# The 10 Major Infrastructure Projects

- New Urban Development Areas

## **West Kowloon Cultural District (WKCD)**

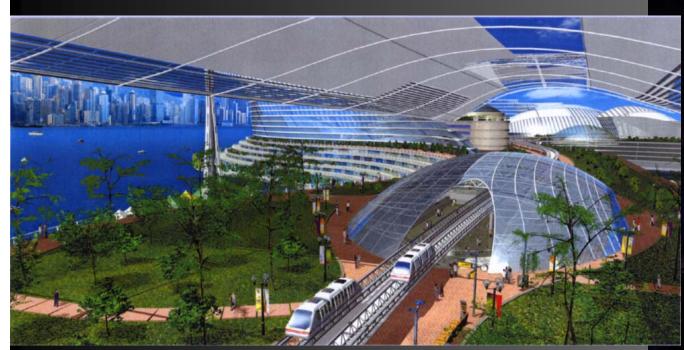
## Background

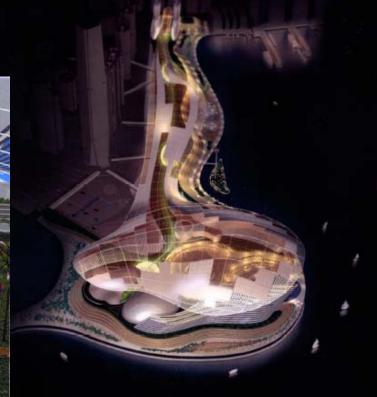
- The Chief Executive of HKSAR announced in October 1998 the planning for a state-of-the-art performance venue on the West Kowloon Reclamation.
- In April 2001, the government launched an open concept competition to invite proposals for the WKCD development.
- Result was announced in February 2002 and the 1<sup>st</sup> prize was awarded to Foster and Partners.
- The development represents a major investment in cultural and arts infrastructure. It is also a strategic plan to promote long-term development of arts and culture, supporting Hong Kong as a creative economy and Asia's world city. The integrated arts and cultural district will offer a mix of world-class arts and cultural facilities, talented artists, quality programmes and distinctive architecture to attract people in Hong Kong as well as from the Mainland and the rest of the world.
- Preliminary cost estimate is about HK\$24 billion (excluding land value).
- Land area of WKCD is about 25 hectares with building area 725,000 sq m.

# Invitation For Proposals Development of West Kowloon Cultural District Hong Kong

香港西九龍文娛藝術區 發展建議邀請書

Executive Summary 摘要





Housing, Planning and Lands Bureau
The Government of the Hong Kong Special Administrative Region
香港特別行政區政府房屋及規劃地政局

#### Current status –

 Five organizations were interested and submitted initial proposal in the development, three were shortlisted afterward, they were:

World City Culture Park Ltd. (香港薈萃有限公司)

Sunny Development Ltd. (藝林國際有限公司)

Dynamic Star International Ltd. (活力星國際有限公司)

- Due to strong opposing views, finalization of the scheme pending on further public consultation.
- Public consultation was carried out from 2005 and onward.
- Final master plan is under negotiation with various body under the coordination of the WKCD Authority. A final scheme is expected to be drawn in 2008-09 for the kicking off for final implementation.

To fully realise the vision and mission of WKCD, the Government will cooperate relevant sectors in taking timely measures to foster the software and talent in the cultural and arts development.

More resources will be invested with focus on the following issues:

reinforcing support to arts bodies of all sizes;

comprehensively assessing the demand and supply of cultural and arts talent with a view to launching appropriate training programmes;

promoting arts education and audience building;

enhancing cultural exchange and co-operation;

improving the management of performing arts venues; and,

expanding "alternative art space" in the community for local artists to unleash their creativity while increasing the public's exposure to culture and the arts in their daily lives.

The Government has appointed members to the Consultative Committee on the Core Arts and Cultural Facilities (CACF) of the West Kowloon Cultural District (WKCD) (the Consultative Committee). The appointment commenced on 6 April 2006 and will last up to the end of June 2007.

The Consultative Committee will re-examine and re-confirm the need for the CACF for the WKCD as defined in the Invitation for Proposals issued in September 2003 and will also advise the Government on the justifications for the CACF and other types of arts and cultural facilities as appropriate to be provided at the WKCD and the financial implications for developing and operating the facilities.

Three Advisory Groups namely the Performing Arts and Tourism Advisory Group, the Museums Advisory Group and the Financial Matters Advisory Group have been set up under the Consultative Committee

#### Composition of the WKCDA

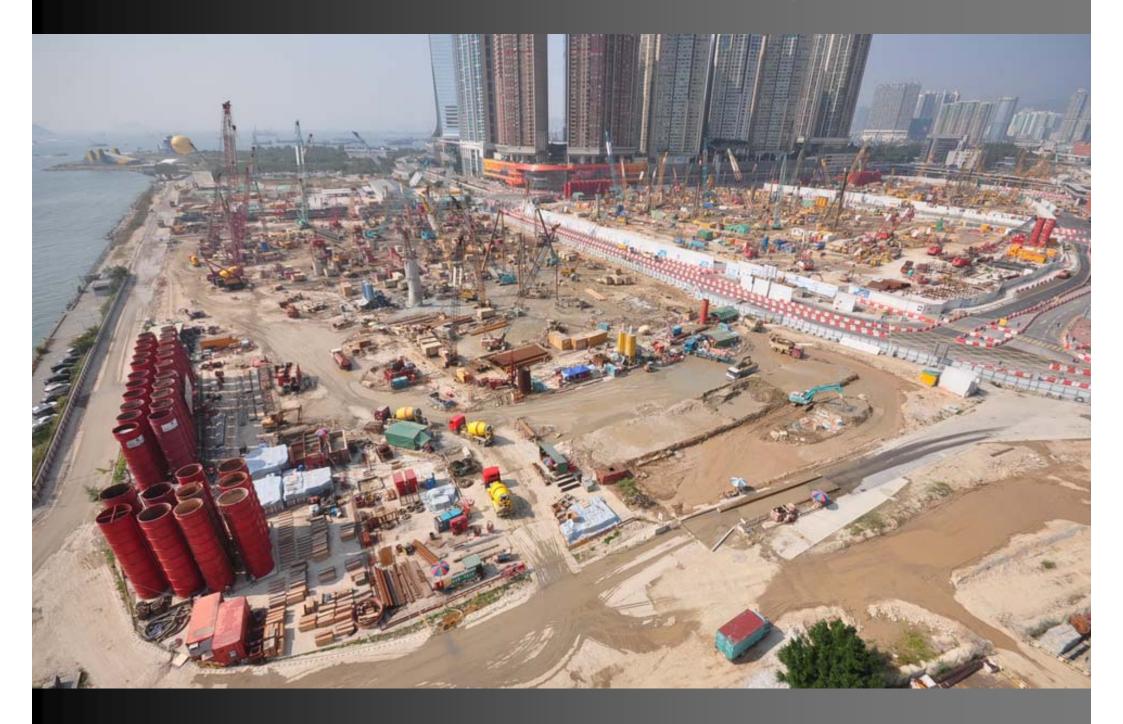
the Board should consist of not more than 20 members, comprising a Chairman, who may or may not be a public officer, a Chief Executive Officer (CEO), 15 non-public officer members and three public officer members. The Chairman and all other members of the Board will be appointed by the CE, except the CEO who will be appointed by the WKCDA with prior approval of the CE and who will be an ex-officio member of the Board. All non-public officer members will be appointed in their personal capacity. Since the WKCD is an arts and cultural project, we propose that at least five non-public officer members should, in the opinion of the CE, have knowledge of, or experience in, or exposure to, arts and cultural activities. To help reflect public views and interests, we also propose that at least one of the non-public officer members should be appointed from amongst the LegCo Members. In view of the practical difficulty of drawing up a proper and fair election system for the arts and cultural community, we propose not to provide in the Bill any mechanism for any members to be returned through any prescribed election procedures.

# Proposed Core Art Cultural Facilities in WKCD

Category (Phase I)	Seating Capacity	Main Purposes	
Mega Performance Venue	15 000 (max)	mega events, large scale entertainment shows, pop concerts	
A Great Theatre	2 100 to 2 200 (Total: 2 200) (max)	suitable for long-run overseas productions, as well as Chinese and Western opera, drama, ballet, modern dance, musical, children's performances etc.	
Two Medium-sized Theatres	500 to 800 each (Total: 1 600) (max)	drama, musical, dance, suitable for local productions	
Four Blackbox Theatres	150 to 250 each (Total: 1 000) (max)	experimental/avant-gard e performances, budding artists' production, comedy shows, children shows etc.	
A Concert Hall	2 000 (max)	orchestral music	
A Chamber Music Hall	800 (max)	chamber music, jazz, piano or violin recital etc.	
A Xiqu Centre ( 戲曲中心 ) (performance venue) (small theatre)	400 (max)	Cantonese opera, other forms of Chinese opera and musical performances	
Piazza Areas	at least 30 000 m <sup>2</sup>	mega outdoor events, circus, commercial events, concerts	
Total:	24 400 (max) ( Phase I)		

Category	Area	Concept
To have a cultural institution with museum functions (called M+, or Museum Plus) on visual culture of the 20th to 21st century	Gross Floor Area (GFA) – 78 750 m² comprising  (On site: 61 950 m² Off site: 16 800 m²)  The development of M+ would be phased – two-thirds of net gallery area are to be provided in the first phase and the remaining one-third to be provided in subsequent phases.	A forward looking institution, to present visual culture of the 20th and 21st century from a Hong Kong perspective, the perspective of now and with a global vision
The initial broad groupings include Design Moving image Popular culture Visual art (cover ink art)		
An Exhibition Centre	NOFA – 10 000 m <sup>2</sup>	A self-financed venue with focus on arts, culture, creative industries and WKCD-related activities

# The land for the future WKCD as seen in early 2011





The existing land-use condition of the West Kowloon Harbourfront where the future WKCD locates







Kowloon Southern Link and West Kowloon Station under construction (2005 – 2009)



The West Kowloon Promenade formed in 2005 on a temporary basis for public use shows the potential of this piece of valuable land













Various design schemes proposed by interested consortium

# Kai Tak Development Plan

The formulation of the Kai Tak
Development Plan is an example
of successful public engagement.
The challenge now is to take
forward this major project within
a tight schedule. Statutory
procedures to amend the Kai Tak
Outline Zoning Plan are almost



finished, after which the project will enter the implementation stage. Tenders will be invited in due course to construct a new cruise terminal. The first berth is expected to be operational in 2012. A high-level interdepartmental committee led by the Secretary for Development will ensure that the project stays on schedule. It will also ensure that this vast ex-airport site will be developed into an attractive place for citizens to enjoy and take pride in.

### Design focus of the Kai Tak Development Plan

- Land area about 200 hectares.
- Development consists of large proportion of public open space, green area and sport-recreation-community facilities.
- A pedestrian promenade will be provided along the waterfront from To Kwa Wan up to Cha Kwo Ling.
- Linking through with environmental friendly transportation system integrating into existing and future traffic network.
- Majority of the developments are in medium-low density allowing spacious vision for hill-line and harbour view.
- Cruises terminal will be provided at the south-eastern tip of the previous runway with landscape and open space for public.

#### Recent works to be carried out in Kai Tai

In January 2009, the government revealed further details of a plan for a massive development, which include housing, a cruise ship terminal and government offices, at the old Kai Tak airport.

The project is to unfold in three stages. Phase one of the Kai Tak Development, a project with zero reclamation, is scheduled for completion in 2013. Phases two and three will be completed in 2016 and 2021 respectively.

The three phases will cost over HK\$100 billion. The government intends to apply for funding from the Legislative Council during the first quarter of 2009 to finance detailed studies and preliminary work. Preliminary work is estimated to cost HK\$3.3 billion.

Phase 1 (HK\$15 billion), includes a public housing development, two primary schools and one middle school. Also included in phase one are the Kai Tak Government Offices at the north apron. The first stage of the development also comprises the first berth for the new cruise ship terminal, the runway park, waterfront promenade and ancillary infrastructure. Structures on the former airport property are subject to height restrictions to protect the ridgeline.

