

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Recreation, Culture and Amenities – Sports Facilities

266RS – Redevelopment of Victoria Park Swimming Pool Complex

Members are invited to recommend to Finance Committee the upgrading of **266RS** to Category A at an estimated cost of \$1,197.7 million in money-of-the-day prices for the redevelopment of the Victoria Park Swimming Pool Complex.

PROBLEM

The swimming facilities at Victoria Park are worn out, and cannot meet the needs of the community. The facilities are not up to the standards required to host high-level swimming or other aquatic sports competitions.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Home Affairs, proposes to upgrade **266RS** to Category A at an estimated cost of \$1,197.7 million in money-of-the-day (MOD) prices for the redevelopment of the Victoria Park Swimming Pool Complex (VPSPC).

/PROJECT.....

PROJECT SCOPE AND NATURE

3. The proposed works under **266RS** will be implemented in the following two phases –

Phase 1

- (a) construction of a new indoor heated swimming pool complex at the current location of nine tennis courts and the roller skating rink in Victoria Park. The new complex will comprise –
 - (i) one 50 metres (m) x 25 m main pool with movable bulkheads and movable floors to allow for variable water depth of between 0 m and 2 m;
 - (ii) one 33 m x 25 m multi-purpose pool with a movable floor to allow for variable water depth of between 0 m and 5 m, diving platforms and springboards at different heights and one 10 square metre (m²) jacuzzi pool;
 - (iii) spectator stands with seating capacity for 2 500 spectators;
 - (iv) other ancillary facilities such as crush halls, changing rooms and a filtration plant room, and supporting facilities for holding competitions;
 - (v) changing rooms with shower and toilet facilities; and
 - (vi) a new Victoria Park Management Office;
- (b) reconstruction of an underground storm water drainage pipe enclosed by the box culvert and demolition of the existing squash court building;

Phase 2

- (c) demolition of the existing VPSPC (upon completion of the new VPSPC);

/(d)

- (d) demolition of the existing changing block at the northern side of the Victoria Park Tennis Centre (VPTC) and conversion of the vacated areas and adjacent Tai Chi Court into an open space for public use (upon completion of the new changing facilities of the VPSPC);
- (e) provision of one handball court, two roller skating rinks and landscaped areas at the location of the existing VPSPC;
- (f) refurbishment of four tennis practice courts; and
- (g) demolition of the temporary park office (after completion of the new Victoria Park Management Office).

———— A site plan is at Enclosure 1. A swimming pool facilities plan and an artist's
 ————— impression of the proposed development are at Enclosure 2. A plan showing the
 ————— phased development of the project is at Enclosure 3. We plan to start the site
 preparation work in August 2009 and the major construction works in November
 2009. We expect phase 1 of the project to be completed in December 2012 while
 the whole project will be completed in December 2014.

JUSTIFICATION

4. The VPSPC was built over 50 years ago. It is one of the most popular swimming pool complexes in Hong Kong. In 2008, total attendance at the VPSPC was around 344 430. However, due to its age and heavy usage, the facilities of the VPSPC have become old and obsolete. Some of the major problems are that —

- (a) there is water leakage in the main pool, which makes maintenance very expensive;
- (b) the chlorine sterilisation system currently in use is outdated, and does not meet the latest hygiene standards (an ozone-based sterilisation system is used for all new pools);
- (c) there are inadequate changing facilities; and

/(d)

- (d) there is insufficient support for people with disabilities to use the pools.

The proposed re-development works would improve the facilities for use by the general public, and would bring the swimming complex up to a suitable standard to allow us to host local, regional and international competition events there.

5. In view of the increasing demand for year-round swimming facilities, we propose to convert the existing VPSPC into an indoor heated pool complex. At present, there is no standard indoor heated pool in the Eastern District (an indoor heated pool with two 25 m long pools is currently under construction in Siu Sai Wan for completion in 2010). The proposed new VPSPC will help to meet the demand for indoor heated pools in the District.

