

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

### **HEAD 703 – BUILDINGS**

#### **Recreation, Culture and Amenities – Open spaces 370RO – Hammer Hill Road Park, Diamond Hill**

Members are invited to recommend to Finance Committee the upgrading of **370RO** to Category A at an estimated cost of \$177 million in money-of-the-day prices for the construction of Hammer Hill Road Park, Diamond Hill.

### **PROBLEM**

We need to provide more public open space in the Wong Tai Sin district.

### **PROPOSAL**

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Home Affairs, proposes to upgrade **370RO** to Category A at an estimated cost of \$177 million in money-of-the-day (MOD) prices for the construction of Hammer Hill Road Park (the Park), Diamond Hill, Wong Tai Sin.

**/PROJECT .....**

## PROJECT SCOPE AND NATURE

3. The project site is about 33 000 square metres in size and is located in front of the Chi Lin Nunnery Monastic Complex (the Complex). In view of its proximity with the Complex, we propose to develop the site into a classical Chinese garden with architectural expression compatible with the Complex, so as to develop the entire area into a landmark of Chinese culture and heritage.

4. The Park will be developed into a classical Chinese garden according to the unique Tang Dynasty style of architecture and landscaping, with the creation of a natural setting. The design of the Park will be characterised by mature old trees, special planting, feature rocks, water features and Tang Dynasty style architecture. In view of Chi Lin Nunnery (Chi Lin)'s expertise and experience in Tang Dynasty architectural works as evidenced in the construction of the Complex, we intend to entrust the design, construction and supervision of works of the Park to Chi Lin to ensure the compatibility of the Park and the Complex. Chi Lin has agreed to take up the project and to contribute part of the Park, comprising mainly the add-on features like the Tang Dynasty style buildings and pavilions, mature old trees, feature rocks and Bonsais, etc, which are estimated to cost \$68 million in MOD prices.

5. The Park comprises two portions. Portion 1 works will be funded by the Government under **370RO** whereas portion 2 works will be contributed in kind by Chi Lin. Portion 1 and 2 works comprise the following –

(a) Portion 1 works (to be funded by the Government)

- (i) site formation, including tree felling, tree transplanting, diversion of existing underground services, and hoarding;
- (ii) piling;
- (iii) service buildings of 920 square metres in construction floor area, including management offices, toilets and plant rooms;
- (iv) underground services rooms and water tanks;
- (v) concrete building for artificial hillocks with rock facing and waterfall of 1 600 square metres in construction floor area to accommodate a restaurant and a viewing gallery;

- (vi) drainage and external works, including retaining walls, paving, water ponds, bridges, boundary fence and entrance gates;
  - (vii) a plant nursery; and
  - (viii) car parking spaces for 16 coaches and five private cars; and
- (b) Portion 2 works (to be contributed in kind by Chi Lin)
- (i) all Tang Dynasty style buildings and pavilions of 580 square metres in construction floor area;
  - (ii) mature old trees;
  - (iii) featured rocks;
  - (iv) Bonsais; and
  - (v) exhibits and exhibition cabinets.

————— A site plan is at Enclosure 1. Chi Lin plans to start the construction works in mid-2003 for completion in mid-2006. Upon completion, the Park will be handed over to the Government and remain as a public park fully owned by the Government.

## **JUSTIFICATION**

6. The Wong Tai Sin district is currently provided with 665 000 square metres of open space. As a reference, the Hong Kong Planning Standards and Guidelines suggests provision of 889 300 square metres of open space for the current population in this district. The Park would provide the much needed open space in the district. As the Park is located near some residential estates, viz, Choi Hung Estate, Fung Tak Estate, Lung Poon Court and Galaxia, it is anticipated that the Park will be heavily patronised by the nearby residents.

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7. The Complex, designed and built in Tang Dynasty style, is a popular scenic spot patronised by the public and tourists from overseas. We consider that the design concept of the Park should be compatible with that of the Complex adjacent to the project site, so that the entire area could be developed into a landmark of Chinese culture and heritage as well as a tourist attraction of strategic value to Hong Kong. With special features and a unique design, the Park will provide a venue for the public to appreciate and promote Chinese architectural culture and heritage. In addition, the project will create a new tourist attraction and attract overseas visitors to Hong Kong which in turn will help promote the business of local shops and restaurants. We expect the Park to receive world recognition and become a landmark for tourism in Hong Kong.

