

(Translated Version)

For discussion on
8 March 2014

LanDAC Paper No. 02/2014

First Meeting of Lantau Development Advisory Committee
Agenda Item 3: Existing and Planned Developments at Lantau

1. Purpose

This paper aims at introducing the major infrastructure, developments and environmental projects/studies that are currently on-going or under planning on Lantau. Location of the relevant projects/studies is at **Plan 1**.

2. Transport Infrastructure

Hong Kong-Zhuhai-Macao Bridge (Item A on Plan 1)

- 2.1 The 55 km¹ long Hong Kong-Zhuhai-Macao Bridge (HZMB) under construction is situated at the waters of Lingdingyang of the Pearl River Estuary. It is a mega-size sea crossing linking the Hong Kong Special Administrative Region, Zhuhai City of Guangdong Province and the Macao Special Administrative Region.

- 2.2 For a direct and efficient connection between the Hong Kong transport network and the HZMB, a series of supporting transport infrastructures are also being constructed including the 12 km long Hong Kong Link Road, a some 130-hectare artificial island for boundary crossing facilities, and the 9 km long Tuen Mun-Chek Lap Kok Link (TM-CLKL), thereby establishing a strategic transport network linking up Hong Kong, Macao and Zhuhai. With the anticipated commissioning of the HZMB at the end of 2016, the cities in the western Pearl River Delta (PRD) will fall within a

¹ The 55-km long Hong Kong-Zhuhai-Macao Bridge consists of the Main Bridge, the Hong Kong Link Road, Zhuhai Link Road and Macao Link Road.

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3-hour-commuting radius from Hong Kong. This would play an important role in enhancing the confluence and cooperation on various aspects of western PRD and Hong Kong.

- 2.3 In addition, Lantau would become an essential connecting point for journeys amongst Hong Kong, Zhuhai and Macao. It would link up the Hong Kong Island, Kowloon, the New Territories and the western PRD, and become the converging point of traffic from Guangdong, Hong Kong and Macao. The functions and development potentials of Lantau would be further enhanced.

Tuen Mun-Chek Lap Kok Link (Item B on Plan 1)

- 2.4 The TM-CLKL is divided into the southern and northern sections. The 5.5 km long northern section would connect Area 40 of Tuen Mun and the HZMB Hong Kong Boundary Crossing Facilities (HKBCF) while the 3.5 km long southern section would connect the HKBCF and the road network of North Lantau. This southern connection would be substantially completed in 2016 to tie in with the commissioning of the HZMB and the northern connection would be completed by 2018 to meet timely the transport needs of the district.
- 2.5 Upon the completion of the TM-CLKL, it would become the most direct route between the northwest New Territories and the HZMB, the Hong Kong International Airport (HKIA) and northern Lantau, and also an alternative route to and from the airport. The TM-CLKL together with the highway network in the northwest New Territories would link up western Shenzhen and Lantau more closely.

The Third Runway of the Airport (Item C on Plan 1)

- 2.6 The two-runway system of the HKIA is expected to reach its full capacity in the next few years. In order to maintain our

overall competitiveness and our position as a regional aviation hub, in March 2012, the Government approved in-principle the adoption of the three-runway system proposed by the Airport Authority Hong Kong (AAHK) as the future development direction of the HKIA. The Government is assisting the AAHK with the relevant planning work including the statutory environmental impact assessment (EIA), relevant design details and financial arrangement. The third runway project would include reclamation of about 650 hectares at the north of the airport island for the construction of the third runway, the passenger concourse and the apron as well as the alteration of Terminal 2 and other relevant infrastructure works.

- 2.7 According to the current schedule, it is of paramount importance to obtain the approval of the EIA of the project. AAHK expects that the whole procedure of EIA would be completed in around the third quarter of this year. Pending the completion of the EIA and other statutory procedures including the necessary funding application expected to be made to the Finance Committee of Legislative Council before the end of 2015, it is hoped that construction of the three-runway system could start as soon as possible in 2016 for striving for completion in 2023.
- 2.8 The AAHK expects that after the commissioning of the three-runway system, the handling capacity of flight movements per year would increase from 420 000 under the existing two-runway system to 620 000. The increased capacity could meet the long-term aviation needs of the HKIA. According to the assessment under the HKIA Master Plan 2030, it is expected that the passenger and cargo throughput would increase respectively from about 60 million passengers and 4.1 million tonnes in 2013 to not less than 97 million passengers and 8.9 million tonnes in 2030.

