For discussion **PWSC(2008-09)57**
on 7 January 2009

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS
Recreation, Culture and Amenities – Sports Facilities
264RS – Swimming pool complex in Area 1 (San Wai Court), Tuen Mun

Members are invited to recommend to Finance Committee the upgrading of **264RS** to Category A at an estimated cost of $791.4 million in money-of-the-day prices for the development of a swimming pool complex in Area 1 (San Wai Court), Tuen Mun.

PROBLEM

Tuen Mun does not have sufficient recreational facilities to meet local needs.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Home Affairs, proposes to upgrade **264RS** to Category A at an estimated cost of $791.4 million in money-of-the-day (MOD) prices for the development of a swimming pool complex in Area 1 (San Wai Court), Tuen Mun.

PROJECT SCOPE AND NATURE

3. The project site occupies an area of about 15 472 square metres (m^2). The proposed scope of works under **264RS** includes—

/(a) …..

(a) an outdoor main pool (50 metres (m) x 25m) with a spectator stand with seating capacity of 1 200 seats (including 800 permanent and 400 retractable seats);

(b) an indoor heated pool (25m x 25m);

(c) an indoor heated leisure pool with water play equipment and Jacuzzi;

(d) an outdoor training pool (25m x 15m);

(e) an outdoor teaching pool (25m x 12m); and

(f) ancillary and supporting facilities, including a babycare room, a first-aid room, toilets and changing rooms, a management office and car-parking areas.

A site plan is at Enclosure 1. The view of the proposed development (artist's impression) is at Enclosure 2. We plan to start construction in May 2009 for completion in March 2012.

JUSTIFICATION

4. Tuen Mun currently has two public swimming pool facilities, namely, the Tuen Mun Swimming Pool and the Tuen Mun Jockey Club Yan Oi Tong Swimming Pool. The Tuen Mun Swimming Pool has one main pool, one secondary pool, one training pool, two teaching pools, one diving pool and one leisure pool. The Tuen Mun Jockey Club Yan Oi Tong Swimming Pool has two leisure pool units.

5. The current population of the Tuen Mun District is about 508 600 and is expected to increase to 538 200 in 2016. The Hong Kong Planning Standards and Guidelines suggest the provision of a swimming pool complex for a population of 287 000, which would require Tuen Mun District to be provided with two swimming pool complexes. The Tuen Mun Jockey Club Yan Oi Tong Swimming Pool has only two leisure pool units. It is not a full complex in that it does not have swimming pools of 50m and / or 25m in length. There is justification on planning grounds for providing an additional swimming pool complex in the Tuen Mun District. The Tuen Mun District Council and residents of north Tuen Mun have strongly requested early implementation of this project.

/6. ….

6. Swimming remains a very popular activity in Hong Kong. In 2007, total attendance at public swimming pools exceeded 9.2 million. There is an increasing demand for year-round swimming facilities, and indoor heated swimming pools are therefore becoming more popular. Attendance at the Tuen Mun Swimming Pool increased by about 27% from 310 147 to 392 198 between 2005 and 2007. Attendance at the Tuen Mun Jockey Club Yan Oi Swimming Pool increased by about 20% from 32 713 to 39 013 during the same period. The only public heated pool in the district is at the Tuen Mun Swimming Pool which is outdoors.

7. There are 152 schools with about 74 000 students in the district. The provision of a new public swimming pool complex will help alleviate the keen demand for swimming facilities in the district.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be $791.4 million in MOD prices (see paragraph 9 below), made up as follows –

		$ million
(a)	Site works	7.1
(b)	Piling	79.6
(c)	Building	292.9
(d)	Building services	169.5
(e)	Drainage	20.7
(f)	External works	21.3
(g)	Additional energy conservation measures	7.2
(h)	Furniture and Equipment[1]	2.5

/$ million…..

[1] Based on the furniture and equipment provided in existing / planned facilities of similar scale, including electronic equipment, office furniture, etc.

