LIVING THE LANDSCAPE

A regenerative urban village within Lisbon's green network

The project reimagines the Maria Droste site as a **resilient ecological neighborhood** where **landscape**, **community**, and **circular living** become the foundation of urban life. Rather than imposing conventional urban blocks onto the terrain, the proposal allows the existing topography, vegetation, and ecological systems to shape the spatial organization of the neighborhood. Buildings emerge as smaller clusters integrated within a continuous green framework composed of productive gardens, water-sensitive landscapes, pedestrian networks, and shared public spaces.

Inspired by the social and spatial qualities of village life, the project promotes a **slower and healthier urban lifestyle** centered on community interaction, biodiversity, and environmental awareness. **Farming, water, and collective spaces** operate as the core generators of the neighborhood while supporting principles of circular economy through local food production, resource efficiency, low-carbon mobility, and shared infrastructures. Ecological corridors, green buffers, renewable strategies, and stormwater management systems strengthen climate resilience and reinforce the relationship between people and nature.

The proposal is conceived not as an isolated architectural intervention, but as **a living ecosystem rooted in its landscape and identity**. By integrating resilience, circular systems, and ecological continuity into everyday urban life, the project establishes a new model for regenerative urban living aligned with the C40 vision for green and thriving neighborhoods.



LANDSCAPE AS STRUCTURE

Ecological continuity across the site
Gentle green topography as a structuring system
Preservation of permeability and natural ground



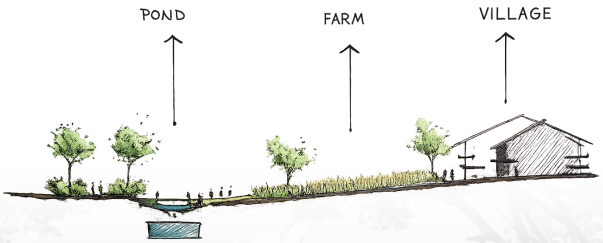
BUILT FORM STRATEGY

Housing embedded within the landscape
Blurring boundaries between built and natural
A contemporary eco-village embedded within the city



LIVING CONCEPT

Clustered and non-linear building organization
Context-responsive placement within the topography
Avoidance of rigid and repetitive urban blocks

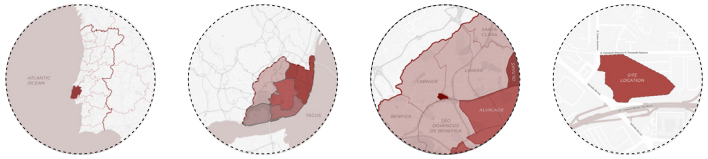




Knowledge Phase

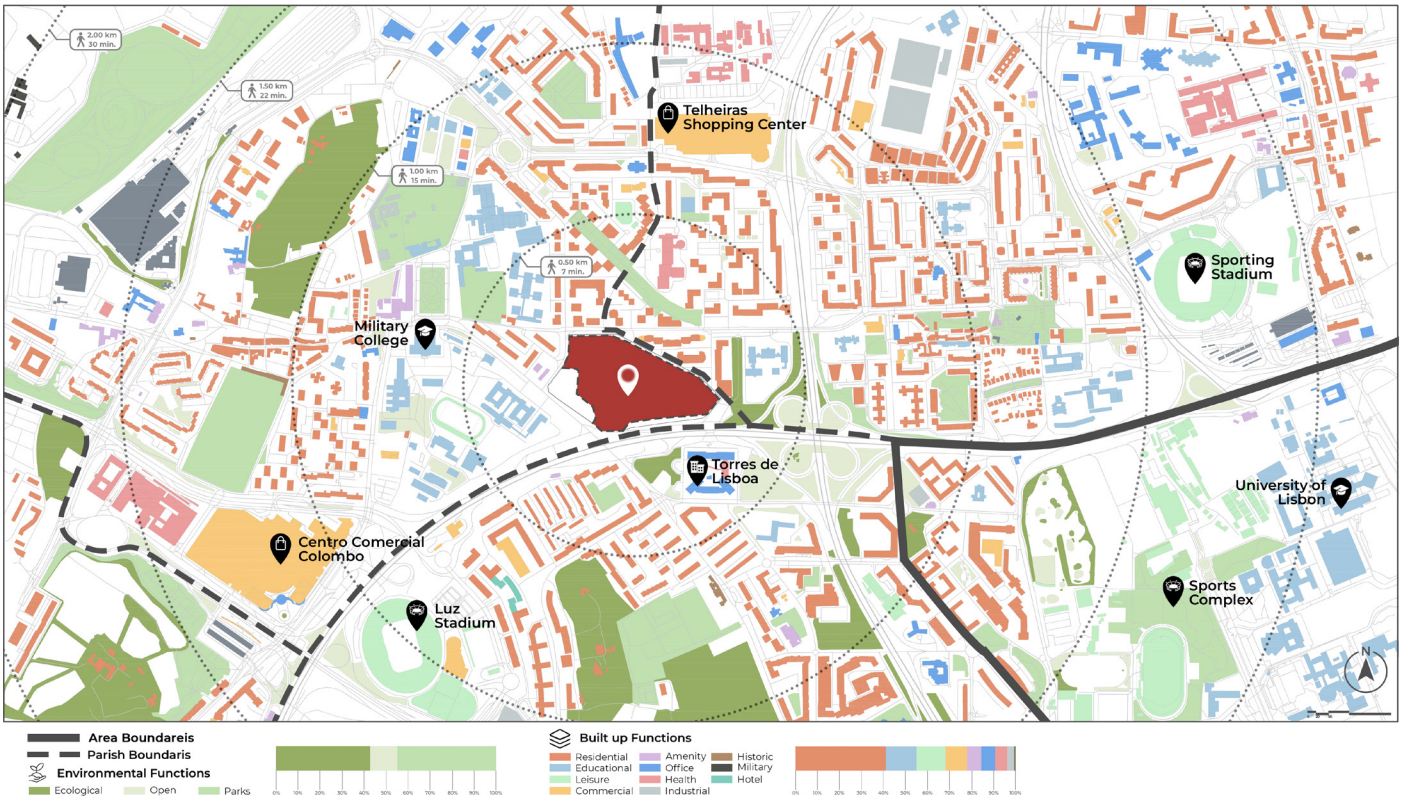
The analysis highlights the strategic location of the site within northern Lisbon, between major urban functions, ecological areas, and mobility infrastructures. Proximity to public transport, green spaces, and key facilities reveals the potential for a compact, walkable, and climate-responsive neighborhood aligned with the principles of the 15-minute city.

