For discussion **PWSC(2025-26)2**
on 16 April 2025

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 − BUILDINGS
Public Safety − Fire Services
177BF − Construction of Fire Station-cum-Ambulance Depot with Departmental Quarters and Facilities of the Fire Services Department at Anderson Road Quarry Site, Sai Kung

Members are invited to recommend to the Finance Committee the upgrading of **177BF** to Category A at an estimated cost of $1,152.8 million in money-of-the-day prices for the construction of fire station-cum-ambulance depot with departmental quarters and facilities at Anderson Road Quarry Site, Sai Kung.

PROBLEM

The Anderson Road Quarry Site (hereinafter referred to as ARQ Site) development project involves 11 housing sites with a planned total population of about 30 000, and is planned for completion by phases from 2024 onwards. With the growing population in the area, it is anticipated that there will be an increasing demand from residents for fire and emergency ambulance services. Besides, the Fire Services Department (FSD) needs to increase the supply of departmental quarters (DQs) for married rank and file (R&F) staff to alleviate the shortage. In addition, a number of FSD facilities, including the Railway Development Strategy (RDS) Division office, the Safety Policy and Compliance Unit (SPCU)[1] office, and the Building Improvement (BI) Division office, have been accommodated on

/other …..

[1] The SPCU was originally the Incident Safety Team.

other Government/leased premises, which is not desirable from the department's daily operation perspective. At the same time, there is also a need for FSD to include the provision of divisional training facilities to meet the training needs of fire personnel.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Security, proposes to upgrade **177BF** to Category A at an estimated cost of $1,152.8 million in money-of-the-day (MOD) prices for the construction of a fire station-cum-ambulance depot (FSAD) with DQs and FSD facilities at the ARQ Site, Sai Kung.

PROJECT SCOPE AND NATURE

3. The proposed project occupies an area of about 3 200 square metres (m^2) and falls within an area zoned "Government, Institution or Community" in the Approved Kwun Tong (North) Outline Zoning Plan No. S/K14N/15.

4. The scope of the proposed project comprises the construction of a new building to provide the following facilities —

(a) an FSAD with a five-bay appliance room;

(b) the reprovisioned offices of the RDS Division, the SPCU, and the BI Division;

(c) divisional training facilities;

(d) 113 G-grade DQ units[2] and related facilities[3]; and

(e) parking spaces for FSD operational vehicles and DQ residents and a basement carpark (including eight parking spaces for FSD operational vehicles, 50 private car parking spaces and seven motorcycle parking spaces).

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[2] DQs are graded according to unit size, location, view, environment, facilities and amenities. The floor area of each proposed G-grade DQ unit is about 55m^2.

[3] Facilities include a building management office and a multi-purpose room of approximately 18m^2, which will mainly be used as a meeting room for the residents' association.

5. A site and location plan, a sectional drawing and a barrier-free access plan of the proposed project are at **Enclosures 1** to **3** respectively.

6. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee (FC) for target completion in around four years. To meet the works schedule, we have invited tenders in parallel to enable early commencement of the proposed works. The returned tender price has been reflected in the estimated cost of the proposed project. The works contract will only be awarded upon obtaining funding approval from the FC.

JUSTIFICATION

Construction of an FSAD

7. There is currently no fire station at the ARQ Site. According to the fire risk category system[4] adopted by the FSD, once the public housing development at the Anderson Road site is completed, the area will be classified as "congested built-up area" for which FSD pledges to meet 92.5%[5] of all building fire calls within a graded response time (GRT) of six minutes[6] (including a travelling time of four minutes). At present, fire services for the area are provided by a total of four fire stations in East Kowloon, namely Shun Lee Fire Station, Lam Tin Fire Station, Po Lam Fire Station and Kwun Tong Fire Station. Shun Lee Fire Station is the closest to the ARQ Site, which is about four kilometres away. For such distance, fire appliances will generally take about eight minutes to reach the area, which falls short of the six-minute GRT. For public safety reasons and to uphold FSD's performance pledge, there is a need to construct a fire station at the ARQ Site to ensure adequate fire services coverage for the area.

8. There is currently no ambulance depot at the ARQ Site either. At present, emergency ambulance services for residents in the area are provided by four ambulance depots/ambulance out-stations at fire stations[7] in East Kowloon, namely Lam Tin Ambulance Depot, Po Lam Ambulance Depot, Kwun Tong Ambulance Depot and the ambulance out-station at Shun Lee Fire Station. With the implementation of the ARQ Site project and population growth, it is anticipated

/that …..

