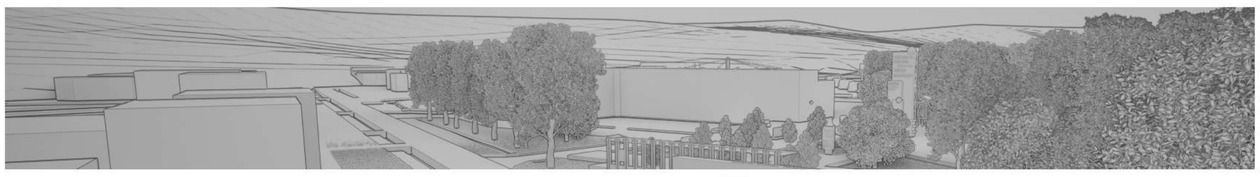

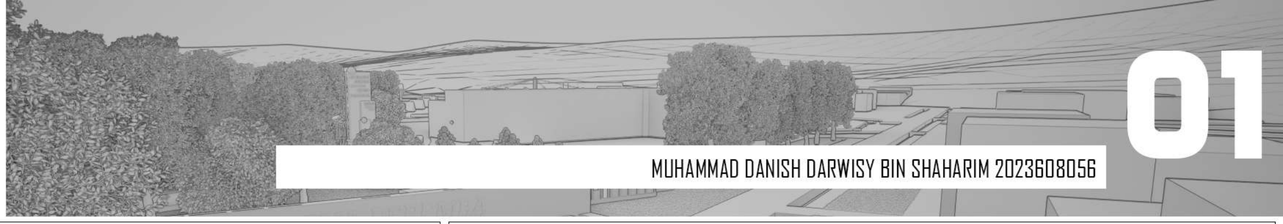

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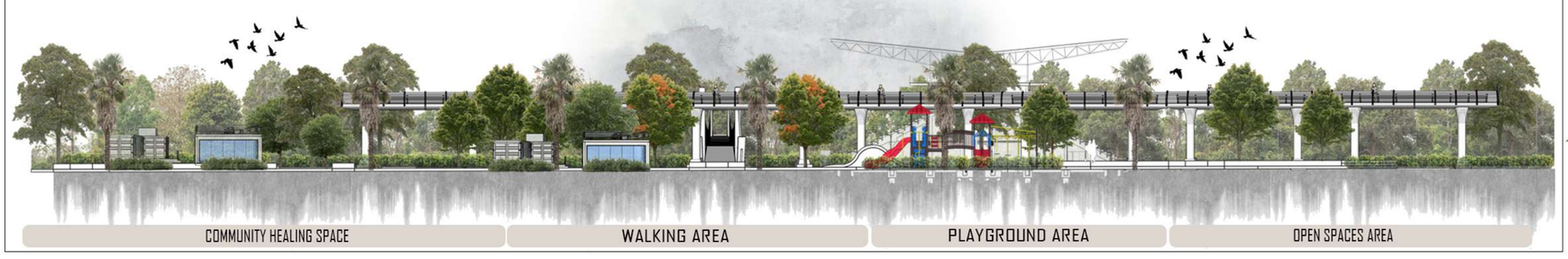
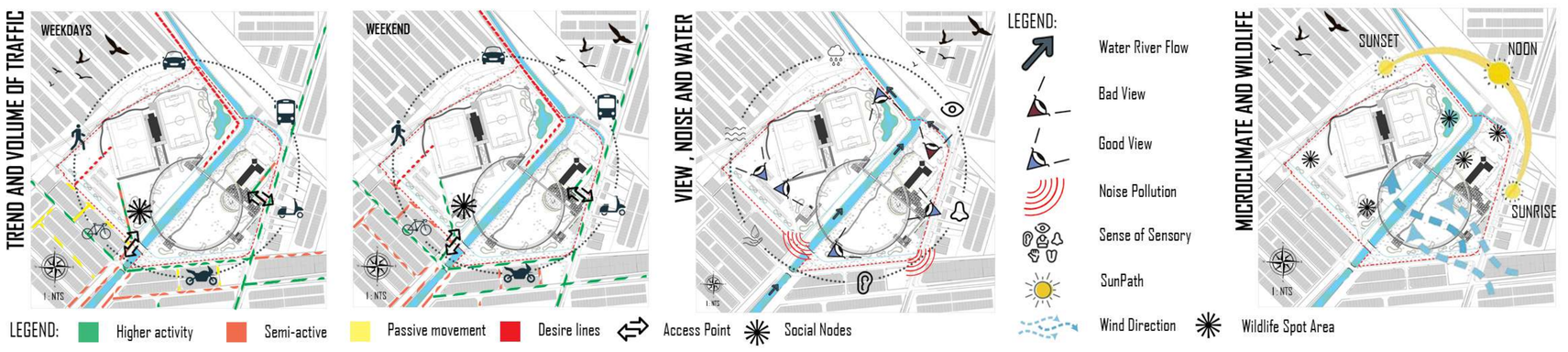
01