Site Location

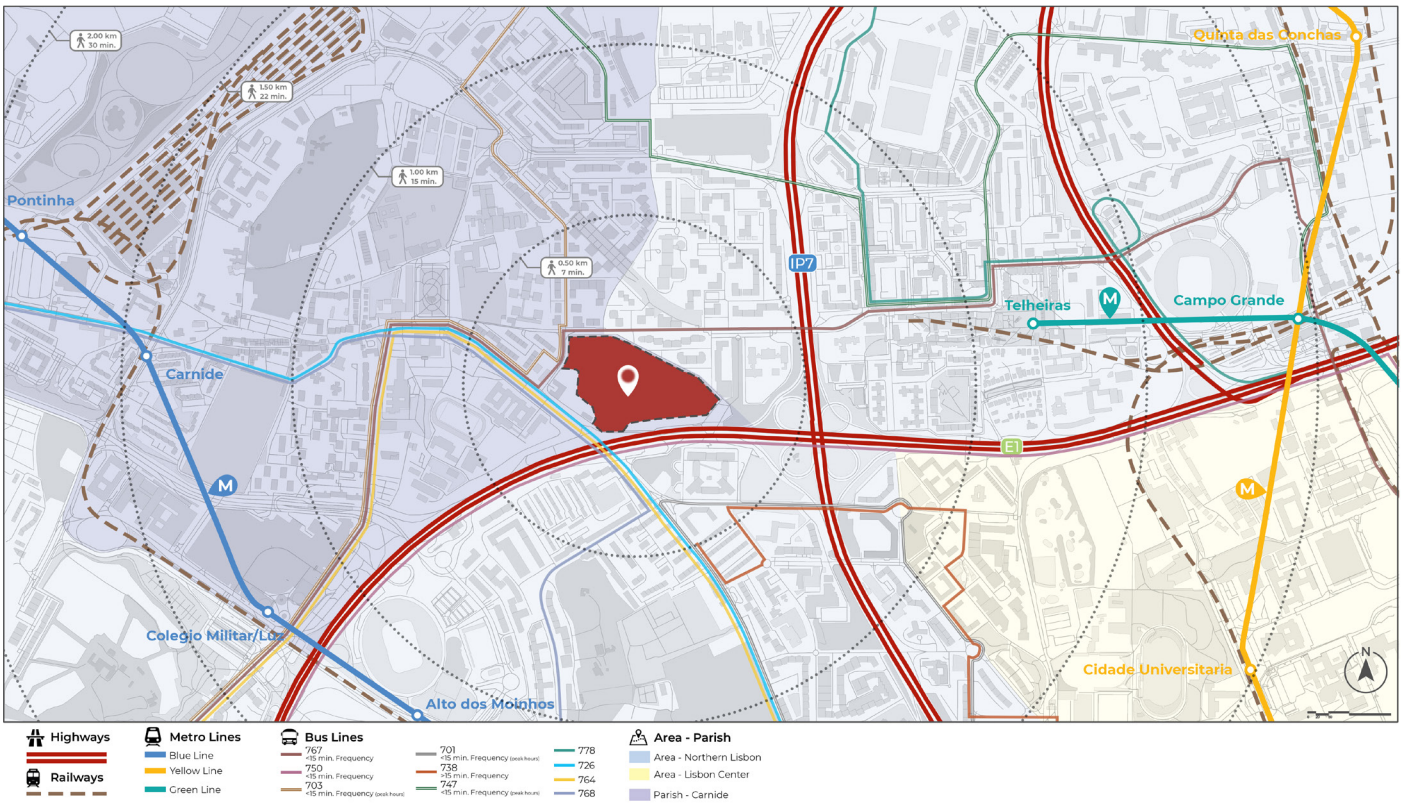


LISBON, PORTUGAL | NORTHERN LISBON | CARNIDE PARISH | MARIA DROSTE

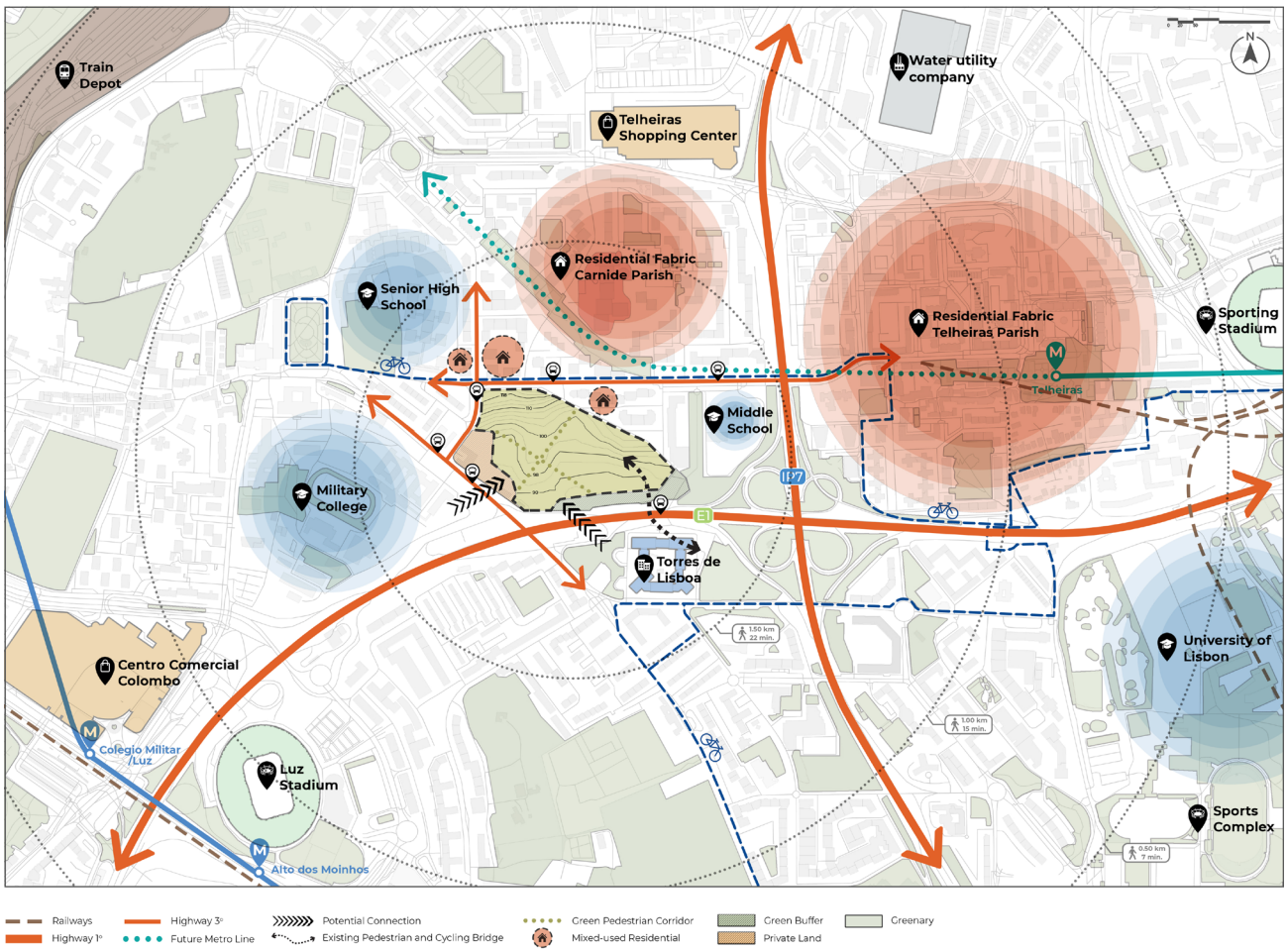
Environmental and Built-up Map



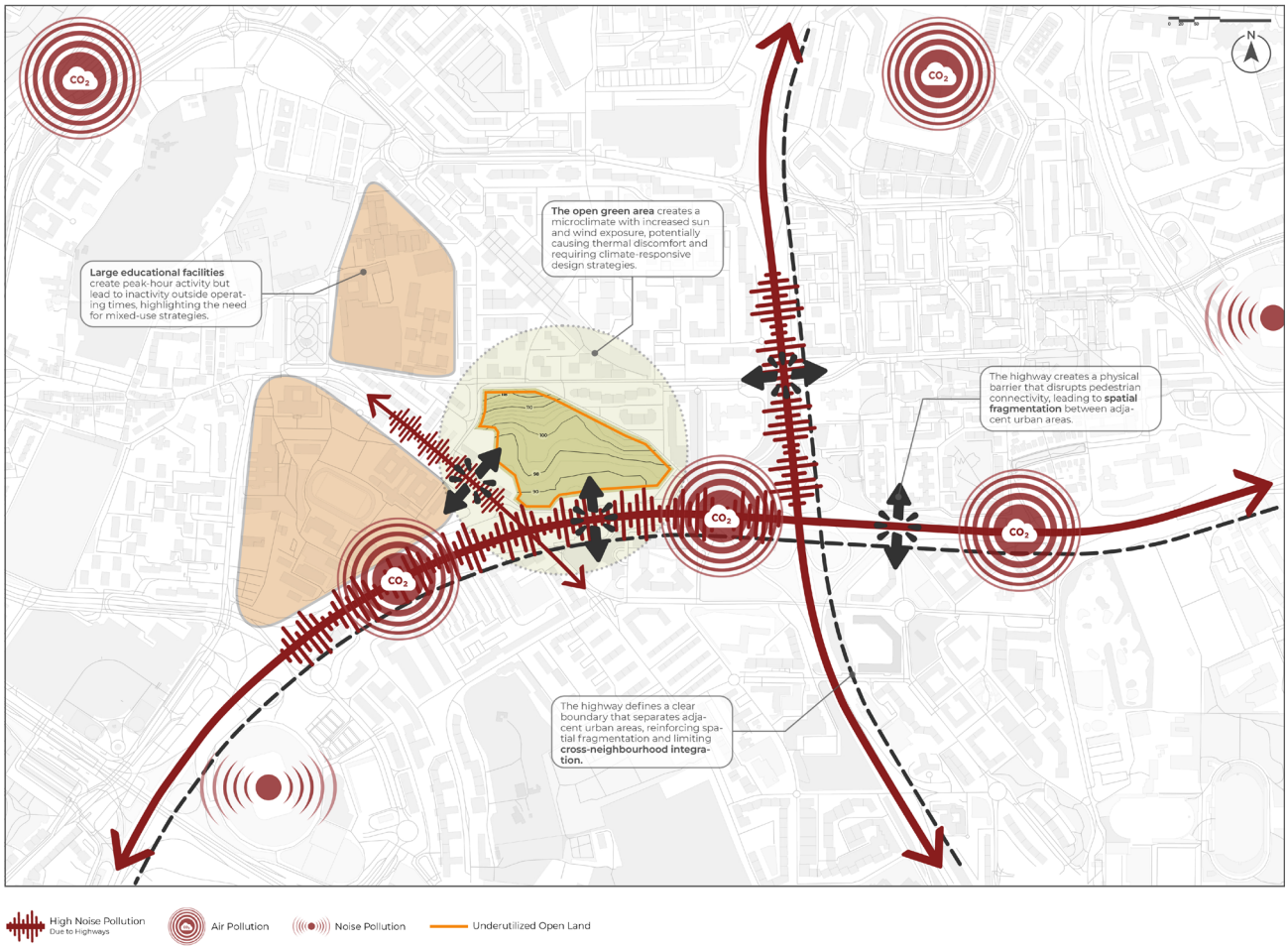
Mobility Map



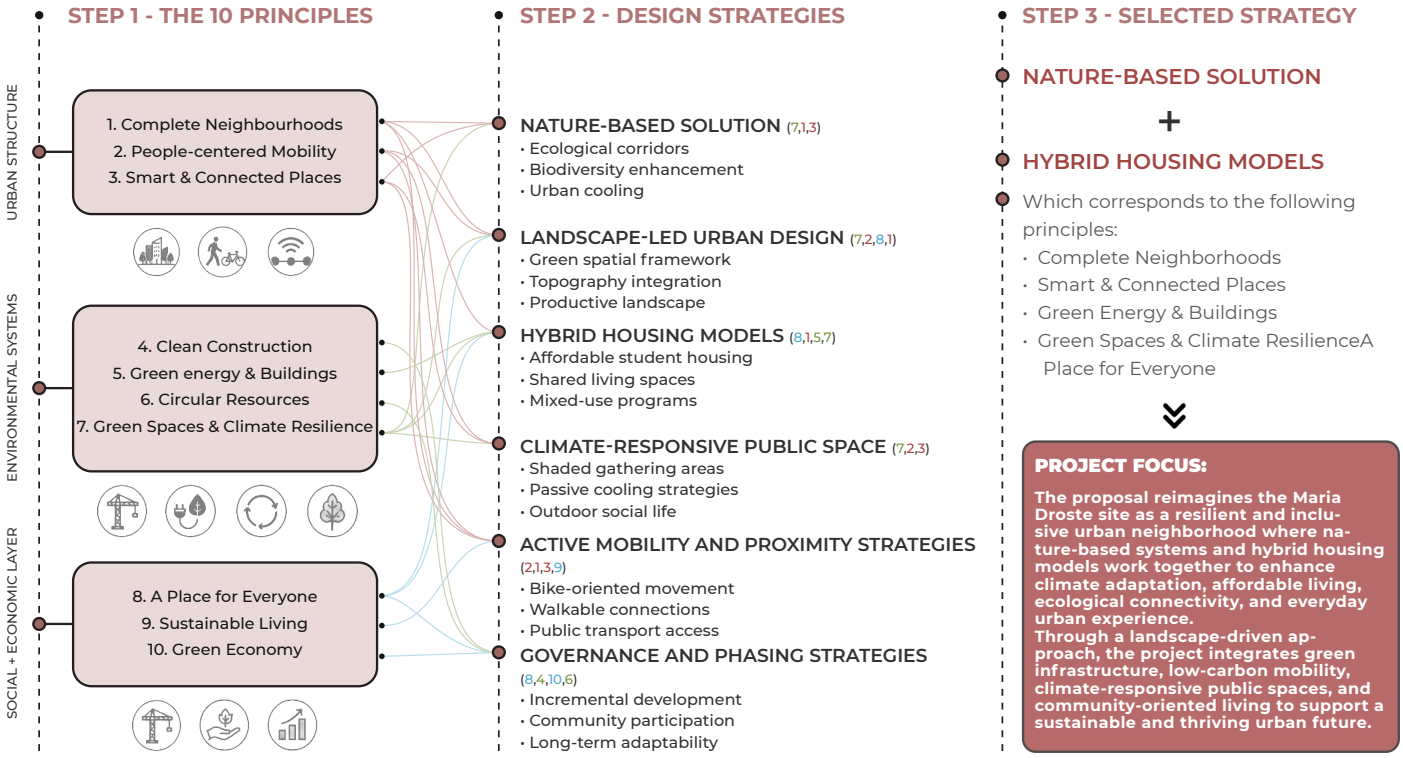
Resource Map



Constraint Map

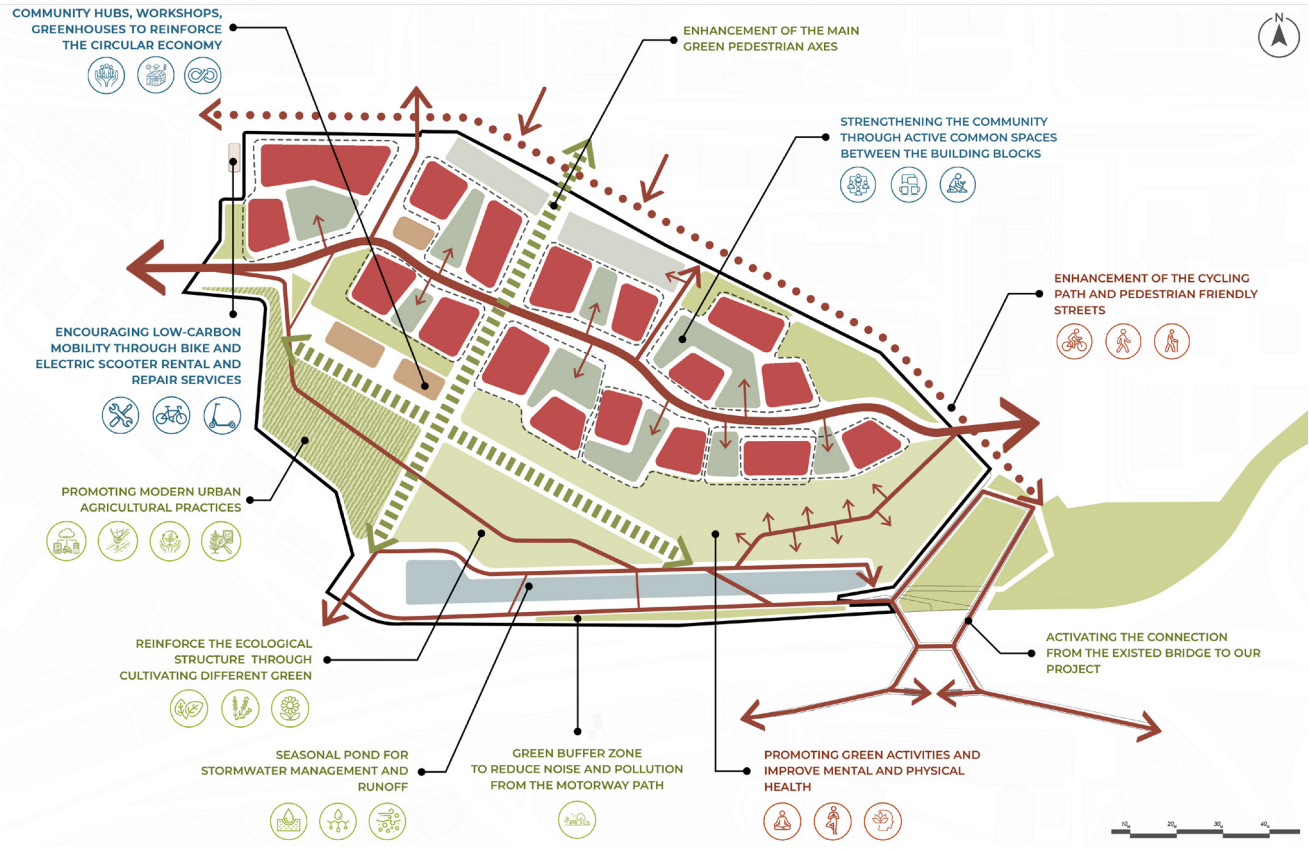


Strategies and Goals



Strategic Urban Masterplan

The proposal preserves and **reinforces the site's two main green axes** as the ecological and spatial structure of the neighborhood. Buildings are organized as **smaller clusters** that respond to the landscape and create a stronger connection with the site context and human scale. The project also **activates the existing bridge connection and Travessa da Luz** as key neighborhood corridors that **reconnect fragmented urban areas through walkable green public spaces. Based on environmental analysis and rainwater simulations**, a **seasonal pond** is introduced to support **stormwater management, biodiversity, and ecological resilience**, contributing to a more connected and climate-responsive urban environment.



Urban Masterplan (UMP)

Developed from the identified strategies, challenges, and environmental analyses, **the masterplan integrates the ecological landscape and built environment into a unified urban system** while **minimizing soil excavation** and **preserving the existing green structure**. The proposal organizes the neighborhood as a **contemporary urban village**, where smaller residential clusters are carefully positioned within a continuous green framework. Affordable housing is combined with **active ground floors, shared public spaces, and community-oriented services** that strengthen everyday social interaction and neighborhood identity.

