ARCHITECTURE STUDENT CONTEST

20th INTERNATIONAL EDITION, NORD ISÈRE 2025

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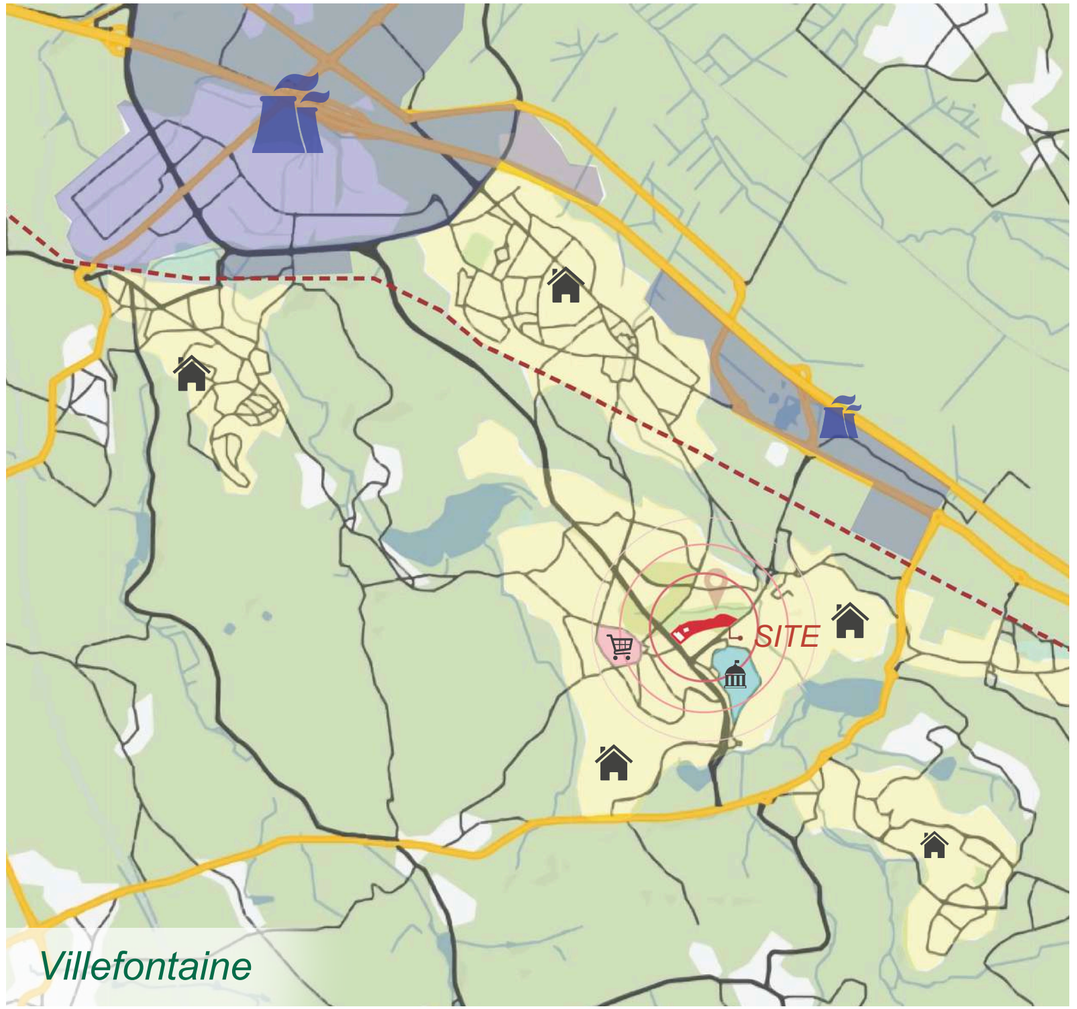
Timeless Interplay: Merging Old and New through Enveloping Spaces

SAINT-GOBAIN

ARCHITECTURE STUDENT CONTEST

Can architecture stitch urban voids back into the life of the city?

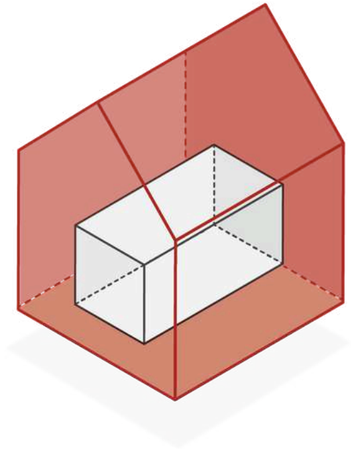
Through a contextual understanding of Chimilin’s rural identity and agricultural landscape, architecture can repurpose the existing school structure into a multifunctional community hub



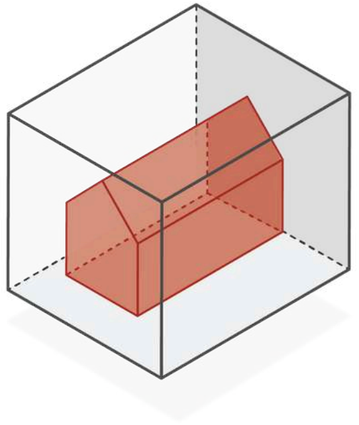
Through the dynamics of Villefontaine’s modern industrial fabric, architecture can transform the empty plot into a catalyst for community engagement—supporting the research and creative work of Les Grands Ateliers.

Timeless architecture through enveloping spaces

Chimilin



Villefontaine

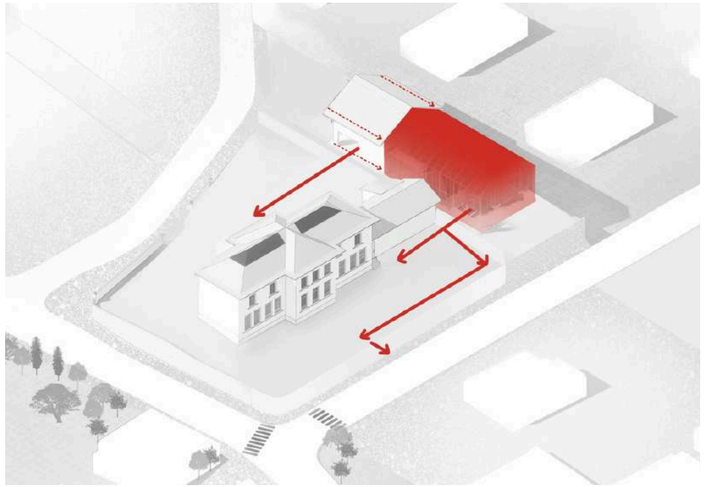


We intend to create a sequence of spaces that blur the boundaries between outdoor, semi-indoor, and indoor, creating a harmonious continuum rather than a collection of isolated rooms. This spatial layering serves as an architectural tool to shape microclimates, modulate light, air, and temperature, and create comfortable, flexible spaces usable year-round.

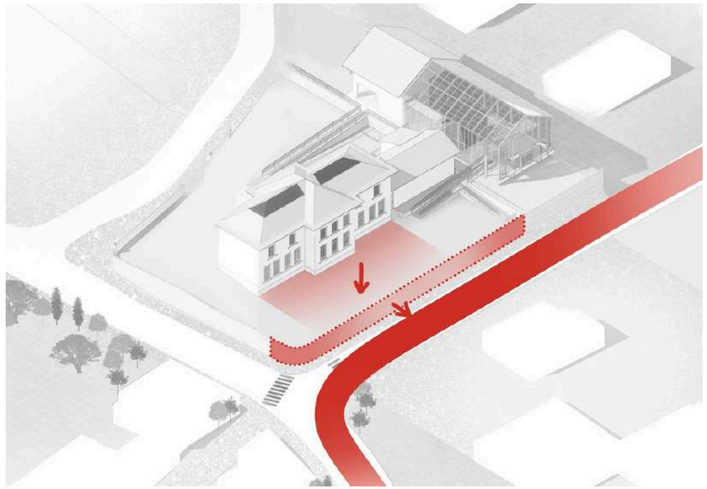

Chimilin
RTE. Alphonse Belmont
Créche

Connecting New Interventions to and Around the Site

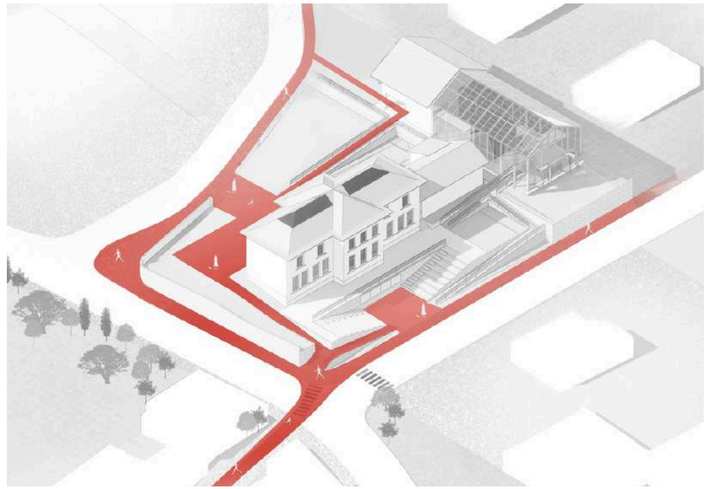
1. Placing new modular square spaces in the old building



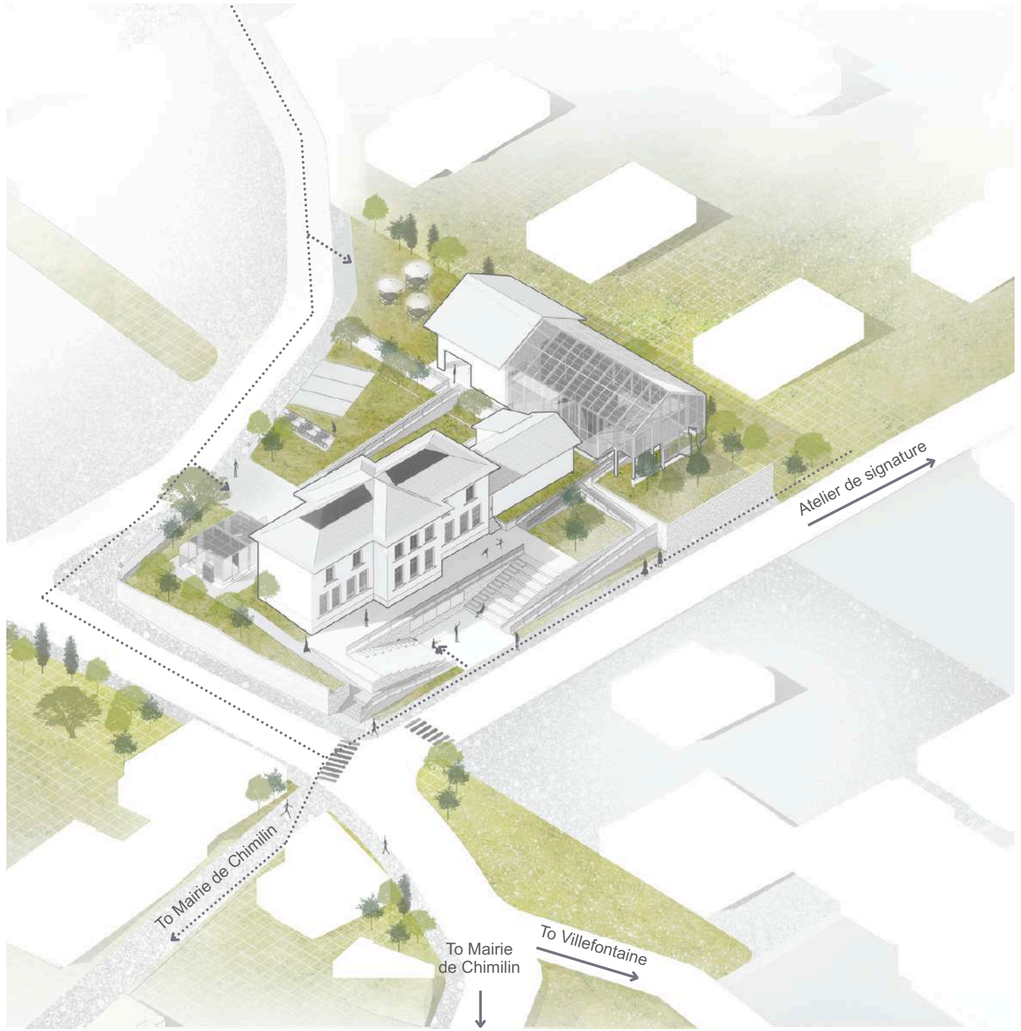
2. Extend old building form with new materials



