

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

### **HEAD 703 – BUILDINGS**

#### **Recreation, Culture and Amenities – Open spaces**

#### **313RO – International Wetland Park and Visitor Centre at Tin Shui Wai**

Members are invited to recommend to Finance Committee –

- (a) the upgrading of part of **313RO** entitled “International Wetland Park and Visitor Centre at Tin Shui Wai – phase 1 works and pre-contract consultancy for phase 2 works” to Category A at an estimated cost of \$56.7 million in money-of-the-day prices; and
- (b) the retention of the remainder of **313RO**, retitled “International Wetland Park and Visitor Centre at Tin Shui Wai – phase 2 works” in Category B.

### **PROBLEM**

There is a need to enhance and diversify the attractiveness of Hong Kong as a tourist destination.

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## PROPOSAL

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Economic Services, proposes to upgrade part of **313RO** to Category A at an estimated cost of \$56.7 million in money-of-the-day (MOD) prices for the phase 1 construction works and the pre-contract consultancy for the phase 2 works for the International Wetland Park and Visitor Centre at Tin Shui Wai.

## PROJECT SCOPE AND NATURE

3. The full scope of **313RO** comprises the construction of the following facilities to be carried out in two phases -

(a) Phase 1

- (i) an exhibition pavilion with exhibits and an entrance forecourt;
- (ii) a landscaped access corridor and hoarding; and
- (iii) viewing facilities and a floating boardwalk.

(b) Phase 2

- (i) a visitor centre with a gross floor area of about 6 000 square metres accommodating permanent and temporary theme exhibitions, audio visual show areas, shops, restaurants, meeting rooms, activity rooms, a resource centre and ancillary areas; and
- (ii) footpaths, footbridges, viewing facilities, exhibition ponds, external displays, offices, stores, workshops, classrooms, planting, plant nursery and about 60 parking spaces for different types of vehicles .

The total capital cost of the project is estimated to be \$519.488 million at December 1998 prices.

4. The scope of the project under **313RO** that we now propose to upgrade to Category A comprises –

- (a) the phase 1 construction works; and
- (b) the employment of consultancy services to develop a strategic plan to provide detailed guidance for the later design stage of the project, to conduct detailed design, to prepare outline sketches and to prepare contract documentation for the project.

The site plan is attached at Enclosure 1 for Members' reference. We plan to start the phase 1 works in December 1999 for completion by September 2000. We will start the pre-contract consultancy for the phase 2 works in December 1999 for completion by September 2001. We intend to start the phase 2 construction works in October 2001, for completion by December 2004.

## JUSTIFICATION

5. The Visitor and Tourism Study for Hong Kong conducted by the Hong Kong Tourist Association (HKTA) in 1995 recommends, among others, that new tourist facilities and attractions should be developed to sustain the long-term development of the tourist industry in Hong Kong.

6. As part of the Tin Shui Wai (TSW) new town development, a 64 hectares ecological mitigation area (EMA) is being constructed by the Territory Development Department at north-east TSW to compensate for the loss of natural habitats due to urban development. The EMA, however, is a low-key amenity area. We therefore propose to take the opportunity to develop this area into a purpose-built international wetland park with a visitor centre.

7. The wetland park will provide a replacement for the wetland habitats already lost to urban development and act as a buffer between the densely populated TSW New Town and the internationally important Ramsar site, especially the famous Mai Po Marshes.

8. The Mai Po Marshes are located in the core area of the Mai Po Inner Deep Bay Ramsar site, entry to which is restricted under the Wild Animals

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Protection Ordinance. At present, the World Wide Fund for Nature Hong Kong organises guided tours for local students and the general public under permits issued by Agriculture and Fisheries Department. Owing to the ecological sensitivity of the Mai Po Marshes, the number of visitors has been restricted to some 40 000 a year to reduce the possibility of adverse environmental impacts. Most tours are fully booked months in advance. The International Wetland Park (IWP), being located close to the Mai Po Marshes, presents an opportunity to provide a complementary facility which can meet the unsatisfied demand for visits to Hong Kong's wetlands, while at the same time reducing the impact of increased human presence on the ecologically sensitive areas. It will also help publicise the richness and diversity of Hong Kong's wetland ecosystems and highlight the need to conserve them, thus demonstrating the commitment of Hong Kong to wetland conservation and sustainable development. The project also presents an opportunity to provide an education and recreation facility for use by local residents and overseas visitors. The project is intended to raise public awareness and increase knowledge and understanding of the major ecological values and benefits of wetland.

