For discussion
on 6 June 2001

PWSC(2001-02)39

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 - BUILDINGS
Public Safety - Fire services
126BF - Braemar Hill fire station-cum-ambulance depot

Members are invited to recommend to Finance Committee the upgrading of **126BF** to Category A at an estimated cost of $76.5 million in money-of-the-day prices for the construction of a four-bay fire station-cum-ambulance depot at Tin Hau Temple Road, Braemar Hill, Hong Kong.

PROBLEM

Fire appliances from North Point Fire Station and Tung Lo Wan Fire Station are not able to respond to emergencies in Braemar Hill within the approved graded response time limits for fire services[1]. In addition, ambulances from Sai Wan Ho Ambulance Depot are not able to respond to emergencies in Braemar Hill, North Point and Causeway Bay within the approved response time limit for ambulance services[2].

/PROPOSAL …..

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[1] According to the current approved fire-fighting policy, fire calls in congested built-up, less congested built-up, dispersed risk, highly dispersed risk and remote areas should be met within a response time of 6, 6, 9, 15 and 23 minutes respectively. The area to be served by this fire station is in the congested built-up area category.

[2] The emergency ambulance services have adopted a 12-minute response time as their performance target with effect from 1 November 1998.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Security, proposes to upgrade **126BF** to Category A at an estimated cost of $76.5 million in money-of-the-day (MOD) prices for the construction of a four-bay fire station-cum-ambulance depot at Tin Hau Temple Road, Braemar Hill, Hong Kong.

PROJECT SCOPE AND NATURE

3. The scope of **126BF** comprises the construction of a five-storey fire station-cum-ambulance depot on a site of about 3 625 square metres, including a slope of about 1 273 square metres at the rear. This new depot will have -

(a) a four-bay appliance room;

(b) four covered ambulance parking spaces;

(c) offices with a gross floor area (GFA) of about 128 square metres;

(d) an exercise room;

(e) a conference room;

(f) storage areas for foam concentrate, hoses, etc.;

(g) barracks for on-duty operational fire and ambulance staff;

(h) a drying room;

(i) a canteen;

(j) an open drill yard with gross area of about 576 square metres; and

(k) fuel filling facilities.

A site plan is at Enclosure 1. We plan to start the construction works in January 2002 for completion in October 2003.

/JUSTIFICATION …..

JUSTIFICATION

4. Braemar Hill is situated at the mid-levels above North Point. With many high-rise residential buildings and schools, it is categorised as a "congested built-up area" in terms of fire risk category. At present, fire services for Braemar Hill are provided by North Point Fire Station and Tung Lo Wan Fire Station, which are each about three kilometres away. Owing to the distance and hilly terrain, fire appliances from North Point Fire Station and Tung Lo Wan Fire Station take about seven minutes to reach Braemar Hill. This exceeds the approved six-minute graded response time for fire services for a "congested built-up area". To ensure adequate fire services coverage for Braemar Hill, we need to provide the proposed fire station at Tin Hau Temple Road.

5. There is at present no dedicated ambulance depot for Braemar Hill, North Point and Causeway Bay. Emergency ambulance services for these areas are provided by Sai Wan Ho Ambulance Depot situated about five kilometres away. In general, ambulances from Sai Wan Ho Ambulance Depot take about 15 minutes to reach these areas. This exceeds the approved 12-minute response time for emergency ambulance services. We therefore need to provide the proposed ambulance depot in time to ensure adequate emergency ambulance services and to cope with the anticipated increase in demand for service.

6. The integration of the fire station with the ambulance depot will optimise the land use.

FINANCIAL IMPLICATIONS

7. We estimate the total capital cost of the project to be $76.5 million in MOD prices (see paragraph 8 below), made up as follows -

/(a) …..

