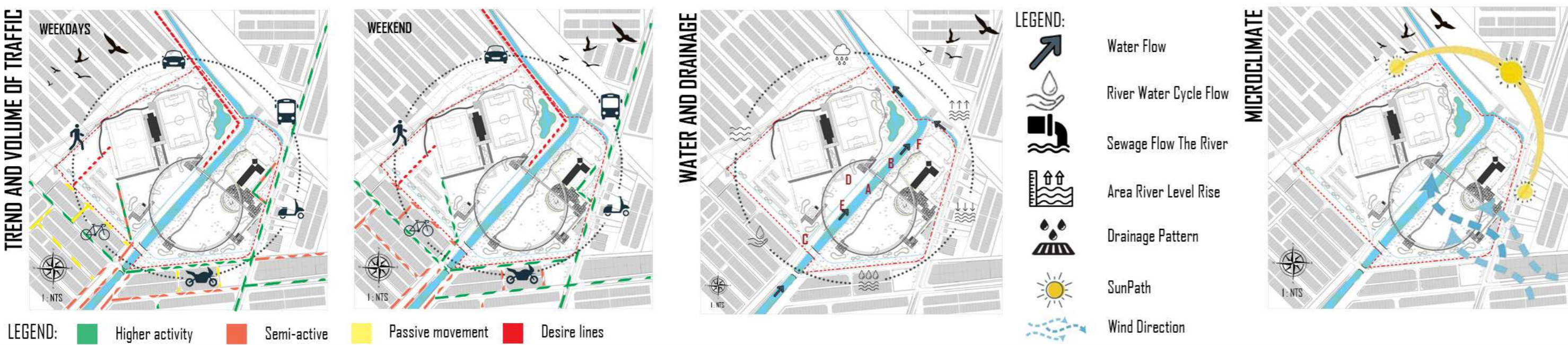


1.1 SUMMARY OF SITE INVENTORY AND ANALYSIS



1.2 SYNTHESIS (SWOT)

**Strengths:** The strengths of the site include the presence of mature plants like *Samanea saman*, which offer immediate shade and enhance the Miyawaki Forest. Additionally, the proximity to a river or drain adds both aesthetic value and a unique identity to the water park, making it an appealing destination for visitors.

**Weaknesses:** The area exhibits several internal weaknesses that need addressing such as the poor drainage infrastructure struggles to manage high surface water, leading to potential flooding and waterlogging. Moreover, the presence of dead or diseased vegetation not only detracts from the visual appeal of the environment but also poses safety risks for users.

**Opportunities:** The project presents several external opportunities, notably in the realm of climate resilient technology through the integration of Nature-Based Solutions (NBS). Additionally, the potential to establish a "Water Education Park" could serve as an educational hub for the local community, raising awareness about flood issues and fostering greater environmental consciousness.

**Threats:** External threats that could impact its sustainability and usability. One significant concern is seasonal flooding, particularly during monsoon season, which poses a risk to park facilities if they are not built to withstand such environmental challenges potentially reducing green space and increasing the load on its drainage system due to rising waste levels.

1.3 AIM

The idea of Blue-Green Cooling & Drainage Network (BGCND) is to transform into a "RESILIENT COMMUNITY PARK" through creating a sustainable city focusing on nature-based solutions (NBS), adaptive stormwater reuse to reuse rainwater for landscape irrigation, bioengineering to use plant-based engineering techniques to stabilise the system to create an adaptive, educational and safe urban landscape for the community.