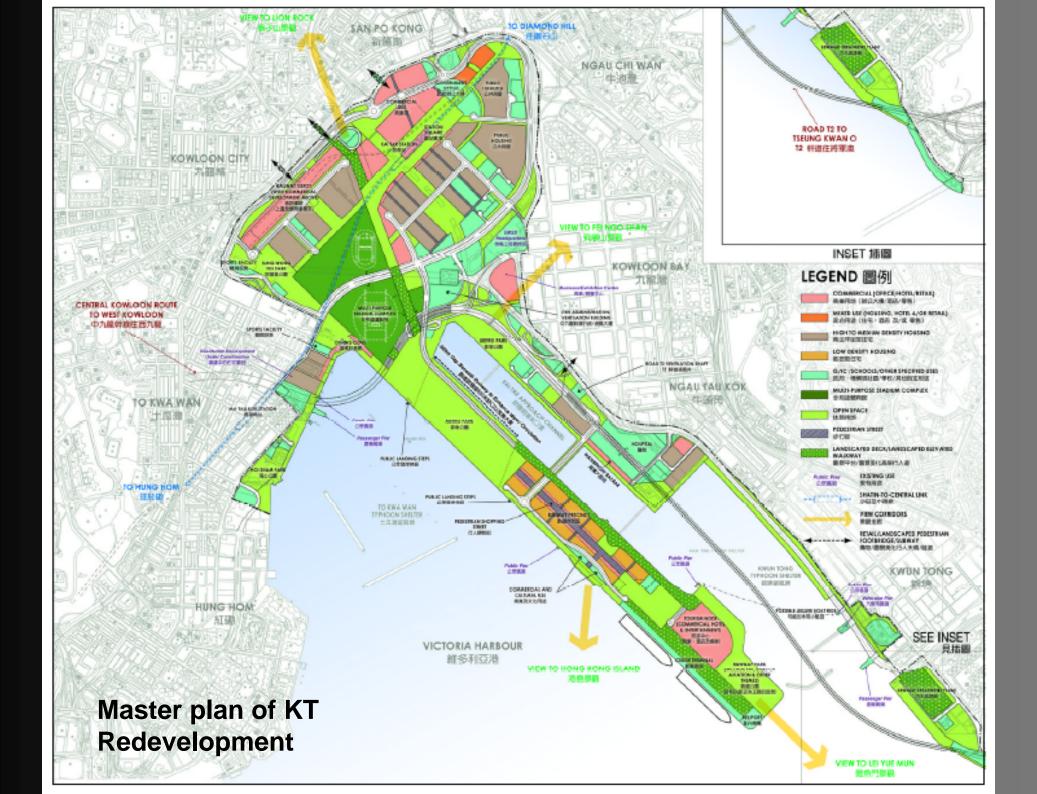
Phase 2 (HK\$66 billion), covers strategic transportation routes such as Route 6 and the Tai Wai-Hung Hum section of the Shatin-Central cross-harbor rail link. It includes residential and commercial developments in the north apron and an underground street linking nearby Kowloon City and San Po Kong districts. Plans for the 2<sup>nd</sup> stage also call for the beautification of the KT Open Nullah and two blueprints for the second berth of the cruise terminal on the former runway.

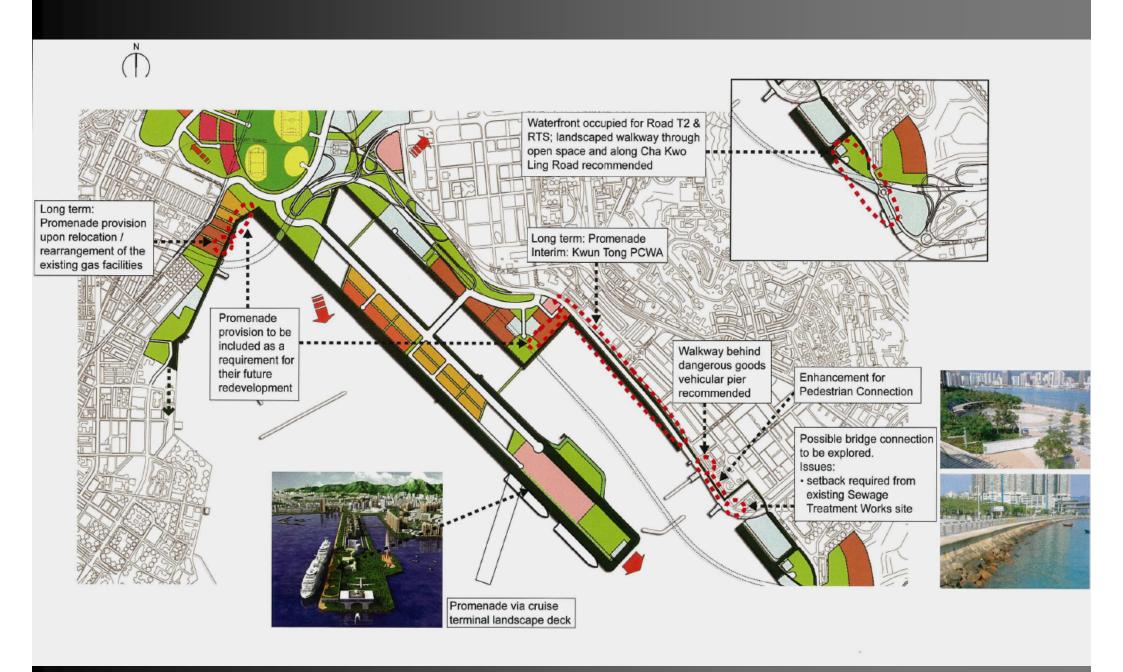
Biochemical treatment will be applied to tackle odor and water quality concerns of the open nullah. Designs also call for a 600-meter channel along the old runway to improve water circulation and interception of toxins and particulate matter in the hinterland.

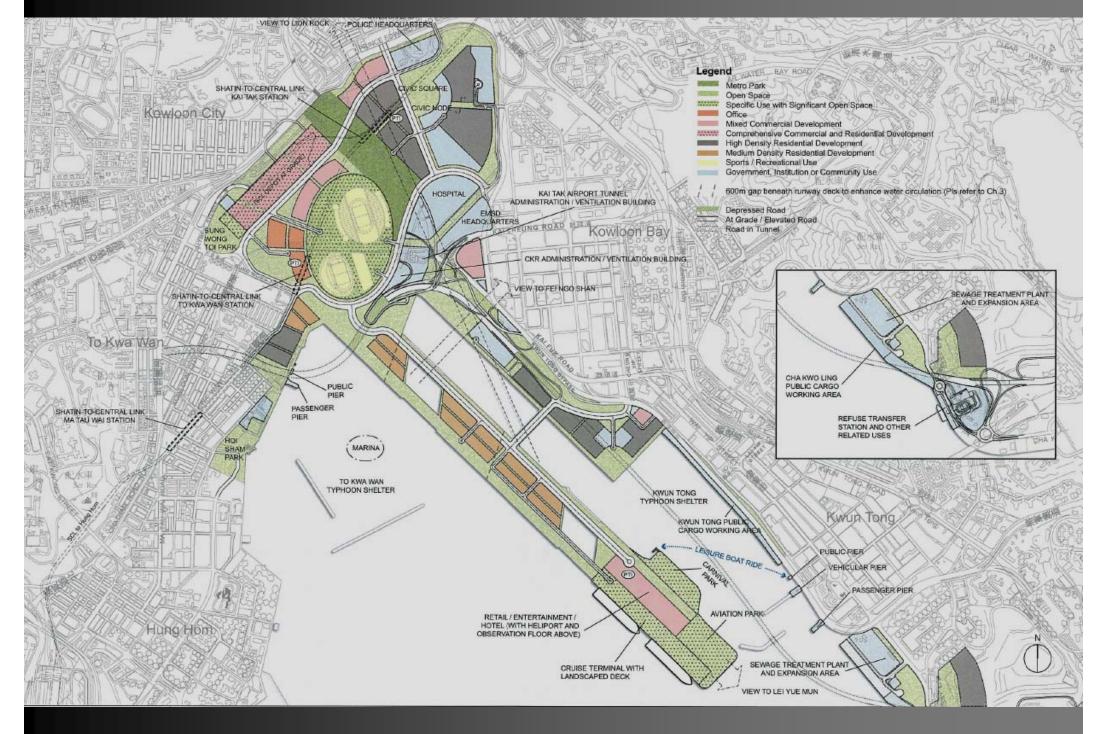
Phase 4 (HK\$22 billion) include a 45,000 seat multi-purpose stadium and a 24-hectare metro park. Other developments include residential/commercial developments and transportation infrastructure (including the mono rail system).



