

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

### **HEAD 703 – BUILDINGS**

#### **Recreation, Culture and Amenities – Sports facilities**

#### **244RS – Hin Tin Swimming Pool – phase 2, Sha Tin**

Members are invited to recommend to Finance Committee the upgrading of **244RS** to Category A at an estimated cost of \$164.2 million in money-of-the-day prices for the construction of Hin Tin Swimming Pool, phase 2, Sha Tin.

### **PROBLEM**

We need to expand the Hin Tin Swimming Pool to cope with the local demand for indoor heated swimming pool facilities in Sha Tin, and to rationalise office accommodation for the Auxiliary Medical Service (AMS).

### **PROPOSAL**

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Home Affairs and the Secretary for Security, proposes to upgrade **244RS** to Category A at an estimated cost of \$164.2 million in money-of-the-day (MOD) prices for the construction of Hin Tin Swimming Pool, phase 2 and the New Territories East (NTE) Regional Office and Sha Tin District Office of AMS in Sha Tin.

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## PROJECT SCOPE AND NATURE

3. The scope of **244RS** comprises the following works on an L-shape site of about 9 400 square metres (m<sup>2</sup>) to the southeast and southwest of the existing Hin Tin Swimming Pool –

- (a) phase 2 development of the Hin Tin Swimming Pool with a construction floor area (CFA) of about 5 420 m<sup>2</sup>, including –
  - (i) construction of an indoor heated 8-lane 50-metre swimming pool;
  - (ii) construction of an indoor heated Jacuzzi;
  - (iii) installation of an ozone sterilization system for both the existing swimming pools and the proposed indoor heated pools mentioned in (i) and (ii) above;
  - (iv) expansion and upgrading of the existing male and female changing rooms and toilets;
  - (v) construction of an enclosed transparent passageway connecting the changing rooms to the proposed indoor heated pools mentioned in (i) and (ii) above;
  - (vi) provision of additional ancillary facilities, including staff changing rooms and a first-aid room; and
- (b) construction of a one-storey building with a CFA of about 280 m<sup>2</sup> for the NTE Regional Office and Sha Tin District Office of AMS comprising –
  - (i) staff offices with a net operational floor area (NOFA)<sup>1</sup> of about 28.4 m<sup>2</sup> for AMS personnel;

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<sup>1</sup> NOFA is a standard term used to describe the floor area actually allocated to the users for carrying out the intended activities. Unlike CFA which takes into account all areas within the building structure envelop, NOFA does not include areas for toilets, bathrooms and showers, lift lobbies, stair halls, public/shared corridors, stairwells, escalators and lift shafts, pipe/services ducts, refuse chutes and refuse rooms, balconies, verandahs, open decks and flat roofs, loading/unloading areas, mechanical plant rooms, etc.

- (ii) a control room with a NOFA of about 24 m<sup>2</sup> for operation;
- (iii) male and female changing rooms and toilets for AMS personnel;
- (iv) a store room and space for computer units with a NOFA of about 23.6 m<sup>2</sup>; and
- (v) two carparking spaces for two ambulances.

———— A site plan is at Enclosure 1. We plan to start the construction works in February 2005 for completion in March 2007. As the existing swimming pools will remain open during the construction period, we shall apply stringent site safety measures, such as erection of extensive hoarding to separate the existing pools from the construction site, and adequate signage and notice for access to the existing pools, noise and dust control measures with a view to minimising the potential nuisance caused to the public.

## JUSTIFICATION

### **Hin Tin Swimming Pool, phase 2**

4. Sha Tin has a current population of 635 000, the highest amongst all 18 districts in Hong Kong. With further developments in Ma On Shan and Tai Wai, its population will grow by 2% to 647 000 by 2008. At present, there are three swimming pools provided in Sha Tin by the Leisure and Cultural Services Department (LCSD). They are the Ma On Shan Swimming Pool; the Sha Tin Jockey Club Swimming Pool and the Hin Tin Swimming Pool (phase 1). The Ma On Shan Swimming Pool has a standard outdoor 50-metre pool, Sha Tin Jockey Club Swimming Pool has a standard outdoor heated pool and the Hin Tin Swimming Pool (phase 1) is mainly a leisure pool and a training pool. The Ma On Shan Swimming Pool, with a monthly average attendance of some 39 500, has the fourth highest attendance among non-heated pools, and the Sha Tin Jockey Club Swimming Pool, with a monthly average attendance of some 20 000 in winter months, has the highest attendance among all the outdoor heated pools. There is a great demand for swimming facilities in Sha Tin.

5. Due to the lack of public indoor heated swimming pools in Sha Tin, local residents either have to commute to other districts or patronise the outdoor heated pool in the Sha Tin Jockey Club Swimming Pool in winter. As the Sha Tin Jockey Club Swimming Pool is the most popular outdoor heated pool, it is anticipated that the proposed indoor heated swimming pool will be highly patronised by local residents.