3. create an amphitheater by pulling the building axis to the main road



4. Connecting the remaining site circulation with pedestrian road



5. Chimilin Building Renovation

Site Plan & Section

Legend:

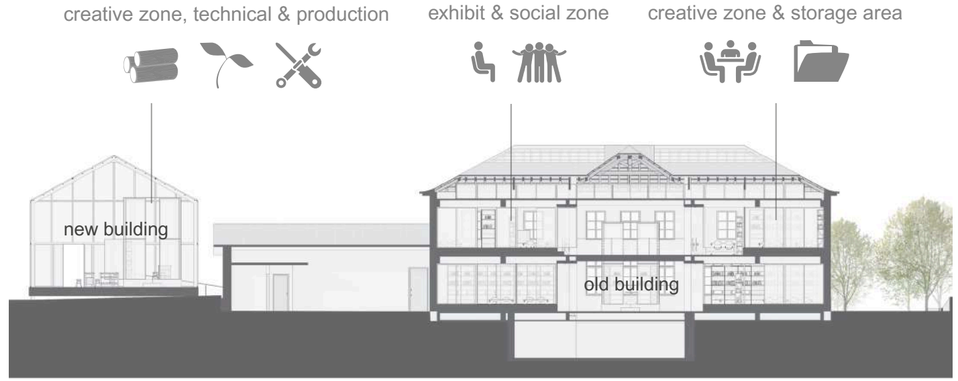
1. Flexible modular spaces for 27 associations, meeting, playrooms, storage area
2. New extended building for modular spaces
3. Cafeteria & F&B zone
4. Amphitheater
5. Multipurpose Area
6. Outdoor sitting
7. Pedestrian Pathway
8. Mairie de Chimilin
9. Église de Chimilin

Pedestrian access

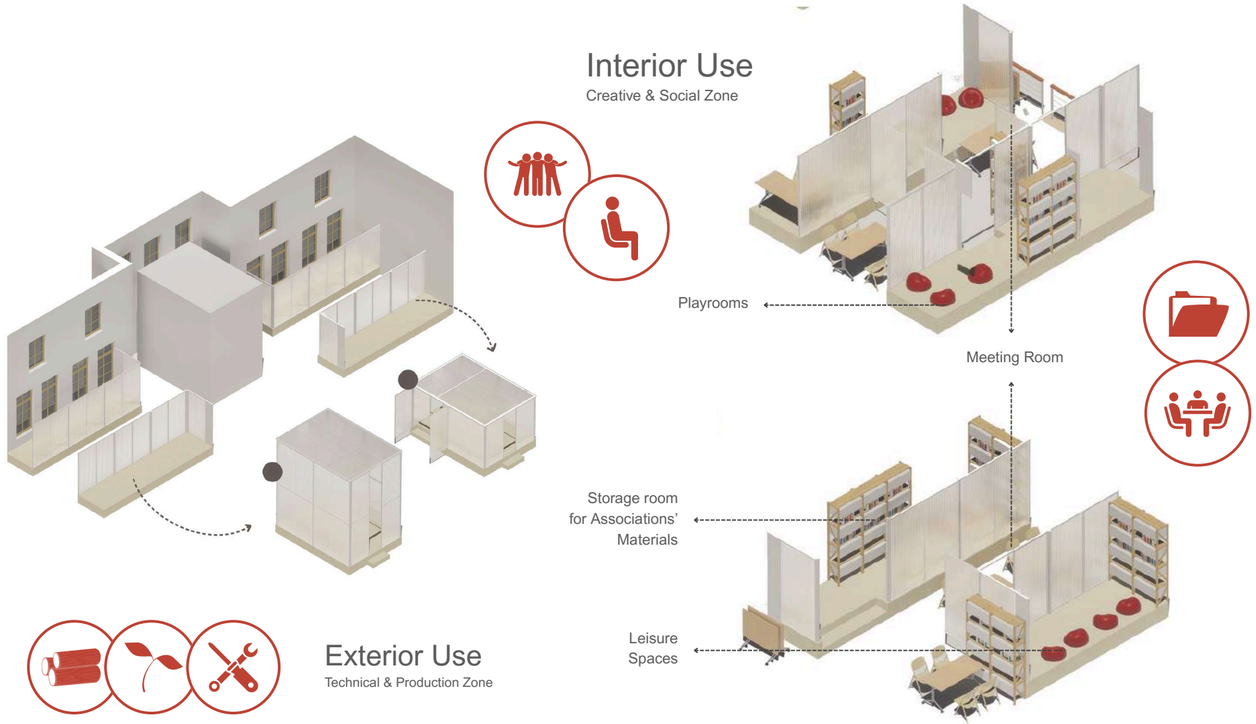
Bicycle Parking

Car Parking

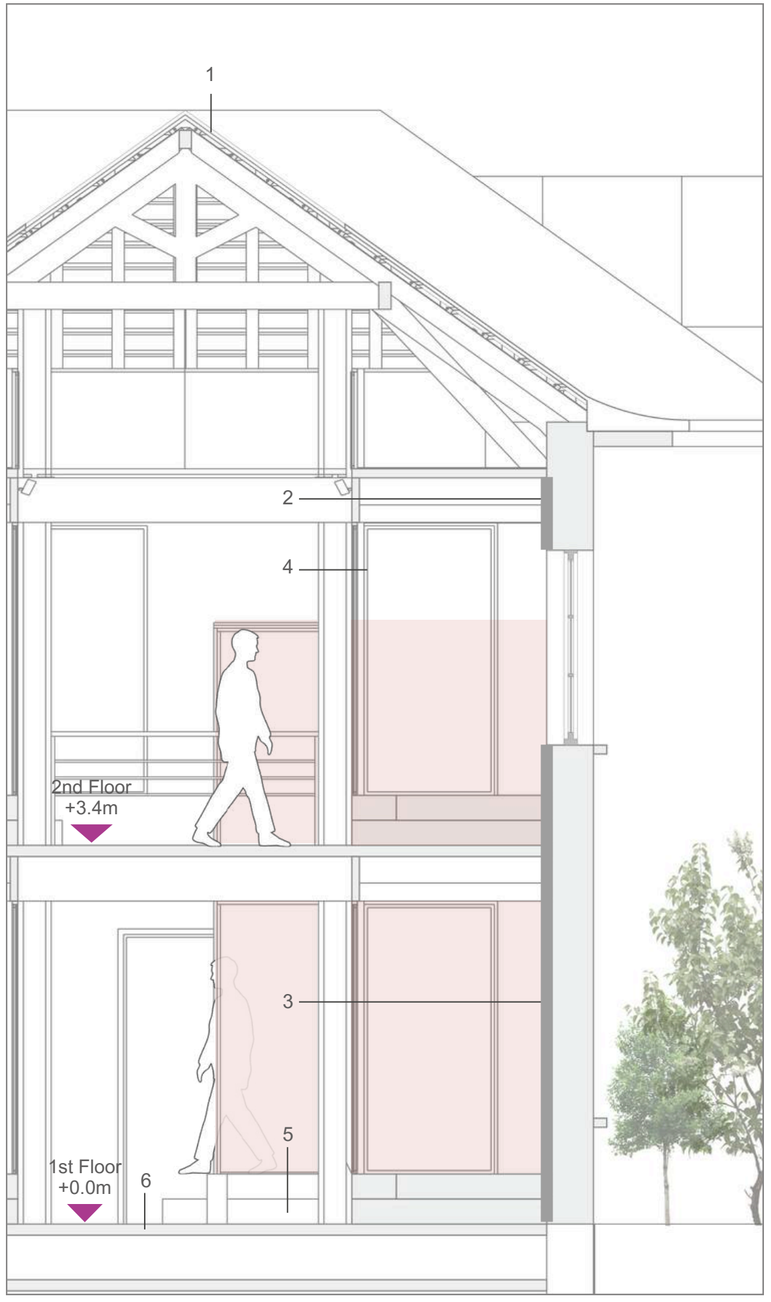
A — Placing modular spaces in pedestrian corridors from Mairie de Chimilin to encourage meaningful interactions between local associations and the community, supporting economic growth and social connections while ensuring sustainability through adaptable and eco-friendly design.



Flexible Modular Spaces



Modular structure that redefines the interior, activating the space for community engagement while maintaining the historical integrity of the exterior.



The interplay between the newly inserted volume and the existing building enhances the sequential experience of old and new. The exhibition invites the local community to actively participate in fostering care for their city.