SECTION A - A'

SCALE 1 : 500



1.1 SUMMARY OF SITE INVENTORY AND ANALYSIS



1.2 SYNTHESIS (SWOT)

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.

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.**

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.**

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 (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.

BGCDN + NBS = RESILIENT COMMUNITY PARK

1.4 OBJECTIVE

1. HYDROLOGICAL

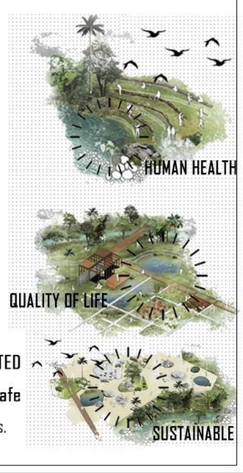
To Implement integrated **water cycle management** through a Blue-Green Coding & Drainage Network (BGCDN) to achieve **100% on-site rainfall** through the use of **bioswales, rain gardens** and **engineered reservoirs** to reduce the risk of flash floods.

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.



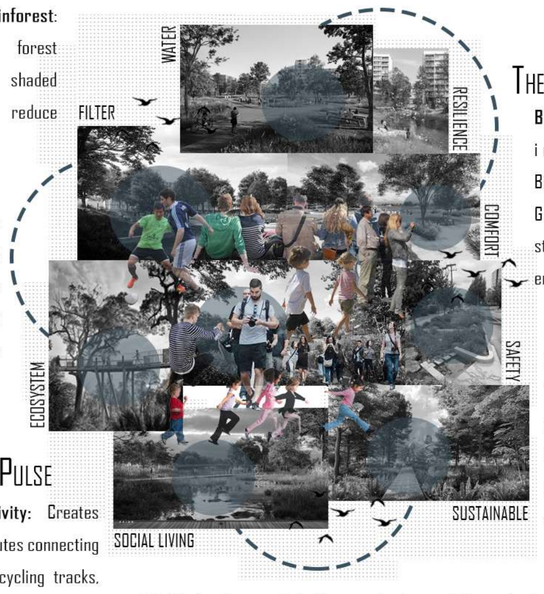
1.5 DESIGN STRATEGY

THE BIOCLIMATIC ZONES

Miyawaki Rainforest: Establish tropical forest pockets to create shaded microclimates and reduce temperatures.

Living Classroom: Use signage and plant documentation to create environmental literacy corridors in shaded areas.

Aeolian Corridors: Orient trees and structures to promote wind movement (Aeolian) to produce passive cooling in pedestrian walkway areas.



THE HYDRO NETWORK

BGCDN: Implement interconnected Bioswales and Rain Gardens to filter and slow stormwater before it enters the reservoir.

Engineered Detention: Transform the existing reservoir into a Blue-Green Landform with sediment bays for water purification.

