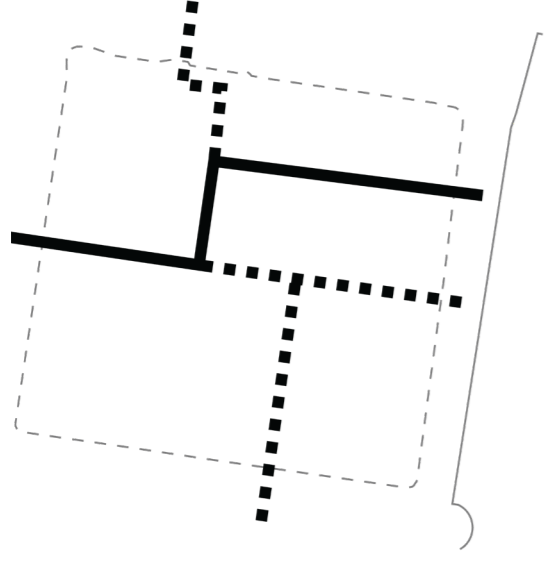


ET032 Toolbox for Metabolic urban landscape

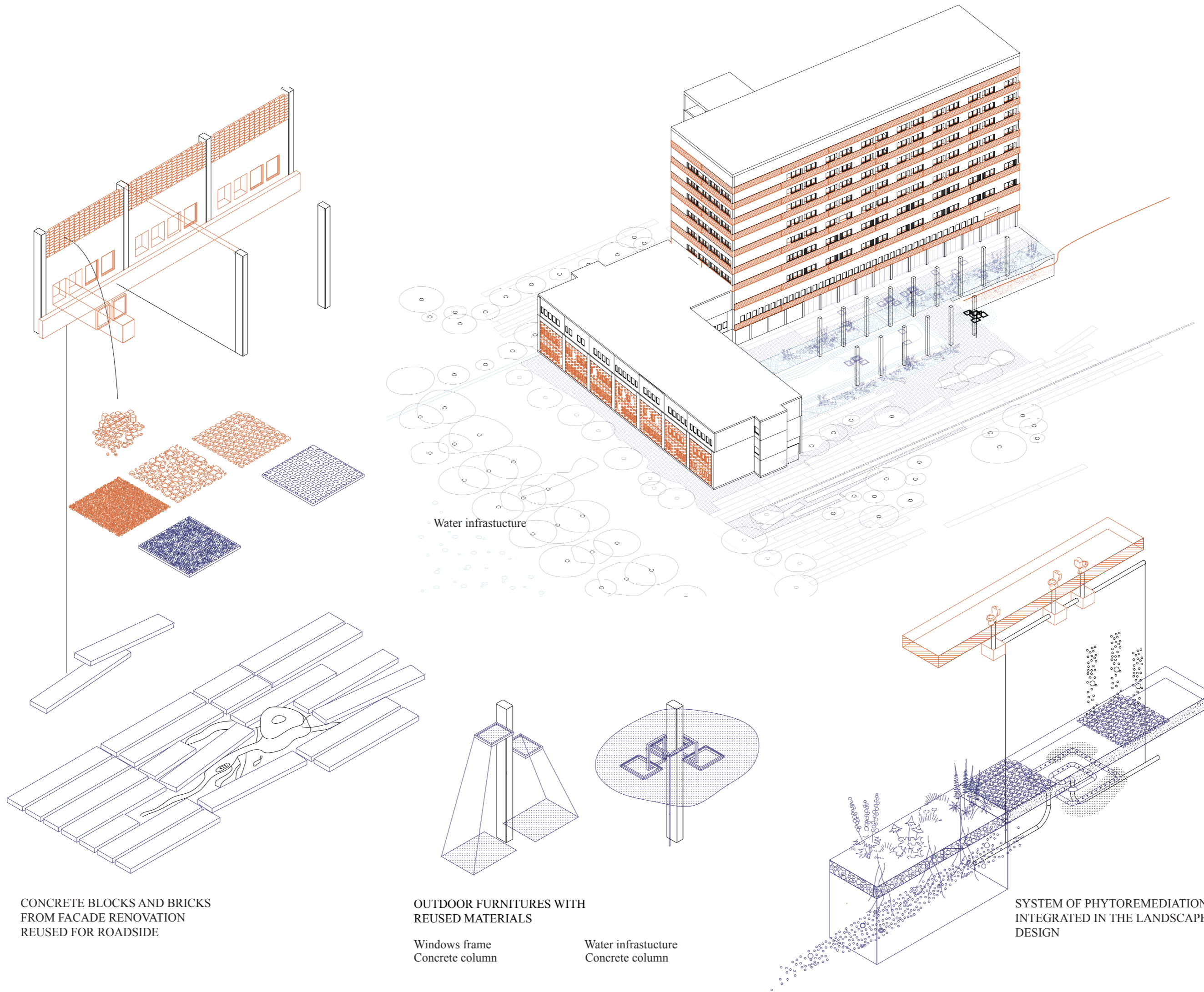
Path

Currently, the path doesn't allow crossing the site. By creating continuity and renovating the roadside with resources from the demolition, we can establish enjoyable pedestrian pathways while maintaining a strong link with the lake. Despite the new porosity of the ground, a road suitable for vehicles will still cross the site from east to west to serve the housing.



Open Courtyard

Opening the courtyard means making the ground more porous and deartificialized, creating an infrastructure network for water regeneration through landscape design



CONCRETE BLOCKS AND BRICKS FROM FACADE RENOVATION REUSED FOR ROADSIDE

OUTDOOR FURNITURES WITH REUSED MATERIALS
Windows frame
Concrete column

Water infrastructure
Concrete column

SYSTEM OF PHYTOREMEDIATION INTEGRATED IN THE LANDSCAPE DESIGN

Embracing Entropy and Contingency in Landscaping

The incorporation of re-employed blocks from facades serves as a key technical aspect, providing stability and durability to support heavy loads. The varying joints between the blocks are strategically designed to create ample space for tree roots and vegetation to grow, intertwine, and reshape their order. Additionally, these blocks are intentionally permeable, promoting efficient water infiltration into the soil, reducing runoff, and contributing to the replenishment of groundwater.

While the re-employed bricks serve a dual purpose by improving drainage and preventing soil erosion, the spaces between the bricks facilitate better water percolation, preventing waterlogging and enhancing soil aeration.

By incorporating re-employed blocks and bricks, the project establishes a dynamic negotiation between human and non-human entities, recognizing the agency of nature in shaping the ground. Embracing the principles of entropy and contingency

