

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

### **HEAD 703 – BUILDINGS**

#### **Recreation, Culture and Amenities – Mixed amenity packages**

#### **50RG – District open space, sports centre and library in Area 74, Tseung Kwan O**

Members are invited to recommend to Finance Committee the upgrading of **50RG** to Category A at an estimated cost of \$749.2 million in money-of-the-day prices for the development of a district open space, a sports centre and a library in Area 74, Tseung Kwan O.

### **PROBLEM**

We need to provide more recreational and library facilities in Tseung Kwan O to meet the needs of the community.

### **PROPOSAL**

2. The Director of Architectural Services, with the support of the Secretary for Home Affairs, proposes to upgrade **50RG** to Category A at an estimated cost of \$749.2 million in money-of-the-day (MOD) prices for the development of a district open space, a sports centre and a library in Area 74, Tseung Kwan O.

**/ PROJECT .....**

**PROJECT SCOPE AND NATURE**

3. The project site occupies an area of around 1.8 hectares (ha) at the junction of Chui Ling Road and Po Shun Road in Area 74, Tseung Kwan O. The scope of works under **50RG** includes –

District Open Space

- (a) landscaped sitting out areas;
- (b) fitness corners for the elderly;
- (c) fitness stations;
- (d) a children's play area; and
- (e) ancillary facilities, including toilets and a storeroom;

Sports Centre

- (f) a multi-purpose arena which could be used as two basketball courts or two volleyball courts or eight badminton courts, with a 1 200-seat spectator stand;
- (g) two multi-purpose activity rooms separated by movable partitions, which would allow the two rooms to be combined to become one large activity room;
- (h) a dance room;
- (i) a fitness room;
- (j) a children's play room;
- (k) an indoor jogging track;
- (l) an outdoor climbing wall; and
- (m) ancillary facilities, including a conference and briefing room, a booking office, a baby care room, toilets, changing rooms and car parking spaces;

/ District .....

District Library

- (n) a children's library, an adult library, a quick reference section, a newspapers and periodicals section, a multimedia library, a computer and information centre, an exhibition and display area, an extension activities room, a students' study room and a coffee corner;
- (o) a customer service counter and readers' advisory desks;
- (p) book drops, and public areas for self-charging terminals, Internet workstations, online public access catalogue and photocopying service; and
- (q) ancillary facilities, including electronic lockers, a book processing room, computer equipment rooms, a baby care room and toilets.

The relevant site plan, artist's impressions of the proposed development, layout plans and a sectional plan of the library and sports centre are at Enclosures 1 to 7. Subject to funding approval of the Finance Committee, we plan to start the construction works of the three facilities in October 2011 for completion in October 2014.

**JUSTIFICATION**District Open Space

4. Tseung Kwan O is a densely populated and fast developing new town with a population of about 367 700, which is expected to increase to about 430 100 by 2019. As a reference, the Hong Kong Planning Standards and Guidelines (HKPSG) suggest a provision of 73.5 ha of public open space for Tseung Kwan O with the current population. At present, there are about 60.5 ha of public open space in Tseung Kwan O of which 19.8 ha is managed by the Leisure and Cultural Services Department (LCSD) and 40.7 ha by the Housing Department. Together with the public open space which are under construction<sup>1</sup>, the proposed district open space under this project will produce a further 10.9 ha of public open space. This will help alleviate the current shortfall of public open space in Tseung Kwan O and will provide facilities that will help encourage people to take part in regular physical activities.

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<sup>1</sup> Including the district open space in Area 37 (3421RO), the town park, indoor velodrome-cum-sports centre in Area 45 (3054RG), the sitting-out area in Area 77 (funded under block allocation Subhead 7016CX "District Minor Works Programme"), and the district open space in Area 56 (funded by MTR Corporation Limited).

### Sports Centre

5. HKPSG suggests that Tseung Kwan O, with its current population should be provided with six sports centres. At present, there are three sports centres in Tseung Kwan O, namely the Tseung Kwan O Sports Centre, Po Lam Sports Centre and Tsui Lam Sports Centre. Two new sports centres, namely the Tseung Kwan O Complex in Area 44 (**3190SC**) and the Town Park, Indoor Velodrome-cum-Sports Centre in Area 45 (**3054RG**), are under construction. The current average utilisation rates of the main arenas of the existing sports centres are over 80%. There are some 50 primary and secondary schools in Tseung Kwan O, and there is a strong demand for sports facilities from schools as well as from the local community in general. The proposed project will help meet this demand, providing a new venue for schools to organise sports training activities and encouraging greater public participation in sport.