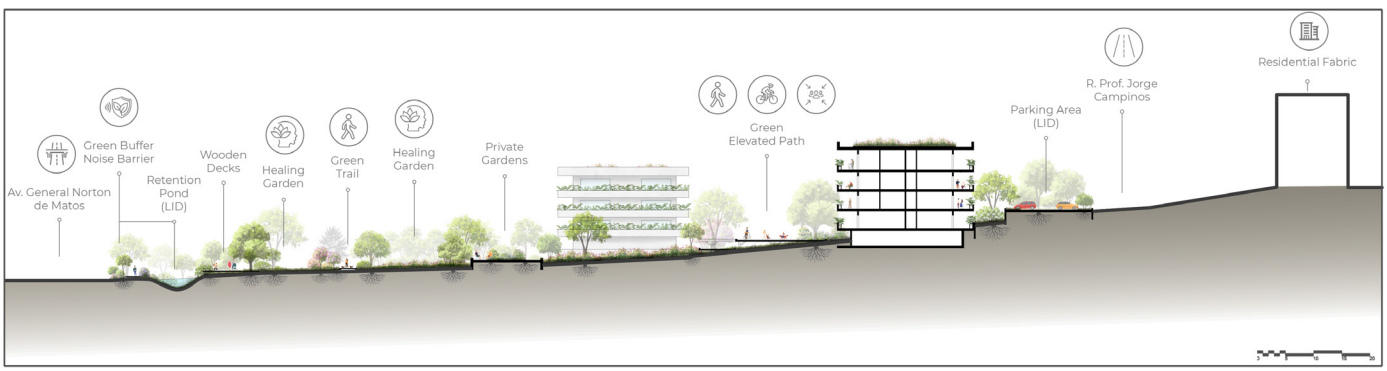
A clear spatial hierarchy defines the project. Each housing cluster benefits from its own **private green courtyard**, while an elevated **green pedestrian spine** connects the different clusters and **acts as the main social and ecological backbone of the neighborhood**. Moreover, to prioritize people-centered mobility and reduce environmental impacts, the neighborhood is designed as a predominantly **car-free environment**, with limited emergency access and permeable parking areas positioned along the northern edge of the site (Based on LID).

Beyond the residential areas, the ecological park introduces **productive landscapes, healing gardens, and inclusive public spaces** designed for walking, cycling, recreation, and wellbeing. The urban farming area responds directly to the surrounding educational context, including **the nearby University of Lisbon, creating opportunities for research, experimentation, and community engagement around sustainable agricultural practices**. Smart greenhouses and related retail spaces further support local production and circular systems through a more technological and controlled approach to urban farming.

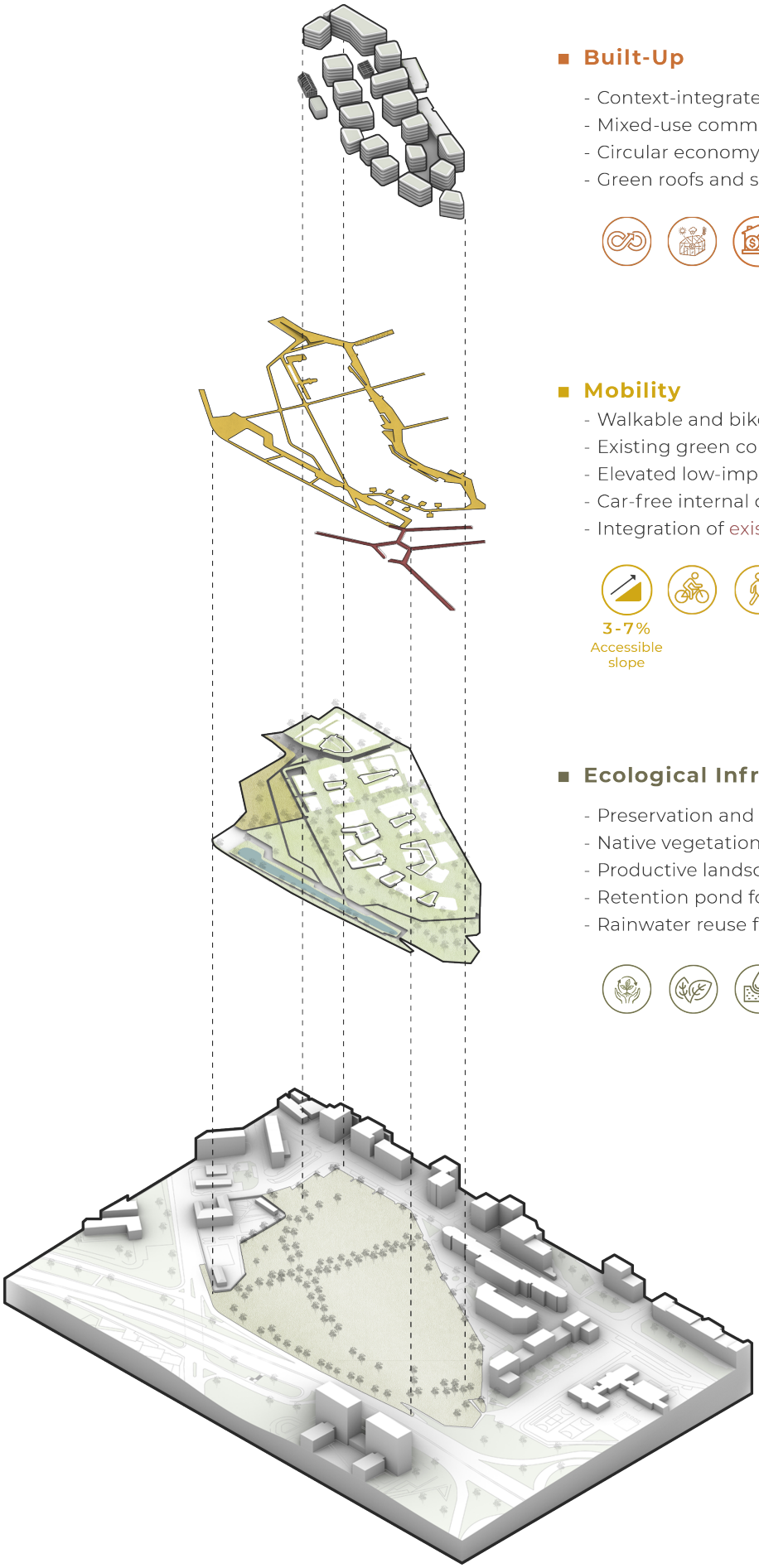
The proposal also integrates blue-green infrastructure strategies through retention ponds, bioswales, and LID approaches to improve stormwater management, biodiversity, and climate resilience.



