



Pearl for the World [Phase 2 Exhibition]

A Holistic Sustainable Scheme on Marine-land Parks and Green links for HKSAR

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(The first edition of this text was used in the Phase 1 Exhibition in October 2009. This edition is used for the Phase 2 Exhibition to be held from 30 December 2009 to 2 January 2010 in Loke Yew Hall, The Main Building, The University of Hong Kong. The foundation stone of The Main Building was laid on 16 March 1910. The current exhibition serves to commemorate the 100th anniversary of the foundation year of the Main Building, HKU.)

維港宏基定百年: The 100-year Sustainable Plan for HKSAR

Pearl for the World project brings forward a generic sustainable development framework for the entire HKSAR for the coming 50 years and beyond. The project particularly addresses Hong Kong's ever increasing population which is predicted to reach 8.6 million by 2050. [UN Population Reports of 2008]



Addressing environmental effectiveness, technical feasibility, and financial viability collectively, **Pearl for the World** is signified by a substantial increase in urban marine and land parks in the city centre of HKSAR to about 1 700 hectares. It is proposed to optimize the use of the 700 hectares of reclaimed land comprising the 300 hectares in West Kowloon from Jordan to Lai Chi Kok, and 330 hectares in Kai Tak at East Kowloon, and 60 hectares reclaimed land at the harbour front of Hong Kong Island. The surface of these 700 hectares of reclaimed land will generally be used as parks. Elevated above the parks will be built some schools, office buildings and hotels at certain selected locations. To optimized land use, the underground volumes will be developed into connected cities of traffic routes, vehicular parking facilities, a variety of electric transportation facilities, commercial and recreational and sports facilities, selected institutional and educational, and tourist facilities, and an enormous sea water centre and energy centres. All these facilities will support the sustainable developments in the park regions, and bring redevelopment of the Kowloon interior regions into a new energy efficient and sustainable era.

A large system of *Green Links* which are proposed to connect all the urban parks to country parks in a network, enabling people to travel between the parks quickly and safely at an elevated level generally above and away from the noise and pollution of the motor traffic.

千頃一碧兩岸前： 1700 hectares of harbour front green

At the centre of all urban and country parks and the *Green Links*, a system of **EIGHT FLAGSHIP PARKS** consisting of a conglomerate of adjacent and linked parks at the centre of HKSAR is proposed, which includes:

1. 西維港海陸公園群：Marine and Land parks at West Victoria Harbour

[註:WMP = West Marine Park 西維港水上公園；WLP = West Land Park 西維港陸上公園]

- WMP1: A West Kowloon Marine Park-Shelter of 65 hectares, by transforming the current New Yau Ma Tei Typhoon Shelter
- WMP2: A Canton Road Marine Park of 16 hectares, by transforming the current Hong Kong China Ferry Terminal and its ferry passage, and relocating the terminal to the North end of the proposed West Kowloon Marine Park- Shelter, and expanding it there
- WLP1: A West Kowloon Land Park of 330 hectares, covering the un-built area and roads of the reclaimed areas extended from Jordan West to Kai Chi Kok, in which there will be TWO ICONIC SUNDIALS
- WLP2: The present Kowloon Park of Tsim Sha Tsui, to be linked to the West Kowloon Land Park by an East-West ICONIC SUNDIAL Bridge which will be built over and across Canton Road, with the sundial gnomon extended up from the mid-level watch tower to 88m high above ground
- WLP3: A Hong Kong Central Sundial Park of 10 hectares, containing TWO ICONIC SUNDIALS, to be linked to the West Kowloon Land Park by a North-South HK Central Underwater Pedestrian-Cycling-Cable Tram Tunnel