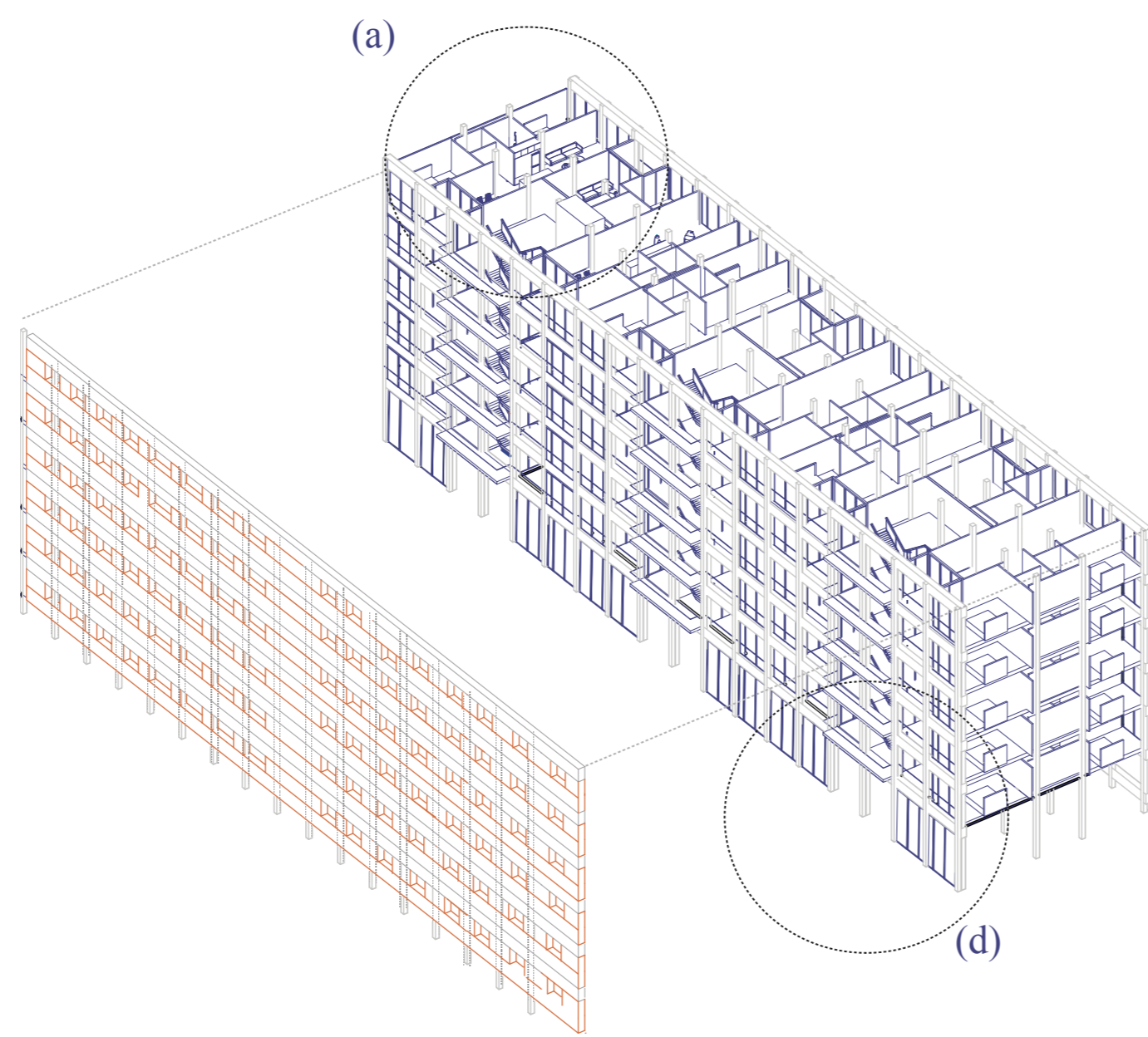
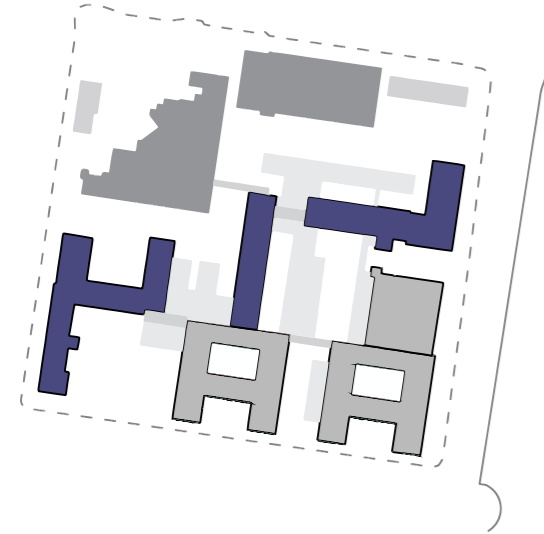
RHIZOFILTRATION & PHYTOREMEDIATION for ground floor regeneration and water revitalization

By utilizing the current pipeline infrastructure, we direct contaminated groundwater towards carefully selected plant species known for their remarkable ability to absorb pollutants. These plants have extensive root systems that function as natural filters, efficiently extracting contaminants from the water through physical entrapment and biochemical processes. This method presents a cost-effective and practical solution for revitalizing the hospital ground floor while simultaneously improving water quality for irrigation and minimizing any negative effects on the environment

