

THE SENSORY HEALING-SCAPE

URBAN LANDSCAPE

URBAN STRATEGY

1. EXISTING ROUTES & SIGHTLINES

Keeping the existing routes & sightlines to not block the important routes of Ostbahnhof



2. NEW PLOTS

The sightlines and new green stroke that connects the neighborhoods together forms the new building plots



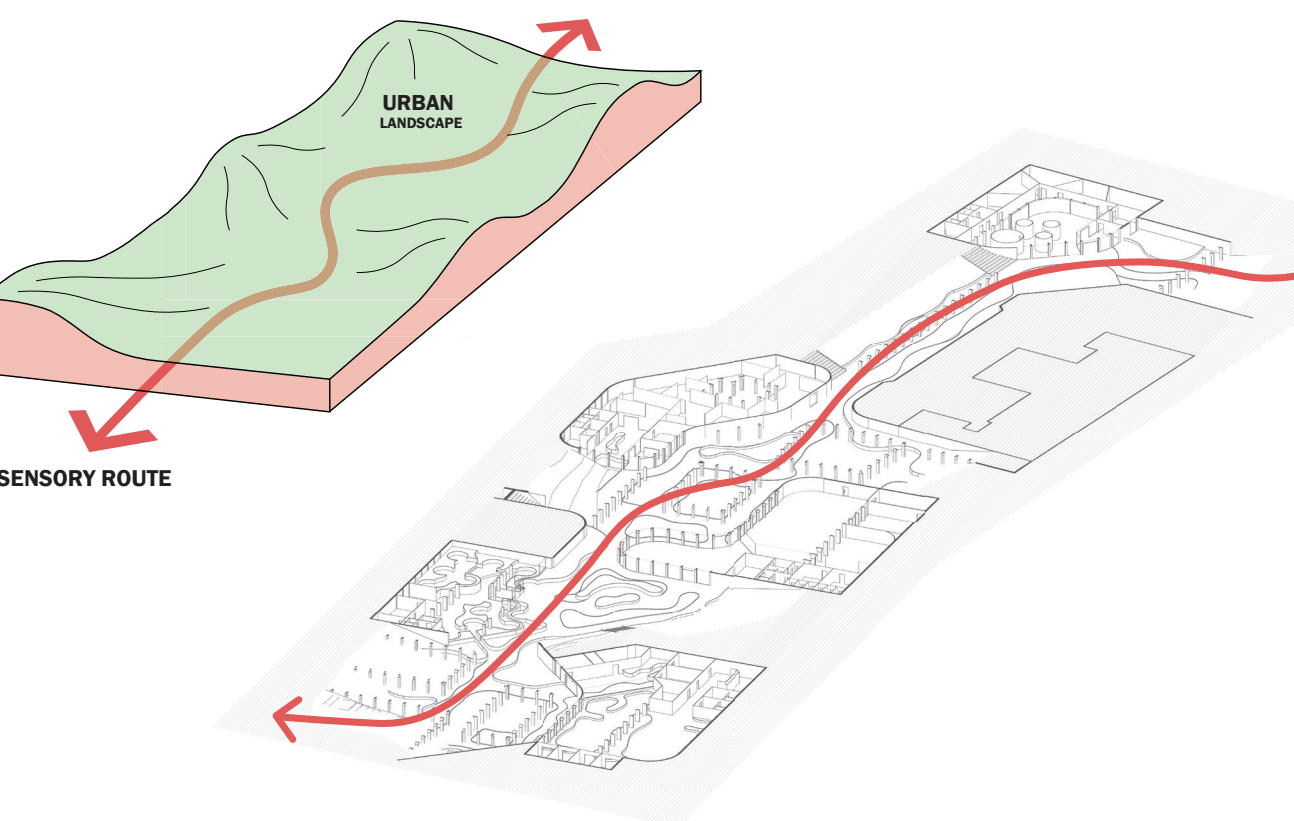
3. SHAPING OF THE LANDSCAPE

By raising some parts of the landscape, space will arise for a building mass beneath.



4. SENSORY ROUTE

Between the separated buildings, a route is designed, Following this route will give you a multi-sensory experience.



IMPRESSIONS



SITUATION 1:1000

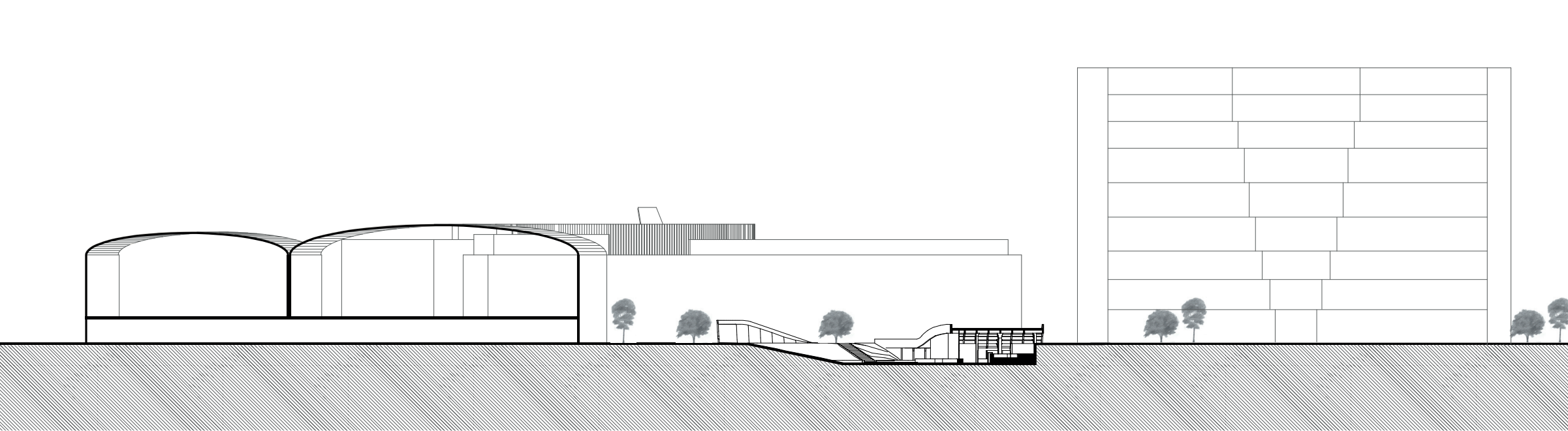


SECTIONS 1:1000

SECTION 'AA'



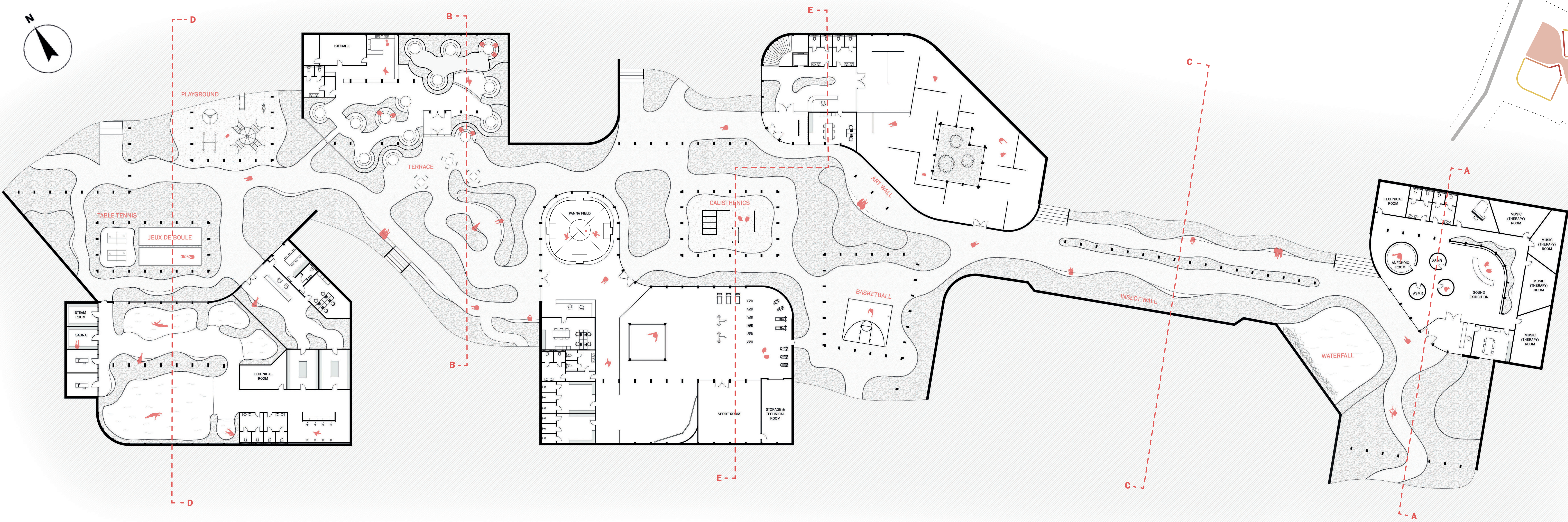
SECTION 'BB'



