

## **ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE**

### **HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT**

#### **Civil Engineering – Land development**

#### **770CL – Planning, engineering and architectural study for topside development at Hong Kong boundary crossing facilities island of Hong Kong–Zhuhai–Macao Bridge**

Members are invited to recommend to the Finance Committee the upgrading of **770CL** to Category A at an estimated cost of \$61.9 million in money-of-the-day prices for carrying out a planning, engineering and architectural study and the associated site investigation works for the proposed commercial development at the Hong Kong boundary crossing facilities island of Hong Kong–Zhuhai–Macao Bridge.

### **PROBLEM**

We need to carry out a detailed study to ascertain the feasibility of proposed commercial development at the Hong Kong boundary crossing facilities (HKBCF) island of Hong Kong–Zhuhai–Macao Bridge (HZMB).

### **PROPOSAL**

2. The Director of Civil Engineering and Development, on the advice of the Director of Planning and with the support of the Secretary for Development, proposes to upgrade **770CL** to Category A at an estimated cost of \$61.9 million in money-of-the-day (MOD) prices to engage consultants to undertake a planning, engineering and architectural study (the Study) and the associated site investigation works for the proposed commercial development at the HKBCF island.

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## PROJECT SCOPE AND NATURE

3. The scope of **770CL** comprises –
- (a) a planning, engineering and architectural study to ascertain the feasibility and optimise the scope and scale of the proposed commercial development on the HKBCF island through topside and underground space development, including the formulation of the development proposals, supporting infrastructure and the implementation programme and mechanism;
  - (b) overall development concept, including assessment of the financial viability and recommendation of the market positioning and operation strategy;
  - (c) environmental impact assessment (EIA) for the development proposals and supporting infrastructure;
  - (d) proposals for expediting the availability of the development sites including phased development;
  - (e) community engagement exercise in relation to the formulation of the development proposals; and
  - (f) associated site investigation works including supervision.

———— A location plan of the HKBCF island is at Enclosure 1.

4. Subject to funding approval of the Finance Committee, we plan to commence the Study in August 2014 for completion in September 2016.

## JUSTIFICATION

5. The western Pearl River Delta (PRD) has undergone rapid development in recent years. When the HZMB and the Tuen Mun-Chek Lap Kok Link are completed in 2016 and 2018 respectively, Lantau will become an essential connecting point for journeys to and from Hong Kong, Zhuhai and Macao. It is projected that the HKBCF would have a daily patronage of 9 200 to 14 000 vehicles and 55 850 to 69 200 passengers in 2016.

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6. The HKBCF island has an area of about 130 hectares. With its proximity to the Hong Kong International Airport (HKIA), it will serve as a gateway for Hong Kong and western PRD and has potential for development of “bridgehead economy”. Utilization of land at the HKBCF island for commercial development, such as shopping, dining, entertainment and hotel facilities can capitalise its unique locational advantage and create synergy among HKIA, AsiaWorld-Expo, the North Commercial District (NCD) on airport island, the HKIA’s Third Runway Project under planning and other tourist and business destinations on Lantau. The commercial development can also create job opportunities on Lantau and Hong Kong as a whole.

7. A preliminary review of supporting infrastructure has been carried out to explore the feasibility of developing commercial development at the HKBCF island. It is concluded that the proposed commercial development will have substantial interfaces with the HKBCF during the construction and operation stage, including the customs, immigration and quarantine activities within the designated “Closed Area” and will involve reprovisioning of the affected facilities on a temporary or permanent basis. As such, the architectural feasibility of integrating commercial development with those boundary crossing facilities has to be examined through a study. Moreover, a convenient vehicular and pedestrian transport network between the proposed development and the NCD, HKIA, Tung Chung and the surroundings will be required to create synergy for developing a successful “bridgehead economy”. Additional engineering infrastructure works including sewerage system and other utilities will also be required to support the proposed commercial development.

8. The Study will recommend an overall concept for the proposed development and appropriate development parameters. The implementation of the proposed development will be on the premise of not delaying the commissioning of the HZMB and maintaining the daily operation of the HKBCF during construction.

## **FINANCIAL IMPLICATIONS**

9. We estimate the costs of the Study and the associated site investigation works to be \$61.9 million in MOD prices (please see paragraph 10 below), broken down as follows –

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		<b>\$ million</b>	
(a)	Consultants' fees for	40.0	
	(i) planning and architectural study	10.0	
	(ii) engineering study	17.2	
	(iii) EIA study	10.0	
	(iv) financial viability study	2.0	
	(v) supervision of site investigation works	0.8	
(b)	Site investigation works	7.0	
(c)	Expenses for community engagement exercise and other miscellaneous items	3.0	
(d)	Contingencies	5.0	
	Sub-total	55.0	(in September 2013 prices)
(e)	Provision for price adjustment	6.9	
	Total	61.9	(in MOD prices )

In view of the multi-disciplinary nature of the Study and inadequate in-house resources, we propose to engage consultants to undertake the Study and supervise the associated site investigation works. A breakdown of the estimates for consultants' fees by man-months is at Enclosure 2.