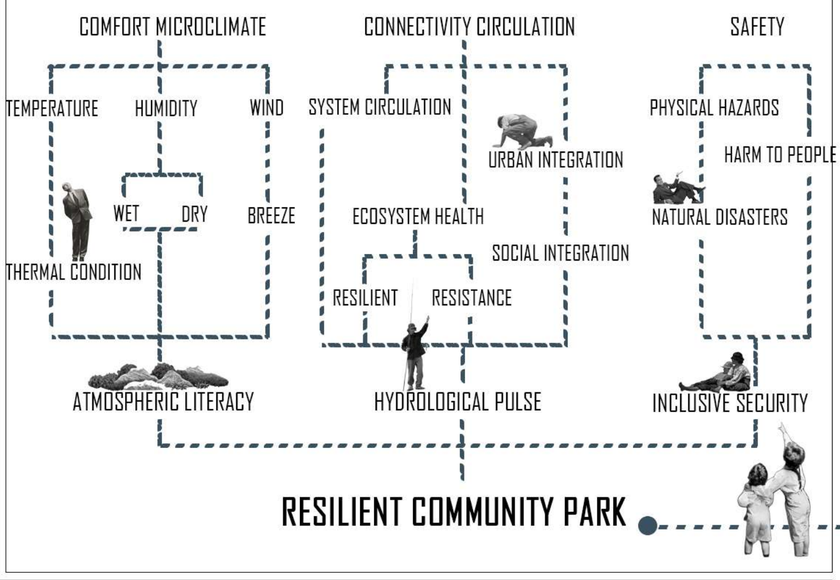
THE UNIVERSAL PULSE

Universal Connectivity: Creates secure circulation routes connecting recreational areas (cycling tracks, yoga lawns, play areas).

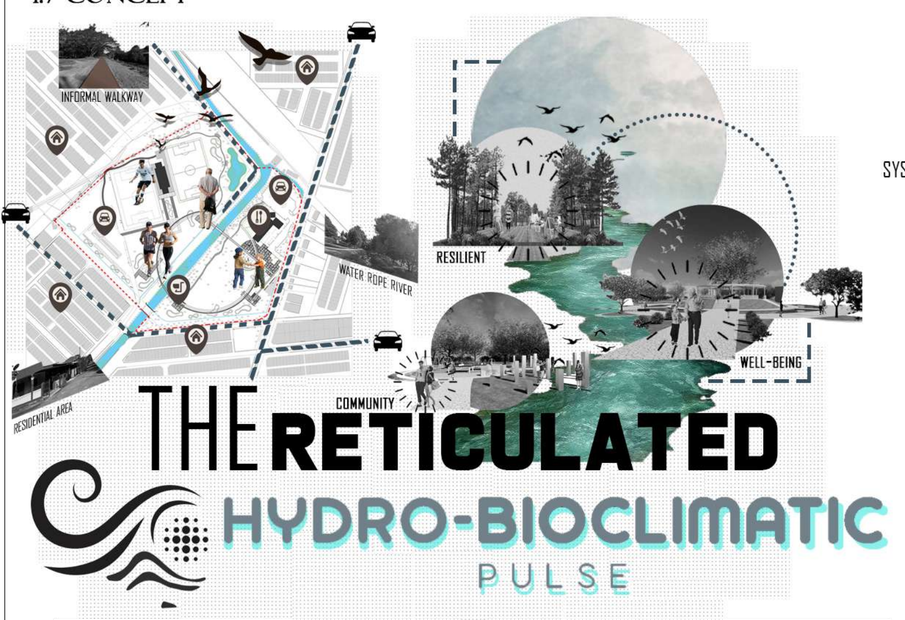
CPTED : Implements Safe Design with clear visibility and solar lighting in active areas.

1.6 THEME

"The Nature-Based Solutions (NBS) approach to rainwater management is adapted from the guidelines of the Institute of Landscape Architects Malaysia **(ILAM)** to ensure urban ecological integration that aligns with local professional standards."