Review and Update of the Railway Development Strategy 2000

- 2.9 Railways form the backbone of Hong Kong's passenger transport system. It is anticipated that the five new railway lines being taken forward would be progressively completed from 2014 to 2020. The Government has earlier commissioned consultants to conduct Review and Update of the Railway Development Strategy 2000 for updating Hong Kong's long-term railway development blueprint to meet the latest development needs of the society. Moreover, two-stage public engagement exercises have been conducted during the course of the study.
- 2.10 The Transport and Housing Bureau, after making reference to the overall recommendations of the consultants, would formulate the railway development blueprint beyond 2020 based on three major premises, namely responding to the transport demands, ensuring cost-effectiveness and meeting the development needs of the new towns/new development areas. The blueprint would be released within this year.

3. Commercial Development and Bridgehead Economy (Item D on Plan 1)

Topside Development at Hong Kong Boundary Crossing Facilities Island of Hong Kong-Zhuhai-Macao Bridge

- 3.1 The artificial island for the HKBCF off Lantau has an area of about 130 hectares. With its proximity to the HKIA, it will serve as a gateway between Hong Kong and the western PRD and will have huge potential for developing "bridgehead economy". The Government has carried out a preliminary review of the supporting infrastructure of the HZMB HKBCF and will soon conduct a planning, engineering and architectural study. It will explore the feasibility of developing large-scale shopping, dining, entertainment and hotel facilities and the like at the HKBCF on the premise that the commissioning of the HZMB would

not be delayed by the proposed development and the daily operation of the HKBCF would be maintained.

- 3.2 It is envisaged that the additional commercial developments will create synergy effect with the HKIA, the AsiaWorld-Expo, the proposed airport North Commercial District (NCD), the airport third runway project and other tourist attractions and commercial facilities of Lantau to facilitate the development of “bridgehead economy”. It is planned that the above study would commence in the third quarter of 2014.

Airport North Commercial District (Item E on Plan 1)

- 3.3 The Transport and Housing Bureau and the AAHK are now working collaboratively to expedite the development of the airport NCD. In developing the NCD, consideration on the future expansion of the HKIA including the planning of its three-runway system and the synergy effect with the development of Lantau etc. would be made so that the full benefit of the NCD development could be reaped.
- 3.4 In December 2013, the Board of AAHK decided to commence immediately the hotel development project of the NCD as the first stage of its commercial development. In parallel, the AAHK is actively pursuing relevant planning work related to the Master Layout Plan for the entire NCD development. The AAHK is now proceeding at full speed the hotel development project as the first stage of the commercial development of the NCD.

4 New Towns and Reclamation

Tung Chung New Town Extension (Item F on Plan 1)

- 4.1 Currently, Tung Chung has a population of 78 400 and we are now exploring the feasibility of expanding Tung Chung New Town into a community of larger scale and capitalising

on the future economic opportunities to create more employment opportunities for the Tung Chung residents. The stage-two public engagement was completed in July 2013. According to the preliminary land use options, the two options of “Livable Town” and “Economic Vibrancy” of Tung Chung East would provide 38 000 and 33 000 flats respectively while Tung Chung West would provide 15 000 flats. The total population of Tung Chung New Town and its proposed extension could reach between 259 000 and 275 000.

- 4.2 We would take into account the study objective, the development constraints and opportunities of Tung Chung and the opinions collected during the stage-one/two public engagement when preparing the outline development plan for public consultation. The public engagement next stage is expected to commence in mid 2014 and the whole study is anticipated to be completed in 2015.

Sunny Bay and Siu Ho Wan Reclamations (Items G & H on Plan 1)

- 4.3 Two rounds of public engagement exercises on “Enhancing Land Supply Strategy: Reclamation outside Victoria Harbour and Rock Cavern Development” were conducted from November 2011 to June 2013. Five potential sites for nearshore reclamation were identified, i.e. Lung Kwu Tan in Tuen Mun, Siu Ho Wan and Sunny Bay in North Lantau, Southwest Tsing Yi and Ma Liu Shui in Shatin. Besides, it recommended further studying the proposal of constructing artificial islands in the central waters between Hong Kong Island and Lantau.
- 4.4 According to the study, in order to enhance the economic competitiveness of Hong Kong, Sunny Bay has the potential to be developed as a regional tourist, entertainment and commercial hub², through reclamation (a total area of about

² Most of the Sunny Bay Reclamation is zoned “Undetermined” on the Approved North-East Lantau

60 to 100 hectares), to create synergy effect with other tourist attractions on Lantau. In addition, Sunny Bay has the potential for comprehensive commercial development for creating commercial and employment opportunities benefiting Tung Chung New Town and even the whole Hong Kong. Siu Ho Wan, with its proximity to the airport and potential to connect with the main trunk road and infrastructure, is suitable for reclamation (a total area of about 100 to 150 hectares) for the development of strategic economic activities to provide employment opportunities and support the development of Tung Chung New Town.