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[4] It refers to a system designed to evaluate the fire risk of a specific area. Assessment criteria include residential density, intensity of area development, building height index and total floor area of building use.

[5] 92.5% is FSD's average target for the overall fire calls at "congested built-up areas" in Hong Kong.

[6] It refers to the time interval between the time of receipt of a building fire call and the arrival of fire appliances at scenes.

[7] It refers to fire stations with ambulances.

that the demand for emergency ambulance services will increase in the area. In addition, according to the Planning Department's population distribution projections[8], the overall population in Kwun Tong District will grow from about 670 800 in 2023 to about 693 100 in 2029, representing an increase of 3.3%; while the overall population in Sai Kung District will grow from about 504 000 in 2023 to about 529 500 in 2029, representing an increase of 5.1%, which are higher than the estimated increase of approximately 3.1% for the overall population in Hong Kong during the same period of time (from 7 498 100 in 2023 to 7 731 100 in 2029). It is anticipated that the demand for emergency ambulance services in the area will increase accordingly as a result of the said population growth. Moreover, according to the aforementioned population distribution projections, the population aged 65 or above in Kwun Tong District and Sai Kung District will grow from about 249 200 in 2023 to about 323 100 in 2029, representing an increase of approximately 29.7%, which is higher than the estimated increase of approximately 27.6% for the overall elderly population in Hong Kong during the same period of time. It is anticipated that the demand for emergency ambulance services from residents will further increase as a result of the ageing population in the area. However, due to spatial constraints, Lam Tin Ambulance Depot, Po Lam Ambulance Depot and Kwun Tong Ambulance Depot cannot accommodate additional ambulances. As for the ambulance out-station at Shun Lee Fire Station, parking spaces for ambulance have not been reserved in its design. It is already very crowded with the existing space being taken up by four ambulances and one ambulance motorcycle, leaving no room to accommodate additional ambulances. Thus, it is necessary to set up a new ambulance depot at the ARQ Site to meet the demand for emergency ambulance services in the area as well as in East Kowloon.

9. Given the aforementioned factors, the construction of an FSAD with a five-bay appliance room for accommodating fire appliances and ambulances at the ARQ Site is deemed necessary.

DQs

10. To provide high quality emergency services to the public, the Government relies on a professional fire and ambulance services workforce. FSD has all along followed the Government's established policy to provide DQs for eligible disciplined services staff so as to attract, retain and motivate talent. As at 1 March 2025, FSD had a total of 5 666 R&F staff eligible for DQs, but there were only 4 561 DQ units available for allocation. The shortage of units reached 1 105 with a shortfall rate of about 20%, while the shortfall rate of G-grade DQ units stood even higher at about 40%.

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[8] Source: According to information as set out in the "Projections of Population Distribution 2023-2031" complied by the Planning Department.

11. To alleviate the shortage of DQs[9], we propose to build 113 G- grade DQ units[10] at the ARQ Site. This is also in line with the Government's policy objective of making optimal use of land resources to maximise the development potential of the site.

Reprovisioning of FSD offices

12. To ensure optimal land utilisation, we propose to take the opportunity to reprovision the following FSD offices currently accommodated on other Government/leased premises to the proposed FSAD –

(a) the RDS Division office of the Fire Safety (FS) Command, which is currently located at the Tung Lo Wan Fire Station, and the SPCU office of the Operational Support and Professional Development (OP) Command, which is currently located at the Kowloon Bay Fire Station; and

(b) the BI Division office of the FS Command, which is currently located in a commercial building in Kowloon Bay.

13. The RDS Division and the SPCU have been using temporary borrowed office spaces in the Tung Lo Wan Fire Station and the Kowloon Bay Fire Station respectively since 2015 and 2017. The office space of the RDS Division at the Tung Lo Wan Fire Station is no longer sufficient to support the diversified railway development initiatives. The SPCU office at the Kowloon Bay Fire Station is also very congested, and its supporting facilities are insufficient to fully meet the operational needs of the SPCU. Relocating these two offices to the new site will not only alleviate the current overcrowding conditions at both the Tung Lo Wan Fire Station and the Kowloon Bay Fire Station, but also improve overall operational efficiency.