6. Upon redevelopment, the total water surface area will increase from about 1 700 m² in the existing VPSPC to about 2 100 m² in the new complex and the total number of people to be admitted at any one time can be increased. Moreover, by introducing two movable bulkheads and movable floors in the main pool, the main pool can be segregated into three different pools of various depths, which can be used by different groups of users for different purposes. Together with the multipurpose pool, there would then be four pools in the complex. In addition, the new pool complex can provide standard facilities for diversified aquatic sports such as diving, water polo and synchronised swimming. While the depths of the four pools will be different, management measures will be taken to ensure swimmers' safety. The water depth of different swimming zones will be displayed at the poolside. Water safety sign will also be put up at conspicuous points. Announcements will be made through the public address system regularly to remind the swimmers of the various depths of the pools and special announcements will be made when there is a change to the pool configuration. These messages will also be displayed on the electronic display board. Lifeguards will assist swimmers and their duty positions will be adjusted to correspond to the changes. The bulkheads, which are about 1.1 m wide will segregate swimmers in the three different zones within the main pool.

7. The new complex is designed to meet the standards for international competition venues, in that there will be capacity for about 2 500 spectators. The spectator capacity in other swimming pool complexes normally does not exceed 1 200.

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8. Since the VPSPC is a very well used facility, we will demolish the existing complex only after completion of the new VPSPC. The project will therefore be implemented in phases. Phase 1 works include construction of the new complex at the location of existing tennis courts and roller skating rink. Phase 2 works will include demolition of the existing swimming pool complex and reprovisioning of the handball court and roller skating rinks. Continuous swimming pool services can thus be maintained during the construction period of the new VPSPC. Upon the commissioning of the new complex, the old pool site will be used to reprovision other sports facilities affected by the proposed redevelopment works, including the handball court and roller skating rinks. After several decades of use, these facilities are in need of a complete refurbishment. Reprovisioning of these facilities will allow us to provide better sports facilities to the public.

9. Conversion of the existing Tai Chi Court and changing room block into an open space will allow us to provide a dedicated area for the public to perform Tai Chi or other light exercises. The open space can also be used to organise functions and gatherings.

FINANCIAL IMPLICATIONS

10. We estimate the capital cost of the project to be \$1,197.7 million in MOD prices (see paragraph 11 below), made up as follows –

	\$ million
(a) Site works and demolition	10.0
(b) Piling	81.9
(c) Building	478.1
(d) Building services	171.9
(e) Special pool equipments ¹	43.2
(f) Drainage	31.1

/\$ million.....

¹ The special pool equipment include movable floors, movable bulkheads, springboards, and diving platform.

		\$ million	
(g)	External works	94.2	
(h)	Soft landscaping	4.3	
(i)	Additional energy conservation measures	14.7	
(j)	Furniture and Equipment (F&E) ²	20.0	
(k)	Consultants' fee for	15.3	
	(i) contract administration	14.9	
	(ii) management of site resident staff	0.4	
(l)	Remuneration of resident site staff	14.3	
(m)	Contingencies	95.0	
	Sub-total	1,074.0	(in September 2008 prices)
(n)	Provision for price adjustment	123.7	
	Total	1,197.7	(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 and resident site staff costs by man-months is at Enclosure 4. The construction floor area (CFA) of the proposed development is 18 573 m². The estimated construction unit cost for the new VPSPC, represented by the building and the building services costs, is \$34,997 per m² of CFA in September 2008 prices. We consider this unit cost reasonable having regard to –

/(a)

² Including special electronic equipment such as electronic display screens, electronic access control system for swimmers, audio and visual system for the conference room, electronic timing system, LED digital clock system, infrastructure for live broadcasting system, radio equipment system, pool entrance video display installation, etc.

- (a) the need to meet international competition standards with 2 500 spectator capacity;
- (b) the curved building form to minimize impacts on existing trees and to respond to the concern of the Town Planning Board on visual impact; and
- (c) the need to overcome the structural constraint imposed by the future North Island Line underneath the new VPSPC.

The estimated construction cost for phase 1 works is \$828.4 million in September 2008 prices, \$789.8 million of which is for the new swimming pool complex while the remaining \$38.6 million is for reconstruction of underground storm water drainage pipe and other site works. The estimated construction cost for phase 2 works is \$101.0 million in September 2008 prices.

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

Year	\$ million (Sept 2008)	Price adjustment factor	\$ million (MOD)
2009 – 10	25.0	1.03500	25.9
2010 – 11	139.0	1.05570	146.7
2011 – 12	209.0	1.07681	225.1
2012 – 13	191.0	1.09835	209.8
2013 – 14	177.0	1.12032	198.3
2014 – 15	152.0	1.15113	175.0
2015 – 16	117.0	1.18566	138.7
2016 – 17	64.0	1.22123	78.2
	<hr/> 1,074.0 <hr/>		<hr/> 1,197.7 <hr/>

/12.