THE SENSORY HEALING-SCAPE

SENSORY ROUTE

FLOORPLAN 1:200 SCALED TO 1:250



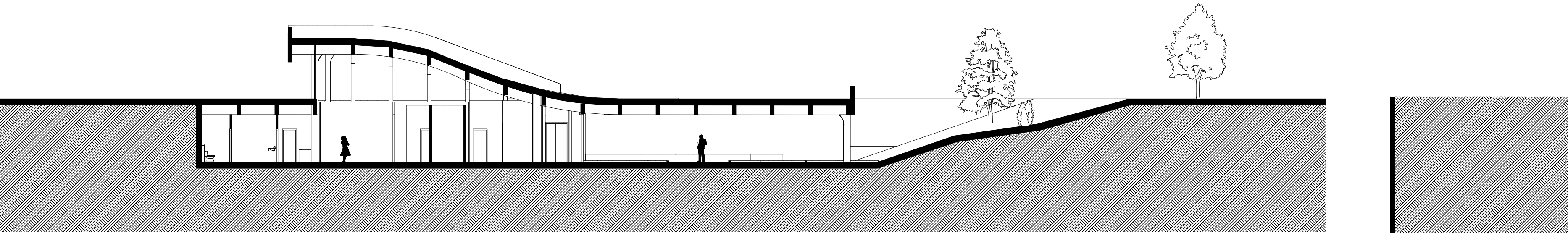
BUILDING SHAPE DIAGRAM

- Urban strategy
- Function / atmosphere
- Route: compressing & decompressing

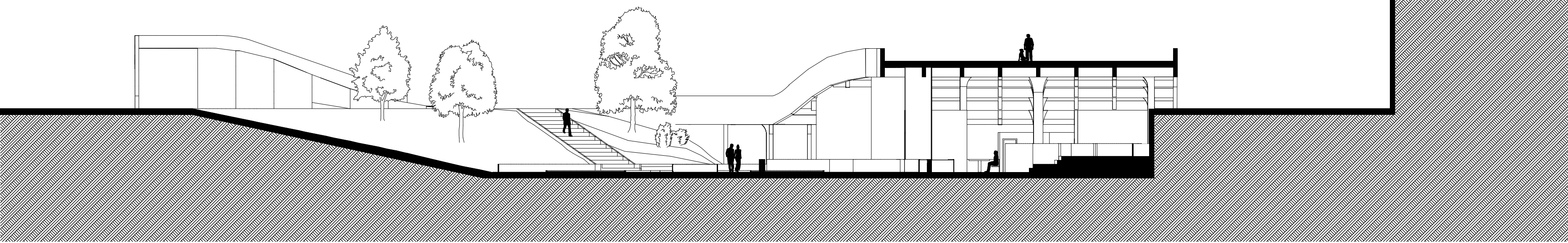


SECTIONS 1:200

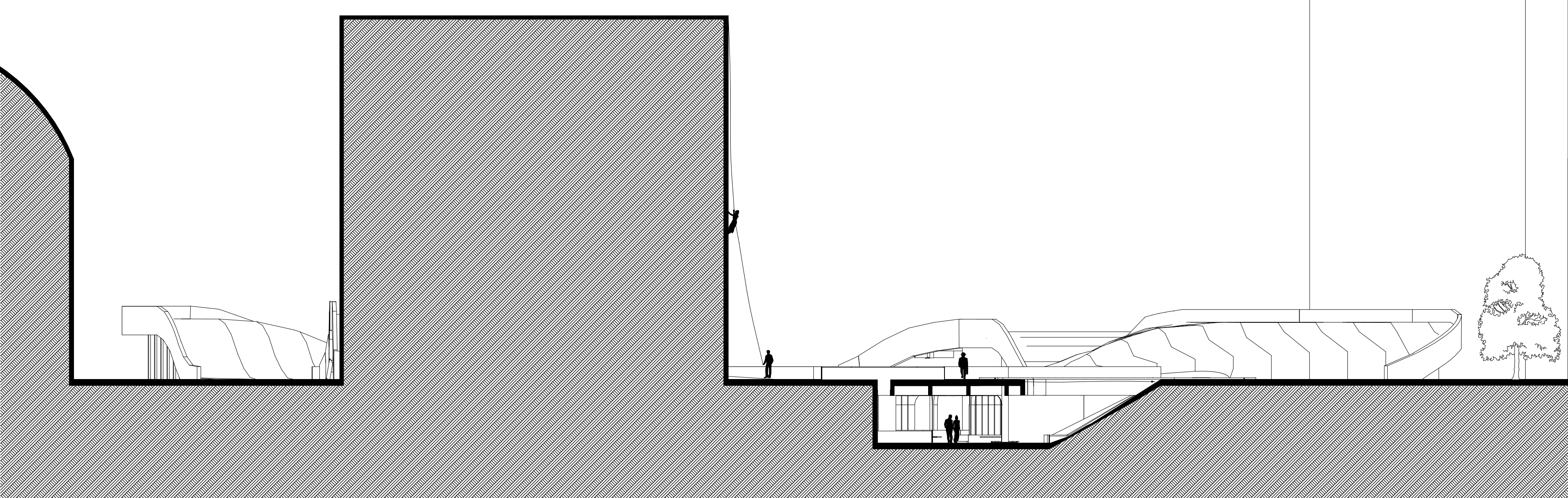
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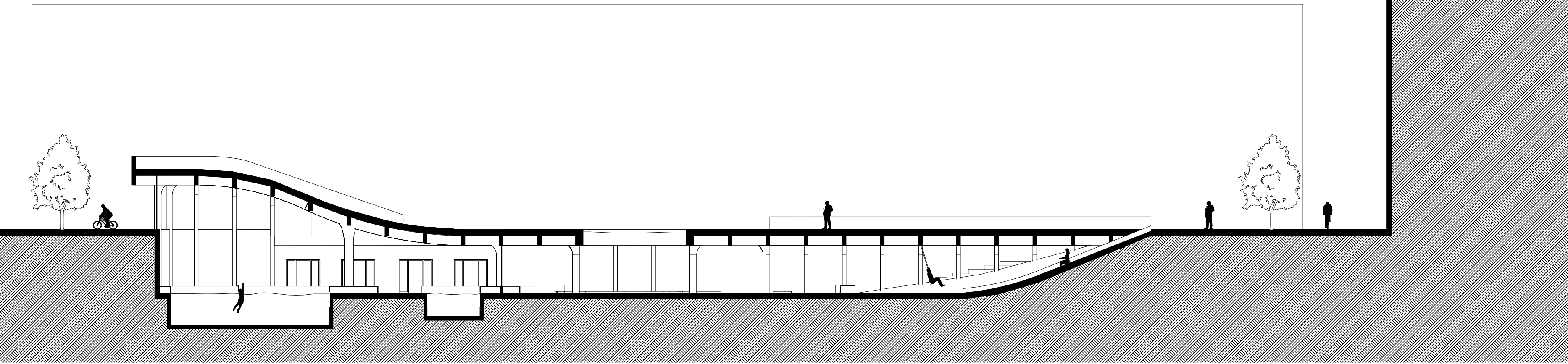
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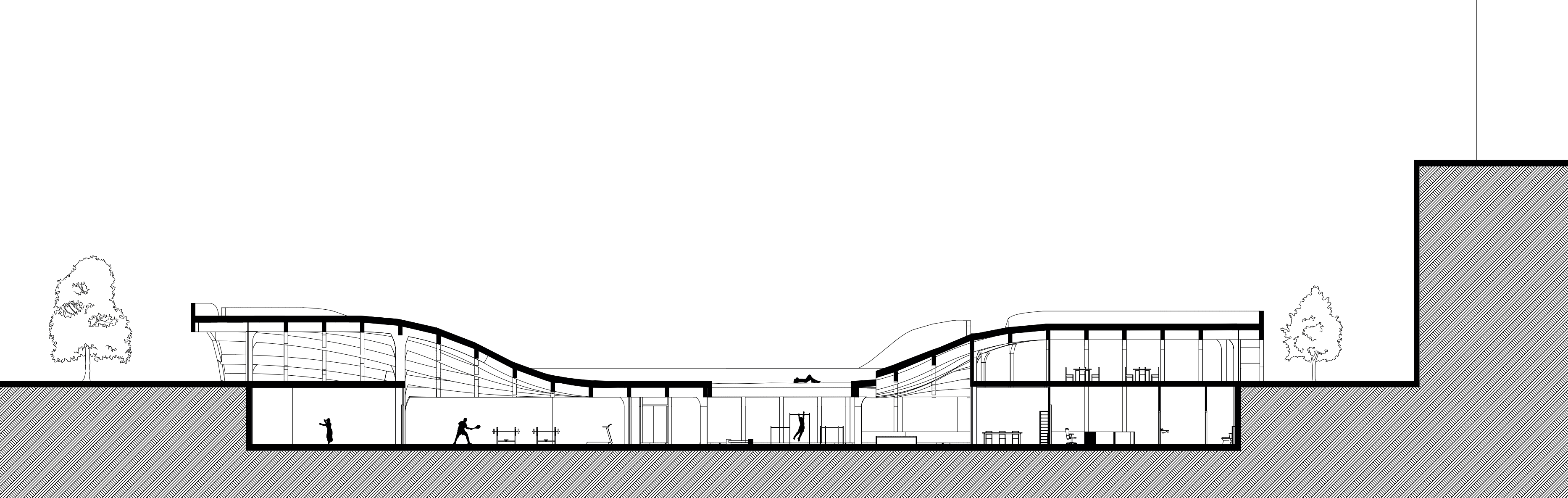
SECTION 'CC'



SECTION 'DD'

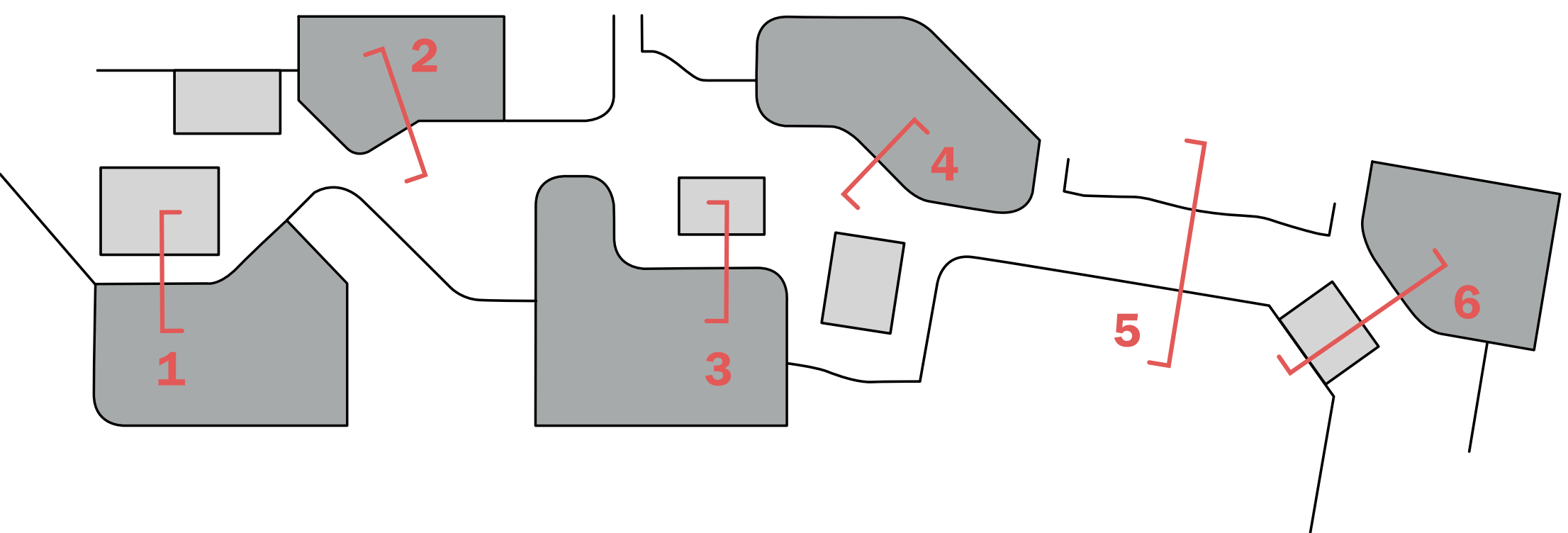


SECTION 'EE'



THE SENSORY HEALING-SCAPE

SENSORY ROUTE



1. WELLNESS CENTRE

Focussing on the senses of touch and view. Users of the wellness centre experience a calm and green area. The differences in water temperatures and massage / sauna spaces will create an atmosphere where you can clear your mind. The water is good for the skin and the plants helps reducing stress and anxiety.



"Swimming in a pool can help prevent, minimize, or treat acne breakouts. When chlorine interacts with water and your skin, it can remove and purify the water molecules that are on your skin." (CLN, n.d.)

PLAYGROUND & JEUX DE BOULE

TERRACE

PANNA FIELD

2. RESTAURANT

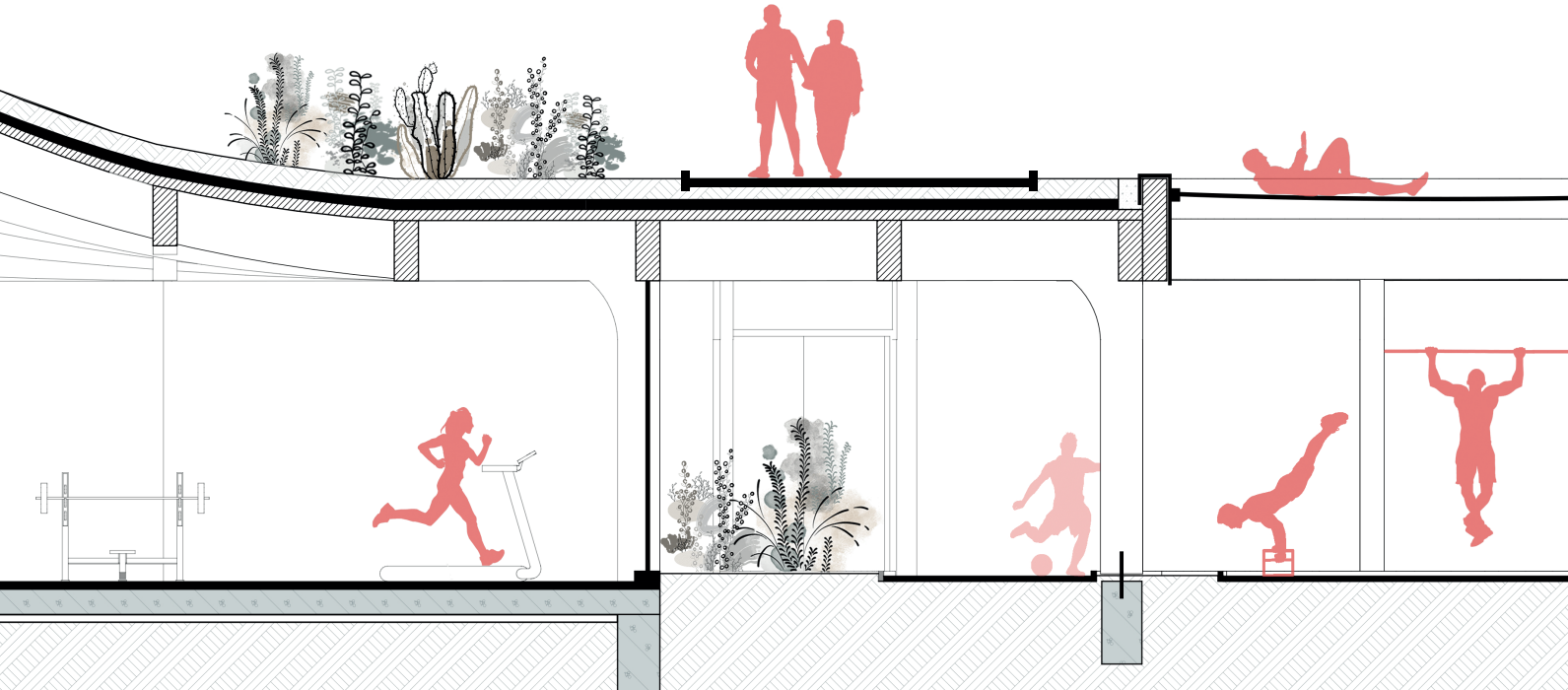
The restaurant is focussing on the senses of taste and smell. The visitor takes place at a table where you can smell the open kitchen, the plants / herbs / vegetables that are growing behind and the taste of the food served.