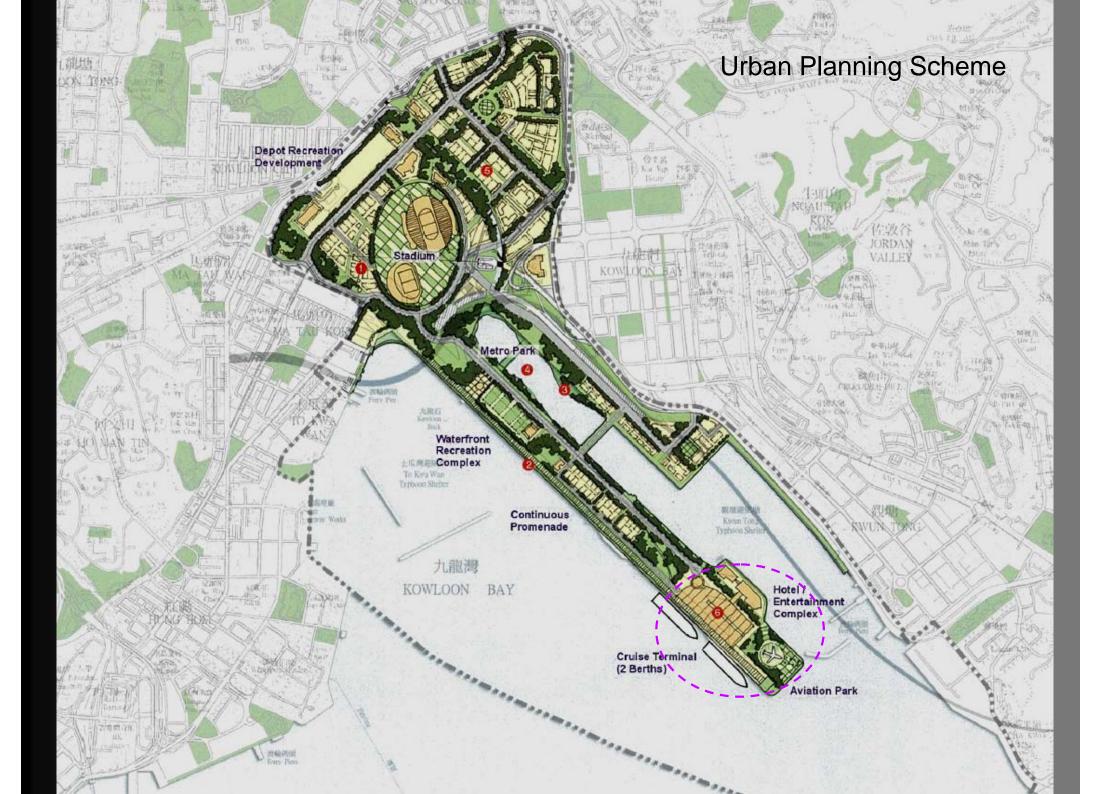
Kai Tak Airfield in 2005

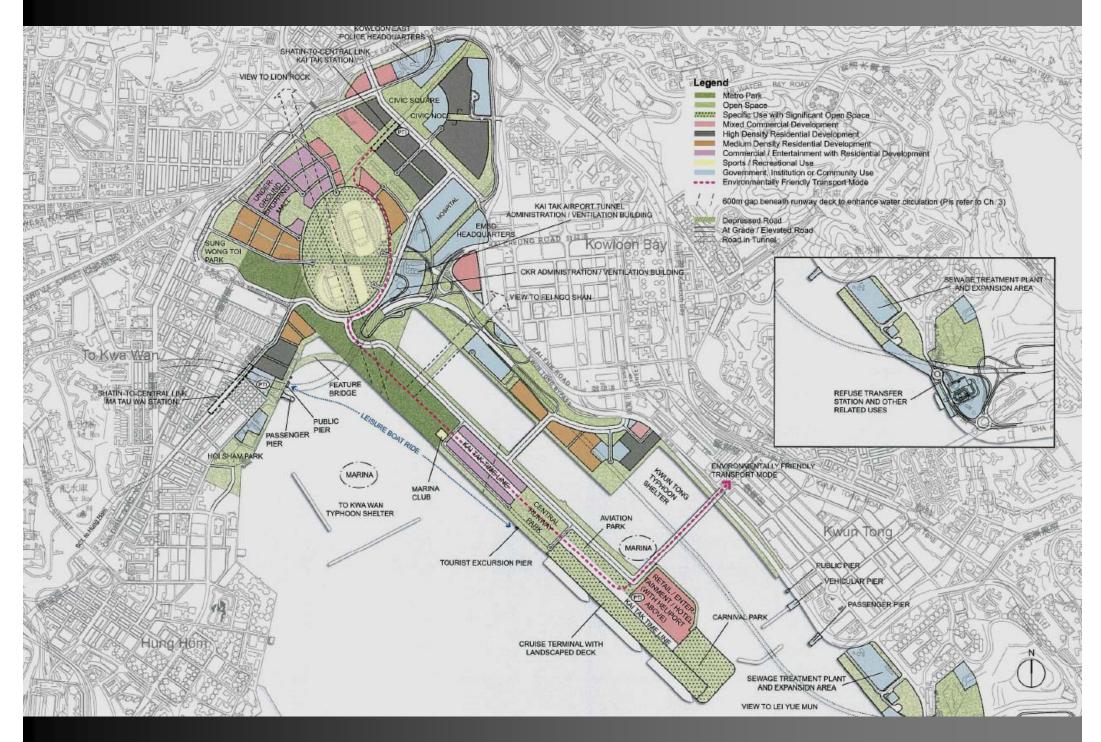












Proposed Land Uses 建議土地用途	Area (in ha) 面積(公頃)		
	Concept 1 概念一	Concept 2 概念二	Concept 3 概念三
Office辦公大樓	-	3	-
Mixed Use (Office, Hotel & Retail)混合用途(辦公大樓、酒店及零售)	10	20	19
Mixed Use (Housing & Commercial)混合用途(住宅及商業)	9	5	•
High Density Housing高密度住宅	41	33	14
Medium Density Housing中密度住宅	17	10	18
Low Density Housing低密度住宅	-	-	13
G/IC Other Specified Use政府/機構及社區,其他指定用途	45	42	43
Metro Park, Runway Park & Waterfront Promenade都會公園、跑道公園及海濱長廊	42	48	50
District & Local Open Space地區及鄰舍休憩用地	56	64	54
Multi-purpose Stadium (including open space)多用途體育館(附休憩用地)	24	24	24
Sports / Recreation體育/康樂	-	-	16
Cruise Terminal 郵輪碼頭	5	5	5
Road Network, Amenity Area & Green Belt道路網絡、美化市容地帶及綠化地帶	79	74	72
Total合共:	328	328	328

# Visions, Planning Principles and Design Considerations for Kai Tak 對 各 德 發展 的理想,規劃原則及城市設計的考慮

1. A vibrant working and living environment should be an important design consideration for Kai Tak.

以建設一個充滿朝氣的工作和生活環境為主要設計考慮。

2. Better social, physical and transport integration of Kai Tak with its neighbouring districts.

與鄰近地區在社會,地形結構和運輸上有更好的融合。

- 3. Development of Kai Tak should help regenerate its neighboring areas. 啓德發展應帶動周邊地區進行重建。
- 4. To enhance the water quality of the Kai Tak Approach Channel. 提高啓德明渠進口道的水質。
- 5. No reclamation as the major planning principle, so as to preserve the coastline.

應以不填海為主要規劃原則,以保護海岸線。

6. Reclamation to solve the water pollution problem of the Kai Tak Approach Channel should be considered.

可考慮以填海解決啓德明渠進口道的水質問題。

# Vision, Planning Principles and Design Considerations for Kai Tak 對 各 德 發展 的理 想 , 規劃原則及城市設計的考慮

7. To preserve the historical and cultural interests of Kai Tak to reflect the Chinese Culture.

保留啓德的歷史及文化遺產,以彰顯中國文化。

8. To preserve the aviation culture of Kai Tak. 保留啓德航空文化。

9. To preserve the views to the ridgeline. Restriction of building height should be imposed.

應設建築物高度限制以保留山脊線的景觀。

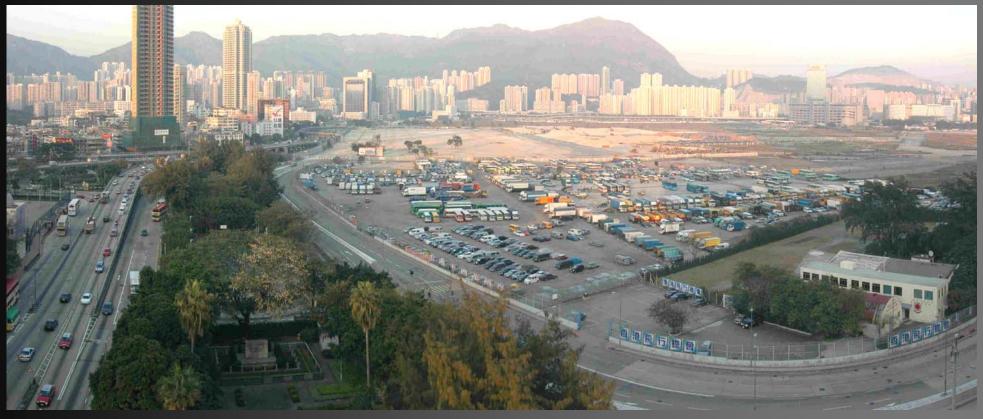
- 10. A truly people-oriented Kai Tak Development and not a property- led Kai Tak Development.
  - 一個真正以人為本的啓德發展而不是以地產為主導的啓德發展。
- 11. Enhance the accessibility of Kai Tak to allow maximum public enjoyment. 提高啓德的可達性以方便市民享用。
- 12. A place enjoyed by all and not only for a small proportion of people. 啓德應讓所有市民共享而不應局限於少數市民。
- 13. Environmental problems associated with KTAC should be urgently dealt with whether Kai Tak development will proceed or not. 即使啟德發展還未落實,啟德明渠的環境問題應要儘快解決。

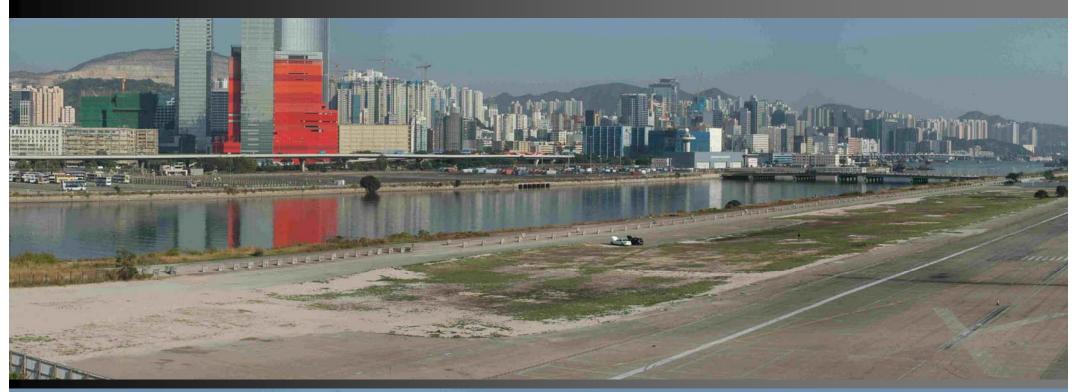




Overview of the previous Kai Tak airfield from Kowloon City (top) and Kowloon Bay (bottom, toward To Kwa Wan and Hung Hom)









Existing land-use condition of the previous Kai Tak airfield







Overview of the previous Kai Tak airfield from Kowloon Bay (top, toward Kowloon City) and San Po Kong (bottom, toward Choi Hung)









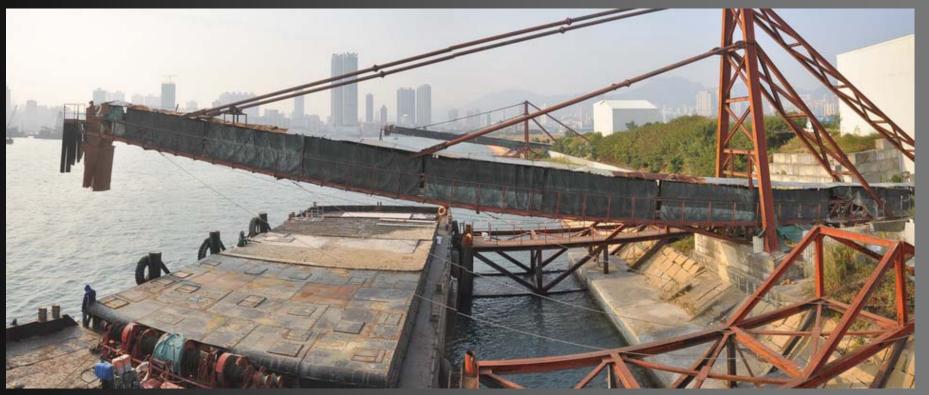
Overview of the previous Kai Tak airfield from Kowloon Bay