12. 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 2017. We will deliver the construction works through lump sum contract because we can clearly define the scope of the works in advance. The contract will provide for price adjustments.

13. We estimate the annual recurrent expenditure arising from this project to be \$20.1 million.

PUBLIC CONSULTATION

14. We consulted the Eastern District Council on 26 May 2005 and 23 March 2006 on the proposed scope of development, on 17 April 2008 on the outline design, and on 19 February 2009 on the detailed design. Members expressed strong support for the project and requested its early implementation.

15. We consulted the Harbour Enhancement Committee on the project on 21 May 2008 and members supported the project.

16. The Town Planning Board gave permission for redevelopment of the VPSPC at the location of the existing tennis courts on 2 January 2009. During the process of seeking the Board's approval, we revised the design of the VPSPC by reducing the building height and changing the landscape plan so as to address concerns over the visual impact and building bulk of the complex.

17. We consulted the North Point West Area Committee on the project on 17 March 2009. Members supported the project. We conducted a public briefing on 15 April 2009 where members of the public responded positively to the project.

18. We circulated an information paper to the Home Affairs Panel on 17 April 2009 and the project was discussed at the Panel Meeting on 8 May 2009. Panel members considered the addition of an outdoor toddler's pool at the new VPSPC. However, noting that the re-design work would cause delay to the project, they agreed to the current proposed scope of the project. As the water depth of three zones separated by the movable bulkheads in the main pool and the multi-purpose pool might vary, Panel members suggested that suitable management measures should be taken to ensure swimmers' safety when these pools are opened for public use. Panel members did not raise any objection to the submission of the funding proposal to the Public Works Subcommittee.

ENVIRONMENTAL IMPLICATIONS

19. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We have completed a Preliminary Environment Review (PER) for the project in April 2009. We undertake to provide mitigation measures set out in the PER as part of the project. 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.

20. 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 minimize the disposal of inert construction waste to public fill reception facilities³. We will encourage the contractor to maximize the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimize the generation of construction waste.

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³ 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.

21. 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.

22. We estimate that the project will generate in total about 60 400 tonnes of construction waste. Of these, we will reuse about 16 280 tonnes (27.0%) of inert construction waste on site and deliver 38 470 tonnes (63.7%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of 5 650 tonnes (9.3%) 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 \$1.7 million for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne⁴ at landfills).

ENERGY CONSERVATION MEASURES

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

- (a) water-cooled chillers (fresh water cooling tower);
- (b) automatic demand control of chilled water circulation system;
- (c) automatic condenser tube cleaning equipment;
- (d) demand control of fresh air supply with carbon dioxide sensors;

/(e)

⁴ 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/m³), nor the cost to provide new landfills (which is likely to be more expensive), when the existing ones are filled.

- (e) heat wheels for heat energy reclaim of exhaust air;
- (f) automatic demand control of supply air;
- (g) T5 energy efficient fluorescent tubes with electronic ballast and lighting control by occupancy sensors and daylight sensors;
- (h) light-emitting diode (LED) type exit signs;
- (i) LED underwater pool lighting;
- (j) heat pump for domestic hot water / space heating / dehumidification; and
- (k) automatic on/off switching of lighting and ventilation fan inside the lifts.

24. For renewable energy technologies, we will adopt photovoltaic system and solar hot water system for environmental benefits.

25. For greening features, we will provide landscapes in the appropriate areas on the roofs and terraces. We will also adopt vertical greening partially at the perimeter fence wall.

26. For recycled features, we will adopt rainwater recycling system for landscape irrigation with a view to conserving water.

27. The total estimated additional cost for adoption of the above features is around \$14.7 million (including \$6.3 million for energy efficient features), which has been included in the cost estimate of the project. The energy efficient features will achieve 8.9% energy savings in the annual energy consumption with a payback period at about 8.6 years.

/HERITAGE.....