			$ million	
(i)	Consultants' fees for –		25.0	
	(i) Contract administration	15.0		
	(ii) Site supervision	10.0		
(j)	Contingencies		63.0	
	Sub-total		688.8	(in September 2008 prices)
(k)	Provision for price adjustment		102.6	
	Total		791.4	(in MOD prices)

We propose to engage consultants to undertake contract administration and site supervision of the project. A detailed breakdown of the estimate for consultants' fees by man-months is at Enclosure 3. The construction floor area (CFA) of the **264RS** is 17 160 m^2. The estimated construction unit cost, represented by the building and the building services costs, is $26,946 per m^2 of CFA in September 2008 prices. We consider this comparable to similar projects built by the Government.

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

Year	**$ million (Sept 2008)**	**Price adjustment factor**	**$ million (MOD)**
2009 – 10	35.0	1.04000	36.4
2010 – 11	130.0	1.08160	140.6
2011 – 12	230.0	1.12486	258.7
2012 – 13	124.8	1.16986	146.0
2013 – 14	85.0	1.21665	103.4
2014 – 15	84.0	1.26532	106.3

/**Year**…..

Year	$ million (Sept 2008)	Price adjustment factor	$ million (MOD)
	688.8		791.4

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 2009 to 2015. We will deliver the construction works through a lump sum contract because this will allow us clearly to define the scope of the works in advance. The contract will provide for price adjustments.

11. We estimate the annual recurrent expenditure arising from this project to be $23.907 million.

PUBLIC CONSULTATION

12. We consulted the Leisure and Culture Committee (LCC) of Tuen Mun District Council (TMDC) on the scope of the project on 21 June 2005. Members supported the project.

13. We consulted the LCC of TMDC on the conceptual layout of the project on 12 June 2007, and we further consulted the District Facilities Management Committee of TMDC on the design of the project on 8 April 2008. Members strongly supported the project and urged its early implementation.

14. We circulated an information paper to the Legislative Council Panel on Home Affairs on 3 December 2008. Members did not raise any objection to the submission of the funding proposal to the Public Works Subcommittee.

ENVIRONMENTAL IMPLICATIONS

15. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The project has very little potential of giving rise to adverse environmental impact.

/16. …..

16. 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 contract. These include the use of silencers, mufflers, acoustic lining or shields and the building of barrier wall for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

17. We have considered measures in the planning and design stages to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects). In addition, we will require the contractor to reuse inert construction waste on site (e.g. use of excavated materials for filling within the site) or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities[2]. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

18. We will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

19. We estimate that the project will generate in total about 33 680 tonnes of construction waste. Of these, we will reuse about 15 900 tonnes (47.2%) of inert construction waste on site and deliver 12 840 tonnes (38.1%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of 4 940 tonnes (14.7%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be $964,180 for this project

/(based …..

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

(based on a unit cost of $27/tonne for disposal at public fill reception facilities and $125/tonne[3] at landfills).

ENERGY CONSERVATION MEASURES

20. This project has adopted various forms of energy efficient features including –

(a) T5 energy efficient fluorescent tubes with electronic ballast and lighting control by daylight sensors;

(b) light-emitting diode (LED) type exit signs;

(c) air to water heat pump as the heat generation plant for winter time space heating; and

(d) automatic on/off switching of lighting and ventilation fan inside the lift.

21. For renewable energy technologies, we will install photovoltaic panel and solar hot water system to provide renewable energy for environmental benefits.

22. For greening features, we will provide landscape in the appropriate area on the main roof and terraces for environmental and amenity benefits. The fence wall at the periphery will also be partially screened by plantings.

23. For recycled features, we will install rainwater collection system for landscape irrigation with a view to conserving water.

24. The total estimated additional cost for adoption of the above features is around $7.2 million, which has been included in the cost estimate for this project. There will be about 8.7% energy savings in the annual energy consumption.

/**HERITAGE**…..

[3] 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^3), nor the cost to provide new landfills (which is likely to be more expensive), when the existing ones are filled.

HERITAGE IMPLICATIONS

25. This project 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

26. The project does not require any land acquisition.

BACKGROUND INFORMATION

27. We upgraded **264RS** to Category B in November 2006. We engaged an architectural consultant in December 2006 to undertake the detailed design and site investigation. We engaged a quantity surveying consultant in July 2007 to prepare tender documents. The total cost of the above consultancy services and works is about $14.7 million. We have charged 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 architectural consultant has completed the detailed design and site investigation. The quantity surveying consultant is finalising the tender documents.