1 glassolutions SAINT-GOBAIN

2 ISOVER SAINT-GOBAIN

3 pisé rammed earth + ISOVER SAINT-GOBAIN

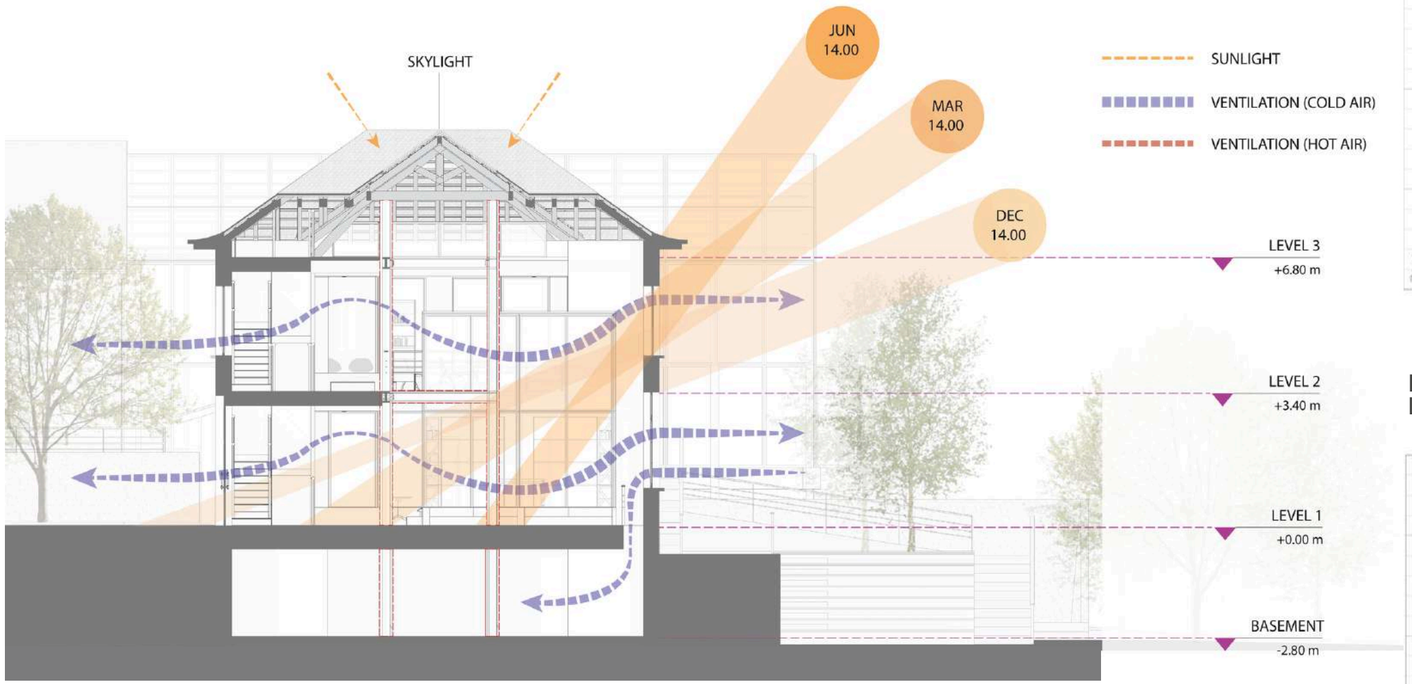
4 ecophon SAINT-GOBAIN

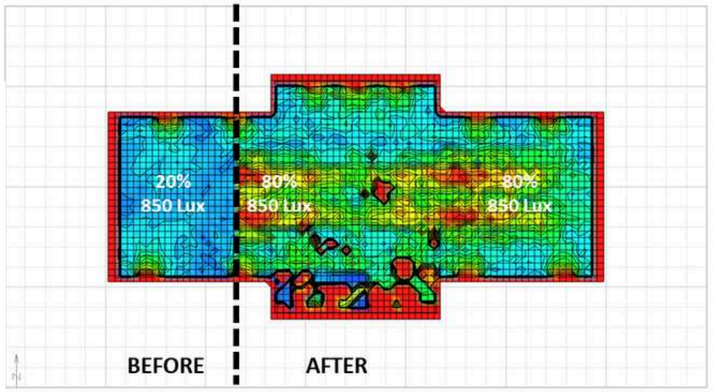
5 PRÎMA FIBRE CEMENT BUILDING SOLUTIONS

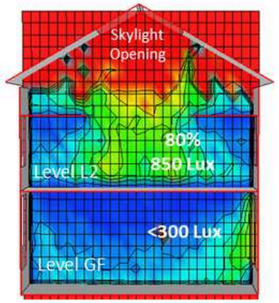
6 weber SAINT-GOBAIN

Bioclimatic Design

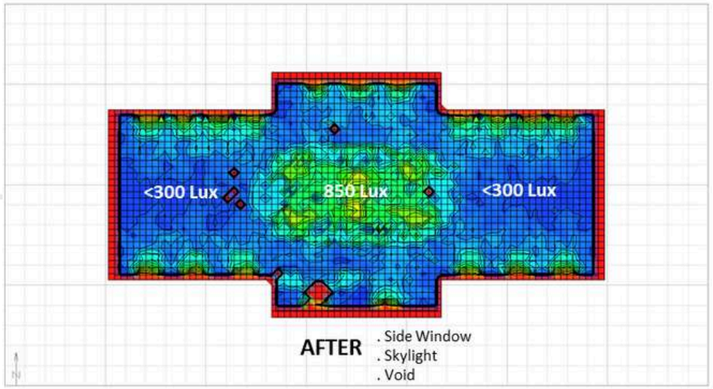
80% daylight coverage (reach 850 lux) - reducing energy use and enhance comfort.

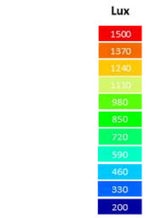






Daylight Analysis
Level 1st Floor





Daylight Analysis
Daylighting Levels
Value Range: 200-1500 lux

Level Ground Floor

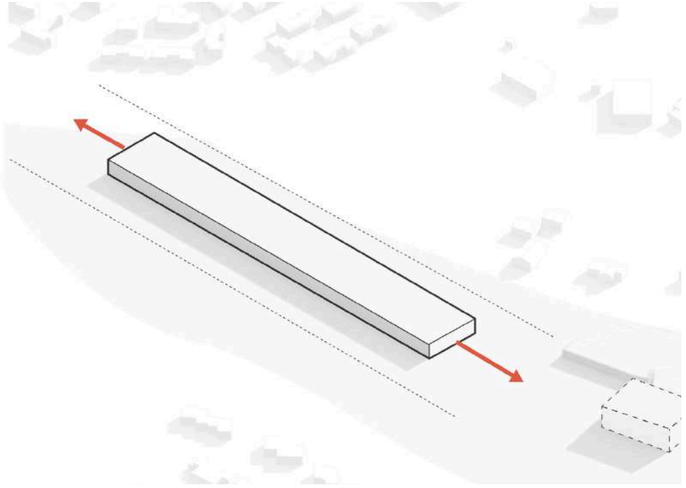
A key challenge in retrofitting older buildings is improving daylight to enhance spatial function and eliminate dark, unused zones. We propose skylights and floor voids to increase natural light, with daylight analysis showing 80% of Level 2 and the ground-floor lobby reaching around 850 lux,

suitable for reading, working, and socializing. Activity zones are placed near windows to maximize light, reducing reliance on artificial lighting. This not only saves energy but also supports occupant well-being by enhancing comfort and circadian rhythm.

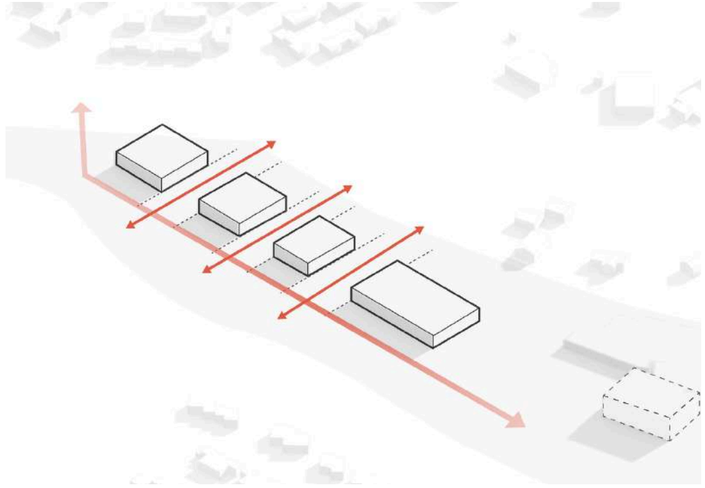

Villefontaine


Enveloping spaces that perform
like ecosystems - layered,
adaptive and independent
118-119
121

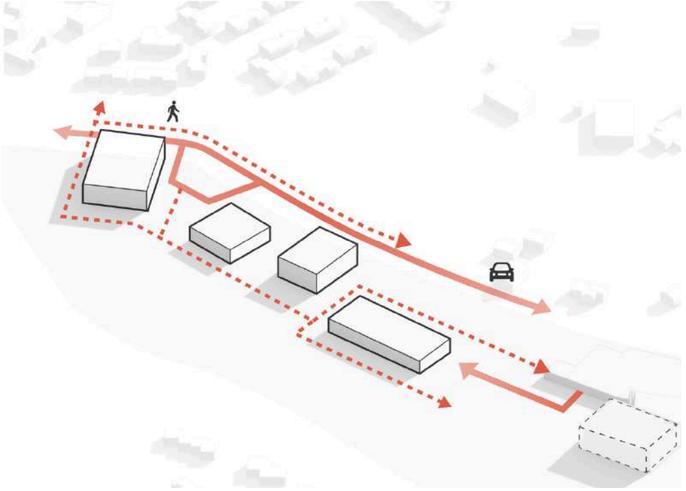
Enhancing Site Connectivity and Environmental Integration



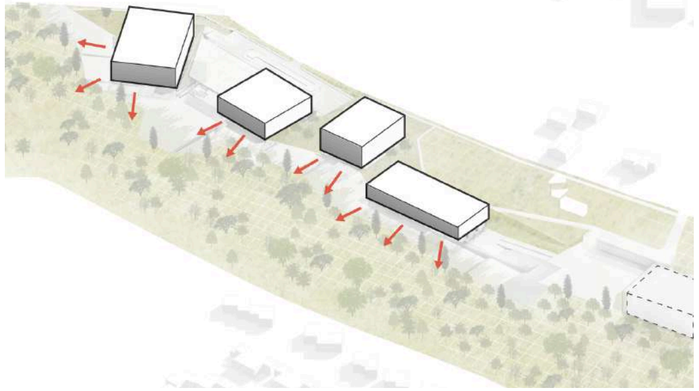
1. Recognizing and emphasizing the site's prominent linear axis.



2. Dividing into four distinct masses to enhance connectivity and site permeability while establishing a prominent back corridor.



3. Integrating existing pedestrian and vehicular access points while introducing new connections to strengthen ties with the surrounding community.



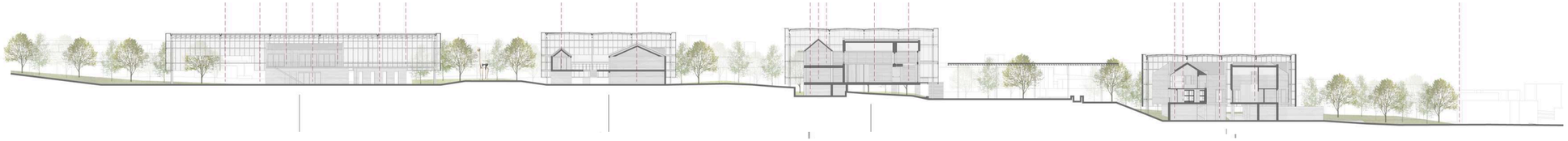
4. Incorporating a green corridor at the rear to enhance views of the existing forest and improve environmental integration.