Toolbox for Metabolic architecture

Bars

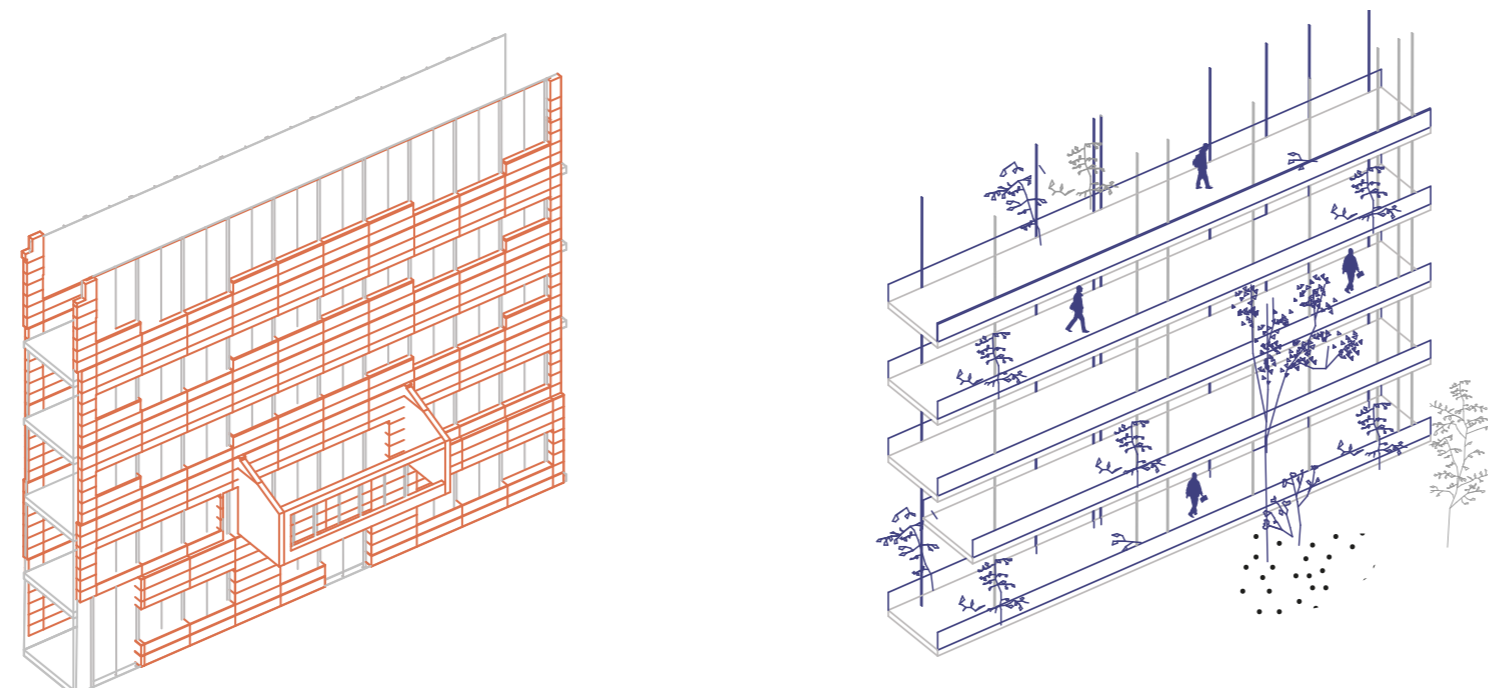
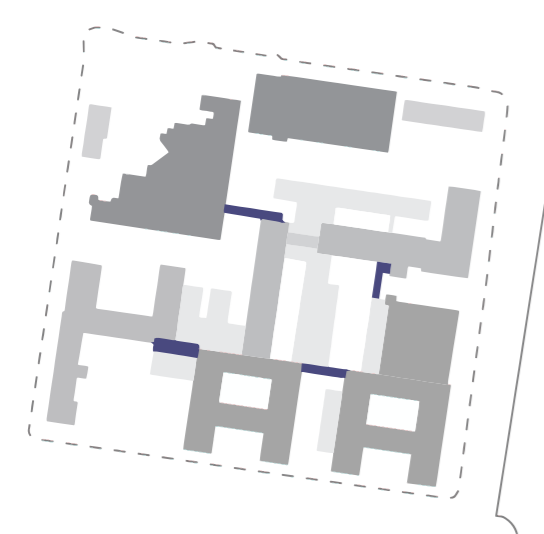
This typology of structure is omnipresent on the site, making it profitable for creating housing. Many aspects make it highly potential for sustainable functioning by renovating the facade.