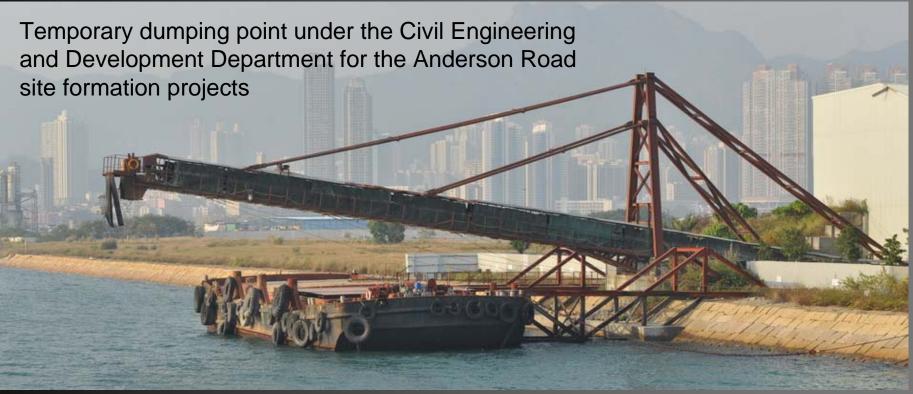












Artistic view of the future terminal





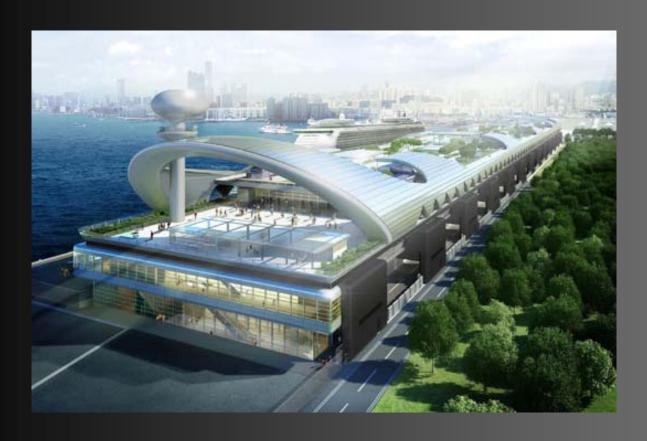






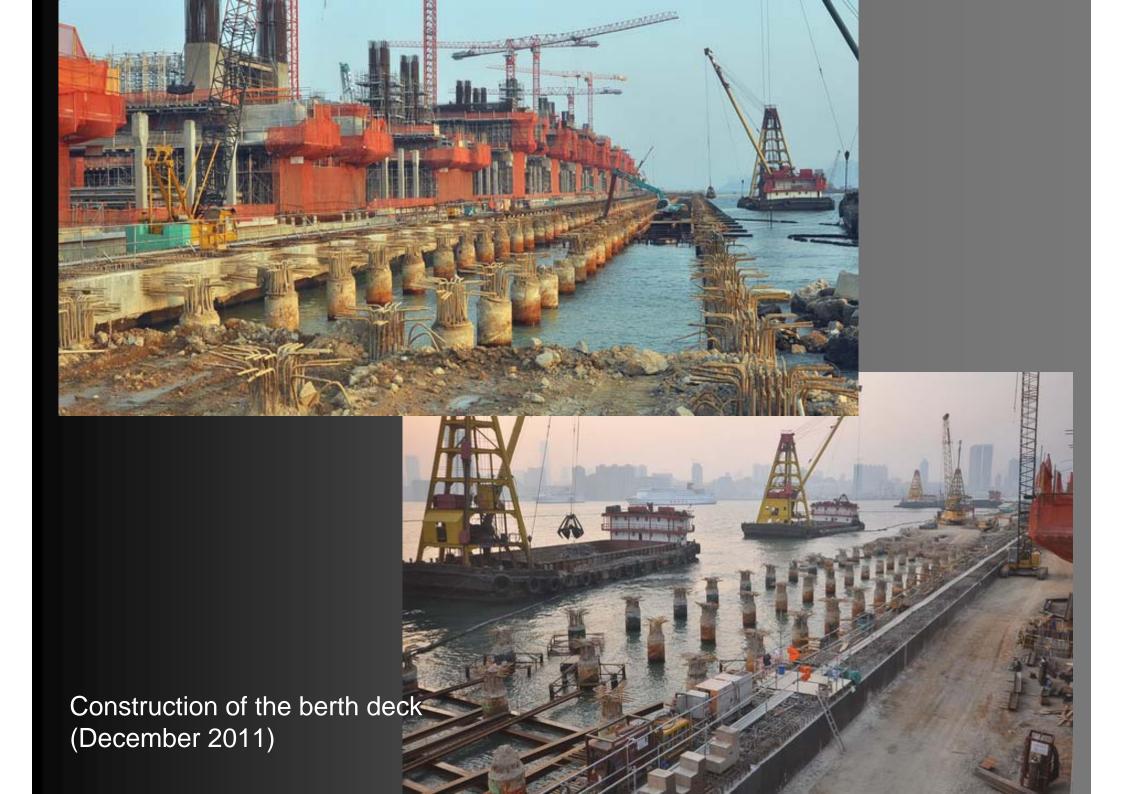
Views of Kai Tak in early 2012













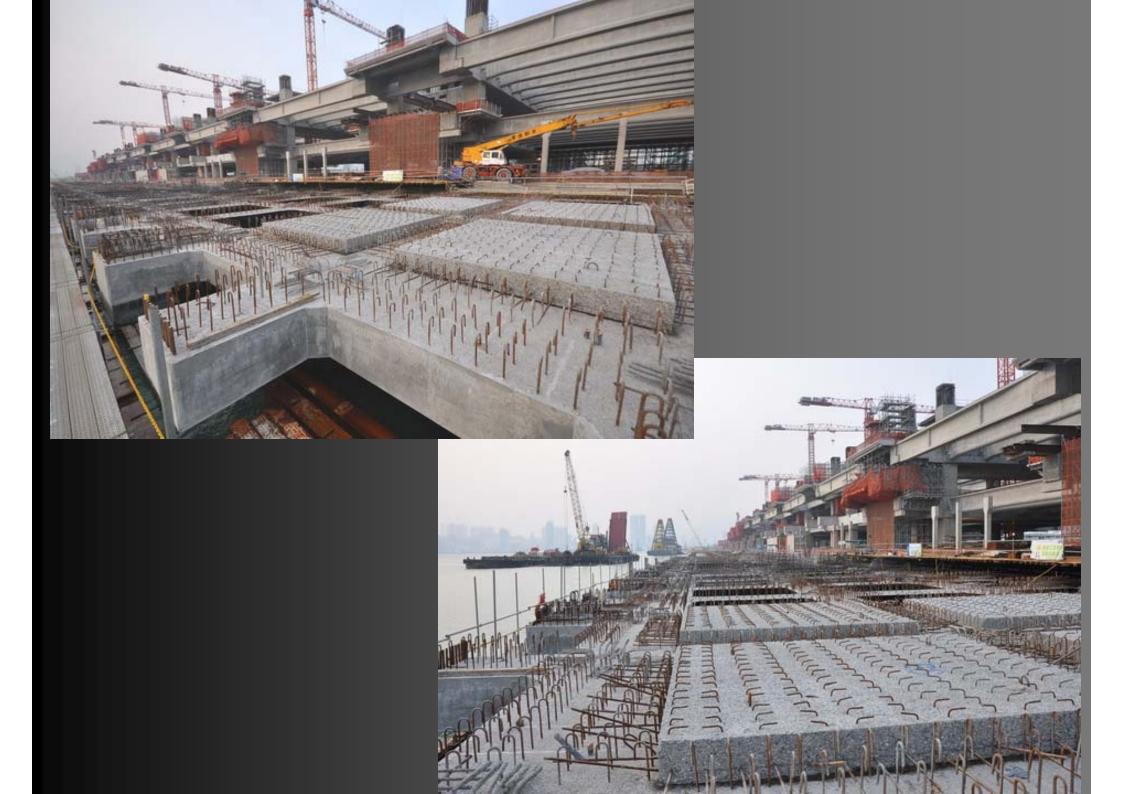


Forming of the berth deck as apron and loading/unloading area of the terminal





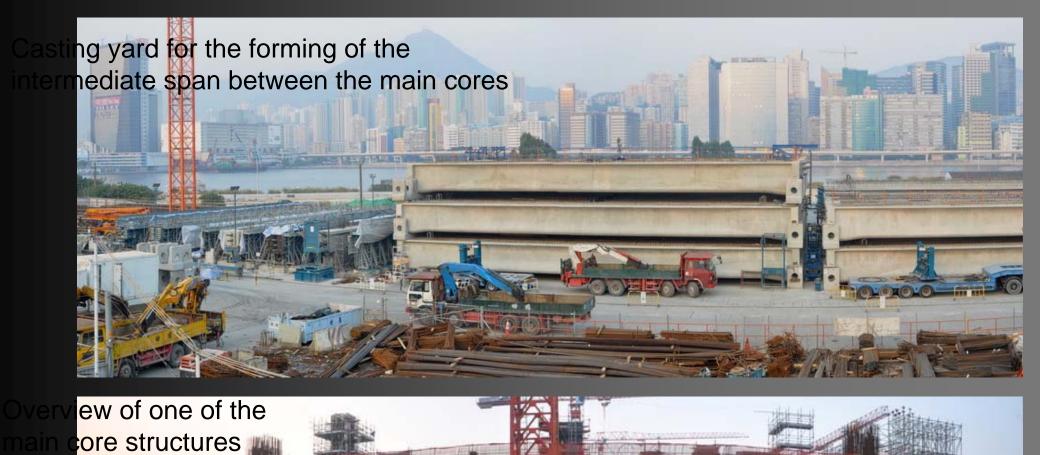






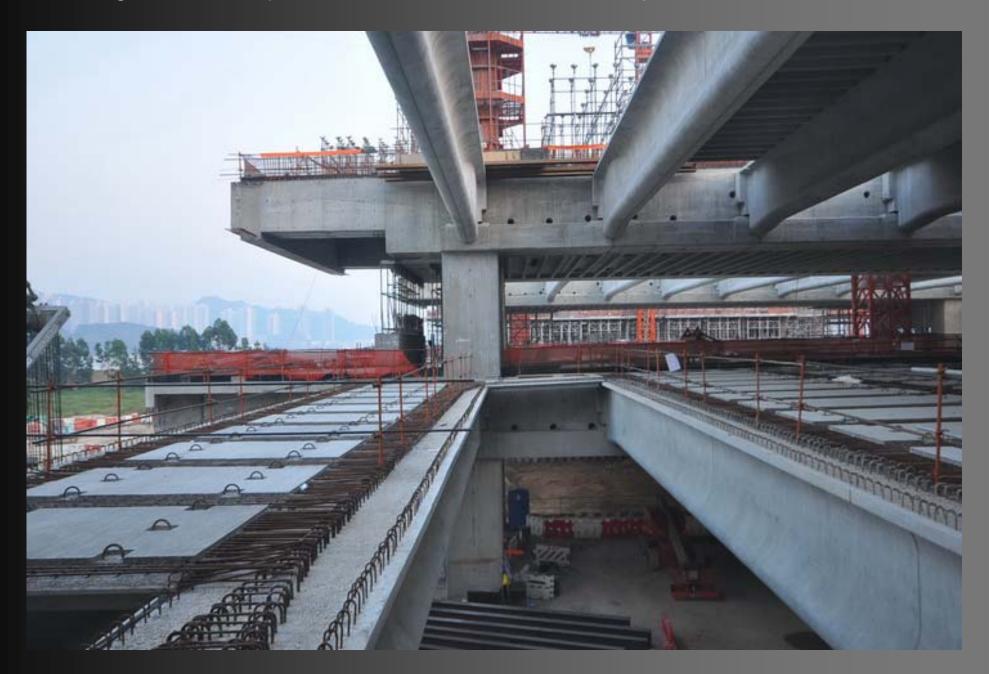




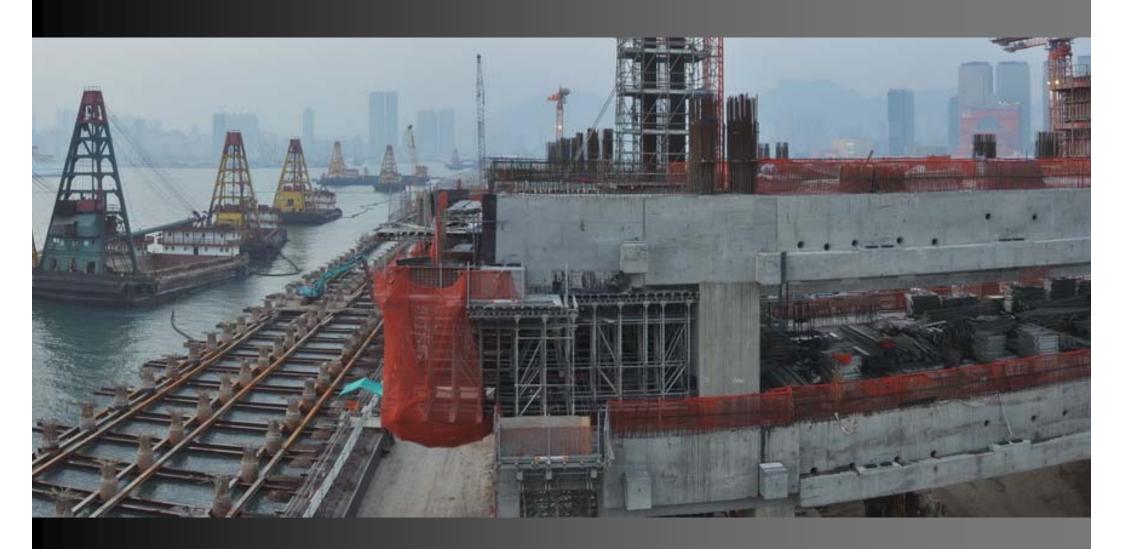




Views seeing the structural arrangement of the cruise terminal building. Long span and use of large amount of precast elements is one of the major features in construction