28. The proposed works will involve removal of 51 trees including 36 trees to be felled and 15 trees which are in good form to be replanted within the project site. The 36 to be felled are wild trees in poor form and health, and growing closely together on rocky sites. They are considered not suitable for transplant as the survival rate after transplanting is very low. All trees to be removed are not important trees[4]. We will incorporate planting proposals as part of the project, including estimated quantities of 134 trees and 100 000 shrubs.

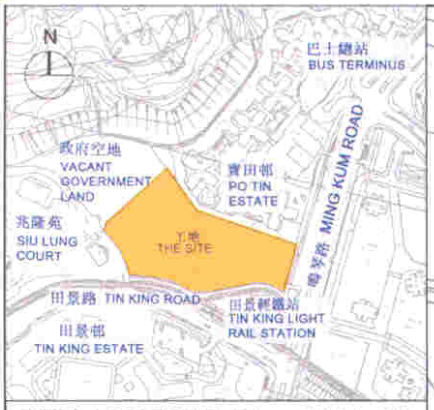
/29. …...

[4] "Important trees" refer 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 tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person 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 m (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

29. We estimate that the proposed works will create about 390 jobs (350 for labourers and another 40 for professional/technical staff) providing a total employment of 10 500 man-months.

Home Affairs Bureau
December 2008



位置圖 LOCATION PLAN SCALE 1 : 8000

車輛出入口 VEHICULAR ACCESS

行人出入口 PEDESTRIAN ACCESS

寶田邨
PO TIN ESTATE

停車場
CARPARKING AREA

室內暖水游泳池
INDOOR HEATED SWIMMING POOL

觀衆看台
SPECTATOR STAND

室外主池
OUTDOOR MAIN POOL

日光浴場
SUN BATHING AREA

車輛出入口
VEHICULAR ACCESS

綠化地帶
LANDSCAPED AREA

室內嬉水池連按摩池設施
INDOOR LEISURE POOL WITH JACUZZI FACILITY

室外習泳池
OUTDOOR TEACHING POOL

室外訓練池
OUTDOOR TRAINING POOL

田景輕鐵站
TIN KING LIGHT RAIL STATION

行人出入口
PEDESTRIAN ACCESS

田景路 TIN KING ROAD

鳴琴路 MING KUM ROAD

比例呎 0 15 30 50m

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264RS SWIMMING POOL COMPLEX IN AREA 1 (SAN WAI COURT), TUEN MUN 屯門第1區 (新圍苑)游泳池場館	drawn by	EUY	date 22-09-2008	drawing no. AB/5127/SK031	scale 1 : 1200
	approved by	PY	date 22-09-2008		
	office	ARCHITECTURAL BRANCH		ARCHITECTURAL SERVICES DEPARTMENT	

AERIAL PERSPECTIVE OF
SWIMMING POOL COMPLEX
IN AREA 1 (SAN WAI COURT), TUEN MUN
(ARTIST'S IMPRESSION)

264RS SWIMMING POOL COMPLEX IN AREA 1 (SAN WAI COURT), TUEN MUN 屯門第 1 區 (新圍苑)游泳池場館	drawn by EUY	date 22/09/08	drawing no. AB/5127/SK032
	approved by PY	date 22/09/08	scale NTS
	office ARCHITECTURAL BRANCH		ARCHITECTURAL SERVICES DEPARTMENT

附件二 ENCLOSURE 2

264RS – Swimming pool complex in Area 1 (San Wai Court), Tuen Mun

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	–	–	–	10.0
		Technical	–	–	–	5.0
(b)	Site supervision (Note 3)	Professional	10.3	38	1.6	1.0
		Technical	283.6	14	1.6	9.0
					Total	25.0

* 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 April 2008, MPS point 38 = $60,535 per month and MPS point 14 = $19,835 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 **264RS**. The assignment will only be executed subject to Finance Committee's approval to upgrade **264RS** to Category A.

3. The consultants' staff cost for site supervision is based on the estimate prepared by the Director of Architectural Services. We will only know the actual man-months and actual costs after completion of the construction works.