

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Recreation, Culture and Amenities – Sports facilities

260RS – Swimming pool complex in Area 2, Tung Chung, Lantau

Members are invited to recommend to Finance Committee the upgrading of **260RS** to Category A at an estimated cost of \$410.2 million in money-of-the-day prices for the development of a swimming pool complex in Area 2, Tung Chung, Lantau.

PROBLEM

We need to provide more recreational facilities in Tung Chung New Town to meet local needs.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Home Affairs, proposes to upgrade **260RS** to Category A at an estimated cost of \$410.2 million in money-of-the-day (MOD) prices for the development of a swimming pool complex in Area 2, Tung Chung, Lantau.

PROJECT SCOPE AND NATURE

3. The project site is located at Tat Tung Road in Area 2, Tung Chung, Lantau. It covers a total area of about 16 616 square metres (m²), comprising 10 791m² for the swimming pool complex and 5 825m² for landscape provision. The scope of **260RS** includes –

/(a)

- (a) one indoor heated main pool (50m x 25m) with a spectator stand of a seating capacity of 1 000 persons;
- (b) one outdoor teaching pool (25m x 25m);
- (c) a sun bathing area with shelters;
- (d) landscaped areas; and
- (e) ancillary facilities including a first-aid room, toilets and changing rooms, a filtration plant room and storage facilities, etc.

A site plan showing the conceptual layout of the proposed complex is at Enclosure 1 and the artist's impression of the swimming pool complex is at Enclosure 2. We plan to start the construction works in October 2007 for completion in June 2010.

JUSTIFICATION

4. Tung Chung New Town is a fast growing new town in Islands District. Currently, there are no public swimming facilities managed by the Leisure and Cultural Services Department within Tung Chung Area. Mui Wo Swimming Pool is the only public swimming pool in Islands District. It is a training pool of 25m x 11m in size without spectator stand. Its size is relatively small and is not adequate for holding swimming competitions by schools and other organisations.

5. As a reference, the Hong Kong Planning Standards and Guidelines suggests the provision of a swimming pool complex for a population of 287 000. The current population of Islands District is about 145 700 and is expected to increase to 160 000 in 2015, whilst the current population of Tung Chung New Town is about 77 500 and is expected to rise to 88 800 in 2015. To meet the increasing need of the local residents in Islands District, particularly in Tung Chung New Town, and taking into consideration the geographical distribution of the population, we propose to provide one indoor heated main pool (50m x 25m) and one outdoor teaching pool (25m x 25m) initially. The remaining project site will be temporarily landscaped and used for developing additional pool facilities in the light of the future population growth and need of residents in Tung Chung New Town.

6. Swimming has become an increasingly popular sport and exercise activity in Hong Kong. The total attendance of public swimming pools was over 8.7 million in 2006. As people become more health conscious, there is an increasing demand for year-round swimming facilities, and indoor heated swimming pools, in particular, are becoming more popular. The proposed swimming pool complex is within five minutes walking distance from the nearby bus terminus. It is centrally located and is easily accessible to residents in Tung Chung and other areas of Lantau. It is expected that the proposed swimming pool complex with an indoor heated main pool will be well patronised.

7. The proposed Tung Chung swimming pool complex is in the vicinity of a number of private and public housing estates, namely, Tung Chung Crescent, Seaview Crescent, Coastal Skyline, Caribbean Coast, Fu Tung Estate, Yat Tung Estate and Yu Tung Court. In addition, there are 14 schools in Tung Chung New Town. There is a high demand for such facilities from schools for organising swimming training activities and competitions. We expect that the proposed swimming pool complex will become a popular recreational and training venue for local residents and students.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$410.2 million in MOD prices (see paragraph 9 below), made up as follows –

	\$ million
(a) Site works and slope works	4.0
(b) Piling	37.8
(c) Building	180.4
(d) Building services	103.2
(e) Drainage works	2.4
(f) External works	18.9

/(g)

	\$ million	
(g) Consultants' fees for	17.2	
(i) contract administration	8.3	
(ii) site supervision	8.9	
(h) Furniture and equipment ¹	1.2	
(i) Contingencies	34.7	
	399.8	(in September 2006 prices)
(j) Provision for price adjustment	10.4	
	410.2	(in MOD prices)

We propose to engage consultants to undertake contract administration and site supervision for the project. A detailed breakdown of the estimate for the consultants' fees by man-months is at Enclosure 3. The construction floor area (CFA) of **260RS** is 15 032 m². The estimated construction unit cost, represented by the building and the building services costs, is \$18,866 per m² of CFA in September 2006 prices. We consider the estimated project cost reasonable as compared with similar projects undertaken by the Government.

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

Year	\$ million (Sept 2006)	Price adjustment factor	\$ million (MOD)
2007 – 08	7.0	0.99900	7.0
2008 – 09	45.0	1.00649	45.3
2009 – 10	135.0	1.01656	137.2
2010 – 11	95.0	1.02672	97.5

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¹ Based on the furniture and equipment provided in existing/planned facilities of similar scale (e.g. office furniture, litter bins and portable signages, etc).

