For discussion **PWSC(2018-19)4**
on 25 April 2018

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Health – Hospitals
70MM – Redevelopment of Queen Mary Hospital, phase 1
87MM – New acute hospital at Kai Tak Development Area

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Medical Subventions
13MD – Redevelopment of Kwong Wah Hospital
88MM – Redevelopment of Our Lady of Maryknoll Hospital
3MP – Redevelopment of Grantham Hospital, phase 1

Members are invited to recommend to the Finance Committee –

(a) the upgrading of **70MM** to Category A at an estimated cost of $13,556 million in money-of-the-day (MOD) prices;

(b) the upgrading of part of **87MM**, entitled "New Acute Hospital at Kai Tak Development Area – foundation, excavation and lateral support, and basement excavation works", to Category A at an estimated cost of $5,356.8 million in MOD prices;

/(c) …..

(c) the upgrading of part of **13MD**, entitled "Redevelopment of Kwong Wah Hospital – main works (superstructure and associated works for phase 1)", to Category A at an estimated cost of $10,049.3 million in MOD prices;

(d) the upgrading of part of **88MM**, entitled "Redevelopment of Our Lady of Maryknoll Hospital – preparatory works", to Category A at an estimated cost of $197.0 million in MOD prices; and

(e) the upgrading of part of **3MP,** entitled "Redevelopment of Grantham Hospital, phase 1 – preparatory works", to Category A at an estimated cost of $422.5 million in MOD prices.

PROBLEM

We need to construct a new acute hospital (NAH) at Kai Tak Development Area (KTDA) and to redevelop Queen Mary Hospital (QMH), Kwong Wah Hospital (KWH), Our Lady of Maryknoll Hospital (OLMH) and Grantham Hospital (GH) to enhance service capacity and services in order to cope with the rising demand of the increasing and ageing population.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Food and Health, proposes to upgrade the following projects to Category A –

(a) **70MM** at an estimated cost of $13,556 million in MOD prices to carry out the main works for the redevelopment of QMH; and

/(b) …..

(b) part of **87MM** at an estimated cost of $5,356.8 million in MOD prices to carry out the proposed foundation, excavation and lateral support, and basement excavation works for the development of a NAH at KTDA.

3. The Secretary for Food and Health proposes to upgrade the following projects to Category A –

(a) part of **13MD** at an estimated cost of $10,049.3 million in MOD prices to carry out the proposed superstructure and associated works for phase 1 of the redevelopment of KWH[1];

(b) part of **88MM** at an estimated cost of $197.0 million in MOD prices to carry out the preparatory works for the redevelopment of OLMH; and

(c) part of **3MP** at an estimated cost of $422.5 million in MOD prices to carry out the preparatory works for phase 1 of the redevelopment of GH.

4. Details of the five hospital projects are at Enclosures 1 to 5.

5. We consulted the Legislative Council Panel on Health Services on **70MM**, **87MM**, **13MD**, **88MM** and **3MP** on 19 March 2018. Members supported the submission of the funding proposals to the Public Works Subcommittee of the Finance Committee for consideration.

Food and Health Bureau
April 2018

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[1] The total project cost is $10,083.3 million. Of the $10,083.3 million, $10,049.3 million will be met by government commitment and the remaining $34 million by the Tung Wah Group of Hospitals, the parent organisation of the hospital.

Redevelopment of Queen Mary Hospital, phase 1

PROJECT SCOPE AND NATURE

The project site for the main works of the redevelopment of Queen Mary Hospital (QMH) (the Project) occupies an area of 8 295 square metres (m^2) at the northern end of the existing QMH compound. The scope of the Project comprises –

(a) demolition of Clinical Pathology Building (CPB), University Pathology Building (UPB) and Houseman Quarters (HQ) for the subsequent construction of a new block to accommodate the following -

(i) accident and emergency (A&E) department including A&E diagnostic radiology unit and facilities;
(ii) emergency medicine (cum clinical toxicology) wards;
(iii) medical assessment and planning unit;
(iv) diagnostic radiology department;
(v) peri-operative centre;
(vi) cardiac catheterisation laboratories;
(vii) intensive care unit, critical care unit, paediatric intensive care unit and anaesthetic care unit;
(viii) in-patient wards including general wards, neuroscience wards, obstetrics and labour wards, paediatric wards, surgical wards, medical wards, isolation wards and cardiothoracic surgery wards;
(ix) core laboratories;
(x) call rooms; and
(xi) ancillary supporting facilities; and

(b) provision of a rooftop helipad solely for medical emergency purposes, five link bridges connecting the new block and Block K and new vehicular ingress and egress points from Pokfulam Road to the new block.

2. A site and location plan with the pedestrian and barrier-free access route is at Annex 1 to Enclosure 1 and a sectional plan is at Annex 2 to Enclosure 1. Subject to funding approval by the Finance Committee (FC), we plan to commence the proposed works in the fourth quarter of 2018 for completion by the third quarter of 2024.

/JUSTIFICATION …..

JUSTIFICATION

3. At present, the Hospital Authority (HA) provides public hospital services for the Central and Western District and the Southern District of Hong Kong Island through its Hong Kong West Cluster (HKWC), which comprises QMH, Tung Wah Hospital, Grantham Hospital, The Duchess of Kent Children's Hospital at Sandy Bay, Tung Wah Group of Hospitals Fung Yiu King Hospital, MacLehose Medical Rehabilitation Centre and Tsan Yuk Hospital. The population of the above-mentioned two districts in 2016 was 518 300 and is projected to reach 515 400 in 2024, where elderly of 65 years old or above will rise from 84 500 in 2016 to 125 300 in 2024, representing an increase of 48%.

4. Established in 1937, QMH is a major acute hospital in the HKWC, serving the residents of the Central and Western District and the Southern District, as well as treating many patients in other geographical districts in Hong Kong. It provides a full range of acute and tertiary services, including 24-hour A&E services, in-patient service, ambulatory care and rehabilitation services, as well as specialist services covering a wide range of specialties and subspecialties.

5. Being the teaching hospital of the Li Ka Shing Faculty of Medicine of the University of Hong Kong, QMH is responsible for providing professional clinical training, pioneering innovative technology and conducting clinical trials for new treatment modalities. In addition, QMH serves as a tertiary and quaternary referral centre for many complex and advanced services such as organ transplant, neonatal intensive care, coronary care, burns and reconstructive surgery, and neurosurgery, for the entire territory. Since July 2003, QMH has become the only designated liver transplant centre in Hong Kong to provide world-class standard liver transplant service. The A&E Department of QMH has been designated as one of the five trauma centres in the territory.

6. Having established for 80 years, the design of existing facilities in QMH is outdated and no longer meets the service requirements and workflow logistics of a modern tertiary acute hospital. The clinical space is also insufficient to cope with the rising service demand. Furthermore, the existing buildings are set within a difficult topography and cannot facilitate clinical convenience. The site has a single major access point, connecting to the only narrow two-lane road, both being shared by ambulances, services traffic and public transport. The redevelopment of QMH is imperative in order to address the infrastructural problems of the hospital site.

/7. ….

7. The Clinical Services Plan (CSP) for the HKWC formulated by HA in 2013 sets out the clinical strategies, models of care and future service development in the cluster, and also guides the planning for the redevelopment of QMH. Underpinned by the CSP for the HKWC, a concept plan for the redevelopment of QMH has been developed, which aims to renew the hospital in phases into a modern health sciences centre and to modernise its facilities to cope with the growing clinical service and teaching demands. The redevelopment plan will provide additional space and maximise floor areas to meet operational needs, be adaptable to service development, as well as promote integrated research and education. The redeveloped QMH will adopt a patient-oriented design and be equipped with state-of-the-art medical equipment, well-coordinated services and improved accessibility for more cost-effective and efficient operations to meet the long-term needs of the community. The concept plan recommends, as the phase 1 redevelopment of QMH, the construction of a new hospital block at the northern end of the hospital campus that has large floor plates with convenient connections between the A&E Department and hot floors[1] so as to strengthen emergency services for critical patients.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the Project to be $13,556 million in money-of-the-day (MOD) prices (please see paragraph 10 below), broken down as follows –

		$ million (in MOD prices)
(a)	Site works	40.0
(b)	Demolition works	41.1
(c)	Site formation and geotechnical works[2]	389.2
(d)	Foundation	24.0

/**$ million** ….

[1] Hot floors refer to floors where critical services are delivered, e.g. A&E, Intensive Care Unit, operating theatres and emergency diagnostic facilities.

[2] Site formation and geotechnical works cover excavation works with lateral support, slope stabilisation works and other associated works.