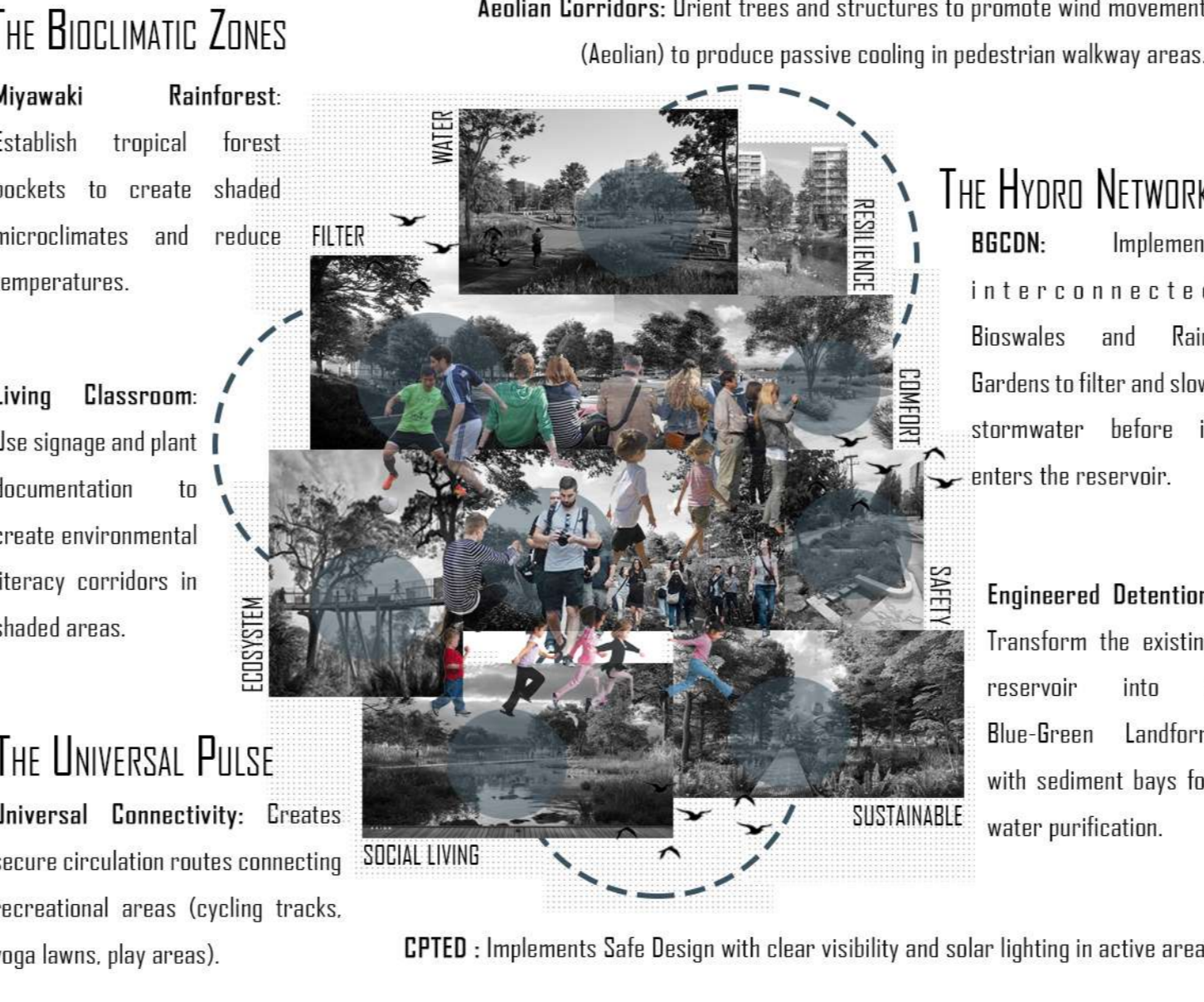
BGCND + NBS = RESILIENT COMMUNITY PARK

1.4 OBJECTIVE

- 1. HYDROLOGICAL**  
To implement integrated water cycle management through a Blue-Green Cooling & Drainage Network (BGCND) to achieve 100% on-site rainfall through the use of bioswales, rain gardens and engineered reservoirs to reduce the risk of flash floods.
- 2. BIOCLIMATIC**  
To restoring local biodiversity and mitigating the "urban heat island" effect through Miyawaki forest methods and native rainforest plantings to create a shaded microclimate and serve as a "living classroom" for environmental literacy.
- 3. SOCIAL AND SAFETY**  
To design inclusive and safe public spaces through the application of the principles of CPTED (Preventive Design for Safe Environments) and Universal Design to ensure safe circulation routes and multi-generational recreational spaces for all ages and abilities.



