LAN / LDA 350

INDEPENDENT LANDSCAPE DESIGN 1.0

SEMESTER OCTOBER 2024 - FEBRUARY 2025

NYMPHAEAZ X CUTLAS

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LANDesign 1.0

Organized by :

Nympeaz & Cultas Studio of LAN/LDA350 Independent Landscape Design
Semester October 2024 – February 2025

Program of Landscape Architecture,
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ACKNOWLEDGEMENT

Introducing a dynamic, gifted, and passionate group of 17 young future landscape architects, NYMPHAEAZ x CULTAS Studios, who have enrolled in the Diploma of Landscape Architecture program at UiTM Perak Branch, Seri Iskandar Campus, is the goal of the book publishing for Landscape Architecture.

Our combined efforts have led to the release of this book on landscape architecture, and we sincerely thank everyone who helped make it a reality. We want to start by sincerely thanking the studio master, Dr. Nur Huzeima Mohd Hussain and Dr. Atikah Fukaihah Amir, whose advice, knowledge, and support have been vital throughout this process.

We also want to express my gratitude to the Universiti Teknologi Mara Campus Seri Iskandar's Department of Landscape Architecture, whose resources and assistance have made this project feasible. This book is built on the foundation of your commitment to excellence in research and education.

Lastly, we would like to acknowledge the professional practitioners and student collaborators whose experiences, case studies, and contributions have influenced the book's useful applications and helped to connect theory with actual practice.

We sincerely hope that this book, which is the product of everyone's hard work, enthusiasm, and dedication, will serve as a source of inspiration and guidance for upcoming landscape architects as they seek sustainable, creative, and significant design solutions.

PREFACE

The creation of Independent Landscape Design: LANDesign 1.0 marks a significant milestone for the LAN/LDA350 Independent Landscape Design course. As studio masters, we envisioned this book as both a showcase of student creativity and a practical reference for future learners. Each project highlights exceptional dedication, analytical thinking, and innovative problem-solving.

This publication documents the journey of 17 dedicated students who took on the challenge of identifying issues within selected sites and developing comprehensive design solutions. Under the close guidance of their studio masters and supervisors, these students demonstrated remarkable ability in transforming challenges into opportunities through well-conceived landscape design proposals.

What sets this compilation apart is its seamless integration of individuality and professional mentorship, resulting in designs that are both functional and inspiring. The chosen theme, Cerulean Horizon, reflects the students' optimistic vision of shaping a greener and resilient future.

We hope this inaugural edition of LANDesign 1.0 will inspire both students and professionals to explore creative solutions for complex landscape challenges while reinforcing the importance of sustainability in design, particularly within the landscape architecture industry.

Studio Master, LAN/LDA350 Independent Landscape Design
Semester Oct 2024 - Feb 2025

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MESSAGE FROM PROGRAM COORDINATOR

LAr. Dr. NORIZAN MT AKHIR

Alhamdulillah, all praises are to Allah. May Allah bless us with success and good health.

Welcome to the Independent Landscape Design : LANDesign 1.0 by Independent Landscape Design Studio (LAN/LDA350). This is a product to celebrate the creativity, innovation, and dedication to our environment.

It is with pride and excitement that I extend my heartfelt congratulations to the 17 young and enthusiastic Landscape Architecture students whose final projects are beautifully showcased in this compilation. This milestone is a testament to their commitment, creativity, and perseverance, supported by the invaluable guidance of their dedicated studio master and supervisors in LAN/LDA350.

This LANDesign 1.0 is more than a collection of final projects - it is a vibrant platform that highlights the matured ideas, creative solutions, and critical thinking these students have cultivated to address pressing issues in the landscape architecture field. It serves as a reminder of the power of collaboration, where passionate students and dedicated lecturers come together to push the boundaries of innovation and problem-solving.

The studio setting has proven to be an exceptional incubator for nurturing talent, fostering interdisciplinary exploration, and challenging the boundaries. The work presented here not only reflects the students' deep understanding of landscape architecture principles but also their ability to craft sustainable, functional, and aesthetically compelling designs that resonate with the needs of our communities and environment.

To the students, your projects represent the future of landscape architecture, and inspire confidence in the potential of your ideas to shape a better environment. To the studio master and supervisors, your mentorship and unwavering support have been instrumental in bringing out the potential in these bright minds.

Let this LANDesign 1.0 stand as a symbol of achievement through passion, collaboration, and dedication. As you explore these pages, may you feel inspired by the ingenuity and determination of our students, and may this initiative serve as a beacon for future cohorts to aspire toward excellence in landscape architecture.

With warm regards,
LAr Dr Norizan Mt Akhir Program Coordinator Diploma of Landscape Architecture
Bachelor of Landscape Architecture (Honours)

FOREWORD 1

Dr. NUR HUZEIMA MOHD HUSSAIN

Assalamualaykum warahmatullahi wabarakatuh
Alhamdulillah, all praises to Allah SWT for making this initiative possible and bringing Independent Landscape Design : LANDesign 1.0 to reality. The Landscape Architecture Diploma Program under the College of Built Environment at UiTM Seri Iskandar is honored to present the 1st Independent Landscape Design Final-Year Studio Diploma Publication named LANDesign 1.0. As the Resource Person and Studio Master, I am pleased to offer a platform for exploring the ever-evolving field of Landscape Architecture.
This inaugural initiative celebrates the creativity and achievements of final-year diploma students, highlighting their dedication to advancing the landscape architecture industry. The theme, “Cerulean Horizon: Final Project Exhibition,” symbolizes limitless possibilities and the vision for a sustainable and harmonious future. It reflects the ambition to create designs that balance nature, culture, and innovation, shaping resilient and meaningful spaces for communities.
The objectives of LANDesign 1.0 are to:
• Showcase student creativity and design proposals for real-world challenges.
• Provide a platform to share ideas and foster connections within the academic and professional communities.
• Inspire future designers to explore innovative approaches in landscape architecture.

Furthermore, this learning initiative represents the culmination of hard work and collaboration between students and lecturers. It is a step toward new horizons, where thoughtful design leads to a brighter, more sustainable future.
Finally, I extend my heartfelt congratulations and sincere gratitude to the 17 main contributors for their remarkable passion, dedication, and hard work in making LANDesign 1.0 a resounding success. Your creativity and commitment have set a significant standard, showcasing the potential of thoughtful design to shape our future landscapes. Together, let us move forward with renewed inspiration, guided by the vision of the Cerulean Horizon and its boundless opportunities for innovation and growth.

Dr Nur Huzeima Mohd Hussain
Resource Person LAN/LDA350
Studio Master LAN350 Independent Landscape Design Semester Oct 2024 – Feb 2025

FOREWORD 2

Dr. ATIKAH FUKAIHAH AMIR

Assalamualaikum WBT and Greetings,

Alhamdulillah, it is with great pride and anticipation that I present Independent Landscape Design : LANDesign 1.0, a remarkable collection of innovative solutions crafted by the students of LAN/LDA350 Independent Landscape Design. This book offers insights into their ability to address landscape challenges with a sense of purpose and creativity.

The 17 projects featured here highlight the diversity of thought and approach taken by the students, each working under the guidance of their dedicated lecturers. By tackling issues rooted in real-world contexts, these students have demonstrated not only their technical skills but also their readiness to contribute meaningfully to the profession of landscape architecture.

The theme, Cerulean Horizon, aptly captures the vision behind these projects—a commitment to exploring new possibilities while maintaining a focus on sustainability and resilience. As you explore these pages, you will find that each design is a testament to the potential of young minds to reimagine and reshape our landscapes for the better.

This book is more than just a record of student projects; it is a source of inspiration and a valuable reference for anyone seeking to understand the future of landscape design. To the students, congratulations on your outstanding work. To the readers, may this book inspire you to push the boundaries of creativity and innovation.

Dr. Atikah Fukaihah Amir
Studio Master LDA350 Independent Landscape Design Semester Oct 2024 – Feb 2025

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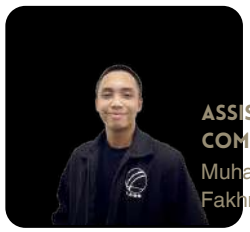

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LANDesign 1.0

Shaping Sustainable Futures Through Independent Landscape Design

Landscape Architecture has the power to shape our environments, enhance communities, and create sustainable spaces that balance nature and human needs. The LANDesign Compilation is a testament to this vision, bringing together 17 unique landscape proposals crafted by final-year landscape architecture students. Each project explores pressing landscape issues, presents innovative design solutions, and integrates green initiatives that contribute to a more resilient future.

Independent Landscape Design is a pivotal final-year studio course where students take ownership of their work, selecting their sites and formulating personalized design solutions. Since its inception in 2015 under the course codes LAA350, LDA350, and now LAN350, the program has provided students with an opportunity to engage with real-world challenges and explore the vast potential of landscape architecture. As part of its teaching and learning initiatives, this course has led to the creation of the LANDesign publication an effort to recognize and showcase student work while increasing visibility within the academic and professional landscape architecture communities. More than just an academic exercise, this course hones students' creativity, problem-solving skills, and ability to respond to industrial demands, preparing them for their careers as future landscape architects.

The Role of Landscape Architecture in a Changing World

As cities grow and environmental concerns intensify, the role of landscape architecture becomes even more critical. Thoughtful design can help mitigate urban heat islands, manage stormwater, enhance biodiversity, and improve overall environmental quality. Green infrastructure, nature-based solutions, and community-driven design approaches are essential tools in addressing these challenges. By proposing landscape interventions with strong ecological, social, and aesthetic value, students are contributing to a field that directly impacts the well-being of people and the planet. Sustainable landscape design is not just about beautification; it is about resilience, functionality, and creating places that serve multiple purposes from conservation and recreation to economic growth and cultural preservation.

Exploring Innovative Proposals

This compilation is more than a collection of student projects; it is a reflection of emerging trends and future possibilities in landscape architecture. Among the key proposals featured in this compilation, you will find:

- Urban Transit Landscape in Bukit Bintang – A proposal that integrates pedestrian-friendly spaces with green infrastructure to enhance mobility and urban sustainability.
- Coastal Ecotourism at Pantai Air Papan – A design that balances tourism development with environmental conservation, ensuring long-term ecological health.
- Rural Riverfront Revitalization at Sungai BidorEstuary – A community-centered approach that restores the river's ecological functions while fostering local engagement and economic opportunities.
- Urban Design of Living Village at Kampung Mortem, Sungai Melaka – A proposal that revitalizes a historic village by integrating modern sustainability principles with traditional architectural elements, fostering a harmonious living environment.
- Recreational and Community Park Revitalization – A vision for transforming public spaces into inclusive, vibrant, and multifunctional areas that promote social interaction and environmental awareness.

These proposals incorporate fundamental landscape concepts such as scenic revival, the cultural Timelapse of Kampung Mortem, the Fusion of Imperial Vintage Aesthetics, and the strategic use of Anchor Link connections. Additionally, critical landscape issues such as food security, living breakwaters, cultivating community connections, and immersive nature-based activities are explored, demonstrating how landscape architecture can serve both environmental and societal needs.

Looking ahead, the insights presented in this book lay the groundwork for future advancements in landscape architecture. The integration of research-driven design, climate-responsive strategies, and adaptive planning will be key to addressing future environmental and societal challenges. Smart technology, renewable energy, and ecological restoration will play increasingly important roles in shaping landscapes that are both functional and resilient.

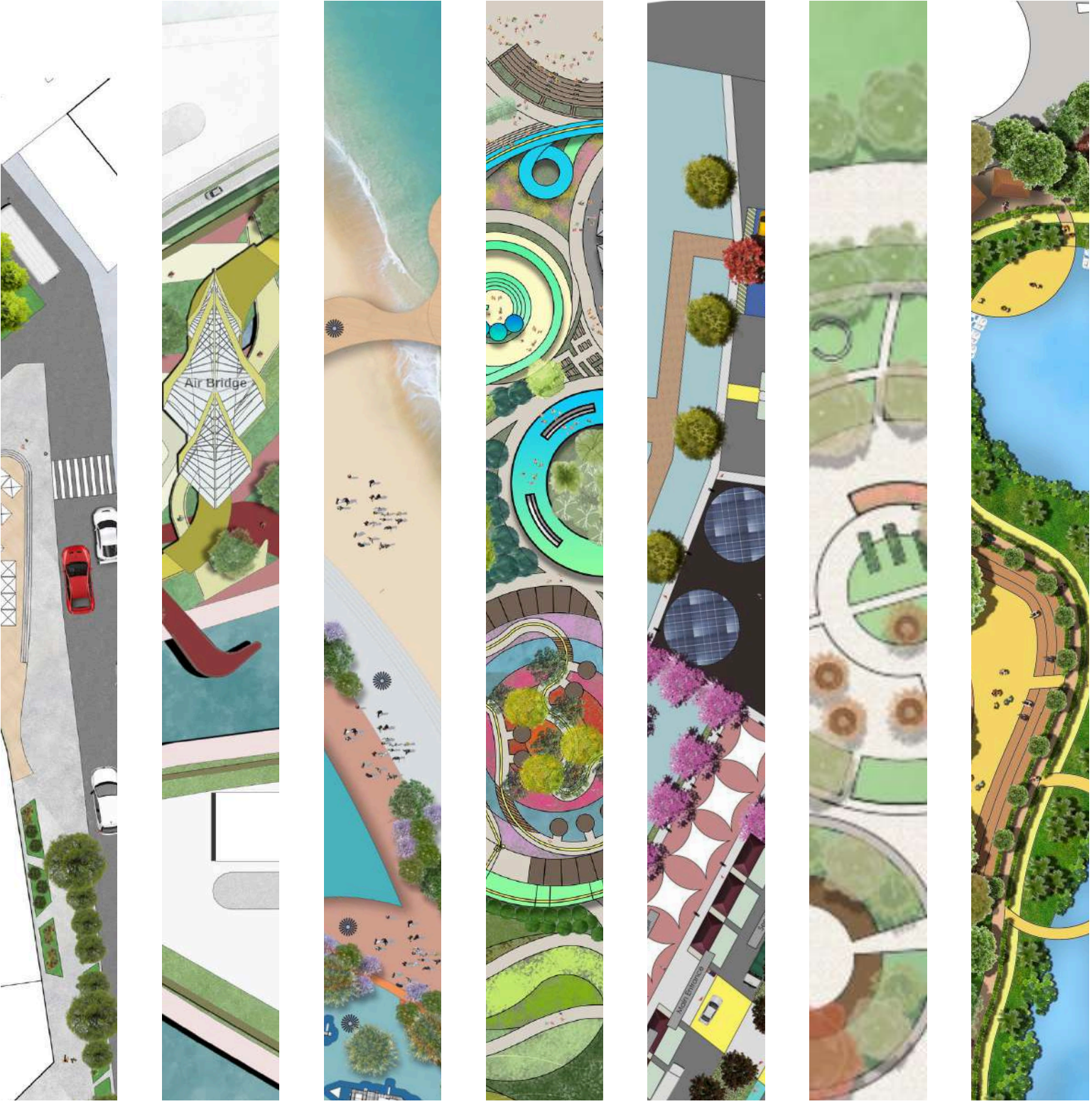
The benefits of implementing these landscape approaches extend far beyond aesthetics. Sustainable landscape design enhances biodiversity, mitigates climate change impacts, and improves air and water quality. It also contributes to economic growth through eco-tourism and green industries while promoting well-being by providing accessible, restorative green spaces. By fostering collaboration between policymakers, industry professionals, and local communities, landscape architects can drive meaningful change and create spaces that benefit both people and nature.

Conclusion: Shaping the Future Through Design

As we navigate an era of rapid urbanization and climate change, the role of landscape architecture has never been more crucial. The LANDesign Compilation invites readers to engage with fresh perspectives, innovative ideas, and practical solutions that push the boundaries of what landscape architecture can achieve. Whether you are a student, professional, educator, or design enthusiast, this compilationserves as both an inspiration and a guide for those passionate about shaping sustainable and livable environments.

We invite you to explore the pages ahead, to immerse yourself in these thoughtfully crafted proposals, and to join us in reimagining the future of landscape architecture. Welcome to the LANDesign Compilation; where creativity, sustainability, and visionary design come together.

By:
Nur Huzeima Mohd Hussain & Atikah Fukaihah Amir
Editor LANDesign 1.0



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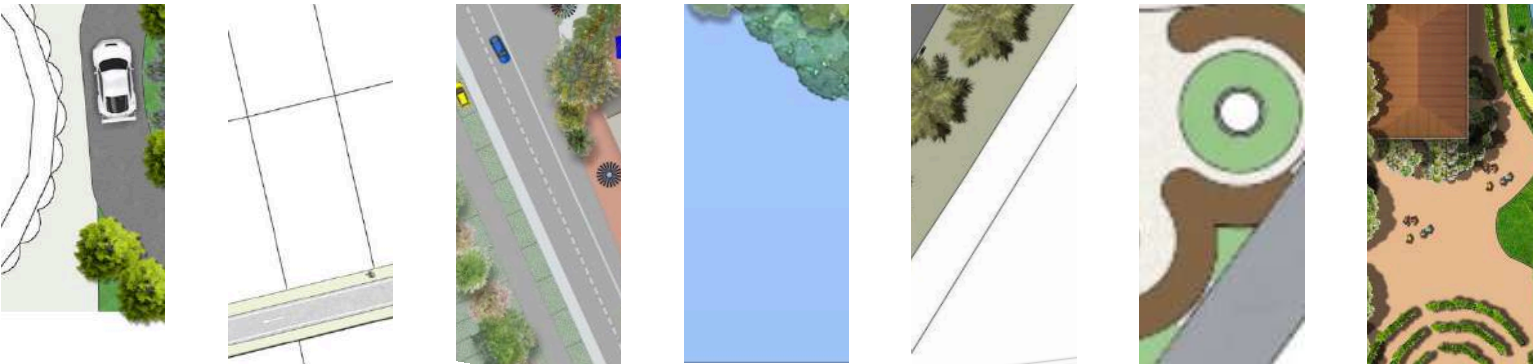

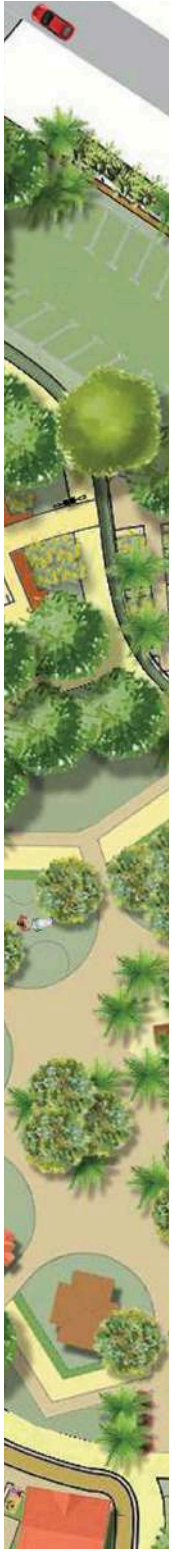

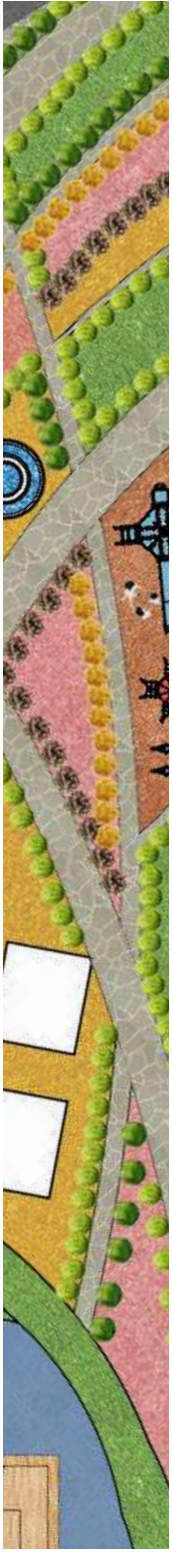

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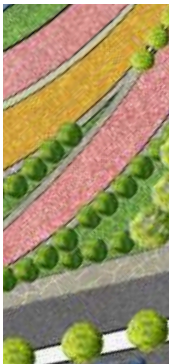


Akif Arfan Bin Anuar & Zulkefle Ayob

PROPOSED URBAN TRANSIT IN BUKIT BINTANG, KUALA LUMPUR

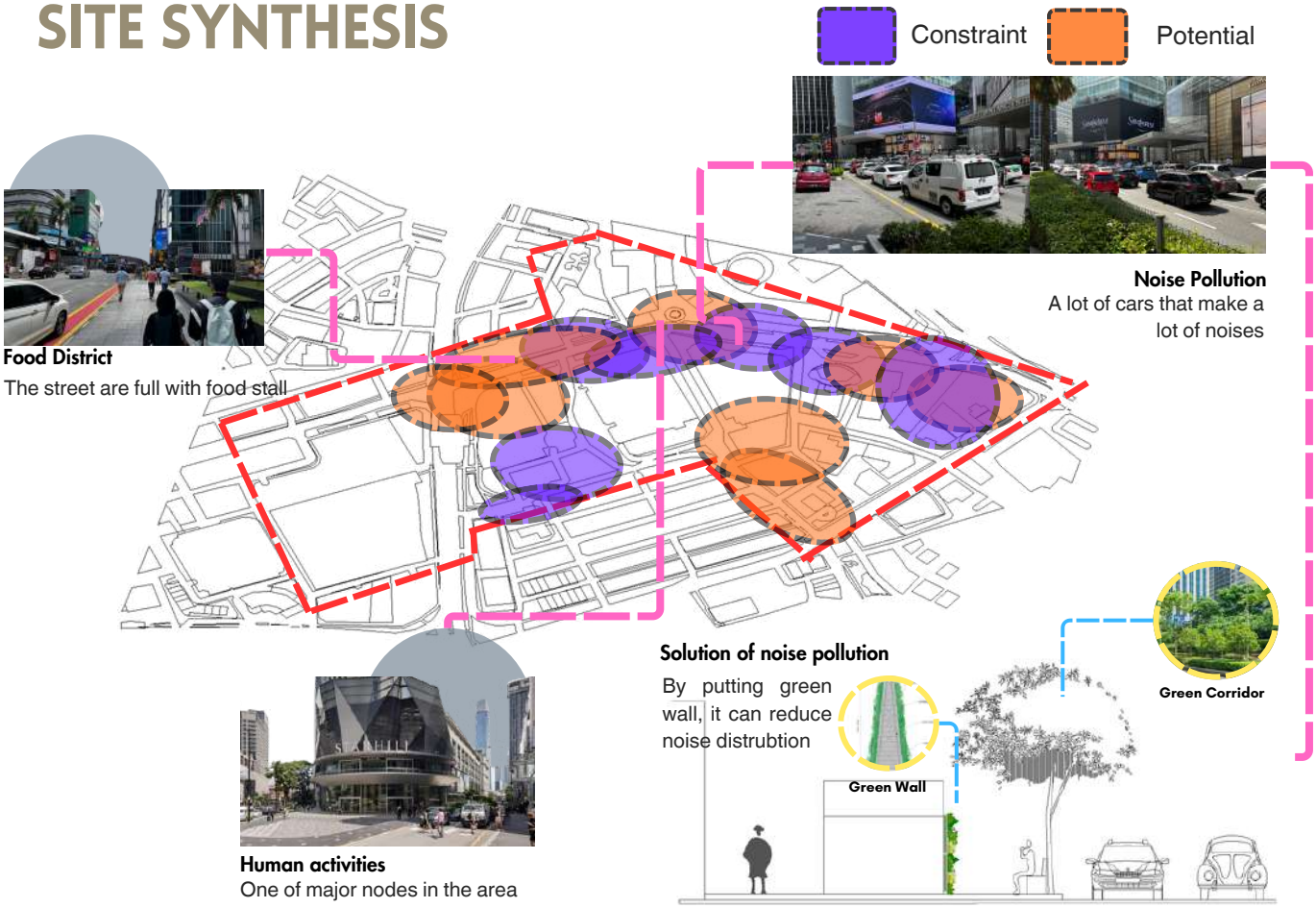
Bukit Bintang, a dynamic commercial and entertainment district in Kuala Lumpur, serves as a key focal point for urban transit developments aimed at improving connectivity and accessibility. The district is currently supported by two major rail stations: the Bukit Bintang Monorail station and the Bukit Bintang MRT station. Located within Kuala Lumpur's Golden Triangle, Bukit Bintang is renowned for its high walkability, providing pedestrians with convenient access to various attractions. However, several challenges persist. Despite its potential as one of Kuala Lumpur's primary commercial districts, the area faces multiple issues, including noise pollution, accessibility constraints, and the erosion of cultural identity. These factors contribute to disruptions for users.The proposed design seeks to transform Bukit Bintang into an integrated urban transit hub through transit-oriented development (TOD), incorporating a sustainable and pedestrian-friendly plaza. The primary objective is to enhance pedestrian infrastructure by introducing multifunctional sidewalks that promote universal design and safer connectivity. Additionally, the design aims to create a comfortable outdoor environment that encourages walking while mitigating noise disturbances. The thematic concept, "Urban Scape of Ambulator," envisions an urban space that is fully equipped with essential accessibility features. The central design concept, "The Walk-Scape of Bukit Bintang," emphasizes the development of vibrant, pedestrian-centric zones that interconnect neighborhoods, amenities, and transit points through adaptable walking pathways. The proposal prioritizes pedestrian movement, social engagement, and accessibility while reducing vehicle reliance through well-designed walkways and communal spaces.

Keywords : Urban Transit - Walk-Scape - Market Plaza - Bamboo walk

INTRODUCTION

Bukit Bintang is a prominent entertainment and retail district in Kuala Lumpur, Malaysia, encompassing Jalan Bukit Bintang and its surrounding areas. Recognized as the city's premier shopping and commercial hub, it features a diverse array of retail establishments, including iconic shopping malls, outdoor cafés, pubs, night markets, food streets, mamak stalls, and hawker-style eateries. The district has long been regarded as a vibrant urban center that attracts both locals and tourists, particularly young visitors, due to its dynamic atmosphere and extensive commercial offerings. Bukit Bintang's strategic location within Kuala Lumpur's Golden Triangle enhances its significance as a key economic and cultural destination. The site under study covers approximately 46.3 acres, providing a substantial area for potential urban development and revitalization. Given its popularity and economic importance, the district presents opportunities for improving pedestrian accessibility, public spaces, and transit-oriented development to further enhance its functionality and appeal.

SITE SYNTHESIS



Bukit Bintang's rapid urban development has led to a loss of its unique **cultural identity**. Historically, the area was known for its vibrant street culture, traditional shoplots, and diverse local businesses. However, the influx of high-end retail developments, luxury hotels, and modern malls has overshadowed the district's heritage and traditional charm. This homogenization risks turning Bukit Bintang into a generic shopping district, losing the local essence that once made it unique. A balance is needed between preserving cultural heritage and embracing modern development.

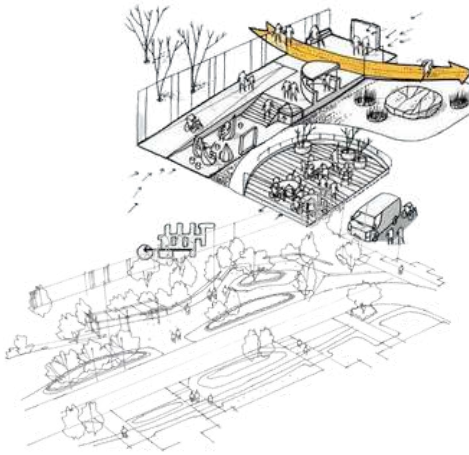
Being a bustling commercial district, Bukit Bintang suffers from significant **noise pollution** caused by traffic congestion, construction activities, and nightlife. The area's popularity as a tourist destination means it remains busy throughout the day and late into the night. Excessive noise can reduce the quality of life in the area and deter people from visiting frequently. It also impacts the hospitality sector, as hotels near main roads receive complaints from guests about the noise levels.

While Bukit Bintang is one of the most accessible areas in Kuala Lumpur, it still faces **connectivity** challenges. some areas within Bukit Bintang are poorly connected for pedestrians. Inadequate sidewalks, uneven surfaces, and street crossings can make it challenging for pedestrians to move safely and efficiently around the district. There is also limited cycling infrastructure, discouraging eco-friendly travel options.

CONCEPTUAL DEVELOPMENT

THEME

THEME: URBAN SCAPE OF AMBULATOR



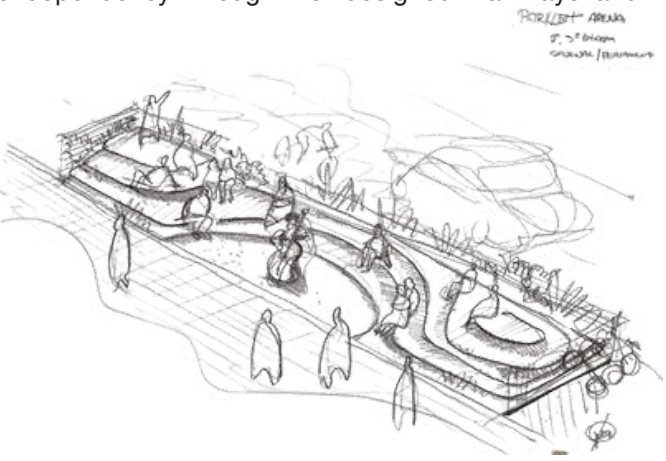
An urban area's visual and cultural landscape, including buildings, streets, public spaces, and infrastructure. It encompasses both the physical design of a city and the social dynamics within it. This theme suggests a focus on how a city is experienced through walking. It emphasizes the relationship between the city's design and the human experience of movement within it. The ambulator is both a participant in and an observer of the urban environment, making them a key figure in understanding how urban spaces shape human behavior and how people shape the urban landscape through their presence and movement. The term draws from the idea of the flaneur, a figure popularized in 19th-century literature who strolls through cities to absorb the sights and sounds of modern life. Unlike vehicles that speed through cities, walking allows for a slower, more reflective experience. The ambulator notices details often overlooked, from graffiti on walls to conversations in bustling marketplaces, enriching their understanding of the city's character.

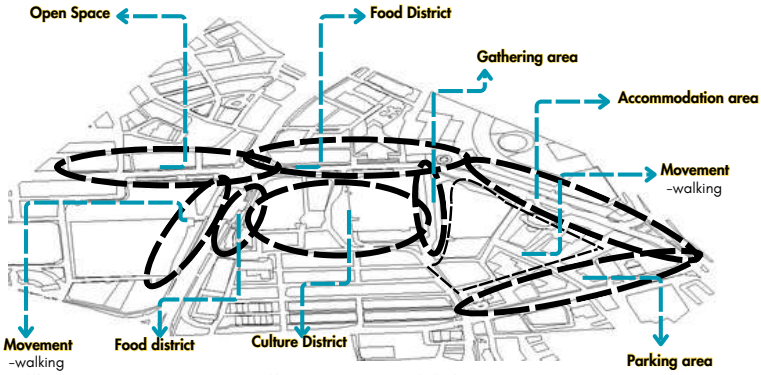
CONCEPT

CONCEPT: THE WALK SCAPE IN BUKIT BINTANG

The Walk-scape Concept focuses on creating vibrant, central pedestrian zones (or "hubs") that connect neighborhoods, amenities, and transit points with adaptable walking pathways. It prioritizes pedestrian movement, social interaction, and accessibility, while reducing vehicle dependency through well-designed walkways and gathering spaces.

The walk-scape experience in Bukit Bintang is greatly impacted by the walk-scape's design. Public plazas, pedestrian crossings, and wide sidewalks promote social interaction and strolling, fostering a feeling of community inside the city. Because walkers are more likely to interact with nearby establishments and cultural landmarks, the walk-scape also promotes economic activity.





Gathering area
-Sitting area
-Streets planting

Movement
-walking
-e-scouters
-Street planting

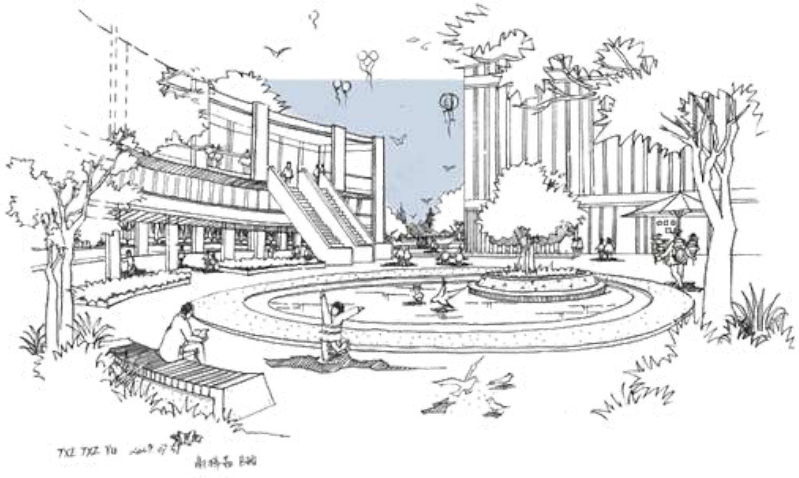
Parking area
-smart parking
-street planting

Food District
-eating
-gathering

Accommodation area
-Hotel
-relaxing

Open Space
-Sitting area
-Streets planting
-events

Culture District
-walking
-taking picture
-exploring



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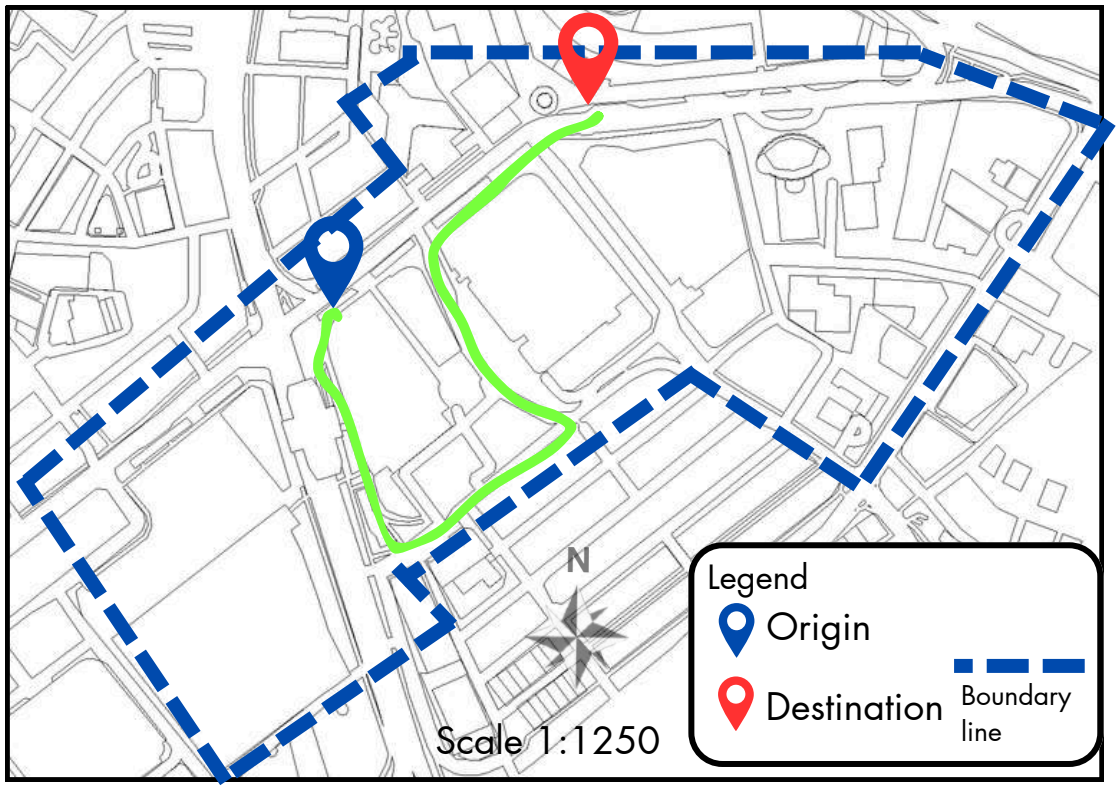


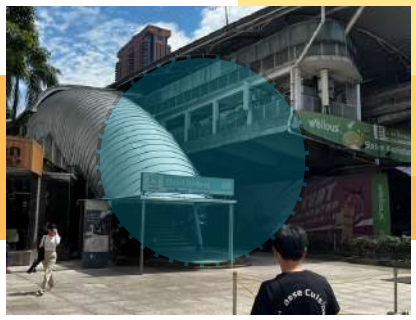
Origin

In front of MRT bukit bintang

No Identity

Besides Lot 10 and toward to back alley

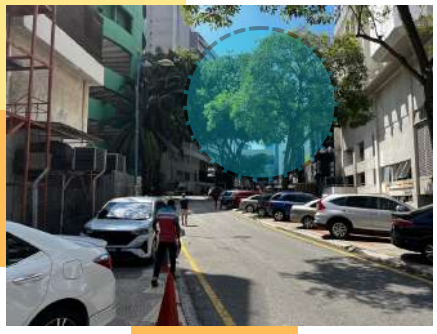
In front of intersection which is major nodes



Focal Point: The monorail gives a big impression

The journey from the point of origin to the destination highlights disruptions along the sidewalk caused by individ regard for pedestrian accessibility. These interruptions may result from various factors, including unauthorized ob vehicles, informal street vending, construction materials, or individuals congregating in a manner that impedes ped Such obstacles create inefficiencies in urban mobility, compelling pedestrians to seek alternative routes that ma convenient.

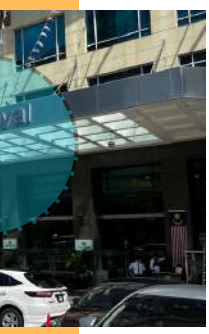
Hazard: Garbage pile at sidewalk behind Lot 10 Building



Trees incorporated: The trees sitting in arrangement to create shaded pathway

Pedestrian path was unable to used due to vehicle illegal parking

Anticipation: Pathway to starhill and Pavillion evokes curiosity



Destination

Many people at intersection in front of Pavillion

Origin — Lot 10 & Mrt Bukit Bintang

Grand Millennium Hotel

Fahrenheit

Destination — Pavillion

uals acting without
bstructions, parked
lestrian movement.
ay be less safe or

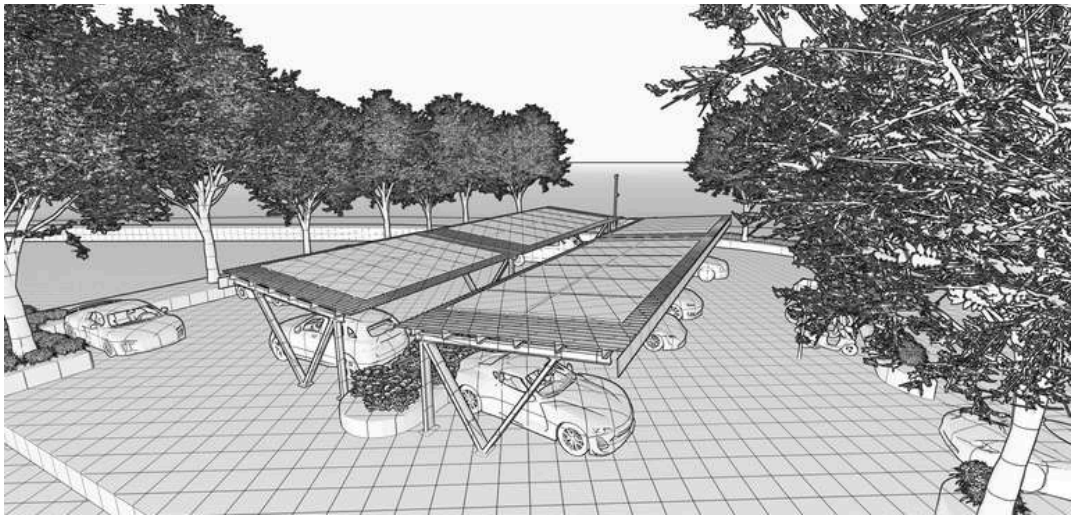
Repeated encounters with these disruptions can discourage individuals from utilizing the sidewalk, leading to a shift in pedestrian behavior where they favor roadways or other paths that may not be designed for foot traffic. This avoidance not only undermines the intended function of sidewalks but also raises concerns about pedestrian safety and urban accessibility. Furthermore, these obstructions disproportionately affect individuals with disabilities, parents with strollers, and elderly pedestrians, exacerbating issues of urban inclusivity. Ensuring uninterrupted pedestrian pathways is essential for fostering an accessible and efficient urban environment. Failure to address these challenges may lead to long-term pedestrian displacement from sidewalks, reducing walkability and negatively impacting the overall quality of public spaces. Thus, proactive measures should be taken to maintain clear and navigable pedestrian infrastructure.

MASTERPLAN

The enlargement plan shows a proposed Market Plaza would serve as a catalyst for economic growth, creating a platform for both established and emerging businesses to thrive. By providing retail spaces for local artisans, small businesses, and startups, it can help promote local products and services, contributing to the district's unique identity.

Bukit Bintang is already a key tourist destination, and a well-designed Market Plaza would further enhance its appeal. The plaza can be envisioned as a cultural and lifestyle hub, featuring local crafts, performances, and culinary delights that offer tourists a unique Malaysian experience. Incorporating cultural elements into the plaza design can showcase the heritage of Kuala Lumpur, attracting more visitors and lengthening their stay in the area.

This masterplan shows that the walk-scape of Bukit Bintang focuses on walkability and connectivity as key elements to enhance urban mobility and improve the overall pedestrian experience in the area. The integration of pedestrian-friendly infrastructure, green spaces, and seamless transit connections is essential for creating a vibrant, livable urban environment. The masterplan aims to reduce reliance on private vehicles by encouraging walking as a primary mode of transport. Wide, shaded sidewalks, elevated walkways, and pedestrian crossings at key intersections improve safety and comfort for pedestrians. the masterplan incorporates green spaces and pocket parks along pedestrian routes, promoting a more enjoyable walking experience. By blending nature with urban infrastructure, the walk-scape of Bukit Bintang provides an aesthetic and functional environment that encourages social interaction and reduces urban heat. Overall, the walk-scape strategy in the Bukit Bintang masterplan prioritizes pedestrian connectivity, identity, and comfort, transforming the district into a model of sustainable urban development in Kuala Lumpur. This vision aligns with global trends of creating smart cities that promote livability and reduce environmental impact.



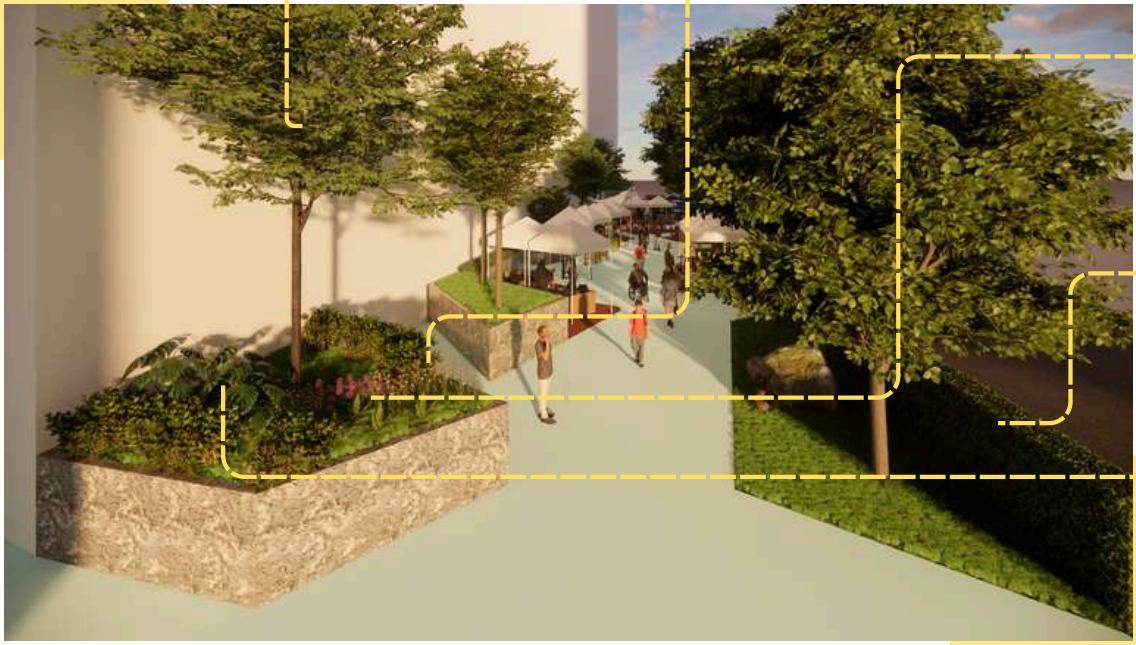
Green Parking in surrounded office area makes a reduce heat and comfortable for users to park and access EV charging port who those has electric vehicle.

ENLARGEMENT PLAN

PLANTING INSPIRATION

Botanical Name: *Pentace triptera*
Common Name : Melunak Pusat Beludu

Botanical Name: *Dianthus barbatus cultivars*
Common Name : Sweet Williams



Botanical Name: *Celosia argentea*
Common Name : Feather Cockscomb

Botanical Name: *Acalypha siamensis*
Common name : Wild Tea

Botanical Name: Homalomena rubescens
Common name : Queen of Hearts

Botanical Name: Mimusops elengi
Common name : Spanish cherry

Botanical Name: *Hamelia patens*
Common name : Fire Bush

Botanical Name: *Elaeocarpus hainanensis*
Common Name : Hainan Oil-Fruit Tree

Botanical Name: Ixora javani
Common Name : Red Ixora

GREEN INITIATIVES

One of green initiative that implied is Solar Parking. The solar panels acts as electrical charger to ev ports. Plants surrounded in the parking act as natural sound absorbers, reducing noise pollution in busy areas. This is especially beneficial in commercial districts like Bukit Bintang, where in the noon getting all the sunlight.

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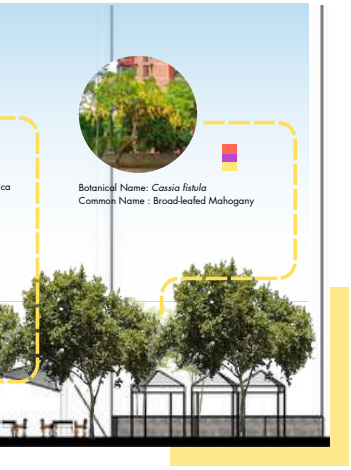
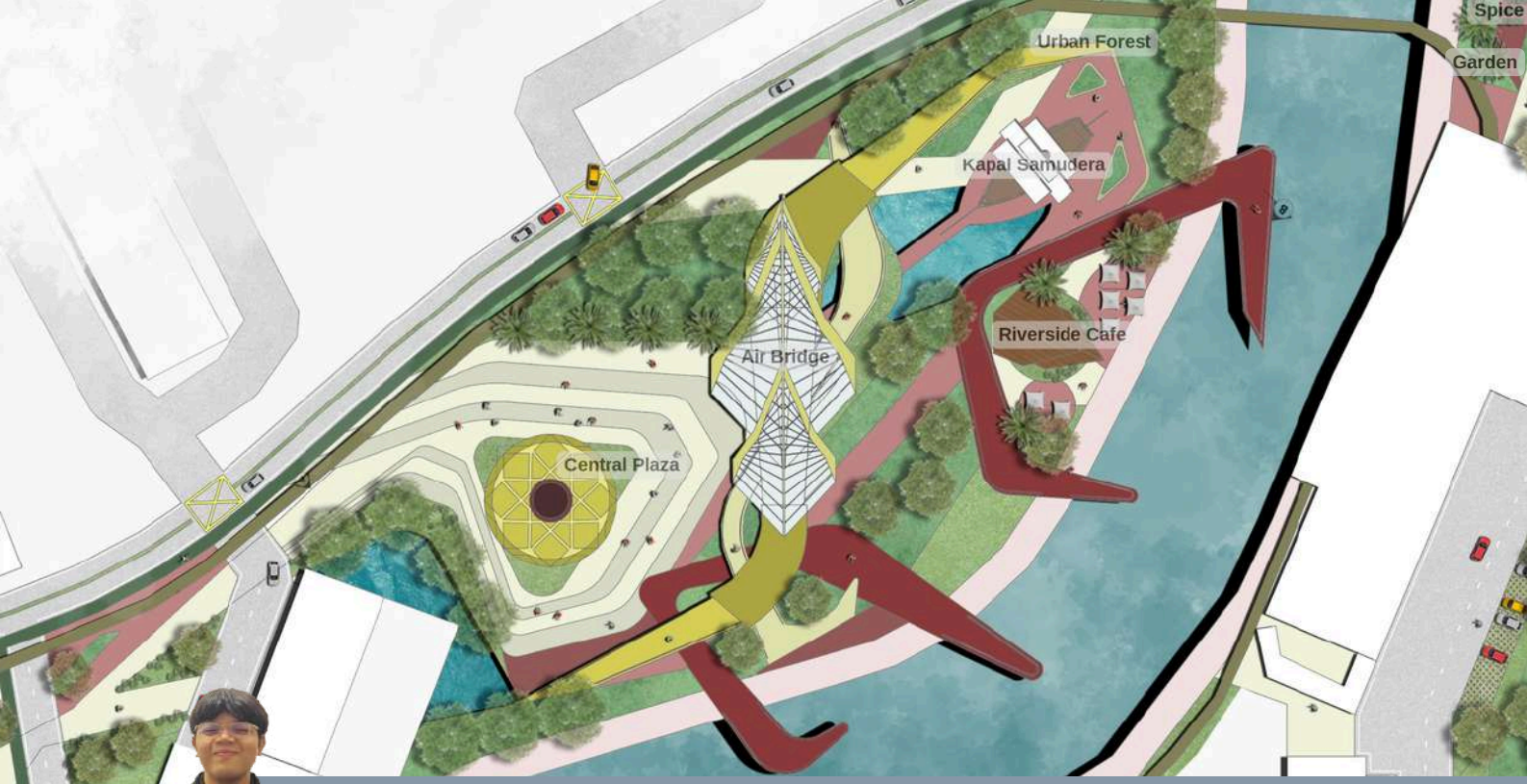


Plant inspiration in urban planning and design emphasizes the integration of plant forms and functions to create more sustainable, livable, and visually appealing urban environments. By incorporating natural elements into city landscapes, planners can foster a stronger connection between nature and human-made structures, enhancing the overall well-being of residents and visitors. This approach not only improves the aesthetic quality of urban spaces but also contributes to environmental sustainability by mitigating air pollution, reducing urban heat, and promoting biodiversity. In high-density areas like Bukit Bintang, plant-inspired designs can transform the district into a greener and more pedestrian-friendly space. Strategies such as vertical gardens, green roofs, tree-lined streets, and public parks can provide shade, improve air quality, and encourage social interaction. These green interventions contribute to mental and physical health benefits, creating a more inviting and vibrant urban hub where people can live, work, and engage with their surroundings in a sustainable manner.

CONCLUSION

Bukit Bintang's future development emphasizes urban transit, walkability, connectivity, and green infrastructure to address urbanization challenges. Key issues like identity loss, noise pollution, and poor connectivity require strategic planning to enhance its global appeal while preserving its character. The masterplan prioritizes a pedestrian-friendly environment, integrating MRT, Monorail, and Go KL buses with seamless walkways. This approach promotes sustainable mobility, reducing car dependency, easing congestion, and improving accessibility for locals and tourists. Green walls and plant-inspired designs enhance air quality, reduce noise, and regulate temperature while boosting mental well-being and aesthetics. Transforming Bukit Bintang into a sustainable, livable, and connected district will bring long-term economic, environmental, and social benefits. With thoughtful urban planning and innovative design, Bukit Bintang can become a vibrant, future-ready urban hub that balances growth and sustainability for future generations.



Mohd Nur Iman Bin Mohd Nor & Khairul Adham Bin Ibrahim

PROPOSED URBAN DESIGN AT KAMPUNG MORTEN, SUNGAI MELAKA, MELAKA

In the Malaysian state of Malacca, Morten Village is a historically authentic Malay village, also known as The Living Museum. Despite being tucked away in the conveniences of the city, it is arguably the only traditional Malay riverine village still keeping its old-world beauty in the nation. It's a bustling location where the visitors can observe day-today activities in a way that hasn't altered much in decades. In historical context, in 1920, Othman chose a mangrove and Nipah-forested area as the location for a new settlement, in recognition of Frederick Joseph Morten's assistance in founding Kampung Morten, the village bears his name. There are currently over 100 traditional Malay houses there. Due to the fact that many of the locals still lead traditional Malay lives, Kampung Morten is frequently described to as a "living museum" nowadays, providing tourists with a window into the past. Loosing tradition is one of the main site issues with some spaces that has a weak identity and does not reflect the local culture or heritages. Some open spaces that have potential to be fully utilized. The odors coming from the river is quite strong and it needs to be improved in terms of the water quality so that it will not harm any people around. The aim for the design is to provide a comfort towards the people and the community while preserving the cultural heritage values of the site itself. One of the objectives for the design is to strengthen the Kampung Morten's identity while educating the users about its rich culture and history so that it will never be forgotten by the people. To improve the quality of natural resources like river and wildlife, that can create a better ecosystem and reduce the risk of harm to the environment. Finally, to create safe and comfortable areas for the users that can improve their health and quality of life in the site area. The site has been decided to be developed based on the comprehensive site analysis that were made. The theme for the design is The living village in heritage and the concept is Timelapse of Kampung Morten.

Keywords : Urban Placemaking - Urban Cultural Landscape - The living Heritage - Historical Enclave

INTRODUCTION

The village, which was a peaceful area in the 1960s and 1970s, changed to become a tourist destination when Malacca's Preservation and Conservation Enactment of 1989 designated it as a heritage village. The total of site is 65.18 acres that covers the whole area of Kampung Morten itself. Urban historical cities are intriguing intersections of the past and present. The architecture, streets, and cultural customs of these cities usually bear witness to their rich pasts. They act as living museums, displaying how civilisation has changed over the ages. We would find a mix of old and new buildings, from ancient landmarks and monuments to modern structures in there with various communities contributing to a thriving social fabric, it is a cultural melting pot.

SITE SYNTHESIS

MULTIGENERATIONAL COMMUNITY

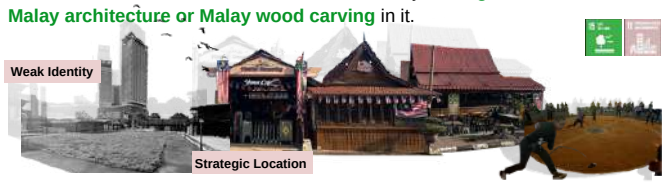
POTENTIAL AND DESIGN SOLUTION

Young generation is the most populated in the site area. **Multigenerational Park** would attract many users from different group of age. This would create a more community engagement

IDENTITY AND HISTORY

CONSTRAINT AND DESIGN SOLUTION

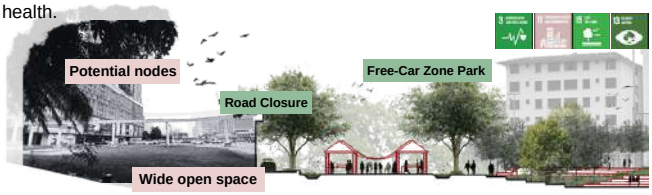
There are some spaces that has a **weak identity** and **does not reflects the context of the site area**. Refurnished the area by **adding the elements of the Malay architecture or Malay wood carving** in it.



HUMAN CENTRED DESIGN

POTENTIAL AND DESIGN SOLUTION

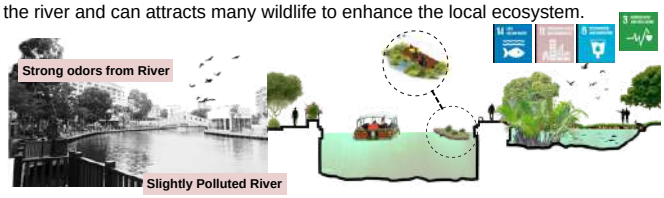
Providing **no-car zone** area to enhance Human Centred Design concept. **Decrease the amount of air and noise pollution** and increase people's health.



