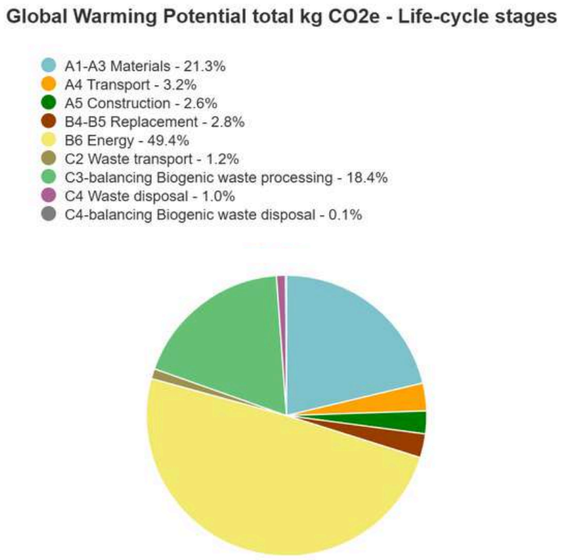


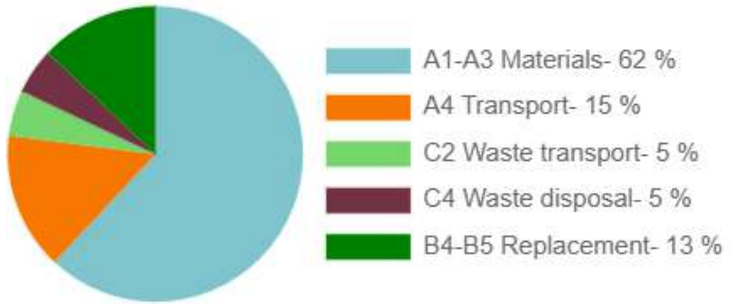
ENERGY EFFICIENCY CALCULATIONS

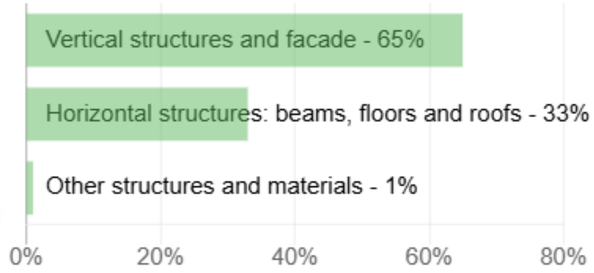
ON ONECLICK LCA

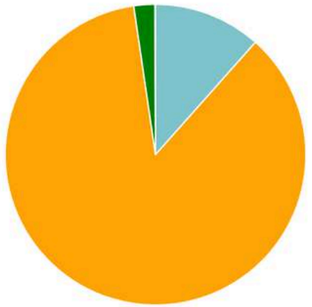


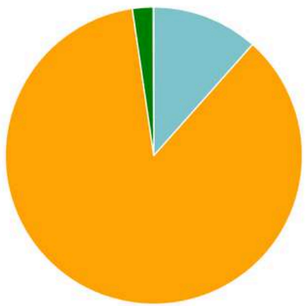












OUR TOUCH, SOFTLY EMBROIDERED INTO THE HEART OF BELGRADE.

THANKS, HVALA, شكراً.