SCHEME OF THE TRANSFORMATION OF THE BAR TYPOLOGY

Gateway

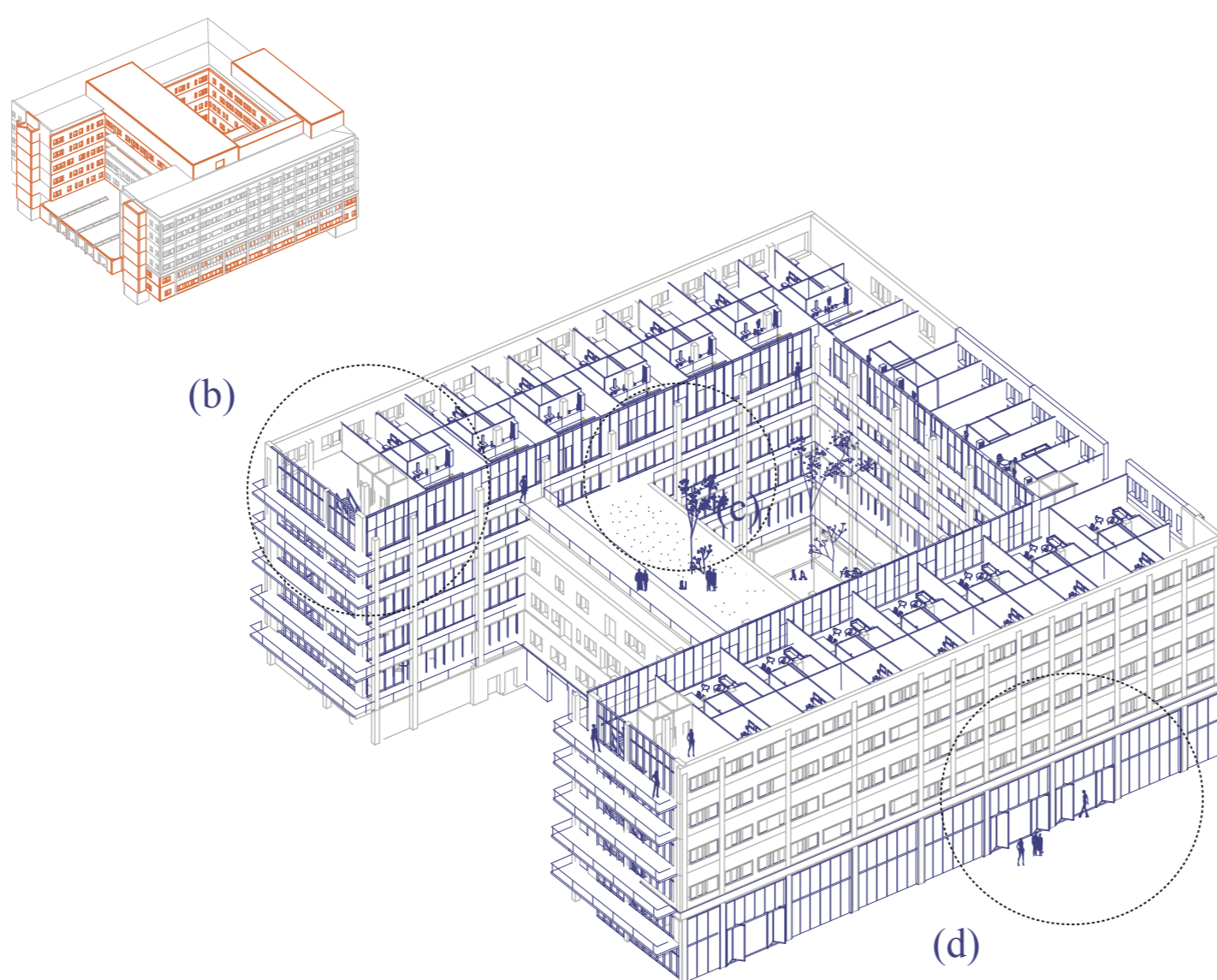
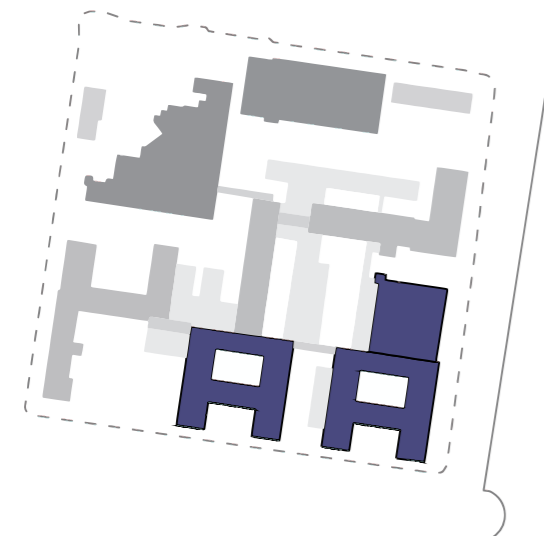
Today, gateways link the different building but enclose the courtyards. By opening them, taking out their partition for reuse, we create visual porosity throughout the site. Although, they can become vegetation support and conduct water from the roof to the ground infiltration system.



