

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Medical Subventions

73MM – Tin Shui Wai Hospital

Members are invited to recommend to Finance Committee the upgrading of **73MM** to Category A at an estimated cost of \$3,910.9 million in money-of-the-day prices for the construction of Tin Shui Wai Hospital.

PROBLEM

The existing hospitals in the New Territories West Cluster (NTWC) of the Hospital Authority (HA) cannot meet the projected demand for public hospital services in the area.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Food and Health, proposes to upgrade **73MM** to Category A at an estimated cost of \$3,910.9 million in money-of-the-day (MOD) prices for construction of Tin Shui Wai Hospital (TSWH) located in Area 32, Tin Shui Wai (TSW).

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of **73MM** includes the construction of a public general hospital with a planned capacity of 300 in-patient and day beds in total, providing the following scope of facilities and services –

- (a) in-patient services for emergency care, rehabilitation, convalescent and palliative care;
- (b) ambulatory services covering –
 - (i) an accident and emergency department to provide comprehensive services for acute and emergency cases;
 - (ii) day procedure centre / endoscopy centre with operating theatres to provide multi-disciplinary endoscopy, day surgical procedures and day medical procedures;
 - (iii) specialist out-patient clinics including medicine and geriatrics, rehabilitation medicine and palliative medicine, etc.;
 - (iv) a haemodialysis centre to provide ambulatory treatment and care to chronic haemodialysis patients and acute peritoneal dialysis patients;
 - (v) day hospice services including follow-up medical consultations, individual counselling, group therapy, group social activities and special care; and
 - (vi) integrated rehabilitation services to provide in-patients with comprehensive allied health therapies such as rehabilitation training and activities of daily living assessment;

/(c)

- (c) community care services including –
 - (i) community nursing / community geriatric assessment to provide specialist assessment as well as extended care and rehabilitation support;
 - (ii) community rehabilitation service and education to patients;
 - (iii) psychiatric outreaching service to be provided through a multi-disciplinary professional team;
 - (iv) medical social work services to provide counselling to patients, develop community-based social and health programmes and make referrals for application for appropriate social assistance and welfare, etc.; and
 - (v) a health resources centre to provide health information, health education and referral service to patients and their families;
- (d) diagnostic and ancillary services to support in-patient and out-patient services, including core laboratory, computed tomography scanner and ultrasound scanner;
- (e) support services including catering services, pharmacy (including out-patient), central sterile supplies department, mortuary, linen, procurement and supplies, transportation and portering service, and engineering plants;
- (f) administrative services including hospital administration, medical staff and nursing administration, admission, staff accommodation and medical records, etc.; and
- (g) improvement work for ancillary pedestrian facilities by constructing a lift and a stairway at an existing footbridge connected to the Chung Fu Light Rail Stop (LRS) to provide direct access to the hospital without detouring Tin Wah Estate.

/A

_____ A site plan showing the proposed development and access is at Enclosure 1. The
_____ floor plans, sections and a perspective view (artist's impression) of the TSWH are
at Enclosures 2 to 7.

4. Subject to funding approval of the Finance Committee, we plan to start the construction works in March 2013 for completion in May 2016.

JUSTIFICATION

5. Public hospital services are provided by HA on a cluster basis. At present, HA provides medical services for Yuen Long and Tuen Mun (including TSW) districts through its NTWC. A comprehensive range of services, including accident and emergency services, specialist out-patient (SOP) services, extended care, community care and mental health services, etc. are provided in NTWC through its four hospitals, namely Tuen Mun Hospital (TMH), Pok Oi Hospital (POH), Castle Peak Hospital and Siu Lam Hospital. Regarding in-patient services, NTWC has 3 926 beds as at end of March 2012, and the bed occupancy rate in 2011-12 is 89%. As for SOP services, major clinical specialties include, among others, ear, nose and throat, obstetrics and gynecology, medicine and geriatrics, surgery, orthopaedics and traumatology, neurosurgery, paediatrics and adolescent medicine, etc. The provision of general beds in NTWC is 2.0 per 1 000 population while the territory-wide average is 2.9 per 1 000 population. There is currently no private hospital in NTWC, and there are also fewer private general and specialist practitioners in TSW than in other districts in Hong Kong¹.

6. According to the latest population projections by the Planning Department (PlanD), population in Tuen Mun and Yuen Long districts will increase from around 1 066 100 in 2011 to 1 193 700 in 2019, representing a 12% rise. The elderly population aged 65 or above in both districts will also increase from around 102 000 in 2011 (9.6% of the total population) to around 168 300 in 2019 (14.1% of the total population). The increasing demand for healthcare services from the ageing community adds pressure to healthcare services at the NTWC. According to the 2011 Hong Kong Population Census conducted by the Census and Statistics Department, the population in TSW New Town has already grown to 287 900 in 2011 since its development. PlanD has projected that the

/population

¹ The ratio of private practitioners per 1 000 population in TSW is 0.1, as compared to the overall ratio of 0.4 in Hong Kong.

population of TSW will further increase to about 292 100 by 2019. The existing public hospital services in NTWC are insufficient to meet the projected rising need for public healthcare services.

7. Taking into account the existing healthcare service provision and projected population growth and demand for hospital services of TSW and NTWC in general, we propose to construct a new hospital of NTWC in TSW, such that medical services for the residents in the area could be strengthened.