5. New Construction Renovation

Legend

1. Drop off
2. Lobby
3. Residential
4. Main Corridor/ Prototype Village
5. Multi Purpose Hall
6. Office
7. Laboratory
8. Clinic
9. Minimarket
10. Astus
11. Boiler Room
12. Camping
13. Les Grands Ateliers
14. Dog Park
15. La Maison Des Copagnons
16. Loading Dock

Pedestrian access
Bicycle Parking
Artwork
Car Access



Laboratory
+7.50 m

Office
+7.50 m

Multipurpose Hall
+4.50 m

Residential
+0.00 m


Enveloping spaces that perform like ecosystems - layered, adaptive and independent

Building A - Residential

Ground Floor Plan

Legend

1. Reception
2. Co-working
3. Common Living Room
4. Laundry
5. Kitchen and Dining
6. Garden
7. Bike Storage

1 5 2 10 m

Summer

Building A - Residential

Ground Floor Plan

Legend

1. Reception
2. Co-working
3. Common Living Room
4. Laundry
5. Kitchen and Dining
6. Garden
7. Bike Storage

Building A - Residential

Ground Floor Plan

Legend

1. Reception
2. Co-working
3. Common Living Room
4. Laundry
5. Kitchen and Dining
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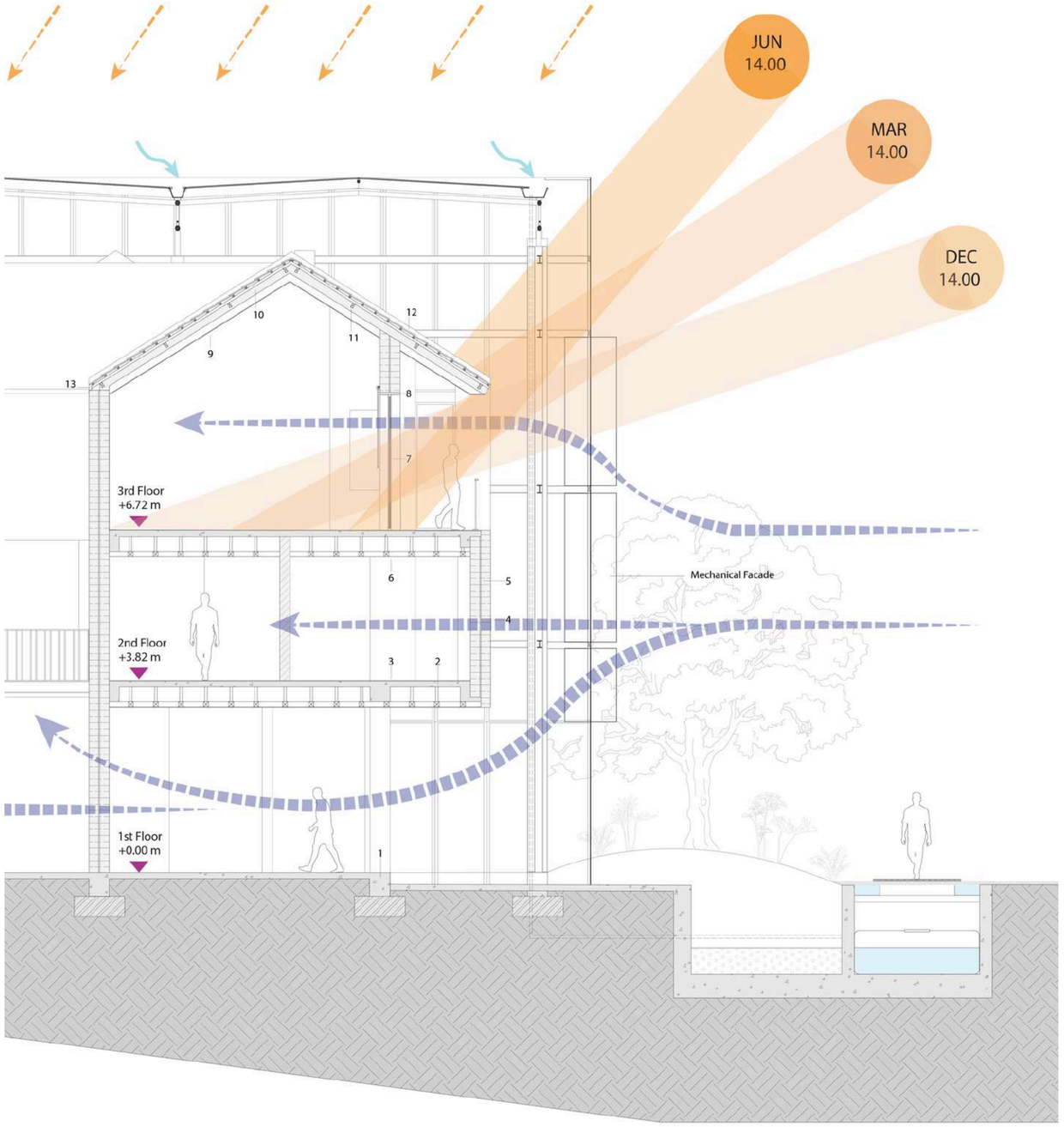
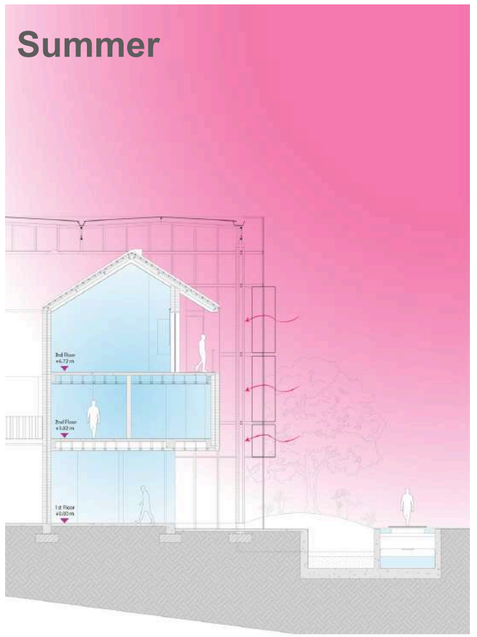
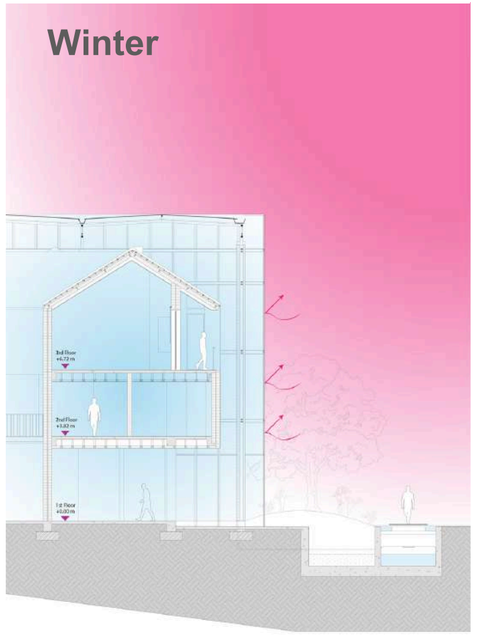
7. Bike Storage







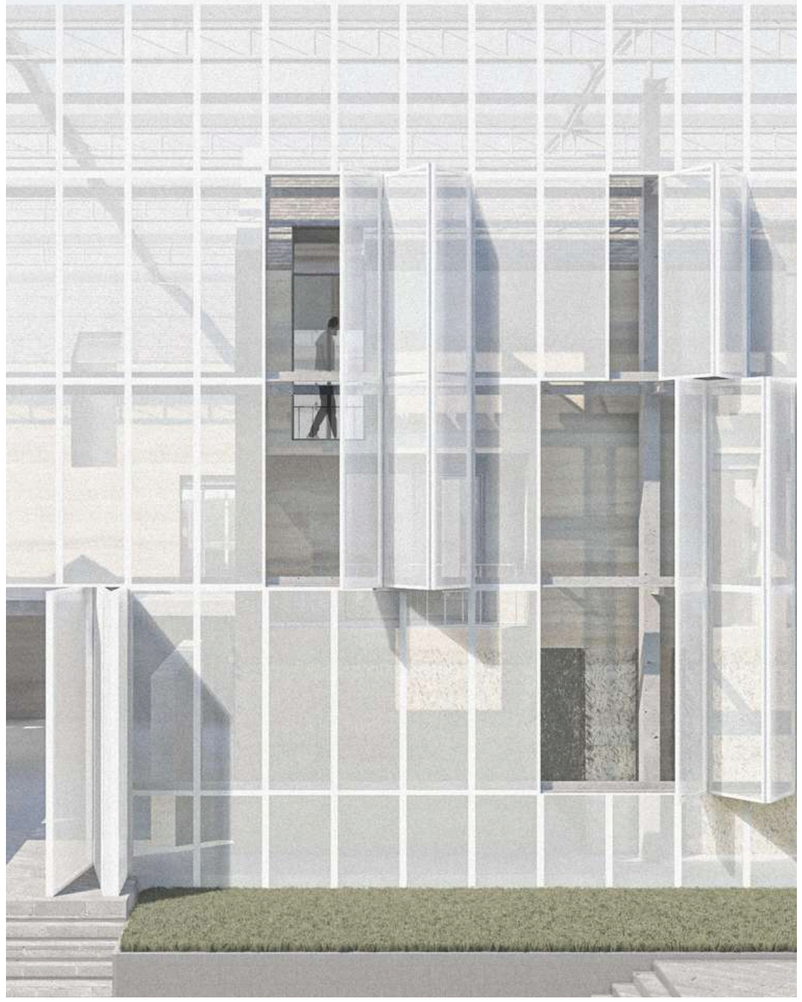
Microclimate

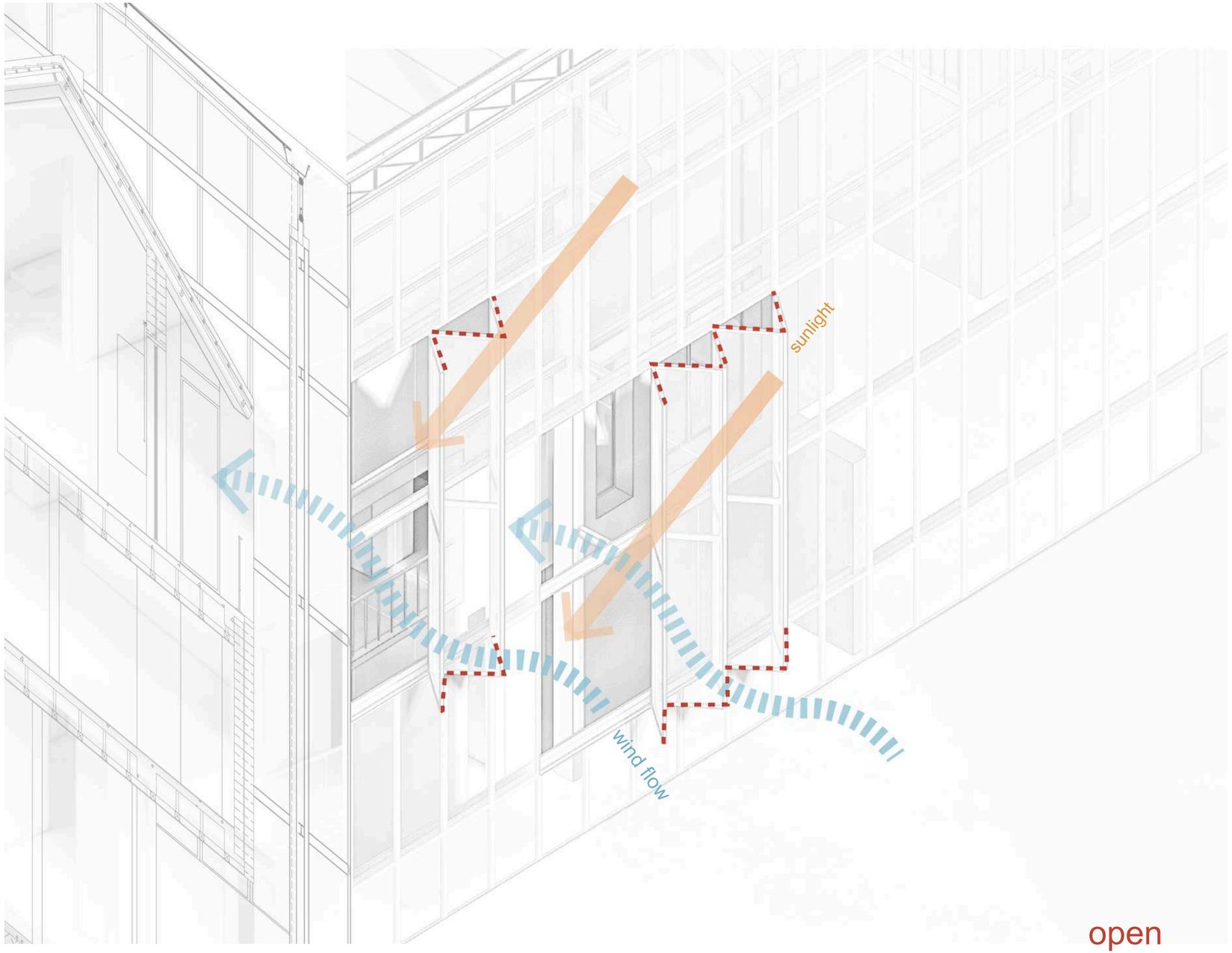
By enveloping spaces we try to generates localized microclimates that respond to diurnal and seasonal shifts, enabling year-round comfort and spatial adaptability. The open and close facade systems act as an environmental interface—modulating light, airflow, and temperature rather than fixed enclosures.