9. While the facility will be the first major eco-tourism initiative to diversify the range of tourist attractions in Hong Kong and enhance its attractiveness as a tourist destination, environmental concern will remain the key priority. The design of the project will take account of prevailing environmental factors to ensure the ecological mitigation function of the subject site will not be compromised and will further enhance and increase the conservation value of the EMA. In short, the proposed International Wetland Park and Visitor Centre will primarily be a conservation and education facility but will also serve recreation and tourism promotion purposes. In view of its multi-functional significance, the facility has been designated as one of the capital works projects in the Administration's Millennium Celebrations Programme.

## FINANCIAL IMPLICATIONS

10. We estimate the total capital cost of phase 1 works and the consultants' fees for the pre-contract stage of phase 2 works to be \$56.7 million in MOD prices (see paragraph 11 below), made up as follows -

	<b>\$ million</b>
(a) Phase 1 construction works	23.0
(i) building	5.3

/(ii) .....

	<b>\$ million</b>	
(ii) building services	1.9	
(iii) drainage and external works	10.5	
(iv) exhibits (IWP model, video-show, touch-screen computers are part and parcel of the exhibition pavilion to be provided under a design-and-build contract)	2.3	
(v) consultants' fees for site supervision	3.0	
(b) Phase 2 pre-contract consultants' fees for	28.0	
(i) strategic plan consultancy fee	1.0	
(ii) outline sketch	4.8	
(iii) detailed design	7.7	
(iv) contract documentation	14.5	
(c) Contingencies [for both (a) and (b)]	2.0	
Sub-total	53.0	(at December 1998 prices)
(d) Provisions for price adjustment	3.7	
Total	56.7	(in MOD prices)

/Owing .....

Owing to the lack of in-house expertise in this field, D Arch S proposes to employ consultants to undertake the phase 1 site supervision, the strategic planning and the pre-contract preparatory works. A breakdown by man months of the estimate for consultants' fees is at Enclosure 2.

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

Year	\$ million (Dec 1998)	Price adjustment factor	\$ million (MOD)
1999 - 2000	1.0	1.02625	1.0
2000 - 2001	40.0	1.06217	42.5
2001 - 2002	12.0	1.09934	13.2
	53.0		56.7

12. We derived the MOD estimates on the basis of Government's latest forecast of trend labour and construction prices for the period 1999 to 2002. The phase 1 works and site supervision consultancy will be carried out within the site boundaries of Territory Development Department's contracts under **561CL**<sup>1</sup> "Tin Shui Wai further development - remaining engineering infrastructure and site formation". To avoid interface problems arising from two contractors working on the same site, we will incorporate these works into the contracts under **561CL**. We will tender the strategic plan consultancy under a fixed price lump-sum contract because we can clearly define the scope of works in advance, leaving little room for uncertainty. We will also tender the consultancy for the phase 2 works on a lump-sum basis with provisions for price fluctuation because the contract period will be longer than 12 months.

13. The phase 1 works, strategic planning and phase 2 pre-contract consultancy will not give rise to any annually recurrent costs.

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<sup>1</sup> Finance Committee approved the upgrading of **561CL** to Category A on 25 June 1999 with an approved project estimate of \$768.8 million in MOD prices.

## **PUBLIC CONSULTATION**

14. We held three consultation sessions on 4 November 1998, 27 January 1999 and 16 March 1999 respectively with green groups including the World Wide Fund for Nature, Hong Kong, the Conservancy Association, the Hong Kong Bird Watching Society, Friends of the Earth and the Kadoorie Farm and Botanic Garden to solicit their views on the proposed works. Representatives supported the proposal and recognised that it could make an important contribution towards the promotion of environmental education in Hong Kong. These groups were further consulted on 5 October 1999, after completion of the feasibility study of the project, and expressed support for the project in general.

15. We also held a consultation workshop with the tourist industry on 2 February 1999. Representatives welcomed the initiative to develop the project as a new tourist attraction to support the growth of the tourist industry.

16. Moreover, we consulted the Town Planning and Development Committee of the Yuen Long Provisional District Board on the initial idea of developing the IWP on 18 November 1998 and again on the conceptual design of the whole project on 19 May 1999. Members had no objection to the proposed works.

17. We also consulted the Wetland Advisory Committee on the idea of developing the IWP on 11 March 1999 and the conceptual design for the whole project on 10 June 1999. Members supported the proposal.

## **ENVIRONMENTAL IMPLICATIONS**

18. The project is an exempted designated project under the Environmental Impact Assessment (EIA) Ordinance.

19. The Director of Territory Development completed an EIA in March 1997 to assess the environmental impacts of the construction and operation of the TSW Further Development including constructed wetland (i.e. Ecological Mitigation Area). The EIA concluded that the EMA is an essential mitigation measure to compensate for the habitat loss due to the TSW Further Development. It will benefit the environment. The findings and recommendations of the EIA report were endorsed by the Advisory Council on the Environment (ACE) on 21 April 1997.