- WLP4: The existing region of Clock Tower, Hong Kong Cultural Centre, Hong Kong Space Museum, Hong Kong Museum of Art, and the adjacent bus terminus area, and Salisbury Garden of Tsim Sha Tsui, to be transformed into a landscaped Clock Tower Sundial Park containing THREE ICONIC SUNDIALS. This park shall be linked to Kowloon Park by an elevated Green Bridge to be built over Kowloon Park Drive.
- WLP5: The Golden Bauhinia Park of 5 hectares, founded on the present Golden Bauhinia Square, to be extended westward to meet the HK Central Sundial Park. The Golden Bauhinia Park shall be linked to the Clock Tower Sundial Park of Tsim Sha Tsui by the Golden Bauhinia Underwater Pedestrian-Cycling-Cable Tram Tunnel. This tunnel shall align with a straight line joining the present Golden Bauhinia at Wanchai to the 88-m tall sundial gnomon of the proposed East-West Sundial Bridge of the present Kowloon Park.
- WLP6: The HKSAR Square of 23 hectares, founded on the Peace Memorial of HK Central, containing the Statute Square, the extended City Hall district, the newly reclaimed land, extended to the Civic Square of the new Government Headquarters Building . The existing buildings of People's Liberation Army site will be dismantled, with the existing site to be given back to HKSAR government, and to be used as part of HKSAR Square. An equal site area at the harbour front adjacent to the military pier will be allocated to PLA, which will be used as part of HKSAR Square on ground level, with an a PLA museum and cultural complex to be built underground
- WMP3: The West Harbour Park of 200 hectares bounded by the TWO lines of the TWO underwater tunnels

2. 東維港海陸公園群: Marine and Land parks at East Victoria Harbour

[註: EMP = East Marine Park 東維港水上公園 ; ELP = East Land Park 東維港陸上公園]

- ELP1: Kai Tak Land Park of 330 hectares at East Kowloon
- ELP2: East Island Land Park of 10 hectares, covering Quarry Bay Park , to be linked by green links to the reclaimed land at Wan Chai, connected to the Golden Bauhinia Park. It is proposed to build the Kai Tak Central Underwater Pedestrian-Cycling-Cable Tram Tunnel to connect the end section of Kai Tak Runway to the area near the Eastern Harbour Crossing at the East Island Land Park.
- EMP1: The East Kowloon Marine Park of 200 hectares, covering the Kowloon Bay district from H
- EMP2: The East Victoria Harbour Park of 500 hectares, covering the sea district bounded by –The East Kowloon Marine Park, HK Island, Kai Tak Central Underwater Pedestrian-Cycling-Cable Tram Tunnel, and Golden Bauhinia Underwater Pedestrian-Cycling-Cable Tram Tunnel.

The Kai Tak Park at East Kowloon will be connected by the 4-km Central Kowloon Route [most parts of which are underground] to West Kowloon Land Park. The Kai Tak Park at East Kowloon is also connected via the Kwun Tong Bypass and the Eastern Harbour Crossing to East Hong Kong Park at Quarry Bay.



The THREE regions of reclaimed underground space, namely at West Kowloon, East Kowloon, and the north coast of HK Island, will be developed into huge underground cities, all safely and sustainably connected. Also huge TRAFFIC HUBS will be built around the vehicular tunnel portals on both side of the Harbour, each with traffic interchange facilities to local electric traffic systems, and enormous park facilities for thousands of vehicles. The electrical traffic facilities will connect all parks and TRAFFIC HUBS, resulting in reduced traffic in existing roads, and hence reduced vehicular pollutant emissions and traffic noise.

Hence, a System of many linked Green FLAGSHIP PARKS of marine parks and land parks, summing to about 1700 hectares will be formed, and will be symbolically linked together by EIGHT ICONIC GIGANTIC SUNDIALS to immerse harmoniously in the richness of nature. The green links, the underwater tunnels, and the Flagship land parks will constitute several circling routes. With further connection by non-polluting water transport, the marine land parks will be fully connected by both land and sea. This Holistic Sustainable System of FLAGSHIP Marine-land PARKS and their Green Links will form a **UNIQUE MACROSCOPIC SUSTAINABLE CITYMARK of The Special Administrative Region of Hong Kong.**

地下連城無價寶：

The invaluable interconnected underground cities

Since no further reclamation will be conducted in the Victoria Harbour, the existing reclaimed land is of immense value. Therefore, all the reclaimed space from the hard rock at sea bed to the ground level and to the air space above the ground has to be optimized for its current and future use:

1. Parks will be built at normal ground level, providing huge green regions.
2. Underground cities with huge systems of traffic routes, interchange, roads, and parking facilities.
3. Underground cities will contain shopping malls, sports and recreational facilities, tourism facilities, huge rain water tanks, and sea water and energy saving centres. Since all the underground cities are interconnected and connected to other traffic stations, and underground facilities, offering the sure benefit of saving energy of air conditioning. Also people at the parks can have shelter inside the underground cities in rain and stormy days.
4. At certain parts of the land parks will be built elevated offices, hotels, schools, and residential buildings, and even elevated sports facilities such as city golf ranges, climbing sports facilities, without recuing park area.