		$ million	
(a)	Site formation	19.3	
(b)	Building	22.9	
(c)	Building services	8.1	
(d)	Drainage and external works	7.0	
(e)	Road widening works[3]	3.1	
(f)	Furniture and equipment	10.5	
(g)	Consultant's fees for contract administration	0.7	
(h)	Contingencies	6.0	
	Sub-total	77.6	(in September 2000 prices)
(i)	Provision for price adjustment	(1.1)	
	Total	76.5	(in MOD prices)

The construction floor area of **126BF** is 2 662 square metres. The construction unit cost, represented by building and building services costs, is $11,645 per square metre in September 2000 prices. The construction unit cost is comparable to that for other fire stations built by the Government. Owing to insufficient in-house staff resources, we propose to engage a consultant to carry out contract administration. A detailed breakdown by man-months of the estimate for the consultant's fees is at Enclosure 2.

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

/**Year** …..

[3] The works include widening of a section of Tin Hau Temple Road in front of the proposed fire station-cum-ambulance depot.

Year	$ million (Sep 2000)	Price adjustment factor	$ million (MOD)
2001 - 02	0.1	0.98000	0.1
2002 - 03	28.9	0.97976	28.3
2003 - 04	38.1	0.98759	37.6
2004 - 05	10.5	0.99549	10.5
	77.6		76.5

9. We derived the MOD estimates on the basis of Government's latest forecast of trend labour and construction prices for the period 2001 to 2005. We will tender the proposed works under a fixed-price lump-sum contract because the contract period will be less than 21 months and we can clearly define the scope of works in advance, leaving little room for uncertainty.

10. We estimate the additional annually recurrent expenditure for the project to be $19.3 million.

PUBLIC CONSULTATION

11. We consulted the Environmental Improvement Committee of the former Eastern Provisional District Board in September 1998. Members of the Committee supported the project.

12. We circulated an information paper on the proposed project to the Legislative Council Panel on Security on 20 April 2001 and did not receive any comment from Members.

ENVIRONMENTAL IMPLICATIONS

13. We completed a Preliminary Environmental Review (PER) for this project in February 1998. The PER concluded that the project would have no long term environmental impact. The Director of Environmental Protection vetted the PER and agreed that an Environmental Impact Assessment would not be necessary.

/14. …..

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 cleaning and watering of the site and the provision of wheel-washing facilities. During the operation of the fire station-cum-ambulance depot, the Director of Fire Services will implement mitigation measures to minimise noise nuisance. These measures include the use of volume adjustable devices controlling the sound level of the public address system, sirens of fire appliances and ambulances and wig-wag signals. These facilities will only be used when necessary.

15. At the planning and design stages, we have considered measures to reduce the generation of construction and demolition (C&D) materials. We have introduced more prefabricated building elements into the project design to avoid temporary formwork and construction waste. These include dry-wall partitioning and proprietary fittings and fixtures. We will use suitable excavated materials for filling within the site to minimise off-site disposal. In addition, we will require the contractor to use metal site hoardings and signboards so that these materials can be recycled or reused in other projects.

16. We will require the contractor to submit a waste management plan (WMP) for approval. The WMP will include mitigation measures to avoid, reduce, reuse and recycle C&D materials. We will ensure that the day-to-day operations on site comply with the approved WMP. We will control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip-ticket system. The contractor will be required to separate public fill from C&D waste for disposal at appropriate facilities. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes. We estimate that the project will generate about 20 300 cubic metres (m^3) of C&D materials. Of these, we will reuse about 1 800 m^3 (9%) on site, 17 700 m^3 (87%) as fill in public filling areas[4], and dispose of 800 m^3 (4%) at landfills.

LAND ACQUISITION

17. The project does not require any land acquisition.

/BACKGROUND …..

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[4] A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering.

BACKGROUND INFORMATION

18. We engaged a consultant to carry out the PER, completed in February 1998, at a cost of $50,000. We upgraded **126BF** to Category B in September 1998. We employed term contractors to carry out ground investigations and engaged consultants to carry out topographical surveys at a total cost of $695,682. The investigations and surveys were completed in December 2000 and January 2001 respectively. We also employed a consultant to carry out pre-contract design works and preparation of tender documents at a cost of $1.0 million. We charged these amounts to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". We have completed the detailed design of the project and are finalising the tender documents.