8. The proposed TSWH will serve as a general hospital to provide accident and emergency services, in-patient services and ambulatory and community care services for its catchment population, with necessary resources channelled to meet growing service demand and enhance the overall service capacity of NTWC. TMH currently provides a full range of acute, ambulatory services and operative procedures. The proposed TSWH will be supported by TMH as the regional acute general hospital, as well as POH in the role of a district general hospital of NTWC. Moreover, the proposed TSWH will enhance the current referral system between public hospitals in the NTWC to ensure that patients with diseases or injuries of different severity and complexity will receive the most appropriate hospital services.

9. The proposed site for TSWH is in close proximity to the Tin Wah Estate and the Chung Fu LRS. To cater for the increase in pedestrian flow arising from visitors to TSWH by way of the Chung Fu LRS after the commissioning of the hospital, improvement work for pedestrian access will be carried out.

FINANCIAL IMPLICATIONS

10. We estimate the capital cost of the project to be \$3,910.9 million in MOD prices (please see paragraph 12 below), broken down as follows –

	\$ million
(a) Site works	0.6
(b) Piling works ²	226.3
	/(c)

² Piling works cover the construction of piles and all related testing and monitoring.

	\$ million
(c) Basement works	50.3
(d) Building ³	1,309.0
(e) Building services ⁴	685.6
(f) Drainage works	5.2
(g) External works	24.1
(h) Soft landscaping works	1.0
(i) Additional energy conservation measures	51.0
(j) Lift and stairway at the footbridge connected to the Chung Fu LRS	30.9
(k) Furniture and equipment (F&E) ⁵	405.0
(l) Consultants' fees	23.6
(i) quantity surveying services	16.0
(ii) risk management	2.6
(iii) management of resident site staff	5.0
(m) Remuneration of resident site staff	52.0

/(n)

³ Building works comprise construction of the substructure and superstructure of the building.

⁴ Building services works comprise electrical installations, ventilation and air-conditioning, fire services installation, lifts and escalators, etc.

⁵ Based on an indicative list of furniture and equipment items and their estimated prices. An indicative list of the major F&E items is at Enclosure 9.

		\$ million	
(n)	Contingencies	286.3	
	Sub-total	3,150.9	(in September 2012 prices)
(o)	Provision for price adjustment	760.0	
	Total	3,910.9	(in MOD prices)

11. We propose to engage consultants to undertake quantity surveying services, risk management 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 this project is about 58 885 square metres (m²). The estimated construction unit cost, represented by the building and the building services costs, is \$33,873 per m² of CFA in September 2012 prices. We consider this unit cost reasonable as compared with that of similar hospital projects.

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

Year	\$ million (Sept 2012)	Price adjustment factor	\$ million (MOD)
2013 – 14	300.0	1.06250	318.8
2014 – 15	550.0	1.12625	619.4
2015 – 16	880.0	1.19383	1,050.6
2016 – 17	640.0	1.26545	809.9
2017 – 18	270.0	1.34138	362.2
2018 – 19	220.0	1.41180	310.6
2019 – 20	180.0	1.48239	266.8
2020 – 21	110.9	1.55651	172.6
	3,150.9		3,910.9

/13.

13. 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 2013 to 2021. Subject to funding approval, the works of TSWH will be delivered through a design-and-build contract. We intend to award the contract on a lump-sum basis because we can clearly define the scope of the works in advance. This contract will provide for price adjustments. The Director of Highways will implement through its appointed contractor the construction of a lift and a stairway at the footbridge connected to Chung Fu LRS. The contract will also provide for price adjustments.

14. The HA has assessed the requirements for F&E for this project, and estimates the F&E costs to be \$405 million. The proposed F&E provision represents 20.0% of the total construction cost of the project⁶. An indicative list of major F&E items (costing \$1 million or above per item) to be procured for the project is at Enclosure 9.

15. We estimate the annual recurrent expenditure arising from this project to be \$475.8 million.

PUBLIC CONSULTATION

16. We consulted the Yuen Long District Council (YLDC) in March 2009 on the proposed hospital site (Area 32 of TSW) and the proposed project scope, and provided the results of the relevant technical assessments and studies to YLDC in November 2010. Members of the YLDC supported the project and the scope, and requested its early implementation. They further suggested the improvement of pedestrian access from the nearby LRS to the hospital. The suggestion has been incorporated into the project.

17. We consulted the Legislative Council Panel on Health Services on 19 November 2012. Members of the Panel supported the project.

/ENVIRONMENTAL

⁶ Represented by the building, building services, drainage, soft landscaping and external works costs.

ENVIRONMENTAL IMPLICATIONS

18. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We have engaged a consultant to carry out a Preliminary Environmental Review (PER). The PER, completed in 2010, concluded that the project would not have long-term adverse environmental impact and that further environmental studies would not be necessary. We have included in the project estimates the cost to implement suitable mitigation measures to control short-term environmental impacts.

19. 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.

20. 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 facilities⁷. We will encourage the contractor to maximise the use of recycled/ recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

21. 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

⁷ 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.

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.

22. We estimate that the project will generate in total about 59 600 tonnes of construction waste. Of these, we will reuse about 1 400 tonnes (2.3%) of inert construction waste on site and deliver 49 700 tonnes (83.4%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 8 500 tonnes (14.3%) 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 \$2.4 million for this project (based on a unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne⁸ at landfills).