Section A-A



Exploded Diagram



Built-Up

- Context-integrated affordable housing
- Mixed-use community hubs & active ground floors
- Circular economy & smart urban farming
- Green roofs and solar energy integration

Mobility

- Walkable and bike-friendly neighborhood
- Existing green corridors preserved
- Elevated low-impact pathways on topography
- Car-free internal circulation with LID parking
- Integration of existing bridge into public circulation network

3-7%
Accessible slope

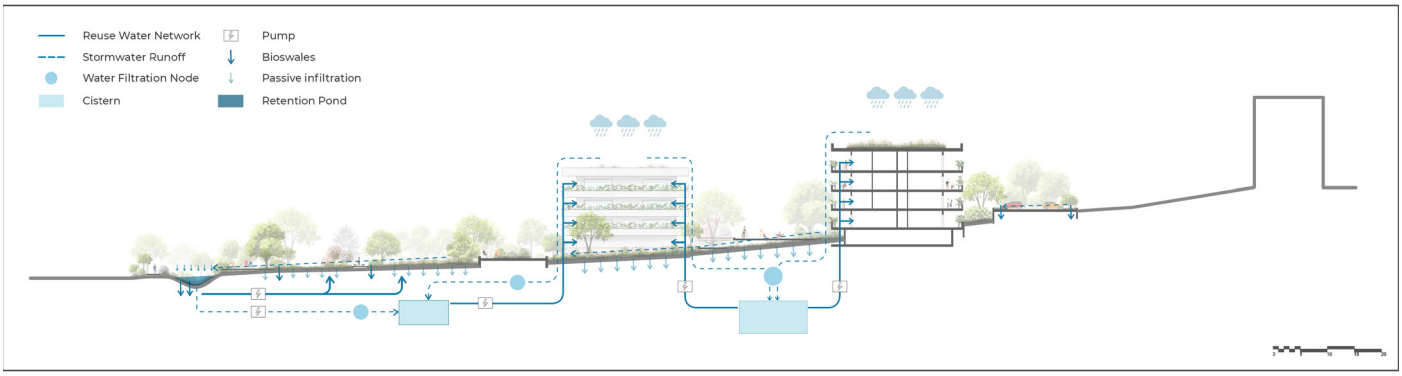
Ecological Infrastructure

- Preservation and enhancement of biodiversity
- Native vegetation and climate-resilient landscape
- Productive landscape and urban agriculture
- Retention pond for stormwater management
- Rainwater reuse for irrigation and buildings

Blue Infrastructure

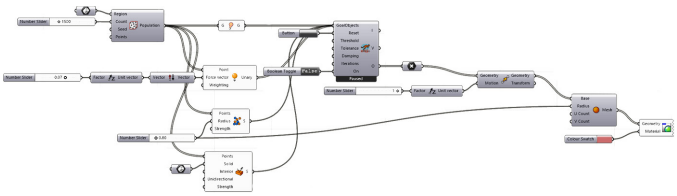
The project integrates a **decentralized blue infrastructure strategy** where permeable landscapes, bioswales, retention ponds, and cisterns support **rainwater infiltration, filtration, storage, and reuse**. Treated water is redistributed through pumps to higher topographic levels, buildings, and productive landscapes.

Following **LID and SuDS principles**, retention ponds and bioswales manage stormwater close to where it falls, supporting natural infiltration, water filtration, groundwater recharge, and rainwater reuse while enhancing biodiversity and climate resilience.



The Proccess of Positioning the Pond (Simulation based on topographic slope and gravity-driven flow)

A particle-based rainwater simulation was conducted to analyze surface runoff behaviour across the site's topography. By simulating rainfall as moving particles influenced by slope and terrain conditions, the study identifies natural flow paths and water accumulation zones. Developed in **Grasshopper** using the **Kangaroo plugin**, the simulation demonstrates how particles progressively concentrate toward the **south–southwest** area of the site, supporting the strategic placement of the retention pond and blue-green infrastructure systems for stormwater management, flood mitigation, and ecological resilience.



Top views:



Step 1



Step 2

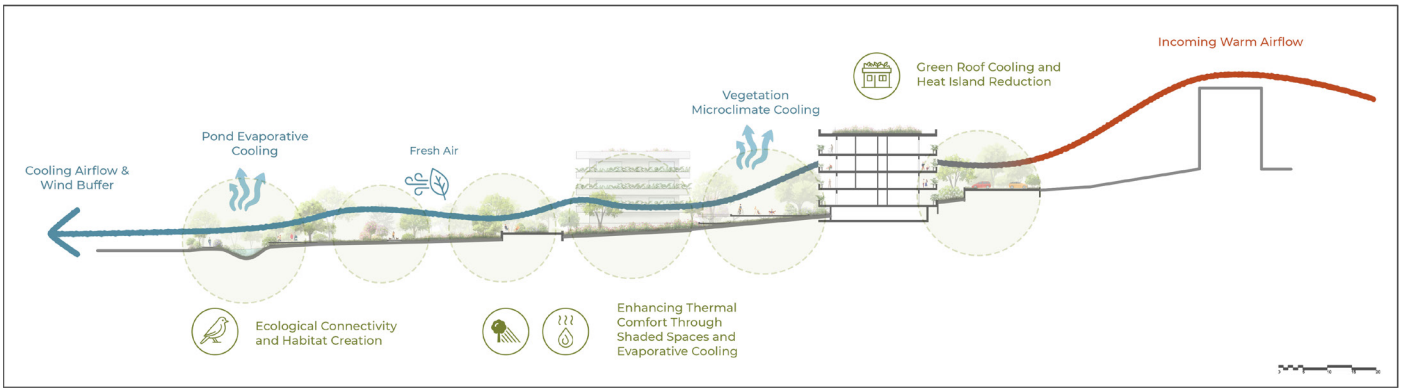


Step 3



Step 4

Green Infrastructure



Built-up Layer

The site covers an area of approximately **62,500 m²**, with a buildable area of nearly **42,000 m²** and a **Floor Area Ratio (FAR) of 1.2**. Based on these parameters, the proposal introduces **17 affordable housing building clusters** integrated within the landscape framework. The residential blocks range from **3 to 6 floors**, with building heights gradually increasing toward the main public streets, **R. Fernando Namora** and **Travessa da Luz**, responding to the surrounding urban context. Shared facilities and community spaces are distributed along the ground floors together with selected commercial functions to activate the public realm and strengthen everyday social interaction.