14. Upon the commissioning of the proposed FSAD, the spaces to be vacated by the RDS Division and the SPCU will be restored to their original use, i.e. standby room for the Diving Unit and the fire station's lecture hall/conference room respectively, resulting in more effective resources utilisation and enhanced

/operational …..

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[9] In addition to FSD, married R&F quarters are still in short supply in the Immigration Department, the Correctional Services Department, and the Hong Kong Customs and Excise Department. As of 1 March 2025, the above three disciplined services departments have a total of approximately 7 240 R&F staff eligible for allocation of DQs, while only approximately 5 812 quarters are available for allocation, representing a shortfall rate of about 20%.

[10] Taking into account the shortfall rates of each department and related factors, some of the DQ units of the proposed project will be allocated to eligible R&F staff of disciplined services other than FSD, and officer grade staff of the Government Flying Service with a pay scale similar to R&F staff of other disciplined services.

operational efficiency. Moreover, the BI Division is currently accommodated in a leased commercial building in Kowloon Bay. Reprovisioning of this office to the proposed FSAD will lead to saving in the Government's expenditure in respect of rental payment. While aligning with the policy of "optimising land use", the said reprovisioning plan also allows effective utilisation of the proposed FSAD's site to better meet the operational needs of FSD, thereby achieving multiple benefits.

Divisional training facilities

15. FSD regularly reviews the training needs of its fire personnel, and establishes divisional training facilities depending on the training needs to further strengthen coordination among fire personnel of different fire stations within the same division. To this end, FSD proposes to include the provision of divisional training facilities in the proposed project to meet the training needs of fire personnel in the East Division of the Kowloon Command. FSD will build training facilities that simulate different types of buildings commonly found in East Kowloon, including domestic buildings, industrial buildings, subdivided units, mini-storages, etc. A maze-like rescue training area and a rescue training shaft that are designed to simulate various incident scenarios will also be provided to strengthen fire personnel's readiness in emergency response. The establishment of training facilities in different divisions not only allows for the creation of training scenarios tailored to the unique environment of the divisions concerned, but also enables fire personnel within the same division to conduct joint training without compromising the efficiency of firefighting and rescue operations within the division. This will strengthen the fire personnel's responsiveness and coordination capabilities in response to major incidents, thereby improving overall firefighting and rescue efficiency of frontline firefighters.

FINANCIAL IMPLICATIONS

16. We estimate the capital cost of the project to be $1,152.8 million in MOD prices, broken down as follows –

		$ million (in MOD prices)
(a)	Site works	5.9
(b)	Foundation	53.4
(c)	Basement	70.8
(d)	Building[11]	541.5

/$ million …..

[11] Building works cover the construction of substructure and superstructure of the building.

			$ million (in MOD prices)
(e)	Building services[12]		231.9
(f)	Drainage		10.3
(g)	External works		40.8
(h)	Energy conservation, green and recycled features		11.0
(i)	Furniture and equipment(F&E)[13]		46.7
(j)	Consultants' fees for		7.7
	(i) contract administration[14]	3.5	
	(ii) management of resident site staff (RSS)	4.2	
(k)	Remuneration of RSS		28.0
(l)	Contingencies		104.8
	Total		1,152.8

17. We propose to engage consultants to undertake contract administration and site supervision of the proposed project. A detailed breakdown of the estimate for consultants' fees and RSS costs by man-months is at **Enclosure 4**.

18. We adopt the design principles of "fitness for purpose and no frills" and apply as far as possible the concepts of standardisaton, simplification and single integrated element in the design and construction arrangement to formulate the design requirements that meet the operational needs. The Modular Integrated Construction method will be adopted to enhance the construction efficiency, quality and cost-effectiveness of the proposed project. The construction floor area (CFA) of the project is about 20 512 m^2. The estimated construction unit cost, represented by the building and building services costs, is $32,420 per m^2 of CFA in September 2024 prices. We have made reference to government projects of similar nature, for example, **179BF** – "Reprovisioning of Kong Wan Fire Station" and **174BF** – "Construction of fire station-cum-ambulance depot with departmental quarters and facilities in Area 72, Tseung Kwan O", for which the construction unit costs per m^2 (in September 2024 prices) for these reference projects are approximately $37,300 and $27,000 per m^2 respectively. The construction unit

/costs …..