ECOSYSTEM DEGRADATION

CONSTRAINT AND DESIGN SOLUTION

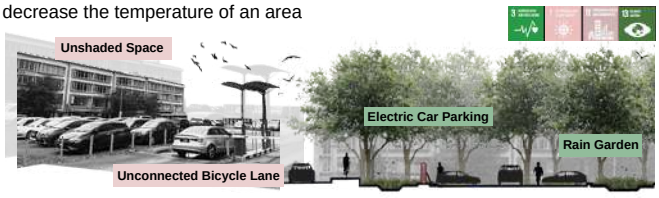
The **river water quality has been slowly decreasing** after pandemic. Proposed a **floating wetlands** that can purify and improve the water quality for the river and can attracts many wildlife to enhance the local ecosystem.



SMART GREEN CITY ELEMENTS

POTENTIAL AND DESIGN SOLUTION

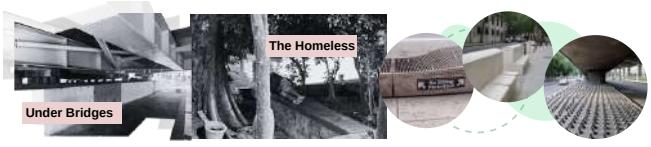
There are many facilities in the site area that is **not efficient** and can be improved. **Green Parking** would be beneficial for the site area since it can decrease the temperature of an area



HOSTILE ARCHITECTURE

CONSTRAINT AND DESIGN SOLUTION

Homeless people can still be spotted in the site area especially under the bridges. Using the **Hostile architecture** in the site area would decrease the amount of the homeless.



Providing a multi-generational play area for all ages of group will gives the benefits not just to the community but also for the visitors. It also encourage a healthy lifestyle by doing the recreational activities alongside the community engagement. Then, It is really important to enhance the existing area cultural context or its identity by providing many elements that related to the local cultures and heritages so the young generation could learn from it. The floating wetlands is a green infrastructure that help to purify the water quality of an areas, create a habitat. aesthetic enhancement and also storm water management. Fish and others animals benefit greatly from the habitat that root system provides. Using aspects of the built environment to intentionally direct behaviour is known as hostile architecture. By limiting their physical activities, it frequently targets those who utilise or depend on public spaces more than others, such as young people, the impoverished, and the homeless.

CONCEPTUAL DEVELOPMENT

THEME

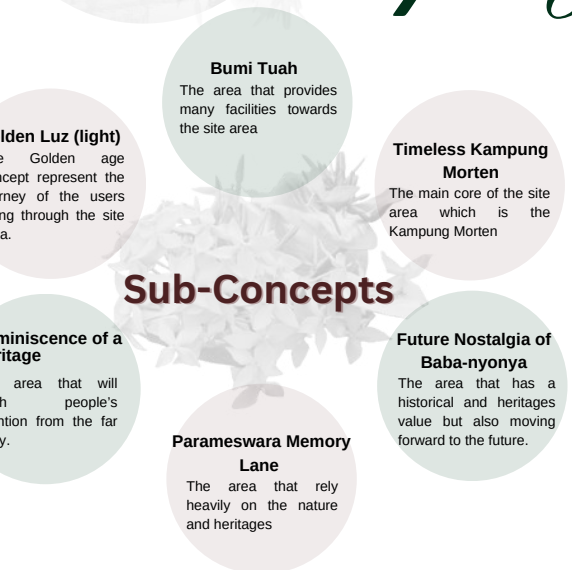
THE LIVING VILLAGE IN HERITAGE

As live reminders of history and tradition, living villages are treasured in cultural heritage. These are thriving communities that appreciate and preserve ancient buildings, rituals, and lifestyles. People's everyday lives in these communities are entwined with their predecessors' legacy, resulting in a distinctive fusion of the past and present. Every surviving hamlet provides a glimpse into the past, enabling us to observe and value customs, crafts, and celebrations that have been carried down through the ages. Living villages contribute to the preservation of cultural heritage by keeping these assets alive and relevant, preventing its loss over time.

CONCEPT

TIMELAPSE OF

Kampung Morten

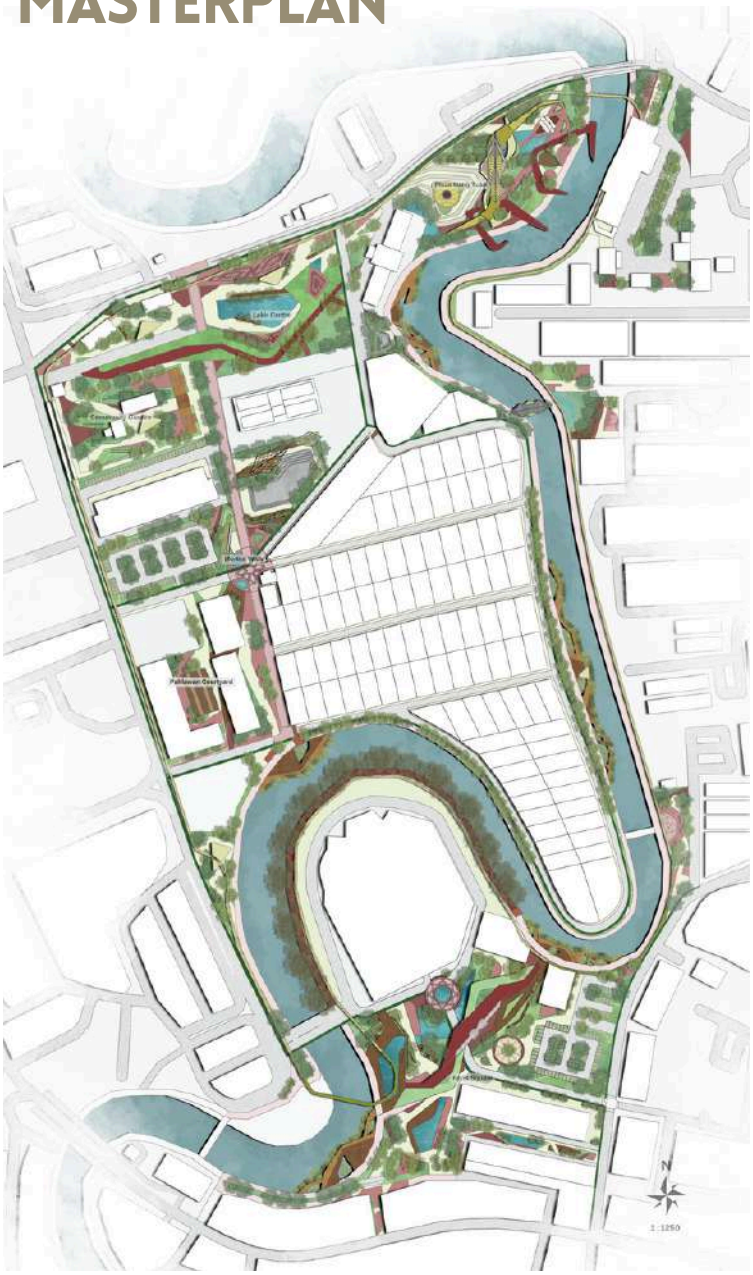


The Timelapse of Kampung Morten is a concept that gives a perspective towards the users about walking through the historical structures, artifacts, in different era of time. It provides a concrete and experiential means of connecting with history and cultural heritage while offering an engrossing voyage into the past.

This concept also gives us a glimpse about the Kampung Morten past and how it is adapting with the urban development around it in the Malacca City itself. Not just that, Kampung Morten is also a part of the UNESCO World Heritages Sites, so it is connected with the existing heritages site in the Malacca City and enhancing its urban fabric.

It's a powerful way to educate the public about the importance of preserving cultural heritage and to visually demonstrate the impact of natural and human influences over time. The design can be by incorporating old photographs, maps, and documents adds depth to the story, providing viewers with a comprehensive view of the site's past. For tourists, it offers a unique perspective of sites they visit. For researchers, it provides invaluable data on the conservation status and changes in the environment.

MASTERPLAN



Then, the design improves the user's experience when they visit the site, particularly when they use the heritage paths. Along the route are interactive exhibitions and installations, as well as walking paths through picturesque settings and historic neighborhoods.

Learning about the history of heritage buildings has been transformed by **QR code scanning technology**, which makes it much more convenient and interesting. Visitors can instantly access a multitude of material, including historical details, photographs, videos, and even audio guides, by simply using their cellphones to scan a QR code. This removes the inconvenience of waiting for a tour guide or the necessity for heavy guidebooks.

The goal of the master plan is to create an educational and sustainable urban spaces by combining historical preservation with contemporary development. Additionally, the design incorporates a plaza for the festivals honoring the region's heritage, performance spaces for traditional dance, music, and theatre, interpretive signs elucidating the significance of each location, an informative board showcasing local art and artifacts, and informative plaques and QR codes for self-guided tours.

MASTER PLAN SECTION ELEVATION B-B'

By preserving the local heritages in the design, it them helps maintain a sense of identity and continuity, also would enables future generations to connect with their past. Sustainable infrastructure and heritage preservation work together to prevent historical and cultural treasures from being sacrificed for urban growth. It proves that preservation and advancement may coexist together. Cities can lessen the effects of climate change, save energy, and enhance the quality of their air and water by implementing sustainable policies.

URBAN FOREST

Planting design is inspired by the concept of an urban forest which has a variation types of forest trees and tropical plants with a vegetation barrier to protect the users from the noise and air pollution coming from the main road.

SKYWALK

These skywalk enhance overall city planning and mobility efficiency by assisting in the management of pedestrian traffic flow in crowded metropolitan settings.

PLAZA HANG TUAH

People can socialise in gathering plazas, which promote a feeling of connection and community.

A
ENLARGEMENT PLAN SECTION ELEVATION A-A'
A'

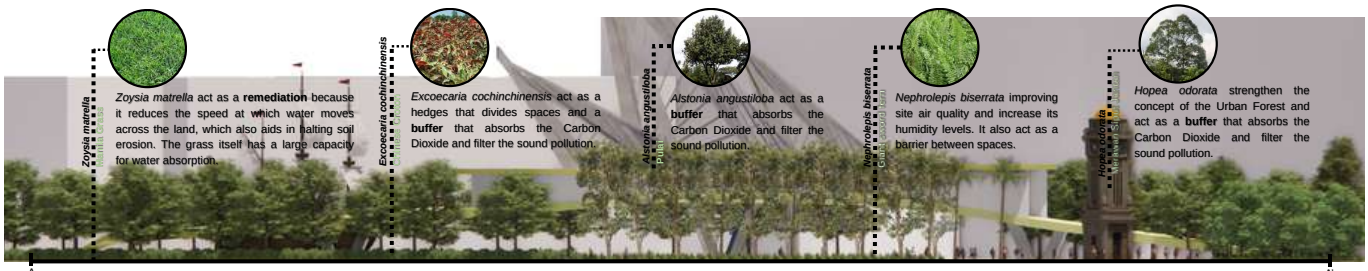
URBAN FOREST | KAPAL SAMUDERA | SKYWALK | PLAZA HANG TUAH

This enlargement plan respects the region's rich history and culture while promoting a vibrant, sustainable community. As a tribute to the past and a link to the future, the historical route will encourage locals and tourists alike to discover and value the area's distinctiveness. The Plaza Hang Tuah which located at the northeast area of the site and would consist an open plaza with clock tower to resemble the Stadhuys in Malacca city as a part of the urban fabric itself.

The clock tower has a gold color dome to represent the Islamic architecture and royal heritages of Malacca and an air bridge that has a form inspired from the roof of the traditional Malacca Malay house to act as a functional sculpture and new landmark that can be seen from any far distance.

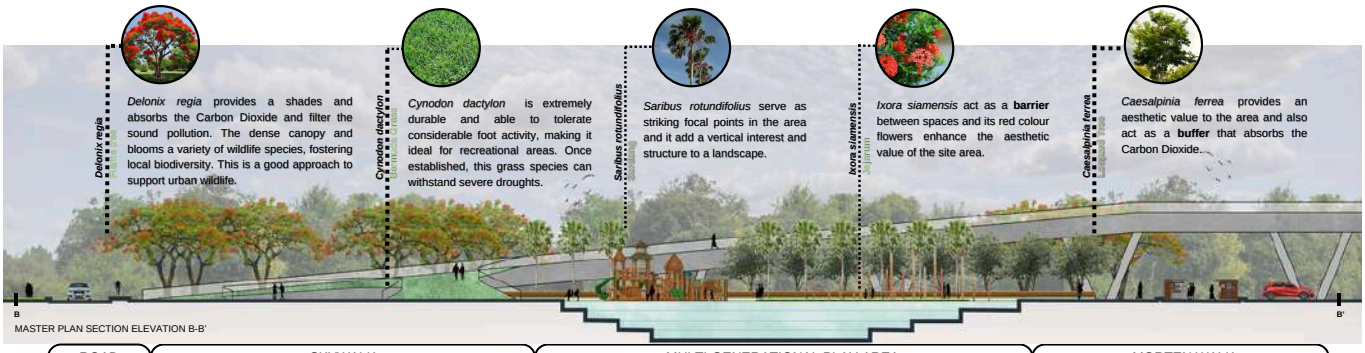
The Kapal Samudera is a replica ship that is located in here to represent the once a very successful trading hub, the Malaccan sultanate that received many huge trading ships from east Asian countries.

ENLARGEMENT PLAN



ENLARGEMENT PLAN SECTION ELEVATION A-A'

URBAN FOREST | KAPAL SAMUDERA | SKYWALK | PLAZA HANG TUAH

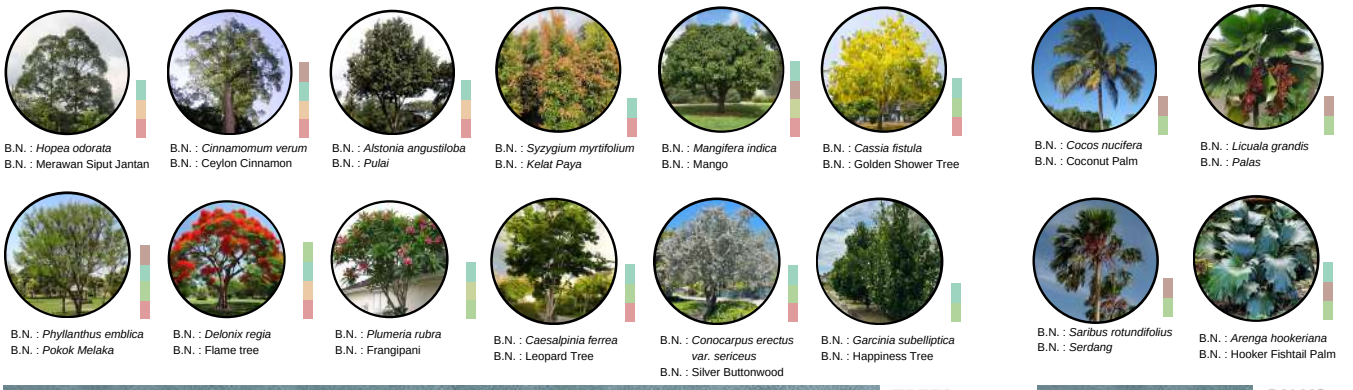


MASTER PLAN SECTION ELEVATION B-B'

ROAD | SKYWALK | MULTI-GENERATIONAL PLAY AREA | MORTEN WALK

PLANT PALLETE

SHADING | WATER FILTERATION | BARRIER | AESTHETIC | WILDLIFE HABITAT | SCENT | EDIBLE



B.N. : *Hopea odorata*
B.N. : Merawan Siput Jantan

B.N. : *Cinnamomum verum*
B.N. : Ceylon Cinnamon

B.N. : *Alstonia angustiloba*
B.N. : *Pulai*

B.N. : *Syzygium myrtifolium*
B.N. : *Kelat Paya*

B.N. : *Mangifera indica*
B.N. : Mango

B.N. : *Cassia fistula*
B.N. : Golden Shower Tree

B.N. : *Cocos nucifera*
B.N. : Coconut Palm

B.N. : *Licuala grandis*
B.N. : *Palas*

B.N. : *Phyllanthus emblica*
B.N. : *Pokok Melaka*

B.N. : *Delonix regia*
B.N. : Flame tree

B.N. : *Plumeria rubra*
B.N. : Frangipani

B.N. : *Caesalpinia ferrea*
B.N. : Leopard Tree

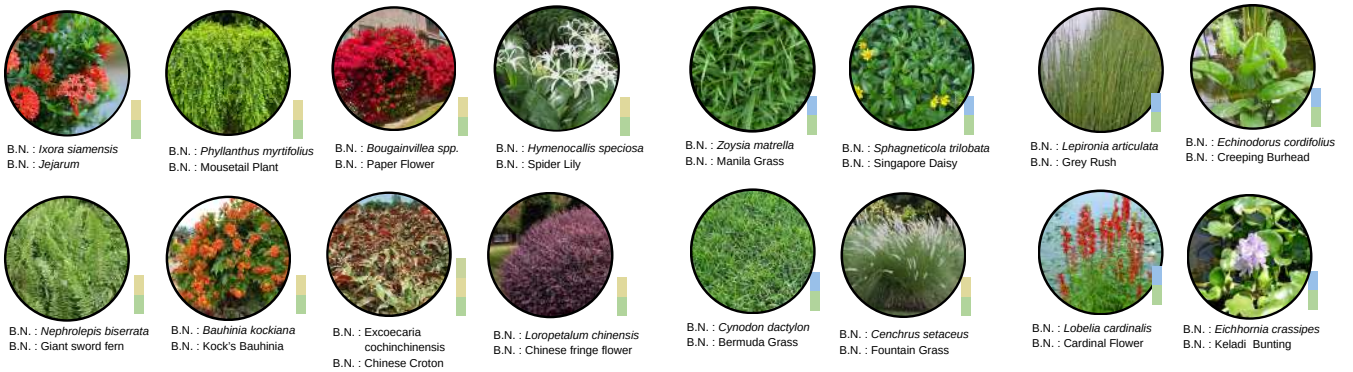
B.N. : *Conocarpus erectus var. sericeus*
B.N. : Silver Buttonwood

B.N. : *Garcinia subelliptica*
B.N. : Happiness Tree

B.N. : *Saribus rotundifolius*
B.N. : *Serdang*

B.N. : *Arenga hookeriana*
B.N. : Hooker Fishtail Palm

TREES | PALMS



B.N. : *Ixora siamensis*
B.N. : *Jejarum*

B.N. : *Phyllanthus myrtifolius*
B.N. : Mousetail Plant

B.N. : *Bougainvillea spp.*
B.N. : Paper Flower

B.N. : *Hymenocallis speciosa*
B.N. : Spider Lily

B.N. : *Zoysia matrella*
B.N. : Manila Grass

B.N. : *Sphagneticola trilobata*
B.N. : Singapore Daisy

B.N. : *Lepironia articulata*
B.N. : Grey Rush

B.N. : *Echinodorus cordifolius*
B.N. : Creeping Burhead

B.N. : *Nephrolepis biserrata*
B.N. : Giant sword fern

B.N. : *Bauhinia kockiana*
B.N. : Kock's Bauhinia

B.N. : Excoecaria cochinchinensis
B.N. : Chinese Croton

B.N. : *Loropetalum chinensis*
B.N. : Chinese fringe flower

B.N. : *Cynodon dactylon*
B.N. : Bermuda Grass

B.N. : *Cenchrus setaceus*
B.N. : Fountain Grass

B.N. : *Lobelia cardinalis*
B.N. : Cardinal Flower

B.N. : *Eichhornia crassipes*
B.N. : Keladi Bunting

SHRUBS | GROUNDCOVERS | AQUATIC PLANTS

The plant selection includes the state official tree and shrub such as *Phyllanthus emblica* and *Ixora javanica*. It also gives a lot of benefits to the site area such as releasing oxygen and absorbing carbon dioxide, they enhance the quality of the air. There are some tree species that are in a forest tree category that can strengthen the concept of the Urban Forest in the site area. Because of the shade provided by the thick canopy of forest trees, the urban heat island effect is lessened and the surrounding areas are cooled. Their vast root systems lessen the chance of urban flooding by controlling stormwater runoff. Tropical plant-filled urban forests can be used as teaching tools to highlight the area's natural heritage and raise awareness of conservation. Because they represent the regional flora and customs, they also have cultural significance. Urban dwellers' general well-being is improved by green areas with tropical vegetation. They provide leisure activities, lower stress levels, and foster a feeling of oneness with the natural world.

GREEN INITIATIVES

The vegetation barrier would act as a sound and air barrier for the area. Vegetative barriers are narrow strips (1-3 feet wide) of stiff, erect densely growing plants, usually grasses, planted across the slope perpendicular to the dominant slope. The green parking is the term for eco-friendly parking options that try to lessen the environmental impact of parking lots. Then, with its trees and other plants, urban forests are essential green areas that enhance the health and well-being of urban areas. In heavily crowded places, trees improve the quality of the air by producing oxygen and filtering contaminants. Urban woods cool the air and provide shade, which helps lessen the urban heat island effect. Rainwater is absorbed by trees and other vegetation, lowering runoff and averting flooding.

URBAN FOREST

B.N. : *Hopea odorata*
B.N. : Meranwan Siput Jantan

Hopea odorata is able to absorbs carbon dioxide and it is suitable for buffer beside the busy main road.

B.N. : *Phyllanthus emblica*
B.N. : Pokok Melaka

Phyllanthus emblica is the official tree of Malacca City and it absorb 246kg carbon dioxide per year.

B.N. : *Arenga hookeriana*
B.N. : Hooker Fishtail Palm

Arenga hookeriana enhance the site CPTED level because of its sharp leafs that prevent people from crossing between road and space

B.N. : *Loropetalum chinensis*
B.N. : Chinese fringe flower

Loropetalum chinensis act as a barrier because of its striking colour would encourage people to use a proper road

B.N. : *Sphagneticola trilobata*
B.N. : Singapore Daisy

Sphagneticola trilobata enhance the aesthetic value of an area. By drawing pollinators, the flowers enhance the local biodiversity and make the ecology more dynamic.

B.N. : *Hymenocallis speciosa*
B.N. : Spider Lily

Hymenocallis speciosa would act as a buffer to absorb CO2. The flowers increase the landscape's ecological value by drawing pollinators like bees and butterflies.

B.N. : *Tabernaemontana divaricata*
B.N. : Pinwheel Flower

Tabernaemontana divaricata would act as a buffer to absorb carbon dioxide especially beside the main road.

B.N. : *Eichhornia crassipes*
B.N. : Kelladi Bunting

Eichhornia crassipes improving the water quality by doing the water filtration and act as a natural habitat.

FLOATING WETLAND

Lepironia articulata removes nitrogen and phosphorus that can cause excessive algae growth, leading to eutrophication and poor water quality.

B.N. : *Lepironia articulata*
B.N. : Grey Rush

B.N. : *Lobelia cardinalis*
B.N. : Cardinal Flower

Lobelia cardinalis improves the natural filtration process in water bodies by absorbing contaminants and offering a home for helpful microbes.

HOSTILE ARCHITECTURE

Using aspects of the built environment, this urban design technique aims to deter particular behaviours in public areas.

VEGETATION BARRIER

Sound Barrier

The vegetation barrier would act as a sound barrier for the area

Air Conditioning

It would also act as a natural air conditioning from the busy main road.

RAIN GARDEN AND GREEN PARKING

Green parking is a cutting-edge method of designing parking lots that uses eco-friendly materials and sustainable techniques. A rain garden is a vegetated, low area that collects rainfall runoff from impermeable surfaces such as streets, roads, and roofs.

QR CODE SCANNING TECHNOLOGY

QR codes can be positioned thoughtfully around the website to provide in-depth information at certain locations of interest, enabling individualised and self-paced exploration. A wider audience can now access historical content thanks to this technology's multilingual support. All things considered, QR codes improve the tourist experience by giving them instant access to thorough, easily accessible historical information.

BICYCLE LANE

By encouraging healthier lives, lowering traffic, and lessening their negative effects on the environment, bike lanes greatly improve community well-being. By providing a safer area for bicycles, these lanes help reduce collisions and make the road a safer place for all users. The economic advantages are also noteworthy since they can lower transportation expenses and promote travel.

CONCLUSION

It has been a worthwhile endeavor to undertake the landscape project in order to revitalize and enrich the dwindling local traditions and heritages. The project has effectively closed the gap between the past and present by incorporating traditional components into contemporary environments. The project's careful planning and implementation have not only protected cultural emblems but also given them a chance to thrive in modern environments. The impact of the project goes beyond cosmetic improvements. By promoting active engagement in cultural activities and the passing down of legacy to future generations, it has given the local community a rrevitalized feeling of pride and identity. As live reminders of the community's rich history and customs, the restored landscapes make sure that they continue to play a significant role in day-to-day activities. To sum up, the landscape project is proof of the ability of careful planning to celebrate and preserve cultural heritage. It emphasizes how crucial it is to preserve and uphold regional customs so that they can continue to improve the lives of both locals and tourists. In addition to preserving its history, the community has left a dynamic and long-lasting legacy for next generations with this endeavor.

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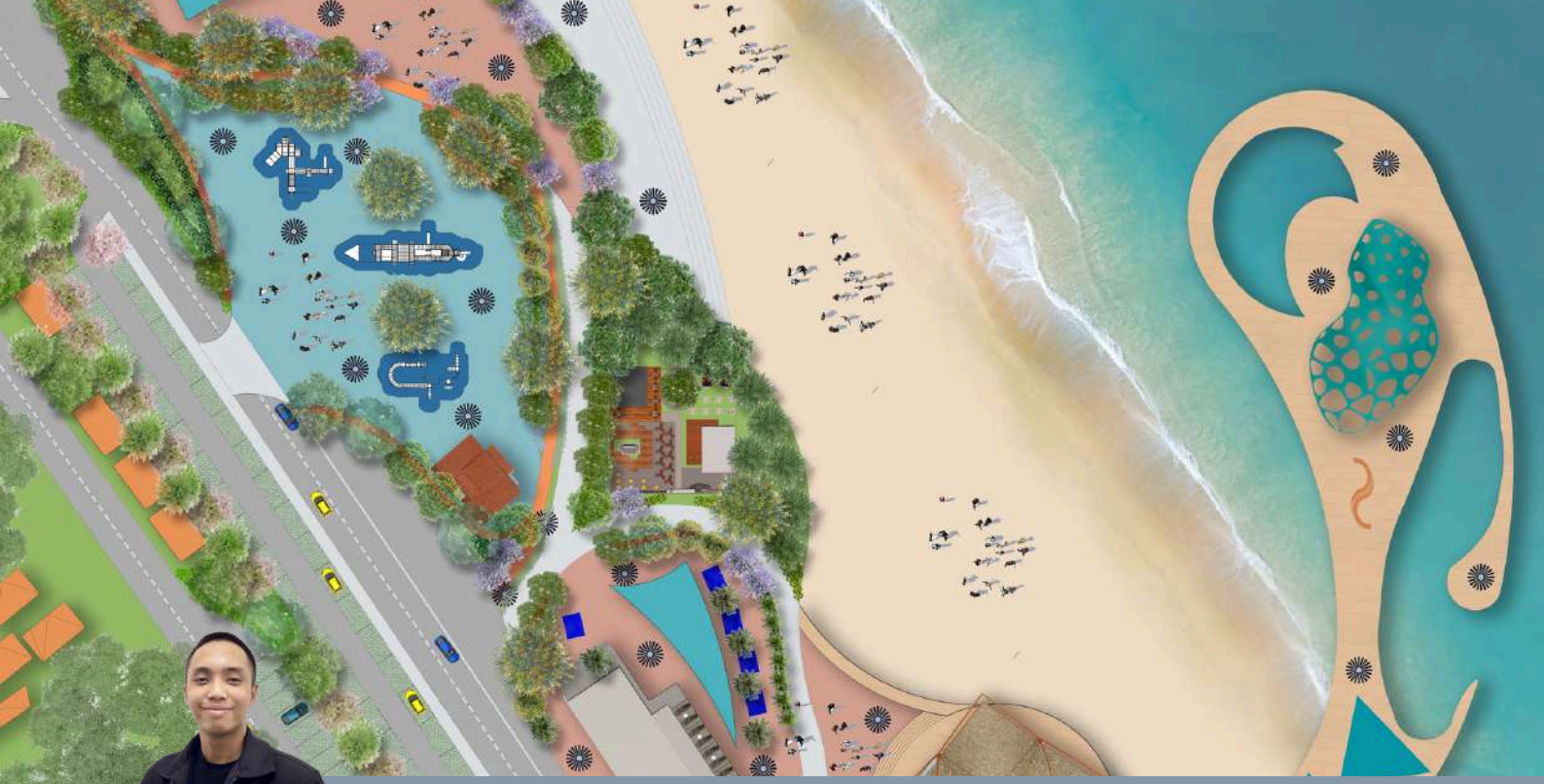


Muhammad Aiman Fakhrullah Bin Mohd Zaini &
Nor Izana Binti Mohammed Shobri

ECOTOURISM DEVELOPMENT FOR COASTAL WATERFRONT, AT PANTAI AIR PAPAN, MERSING JOHOR

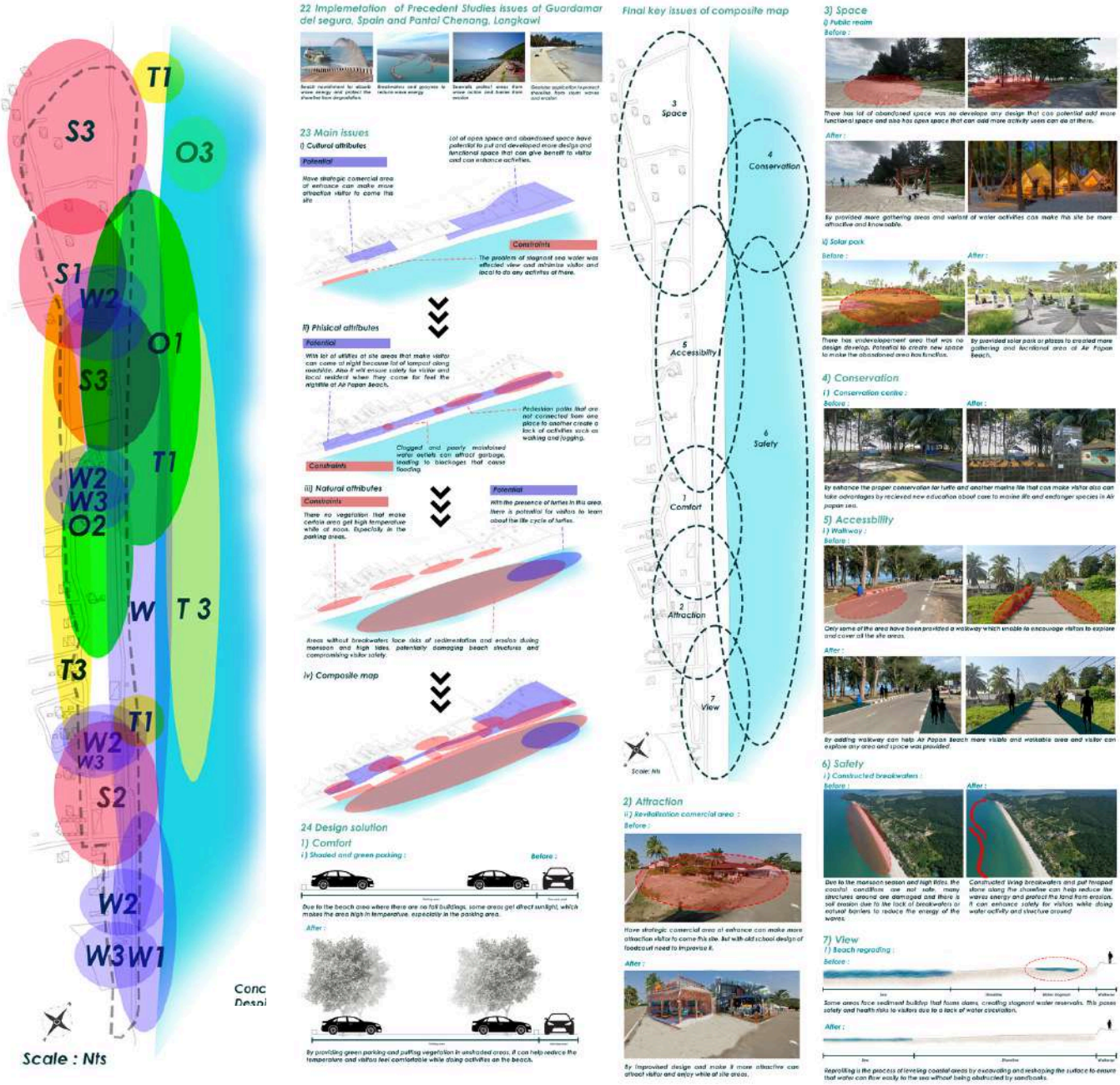
The Ecotourism Development for Coastal Waterfront at Pantai Air Papan, Mersing, Johor is a 50-acre initiative located 12 kilometers from Mersing Town, designed to position Pantai Air Papan as an international ecotourism destination. Anchored by the concept The Living Edge, the project seeks to balance ecological preservation, community participation, and recreational opportunities. While renowned for its natural beauty and cultural significance, Pantai Air Papan faces critical challenges, including coastal erosion, poor drainage, and limited accessibility. The proposed interventions include the construction of breakwaters to mitigate erosion, accessible pathways to promote inclusivity, and sustainable drainage systems to address stagnant water and enhance ecological health. The master plan is structured around three interconnected sub-concepts: Waterfront, Park, and Sanctuary. The Waterfront features a boardwalk, amphitheater, food court, and commercial spaces that support local businesses and provide recreational opportunities. The Park offers spaces for leisure and activity, incorporating shaded seating, iconic sculptures, and a suspension bridge connecting to jungle trekking trails. The Sanctuary emphasizes conservation and education, including an arboretum, splash pad, and interactive learning zones to foster environmental awareness. Camping and picnic areas further encourage engagement with the natural environment. Sustainability is a core focus of the project, with green initiatives such as living breakwaters to reduce wave energy and enhance marine biodiversity, green parking to cool the environment through vegetation, smart lighting powered by renewable energy sources, and permeable walkways to manage stormwater runoff. Additionally, windbreak plant species are strategically integrated to stabilize the shoreline, prevent erosion, and enhance the ecological landscape. Collectively, these elements reflect a holistic approach to sustainable development, transforming Pantai Air Papan into a vibrant and resilient coastal ecotourism destination.

Keywords : Living breakwaters - Arboretum - The Living Edge - Shoreline safety

INTRODUCTION

The goal of this project is to support Pantai Air Papan's long-term growth so that it can become an international hub for ecotourism. Pantai Air Papan is a beautiful coastal area in Mersing. The area is known for its natural beauty and cultural significance. It's a great place to start for a plan that balances protecting the environment, getting people involved in the community, and having fun. Along with helping the local economy grow, the program aims to deal with big problems along the coast, like erosion, protecting marine life, and restoring ecosystems. Pantai Air Papan is supposed to become a model for ecotourism by combining its natural beauty with eco-friendly and creative design methods. It stresses the connection between nature, culture, and people, creating a lively and long-lasting place for both locals and visitors.

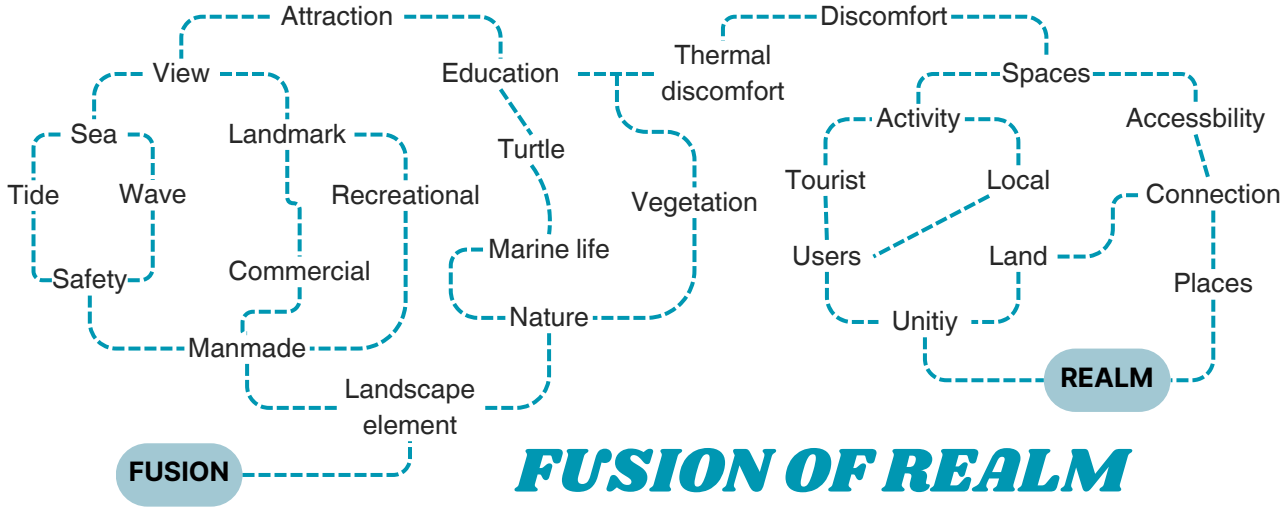
SITE SYNTHESIS



The site at Pantai Air Papan, Mersing, faces several challenges that require strategic design interventions. Shoreline safety is a key concern, with the construction of breakwaters needed to prevent erosion and create a secure environment for visitors. Comfort can be improved by developing green spaces that provide shade, enhance the microclimate, and offer inviting areas for relaxation. Native and adaptive coastal vegetation will also enhance the site's natural beauty. Accessibility is another focus, as existing pathways need upgrades to ensure inclusive, efficient movement. Additionally, stagnant water caused by poor circulation and grading requires effective drainage solutions to restore natural water flow and improve ecological conditions, creating a healthier, sustainable coastal environment.

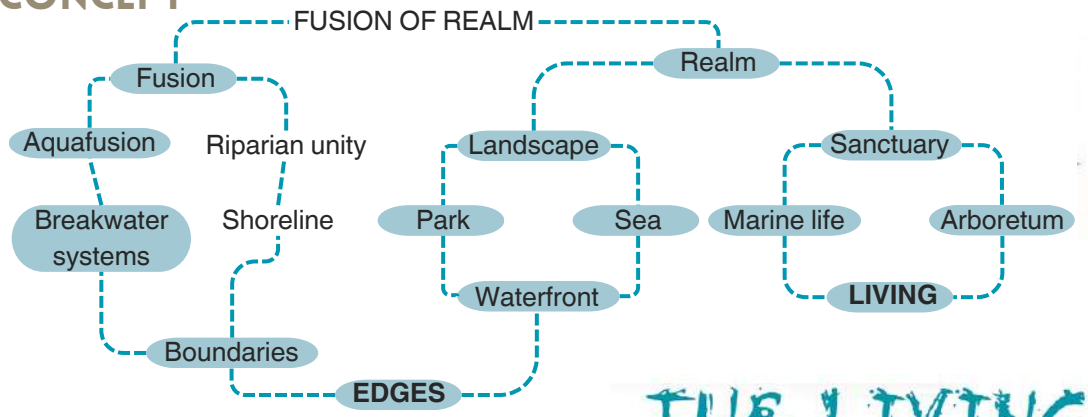
CONCEPTUAL DEVELOPMENT

THEME



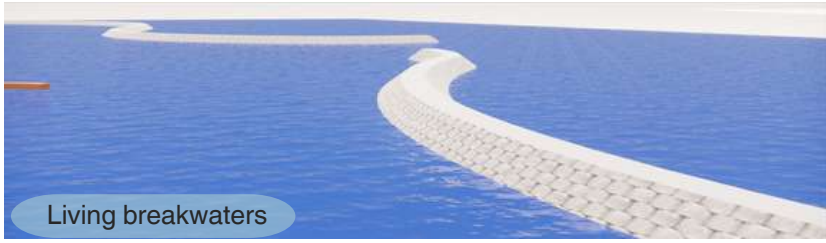
The theme **Fusion of Realm** embodies the harmonious integration of diverse realms—nature, marine life, and human activities—within the coastal environment of Pantai Air Papan. This theme emphasizes the seamless blending of ecological preservation, cultural identity, and recreational opportunities into a cohesive and vibrant space. By uniting these elements, the project seeks to transform the waterfront into a dynamic setting where the natural environment thrives alongside meaningful human interaction. **Fusion of Realm** encapsulates the essence of balance, celebrating the synergy between land, sea, and people while fostering sustainability and cultural appreciation.

CONCEPT



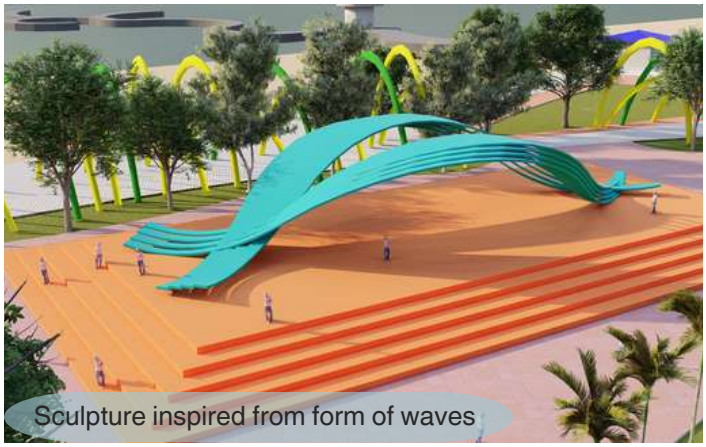
Inspired from waves shape that make curvilinear form on site

THE LIVING EDGE



The concept **The Living Edge** highlights the dynamic intersection of land and water, envisioning a vibrant and adaptive space that meets both ecological and human needs. This approach emphasizes the creation of a resilient and interactive shoreline that safeguards and enhances the natural environment while fostering opportunities for human engagement and activity. Core features include a breakwater system to ensure safety, green spaces and an arboretum to enrich the ecological landscape, and accessible pathways to promote inclusivity. Furthermore, addressing stagnant water through effective grading and drainage solutions revitalizes the shoreline, enhancing its functionality and aesthetic appeal. **The Living Edge** embodies a sustainable, thriving waterfront where natural systems and human experiences are seamlessly integrated, creating a harmonious balance between ecological preservation and community engagement.

MASTERPLAN


Sculpture inspired from form of waves

1. Campsite
2. Green Parking
3. Splash Pad
4. Arboretum
5. Hanging bridge
6. Park and Recreational
7. Boat decking
8. Commercial area
9. Playground
10. Food court
11. Boardwalk
12. Living breakwaters
13. Signage
14. Entrance


View towards Arboretum

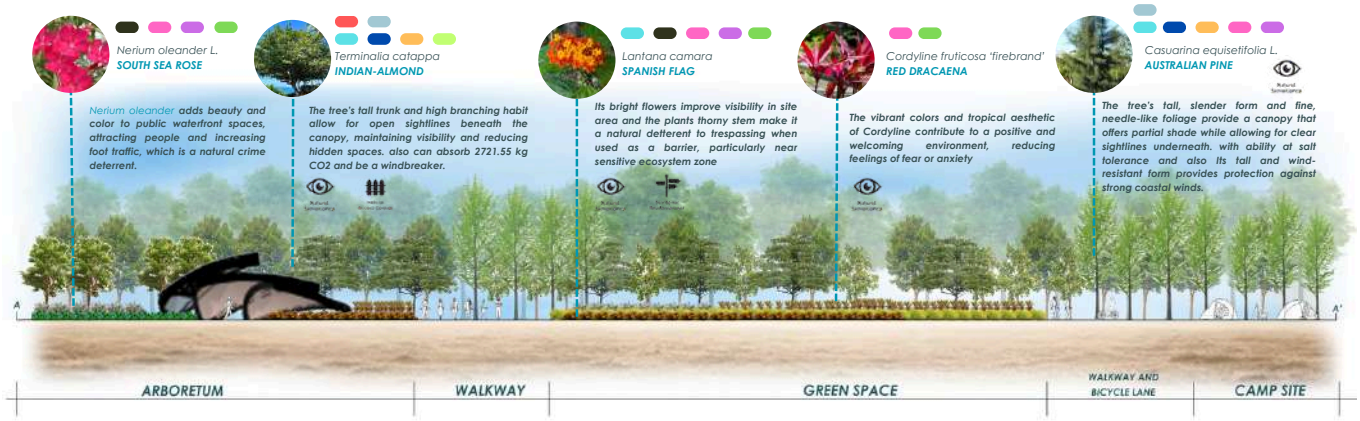
Main entrance

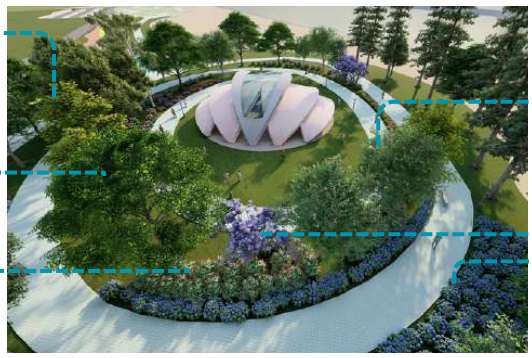
The masterplan for the Project Ecotourism Development for Coastal Waterfront at Pantai Air Papan, Mersing, Johor, themed "The Living Edge", integrates three interconnected sub-concepts: Waterfront, Park, and Sanctuary. Upon entering, visitors are welcomed by the Waterfront, the focal point of the project. This vibrant space features a boardwalk, amphitheater, food court, café, and food kiosks, offering scenic sea views. A nearby children's play area, strategically positioned between the food court and commercial zone, ensures safety and convenience for families. The commercial zone promotes local businesses, creating a lively hub for trade and interaction. Moving to the second checkpoint, the Park area, visitors encounter spaces designed for relaxation and recreation. Iconic sculptures, an outdoor gym, and shaded seating areas provide opportunities for leisure and exercise. Visitors can opt for a scenic walkway or an adventurous suspension bridge that connects to the next checkpoint, offering jungle trekking experiences along the way. The third checkpoint, the Sanctuary, emphasizes conservation and education. A splash pad, arboretum, and pavilion provide interactive experiences about local flora, fauna, and marine life, complete with tagged plants for educational purposes. The journey concludes with a return to the Park, where campsites invite visitors to connect with nature through picnicking and camping, fostering a deep appreciation for the coastal environment.

ENLARGEMENT PLAN

PLANTING INSPIRATION

SALT TOLERANCE · ROADSIDE/ BARRIER · AIR BUFFER · AESTHETIC PURPOSE · SHADE
SCENTED · CARBON EMISSION REDUCTION · WILDLIFE ATTRACTION · REMEDIATION · EDIBLE





Mimusops elengi L.
TANJONG TREE
Mimusops elengi has a relatively open canopy with dense foliage higher up, providing shade while maintaining sightlines beneath. also can absorb 8779 kg of co2 and help to secure from erosion due have strong roots system

Pongamia pinnata
INDIAN BEACH
The tree is known for its ability to improve soil quality by fixing nitrogen, making it beneficial for improving soil health in areas where it is planted. and its highly drought-tolerant once established

Acalypha hispida
RED CATTAIL
Its vibrant red flowers contribute to a sense of place, making the area feel more inviting and cared for, reinforcing the territorial boundaries through visual cues.

The canopy of Leucaena leucocephala is typically open and not too dense, which allows for visibility beneath it. This is an important factor in CPTED, as it helps maintain sightlines
Leucaena leucocephala
WHITE LEADTREE

The open canopy ensures that the tree contributes to maintaining visibility, supporting CPTED principles.and With its vibrant spring flowers with scented given and helps to stabilize soil to some extent.
Jacaranda obtusifolia
JAMBUL MERAK

Act as a dense shrub with broad leaves, Hydrangea macrophylla can act as a soft barrier that gently guides movement in certain areas and for the aesthetic value.
Hydrangea macrophylla
SNOWBALL FLOWER

PLANT SPECIES SELECTION

TREES


Lagerstroemia speciosa
PRIDE OF INDIA
The flowers create a dramatic and eye-catching effect.


Castanea sativa
SPANISH CHESNUT
Carbon absorb 5443.11kg


Gardenia tubifera
GOLDEN GARDENIA
Carbon absorb 1814.37 kg and help to controled erosion


Magnolia grandiflora
BULL BAY
Carbon absorb 9071.85 kg and help to controled erosion


Swietenia macrophylla
HONDURAS MAHOGANY
Carbon absorb 27215.5 kg and help to controled erosion


Azadirachta indica
NEEM TREE
Carbon absorb 13607.8 kg and can be Natural Insect Repellent


Tristaniopsis obovata
SEA TRISTANIA
Carbon absorb 13000 kg and as winbreaker at site


Peltophorum pterocarpum
YELLOW FLAME TREE
Carbon absorb 14515 kg and as winbreaker at site also can help control erosion


Tristaniopsis whiteana
RIVER TRISTANIA
Carbon absorb 4000 kg and help to controled erosion


Eucalyptus deglupta
RAINBOW EUCALYPTUS
Carbon absorb 72574.8 kg and help to controled erosion and for windbreaker

PALM


Cocos nucifera
COCONUT TREE
Erosion control and air buffer as windbreaker


Phoenix dactylifera
DATE PALM
Date palms have a tall, straight trunk with a dense canopy of long, feathery fronds, giving them a tropical, exotic appearance.


Wodyetia bifurcata
FOXTAIL PALM
Foxtail palms are relatively resistant to strong winds, making them suitable for coastal environments .


Roystonea regia
ROYAL PALM
By acting as a natural windbreak, royal palms help reduce soil erosion caused by strong winds


Licuala orbicularis
PARASOL PALM
Carbon absorb 100 kg

SHRUBS AND GROUNDCOVERS


Conocarpus erectus
SILVER BUTTONWOOD
Carbon absorb 30 kg


Loropetalum chinense
CHINESE FRINGE FLOWER


Rosa rugosa
SALTSPRAY ROSE


Leucacasia gigantea
GIANT ELEPHANT EAR


Hymenocallis littoralis
BEACH SPIDERLILY


Ixora javanica
JUNGLE FLAME


Syzygium myrtifolium
KELAT PAYA
Carbon absorb 150 kg


Duranta erecta 'Golden Edge'
PIGEON BERRY
Carbon absorb 200 kg


Pandanus tectorius
VARIEGATED SCREW PINE


Dracaena trifasciata
MOTHER-IN-LAW'S TONGUE
Carbon absorb 0.4 kg


Acalypha siamensis
WILD TEA
Carbon absorb 150 kg


Codiaeum variegatum
GARDEN CROTON

TURF


Ipomoea pes-caprae
TAPAK KUDA
Be a erosion control cause spreading root system helps to anchor the sand


Axonopus compressus
COW GRASS


Zoysia matrella
MASCARENE GRASS

The design concept of ecotourism development for coastal waterfronts is closely intertwined with the strategic use of windbreak plant species, which play a vital role in creating sustainable and resilient environments. These plants serve as natural barriers against strong coastal winds, enhancing the comfort and appeal of ecotourism areas while also contributing significantly to environmental health. By absorbing carbon dioxide, they mitigate climate change impacts, aligning with the core ecotourism principle of reducing ecological footprints. Additionally, their root systems help control soil erosion, stabilizing the shoreline and preserving the natural beauty that attracts visitors. This harmonious integration of ecological functions and tourism development not only ensures environmental sustainability but also enhances the visitor experience by promoting a connection with nature.

GREEN INITIATIVES

1) Living breakwaters

Implement of breakwaters that reduces wave impact and erosion and serve as artificial reef to attract marine life.

2) Green parking

The vegetation not only provide shade, also release moisture through a process called transpiration, which cools the air around.

3) Smart light

By using two power consumption from wind and sunlight bring this site more green and friendly nature environment.

4) Permeable walkway

Use permeable materials for pathways and parking area to manage stormwater runoff and reduce flood risk.

CONCLUSION

The ecotourism development project, THE LIVING EDGE, exemplifies a harmonious blend of sustainable design and community engagement, aiming to protect the natural coastal ecosystem while promoting responsible tourism. By integrating innovative erosion control measures, marine life conservation efforts, and eco-friendly visitor facilities, the project fosters an environment where nature and tourism thrive together. This initiative not only enhances the coastal experience for visitors but also strengthens the region's ecological resilience, ensuring that future generations can enjoy and benefit from the pristine beauty of Pantai Air Papan.

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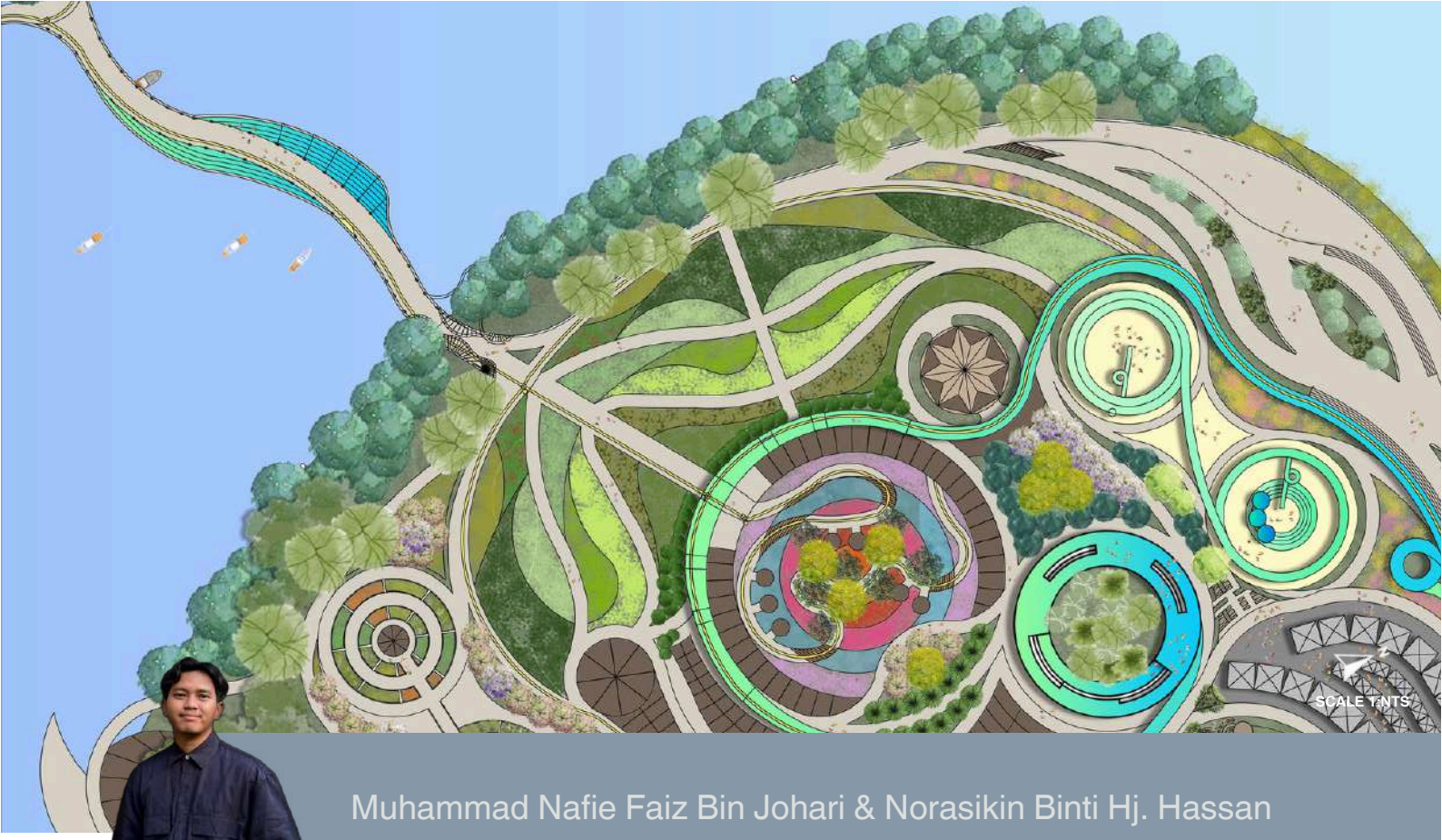


Muhammad Nafie Faiz Bin Johari & Norasikin Binti Hj. Hassan

PROPOSED RURAL RIVERFRONT AT ESTUARY SUNGAI BIDOR AND SUNGAI PERAK

The proposed landscape design, titled “Proposed Rural Riverfront at Estuary Sungai Bidor and Sungai Perak, Teluk Intan, Perak,” envisions transforming this strategic estuary into a vibrant and sustainable rural riverfront. The site, chosen for its geographical and cultural significance, aligns with the Rancangan Tempatan Daerah Hilir Perak 2035 by Majlis Perbandaran Teluk Intan, which highlights its potential for enhancement. Its proximity to my home allows frequent site visits and a deeper understanding of its ecological and social dynamics. The design seeks to balance rural charm with sustainable principles, addressing ecological preservation, economic opportunities, and recreational needs. It aims to harmonize the environment, culture, and people, offering a model for innovative rural landscape architecture. Conceptually, the design addresses key issues, including natural hazards, poor connectivity, and lack of identity. To tackle these challenges, the theme “The Scenic Revital” was developed, emphasizing the transformation of the estuary into a scenic, functional, and sustainable space. This theme focuses on revitalizing inactive areas, enhancing resilience to hazards like soil erosion, and creating stronger connections between the community and the natural landscape. Building on this, the concept “Euphoric Grove” represents a joyful, serene, and harmonious space, blending uplifting experiences with the natural beauty of mangroves, greenery, and cultural elements. Strategies include introducing pocket parks to improve connectivity, incorporating signature elements to reflect local identity, planting mangroves to combat soil erosion, and optimizing unused land for functional use. These interventions aim to transform the estuary into a cohesive and vibrant landscape, preserving its scenic beauty while enhancing its functionality. By addressing ecological challenges and celebrating cultural identity, the design envisions a resilient riverfront that promotes sustainability, fosters community pride, and serves as a benchmark for rural development.