### District Library

6. Sai Kung District currently has two district libraries (the Sai Kung Public Library and Tseung Kwan O Public Library) and 6 mobile library stops. HKPSG suggest a district library should be provided for every 200 000 persons. The population of Sai Kung District (comprising the rural areas and Tseung Kwan O) is expected to increase from about 434 900 in 2011 to about 504 200 in 2019 of which over 430 100 (85%) will live in Tseung Kwan O. In view of the provision proposed in the HKPSG and the fast growing population in Tseung Kwan O, there is a need to provide a second district library in Tseung Kwan O to meet the increasing demand for local public library services.

7. The proposed project site is in a densely populated residential area surrounded by high-rise public and private residential developments<sup>2</sup>. There is a strong demand from the local community, supported by the Sai Kung District Council (SKDC) for the early provision of more library facilities in the area. It is expected that the library will be welcomed and well patronised by local residents and students.

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<sup>2</sup> Examples include Choi Ming Court, Tong Ming Court, Kin Ming Estate, Park Central, Metro Town and Ocean Shores.

**FINANCIAL IMPLICATIONS**

8. We estimate the capital cost of the project to be \$749.2 million in MOD prices (please see paragraph 9 below), broken down as follows –

		<b>\$ million</b>	
(a)	Site works	11.5	
(b)	Piling	56.7	
(c)	Building	262.6	
(d)	Building services	97.4	
(e)	Drainage	13.0	
(f)	External works	48.5	
(g)	Additional energy conservation measures	12.6	
(h)	Furniture and equipment <sup>3</sup>	22.2	
(i)	Consultants' fees	17.5	
	(i) contract administration	16.2	
	(ii) management of resident site staff	1.3	
(j)	Remuneration of resident site staff	23.7	
(k)	Contingencies	54.3	
	Sub-total	620.0	(in September 2010 prices)
(l)	Provision for price adjustment	129.2	
	Total	749.2	(in MOD prices)

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<sup>3</sup> The estimated cost is based on an indicative list of furniture and equipment required.

We propose to engage consultants to undertake contract administration and site supervision for the project. A detailed breakdown of the estimate for consultants' fees and resident site staff costs by man-months is at Enclosure 8. The construction floor area (CFA) of **50RG** is about 17 705 m<sup>2</sup>. The estimated construction unit cost, represented by the building and the building services costs, is \$20,333 per m<sup>2</sup> of CFA in September 2010 prices. We consider this comparable to that of similar projects built by the Government.

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

Year	\$ million (Sept 2010)	Price adjustment factor	\$ million (MOD)
2011 – 12	20.0	1.04525	20.9
2012 – 13	90.0	1.10143	99.1
2013 – 14	170.0	1.16201	197.5
2014 – 15	200.0	1.22592	245.2
2015 – 16	80.0	1.29335	103.5
2016 – 17	45.0	1.36448	61.4
2017 – 18	15.0	1.43953	21.6
	620.0		749.2

10. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period 2011 to 2018. We will deliver the construction works through a lump-sum contract because we can clearly define the scope of the works in advance. The contracts will provide for price adjustments.

11. We estimate the annual recurrent expenditure arising from this project to be \$38.7 million. The capital and recurrent costs of the sports centre and any other venues providing chargeable services would be partly recovered from the relevant users, and would be taken into account in conducting future fee setting and review exercises.

## **PUBLIC CONSULTATION**

12. We consulted the then Culture, Recreation and Sports Committee and the full council of the SKDC on the scope of the project on 13 June 2006 and on 1 August 2006 respectively. We consulted the District Facilities Management Committee of the SKDC on the conceptual layout of the proposed project on 23 September 2008. Members supported the project and requested its early implementation.

13. We sought the views of nearby residents on the proposed project in a public consultation session held on 31 October 2008. Residents generally supported the proposal.

14. We consulted the Legislative Council Panel on Home Affairs on 8 April 2011. Members generally supported the project. In response to the concerns raised by Members about barrier-free access, we have made clear that the project will be able to meet the mandatory requirements under the latest “Design Manual – Barrier Free Access 2008” issued by the Buildings Department and wherever practicable, we will strive to achieve a standard over and above the statutory requirements. We will also provide adequate toilet and changing room facilities for both genders and babycare facilities in the project. The provision of toilet facilities will not be less than that required by the Buildings Department under the Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations and Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers. The male and female water closets ratio would be 1:3, which is over and above the statutory requirement. Members also requested more information on pedestrian crossing facilities leading to the project site. The information has been incorporated into the site plan at Enclosure 1. In response to Members’ request, we have increased the number of bicycle parking spaces by 20% to 60 in the proposed project scope.