8. In view of Chi Lin's past experience in developing unique Tang Dynasty style buildings, it is cost effective for the Government to entrust the project to Chi Lin to develop the Park in a style compatible to the Complex. The proposed entrustment arrangement would also enable us to make use of Chi Lin's expertise and contributions to build a park to a much higher standard with many add-on features without additional public funding. In order to ensure the successful completion of the Park, Chi Lin would provide a financial guarantee of \$68 million from an established bank.

#### **FINANCIAL IMPLICATIONS**

9. The estimated capital cost of the Park is \$245 million in MOD prices, comprising Government's estimated contribution of \$177 million in MOD prices and Chi Lin's estimated contribution of \$68 million in MOD prices. The Government's total commitment is capped at \$177 million. Savings, if any, from portion 1 works (i.e. the unspent portion of the project estimate of \$177 million of **370RO**) will be used to finance portion 2 works, subject to the prior approval of the Government. In the event that there is cost overrun for the Government's total commitment for portion 1 works, Chi Lin is committed to completing the Park without compromising the scope of the works. The estimated cost of portion 1 works of \$177 million in MOD prices is made up as follows –

/(a) .....

	<b>\$ million</b>	
(a) Site formation	16.0	
(b) Piling	11.3	
(c) Building	17.0	
(d) Building services	30.0	
(e) Drainage and external works	59.0	
(f) Soft landscaping works	15.0	
(g) Furniture and equipment <sup>1</sup>	5.0	
(h) Consultants' fees for –	10.0	
(i) Detailed design	2.6	
(ii) Tender documentation	2.2	
(iii) Contract administration	2.8	
(iv) Site supervision	2.2	
(v) Out-of-pocket expenses	0.2	
(i) Contingencies	15.0	
Sub-total	178.3	(in September 2002 prices)
(j) Provision for price adjustment	(1.3)	
Total	177.0	(in MOD prices)

———— A breakdown of the estimate for consultants' fees by man-month is at Enclosure 2.

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<sup>1</sup> Based on the furniture and equipment provided in existing recreational facility of comparable scale (e.g. 361RO "Lai Chi Kok Park, stage 3 (landscape portion – phase 1a)").

10. Subject to approval, we will phase the Government's expenditure as follows –

Year	\$ million (Sept 2002)	Price adjustment factor	\$ million (MOD)
2003 – 04	17.1	0.99250	17.0
2004 – 05	53.4	0.99250	53.0
2005 – 06	70.5	0.99250	70.0
2006 – 07	27.2	0.99250	27.0
2007 – 08	10.1	0.99250	10.0
	178.3		177.0

11. We derived the MOD estimates on the basis of the Government's latest forecast of trend labour and construction prices for the period 2003 to 2008. Chi Lin will deliver the works through a fixed-price lump-sum contract because Chi Lin can clearly define the scope of works in advance, leaving little room for uncertainty.

12. We estimate the additional annual recurrent expenditure arising from this project to be \$5.5 million.

## **PUBLIC CONSULTATION**

13. We consulted the Wong Tai Sin District Council on 15 January 2002 on the proposed layout design of the Park. Members supported the proposal and urged for its early implementation. We have been keeping Members of the Legislative Council's "Subcommittee to follow up the outstanding capital works projects of the former municipal councils" informed of the progress. They agreed that the proposed design of the Park should match with the design style of the Complex so that the entire area would become a landmark for tourism. When Chi Lin presented the proposed layout design to the Subcommittee on 2 May 2002, Members supported the proposed entrustment of the project to Chi Lin and requested that the project be implemented the soonest possible.