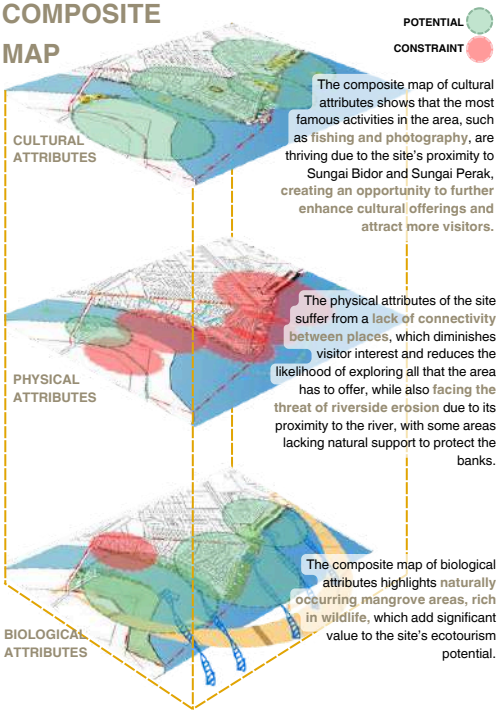
Keywords : Mangrove Conservation - TetraPod - Bridge Park

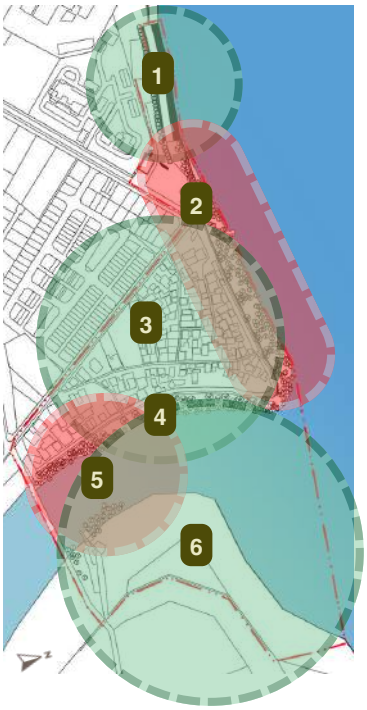
INTRODUCTION

The estuary of Sungai Bidor and Sungai Perak in Teluk Intan, Perak, offers a distinctive setting for a transformative landscape design. This site presents a unique opportunity for development, blending natural and cultural elements into a cohesive rural riverfront. The area features a riverfront park, serene mangrove ecosystems, and vibrant spaces such as a fishermen's jetty and popular fishing spots, creating a harmonious interaction between nature and human activity. Situated near Kampung Terengganu, the site benefits from the close-knit local community, whose heritage and daily activities enrich its identity. This blend of features positions the estuary as an ideal location for sustainable and meaningful development.

SITE SYNTHESIS

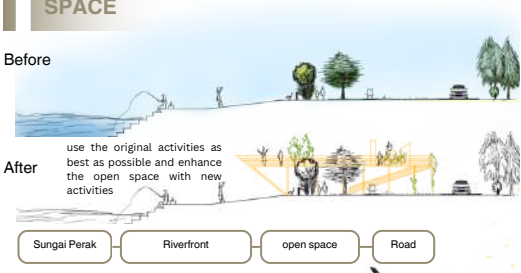
COMPOSITE MAP





1 INACTIVE SPACE

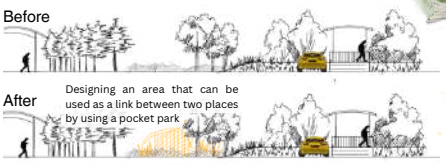
less other interesting activities for users to come and visit



Sungai Perak — Riverfront — open space — Road

2 POOR CONNECTIVITY

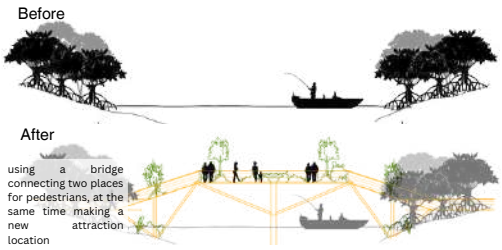
the area that doesn't have connectivity betwwen places



Sungai Perak@Dataran JPS — open space — Jetty Riverside

5 ACCESS LIMITATION

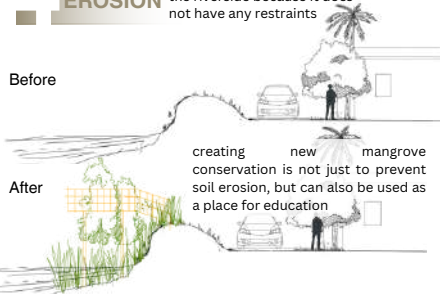
no connectivity for Pedestrians such as bridges



mangrove area — Sungai Bidor — Mangrove area

4 SOEL EROSION

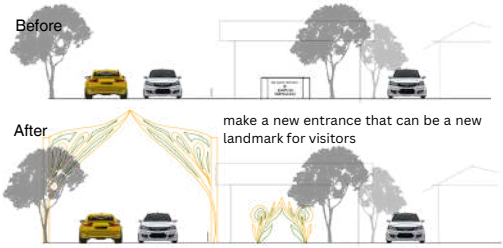
the occurrence of erosion in the riverside because it does not have any restraints



Sungai Bidor — Buffer — road — Kampung Terengganu

3 LACK OF IDENTITY

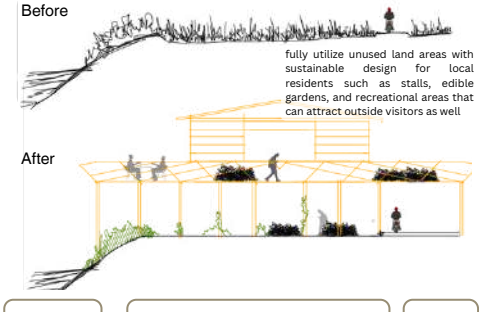
lack of identity especially at the entrance



road — Kampung Terengganu

6 UNUSE LAND

undeveloped, overgrown with dense vegetation

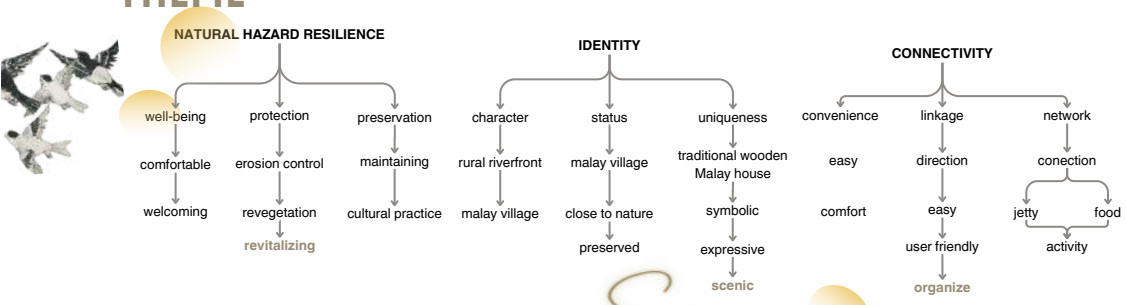


Sungai Bidor — unused land — road

The Proposed Rural Riverfront at Estuary Sungai Bidor and Sungai Perak aims to transform underutilized potential into a vibrant, sustainable space. Inactive areas will be revitalized for community activities and recreation. Poor connectivity will be addressed with pocket parks and green spaces, enhancing access. The lack of identity, especially near Kampung Terengganu, will be tackled with cultural elements to foster pride and a sense of place. Soil erosion will be mitigated through mangrove plantations, stabilizing soil and boosting biodiversity. Limited access will be improved by bridgeways, linking key areas. Overgrown land will be optimized into functional, aesthetic spaces. These strategies will create a vibrant, well-connected, and sustainable riverfront, enhancing ecological, social, and cultural value.

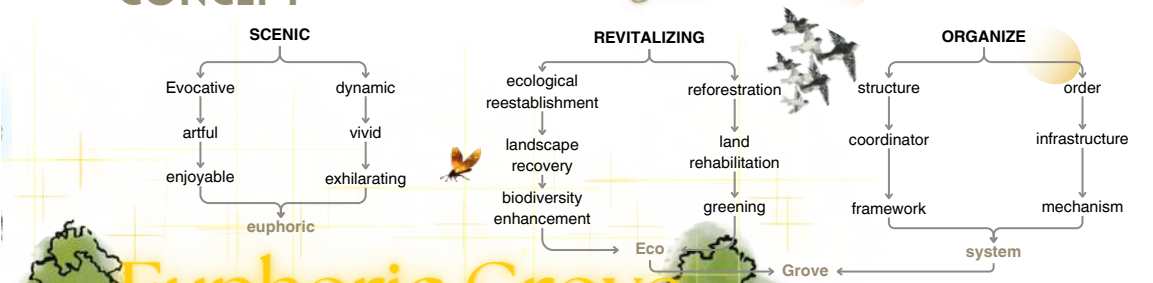
CONCEPTUAL DEVELOPMENT

THEME



CONCEPT

THE Scenic REVITAL



DESIGN IDEAS

To make a proper design entrance that based on natural theme

Propose a new recreation area to attract people's attention.

Propose a new fishing port that is more proper and comfortable .

Propose a mangrove conservation area to avoid soil erosion and good for education.

Create a new pedestrian path as connectivity between the main areas.

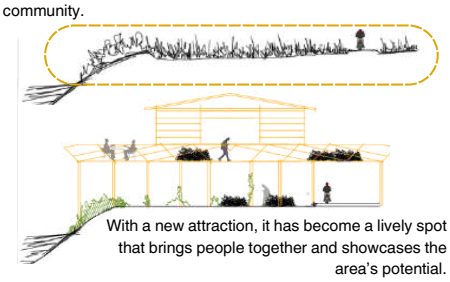
Propose boat parking for local fishermen which is more practical

Create edible garden for villagers as a new planting place.

Propose a bridge park to get access across the river.

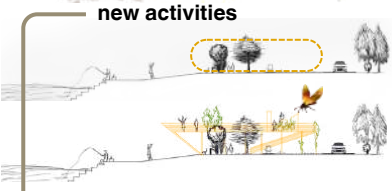
new attraction

Once an unknown, unused piece of land, the riverfront went unnoticed by the community.



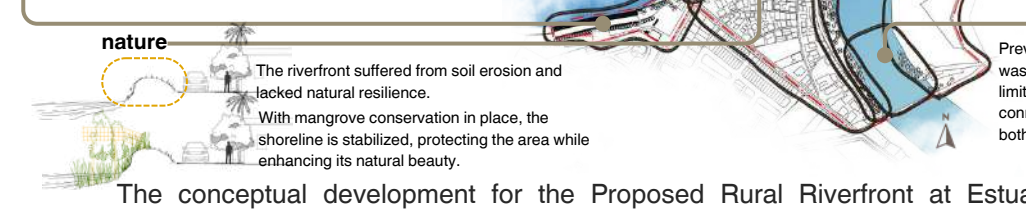
With a new attraction, it has become a lively spot that brings people together and showcases the area's potential.

new activities



The quiet riverfront needs enhancement to become a vibrant, engaging space for people to enjoy.

The new design has transformed the riverfront into a lively hub, attracting people, boosting business, and revitalizing the community.



nature

The riverfront suffered from soil erosion and lacked natural resilience.

With mangrove conservation in place, the shoreline is stabilized, protecting the area while enhancing its natural beauty.

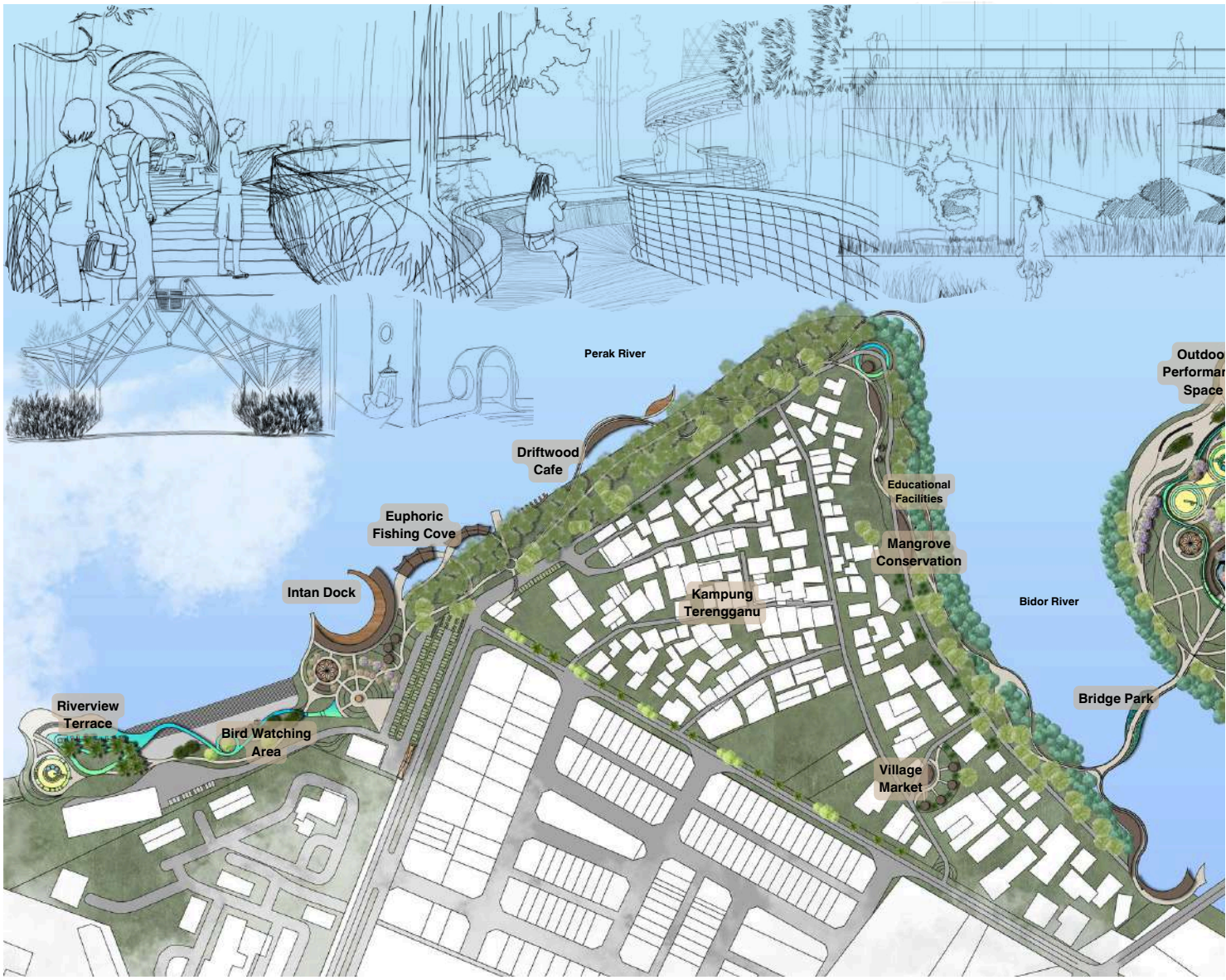
accessibility

Previously, the river was a barrier, limiting access and connection between both sides.

The conceptual development for the Proposed Rural Riverfront at Estuary Sungai Bidor and Sungai Perak addresses key site issues, including natural hazards, lack of identity, and poor connectivity. From these challenges, the theme "The Scenic Revital" was developed to reflect the aim of rejuvenating the estuary into a scenic, functional, and sustainable riverfront. This theme emphasizes revitalizing inactive spaces, enhancing resilience against natural hazards like soil erosion, and creating seamless connections between the community and the natural landscape. It focuses on preserving the area's scenic beauty while reimagining its functionality to balance nature and human activity.

Building on this theme, the concept "Euphoric Grove" was created to embody the vision of a joyful, serene, and harmonious space. "Euphoric" signifies the uplifting experience for visitors and locals, while "Grove" highlights the mangroves, greenery, and natural elements that define the site. This concept aligns with strategies like pocket parks for connectivity, signature elements for identity, mangrove plantations for resilience, and optimizing unused land into functional spaces. The concept "Euphoric Grove" envisions transforming the estuary into a vibrant, cohesive landscape that celebrates its character while addressing its challenges.

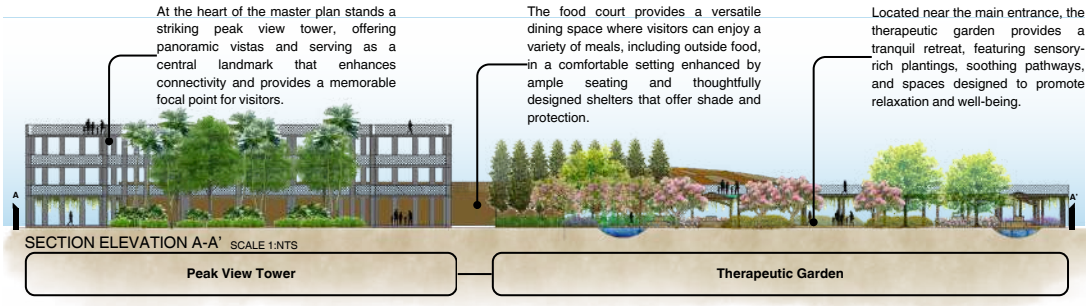
MASTERPLAN

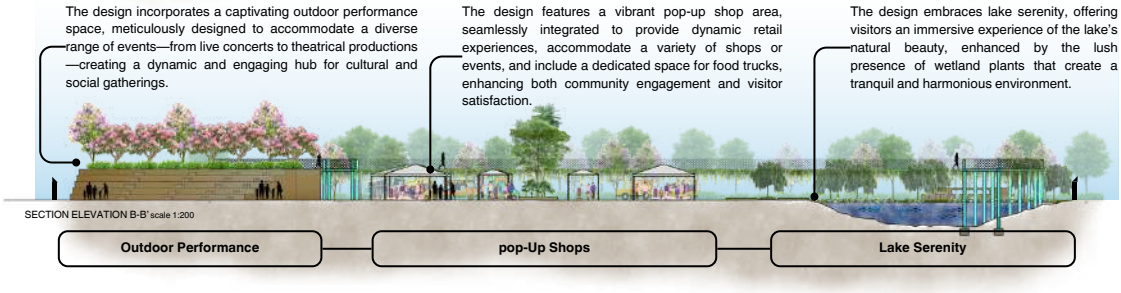


The enlargement plan for the Proposed Rural Riverfront at Estuary Sungai Bidor and Sungai Perak transforms neglected land and soil erosion-prone areas into a vibrant, multifunctional space that integrates ecological preservation with community engagement. This revitalized area features therapeutic gardens for wellness and an edible garden providing fresh produce for local residents. Key attractions include The Shrub Sanctuary, a peaceful retreat highlighting native plants, Peak View Tower, offering panoramic views of the estuary, and Wonder Zone, an interactive playground for children. The Riverwalk Park provides a scenic pathway, while Lake Serenity, a man-made lake supported by constructed wetlands, ensures water quality and promotes biodiversity.

The plan also includes pop-up shops offering economic opportunities for local entrepreneurs, and essential facilities such as a prayer hall for Muslims, public toilets, and rest areas. At the core is the mangrove conservation area, which mitigates soil erosion and serves as a space for education and recreation. Features like mangrove trails, a plant nursery, and interpretive centers educate visitors about the importance of mangroves. Tetrapods are used to stabilize the soil and support mangrove planting. This plan balances sustainability, education, recreation, and economic growth, creating a dynamic, interconnected space that harmonizes nature, culture, and community.

The masterplan for the Proposed Rural Riverfront at Estuary Sungai Bidor and Sungai Perak reflects a unique and transformative design that revitalizes the site into a vibrant, activity-filled destination. The design embraces the natural beauty of the estuary, allowing people to fully appreciate the stunning scenery of Sungai Bidor and Sungai Perak, as well as the ecological significance of the mangrove area. It features thoughtfully curated spaces, such as observation decks, interpretive trails, and recreational zones, which invite visitors to connect with nature while learning about the site's ecological system . By creating spaces for fishing, community markets, and cultural events, the masterplan also fosters economic growth, providing new opportunities for local residents to generate income through tourism, local crafts, and other small businesses. Additionally, the integration of signature elements and improved connectivity through bridgeways and pocket parks enhances the overall experience, creating a seamless flow across the site. The masterplan's focus on ecological preservation, community engagement, and sustainable development transforms the estuary into a wonderful site that balances functionality with beauty. It ensures the area becomes a thriving hub where nature, culture, and economic opportunity coexist, solidifying its place as a treasured landmark for both locals and visitors.





ENLARGEMENT PLAN

PLANTING INSPIRATION

Shading · Aesthetic Value · Erosion Control · Scent · Barrier · Bird/Butterfly Attracting

B.N. : *Schizolobium parahyba*
C.N. : Tower Tree

The tree's tall trunk, light green foliage, and vibrant yellow flowers make it a striking focal point in the design.

B.N. : *Hopea odorata*
C.N. : Merawan Tree

Its large size and dense foliage make it effective for **absorbing CO_2 which is 0.0042kg/unit**, contributing to climate mitigation strategies.

B.N. : *Araucaria columnaris*
C.N. : the Cook pine

Its tall, column-like shape creates a dramatic visual element, ideal for framing views, and its **drought tolerance** and tropical landscapes with occasional dry periods.

B.N. : *Plumeria cultivars*
C.N. : Kemboja Tree

Its pink blossoms, often with yellow or white centers, create a vivid display and exude a sweet, tropical fragrance. With a dense canopy, it can **absorb significant amounts of CO_2 0.0030kg/unit.**

SECTION ELEVATION A-A'

Peak View Tower — Therapeutic Garden

B.N. : *Tabebuia rosea*
C.N. : Trumpet Tree

Its lavender flowers provide a striking backdrop, adding charm and vibrancy to outdoor stages or amphitheaters, while its **dense foliage and large**, colorful blooms **effectively serve as both a visual and noise buffer.**

B.N. : *Schefflera arboricola*
C.N. : dwarf umbrella tree

The lush, glossy leaves of *Schefflera arboricola* complement the vibrant blooms of *Tabebuia rosea*, enhancing the space's aesthetic. **It supports CPTED by promoting natural surveillance**, as it can be strategically planted near windows, walkways, or open spaces without obstructing visibility.

B.N. : *Alstonia angustiloba*
C.N. : Pulai Tree

With its broad canopy providing ample shade, Alstonia angustiloba creates a comfortable environment for visitors while enhancing air quality and aiding **carbon sequestration which is can absorb 1,074kg/year**, making it an ideal choice for pop-up shop and food truck areas.

B.N. : *Salix babylonica*
C.N. : Weeping Willow Tree

Its cascading branches and graceful form create stunning reflections in the water, enhancing the lake's visual appeal. The tree is **water-resistant and thrives in wet conditions**, making it perfect for planting near ponds, lakes, or rivers.

SECTION ELEVATION B-B'

Outdoor Performance — pop-Up Shops

GREEN INITIATIVES

- Energy Generation

- Temperature Regulation

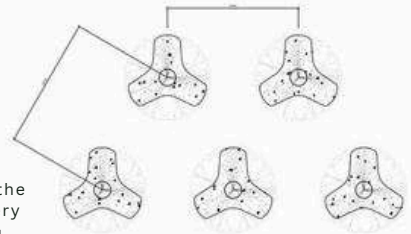
- Biodiversity hotspot

- Riverside Protection

- Carbon Sequestration

- Enhance the green scenery

The green initiatives in the Proposed Rural Riverfront at Estuary Sungai Bidor and Sungai Perak emphasize sustainability, environmental preservation, and community well-being. Drought-tolerant, carbon-absorbing plants enhance beauty, functionality, and climate resilience. Phytoremediation improves soil and water quality, while noise-buffering plants create serene spaces. A universally designed bridge park ensures inclusivity, and dual-purpose solar systems power the edible garden and greenhouse, **providing fresh produce** and **renewable energy**. **Tetrapods** in the mangrove area **prevent soil erosion** and **support mangrove growth**, boosting ecological resilience. The constructed wetland at Lake Serenity enhances water quality, biodiversity, and environmental health. These strategies create a resilient, eco-friendly landscape that fosters well-being and serves as a model for sustainable development.



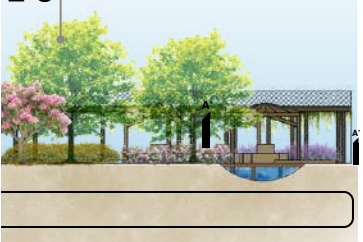
Tetrapods Plan View

Tetrapods Section

Best For Absorbing CO_2 ● Wildlife Habitat

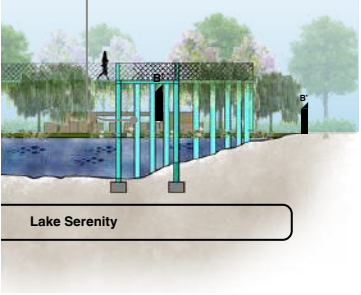
Melaleuca bracteata is **relatively low-maintenance, requiring periodic pruning to keep it from obstructing sightlines or walkways**. Well-maintained trees are crucial in CPTED strategies because they signal that the area is cared for and actively managed.

B.N. : *Melaleuca bracteata*
C.N. : Black Tea Tree



Nymphaea cultivars **play a role in phytoremediation**, as they absorb excess nutrients and pollutants from the water, helping to reduce eutrophication and purify water bodies. This makes them an asset in maintaining the health of water ecosystems.

B.N. : *Nymphaea cultivars*
C.N. : Water Lilies



TREES

B.N. : *Filicium decipiens*
C.N. : Kiara Payung Tree

B.N. : *Avicennia marina*
C.N. : Api-api Jambu Tree

B.N. : *Garcinia subelliptica*
C.N. : Happiness Tree

B.N. : *Azadirachta indica*
C.N. : Neem Tree

B.N. : *Terminalia catappa*
C.N. : Ketapang Tree

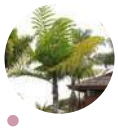
B.N. : *Lagerstroemia speciosa*
C.N. : Rose of India

B.N. : *Syzygium papillosum*
C.N. : Kelat Paya Tree

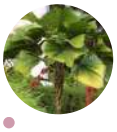
B.N. : *Maranthes corymbosa*
C.N. : Sea Beam Tree

PALMS

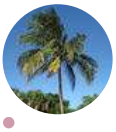
B.N. : *Livistona chinensis*
C.N. : Chinese Fan Palm



B.N. : *Caryota rumphiana*
C.N. : Fishtail Palm



B.N. : *Licuala grandis*
C.N. : Ruffled Fan Palm



B.N. : *Cocos nucifera*
C.N. : Coconut Palm

GROUNDCOVERS / CREEPERS / CLIMBERS

B.N. : *Axonopus compressus*
C.N. : Cow Grass

B.N. : *Tradescantia spathacea*
C.N. : Boat Lily

B.N. : *Sphagneticola trilobata*
C.N. : Yellow Creeping Daisy

B.N. : *Vernonia elliptica*
C.N. : Curtain Creeper

SHRUBS

B.N. : *Rhodomyrtus tomentosa*
C.N. : Kemunting

B.N. : *Scaevola taccada*
C.N. : Merambung Tree

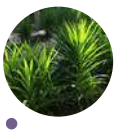
B.N. : *Cenchrus setosus*
C.N. : Fountain Grass

B.N. : *Russelia equisetiformis*
C.N. : Firecracker Plant

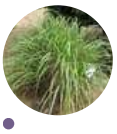
EDIBLE PLANTS & HERBS

B.N. : *Curcuma longa*
C.N. : Kunyit

B.N. : *Capsicum frutescens*
C.N. : Bird's Eye Chilli



B.N. : *Pandanus amaryllifolius*
C.N. : Pandan



B.N. : *Cymbopogon citratus*
C.N. : Serai

For the planting inspiration of the Proposed Rural Riverfront at Estuary Sungai Bidor and Sungai Perak, I have carefully selected a variety of plants that not only enhance the aesthetic and functional qualities of the site but also contribute significantly to its ecological health and sustainability. The chosen plants are well-suited to the site's unique environment, offering shade, visual appeal, and resilience. Many of these species are drought-tolerant, making them ideal for maintaining their beauty and function in varying weather conditions. Additionally, they play a crucial role in carbon sequestration, absorbing carbon dioxide and contributing to a healthier environment. The plants selected also align with Crime Prevention Through Environmental Design (CPTED) strategies by providing natural surveillance and creating safe, inviting spaces. Furthermore, they act as buffers to reduce noise pollution, offer water resistance, and support phytoremediation, improving soil and water quality. This thoughtful plant selection ensures that the landscape serves both its ecological and community functions, enhancing the site's overall sustainability.

CONCLUSION

The Proposed Rural Riverfront at Estuary Sungai Bidor and Sungai Perak is a sustainable design that balances ecological preservation with community development. It addresses challenges like soil erosion, poor connectivity, and lack of identity by creating vibrant, functional spaces. Green initiatives, such as drought-tolerant plants, phytoremediation, and noise-buffering vegetation, enhance the environment while adding beauty and recreational value. Features like the bridge park, solar-powered edible garden, and mangrove conservation area promote accessibility, biodiversity, and education. Recreational spaces and wetlands further improve water quality, support local wildlife, and boost community engagement. This design transforms the area into a model of sustainable growth and harmony.

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video Presentation LAN350 INDEPENDENT LANDSCAPE DESIGN NAFIE FAIZ

Muhammad Syafiq Bin Saiful Zuhaily & Azran Mansor

PROPOSED RIVERFRONT REVITALIZATION AND ENHANCEMENT AT TAMAN AWAM PENGKALAN BATU KLANG

This project focuses on the revitalization of a 20-acre area within Taman Awam Pengkalan Batu, Klang, Selangor, to address pressing environmental and safety issues. The chosen theme, Eco Sphere River, symbolizes a balanced and sustainable connection between nature and urban spaces. Guided by the concept of Revitalfeature, the design incorporates innovative solutions to mitigate flooding, enhance safety, and combat water and air pollution. Flooding, a recurring issue in the area, is tackled through the implementation of a comprehensive stormwater management system. This system integrates permeable surfaces, bioswales, and retention basins to efficiently capture and manage rainwater while reducing runoff. Safety concerns are addressed by applying an open space design approach, which prioritizes visibility, clear circulation pathways, and accessible communal spaces to ensure a secure environment for visitors. To address water and air pollution, advanced filtration systems are incorporated into the design. These systems improve water quality by treating stormwater runoff and enhance air quality by integrating green buffers and vegetation that act as natural air filters.Green initiatives are central to this project, reflecting a commitment to sustainability and ecological balance. The design not only resolves existing challenges but also establishes the area as a model of eco-conscious urban development. By blending functionality, aesthetics, and sustainability, the project transforms Taman Awam Pengkalan Batu into a vibrant public space that fosters community engagement while promoting environmental stewardship.This revitalization effort underscores the importance of sustainable urban design in addressing modern challenges. The integration of innovative solutions and green technologies demonstrates how urban spaces can evolve to become more resilient, sustainable, and beneficial for both people and the environment. This project aims to set a precedent for future urban renewal initiatives in Klang and beyond.

Keywords : Riverfront renewal - Eco-conscious Urban development - Waterway Rejuvenation

INTRODUCTION

Along the Klang River, Taman Awam Pengkalan Batu has long been an oasis of calm for both locals and tourists. With its picturesque riverfront views and peaceful atmosphere, this beloved area has a lot of potential to develop into a bustling centre that strikes a balance between urban use and scenic beauty.

The Proposed Riverfront Revitalization and Enhancement Project seeks to make Taman Awam Pengkalan Batu a vibrant and welcoming urban oasis in recognition of the strategic significance of this area's revitalization . The project aims to create a multipurpose area that will increase the river's social, cultural, and economic contributions to the area while simultaneously appreciating its natural diversity.

SITE SYNTHESIS

ECO FRIENDLY 1

POTENTIAL
The sloping weather makes this park a good option for eco-energy improvements.

SOLUTION
enhancing this location with innovative design and natural energy-using technologies to draw more visitors.


LAND USE 2

POTENTIAL
Next to the park is a large, unused woodland area where might create something.

SOLUTION
suggest creating a river-themed linear park where visitors are able to relax and enjoy themselves.


OPEN SPACES 3

POTENTIAL
The park has empty spaces that might be transformed into something new and welcoming for everyone.

SOLUTION
If proper design is implemented, this open area can serve as a venue for gatherings and activities.


FLOOD 5

ISSUE
Flooding will occur if there is a lot of rain in this location.

SOLUTION
suggest the expansion of the existing drain and a new water movement system.


COMMERCIAL 4

POTENTIAL
There is plenty of parking here, and it might be developed into something that would draw visitors.

SOLUTION
Provide the public an opportunity for conducting business in the parking lot so that it can become a local attraction.


ABANDONED SPACES 6

ISSUE
This location is a crime hotspot that is deserted and unoccupied.

SOLUTION
Provide a good space with a variety of elements to make the area more attractive


SAFETY 7

ISSUE
There are not enough facilities in this location, which makes it unsafe and prevents tourists from visiting.

SOLUTION
providing modern, sufficient facilities everywhere to make visitors more comfortable and minimise crime


WATER POLLUTION 8

ISSUE
There is trash floating in the river and the water is polluted.

SOLUTION
Plant aquatic plants to reduce water pollution and propose a waste filter system.


Constraints

Safety Concern

Lack of facilities amenities and utilities that cause this area There are many cases of crime, and in the park there is no equipment that can be used for sports there.

Abandoned Spaces

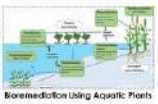
There are some green areas that have been abandoned and have no future development on the site which has turned into bushland.

Flood

In this area, if there is any heavy rain, there will be a flood. This is because the drains in this area are not able to accommodate the large amount of rainwater.

Water Pollution

The river water here is polluted with waste from factories and rubbish floating on the surface of the water, which makes the scenery there bad.



Potential

Open Spaces

There is a large empty space at the main entrance that can be enhanced to be used as a place to hold any event.

Land Use

Through the application of suitable design, the river may transform this woodland area into a park where people can relax while participating in recreational activities.

Commercial

This location's parking lot can be utilised as a commercial space for the general public to make money and draw visitors to the area.

Eco Friendly

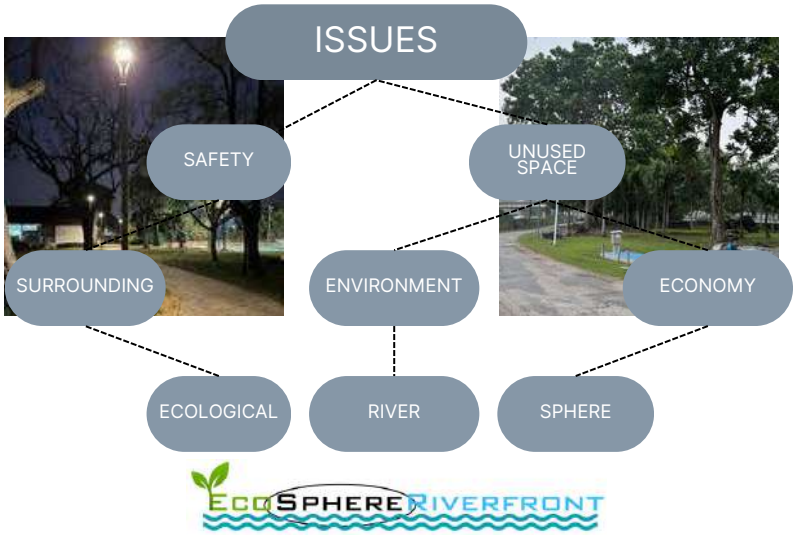
This park area can be improved by implementing an eco-theme, such as adding features that use natural energy and draw visitors due of its uniqueness.

Both positive and negative aspects of the site need to be adjusted and enhanced in this area so that users could make full use of it. By adding potential, such as commercial spaces and environmentally friendly facilities that are appropriate for all ages, the open spaces and abandoned places on this site can be transformed into new tourist destinations.

Furthermore, there are constraints that need to be dealt with, like flooding, pollution of water, and user safety in the area. Given the high number of crimes in the area, some of which have resulted in fatalities, security is the most crucial concern here. Using the open design approach, which allows all visitors to see both the interior and outside of the site, is how I address this issue.

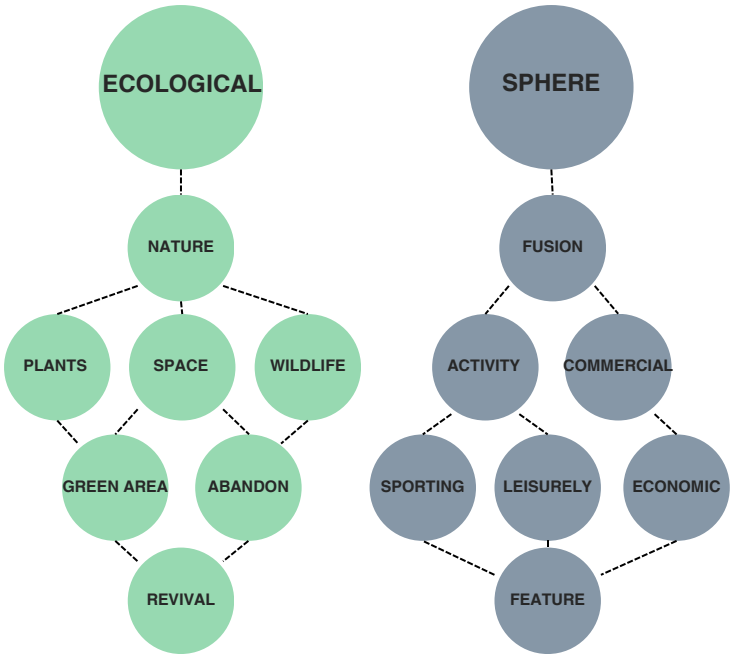
CONCEPTUAL DEVELOPMENT

THEME



The theme "EcoSphere Riverfront" embodies the seamless blend of ecology, community, and contemporary urban living along the Klang River. This vision aims to transform Taman Awam Pengkalan Batu into a vibrant "ecosystem" that celebrates sustainability, biodiversity, culture, and recreation. It focuses on achieving harmony between environmental conservation and human activity, ensuring the riverfront becomes a lively yet environmentally responsible destination for everyone to cherish.

CONCEPT



The concept “RevitalFeature” embodies the rejuvenation and transformation of Taman Awam Pengkalan Batu into a landmark destination that seamlessly integrates modern features with natural charm. This forward-thinking concept envisions the park as a revitalized hub, where innovative design meets ecological and cultural significance. By blending contemporary elements with the rich heritage and natural beauty of the area, RevitalFeature seeks to create a space that not only enhances the visitor experience but also promotes sustainability and environmental stewardship.

Through the thoughtful incorporation of green initiatives, such as sustainable landscaping, smart infrastructure, and eco-friendly facilities, the park becomes a dynamic space that caters to the needs of the community while preserving its cultural essence. Visitors can enjoy a variety of recreational activities in an environment that respects nature, offering a perfect balance between leisure, education, and cultural exploration.

RevitalFeature seeks to provide a unique experience by fostering a connection between past traditions and modern advancements, ensuring that Taman Awam Pengkalan Batu serves as a meaningful destination that celebrates both its historical roots and future potential.

REVITAL FEATURE

A vision of a revitalized public space with plenty of commercial and recreational opportunities for all families and individuals who visit

A view showing the proposed kiosk to boost the commercial economy in the area

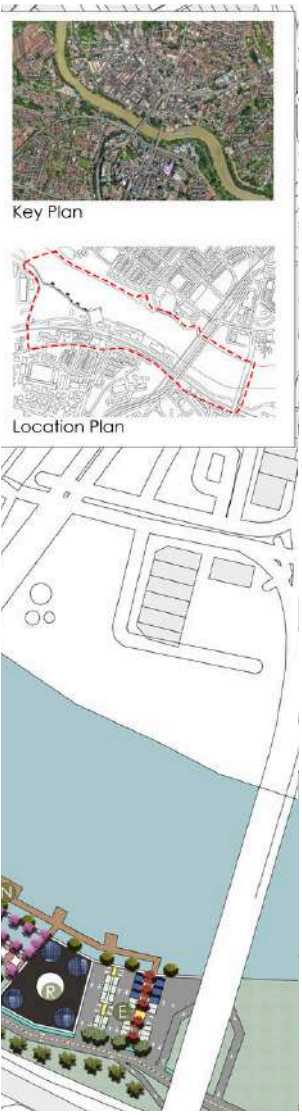
MASTERPLAN

The selected enlargement is located southeast of the park; it was formerly an unmaintained, abandoned area, but it might become an appealing spot. Activities can be done in the boardwalk, Plaza, riverside plaza, and multipurpose court because this area has been made semi-active. This space is intended to be used from evening to nightfall. To arrive here in accordance with the plan, either park your car in the designated spot or walk along the route from the main park.

Additionally, a kiosk will be available here for users to purchase food and for vendors to sell toys that may be played in the plaza. As a result, this location will no longer be quiet and secure for nighttime guests. This area's green project involves putting a detention pond in the centre to store water and prevent flooding. The pond is also intended to serve as a jogging track for the public to complete a lap while admiring the natural beauty that creates a gentle contrast for visitors.

View from Boardwalk Path and The Activity At There

View towards Multifunctional Court and Planter box

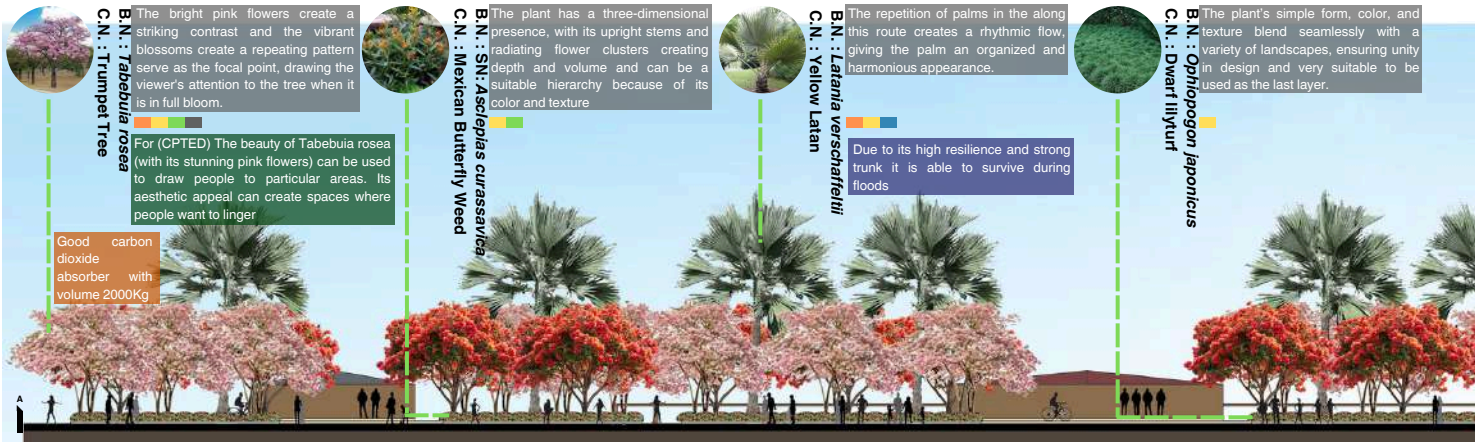


This master plan shows the changes that are done in accordance with the selected concept to deal with the issues that currently exist on the site. The master plan's west side features a nature trail and observation deck that has been enhanced with new gazebos and decks to make fishing more comfortable for anglers and to give visitors a place to walk through the new Linear Park that connects the road between Riverfront Plaza. The entrance to this area has been upgraded with a roundabout to help reduce future congestion. Additionally, a commercial zone has been developed nearby to attract more visitors. To accommodate the expected increase in vehicles, additional parking spaces have been created, and the roads have been widened, with Service road has been added for kiosks and food courts. Moreover, new activities have been introduced for visitors, such as a boardwalk connecting to nearby sites, a multifunctional court, a reflexology path, and more. For increasing the variety of activities and make use of the part of the road that has been adjusted, a bike track has been installed along this section. It's important to note that the kiosk area should be centrally located between activity zones, making it easier for parents to supervise their children while eating. Overall, this area's design follows to CPTED, which was set up to prevent and lower the crime rate that exists there.

ENLARGEMENT PLAN

PLANTING INSPIRATION

Shading | Aesthetic Value | Scent | Edible | Carbon sink | Flood tolerant



SECTION ELEVATION A-A' scale 1:250

B.N. : *Terminalia mantaly*
C.N. : Madagascar almond

The smooth, glossy texture of the leaves contrasts with the rough, bark-like texture of the trunk and the main reason they are planted around the garden is the light is easy to pass through

B.N. : *Latania verschaffeltii*
C.N. : Yellow Latan

Due to its high resilience and strong trunk it is able to survive during floods

The silvery green leaves contrast with the rough texture and the brown stem can better highlight the contrast color and it can be an emphasis because it is the only palm in the planter box.

B.N. :*Osmoxylon lineare*
C.N. : Green Aralia

Due to its high resilience and strong trunk it is able to survive during floods

The long, linear leaves create a subtle sense of upward movement, guiding the viewer's eye along the length of the plant and the fine, elongated lines of the leaves create a sense of verticality and elegance.

GREEN INITIATIVES

1) Public Open Space Design

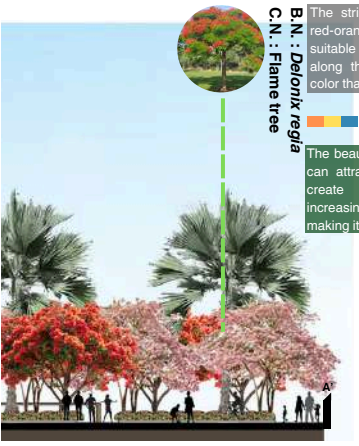
2) Filtration System

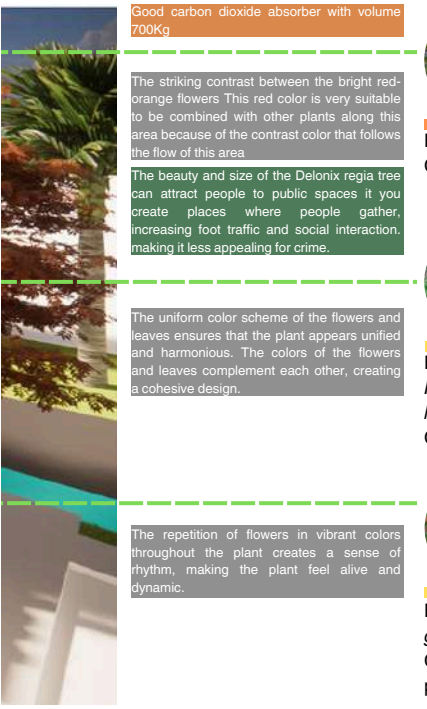
3) Stormwater Management

1) applying open space design to prevent and lessen criminal activity, such as by installing motion-activated street lights and avoiding visitor privacy place.

2) In order for the trash to become lodged in the trees and dissolve, the filtration system uses the Riverbank Buffer to filter the trash and waste that floats on the river. Additionally, it has the ability to filter local air pollution.

3) Water can be momentarily stored in detention ponds before being discharged into a river.





B.N. : *Delonix regia*
C.N. : Flame tree

B.N. : *Pseuderanthemum laxiflorum*
C.N. : Purple Star

B.N. : *Portulaca grandiflora*
C.N. : Moss-rose purslane

CONCLUSION

The Riverfront Revitalization Plan for Taman Awam Pengkalan Batu aims to transform the area into a sustainable and community-friendly space. The project will combine innovative design with eco-friendly practices to highlight the natural beauty of the Klang River. It will offer amenities for recreation, education, and social activities while promoting cultural heritage. Features like sustainable landscaping, green infrastructure, and heritage elements will improve the environment and strengthen community pride and connection.

TREES

B.N. :*Tabebuia rosea*
C.N. : Pink Trumpet Tree

B.N. : *Plumeria rubra*
C.N. : Frangipani

B.N. : *Delonix regia*
C.N. : Flame tree

B.N. : *Terminalia mantaly*
C.N. : Madagascar almond

B.N. : *Bauhinia blakeana*
C.N. : Butterfly Tree

B.N. : *Azadirachta indica*
C.N. : Neem Tree

B.N. : *Salix babylonica*
C.N. : Janda Merana

B.N. : *Musa acuminata*
C.N. : Cavendish banana

B.N. : *Cassia fistula*
C.N. : Golden shower tree

B.N. : *Rhizophora mangle*
C.N. : Red mangle

TURF

B.N. : *Axonopus compressus*
C.N. : Cow Grass

B.N. : *Zoysia matrella*
C.N. : Manila Grass

PALMS

B.N. : *Roystonea regia*
C.N. : Royal Palm

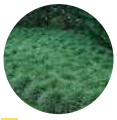
B.N. : *Latania verschaffeltii*
C.N. : Yellow Latan

B.N. : *Cyrtostachys renda*
C.N. : Red Palm

B.N. : Cocos nucifera
C.N. : Coconut Tree

GROUNDCOVERS

B.N. : Portulaca grandiflora
C.N. : Moss-rose purslane



B.N. : *Ophiopogon japonicus*
C.N. : Dwarf lilyturf

SHRUBS

B.N. : *Chrysopogon zizanioides*
C.N. : Vetivergrass

B.N. : *Cymbopogon citratus*
C.N. : Lemongrass

B.N. : *Davallia denticulata*
C.N. : Paku Tertutup

B.N. : *Osmoxylon lineare*
C.N. : Green Aralia

B.N. : *Alpinia zerumbet*
C.N. : Shell ginger

B.N. : *Asparagus officinalis*
C.N. : Sparrow Grass

B.N. : *Bougainvillea glabra*
C.N. : Paperflower

B.N. : *Jasminum laurifolium*
C.N. : Angel Wing

B.N. : *Dracaena aubryana*
C.N. : Lance Dracaena

B.N. : *Pseuderanthem -um laxiflorum*
C.N. : Purple Star

B.N. : *Amaranthus tricolor*
C.N. : Chinese spinach

B.N. : *Asclepias curassavica*
C.N. : Mexican Butterfly Weed

The planting design is inspired by the careful selection of vegetation based on their resistance, functionality, and alignment with the overall design principles, such as color harmony and repetition. The section and perspective illustrations highlight features such as the carbon absorption rates of selected trees and their resilience in flood conditions. Each plant has been thoughtfully chosen to serve a specific purpose within the design, contributing to its aesthetic and functional goals.

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Nur Atiqah Balqis & Siti Syamimi Omar

PROPOSED COMMUNITY PARK AT SS 7, PETALING JAYA, SELANGOR

The proposed community park at SS 7, Petaling Jaya, Selangor, aims to transform an underused space into a dynamic, inclusive green area that embodies the "anchor link" concept, focusing on connectivity and cohesion. The design addresses common challenges in community parks, such as safety, accessibility, underutilized areas, and comfort. It incorporates well-lit pathways, clear sightlines, and secure entry points to enhance safety; wide walkways and strategically placed amenities to ensure universal access; revitalized spaces featuring urban harvest gardens, recreational zones, and multi-use areas to maximize the park's potential; and shaded seating, abundant greenery, and user-friendly facilities for comfort. The park is designed to become a reliable community hub, promoting sustainability, safety, and engagement. It fosters trust and responsibility among residents, contributing to a vibrant, resilient environment where individuals feel secure and valued. This approach strengthens community ties, enhances quality of life, and promotes positive experiences for all users. The park aims to create a balanced, healthful atmosphere that encourages a sense of peace, particularly for the younger generation. By reconnecting people with nature, the park reinforces social interaction, safety, and well-being. It supports youth development by promoting outdoor activity, physical health, and essential social skills. This nurturing environment helps both personal growth and community cohesion. The "anchor link" concept ensures that the park serves as a central, accessible point of connection for residents, fostering strong relationships and contributing to a cohesive, supportive community. This approach creates a vibrant hub where individuals can engage with one another and the environment, enhancing their sense of belonging. Ultimately, it lays the groundwork for a resilient community where everyone feels valued and connected.

Keywords : Young People's Park - Neighborhood Nourishment Garden - Community Point

INTRODUCTION

SITE ACRES

22 ACRES

SITE BACKGROUND

SS 7 in Petaling Jaya, Selangor, is an urban area with residential and commercial zones, facing challenges like limited green spaces and safety concerns, necessitating sustainable solutions for community improvement.

SITE SYNTHESIS

POTENTIAL 1
Unutilized Space

SS7's strategic location and proximity to diverse facilities enhance its appeal as a convenient, accessible, and dynamic area, improving residents' quality of life, supporting economic activities, and creating future development opportunities.

BEFORE

AFTER

*Create a cozy, **smart park** and edible planting area with a variety of amenities to make it livable.*

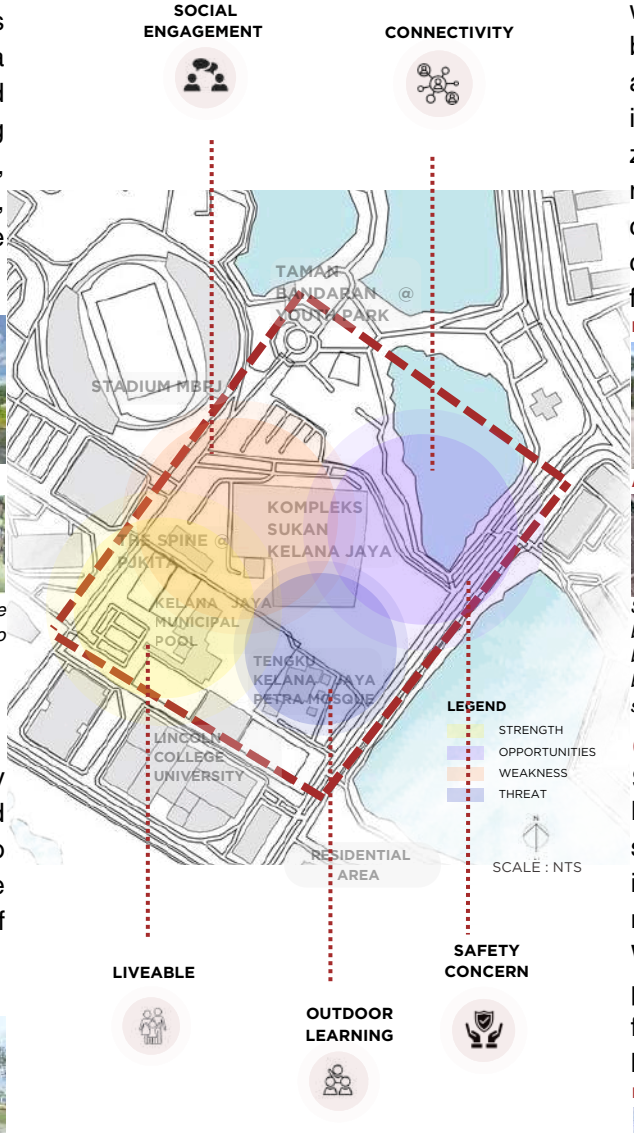
POTENTIAL 1
Comfortability

Improve existing facilities by design that giving safety and comfortable to users and it also easy to access for users since the design create a sense of direction.