20. The proposed works under this item will be the first step in turning the constructed wetland into the IWP. The IWP would further enhance the conservation value of the EMA. D Arch S conducted a Preliminary Environmental Review for the whole works (phase 1 and phase 2) in July 1999. The detailed design and operation of the facilities would be compatible with the Conservation Strategy and Management Plan developed for the Mai Po Inner Deep Bay Ramsar Site. During the construction period, we will control noise, dust and site run-off nuisance through the implementation of mitigation measures in relevant contracts and provide proper sewerage connections on site. We have included these costs in the overall project estimate.

### LAND ACQUISITION

21. The project does not require land acquisition nor land clearance.

### BACKGROUND INFORMATION

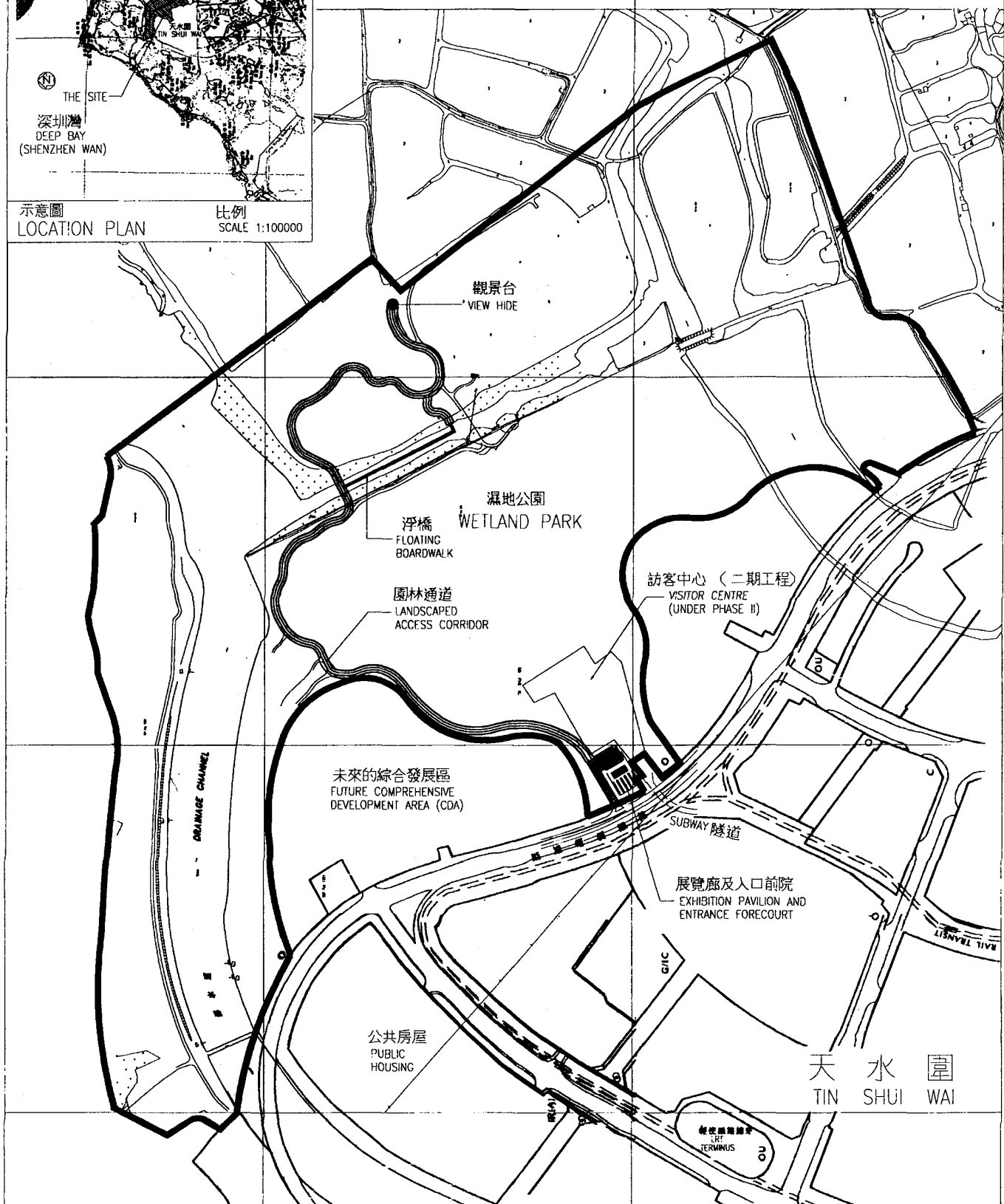
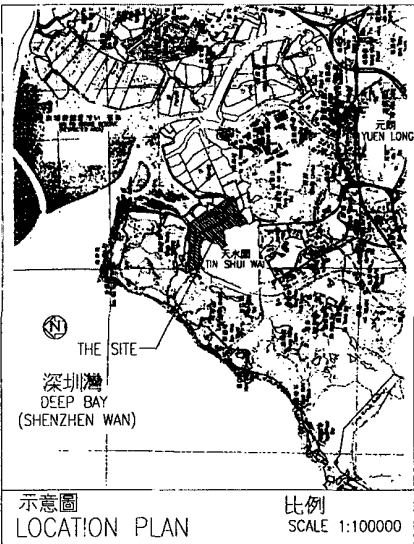
22. We upgraded **313RO** to Category B in October 1999. Detailed designs for the phase 1 works have been substantially completed. These were carried out by consultants, funded by the HKTA.