1.7 CONCEPT



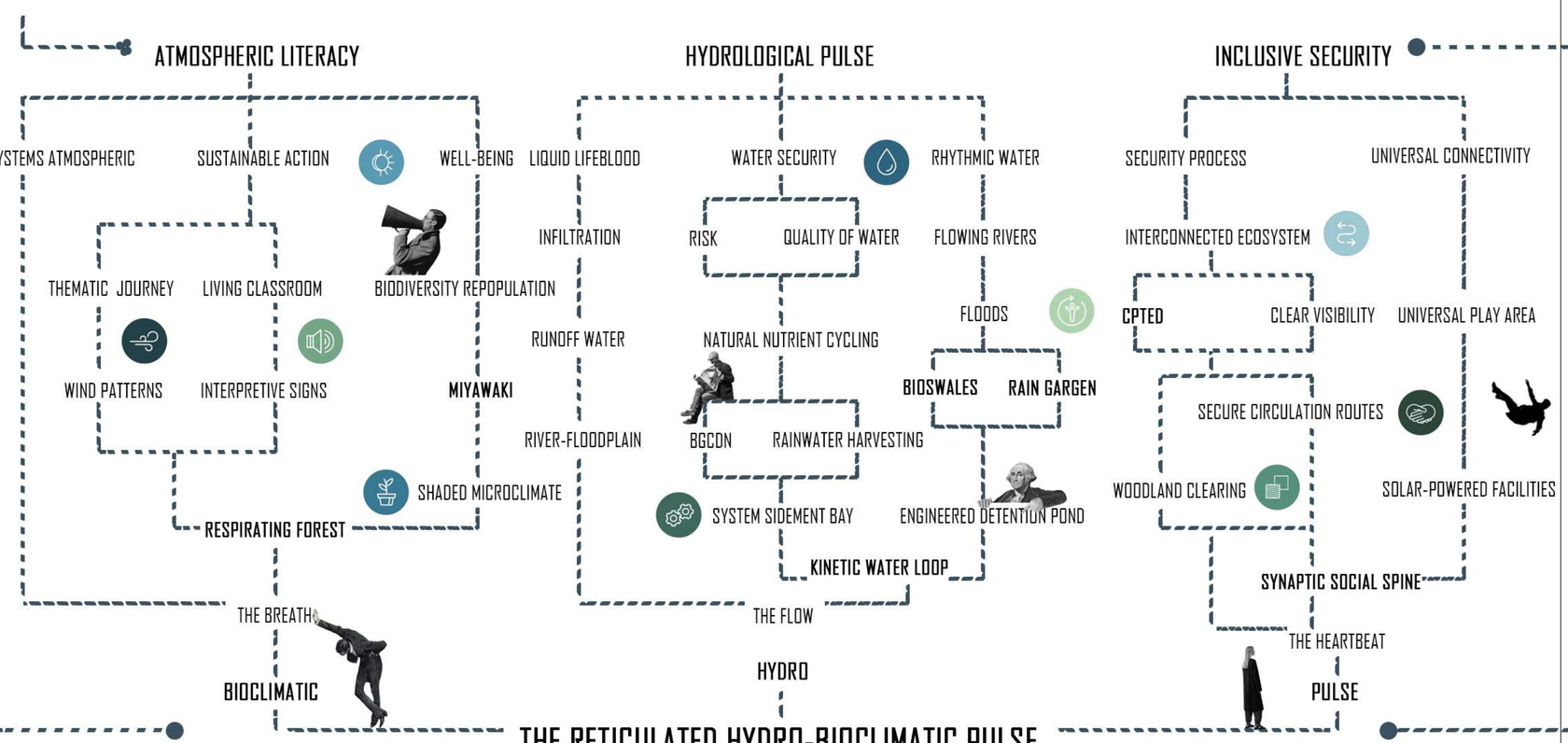
THE RETICULATED HYDRO-BIOCLIMATIC PULSE

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

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

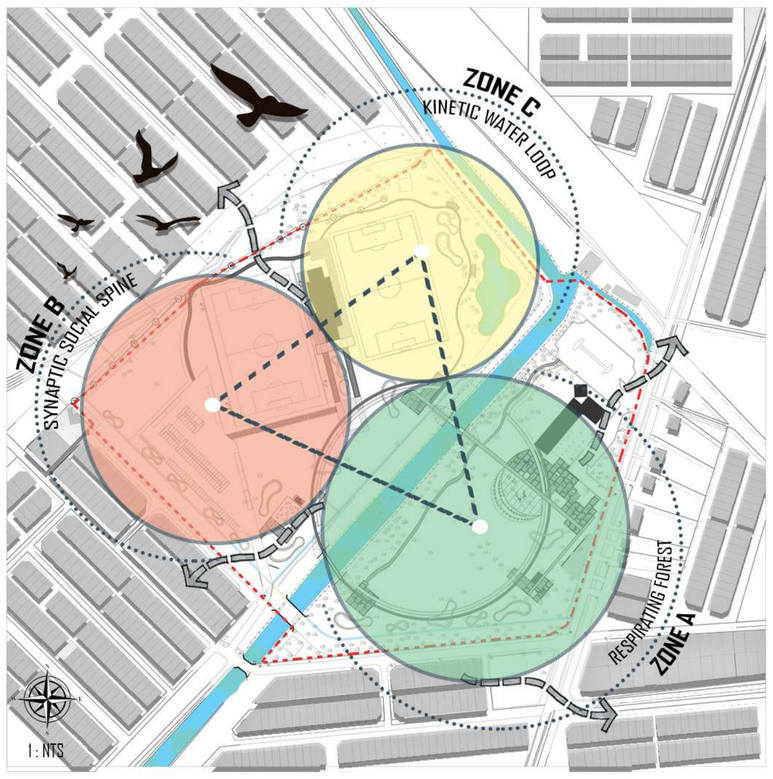
Bioclimatic: Using natural elements like trees, wind, and shade to passively control temperature within the site for human comfort and living.

