

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Recreation, Culture and Amenities – Open spaces

431RO – Tuen Mun River beautification – Tin Hau Temple Plaza

Members are invited to recommend to Finance Committee the upgrading of **431RO** to Category A at an estimated cost of \$134.5 million in money-of-the-day prices for the upgrading of the Tin Hau Temple Plaza in Tuen Mun.

PROBLEM

We need to upgrade the Tin Hau Temple Plaza in Tuen Mun to become a focal point of the district where annual traditional celebrations and other civic activities could be held.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Home Affairs, proposes to upgrade **431RO** to Category A at an estimated cost of \$134.5 million in money-of-the-day (MOD) prices for the upgrading of the Tin Hau Temple Plaza in Tuen Mun.

/PROJECT.....

PROJECT SCOPE AND NATURE

3. The project site covers an area of about 10 218 square meters (m²) at the junction of Tin Hau Road and Hung Cheung Road, Tuen Mun. The scope of **431RO** includes –

- (a) demolition of the existing public toilet;
- (b) construction of the following facilities at the Plaza –
 - (i) a covered performance stage;
 - (ii) a Pai Lau;
 - (iii) a Fa Pau Exhibition Hall; and
 - (iv) ancillary and supporting facilities, including two toilet blocks and a service building; and
- (c) repaving of the surface of the Plaza.

————— A site plan is at Enclosure 1 and the view of the existing Tin Hau Temple Plaza is
————— at Enclosure 2. Artist's impressions of the Plaza after upgrading are at Enclosure
————— 3. Artist's impressions and layout plans of the Fa Pau Exhibition Hall and one of
————— the new toilet blocks are at Enclosures 4 and 5. Sample layout plans for large-
————— scale outdoor civic activities are at Enclosure 6. Subject to funding approval of
————— the Finance Committee, we plan to start the construction works in September
2011 for completion in May 2013.

JUSTIFICATION

4. In his 2007 – 08 Policy Address, the Chief Executive announced that the Government would give priority to beautification works along the Tuen Mun River. To follow up on this commitment, the Home Affairs Department set up a Task Force on Tuen Mun River Beautification Scheme to steer and monitor project planning and implementation by government and non-government parties. In support of the Government's implementation of the beautification projects, the Hong Kong Housing Society undertook a planning study which included a public engagement programme. During the public engagement process, the Tuen Mun District Council (TMDC) and local residents unanimously called for, among other proposals, improvement of the Tin Hau Temple area which they considered should be accorded with priority.

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5. The Tin Hau Temple Plaza is the most popular open space available for large-scale outdoor activities in Tuen Mun. Major annual functions held at the Plaza include the Tin Hau Festival Parade cum Fa Pau Lots Drawing Ceremony, the Chinese New Year Fair and the Free Meal for the Elderly. We have consulted TMDC on the project scope, which reflected that the Plaza should keep sufficient open space for holding celebrations of the Tin Hau Festival, Chinese New Year Fair and Free Meal for the Elderly with 500 tables or more. The proposed project will make the Plaza a focal point where large-scale outdoor civic activities for active participation and enjoyment by the local residents and visitors can be held. Besides, local residents can also visit the Plaza at leisure times. The newly established Fa Pau Exhibition Hall will offer visitors a cultural experience on Tin Hau Festival through the display of Fa Paus.

FINANCIAL IMPLICATIONS

6. We estimate the capital cost of **431RO** to be \$134.5 million in MOD prices (please see paragraph 7 below), broken down as follows –

	\$ million
(a) Site works	9.1
(b) Building	28.5
(c) Building services	11.8
(d) Drainage	9.1
(e) Slope works	2.2
(f) External works	36.3
(g) Furniture and equipment ¹	0.9
(h) Additional energy conservation measures	0.2

/\$ million.....

¹ The estimated cost is based on an indicative list of furniture and equipment required.

