Become part of new eco-friendly society

IMPROVE

Why we need to do this?
How they work?

Air Pollution
Water Resources
Deforestation
Energy Supply
Food Security

Singapore’s rapid urbanization exacerbated its urban health in decades. Environmental problems such as air pollution, urban heat will damages not only human but entire eco-system as well. There are various studies and technologies that improves urban health but still there are lack of understanding among public why and how we need to change.

Volunteer Activities

URBAN HEALTH EDUCATION

Discover problems, learn knowledges
Raise motivation of improving urban health
Become part of new eco-friendly society

Since 1977, Education Hub of sharing knowledges to public

Science Center
Eco Garden

Base of ecological study with rich animals and plants’ habitats.

Jurong East is one of the hot development area in Singapore. The site is in the middle of business district and tourists district.

Surrounding the site, a lot of education institutes are located. One of the top institutes are located in the region.

New MRT lines and stations will be developed in near future, especially in Jurong Lake District.

One of the aging society in Singapore, most of residences are HDB houses.

In the western region of Singapore, several hubs are located or being constructed. Those hubs are strongly supported by rich train and highway networks.

DEVELOPMENT GOALS CONCEPT

Urban Health Campus (UHCampus) will be a model of future healthy city and influencer to citizens by gathering, sharing knowledges and technologies that we need to improve urban health.

Our concept of Urban Health is not only concerning Human health, but also concerning Animal+Plants, and Environmental health. We believe improving these 3 health will totally improves urban health.

Urban Health Campus (UHCampus)

From UHCampus to SINGAPORE
We improve human health totally by involving the full city. The UHCampus works as a core of the system. Mini EDU Infrastructure plays important roles as well by equally and freely providing a place for all to learn.

**UHCampus Master Plan**

**Human Health Strategy**

**Education on the Street**

**Mini EDU Infras**
Small infrastructures places on the street give people more opportunities of learning.

**Voluntary Library**
Sharing as small public library, borrowing books from institutes.

**Mini Board Space**
Conversation with people become a hint to innovation.

**Mini Community Garden**
Towering plants with community green welcoming to the city.

**Mini Study Lounge**
People could enjoy studying with just views to JLG.

**Mini Expo**
Sharing new discovery and technology advancements.

**Animals + Plants Strategy**

New Eco Garden with Constructed Wetlands

UHCampus is adjacent to 2 famous tourist sites; Jurong Lake Gardens and lakes, tourist development zone near Chinese Garden St. To direct the conveniences, we propose a street that connect these 2 sites via UHCampus. People can easily access each site by using Carbon Neutral Transport System; electric shuttle buses and 3 bikes. By allowing only pedestrians and these 2 transports on the street, a pedestrian and eco-friendly city is developed.

**Environmental Strategy**

**Carbon Neutral Transport System**

To enhance the convenience, we propose a street that connect UHCampus to Chinese Garden St. and Jourong East MRT St. People can access to UHCampus from Chinese Garden St. with great view to JLG. People could enjoy studying on the street, a pedestrian and eco-friendly city is developed.

**Observatory to Nature**
Observatory towers have museum floors showing the eco-system of the garden.

**Sky Walkway**
Enjoy walking by viewing spectacular lake view.

**Lake View Promenade**
Enjoy walking by viewing spectacular lake view.

**Observatory Towers**
Observatory to Nature; showing the eco-system of the garden.

**UHCampus**
Education on the Street

**THE NATURE**
The current Eco Garden will be preserved and expanded creating a rich habitat for animals/plants. The area also works as a rainwater storage.

**THE AXES**
The vertical axes work as a "connector" to adjacent cities. The horizontal axes work as a "view corridor" to the lake, garden and island.

**THE PLAZAS**
The plazas are placed in the main intersections. People can stay and enjoy the view of Jurong Lake Gardens.

**THE CORE**
Science center will be renewed as Urban Health Center, the core of the site improving the urban health and expanding knowledge to cities.

**THE CORE**

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**a day at the URBAN HEALTH CAMPUS**

**TENG & SARAH**
NUS University Students

Teng and Sarah never had a reason to go to Jurong Lake District, but the UHC redevelopment is now a great place to go after class.

**UHCenter**
Remodeling the inside, keeping the outside Changing the focus, maintaining the education

**5 MAIN FOCUS OF THEIR EDUCATIONAL PURPOSE**

**Vertical Farming**
Purpose Human Creativity

**Research & Innovation Lab**
Purpose Food Source

**Exhibition Space**
Purpose Share

**Recycling Center**
Purpose Old

**Solar Power Farming**
Purpose Energy

**Road Section Plan**

**pedestrian network with two types of Roads**

The Main Street is equipped with public EV lanes and bike lanes, making it easy to move without private cars. Mini educational infrastructures are placed along the street, creating an environment where anyone can easily access education.

On the Lakeview Promenade, straight paths and bioswales with short plants create lake views, and winding decks and plants create various landscapes and serve a disaster-prevention function.

**Nature Preserving by Water Bank**

**The green storm water bank and bio-swales enhance the aesthetics of the area and promote sustainability.**

**The water bank is also used for irrigation and evapotranspiration.**

**A rainwater re-use system of JUC**

**Storm Retention Pond**

The rainwater re-use system of JUC also enhances the aesthetics of the area and promotes sustainability. The storm retention pond is used for irrigation and evapotranspiration. A rainwater re-use system of JUC also enhances the aesthetics of the area and promotes sustainability.
As the site is located between Jurong Lake (one of the most important green areas of Singapore) and Jurong East (a transportation and upcoming CBD center), the primary concept to the architectural design is to achieve a smooth transition from the natural to the urban environment. Therefore, the buildings with green roofs will not only reduce the heat island effect but also harmonize with the Chinese and Japanese gardens in the Jurong Lake Gardens. Hence, the architecture enhances a sense of cultural belonging within the site which is considered particularly significant in this multicultural country.

### Green Building Strategy

- **Solar Energy**: All buildings have 100% solar energy (investment included) to power all units.
- **Green Roofs and Green Walls**: These elements create a series of mountains visually suggesting a series of mountains.
- **Ventilation Pathways through Airways**: As Singapore has a warm climate, not only does the greenery help for ventilation, the buildings are proposed to have airways.

### Timeline of Construction

**Phase I**
- **GFA**: 11,529 m²
- **Costs (millions SGD)**
  - Total project costs: 186.3
  - Total hard costs: 120.9
  - Total infrastructure costs: 65.4

**Phase II**
- **GFA**: 23,503 m²
- **Costs (millions SGD)**
  - Total project costs: 137.8
  - Total hard costs: 91.3
  - Total infrastructure costs: 46.5

**Phase III**
- **GFA**: 28,926 m²
- **Costs (millions SGD)**
  - Total project costs: 267.8
  - Total hard costs: 169.4
  - Total infrastructure costs: 98.4