## ENVIRONMENTAL IMPLICATIONS

14. The project will not cause any long-term adverse environmental impacts. During construction, the contractors will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contracts. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

15. At the planning and design stages, Chi Lin has considered measures to reduce the generation of construction and demolition (C&D) materials. Chi Lin has introduced more prefabricated building elements into the project designs to reduce temporary formwork and construction waste. These include dry-wall partitioning and proprietary fittings and fixtures. Chi Lin will use suitable excavated materials for filling within the project site to minimise off-site disposal. In addition, Chi Lin will require the contractor to use metal site hoardings and signboards so that these materials can be recycled or reused in other projects.

16. Chi Lin will require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. Chi Lin will ensure the day-to-day operations on site comply with the approved WMP. Chi Lin will control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip-ticket system. The contractor will be required to separate public fill from C&D waste for disposal at appropriate facilities. Chi Lin will record the disposal, reuse and recycling of C&D materials for monitoring purposes. D Arch S estimates that portion 1 works will generate about 25 000 cubic metres (m<sup>3</sup>) of C&D materials. Of these, Chi Lin will reuse about 23 000 m<sup>3</sup> (92%) on site, 1 500 m<sup>3</sup> (6%) as fill in public filling areas<sup>2</sup>, and dispose of 500 m<sup>3</sup> (2%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$62,500 for portion 1 (based on a notional unit cost<sup>3</sup> of \$125/m<sup>3</sup>).

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<sup>2</sup> A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering.

<sup>3</sup> This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m<sup>3</sup>), nor the cost to provide new landfills (which are likely to be more expensive) when the existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.

## LAND ACQUISITION

17. The project does not require land acquisition.

## BACKGROUND INFORMATION

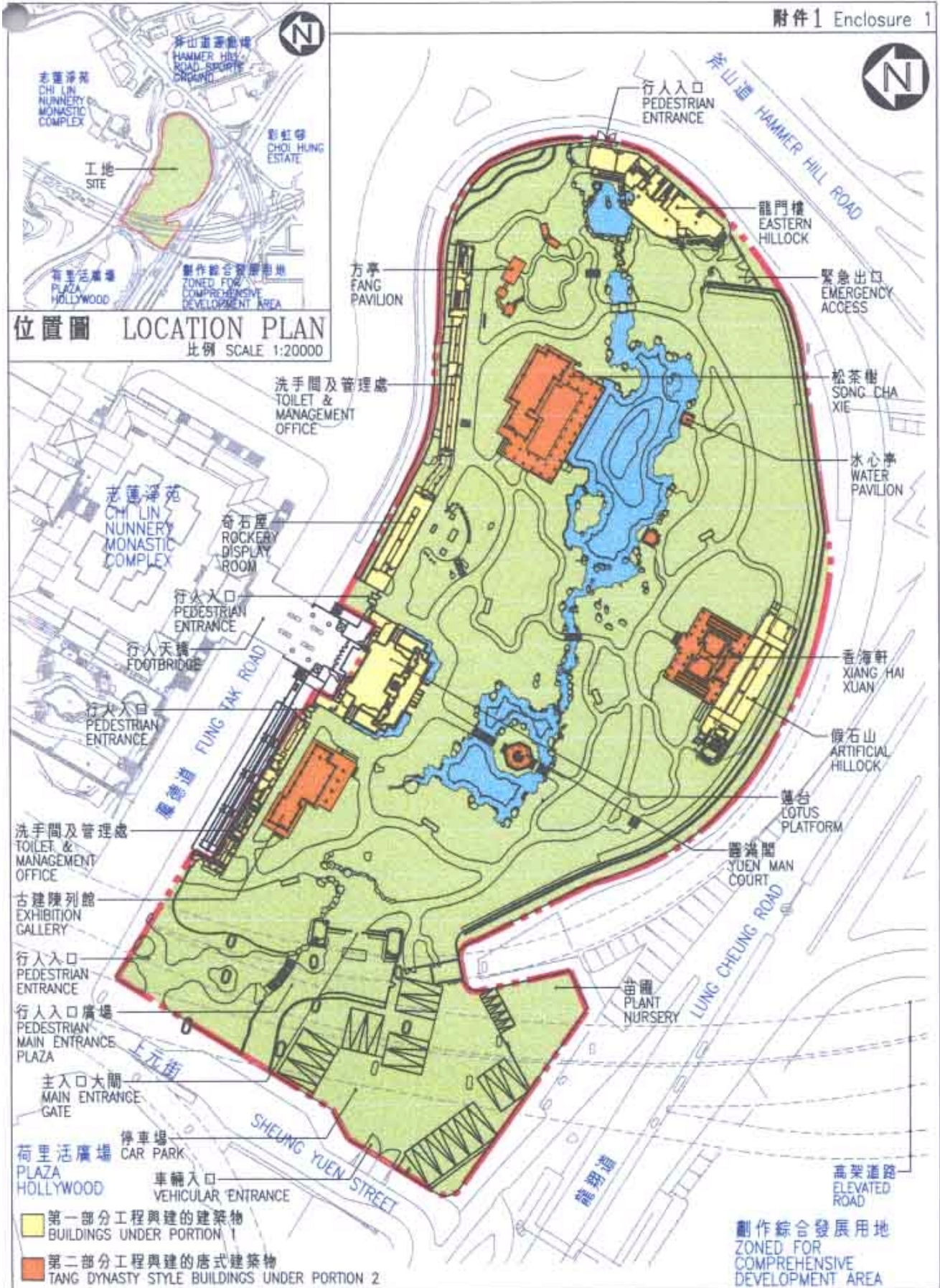
18. At the Public Works Subcommittee and Finance Committee meetings on 8 December 1999 and 17 December 1999 respectively, the Administration agreed to set aside funding for 12 projects which had received funding approval from the two former Provisional Municipal Councils but which had not yet entered into any contractual commitments, and to fast-track the direct injection of these projects into the Public Works Programme as Category A items. Hammer Hill Road Park is one of the 12 projects.