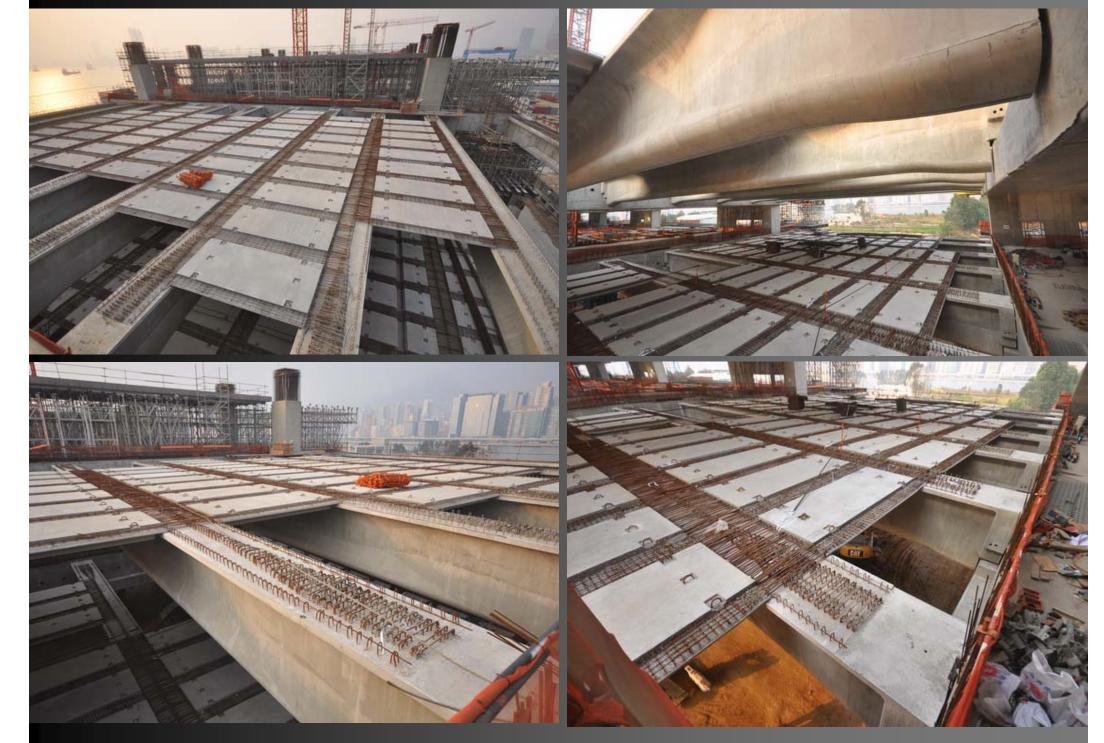
## Main structure of the cruise terminal and the berth deck/apron strip



Views seeing the structural arrangement of the cruise terminal building. Long span and use of large amount of precast elements is one of the major features in construction



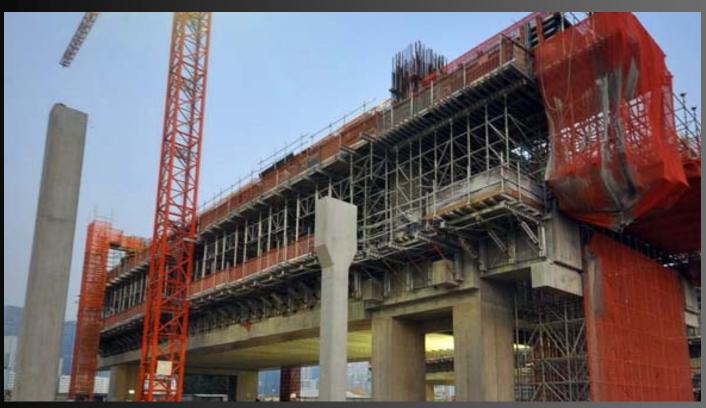




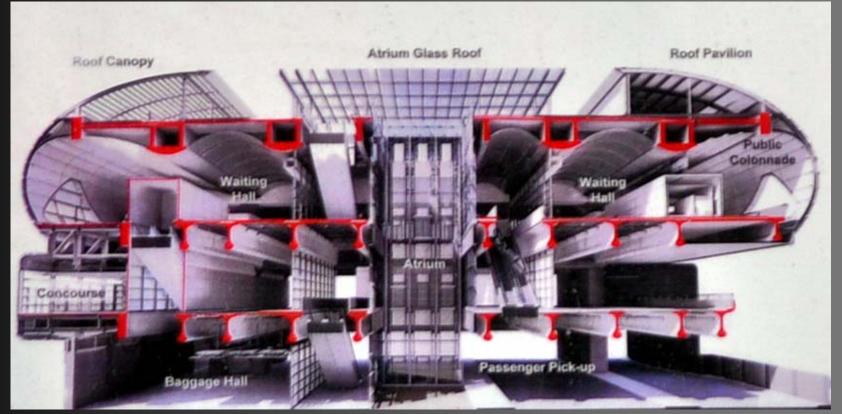
Forming the floor deck using precast beams and floor planks with RC topping







Construction of the long span girder using in-situ method

















NE corner near Choi Hung and Kowloon Bay

construction sites for PublicHousing Projects





Early 2010





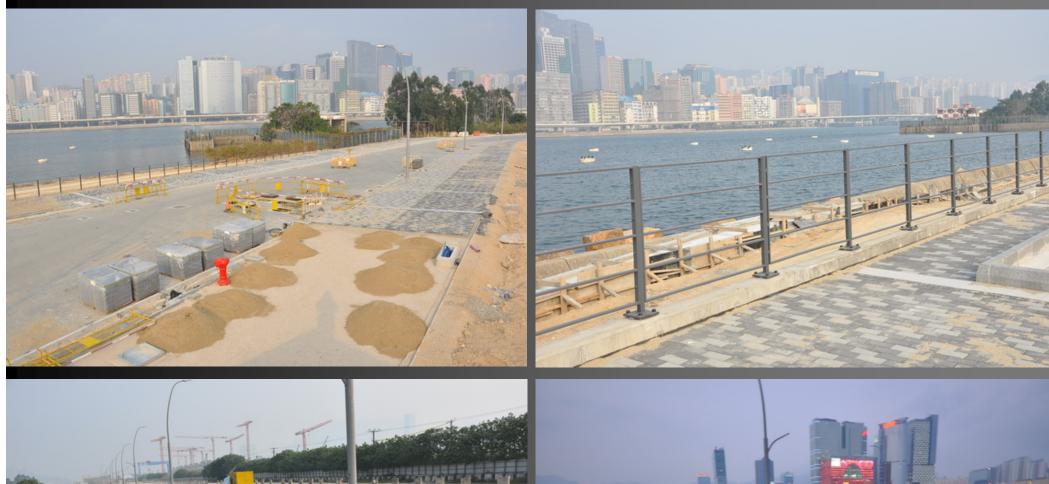


Other supportive works carried out since 2010 as the advance stage of the Kai Tak Development – construction of a series of public housings.











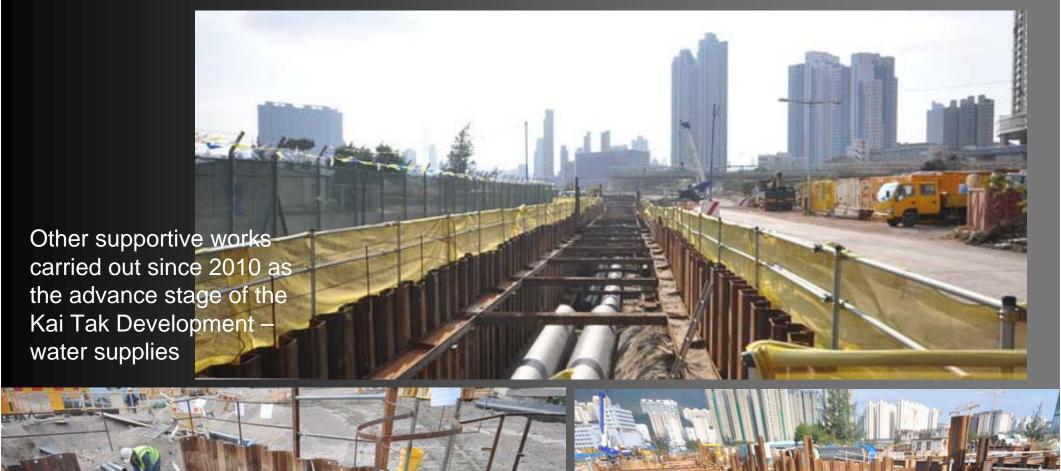
The new promenade prepare for the opening of the Cruise Terminal by early 2013















# New Development Areas (NDAs)

To ease pressure on highly congested and developed areas within the territory of Hong Kong and to meet the demand for land arising from population growth, the formation of new land for development is of immediate important for Hong Kong strategy planning.

Unlike the development of new towns from 1970s onward, the scope of NDAs will be smaller in size, say,less than one fifth of that of the existing new towns such as Tuen Mun, Sha Tin or Tseung Kwan O. The NDAs will provide land for various uses such as housing, employment, high value-added and non-polluting industries. Through comprehensive planning, the NDAs will provide quality living space and convenience to both residents and users.

In this connection, the possible locations that can fit the purposes will be concentrated at less developed locations in the northern part of New Territory including Kwu Tung North, Fanling North, Ping Che and Ta Kwu Ling and Hung Shui Kiu. Implementation strategies is now under preparation at the present stage.

### 立法會 Legislative Council

LC Paper No. CB(1)232/08-09(13)

Ref: CB1/PL/DEV

#### Panel on Development

Meeting on 25 November 2008

Background brief on proposed New Development Areas in North East New Territories

#### Purpose

This paper provides background information on the proposed New Development Areas (NDAs) in North East New Territories (NENT) and a summary of the concerns and views expressed by Members.

#### Background

- 2. The Planning and Development Study on NENT, commissioned by the Planning Department and completed in 2003, identified Kwu Tung North, Fanling North and Ping Che/Ta Kwu Ling as suitable NDAs and confirmed their feasibility based on findings of various planning, engineering and environmental assessments. In view of the slower growth of population and housing demand, the NDA proposals were shelved, pending a comprehensive review of the need for strategic development areas in the "Hong Kong 2030: Planning Vision and Strategy" (the HK2030 Study)<sup>1</sup>.
- 3. The HK2030 Study recommends proceeding with Kwu Tung North, Fanling North and Ping Che/Ta Kwu Ling NDAs (the Three-in-One NDA Scheme) and the Hung Shui Kiu NDA to address the long-term housing demand and provide employment. It recommends that NDAs shall be developed for multiple purposes, including the provision of land for housing, education and community facilities, improvement of the rural environment, better protection of

Civil Engineering and Development Department and Planning Department

Agreement No. CE 61/2007 (CE)
North East New Tentrories New Development
Areas Planning and Engineering Study
Final Inception Report
Executive Summary of Inception Report

#### Overview

The Chief Executive announced in his 2007-2008 Policy Address the planning for New Development Areas (NDAs) as one of the ten major infrastructure projects for economic growth. The NDAs shall provide quality living space in the northern New Territories.

The Planning and Development Study on North East New Territories (NENT Study) commissioned in 1998, identified Kwu Tung North (KTN), Fanling North (FLN) and Ping Che/Ta Kwu Ling (PC/TKL) as suitable NDAs based on the findings and recommendations from various technical assessments on the planning, environmental and engineering aspects of the proposed development. The NENT Study recommended the three NDAs could proceed as one scheme (Three-in-One Scheme). The NENT Study completed with the issue of a final report in 2003. However, in the light of the slower growth of population and housing demand, the NDA proposals were shelved in 2003.

The "Hong Kong 2030: Planning Vision and Strategy" (the HK2030 Study) completed in 2007 has revisited the need for strategic development areas in the New Territories, and recommended proceeding with the NDA developments to address the long-term housing demand and provide employment opportunities. It recommends that the NDAs should be developed for multiple purposes, including the provision of land for housing, education and community facilities, improvement of the degraded rural environment, better protection of resources of high conservation value, timely development of land for tertiary education, special industries and open storage uses, providing employment, etc.

To initiate the implementation of these NDAs, the Civil Engineering and Development Department (CEDD) and the Planning Department (PlanD) of the Hong Kong Special Administrative Region (HKSAR) Government jointly commissioned The North East New Territories New Development Areas Planning and Engineering Study (NENT NDAs Study) in June 2008 to formulate a revised proposal for the NENT NDAs namely KTN, FLN and PC/TKL NDAs. Ove Arup & Partners Hong Kong Ltd. was commissioned to undertake the assignment.