ENERGY CONSERVATION MEASURES

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

- (a) high efficiency air-cooled chillers with variable speed drive;
- (b) automatic demand control of chilled water circulation system;
- (c) automatic demand control of supply air;
- (d) demand control of fresh air supply with carbon dioxide sensors;
- (e) automatic demand control for ventilation fans in car park;
- (f) demand control of lighting by occupancy sensor and/or daylight sensor;

/(g)

⁸ 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 m³), nor the cost to provide new landfills (which is likely to be more expensive), when the existing ones are filled.

- (g) LED type exit signs;
- (h) service-on-demand control for escalator (two-speed-control);
- (i) heat energy reclaim of exhaust air;
- (j) heat pump for domestic hot water/space heating/dehumidification; and
- (k) condensate heat recovery.

24. For renewable energy technologies, we will adopt solar hot water system for environmental benefits.

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

26. For recycling features, we will adopt rainwater and condensate water recycling systems for landscape irrigation.

27. The total estimated additional cost for adoption of the above features is around \$51.0 million (including \$13.1 million for energy efficient features), which has been included in the cost estimate of this project. The features will achieve 6% energy savings in the annual energy consumption with a payback period of about 8.8 years.

HERITAGE IMPLICATIONS

28. 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

LAND ACQUISITION

29. The project does not require any land acquisition.

BACKGROUND INFORMATION

30. We upgraded **73MM** to Category B in August 2009.

31. We engaged consultants to carry out traffic impact assessment, utility mapping, PER, topographical survey and minor site investigations including drainage impact assessment, sewage impact assessment, air ventilation assessment, and employed a term contractor to carry out ground investigation works. We also appointed a quantity surveying consultant to prepare tender document. The total cost of the above-mentioned services is about \$7.1 million. We have charged this amount to block allocation **Subhead 8100MX** “Hospital Authority – improvement works, feasibility studies, investigations and pre-contract consultancy services for building projects”. All the above consultancy services and investigation works have been completed.

32. Of the 109 trees within the project site boundary, 19 trees will be preserved. The proposed works will involve the removal of 90 trees including 78 trees to be felled, 12 trees to be transplanted within the project site subject to finalisation of design. All trees to be felled are not important tree⁹. We will incorporate planting proposals as part of the project, including estimated quantities of 80 trees, 20 000 shrubs and groundcovers.

/33.

⁹ An “important tree” refers to trees in the Register of Old and Valuable trees, or any trees that meet one or more of the following criteria –

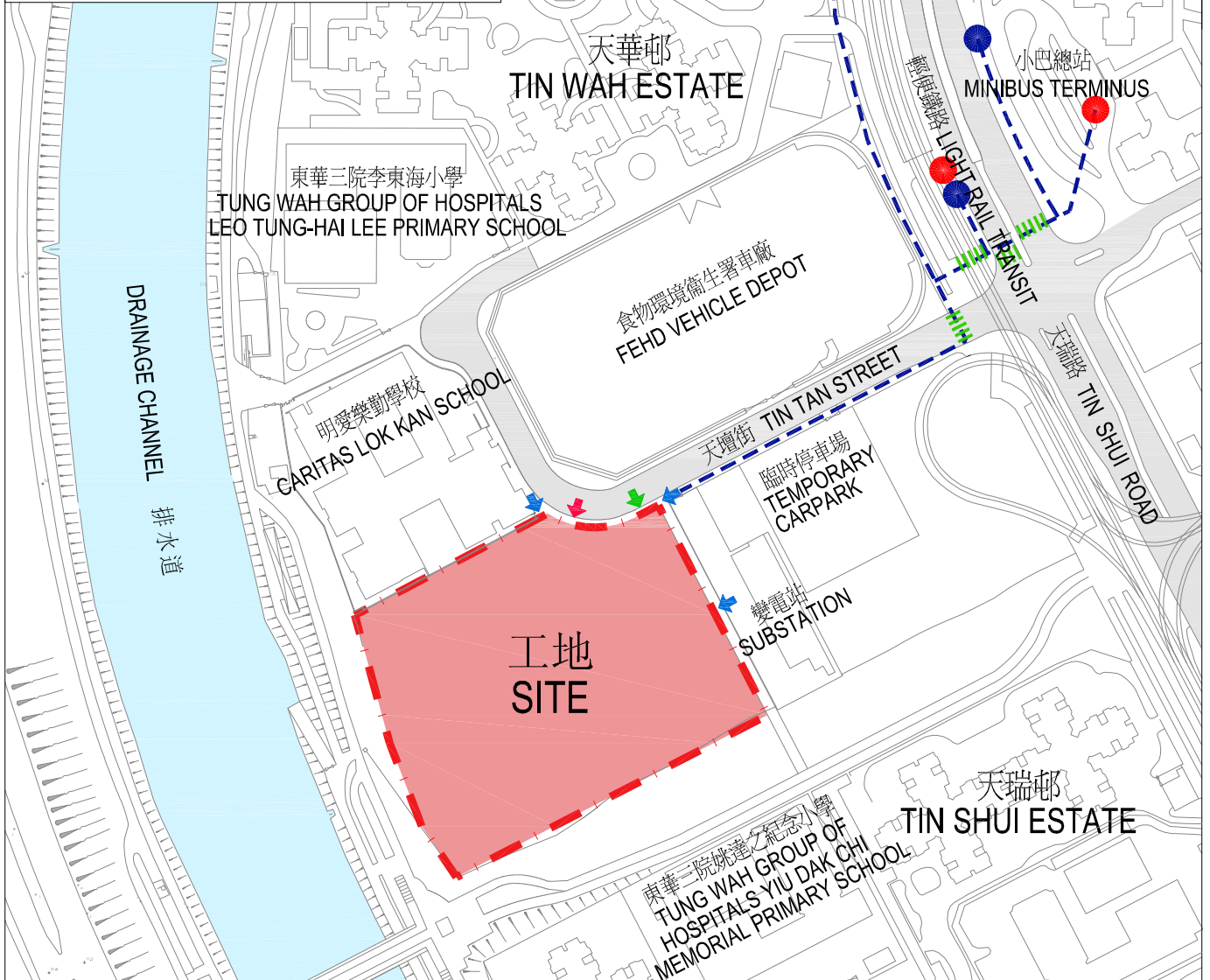
- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance, e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtail like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 metre (m) (measured at 1.3m above ground level), or with height/canopy spread equal or exceeding 25m.