	\$ million	
(i) Consultants' fees	4.1	
(i) contract administration	3.5	
(ii) management of resident site staff	0.6	
(j) Remuneration of resident site staff	4.4	
(k) Contingencies	<u>10.6</u>	
Sub-total	117.2	(in September 2010 prices)
(l) Provision for price adjustment	17.3	
Total	<u>134.5</u>	(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 7. We consider the estimated project cost reasonable as compared with similar projects undertaken by the Government.

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

Year	\$ million (Sept 2010)	Price adjustment factor	\$ million (MOD)
2011 – 12	10.0	1.04525	10.5
2012 – 13	53.0	1.10143	58.4
2013 – 14	28.8	1.16201	33.5
2014 – 15	15.0	1.22592	18.4
2015 – 16	7.0	1.29335	9.1

/ Year.....

Year	\$ million (Sept 2010)	Price adjustment factor	\$ million (MOD)
2016 – 17	3.4	1.36448	4.6
	117.2		134.5

8. 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 2017. We will deliver the construction works through a lump-sum contract because we can clearly define the scope of the works in advance. The contract will provide for price adjustments.

9. We estimate the annual recurrent expenditure arising from this project to be \$1.5 million.

PUBLIC CONSULTATION

10. We consulted TMDC on the scope of the proposed project on 4 November 2008. Members supported the project and requested its early implementation. We conducted further consultation on the design with TMDC and its Working Group on Development and Planning of Tuen Mun District on 2 and 29 November 2010 respectively. The feedback was positive.

11. We conducted further public consultation in January 2011 with the community in the vicinity of the project site, including the District Council member and the Area Committee concerned and the adjacent industrial buildings on the scope and the conceptual design of the works. The feedback was also positive.

12. We circulated an information paper to the Legislative Council Panel on Home Affairs in early March 2011. Members supported this project.

/ENVIRONMENTAL.....

ENVIRONMENTAL IMPLICATIONS

13. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). It 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.

14. 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 cleansing and watering of the site, and the provision of wheel-washing facilities.

15. At the planning and design stages, we have considered measures to reduce the generation of construction waste where possible (e.g. using metal hoardings, signboards and pre-fabricated building elements such as steel frame construction as far as possible). In addition, we will require the contractor to reuse inert construction waste (e.g. 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 facilities². We will encourage the contractor to maximise the use of recycled / recyclable inert construction waste, as well as the use of non-timber formwork to further reduce the generation of construction waste.

16. 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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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.

17. We estimate that the project will generate in total about 11 790 tonnes of construction waste. Of these, we will reuse about 590 tonnes (5%) of inert construction waste on site and deliver 10 970 tonnes (93%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 230 tonnes (2%) 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 \$0.3 million for this project (based on an unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne³ at landfills).

HERITAGE IMPLICATIONS

18. The 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

19. The project does not require any land acquisition.

ENERGY CONSERVATION MEASURES

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

- (a) heat wheels / heat pipes for heat energy reclaim of exhaust air;
- (b) T5 energy efficient fluorescent tubes with electronic ballast and lighting control by daylight sensors and occupancy sensors; and
- (c) light-emitting diode (LED) type exit signs and feature lights.

/21.

³ This estimate has taken into account the cost of 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 m³), nor the cost to provide new landfills (which is likely to be more expensive), when the existing ones are filled.

21. For renewable energy technologies, we will install a photovoltaic system for environmental benefits.

22. The total estimated additional cost for adoption of the above features is around \$0.2 million (including about \$45,000 for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 3.9% energy savings in the annual energy consumption with a payback period of about 5.9 years.

BACKGROUND INFORMATION

23. We upgraded **431RO** to Category B in October 2009. We engaged an architectural consultant to undertake the detailed design and site investigation in December 2009 and a quantity surveying consultant to prepare tender documents in March 2010. The total cost of the above consultancy services and works is about \$5.9 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 detailed design and site investigation have been completed and the tender documents are being finalised.