			$ million (in MOD prices)
(e)	Building[3]		5,962.3
(f)	Building services[4]		3,668.1
(g)	Drainage		21.0
(h)	External works		42.0
(i)	Additional energy conservation, green and recycled features		61.0
(j)	Furniture and equipment (F&E)[5]		1,854.7
(k)	Consultants' fees for		31.3
	(i) contract administration	26.5	
	(ii) management of resident site staff (RSS)	4.8	
(l)	Remuneration of RSS		188.9
(m)	Contingencies		1,232.4
	Total		13,556.0

9. We propose to engage consultants to undertake contract administration and site supervision for the Project. A detailed breakdown of the estimate for consultants' fees and RSS costs by man-months is at Annex 3 to Enclosure 1. The construction floor area (CFA) of the Project is about 135 000 m^2. The estimated construction unit cost, represented by the building and building services costs, is $71,336 per m^2 of CFA in MOD prices. We consider this unit cost reasonable as compared with that of similar projects.

/10. ….

[3] Building works comprise construction of superstructure of the building and the interfacing works with the QMH complex and the adjoining area.

[4] Building services works cover electrical installations, ventilation and air-conditioning installations, fire services installations, lift installations and other specialist installations.

[5] Based on an indicative list of F&E items and their estimated prices. An indicative list of the major F&E items is at Annex 4 to Enclosure 1.

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

Year	$ million (in MOD prices)
2018 – 2019	420.5
2019 – 2020	449.2
2020 – 2021	541.7
2021 – 2022	744.2
2022 – 2023	1,228.3
2023 – 2024	2,026.0
2024 – 2025	3,510.2
2025 – 2026	1,518.3
2026 – 2027	1,344.9
2027 – 2028	1,032.4
2028 – 2029	740.3
	13,556.0

11. 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 2018 to 2029. The Project will be outsourced to and delivered through a design-and-build contract. We intend to award the contract on a lump-sum basis as the scope of the works can be clearly defined in advance. The contract will provide for price adjustment.

/12. ….

12. The HA has assessed the requirements for F&E for the Project, and estimates the F&E costs to be $1,854.7 million. The proposed F&E provision represents 19.1% of the construction cost of the Project[6]. An indicative list of major F&E items (costing $1 million or above per item) to be procured for the Project is at Annex 4 to Enclosure 1.

13. We estimate the annual recurrent expenditure arising from the Project to be $842.6 million.

PUBLIC CONSULTATION

14. The HA consulted the Southern District Council (SDC) on the proposed redevelopment of QMH, phase 1, main works on 11 January 2018 and 8 March 2018 respectively. Although in general, members of the SDC supported the project, they considered that barrier-free facilities were necessary to facilitate access to the hospital by visitors taking public transport. They requested the Government to explore the construction of a lift connecting the bus stops in Pok Fu Lam Road to the QMH. We will explore ways to improve the accessibility from Pok Fu Lam Road to the QMH alongside the proposed main works. The HA also consulted the Culture, Leisure and Social Affairs Committee (CLSAC) of the Central and Western District Council (C&WDC) on the project on 8 February 2018. Members of the CLSAC of C&WDC supported the project in principle.

15. We consulted the Legislative Council Panel on Health Services on 19 March 2018. Members supported the submission of the funding proposal to the Public Works Subcommittee for consideration.

ENVIRONMENTAL IMPLICATIONS

16. The rooftop helipad as mentioned in paragraph 1(b) above is a designated project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and an Environmental Permit (EP) is required for its construction and operation.

/17. ….

[6] Represented by building, building services, drainage and external works costs.

17. In March 2017, the EIA report for the rooftop helipad was approved under EIA Ordinance and an EP was issued. The EIA report concluded that the environmental impacts arising from the construction and operation of the rooftop helipad could be controlled to within the criteria under EIA Ordinance and the Technical Memorandum on EIA Process. We will implement the mitigation measures as recommended in the approved EIA report and as required under the EP including installation of noise barriers at the roof of the new block to mitigate the potential helicopter noise impact.

18. The proposed works as detailed in paragraph 1 above, except for the rooftop helipad as detailed in paragraph 17, is not a designated project under the EIA Ordinance. We have completed a Preliminary Environmental Review (PER) for the Project in April 2017. The PER concluded and the Director of Environmental Protection agreed that the Project would not cause any long-term adverse environmental impacts. We have included in the Project estimate the cost to implement suitable mitigation measures to control short-term environmental impacts.

19. 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, hammer brackets and building of temporary noise barriers 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 facilities[7]. 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.

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[7] Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

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 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 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 238 500 tonnes of construction waste. Of these, we will deliver 218 000 tonnes (91.4%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 20 500 tonnes (8.6%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be $19.6 million for the Project (based on a unit charge rate of $71 per tonne for disposal at public fill reception facilities and $200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

23. 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

24. The Project does not require any land acquisition but is undergoing a land exchange process with the University of Hong Kong.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

25. The Project will adopt various forms of energy efficient features and renewable energy technologies, in particular -

(a) high efficiency air-cooled chillers with variable speed drive;

(b) automatic demand control of supply air;

(c) heat energy reclaim of exhaust air;

/(d) …..

(d) heat pump for hot water, space heating and dehumidification;

(e) building energy management system;

(f) photovoltaic system; and

(g) solar hot water system.

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

27. For recycled features, we will adopt condensate water recycling for flushing purpose.

28. The total estimated additional cost for adoption of the above energy conservation measures, greening features and recycled features is around $61 million in MOD prices (including $36.8 million in MOD prices for energy efficient features), which has been included in the cost estimate of the Project. The energy efficient features will achieve 5.5% energy savings in the annual energy consumption with a payback period of about eight years.

BACKGROUND INFORMATION

29. The phase 1 redevelopment of QMH is to be implemented in two stages, namely the preparatory works and the main works. In July 2014, the FC approved upgrading part of **70MM**, entitled "Redevelopment of Queen Mary Hospital, Phase 1 – Preparatory Works" to Category A at an estimated cost of $1,592.8 million in MOD prices for preparatory works including the conversion of the vacated Senior Staff Quarter (SSQ) into clinical pathology laboratories, staff accommodation, teaching facilities and car parking facilities for the decanting of the existing facilities and equipment in the CPB, UPB and HQ. HA started the preparatory works in July 2014 and the conversion of the SSQ was substantially completed in March 2017. Decanting of the existing facilities is expected to be completed by the third quarter of 2018.

/30. …..

30. We upgraded the remainder (main works) of **70MM** to Category B in March 2016 under the Ten-year Hospital Development Plan. We engaged consultants and term contractors to undertake various services and investigation works, including air ventilation assessment and visual impact assessment in March 2013, traffic and transport impact assessment and utility mapping in April 2013, vibration impact assessment in May 2013, environmental impact assessment for a rooftop helipad in February 2014, drainage and sewerage impact assessment and topographical survey in April 2014, preliminary environmental review and vibration study in July 2014, site investigations in December 2014, geotechnical assessment in August 2015, and quantity surveying services to prepare tender document in March 2016 at a total cost of about $9.6 million. The consultancy services and investigation works were funded under block allocations **Subhead 8100MX** "Hospital Authority – improvement works, feasibility studies, investigations and pre-contract consultancy services for building projects", **Subhead 8083MM** "One-off grant to the Hospital Authority for minor works projects" and the project vote of **8084MM** "Redevelopment of Queen Mary Hospital, Phase 1 – Preparatory Works", which was upgraded to Category A on 12 July 2014. All the above consultancy services and investigation works have been completed.

31. Of the 424 trees within and adjacent to the Project boundary, 352 trees will be preserved. The proposed works will involve the removal of 72 trees, including 68 trees to be felled and 4 dead trees to be removed. One important tree[8] which is not registered Old and Valuable Tree will be felled during the implementation of the Project. A summary of the important tree affected is at Annex 5 to Enclosure 1. We will incorporate planting proposals as part of the Project, including 15 trees planted at offsite recipient locations which are under the management and maintenance of the HA, and 3 700 shrubs / herbaceous / groundcovers and climbers within the Project boundary.

32. We estimate that the proposed works will create about 2 340 jobs (2 160 for labourers and 180 for professional/technical staff) providing a total employment of 72 600 man-months.