33. We estimate that the proposed works will create about 1 100 jobs (980 for labourers and another 120 for professional/technical staff) providing a total employment of 32 720 man-months.

Food and Health Bureau
December 2012



位置圖 LOCATION PLAN 比例 SCALE: 1 : 25 000



比例 SCALE: -10 0 20 40 50m


圖例 LEGENDS:	
	工地範圍 SITE BOUNDARY
	無障礙通道 BARRIER FREE ACCESS
	車輛出入口 VEHICULAR INGRESS / EGRESS
	無障礙出入口 BARRIER FREE ENTRANCE
	救護車輛出入口 AMBULANCE INGRESS / EGRESS
	現有行人過路線 EXISTING PEDESTRIAN CROSSING
	現有小巴士站 EXISTING MINI-BUS STOP
	現有巴士站 EXISTING BUS STOP
	擬建的升降機及樓梯 (由路政署承造) PROPOSED LIFT & STAIRWAY (BY HIGHWAYS DEPARTMENT)

工地平面圖
SITE PLAN

Title 項目名稱
73 MM
天水圍醫院
TIN SHUI WAI HOSPITAL

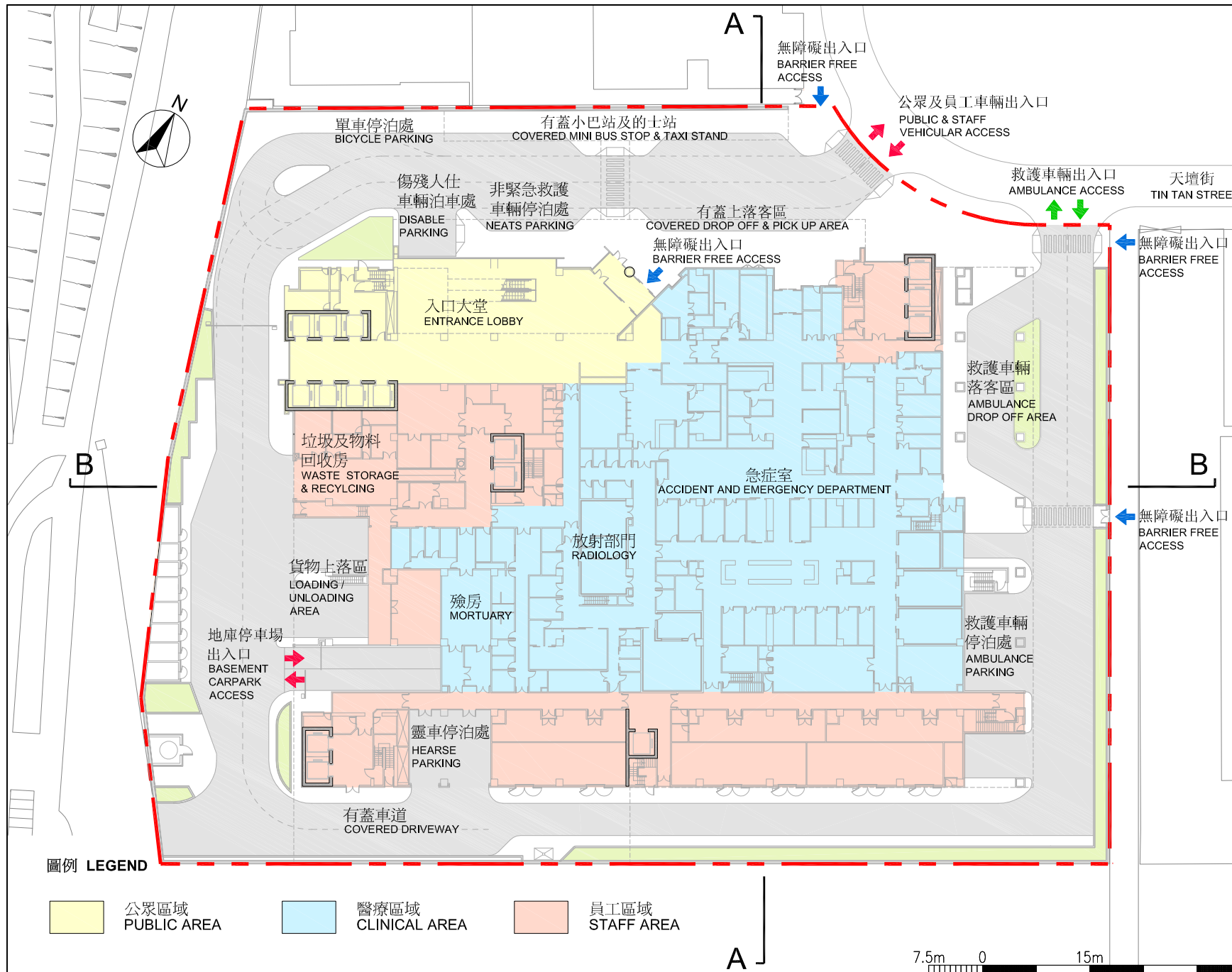
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PROJECT MANAGEMENT BRANCH 工程策劃管理處