HERITAGE IMPLICATIONS

28. 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

29. The project does not require any land acquisition.

BACKGROUND INFORMATION

30. We upgraded **266RS** to Category B in February 2007. We engaged an architectural consultant in November 2007 to undertake the detailed design and site investigation. We engaged a quantity surveying consultant in December 2007 to prepare tender documents. The total cost of the consultancy services and works is about \$13.8 million. We have charged this amount to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees in Category D of the Public Works Programme". The architectural consultant has completed detailed design and site investigation. The quantity surveying consultant is finalising the tender documents.

31. The proposed works will involve removal of 15 trees including six trees to be felled and nine trees to be replanted within the project site. All trees to be removed are not important trees⁵. We will incorporate planting proposals as part of the project, including an estimated quantities of 90 trees and 38 600 shrubs.

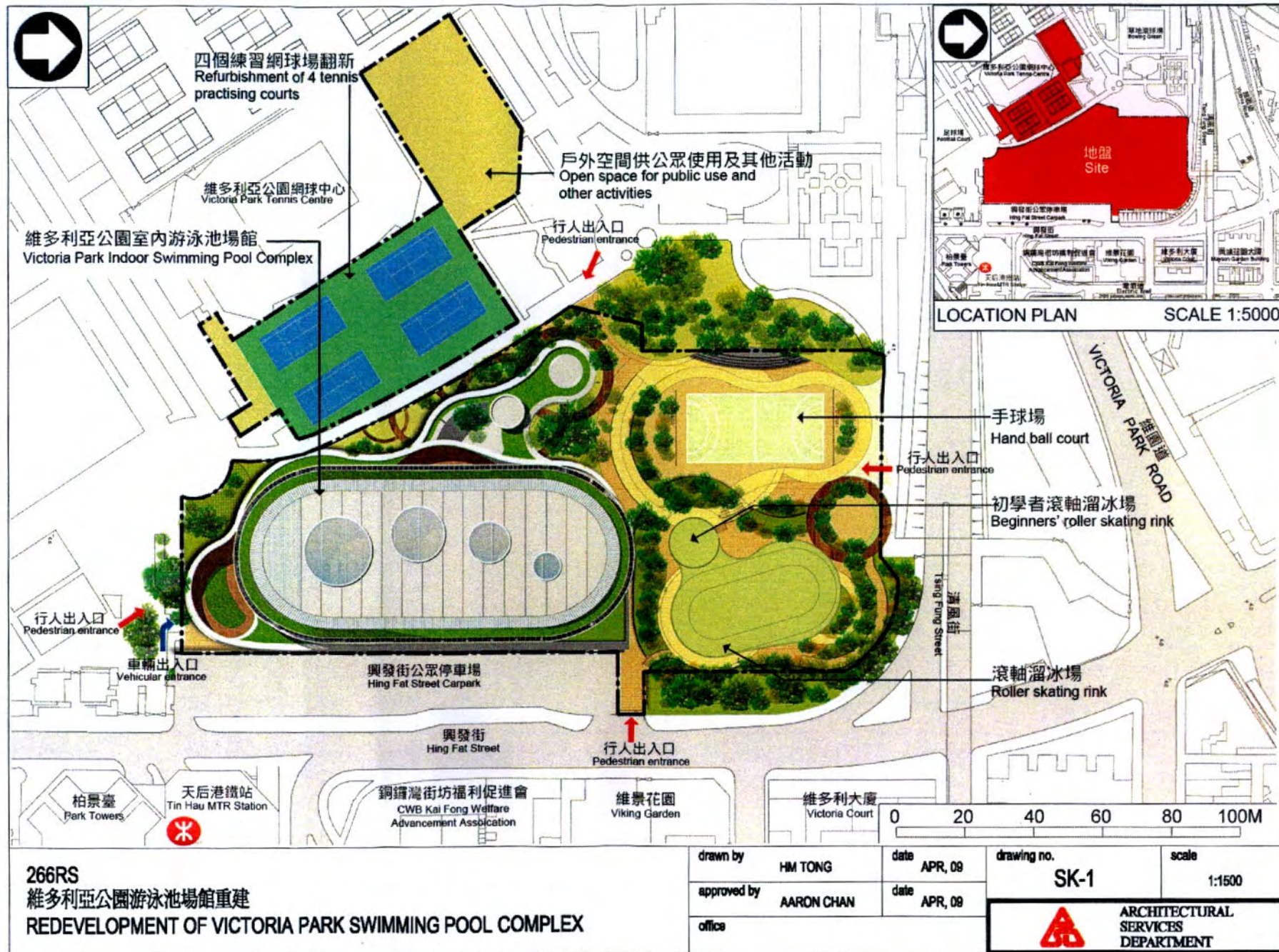
/32.