- 4.5 The planning and engineering study related to Sunny Bay Reclamation is expected to commence in the third quarter of 2014 for completion in the third quarter of 2016. The way forward of the Siu Ho Wan Reclamation would depend on the findings of the cumulative EIA now underway (see para. 5.1).

East Lantau Metropolis (Item I on Plan 1)

- 4.6 The Chief Executive announced in his 2014 Policy Address to explore developing an “East Lantau Metropolis” (ELM) in the eastern waters off Lantau Island and neighbouring areas for accommodating new population. It would become a new core business district in addition to Central and eastern Kowloon for promoting economic development and providing job opportunities. ELM would also have synergy effect with the commercial developments on the artificial island for the HZMB HKBCF, the airport NCD, the Tung Chung New Town Extension and the proposed reclamation sites at Sunny Bay and Siu Ho Wan etc. This would bring greater and sustainable economic benefit to enhance Hong Kong’s competitiveness and to provide more economic and employment opportunities on Lantau for promoting local development.

- 4.7 The preliminary concept of the ELM is to form artificial islands near the waters of Kau Yi Chau between the east of Lantau and the west of Hong Kong Island and to develop Mui Wo, Hei Ling Chau and their nearby areas for comprehensive planning and development. We will introduce innovative town planning, design, engineering and construction concepts for developing the areas into a smart, livable, “good-for-work”, diversified and environmentally friendly ELM. To complement the proposed development, we will consider providing transport infrastructures to connect the ELM with northern Lantau, western Kowloon and western Hong Kong Island.
- 4.8 In order to explore the feasibility of developing artificial islands in the central waters to the east of Lantau, the Government is now preparing for commissioning strategic studies for artificial islands in the central waters. The study will examine comprehensively various aspects including port operation, transport, environment, fishery, engineering, infrastructure facilities, broad land development direction and finance. It is expected to commence the study in the third quarter of 2014 for completion within 3 years.
- 4.9 Upon the availability of phased findings of the strategic studies for artificial islands in the central waters, we plan to commence the planning and engineering study for the ELM in 2016.