drawing no. 圖則編號
7784/PWSC/001



ARCHITECTURAL SERVICES DEPARTMENT 建築署

NOTES



title 項目名稱
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天水圍醫院
TIN SHUI WAI HOSPITAL

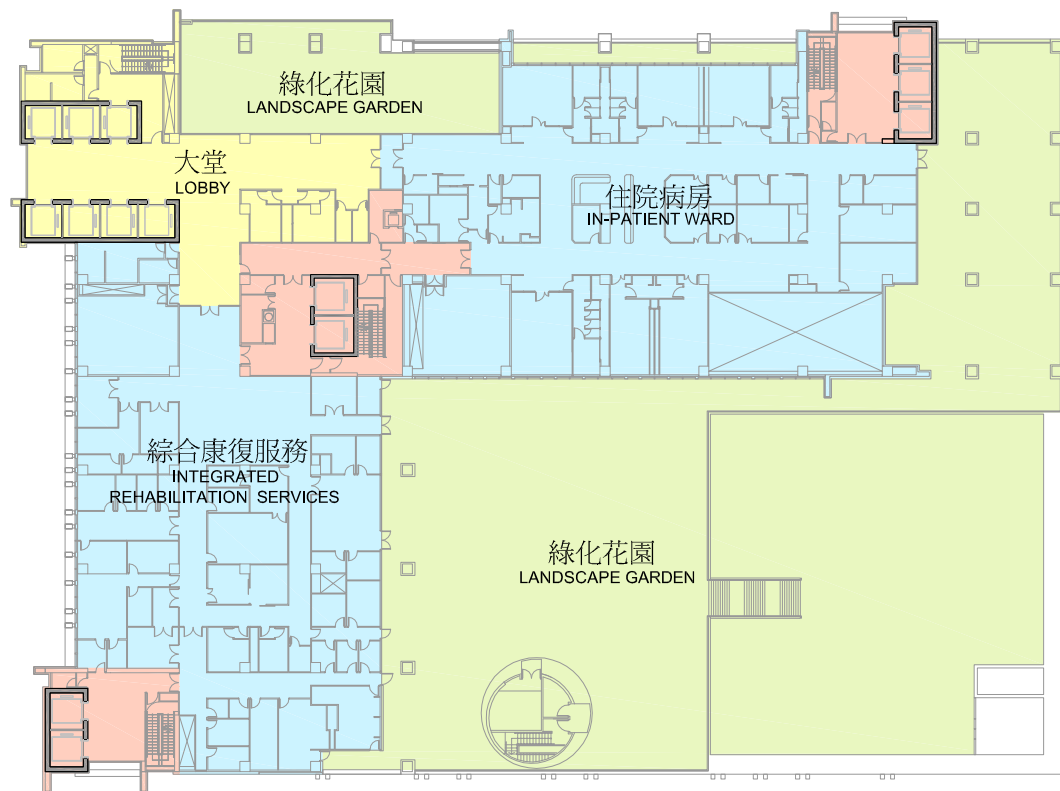
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地面平面圖
GROUND FLOOR PLAN