Year	\$ million (Sept 2006)	Price adjustment factor	\$ million (MOD)
2011 – 12	60.0	1.03699	62.2
2012 – 13	57.8	1.05514	61.0
	399.8		410.2

10. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output for the period 2007 to 2013. We will award the contracts on a lump-sum basis because we can clearly define the scope of the works in advance. The contracts will not provide for price adjustment because the contract periods of both the foundation contract and the superstructure works contract will not exceed 21 months.

11. We estimate the annual recurrent expenditure arising from this project to be \$19.1 million.

PUBLIC CONSULTATION

12. We consulted the Community Affairs, Culture and Recreation Committee (CACRC) of the Islands District Council on 4 July 2005 on the scope of the project. Members supported the project. We consulted the CACRC on the conceptual layout of the project on 8 January 2007. Members expressed support and urged for its early implementation.

13. We circulated an information paper to the Legislative Council Panel on Home Affairs on 16 April 2007. Members did not raise any objection to the submission of the funding proposal to the Public Works Subcommittee.

ENVIRONMENTAL IMPLICATIONS

14. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The project will have no long-term environmental impact.

15. During construction, we 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.

16. We have considered measures (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects) in the planning and design stages to reduce the generation of construction and demolition (C&D) materials where possible. In addition, we will require the contractor to reuse inert C&D materials (e.g. using excavated materials for filling) on site or in other suitable construction sites as far as possible in order to minimise the disposal of C&D materials to public fill reception facilities². We will encourage the contractor to maximise the use of recycled or recyclable C&D materials, as well as the use of non-timber formwork to further minimise the generation of construction waste.

17. We will also 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. We will ensure that the day-to-day operations on site comply with the approved WMP. We will also control the disposal of public fill, C&D materials and C&D waste to public fill reception facilities and landfills respectively through a trip-ticket system. We will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities. We will also record the disposal, reuse and recycling of C&D materials for monitoring purposes.

18. We estimate that the project will generate about 72 330 tonnes of C&D materials. Of these, we will reuse about 49 750 tonnes (68.8%) on site, and deliver 18 250 tonnes (25.2%) to public fill reception facilities for subsequent reuse. In addition, we will dispose of 4 330 tonnes (6.0%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfill sites is estimated to be \$1.034 million for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne³ at landfills).

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2 Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of public fill in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

3 This estimate has taken into account the cost of 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/m³), nor the cost to provide new landfills, (which is likely to be more expensive) when the existing ones are filled.

LAND ACQUISITION

19. The project does not require any land acquisition.

BACKGROUND INFORMATION

20. We upgraded **260RS** to Category B in September 2006. We engaged a geotechnical consultant to prepare a preliminary geotechnical assessment and a land surveyor to carry out topographical survey in August 2006. We engaged an architectural consultant to carry out building design in September 2006. In January 2007, we engaged a quantity surveying consultant to prepare cost estimation and tender documents for the construction contracts. We charged the total cost of \$14.5 million to block allocation **Subhead 3100GX** “Project feasibility studies, minor investigations and consultants’ fees for items in Category D of the Public Works Programme”. The geotechnical consultant has completed the preliminary geotechnical assessment. The land surveyor has completed the topographical survey. The architectural consultant has completed the detailed design of the project. The quantity surveying consultant is finalising the tender documents.

21. The proposed development of the swimming pool complex will involve removal of 20 trees which will be replanted within the project site. All trees to be removed are not important trees⁴. We will incorporate planting proposals as part of the project, including an estimated quantity of 36 new trees and 77 000 shrubs.

/22.

4 “Important trees” refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or heritage monument, and trees in memory of important persons or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 metre (measured at 1.3 metre above ground level), or with height/canopy spread equal or exceeding 25 metres.

22. We estimate that the proposed works will create about 370 jobs (333 for labourers and another 37 for professional/technical staff) providing a total employment of 5 900 man-months.

Home Affairs Bureau
May 2007



280RS
SWIMMING POOL COMPLEX
IN AREA 2, TUNG CHUNG, LANTAU
大嶼山(東涌第2區)游泳池場館

drawn by	CRW	date	09/05/07
approved by	PY	date	09/05/07
office	ARCHITECTURAL BRANCH		

drawing no.	scale
AB/8536/SK016a	1:1500

 ARCHITECTURAL SERVICES DEPARTMENT



AERIAL VIEW OF SWIMMING POOL FROM
EASTERN DIRECTION (ARTIST'S IMPRESSION)

260RS
SWIMMING POOL COMPLEX
IN AREA 2, TUNG CHUNG, LANTAU
大嶼山東涌第2區游泳池場館

drawn by	CRW	date	09/05/07
approved by	PY	date	09/05/07
office	ARCHITECTURAL BRANCH		

drawing no.	scale
AB/6538/SK019a	NTS
 ARCHITECTURAL SERVICES DEPARTMENT	

260RS – Swimming pool complex in Area 2, Tung Chung, Lantau**Breakdown of the estimate for consultants' fees**

Consultants' staff costs		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Contract administration (Note 2)	Professional	–	–	–	6.2
	Technical	–	–	–	2.1
(b) Site supervision (Note 3)	Technical	309	14	1.6	8.9
Total :					17.2

*MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants. (As at 1 January 2007, MPS point 14 = 18,010 per month.)
2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **260RS**. The construction stage of the assignment will only be executed subject to Finance Committee's approval to upgrade **260RS** to Category A.
3. We will only know the actual man-months and actual costs after completion of the construction works.