■ Smart Greenhouses and Community Hub

The proposed smart greenhouses **integrate technology-driven farming systems to support a more sustainable and community-oriented food production model within the neighborhood.** Using **hydroponic** and **vertical farming** techniques, the greenhouses optimize water consumption, increase productivity, and reduce land use while promoting year-round cultivation. Through **user-friendly mobile applications and smart monitoring systems**, residents can access real-time agricultural data, monitor crop growth, control irrigation processes, and receive updates about environmental conditions and harvesting cycles.
Combined with **smart farm technologies, data analytics, and closed-loop resource systems**, the proposal supports a circular agricultural model based on **water efficiency, biomass reuse, local food production, and resource optimization**. This approach encourages residents to actively engage with innovative, resilient, and low-carbon urban farming practices while strengthening the relationship between technology, ecology, and everyday community life.

The proposed community hubs function as small-scale **multifunctional spaces** that support social interaction, collaborative working, and local knowledge exchange within the neighborhood. These flexible spaces provide areas for **remote working, community meetings, workshops, and educational activities**, allowing residents to work, learn, and interact beyond their private homes while strengthening the collective identity of the neighborhood.
The hubs also support the principles of the **circular economy and community resilience** by creating opportunities for repair workshops, bike and furniture maintenance, urban farming education, and **collaboration between residents, entrepreneurs, researchers, and local stakeholders**. Through shared learning and collective activities, the hubs encourage more sustainable lifestyles while reinforcing social cohesion and neighborhood adaptability.

Perspective view of elements 3, 4, 9, and 15 identified in the UMP on Page 5.



Perspective view of elements 4 identified in the UMP on Page 5.





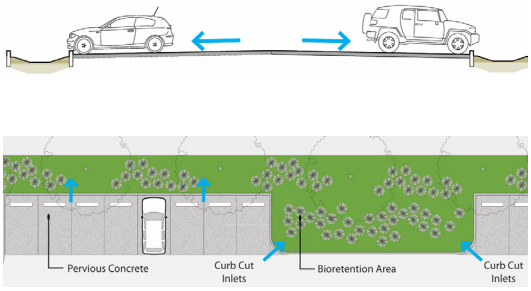
Green Spine and LID Parking Strategy

The proposed **green elevated spine** acts as the ecological and social backbone of the neighborhood, connecting residential clusters, public spaces, and productive landscapes through a continuous pedestrian path. Designed as a **lightweight wooden pathway**, it preserves the existing terrain and maintains landscape permeability to support **passive infiltration and natural water management**.

The parking areas follow **LID principles**, using permeable surfaces and gentle slopes to direct rainwater toward adjacent green infiltration zones, reducing runoff and supporting sustainable stormwater management.







Activities & Actors (User Target)

The RODRIGUES SILVA Family (Living in Maria Droste)

Between Community Participation and Cultural Activation The Maria Droste neighborhood is designed to become a vibrant, inclusive and low-carbon community where people of all ages can live, work, learn, play and connect within a 15-minute walk or bike ride from home. Through people-centered spaces, green infrastructure and cultural activation, residents actively shape the life of the neighborhood. Our vision puts people at the center of a green & thriving neighborhood.