drawing no. 圖則編號	scale 比例
7784/PWSC/002	1:750

office 辦事處
工程策劃管理處
PROJECT MANAGEMENT BRANCH



NOTES



圖例 LEGEND

 公眾區域
PUBLIC AREA

 醫療區域
CLINICAL AREA

 綠化花園
LANDSCAPE GARDEN

 員工區域
STAFF AREA

7.5m 0 15m

title 項目名稱
73 MM
天水圍醫院
TIN SHUI WAI HOSPITAL

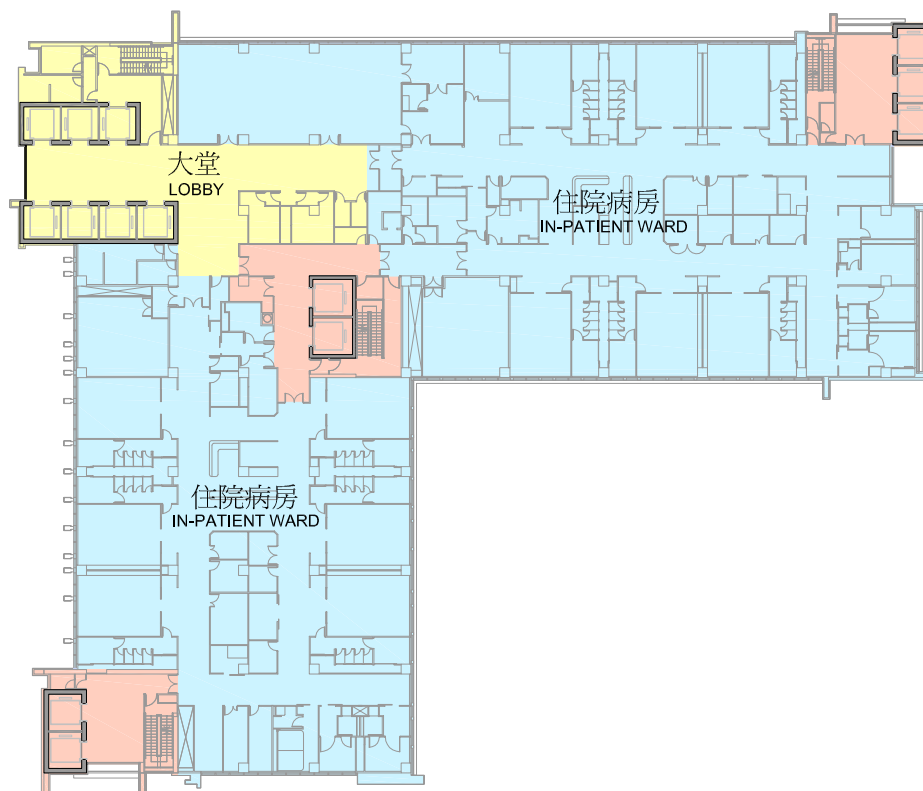
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四樓平面圖
4TH FLOOR PLAN

drawing no. 圖則編號	scale 比例
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office 辦事處
工程策劃管理處
PROJECT MANAGEMENT BRANCH

 ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

NOTES



圖例 LEGEND

- 公眾區域
PUBLIC AREA
- 醫療區域
CLINICAL AREA
- 員工區域
STAFF AREA



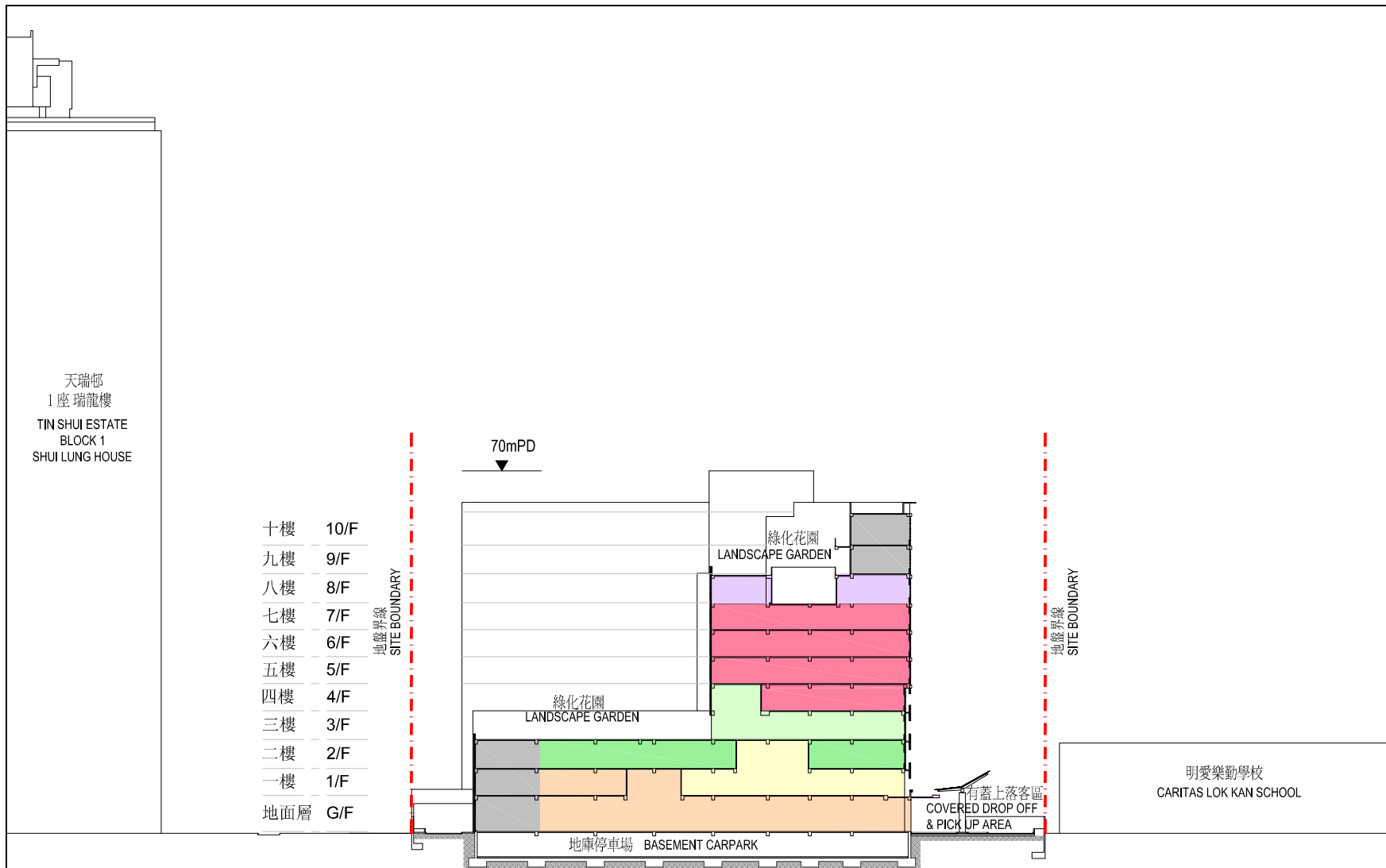
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73 MM
天水圍醫院
TIN SHUI WAI HOSPITAL