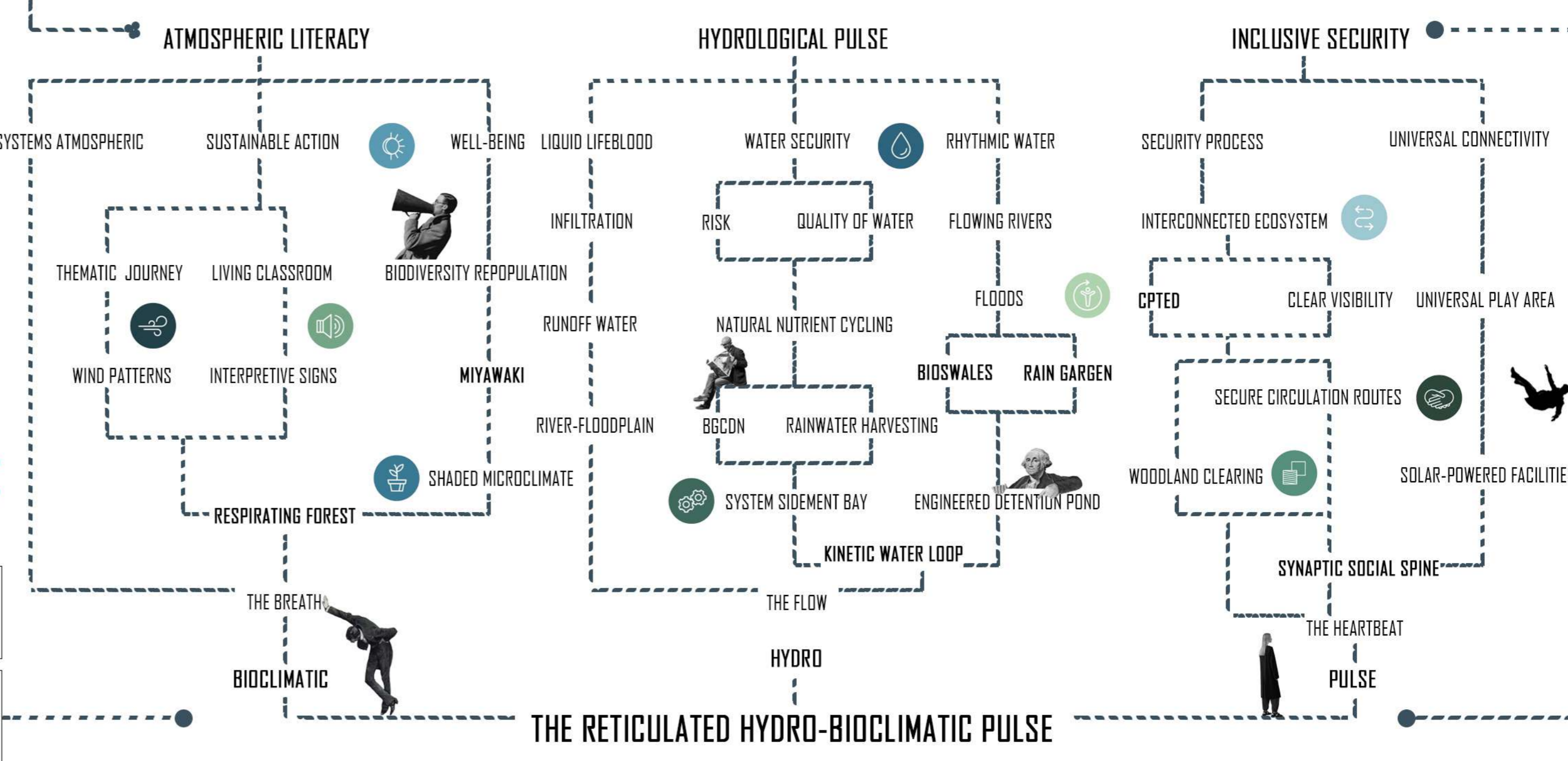