António Rodrigues Silva
73 years old
Retired Carpenter



Miguel Rodrigues Silva
42 years old
Smart Mobility Engineer



Inês Rodrigues Silva
39 years old
Art Teacher



Leonor Rodrigues Silva
15 years old
High School Student



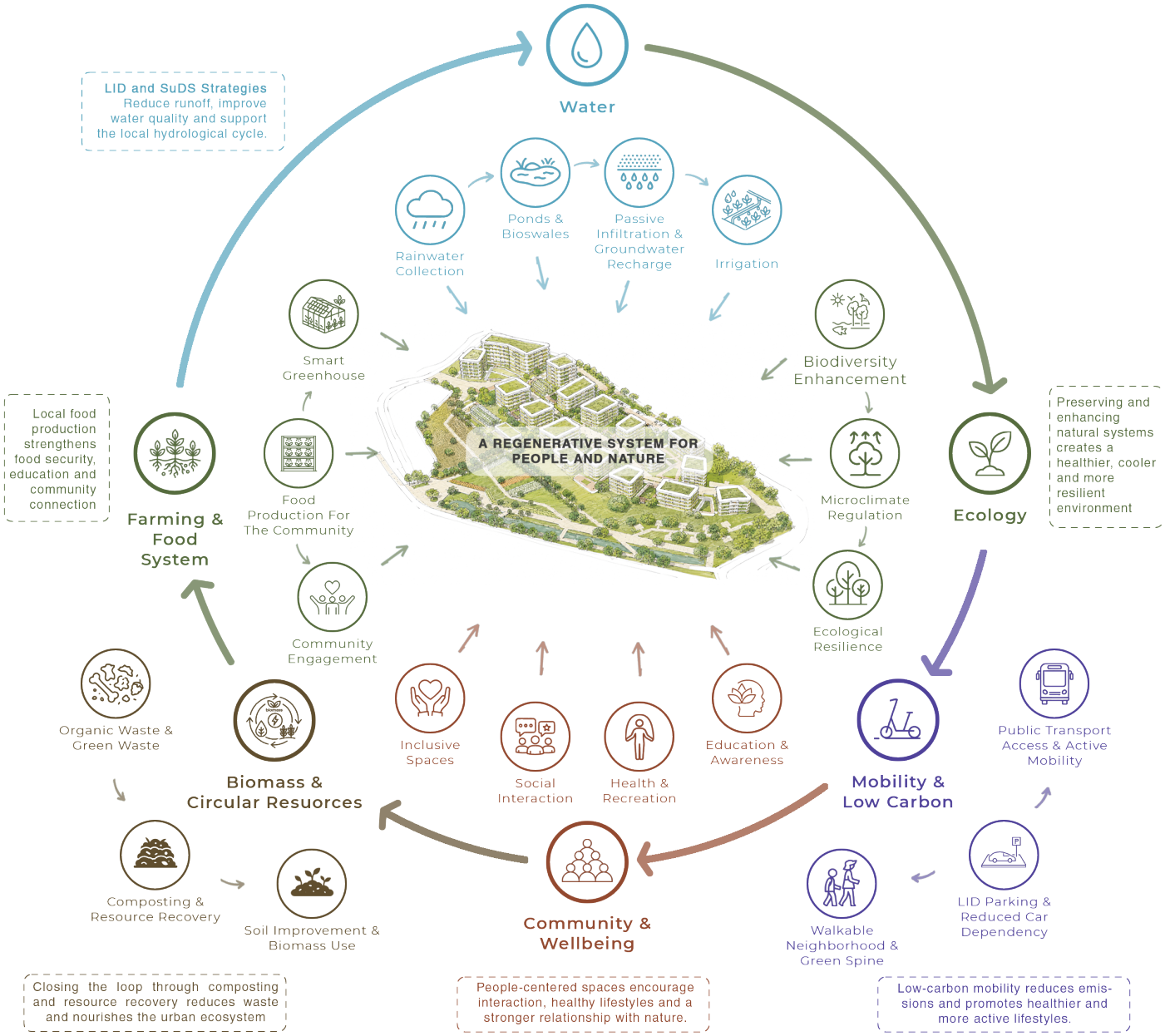
Tomás Rodrigues Silva
4 years old
Child

Profile:	Lives with his family. Enjoys sharing his skills and taking part in community life.	Lives and works in the neighborhood. Passionate about sustainable mobility and technology.	Works in a local school. Loves art, nature and community engagement.	Active and curious student. Interested in digital media and sports.	Energetic and playful. Loves nature and outdoor activities.
Activities:	- Runs woodworking sessions in the community workshop - Walks in the park every morning - Attends neighborhood events	- Commutes by bike and public transport - Works remotely from the coworking hub - Joins local mobility workshops	- Leads art workshops for kids - Participates in community garden - Supports local cultural events	- Cycles safely to school - Attends media lab programs - Spends time with friends in public spaces	- Plays in nature-based playgrounds - Visits the urban farm with family - Participates in outdoor learning activities
Places:	-Community Workshop -Neighborhood Park -Public Seating Areas -Cultural Spaces	- Mobility Hub - Public Transport - Coworking Spaces - Public Plaza - Bike Network	- Community Garden - Cultural Pavilion - Public Square - Urban Greenhouse	- Learning Hub - Media Lab - Sports Areas - Pedestrian Streets	- Playgrounds - Green Courtyards - Urban Farm - Daycare Facilities
Benefits:	- Active aging and wellbeing Intergenerational exchange - Recognition of skills and knowledge - Accessible and inclusive spaces	- Reduced car dependency - Healthier lifestyle - Flexible working environment - Stronger community connections	- Access to green public spaces - Meaningful social interaction - Support for local culture and education - Work–life balance	- Safe and inclusive mobility - Access to education and digital tools - Social engagement - Active and healthy lifestyle	- Healthy childhood development - Daily contact with nature Safe play and learning environments - Sense of belonging

Environmental Assessment

Toward a regenerative and low-carbon neighborhood

The proposal approaches sustainability through an integrated environmental strategy that combines **ecological preservation, low-carbon mobility, circular resource systems, water-sensitive design, and community-oriented living**. Rather than treating sustainability as an isolated technical layer, the project embeds environmental performance within the everyday spatial and social structure of the neighborhood. Through productive landscapes, passive ecological systems, resilient public spaces, and people-centered mobility, the proposal establishes a framework for a healthier and more climate-responsive urban future.



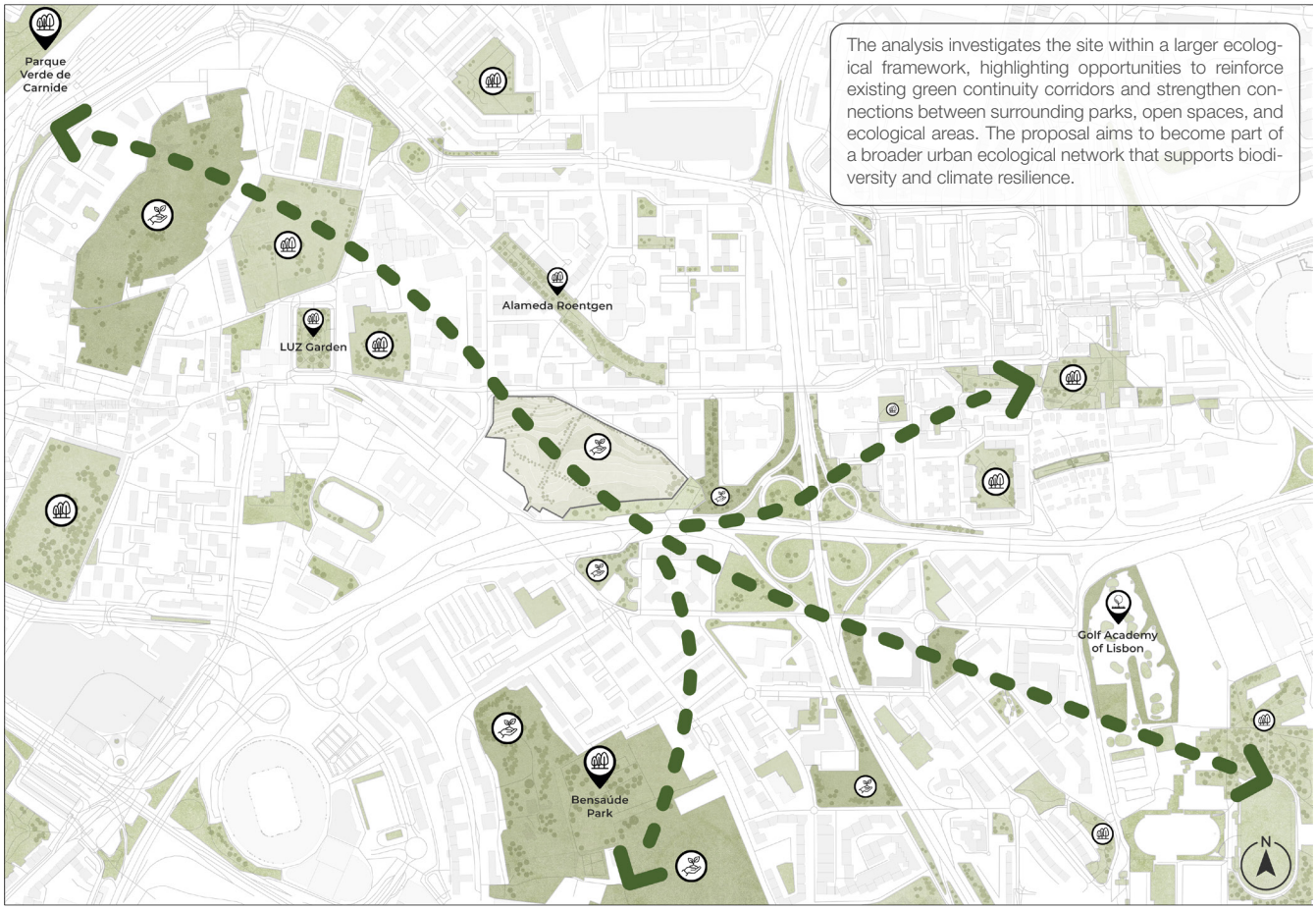
Impacts

- **Reduction of Greenhouse Gas Emissions**
- **Enhancement of Biodiversity & Ecological Value**
- **Water Efficiency & Resilient Stormwater management**
- **Circular Resource Use & Waste Reduction**
- **Stronger Community, Health & Quality of Life**

II. Appendix



Ecological Continuity Map



Micro-scale Map