"plants have a beneficial effect on stress reduction and pain tolerance and shows improvement in air quality. Small, green, lightly scented plants were most optimal for health and wellbeing." (Bringslimark et al., 2009).

"Physical activity is perhaps the variable which reduces the most overall lifetime morbidity." (James F. Fries, 2008)

"It is proven to help prevent and manage noncommunicable diseases such as heart disease, stroke, diabetes and several cancers. It also helps prevent hypertension, maintain body weight and can improve mental health, quality of life and well-being." (World Health Organisation, 2022).



"The color red shows energy, excitement and impulse. It helps people mentally to work a bit harder during exercises." (Pereira, 2023).

3. SPORT CENTRE

The sport centre is focussing on the sense of touch. An open space which can easily be transformed into multiple different sport facilities. The structure can be used to hang elements and walls.

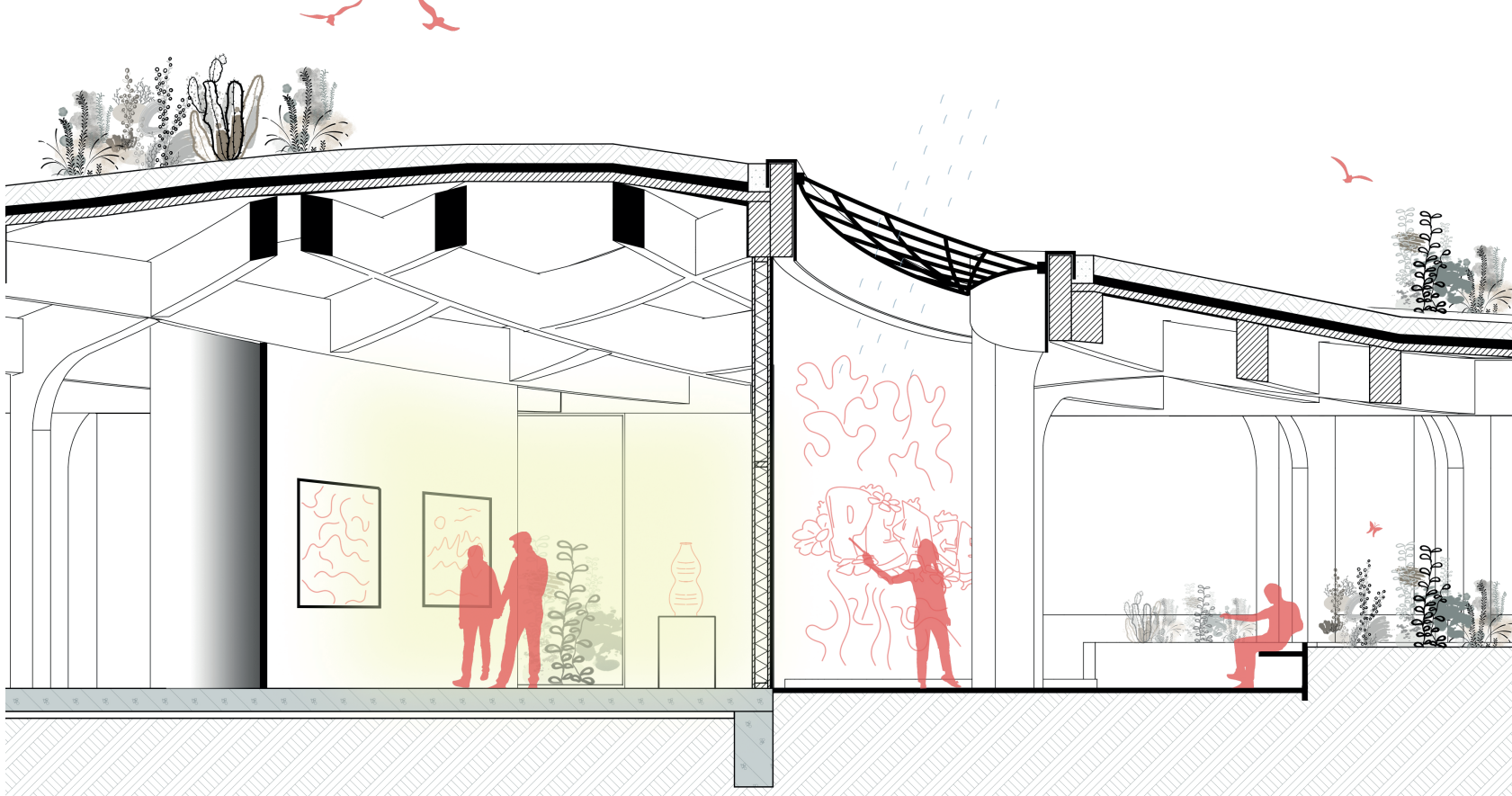
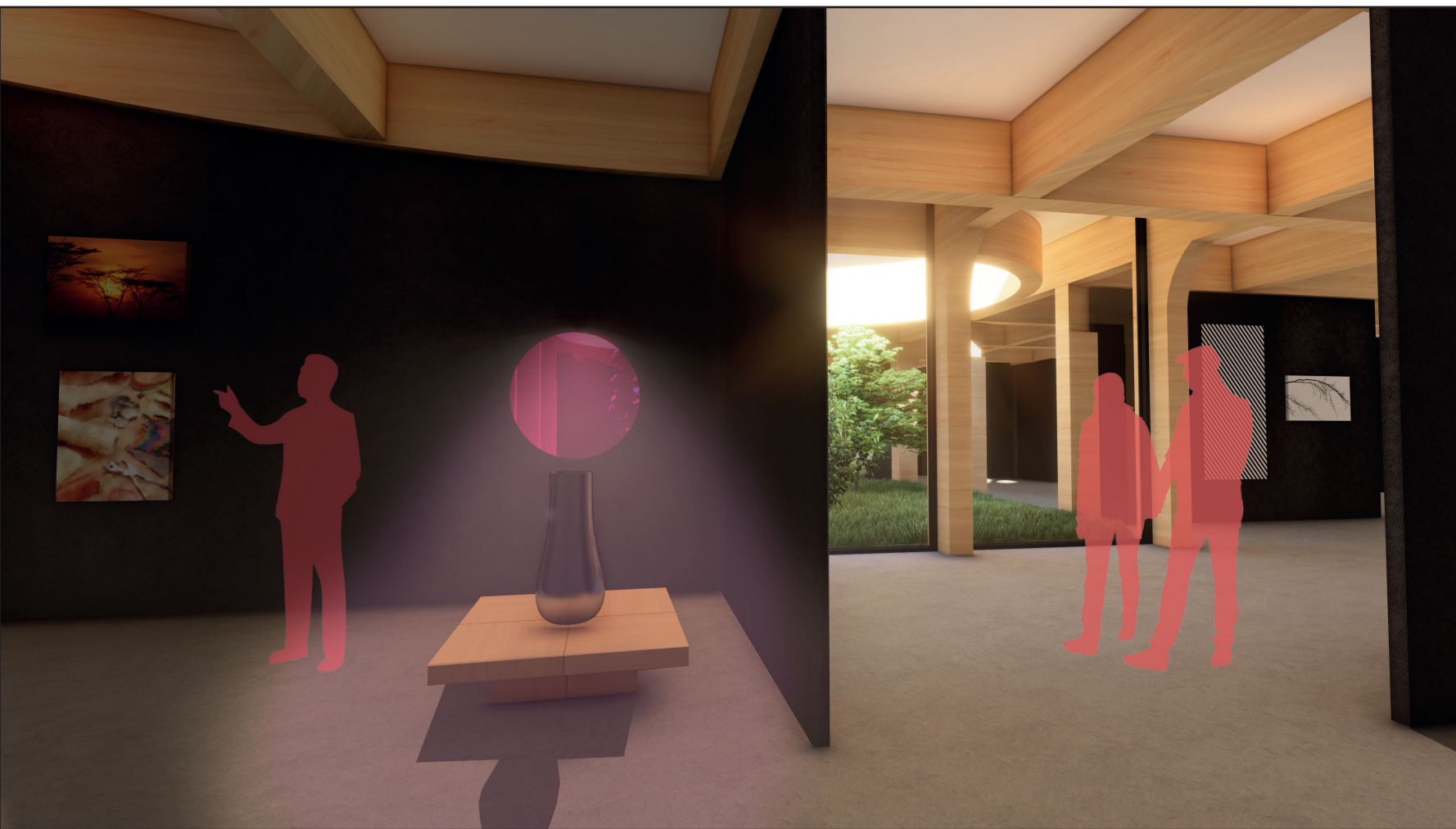


CALISTHENICS

ART WALL

4. ART CENTRE

A place where people can improve their mental well-being by focussing on view and touch. Making art can make a powerful contribution to our mental health conditions. (MHF, n.d.). Participating in the arts can enable people to deal with a wide range of mental ill-health conditions and psychological distress. With art, people can express themselves, without having to use words. It helps people to strengthen their creativity, confidence and working with others improves the amount of social interactions and conversations, which creates a feeling of community.



"Participation in an artistic activity encourages personal well-being because it permits a direct and sincere connection with the individual emotions. Such a process implies a three-dimensional strengthening: social, emotional and cognitive." (Mundet-Bolos et al., 2017).

5. INSECT WALL

The insect wall is a long wall made for insects to live in. This creates an healthy environment whereby the flora in the surrounding area will stay healthy.

This indirectly means improvement of air quality, reduction of urban heat stress and a colorful park which influences the users mental health conditions.