[12] Building services works cover electrical installation, ventilation and air-conditioning installations, fire services installations, lift installation and other miscellaneous installations.

[13] The estimated cost is based on an indicative list of F&E required.

[14] The estimated cost covers the costs of quantity surveying and site supervision.

costs vary with the uniqueness of each project in terms of site constraints, scope and nature of the project, and scale of the project. Compared with **179BF**, the proposed project includes part of DQs area and related facilities, which have less functional requirements than fire station facilities, the construction unit cost of the proposed project would be lower. Compared with **174BF**, the proposed project requires the provision of divisional training facilities with more complex layout, the construction unit cost of the proposed project would be higher. In summary, we consider the construction unit cost for the proposed project reasonable.

19. Subject to funding approval, we plan to phase the expenditure as follows –

Year	$ million (in MOD prices)
2025-26	28.9
2026-27	199.8
2027-28	270.9
2028-29	402.3
2029-30	124.5
2030-31	65.7
2031-32	60.7
	1,152.8

20. 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 from 2025 to 2032. We will deliver the construction works through a design and build contract under the New Engineering Contract (NEC)[15].

/21. …..

[15] NEC is a suite of contracts developed by the Institution of Civil Engineers, United Kingdom. It is a contract form that emphasises a spirit of mutual trust, cooperation and collaborative risk management between contract parties.

21. We estimate the annual recurrent expenditure arising from this proposed project to be $112.94 million.

PUBLIC CONSULTATION

22. FSD consulted the Sai Kung District Council (SKDC) on the proposed project on 5 September 2023. Members supported the proposed project.

23. We also consulted the Legislative Council Panel on Security regarding the proposed project on 17 March 2025. Members expressed their support for the project and our proposal to submit the proposed project to the Public Works Subcommittee for consideration.

ENVIRONMENTAL IMPLICATIONS

24. The proposed project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We completed a Preliminary Environmental Review (PER) for the project in July 2023. The PER concluded and the Director of Environmental Protection agreed that the proposed project would not cause long-term adverse environmental impacts. The key mitigation measures include the installation of acoustic windows to mitigate traffic noise on DQs, and the incorporation of noise mitigation design features for the FSAD to comply with relevant standards. The corresponding cost of implementing the measures has been included in the project estimate.

25. We will stipulate provisions in the works contract requiring the contractor to implement appropriate mitigation measures in order to control the environmental impacts in compliance with the established standards and guidelines. These measures include the use of silencers or mufflers, acoustic linings or shields for noise mitigation during construction activities; frequent cleaning and regular water-spraying to the construction site as well as provision of hoardings and wheel-washing facilities to minimise dust emission; and proper treatment of site run-off to avoid illegal discharge.

26. At the planning and design stages, we have considered taking measures to reduce the generation of construction waste wherever possible (e.g. using metal site hoardings and signboards which can be recycled or reused in other projects). In addition, we will require the contractor to reuse inert construction waste at other suitable construction sites as far as possible in order to minimise the

/disposal …..

disposal of inert construction waste at public fill reception facilities (PFRFs)[16]. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

27. At the construction stage, we will require the contractor to submit a plan outlining the waste management measures for the Government's approval. The plan should include appropriate mitigation measures to avoid and reduce the production of inert construction waste, and arrange for such waste to be reused and recycled. We will ensure that the day-to-day operations on site comply with the approved plan, and will also 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 the PFRFs and landfills respectively through a trip-ticket system.

28. We estimate that the project will generate about 38 760 tonnes of construction waste in total. Of these, about 35 750 tonnes (92.2%) of inert construction waste will be delivered to the PFRFs for reuse in the future. We will dispose of the remaining 3 010 tonnes (7.8%) of non-inert construction waste at landfills. The total cost of disposal of construction waste at the PFRFs and landfill sites for the proposed project is estimated to be about $3.1 million (based on a unit charge rate of $71 per tonne for disposal at the PFRFs and $200 per tonne for disposal at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

29. The proposed project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings/structures, sites of archaeological interest, all sites/buildings/structures on the list of newly proposed grading items, and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

30. The proposed project does not require any land acquisition.

/**ENERGY** …..

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[16] PFRFs are specified in Schedule 4 to the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste at the PFRFs requires a licence issued by the Director of Civil Engineering and Development.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

31. The proposed project will adopt various forms of energy efficient features and renewable energy technologies, in particular:

(a) Variable Refrigerant Volume air-conditioning system; and

(b) photovoltaic system.

