

## Amersfoort-Koopelbrug(NL)



# H.E.A.R.T.Y. HUB

## INTRODUCTION

HEARTY CITY brings together Health, Energy Efficiency, Artificial Intelligence, Resilience, Tourism and Aspiration, and it encompasses our planning vision for the Amersfoort area. Recognized in the **Athens Charter** as 'The vital needs of the individual: sun, space, greenery - these are the three essential joys of urbanism... The city must ensure both individual liberty and collective benefits by mastering the distribution of space.'

We propose a healthy vision with flexibility for the ecological transformation of this industrial region.

Koopelbrug is located in the North Amersfoort area, an urban-industrial area developed next to the river Eem and a transportation artery. In order to realize the industrial transformation, the primary aim is to **reshape the relationship between nature and site in this area**.

## RIVERSIDE OF RIVER Eem

On the Reflection site we propose a vision of the city calls for healthy activities for all. Through a self-managed approach developed by the community, we hope to realize a flexible and

free movement division, and a resilient and extended natural boundary.

Intervening the site from four aspects, the first is the **biological management** near the river, we hope that the houses will become the habitat of the living creatures and protect the biodiversity by setting up the ecological boxes along the river and arranging the greenery along the façade of the houses.

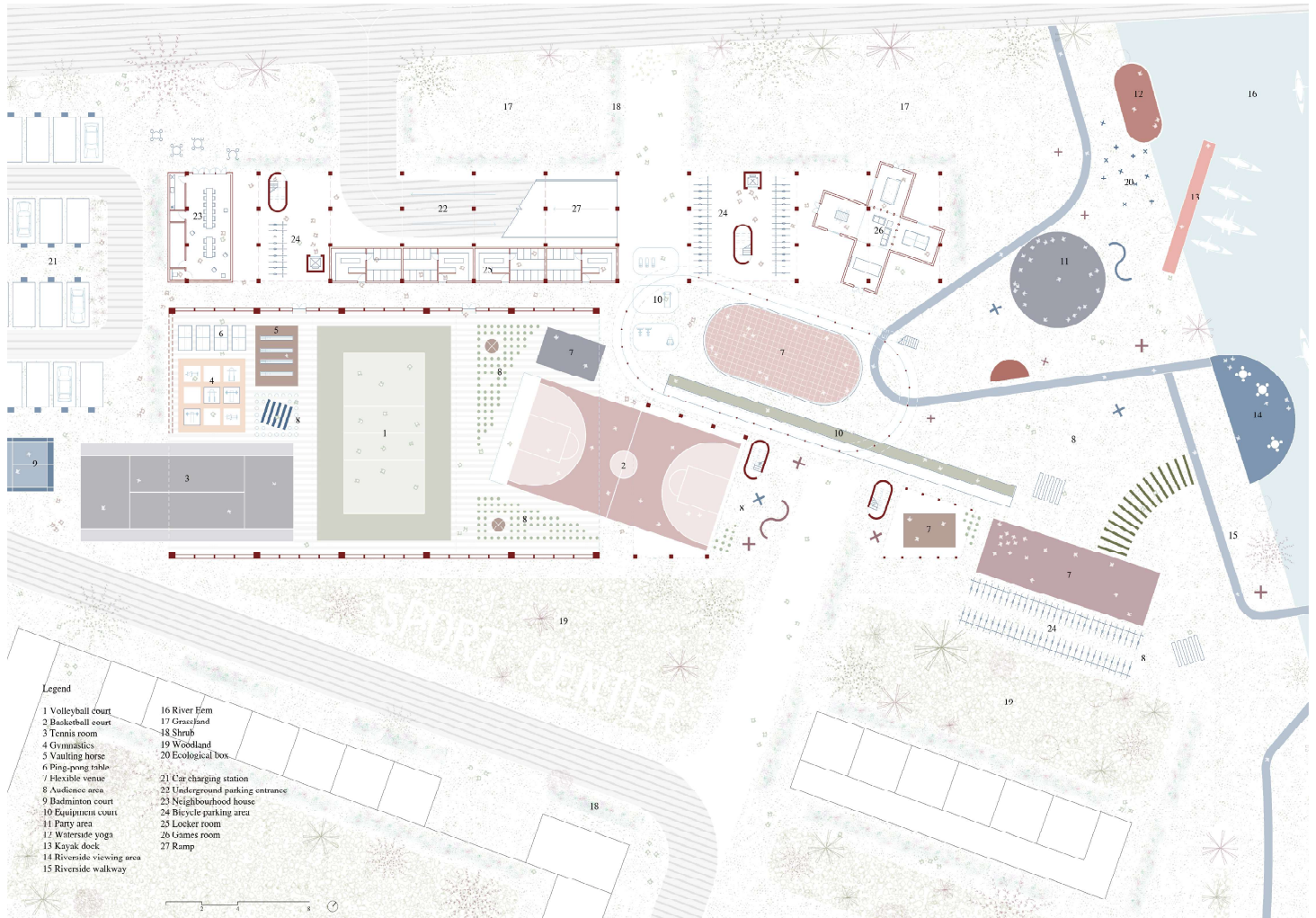
The second point is to create **cycling friendly routes** along the shoreline, reshaping the green and blue infrastructure along the bank.