BASKETBALL

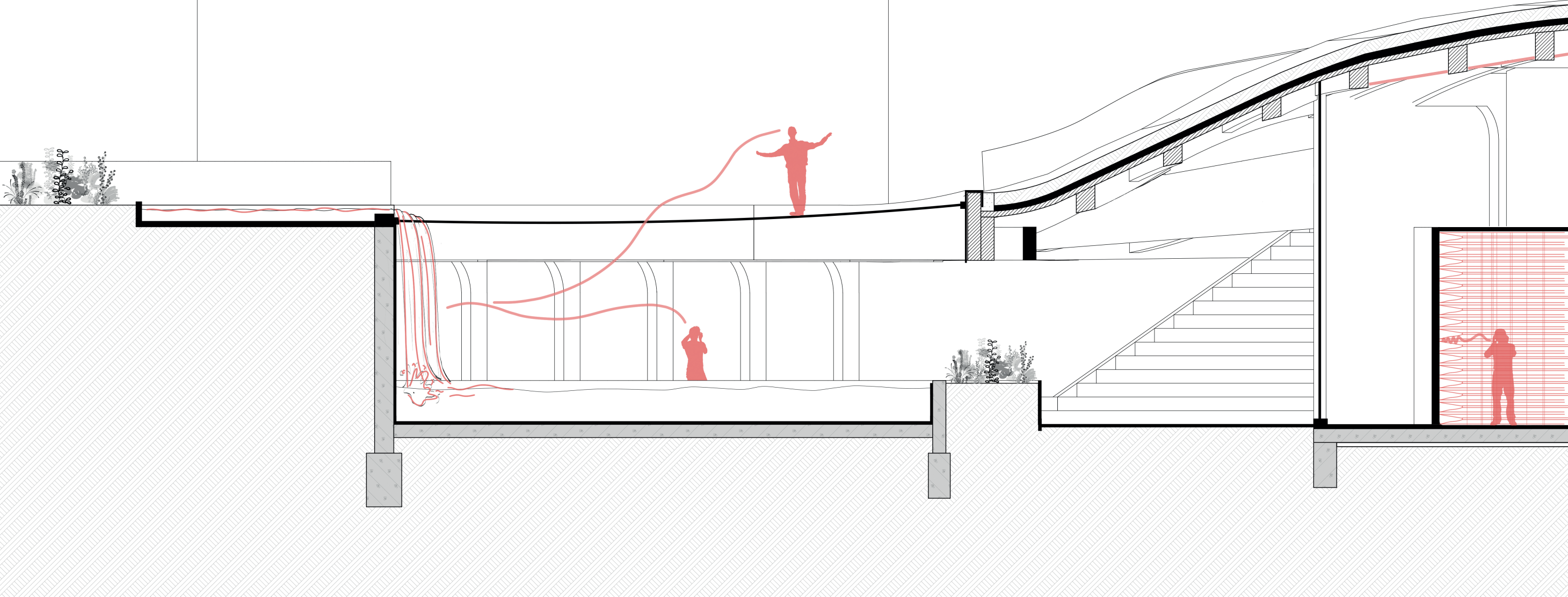
6. SOUND CENTRE

The sound centre; a building created for an experience in the sense of sound. The building focusses on music (therapy), physical interaction through sound, ASMR and anechoic spaces. Also, the sound of the running water in front of the building helps with mental well-being improvement.



WATER FALL

"People's beliefs about the source of masking sounds, especially in the case of ambiguous noise, can sometimes influence how much relief they provide". (Haga, Halin, Holmgren, & Sörqvist, 2016). Sounds of nature have a strong relation to restoration, recovery and well-being.

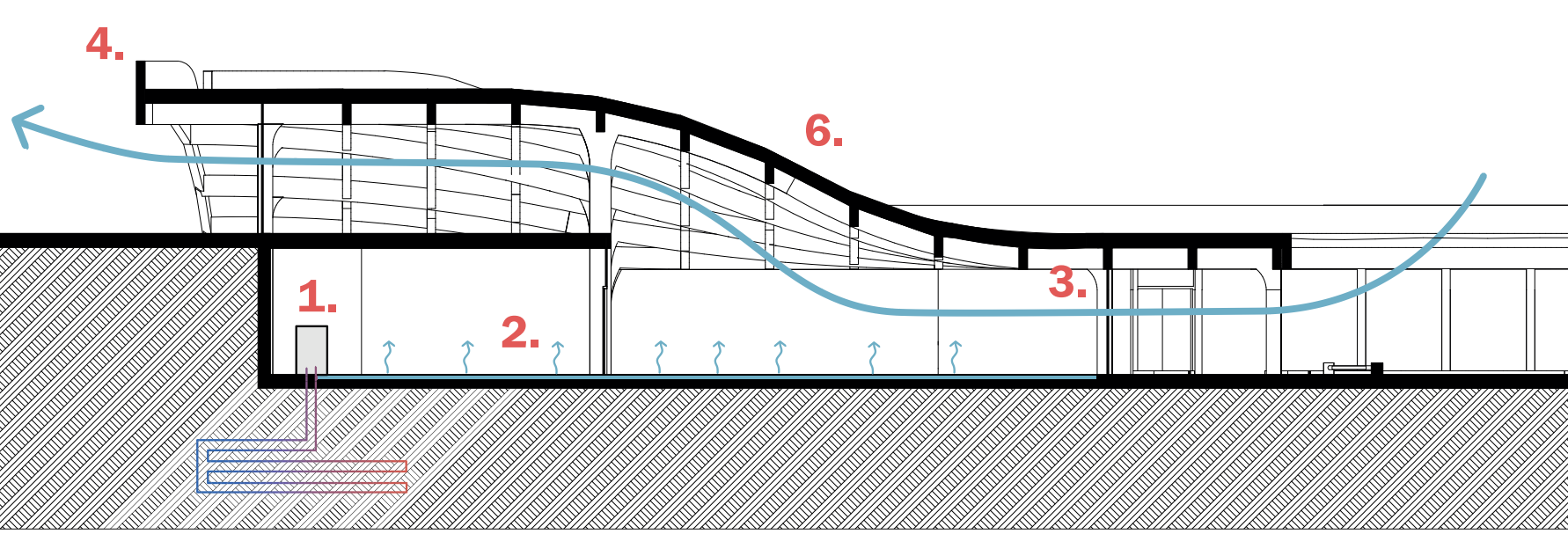


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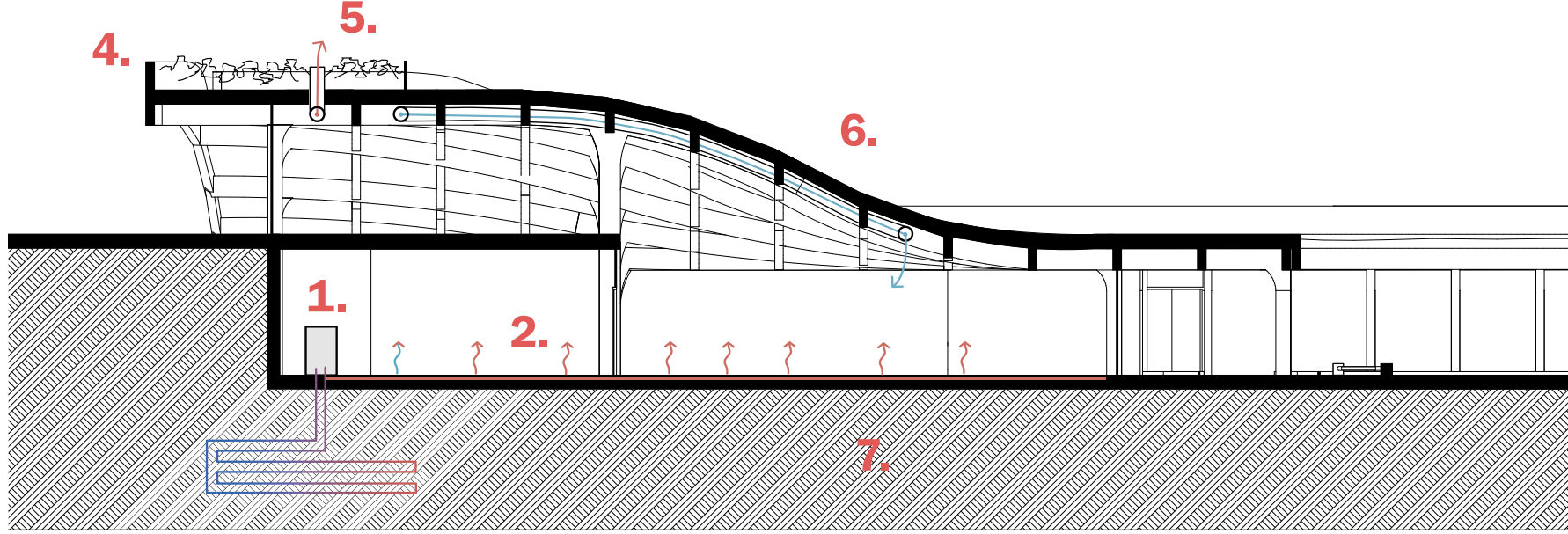
TECHNICAL ASPECTS

CLIMATE & BIODIVERSITY

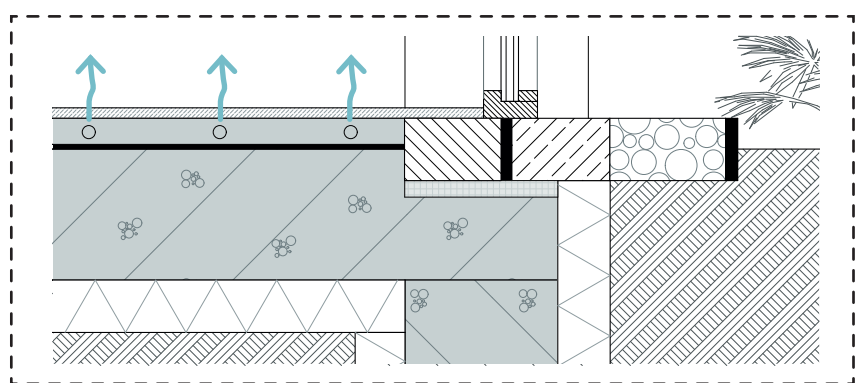
SUMMER CONDITION



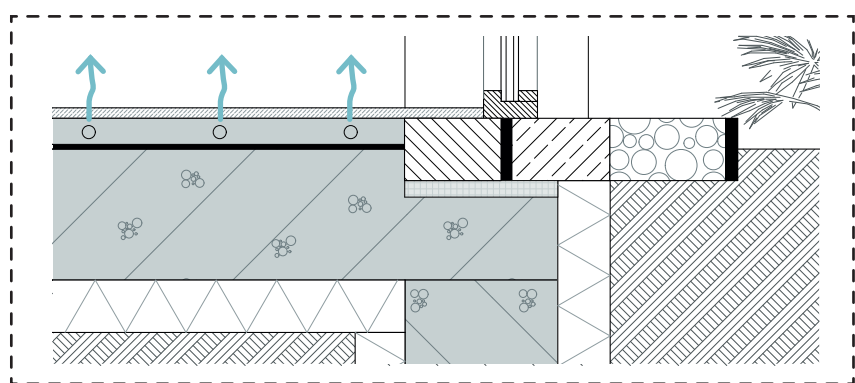
WINTER CONDITION



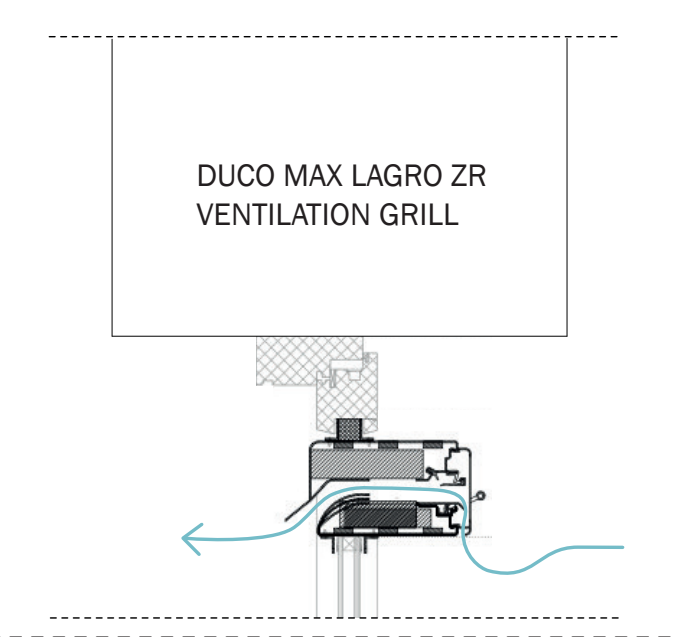
1. GEOTHERMAL HEAT PUMP
Extracting cold or warmth from the soil