19. We engaged term contractors to carry out topographical survey in February 2000 and site investigation in August 2002 for the Park at a total cost of \$780,000. We will charge this amount to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". The term contractors have completed the topographical survey and site investigation. Chi Lin has completed the sketch design for the Park and is finalising the detailed design for the preparation of tender documentation.

20. We estimate that portion 1 will create 130 jobs with a total of 2 800 man-months comprising three professional staff, seven technical staff and 120 labourers.

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title 370R0 <b>鑽石山斧山道公園</b> HAMMER HILL ROAD PARK, DIAMOND HILL	drawn by DAVID S K AU & ASSOCIATES LTD	date 11/09/02	drawing no. DA0002B/2/NA/003	scale 1:1500
	approved DAVID S K AU & ASSOCIATES LTD	date 11/09/02	entrustee CHI LIN NUNNERY	

370RO – Hammer Hill Road Park, Diamond Hill

Breakdown of estimates for consultants' fees

Consultants' staff costs		Estimated man-months	Average MPS* salary point	Multiplier	Estimated fee (\$million)
(a) Detailed design	Professional	13.0	38	2.4	1.8
	Technical	17.4	14	2.4	0.8
(b) Tender documentation	Professional	10.8	38	2.4	1.5
	Technical	15.2	14	2.4	0.7
(c) Contract administration	Professional	17.3	38	2.4	2.4
	Technical	8.7	14	2.4	0.4
(d) Site supervision by resident site staff of the consultant	Professional	17.3	38	1.7	1.7
	Technical	15.3	14	1.7	0.5
				Sub-total	9.8
(e) Out-of-pocket expenses					
Lithography and other direct expenses					0.2
				Sub-total	0.2
				Total	10.0

\*MPS = Master Pay Scale

Notes

- (1) A multiplier of 2.4 is applied to the average MPS point to estimate the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices. A multiplier of 1.7 is applied in the case of site staff supplied by the consultants. (At 1 October 2002, MPS point 38 is \$57,730 per month and MPS point 14 is \$19,195 per month.)
- (2) Out-of-pocket expenses are the actual costs incurred. The consultants are not entitled to any additional payment for the overheads or profit in respect of these items.
- (3) The figures given above are based on estimates prepared by Chi Lin. D Arch S has examined the figures and considered them reasonable.