drawing title 圖則編號
七樓平面圖
7TH FLOOR PLAN

drawing no. 圖則編號	scale 比例
7784/PWSC/004	1:750

office 辦事處
工程策劃管理處
PROJECT MANAGEMENT BRANCH





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




title 項目名稱
73 MM
天水圍醫院
TIN SHUI WAI HOSPITAL

drawing title 圖則編號
剖面圖 A - A
SECTION A - A

drawing no. 圖則編號	scale 比例
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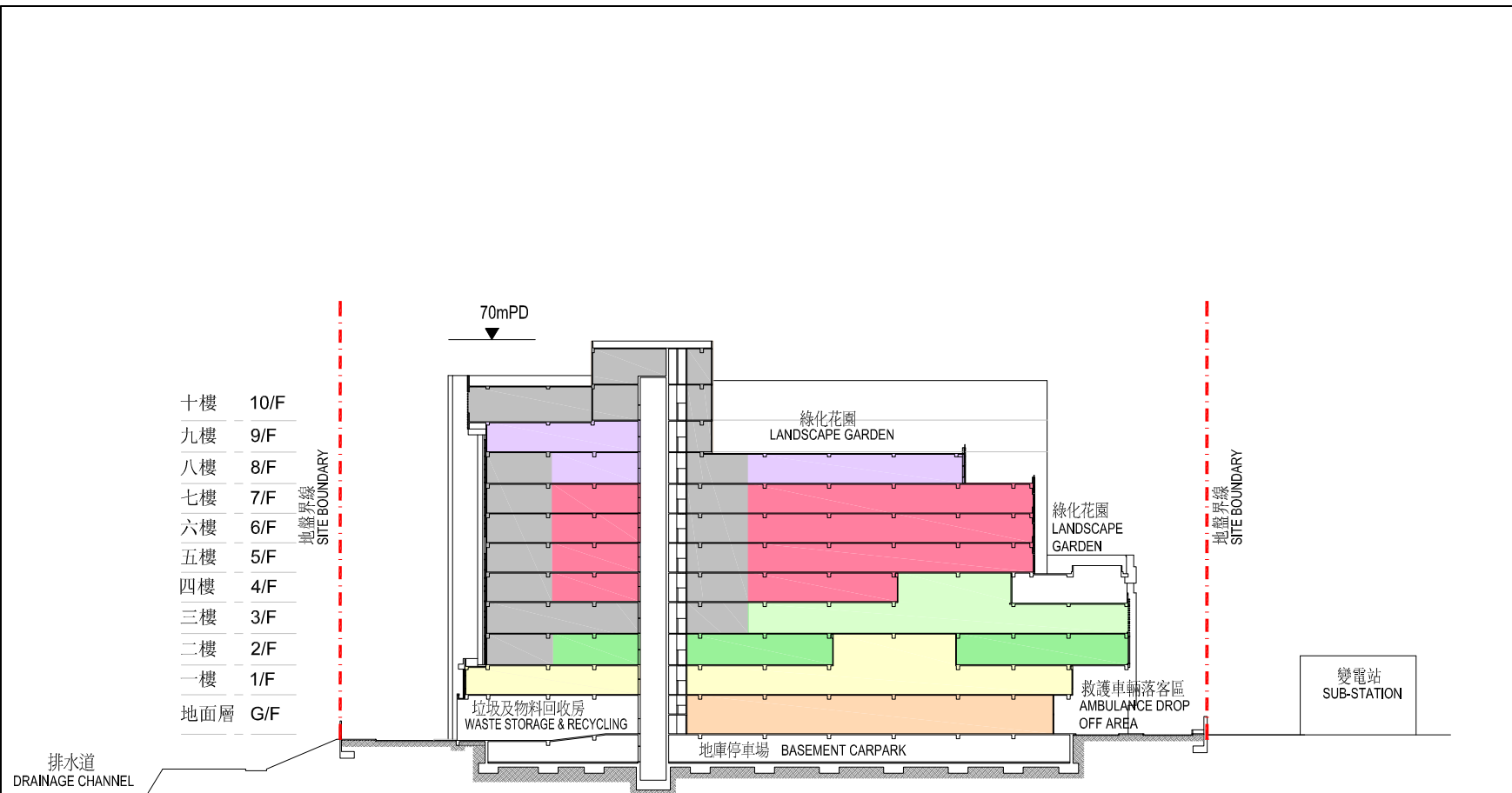
office 辦事處
工程策劃管理處
PROJECT MANAGEMENT BRANCH

圖例 LEGEND

- | | | |
|--|---|---|
|  行政及支援服務
ADMINISTRATIVE & SUPPORT SERVICES |  住院病房及綜合康復服務
IN-PATIENT WARD AND INTEGRATED REHABILITATION SERVICES |  一般支援服務
GENERAL SUPPORTING SERVICES |
|  日間手術中心
DAY PROCEDURE CENTRE |  專科門診及藥房
SPECIAL OUT-PATIENT CLINIC & PHARMACY |  急症室及放射部門
ACCIDENT & EMERGENCY DEPARTMENT /
RADIOLOGY DEPARTMENT |
|  機電房
PLANT ROOM | | |