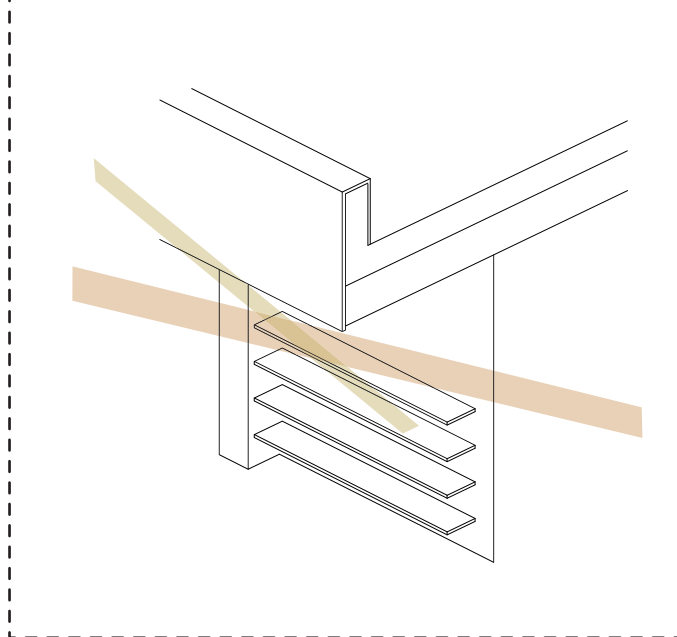
2. ENERGY SUFFICIENT FLOOR COOLING OR HEATING



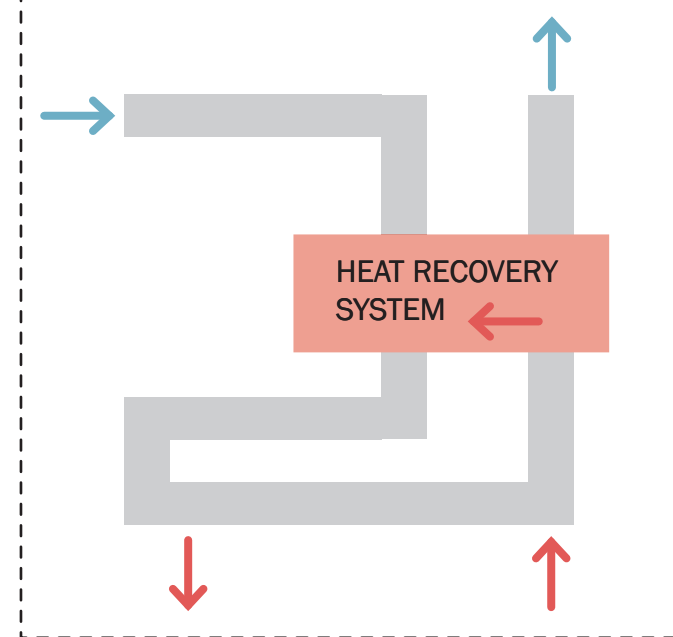
3. PASSIVE VENTILATION



4. CANOPY & SLATS



5. MECHANICAL VENTILATION

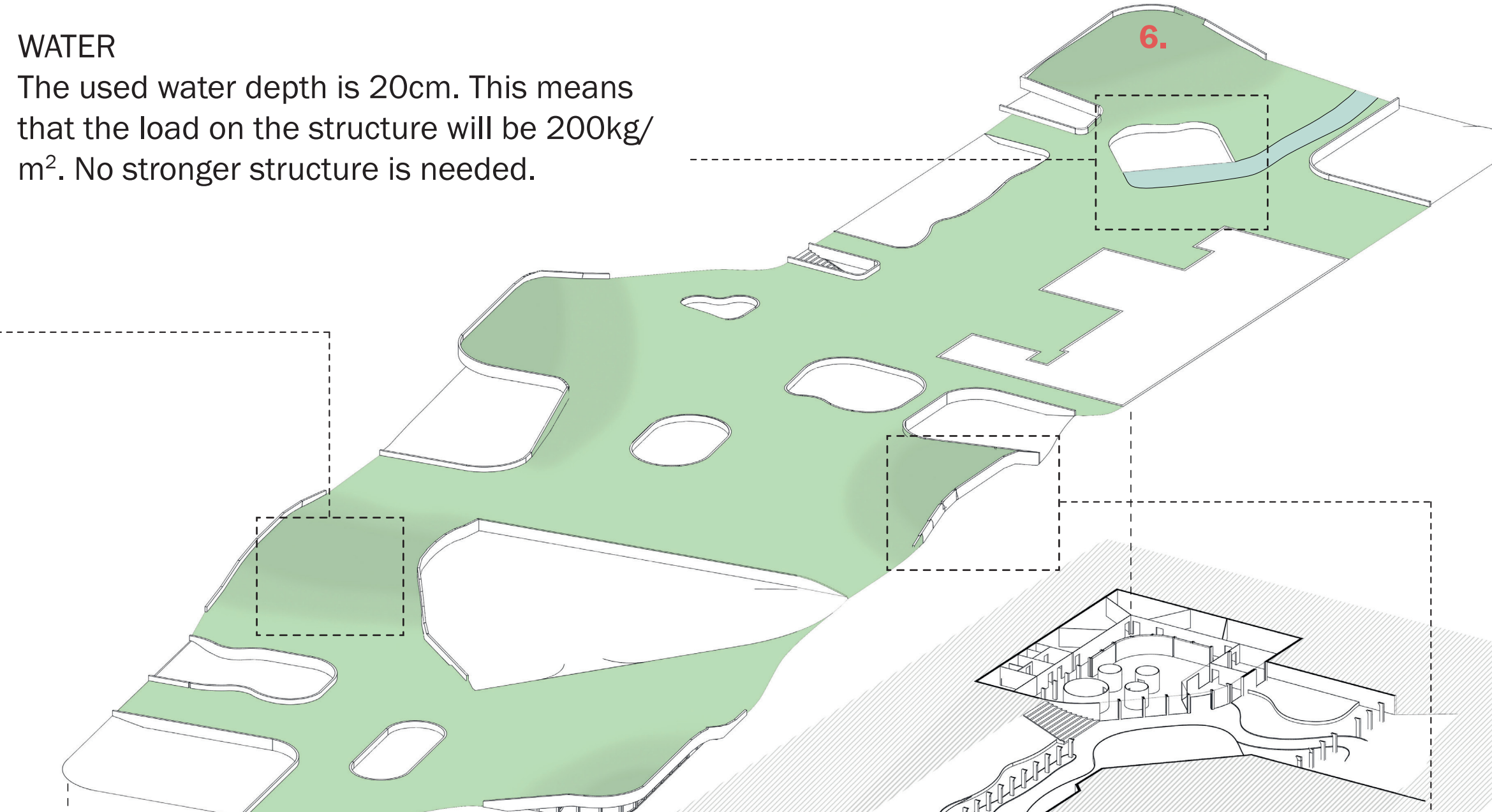


6. GREEN ROOF
Reduction of 30-40 °C of roof temperature

Up to 5 °C of surrounded ambient city temperature decrease

7. CONSTANT SOIL TEMPERATURE
Reduces heating energy because of constant 10 °C soil temperature

WATER
The used water depth is 20cm. This means that the load on the structure will be 200kg/m². No stronger structure is needed.



FLORA AND FAUNA

LAVENDER

- Stress-relieving benefits
- Reduction in anxiety, depression & sleeplessness

CHAMOMILE

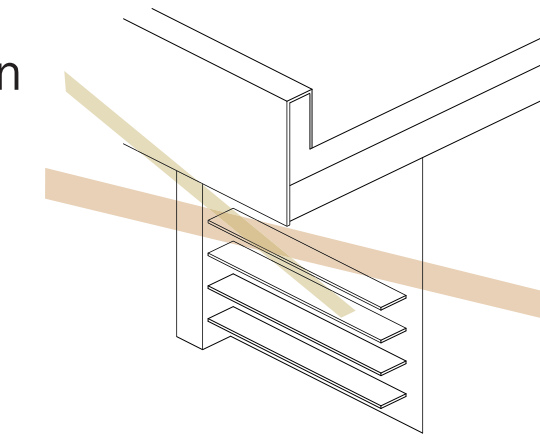
- Reduction in anxiety and stress
- Soothing effects on skin
- Mental health improving aroma

INSECTS


- Healthy flora by pollination
- Affects public health

(Belluco et al. 2023 & WUR, 2015)

SUNLIGHT PRINCIPLE



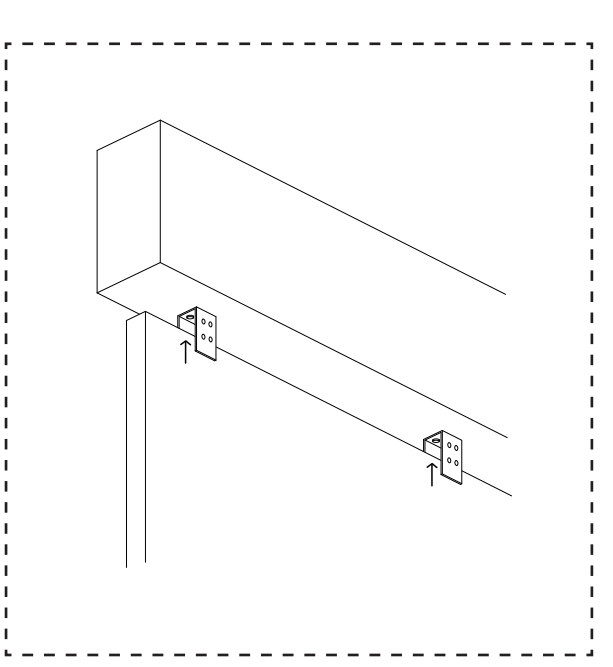
ENERGY PRODUCING TILES



Kinetic energy producing tiles on small route parts. "Stepping onto a Pavegen tile just one time releases 3-5 joules of electric charge, which is enough to power a light bulb for a few seconds." (Pavegen, 2023).

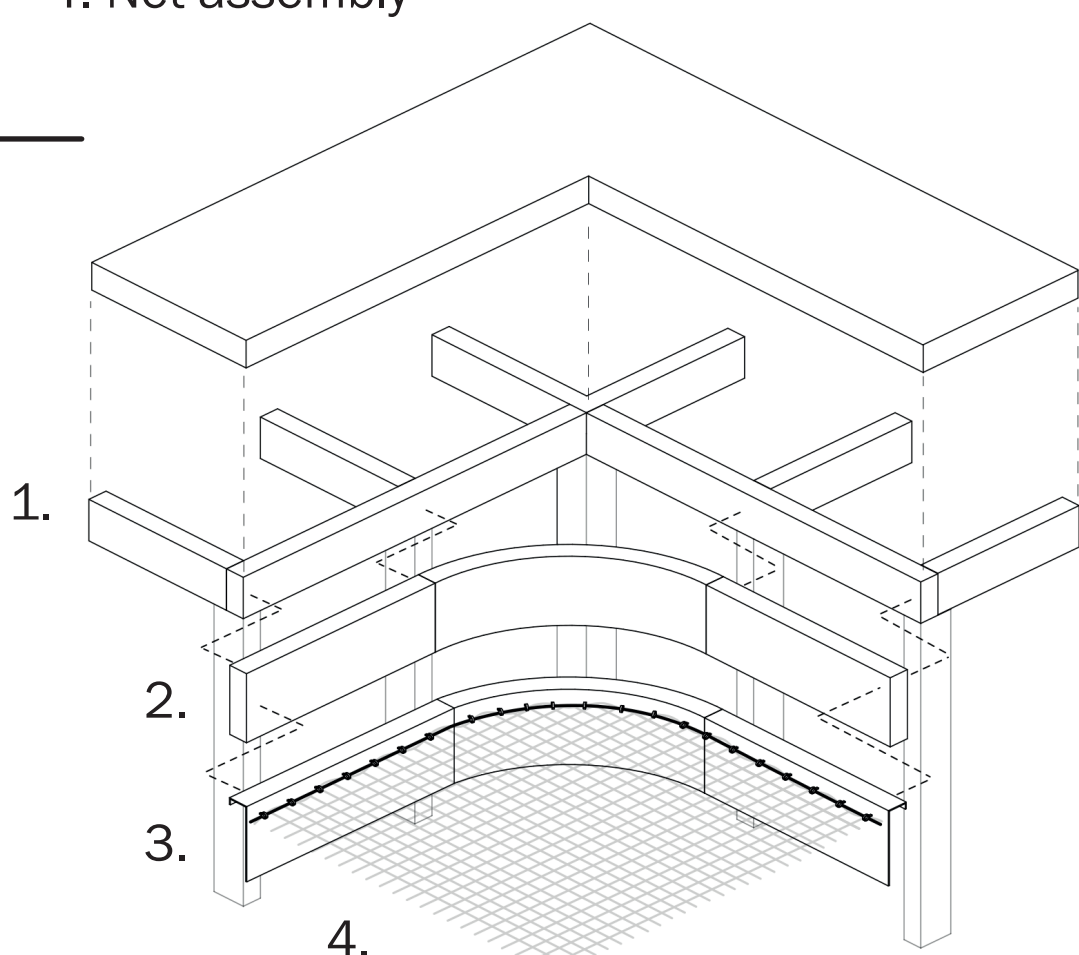
LOAD BEARING STRUCTURE AXONOMETRIC VIEW & PRINCIPLES

Modular inner wall system. Easily replaceable walls to create new spaces.