The third point is the **parking centre strategy**, we noticed that the site close to the main road is very suitable to take on the function of the main parking of the community, making the site into a **PARKING COMPLEX**.

The fourth point is the **diversification of the sports on the water**, with the similar volume of the Complement the kayak club across the river to complete the coastal kayaking trajectory.

1. Axonometric view - New City View

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interior and exterior can be **flexibly dissolved** under varying conditions.

2.

## SPORTING + ECOLOGIC = HEALTHY

We place our hopes for achieving “**Healthy**” in both physical activity and nature. Therefore, we intend to create a center that supports free sports within a natural environment.

By taking advantage of the site's riverside location and its natural resources, we aim to promote outdoor-friendly sports activities. The sports center will help redistribute public flow, allowing more people access to **ample natural light** and **fresh air**—an essential first step toward fostering both physical and mental well-being.

## FLEXIBLE SPORTS HALL

The first issue we identify is the **boundary between indoor and outdoor sports**. Therefore, we plan to simplify the structure of the sports center.

Six **1m x 1m** wooden columns are used on each side of the building to hold up the steel trusses. The surrounding solid walls are replaced with operable sliding panels, creating a collective sports space where the boundary between

### Different usage patterns:

The flexible usage pattern of sports center will be determined collectively by the community. Based on a **sports schedule co-created by community members**, the center will operate under different modes of accessibility and openness.

### New Complex:

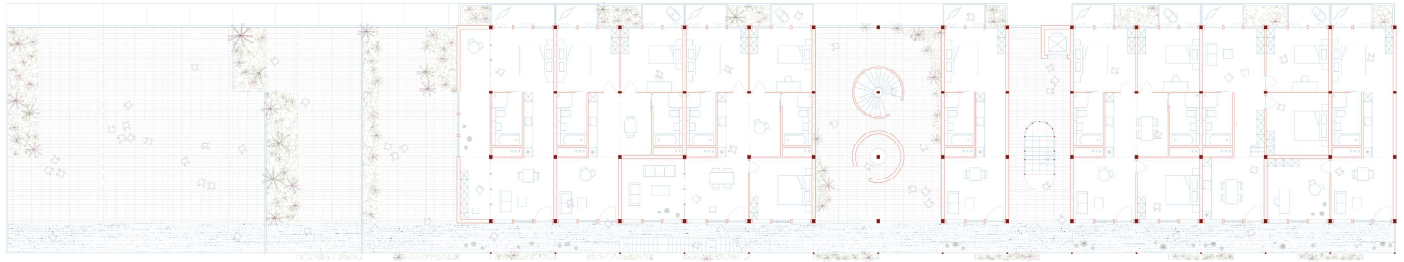
As a new complex **integrating community functions**, the sports hall can be divided into three equal-sized halls using folding partitions. While meeting the functional needs of different usage scenarios, the independent operation of the three halls provides the basis for accommodating **physical education functions**.