24. Of the 105 trees within the project boundary, 78 trees will be preserved. The project will involve felling of 27 trees. All trees to be felled are not important trees⁴. We will incorporate planting proposals as part of the project, including estimated quantities of 40 trees, 7 776 shrubs and 13 297 ground covers.

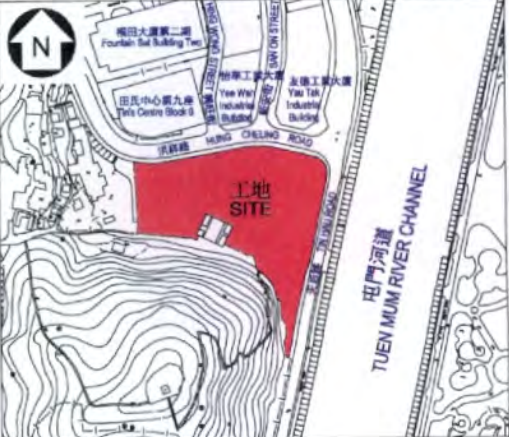
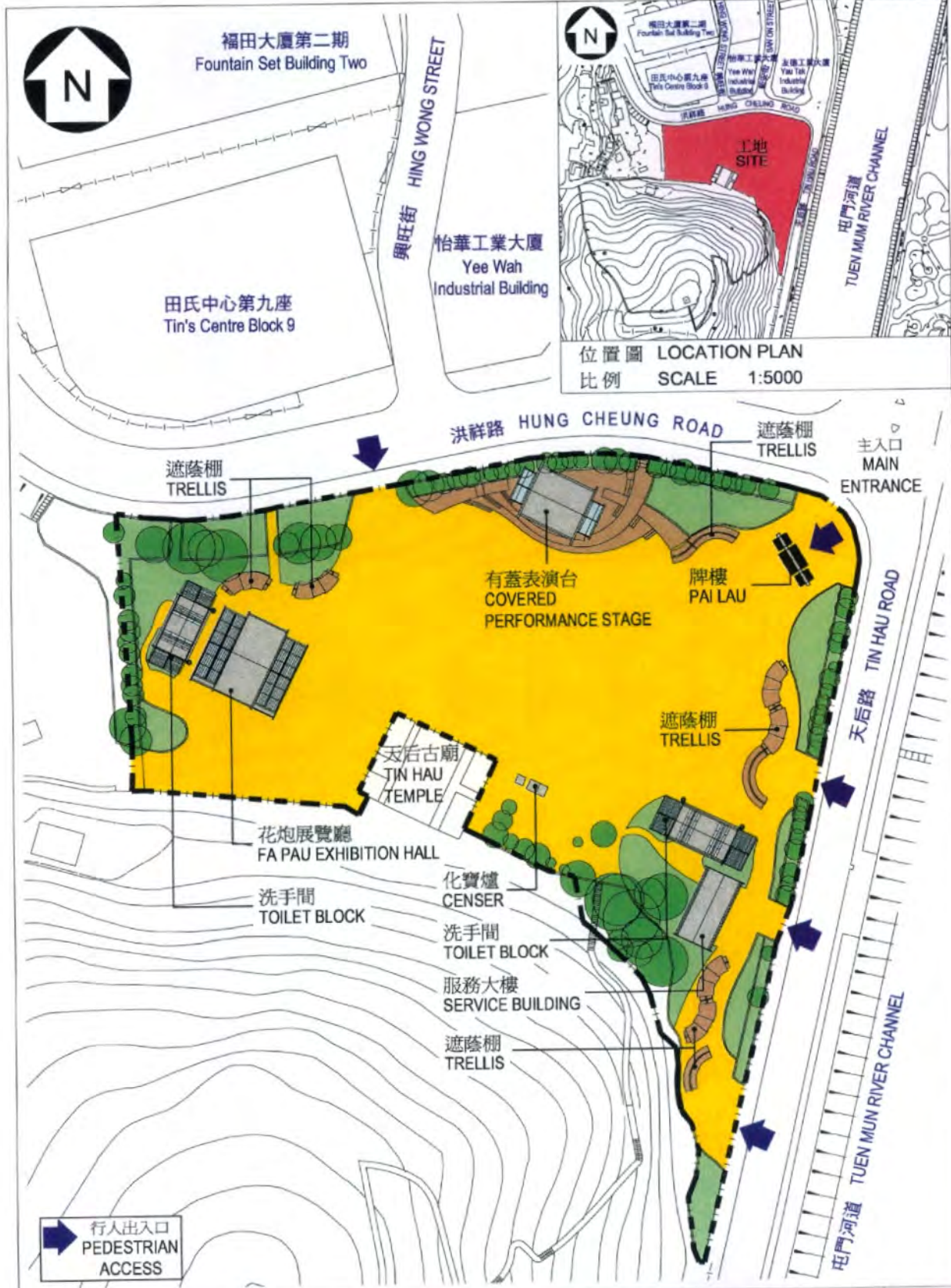
/25.