NET PRINCIPLE

1. existing load bearing structure
2. GLT side element
3. Corten steel protecting finishing
4. Net assembly

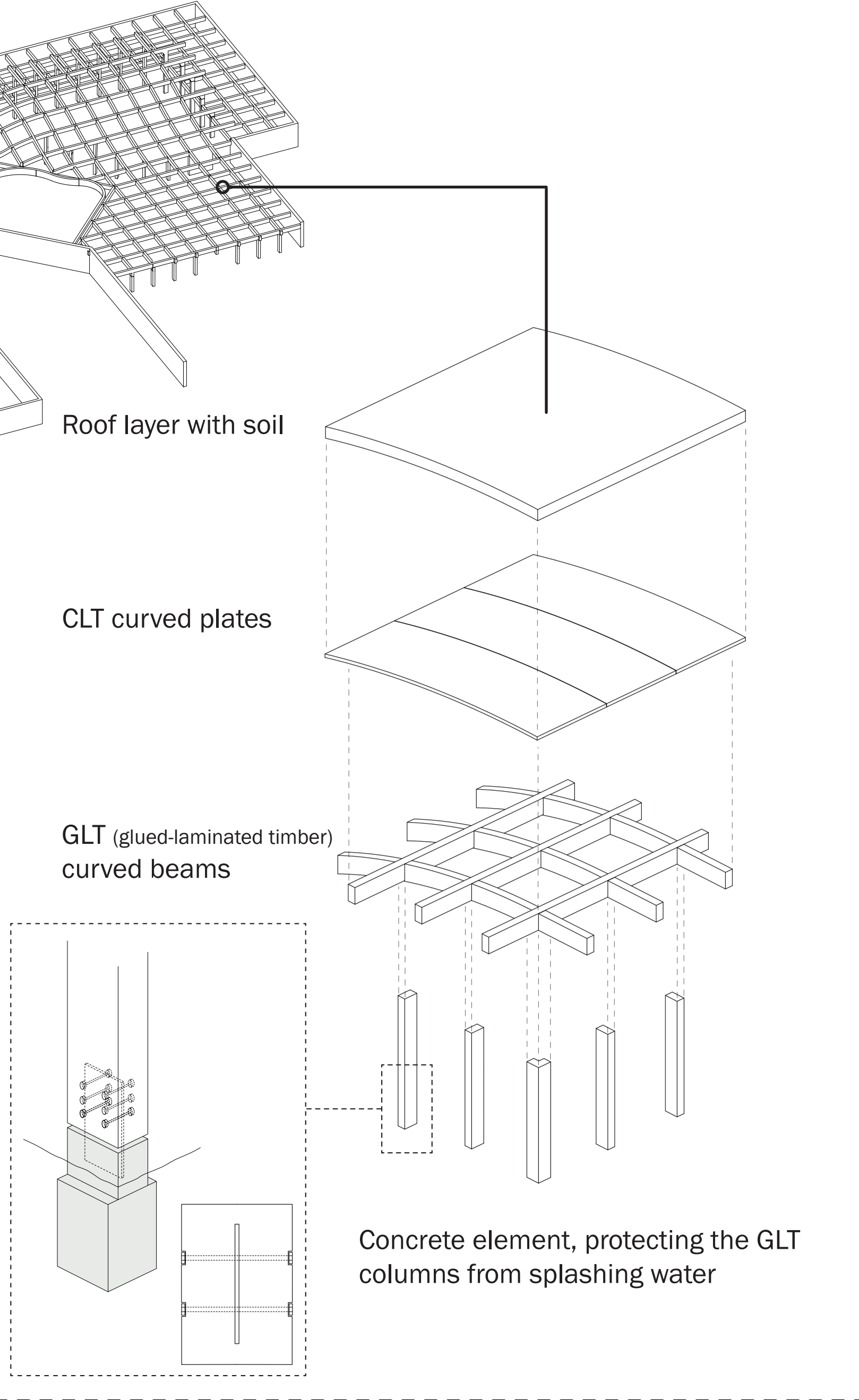


Roof layer with soil

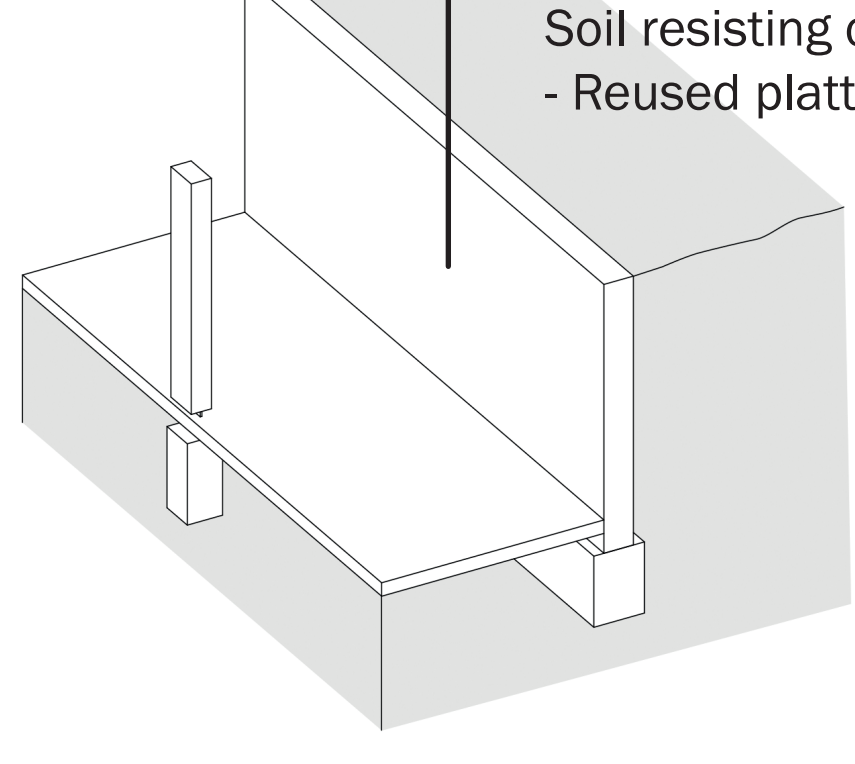
CLT curved plates

GLT (glued-laminated timber) curved beams

Concrete element, protecting the GLT columns from splashing water



Soil resisting concrete element - Reused plattenbau element



MAIN MATERIALS & CIRCULARITY

PLATTENBAU CONCRETE

- 100% reused material
- From Berlin itself

CLT TIMBER

- 90% of the whole structure
- Made in Germany

RECYCLED COTTON INSULATION

- Fully recycled
- Made in Europe

GREEN ROOF

- Reduction of urban heat stress. Around 50 °C of difference in comparison with a normal roof.
- Improvement of air quality
- Mental health improvement