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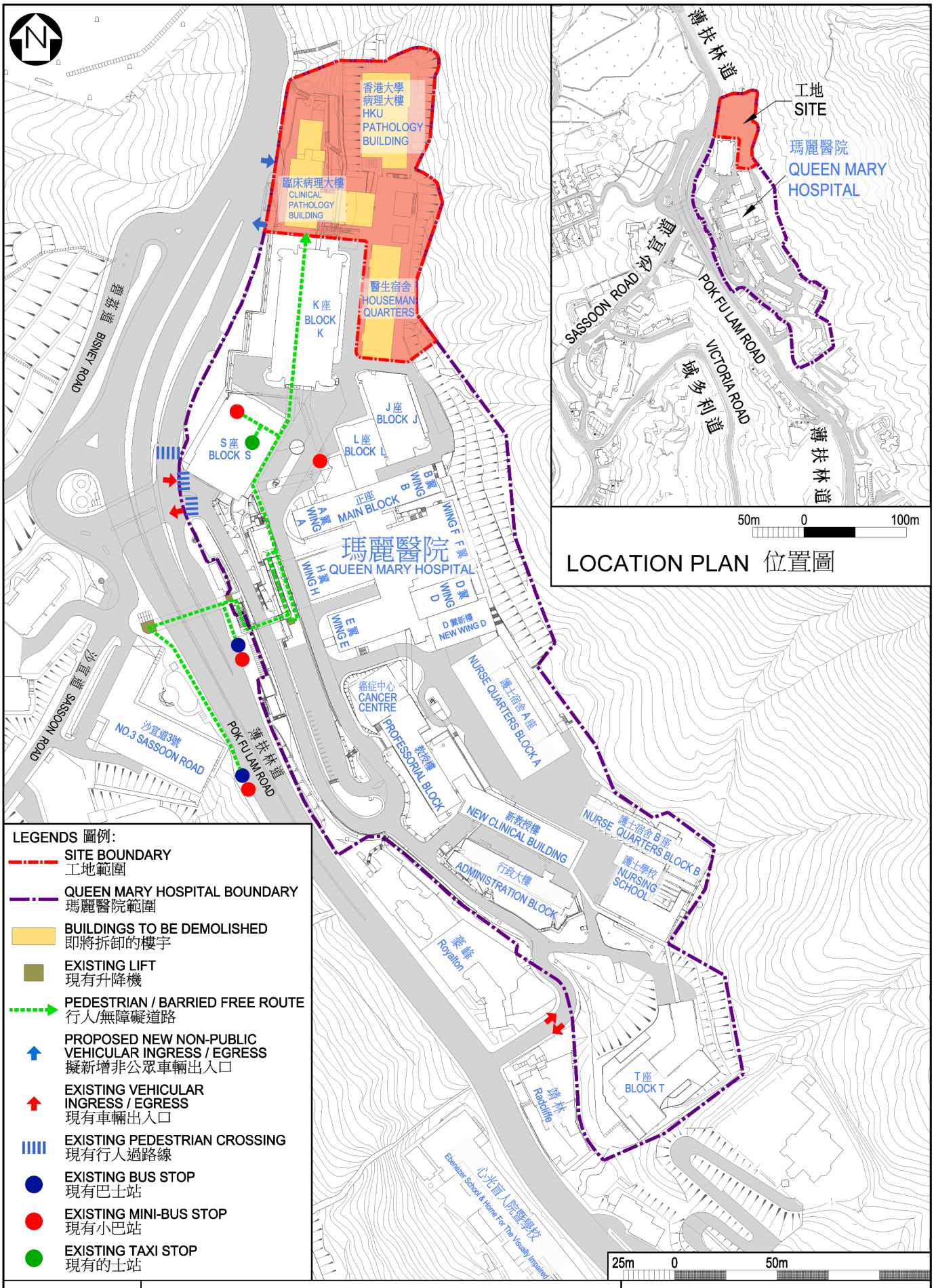
[8] "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

(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 curtain like aerial roots, trees growing in unusual habitat; or
(e) trees with trunk diameter equal or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.



LOCATION PLAN 位置圖

LEGENDS 圖例:

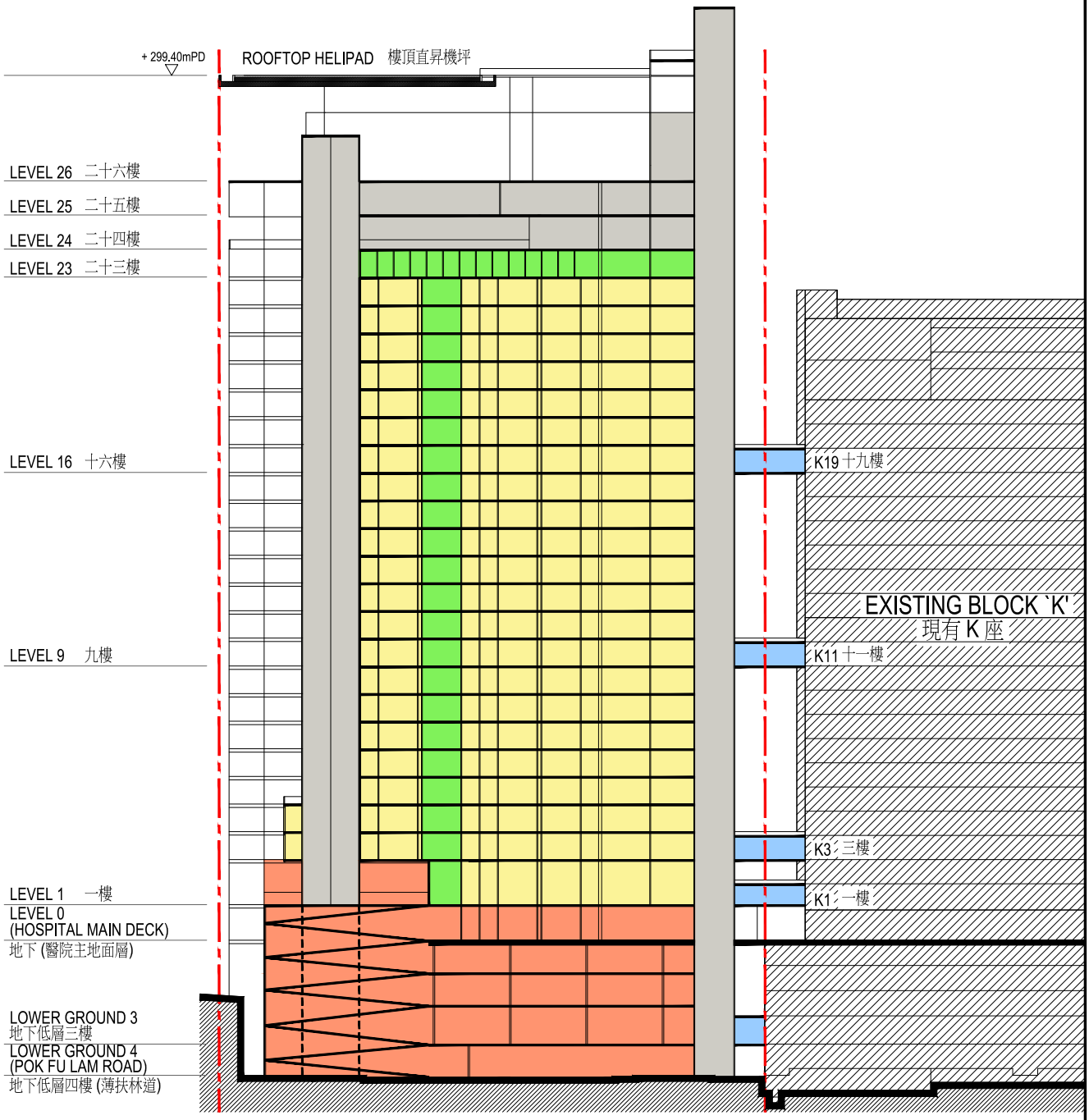
- SITE BOUNDARY 工地範圍
- QUEEN MARY HOSPITAL BOUNDARY 瑪麗醫院範圍
- BUILDINGS TO BE DEMOLISHED 即將拆卸的樓宇
- EXISTING LIFT 現有升降機
- PEDESTRIAN / BARRIED FREE ROUTE 行人/無障礙道路
- PROPOSED NEW NON-PUBLIC VEHICULAR INGRESS / EGRESS 擬新增非公眾車輛出入口
- EXISTING VEHICULAR INGRESS / EGRESS 現有車輛出入口
- EXISTING PEDESTRIAN CROSSING 現有行人過路線
- EXISTING BUS STOP 現有巴士站
- EXISTING MINI-BUS STOP 現有小巴站
- EXISTING TAXI STOP 現有的士站

SITE PLAN
工地平面圖

70MM

REDEVELOPMENT OF QUEEN MARY HOSPITAL, PHASE 1
瑪麗醫院重建工程第一期

ARCHITECTURAL SERVICES DEPARTMENT 建築署



LEGENDS 圖例:

- Clinical Department 醫療部門
- Ancillary Supporting Facilities / Vehicular Circulation 支援服務 / 行車通道
- Staff Rooms / Offices 職員室 / 辦公室
- Plant Rooms / Refuge Floor 機電房 / 避火層
- Link Bridge 行人天橋
- Site Boundary 工地範圍

10m 0 20m

SECTION
剖面圖

70MM

REDEVELOPMENT OF QUEEN MARY HOSPITAL, PHASE 1
瑪麗醫院重建工程第一期

ARCHITECTURAL SERVICES DEPARTMENT 建築署

Annex 3 to Enclosure 1

70MM – Redevelopment of Queen Mary Hospital, phase 1

Breakdown of the estimates for consultants' fees and resident site staff costs (in September 2017 prices)

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
(a)	Consultants' fees for contract administration (Note 2)	Professional	–	–	–	15.4
		Technical	–	–	–	2.4
					Sub-total	17.8 #
(b)	Resident site staff (RSS) costs (Note 3)	Professional	435	38	1.6	54.8
		Technical	1 708	14	1.6	75.1
					Sub-total	129.9
	Comprising -					
	(i) Consultants' fees for management of RSS			3.2#		
	(ii) Remuneration of RSS			126.7#		
					Total	**147.7**

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 applied to the average MPS salary point to estimate the cost of RSS supplied by the consultants (as at now, MPS salary point 38 = $78,775 per month and MPS salary point 14 = $27,485 per month).