#### Study Objective and Scope

The overall objective of this NENT NDAs Study is to establish a planning and development framework for KTN, FLN and PC/TKL NDAs to meet long-term housing, social, economic and environmental needs, and to formulate an implementation programme for first population intake to these NENT NDAs by 2019. Specifically, it aims to develop sustainable, environmentally friendly, energy efficient, people-oriented and obstacle free communities.

#### This NENT NDAs Study will

- formulate a development plan for the NENT NDAs taking into consideration the latest planning circumstances, community aspirations and development needs;
- carry out engineering studies to review, evaluate and establish the engineering feasibility of the development and infrastructure for the NENT NDAs; and
- undertake Environmental Impact Assessment including Heritage Impact Assessment to establish environmental acceptability of the development and infrastructure for the NENT NDAs.

#### Key Tasks in the Assignment

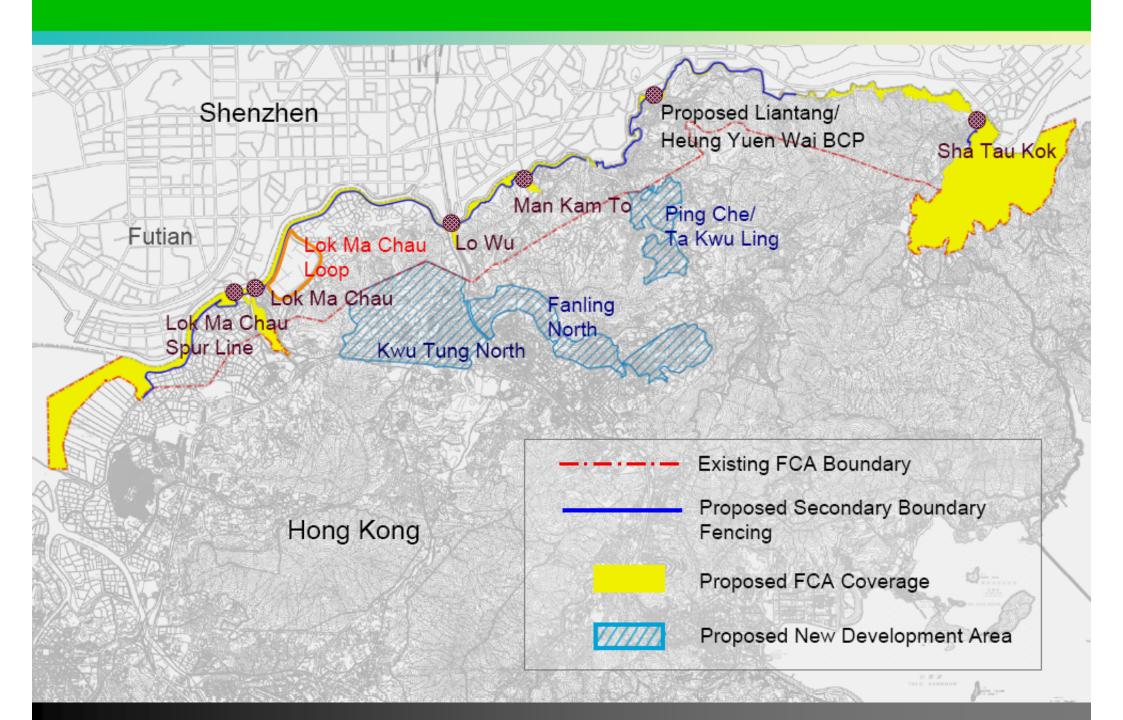
The key tasks required in the assignment include the followings:

- Review and update of baseline profile of the Study Area
- Identify and review key issues
- Conduct Stage 1 Public Engagement

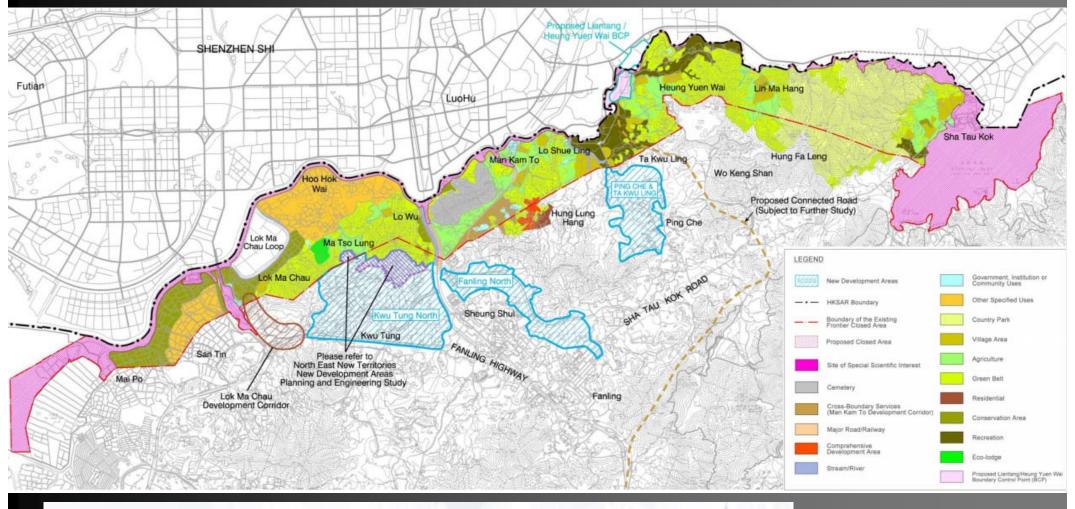
October 2008

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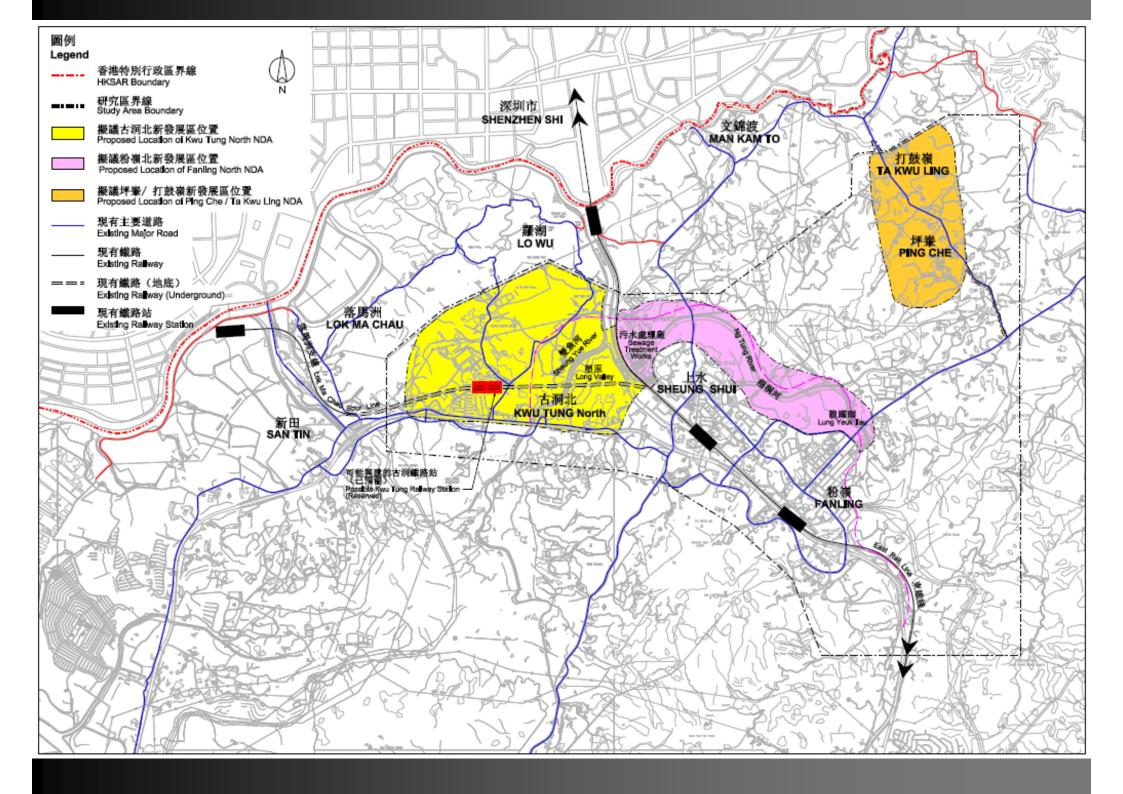
# Frontier Closed Area



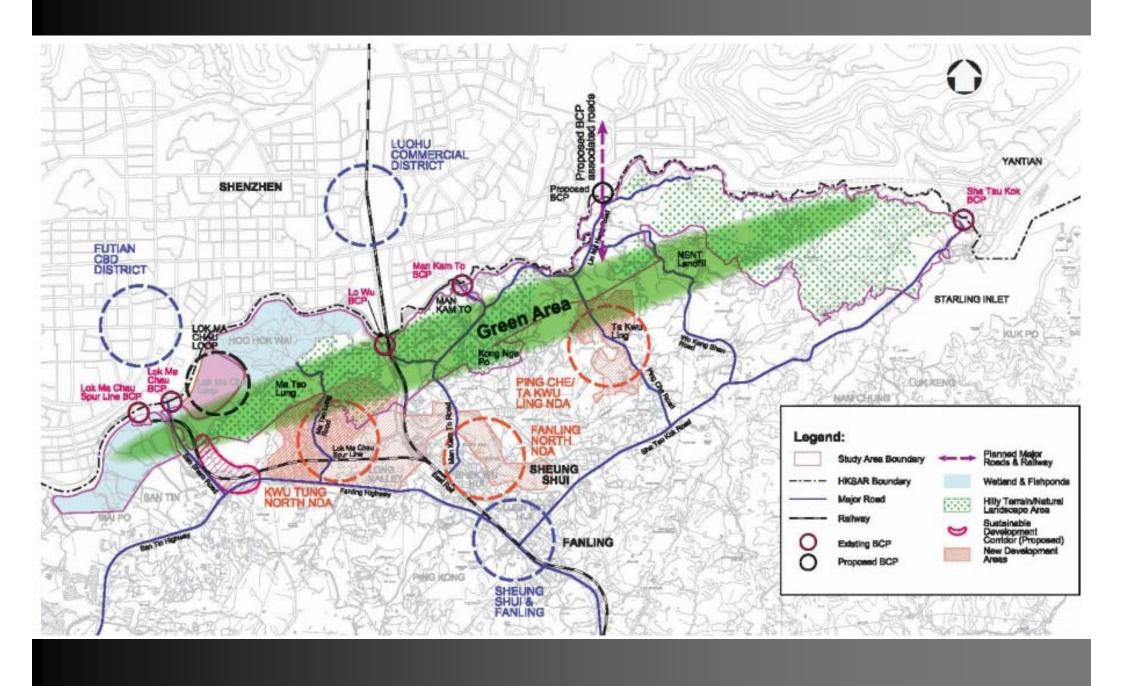
## Development Plan in Feasibility Studies on Land Use Planning for the Closed Area











#### Preliminary planning for the NDAs

Total land area involved: about 800 hectares

Largest development area: Kwu Tung North (500 hectares)