BEFORE

AFTER

*Proposed **green parking and kiosk space** to make the users feel comfortable.*



The park at SS 7, Petaling Jaya, provides vital green space for the community, enhancing biodiversity and air quality with native plants. Its flat, accessible design prioritizes inclusivity, with walkways and rest areas. Surrounded by urban areas, it integrates green infrastructure for sustainability, fostering community well-being and interaction.

CONSTRAINT 1
Accessibility

Ensures accessibility aligned with the anchor link concept by featuring wide paths, and accessible amenities. This inclusive design connects all zones, fostering seamless movement, encouraging community interaction, and creating a welcoming space for everyone.

BEFORE

AFTER

Suggested a designated walking and bicycling lane and different functional between spaces to prevent conflicts between the two users and unutilized space..

CONSTRAINT 2
Safety

Poor lighting and uneven surfaces create visibility issues, deterring visitors and raising safety concerns. Without adequate lighting and proper surface, people may feel uncomfortable or be at a higher risk of accidents.

BEFORE

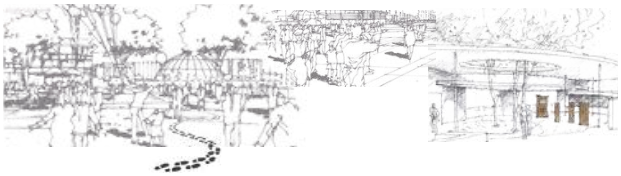
AFTER

*Implement a universal design and **smart lighting** and fishing decking to ensure the safety of the users.*

CONCEPTUAL DEVELOPMENT

AIM

Creating a city that the community can rely on is a multifaceted approach that prioritizes **sustainability, accessibility, safety, and engagement.** By fostering a sense of trust and responsibility among residents, cities can become vibrant, resilient, and supportive environments where people feel secure and valued. Ultimately, this reliance contributes to a stronger sense of community, improving overall quality of life and promoting a positive community experience.



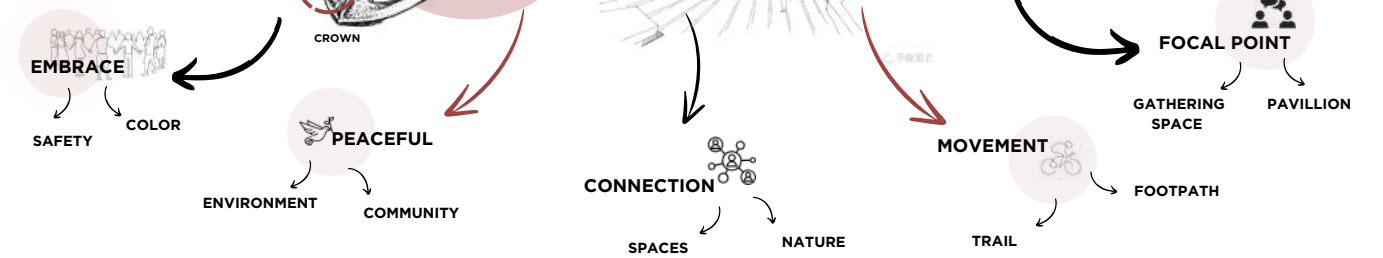
OBJECTIVES

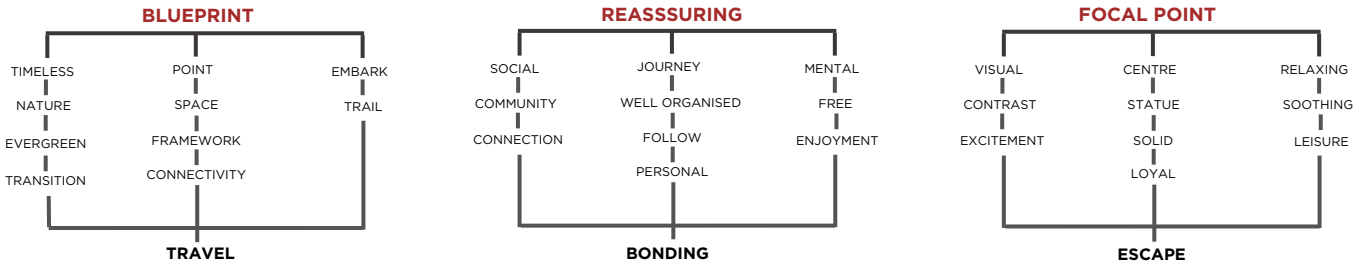
- To create a balanced, healthful atmosphere that makes people who use or visit those areas feel at ease and safer.

- To establish a balanced, healthful atmosphere that instills a sense of peace in all who use or frequent those areas.
- Improving the planting design to produce a pleasant atmosphere with aesthetic value and an aesthetically pleasing area that people may enjoy

CONCEPT :

THE ANCHOR LINK





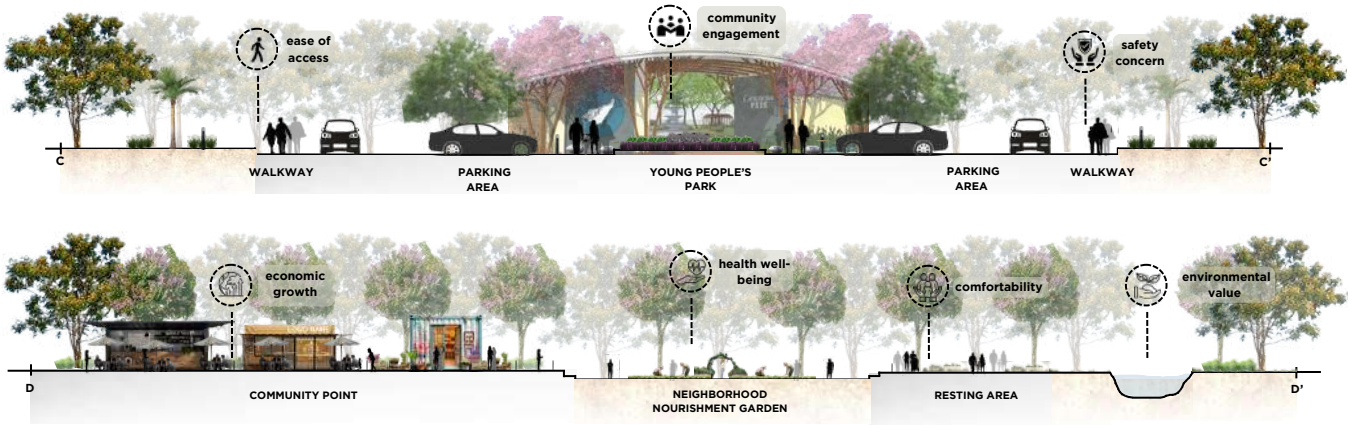
The anchor link concept in the proposed community park at SS 7, Petaling Jaya, Selangor, creates seamless physical and visual connections between spaces, offering an inclusive and human-centered design. The entrance zone serves as the primary anchor, welcoming visitors with grand pathways lined with native trees, open views, and clear signage, ensuring orientation and a sense of security. The parking area addresses comfort and sustainability through green parking solutions, including permeable pavements, bioswales, and shaded areas with trees, enhancing user convenience while promoting environmental responsibility. At the heart of the park, the central plaza acts as a social anchor, featuring interactive elements such as water fountains, versatile seating, and open spaces to encourage community interaction and vibrancy. The recreational zones, including sports fields and children's play areas, anchor activity and energy, with shaded pathways and nearby seating ensuring comfort and safety for all users, particularly families. The rest and reflection zones provide a peaceful retreat, with shaded seating, water features, and lush greenery fostering relaxation and mindfulness amidst urban life. The pathways connect all spaces, integrating textured surfaces, greenery, and lighting to enhance sensory experiences and ensure smooth navigation. This interconnected design creates a balanced, functional, and sustainable community park that meets the physical, emotional, and social needs of its users.

MASTERPLAN


Entrance
Taman Bandaran @ Youth Park
Maze Garden
Playground
Giant Chess
Green Parking
Fishing Decking
Mini Basketball Court
Plaza
MarketPlace Plot
Sightseeing
The Spine @ PJKita
Municipal Pool Kelana Jaya
Community Point
Community Point
Green Corridor
Plaza
Neighborhood Nourishment Garden
Educational Centre
Mini Playground
Plaza
Picnic Area
Relaxing Area
Futsal & Basketball Court
Tengku Kelana Jaya Petra Mosque

The masterplan landscape design for the proposed community park at SS 7, Petaling Jaya, Selangor, is built around the anchor link, a central corridor connecting key zones such as Young People's Park, Neighborhood Nourishment Garden, Community Point , and green infrastructure. Serving as the park's spine, the anchor link ensures seamless accessibility and integration with nearby residential and commercial areas.

Designed for inclusivity, it features wide pathways with seating, shaded areas, and rest points, fostering relaxation, informal gatherings, and social interaction. The anchor link enhances the park's sustainability by incorporating rain gardens, bio-swales, and permeable paving, managing stormwater effectively and reducing the urban heat island effect. Native plants and greenery along the link promote biodiversity and improve air quality. This cohesive design transforms the park into a vibrant community hub, offering a balanced space for recreation, social engagement, and environmental conservation, while enriching the urban fabric of SS 7.

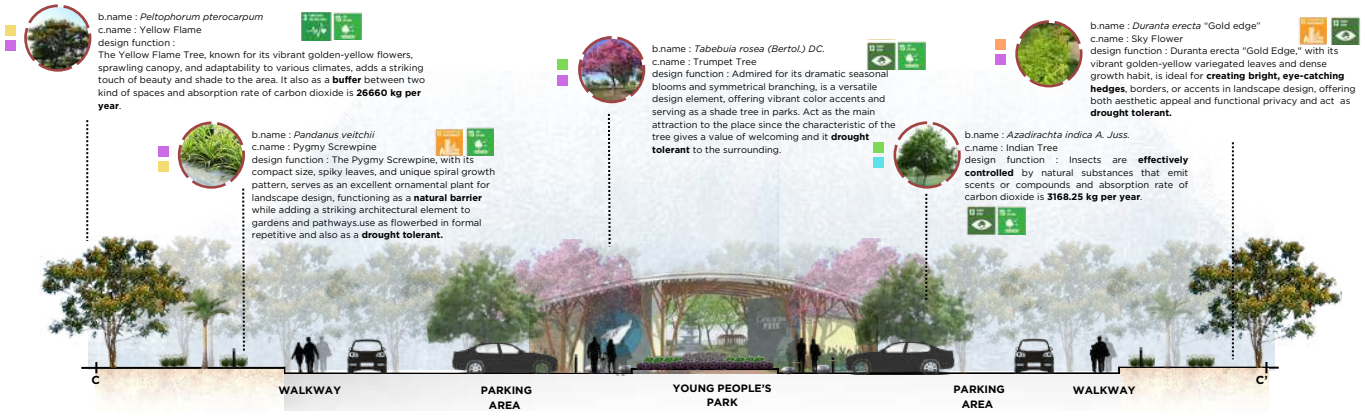


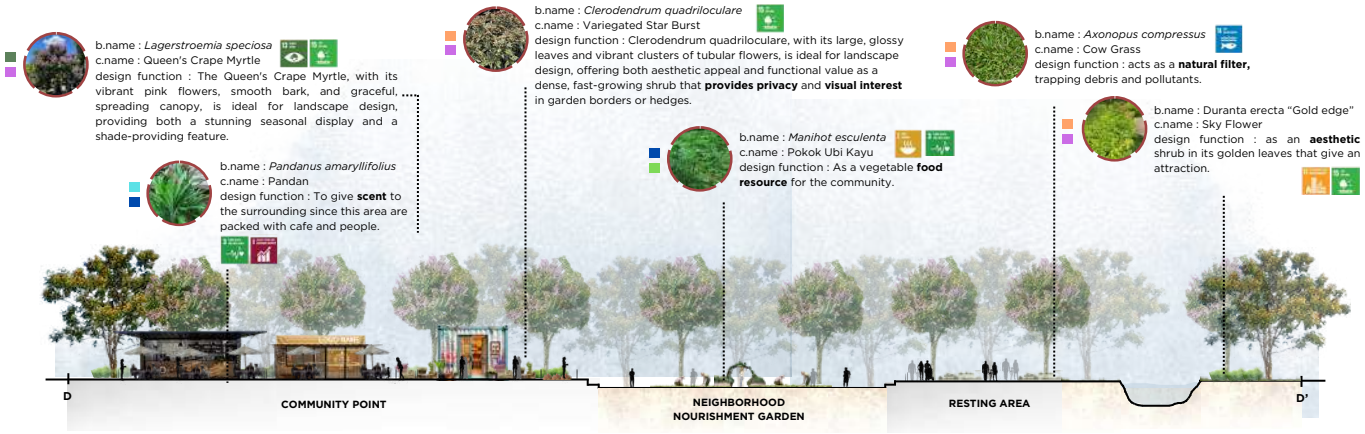
ENLARGEMENT PLAN

The enlargement plan for the proposed community park at SS 7, Petaling Jaya, Selangor, expands on the anchor link concept, connecting key features like the neighborhood nourishment garden, educational center, green corridor, picnic area, and community point . The edible garden, positioned along the anchor link, promotes sustainable living and food security while offering a hands-on learning space accessible to all. Adjacent to this, the educational center provides workshops and exhibits on sustainability and urban farming, enhancing the park's role as a knowledge hub. The green corridor integrates rain gardens, bio-swales, and native plants, promoting biodiversity and ecological balance while offering shaded pathways for pedestrians. The picnic area, located nearby, provides seating and shaded spots for gatherings, ensuring easy access to other amenities. Finally, the kiosk area, strategically placed along the anchor link, supports local businesses and offers refreshments. Together, these elements create a cohesive, sustainable, and multifunctional community hub.

PLANTING INSPIRATION

CPTED | EDIBLE | LOW CARBON | BUFFER | REMEDIATATION | DROUGHT TOLERANT | AESTHETIC VALUE





The proposed community park at SS 7, Petaling Jaya, incorporates the anchor link concept, emphasizing connectivity and harmony between nature and its surroundings. Vegetation is carefully arranged to guide movement, define spaces, and create focal points, enhancing both aesthetics and functionality. Pathways lined with trees establish clear flow and provide shade, while grouped shrubs and varying tree heights add structure and enclosure. Seasonal blooms and diverse plants introduce vibrant colors, uplifting the atmosphere, while a mix of textures from grasses, foliage, and tree bark enriches sensory experiences. Open lawns balance with secluded areas for relaxation and interaction. Design principles are seamlessly integrated, with symmetrical planting at entrances providing order and asymmetrical layouts creating a natural feel. Unity is achieved through the use of native plants, while contrast from bold groupings highlights key features. Proportion ensures tall trees frame spaces, and rhythm through repeated plantings leads visitors effortlessly. This thoughtful design fosters sustainability, community engagement, and environmental stewardship.

GREEN INITIATIVES

GREEN PARKING

Green parking incorporates eco-friendly features like permeable pavements, tree shading, reducing environmental impact, managing stormwater, and enhancing sustainability in urban spaces.

SOLAR BOLLARD LIGHTING

Solar bollard lighting operates independently of electrical grids, harnessing solar energy during the day to provide reliable, low-maintenance, and environmentally friendly lighting for pathways, parks, and public spaces.

EDIBLE GARDEN & HERBS

Edible gardens and herbs offer sustainable, cost-effective ways to grow fresh food at home. They promote healthy living, reduce environmental impact, and provide aromatic, flavorful additions to meals and remedies.

TREES


b.name : *Royal poinciana*
c.name : Semarak Api


b.name : *Tamarindus indica*
c.name : Pokok Asam Jawa


b.name : *Psidium guajava L. (Myrtaceae)*
c.name : Pokok Jambu Batu


b.name : *Cynometra browneoides*
c.name : Pokok Sapu Tangan


b.name : *Erythrina fusca Lour.*
c.name : Purple Coral Tree


b.name : *Caesalpinia ferrea*
c.name : Leopard Tree


b.name : *Plumeria rubra*
c.name : Kemboja


b.name : *Tabebuia pallida*
c.name : Whitewood


b.name : *Lagerstroemia floribunda*
c.name : Thai crape myrtle


b.name : *Muntingia calabura*
c.name : Jamaican Cherry


b.name : *Salix babylonica*
c.name : Weeping Willow


b.name : *Juniperus chinensis*
c.name : Chinese Juniper


b.name : *Dalbergia oliveri*
c.name : Black Rosewood


b.name : *Lagerstroemia indica*
c.name : Pokok Bunga Inai Merah

SHRUBS


b.name : *Ruellia simplex*
c.name : Mexican Petunia


b.name : *Tabernaemontana divaricata*
c.name : Crape Jasmine


b.name : *Cyathula cultivars*
c.name : Purple Diamond


b.name : *Hymenocallis littoralis.*
c.name : Beach Spider Lily


b.name : *Syzygium myrtifolium*
c.name : Red Lip


b.name : *Clerodendrum quadriloculare*
c.name : Variegated Star Burst


b.name : *Duranta erecta* "Gold edge"
c.name : Sky Flower


b.name : *Pandanus veitchii*
c.name : Pygmy Screwpine

EDIBLE PLANTS & HERBS


b.name : *Cymbopogon citratus*
c.name : Lemon Grass


b.name : *Curcuma longa*
c.name : Turmeric


b.name : *Citrus × aurantiifolia*
c.name : Key Lime


b.name : *Allium cepa*
c.name : Onion


b.name : *Capsicum frutescens*
c.name : Chili


b.name : *Citrus × limon (L.)*
c.name : Lemon Tree

PALMS


b.name : *Wodyetia bifurcata*
c.name : Foxtail Palm


b.name : *Calathea lutea*
c.name : Cuban Cigar

GROUNDCOVERS / CREEPERS / CLIMBERS


b.name : *Zoysia Japonica*
c.name : Lawngrass


b.name : *Axonopus compressus*
c.name : Cow Grass

CONCLUSION

The proposed community park at SS 7, Petaling Jaya, embraces the anchor link concept of landscape design to foster connectivity, sustainability, and community well-being. By integrating green walkways, communal spaces, and eco-friendly features, the park serves as a central hub that unites residents while harmonizing with the natural environment. The anchor link approach ensures seamless physical and visual connections within the park, creating a space for recreation, relaxation, and social interaction. This design enhances biodiversity, promotes sustainability, and strengthens the community's identity, making the park a vital asset that improves quality of life and fosters a deeper connection with nature.

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Nur Farisya Elyana Binti Shamsul Amri & Atikah Raihanah Binti Amir

REVIVING OF RECREATIONAL PARK AT TAMAN REKREASI KESUMA , BERANANG , SELANGOR.

The Reviving of Recreational Park at Taman Rekreasi Kesuma, Beranang, Selangor is an independent landscape initiative aimed at transforming an underutilized community park into a functional and sustainable green space. This project addresses issues of neglect, declining biodiversity and inadequate facilities, creating a vibrant environment that fosters community engagement and environmental stewardship. The revitalization plan takes a holistic approach, integrating both softscape and hardscape elements. Softscape enhancements include initiatives to promote native flora, increase the planting of shade-providing trees, and introduce pollinator-friendly species, restoring ecological balance and enhancing the park's aesthetics. Hardscape improvements involve the installation of new pathways, seating areas, and energy-efficient lighting to enhance safety, accessibility, and overall comfort. Additionally, recreational facilities such as exercise zones, playgrounds and multipurpose community spaces are upgraded to accommodate diverse users and activities. Sustainability is a key focus of this initiative. The design incorporates permeable pathways for improved water management, rainwater harvesting systems and renewable energy solutions to minimize the park's environmental footprint. Universal design principles ensure inclusivity, making the park accessible to all members of the community. This project underscores the importance of green spaces in promoting healthier lifestyles, fostering social interaction and raising environmental awareness. By blending traditional and contemporary landscape architecture, the park serves as a model for urban green space revitalization. The anticipated outcomes include increased community participation, enhanced biodiversity and strengthened social cohesion. Ultimately, the reviving of Taman Rekreasi Kesuma aspires to transform it into a cherished recreational and ecological asset, enriching the quality of life for the local community.

Keywords : Therapeutic Garden - Eco-friendly Design - Neighborhood Park

INTRODUCTION

SITE LOCATION

Recreational Park
Phase 1L , Beranang ,
Selangor

SITE ACRES

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SITE BACKGROUND

Taman Rekreasi Fasa 1L in Bandar Tasik Kesuma serves as a recreational park designed to cater to the community's leisure and fitness needs.

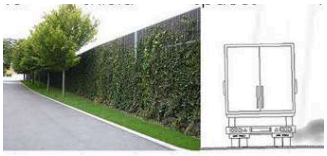
SITE SYNTHESIS

NOISE POLLUTION


SOLUTION :

NATURED-BASED SOLUTION

A vegetation helps reduce noise, improve air quality, and enhances privacy by using layers of plants to shield spaces from road traffic.



POOR WATER QUALITY AND DRAINAGE

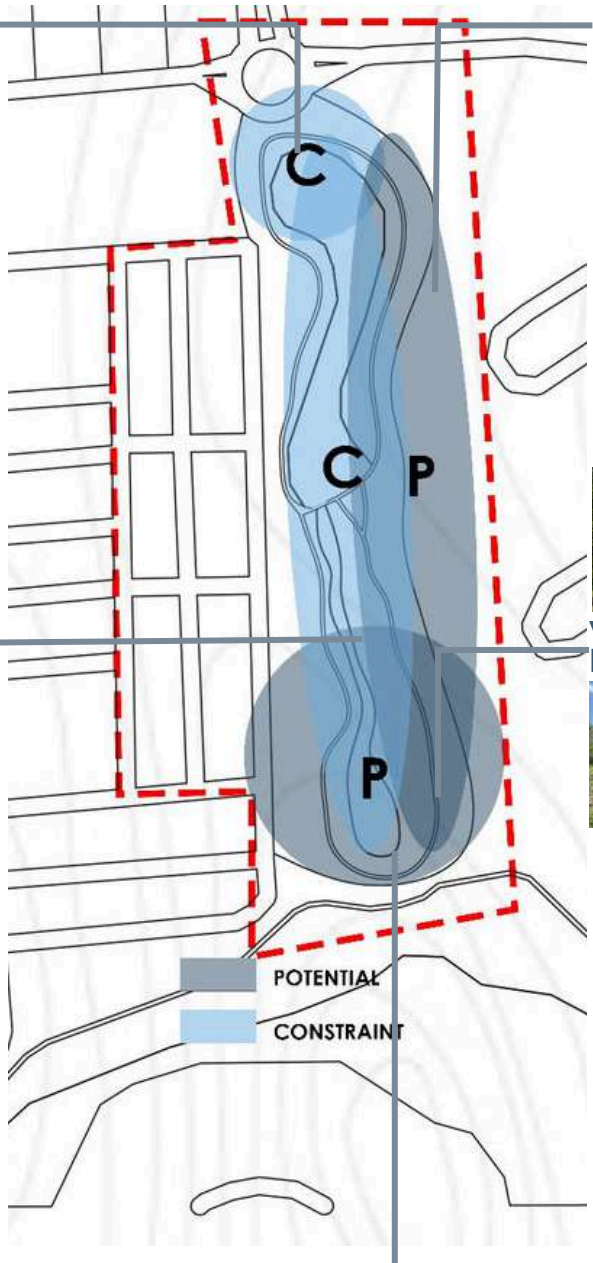

SOLUTION :

SUSTAINABLE SOLUTION : WETLAND AND PERMEABLE PAVEMENT

Implement permeable materials for paths and parking areas to allow water infiltration, reducing runoff. Wetland systems improve air and water quality by filtering pollutants.


UNUTILIZED SPACE



SHADOW PATTERN


SOLUTION :

ENHANCING ENGAGEMENT : ACTIVATING SHADED SPACES

Adding activities in shaded areas during the afternoon creates a community attraction, encouraging visits to the recreational park for engaging activities.

WASTE MANAGEMENT


SOLUTION :

SUSTAINABLE WASTE SOLUTIONS : COMPOSTING AREA AND SMART RECYCYLING STATION

Composting enriches soil and support ecosystems while smart bins sort , compact and optimize waste management efficiently.


SOLUTION :

CULTIVATING CONNECTIONS : COMMUNITY AND BUTTERFLY GARDEN

Solutions include establishing a community garden, a butterfly garden, and additional activity areas to enhance engagement, promotes biodiversity, expands recreational opportunities, and foster a stronger sense of community.


CONCEPTUAL DEVELOPMENT

THEME

VIGOROUS

Full of energy, drive and determination where people actively participate in activities and contribute to the overall well-being of the group.

VIBRANT

Full of life, color and diversity reflecting a lively and inclusive atmosphere where enthusiasm, creativity, and a sense of purpose thrive.

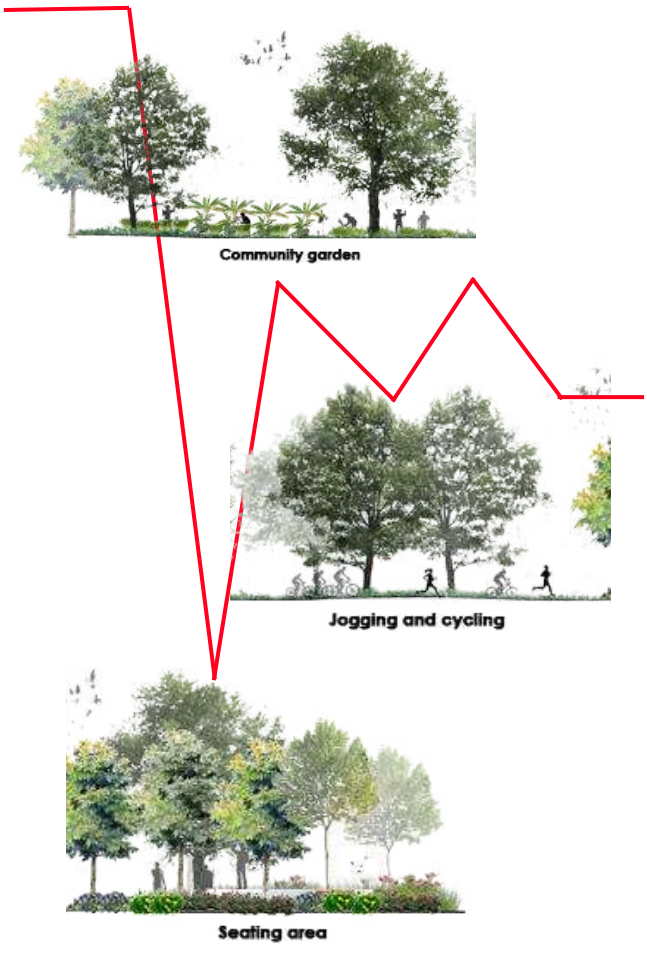
CONCEPT

PULSE

“ Pulse ” implies movement and liveliness, capturing the active energy of the space.

GARDEN

The "Garden" acts as a social hub, bringing people together for gatherings, events, and inform al interactions, fostering community bonds, and creating a vibrant shared space for everyone.



The theme "Vigorous Vibrant" and the concept "Pulse Garden" work in harmony to transform Taman Rekreasi Kesuma into a dynamic and lively recreational hub that resonates with the energy of the community. This combined vision reflects a space that thrives with activity, connectivity, and color, creating a destination where people of all ages and backgrounds can gather, engage, and rejuvenate. "Vigorous Vibrant" emphasizes vitality and inclusivity, bringing life and diversity to the park through bold design elements, interactive features, and multi-functional spaces that encourage exploration, interaction, and wellness.

Meanwhile, the "Pulse Garden" concept builds on this vibrancy by symbolizing the rhythm of life, weaving connectivity and growth into the park’s layout. Central to the design are pulse-like pathways that mimic the natural flow of veins, linking various activity zones, such as fitness nodes, children's play areas, and community gathering spaces. Vibrant planting schemes, dynamic lighting features, and playful water installations further enhance the park's energetic ambiance. Sustainability is embedded in this vision, with eco-friendly initiatives such as permeable pavements, native vegetation, and energy-efficient systems ensuring the park remains environmentally resilient.

MASTERPLAN

The masterplan and sectional design of the recreational park at Taman Rekreasi Kesuma, Beranang, Selangor, presents a thoughtfully planned green space that balances functionality, aesthetics, and ecological sustainability. The layout integrates key features such as a scenic lake, shaded pathways, outdoor gyms, playgrounds, and open activity spaces, fostering inclusivity and engagement for users of all ages.

Strategically designed zones cater to various activities, including recreational, social, and wellness pursuits, ensuring a vibrant and dynamic environment. The landscaping emphasizes native flora, shaded areas, and biodiversity-enhancing features such as a butterfly garden and wetlands.

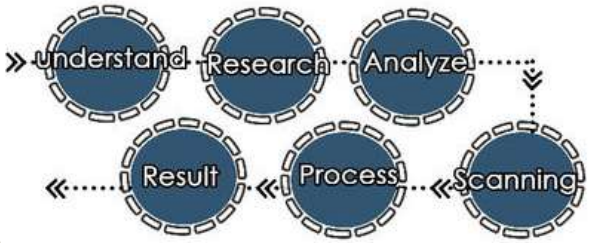
The sections reveal a focus on ecological harmony, showcasing elements like permeable pathways, sustainable drainage systems, and buffer zones that promote biodiversity and reduce environmental impact. By prioritizing accessibility, shaded walkways, and diverse activity spaces, the design fosters community interaction, healthier lifestyles, and environmental stewardship, creating a welcoming and vibrant hub for the local community.

DESIGN INNOVATION

WHAT IS FACE READER ?

A face reader is a technology programmed to examine human sentiments by analyzing facial expressions using sophisticated recognition algorithms, aiding in emotion analysis and the development of interactive systems.

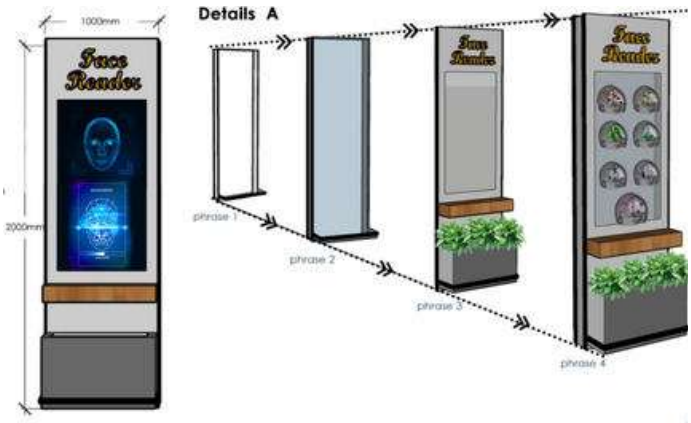
USER EXPERIENCE



HOW FACE READER FUNCTION ?

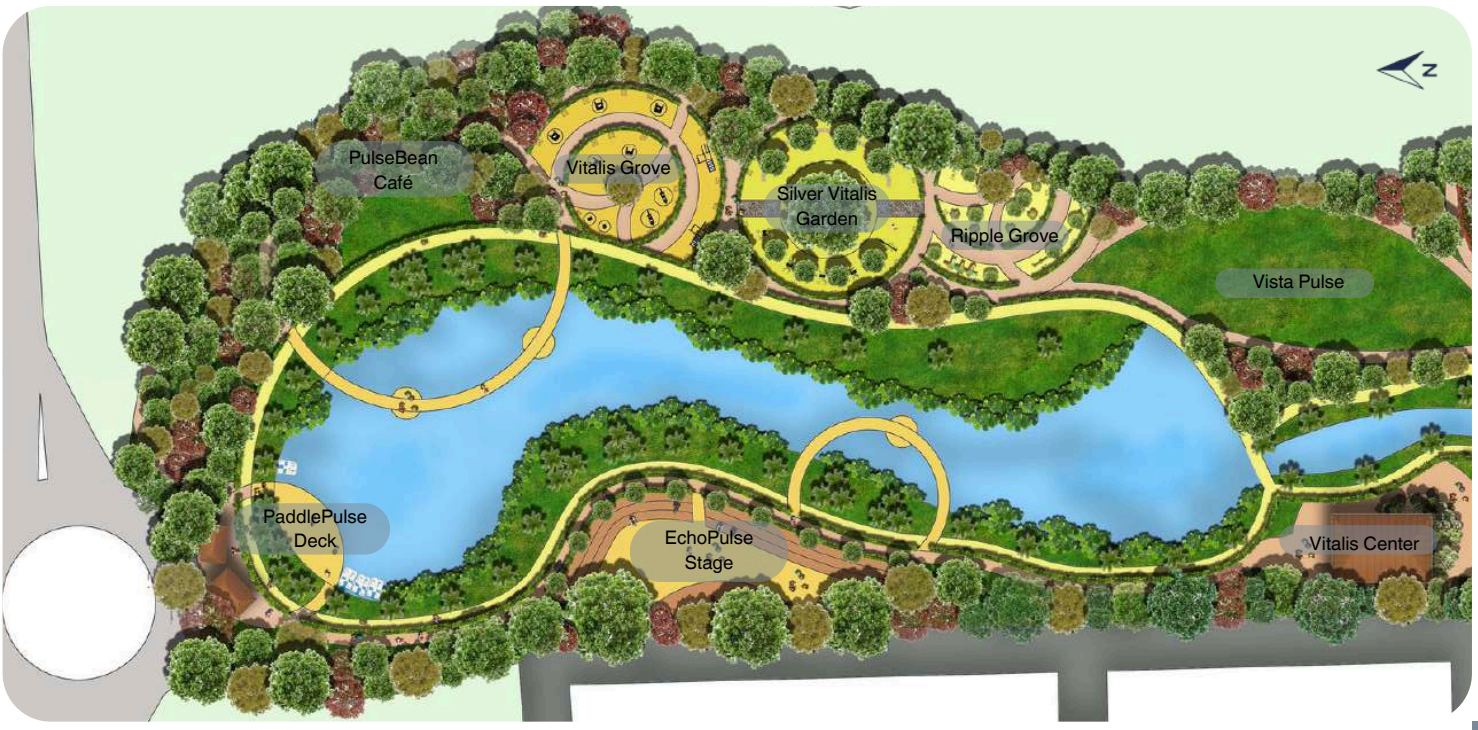
This technologies function to display color of our feeling /emotion either content , amusement, surprise,fear,anger,sad and neutral . It also helps to find a way to overcome the stress/problem by explore the park.

content
amusement
surprise
fear
anger
sad
neutral



ENLARGEMENT PLAN

The enlargement plan integrates green initiatives like permeable pathways, vegetation barriers, and community gardens to enhance environmental sustainability. It promotes biodiversity, manages stormwater, reduces pollution, and fosters social interaction. With thoughtful landscaping and eco-friendly features, the design improves aesthetics, supports recreational activities, and aligns with sustainable development goals for healthier communities.



PLANTING INSPIRATION

B.N. : *Terminalia catappa*
C.N. : Indian Almond
Design Function : Provides shade, absorbs carbon dioxide(658kg/year), and enhances biodiversity.

B.N. : *Portulaca grandiflora*
C.N. : Japanese Rose
Design Function :Enhances aesthetics and attracts pollinators for remidiation .

B.N. : *Acalypha siamensis*
C.N. : Teh Kampong
Design Function :Functions as a safety barrier aligning with CPTED principles.

B.N. : *Roystonea regia*
C.N. : Royal Palm
Design Function : Give sence of direction and absorb carbon dioxide (60 kg/year).

B.N. : *Nymphaea cultivars*
C.N. : Water Lily
Design Function : Provides aesthetic beauty and water resistance by stabilizing surfaces and reducing wave movement.

B.N. : *Syzygium grande*
C.N. : Sea Apple
Design Function : Provides shade and absorb carbon dioxide (749.78 kg/year).

B.N. : *Terminalia mantaly*
C.N. : Madagascar Almond
Design Function : Provides moderate shade and absorbs 70.6 kg of carbon dioxide per year.

B.N. : *Hibiscus rosasinensis*
C.N. : Hibiscus
Design Function : As therapy for remediation and it enhances people's well-being and health.

B.N. : *Allamanda cathartica*
C.N. : Yellow Allamanda
Design Function : The yellow color aids therapy for remediation.

B.N. : *Zinnia elegans*
C.N. : Zinnia
Design Function : Enhances garden aesthetics and serves as a plant for remediation.

GREEN INITIATIVES

A therapeutic garden promotes well-being, emotional healing, relaxation, sensory engagement, and restorative nature connections.

Community gardens promote local food production, foster social connections, enhance biodiversity and improve mental health.

Wetlands function as natural filters, improving water quality, reducing flooding, supporting biodiversity, storing carbon, and providing essential wildlife habitats.

Permeable pavement reduces runoff, improves drainage and enhances groundwater recharge.

TREES

B.N. : *Mangifera indica*
C.N. : Mango Tree
Design Function : Provides shade, absorbs carbon dioxide(456.2/kg year)

B.N. : *Ficus benjamina*
C.N. : Weeping Fig
Design Function : Provides moderate shade, absorbs 535.9 kg of carbon dioxide per year

B.N. : *Musa paradisiaca*
C.N. : Banana Tree
Design Function : Provide shade , absorbs carbon dioxide (305kg/year) and food security

B.N. : *Azadirachta indica*
C.N. :Neem Tree
Design Function : Can serve as remediation because it repels mosquitoes around the parking area.

PALMS

B.N. : *Wodyetia bifurcata*
C.N. : Foxtail Palm
Design Function : Give aesthetic value and absorb carbon dioxide (69.95 kg/year).

GROUNDCOVERS

B.N. : *Zoysia japonica*
C.N. : Japanese Lawn Grass
Design Function : As water resistance due to dense growth and deep roots.

B.N. : *Axonopus compressus*
C.N. : Cow Grass
Design Function : It can be drought-tolerant due to its deep roots accessing water

SHRUBS

B.N. : *Ixora javanica*
C.N. : Red Ixora
Design Function : Attracts pollinators for remidiation and enhances garden aesthetics with its vibrant flowers

B.N. : *Lantana camara*
C.N. : Spanish Flag
Design Function : Attracts pollinators for remidiation.

B.N. : *Gardenia jasminoides*
C.N. : Cape Jasmine
Design Function : Attracts pollinators for remidiation.

B.N. : *Buxus microphylla* var. japonica
C.N. : Japanese Boxwood
Design Function : Can act as a natural barrier to reduce noise and as a safety barrier aligning with CPTED principles

B.N. : *Pentas lanceolata*
C.N. :Egyptian Star Cluster
Design Function : Enhances aesthetics and attracts pollinators for remidiation .

B.N. : *Heliconia rostrata*
C.N. : Fishtail Heliconia
Design Function : Enhances aesthetics with layered shrubs and attracts pollinators for remidiation.

B.N. : *Plumbago auriculata*
C.N. : White Cape Leadwort
Design Function : Softens surroundings and enhances beauty the area around signage.

EDIBLE PLANTS & HERBS

B.N. : *Capsicum frutescens*
C.N. :Chilli Padi
Design Function : Provide culinary, aromatic and ornamental benefits.

B.N. : *Brassica oleracea*
C.N. : Cabage
Design Function : Provide culinary, aromatic and ornamental benefits.

B.N. : *Murraya koenigii*
C.N. :Curry Tree
Design Function : Provide culinary, aromatic and ornamental benefits.

B.N. : *Allium cepa*
C.N. : Onion
Design Function : Provide culinary, aromatic and ornamental benefits.

B.N. : *Ipomoea aquatica*
C.N. : Water Spinach
Design Function : Provide culinary, aromatic and ornamental benefits.

B.N. : *Alpinia galanga*
C.N. : Greater Galangal
Design Function : Provide culinary, aromatic and ornamental benefits.

CONCLUSION

The Reviving of Recreational Park Taman Rekreasi Kesuma in Beranang, Selangor, is a pivotal initiative to enhance both environmental sustainability and community engagement. The project focuses on transforming the park into a multifunctional recreational space that supports leisure, wellness, and environmental education. Key improvements include the introduction of new green spaces, playgrounds, walking trails, and eco-friendly features such as permeable pavements and natural water management systems. These changes will reduce urban heat, improve water quality, and promote biodiversity. The park's enhancement also emphasizes social inclusivity by offering spaces for various age groups and activities. By integrating community gardens, sports facilities, and seating areas, the park becomes a hub for social interaction, outdoor recreation, and community bonding. The revitalized park is expected to enhance the quality of life for local residents while contributing to the sustainable development goals by promoting a healthy, active lifestyle and environmental stewardship.

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Nur Syafiqah Bt Tarmizi & Wan Noor Anira Hj. Wan Ali @ Yaacob

PROPOSED A RECREATIONAL PARK AT TAMAN TENGKU ANIS,KOTA BHARU, KELANTAN

The proposed recreational park at Taman Tengku Anis, Kota Bharu, Kelantan, represents an ambitious initiative to create a multifunctional green space that enhances the quality of life for local residents and visitors. This project is designed based on 'Royal' theme inspire on the honor of Tengku Anis and 'The Inclusive of Imperial Vintage' that portray the identity and culture of its place to provide a harmonious environment where people of all ages and backgrounds can come together for recreation, and social connection. It is strategically located in a key area of Kota Bharu, the park will feature a variety of thoughtfully planned amenities to cater to diverse and inclusive needs. However, the park has been faced of unutilized spaces, lack of identity, inaccessible for all people and poor drainage system. Furthermore, children's playgrounds, serene gardens, and fitness zones will further enrich the park's offerings, ensuring it appeals to families, fitness enthusiasts, and nature lovers alike. Also, this design includes the sense of Islamic concept as it relates to geometrical elements and biophilic design as it includes nature based solution (NBS) such as bioswales design. the project aims to preserve the natural beauty of the area while minimizing its environmental footprint. Additionally, informative signage about local flora and fauna, heritage inspired design elements, and dedicated areas for workshops will provide opportunities for learning and engagement. As well as the objective is to create a safe and balance environment that instills a sense of calmness to the users. By revitalizing Taman Perbandaran Tengku Anis, this project will not only create a recreational destination but also strengthen the cultural identity and livability of Kota Bharu, Kelantan. So, it promises to become a cherished landmark for both residents and tourists, fostering a sense of pride and belonging while leaving a lasting legacy for future generations. Moreover, the design achieved the Inclusivity and Accessibility (Guideline 4.3.2) in RTKBK which is transforming community infrastructure into spaces that are inclusive, accessible, and supportive of social integration.

Keywords : The Royal Tengku Anis park - Biophilic design - Inclusive Park design

INTRODUCTION

SITE HISTORY:
The park was named after the consort of the Sultan of Kelantan,the honor of Tengku Anis binti Tengku Abdul Hamid because of her significant contributions to the state of Kelantan, particularly in the areas of welfare, family well-being, and children's health.

SITE LOCATION:
1100 Jalan Taman Tengku Ahmad Panglima, Kota Bharu, Kelantan.

SITE BOUNDARIES:
20 Acres

MAP KOTA BHARU, KELANTAN.

SITE CONTEXT:

- Sultan Ismail Petra Airport

5.5 km radius

- Jabatan Kebudayaan dan Negara

1.8 km radius

- Handicraft Village

4.8 km radius

SITE SYNTHESIS

INCLUSIVE UNIVERSAL DESIGN & SMART LIGHTING

Wide, smooth surfaces which pathways are designed to accommodate people using wheelchairs, strollers, or mobility aids, ensuring stable, smooth surfaces free from steep inclines or obstacles. Some benches are wheelchair-accessible, allowing space for someone to sit beside them.

BEFORE :

AFTER :

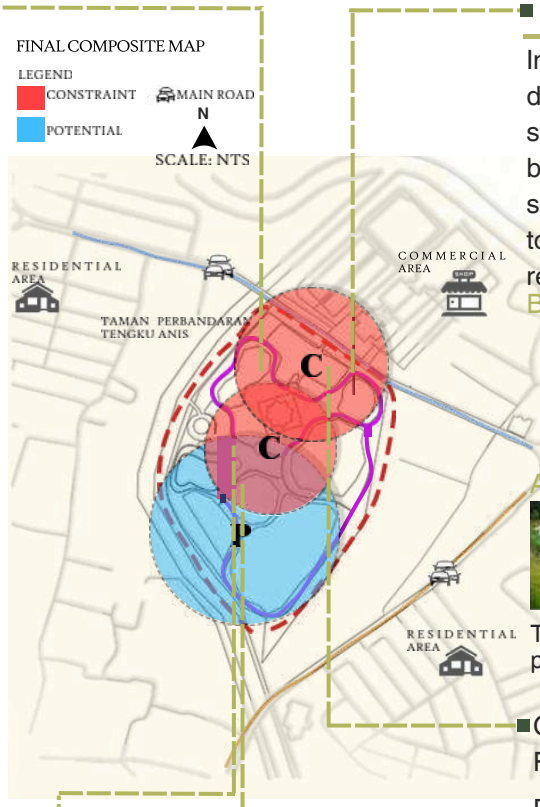
This will promotes a sustainable park design

ART & CULTURAL INSTALLATIONS

Propose cultural heritage walks in between the transitions zones that incorporating sculptures, or plaques that reflect local history.

BEFORE:

AFTER:



BIRDS GARDEN

By fostering an ecosystem that supports birds' needs for food, shelter, and nesting, these gardens while engaging communities in conservation efforts.

BEFORE :

AFTER :

This will separate their habitat and brings comfort to the user .

BIOSWALES DESIGN

Installing bioswales as biophilic design can help capture and filter stormwater while adding natural beauty to the park. These features slow down water runoff and allow it to seep naturally into the soil, reducing puddling.

BEFORE :

AFTER :

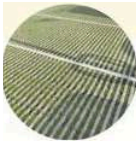
This will applied along the highlighted path.This will increase the biodiversity .

GRASS GRID SUSTAINABLE FLOOR MATERIALS

Permeable Pavements Green parking lots often use permeable materials like grass pavers, gravel, reducing stormwater runoff and minimizing the risk of flooding.

BEFORE :

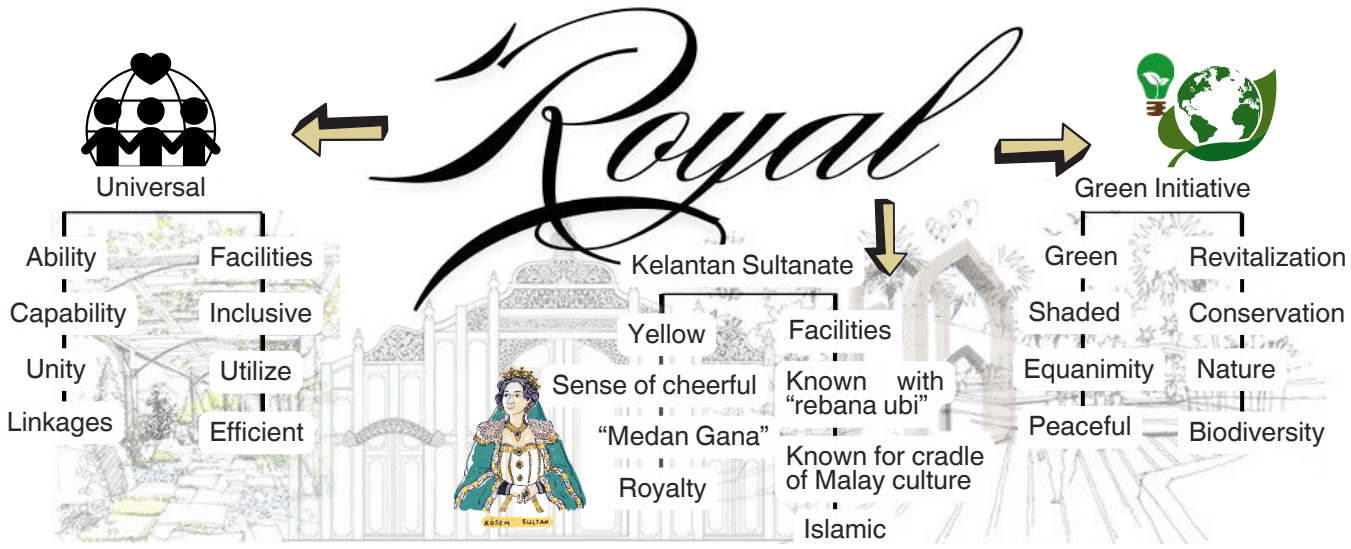
AFTER :



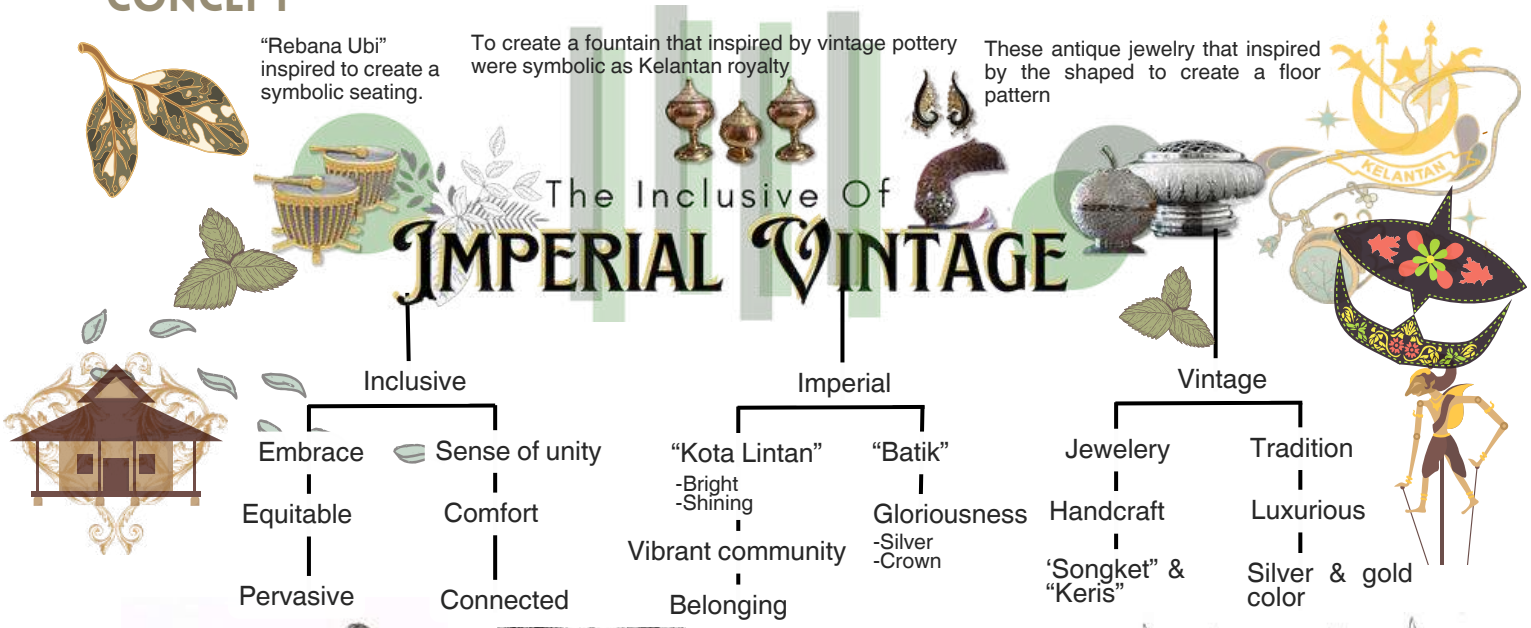
This will apply to all spaces and parking area to prevent the water runoff at the park

CONCEPTUAL DEVELOPMENT

THEME

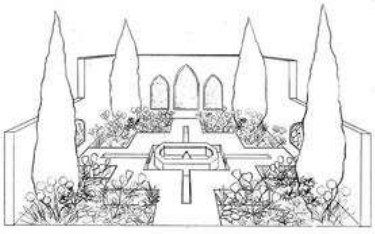


CONCEPT



Universal design
that brings unity to the users and local community.

Focalization
a resting point that designated with geometrical elements and colour that brings sense of royal .



Islamic sense
as using a geometrical that gave sense of balance.

The proposed recreational park at Taman Perbandaran Tengku Anis, Kota Bharu, Kelantan, is a transformative project inspired by the concept of "The Inclusive of Imperial Vintage." This unique theme blends the grandeur and elegance of classic imperial aesthetics with modern inclusivity, creating a space that celebrates heritage while accommodating the diverse needs of the community. Additionally, rooted in the timeless charm of vintage design, the park will incorporate classical architectural elements, such as gazebos, fountains, decorative landscapes, and grand entryways reminiscent of imperial-era grandeur. Moreover, it does promote the Kelantan's heritage which attracts visitors, enhancing local economic development which align with "SDG 8 Decent Work and Economic Growth". Plus, informative signage about historical and cultural elements will offer educational opportunities for visitors, connecting them to Kelantan's rich heritage. By intertwining historical richness with modern functionality, the park will serve as a living tribute to Kelantan's cultural legacy while fostering unity and inclusivity.

MASTERPLAN

The designed master plan of this park at Taman Tengku Anis, which is in Kota Bharu, Kelantan is both functional, inclusive and appealing aesthetically. Plus, the large social gathering area, which is surrounded by vintage inspired pavilions and fountains, serves as the core design area, and it is called Vintage of Lintan City that include educational zones such as workshop area . Moreover, it has specific sites surrounding it like children's playgrounds, teenagers' activity centers, and areas dedicated to adults where they can relax and regain their energy. Additionally, the aspects of the park include a Heritage Aviary which had birds garden and deer park that allows for educational and instructive touch. Also, a tranquil area that contains therapeutic plants and water features aimed at aiding mental health recovery, as well as a The Healing Veranda. Furthermore, for entertainment purposes there is a community garden in Eco-Royal Retreat area that aims at enhancing social bonding, and also a The Royal Lagoon area to entertain the family. Besides, the biophilic design that insert in the design can influence awareness and for sustainable environment. As well as the master plan entirely contributes in netting a calm environment that has respect for culture, build up of social relations as well as provision for eco-friendly practices.

Based on the design, this Heritage Lounge serves as an essential hub within the spaces, combining practicality with design elements that enhance the overall park experience

ENLARGEMENT PLAN

VINTAGE

The enlargement plan for the recreational park at Taman Perbandaran Tengku Anis, emphasizes the carefully planned areas and features for aesthetically pleasing, and accessible areas. Plus, the park's core area is Vintage of Lintan City, which is a lively social hub for events and meetings that include planted gardens and observation tower with the vintage look. Moreover, the Legacy Arcade gives a fun and safe place to play. Whereas, in the middle lies The Vintage Promenade, a multifunctional area for gatherings and brisk walk as there is decking area. Plus, the Heritage Aviary gives the area a fun and instructive touch. Also, visitor's comfort and sustainability is guaranteed by easily accessible and, a well arrange of the planting design, solar lighting for safety, and convenient parking lot.

Solar Lighting inovation that pomotes SDG 7 Affordable and Clean Energy.

Human eye view towards The Healing Veranda

The area blends with imperial elegance and Islamic garden principles. It serves as a welcoming and inclusive space for individuals to relax, reconnect with nature, and find inner peace.