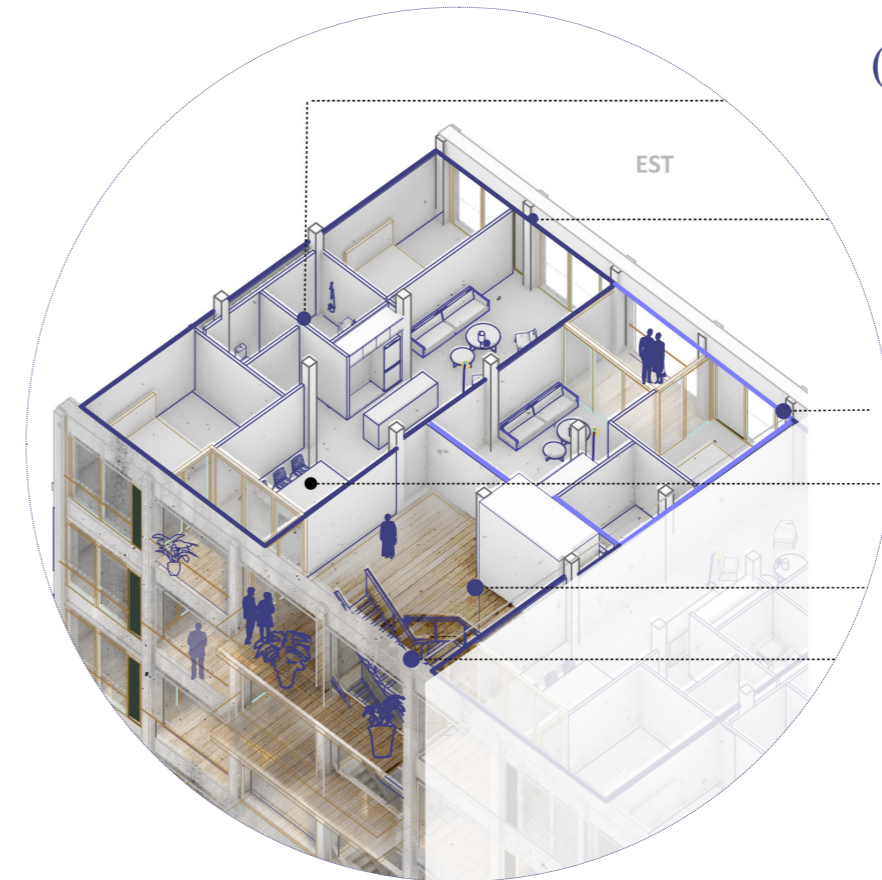
SCHEME OF THE TRANSFORMATION OF THE GATE WAY

Cluster Square

Currently, gateways link the different buildings but enclose the courtyards. By opening them and removing their partitions for reuse, we can create visual porosity throughout the site. Additionally, these gateways can serve as vegetation support and facilitate water flow from the roof to the ground infiltration system



TRANSFORMATION OF THE SQUARE TYPOLOGY

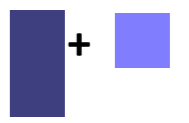


(a) Prefabricated

Prefabricated sanitary module plug to existing water column.

F3

Layout versatile



F2

Crossing Flat

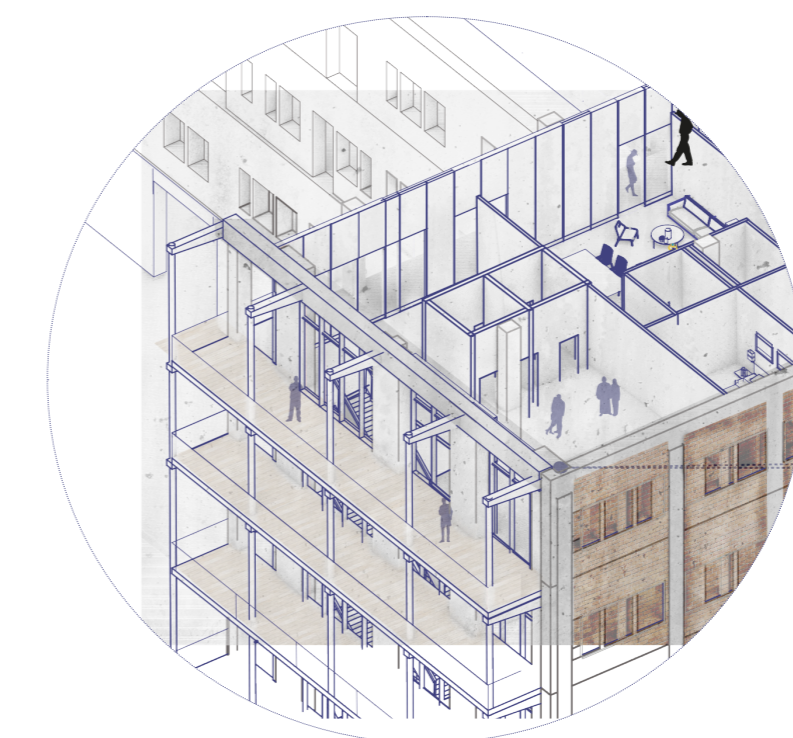
Integrating a living room with natural ventilation and an adaptive loggia allows for enhanced comfort and versatility.