With this approach, we aim to break away from the traditional enclosed nature of sports centers, transforming it into an **inclusive community sports complex** that is equally open to all and encourages social interaction among neighbors.

2. Ground Floor Plan



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3.

## HOUSING = COLLABORATE + COHESION

The Netherlands has one of Europe's most robust social housing systems – historically about 30% of all homes are social housing with rent controls. Affordable housing is considered a right, and policies ensure new developments include a mix of income levels.

At least 30% subsidized social rental units alongside market-rate housing are planned to prevent income segregation. Each housing block in our project contains a blend of social, middle-income, and owner-occupied homes, with shared amenities, deliberately creating an inclusive community. Affordability also means that operational costs remain low: energy-efficient homes help reduce utility bills, protecting residents from energy poverty.

In our vision, social sustainability requires that housing projects contribute to solving the housing need (including for low-income, elderly, or other vulnerable groups) rather than exacerbate inequality.

Sustainable housing in our project is designed for inclusivity, accommodating people of different ages, abilities, and backgrounds. This means barrier free, accessible design (installing elevators, ramps, wide doorways, and adaptable layouts so that seniors or persons with disabilities can live comfortably). It also means social inclusion: ensuring that developments welcome diverse households – families, singles, the elderly, students, people with special needs – and facilitate full participation in community life. The resulting complex offers high-quality yet affordable homes across all ages and abilities – including units specifically outfitted for those with autism and for wheelchair users – and mixes residents of different incomes and backgrounds in one community. By integrating rather than isolating different groups, our project means to promote social cohesion.

Inclusivity is also cultural: in the integrated layout of our public areas housing design can reflect local cultural preferences. Involving future residents from various cultures in design decisions, ensuring everyone feels at home. In the subsequent construction plan, we are planning to adopt participatory design (workshops, surveys, co-design sessions) so that the eventual community reflects the input of its diverse members.