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

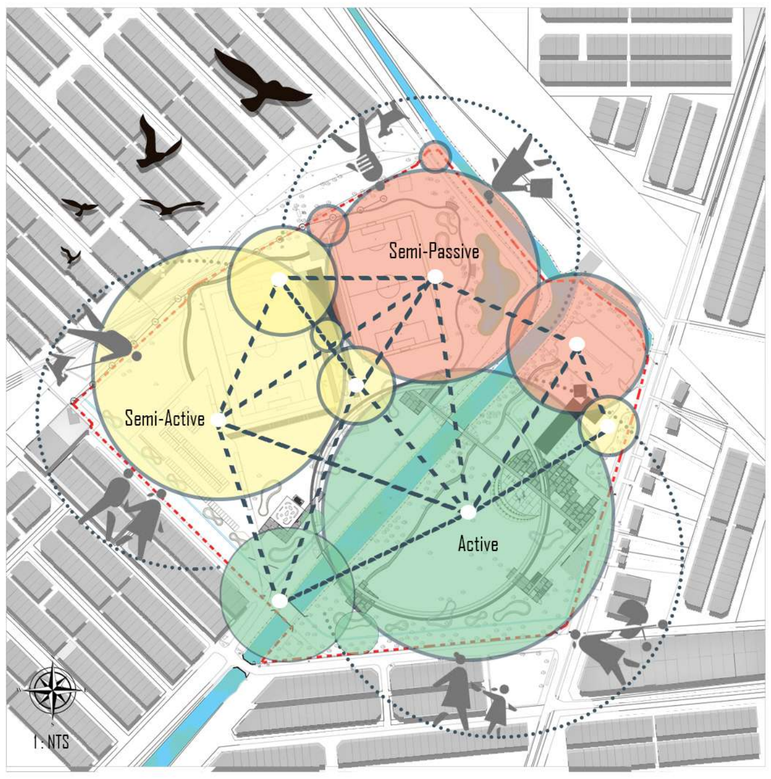


1.8 BUBBLE DIAGRAM

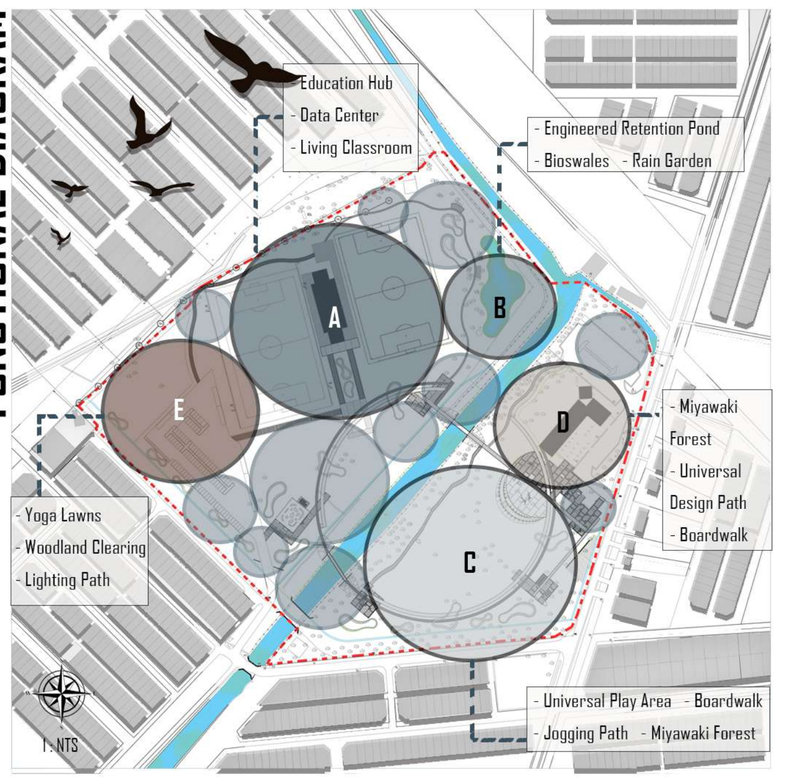
CONCEPTUAL DIAGRAM



SPATIAL DIAGRAM

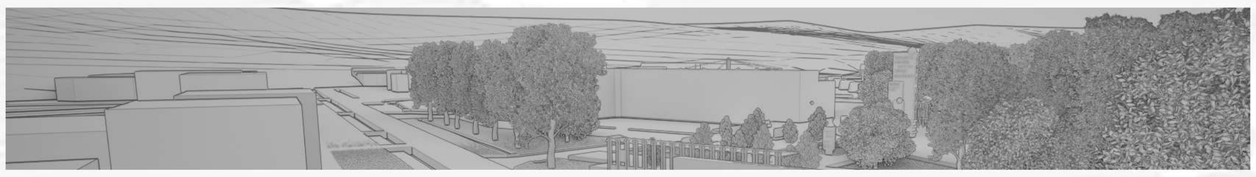


FUNCTIONAL DIAGRAM



LEGEND: Respirating forest · Synaptic social spine · Kinetic water loop · Linkages · Connection

ZONE A	ZONE B	ZONE C	ZONE D	ZONE E
Nature's Threshold (Entrance and Reading area)	The Blue-Green Heart (Hydro pulse area)	Bioclimate Forest Pocket (Cooling area)	Active Social Pulse (Inclusive and Recreation area)	The Wellness Clearing (Quiet area)



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2.1 MASTERPLAN

THE RETICULATED HYDRO-BIOCLIMATIC PULSE

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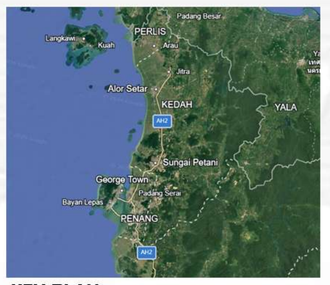
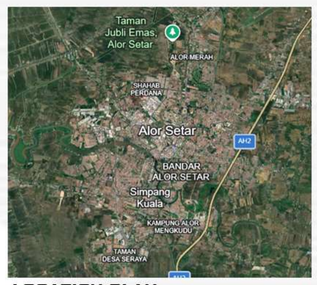


KEY PLAN



LOCATION PLAN

SCALE 1 : 1750

COMMUNITY HARVEST GROVE

03

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ECOLOGICAL PULSE CORRIDOR 04

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BIOCLIMATIC SOCIAL CANOPY

05

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COMMUNITY PULSE PLAZA 06

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HYDRO DISCOVERY GARDEN 07

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