Total accommodation: Max. 200,000 population

Expected land-use: Low density residential, light industry

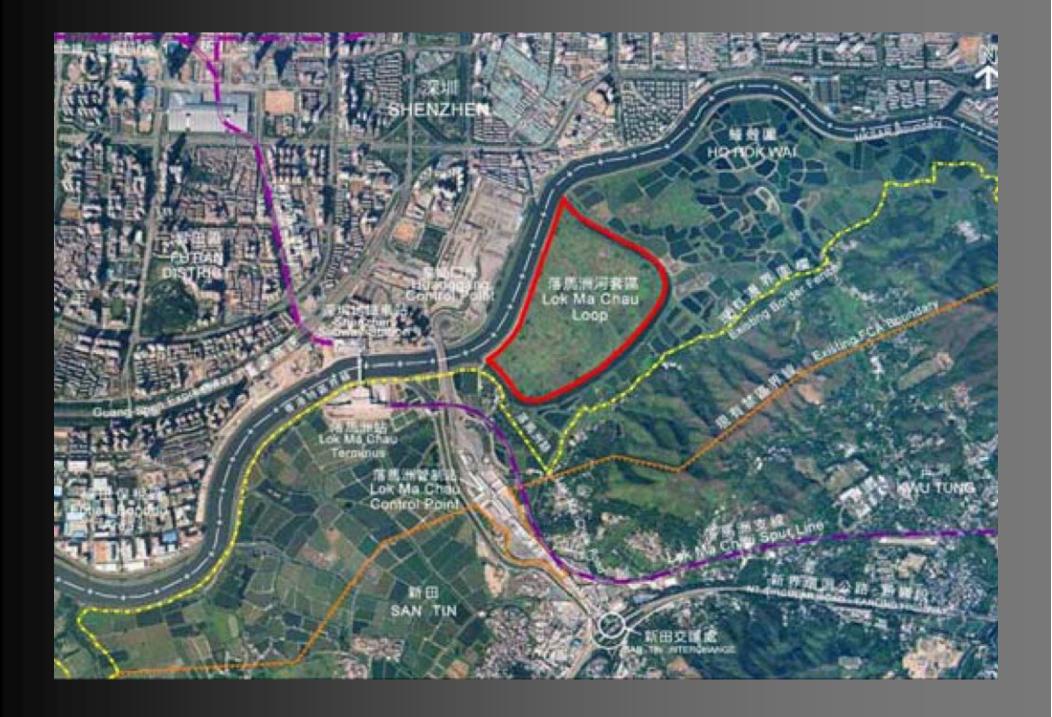
and other material handling purposes

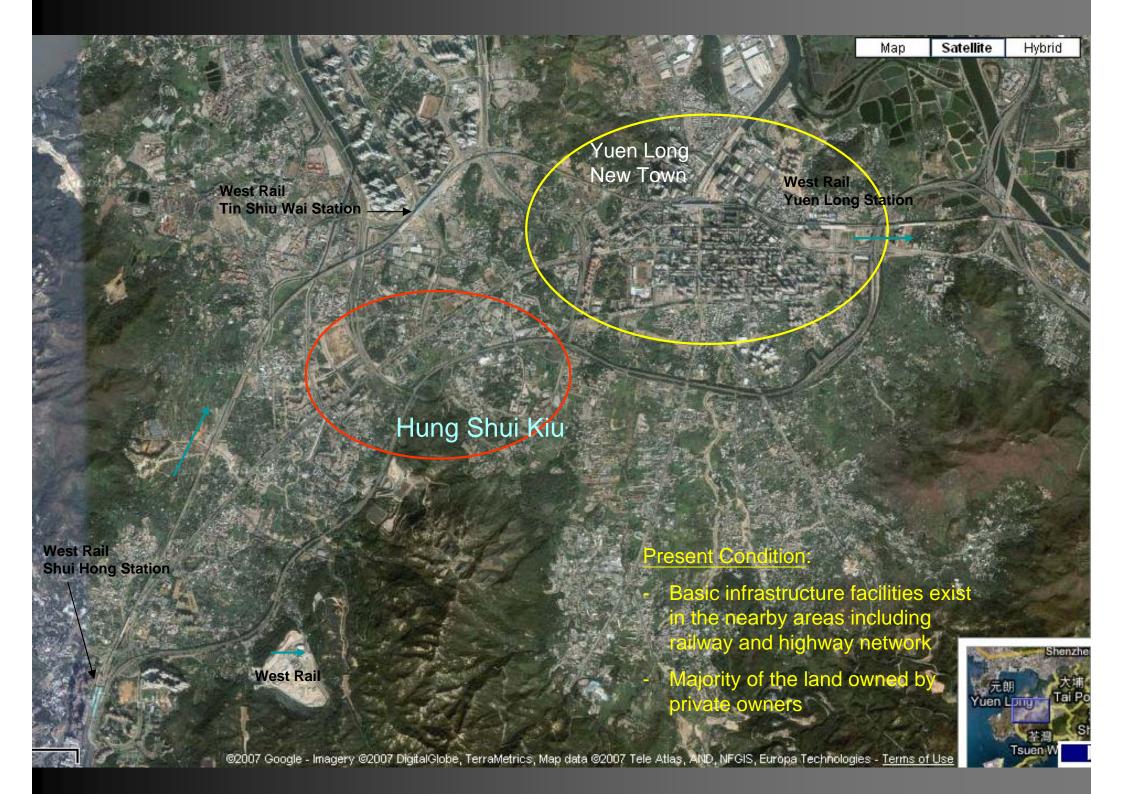
to support logistic services













Tin Shui Wai New Town

Existing land-use Condition of Hung Shui Kiu and nearby areas





Existing land-use Condition of Hung Shui Kiu and nearby areas



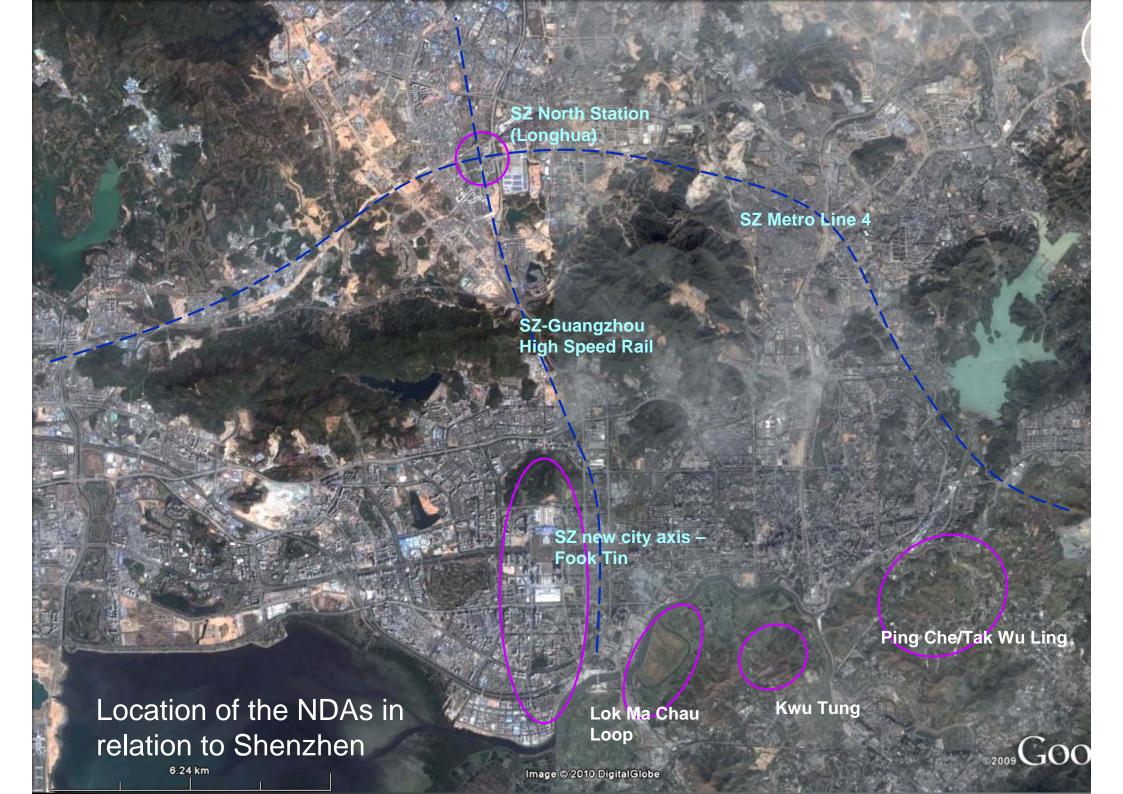












Other recent large scale site formation projects to provide new land to Hong Kong