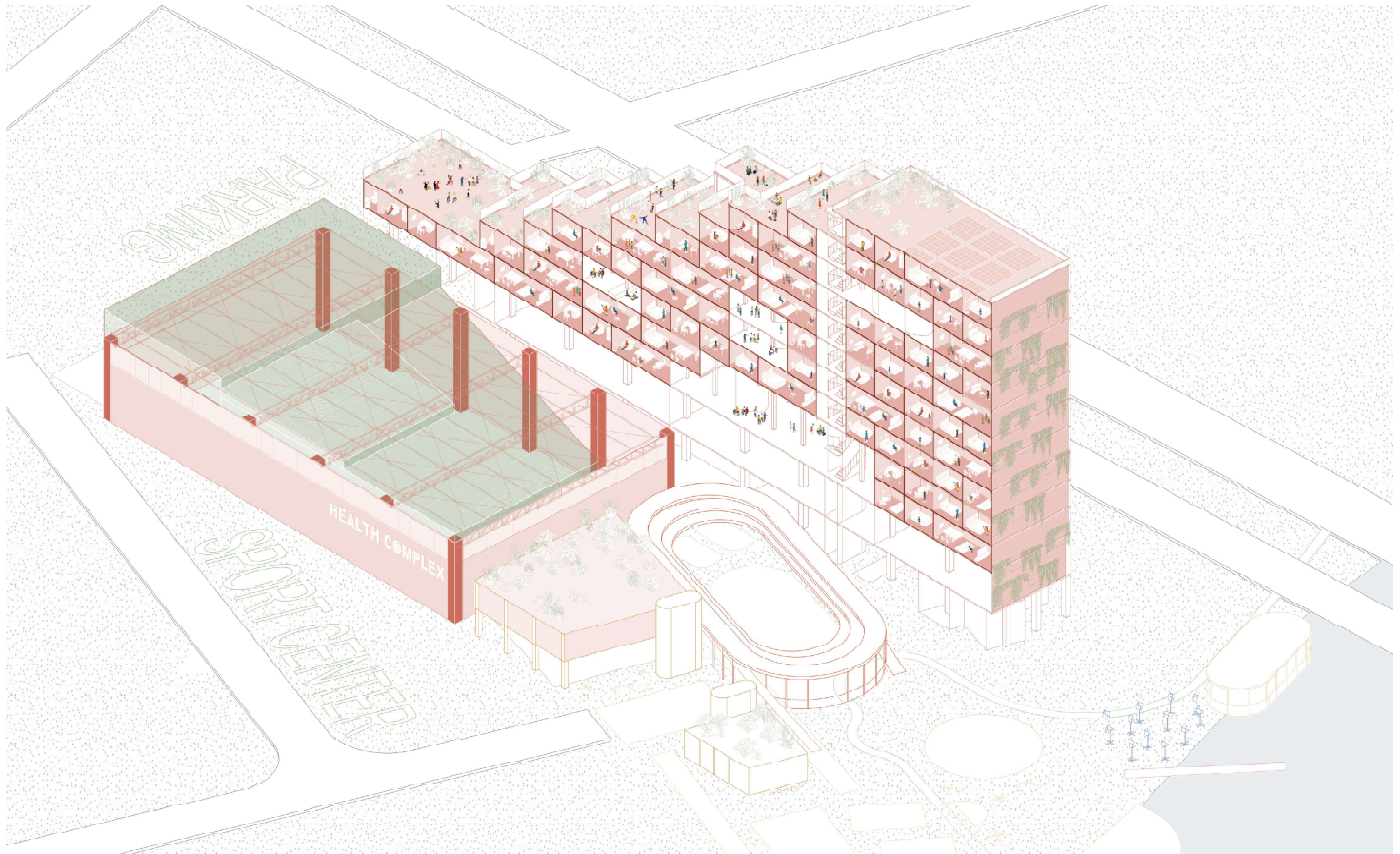
## BRING PUBLIC LIVE TOGETHER

In our planning layout, public spaces are envisioned as an important component in maintaining people's social bonds. Physically, neighborhoods are laid out to encourage interaction – think about shared courtyards, playgrounds, community gardens, and meeting spaces where neighbors can gather. We break down the composition of public spaces and place them in layers in the middle of residential units, in order to increase the possibility of interaction between residential users of different levels and households.

Mixed-use elements (like integrating schools, shops, or community centers) ensure the neighborhood is lively and meets daily needs. Equally important is involving residents in the planning and management of the project.

3. Typical Housing Floor Plan

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### “H.E.A.R.T.Y.” SUSTAINABLE SYSTEM

Our sustainable housing project in the Netherlands is one that balances **environmental, social, and economic goals** in its design, construction, and operation.

This means a project minimizes environmental impact, supports and benefits its community, and remains financially viable over its life cycle.

#### Ecological Continuity:

A truly sustainable housing project supports biodiversity and a healthy ecosystem. Our project incorporates green roofs and facades, which not only insulate the building but also provide habitat for birds and insects. In the public floor of our residential building, we plan to landscape with native plant species, community gardens, and preserving existing trees or natural features are common practices. Buffer strips of greenery can also connect to local ecological networks. We are encouraged to set bird nesting boxes, bee hotels, and other small-scale biodiversity measures in new buildings to not only benefit wildlife but also enhance climate adaptation.

#### Social Cohesion:

Aligned with Dutch social housing principles (Woningwet), we organize micro-communal

nodes to dismantle "ground-floor privilege." Ensuring vertical equity in community participation.

We rethink to approach transcends spatial reconfiguration; it applies Sociaal Ingenieurschap to reimagine the high-density social contract, transforming verticality into a scaffold for gezelligheid.

In our community sustainable housing communities often have resident associations or cooperatives that co-manage facilities, organize events, and continue the participatory spirit.

#### Economic Sustainability:

Closely tied to cost-effectiveness is the emphasis on ease of maintenance and durability. Housing that is sustainable economically will be built to last, with robust construction quality. Including use materials that weather well (for example, we use CLT treated for longevity in wooden buildings).

Residential composition includes solar PV panels, heat pumps (often using geothermal warmth), and motion generation system or other renewable energy systems.

We hope that sustainable housing projects can act as innovation hubs too, spurring local jobs in green construction, engineering, and technology.

4. Typical Housing Floor Plan

4.