6. Tai Wai Station, which is within 10-minute walking distance from the Hin Tin Swimming Pool, is the main interchange for Kowloon Canton East Rail, Ma On Shan Rail and the Sha Tin Central Link under planning. The new indoor heated pool is therefore very centrally located and is easily accessible to visitors from Sha Tin and the neighbouring areas.

7. Swimming has become an increasingly popular activity in Hong Kong. The annual total attendance of public swimming pools remained constantly over nine million since 2001. As such, the proposed indoor heated swimming pool will help provide a year-round training, sports and leisure facility for the public, and would become a favourite leisure spot for local residents as well as training venue for swimming clubs and schools in the neighbouring districts. The average monthly attendance of indoor heated swimming pools in winter stood constantly over 35 000, there is a great demand for indoor heated swimming pool in Sha Tin. The proposed indoor heated swimming pool will help meet the increasing demand for such facilities in Hong Kong and enable people to enjoy swimming all year round.

#### **NTE Regional Office and Sha Tin District Office of AMS**

8. Without its own office accommodation, the NTE Regional Office of AMS is now sharing a small and congested office of about 24 m<sup>2</sup> with the Tai Po-cum-North District Office / Operational Store of AMS at the Tai Po Government Offices Building at Ting Kok Road, Tai Po. There are insufficient space and facilities for the NTE Regional Office to carry out its functions, meet its operational requirements, and execute its commanding role in the NTE Region (covering the North, Tai Po, Sha Tin and Sai Kung Districts), especially during operational and/or emergency call-outs when a large number of volunteers and emergency supplies/equipment have to be mobilised. Besides, there is a growing demand for AMS services in the NTE Region and the total establishment of AMS volunteers in the Region has increased from about 360 in the 1980s to 746 in 2004. It is therefore necessary to provide the NTE Regional Office with a proper office to facilitate its role as an operational base and regional command centre during emergencies, and to tie in with the growing demand for AMS services in the Region.

9. The AMS Sha Tin District Office with a volunteer establishment of 186 is currently occupying a small office of about 20 m<sup>2</sup> converted from a storeroom at the Sha Tin Clinic. There is insufficient space and facilities for the AMS to conduct its training and activities and the situation will be even worse during emergencies when all volunteers report for duty.

10. To enable AMS to enhance its operational and training efficiency, and to provide more effective AMS services to the NTE Region and the general public as a whole, it is necessary to construct the proposed NTE Regional Office and Sha Tin District Office as soon as possible. The integration of the AMS facilities in this project will increase the development potential of the site. Upon commissioning of the new offices, the office space vacated by the NTE Regional Office and Sha Tin District Office of AMS will be reverted to their original use.

## FINANCIAL IMPLICATIONS

11. We estimate the capital cost of the project to be \$164.2 million in MOD prices (see paragraph 12 below), made up as follows –

\$ million				
	LCSD Portion	AMS Portion	Total	
(a) Site formation and geotechnical works	6.0	0.2	6.2	
(b) Piling	12.2	-	12.2	
(c) Building	78.7	3.5	82.2	
(d) Building services	43.5	0.8	44.3	
(e) Drainage and external works	7.8	0.3	8.1	
(f) Soft landscaping works	1.4	0.1	1.5	
(g) Furniture and equipment <sup>2</sup>	1.0	0.2	1.2	
(h) Consultant's fees for contract administration	0.6	0.1	0.7	
(i) Contingencies	14.9	0.5	15.4	(in September 2003 prices)
Sub-total	166.1	5.7	171.8	

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<sup>2</sup> Based on an indicative list of office furniture and equipment items required, including writing desks, chairs, cabinets, etc.

<b>\$ million</b>			
	<b>LCSD Portion</b>	<b>AMS Portion</b>	<b>Total</b>
(j) Provision for price adjustment	(7.3)	(0.3)	(7.6)
Total	158.8	5.4	164.2 (in MOD prices)

D Arch S proposes to engage a consultant to undertake contract administration for the project. A breakdown of the estimate for the consultant's fees by man-months is at Enclosure 2. The total CFA of the project is about 5 700 m<sup>2</sup>. The estimated construction unit cost, represented by the building and the building services costs, is \$22,193 per m<sup>2</sup> of CFA in September 2003 prices. D Arch S considers this unit cost reasonable having regard to –

- (a) the stringent environmental measures (such as suppression of emission of dust from construction activities by a watering system, suppression of emission of noise by means of silencers, mufflers, acoustic lining or shields, and adoption of a less intrusive plant or vibratory equipment to control vibration, etc.) adopted to minimise the potential nuisance caused to the public (the existing swimming pools will remain open during the construction period);
- (b) the requirement for phased completion of works. For instance, the installation of the ozone sterilisation system and the upgrading of changing rooms for the existing swimming pools have to be carried out and completed within the non-swimming season;
- (c) the sophisticated building services system and sterilisation system required under this project;
- (d) the associated works for taking down, making good and touching up of the existing building; and
- (e) the need to upgrade the chlorine sterilization system of the existing swimming pools to ozone system.