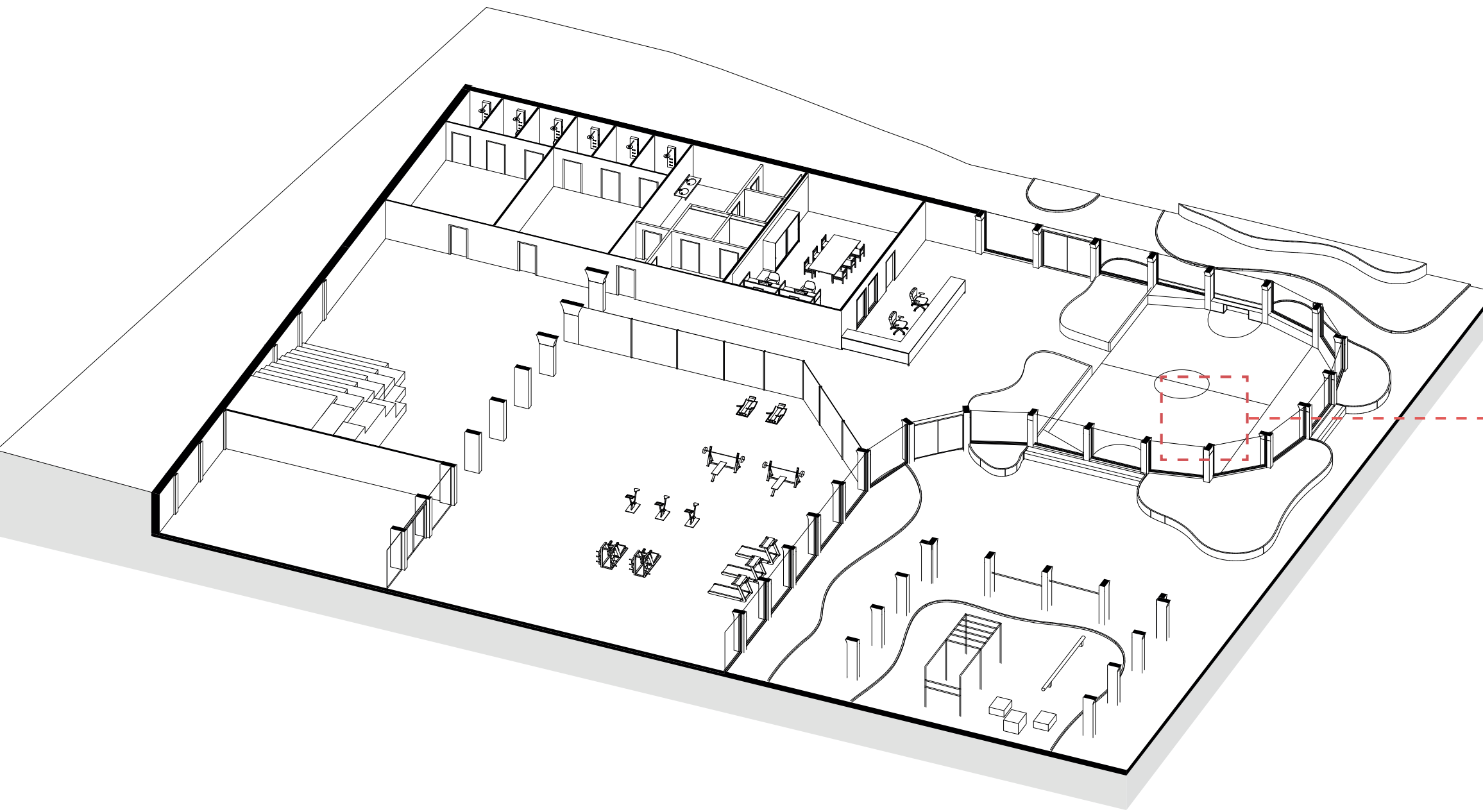
IMPRESSIONS

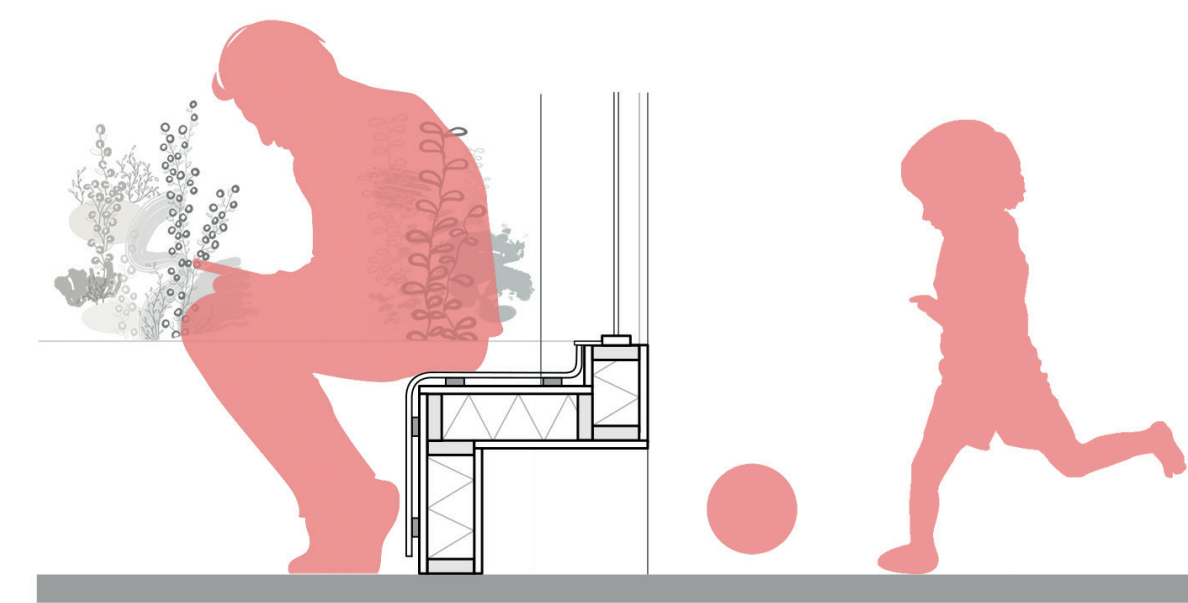


BENCH & PANNA FIELD GOAL

CHALKBOARD FACADE

INTERACTIVE FACADES

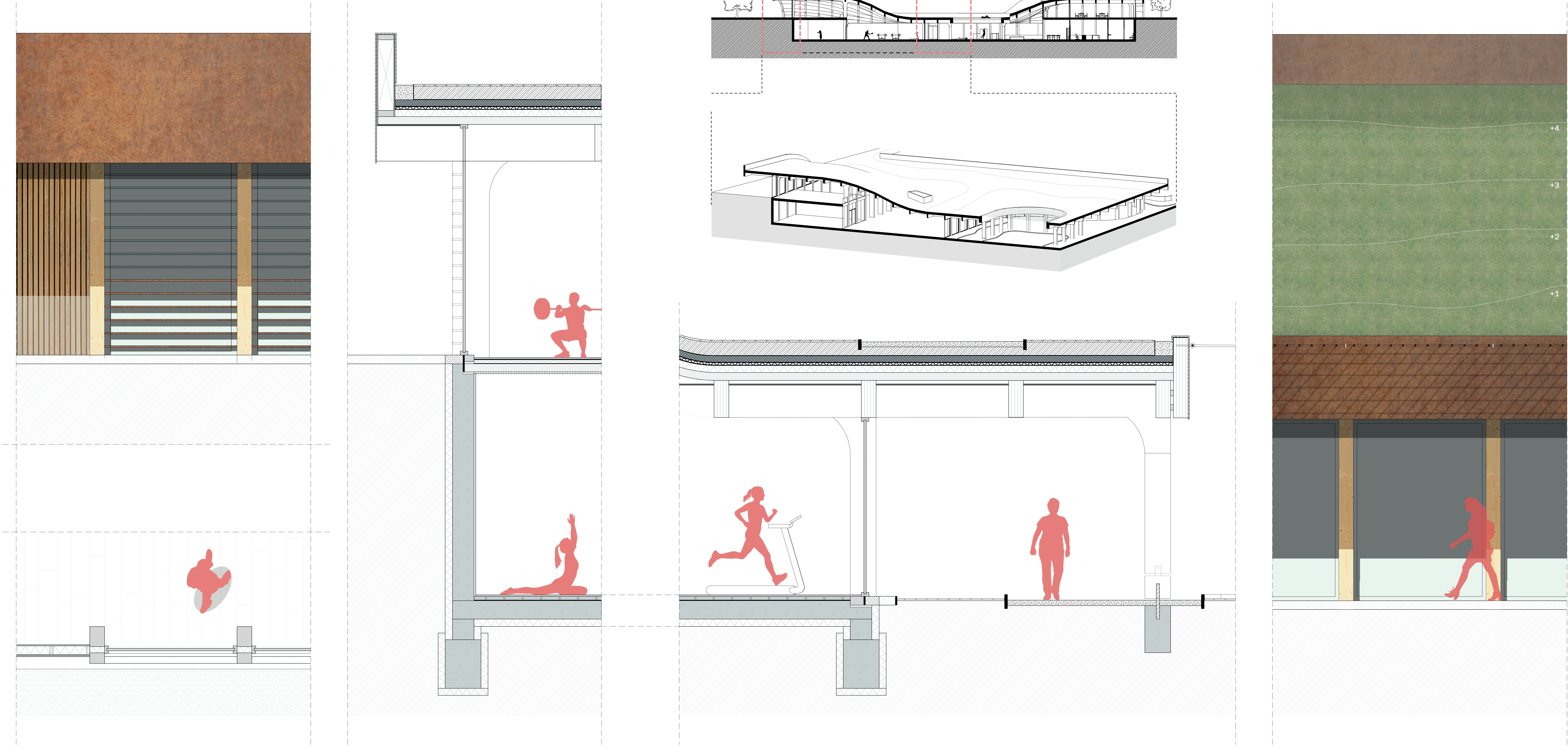




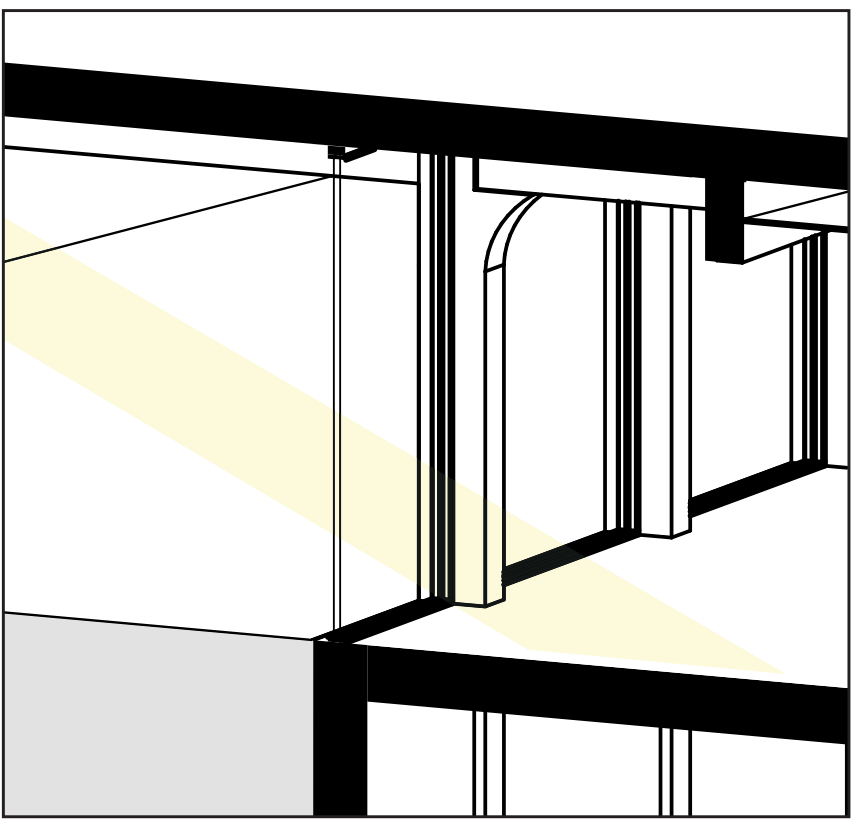
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TECHNICAL ASPECTS