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Tourism Commission  
Economic Services Bureau  
October 1999

(PWSC0182/WIN7)





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	approved ANDY LEWIS	date 09-99	 ARCHITECTURAL SERVICES DEPARTMENT	
	office ARCHITECTURAL BRANCH			

313RO – International Wetland Park and Visitor Centre at Tin Shui Wai

**Breakdown of estimates of consultants' fees**

Category of works/items			Estimated man months	Average MPS* salary point	Multiplier factor	Estimated fee (\$ million)
<b>A. Phase 1 construction works</b>						
(I)	Site supervision	Professional	9.4	40	1.7	1.00
		Technical	56.0	16	1.7	2.00
<b>Total consultants' staff costs</b>						3.00
<b>B. Phase 2 pre-contract consultants' fees</b>						
(I)	Strategic plan development	Professional	5.0	40	2.4	0.75
		Technical	5.0	16	2.4	0.25
Sub-total						1.00
(II)	Outline sketch plan					
(a)	Architectural discipline	Professional	6.6	40	2.4	0.99
		Technical	8.9	16	2.4	0.45
(b)	Landscape/Specialist discipline	Professional	6.0	40	2.4	0.90
		Technical	7.9	16	2.4	0.40
(c)	Building service discipline	Professional	3.5	40	2.4	0.53
		Technical	4.4	16	2.4	0.22
(d)	Structural engineering discipline	Professional	2.7	40	2.4	0.41
		Technical	4.0	16	2.4	0.20
(e)	Quantity surveying discipline	Professional	0.9	40	2.4	0.14
		Technical	1.4	16	2.4	0.07
(f)	Specialist displays discipline	Professional	2.0	40	2.4	0.30
		Technical	4.0	16	2.4	0.20
Sub-total						4.81

## (III) Detailed design

(a) Architectural discipline	Professional	10.0	40	2.4	1.51
	Technical	11.9	16	2.4	0.60
(b) Landscape/ Specialist discipline	Professional	9.0	40	2.4	1.36
	Technical	11.9	16	2.4	0.60
(c) Building service discipline	Professional	6.3	40	2.4	0.95
	Technical	7.9	16	2.4	0.40
(d) Structural engineering discipline	Professional	5.1	40	2.4	0.77
	Technical	6.5	16	2.4	0.33
(e) Quantity surveying discipline	Professional	0.9	40	2.4	0.14
	Technical	1.4	16	2.4	0.07
(f) Specialist displays discipline	Professional	4.0	40	2.4	0.60
	Technical	7.9	16	2.4	0.40
				Sub-total	<u>7.73</u>

(IV) Contract  
documentation

(a) Architectural discipline	Professional	16.7	40	2.4	2.52
	Technical	21.4	16	2.4	1.08
(b) Landscape/ Specialist discipline	Professional	15.1	40	2.4	2.28
	Technical	19.4	16	2.4	0.98
(c) Building service discipline	Professional	5.3	40	2.4	0.80
	Technical	6.9	16	2.4	0.35
(d) Structural engineering discipline	Professional	4.2	40	2.4	0.63
	Technical	5.4	16	2.4	0.27
(e) Quantity surveying discipline	Professional	11.9	40	2.4	1.79
	Technical	15.9	16	2.4	0.80

(f) Specialist	Professional	13.3	40	2.4	2.00
displays	Technical	19.8	16	2.4	1.00
discipline					
				Sub-total	14.50
				<b>Total consultants' staff costs</b>	<b>28.04</b>

\* MPS = Master Pay Scale

**Notes**

1. A multiplier factor of 2.4 is applied to the average MPS point to arrive at the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices. A multiplier factor of 1.7 is applied in the case of site staff supplied by the consultant. (At 1.4.1998, MPS point 40 = \$62,780 p.m. and MPS point 16 = \$21,010 p.m.).
2. The figures given above are based on estimates prepared by the Director of Architectural Services. We will only know the actual man months and actual fees when we have selected the consultants through the usual competitive bidding system.