Natural Ventilation

Vertical chimney for natural ventilation

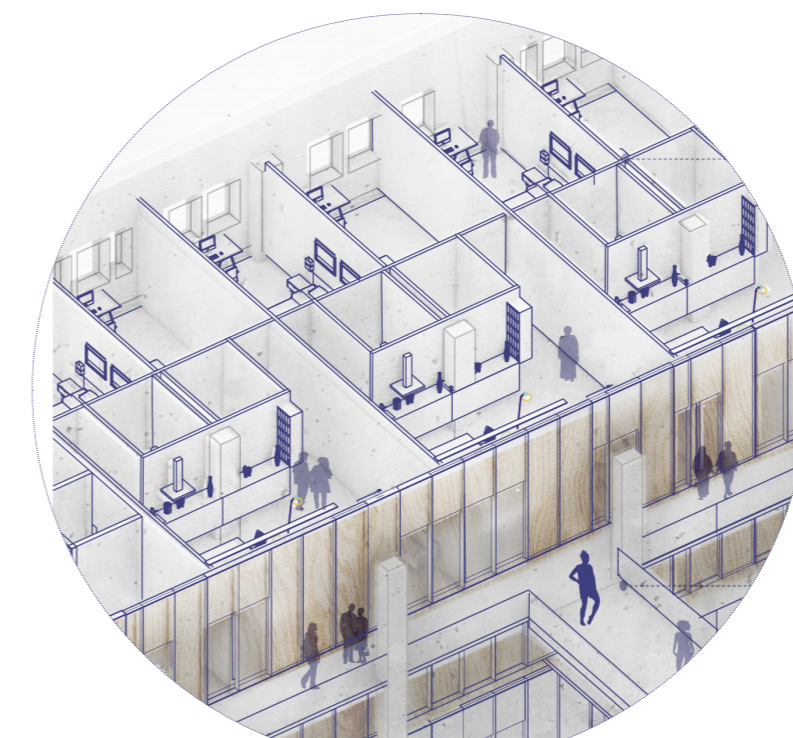
Outdoor Circulation

Vertical circulation galleries with vegetation promoting freshness and bioclimatic protection.



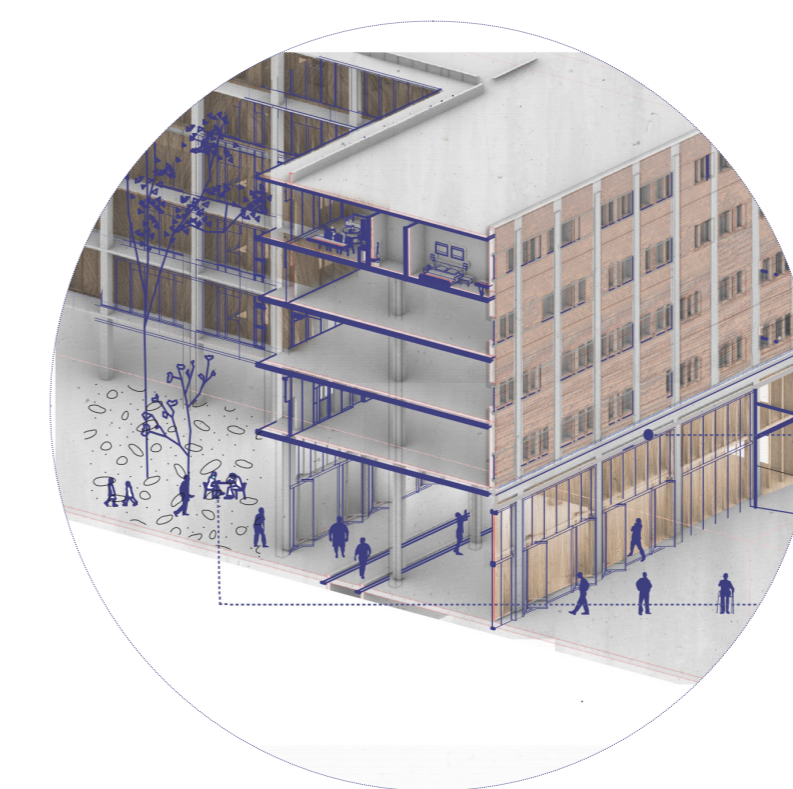
(b) Extend the south facade

Adding a structure of balcony of the south facade create a passive sun protection by the overhang of the balcony. The opening are enlarged for summer confort.



(c) Shared flat

The housing typology proposed in the square cluster offers F1 and F2 units with shared space in the passageway. This allows people to access affordable housing and benefit from a generous shared space



(d) Open Interior

The new interior facade of the cluster square offers passageways to serve the housing units. This approach to serving could easily allow program mutability, such as converting the spaces into offices.

Activate the Ground Floor

Enlarging the ground floor following the structure of the existing facade allows the ground floor to host diverse activities such as workshops, retail spaces, and co-working areas. Although it increases the porosity of the site.

Vegetalized patio

Deartificializing the ground of the courtyard by restoring the soil and planting trees can help prevent urban heat islands.