⁴ An “important tree” refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –


- trees of 100 years old or above;
- tree 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;
- trees of precious or rare species;
- trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, tree growing in unusual habitat; or
- 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.

25. We estimate that the proposed works will create about 85 jobs (75 for labourers and another 10 for professional/technical staff) providing a total employment of 1 550 man-months.

Home Affairs Bureau
April 2011



位置圖 LOCATION PLAN
比例 SCALE 1:5000

項目 title 431 RO 屯門河美化工程 - 天后廟廣場 TUEN MUN RIVER BEAUTIFICATION - TIN HAU TEMPLE PLAZA	繪圖 drawn by JUPITER SO	日期 date 24.03.11	編號 drawing no. AB/7820/XA101	比例 scale 1:1000
	覆核 approved SAM WU	日期 date 24.03.11	 建築署 ARCHITECTURAL SERVICES DEPARTMENT	
	辦事處 office PROJECT MANAGEMENT BRANCH			




擬拆卸的天后路公廁
TIN HAU ROAD PUBLIC TOILET
(TO BE DEMOLISHED)

天后古廟
TIN HAU TEMPLE

從東北面望向天后廟廣場現貌

VIEW OF EXISTING TIN HAU TEMPLE PLAZA FROM NORTH-EASTERN DIRECTION


項目 title 431 RO 屯門河美化工程 - 天后廟廣場 TUEN MUN RIVER BEAUTIFICATION - TIN HAU TEMPLE PLAZA	繪圖 drawn by JUPITER SO	日期 date 04.04.11	編號 drawing no. AB/7820/XA102	比例 scale N.T.S.
	覆核 approved SAM WU	日期 date 04.04.11	 建築署 ARCHITECTURAL SERVICES DEPARTMENT	
	辦事處 office PROJECT MANAGEMENT BRANCH			