2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for provision of contract administration and site supervision of **70MM**. The assignment will only be executed subject to Finance Committee's funding approval to upgrade **70MM** 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.

Remarks

The cost figures in this Annex are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 8 of Enclosure 1.

Annex 4 to Enclosure 1

70MM – Redevelopment of Queen Mary Hospital, phase 1

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

Item description	**Quantity**	**Unit cost** ($ million)	**Total cost** ($ million)
Access Control System	1	6.687	6.687
Anaesthetic Clinical Information System (CIS) integrated with Physiological Monitoring System (PMS)	1	33.273	33.273
Audio-Visual Conferencing System for Operating Theatre	1	37.620	37.620
Audio-Visual System for Cardiac Centre	1	7.356	7.356
Audio-Visual System for Radiology	1	1.420	1.420
Autonomous Indoor Vehicle	4	2.415	9.660
Automatic Medication Unit Dose Dispensing System	1	3.600	3.600
Biplane Angiography/Interventional system for Cardiac Centre	2	35.000	70.000
Biplane Angiography/Interventional System for Radiology	1	18.000	18.000

Item description	**Quantity**	**Unit cost** ($ million)	**Total cost** ($ million)
Biventricular Assist Device (BiVAD) Circulatory Support System	2	1.000	2.000
Cardiovascular Information System	1	9.400	9.400
Cart Washer	1	2.190	2.190
Computed Tomography (CT) Scanner for Accident & Emergency (A&E) - Radiology and Radiology Department	2	11.000	22.000
CT Scanner for Radiology	1	25.000	25.000
Digital Fluoroscopy System	1	6.000	6.000
Digital Radiography X-ray System	4	3.000	12.000
Electronic Mobile Shelving System for Intensive Care Unit	1	1.050	1.050
Electronic Mobile Shelving System for Linen Store Room	1	1.308	1.308
Electronic Mobile Shelving System for Operating Theatre - Support Unit	1	7.980	7.980
Electronic Mobile Shelving System for Operating Theatre - 12 Suites (Cold Floor)	3	1.598	4.794
Equipment Tracking System	1	3.400	3.400

Item description	**Quantity**	**Unit cost** ($ million)	**Total cost** ($ million)
Floor Loading Steam Sterilizer with Clean Steam Generator	6	2.922	17.532
Floor Mount Single-plane Radiographic System for Operating Theatre (Fixed C-Arm)	1	41.200	41.200
Floor Mount Bi-plane Radiographic System for Operating Theatre (Fixed C-Arm)	1	39.700	39.700
Heart Lung Machine	4	2.500	10.000
Hybrid Angio-CT System	1	36.800	36.800
Image-Guided Cardiac Mapping/Ablation Stereotactic System	1	3.500	3.500
Intellispace Perinatal (ISP) System	1	8.624	8.624
Intercom System	1	8.570	8.570
Intravascular Ultrasound (IVUS) Imaging System with Enhanced Angiography Co-Registration, Physiology Co-Registration	1	1.780	1.780
Low Temperature Hydrogen Peroxide Gas Plasma Sterilizer	2	1.600	3.200
Magnetic Resonance Imaging (MRI) System	1	50.000	50.000

Item description	**Quantity**	**Unit cost** ($ million)	**Total cost** ($ million)
Major Laboratory Automation Cell Analytic System	2	3.000	6.000
Major Laboratory Automation Coagulation System	2	1.500	3.000
Major Laboratory Automation System with Deionizer	1	16.300	16.300
Minimally Invasive System (MIS)	1	94.600	94.600
Mobile C-Arm	1	2.800	2.800
Mobile Communication System	1	5.736	5.736
Mobile X-ray	3	1.200	3.600
Mobile Shelving System for Sterilized Instrument Items	1	2.600	2.600
Multi-Chambers Washer Disinfector	3	4.720	14.160
Navigation System (for MRI)	1	6.300	6.300
Optical Coherence Tomography (OCT) Intravascular Image System with Fractional Flow Reserve (FFR) Platform with Wireless Connection	1	1.500	1.500
Public Address System	1	4.398	4.398
Pass Through Type Automatic Endoscopic Reprocessor	3	1.167	3.501

Item description	**Quantity**	**Unit cost** ($ million)	**Total cost** ($ million)
Pass Through Type Single-Chamber Washer Disinfector	5	1.003	5.015
Personal Radiation Protection System for Operating Theatre	2	1.620	3.240
Personal Radiation Protection System for Cardiac Centre	3	1.000	3.000
PMS for Accident and Emergency	1	1.750	1.750
PMS for Burns Unit	1	1.122	1.122
PMS for Cardiac Centre	1	7.554	7.554
PMS for Cardiothoracic Surgery Ward	1	5.458	5.458
PMS for General Ward	6	1.620	9.720
PMS for High Dependency Unit	1	1.406	1.406
PMS for Isolation Ward	1	1.082	1.082
PMS for Neurology Ward	1	2.959	2.959
PMS for Neuro-surgery Ward	1	1.952	1.952
PMS for Neuro-science Ward	1	3.021	3.021
PMS for Paediatrics Ward	1	6.554	6.554
PMS for Surgical Ward	3	1.199	3.597

Item description	**Quantity**	**Unit cost** ($ million)	**Total cost** ($ million)
PMS integrated with CIS for Paediatrics Ward	1	30.005	30.005
PMS with advanced monitors for Neuro-surgery Ward	1	3.380	3.380
PMS with CIS for Cardiothoracic Surgery Ward - Intensive Care Unit	1	17.307	17.307
PMS with CIS and Electronic Patient Signage Board for Paediatrics Ward	1	8.483	8.483
PMS with CIS and Electronic Patient Signage Board for Intensive Care Unit	1	30.600	30.600
Queue Management and Display System	1	1.000	1.000
Reverse Osmosis Water Treatment System	1	3.200	3.200
Rhythmia Mapping System	1	2.100	2.100
Single Plane Angiography/Interventional System (Mobile C- Arm) for Cardiac Centre	1	2.400	2.400
Single Plane Angiography/Interventional System for Radiology	1	15.000	15.000
Smart Cabinet	2	1.190	2.380

Item description	**Quantity**	**Unit cost** ($ million)	**Total cost** ($ million)
Telephone System, Private Automatic Branch Exchange (PABX)	1	6.380	6.380
Ultrasound Scanner for Angiography and Interventional Radiology	2	1.280	2.560
Ultrasound Scanner for Ultrasound-Guided Interventional Radiology	1	1.800	1.800
Uninterruptible Power Supply for Hospital Data Centre	1	3.500	3.500
Water Treatment System	1	4.500	4.500

Annex 5 to Enclosure 1

70MM – Redevelopment of Queen Mary Hospital, phase 1

Details of the "Important Tree" affected by the Project

Tree No.	Species		Measurements			Amenity value	Form	Health condition	Structural condition	Suitability for transplanting		Conservation status[2]	Recommendation	Department to provide expert advice to LandsD	Additional Remarks
	Scientific name	Chinese name	height (m)	DBH[1] (mm)	crown spread (m)	(Good/Fair/Poor)				(High/ Med/ Low)	Remarks		(Retain/ Transplant/ Fell)		
T025	*Ficus microcarpa*	細葉榕	20	1 490	20	Fair	Fair	Fair	Low	Low	The tree grows on slope and thus formation of a root ball of reasonable size for transplant is not practicable. It has low survival rate after transplantation.	No	Fell	-	- It will be in conflict with the proposed building footprint.