32. For greening features, we will provide landscaping and green roof as well as planting areas for environmental and amenity benefits.

33. For recycled features, we will adopt a rainwater harvesting system for landscape irrigation with a view to conserving water. Most of the grey water from toilets and shower rooms will be collected and treated by the Grey Water Treatment Plant of the Water Supplies Department for recycling at Anderson Road Development Area.

34. The total estimated cost of the above features is around $11 million (including $1.1 million on energy conservation features), which has been included in the cost estimate of the proposed project. The energy conservation features will achieve 10% energy savings in the annual energy consumption with a payback period of about 8 years.

BACKGROUND INFORMATION

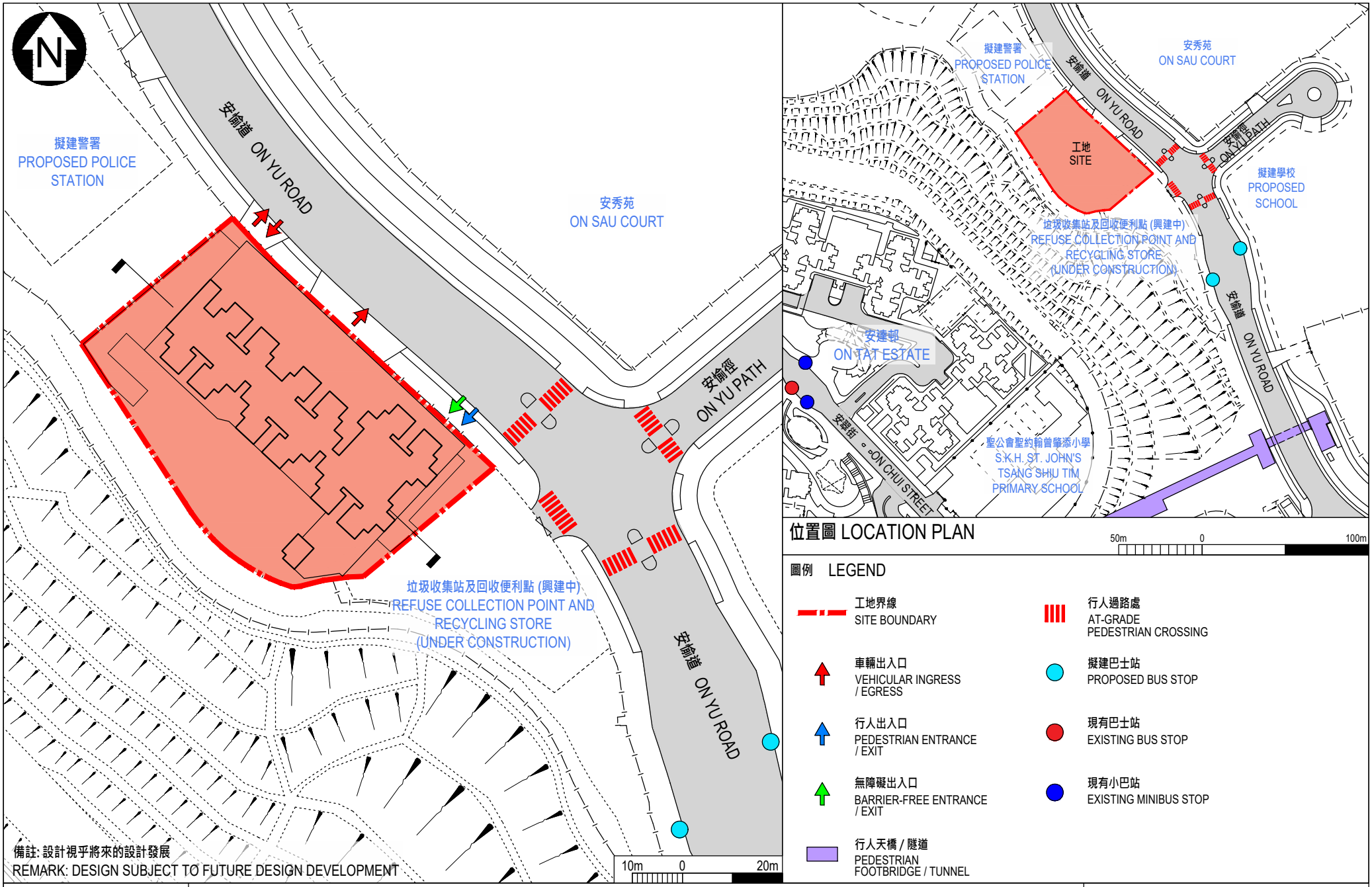
35. We have engaged a term contractor to carry out investigations and consultants to provide various services including quantity surveying service, preliminary environmental review, etc., at a total cost of about $12.8 million. The investigation works and the services provided by consultants were funded under block allocations **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". The above pre-construction works can help finalise the project scope and estimated cost, based on which funding approval will be sought from the FC.