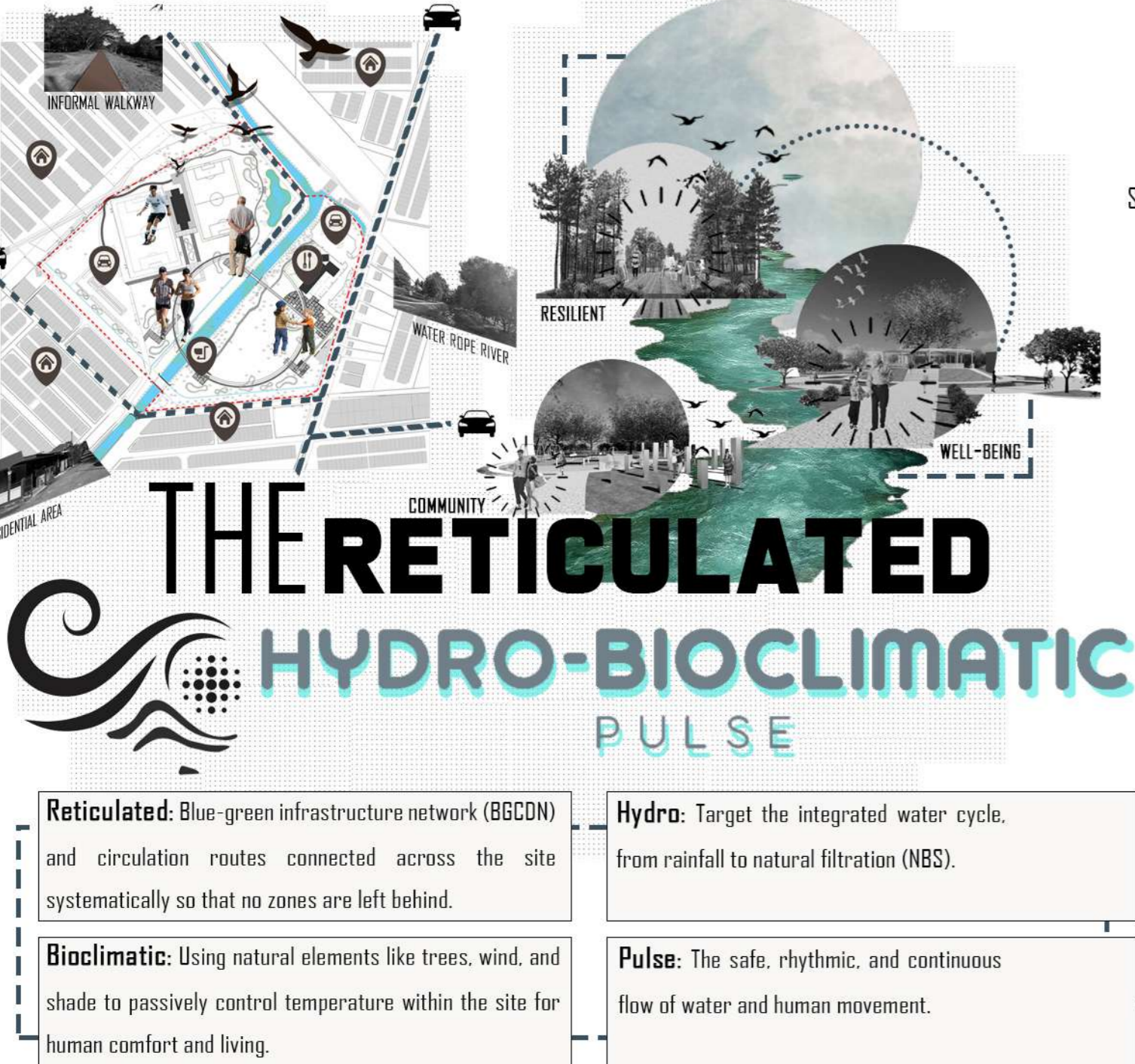
1.5 DESIGN STRATEGY