(1) Trunk diameter of a tree refers to its diameter at breast height (i.e. measured at 1.3 m above ground level).
(2) Conservation status indicates rarity and protection status under relevant ordinances of a species in Hong Kong. References such as Rare and Precious Plants of Hong Kong, the IUCN Red List of Threatened Species and the Forests and Countryside Ordinance (Cap. 96) may be used.
(3) This tree is not a registered Old and Valuable Tree.

New acute hospital at Kai Tak Development Area

PROJECT SCOPE AND NATURE

The part of **87MM** that we propose to upgrade to Category A (i.e. foundation, excavation and lateral support and basement excavation works of the new acute hospital (NAH) at the Kai Tak Development Area (KTDA)) comprises –

(a) foundation works;

(b) excavation and lateral support works;

(c) basement excavation works;

(d) pile cap construction works; and

(e) basement slab works.

2. A site plan showing the location of the proposed development is at Annex 1 to Enclosure 2.

3. Subject to funding approval by the Finance Committee (FC), we plan to commence the proposed works in the third quarter of 2018 with a view to completing the whole NAH project in 2024. To meet the programme, the Hospital Authority (HA) invited tender in March 2018 for the proposed works. The contracts will only be awarded upon obtaining FC's funding approval.

4. We will retain the remaining part of **87MM** in the Ten-year Hospital Development Plan (HDP), which comprises the construction of an acute hospital and provision of a continuous traffic-free pedestrian waterfront promenade at the strip of land adjoining the site for the NAH. Separate funding approval from FC for the remaining part of the NAH project will be sought later to dovetail with the implementation programme.

/**JUSTIFICATION** …..

JUSTIFICATION

5. The population of the Kowloon region is projected to increase from 3 667 000 in 2016 to 3 809 100 in 2024 (representing an increase of 4%), where elderly of 65 years old or above will rise from 583 900 in 2016 to 829 000 in 2024 (representing an increase of 42%). To meet the long-term rising demand for healthcare services and facilities in Kowloon arising from the growing and aging population, the Government has reserved sites in the KTDA for hospital development.

6. The Kai Tak Development is a major development project covering the ex-airport site, together with adjoining districts of Kowloon City, Wong Tai Sin and Kwun Tong. The KTDA will have a mix of housing, community, business, tourism and infrastructural uses. With the Government's plan to strive for increasing the development intensity in the Kai Tak Development, the population of KTDA is envisaged to be increased to about 134 000 upon completion of the planned developments in the KTDA.

7. HA formulated the Clinical Services Plan (CSP) for Kowloon Central Cluster (KCC) in 2016, providing an overarching clinical development strategy and delineated the roles of individual hospitals within the cluster. According to the CSP, NAH will take a leading role in coordinating care across KCC. Hospitals and institutions in KCC will adopt a collaborative approach to ensure comprehensive care and enhance service linkage for patients from various resident districts, including KTDA, Kowloon City, Wong Tai Sin and Kwun Tong, etc.

8. With the service network arrangement, acute services for KCC will be provided by the NAH at KTDA and by Kwong Wah Hospital (KWH). The acute hospitals in KCC will be supported by the extended care hospitals nearby to enhance the continuity of care for patients within the respective catchment districts. In particular, Our Lady of Maryknoll Hospital, Wong Tai Sin Hospital and Hong Kong Buddhist Hospital will form a service network with the NAH in Kai Tak while Kowloon Hospital will provide convalescent and rehabilitation services for patients transferred from KWH.

9. As guided by the CSP and taking into account the roles of various hospitals in the Kowloon region, the NAH will be established as an acute hospital delivering a comprehensive range of secondary and tertiary hospital services, with modern service models, advanced technology and facilities. NAH will provide Accident and Emergency, in-patient, out-patient, ambulatory and rehabilitation services in addition to being a designated trauma centre.

/10. …..

10. Taking into account future medical needs, a neuroscience centre will be set up in the NAH to provide tertiary and quaternary services to KCC and the neighbouring clusters. Services provided by the NAH, including radiotherapy and laboratory services, will be complementary to that of the adjacent Hong Kong Children's Hospital. Upon completion of the NAH, most of the services of Queen Elizabeth Hospital (QEH) will be relocated to the new hospital at KTDA. HA will study the redevelopment of healthcare facilities at the vacated King's Park site where the existing QEH is situated. We also aim to provide an oncology centre, 2 400 beds and 37 operating theatres at the NAH. The annual capacity for specialist outpatient clinic attendances will be 1 410 000 upon completion of the NAH.

11. In view of the substantial and extensive coordination work with all departments of the hospital required to formulate the planning and logistic arrangement of hospital services, preparatory works of this project were entrusted to HA. We plan to also entrust the foundation, excavation and lateral support and basement excavation works to HA in order to expedite project implementation and achieve cost effectiveness by capitalising on the HA's experience and organisational capabilities.

FINANCIAL IMPLICATIONS

12. We estimate the capital cost of this project to be $5,356.8 million in money-of-the-day (MOD) prices (please see paragraph 14 below), broken down as follows –

		$ million (in MOD prices)
(a)	Site works	84.8
(b)	Piling	2,576.0
(c)	Excavation and lateral support	1,567.5
(d)	Pile caps, basement slab and associated builder's works	506.0
(e)	Consultants' fees for contract administration	66.6
(f)	Remuneration of resident site staff (RSS)	68.9

/$ million …..

		$ million (in MOD prices)
(g)	Contingencies	487.0
	Total	5,356.8

13. HA will engage consultants to undertake contract administration and directly employ RSS for the supervision of the proposed construction works. A detailed breakdown of the estimates for consultants' fees and RSS costs by man-months is at Annex 2 to Enclosure 2.

14. Subject to funding approval, we plan to phase the expenditure of the project as follows –

Year	**$ million (MOD)**
2018 – 2019	283.6
2019 – 2020	1,149.0
2020 – 2021	2,457.1
2021 – 2022	647.0
2022 – 2023	404.3
2023 – 2024	415.8
	5,356.8

15. 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 2018 to 2024. Subject to funding approval, HA will award the contract on a lump-sum basis because the scope of the works can be clearly defined in advance. The contract will provide for price adjustments.

16. The proposed works will not give rise to any additional recurrent expenditure.

/**PUBLIC** …..

PUBLIC CONSULTATION

17. HA consulted the Wong Tai Sin District Council (DC) and Kwun Tong DC both on 9 January 2018, Yau Tsim Mong DC on 25 January 2018 and Kowloon City DC on 1 February 2018. Members of these four DCs supported the proposed project.

18. We consulted the Legislative Council Panel on Health Services on 19 March 2018. Members of the Panel supported the submission of the funding proposal to the Public Works Subcommittee for consideration .

19. Site A of NAH at KTDA is subject to the approval by the Chief Executive-in-Council (CE-in-C) of the draft Outline Zoning Plan (OZP) with amendments in terms of increasing the maximum building height restriction of the whole Site A from 60 metres above the Hong Kong Principal Datum (mPD) to 100 mPD and changing the zoning of Site A Extension from "Other Specified Uses (Amenity)" with minor portion shown as "Road" and zoned as "Government, Institution or Community". The tentative date of approval is July 2018. Tender will only be awarded after approval on the draft OZP from CE-in-C and approval of funding from FC.

ENVIRONMENTAL IMPLICATIONS

20. The proposed works is not a designated project under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499). HA completed a Preliminary Environmental Review (PER) for the proposed works in March 2018 and HA will implement suitable mitigation measures to control short term environmental impacts arising from the proposed works. HA will also take note of any EIAO implications arising from the NAH project as identified in the PER and meet the EIAO requirements.

21. HA will incorporate into the works contract mitigation measures recommended in the PER in order to ensure that the environmental impacts arising from the substructure works are within established standards and guidelines. These include the use of quiet powered mechanical equipment, temporary noise barriers for noisy substructure works, site drainage to control runoff, covering of stockpiles material and watering of the site. HA has included the cost for the implementation of the environmental mitigation measures in the project estimates.

/22. …..

22. At the planning and design stages, HA has 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, HA 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 facilities. HA will encourage the contractor to maximise the use of recycled and recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

23. At the construction stage, HA 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. HA will ensure that the day-to-day operations on site comply with the approved plan. HA will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. HA will control the disposal of inert and non-inert construction waste at public fill reception facilities[1] and landfills respectively through a trip-ticket system.

24. HA estimates that the project will generate in total about 1.89 million tonnes of construction waste for the proposed works. Of these, we will reuse about 20 000 tonnes (1%) of inert waste on site and deliver 1.79 million tonnes (95%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 80 000 tonnes (4%) of non-inert waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be $143.1 million for this project (based on a unit charge rate of $71 per tonne for disposal at public fill reception facilities and $200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation(Cap 354N)).