PLANTING INSPIRATION

The Planting Inspiration concept for the recreational park at Taman Tengku Anis focuses on creating a diverse plant species are thoughtfully arranged to enhance biodiversity, and environmental resilience, while addressing practical needs like shade, soil stability, and water retention. Plus, shade trees create natural cooling and define vertical space, while shrubs and groundcovers improve soil stability, retain water, and fill horizontal areas, ensuring balance and proportion. Also, palms and ornamental plants emphasize the park's tropical identity, adding visual interest through vibrant colors and textures. Moreover, the palm brings sense of directional to the users. Besides, edible plants and pollinator friendly species contribute to food security and attract beneficial wildlife, enriching the ecosystem. There is also a *Plumeria alba* that uses for focalization to that area. Furthermore, each planting zone, including community gardens and healing spaces, creates unity and harmony, offering both ecological conservation and serene spaces for visitors. Additionally, the thoughtful interplay of line, shape, color, texture, and space ensures a visually appealing and functional park that embodies inclusivity, cultural identity, and environmental responsibility.

BN : Carica papaya
CN : Papaya
Design Function: Papaya survive with less water .

BN : Brassica oleracea
CN : Cabbage
Design Function: Plants for food security.

BN : Azadirachta indica
CN : Margosa tree
Design Function: Serve as remediation to surrounding as its good for mosquito repellent.

BN : Saraca asoca
CN : Ashoka tree
Design Function: Serves as barrier that provide sense of directional.

The Royal Retreat | Heritage Aviary | Birds Garden | The Royal Lagoon

SECTION A-A'

This area mainly focus enhance the sense of welcoming and cheerful.

BN : Clitoria ternatea
CN : Butterfly pea
Design Function: Attract pollinators and a symbolic flora for Kelantan.

BN : Plumeria alba
CN : White frangipani
Design Function: Plants for drought tolerant and for focalization to the spaces

BN : Papilionanda hybrids
CN : Vanda 'Chao Praya Violet'
Design Function: Serves as therapy for remediation that enhance human well-being by reducing stress.

Entrance | Vintage of Lintan City | Amphitheater Gathering | The Healing Veranda

SECTION B-B'

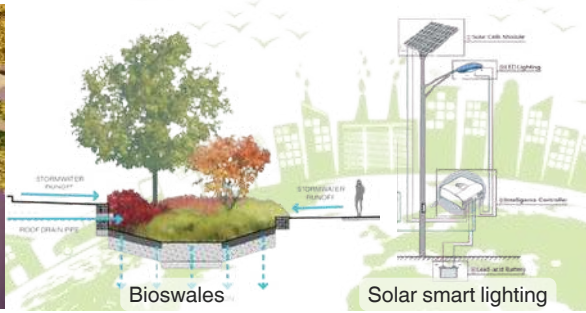
GREEN INITIATIVES

The Sustainable Development Goals (SDGs) are a set of 17 global goals that aim to create a better sustainable future for all by 2030, balancing social, economic, and environmental priorities.

Firstly, bioswales are an effective, nature-based solution (NBS) that supports the achievement of SDG 6 (Clean Water). Their multifunctional benefits make them a vital part of sustainable design, enhancing resilience, public health, and environmental quality while fostering inclusive and sustainable cities.

Moreover, an inclusive universal park aligns with SDG 11 (Sustainable Cities & Communities) that ensures safe, accessible, and inclusive public spaces for all individuals, and persons with disabilities. Also, features such as wheelchair-accessible pathways, sensory-friendly areas, and inclusive playgrounds promote equitable use.

Universal design



Bioswales | Solar smart lighting

Also, installing smart solar lighting in parks directly aligns with the goals of SDG 7, as the features enhance energy efficiency by reducing wastage, ensuring that lights operate only when needed.

TREES

BN : Fragrea fragrans
CN : Ironwood
Design Function: Serves as high carbon absorbent as much as 744 kg/year that can provide cooling effect to the users.

BN : Magnolia champaca
CN : Yellow champaca
Design Function: To highlight its colony green leaves is high SRI which is 37 that can keep the area to stay cool.

BN : Delonix regia
CN : Royal Poinciana
Design Function: Serves as carbon absorbent which is 729 kg/year that can reduce high temperature.

PALMS

BN : Wodyetia bifurcata
CN : Foxtail palm
Design Function: Serves as high carbon absorbent which is 69.95 kg/year and brings sense of direction to the users.

BN : Washingtonia robusta
CN : Mexican fan palm
Design Function: To highlight its islamic presence and serves as drought tolerent.

BN : Chuniophoenix hainanensis
CN : Hainan fan palm
Design Function: Serve as CPTED that prevent crime towards the area.

SHRUBS

BN : Evodia suaveolens
CN : Lacy Lady Aralia
Design Function: Serves as remediation which to attract pollinators and water retention

BN : Asclepias curassavica
CN : Mexican Butterfly Weed
Design Function: Its ability to adapt with dry condition and attract butterfly.

BN : Galphimia glauca
CN : Golden shower
Design Function: Plants for drought tolerent and serves as remediation which is source of pollinators.

BIOSWALES PLANTS

BN : Thalia geniculata
CN : Alligator Flag
Design Function: Act as water purification that can absorbs excess nutrients and filter pollutants.

BN : Clerodendrum inerme
CN : Glorybower
Design Function: Serves as water retention and remediation that attract pollinators

BN : Wedelia trilobata
CN : Creeping Daisy
Design Function: Act as water retention and filter pollutant

CLIMBERS & FERN

BN : Dolichandra unguis-cati
CN : Cat claw ivy
Design Function: Serves as green roof for pergola and provide cooling effect to that area.

BN : Petraeovitex wolfie
CN : Wolfe's vine
Design Function: To capture dust and particulate matter from the air, helping to reduce pollution.

BN : Nephrolepis spp.
CN : Sword fern
Design Function: Act as as nutrient cycling by decomposing and enriching the soil with organic matter.

Based on the design area, the planting design features tall palms for directional, neatly trimmed hedges and shrubs for welcoming, creating a vibrant, relaxing, and eco-friendly space for the community.

CONCLUSION

Sustainable practices and the elegance of imperial vintage aesthetics are harmoniously combined in the landscape design of the recreational park at Taman Tengku Anis. Besides, this all-inclusive strategy guarantees that the area is accessible and enriching for local residents and visitors while also preserving its historical character. Plus, the incorporation of functional greenery and shaded zones promotes health and wellbeing by encouraging community interaction and recreational opportunities in a comfortable environment. Moreover, the park achieves the RTKBK plan, particularly Heritage and Identity (Guideline 4.3.3), where the "Imperial Vintage" theme highlights Islamic heritage and royal elements, aligning with the cultural and historical narrative of Kota Bharu. Lastly, this thoughtful integration fosters pride and connection among the community while ensuring the park becomes a legacy for future generations.

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Nurul Fatiha h Najua Binti Daing Nadim &
Nur Huzeima Binti Mohd Hussain

PROPOSED REVITALIZATION RECREATIONAL PARK AT TAMAN TEPIAN PENGGARAM BATU PAHAT JOHOR

The proposed revitalization of the recreational park at Taman Tepian Penggaram, Batu Pahat, Johor, is an ambitious initiative to transform the park into a modern, inclusive, and sustainable recreational space that caters to the diverse needs of the local community while contributing to environmental sustainability. Emphasizing the concept of "The Embrace of Healing Nodes," this project aims to create a harmonious integration of natural elements, physical and mental well-being, and social interaction through thoughtful design and planning. The project proposes the development of "Healing Nodes," strategically arranged zones within the park designed to provide various activities and experiences focused on holistic healing. Each node is uniquely designed with elements such as green therapy spaces, sensory gardens, reflexology paths, and social activity zones for different community groups. Lush green pathways will interconnect these nodes, ensuring a comprehensive experience that blends seamlessly with the park's natural surroundings. In addition, the park will be equipped with eco-friendly infrastructure such as rainwater harvesting systems, solar energy utilization, and biodiversity-rich landscaping to preserve the local ecosystem. The addition of green canopies and strategically planted shade trees will help mitigate the Urban Heat Island effect, making the park a comfortable microclimate for all visitors. Through this holistic approach, the revitalization of Taman Tepian Penggaram is expected not only to enhance the quality of life for Batu Pahat residents but also to establish the park as a new landmark that connects the community with nature while promoting a healthier and more sustainable lifestyle.

Keywords : Healing Park - Eco Embrace Retreat - Pocket of Tranquility

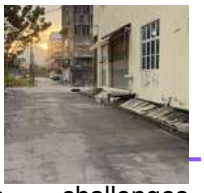
INTRODUCTION

The revitalization of Taman Tepian Penggaram, Batu Pahat, aims to transform the park into a vibrant, sustainable community space. The project will enhance recreational facilities, expand green spaces, and introduce eco-friendly features like tree canopies, rain gardens, and sustainable landscaping. New pathways, shaded relaxation spots, and fitness zones will promote an active and healthy lifestyle. Designed for inclusivity and environmental education, the revitalized park will become a hub for leisure, wellness, and social interaction, creating a greener, more vibrant Batu Pahat.

SITE SYNTHESIS

CONSTRAIT 1
LACK OF ACCESSIBILITY

Before

Visitors face challenges accessing Taman Tepian Penggaram due to limited pedestrian pathways, making it difficult to connect with the park.

After = Universal Pathway


Creat **universal pathway** in to give visitors easily all visitors of all ages to walk and connect with the park easily for them to do activities

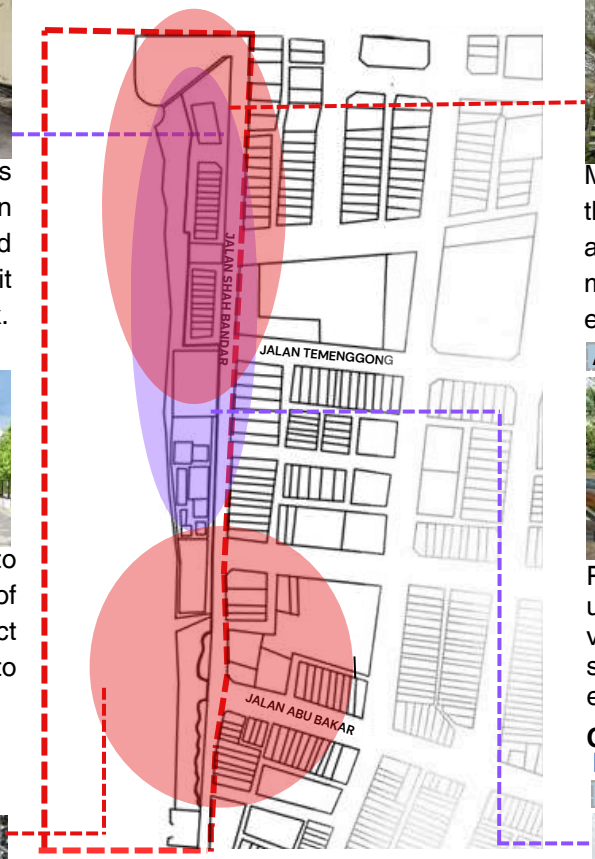
PONTENTIAL 1
UNDERUTILIZED SPACES

Before


Some spaces are not used by users because they are unattractive and unsafe. This is due to spaces that are not well maintained and cared.

After =Green Space Pocket Park
DESIGN SOLUTION


Create a comfortable green pocket park with plants and features that attract and relax visitors.



LEGEND
Pontential
Constrait

The site design focuses on using green initiatives to create a sustainable and user-friendly space. Key features include solar lighting, green space pocket parks, universal pathways, and smart lanes.Solar lighting is used throughout the site to provide energy-efficient lighting that reduces environmental impact and keeps the area safe at night.Green space pocket parks are small green areas spread across the site, offering relaxing spaces for people to enjoy nature and socialize.Universal pathways are designed to be accessible for everyone, making it easy for people of all abilities to move around the site comfortably.Together, these features make the space more sustainable, accessible, and enjoyable for all users.

PONTENTIAL 2
UNDERUTILIZED SPACES

Before


Most people do not pass through this alley due to its lack of attraction and appeal, which makes it a less inviting and engaging pathway

After = Rain Garden


Rain gardens can transform underutilized spaces into valuable areas that manage stormwater and enhance the environmen

CONSTRAIT 2
IMPROVES SAFETY

Before


Visitors feel unsafe when they go to the park at night. This is because the lack of lights in the park area makes the security of the park less safe and visitors cannot do various activities.

After = Smart Lighting
DESIGN SOLUTION


Install smart lighting along walkways and parks to ensure safety for visitors at night.

CONCEPTUAL DEVELOPMENT

THEME

UNITY OF NATURE VIABLE

"**Unity Of Nature Viable**"the harmonious integration of natural elements with human-made environments, aiming to create spaces that are ecologically viable and visually cohesive

UNITY

- Harmony
  - Peace
    - Tranquility
      - Calm
- Universal
  - Well-being
    - Security
      - Embrace

NATURE

- Landscape
  - Greenery
    - Verdure
      - Vista
- Resilience
  - Green initiative
    - Modernism
      - Exquisite

VIABLE

- Vibrant
  - Lively
    - Cheerful
      - Energetic
- Belonging
  - Nodes
    - Ultimate
      - Convenient

CONCEPT

The color of the **Mimosops elengi** flower which is whitish green symbolizes of Healing (Soothing)

The filaments of the **Mimosops elengi** flower symbolize nodes, which means they provide attraction to visitors and main core in the area.

THE EMBRACE OF HEALING NODES

The grafting of **Mimosops elengi** flower petals symbolizes embrace which means community unification

"**The embrace of Healing nodes**" creating specific areas or features that help the landscape bounce back from challenges like storms, droughts, or other disruptions and "resilience nodes" are designed to be strong, adaptable, and able to recover quickly from problems.

EMBRACE

- Welcoming
  - Preasive
    - Extensive
      - Substantial
- Connected
  - Link
    - Sorority
      - Community

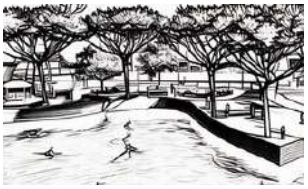
RESILIENCE

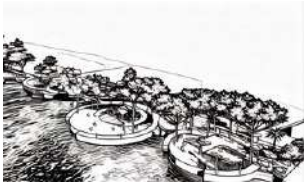
- Flexibility
  - Amenability
    - Access
      - Entrance
- Green
  - Sustainable
    - Healing
      - Calming

NODES

- Attraction
  - Interesting
    - Appeal
      - Aesthetic
- Appearance
  - Environment
    - Rejuvenation
      - Revitalization

The concept of The Embrace of Healing Nodes focuses on creating a peaceful space that supports healing by blending nature and design. It recognizes that well-being involves both physical and emotional health. The design features a series of connected healing areas, including calming gardens, reflective water features, sensory zones, and quiet meditation spots, each serving a unique purpose for relaxation and renewal.Paths between these areas are designed for smooth movement, guiding visitors through spaces with changing moods and atmospheres. Open spaces for reflection and smaller, private areas for personal moments encourage mindful exploration.Sustainability is key, with natural elements like trees, plants, and water seamlessly integrated into the design. Together with thoughtful architecture, these elements create a harmonious and soothing environment. The Embrace of Healing Nodes offers a peaceful retreat where visitors can relax, recharge, and find balance.





MASTERPLAN

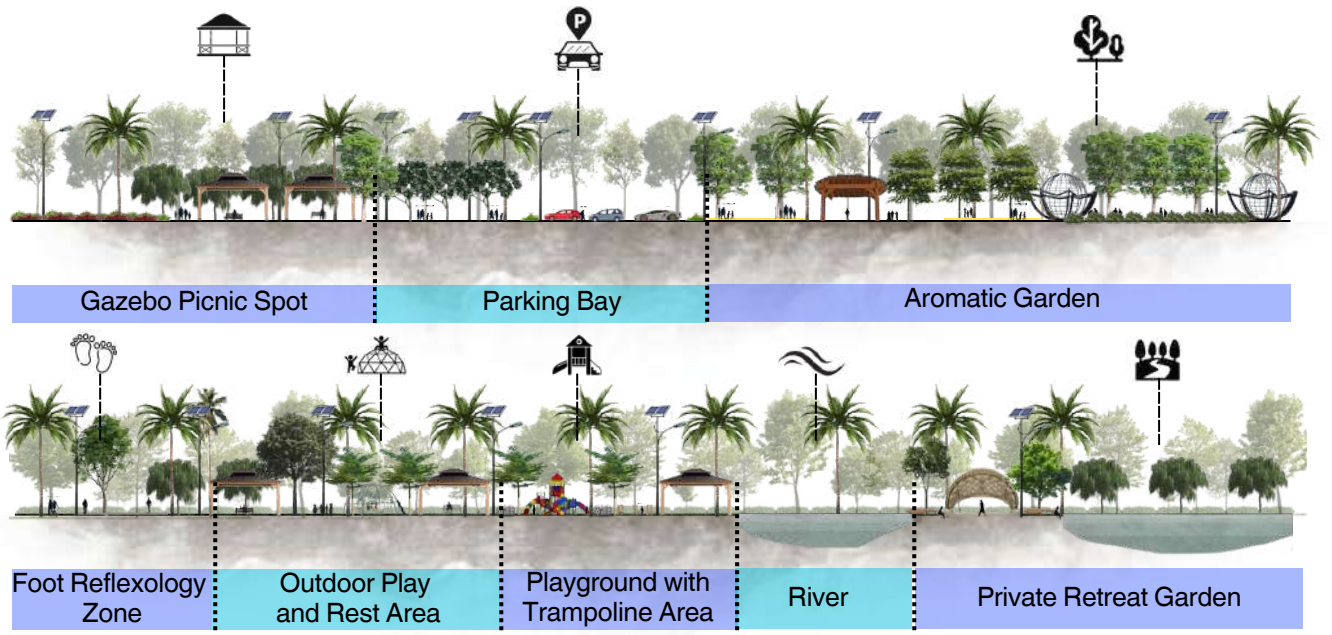
Parking Bay

Harmony Grove Entrance

Aromatic Garden

THE EMBRACE OF HEALING NODES

The master plan concept, "The Embrace of Healing Nodes," blends design principles and elements to create a peaceful and healing environment for physical and emotional well-being. The Principles of Design are visible throughout, starting with Balance, which is achieved by evenly placing healing nodes to connect nature and built spaces. Focal points like gardens, water features, and sensory areas are highlighted, drawing attention and offering moments of reflection. Contrast is used to show the diversity of spaces, from active areas to quiet retreats, giving users different emotional experiences. Rhythm is built into the paths between nodes, guiding visitors through a journey of healing spaces. Unity ensures that all elements work together to create a harmonious environment. The Elements of Design refine the concept: Lines define paths and edges, creating direction; Shapes and Forms encourage openness; Color and Texture add calming, sensory experiences; and Space is carefully designed to provide both openness and intimate moments, supporting diverse experiences for everyone.



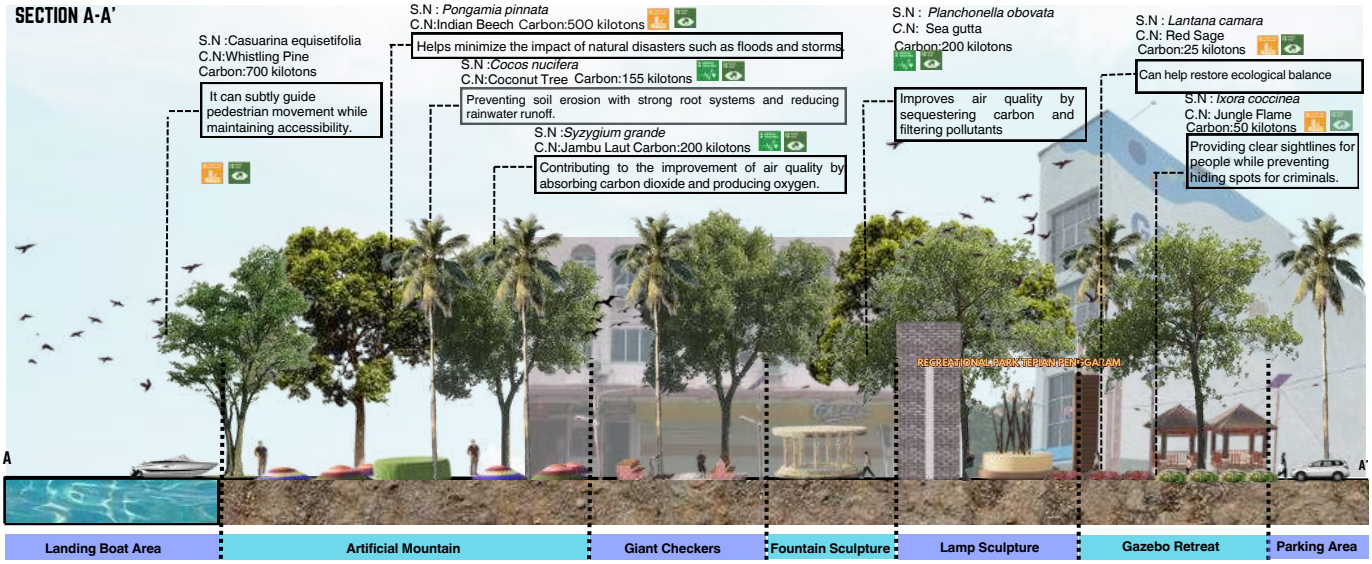
ENLARGEMENT PLAN

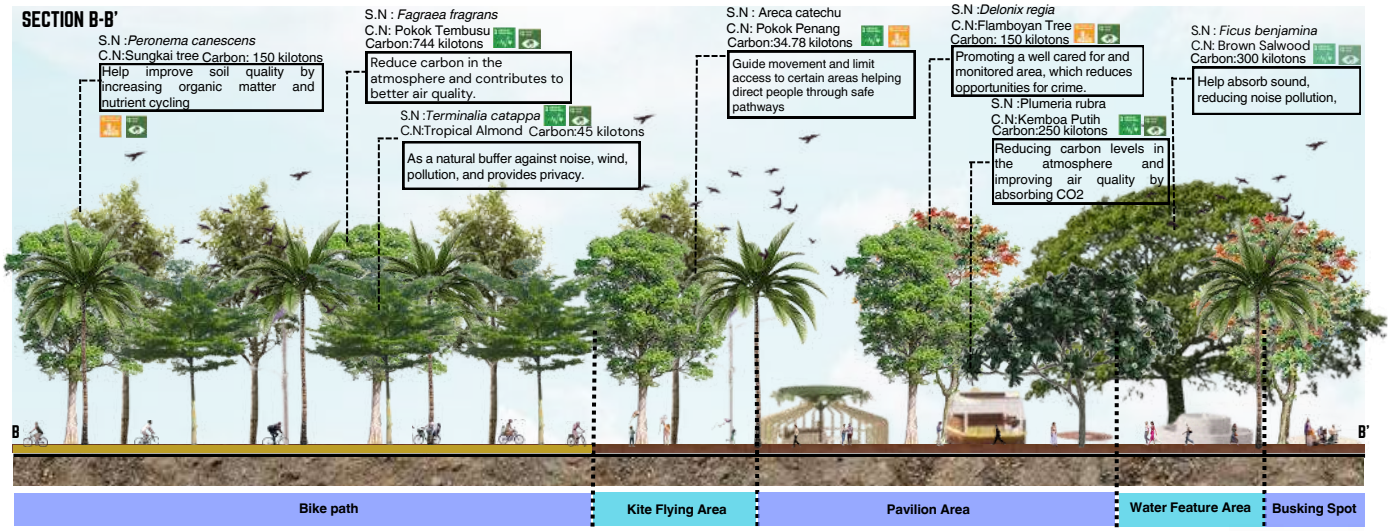
The enlargement plan for "The Embrace of Healing Nodes" builds on the original idea by adding sustainable green features to create a bigger, more immersive healing space. It focuses on three main elements: solar lighting, rain gardens, and green space pocket parks. Solar lighting is spread throughout the area to offer energy-efficient lighting, reducing environmental impact and creating a calming atmosphere at night. These lights highlight important parts like paths and gardens. Rain gardens are expanded to handle stormwater, improve water quality, and support local ecosystems. Native plants are used to absorb rainwater, reduce runoff, and enhance biodiversity. The plan also includes more green space pocket parks, which are small natural areas for relaxation, reflection, and social interaction. These parks allow visitors to enjoy nature in peaceful spots. Together, these green elements promote both well-being and environmental care, making the space more sustainable and inviting for everyone.

Landing Boat Area

Recreation Lawn and Pavilion

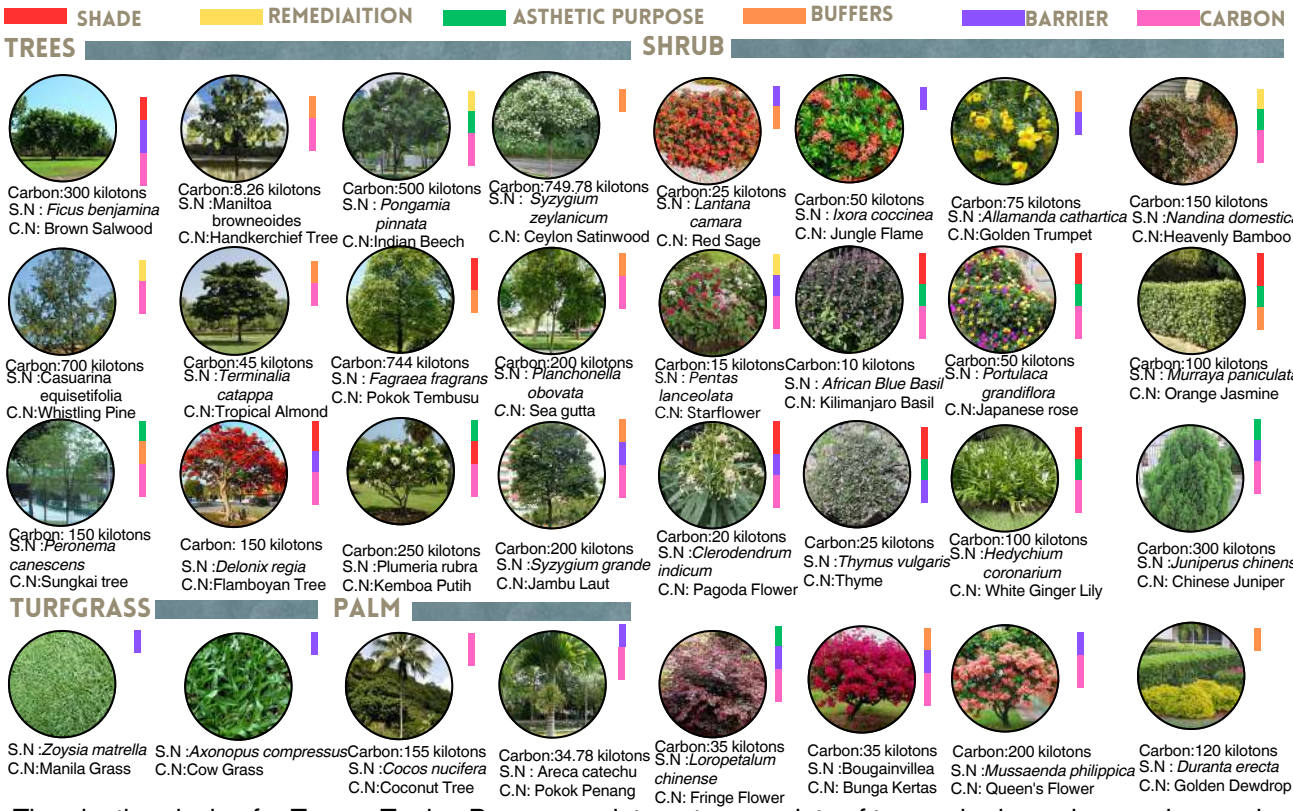
PLANTING INSPIRATION





GREEN INITIATIVES

In the recreational park at Taman Tepian Penggaram, Batu Pahat, Johor, Solar Lighting supports SDG 7: Affordable and Clean Energy by providing energy-efficient, renewable lighting that reduces energy use and carbon emissions. It enhances public safety, making the park more accessible and functional during evening hours, thus contributing to SDG 11: Sustainable Cities and Communities. Solar lighting also promotes sustainability by minimizing environmental impact.Rain Gardens in the park help manage stormwater, reduce runoff, and improve water quality, supporting SDG 6: Clean Water and Sanitation. By using native plants, these gardens enhance local ecosystems, promote biodiversity, and contribute to SDG 13: Climate Action by mitigating flooding and increasing resilience to climate change.Universal Gardens ensure accessibility for all, supporting SDG 10: Reduced Inequality. They provide therapeutic spaces that encourage relaxation and mental well-being, promoting SDG 3: Good Health and Well-Being.Green Space Pocket Parks contribute to SDG 11 by offering small, accessible green spaces for recreation, and SDG 15 by supporting urban biodiversity and creating habitats for local wildlife.



The planting design for Taman Tepian Penggaram integrates a variety of trees, shrubs, palms, and groundcovers to improve the park's environmental impact by absorbing carbon and enhancing its ecological health. Trees such as Ficus Benjamina, Casuarina equisetifolia, and other native species will provide significant shade, reduce urban heat, and absorb carbon dioxide, helping combat climate change. Shrubs like ixora and bougainvillea , along with ornamental palms such as areca palms, will not only beautify the park but also support the environment by capturing carbon.Groundcovers like creeping thyme and native grasses will stabilize the soil, prevent erosion, and help retain moisture, contributing to the park's sustainability.In addition to the environmental benefits, the planting strategy follows CPTED (Crime Prevention Through Environmental Design) principles, ensuring the park is safe and welcoming. By strategically placing trees and shrubs, the design maintains clear sightlines, reduces the potential for hidden spots, and creates an open and secure environment for visitors. This design encourages a sense of safety and community engagement while preventing crime.Together, the carbon-absorbing plants and CPTED principles create a park that is not only environmentally sustainable but also safe and accessible.The result is a vibrant, healthy space for the Batu Pahat community to enjoy, promoting both environmental and social well-being.

CONCLUSION

The revitalization of Taman Tepian Penggaram, guided by the concept "The Embrace of Healing Nodes," introduces a visionary approach to urban park design by prioritizing health, sustainability, and community well-being. The new design integrates nature with eco-friendly solutions and inclusive spaces, addressing the physical, mental, and social needs of visitors. Solar-powered lighting reduces the park's carbon footprint while ensuring safe, energy-efficient illumination. Rain gardens enhance stormwater management, mitigating flood risks and promoting ecological diversity through native plants that filter and retain rainwater. The addition of Green Space Pocket Parks provides intimate areas for relaxation and reflection, surrounded by lush greenery, offering a refreshing escape from urban life and promoting overall well-being. This innovative transformation establishes Taman Tepian Penggaram as a model of urban resilience, blending nature, wellness, and community engagement. It enhances the environment and quality of life for Batu Pahat residents, fostering pride and connection through a serene, sustainable retreat.

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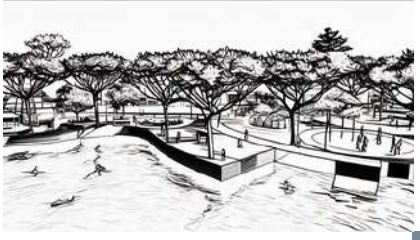
Video Presentation LAN350 INDEPENDENT LANDSCAPE DESIGN FATIHAH NAJUA



Nur Zalia Balqis Binti Mohd Zukri & Ruwaidah Borhan

PROPOSED COMMUNITY PARK AT LEMBAH SIREH RIVER VIEW KOTA BHARU, KELANTAN

The proposed Community Park at Lembah Sireh, Kota Bharu, is an innovative public space designed to serve as a vibrant hub for recreation, social interaction, and cultural engagement. The park will feature expansive green lawns, walking and jogging trails, fitness stations, playgrounds, and sports facilities, catering to all age groups and promoting an active lifestyle. Additionally, cultural spaces for events and performances, along with scenic water features and sustainable landscaping, will enhance its beauty and functionality. Emphasizing eco-friendly design and accessibility, the park aims to foster community bonding, improve well-being, and contribute to environmental conservation, making it a valuable asset for both local residents and the city as a whole. Lembah Sireh, Kota Bharu, is a forward-thinking project that aims to transform an underutilized space into a lively, multifunctional green oasis for the local community. The park will offer a wide range of amenities, including lush green lawns, walking and jogging paths, fitness stations, playgrounds, and designated sports areas to encourage outdoor activities and healthy living. In addition to recreational facilities, the park will feature cultural spaces for community events, performances, and festivals, fostering a sense of connection and cultural pride among residents. Beautiful water features, native plantings, and sustainable design elements will create a calming and environmentally friendly atmosphere. The park's design will prioritize accessibility, ensuring that all individuals, regardless of age or ability, can enjoy its offerings. Ultimately, the Lembah Sireh Community Park will serve as a vibrant social and ecological hub, promoting physical, mental, and environmental well-being, while enhancing the overall quality of life for the residents of Kota Bharu.

Keywords : Ecological Community Park - Verdant Harmony Park - Green Sanctuary

INTRODUCTION

Where creativity meets nature through exceptional landscape design. Based in Lembah Sireh, Kota Bharu, we specialize in transforming outdoor spaces into beautiful, functional environments that harmonize with the natural surroundings. Our team of skilled designers is dedicated to crafting unique landscape solutions that enhance aesthetics, sustainability, and usability. Whether it's for residential, commercial, or public spaces, we focus on creating designs that reflect your vision and the beauty of the landscape. Let us bring your outdoor spaces to life with innovative and thoughtful landscape design.

SITE SYNTHESIS

ISSUE
Open Space


When open space is scarce, it can have far-reaching consequences for both individuals and communities.

SOLUTION

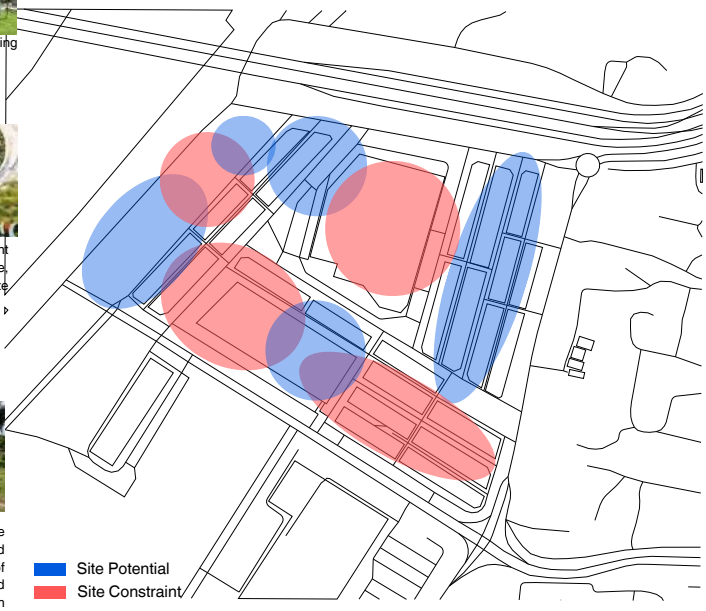

Adding a recreational area to a community environment is an excellent way to improve residents' quality of life, promote physical and mental well-being, and create spaces for social interaction.

ISSUE
Lack of Groundcovers


A site before adding xeriscaping often appears bare and unprotected, leading to several visible and underlying environmental issues. Large patches of bare soil are common, leaving the ground unprotected from direct sunlight, rain, and wind. This exposure can cause the soil to look dry, cracked, or compacted in certain areas.

SOLUTION


Select groundcovers that are native to the area or well-adapted to the climate. Native species are often more resilient, require less water, and support local biodiversity, enhancing the ecosystem naturally



ISSUE
Pahtway and Signage


Before adding pathways and signage at Lembah Sireh, it's essential to consider several preparatory steps to ensure the infrastructure is practical, sustainable, and enhances the visitor experience without harming the natural and cultural landscape.

SOLUTION


Well-constructed pathways and signage allow visitors of all ages and abilities to navigate the site easily. The pathways may be made of materials such as gravel, asphalt, or pavers, providing a stable surface for walking, biking, or other activities.

ISSUE
Lack of Shaded


Before planting shaded trees at Lembah Sireh, it's essential to go through a careful planning process to ensure that the trees will thrive, enhance the landscape, and contribute positively to the local ecosystem.

SOLUTION

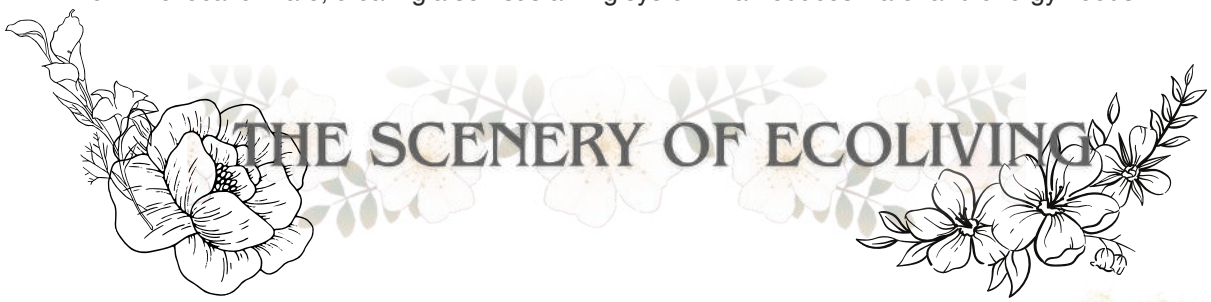

Adding a canopy tree at Lembah Sireh is a valuable way to create natural shade, enhance the landscape, and support local biodiversity. Choose a tree species native to the area or well-suited to the local climate. Native species are better adapted to local soil, climate, and pests, typically requiring less water and maintenance

The site at Lembah Sireh, located in the heart of Kota Bharu, offers a strategic and accessible location for a public park. Its proximity to key urban amenities such as schools, commercial areas, and public transport hubs ensures that the park will be easily accessible to a diverse range of users. The existing topography, with gently sloping areas, provides an opportunity to create distinct zones within the park, including recreational spaces, quiet areas, and event venues, enhancing the overall user experience. One of the key features of the site is its abundant natural greenery, which offers a strong foundation for the park's design concept. Existing trees and vegetation will be preserved and integrated into the new design, helping to maintain the site's natural character while supporting biodiversity. The area also benefits from a relatively low level of noise pollution and air pollution, offering a serene environment conducive to relaxation and outdoor activities. The presence of nearby water sources provides opportunities to incorporate eco-friendly water features, such as ponds or streams, further enhancing the park's ecological value and aesthetic appeal. Overall, the site's combination of natural assets and its strategic location provides an excellent foundation for developing a community park that can serve as a social, recreational, and environmental hub for the people of Kota Bharu.

CONCEPTUAL DEVELOPMENT

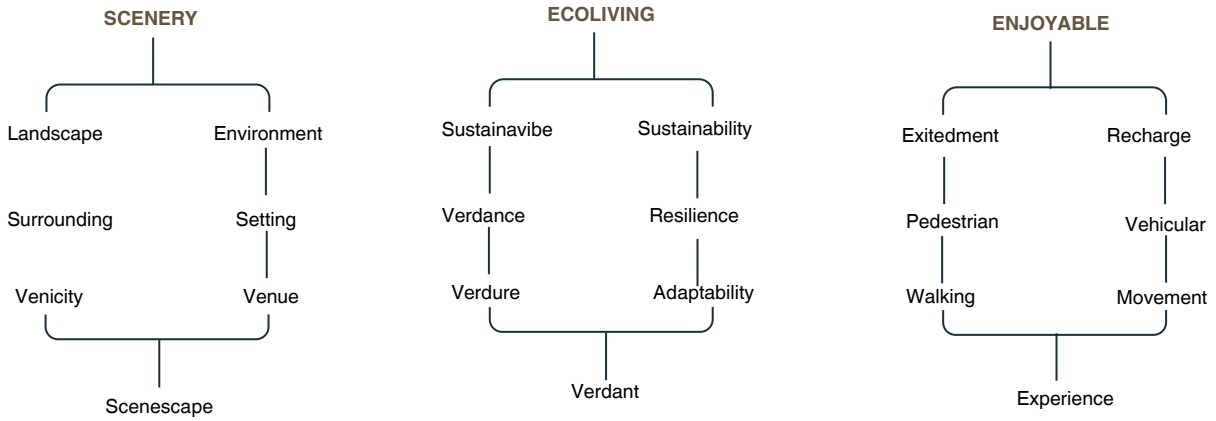
THEME

The scenery of an Eco living theme revolves around creating a balanced, harmonious environment where the beauty of nature thrives alongside eco-conscious, sustainable design. The landscape itself becomes a reflection of ecological principles, fostering both environmental health and human well-being. The visual theme of Eco living is one of simplicity, purity, and connection to nature. The scenery is characterized by abundant greenery, where native plants, trees, and wildflowers dominate the landscape. These plants are carefully chosen for their ability to thrive in the local climate, creating a self-sustaining system that reduces water and energy needs.



CONCEPT

The Verdant Scenescape concept is inspired by the lush, dynamic beauty of nature, where verdant green landscapes blend seamlessly into the broader scene, creating a living, breathing environment that evolves with the seasons. This concept is all about capturing the vitality and richness of plant life while designing spaces that are deeply interconnected with the natural world.



The concept of **The Verdant Scenescape** for the Lembah Sireh Community Park is centered around creating a lush, harmonious environment that seamlessly blends nature with urban life. Inspired by the beauty of Kota Bharu's natural landscapes, this concept aims to provide an immersive green space where the visual and sensory experience of nature is at the forefront.The scenescape aspect refers to the park's carefully curated visual and experiential elements. From winding walking trails that lead visitors through shaded groves and open lawns, to scenic spots with views of ponds, sculptures, and communal spaces, the park will be designed to create a dynamic landscape that offers a different perspective at every turn. The integration of natural elements like rocks, water, and greenery will encourage relaxation, reflection, and engagement with the environment.

The Verdant Scenescape will also emphasize the importance of balance between recreation and preservation, providing spaces for exercise, play, and social interaction while ensuring that the park remains a sanctuary for both people and wildlife. It will be a place where the community can experience the calming and restorative power of nature, connect with each other, and celebrate the rich cultural heritage of Kota Bharu.

MASTERPLAN

The master plan for the proposed Community Park at Lembah Sireh is designed to create a cohesive, multifunctional public space that serves the diverse needs of the local community while embracing sustainable design principles. The layout is organized into distinct zones, each offering unique experiences that cater to different activities and user groups, ensuring that the park remains a welcoming and accessible space for people of all ages and interests.

At the heart of the park, expansive green lawns and tree-lined paths will offer ample space for relaxation, picnics, and informal gatherings. A network of well-designed walking and jogging trails will weave through the park, encouraging physical activity while offering scenic views of the park's natural features. Surrounding the central lawn areas, dedicated spaces for children's playgrounds, fitness stations, and sports courts will be strategically placed to promote active recreation. These zones will be equipped with modern, inclusive facilities that cater to both casual users and those seeking more structured activities.

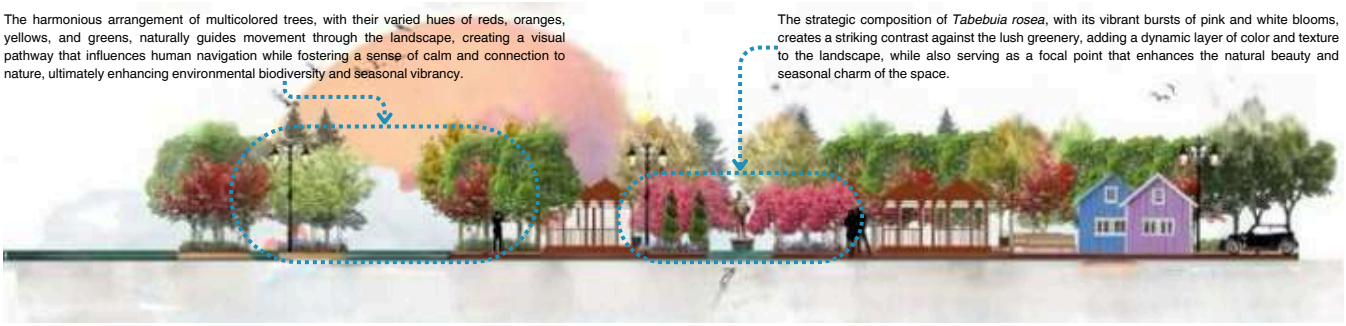
Incorporating environmental sustainability, the master plan will integrate water features such as ponds or small streams, alongside rainwater harvesting systems and eco-friendly materials for landscaping. A designated cultural and event space will provide an area for local performances, markets, and community gatherings, enhancing the park's role as a social hub. Accessibility and safety are key priorities in the design, with clear pathways, ample seating, and well-lit areas that ensure the park is welcoming at all hours. The master plan for the Lembah Sireh Community Park will not only enhance the quality of life for the community but also serve as a model of green urban development, fostering a deeper connection to nature and a stronger sense of community pride.

The expanded Community Area within the park is designed to significantly enhance social engagement and provide a versatile space for a wide range of activities. A central feature is the large, open plaza, which offers ample space for community events, performances, markets, and gatherings. This area will be equipped with flexible seating arrangements, shaded pavilions, and kiosks, making it an ideal location for outdoor dining, cultural celebrations, or casual meetups. The plaza will seamlessly connect to other park areas via well-planned pathways, ensuring smooth circulation and accessibility.

Surrounding the plaza, dedicated spaces for both relaxation and active recreation will be introduced. A new amphitheater or stage will provide a venue for performances and public events, while nearby communal seating areas will allow visitors to enjoy the activities in comfort. To promote physical wellness, fitness zones, yoga decks, and meditation spaces will be integrated, allowing people to engage in exercise or mindfulness practices in a peaceful, natural setting. For families and children, interactive play areas with creative structures, sensory gardens, and educational spaces will be designed to foster learning and imaginative play.

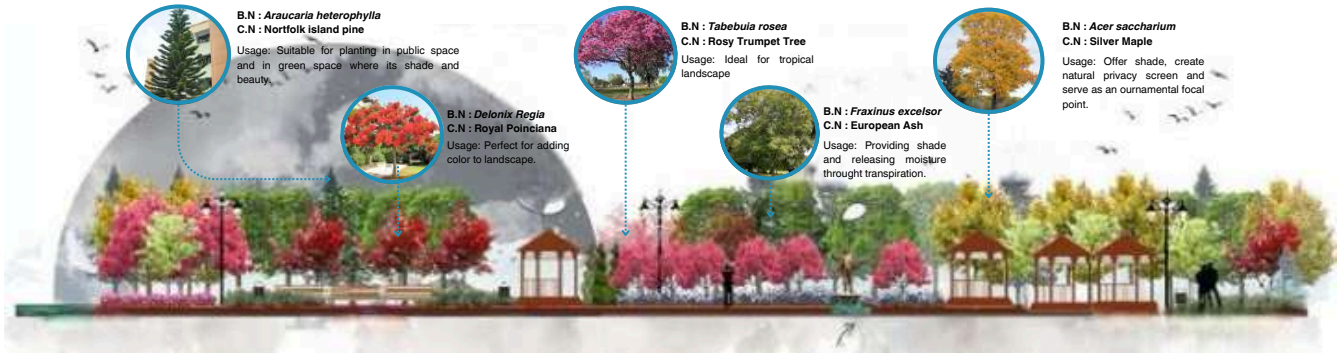
The harmonious arrangement of multicolored trees, with their varied hues of reds, oranges, yellows, and greens, naturally guides movement through the landscape, creating a visual pathway that influences human navigation while fostering a sense of calm and connection to nature, ultimately enhancing environmental biodiversity and seasonal vibrancy.

The strategic composition of *Tabebuia rosea*, with its vibrant bursts of pink and white blooms, creates a striking contrast against the lush greenery, adding a dynamic layer of color and texture to the landscape, while also serving as a focal point that enhances the natural beauty and seasonal charm of the space.



ENLARGEMENT PLAN

PLANTING INSPIRATION



The community site envisions a space where natural beauty and human interaction coexist in perfect harmony. Drawing inspiration from the concept of "the verdant of scenescape," the layout integrates lush greenery with thoughtfully designed spaces that foster a sense of well-being, engagement, and sustainability. The plan is centered around creating a dynamic, yet serene environment, with areas for social connection, recreation, and relaxation that blend seamlessly into the natural landscape. The site is designed to enhance the experience of nature, from verdant walking trails to communal garden spaces, each element reflecting the calming and restorative qualities of green spaces. At the heart of the master plan is a series of interconnected zones that cater to the diverse needs of the community.

GREEN INITIATIVES

PATHWAY

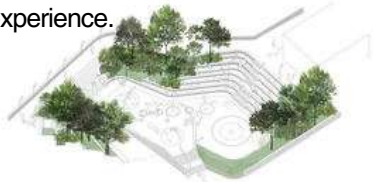
The pathway helps users navigate a site or application smoothly, ensuring they can find information or complete tasks easily and allow people to easily move throughout the landscape without trampling the plants.

GREEN PARKING

Green parking area (also known as a green parking lot or eco-friendly parking area) is a sustainable, environmentally-conscious parking facility designed to minimize the ecological impact of the space.

RECREATIONAL AREA

Create designated rest areas with benches or picnic tables for users to take breaks, enhancing the overall experience.



TREES

B.N : *Tilia cordata*
C.N : Littleleaf Linden

B.N : *Acer saccharium*
C.N : Silver Maple

B.N : *Brachychiton acerifolius*
C.N : Illawarra flame tree

B.N : *Araucaria heterophylla*
C.N : Nortfolk island pine

B.N : *Fraxinus excelsor*
C.N : European Ash

B.N : *Tabebuia chrysotricha*
C.N : Golden Trumpet Tree

B.N : *Conocarpus erectus*
C.N : Silver buttonwood

B.N : *Corymbia*
C.N : Summer beauty

B.N : *Terminalia mantaly*
C.N : Pokok Doa

B.N : *Tabebuia rosea*
C.N : Rosy Trumpet Tree

B.N : *Podacarpus polystachngus*
C.N :Sea teak

B.N : *Largerstroemia speciosa*
C.N : Pride of india

B.N : *Delonix Regia*
C.N : Royal Poinciana

B.N : *Jacaranda mimosifolia*
C.N : Blue Jacaranda

B.N : *Terminalia mantaly*
C.N : Madagascar almond

B.N : *Platycladus orientalis*
C.N : Oriental arbor vitae

B.N : *Peltophorum pterocarpum*
C.N : Yellow Flame

B.N : *Plumeria rubra*
C.N : Red Frangipani

B.N : *Variegated rumph*
C.N : Ficus rumphii

B.N : *Plumeria rubra*
C.N : White Frangipani

SHRUB

B.N : *Jatropha integerrima*
C.N : Peregrina

B.N : *Lantana montevidensis*
C.N : Trailing lantana

B.N : *Nerium oleander*
C.N : Bunga mentega

B.N : *Lantana camara cultivars*
C.N : Samantha

B.N : *Leucophyllum frutescens*
C.N : Barometer bush

B.N : *bougainvillea x buttiana*
C.N : Scarlet queen

B.N : *Bougainvillea x buttiana*
C.N : Mahara

B.N : *Bougainvillea x buttiana*
C.N : Enid lancaster

B.N : *Bougainvillea glabra*
C.N : Formosa

B.N : *Cascable thevetia*
C.N : Yellow oleander

B.N : *Hamelia patens*
C.N : Fire bush

B.N : *Nerium oleander*
C.N : Variegated

PALM

B.N : *Veitchia merilli*
C.N : Manila Palm

B.N : *Roystonia regia*
C.N : Royal Palm

GROUNDCOVERS

B.N : *Axonopus compressus*
C.N : Cow Grass

B.N : *Zoysia matrella*
C.N : Japanese Carpet Grass

CONCLUSION

In conclusion, this project successfully explores the integration of ecological living with natural landscapes, creating an environment that emphasizes sustainability, harmony, and the beauty of verdant spaces. Through the site synthesis and the proposed enlargement plan, the project showcases how the concept of “verdant scenescape” can enhance the connection between people and nature, fostering a deeper appreciation for environmental stewardship. The careful selection of green spaces, sustainable design elements, and thoughtful planning aims to promote ecological balance while offering an inviting and restorative atmosphere for future inhabitants. Ultimately, this project demonstrates how ecological principles and aesthetic considerations can be merged to create a vibrant, sustainable living space that respects and celebrates the natural world. The proposed master plan represents a holistic vision for a sustainable and resilient community, seamlessly integrating eco-conscious design with the beauty of nature. By prioritizing sustainable practices, green infrastructure, and biodiversity, this plan creates a harmonious environment where both people and the planet can thrive. Through careful planning of interconnected green spaces, energy-efficient systems, and community-oriented spaces, the project fosters a strong sense of place, connection, and ecological responsibility. Ultimately, this master plan lays the foundation for a future-focused community that balances modern living with environmental stewardship, ensuring long-term sustainability and quality of life for all.

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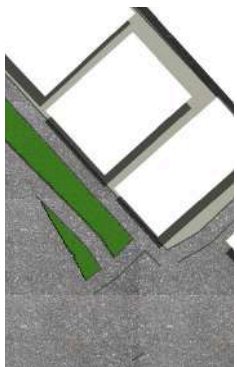


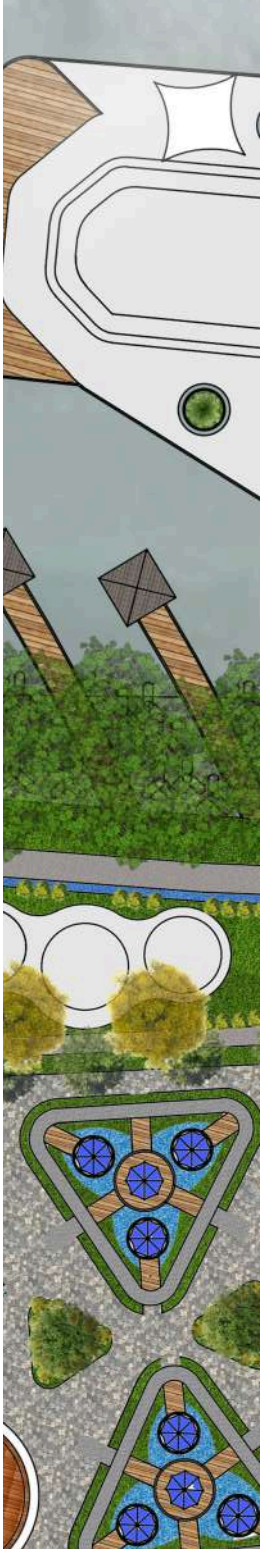

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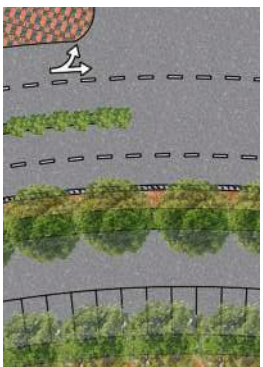


Aiman Amirullah Hanafiah & Izham Abdul Ghani

REHABILITATION OF TAMAN PERTANIAN JUBLI PERAK SULTAN HAJI AHMAD SHAH [TPJPSHAH] IN KUANTAN, PAHANG: ENHANCING ENVIRONMENTAL SUSTAINABILITY THROUGH LANDSCAPE DESIGN

A sustainable Agrotourism Park combines agricultural practices with tourism, allowing visitors to engage with farming while promoting environmental stewardship. At Taman Pertanian Jubli Perak Sultan Haji Ahmad Shah, significant issues include loss of identity, environmental degradation, and infrastructure shortages. The proposed Ecoagry Nexus concept addresses these challenges by creating interactive zones for farming, biodiversity conservation, and cultural engagement. Design solutions encompass native plant gardens, educational centers, and eco-friendly pathways that enhance visitor experiences while minimizing ecological impact. By aligning with the United Nations Sustainable Development Goals (SDGs), particularly those focused on sustainable cities and communities and responsible consumption, the project aims to foster economic growth while preserving local culture and environment. The Ecoagry Nexus will empower local communities by involving them in tourism initiatives, ensuring they benefit economically while maintaining their cultural heritage. By providing educational opportunities about sustainable practices and biodiversity, the park will raise awareness among visitors. The main goal of this project is to make Taman Pertanian Jubli Perak a model for long-term agrotourism that protects the environment and preserves cultural diversity. This will help the local economy and community health while effectively tackling important issues.