Populations increase will increase the pressure on land availability, the **Interconnected underground cities will be invaluable assets to HKSAR.**

The existing and future art and cultural facilities and other facilities surrounding the central part of the Harbour will all be embraced and interconnected by this system of FLAGSHIP PARKS and Green links, in harmony with their surroundings and nature.

The 3 missions of 330 hectares of Kai Tak Park at East Kowloon:

1. To support the sustainable redevelopment of the interior regions of East and north Kowloon, such as Kowloon City area, to meet the needs of the population increase in HKSAR. Lots of low rise buildings in Kowloon offer high potential for sustainable redevelopment. This will include the



construction of green links from **Kai Tak Park** to the interior regions to enable people to travel conveniently, safely, comfortably to **Kai Tak Park**, in which schools and other recreational and sports and cultural facilities will be provided collectively to serve the interior regional developments, thus substantially reducing the related land demand in redeveloped regions. This integrated cross-regional support urban planning and design is unique to HKSAR.

2. The ground level will be a big park, and the underground space will be developed into a big city, and a huge traffic hub and vehicular interchange with lots of parking facilities, targeted to support the traditional enterprises and “ the SIX ENTERPRISE” to meet the economic needs of HKSAR
3. The remaining space and areas of Kai Tak Park should be carefully kept for future sustainable use. This will mean that whatever construction to proceed NOW, shall not **COMPROMISE** the ability of the future generation to use the underground reclaimed space sustainably. **For example the underground road tunnel to be constructed inside Kai Tak reclaimed park area shall have provisions, such that the space surrounding the underground tunnel can be used as part of underground city development in the future or NOW.**

The 3 missions of 330 hectares of West Kowloon Park from Jordan to Lai Chi Kok:

1. To support the sustainable redevelopment of the interior regions of West and Central Kowloon, such as Shek Kip Mei area, to meet the needs of the population increase in HKSAR. Lots of low rise buildings in Kowloon offer high potential for sustainable redevelopment. This will include the construction of green links from **West Kowloon Park** to the interior regions to enable people to travel conveniently, safely, comfortably to **West Kowloon Park** in which schools and other recreational and sports and cultural facilities will be provided collectively to serve the interior regional developments, thus substantially reducing the related land demand in redeveloped regions. This integrated cross-regional support urban planning and design is unique to HKSAR.
2. The ground level will be a big park, with selected areas for construction of premium class of office and hotels and residential buildings to meet the need for economic growth of HKSAR.

3. The land Park and Marine Park of West Kowloon from Jordan to Lai Chi Kok —Environmental protection district -Art and Cultural district, Sports district, Recreational district, Tourism district, Educational district, Residential district, Commercial district, Hotel district

The ground level will be a big park, and the underground space will be developed into a big city, and a huge traffic hub and vehicular interchange with lots of parking facilities, targeted to support the traditional enterprises and “ the SIX ENTERPRISE” to meet the economic needs of HKSAR.



Since there is little space on HK Island to build Premium class office buildings, the **330-hectare West Kowloon Park will allow lots of Premium class office buildings to be built** on it, in an elevated manner, like HSBC Headquarters Building in Central.

This system of FLAGSHIP Parks can be proven to be financially self-sufficient and sustainable, on the basic concept of “Vertical Sustainable Connection of Multiple Uses”, namely, below ground facilities, ground level roads, raised park areas and above park buildings. In selected parts of the West Kowloon Park an aerial space at 7 metre above the park will be available for a premium class sustainable residential development for about 20,000 people. Sunken in certain parts will be a chain of underground transportation facilities, art and cultural hubs, shopping centres, sports facilities, tourism attractions, institution areas, all designed for balanced, complementing, and synergistic uses by people.