HERITAGE IMPLICATIONS

25. This project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites and buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

/LAND …..

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[1] Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap 354N). Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

LAND ACQUISITION

26. The proposed works do not require any land acquisition.

BACKGROUND INFORMATION

27. We upgraded part of **87MM** (i.e. foundation, excavation and lateral support and basement excavation works of NAH at KTDA) to Category B in January 2018.

28. In July 2017, the FC approved upgrading part of the **87MM** as **92MM** "New Acute Hospital at Kai Tak Development Area – preparatory works" at an estimated cost of $769.3 million in MOD prices for preparatory works including site surveys and investigations and consultancy services for outline sketch plans, detailed design as well as tender documentation and assessment for the project. HA started preparatory works in September 2017. The detailed design and tender preparation for the foundation, excavation and lateral support, and basement excavation works have been completed in February 2018 while detailed design for the remaining parts of the project is underway.

29. Of the 219 trees within the project boundary, no trees will be preserved. The proposed works will involve the removal of 219 trees, including 214 trees to be felled and 5 trees to be transplanted within the project site. All trees to be removed are not important trees[2]. HA will incorporate planting proposals of 214 trees as part of the project.

30. We estimate that the proposed foundation, excavation and lateral support, and basement works will create about 820 jobs (730 for labourers and 90 for professional or technical staff), providing a total employment of 28 600 man-months.

/31. …..

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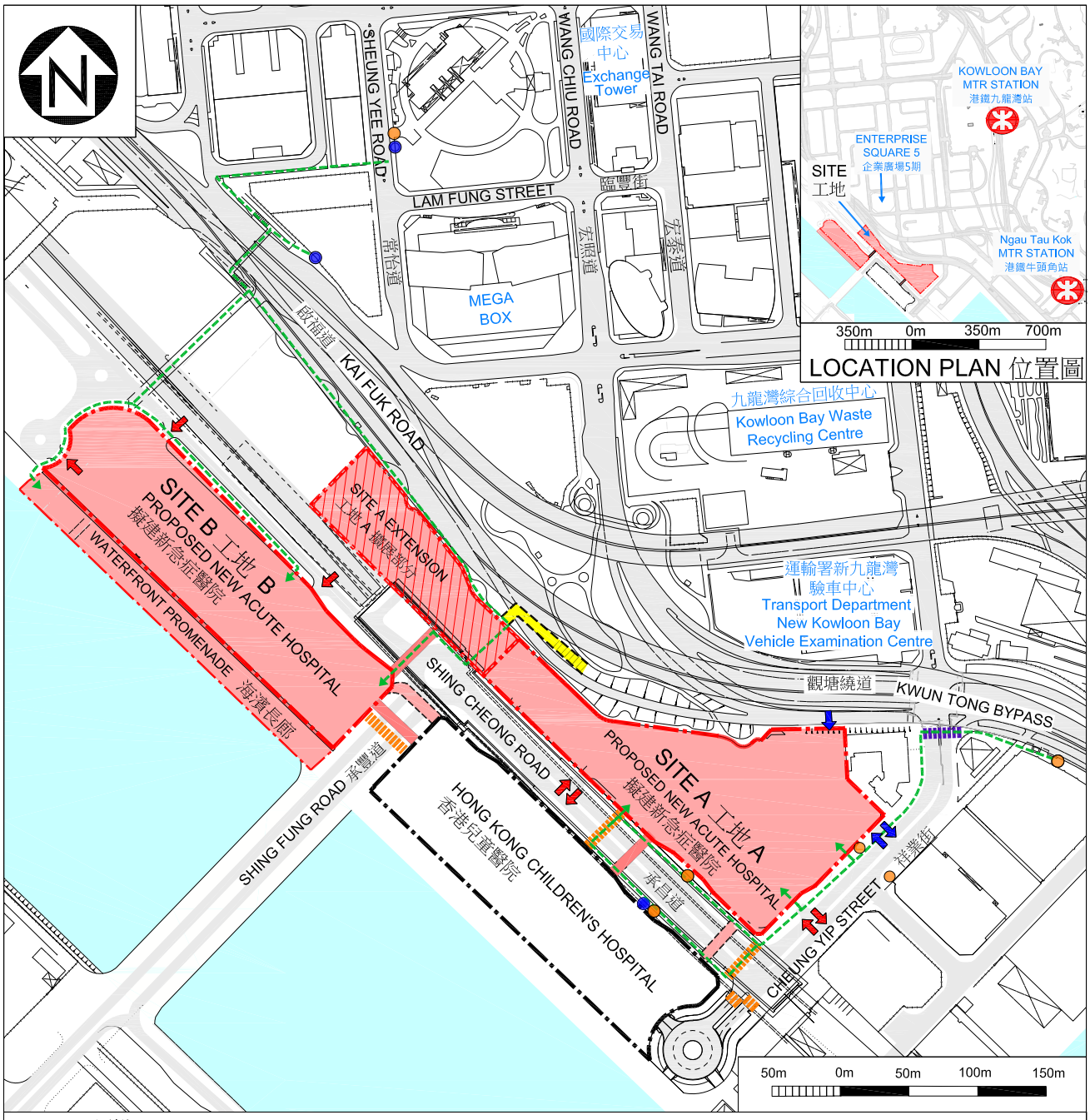
[2] "Important trees" refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

(a) trees of 100 years old or above;
(b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees 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 the overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
(e) trees with a trunk of diameter equal to or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with a height or canopy spread equal to or exceeding 25 m.

31. At the PWSC meeting on 31 October 2001, some Members suggested and the Government agreed to include information on the scope, approved project estimates and progress of all items under the Kai Tak Development (KTD) formerly known as the "South East Kowloon Development" Public Works Programme in the future PWSC submissions relating to the KTD. The information is at Annex 3 to Enclosure 2.



LEGENDS 圖例:

- SITE BOUNDARY 工地範圍
- HONG KONG CHILDREN'S HOSPITAL BOUNDARY 香港兒童醫院範圍
- PROPOSED HOSPITAL LINK BRIDGE 擬建醫院連接橋
- LOCATION FOR UNDERGROUND SERVICES SUBWAY 地下隧道位置
- PROPOSED PUBLIC LINK BRIDGE 擬建公共連接橋
- EXISTING PEDESTRIAN CROSSING 現有行人過路處
- PROPOSED PEDESTRIAN CROSSING 擬新增行人過路處
- EXISTING BUS STOP 現有巴士站
- EXISTING MINI-BUS STOP 現有小巴站
- PROPOSED VEHICULAR INGRESS / EGRESS 擬新增車輛出入口
- PROPOSED AMBULANCE INGRESS / EGRESS 擬新增救護車出入口
- PEDESTRIAN / BARRIER FREE ROUTE 行人/ 無障礙道路
- EXISTING MTR STATION 現有港鐵站

SITE PLAN
工地平面圖

87MM
NEW ACUTE HOSPITAL AT KAI TAK DEVELOPMENT AREA
在啟德發展區興建新急症醫院

87MM – New acute hospital at Kai Tak Development Area

Breakdown of the estimates for consultants' fees and resident site staff (RSS) costs (in September 2017 prices)

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
(a)	Consultants' fees for contract administration (Note 2)	Professional	-	-	-	45.2
		Technical	-	-	-	11.4
					Sub-total	56.6#
(b)	Remuneration of resident site staff (RSS) (Note 3)	Professional	202	38	1.6	25.5
		Technical	750	14	1.6	33.0
					Sub-total	58.5#
					Total	**115.1**

* 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 (as at now, MPS salary point 38 = $78,775 per month and MPS salary point 14 = $27,485 per month).

2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for preparatory works of **92MM**. The construction phase of the assignment will only be executed subject to FC's approval to upgrade part of **87MM** to Category A.

3. The RSS cost for site supervision is based on the estimate prepared by the Hospital Authority. We will only know the actual man-months and actual cost after completion of the construction works.

Remarks

The figures in this Annex are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 12 of Enclosure 2.

Kai Tak Development
List of Public Works Programme (PWP) Items in Category A

(Note: For details on the project scope of the PWP items listed below, please refer to the corresponding PWSC papers.)

PWP item no.:	**440CL**
Project title:	South East Kowloon development – comprehensive feasibility study
Date of upgrading to Category A:	April 1995
Approved project estimate:	$220 million
Project scope:	The project comprises a comprehensive feasibility study for the whole South East Kowloon area, as well as associated laboratory testing and site investigation works.
Brief account of progress:	(a) The feasibility study was completed in December 2003. (b) The project account has been finalised at the sum of $185.2 million.