Winter Activity
Urban Farming

Summer Activity
Gathering towards sun and wind breeze

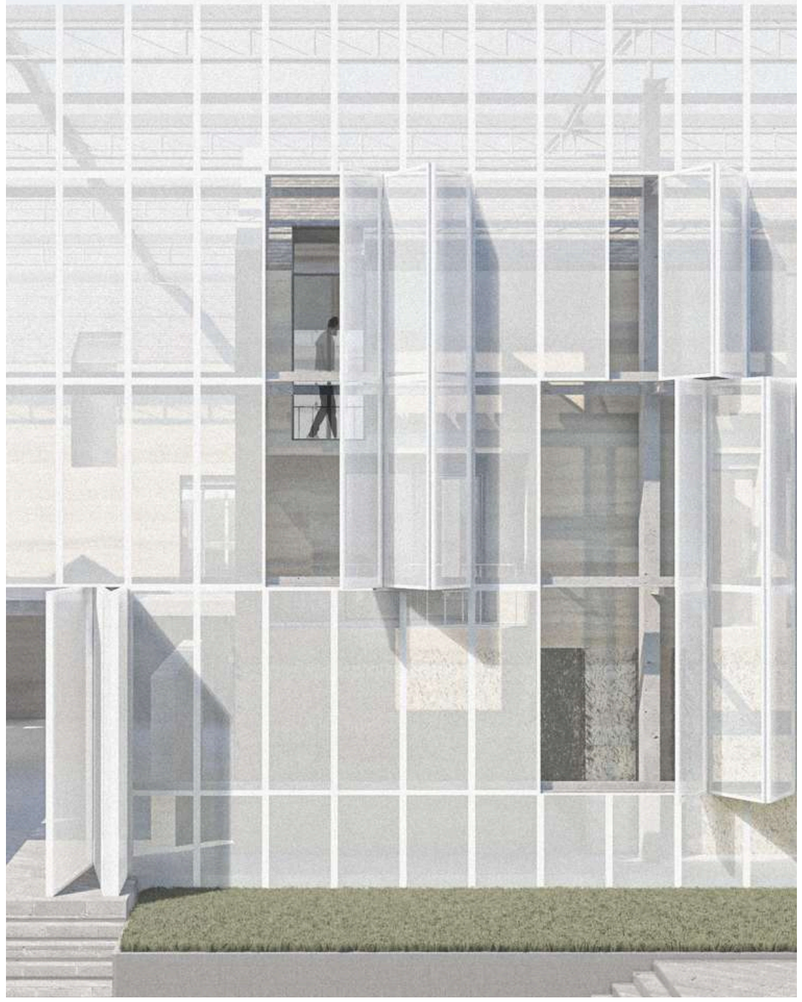
Facade

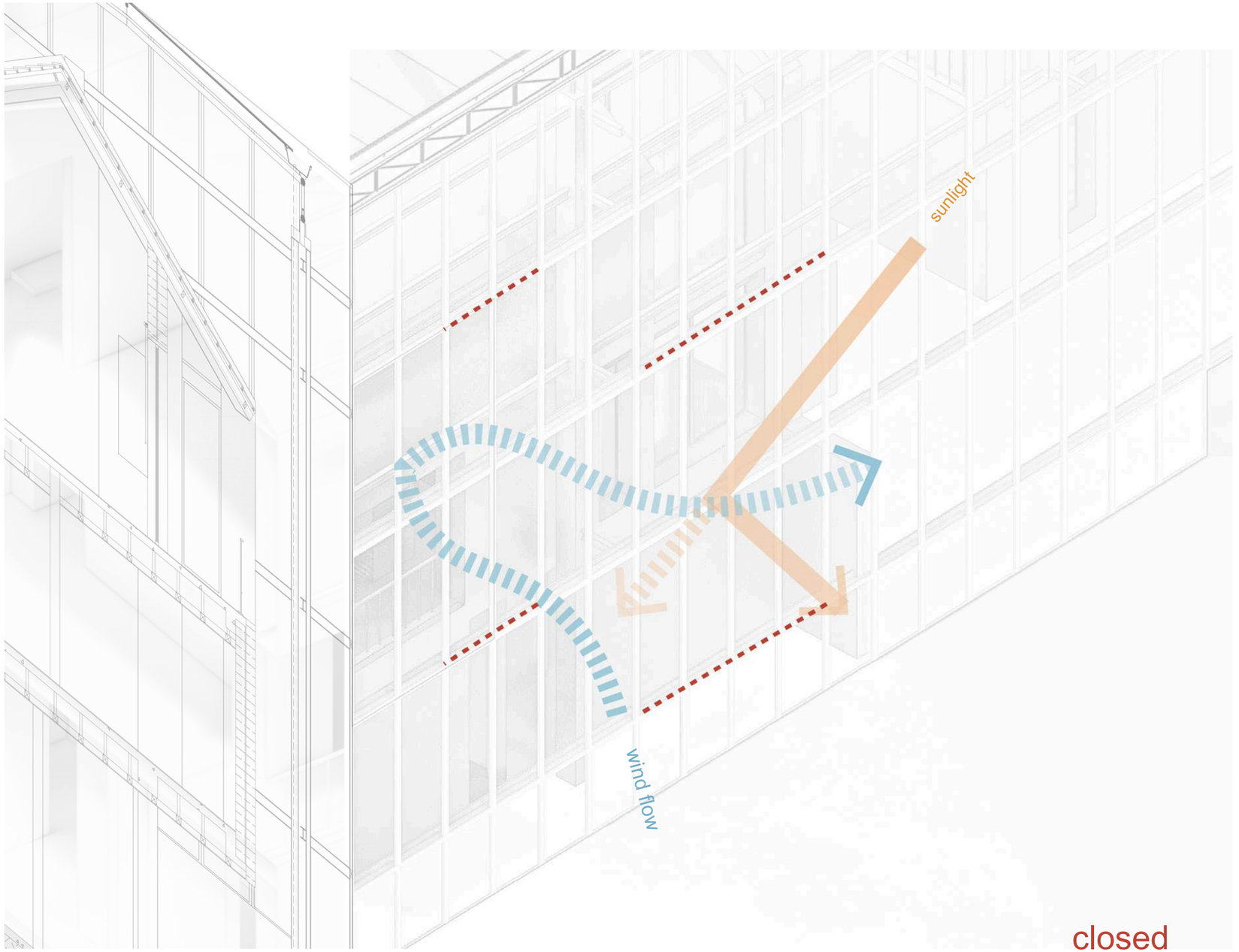




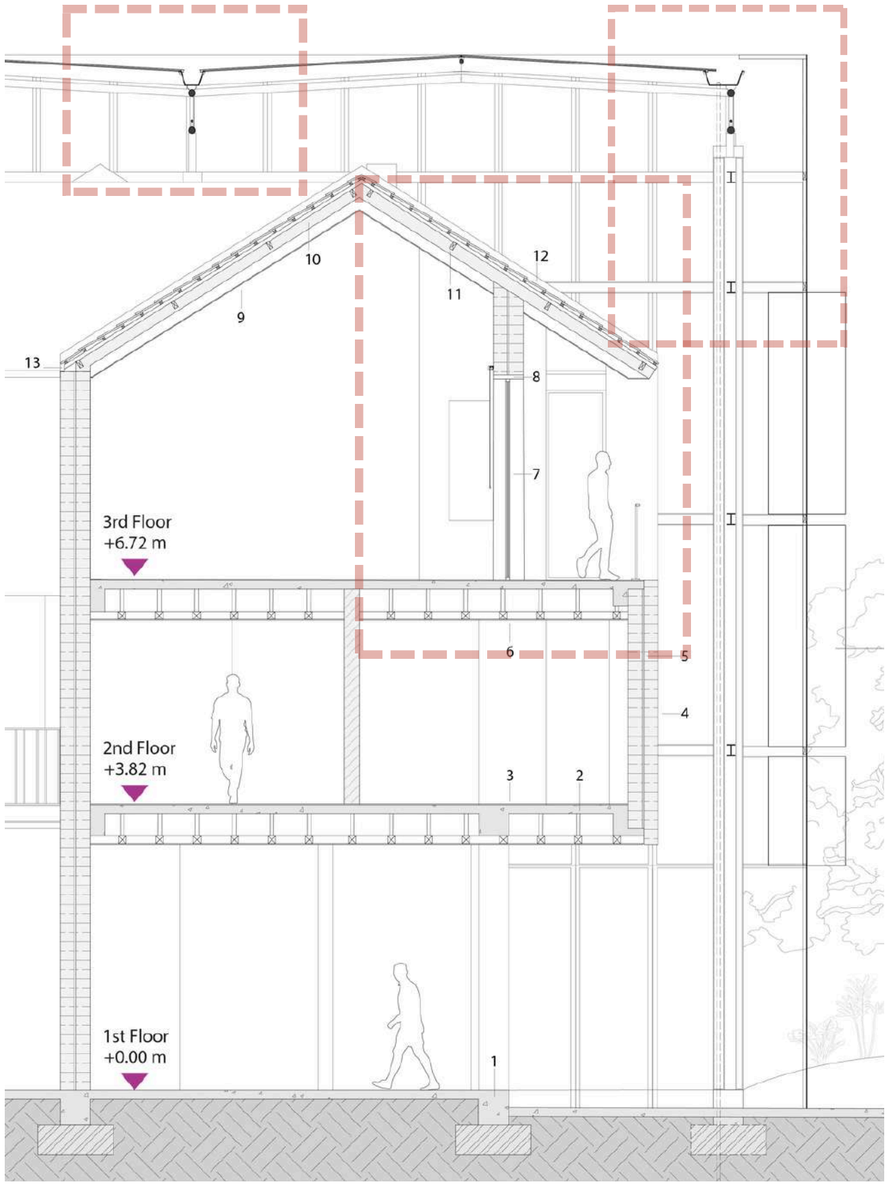
open

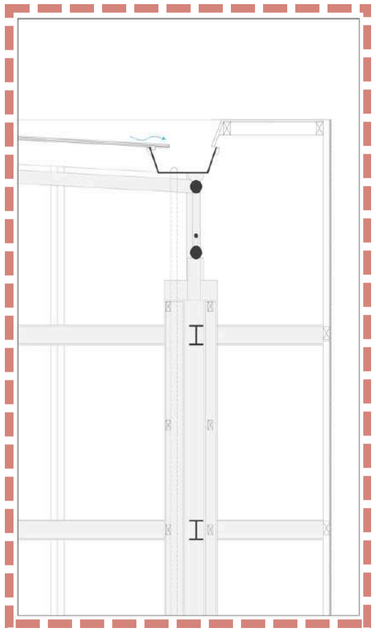
Facade

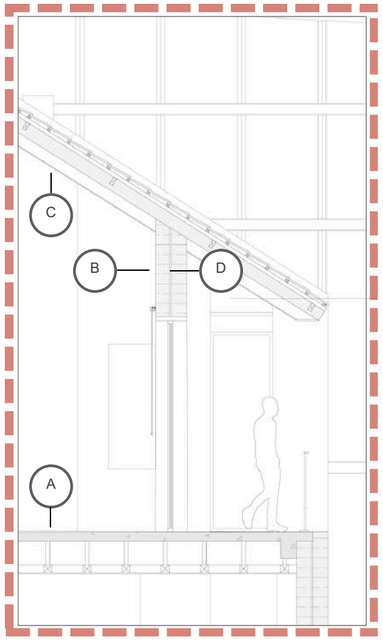




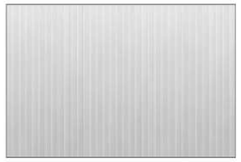
Building with St.Gobain Materials

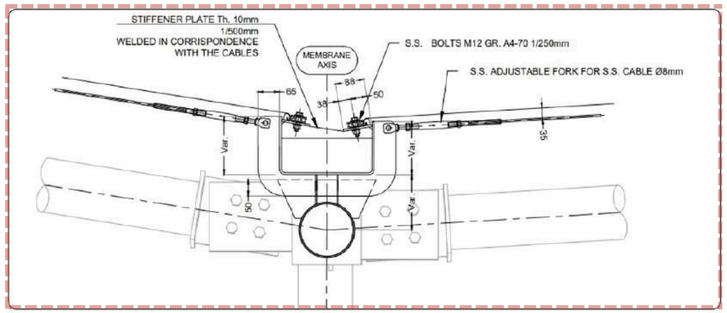






ETFE with photovoltaic panels





ETFE Construction System

1. Concrete Floor
2. Floor Slab Concrete 120 mm
3. Floor Tiles 60x60 cm
4. Rammed Earth Thickness 400 mm
5. Insulation Layer
6. Acoustic Ceiling
7. Window Double Glass 36 mm
8. Lintel Concrete
9. Acoustic Panel Saint Gobain
10. Roof Construction Steel IWT 15x15 cm