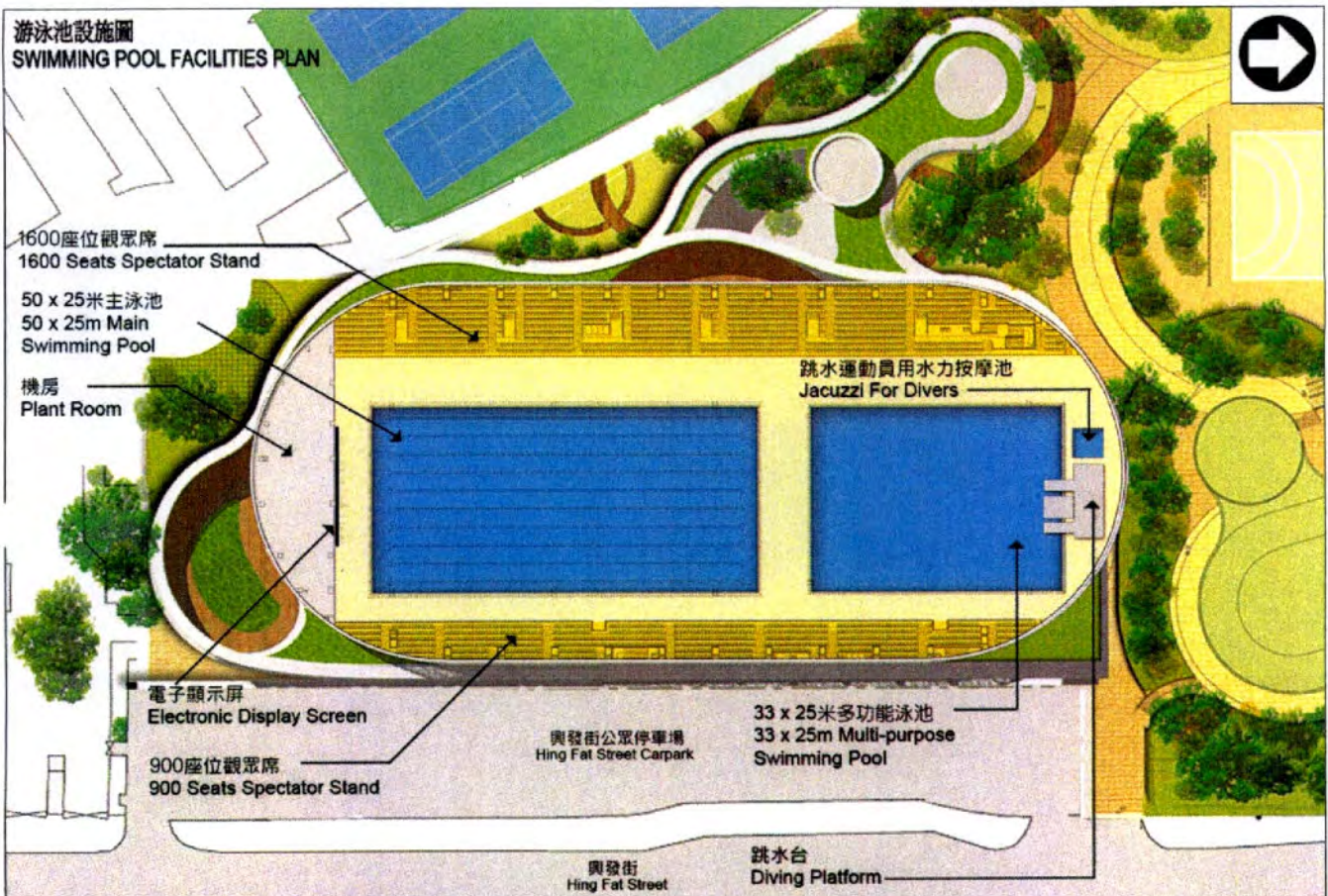
⁵ "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

- (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.

32. We estimate that the proposed works will create about 308 jobs (277 for labourers and another 31 for professional/technical staff) providing a total employment of 16 300 man-months.