This holistic surface and vertical design shall demonstrate an aspect of optimization in space utilization and cost-effectiveness which are unique strategies for urban development for the entire HKSAR, contributing to accommodate its ever-growing population.

The proposed sustainable West Kowloon Park shall provide additional space and facilities on top of the basic requirements of the West Kowloon Cultural District Authority. These additions include an open theatre at the West seafront, the future Academy of Performing Arts, a FLAGSHIP PARK Library specially enriched with art and culture facilities, a Common Institute for the Art and Culture communities in WKCD, a huge underground space for exhibition and storage, a HK Maritime Museum which will also use part of the proposed adjacent West Kowloon Marine Park-Shelter, a 6-hectare open piazza, where world class international cultural theme festivals and fairs can be hosted. All these together will offer a big boost to local and international tourism. A large open sloped area along the proposed West Kowloon Marine Park-Shelter will allow 40 000 people to watch dragon boat competitions and listen to performances conducted on floating vessels.

The proposed sustainable West Kowloon Park will also provide sports and recreation facilities which shall include a 15000-seat Olympics-class all-weather sports stadium, an Olympics-class ice skating ring, an Olympics-class 10-m high-platform diving swimming pool, an environmental education-oriented snow fun centre with igloos, an elevated golf driving range, a wall and net climbing centre, and other indoor and outdoor sports facilities.

百善香江萬世傳：

Fragrant-Harbour Goodness flowing for generations

The use of the concept of “Vertical Sustainable Connection of Multiple Uses”, mentioned above, will make land use very efficient. Also the optimized use of the space below ground of the reclaimed land of the harbour front will enable HKSAR to possess invaluable interconnected underground cities. This will mean that whatever construction to proceed NOW on reclaimed land of the harbour front, shall not **COMPROMISE** the ability of the future generation to use the underground reclaimed space sustainably.



For example the underground Central-Wanchai Bypass to be constructed on the reclaimed park area of HK Island, AND the Railway of the Rapid Railway System to be built on the reclaimed land of West Kowloon Park, shall have provisions such that the space surrounding the underground tunnel, and below the rapid railway line, can be used as part of underground city development in the future or NOW.

The *Green Links* are normally elevated structures for people movement, and in some locations for electric transportation means as well. The *Green Links* shall be covered partially or entirely for rain shelter purpose. The Green Links shall also bring people away from air and noise pollution, provide convenient access to public facilities such as transportation hubs, designated walking zones, schools, allow connection to podium levels of buildings, allow information technology network installation, allow pipes to run from buildings to parks for rain water collection, and allow cycling if practicable and if safety issues can be managed.

Also the roof areas of buildings will be green roof, contributing to make Hong Kong areal green city.

The *Green Links* can be new features or can be integrated with existing provisions such as existing cycling paths and elevated foot bridges. It is proposed to refurbish the 100-year old train tunnel at Beacon Hill as a Green Link for controlled use for walking, jogging and cycling. This tunnel refurbishment and other green links will contribute to enhance the Trans-HKSAR cycling and walking routes, enabling people to cycle eventually from Aberdeen at HK South to Lo Wu at NT North via the Green Links and the FLAGSHIP PARKS at the central region of HKSAR.

Going along with the development of The *Green Links* will be the expansion in area and quantity of urban parks, which should be harmonized with the new developments or redevelopments.

Various sustainable technology systems and innovations proposed for the premium class sustainable residential units inside the FLAGSHIP PARKS include solar tracking and reflecting systems for solar control and enhancement of the building interior, true cross ventilation on 3 sides, the use of internal pitch glass roof, green roof, rain water collection, use of recycled waste water, use of electric induction cookers, electric heat pumps and wider use of light emitting diodes for lighting. All these will bring about an energy-efficient and water-efficient community and clean environment, setting examples for sustainable living in HKSAR.

In fact there are many islands in HKSAR which can be designed sustainably with nearby islands to create a few more “Victoria Harbour”.

These EIGHT FLAGSHIP PARKS, together with other urban parks and country parks of the HKSAR, all connected by the *Green Links*, will help turn the HKSAR into a premium class Sustainable City in the coming decades, sharing the beauty, peace, harmony and sustainability of the **Pearl with the rest of World.**