5. Environmental Protection and Nature Conservation

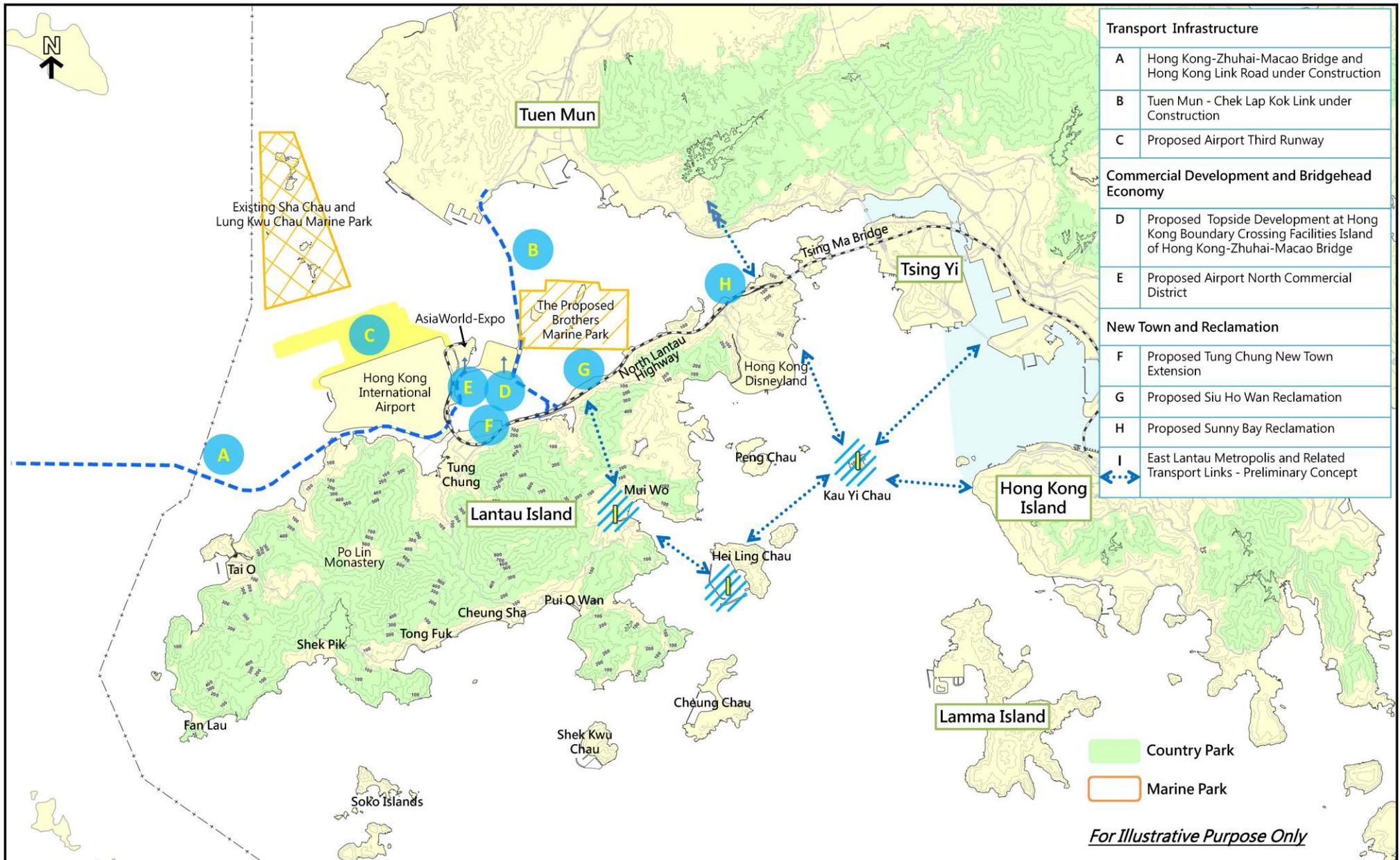
- 5.1 The three potential reclamation sites at Siu Ho Wan, Sunny Bay and Lung Kwu Tan are all situated in the western waters. There are currently several major infrastructure projects under construction or planning (including the third runway of the HKIA, HZMB and related works as well as the Tung Chung New Town Extension project). In view of the concerns of the environmental groups and the public on the

environmental carrying capacity of the western waters and the cumulative environmental impacts of these projects (including potential impacts on the marine ecology and the Chinese White Dolphins (CWD)), we have employed consultants to conduct field survey for CWDs and cumulative EIA at these three proposed sites. With the findings of the above studies, it is hoped that, through further technical feasibility studies, a preliminary combination of reclamations and implementation programme that are technically feasible and environmentally and ecologically acceptable can be identified. It is anticipated that the cumulative EIA would be completed in the second half of this year.

- 5.2 In order to further protect the marine ecology, the Highways Department is studying to designate the waters near The Brothers as a marine park for compensating the loss of habitat of the CWDs due to the HZMB HKBCF project. In the long run, designation of the Brothers Marine Park would play an important role in the conservation of the CWDs of Hong Kong. The HKBCF project would be completed at the end of 2016 and the proposed marine park is planned to be designated at the same time. The consultants of the Highways Department is now conducting detailed studies on the project so as to ascertain the area of the proposed Brothers Marine Park and to formulate the management plan of the marine park.

Plan 1: Major Infrastructure and Development Projects under
Construction/ Planning in Lantau

Development Bureau
Planning Department
February 2014



Transport Infrastructure	
A	Hong Kong-Zhuhai-Macao Bridge and Hong Kong Link Road under Construction
B	Tuen Mun - Chek Lap Kok Link under Construction
C	Proposed Airport Third Runway
Commercial Development and Bridgehead Economy	
D	Proposed Topside Development at Hong Kong Boundary Crossing Facilities Island of Hong Kong-Zhuhai-Macao Bridge
E	Proposed Airport North Commercial District
New Town and Reclamation	
F	Proposed Tung Chung New Town Extension
G	Proposed Siu Ho Wan Reclamation
H	Proposed Sunny Bay Reclamation
I	East Lantau Metropolis and Related Transport Links - Preliminary Concept

Major Infrastructure and Development Projects under Construction / Planning in Lantau



PLANNING DEPARTMENT		 Plan 1
M/SP/14/104		
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For Illustrative Purpose Only