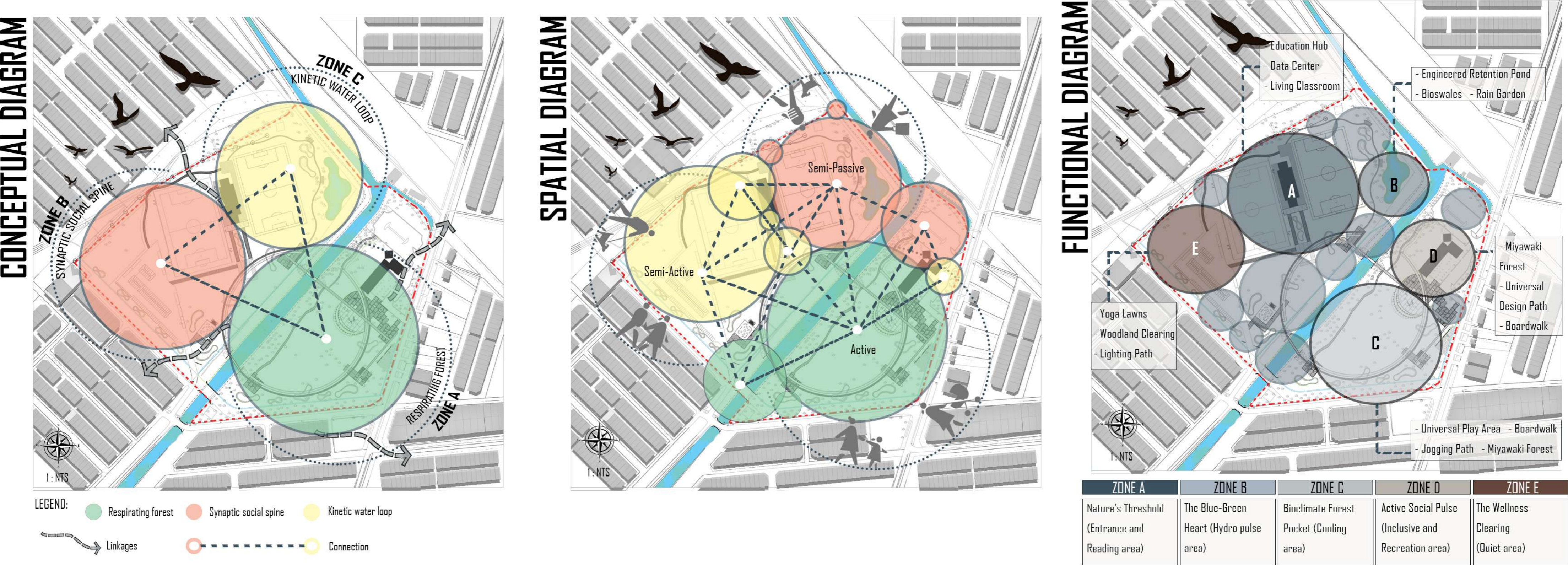
1.6 THEME



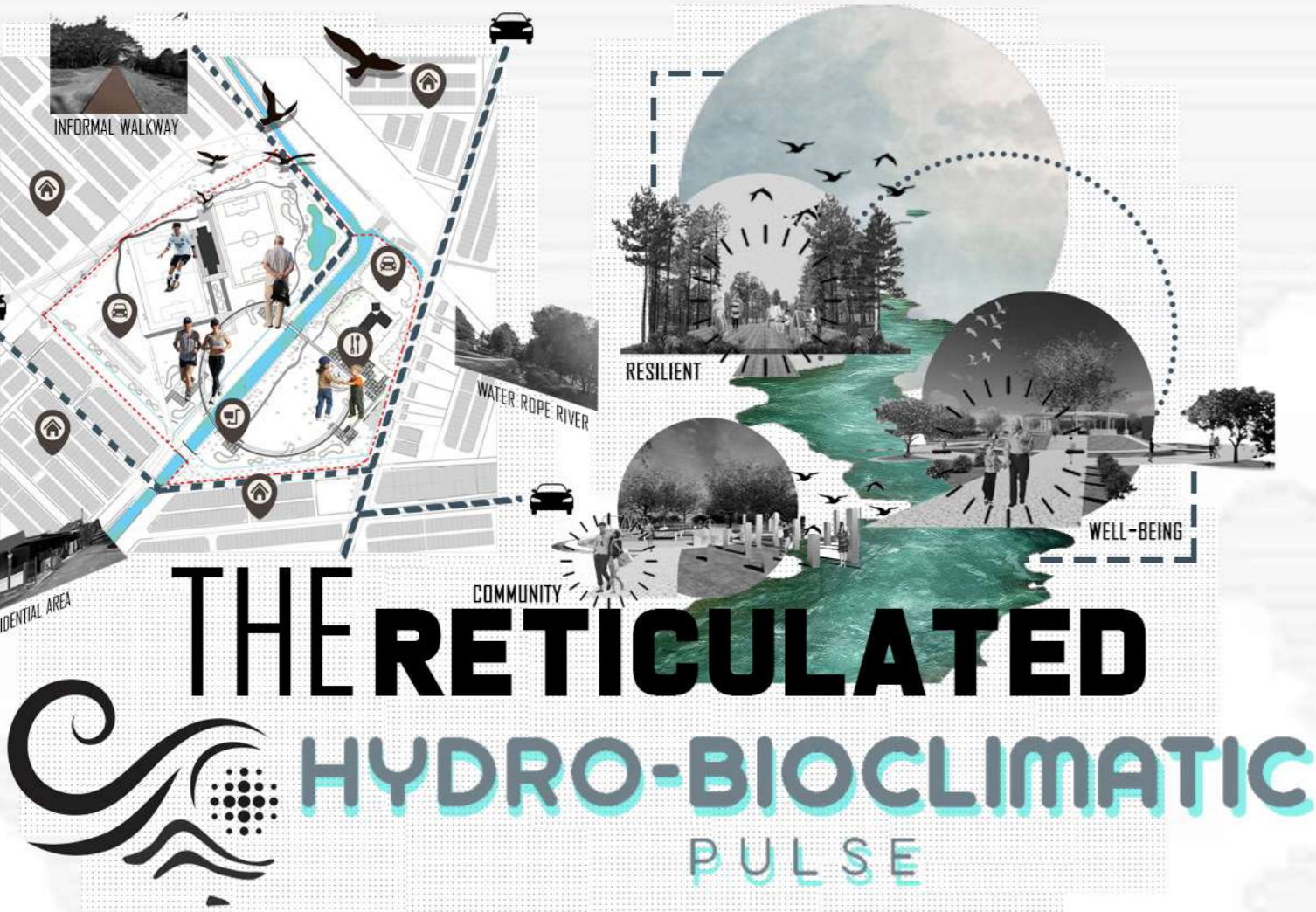
1.7 CONCEPT



1.8 BUBBLE DIAGRAM



### 2.1 MASTERPLAN



**Reticulated:** Blue-green infrastructure network (BGCDN) and circulation routes connected across the site systematically so that no zones are left behind.

**Bioclimatic:** Using natural elements like trees, wind, and shade to passively control temperature within the site for human comfort and living.

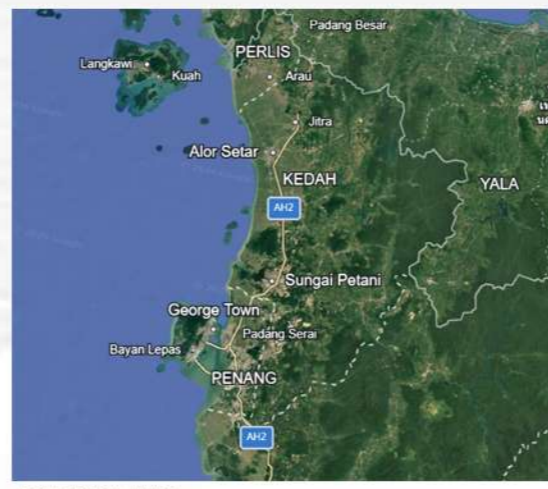


**Hydro:** Target the integrated water cycle, from rainfall to natural filtration (NBS).

**Pulse:** The safe, rhythmic, and continuous flow of water and human movement.

### BGCDN + NBS = RESILIENT COMMUNITY PARK

The idea of Blue-Green Cooling & Drainage Network (BGCDN) is to transform into a "RESILIENT COMMUNITY PARK" through creating a sustainable city focusing on nature-based solutions (NBS), adaptive stormwater reuse to reuse rainwater for landscape irrigation, bioengineering to use plant-based engineering techniques to stabilise the system to create an adaptive, educational and safe urban landscape for the community.