Keywords : Agricultural park, Botany park, Agrotourism, Urban farming, Sustainable

INTRODUCTION

This project aims to transform Taman Pertanian Jubli Perak Sultan Haji Ahmad Shah into a premier destination for sustainable agrotourism through the "Ecoagry Nexus" concept. By integrating agricultural practices with tourism, the project seeks to enhance visitor experiences while promoting environmental sustainability. Key objectives include establishing the park as a unique destination that combines agriculture, tourism, and biodiversity; promoting sustainable farming practices; engaging local communities in agrotourism initiatives for economic and cultural benefits; and providing educational opportunities about sustainable agriculture and conservation for visitors.

SITE SYNTHESIS

ENERGY SAVING

The park will implement energy-saving measures through the use of renewable energy sources, such as solar panels, to power facilities. By optimizing energy consumption in visitor centers and agricultural operations, the park can reduce its carbon footprint while promoting sustainable practices.

SHARED COMMUNITY FACILITIES

To foster community engagement, the park will feature shared facilities such as multipurpose halls and communal gardens. These spaces will encourage collaboration among local residents and visitors, hosting workshops, events, and markets that showcase local culture and agriculture.

WATER RECYCLING

The park will implement a water cycling system, utilizing rainwater harvesting and greywater recycling to promote efficient water management, to ensur sustainable agricultural practice while minimize waste and conserving resources.

LIVING LABORATORY

Taman Pertanian Jubli Perak (TPJPSHAH) will function as a living laboratory, offering hands-on experiences in sustainable agriculture, permaculture, and biodiversity conservation, empowering visitors to adopt eco-friendly practices.

HABITAT RESTORATION

The design will include habitat restoration projects aimed at rehabilitating degraded areas within the park. By reintroducing native plant species and creating wildlife corridors, the park will enhance biodiversity and support local ecosystems.

ECOLOGICAL REHABILITATION

The park will prioritize ecological rehabilitation by implementing strategies to restore soil health and improve water quality. Techniques such as cover cropping, composting, and natural filtration systems will be employed to enhance the ecosystem's resilience.

CONCEPTUAL DEVELOPMENT

THEME

IDENTITY		NATURE		COMFORT	
Accessibility	Individuality	Green space	Ecosystem	Simplicity	Harmony
Legacy	Culture	Open space	Free space	Security	Ease
Heritage	Habitat	Nature	Ecological	Tranquility	Serenity
Tourism		Sustainable		Agricultural	

Sustainable agrotourism at Taman Pertanian Jubli Perak Sultan Haji Ahmad focuses on identity, nature, and comfort. It preserves cultural identity by integrating local agricultural practices with tourism, promoting heritage and community pride. Emphasizing nature, the park supports biodiversity through native plant gardens and conservation efforts. Visitor comfort is enhanced with accessible facilities that respect the natural landscape. This approach creates a balanced destination that benefits both the community, government and the native nature surroundding

SUSTAINABLE AGROTOURISM

CONCEPT

SUSTAINBLE		AGRICULTURAL		TOURISM			
Silviculture	Ecotourism	Agronomy	Plantation	Green	Industry	Travel	Recreation
Oasis	Crop production	Biodiversity	Cultivation	Park	Hospitality	Leisure	
Ecology	Voyage	Getaway	Viable	Ecology	Nexus	Farming	Native
Conservation	Ecological	Eco-friendly	Endurable	Plantation	Renewable	Agroecology	

The Ecoagry Nexus at Taman Pertanian Jubli Perak integrates sustainable agriculture, biodiversity conservation, and community engagement. It connects farming, ecology, and local culture, creating an interactive, educational space. The project showcases local farming techniques alongside native plants, promoting sustainability and resource efficiency while minimizing waste. Visitors learn how agriculture impacts the environment, fostering a culture of sustainability. Aligning with the UN Sustainable Development Goals, it enhances ecological health, cultural heritage, and economic viability. This approach positions the park as a model for sustainable agrotourism, preserving Pahang's agricultural legacy while offering a dynamic space for education and recreation.

MASTERPLAN

The Admin Center ensures efficient park operations, supporting management and visitor needs. The Ticketing Gallery provides a centralized entry point for smooth access. Rooftop Dining offers a unique space for relaxation. The Botanical Garden serves as the heart of the park, showcasing diverse plant species for education and leisure.

The Taman Pertanian Jubli Perak Sultan Haji Ahmad Shah masterplan emphasizes a seamless visitor experience with key facilities like the Main Entrance, which serves as an inviting gateway to the park. The Commercial Zone enhances visitor convenience.

This masterplan highlights sustainable agriculture with facilities like the Agricultural Event Space, which hosts workshops and exhibitions, promoting innovation and community engagement. The Nursery focuses on cultivating diverse plant species, reinforcing biodiversity and supporting agricultural activities.

The (CPPC) facilitates efficient handling of produce, enhancing the farm-to-market process. The Organic Farm emphasizes sustainable farming ,offering educational opportunities and fresh produce for visitors and locals peoples while promoting environmental stewardship and

ENLARGEMENT PLAN

The enlargement plan for Taman Pertanian Jubli Perak Sultan Haji Ahmad Shah highlights areas as a key zones for sustainable agriculture and innovative farming techniques. R&D centre focuses on agricultural and environmental research also serves as a research center, focusing on precision agriculture, vertical farming, and agroecology, while providing workshops and training sessions. The Hi-Tech & Urban Farm, showcases hydroponics, aquaponics, and automated irrigation systems, demonstrating eco-friendly urban farming practices.

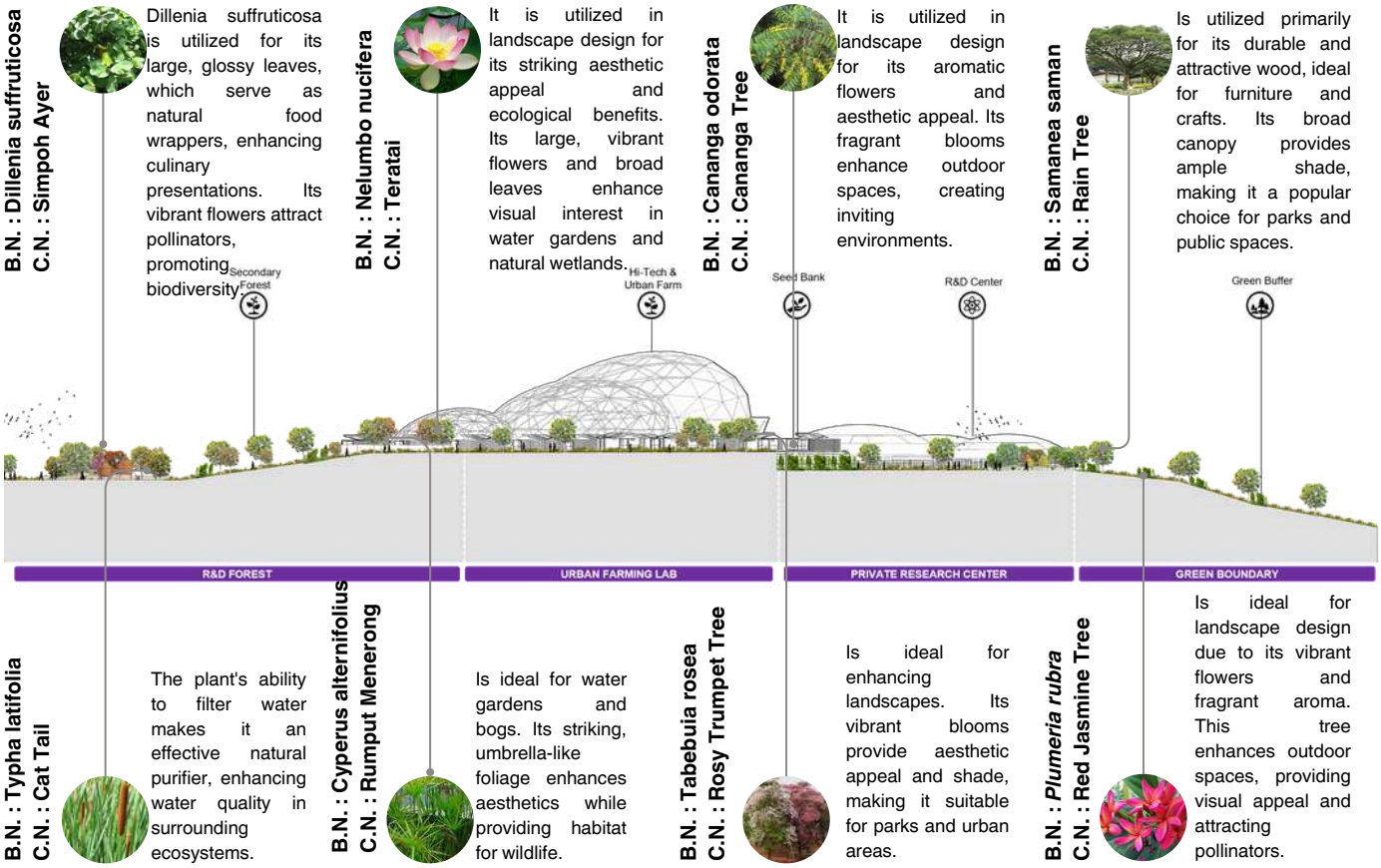
The Wetland Park plays a vital role in preserving biodiversity and enhancing ecological balance. It supports various plant and animal species while educating visitors on the importance of wetlands in water purification and flood control.

The Zero-Carbon Chalet, employs renewable energy and water-saving technologies, promoting sustainable living. The Orchard Gardens, preserves biodiversity by cultivating native fruit species and offers interactive harvesting experiences, enhancing agrotourism. These zones collectively advance sustainable agricultural practices, biodiversity conservation, promoting economic growth.

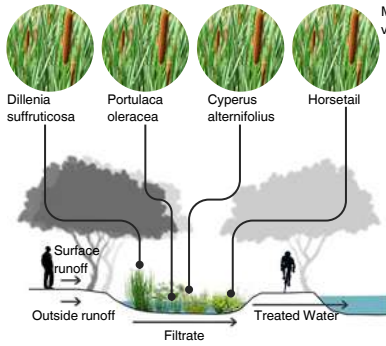
The Hi-Tech & Urban Farm educates visitors on modern agricultural technologies, addressing food security challenges sustainably and how technology can revolutionize agriculture while minimizing its environmental footprint. The Zero-Carbon Chalet complements this by integrating sustainable living practices into tourism. The Orchard and Mix-Fruit Farm provide hands-on experiences, showcasing diverse fruit varieties and promoting sustainable farming techniques. The Seed Banks serve as a repository for preserving native plant species, ensuring biodiversity and safeguarding genetic resources for future generations. Together, these areas enhance the park's appeal as a sustainable agrotourism destination, fostering environmental awareness and economic development.

PLANTING INSPIRATION

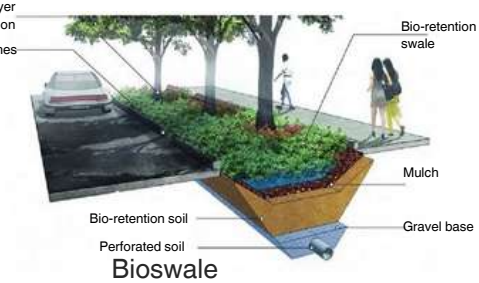
The selection of trees for Taman Pertanian Jubli Perak Sultan Haji Ahmad Shah is critical to achieving the park's goals of sustainability, biodiversity, and community engagement. Native tree species will be prioritized to enhance local ecosystems and provide habitat for wildlife. These trees will be chosen for their adaptability to the local climate, ensuring minimal maintenance and water usage. Additionally, the selected trees will contribute to soil health, improve air quality, and provide shade for visitors. By incorporating educational signage about the ecological benefits of each tree species, the park will foster awareness and appreciation for native flora among visitors.



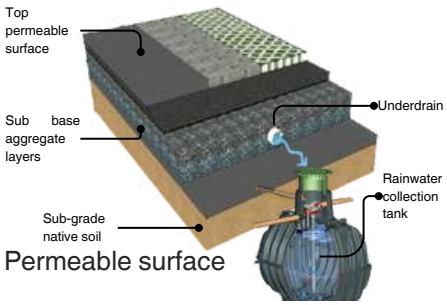
GREEN INITIATIVES



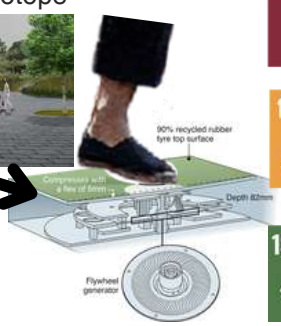
Cleansing biotope



Bioswale



Permeable surface



Renewable energy (pavegen)

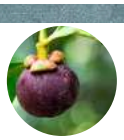
Cleansing biotopes, bioswales, permeable surfaces, and Pavegen systems support green initiatives and align with Sustainable Development Goals. Cleansing biotopes naturally purify water, enhancing water quality. Bioswales manage stormwater runoff, improving urban ecosystems. Permeable surfaces reduce urban flooding, promoting sustainable infrastructure. Pavegen harnesses kinetic energy from foot traffic, fostering renewable energy. These technologies contribute to sustainable urban development and environmental conservation.

TREES

B.N. : *Durio zibethinus*
C.N. : Durian Tree

B.N. : *Carica papaya*
C.N. : Papaya Tree

B.N. : *Artocarpus heterophyllus*
C.N. : Jackfruit Tree



B.N. : *Garcinia mangostana*
C.N. : Masgosteen Tree

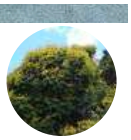
B.N. : *Nephelium lappaceum*
C.N. : Rambutan

B.N. : *Psidium guajava*
C.N. : Guava Tree

B.N. : *Mangifera indica*
C.N. : Mango Tree

B.N. : *Samanea saman*
C.N. : Rain Tree

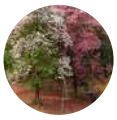
B.N. : *Diospyrus virginia*
C.N. : Persimmon Tree



B.N. : *Pelthoporum pterocarpum*
C.N. : Copperpod

TREES

B.N. : *Plumeria rubra*
C.N. : Red Jasmine Tree



B.N. : *Tabebuia rosea*
C.N. : Rosy Trumpet Tree

B.N. : *Macaranga gigantea*
C.N. :Elephant's Ear Tree

B.N. : *Cananga odorata*
C.N. : Cananga Tree

B.N. : *Salix babylonica*
C.N. : Weeping Willow Tree

PALMS

B.N. : *Cocos nucifera*
C.N. : Coconut Tree

B.N. : *Areca catechu*
C.N. : Betel Nut Palm Tree

B.N. : *Roystonea regia*
C.N. : Royal Palm Tree

BAMBOOS

B.N. : *Phyllostachys aurea*
C.N. : Golden Bamboo Tree

B.N. : *Schizostachyum brachyladum*
C.N. : Bali Bamboo Tree

SHRUBS

B.N. : *Ananas comosus*
C.N. : Pineapple Tree

B.N. : *Citrullus lanatus*
C.N. : Watermelon Tree

AQUATICS

B.N. : *Dillenia suffruticosa*
C.N. : Simpoh Ayer Plant

B.N. : *Portulaca oleracea*
C.N. : Gelang Pasir

B.N. : *Cyperus alternifolius*
C.N. : Rumput Menerong

B.N. : *Equisetum hyemale*
C.N. : Buluh Air

B.N. : *Typha latifolia*
C.N. : Cat Tail

B.N. : *Nelumbo nucifera*
C.N. : Teratai

B.N. : *Thalia geniculate*
C.N. : Water Canna

TURF

B.N. : *Axonopus compressus*
C.N. : Cow Grass

The selection of trees for Taman Pertanian Jubli Perak Sultan Haji Ahmad Shah is vital for enhancing its design usage, supporting green initiatives, and promoting sustainable agricultural practices. Carefully chosen tree species can provide numerous ecological benefits, such as improving air quality, enhancing biodiversity, and offering habitat for wildlife. By integrating native trees into the park's landscape, the design fosters a connection to local ecosystems, ensuring that the trees thrive in their natural environment while requiring minimal maintenance. This aligns with green initiatives aimed at promoting sustainability and reducing environmental impact. Furthermore, selected trees contribute to agricultural productivity by providing shade for crops, reducing soil erosion, and improving water retention in the soil. They can also serve as windbreaks, protecting crops from harsh weather conditions. Overall, thoughtful tree selection enhances the park's aesthetic appeal while supporting its mission to educate visitors about sustainable practices and the importance of biodiversity, making it a model for future agrotourism projects.

CONCLUSION

The future of Taman Pertanian Jubli Perak Sultan Haji Ahmad Shah looks promising as it evolves into a leading sustainable agrotourism destination. By implementing the Ecoagry Nexus concept, the park aims to integrate agricultural practices with biodiversity conservation, enhancing visitor experiences while promoting environmental stewardship. Future developments will focus on expanding educational programs that teach sustainable farming techniques and the importance of preserving local ecosystems. Additionally, the park will leverage community engagement initiatives to ensure local residents benefit economically and culturally from tourism activities. Infrastructure improvements will create accessible facilities that cater to diverse visitor needs while minimizing ecological impact. As the park aligns with relevant Sustainable Development Goals, it will contribute to responsible consumption, climate action, and sustainable community development. With ongoing support and investment in green initiatives, Taman Pertanian Jubli Perak is poised to become a model for sustainable tourism, fostering a deeper appreciation for agriculture and nature among visitors while enhancing the quality of life for surrounding communities.

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Aiman Asrullah Bin Hanafiah & Suriati Binti Ahmad

PROPOSED LANDSCAPE OPEN SPACE DESIGN DEVELOPMENT AT BUKIT JALIL, KUALA LUMPUR

The proposed landscape design at Bukit Jalil aims to tackle site-specific challenges while enhancing the area's urban environment and promoting sustainability. Bukit Jalil's high humidity and substantial rainfall necessitate careful plant selection and robust drainage systems to prevent overgrowth, manage pests, and avoid waterlogging. The solution is centered on creating an "Urban Sanctuary," with "Biophilic Corridors" serving as the core concept. These corridors integrate nature into the urban setting through continuous green pathways adorned with lush vegetation, water features, and natural materials. They foster a deep connection with nature, reduce stress, improve mental health, and support biodiversity by providing habitats for local wildlife. The central park area, complemented by walking and cycling paths, playgrounds, sports facilities, and community spaces, caters to diverse recreational needs and promotes active lifestyles. Sustainable features, such as urban forests, wildlife zones, and rain water harvesting, demonstrate environmental responsibility. This design aligns with the United Nations Sustainable Development Goals (SDGs), particularly SDG 11, which focuses on creating inclusive, safe, resilient, and sustainable urban spaces. Additionally, it supports SDG 3 by promoting health and well-being and SDG 13 by ensuring sustainable consumption and production patterns. By addressing site-specific challenges and leveraging opportunities, the proposed landscape design at Bukit Jalil aims to create a vibrant, welcoming, and environmentally responsible urban park. This development will enhance the quality of life for local residents, foster community engagement, and preserve the area's natural and cultural heritage. Through this thoughtful and sustainable approach, Bukit Jalil will transform into a true urban sanctuary that harmoniously integrates nature with urban living, reflecting the essence of biophilic design.

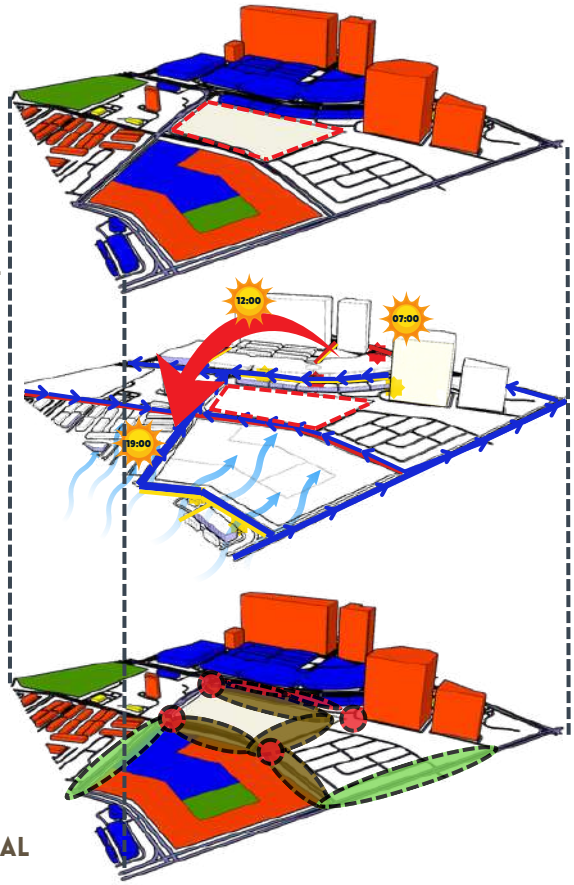
Keywords : Urban Park , Biophilic Design , Miyawaki Forest , Shinrin-Yoku

INTRODUCTION

These 20 acres of land located between Pavilion Bukit Jalil and KL Wellness City are under the administration of Dewan Bandaraya Kuala Lumpur (DBKL). It is an undeveloped area that requires new looks to cater the suburb of Bukit Jalil. The proposed landscape open space design at Bukit Jalil aims to create a functional, beautiful, and sustainable urban park. It will utilize the area's climatic conditions, historical significance, and existing vegetation to create a vibrant, welcoming space for the local community. This comprehensive plan will enhance the quality of life for residents while preserving and celebrating the natural and cultural heritage of Bukit Jalil. The design will also balance functionality, aesthetics, and sustainability.

SITE SYNTHESIS

COMPOSITE MAP



The site between Pavilion Bukit Jalil and KL Wellness City is undeveloped and characterized by overgrown bushes and poor maintenance. Its potential lies in its strategic location, offering opportunities to enhance community interaction, biodiversity, and ecological resilience. The proposed design focuses on creating green pathways, promoting biodiversity through native vegetation and pollinator-friendly planting schemes. Accessibility is enhanced through well-connected pedestrian and cycling paths. Maintenance strategies include regular pruning and community-led initiatives. The design incorporates stormwater management features to mitigate flooding risks and support sustainable urban drainage. Open spaces are curated to encourage interaction and wellness, with shaded seating areas, fitness stations, and sensory gardens. This approach transforms the neglected site into a vibrant urban sanctuary, addressing its constraints while fostering ecological balance and promoting social cohesion.

DESIGN IDEAS

1. URBAN FOREST AND GARDENS

Create urban forests, community gardens, and green buffers to enhance biodiversity, offer recreational spaces, and improve air quality.

2. ECOLOGICAL ZONES

Designating areas for different ecological functions, such as butterfly gardens and bird sanctuaries, supports biodiversity and conservation efforts.

3. SUSTAINABLE WATER FEATURES

Implementing rain gardens, bioswales, and rain water harvesting helps manage stormwater sustainably, reducing runoff and improving water quality.

4. SPORTS AND RECREATIONAL SPACES

Provides facilities for sports education and training programs. Encourages physical activity and healthy lifestyles.

SUSTAINABLE DEVELOPMENT GOALS (SDG)

Urban parks promote health, reduce stress, and improve air quality. Landscape design enhances sustainability by creating resilient spaces, incorporating climate-resilient plant species, and water management systems.

CONCEPTUAL DEVELOPMENT

THEME

CONCEPT

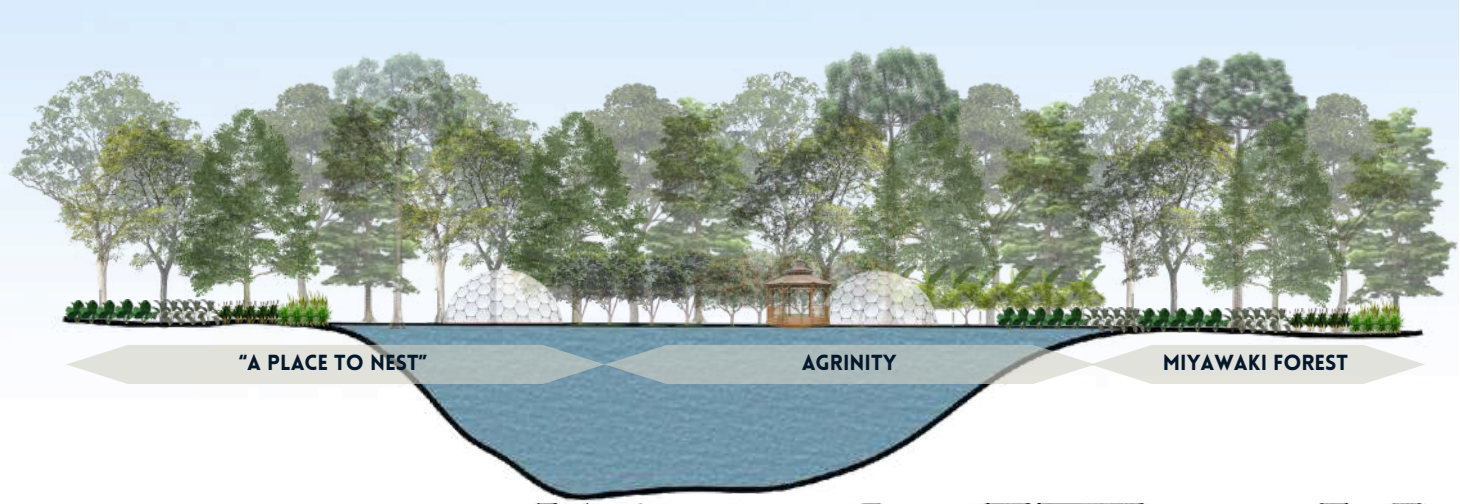
BIOPHILIC CORRIDORS

The **"Urban Sanctuary"** theme aims to create a harmonious space where nature and urban life coexist, offering a refuge for people and wildlife. It prioritizes community engagement, biodiversity, and sustainability through inclusive spaces, native plant species, pollinator habitats, and green corridors. Eco-friendly practices ensure long-term environmental resilience, transforming the park into a thriving sanctuary for future generations. **"Biophilic Corridors"** are urban park designs that integrate nature into urban spaces, creating green pathways that connect people with the natural environment. These corridors blend urban infrastructure with natural elements, promoting mental and physical health, reducing urban heat, and improving air quality. They transform urban parks into dynamic living systems, enhancing ecological resilience and serving as welcoming sanctuaries for urban communities. **Biophilic design** is a principle that integrates natural elements into built environments, promoting a connection between people and nature. It is crucial in urban park design, incorporating elements like natural light, water, greenery, and organic forms to create immersive experiences. This approach emphasizes biodiversity and sustainability, making urban parks restorative sanctuaries for both people and the environment.

MASTERPLAN

The masterplan for the proposed urban sanctuary integrates diverse, interconnected spaces designed to promote social engagement, ecological balance, and sustainable living. At its heart lies the **Energia Nexus**, a vibrant hub featuring renewable energy installations, interactive play areas, and open spaces for wellness activities, symbolizing the park's commitment to sustainability and community health. The **Miyawaki Forest** introduces dense, fast-growing native vegetation to restore biodiversity, serve as a carbon sink, and create a serene retreat for visitors seeking a connection with nature. **Artisan Plaza** celebrates creativity and culture, providing a platform for local artists, performances, and workshops, while **Bazaar Boulevard** features a lively market street that supports local businesses and fosters economic growth. **"A Place to Nest"** offers tranquil spaces for relaxation, featuring shaded seating areas and bird-friendly habitats, encouraging both human and avian visitors to find refuge. Lastly, **Agrinity** empowers residents to engage in sustainable practices through urban farming, offering shared plots and educational programs that promote food security and environmental awareness. Together, these spaces form a cohesive, biophilic masterplan that transforms the neglected site into a dynamic urban sanctuary, fostering connections between people, nature, and the built environment.

The **Miyawaki Forest Method** is an innovative and proven technique for creating dense, fast-growing, and biodiverse forests in urban and degraded areas. This method was pioneered by Japanese botanist Dr. Akira Miyawaki in the 1970s. It emphasizes the natural potential of native plant species to restore ecosystems quickly and efficiently. The core principle of Miyawaki Forest Method is Native Species Selection, Dense Planting, Natural Growth Patterns, Soil Preparation and No Maintenance After 3 Years. Benefits of Miyawaki Forests, Rapid Growth, Biodiversity, Carbon Sequestration, Urban Cooling, Flood Mitigation and Community Engagement.



ENLARGEMENT PLAN

The **Artisan Plaza** is a cultural hub in an urban park, showcasing local craftsmanship and arts. It features open-air spaces, kiosks, gallery spaces, and pop-up booths, incorporating biophilic design. The **Bazaar Boulevard** is a pedestrian-friendly market street, hosting bazaars, food stalls, and community events. It's designed for accessibility and sustainability, with solar-powered lighting and rainwater-harvesting systems.

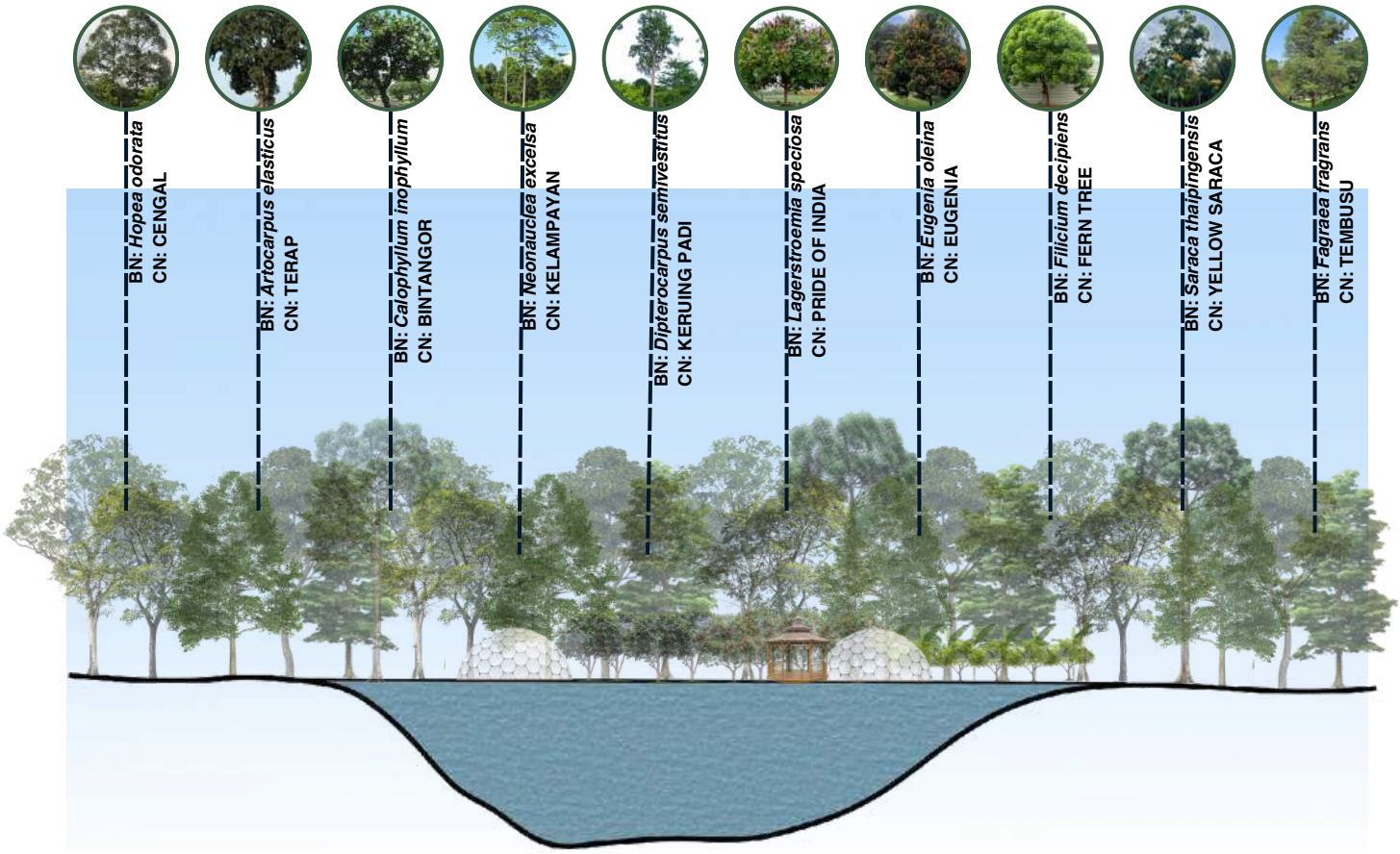
The **Lake** is a central ecological feature, enhancing biodiversity and providing habitats for various species. It's surrounded by boardwalks, viewing decks, and picnic zones, with educational signage to educate visitors about its role in biodiversity and sustainability.

The **Energia Nexus** is a sustainable park that combines technology and community engagement. It uses solar panels, kinetic energy tiles, and wind turbines to generate clean energy, powering lighting, water features, and charging stations. The park also features shaded seating areas, outdoor fitness zones, and performance stages. The **"A Place to Nest"** area is designed to provide refuge for wildlife and visitors, promoting ecological functionality and harmony between humans and the environment.

PLANTING INSPIRATION

The planting selection is rooted in green initiatives aimed at enhancing biodiversity, ecological resilience, and sustainability. Native and fast-growing plant species are selected to replicate a natural forest ecosystem. These plants are carefully chosen based on their compatibility with the local climate, soil conditions, and ability to support biodiversity. Selected species that provide food, habitat, and shelter for birds, pollinators, and small mammals. The dense, multi-layered planting mimics natural forests, sequesters carbon efficiently, improves air quality, and regulates microclimates, aligning with sustainability goals.

Other features plantings that attract and support urban wildlife, particularly birds and pollinators. Shrubs are selected for their nectar-rich flowers, while fruiting species provide food for wildlife. Layered vegetation, including low-growing grasses and ferns ensures varied nesting opportunities. These plants also enhance soil health, promote natural pest control, and reduce reliance on artificial fertilizers and pesticides.



GREEN INITIATIVES

The implementation of green initiatives throughout the park emphasizes sustainability, biodiversity, and environmental resilience. Key strategies include using renewable energy systems, such as solar panels and wind turbines, to power park facilities, reducing carbon emissions. Rainwater harvesting systems and permeable surfaces are integrated to manage stormwater effectively, minimizing flooding risks and conserving water. Native and adaptive plant species are extensively used to enhance biodiversity, reduce maintenance needs, and support pollinators. The park also incorporates waste management initiatives, such as recycling stations and composting areas, to minimize landfill contributions. Green infrastructure, like bioswales and urban forests, further supports ecosystem services, such as improving air quality and cooling urban heat islands. Community-driven programs, including urban agriculture and environmental education, ensure long-term engagement and stewardship.

SDG 11: Sustainable Cities & Communities

Spaces like community agriculture plots and Artisan Plaza provide opportunities for local participation in sustainable practices. Workshops on composting, vertical gardening, and energy conservation empower the public.

SDG 13: Climate Action

By incorporating climate-resilient plant species in the Miyawaki Forest, water management systems, the landscape design can help mitigate urban heat islands.

SDG 15: Life on Land

Native plants in the Miyawaki Forest and pollinator-friendly gardens, such as butterfly meadows, enhance biodiversity. Wildlife corridors and nesting boxes are integrated to support birds, bees, and small mammals.

FOREST TREES

BN: *Koompassia excelsa*
CN: TUALANG
Plants that can withstand waterlogging or heavy rainfall. Trees and plants effective at absorbing CO_2.

BN: *Syzygium syzygioides*
CN: KELAT HITAM
Plants effective at absorbing pollutants or stabilizing degraded soils.

BN: *Dyera costulata*
CN: JELUTONG
Plants effective at absorbing pollutants or stabilizing degraded soils.

BN: *Alstonia angustiloba*
CN: PULAI
Plants effective at absorbing pollutants or stabilizing degraded soils.

BN: *Shorea leprosula*
CN: MERANTI
Trees and plants effective at absorbing CO_2. Plants that can withstand waterlogging or heavy rainfall.

BN: *Dipterocarpus semivestitus*
CN: KERUING PADI
Plants that act as visual or sound buffers or reduce wind erosion.

TREES

BN: *Ficus benjamina*
CN: WEEPING FIG
Plants for natural surveillance and physical barriers to deter crime.

BN: *Khaya senegalensis*
CN: AFRICAN MAHOGANY
Large trees providing shade and cooling effects.

BN: *Magnolia champaca*
CN: CEMPAKA
Trees and plants effective at absorbing CO_2.

BN: *Cinnamomum verum*
CN: CINNAMON
Fragrant plants that enhance the sensory experience.

BN: *Lagerstroemia speciosa*
CN: PRIDE OF INDIA
Plants with visually striking forms, colors, or textures.

BN: *Pterocarpus indicus*
CN: ANGSANA
Large trees providing shade and cooling effects.

SHRUB AND FERNS

BN: *Alocasia macrorhiza*
CN: GIANT TARO
Plants for natural surveillance and physical barriers to deter crime.

BN: *Calathea luthea*
CN: CIGAR PLANT
Plants that can withstand waterlogging or heavy rainfall.

BN: *Nephrolepis exaltata*
CN: BOSTON FERN
Plants that can withstand waterlogging or heavy rainfall.

BN: *Aesplenium nidus*
CN: BIRD NEST FERN
Plants that attract birds through fruits, flowers, or shelter.

BN: *Dracaena fragrans*
CN: CORN PLANT
Plants that can thrive with minimal water.

BN: *Heliconia spp.*
CN: HELICONIA
Plants that act as visual or sound buffers or reduce wind erosion.

BN: *Costus speciosus*
CN: CREPE GINGER
Plants that act as visual or sound buffers or reduce wind erosion.

BN: *Philodendron spp.*
CN: PHILODENDRON
Plants for natural surveillance and physical barriers to deter crime.

BN: *Monstera deliciosa*
CN: SWISS CHEESE PLANT
Plants with visually striking forms, colors, or textures.

BN: *Strelitzia reginae*
CN: BIRD OF PARADISE
Plants that attract birds through fruits, flowers, or shelter. Plants with visually striking forms, colors, or textures.

BN: *Pandanus amaryllifolius*
CN: SCREWPINE
Plants that can thrive with minimal water. Fragrant plants that enhance the sensory

BN: *Dieffenbachia seguine*
CN: DUMB CANE
Plants with visually striking forms, colors, or textures.

CONCLUSION

The proposed urban park represents a transformative vision for creating a sanctuary where nature, community, and sustainability harmoniously coexist. By integrating innovative green initiatives, biodiversity-focused design, and spaces that foster social interaction, the park addresses the challenges of urbanization while promoting ecological resilience and community well-being. Each thoughtfully curated space—from the vibrant Energia Nexus to the tranquil Miyawaki Forest and inclusive community agriculture—reflects a commitment to reconnect people with nature and supporting a sustainable future. Looking ahead, the park aspires to become a beacon of environmental stewardship and a model for future urban developments. It aims to inspire a culture of sustainability, where communities actively engage in preserving the environment and nurturing biodiversity. As a living, evolving landscape, the park holds the promise of adapting to the needs of future generations, ensuring its role as a thriving urban sanctuary that enriches lives, restores ecosystems, and contributes to a greener, more resilient cityscape.

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Amru-Izz Abdul Razak & Siti Rasidah Md Sakip

PROPOSED ECO-TOURISM AT SUNGAI TAMU, HULU TAMU, BATANG KALI, SELANGOR

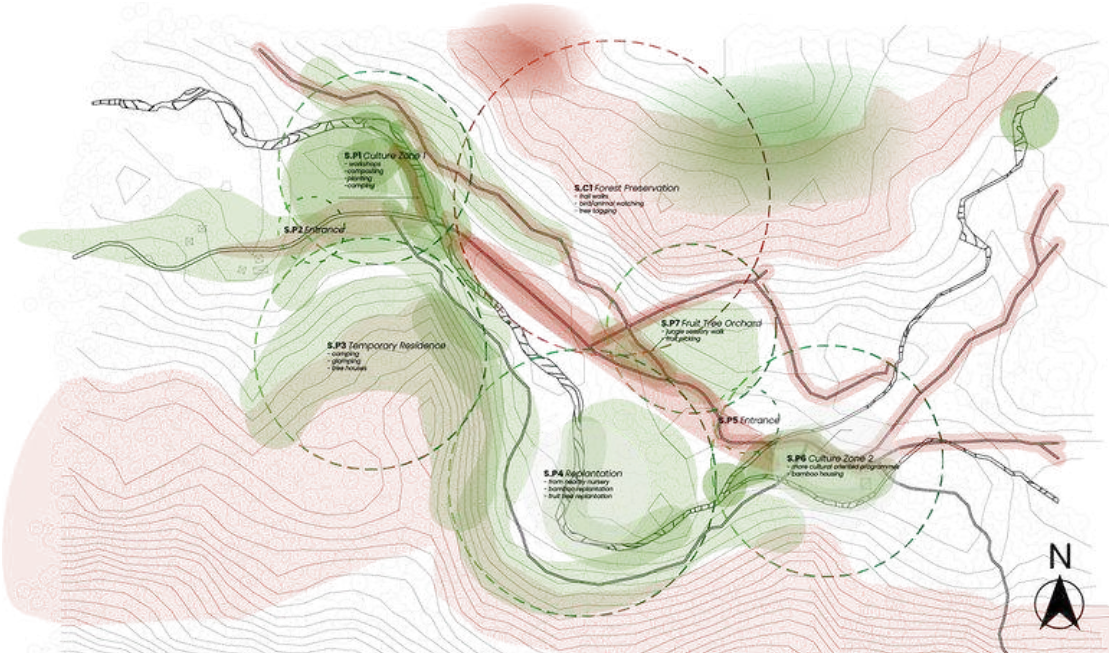
Located to the east of Batang Kali lies the small village of Hulu Tamu, home to the Temuan people, a Malay-proto Orang Asli tribe. This site comprises two primary areas designated for eco-tourism development. The first, Kem Harimau Lompat, is owned by Mr. Basri, a local Orang Asli, and has been passed down as a family heirloom. The second, Kem Kentut, is managed by the local Orang Asli community under the guidance of the Tok Batin, though it lacks specific ownership. Both leaders have agreed on the early stages of planning and development for these sites. The key challenges faced are deeply rooted in cultural and environmental issues. The Orang Asli are often exploited by middlemen who purchase their harvests at minimal prices, leaving them with little profit. This forces the community to overharvest the forests in an attempt to sustain their livelihoods, leading to a gradual decline in production. Compounding these challenges are site-specific issues, such as soil degradation near the riverbanks, which further threaten the ecosystem and the long-term sustainability of their natural resources. The primary objective of the design is to create a space that celebrates the Temuan culture and the surrounding natural beauty, while preserving the site's integrity and authenticity. Eco-tourism serves as the ideal approach, integrating culture, nature, and education into one cohesive vision. A key feature of the proposal is the establishment of a large bamboo farm, envisioned as the main source of building materials for the site. This initiative not only supports sustainable construction but also empowers the Orang Asli community to develop expertise in bamboo craftsmanship. By mastering these skills, the locals could expand their influence, offering their expertise to other villages and potential clients. This project ultimately seeks to blend sustainability with cultural preservation, fostering economic growth through eco-tourism.

Keywords : Nature-based Tourism - Traditional Ecological Knowledge (TEK) design based - Sustainable Design

INTRODUCTION

Eco-tourism has emerged as a **sustainable approach** to harmonize **cultural preservation**, **environmental conservation, and community empowerment**. Within the village of Hulu Tamu, located east of Batang Kali and home to the Temuan tribe—a Malay-proto Orang Asli community—there lies an opportunity to **transform** ancestral lands into **thriving eco-tourism hubs**. This project was inspired by the **rich cultural heritage of the Temuan people**, their **deep connection to nature**, and their **desire to preserve** their land while **creating sustainable economic opportunities** for future generations.

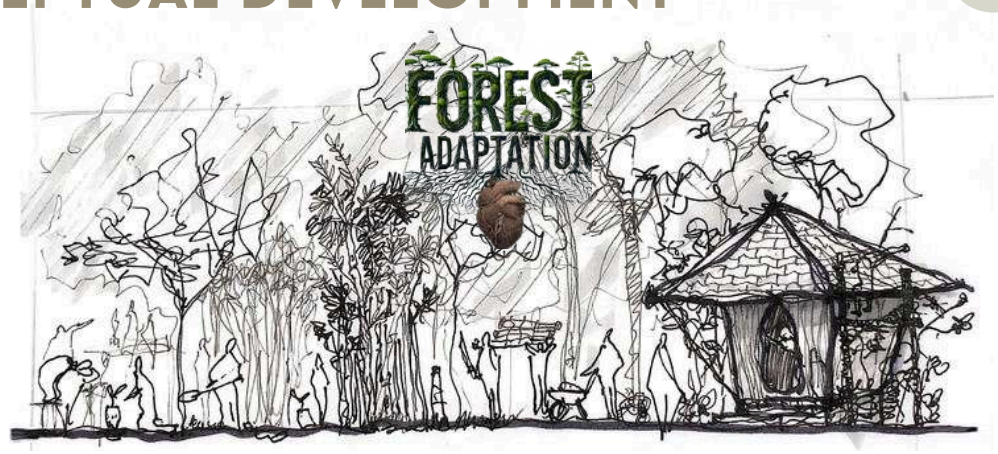
SITE SYNTHESIS



The development of Kem Harimau Lompat and Kem Kentut provides a unique opportunity to balance public-friendly experiences with more intimate, **nature-immersive activities**. Kem Harimau Lompat, with its accessible location, lends itself to **community-oriented activities** such as cultural showcases, **workshops, and eco-tourism programs** aimed at larger audiences. Meanwhile, Kem Kentut, nestled deeper in the forest, offers an environment ideal for more **meaningful and exclusive** experiences. Its vertical landform presents opportunities for creative uses, such as treetop residences and **adventure-based activities** that engage visitors with the **forest's natural layers.** The design also considers the rugged terrain of Kem Kentut, preserving rough tracks for extreme sports such as off-roading and mountain biking, which appeal to adventure enthusiasts. To ensure accessibility for a broader audience, **alternative pathways** such as suspension bridges or carefully planned trails are proposed to connect the two sites seamlessly, enhancing the overall eco-tourism experience. This **duality of purpose**—balancing public engagement and intimate nature retreats—not only amplifies the site's potential but also reinforces its role as a **sustainable model of eco-tourism** that **respects the land's unique character** and supports the Temuan community.

CONCEPTUAL DEVELOPMENT

THEME



Forest adaptation refers to the **vernacular style** of the Orang Asli. An ensemble of climate actions that **employ forests and trees** in support of **climate change adaptation** and **resilience,** including **sustainable forest management**, **forest conservation and restoration, reforestation and afforestation**. Forest-based adaptation can help address the gaps between current adaptation actions and the adaptation needed for reducing climate-related risks and impacts, while contributing to most of the Sustainable Development Goals and promoting strong synergies with mitigation.

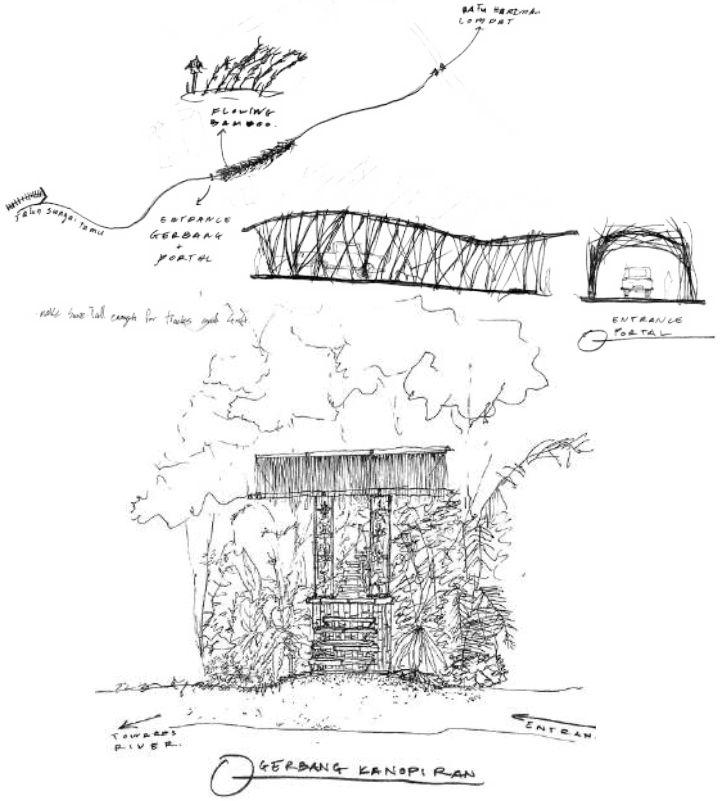
CONCEPT

The concept of “Tamu”, meaning “visit” or “welcoming,” is at the heart of Tamu Bamboo, an **immersive realm crafted** entirely from **bamboo.** This space invites visitors into a world where nature, culture, and sustainability intertwine, offering an experience that **feels like stepping into another dimension**—one defined by the natural elegance and cultural significance of bamboo. All proposed designs revolve around **locally sourced bamboo**, creating a sense of **regeneration and continuity**. While bamboo is a sustainable material, it does not endure for eons. This **impermanence**, however, is **embraced as part of the site’s philosophy.** The central bamboo workshop becomes a creative powerhouse, constantly evolving with new and innovative designs to replace the old. This approach ensures not only the **longevity** of the workshop’s purpose but also reflects the ever-renewing spirit of Tamu Bamboo—a place where **heritage and modern ingenuity** come together in harmony.

MASTERPLAN

Nestled deep in the forest, the site posed **unique challenges** for intricate design work. The solution? **Embrace simplicity** and work harmoniously with the natural contours, **weaving pathways through** the nooks and crannies the land offered. Upon entering, visitors are greeted by a stunning **bamboo portal** stretching over **100 meters**, evoking the sensation of **stepping into a cosmic gateway**—rooted in nature. This seamless blend of organic design and mystical ambiance invites them to journey through a realm where nature and imagination intertwine.

In Orang Asli tradition, gates—or **Pintu Gerbang**—hold deep cultural significance. They are more than mere entrances; they serve as powerful **symbols of identity**, embodying the essence of their community. A well-crafted gate is not only a point of entry but also a **statement of pride**, offering a **warm and inviting welcome** to those who pass through. It reflects the Orang Asli's connection to their heritage, blending a sense of openness with an enduring cultural presence.



ENLARGEMENT PLAN

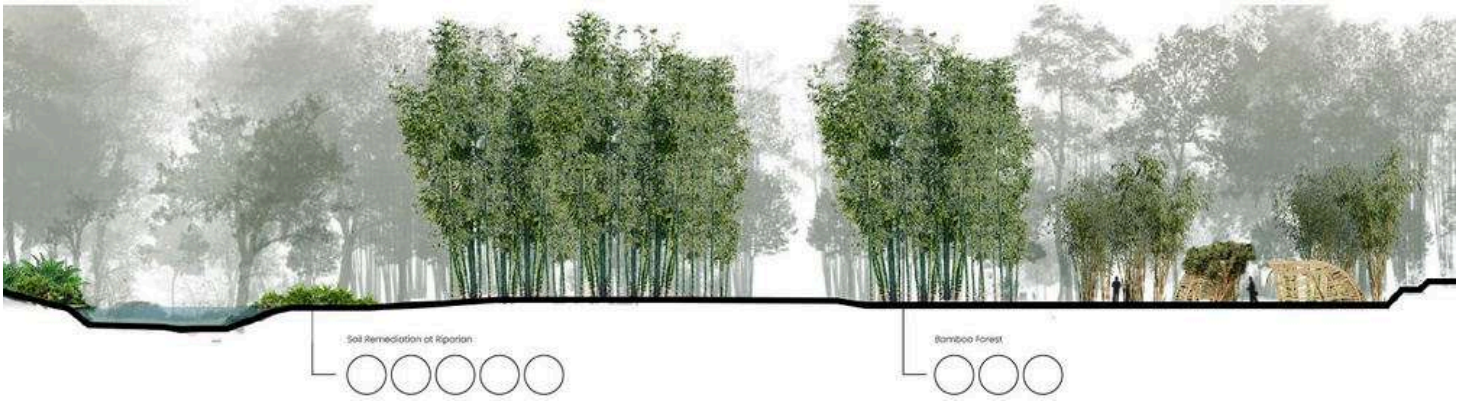
This project embodies a harmonious blend of cultural preservation, environmental sustainability, and community empowerment. At its core lies the **bamboo workshop**, a hub for skill-building and innovation where the Orang Asli community can craft building materials, products, and art from **locally sourced bamboo**. This initiative **reduces reliance on external resources** while fostering economic independence and **cultural expression.**

The river, a lifeline of the site, plays a pivotal role in the design, offering opportunities for sustainable use and restoration. Once used by the Orang Asli to transport bamboo, the river is reimagined as a key feature for eco-tourism, with careful measures taken to **stabilize its banks** and improve water quality. Activities like riverside camping and sustainable harvesting celebrate its historical and ecological importance, while ensuring its preservation for future generations.

By embracing bamboo as a **renewable resource** and weaving the river into the site's narrative, the project restores the natural environment, uplifts the local community, and creates a sustainable model for eco-tourism that honors the delicate balance between culture, people, and nature.

PLANTING INSPIRATION

Shading Aesthetic Value Erosion Control Scent Barrier Bird/Butterfly Attracting Best For Absorbing CO_2



GREEN INITIATIVES

The project embraces a comprehensive green initiative that integrates sustainable practices into every aspect of the design and development process. Central to this initiative is the use of bamboo as a locally sourced and renewable building material. Bamboo's rapid growth rate and adaptability make it an eco-friendly alternative to conventional materials, significantly reducing the carbon footprint associated with transportation and extraction. This aligns with SDG 12 (Responsible Consumption and Production) by encouraging the sustainable use of natural resources, and SDG 13 (Climate Action) through carbon sequestration and soil stabilization, particularly along the riverbanks.

Additionally, the initiative incorporates a community-based approach to bamboo cultivation and harvesting, fostering economic opportunities for the Orang Asli community in line with SDG 8 (Decent Work and Economic Growth). Training programs in bamboo craftsmanship not only provide the skills needed for construction but also create potential for trade and expansion to other eco-tourism sites.

Beyond bamboo, the design emphasizes replantation efforts with native vegetation to restore biodiversity and create habitats for local wildlife, supporting SDG 15 (Life on Land). The project also includes rainwater harvesting systems, composting practices, and the integration of natural shading elements to minimize energy consumption. These combined efforts demonstrate a commitment to creating a self-sustaining, eco-friendly environment that harmonizes with nature while empowering local communities.

Bamboo

B.N. : ***Dendrocalamus asper***
C.N. : Giant Bamboo

Uses : 20cm diameter, and high strength. Used for heavy construction applications; ie. houses, bridges, etc.

B.N. : ***Dendrocalamus asper f. niger***
C.N. : Black Variant of Giant Bamboo

Uses : Similar to previous, offers an additional unique elegant look to construction.
+ visually striking when grown among other species.

B.N. : ***Schizostachyum brachycladum***
C.N. : Buluh Lemang, Buluh Padi

Uses : Used in Lemang preparation, other hand crafts, and flooring.

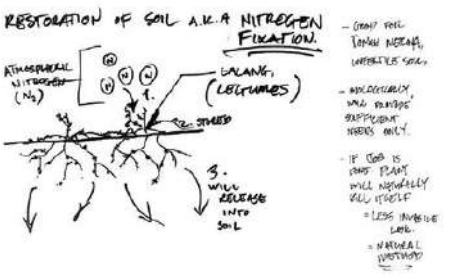
B.N. : ***Gigantochloa scortechinii***
C.N. : Buluh Semantan

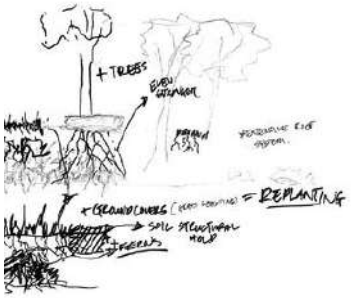
Uses : Shoots are edible, structurally strong and is used to make plybamboo, for steps or stairs.

B.N. : ***Gigantochloa albociliata***
C.N. : Buluh Madu

Uses : Light construction; ie. thatch roof frames, walls, fences, trellises.
Shoots are edible.