11. Steel Purlin C Profile
12. Slate Roof
13. Metal Flashing

A — weber SAINT-GOBAIN — Weberset Floor

B — gyproc SAINT-GOBAIN — Sound Block

C — gyproc SAINT-GOBAIN — Gyseismic Top

D — isover SAINT-GOBAIN — Thermal Insulation Glass Wool Roll

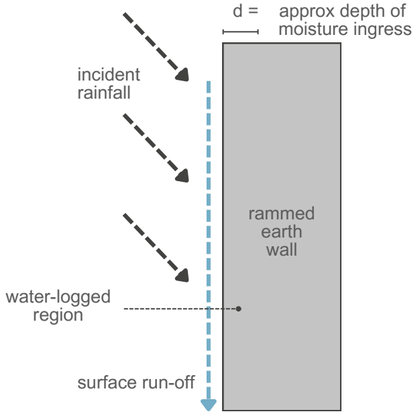
E — glassolutions SAINT-GOBAIN — COOL-LITE® SKN 144 II

Pise and Secondary Skin

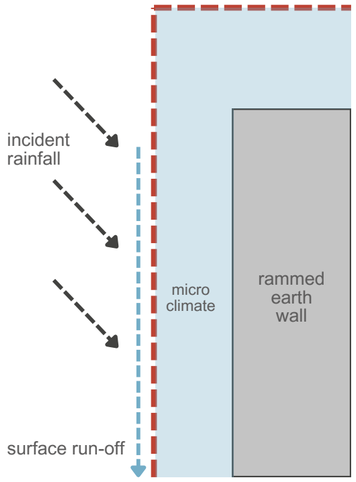
Traditional Technique

VS

New Contemporary Technique

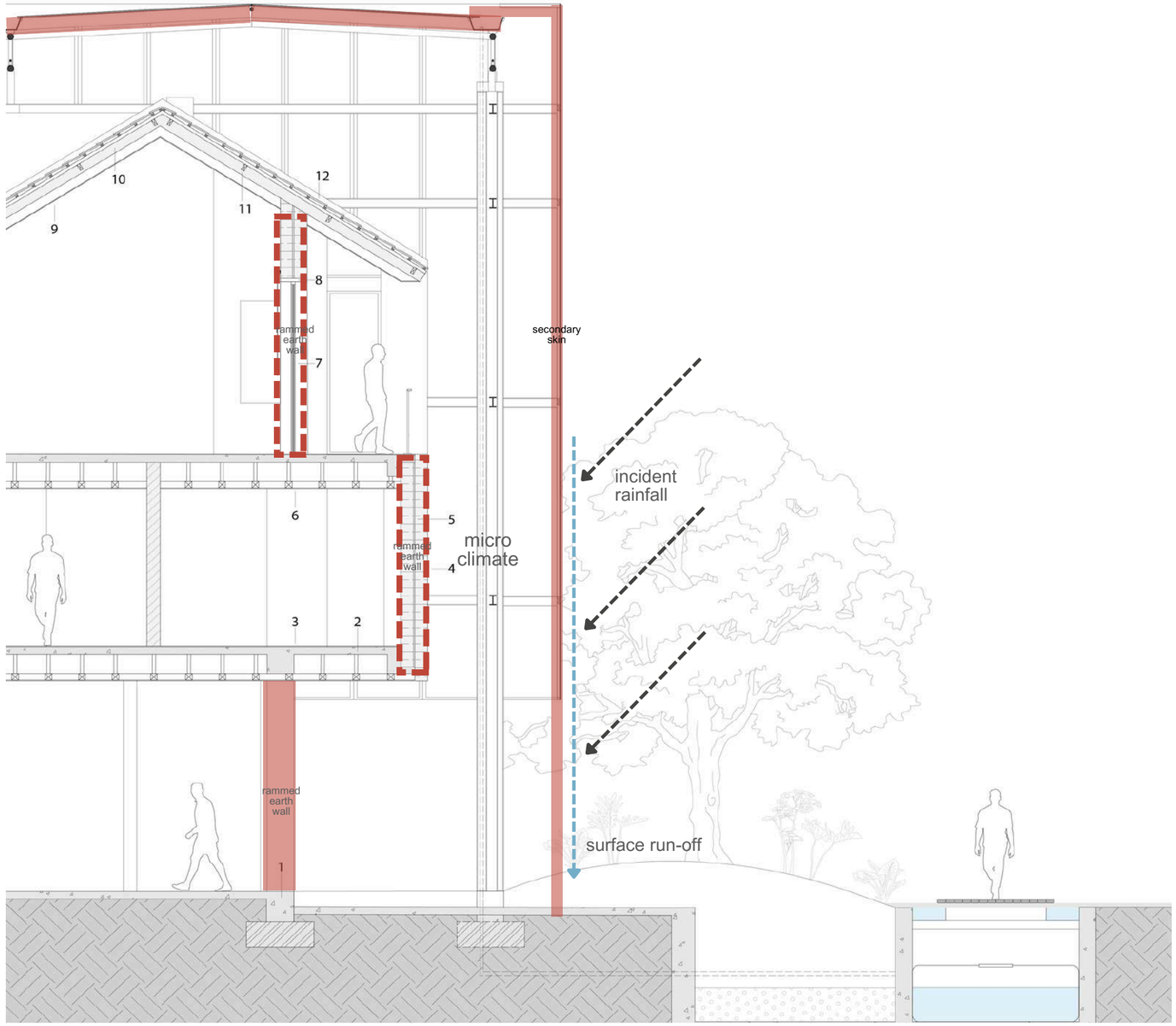


A. ‘natural’ effect on rammed earth



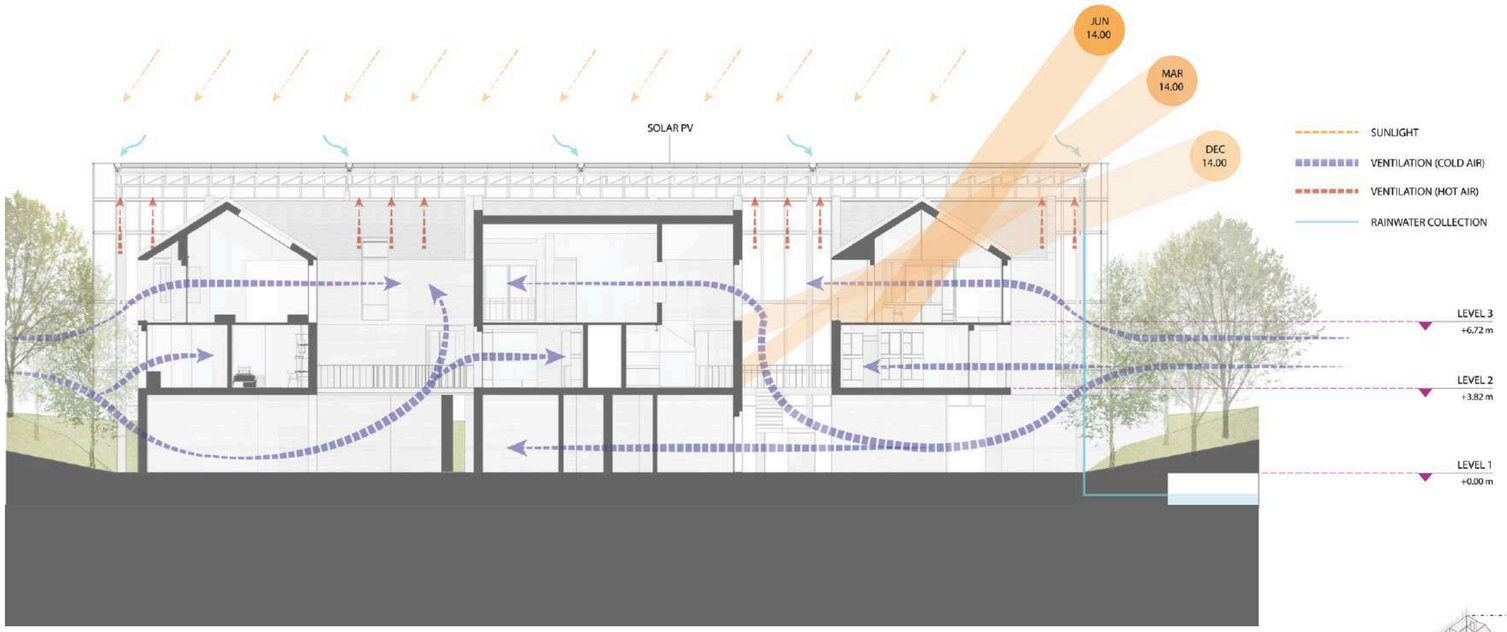
B. ‘secondary’ skin + rammed earth

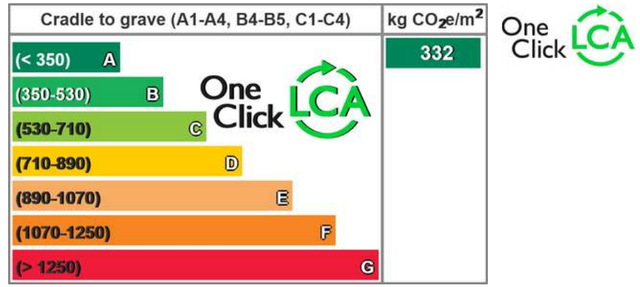
- slow down erosion
- stabilises over time
- remove moisture from the wall
- insulates heat
- comfortable indoor climate