* * *

PWP item no.:	**494CL** (part upgraded from **469CL**)
Project title:	South East Kowloon development at Kai Tak Airport – decontamination and site preparation
Date of upgrading to Category A:	February 1998
Approved project estimate:	$316.9 million
Project scope:	Ground decontamination, demolition of existing buildings and structures and site preparation at the north apron of Kai Tak Airport.

Brief account of progress:	(a) The civil engineering works and the post-decontamination monitoring works were completed in April 2002 and December 2003 respectively. (b) The project account has been finalised at the sum of $281.8 million.

* * *

PWP item no.:	**694CL** (part upgraded from **469CL**)
Project title:	South East Kowloon development at Kai Tak Airport – consultants' fees and site investigation
Date of upgrading to Category A:	November 2001
Approved project estimate:	$115.9 million
Project scope:	Site investigation works and detailed design for 6 kilometres (km) drainage box culverts, five sewage pumping stations, flyovers, roads, sewerage, drainage and demolition of the passenger terminal building for the planned developments in the north apron area of Kai Tak Airport.
Brief account of progress:	(a) Consultancy started in January 2002. (b) Detailed design for demolition of the passenger terminal building and associated structures has been completed. (c) Detailed design of the stages 1, 2, 3A, 3B, 4 and 5A infrastructure works and the reconstruction and upgrading of Kai Tak Nullah at the north apron has been completed. (d) Detailed design of the remaining infrastructure works at the north apron is in progress.

* * *

PWP item no.:	**693CL** (part upgraded from **465CL**)
Project title:	South East Kowloon development – consultants' fees and site investigation for Kai Tak Approach Channel (KTAC) reclamation
Date of upgrading to Category A:	November 2001
Approved project estimate:	$63.8 million
Project scope:	Site investigation works and detailed design for treatment of contaminated sediments and reclamation of KTAC, drainage and demolition of the existing airport taxiway bridge in KTAC.
Brief account of progress:	(a) Consultancy started in January 2002. (b) In the light of the Court of Final Appeal (CFA)'s ruling on harbour reclamation under the Protection of the Harbour Ordinance (Cap. 531), the consultancy had been suspended since December 2003 and was terminated in July 2006. (c) The project account has been finalised at the sum of $50.2 million.

* * *

PWP item no.:	**699CL** (part upgraded from **482CL**)
Project title:	South East Kowloon development – consultants' fees and site investigation for Kowloon Bay reclamation and engineering works
Date of upgrading to Category A:	July 2002
Approved project estimate:	$105.7 million
Project scope:	Site investigation works and detailed design for treatment of contaminated sediments and reclamation

	of Kowloon Bay, marine structures and facilities, roads, drainage and sewerage works.
Brief account of progress:	(a) Consultancy started in December 2002. (b) In the light of CFA's ruling on harbour reclamation under the Protection of the Harbour Ordinance (Cap. 531), the consultancy had been suspended since December 2003 and was terminated in July 2006. (c) The project account has been finalised at the sum of $6.1 million.

* * *

PWP item no.:	**708CL** (part upgraded from **469CL**)
Project title:	South East Kowloon development – site preparation and drainage works at north apron area of Kai Tak Airport
Date of upgrading to Category A:	February 2004
Approved project estimate:	$131.6 million
Project scope:	Construction of a twin-cell box culvert of about 600 m long, decommissioning of an existing culvert, demolition of the passenger terminal building and car-parking building at north apron area of Kai Tak Airport.
Brief account of progress:	(a) Works contract commenced in April 2004 and was completed in September 2006. (b) The project account has been finalised at the sum of $131.3 million.

* * *

PWP item no.:	**719CL**
Project title:	Kai Tak development – engineering review

Date of upgrading to Category A:	December 2006
Approved project estimate:	$87.5 million
Project scope:	A study to confirm the detailed engineering feasibility of the revised Preliminary Outline Development Plan of Kai Tak development, preliminary preparatory work for the early development of the cruise terminal in Kai Tak.
Brief account of progress:	Consultancy commenced in January 2007 and completed in April 2010. The project account has been finalised at the sum of $76.4 million.

* * *

PWP item no.:	**724CL** (part upgraded from **711CL**)
Project title:	Kai Tak development – investigation and detailed design for advance infrastructure works for developments at the southern part of the former runway
Date of upgrading to Category A:	December 2006
Approved project estimate:	$38 million
Project scope:	Investigation and detailed design for roads, drainage, sewerage, watermains, relocation and reprovisioning of existing radar facilities for the proposed developments at the southern part of the former runway.
Brief account of progress:	(a) Consultancy commenced in January 2007. (b) Design of the decommissioning and decontamination works at the south apron and relocation and reprovision of Marine Vessel Traffic Services radar was completed.

	(c) Design of the stage 1 advance infrastructure works was completed.
	(d) Design of the remaining infrastructure works was completed.

* * *

PWP item no.:	**734CL** (part upgraded from **711CL**)
Project title:	Kai Tak development – decommissioning and decontamination works at the south apron of the former Kai Tak Airport and installation of supplementary radar at North Point Government Office (NPGO)
Date of upgrading to Category A:	February 2008
Approved project estimate:	$120.1 million
Project scope:	Decommissioning and decontamination of about 12 600 square metres of land at the south apron of the former Kai Tak Airport, installation of a supplementary radar at NPGO and associated works.
Brief account of progress:	(a) Works contract commenced in May 2008 and was completed in January 2010.
	(b) The project account has been finalised at the sum of $82.5 million.

* * *

PWP item no.:	**738CL** (part upgraded from **465CL**)
Project title:	Kai Tak development – detailed design and site investigation for Kai Tak Approach Channel and Kwun Tong typhoon shelter improvement works.
Date of upgrading to Category A:	May 2009

Approved project estimate:	$50 million
Project scope:	Site investigation works, environmental mitigation trial and monitoring, and detailed design for treatment of the contaminated sediments, forming of a 600 m opening at the former runway with a piled deck on the top and associated works.
Brief account of progress:	(a) Consultancy commenced in August 2009. (b) Detailed design of Phase 1 works has been completed. (c) Design of Phase 2 works (IP Scheme) is underway.

* * *

PWP item no.:	**740CL** (part upgraded from **702CL**)
Project title:	Kai Tak development – detailed design and site investigation for remaining infrastructure works for developments at the former runway
Date of upgrading to Category A:	May 2009
Approved project estimate:	$32 million
Project scope:	Site investigation works and detailed design for a road including a piled deck on the former runway; roads, footbridges, drainage, sewerage and water mains in south apron; and associated works.
Brief account of progress:	Consultancy commenced in July 2009 and detailed design of the infrastructure works is in progress.

* * *

PWP item no.:	**739CL** (part upgraded from **469CL**)
Project title:	Kai Tak development – stage 1 infrastructure works at north apron area of Kai Tak Airport
Date of upgrading to Category A:	May 2009
Approved project estimate:	$566.5 million
Project scope:	Construction of about 2.6 km of new roads and other roadworks within the north apron area; two footbridges, two drainage box culverts, improvement to three existing subways across Prince Edward Road East, drainage, sewerage, water mains and associated works.
Brief account of progress:	Works commenced in July 2009 and were completed in December 2013.

* * *

PWP item no.:	**741CL** (part upgraded from **711CL**)
Project title:	Kai Tak development – stage 1 advance infrastructure works for developments at the southern part of the former runway
Date of upgrading to Category A:	May 2009
Approved project estimate:	$539.6 million
Project scope:	Construction of about 1.8 km carriageway, a fireboat berth cum landing steps, drainage, a sewage pumping station, sewerage, water mains and associated works for developments at the southern part of the former runway.
Brief account of progress:	Works contract commenced in September 2009 and was completed in December 2013.

* * *

PWP item no.:	**841TH** (part upgraded from **785TH**)
Project title:	Trunk Road T2 – investigation and design
Date of upgrading to Category A:	June 2009
Approved project estimate:	$133.6 million
Project scope:	Impact assessments on environment, traffic, marine, heritage and other related aspects; detailed design of the works and associated site investigations and supervision for Trunk Road T2.
Brief account of progress:	(a) Consultancy commenced in July 2009. (b) The environmental impact assessment report was approved in September 2013. (c) Detailed design is in progress.