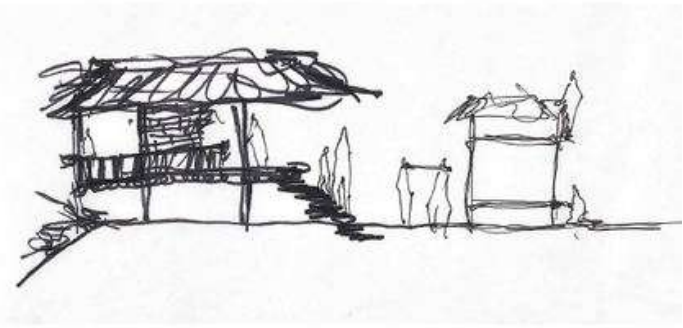
The planting strategy emphasizes the use of bamboo as the primary vegetation across the site, celebrating its versatility, sustainability, and cultural significance. Bamboo, with its rapid growth and ability to thrive in diverse conditions, serves as a renewable resource that aligns with the eco-tourism concept. Beyond its functional use in construction and crafts, bamboo contributes to soil stabilization, reduces erosion along riverbanks, and enhances the natural beauty of the landscape. By integrating various bamboo species, the design creates a dynamic visual experience while fostering a self-sustaining ecosystem that reflects the resilience and adaptability of the Orang Asli community. This approach not only preserves the environment but also empowers the community by providing resources for craftsmanship and trade, ensuring a continuous cycle of growth and renewal.





CONCLUSION

This project embodies a harmonious blend of cultural preservation, environmental sustainability, and community empowerment. By leveraging locally sourced materials like bamboo, embracing eco-friendly practices, and celebrating the rich heritage of the Orang Asli community, it creates a sustainable model for eco-tourism. The design not only restores and protects the natural environment but also provides economic opportunities and a platform for cultural expression, fostering a future where people and nature thrive together.



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Muhammad Muhammad Tsaqif Al Halim Bin Amirruddin &
Helmi Bin Hamzah

PROPOSED ECOLOGICAL AND LANDSCAPE DESIGN FOR SUSTAINABLE DEVELOPMENT AT MARINA ISLAND, LUMUT, PERAK

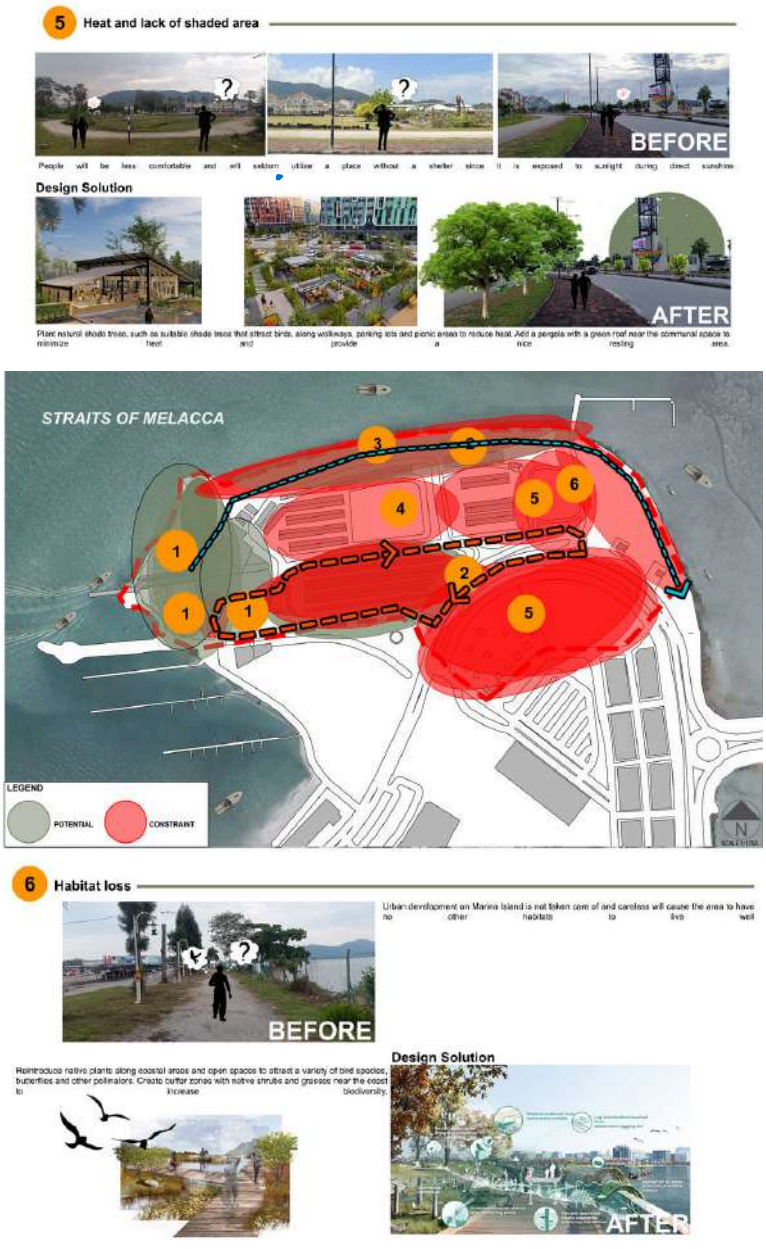
The proposed ecological and landscape design for sustainable development at Marina Island, Lumut, Perak.This project will focus on the following primary challenges in this site which limited social space and activity, poor accessibility and connection, coastal soil erosion, heat and a lack of shady areas, and habitat loss.These challenges will be addressed in a proposed design solution on my website to improve biodiversity and social engagement among humans and animals.This will offer a design that integrates environmentally friendly infrastructure, renewable energy, and water management technology. It promotes biodiversity conservation through mangrove restoration and native landscaping, stimulates energy efficiency, and includes climate-resilient infrastructure. The design promotes mixed-use development, sustainable mobility, and eco-tourism, while also ensuring community participation and the preservation of local cultural heritage.The goal is to create a balanced, resilient, and sustainable ecosystem that combines urban needs with environmental preservation.Based on these concerns and offered architectural solutions, this project already developed the greatest concepts for my theme and concept for Marina Island, which are Eco-livable City and Utopasis of Marina Island, respectively.This project aim to improve additional marina islands by providing good green infrastructure, biodiversity restoration, and fostering a feeling of community between humans and animals.

Keywords : Biodiversity Conservation - Oasis Urban Park - Utopia - Eco-Livable city - Friendly Navigation

INTRODUCTION

Marina Island is a privately owned reclaimed island and home to Marina Island Pangkor Resort and Hotel. This man-made island is strategically located opposite Pangkor Island and the renowned Pangkor Laut Resort.A standout feature of Marina Island is the Marina Island Jetty Complex, which provides a modern and efficient gateway to Pangkor Island. The jetty offers frequent ferry services with minimal waiting times, enhancing convenience for both locals and tourists. The complex is equipped with comfortable seating areas, ticketing counters, and basic amenities, ensuring a seamless travel experience. As a key transportation hub, the jetty supports Marina Island's tourism goals and serves as a preferred alternative to traditional ferry points.The developers have also taken significant steps to integrate sustainable practices into the island's design and operations. Green spaces and eco-friendly initiatives are part of the island's blueprint, ensuring a balance between development and environmental conservation. Marina Island Pangkor stands as a model for innovative and responsible land reclamation projects in Malaysia.

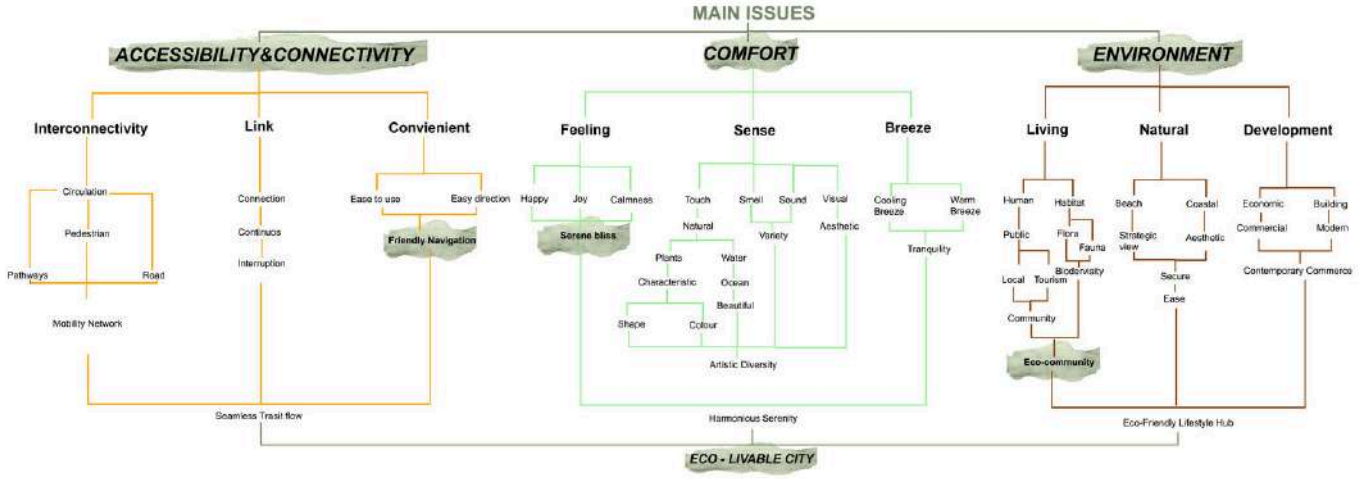
SITE SYNTHESIS



Landscape architecture also highlights cultural and historical significance by preserving heritage sites and reflecting local identity in its designs. This creates spaces that foster a sense of belonging while supporting the Sustainable Development Goals (SDGs), including clean water access, sustainable cities, and life on land. By blending creativity, innovation, and ecological awareness, landscape architecture plays a vital role in shaping sustainable, inclusive environments for present and future generations.

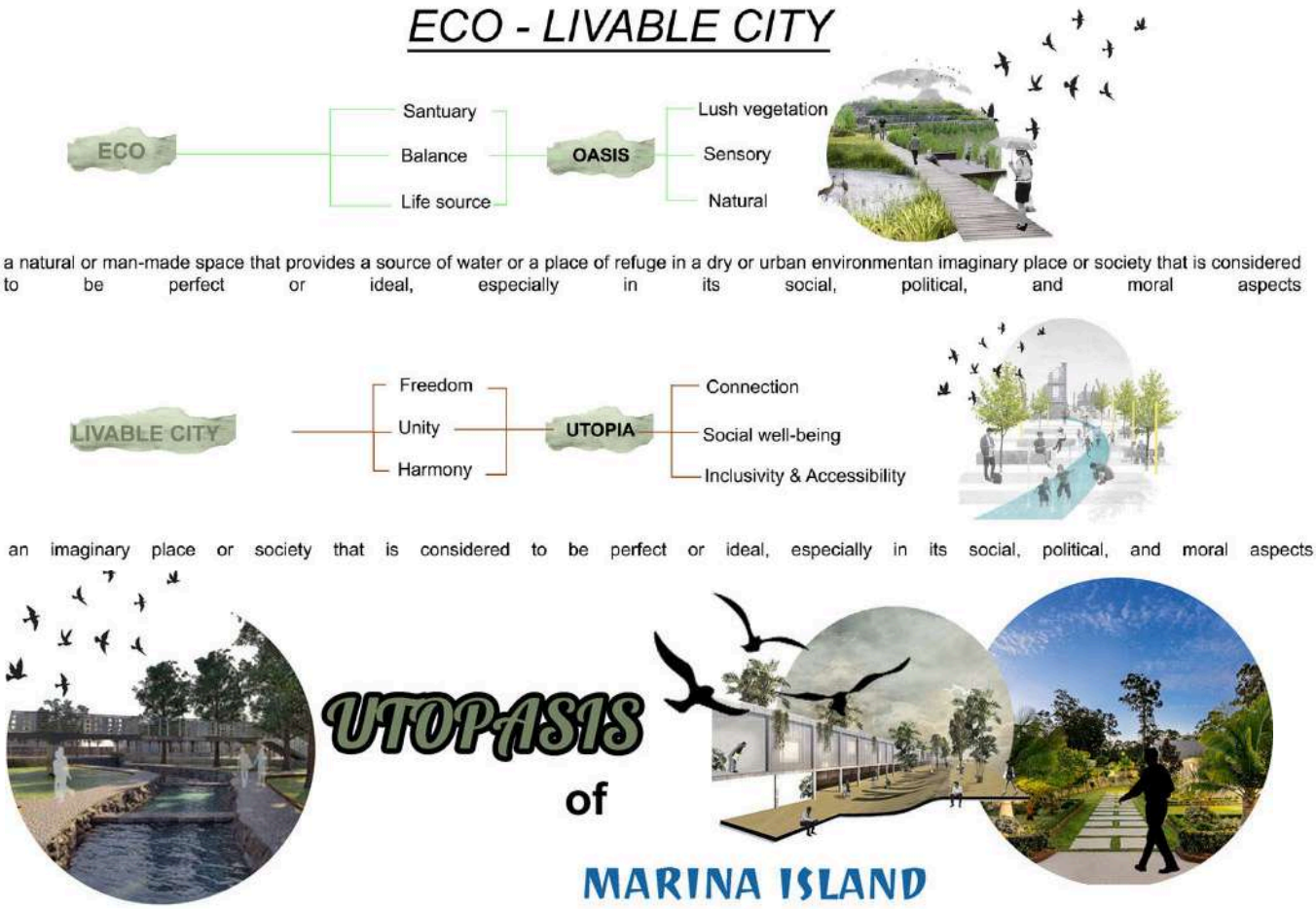
CONCEPTUAL DEVELOPMENT

THEME



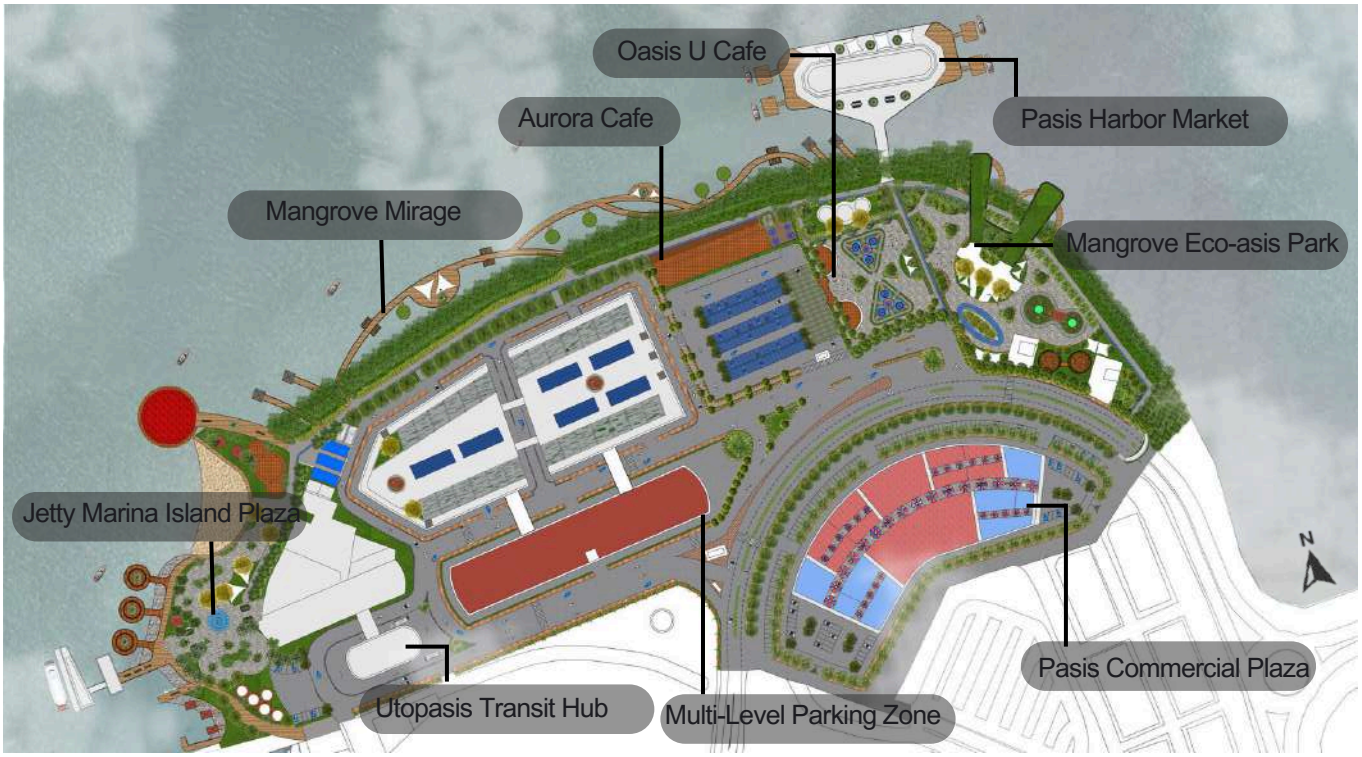
The eco-livable city is one that is both environmentally healthy and offers its citizens a good standard of living.It also provides a high standard of living for its residents. It provides a sense of community, beautiful public spaces, and social activities. It also offers clean, safe drinking water, sanitation, healthcare, education, power, communications, and transportation.Living within the means of the environment is considered ecologically healthy. It features lush vegetation, pure air, and plenty of water. It also minimizes air pollution and CO2 emissions while conserving natural resources.

CONCEPT



Utopasis of Marina Island is a visionary concept based on harmony, sustainability and community. It transforms Marina Island into an ideal landscape where nature and people thrive together, guided by the principles of connectivity, comfort, environmental resilience and social engagement. This concept reflects your dedication to creating ecologically and socially healthy spaces, making Utopasis a model of sustainable landscape architecture.

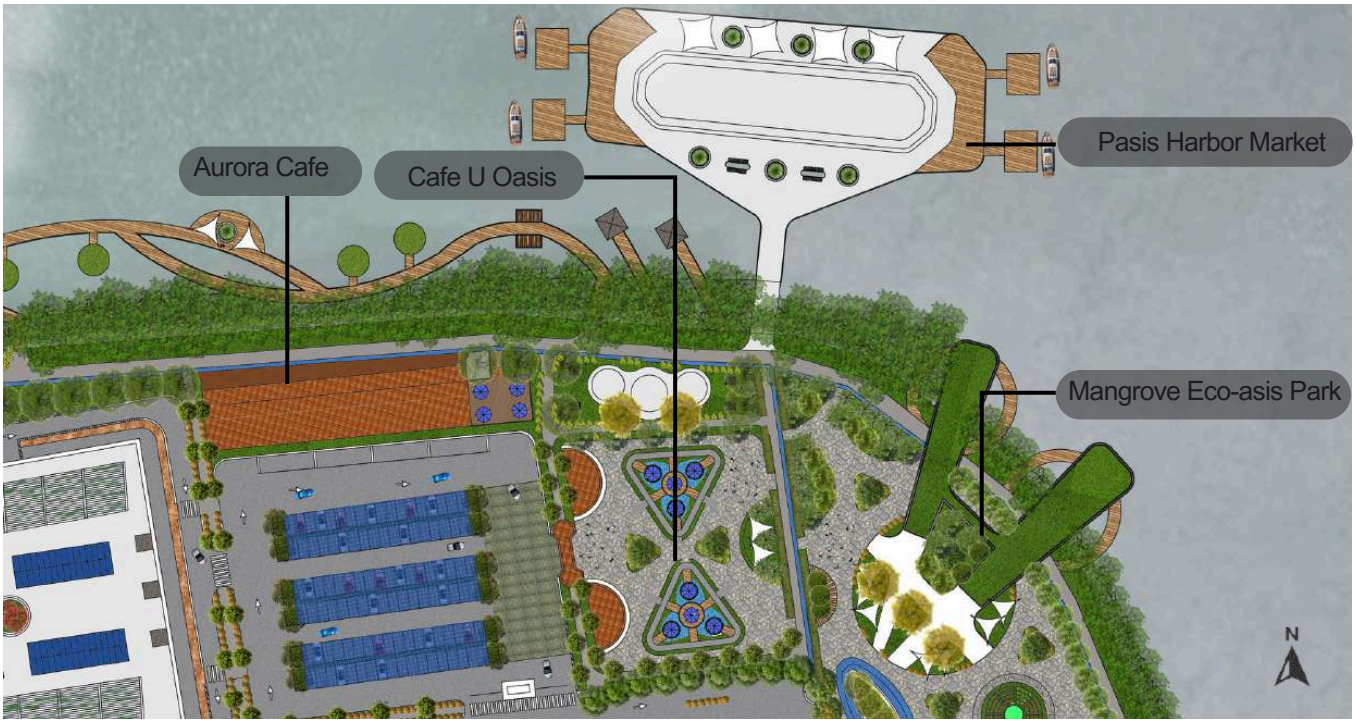
MASTERPLAN



The proposed ecological and landscape design for sustainable development at Marina Island, Lumut, Perak, based on the "Utopasis of Marina Island" masterplan, envisions a sustainable and resilient coastal destination that addresses key issues such as habitat loss, poor accessibility, coastal erosion, heat, and limited social spaces. The concept incorporates mangrove restoration, shaded zones, solar panels, and floating biological habitats to boost biodiversity, reduce climate effects and improve comfort. Vibrant community areas, enhanced paths, and a transit hub all encourage social interaction and connectivity. Water management features such as bioswales and permeable pavements are effective, while environmentally friendly cafés and recreational places improve livability. Aligned with the SDGs, this strategy supports Marina Island's success as an eco-livable metropolis for people and nature.

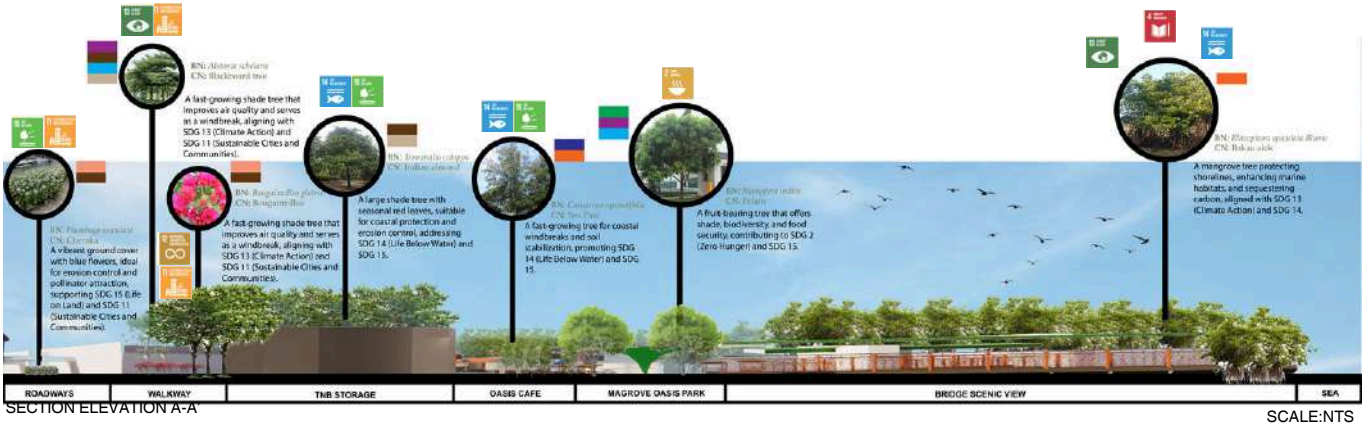
On perspective and section elevation, wish to demonstrate for function users and animals at Marina Island. The Jetty Marina Island Plaza is a bustling retail, dining, and entertainment destination that draws both locals and tourists. The Mangrove Mirage combines art and ecology, providing a calm environment for nature lovers. The Utopasis Transit Hub improves connectivity by combining sustainable transportation with environmentally friendly design for seamless travel experiences.

ENLARGEMENT PLAN



The enlargement plan includes a few locations and functions that are best for users and animals. The Mangrove Ecosis Park protects species and provides eco-recreation for both locals and visitors. The Pasis Harbor Market boosts the economy with cultural products. The Oasis Outdoor Café provides calm, green dining that promotes pollinators. The Aurora Café offers a floating eco-dining experience that integrates tourism, marine conservation, and environmental awareness.

PLANTING INSPIRATION



SECTION ELEVATION A-A'

SCALE:NTS

A tropical shrub with enormous, bright flowers that is ideal for ornamental planting, pollinator attraction, and urban landscaping. It contributes to SDGs 11 (Sustainable Cities and Communities) and 15 (Life on Land).

A drought-tolerant climber with colorful bracts, perfect for adding vertical interest and enhancing urban aesthetics, supporting SDG 12 (Responsible Consumption) and SDG 11 (Responsible consumption and production)

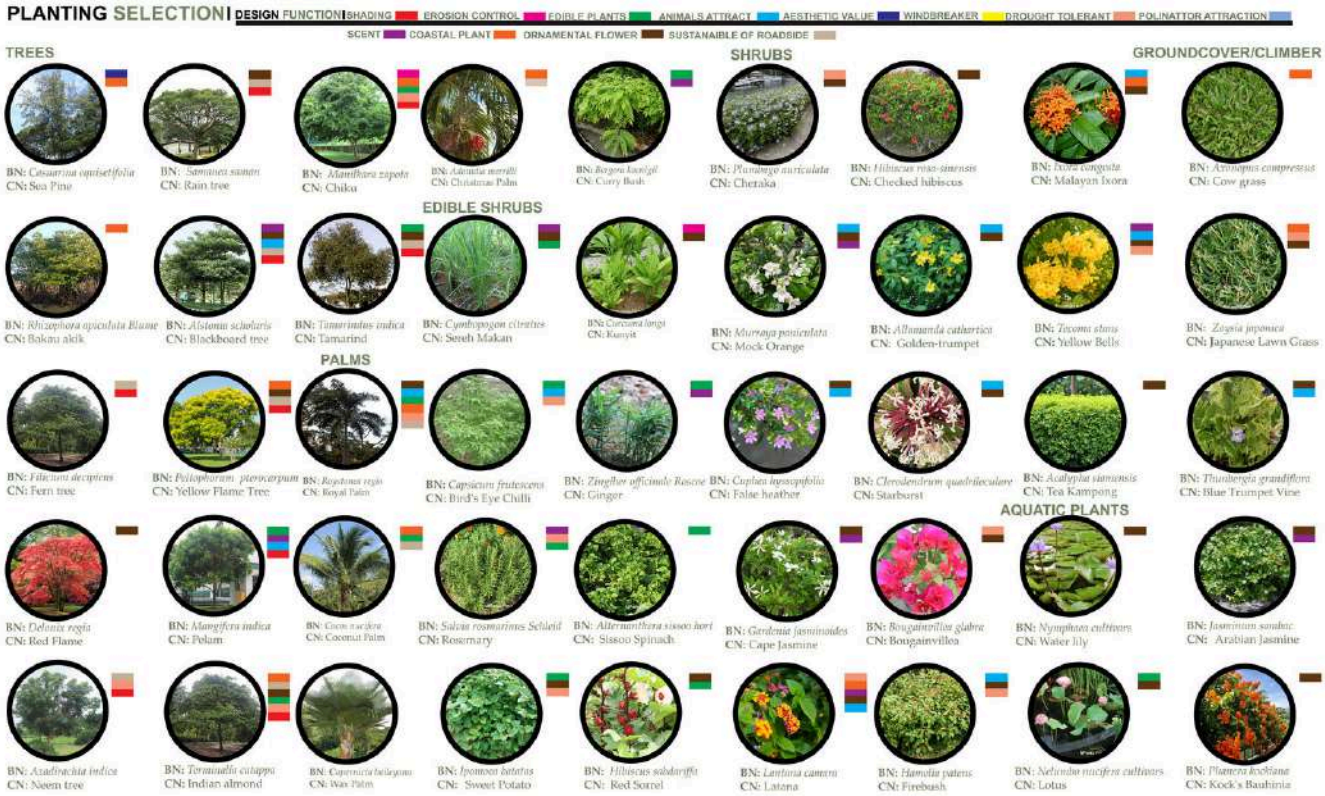
GREEN INITIATIVES


Mini edible garden and water rain collector


Green parking with Solar


Mangrove restoration

The design incorporates green initiatives such as shaded green spaces, permeable pathways, and eco-friendly materials alongside mangrove restoration to enhance biodiversity, improve water quality, and mitigate coastal erosion, while fostering a climate-resilient landscape that supports community interaction and aligns with 7 SDGs on this site.



The planting selection for Marina Island incorporates a diverse range of trees, palms, shrubs, groundcovers, climbers, and aquatic plants, carefully chosen to enhance ecological resilience, provide shade, control erosion, support biodiversity, attract pollinators, improve air quality, mitigate coastal erosion, and create a sustainable, functional, and aesthetically pleasing coastal landscape that balances ecological restoration with human comfort and community engagement.These planting selections also ensure a harmonious balance between natural and urban elements, aligning with sustainable development goals (SDG), as well as enhancing experiences and biodiversity to focus on tourism and animals to give a sense of variety at Marina Island.These plants also will focus on for design usage which shade,erison control,edible plants,attract animals, aesthetic value,wind breaker, drought tolerant, pollinators attraction, scent, coastal plant, ornamental flower and sustainable of roadside.The chosen for this plants it will related for the concept Utopasis of Marina island to enhance ecogical restoration at Marina island.

CONCLUSION

In summary, for all of these challenges, I will suggest a design solution on my website to focus on improving biodiversity and social development among humans and animals surrounding them.I will offer a design that integrates environmentally friendly infrastructure, renewable energy, and water management technology. It promotes biodiversity conservation through mangrove restoration and native landscaping, stimulates energy efficiency, and includes climate-resilient infrastructure. The design promotes mixed-use development, sustainable mobility, and eco-tourism, while also ensuring community participation and the preservation of local cultural heritage. The goal is to create a balanced, resilient, and sustainable ecosystem that combines urban needs with environmental preservation.

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Puteri Nur Amira Natasha Amizi & Atikah Fukaihah Amir

REVITALIZATION OF RECREATIONAL PARK AT TAMAN TASIK SEREMBAN, NEGERI SEMBILAN

Inspired by the Segara Paradise idea, Taman Tasik Seremban's restoration aims to solve the main problems of water quality, accessibility, and the absence of covered places in order to create a sustainable, welcoming, and peaceful recreational area. Eco-friendly fixes, such enhanced waste management and natural filtration systems, will restore the lake's biological health and beauty, benefiting both animals and tourists. Improvements to the park's accessibility, such as ramps, paved walkways, and accessible benches, will guarantee that everyone, regardless of physical ability, can enjoy it. Through pergolas, canopies, and more tree planting, the project will create shaded places to improve visitor comfort and provide cool, welcoming locations for mingling and leisure. The *Segara Paradise* concept, which is based on the harmony of water, environment, and community, strikes a balance between ecological restoration, cultural legacy, and contemporary requirements. SDG 6 (Clean Water and Sanitation), SDG 10 (Reduced Inequalities), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action) are among the major Sustainable Development Goals (SDGs) that the initiative supports. Taman Tasik Seremban will be positioned as a model urban green space as a result of this renovation, providing current and future generations with a calm, welcoming, and sustainable environment. Through its revitalization, Taman Tasik Seremban will become a model urban park that harmonizes nature, culture, and community. By addressing water quality, accessibility, and comfort, the park will offer an enhanced visitor experience while aligning with global sustainability goals. It will serve as a vibrant, inclusive, and serene destination that preserves ecological health, celebrates heritage, and meets the needs of future generations.

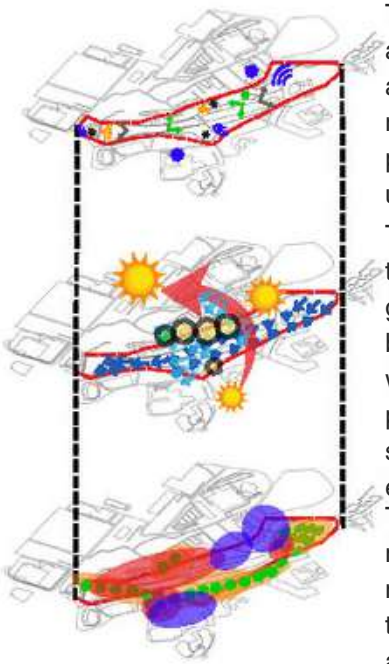
Keywords : Recreational Park - Segara Paradise - Minangkabau element

INTRODUCTION

KEY PLAN

One of the most important efforts to restore Taman Tasik Seremban's significance as a thriving and sustainable public place is its restoration. The park's current problems, such as deteriorating environmental conditions, outdated infrastructure, and the requirement for contemporary amenities to meet the changing requirements of its patrons, are intended to be addressed by this project. The rehabilitation seeks to balance natural and constructed components while maintaining the park's historic character by incorporating sustainable techniques and modern landscape architectural ideas.

SITE SYNTHESIS

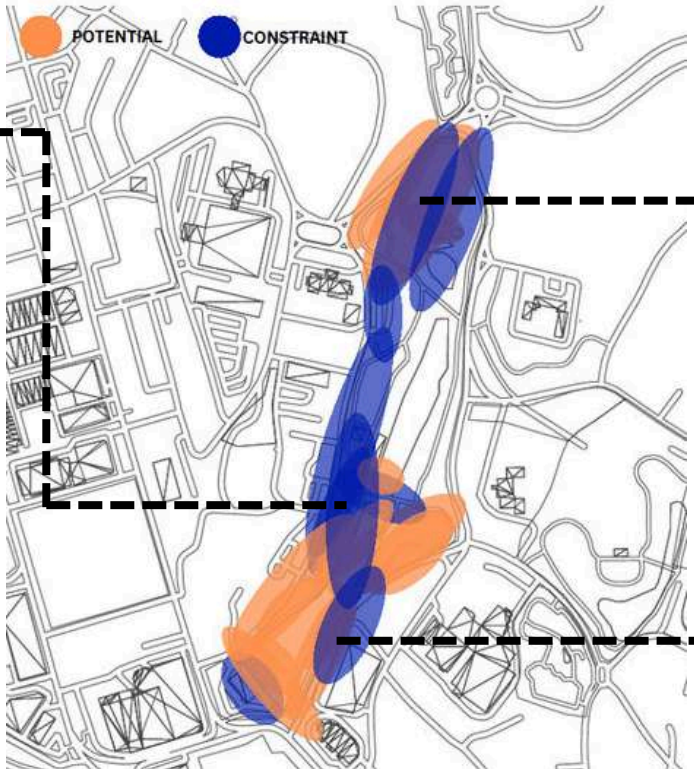


The lack of proper maintenance in the area causes serious problems. Litter strewn around reduces the entire visiting experience in addition to interfering with the aesthetic appeal. Furthermore, a lingering foul smell that results from incorrect restaurant waste disposal into the lake detracts from the area's appeal. These problems demonstrate the necessity of improved waste management and routine upkeep in order to restore and maintain the area's natural beauty and draw tourists.

There is a safety risk associated with the electric supply box's placement close to the lake, particularly because there aren't enough appropriate warning signs to alert guests to the possible hazard. Unintentional touch could result from this, especially between young children. The park's hydrology is also crucial for assisting urban water management in addition to preserving its scenic appeal. In addition to preventing flooding and fostering local fauna, the lakes and drainage systems also support a healthy aquatic habitat. In order to improve the park's overall safety and ecological health, safety

Taman Tasik Seremban's fauna offers both advantages and disadvantages that may impact the experiences of tourists. The detrimental effects of wildlife must be reduced without compromising the park's natural ecology or the peace and quiet that guests enjoy. So as to maintain ecological health and provide a comfortable and tranquil atmosphere for all park visitors, a balanced approach is required to guarantee that nature and wildlife can coexist peacefully.

Taman Tasik Seremban is one of the places where Seremban residents come for recreation and activities. But the problem of the **smelly lake and also the lake being polluted due to the garbage and food waste**



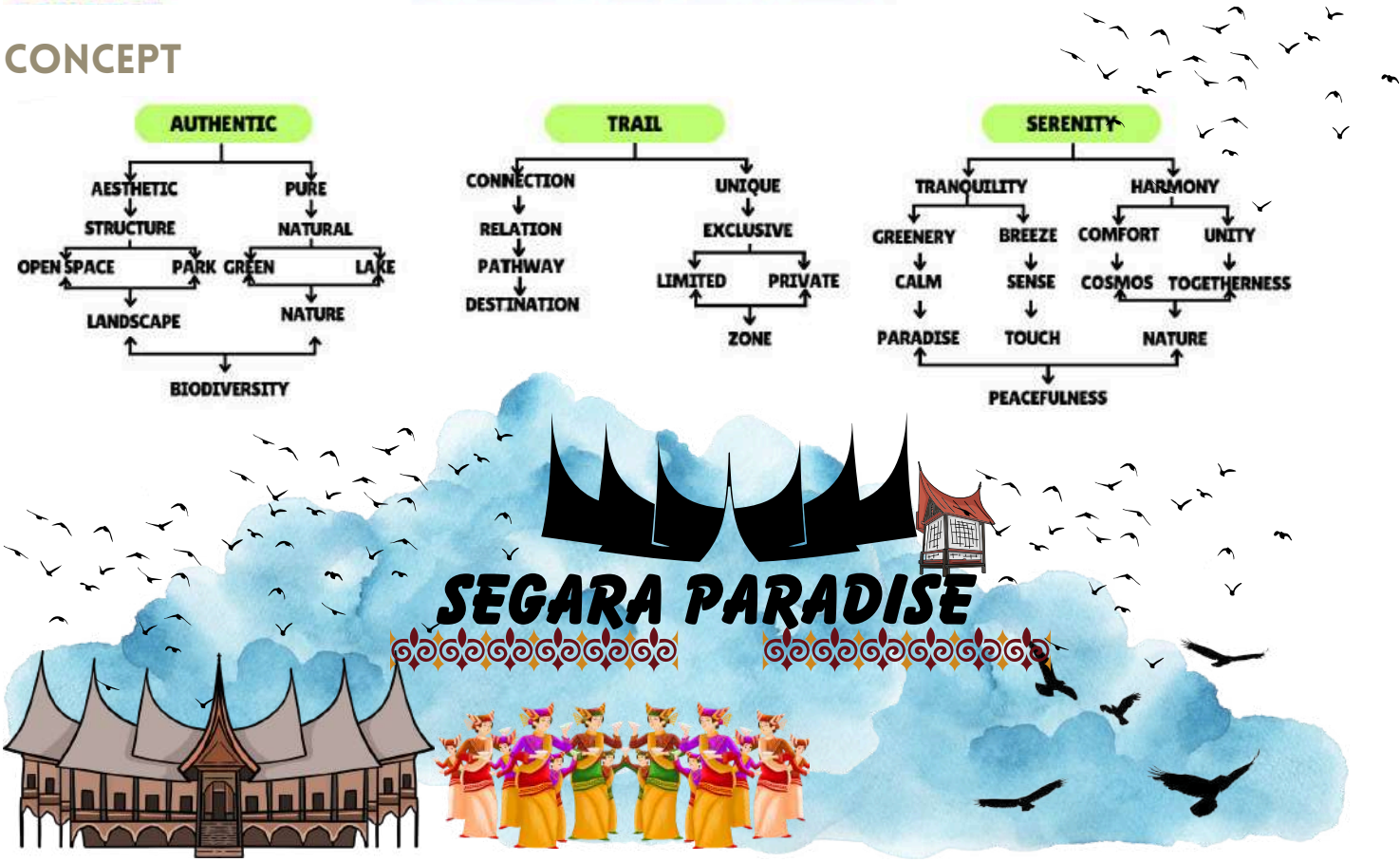
Some of the park's open space areas are still underutilized, mostly because of the **hot heat**, which makes them uncomfortable for visitors during busy times. P

the area's severe **traffic congestion** is also a result of its excellent position. Every day, a lot of cars are drawn to the park because of its attractiveness and the dense commercial, residential, and institutional constructions that surround it.

CONCEPTUAL DEVELOPMENT

THEME

CONCEPT



The name **"Segara Paradise"** honors the peaceful lake that is Taman Tasik Seremban's defining feature as well as its historical significance while capturing the essence, history, and character of the community. Inspired by the Malay phrase **"segara,"** which means "ocean" or "large body of water," the lake serves as the focal point of the park and represents peace, vitality, and the beauty of nature. The word **"Paradise"** highlights the park's vision as a sanctuary of peace, relaxation, and renewal in the middle of Seremban's busy metropolitan setting. It expresses the desire to turn Taman Tasik Seremban into a picturesque haven where guests may enjoy a variety of leisure activities, find peace, and re-establish a connection with nature. The park has long served as a focal point for social events and cultural activities, making it an essential component of Seremban's history. As a lyrical evocation of this heritage, "Segara Paradise" connects the park's past and present while imagining a day when its natural and cultural components coexist peacefully.From a conceptual standpoint, **"Segara Paradise"** encapsulates Taman Tasik Seremban's distinct character as a place where history, water, and community come together to form a lively and sustainable urban oasis that honors the natural world and the essence of Negeri Sembilan.

MASTERPLAN

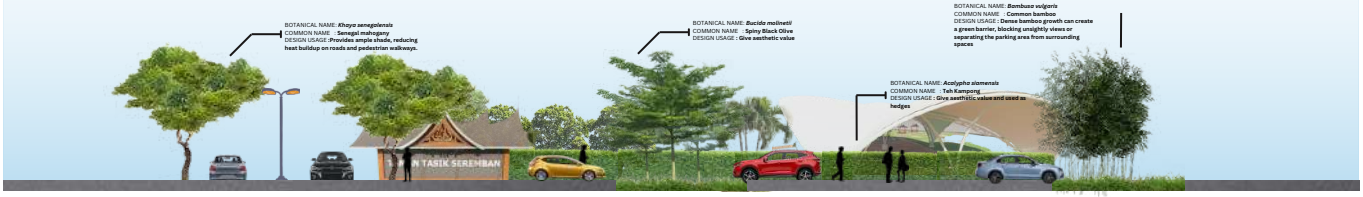
The master plan for the revitalization of Taman Tasik Seremban incorporates the distinct design elements of Minangkabau architecture to create a harmonious space that reflects the cultural heritage of Negeri Sembilan while addressing the park's main issues of water quality, accessibility, and lack of shaded areas. This design approach aims to blend tradition with sustainability, transforming the park into an inclusive and functional recreational space.

Minangkabau architecture is renowned for its iconic bumbung (roof) design, which often features sweeping curves that provide protection from the elements. In the park, this design concept will be reflected in the creation of large, shaded gathering areas. Pavilions and gazebos with sweeping, curved roofs, reminiscent of Minangkabau traditional houses, will be strategically placed around the park, offering respite from the sun while providing spaces for socializing and relaxation.

In addition to enhancing the water quality, adding water cycling into Taman Tasik Seremban opens up possibilities for leisure pursuits like kayaking, paddleboarding, and even small boat cruises.Kayaking and other such sports would be safer and more fun with clean, flowing water, providing visitors with a serene and picturesque opportunity to see the park from the water.

The revitalization of Taman Tasik Seremban, showcasing a harmonious blend of traditional and modern elements. The layout highlights traditional wooden pavilions with intricate roofs, reflecting the cultural heritage of the area, surrounded by manicured green lawns and pathways. The pathways are lined with neatly pruned shrubs and trees, creating a structured and inviting flow for visitors.

The entrance of Taman Tasik Seremban, showcasing a traditional architectural design that reflects the cultural heritage of the region. The prominent signboard, featuring a bold structure with a traditional Minangkabau-inspired roof design, emphasizes the park's identity and cultural significance.



The section elevation of Taman Tasik Seremban highlights a thoughtfully designed space that balances accessibility, aesthetics, and sustainability. By incorporating a layered landscape with shade-providing trees, functional walkways, and modern recreational features like a dome-shaped pavilion, the design ensures a welcoming and versatile environment for all visitors. The inclusion of dense vegetation and eco-friendly elements enhances biodiversity, manages stormwater, and reduces urban heat, while the entrance signage and cultural elements establish a strong identity for the park.

ENLARGEMENT PLAN

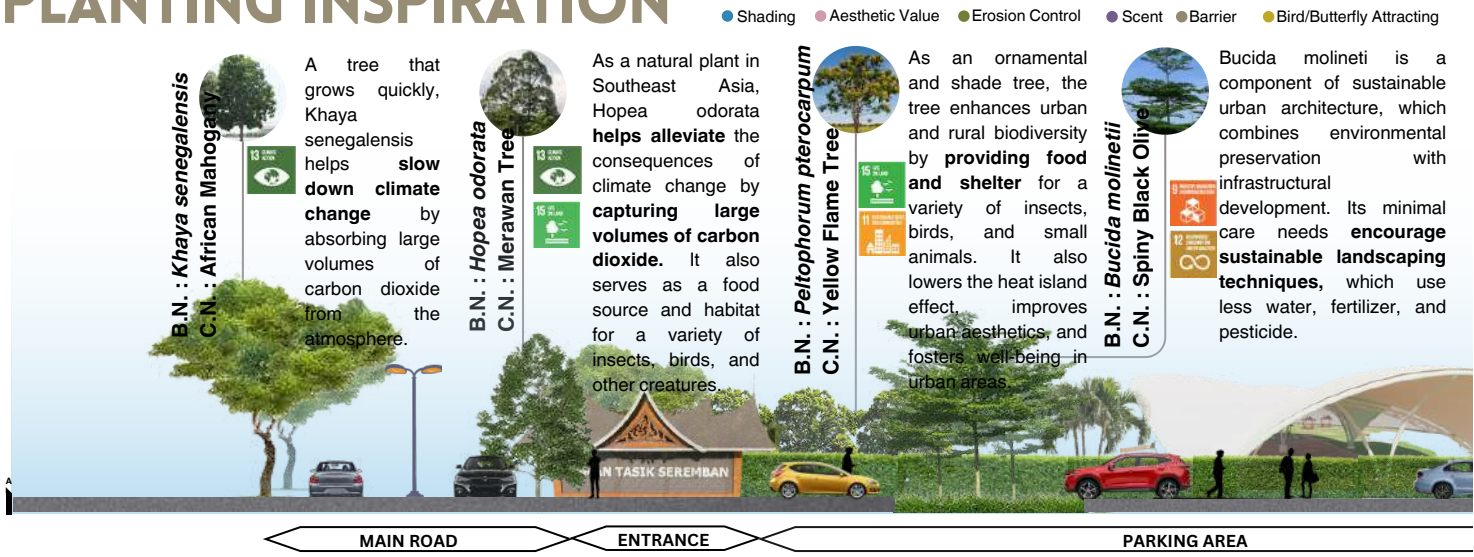
In addition to being a recreational area, the maze garden in the enlargement plan serves as an interactive information hub that highlights Taman Tasik Seremban's rich cultural heritage. The garden will be open for visitors to explore while interacting with well-placed exhibits, signage, or multimedia displays that tell stories about the park's history, development, and significance to the neighborhood.

The proposed term for a gazebo design that combines traditional Minangkabau architectural features is called Laman Singgahsana. The goal of this development is to solve Taman Tasik Seremban's lack of shaded places. In addition to serving as a practical answer by giving guests a cozy and shaded place to relax, the gazebo will also improve the park's aesthetic appeal by honoring the Minangkabau design style's cultural legacy.

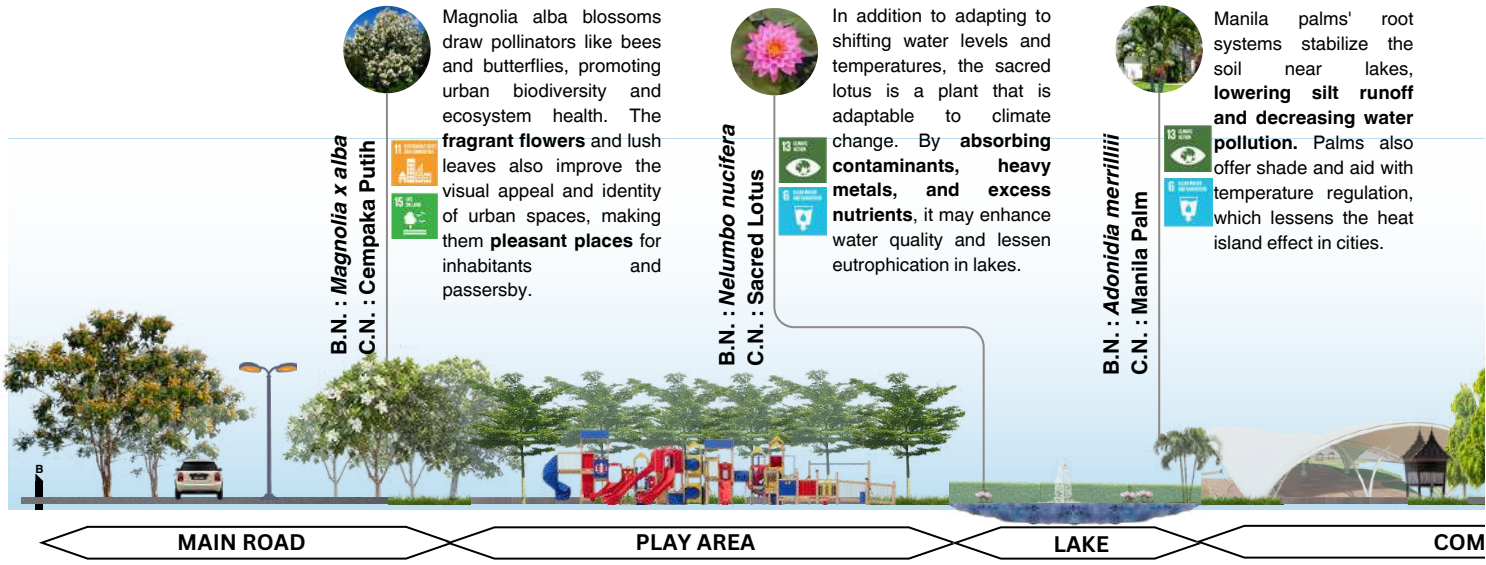
It complements Taman Tasik Seremban's natural setting by combining hardscape utility with vegetation. Grasscrete uses permeable pavers with spaces filled with gravel or grass that let water in. This lessens the chance of flash floods in cities by lowering surface runoff.

The Laman Damai Sukma introduces a harmonious mini forest concept designed to promote nature appreciation and birdwatching activities. This space includes proposed features such as birdhouses to attract various bird species and designated areas where visitors can participate in bird-feeding activities. Additionally, the mini forest offers jungle trekking paths, providing an immersive experience that encourages exploration and interaction with the natural environment. This concept aims to foster a deeper connection between visitors and nature while enhancing the biodiversity of Taman Tasik Seremban.

PLANTING INSPIRATION



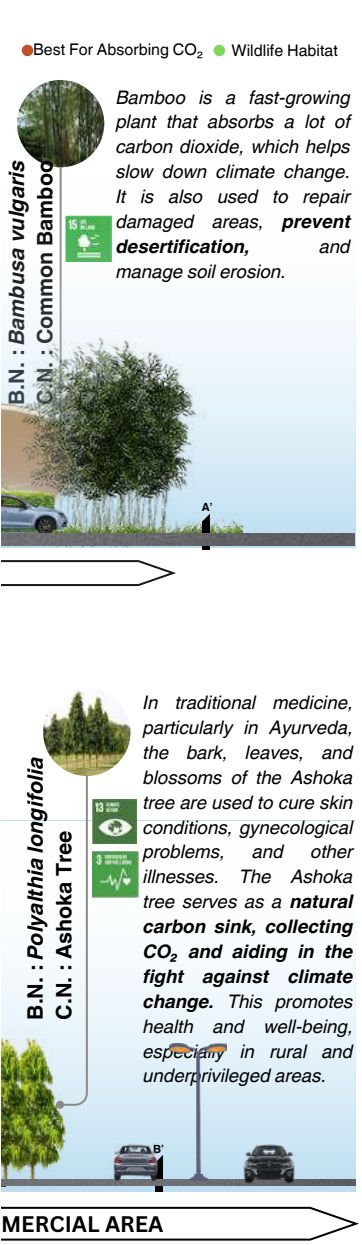
SECTION ELEVATION A-A'



SECTION ELEVATION B-B'

GREEN INITIATIVES

Green initiatives for Taman Tasik Seremban focus on creating a sustainable and inclusive urban park through layered landscape design, enhanced water quality, and improved accessibility. By integrating towering trees, medium shrubs, and groundcovers, the park achieves ecological balance, visual appeal, and functional diversity. The implementation of natural filtration systems and deep-rooted vegetation enhances water quality and soil stability, while eco-friendly pathways and accessible features ensure inclusivity and engagement for all visitors.These efforts align with multiple Sustainable Development Goals (SDGs), including **SDG 6 (Clean Water and Sanitation)**, **SDG 11 (Sustainable Cities and Communities), SDG 13 (Climate Action), SDG 15 (Life on Land), and SDG 3 (Good Health and Well-being).** Ultimately, the initiatives transform Taman Tasik Seremban into a model of sustainability, biodiversity, and community well-being, making it a valuable and inspiring urban green space.



TREES

B.N. : *Mimusops elengi*
C.N. : Spanish Cherry

B.N. : *Alstonia spatulata*
C.N. : Siamese Balsa

B.N. : *Brachychiton acerifolius*
C.N. : Flame Bottle Tree

B.N. : *Azadirachta indica*
C.N. : Neem Tree

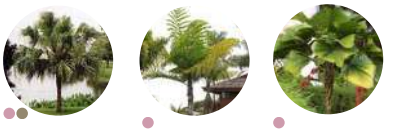
B.N. : *Terminalia catappa*
C.N. : Ketapang Tree

B.N. : *Lophanthera lactescens*
C.N. : Golden Chain Tree

B.N. : *Kopsia singapurensis*
C.N. : Singapore Kopsia

B.N. : *Gardenia tubifera*
C.N. : Kula Gardenia

PALMS

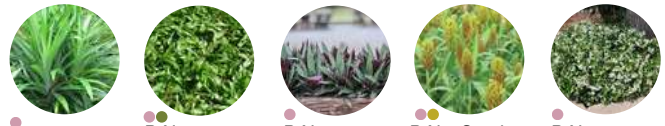


B.N. : *Livistona chinensis*
C.N. : Chinese Fan Palm

B.N. : *Carpentaria acuminata*
C.N. : Carpentaria Palm

B.N. : *Latania loddigesii*
C.N. :Blue Latan Palm

GROUNDCOVERS / CREEPERS / CLIMBERS



B.N. : *Pandanus amaryllifolius*
C.N. : Pandan

B.N. : *Axonopus compressus*
C.N. : Cow Grass

B.N. : *Tradescantia spathacea*
C.N. : Boat Lily

B.N. : Sorghum bicolor
C.N. : Sorghum

B.N. : *Jasminum multiflorum*
C.N. : Star Jasmine

SHRUBS

B.N. : *Helianthus annus*
C.N. : Sunflower

B.N. : *Ixora javanica*
C.N. : Javanese Ixora

B.N. : *Euodia hortensis*
C.N. : Lacy Lady

B.N. : *Alocasia macrorhiza*
C.N. : Keladi Gajah

B.N. : *Ruellia simplex*
C.N. : Mexican Petunia

B.N. : *Crinum asiaticum*
C.N. : Queen Emma Lily

B.N. : *Caladium lindeniii*
C.N. : Angel`s wing

B.N. : *Acalypha siamensis citratus*
C.N. : Teh Kampung

The planting inspiration for Taman Tasik Seremban focuses on creating a harmonious and inviting environment that blends natural beauty with ecological functionality. This concept seeks to enhance the park's aesthetics, promote biodiversity, and provide a serene retreat for visitors of all ages.Creating a layered landscape utilizing a mix of towering trees, medium shrubs, and groundcovers is a design method that mimics the natural structure of forests and assures visual depth, ecological advantages, and functional variety. In order to direct guests around the park and create a friendly ambiance, line paths with aromatic and colorful bushes. To reduce surface runoff and increase soil stability close to the lake, plant trees and shrubs with deep root systems. In addition to improving the park's aesthetic appeal, layered landscape design that includes groundcovers, medium shrubs, and tall trees also offers ecological advantages and functional variety. A sustainable and friendly environment for guests is ensured by the thoughtful placement of fragrant and colorful bushes along walks, as well as by the deep-rooted trees and shrubs next to the lake, which support soil stability and efficient water management.