KEY PLAN

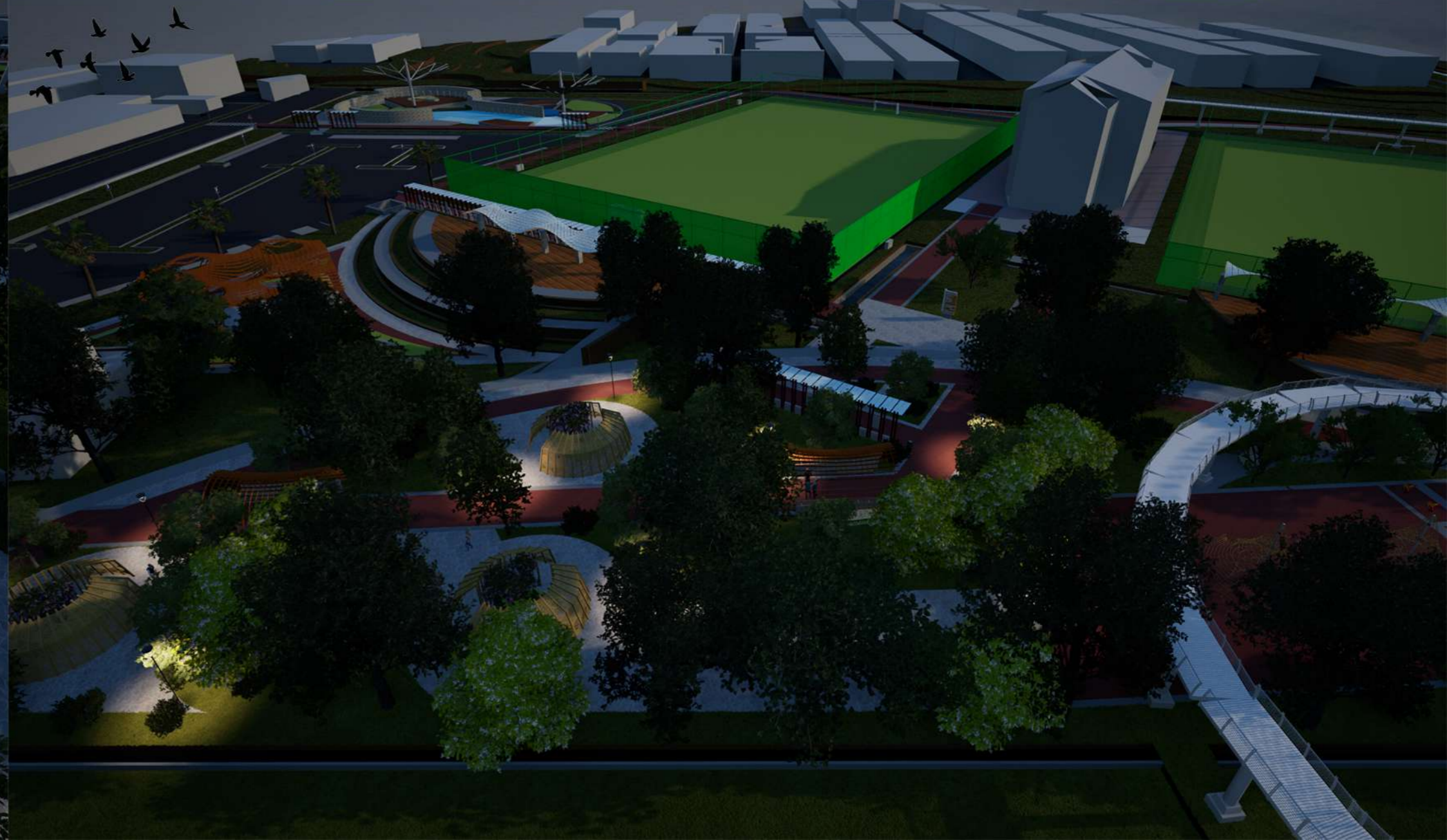


LOCATION PLAN



# COMMUNITY HARVEST GROVE 03

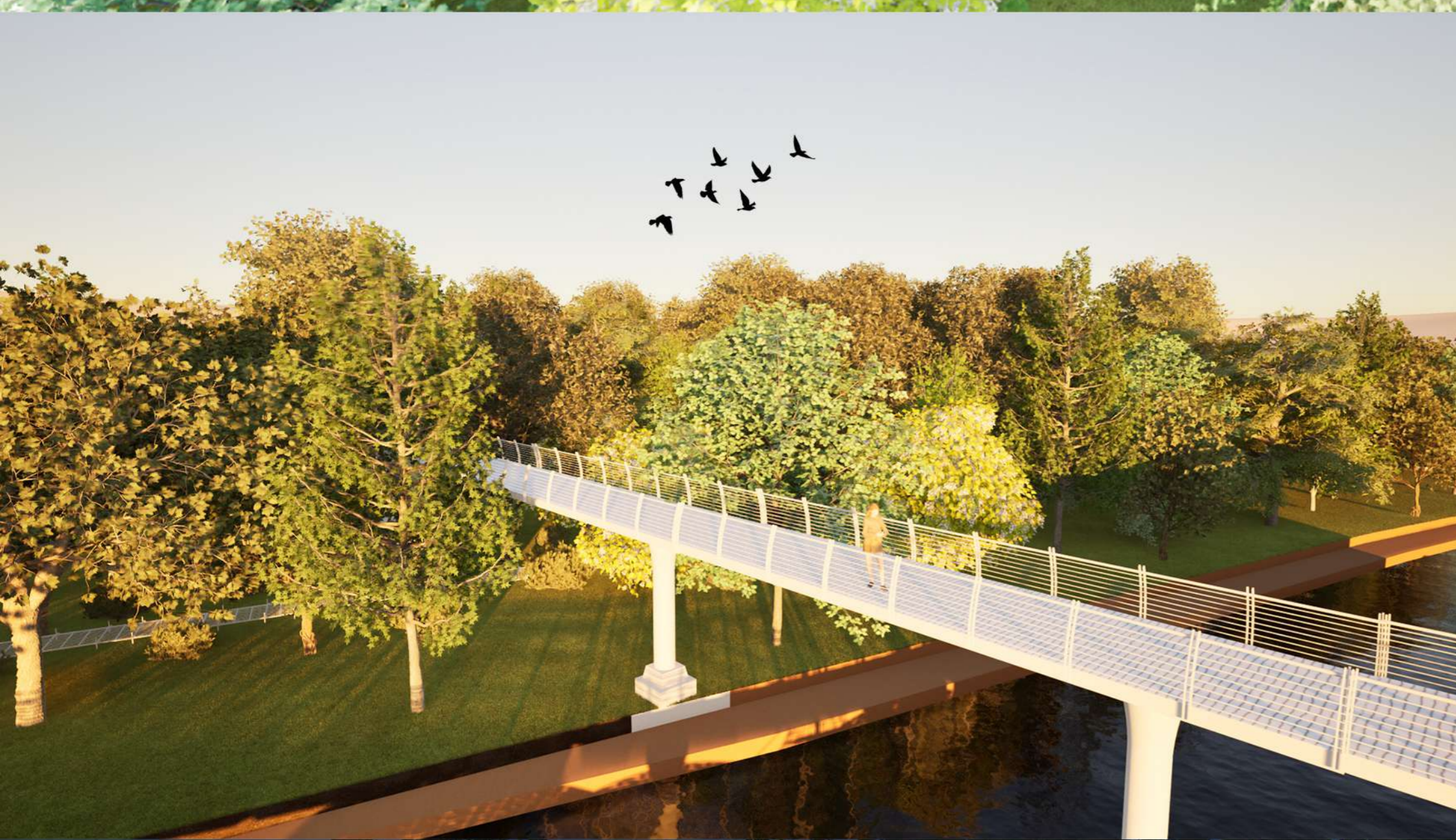
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# ECOLOGICAL PULSE CORRIDOR 04

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# HYDRO DISCOVERY GARDEN 07

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