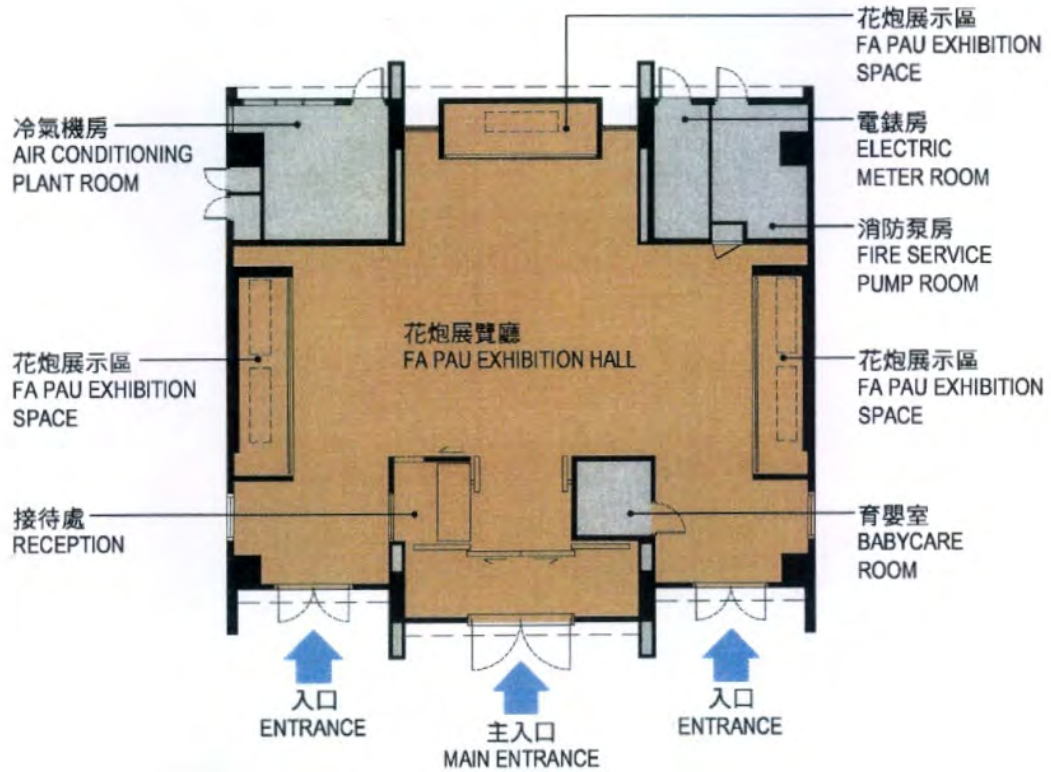


優化後的廣場東北面鳥瞰圖
AERIAL VIEW OF THE PLAZA FROM NORTH-EASTERN DIRECTION
AFTER UPGRADING (ARTIST'S IMPRESSION)



優化後的廣場中央構思透視圖
PERSPECTIVE VIEW OF THE PLAZA FROM CENTRE
AFTER UPGRADING (ARTIST'S IMPRESSION)

項目 title 431 RO 屯門河美化工程 - 天后廟廣場 TUEN MUN RIVER BEAUTIFICATION - TIN HAU TEMPLE PLAZA	繪圖 drawn by JUPITER SO	日期 date 01.04.11	編號 drawing no. AB/7820/XA103	比例 scale N.T.S.
	覆核 approved SAM WU	日期 date 01.04.11	 建築署 ARCHITECTURAL SERVICES DEPARTMENT	
	辦事處 office PROJECT MANAGEMENT BRANCH			




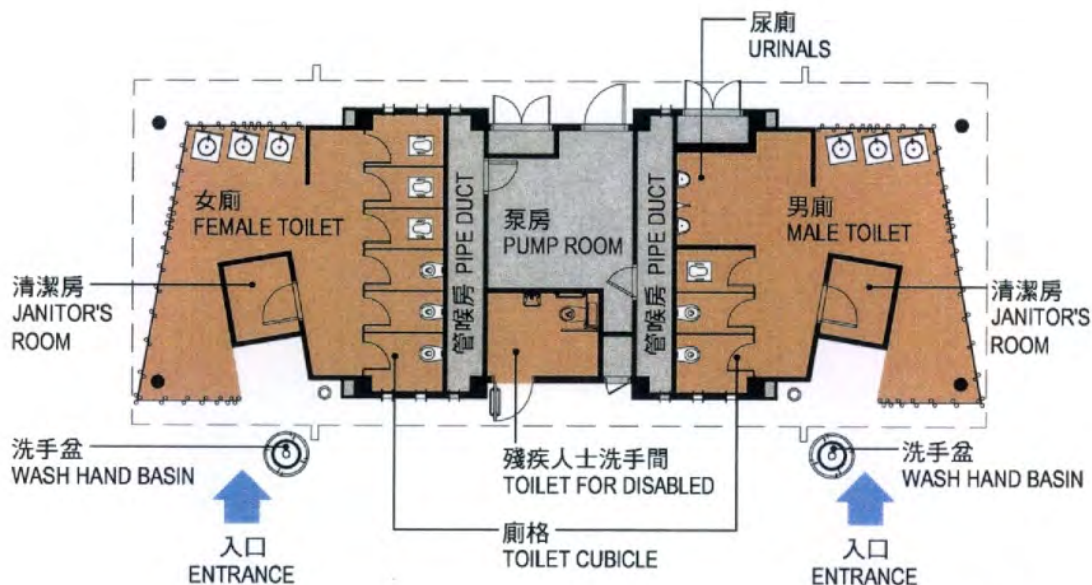
花炮展覽廳平面圖
LAYOUT PLAN OF FA PAU EXHIBITION HALL