CONCLUSION

Taman Tasik Seremban, envisioned through the Segara Paradise concept, transforms into a sustainable urban oasis that blends natural beauty, biodiversity, and community well-being. The park's design incorporates layered landscapes of towering trees, medium shrubs, and groundcovers to create visual depth, ecological balance, and functional diversity. Sustainable water management practices, including natural filtration systems and deep-rooted vegetation, enhance water quality and stabilize soil, while accessible pathways and inclusive features provide a welcoming experience for all visitors. Aligned with the Sustainable Development Goals (SDGs)—including clean water and sanitation (SDG 6), sustainable cities and communities (SDG 11), climate action (SDG 13), life on land (SDG 15), and good health and well-being (SDG 3)—this concept positions Taman Tasik Seremban as a model of sustainable urban development. It offers a serene, restorative space that supports biodiversity, fosters community connection, and serves as a lasting legacy of ecological and social harmony.

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Wan Putri Zulaikha Megat Ismail & Muhammad Falihin Jasmi

PROPOSED AN ECO-FRIENDLY PUBLIC PARK AT TAMAN PINGGIRAN TEPI SUNGAI KERIAN

The proposed landscape design, titled "Proposed an Eco-Friendly Public Park Taman Pinggiran Tepi Sungai Kerian, Parit Buntar, Perak," transforms the serene Kerian River in Perak into an extraordinary green space. Nestled along the riverbank, this park is set to be a stunning fusion of nature's beauty and vibrant recreational spaces, offering a tranquil escape for locals and visitors alike. The design masterfully embraces the surrounding natural landscape, ensuring a seamless connection between human activities and the river, making the waterway an integral element of the park's charm. Strategically located along the river, this park envisions the revitalization of the area into a dynamic, sustainable rural riverfront. The flowing river and lush greenery set the stage for various outdoor experiences, with breathtaking views that evolve throughout the day with shifting light and weather. The park aligns with the "Rancangan Tempatan Daerah Kerian 2035 by Majlis Daerah Kerian", reinforcing its potential for enhancement. This eco-conscious design embraces sustainability, aiming to create a safe, functional, and accessible environment for everyone, while preserving ecological balance. Guided by the theme "Eco-Riverfront", the park will be a living space where people gather, unwind, and reconnect with nature, all while harmonizing with the river's serene flow. The underlying concept, "The Equilibrium of Equanimity," envisions a serene symphony where nature, people, and space come together in perfect harmony. Picture a place where plants, water, light, and air effortlessly blend, creating a peaceful balance that soothes the mind, refreshes the spirit, and restores equilibrium to the body. This park is not just about beauty; it's about crafting an environment that calms the soul and rejuvenates the human spirit, making it a true sanctuary.

Keywords : Public park- Eco-Riverfront- Functional- Nature

INTRODUCTION

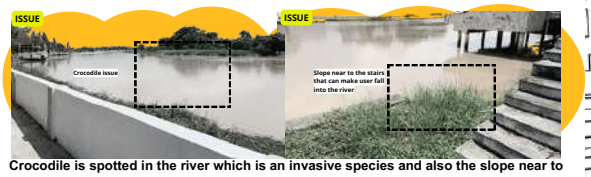
The park features walking trails, beautifully landscaped gardens, and picnic areas, making it an ideal spot for outdoor activities and family gatherings. With a strong emphasis on environmental sustainability, Taman Pinggiran often hosts community events and activities that encourage engagement with nature and promote outdoor participation.

Taman Pinggiran Tepi Sungai Kerian is a scenic park situated along the banks of the Kerian River, designed to provide a tranquil green space for recreation and relaxation.

The area of this park is 13.73 acres.

SITE SYNTHESIS

1.SAFETY ELEMENT



Crocodile is spotted in the river which is an invasive species and also the slope near to the river. It was harmful to the ecosystem in the aquatic life and lead to the dangerous to the people.

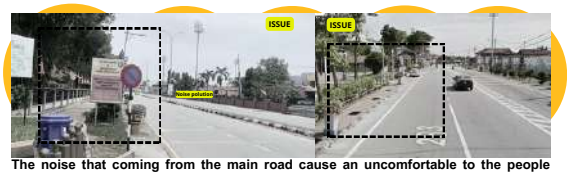
A view from the wooden fence at the side of the lake can prevent an unsafe to the user. There is also to improve the safety at the site, the signage need to be place along the river to increase the safeness towards user

2.POOR CONNECTION AND ACCESIBILITY

This constraint can be solved by proposing a linkage pedestrian that connect it to the park and also will be design with the modern design that can give the aesthetic and comfortable to people.

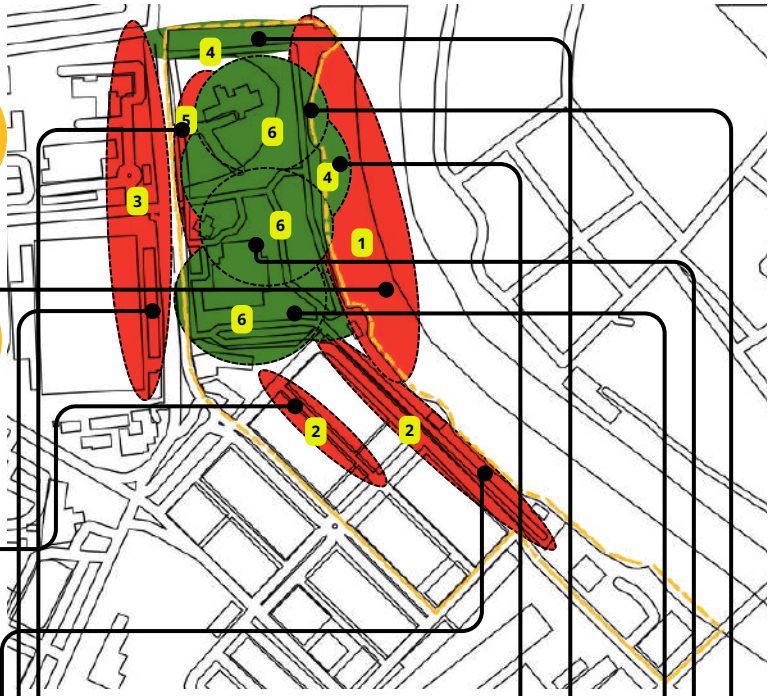
There is no zebra crossing and will cause a dangerous to people and the linkage at the back lane due to the no connection towards it to the park. The usability of site is not fully utilized as there is a limitation of accessibility for the user.

3.VEGETATION BARRIER



The noise that coming from the main road cause an uncomfortable to the people especially during the pick hours like in the morning and evening where the main road is quite busy. This will give a bad views to the road users

The buffer or screening tree will provide to stop the noise which is coming from the main road. It also can give the sense of the aesthetic value towards the community. It also provides the sense of privacy and give more comfortable to people



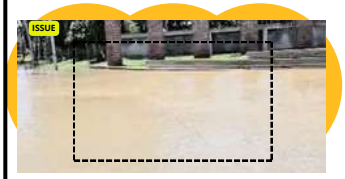
4.INADEQUATE FEATURE

Dull looking of the open space and not quite attracting people

Skatepark designed according to standards and visual appeal

Therefore, proposing a new skate park design and resting area for people who jogging and also skaters can attract more people

5. FLOOD

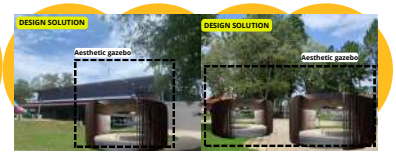


There is flood issue at the Taman Pinggiran Sungai Kerian that can lead to the dangerous to user. this is because that areas are exposed to the poisonous animals and give the feeling of unsafety also uncomfortable to the people when they want to enjoy there.

This natural filtration system not only enhances the landscape but also effectively captures and absorbs excess rainwater, reducing runoff and minimizing the risk of flooding during heavy storms. The vibrant native plants planted within the bioswale are thriving, contributing to local biodiversity while providing a habitat for wildlife.

6. IMPROVED NODES

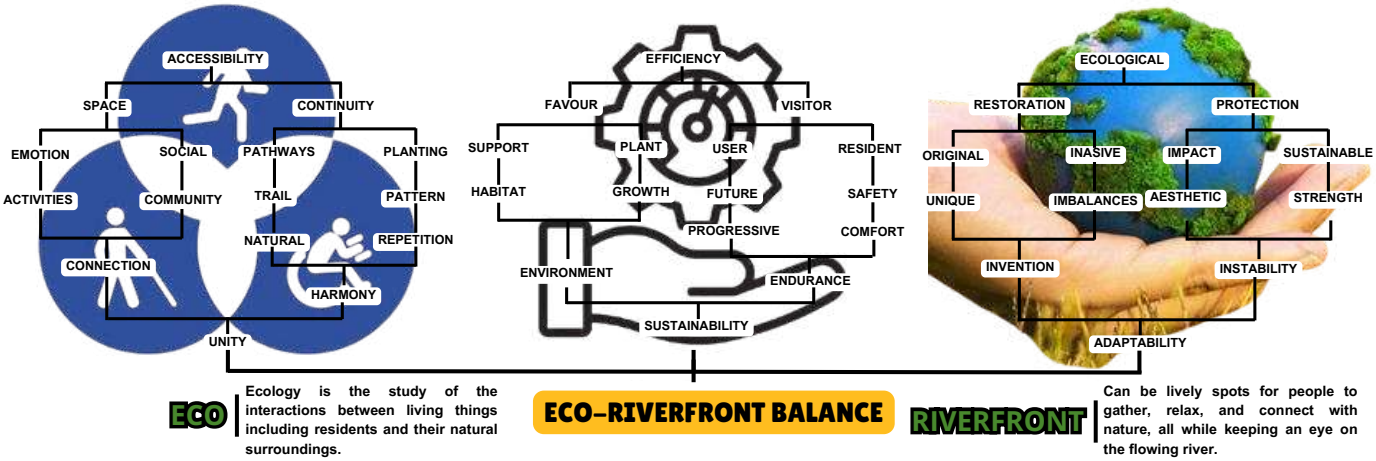
There are some spaces at the Taman Pinggiran Sungai Kerian such as the main open space that very exposed to the sunlight. It exposed to the sunlight due to the lack of plant and shaded tree. This will give the vibe of uncomfortable to the people when they want to enjoy there.



This area has potential to be filled with the landscape elements that can provide the shaded such as a resting area like gazebo or pegola. At the open area also can be filled with the various flowering tree which is can provide a sense of comfort to user.

CONCEPTUAL DEVELOPMENT

THEME



ECO | Ecology is the study of the interactions between living things including residents and their natural surroundings.

ECO-RIVERFRONT BALANCE

RIVERFRONT | Can be lively spots for people to gather, relax, and connect with nature, all while keeping an eye on the flowing river.

CONCEPT

EUPHONIC → SYNERGY → CONVERGENCE

SYMPHONIC → SERENE → TRANSQUIL

EQUILIBRIUM

STABILITY → DURABILITY → STEDINESS

EQUITY → FAIRNESS → IMPARTIALITY

EQUANIMITY

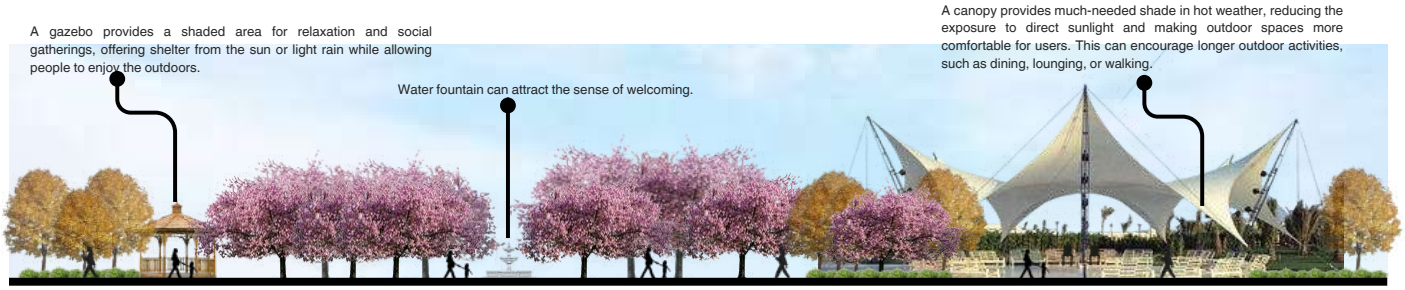
The equilibrium of equanimity in landscape design is the delicate art of creating a space where nature, people, and the environment coexist in perfect balance. It's akin to composing a symphony where every element plant, water, light, and air play its part in an effortless, harmonious flow. The design is not just about achieving visual beauty; it's about crafting an atmosphere that nurtures the senses and provides a tranquil experience. Each component of the landscape, from the positioning of trees to the sound of running water, is carefully chosen to create a soothing rhythm that promotes peace and well-being. When all the elements align, the space becomes a refuge, offering respite from the chaos of daily life. This balance not only calms the mind but also rejuvenates the body, fostering a sense of inner equilibrium. The landscape becomes more than just a physical space it becomes a sanctuary for reflection, relaxation, and rejuvenation. It's a reminder that true beauty lies in the seamless integration of nature and design, where every detail contributes to the greater whole, creating an environment that heals and restores.

MASTER PLAN

The proposed design of Taman Pinggiran Sungai Kerian in Parit Buntar, Perak, is a well-thought-out, eco-friendly public park that emphasizes harmony between nature and human activity. With the theme "The Equilibrium of Equanimity," the park's layout is carefully planned to offer a serene and balanced experience for visitors. The plazas create open, multifunctional spaces for social gatherings, events, or relaxation. The sensory garden provides a unique experience, engaging visitors through sight, smell, touch, and sound.

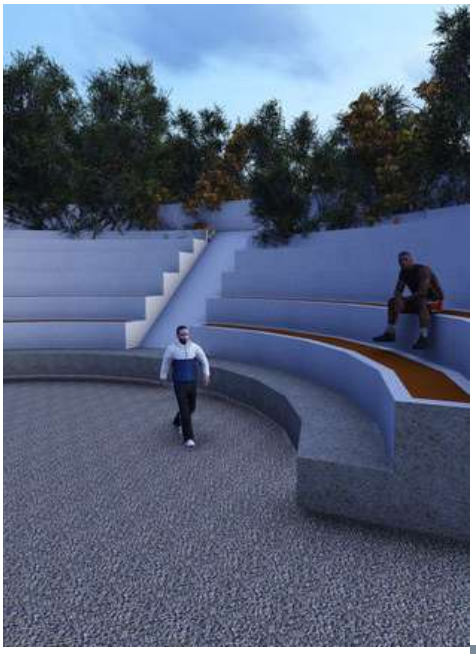
For relaxation, gazebos offer shaded areas for rest. The skating park caters to more active visitors, adding an element of excitement. A water fountain adds visual appeal and the soothing sound of flowing water, enhancing the park's atmosphere. Overall, the map reflects the park's eco-friendly focus, with green spaces, water features, and recreational areas integrated to create a balanced, tranquil, and harmonious environment.

ENLARGEMENT PLAN

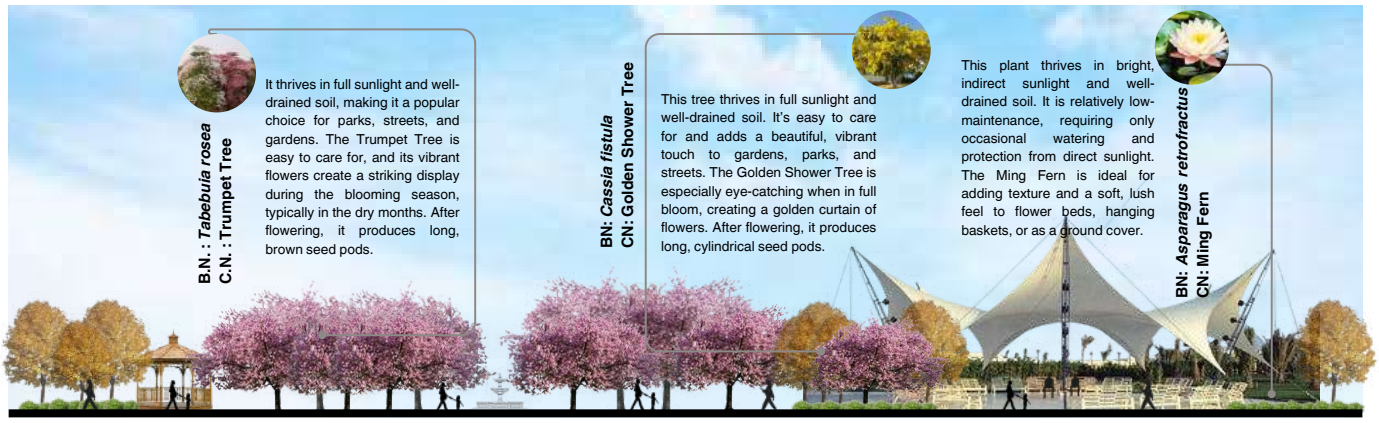


The park design is focused on creating a welcoming and functional space for everyone. It includes seating areas placed throughout the park, offering comfortable spots for visitors to relax, enjoy nature, or socialize. A standout feature is the water playground, providing an interactive and fun experience for children and families. It encourages physical activity while promoting water conservation awareness. The nature playgrounds use natural materials like wood and stones, encouraging children to explore and connect with the environment in a creative way.

The inter-playground connects different play zones, promoting movement and interaction among visitors. Trees and shrubs are strategically placed throughout the park, providing shade and enhancing the natural beauty of the space. These plants also improve air quality and offer shelter for wildlife. Overall, the park's design is centered around providing a space for recreation, relaxation, and connection with nature. With its thoughtful layout and balance of functional areas, the park creates a peaceful environment that encourages outdoor activity and social interaction for people of all ages.

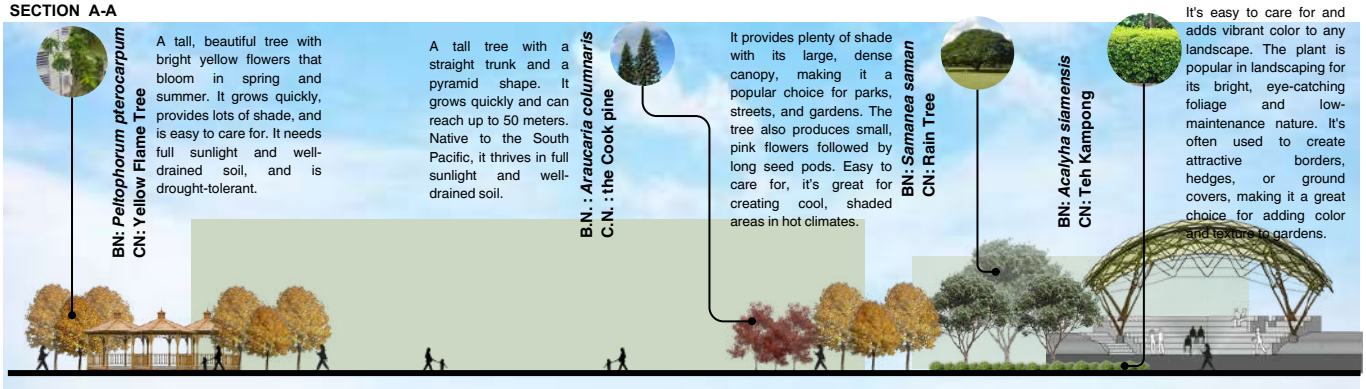


PLANTING INSPIRATION



SCALE 1:200

SECTION A-A



SCALE 1:200

The proposed an Eco-Friendly Public Park at Taman Pinggiran Tepi Sungai Kerian, Parit Buntar,Perak, utilizes the anchor link concept to emphasize seamless connectivity and the balance between nature and its environment. The strategic placement of vegetation helps guide movement, demarcate different zones, and establish focal points, enhancing the park's aesthetic value and functional design. The Golden Shower Tree, known for its striking golden curtain of flowers in full bloom, also thrives in bright, indirect sunlight and well-drained soil, requiring occasional watering and protection from direct sunlight. The Ming Fern, ideal for adding texture and a lush feel to flower beds or hanging baskets, flourishes in similar conditions with minimal care. Meanwhile, a tall tree with bright yellow flowers that bloom in spring and summer is easy to care for, grows quickly, and provides ample shade, thriving in full sunlight and drought-tolerant soil.

GREEN INITIATIVES

GREEN PARKING

Green parking incorporates sustainable features like permeable surfaces, tree cover, and environmental impact control, enhancing stormwater management and promoting urban sustainability.

VEGETATION BARRIER

A vegetation barrier is a row of plants, shrubs, or trees used to block or reduce things like noise, wind, or dust. It helps create privacy and protect spaces from the environment. It also looks nice and can improve air quality.

TREES

B.N. : *Filicium decipiens*
C.N. : Kiara Payung Tree

BN: *Delonix regia*
CN: Flame of the Forest

BN: *Cassia fistula*
CN: Golden Shower Tree

BN: *Terminalia molinetii*
CN: Dwarf Black Olive

B.N. : *Terminalia catappa*
C.N. : Ketapang Tree

BN: *Sygygium antiseptum*
CN: Shorea Eugenia

BN: *Ficus religiosa*
CN: Sacred Fig

BN: *Peltophorum pterocarpum*
CN: Yellow Flame Tree

BN: Bambusa vulgaris
CN: Common bamboo

PALMS

B.N: *Livistona chinensis*
C.N: Chinese Fan Palm

B.N: *Adonidia merrilli*
C.N: Christmas Palm

B.N. : *Licuala grandis*
C.N. : Ruffled Fan Palm

B.N. : *Cocos nucifera*
C.N. : Coconut Palm

GROUNDCOVERS / CREEPERS / EDIBLE PLANT

B.N. : *Axonopus compressus*
C.N. : Cow Grass

B.N.: *Zoysia japonica*
CN: Zoysia Japonica

B.N. : *Sphagneticola trilobata*
C.N. : Yellow Creeping Daisy

B.N. : *Pandanus amaryllifolius*
C.N. : Pandan

B.N. : *Cymbopogon citratus*
C.N. : Serai

SHRUBS

B.N: *Ixora javanica*
C.N: Jungle Flame

BN: *Acalyha siamensis*
CN: Teh Kampong

B.N: *Jasminum sambac*
C.N: Arabian Jasmine

B.N: *Bougainvillea spectabilis*
C.N: Great Bougainvillea

B.N: *Allamanda cathartica*
C.N: Golden Trumpet Vine

B.N: *Colocasia esculenta*
C.N: Elephant Ear

BN: *Ruellia simplex*
CN: Mexican Petunia

B.N: *Ruellia simplex*
C.N: Mexican Petunia

B.N: Nalium Olenader red
C.N: Bunga Anis

The plants listed represent a wide range of species that thrive in tropical and subtropical climates, each offering unique qualities that contribute to the environment and human use. Many of these plants are valued for their beauty, such as the striking flowers of Delonix regia (Flame of the Forest) and Cassia fistula (Golden Shower Tree), which add vibrant color to landscapes. Trees like Ficus religiosa (Sacred Fig) and Peltophorum pterocarpum (Yellow Flame Tree) provide shade, while others like Syzygium antiseptum (Shorea Eugenia) and Terminalia catappa (Ketapang Tree) are appreciated for their lush foliage and quick growth. In addition to their aesthetic value, many of these plants have practical uses. Cymbopogon citratus (Serai) and Pandanus amaryllifolius (Pandan) are commonly used in cooking, while Curcuma longa (Kunyit) offers medicinal benefits. Plants like Capsicum frutescens (Bird's Eye Chilli) and Cocos nucifera (Coconut Palm) provide edible products that are staples in many cultures. Overall, these plants enrich tropical landscapes, offering beauty, shade, and resources for both people and wildlife.

CONCLUSION

The design of Taman Pinggiran Sungai Kerian is focused on creating a harmonious and functional public space that blends nature with recreation. The park offers a variety of engaging features, such as the water playground and nature playgrounds, which promote interactive play and connection with the environment. These areas encourage children and families to explore, learn, and have fun in a safe and natural setting. Additionally, the sensory garden provides a unique experience, engaging visitors through sight, smell, touch, and sound, offering a peaceful and immersive escape. The inter-playground serves as a connector, encouraging movement and interaction between different play zones, while the seating areas allow visitors to rest and enjoy the surrounding beauty. The inclousion of trees and shrubs strategically placed throughout the park helps provide shade, improve the park's aesthetic, and enhance environmental benefits like air quality and temperature regulation. Overall, the park's design balances recreational spaces with green areas, creating a tranquil, inviting environment. In conclusion, Taman Pinggiran Sungai Kerian aims to offer a well-rounded experience for visitors of all ages, promoting physical activity, social interaction, and a deeper connection to nature. It provides a space that is both relaxing and functional, fostering a sense of community and well-being.

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Sharifah Nurul Humairah Syed Abdul Hafiz & Nadiyanti Mat Nayan

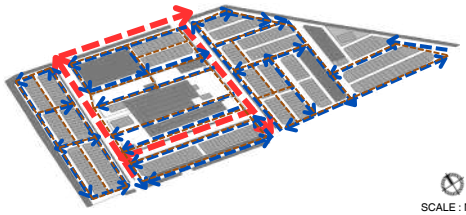
PROPOSED URBAN DESIGN LANDSCAPE: REJUVENATING THE RESILIENCE OF SHAHAB PERDANA

Shahab Perdana, a vital transit hub and commercial area, faces numerous challenges that limit its potential. Key issues include a lack of identity, insufficient shaded areas, urban heat island effects, noise pollution, unpleasant odors, damaged roads, inadequate pedestrian walkways, and safety concerns from stray animals and occasional wildlife sightings. Poor connectivity and accessibility further diminish its functionality and appeal, particularly during peak periods. In response to these issues, the redesign focuses on extending pedestrian walkways to enhance connectivity, incorporating rainwater harvesting systems and bioswales for sustainable water management, and introducing a green buffer of high carbon-absorbing trees to mitigate the urban heat island effect, improve air quality, and support biodiversity.Driven by the concept “Grasping the Eternal Roots of Shahab Perdana,” the design reimagines the site by blending its historical significance with modern, sustainable interventions. This approach creates a vibrant and engaging environment that prioritizes community well-being and environmental stewardship. The project aligns with Sustainable Development Goals (SDGs), including Goal 3: Good Health and Well-being, by improving comfort and air quality; Goal 11: Sustainable Cities and Communities, through enhanced accessibility, safety, and green spaces; Goal 13: Climate Action, by addressing urban heat and implementing sustainable practices; and Goal 15: Life on Land, by promoting biodiversity and habitat creation. The revitalized Shahab Perdana restores its identity and transforms the space into a functional, inclusive, and lively hub, ensuring its relevance and sustainability for future generations.

Keywords : Urban Landscape Design - Urban Resilience - Green initiatives

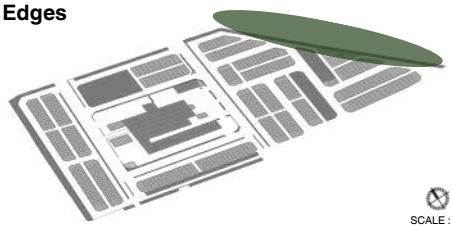
IMAGEABILITY

Paths



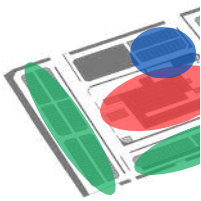
LEGEND major minor walkway

Edges



LEGEND forest

Districts



LEGEND food transporta

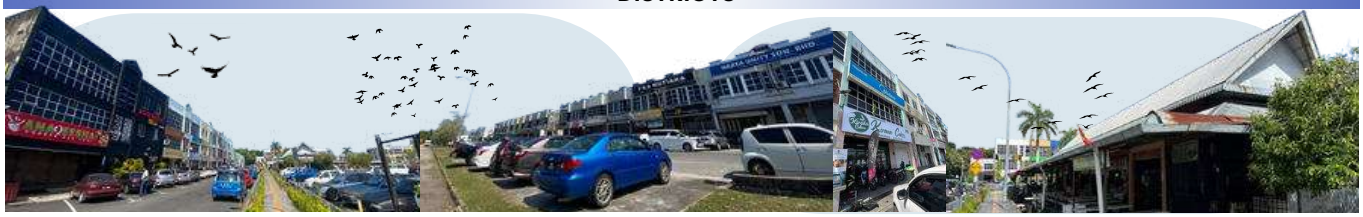
PATHS

The main road in the area is mostly one-way, connecting to several smaller roads, some one-way and others two-way. However, pedestrian pathways are insufficient, as they don't cover the entire area. As a result, pedestrians often walk along the road, which raises safety concerns in the urban environment.

EDGES

The forest on the edge of urban areas serves as a green buffer between the city and nature. It provides wildlife habitats and slightly reduces the urban heat island effect, but its cooling impact is limited. While it offers some relief, it doesn't significantly lower the overall temperature of the area.

DISTRICTS



Shahab Perdana is divided into four key districts, each serving a distinct purpose. The Food District includes various eateries and bakeries, offering a variety of local foods. The Transportation District is centered around the bus terminal and includes taxi services and e-hailing options for ease of travel. The Mixed-Use District provides a combination of small shops and urban amenities, while the Commercial District focuses on retail businesses and services.

MAJOR NODES

These are central points that attract high activity, such as Shahab Perdana Terminal, Kirana Cakes, and nearby restaurants. These places act as focal areas for transportation, dining, and socializing, drawing in both locals and travelers.

MINOR NODES

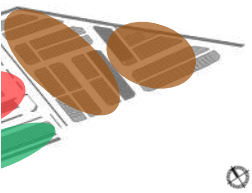
Smaller hubs with less activity, like Yonhin Bakery and other commercial stores, serve a more localized audience. They contribute to the area's commercial landscape but are not as prominent or busy as the major nodes.

MAJOR LANDMARK

Shahab Perdana in Alor Setar is a busy hub with key landmarks. The main attraction is the Shahab Perdana Bus Terminal, connecting travelers locally and beyond. Another notable spot is the Yonhin Bakery Ingredient and Food Packaging Store, known for its bright signage. These landmarks make Shahab Perdana a lively and convenient place in the city.

MINOR LANDMARK

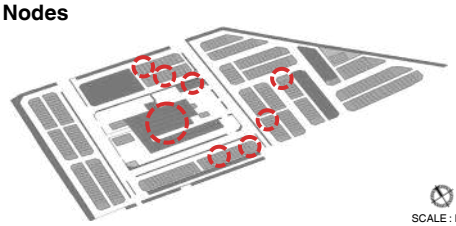
Shahab Perdana has minor landmarks that add charm and help with navigation. For example, the KFC restaurant with its well-known signage and a car workshop with bright green colors stand out. These landmarks are easy to spot and attract attention, making the area more appealing and serving as visual guides for locals and visitors.



SCALE : NTS

tion mix used commercial

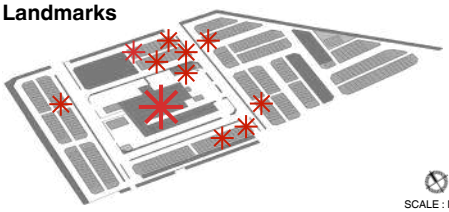
Nodes



SCALE : NTS

LEGEND major minor

Landmarks



SCALE : NTS

LEGEND major minor

SEQUENTIAL STUDY

1. Kirana Cakes
2. Medan Selera
3. 99 Speedmart
4. Junction near edges
5. Junction between open space
6. Dania Tomyam Restaurant
7. Impian Londoy Restaurant
8. Tanjak Motel
9. WARONG Cafe
10. Ulam Restaurant

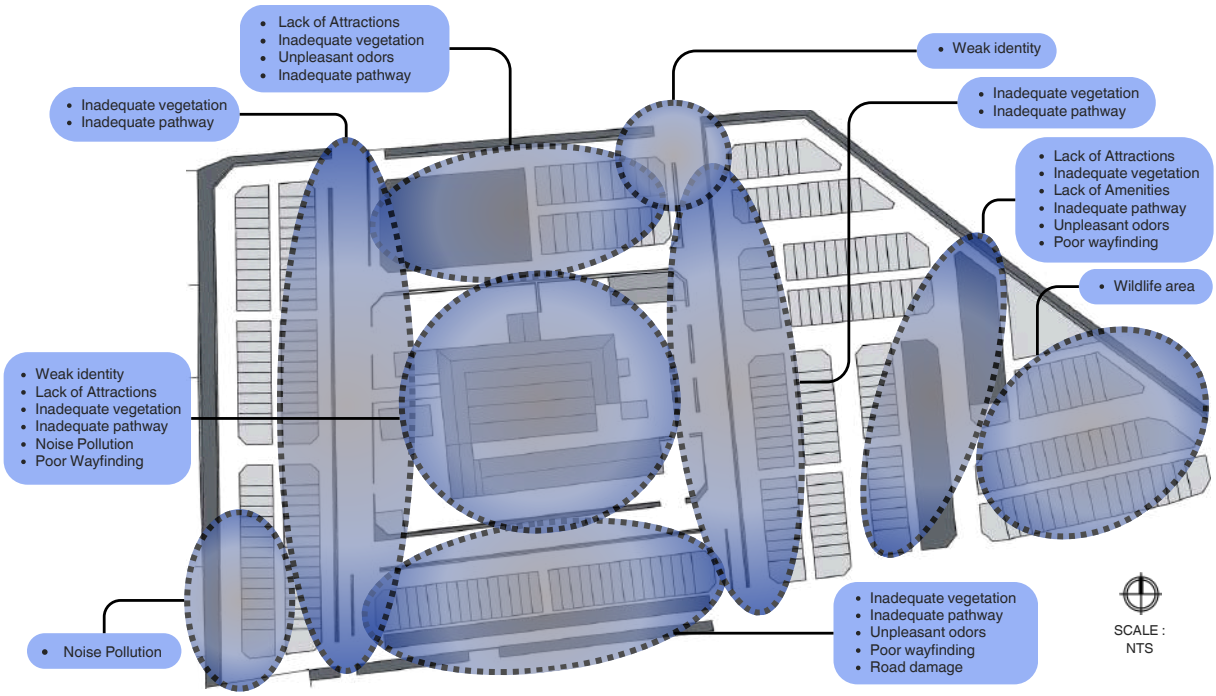
INTRODUCTION

Shahab Perdana is a prominent public space located in the heart of Alor Setar, Kedah, covering an expansive 50 acres. Serving as a key transit hub, it plays an important role in connecting different areas of the city, particularly for those using buses and other public transport. The site is surrounded by various commercial, administrative, and public service buildings, making it a central point in the urban landscape. Historically, Shahab Perdana has been a location of significant activity, but over time, it has become underutilized and lacks a distinct identity, often perceived as more of a functional area than a vibrant public destination.

Despite its strategic importance and prime location, Shahab Perdana has become an underutilized space. The absence of a cohesive identity and limited opportunities for social interaction have diminished its appeal. With its considerable potential for growth and revitalization, the site offers a unique opportunity for redesign to better serve the needs of the community and transform it into a space that encourages engagement and fosters social connections.

SITE SYNTHESIS

Shahab Perdana, an urban space in the heart of Alor Setar, is a significant transit hub and urban landmark. However, in its current state, the site faces several challenges that affect its identity, functionality, and overall user experience. The site synthesis for Shahab Perdana combines site inventory and analysis data, identifies existing issues, and organizes this information to provide a clear direction for design interventions that enhance the site's potential.



Socio-cultural Dimension

- **Opportunity:** Shahab Perdana's central location offers an opportunity to create a unique identity that connects with the local community and reflects its heritage.
- **Constraint:** The space currently lacks cultural features, making it feel more functional than an inviting, vibrant public area

Physical Dimension

- **Opportunity:** The large area allows for the addition of green spaces, walkways, and sustainable features to improve comfort and accessibility.
- **Constraint:** Fragmented walkways and exposure to sunlight, along with noise and odors from the bus terminal, reduce comfort and ease of movement.

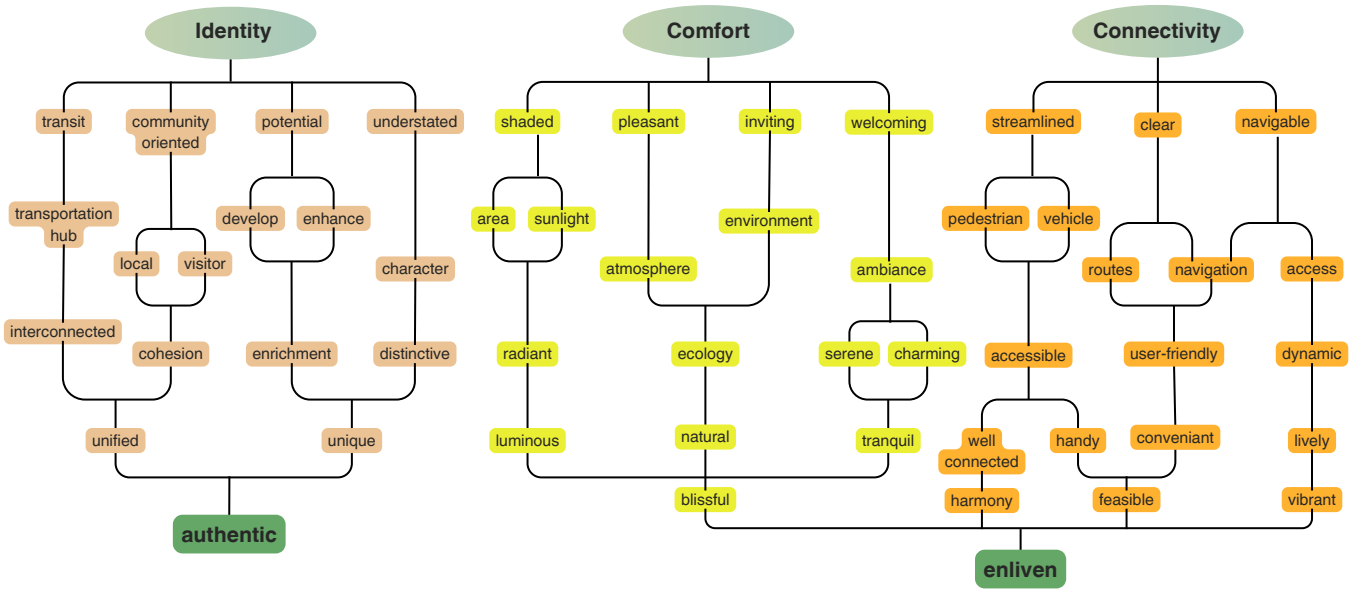
Biological Dimension

- **Opportunity:** There is potential to add more green spaces and plants, improving air quality and supporting a healthier environment.
- **Constraint:** The lack of green spaces and environmental discomfort, such as high temperatures and pollution, limit the biological benefits of the site.

With its central location and untapped potential, the site offers an opportunity to become a vibrant, functional, and sustainable public space. The focus is on creating a unique identity that reflects local heritage while addressing issues like accessibility, comfort, and safety. The design prioritizes enhancing cultural significance, improving infrastructure with better walkways and green spaces, and integrating vegetation to reduce heat and improve air quality. By addressing these key aspects, the site can transform into an inclusive and welcoming hub that serves the community and celebrates its distinctive character.

CONCEPTUAL DEVELOPMENT

THEME

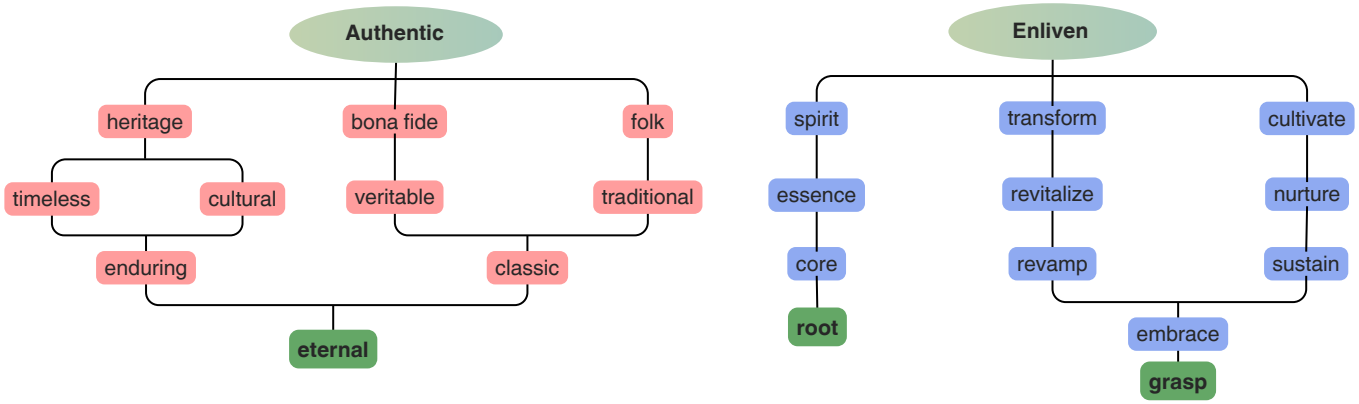


Enlivening the Authenticity

This theme focuses on revitalizing urban spaces by preserving their originality and inherent qualities while introducing fresh energy and functionality. It emphasizes landscape designs that honor the existing character of a place, incorporating new elements to enhance its appeal and relevance for the community.

Through thoughtful interventions, "**Enlivening the Authenticity**" aims to breathe life into these spaces, creating environments that are both dynamic and deeply connected to their authentic essence, fostering a renewed sense of place and connection for those who experience them.

CONCEPT



This concept envisions the revitalization of Shahab Perdana, an urban space with deep-rooted significance that has faded over time. "**Grasping the Eternal Roots**" emphasizes the importance of renewing the area while honoring its foundational character.

By reinforcing Shahab Perdana's core identity, the design aims to create an inviting space that encourages people to engage, linger, and appreciate its lasting relevance within the urban landscape.

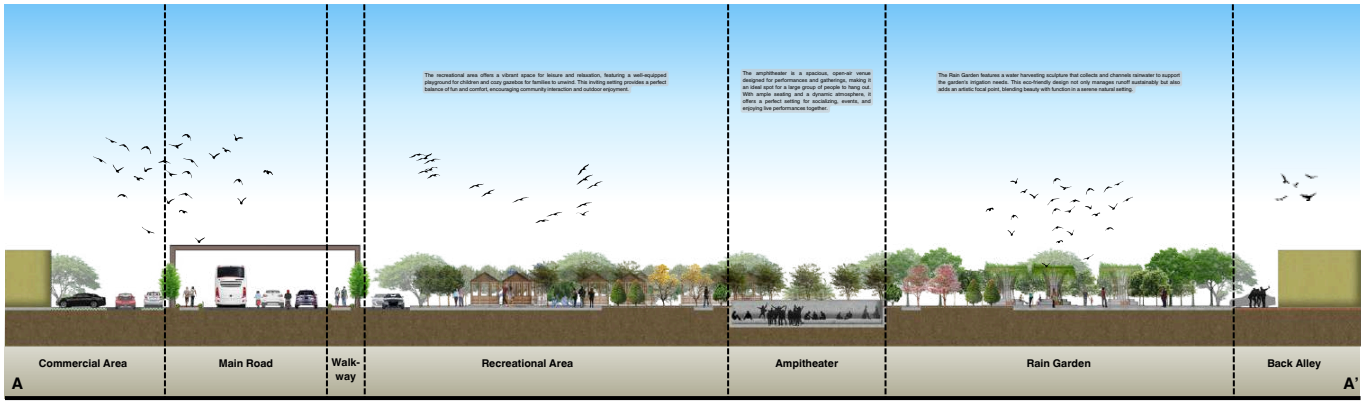
Grasping the Eternal Roots of Shahab Perdana

MASTERPLAN

The masterplan for Shahab Perdana seeks to create a vibrant, welcoming space that strengthens its identity, fosters community engagement, and encourages longer visits with better facilities and green areas. It aligns with urban goals of sustainability, inclusivity, and integrating nature, celebrating local culture while improving accessibility to serve both locals and visitors, creating a thriving urban hub.

To achieve this, the objectives are as follows: Enhance the Identity by incorporating functional spaces and artistic features that reflect the diverse heritage of Shahab Perdana, offering visitors more areas to explore and engage with, while establishing a strong sense of place. Promote Green Spaces by increasing landscaping and planting initiatives to provide shaded, comfortable areas that invite relaxation and enjoyment. Strengthen Connectivity and Accessibility by upgrading transportation links and pedestrian pathways, ensuring smooth movement and maximizing the potential of the site. Together, these goals provide a comprehensive framework for revitalizing Shahab Perdana into a dynamic, inclusive, and sustainable public space.

SECTION A-A' - THE ROOTED SPOT



The Rooted Spot in Shahab Perdana is designed to offer a variety of spaces for community engagement. The children's play area provides a safe, interactive environment for young visitors, while the adjacent amphitheater serves as a venue for cultural performances and community events. These elements foster social interaction and cultural expression. At the heart of the park, a striking water harvesting sculpture blends art and sustainability, symbolizing the site's commitment to environmental consciousness. This sculpture not only enhances the park's aesthetics but also serves a functional purpose, capturing rainwater for reuse, further promoting sustainability in the urban landscape.

ENLARGEMENT PLAN

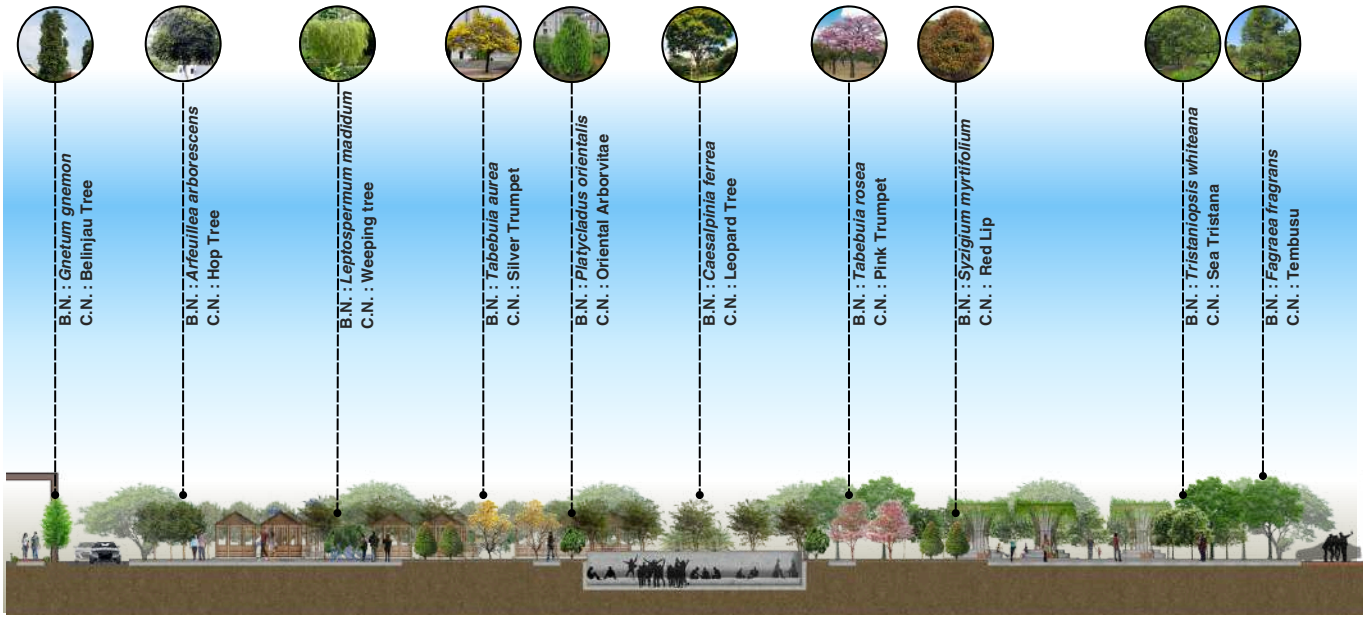
The enlargement plan for Shahab Perdana transforms its core area into a vibrant, multifunctional hub designed to enhance interaction and visitor experience. Key features include a strategically placed Drop-off and Pickup Point for seamless transportation access, a lively Food District offering diverse dining options, and an inviting Urban Park with shaded seating and green spaces for relaxation and community activities. Pedestrian Pathways connect these zones, ensuring smooth navigation and prioritizing safety and comfort. This revitalized space reflects the theme of 'enlivening the authenticity,' combining functionality, sustainability, and identity to create an engaging destination.

PLANTING INSPIRATION

The plant selection for Shahab Perdana has been carefully chosen not only for its aesthetic value but also for its functional benefits. The chosen species include those with high carbon absorption capabilities, helping to mitigate the site's carbon footprint and improve air quality.

Drought-tolerant plants have been prioritized to ensure resilience and sustainability, requiring minimal water and maintenance, which is ideal for the local climate. These plants also contribute to reducing the urban heat island effect by providing shade, especially in areas that are currently unshaded and exposed to direct sunlight.

In addition, the selected species play a role in noise reduction, as certain plants, particularly those with dense foliage, can help dampen ambient sounds from nearby traffic and the bus terminal, creating a more comfortable environment. By integrating these plant species, the design not only enhances the site's ecological health but also addresses key environmental issues such as heat, pollution, and noise, creating a more sustainable and comfortable space for visitors.



GREEN INITIATIVES

The green initiatives at Shahab Perdana are designed to address environmental challenges and promote sustainability within the urban landscape. These include bioswales, which manage stormwater runoff and improve water quality, and rainwater harvesting, which captures and reuses rainwater to reduce reliance on local water supplies. The development also incorporates permeable parking surfaces that allow water to filter through, reducing runoff and supporting groundwater recharge. Additionally, drought-tolerant plants and those with high carbon absorption, such as specific tree species, are strategically planted to enhance the environment, mitigate the urban heat island effect, and help absorb carbon emissions, contributing to a more sustainable and resilient urban space.

SDG 3: Good Health and Well-Being

- The addition of green spaces, drought-tolerant plants, and areas for outdoor activities supports physical and mental well-being, encouraging healthier lifestyles for the community.

SDG 11: Sustainable Cities and Communities

- The integration of green spaces, permeable parking, and eco-friendly design contributes to the creation of resilient, inclusive, and sustainable urban environments.

SDG 6: Clean Water and Sanitation

- Rainwater harvesting and bioswales help manage water resources and reduce stormwater runoff, supporting sustainable water management.

SDG 13: Climate Action

- The use of drought-tolerant plants and high carbon absorption plants contributes to reducing carbon emissions and mitigating the impacts of climate change.

SDG 15: Life on Land

- The planting of drought-tolerant and carbon-absorbing plants helps restore ecosystems and enhances biodiversity within the urban landscape.

TREES

B.N. : *Samanea saman*
C.N. : Rain Tree

Ideal for urban parks and large green spaces to provide shade and reduce the urban heat island effect

B.N. : *Fagraea fragrans*
C.N. : Tembusu

Used in streetscapes and residential areas for its fragrant flowers and as a small shade tree

B.N. : *Caesalpinia ferrea*
C.N. : Leopard Tree

Suitable for urban plazas or as a feature tree in commercial developments due to its striking bark

B.N. : *Azadirachta indica*
C.N. : Neem Tree

Commonly planted along roadsides and urban edges for shade and its natural pest-repelling properties

B.N. : *Gnetum gnemon*
C.N. : Belinjau Tree

Suitable for roadside planting, providing shade and greenery with low maintenance

B.N. : *Plumeria rubra*
C.N. : Frangipani

Often planted in courtyards, pedestrian zones, and resorts for its beautiful flowers and tropical aesthetic

B.N. : *Syzigium myrtifolium*
C.N. : Red Lip

Popular in urban settings as a decorative hedge, adding greenery to residential and commercial areas

B.N. : *Platycladus orientalis*
C.N. : Oriental Arborvitae

Frequently used in formal urban landscapes, cemeteries, or as a vertical element in design

B.N. : *Leptospermum madidum*
C.N. : Weeping tree

Used in urban residential landscapes or pocket parks for its fragrant flowers and compact size

B.N. : *Gardenia tubifera*
C.N. : Golden gardenia

Used in urban residential landscapes or pocket parks for its fragrant flowers and compact size

B.N. : *Tabebuia rosea*
C.N. : Pink Trumpet

Perfect for creating seasonal highlights in urban streets, parks, and boulevards with its showy blooms

B.N. : *Tabebuia aurea*
C.N. : Silver Trumpet

Often used as a feature tree in urban plazas and smaller gardens for its golden-yellow flowers

B.N. : *Tristaniopsis obovata*
C.N. : River Tristana

Excellent for urban streetscapes and sidewalks due to its dense foliage and ability to tolerate urban conditions

B.N. : *Tristaniopsis whiteana*
C.N. : Sea Tristana

Suitable for use as a street tree or in commercial landscapes for its resilience and structured form

B.N. : *Arfeuillea arborescens*
C.N. : Hop Tree

Planted in urban gardens or green roofs for its ornamental bark and adaptability

PALM

B.N. : *Cycas revoluta*
C.N. : Sago Palm

Commonly used as a focal point in urban courtyards or modern landscapes for its architectural form

B.N. : *Areca catechu*
C.N. : Betel Palm

Planted in urban green belts and tropical-themed developments for its vertical accent and traditional appeal

B.N. : *Brahea armata*
C.N. : Mexican Blue Palm

A striking palm with silver-blue fronds, perfect for adding a dramatic accent to urban landscapes, modern gardens, or dry-themed designs

SHRUBS

B.N. : *Murraya paniculata*
C.N. : Orange Jasmine

Perfect for urban hedges, green buffers, and low-maintenance decorative borders

B.N. : *Loropetalum chinensis*
C.N. : Chinese fringe flower

Used in urban residential and commercial designs for its colorful foliage and as an accent shrub

B.N. : *Ehretia microphylla*
C.N. : Fukien Tea Tree

Ideal for creating formal hedges in urban landscapes or as a compact border in gardens

B.N. : *Euodia suaveolens*
C.N. : Zodia

Great for small urban gardens, attracting pollinators while providing aromatic foliage

B.N. : *Jatropha integerrima*
C.N. : Peregrina

Used in urban plazas and mixed borders for year-round blooms that attract birds and butterflies

B.N. : *Ixora javanica*
C.N. : Javanese Ixora

Perfect for tropical-themed landscapes in urban parks or as a vibrant standalone feature

B.N. : *Ruellia simplex*
C.N. : Mexican Petunia

A low-maintenance shrubs or border plant in urban gardens and along pathways

B.N. : *Hamelia patens*
C.N. : Scarlet bush

Excellent for pollinator gardens in urban settings, adding bright colors to spaces

B.N. : *Bougainvillea*
C.N. : Paper Flower

A vibrant shrub commonly used in urban spaces to add color and beauty to gardens, walls, and fences

SHRUBS

B.N. : *Cissus verticillata*
C.N. : Princess vine

A fast-growing climber ideal for greening urban walls and pergolas, providing shade and enhancing thermal comfort in city spaces

GROUNDCOVERS

B.N. : *Axonopus compressus*
C.N. : Cow Grass

A hardy and cost-effective grass, perfect for urban parks, playgrounds, and roadside green strips

CONCLUSION

In conclusion, the transformation of Shahab Perdana embodies a holistic vision for urban renewal, where functionality, sustainability, and community well-being intersect. By addressing critical issues such as environmental comfort, connectivity, and local identity, this project reimagines the space as a thriving hub that fosters both social interaction and environmental harmony. The integration of green initiatives, such as rainwater harvesting, plant selection for carbon absorption, and sustainable materials, showcases a deep commitment to ecological responsibility. This revitalization not only responds to the needs of today but also creates a lasting legacy for future generations—one where the built environment harmonizes with nature and serves as a model for thoughtful, inclusive urban development. Through this thoughtful redesign, Shahab Perdana becomes more than just a transit hub; it becomes a space that enriches the community, honors local heritage, and embraces sustainability as its core value.

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SULAM : LAN200

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LAN/LDA350

INDEPENDENT

Landscape Design

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