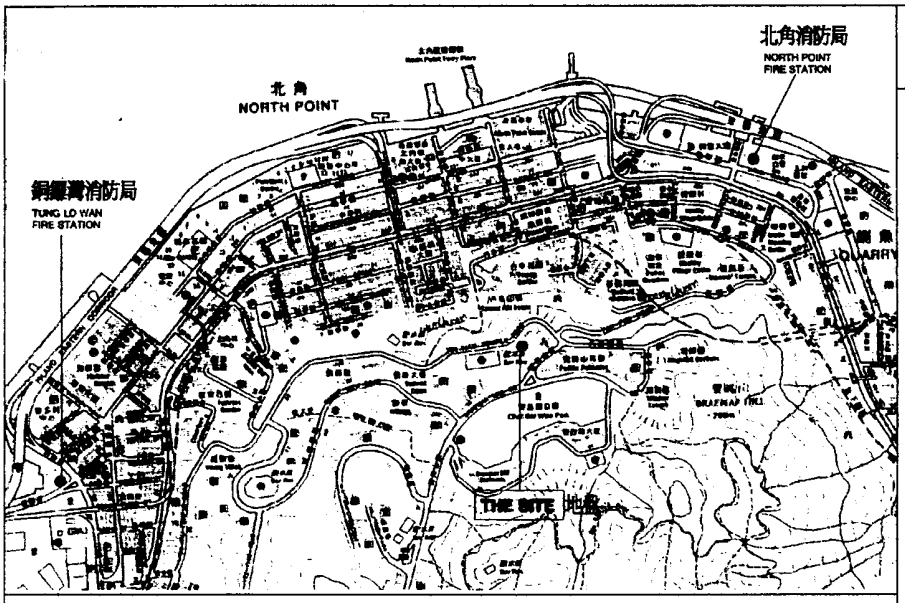
19. For operational and security reasons, fire stations and ambulance depots have to be located on the ground floor and lower levels of a building with an exclusive drill yard, and vehicular and pedestrian access completely segregated from that provided to any non-Fire Services Department development above the building. The inclusion of joint users will necessitate the enlargement of the building footprint and the area of the project site.

20. In line with Government's policy of optimising site development potential, Government Property Agency examined the possibility of incorporating additional users into the development in 1996 and 2001 respectively. Compatible joint users could not be identified. We have also attempted to identify a more suitable site within the catchment area but the Director of Planning has advised that no better alternatives are available. We consider that the development represents the optimum use of the site given the circumstances.