比例: 1:200
SCALE: 1:200



花炮展覽廳正面構思透視圖
FRONT VIEW OF FA PAU EXHIBITION HALL (ARTIST'S IMPRESSION)

項目 title 431 RO 屯門河美化工程 - 天后廟廣場 TUEN MUN RIVER BEAUTIFICATION - TIN HAU TEMPLE PLAZA	繪圖 drawn by JUPITER SO	日期 date 04.04.11	編號 drawing no. AB/7820/XA104	比例 scale AS SHOWN
	覆核 approved SAM WU	日期 date 04.04.11	 建築署 ARCHITECTURAL SERVICES DEPARTMENT	
辦事處 office PROJECT MANAGEMENT BRANCH				




洗手間平面圖
LAYOUT PLAN OF TOILET BLOCK

比例: 1:150
SCALE: 1:150



洗手間正面構思透視圖
FRONT VIEW OF TOILET BLOCK (ARTIST'S IMPRESSION)


項目 title 431 RO 屯門河美化工程 - 天后廟廣場 TUEN MUN RIVER BEAUTIFICATION - TIN HAU TEMPLE PLAZA	繪圖 drawn by JUPITER SO	日期 date 01.04.11	編號 drawing no. AB/7820/XA105	比例 scale AS SHOWN
	覆核 approved SAM WU	日期 date 01.04.11	 建築署 ARCHITECTURAL SERVICES DEPARTMENT	
辦事處 office PROJECT MANAGEMENT BRANCH				



年宵市場平面圖 (116攤檔)
PROPOSED LAYOUT OF CHINESE NEW YEAR FAIR (116 STALLS)



盤菜宴會平面圖 (500席)
PROPOSED LAYOUT OF POON CHOI BANQUET (500 TABLES)

項目 title 431 RO 屯門河美化工程 - 天后廟廣場 TUEN MUN RIVER BEAUTIFICATION - TIN HAU TEMPLE PLAZA	繪圖 drawn by JUPITER SO	日期 date 01.04.11	編號 drawing no. AB/7820/XA106	比例 scale N.T.S.
	覆核 approved SAM WU	日期 date 01.04.11	 建築署 ARCHITECTURAL SERVICES DEPARTMENT	
	辦事處 office PROJECT MANAGEMENT BRANCH			

431RO – Tuen Mun River beautification – Tin Hau Temple Plaza

**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' fees				
	for contract administration (Note 2)	–	–	–	2.4
	Professional				
	Technical	–	–	–	1.1
				Sub-total	3.5
(b)	Resident site staff costs (Note 3)	157	14	1.6	5.0
	Technical				
				Sub-total	5.0
Comprising —					
(i)	Consultants' fees for management of resident site staff				0.6
(ii)	Remuneration of resident site staff				4.4
				Total	8.5

* 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 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 **431RO**. The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade **431RO** 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.