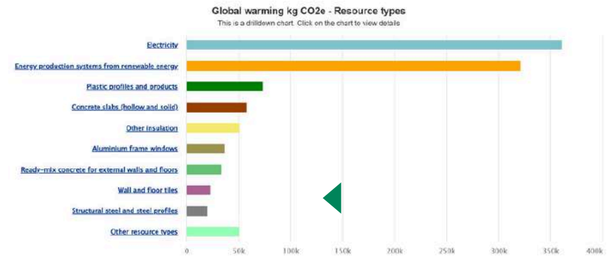


Sustainable Design and Building Performance

Creating a microclimate that
is comfotable year round

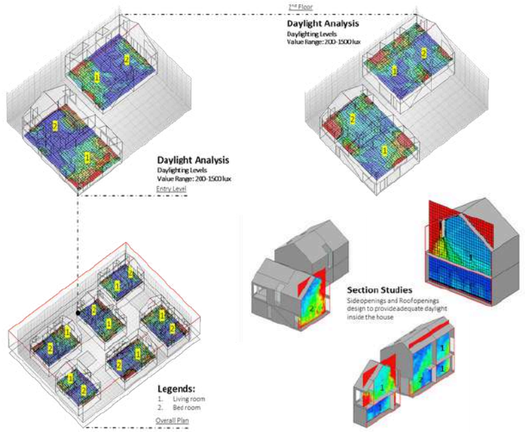


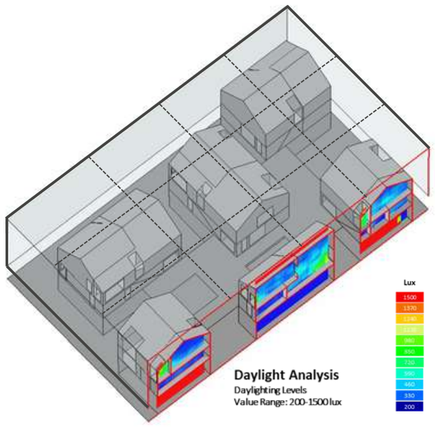




The ETFE roof plays a key role in regulating daylight and thermal comfort, allowing ample natural light while minimizing direct solar heat. This keeps interiors bright yet cool, ensuring occupant comfort. The detached massing strategy enhances daylight distribution through multiple side and top openings.

Studies showed that combining side and top lighting provides effective daylight penetration. The living room receives high daylight levels (500–1300 lux), creating a vibrant space, while the bedroom, designed for rest, maintains a softer light level around 200 lux across 50 m².