**/ ENVIRONMENTAL .....**

**ENVIRONMENTAL IMPLICATIONS**

15. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The project will not cause long-term environmental impact. We have included in the project estimates the cost to implement suitable mitigation measures to control short-term environmental impacts.

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 relevant contract. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, 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. At the planning and design stages, we have considered measures 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 (e.g. use of excavated materials for filling within the site) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities<sup>4</sup>. We will encourage the contractor to maximize the use of recycled/ recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

18. At the construction stage, we will 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 at public fill reception facilities and landfills respectively through a trip-ticket system.

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<sup>4</sup> 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.



19. We estimate that the project will generate in total about 21 720 tonnes of construction waste. Of these, we will reuse about 9 765 tonnes (45%) of inert construction waste on site and deliver 9 547 tonnes (44%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 2 408 tonnes (11%) 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 \$0.6 million for this project (based on an unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne<sup>5</sup> at landfills).

## HERITAGE IMPLICATIONS

20. 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

21. The project does not require any land acquisition.

## ENERGY CONSERVATION MEASURES

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

- (a) water cooled chiller (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) automatic demand control of supply air;

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<sup>5</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 per m<sup>3</sup>), nor the cost to provide new landfills (which is likely to be more expensive), when the existing ones are filled.

- (f) heat wheel for heat energy reclaim of exhaust 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 and feature lights;
- (i) heat pump for domestic hot water; and
- (j) automatic on/off switching of lighting and ventilation fan inside the lifts.

23. For renewable energy technologies, we will adopt photovoltaic system, solar hot water system, building integrated photovoltaic system and solar park lighting for environmental benefits.

24. For greening features, we will provide greening on the appropriate roofs and facades of the buildings for environmental and amenity benefits.

25. For recycled features, we will adopt a rainwater recycling system for landscape irrigation.

26. The total estimated additional cost for adoption of the above features is around \$12.6 million (including \$4 million for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 10.4% energy savings in the annual energy consumption with a payback period of about 6.1 years.

**/ BACKGROUND.....**

**BACKGROUND INFORMATION**

27. We upgraded **50RG** to Category B in September 2007. We engaged an architectural consultant to undertake site investigation and detailed design and a quantity surveying consultant to prepare tender documents in April 2008. The total cost of the consultancy services and works is about \$14.8 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 site investigation and detailed design, and the quantity surveying consultant has completed the tender assessment.

28. The proposed works will involve the removal of 31 trees within the project boundary, including 18 trees to be felled and 13 trees to be transplanted elsewhere. All trees to be removed are not important trees<sup>6</sup>. We will incorporate planting proposals as part of the project, including estimated quantities of 149 trees, 93 651 shrubs, ground covers and climbers, and 2 384 m<sup>2</sup> of grassed area.

29. We estimate that the proposed works will create about 310 jobs (275 for labourers and another 35 for professional/technical staff) providing a total employment of 7 500 man-months.

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Home Affairs Bureau  
May 2011

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<sup>6</sup> “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 metre (m) (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

**50RG – District open space, sports centre and library in Area 74,  
Tseung Kwan O**

**Breakdown of the estimates for consultants' fees and resident site staff costs  
(in September 2010 prices)**

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants' fee for contract administration (Note 2)	Professional	–	–	–	10.0
	Technical	–	–	–	6.2
				Sub-total	16.2
(b) Resident site staff costs (Note 3)	Professional	35	38	1.6	3.3
	Technical	680	14	1.6	21.7
				Sub-total	25.0
Comprising -					
(i) Consultants' fees for management of resident site staff				1.3	
(ii) Remuneration of resident site staff				23.7	
				<b>Total</b>	<b>41.2</b>

\* MPS = Master Pay Scale

**Notes**

1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of resident site staff supplied by the consultants. (As at now, MPS salary point 38 = \$58,195 per month and MPS salary point 14 = \$19,945 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 **50RG**. The assignment will only be executed subject to Finance Committee's approval to upgrade **50RG** to Category A.
3. The consultants' staff cost for site supervision is based on the estimate prepared by the Director of Architectural Services. The actual man-months and actual costs will only be known after completion of the construction works.