36. There are no existing trees within and adjacent to the project boundary. We will incorporate planting proposals as part of the proposed project, including planting 10 trees, 3 500 shrubs, 195 climbers and 13 600 groundcovers.

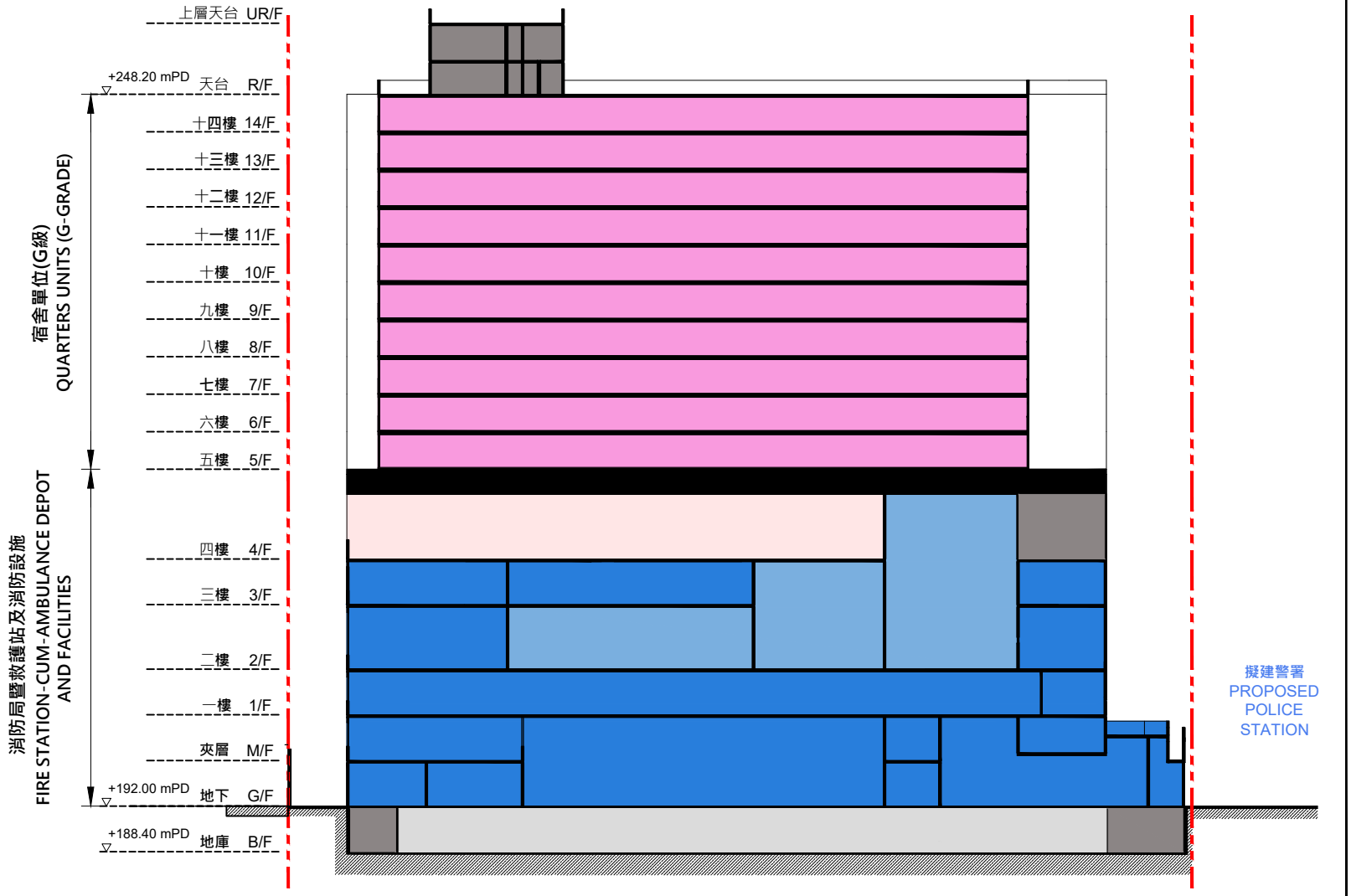
/37. …..