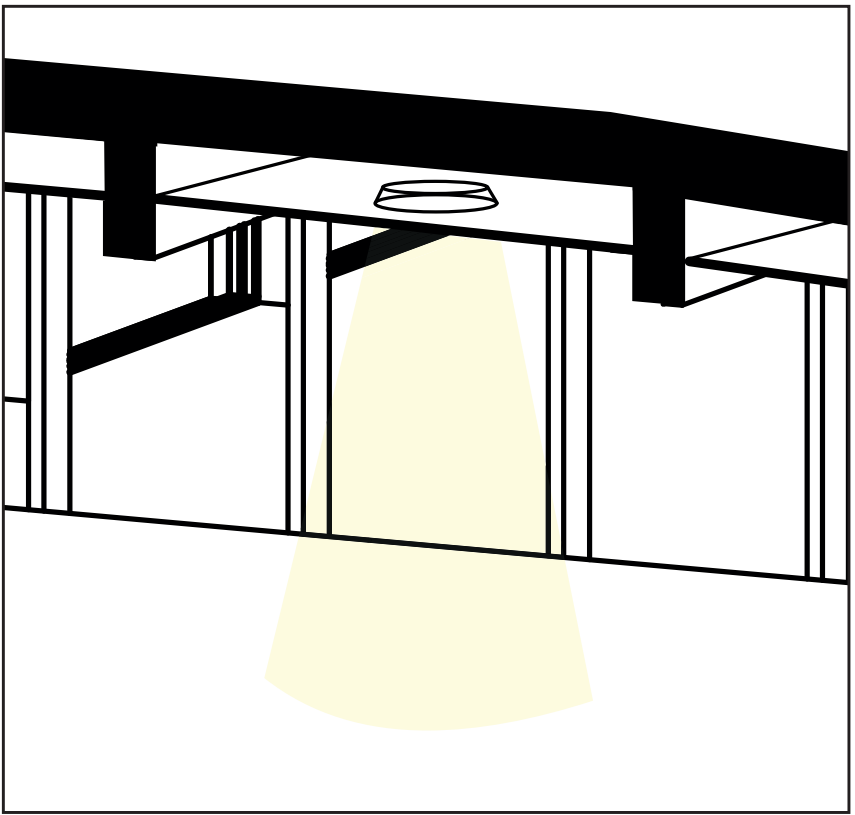
1:20 FRAGMENT SCALED TO 1:40



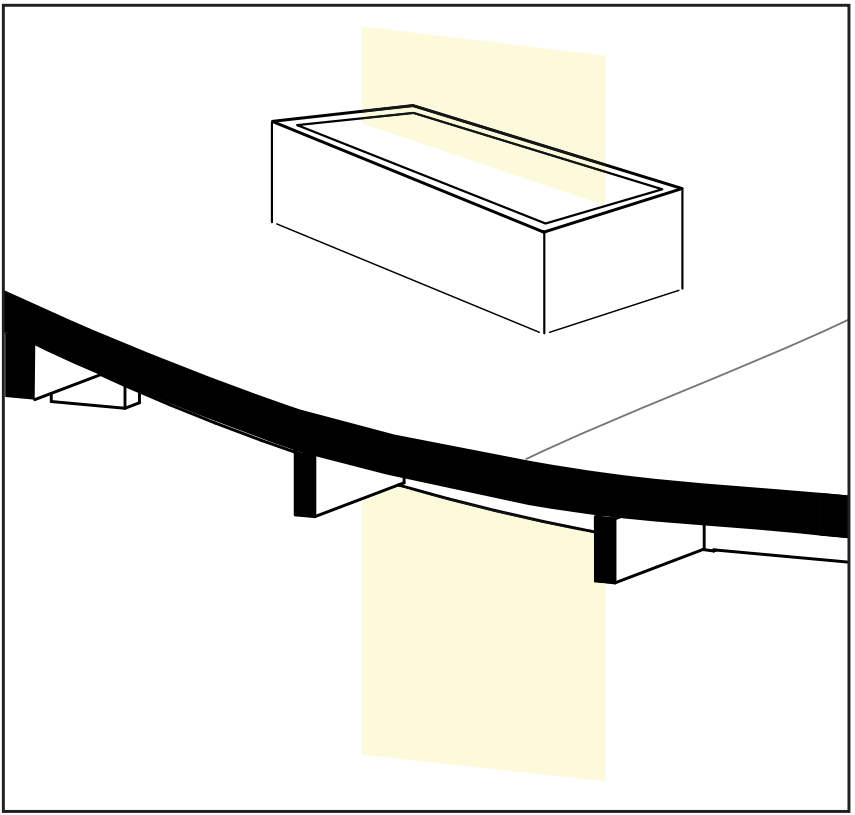
LIGHT PRINCIPLES



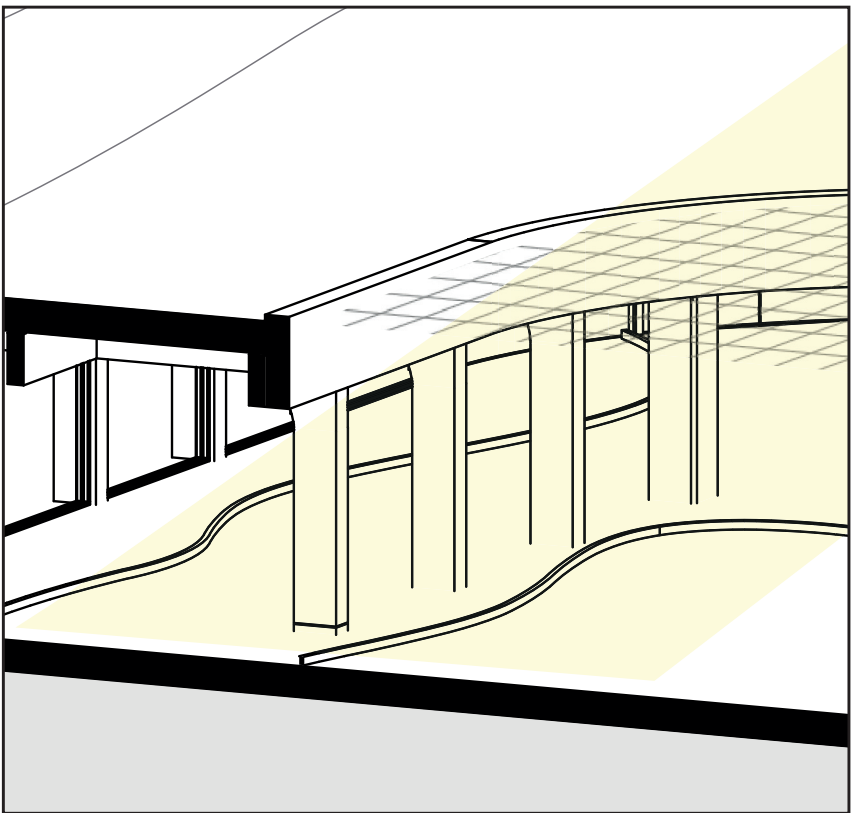
1. GLASS FACADE



2. ARTIFICIAL LIGHT

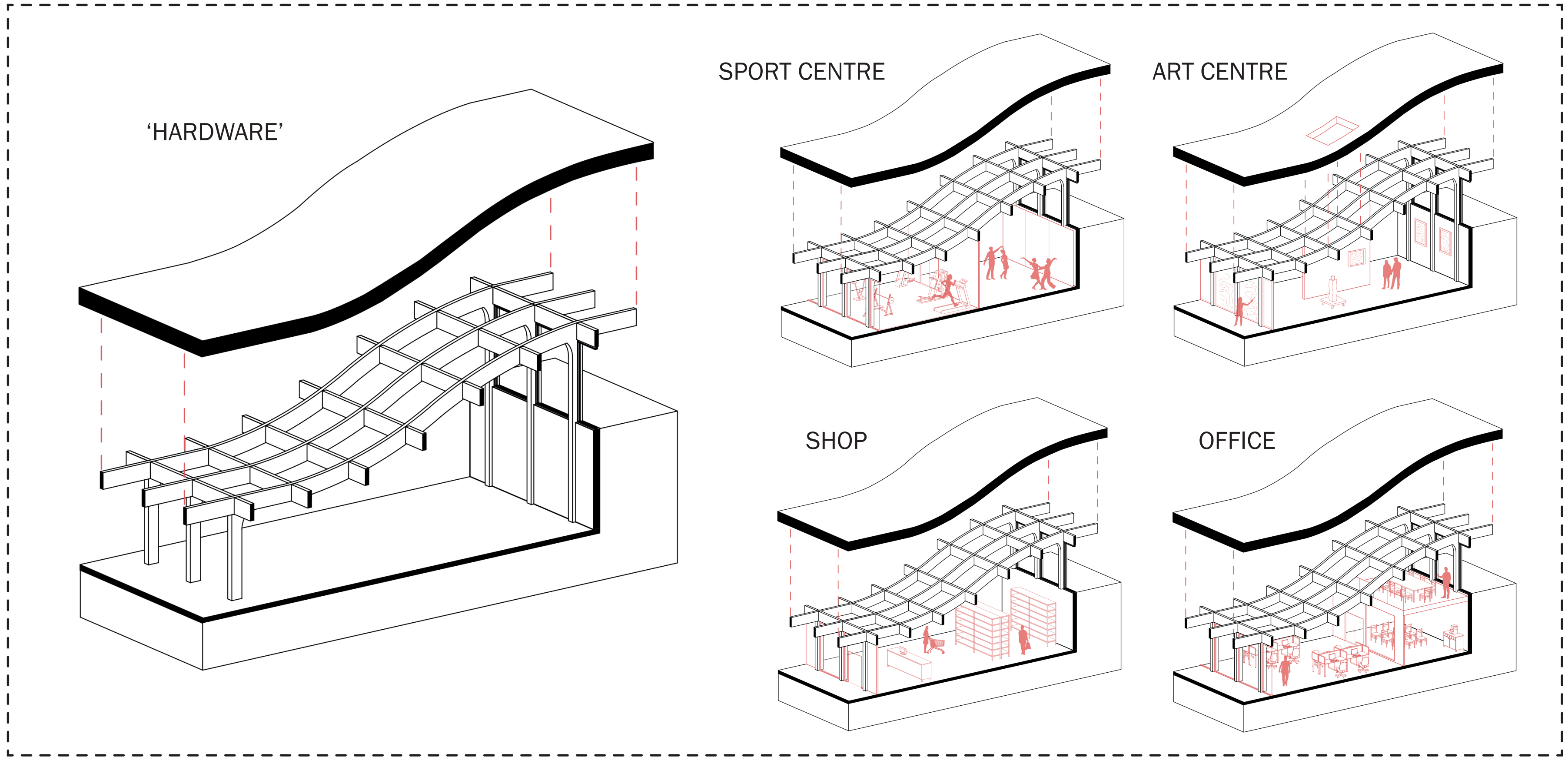


3. ROOF LIGHT



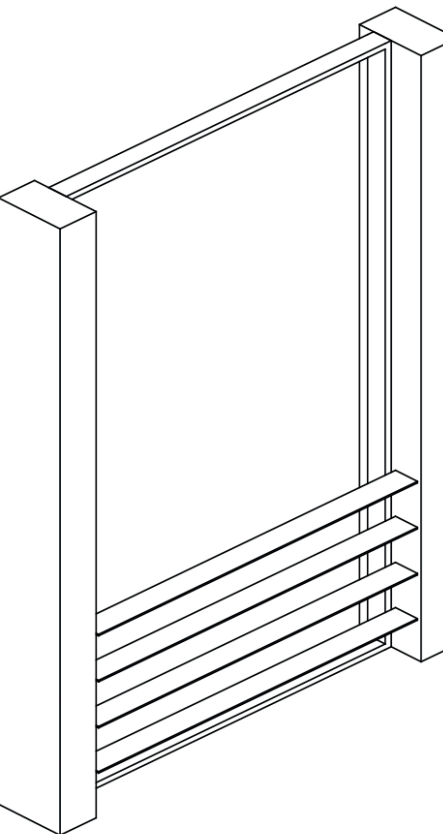
4. NET OPENINGS

'HARDWARE' VS 'SOFTWARE'

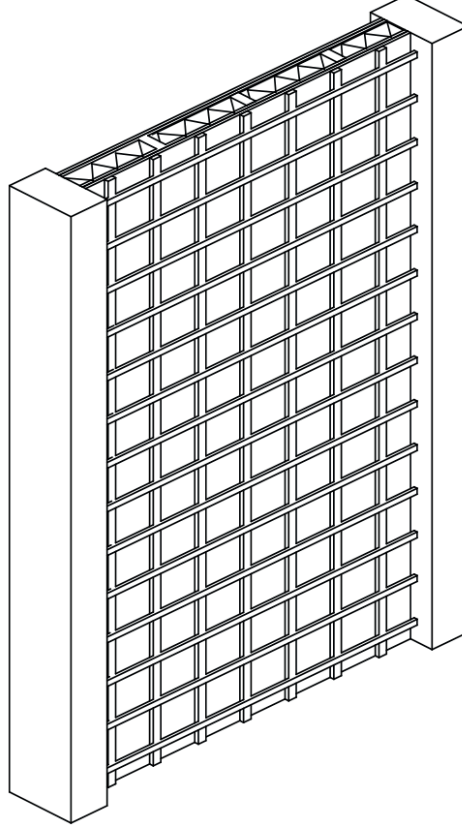


FACADE PRINCIPLE

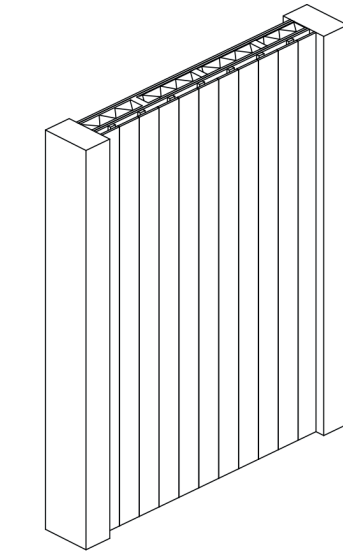
1. GLASS PANEL



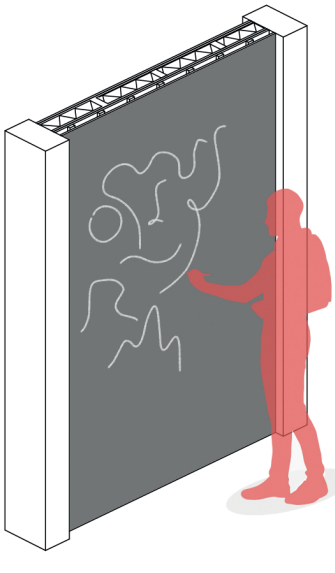
2. TIMBER FRAME CONSTRUCTION



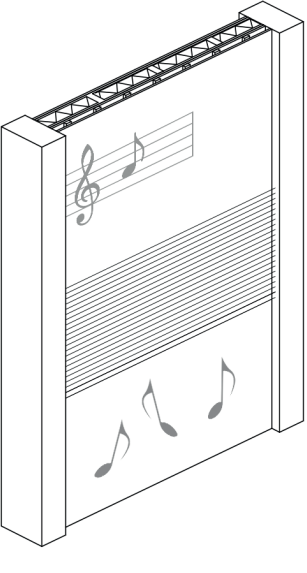
FACADE FINISH OPTIONS



VERTICAL TIMBER FACADE FINISHING



CHALKBOARD (ART WALL)



MUSIC FACADE (SOUND CENTRE)