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圖例 LEGEND

- | | | | | | |
|---|--|---|---|---|---|
|  | 行政及支援服務
ADMINISTRATIVE & SUPPORT SERVICES |  | 住院病房及綜合康復服務
IN-PATIENT WARD AND INTEGRATED REHABILITATION SERVICES |  | 一般支援服務
GENERAL SUPPORTING SERVICES |
|  | 日間手術中心
DAY PROCEDURE CENTRE |  | 專科門診及藥房
SPECIAL OUT-PATIENT CLINIC & PHARMACY |  | 急症室及放射部門
ACCIDENT & EMERGENCY DEPARTMENT /
RADIOLOGY DEPARTMENT |
|  | 機電房
PLANT ROOM | | | | |

title 項目名稱
73 MM
天水圍醫院
TIN SHUI WAI HOSPITAL

drawing title 圖則編號
剖面圖 B - B
SECTION B - B

drawing no. 圖則編號	scale 比例
7784/PWSC/006	1:1000

office 辦事處
工程策劃管理處
PROJECT MANAGEMENT BRANCH





NOTES

title 項目名稱 73 MM 天水圍醫院 TIN SHUI WAI HOSPITAL	
drawing title 圖則編號 從北面望向醫院的構思透視圖 PERSPECTIVE VIEW FROM NORTHERN DIRECTION (ARTIST'S IMPRESSION)	
drawing no. 圖則編號 7784/PWSC/007	scale 比例 N.T.S

office 辦事處
 工程策劃管理處
 PROJECT MANAGEMENT BRANCH

	ARCHITECTURAL SERVICES DEPARTMENT 建築署
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73MM – Tin Shui Wai Hospital

**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2012 prices)**

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants' fee for					
(i) quantity surveying services (Note 2)	Professional	–	–	–	8.0
	Technical	–	–	–	8.0
				Sub-total	16.0
(i) risk management	Professional	18	38	1.6	1.9
	Technical	20	14	1.6	0.7
				Sub-total	2.6
(b) Resident site staff costs (Note 3)	Professional	195	38	1.6	20.5
	Technical	1018	14	1.6	36.5
				Sub-total	57.0
Comprising -					
(i) Consultants' fees for management of resident site staff				5.0	
(ii) Remuneration of resident site staff				52.0	
				Total	75.6

* 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 = \$65,695 per month and MPS salary point 14 = \$22,405 per month.)
2. The consultants' staff cost for quantity surveying services is calculated in accordance with the existing consultancy agreement for provision of quantity surveying services for 73MM. The assignment will only be executed subject to Finance Committee's approval to upgrade 73MM to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.

73MM – Tin Shui Wai Hospital

**Indicative list of furniture and equipment items
with unit cost of \$1 million or above**

Item description	Quantity	Unit cost (\$ million)	Total cost (\$ million)
Anaesthetic Clinical Information Systems	1	4.100	4.100
Automatic Tablet Counting Machine	1	2.000	2.000
Automatic Tablet Dispensing & Packaging System	1	2.023	2.023
Blood Bank Automation System	2	1.300	2.600
Cardio Pulmonary Function Test	1	1.075	1.075
Cart Washer	1	2.000	2.000
Carpark Management System	1	1.400	1.400
CCTV System	1	4.100	4.100
Ceiling Mounted Light Signaling System	1	1.000	1.000
Ceiling Mounted X-ray Machine	2	2.000	4.000
Chemistry Analyzer	2	1.500	3.000
Cold Body Storage System	1	6.000	6.000
Computed Tomography System	1	12.000	12.000
Digital Radiography Systems	1	3.200	3.200
Digital Radiography Systems (A&E)	1	3.200	3.200
Endo-Laparoscopic System in Operating Theatre	1	3.900	3.900

Item description	Quantity	Unit cost (\$ million)	Total cost (\$ million)
Fluoro / Angiographic C- arm Unit	2	1.500	3.000
Haematology Analyzer	2	1.050	2.100
Health Information Application Management System	1	1.200	1.200
Integrated Security System	1	3.500	3.500
Intercom System	1	1.800	1.800
Isolation Washer	2	1.500	3.000
Low Temperature Hydrogen Peroxide Sterilizer	1	1.400	1.400
Mobile Compact Shelving	1	3.000	3.000
Picture Archiving and Communication System	1	10.000	10.000
Public Address System	1	4.200	4.200
Queue Management and Patient Registration System (including Payment)	1	1.600	1.600
Steam Sterilizer	3	1.600	4.800
Telecommunication System	1	3.500	3.500
Tunnel Dishwashing System (7.7M long) with Breakdown Tables, Emergency Sinks etc.	1	1.500	1.500
Tunnel Washer	1	4.500	4.500
Ultrasound Scanner	2	2.000	4.000
Vacuum Insulated Evaporators Tank	1	2.800	2.800
Video-conferencing System	1	1.100	1.100

Item description	Quantity	Unit cost (\$ million)	Total cost (\$ million)
Water Treatment Plant	1	2.000	2.000
Water Treatment Plant with Water Softener and 3 Steam Generators	1	3.100	3.100
3G Communication System	1	2.500	2.500