37. We estimate that the proposed works will create about 300 jobs (265 for labourers and 35 for professional or technical staff) providing a total employment of 6 400 man-months.

Security Bureau
Fire Services Department
Architectural Services Department
April 2025



工地平面圖 SITE PLAN	177BF 西貢安達臣道石礦場消防處消防局暨救護站、部門宿舍及消防設施建造工程 CONSTRUCTION OF FIRE STATION-CUM-AMBULANCE DEPOT WITH DEPARTMENTAL QUARTERS AND FACILITIES OF THE FIRE SERVICES DEPARTMENT AT ANDERSON ROAD QUARRY SITE, SAI KUNG	ARCHITECTURAL SERVICES DEPARTMENT 建築署



圖例 LEGEND

- 工地界線 SITE BOUNDARY
- 辦公室 / 輔助空間 OFFICE / ANCILLARY AREA
- 分區訓練設施 DIVISIONAL TRAINING FACILITIES
- 宿舍單位(G級) QUARTERS UNITS (G-GRADE)
- 宿舍公用地方 QUARTERS COMMON AREA
- 機房 PLANT ROOM
- 停車場 CAR PARK

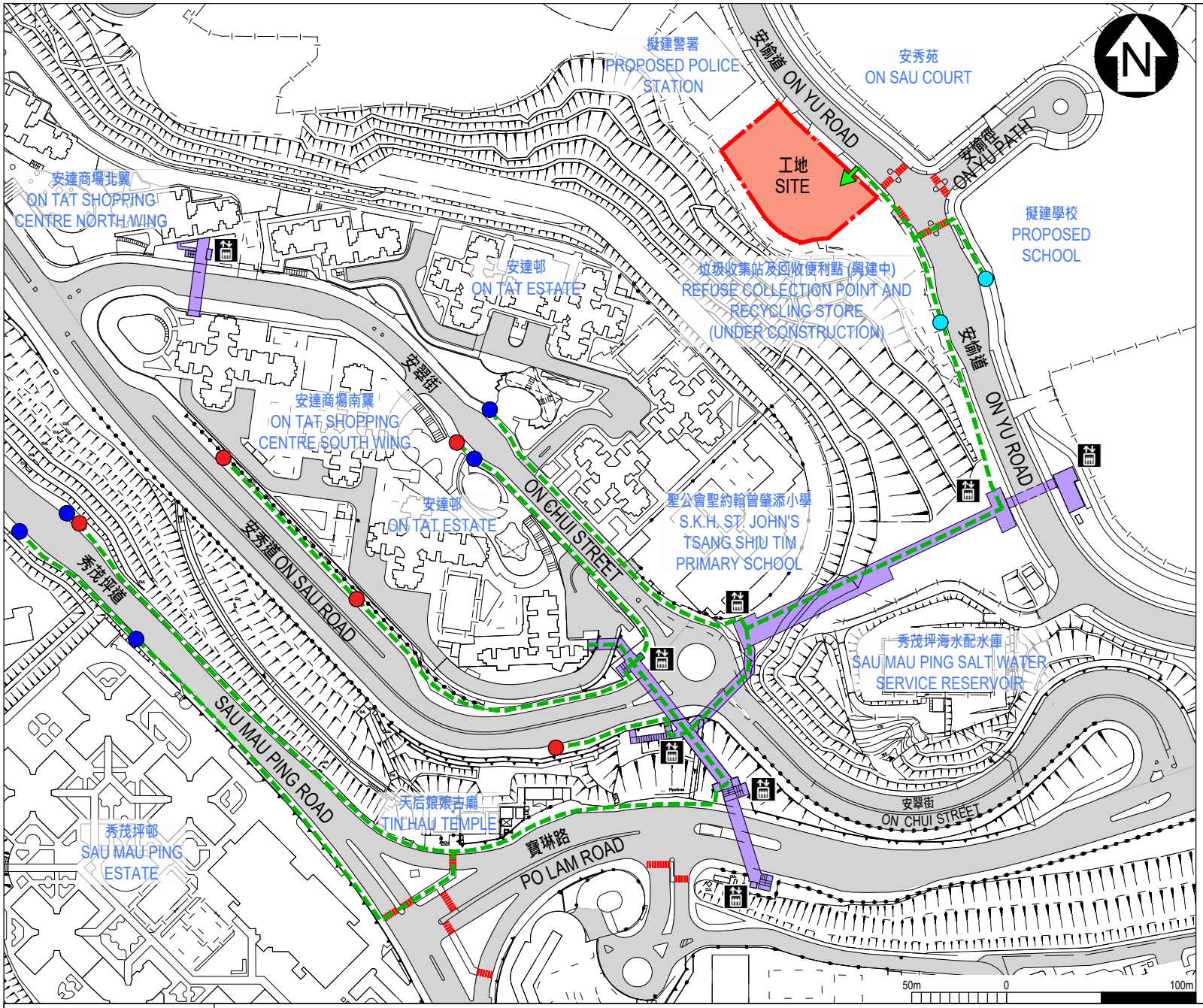
備註: 設計視乎將來的設計發展
REMARK: DESIGN SUBJECT TO FUTURE DESIGN DEVELOPMENT