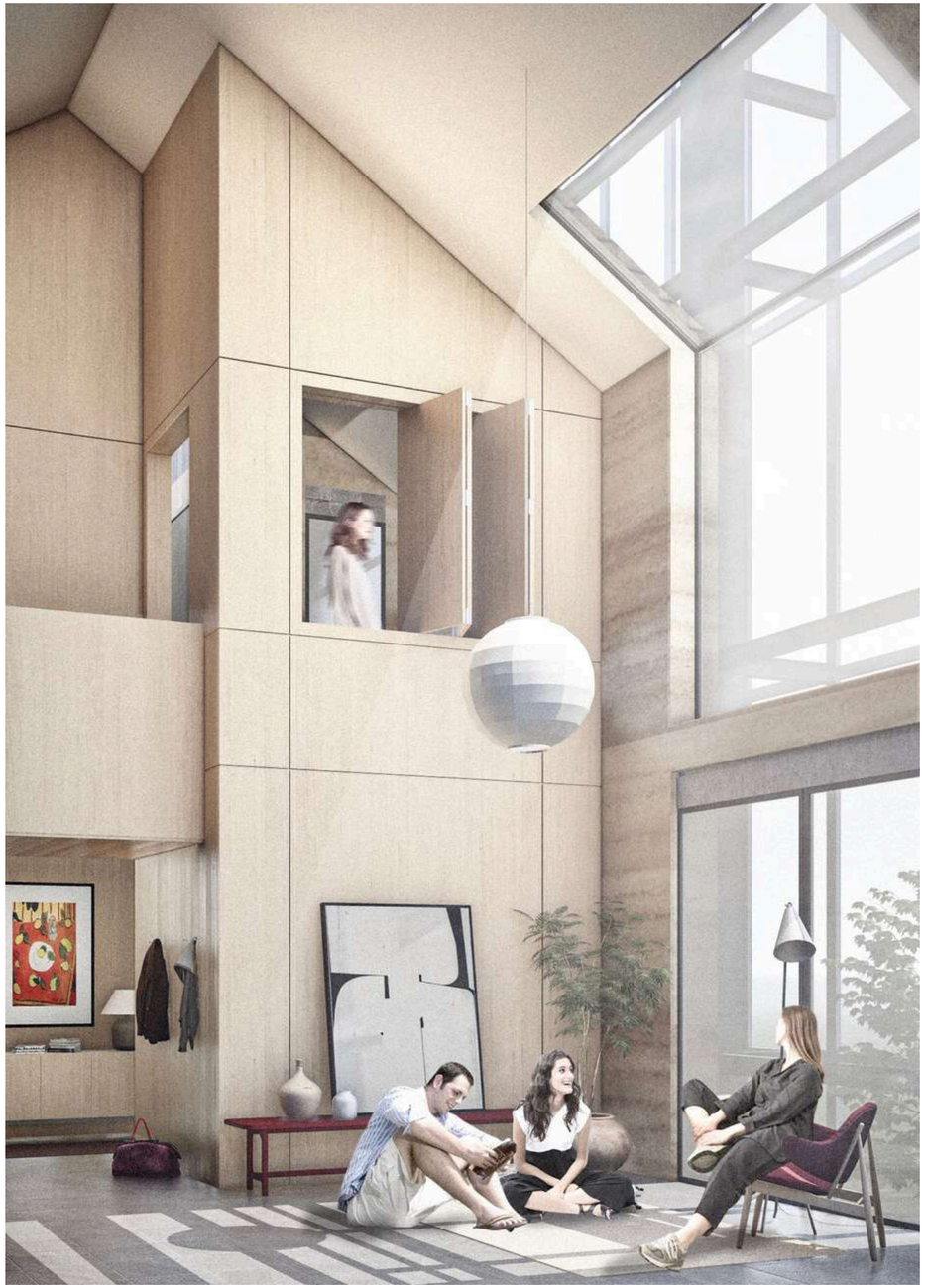


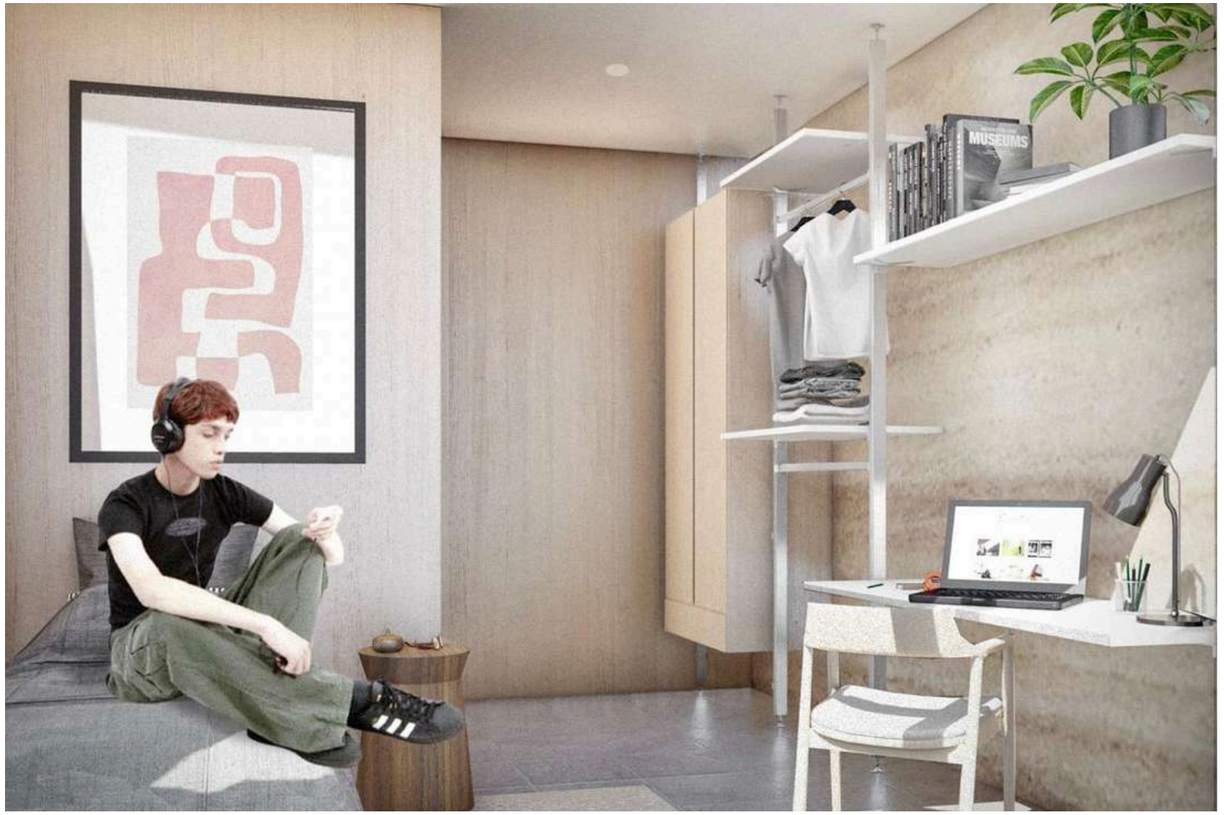
Second Floor Plan

Legend

1. 6 & 8 Bed Unit
2. Single & Double unit

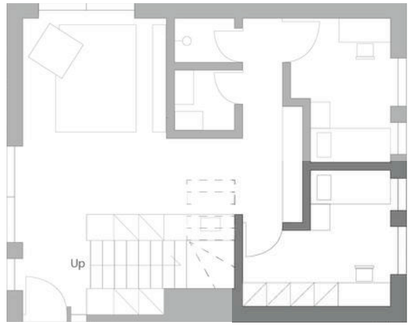
1 5 2 10 m





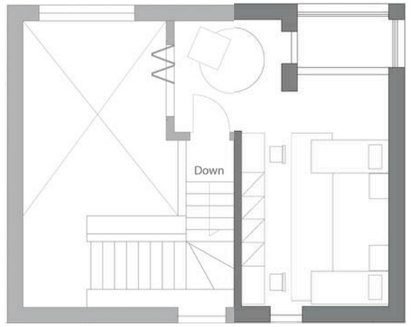
Single Room

Capacity: 1
Area: 25



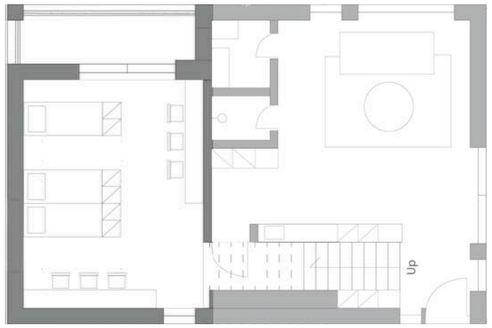
Double Room

Capacity: 2
Area: 40



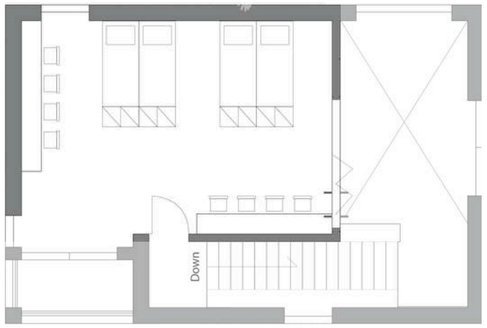
6-Bed Room

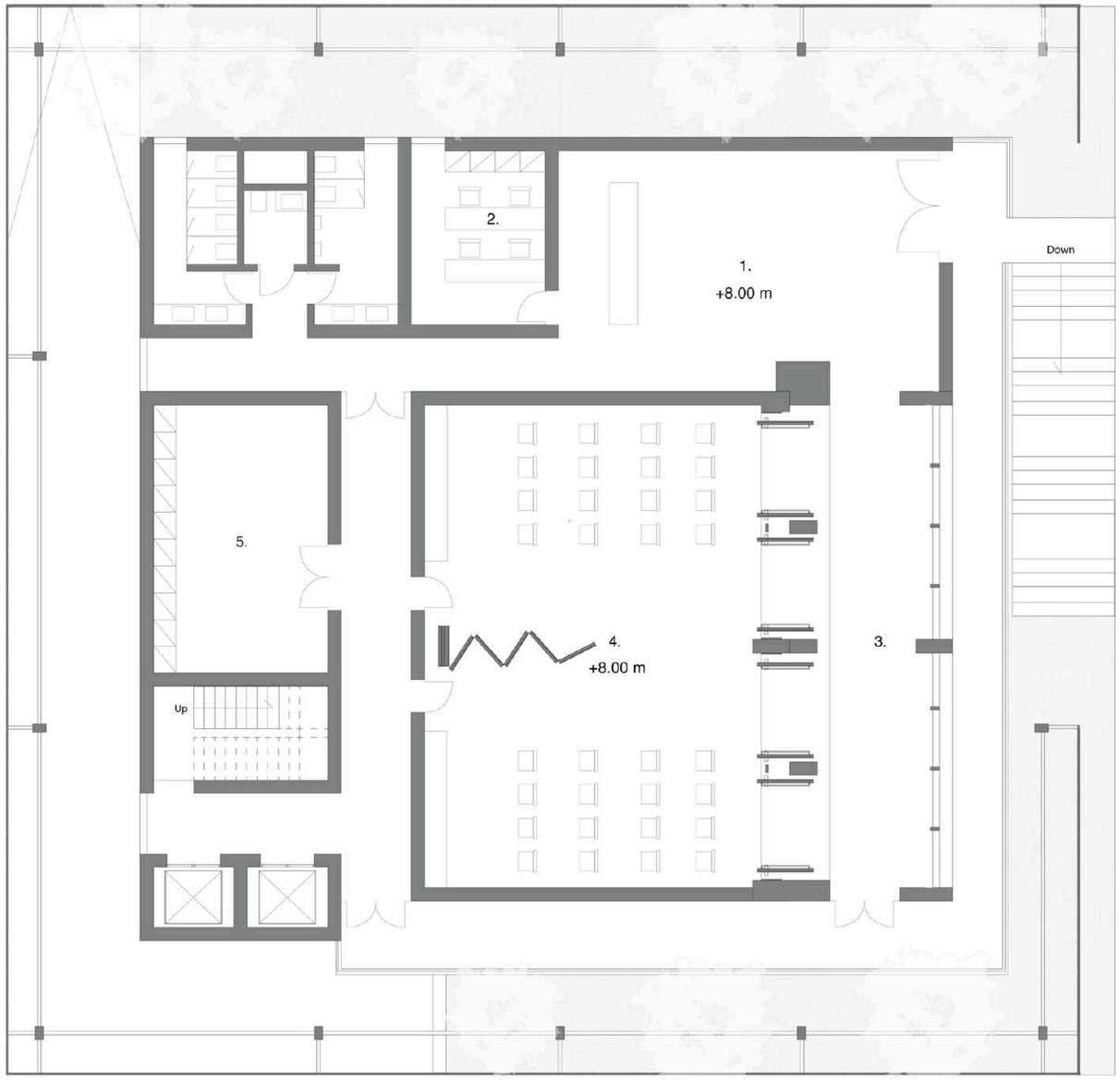
Capacity: 6
Area: 40



8-Bed Room

Capacity: 8
Area: 45





Building B | Multipurpose Hall

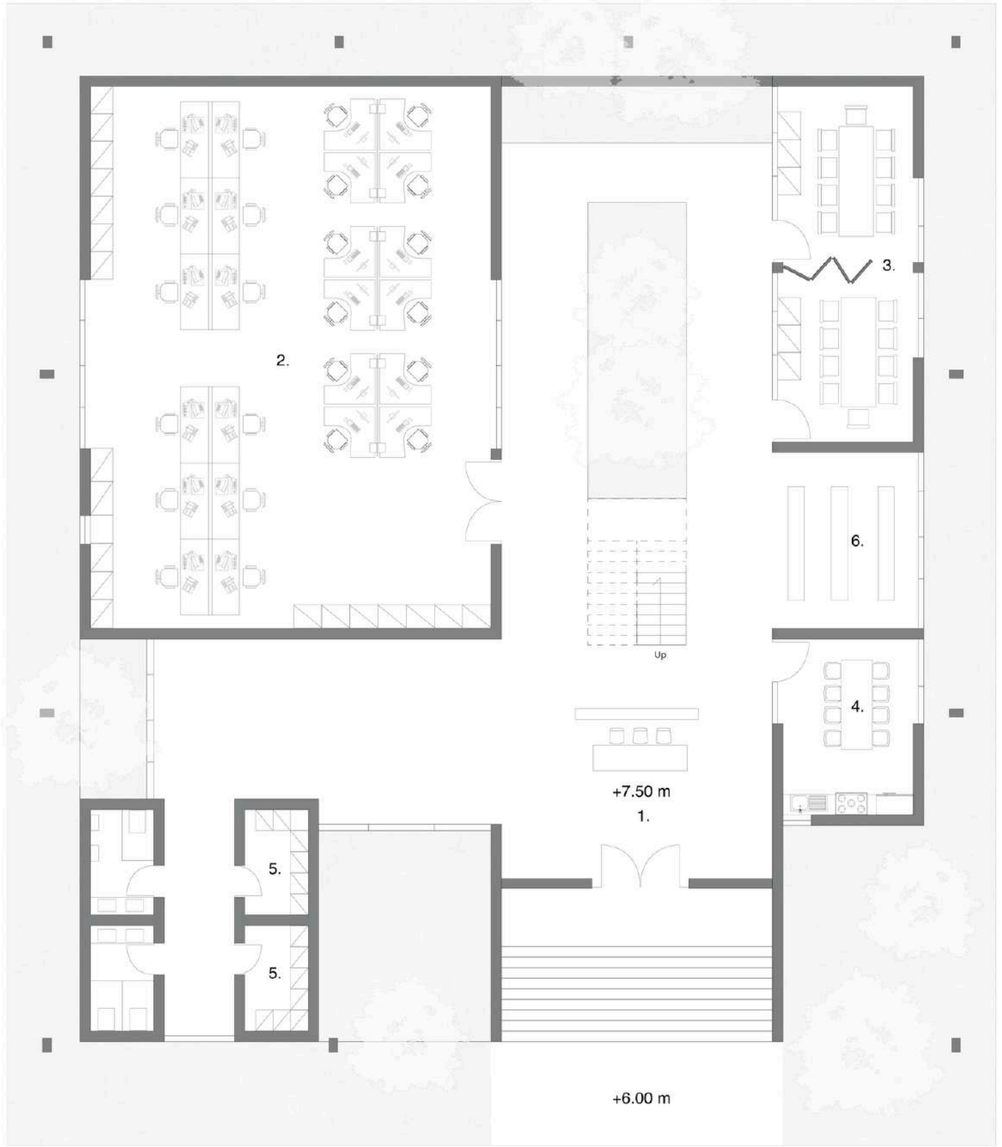
Legend:

1. Reception
2. Office
3. Prefunction Area
4. Main Hall
5. Storage

2nd Floor Multipurpose Hall

1 5 2 10 m

Usage of flexible walls caters to different types of activities



Legend:

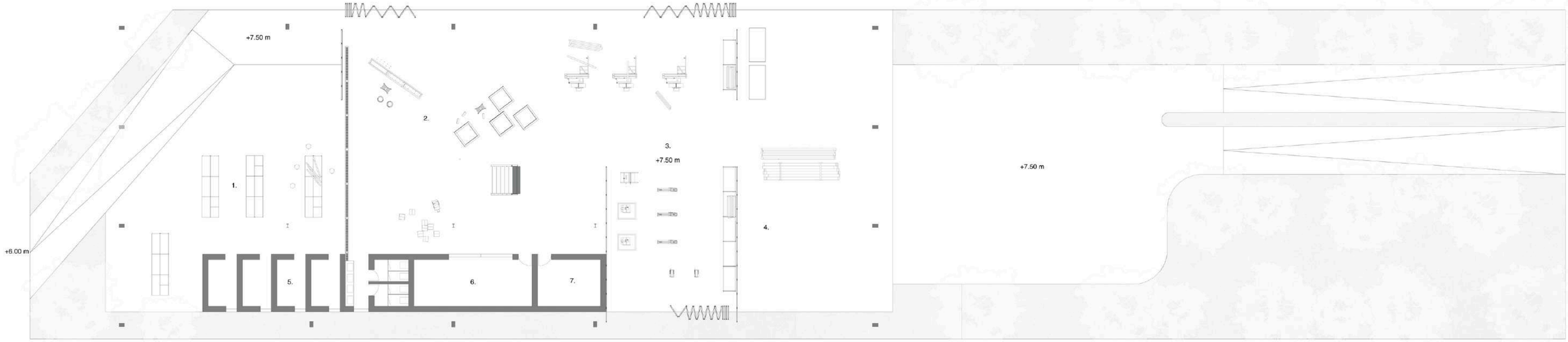
1. Reception
2. Office
3. Meeting Rooms
4. Kitchen and Dining
5. Cloakrooms
6. Urban Farming

1st Floor Office

1 5
2 10 m

Building C | Office

Building D | Laboratory



Legend:

1. Assembly Area
2. Prototyping Area
3. Machine Area
4. Loading Area
5. Machine Rooms
6. Materials Lab
7. HVAC

1st Floor Labaratory

1 5 2 10 m