### The actual view on site (2009)













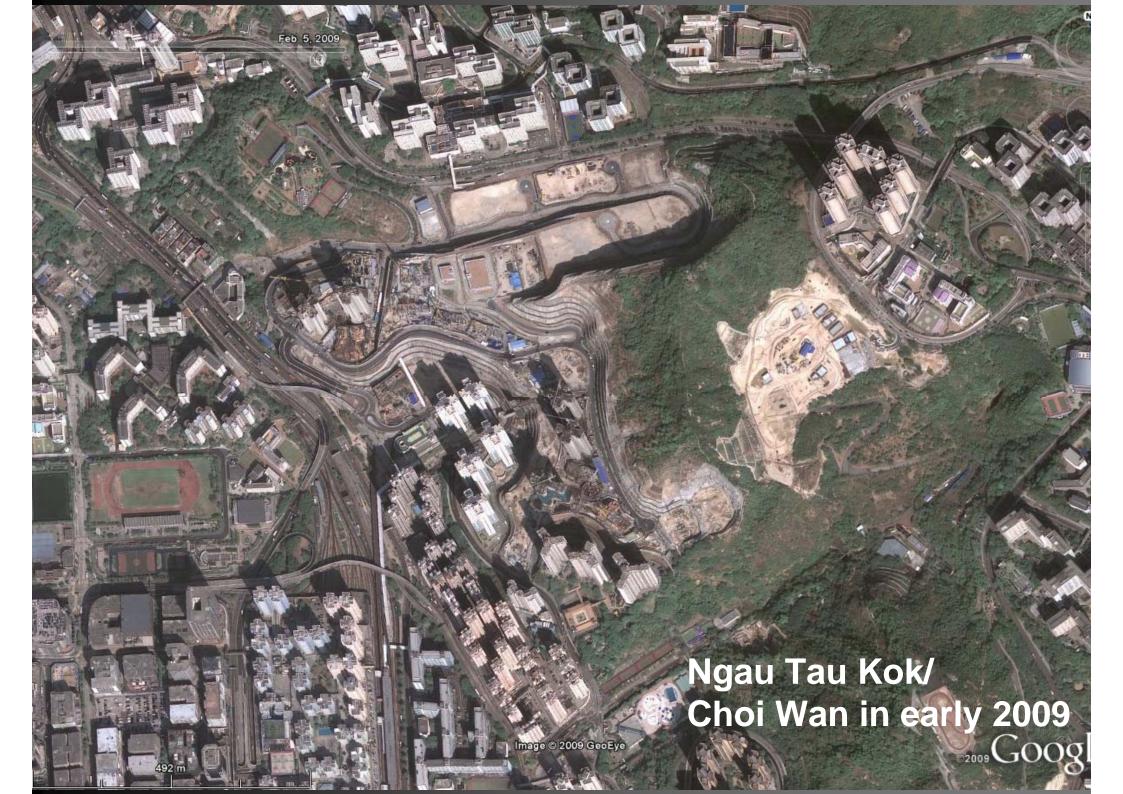














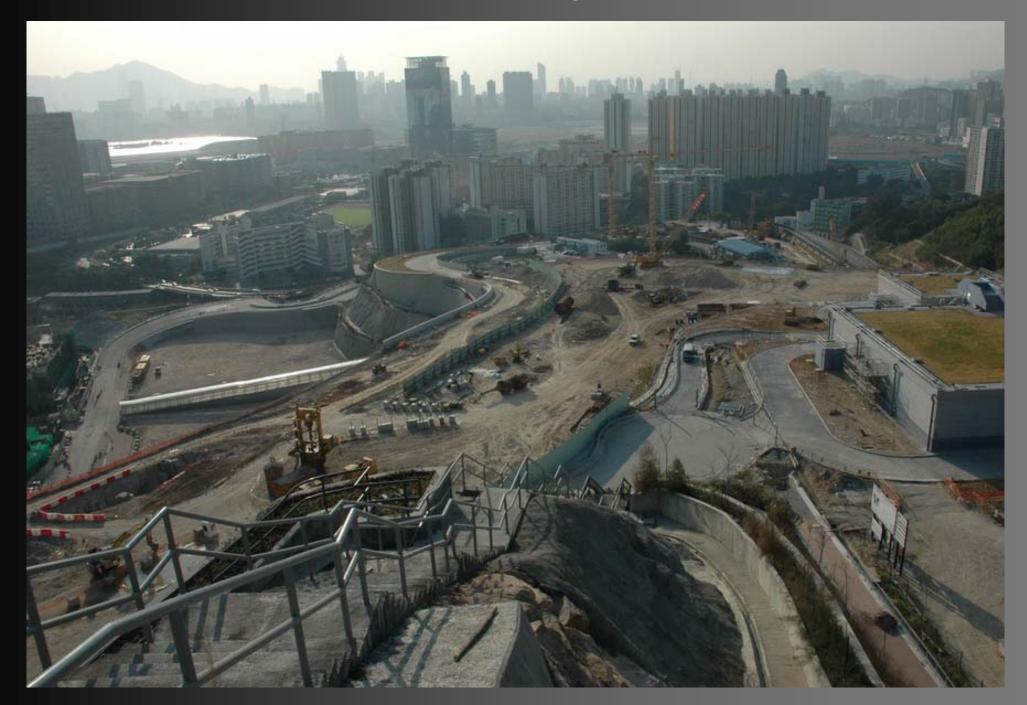






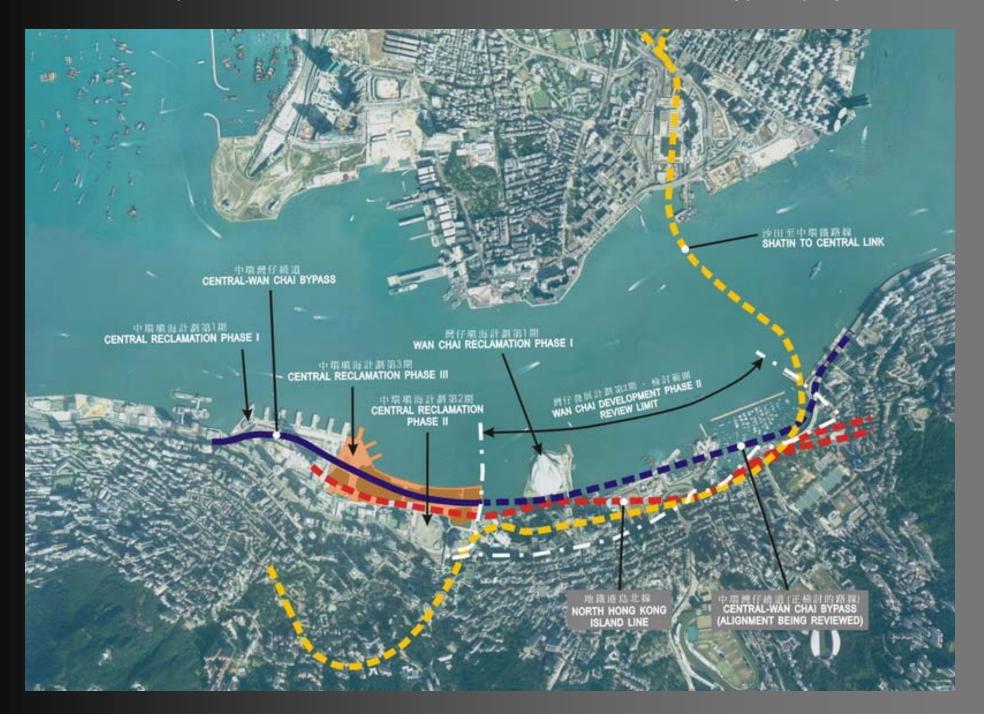


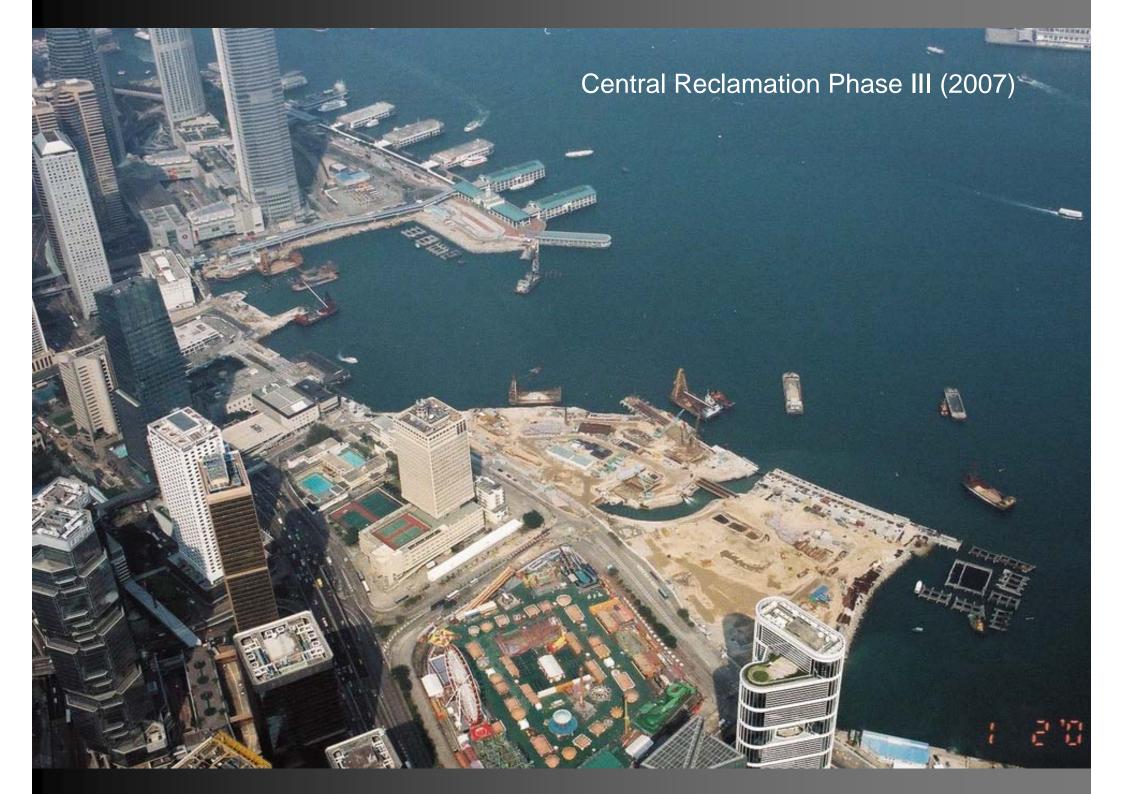
Terraces (smaller strips of flatter land platform) at various levels were formed at the later stage of formation process





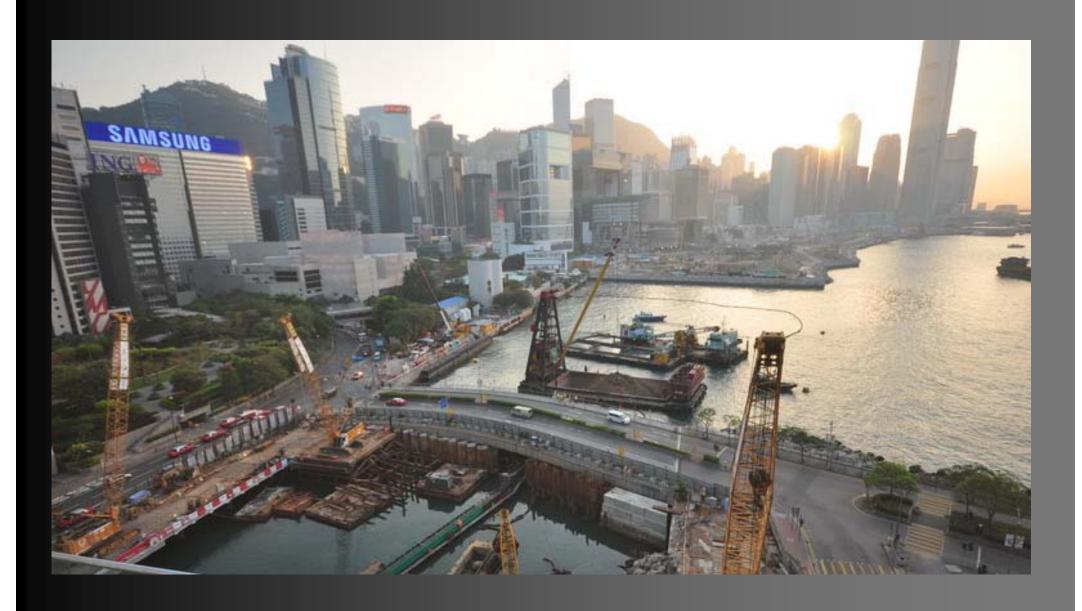
#### Final phase of Central Reclamation and Central Wanchai Bypass project











Completion of Central Reclamation Phase III and early phase of Central-Wanchai Bypass project (mid 2010)



Central Wanchai
Bypass –
Interchanging
point at Central
and Admiralty
(around early 2010)





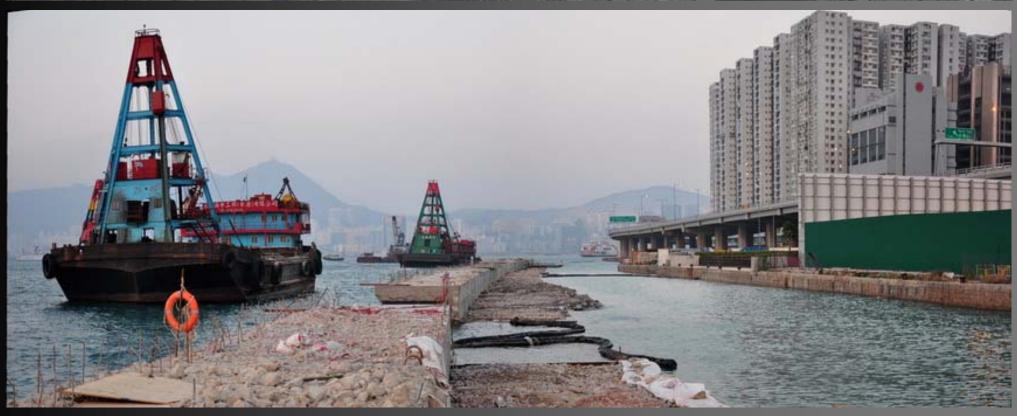


### Reclamation for Wanchai Development and Central-Wanchai Bypass (early 2010)









## Background concerns on these major infrastructure projects

#### Transportation Infrastructure

- Within control of HK government
- Forming an important strategic planning of overall urban development
- Medium to long term
- Depend on determination of government to implement the projects

South Island Line (6 – 8 years)

Sha Tin to Central Link (8 – 10 years)

Tuen Mun Western Bypass & Tuen Mun-Chek Lap Kok Link (8 – 12 years)

note: all time estimate is based on an optimistic view

## Background concerns on these major infrastructure projects

#### Cross Boundary Infrastructure Projects

- Partly within control of HK government
- Long term in implementation
- Need to negotiate and coordinate with various government to cope with or to balance various pace and interest
- May have the problem of being lagged behind and miss the development opportunity

Guangzhou-Shenzhen-Hong Kong Express Rail Link (6 – 8 years)

HK-Zhuhai-Macao Bridge (10 – 12 years)

HK-Shenzhen Airport Co-operation (8 – 10 years)

HK-Shenzhen Joint Development of Lok Ma Chau Loop (8 – 10 years)

# Background concerns on these major infrastructure projects

New Development Areas

- Apparently within control of HK government
- Existence of highly unpredictable factors related to urban planning, land administration, legislation or even political concerns
- Very long term for full implementation

West Kowloon Cultural District (Stage 1, 6 – 8 years)

Kai Tak Development Plan (Preliminary stag 8 – 10 years, excluding the cruises terminal)

New Development Areas (8 – 10 years)

#### **Acknowledge of Thanks**

Some aerial photos and satellite map in this presentation are obtained from the following websites. The speaker wishes to express his thanks for the using of these images:

- 1. Google Maps
- 2. Centamaps
- 3. Over Hong Kong published by Pacific Century, Hong Kong