5m 0 10m 20m

剖面圖
SECTION

177BF
西貢安達臣道石礦場消防處消防局暨救護站、部門宿舍及消防設施建造工程
CONSTRUCTION OF FIRE STATION-CUM-AMBULANCE DEPOT WITH DEPARTMENTAL QUARTERS AND FACILITIES OF THE FIRE SERVICES DEPARTMENT AT ANDERSON ROAD QUARRY SITE, SAI KUNG

ARCHITECTURAL SERVICES DEPARTMENT 建築署



圖例 LEGEND

- 工地界線 SITE BOUNDARY
- 無障礙通道 BARRIER-FREE ACCESS
- 無障礙出入口 BARRIER-FREE ENTRANCE / EXIT
- 行人天橋 / 隧道 PEDESTRIAN FOOTBRIDGE / TUNNEL
- 行人過路處 AT-GRADE PEDESTRIAN CROSSING
- 擬建巴士站 PROPOSED BUS STOP
- 現有巴士站 EXISTING BUS STOP
- 現有小巴站 EXISTING MINIBUS STOP
- 暢通易達升降機 ACCESSIBLE LIFT

無障礙通道平面圖
BARRIER-FREE ACCESS PLAN

177BF
西貢安達臣道石礦場消防處消防局暨救護站、部門宿舍及消防設施建造工程
CONSTRUCTION OF FIRE STATION-CUM-AMBULANCE DEPOT WITH DEPARTMENTAL QUARTERS AND FACILITIES OF THE FIRE SERVICES DEPARTMENT AT ANDERSON ROAD QUARRY SITE, SAI KUNG

ARCHITECTURAL SERVICES DEPARTMENT 建築署

177BF − Construction of Fire Station-cum-Ambulance Depot with Departmental Quarters and Facilities of the Fire Services Department at Anderson Road Quarry Site, Sai Kung

Breakdown of the estimates for consultants' fees and resident site staff costs (in September 2024 prices)

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
(a)	Consultants' fees for contract administration (Note 2)	Professional	–	–	–	3.0
		Technical	–	–	–	–
					Sub-total	3.0#
(b)	Resident site staff (RSS) costs (Note 3)	Professional	50	38	1.6	7.5
		Technical	378	14	1.6	20.2
					Sub-total	27.7
	Comprising −					
	(i) Consultants' fees for the management of RSS					3.6#
	(ii) Remuneration of RSS					24.1#
					Total	**30.7**

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of RSS supplied by the consultants (as at present, MPS salary point 38 = $93,255 per month and MPS salary point 14 = $33,405 per month).

2. The consultants' fees for contract administration are calculated in accordance with the existing consultancy agreement for the provision of contract administration and site supervision of **177BF**. The assignment will only be executed subject to Finance Committee's funding approval to upgrade **177BF** to Category A.

3. The consultants' fees and staff costs for site supervision are 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.

Remarks

The cost figures in this Enclosure are shown in constant prices to correlate with the MPS salary point of the same year. The cost figures marked with # are shown in money-of-the-day prices in paragraph 16 of the main paper.