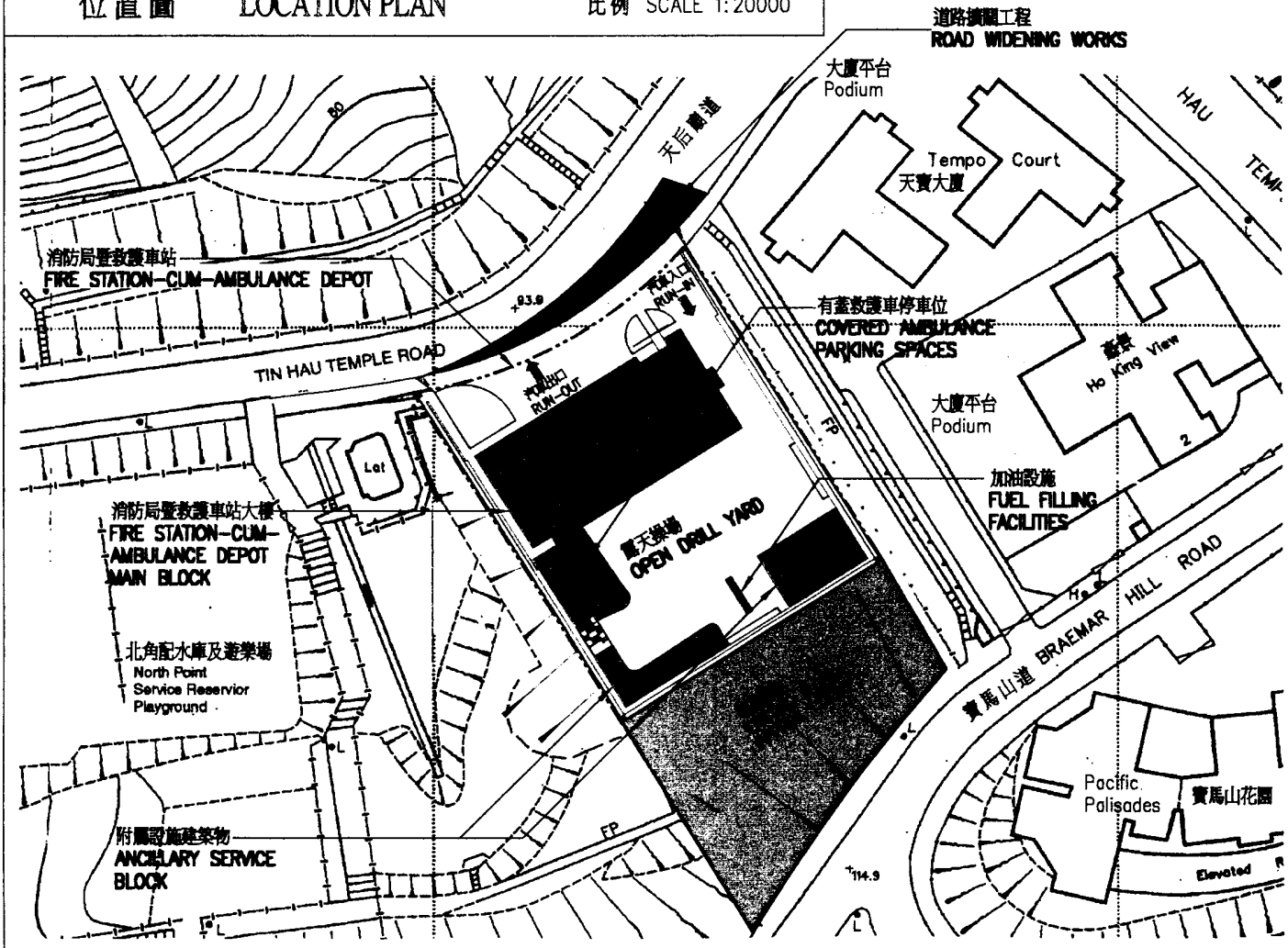
21. We estimate that the project will create some 80 jobs with a total of 1 400 man-months comprising two professional staff, three technical staff and 75 labourers.

Security Bureau
June 2001

附件 1
Enclosure 1



位置圖 LOCATION PLAN 比例 SCALE 1:20000



title 126BF 寶馬山 消防局暨救護車站 BRAEMAR HILL FIRE STATION -CUM-AMBULANCE DEPOT	drawn by KC	date 16.02.01	drawing no. AB/1273/XC 101	scale 1:1000
	approved V. CHEUNG	date 16.02.01		
	office ARCHITECTURAL BRANCH		ARCHITECTURAL SERVICES DEPARTMENT	

126BF - Braemar Hill fire station-cum-ambulance depot

Breakdown of estimate for consultant's fees

Consultant's staff costs		Estimated man-months	Average MPS* salary point	Multiplier factor	Estimated fee ($million)
Contract administration	Professional	4.3	38	2.4	0.6
	Technical	2.2	14	2.4	0.1
				Total	0.7

* 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 consultant's overheads and profit, as the staff will be employed in the consultant's offices. (As at 1 April 2001, MPS point 38 = $57,525 per month, MPS point 14 = $19,055 per month.)

(2) The consultant's fees for the works during the construction stage formed an optional part of the lump-sum price quoted by the consultant selected to carry out pre-contract design works and preparation of tender documents as mentioned in paragraph 18 of the paper. Subject to Members' approval to upgrade **126BF** to Category A, the Director of Architectural Services will direct the necessary works to be carried out.