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

<b>Year</b>	<b>\$ million (Sep 2003)</b>	<b>Price adjustment factor</b>	<b>\$ million (MOD)</b>
2004 – 05	0.7	0.97150	0.7
2005 – 06	71.5	0.95450	68.2
2006 – 07	84.4	0.95450	80.6
2007 – 08	13.5	0.96643	13.0
2008 – 09	1.7	0.98455	1.7
	<hr/> 171.8 <hr/>		<hr/> 164.2 <hr/>

13. 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 2004 to 2009. We will tender the project as a design-and-build contract. We intend to award the contract on a fixed-price lump-sum basis because we can clearly define the scope of the works in advance, leaving little room for uncertainty. The contract will not provide for price adjustment because the contract period will not exceed 21 months.

14. We estimate the annually recurrent expenditure arising from this project to be about \$6.05 million.

## **PUBLIC CONSULTATION**

15. We consulted the Culture, Sports and Community Development Committee of Sha Tin District Council on the scope and conceptual design of the project on 20 June 2002 and 29 April 2004 respectively. Members strongly supported the project and urged for its early implementation.

## **ENVIRONMENTAL IMPLICATIONS**

16. This is not a designated project under the Environmental Impact Assessment Ordinance. The project will have little potential for giving rise to adverse environmental impacts.

17. 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 contract. 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.

18. At the design stage, we will require the contractor to fully consider measures to minimise the generation of construction and demolition (C&D) materials and to reuse/recycle C&D materials as much as possible. D Arch S will require the contractor to introduce more prefabricated building elements into the project design to reduce temporary formwork and construction waste. We will use suitable excavated materials for filling within the project site to minimise off-site disposal. In addition, we will require the contractor to use metal site hoardings and signboards so that these materials can be recycled or reused in other projects.

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

20. We estimate that the project will generate about 36 200 cubic metres (m<sup>3</sup>) of C&D materials. Of these, we will reuse about 11 800 m<sup>3</sup> (32.6%) on site, 22 500 m<sup>3</sup> (62.2%) as fill in public filling areas<sup>3</sup>, and dispose of 1 900 m<sup>3</sup> (5.2%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$237,500 for this project (based on a notional unit cost<sup>4</sup> of \$125/m<sup>3</sup>).

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<sup>3</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>4</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

21. The project does not require land acquisition.

## BACKGROUND INFORMATION

22. We upgraded **244RS** to Category B in October 2003. We have employed term contractors to carry out a ground investigation and a topographical survey at a total cost of \$200,000. We have also engaged a quantity surveying consultant to undertake tender documentation for the project at a cost of \$400,000. We will charge these amounts 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 ground investigation and the topographical survey. The consultant is finalising the tender documents.

23. The proposed construction of Hin Tin Public Swimming Pool, phase 2 may involve removal of 60 trees, including one tree to be felled, 39 trees to be transplanted elsewhere and 20 trees to be replanted within the project site (subject to finalisation of design). All trees to be removed are not important trees<sup>5</sup>. We will incorporate planting proposals as part of the project, including estimated quantities of 50 trees and 3 000 shrubs.

24. We estimate that the proposed works will create about 145 jobs (125 for labourers and another 20 for professional/technical staff) providing a total employment of 2 650 man-months.

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Home Affairs Bureau  
June 2004

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<sup>5</sup> Important trees include trees on the Register of Old and Valuable Trees, and any other trees which meet one or more of the following criteria –

- (a) trees over 100 years old;
- (b) trees of cultural, historical or memorable significance;
- (c) trees of precious or rare species;
- (d) trees of outstanding form; or
- (e) trees with trunk diameter excluding one metre (measured at one metre above ground level).



## Enclosure 2 to PWSC(2004-05)27

## 244RS – Hin Tin Swimming Pool – phase 2, Sha Tin

## Breakdown of the estimate for the consultant's fees

Consultant's staff costs		Estimated man- Months	Average MPS* salary point	Multiplier	Estimated fee (\$ million)
Contract administration (Note)	Professional	—	—	—	0.5
	Technical	—	—	—	0.2
<b>Total</b>					<hr/> 0.7 <hr/>

\*MPS = Master Pay Scale

**Note**

The consultant's staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **244RS**. The post-contract stage of the assignment will only be executed subject to Finance Committee's approval to upgrade **244RS** to Category A.