10. Subject to funding approval, we will phase the expenditure as follows –

<b>Year</b>	<b>\$ million (Sept 2013)</b>	<b>Price adjustment factor</b>	<b>\$ million (MOD)</b>
2014 – 2015	9.2	1.05450	9.7
2015 – 2016	31.3	1.11777	35.0
2016 – 2017	14.5	1.18484	17.2
	<u>55.0</u>		<u>61.9</u>

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11. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period from 2014 to 2017. We will engage consultants to undertake the Study on a lump sum basis with provision for price adjustment. We will tender the proposed site investigation works under a standard re-measurement contract because the quantity of works involved may vary depending on actual ground conditions. The contract for site investigation works will provide for price adjustment.

12. The Study and the associated site investigation works will not give rise to any recurrent consequences.

## **PUBLIC CONSULTATION**

13. We consulted the Islands District Council on 24 February 2014. Members supported the proposal to conduct the Study and urged the government to fast-track the implementation as far as practicable.

14. We consulted the Legislative Council Panel on Development on 25 March 2014 and members generally supported the Study. Members also requested the Administration to provide information about the coverage of the planning and architectural study, in particular, whether the Study would provide an analysis on the future economic development trend in western PRD and the volume of passenger flow on the HKBCF island to be generated from the western PRD region. The requested information is at Enclosure 3.

## **ENVIRONMENTAL IMPLICATIONS**

15. Depending on the final scale and scope of the development proposals, the Study and the recommended supporting infrastructures may be classified as designated projects (DPs) under Schedules 3 and 2 of the EIA Ordinance (EIAO) (Chapter 499) respectively. If affirmative, an EIA will be conducted in compliance with the requirements stipulated in the EIAO, the Technical Memorandum on the EIA Process and the EIA Study Brief. An environmental permit will be obtained prior to the construction and operation of the Schedule 2 DPs, if any.

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16. The Study and the associated site investigation works will only generate very little construction wastes. We will require the consultants to fully consider measures to minimise the generation of construction waste and to reuse/recycle construction waste as much as possible in the future implementation of the construction projects.

## **HERITAGE IMPLICATIONS**

17. The Study and the associated site investigation works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

## **LAND ACQUISITION**

18. The Study and the associated site investigation works will not require any land acquisition.

## **BACKGROUND INFORMATION**

19. We upgraded **770CL** to Category B in September 2013.

20. The Study and the associated site investigation works will not involve any tree removal or planting proposals.

21. We estimate that the Study and the associated site investigation works will create about 37 jobs (four for labourers and another 33 for professional/technical staff), providing a total employment of 775 man-months.

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**Breakdown of the estimates for consultants' fees (in September 2013 prices)**

Consultants' staff costs (Note 1)		Estimated man- months	Average MPS* salary point	Multiplier (Note 2)	Estimated fee (\$ million)
(i) Planning and architectural study	Professional	38	38	2.0	5.1
	Technical	105	14	2.0	4.9
(ii) Engineering study	Professional	60	38	2.0	8.1
	Technical	196	14	2.0	9.1
(iii) Environmental impact assessment study	Professional	26	38	2.0	3.5
	Technical	140	14	2.0	6.5
(iv) Financial viability study	Professional	12	38	2.0	1.6
	Technical	9	14	2.0	0.4
(v) Supervision of site investigation works	Professional	3	38	2.0	0.4
	Technical	9	14	2.0	0.4
<b>Total</b>					<b>40.0</b>

\* MPS = Master Pay Scale

**Notes**

1. The actual man-months and fees will only be known after we have selected the consultants through the usual competitive fee bidding system.
2. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices. (As at now, MPS point 38 = \$67,370 per month and MPS point 14 = \$23,285 per month.)



**The scope of the planning, engineering and architectural study**

The scope of the planning, engineering and architectural study includes the following –

- (a) a market demand assessment to predict the demand of different types of commercial development, both from the local and overseas markets including the western Pearl River Delta (PRD);
- (b) exploration and optimization of the utilisation of topside and underground space land on the Hong Kong boundary crossing facilities (HKBCF) island for commercial developments;
- (c) recommendation of an overall concept plan for the proposed commercial developments, appropriate development parameters, market positioning and operation strategy for the proposed commercial developments;
- (d) ascertaining the technical feasibility of the proposal in terms of traffic (including cross-boundary traffic from western PRD), infrastructural capacities, architectural, urban design, landscape, environment, air ventilation, pedestrian circulation, customs, immigration, quarantine clearance and boundary security issues etc., while maintaining the daily operation of the HKBCF during construction; and
- (e) assessment of the financial viability of the proposed commercial developments.