Home Affairs Bureau
May 2009





從西南面向游泳池場館的效果圖
**VIEW OF THE SWIMMING POOL COMPLEX
FROM SOUTH WEST DIRECTION**



構思圖
ARTIST'S IMPRESSION

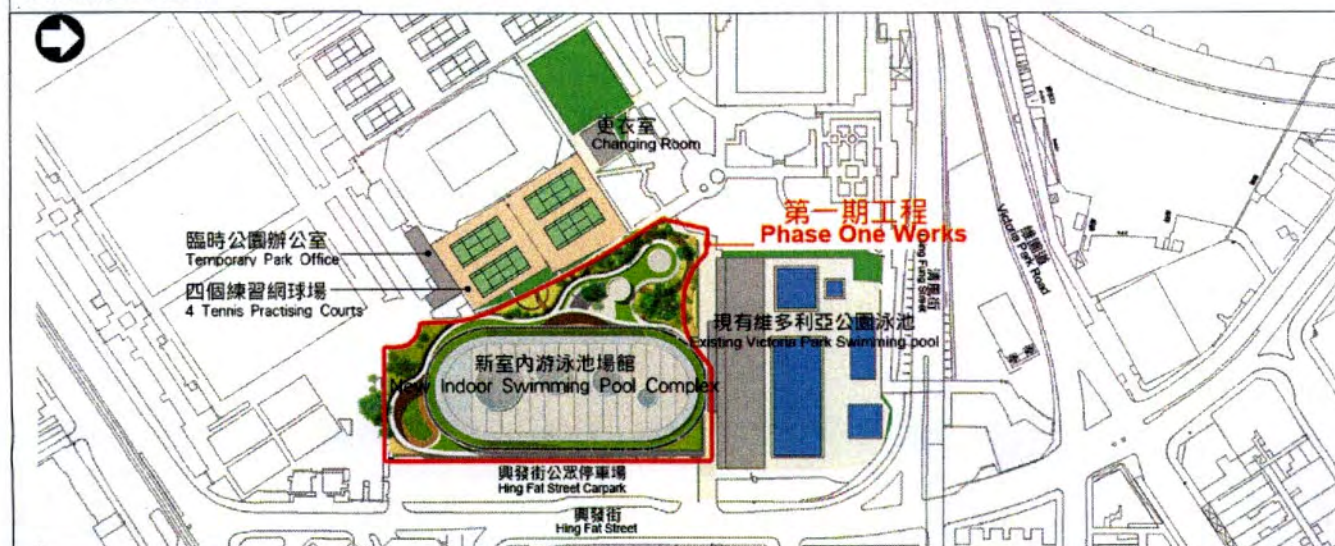
266RS
維多利亞公園游泳池場館重建
REDEVELOPMENT OF VICTORIA PARK
SWIMMING POOL COMPLEX

drawn by	HM TONG	date	APR, 09
approved by	AARON CHAN	date	APR, 09
office			

drawing no.	SK-2	scale	N.T.S.
 ARCHITECTURAL SERVICES DEPARTMENT			



現存平面圖
EXISTING LAYOUT



第一期工程完成後之平面圖
LAYOUT UPON COMPLETION OF PHASE 1



第二期工程完成後之平面圖
LAYOUT UPON COMPLETION OF PHASE 2

分期平面圖
PHASES PLAN

266RS
維多利亞公園游泳池場館重建
REDEVELOPMENT OF VICTORIA PARK
SWIMMING POOL COMPLEX

drawn by HM TONG date APR, 08
approved by AARON CHAN date APR, 08
office

drawing no. SK-3 scale N.T.S.
ARCHITECTURAL
SERVICES
DEPARTMENT

266RS – Redevelopment of Victoria Park Swimming Pool Complex**Breakdown of the estimate for consultants' fees and resident site staff costs
(in September 2008 prices)**

			Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a)	Consultants' fee for contract administration (Note 2)	Professional	–	–	–	10.1
		Technical	–	–	–	4.8
					Sub-total	14.9
(b)	Resident site staff costs (Note 3)	Professional	18	38	1.6	1.7
		Technical	410	14	1.6	13.0
					Sub-total	14.7
	Comprising –					
(i)	Consultants' fees for management of resident site staff					0.4
(ii)	Remuneration of resident site staff					14.3
					Total	29.6

* 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 **266RS**. The assignment will only be executed subject to Finance Committee's approval to upgrade **266RS** 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.