* * *

PWP item no.:	**45CG**
Project title:	District Cooling System at the Kai Tak Development
Date of upgrading to Category A:	June 2009
Approved project estimate:	$3,905.7 million (approved by the Finance Committee on 29 April 2016) for Phase I, Phase II and Phase III (Package A, B & C) of the project
Project scope:	The scope of the project comprises (a) construction of a northern chiller plant; (b) construction of a southern underground chiller plant cum underground seawater pumphouse and above-ground operational facilities; (c) laying of seawater intake and discharge pipelines; (d) laying of chilled water distribution pipe networks; and (e) provision of connection

	facilities at user buildings at Kai Tak Development (KTD).
Brief account of progress:	(a) Construction for Phase I commenced in February 2011 and was completed in January 2013. (b) Construction for Phase II commenced in March 2011 and was completed in September 2014. (c) Construction for Phase III (Package A) commenced in July 2013 and was completed in December 2017. (d) Construction for Phase III (Package B) commenced in September 2015 for completion by December 2018. (e) Construction for Phase III (Package C) commenced in September 2016 for completion by March 2020.

* * *

PWP item no.:	**736CL**
Project title:	Site formation for Kai Tak cruise terminal development
Date of upgrading to Category A:	November 2009
Approved project estimate:	$2,303.9 million
Project scope:	Construction of about 1.1 km long seawall, piled structures, marine facilities and structures, and dredging works for Kai Tak Cruise Terminal.
Brief account of progress:	The site formation for Kai Tak cruise terminal development has been completed, with the first berth and the second berth commenced operations in June 2013 and September 2014 respectively. Remaining dredging was also completed in December 2015.

* * *

PWP item no.:	**7GA**
Project title:	Cruise terminal building and ancillary facilities for the Kai Tak cruise terminal development
Date of upgrading to Category A:	April 2010
Approved project estimate:	$5,852.1 million
Project scope:	Development of new cruise terminal facilities at the southern end of the former runway at the Kai Tak development; and provisions of building services to the apron area.
Brief account of progress:	Works contract commenced in May 2010 and was completed in May 2013.

* * *

PWP item no.:	**745CL** (part upgraded from **465CL**)
Project title:	Kai Tak development – Kai Tak approach channel and Kwun Tong typhoon shelter improvement works (Phase 1)
Date of upgrading to Category A:	June 2011
Approved project estimate:	$717.7 million
Project scope:	Bioremediation treatment of the contaminated sediments over an area of about 90 hectares of seabed at KTAC and Kwun Tong typhoon shelter, dredging of seabed at KTAC, and demolition of a disused dolphin and associated improvement works in the vicinity of To Kwa Wan typhoon shelter.
Brief account of progress:	Works commenced in July 2011 and were completed in July 2014.

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PWP item no.:	**746CL** (part upgraded from **469CL**)
Project title:	Kai Tak development – stage 2 infrastructure at north apron area of Kai Tak Airport
Date of upgrading to Category A:	June 2011
Approved project estimate:	$355.8 million
Project scope:	Construction of about 590 m roads, about 2 110 m footpaths, drainage box culverts, sewage pumping station and associated works.
Brief account of progress:	Works contract commenced in July 2011 and was substantially completed in June 2015.

* * *

PWP item no.:	**749CL** (part upgraded from **711CL**)
Project title:	Kai Tak development – reprovisioning of radar on top of the cruise terminal building
Date of upgrading to Category A:	June 2011
Approved project estimate:	$88.4 million
Project scope:	Reprovisioning of a radar and associated signal processing and relaying equipment and construction of a radome, a radome base support and associated works.
Brief account of progress:	(a) The works contract commenced in August 2011 and was completed in June 2013. (b) The project account has been finalised at the sum of $87.7 million.

* * *

PWP item no.:	**172BF**
Project title:	Construction of fire station-cum-ambulance facility at Cheung Yip Street, Kowloon Bay
Date of upgrading to Category A:	July 2011
Approved project estimate:	$210 million
Project scope:	Construction of a new six-storey fire station with ambulance facility-cum-an urban search and rescue equipment store in Kowloon Bay.
Brief account of progress:	Works contract commenced in July 2011 and was completed in June 2013.

* * *

PWP item no.:	**109KA**
Project title:	Construction of Trade and Industry Tower in Kai Tak Development Area
Date of upgrading to Category A:	January 2012
Approved project estimate:	$2,645.1 million
Project scope:	Construction of government offices and ancillary property management facilities providing a net operational floor area (NOFA) of around 32 400 m^2, and a community hall of about 600 m^2 in NOFA.
Brief account of progress:	Works contract commenced in January 2012 and was completed in April 2015.

* * *

PWP item no.:	**443RO** (part upgraded from **425RO**)
Project title:	Runway Park at Kai Tak, Kowloon City District – Phase 1
Date of upgrading to Category A:	July 2012
Approved project estimate:	$169.7 million
Project scope:	Construction of a 270 m long waterfront promenade at the runway tip facing Lei Yue Mun and along the waterfront facing Kwun Tong, a large lawn with seating and extensive soft landscape planting, and ancillary facilities.
Brief account of progress:	Works contract commenced in August 2012 and was completed in April 2014.

* * *

PWP item no.:	**439RO**
Project title:	Kwun Tong promenade (stage 2)
Date of upgrading to Category A:	July 2012
Approved project estimate:	$250.7 million
Project scope:	Construction of a 750 m long waterfront promenade at the former Kwun Tong Public Cargo Working Area with a boardwalk, and upgrading works for the Kwun Tong promenade (stage 1), including installation of more lighting, close-circuit television and a public address system.
Brief account of progress:	Works contract commenced in February 2013 and was completed in December 2014.

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PWP item no.:	**167CD** (part upgraded from **469CL**)
Project title:	Kai Tak development – reconstruction and upgrading of Kai Tak Nullah
Date of upgrading to Category A:	January 2013
Approved project estimate:	$2,488.2 million
Project scope:	Reconstruction and upgrading of Kai Tak Nullah from Prince Edward Road East to KTAC, construction of two enclosed desilting compounds with vehicular access and ancillary works.
Brief account of progress:	Works contract commenced in January 2013 for completion in April 2018.

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PWP item no.:	**76MM**
Project title:	Establishment of the Centre of Excellence in Paediatrics (Hong Kong Children's Hospital)
Date of upgrading to Category A:	June 2013
Approved project estimate:	$12,985.5 million
Project scope:	Establishment of the Centre of Excellence in Paediatrics with 468 beds in the south apron of the Kai Tak development.
Brief account of progress:	Works contract commenced in August 2013 and was completed in September 2017.

* * *

PWP item no.:	**761CL** (part upgraded from **469CL**)
Project title:	Kai Tak development – stages 3A and 4 infrastructure at north apron area of Kai Tak Airport
Date of upgrading to Category A:	June 2013
Approved project estimate:	$2,255.3 million
Project scope:	Stage 3A – Construction of roads, a vehicular underpass, a pedestrian subway, extension of an existing subway, reconstruction of existing roads, associated drainage, sewerage, water mains, roadworks and other ancillary works. Stage 4 – Construction of roads, reconstruction and widening of existing footpaths, two sewage pumping stations, twin rising mains, associated drainage and sewerage works and other ancillary works.
Brief account of progress:	Works contracts commenced in stages starting from July 2013 Stage 3A Contract was substantially completed in June 2017 whereas Stage 4 works are anticipated to be substantially completed in mid 2018.

* * *

PWP item no.:	**349EP**
Project title:	A 30-classroom primary school at Site 1A-3, Kai Tak development, Kowloon
Date of upgrading to Category A:	July 2013
Approved project estimate:	$312.4 million

Project scope:	Construction of a 30-classroom primary school at site 1A-3, Kai Tak development
Brief account of progress:	Works contract commenced in November 2013 and was completed in December 2015.

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PWP item no.:	**350EP**
Project title:	A 30-classroom primary school at site 1A-4, Kai Tak development, Kowloon
Date of upgrading to Category A:	July 2013
Approved project estimate:	$317.5 million
Project scope:	Construction of a 30-classroom primary school at site 1A-4, Kai Tak development
Brief account of progress:	Works contract commenced in November 2013 and was completed in December 2015.

* * *

PWP item no.:	**287RS (**part upgraded from **272RS)**
Project title:	Kai Tak Multi-purpose Sports Complex – pre-construction works
Date of upgrading to Category A:	July 2015
Approved project estimate:	$62.7 million
Project scope:	Preparation of technical specifications, cost estimate, tender documents (including information in ground

	investigation, utility mapping, topographic and tree surveys) and tender assessment for the main works
Brief account of progress:	The pre-construction works commenced in phases since December 2015. The ground investigation, utility mapping, topographic and tree surveys, were completed.

* * *

PWP item no.:	**711CL**
Project title:	Kai Tak development – infrastructure works for developments at the southern part of the former runway
Date of upgrading to Category A:	July 2015
Approved project estimate:	$5,757.1 million
Project scope:	Construction of roads, an elevated landscaped deck with lifts and staircases, roadside noise barriers, a supporting underground structure as enabling works to facilitate future construction of Trunk Road T2, improvement to three existing road junctions in Kowloon Bay, associated drainage, sewerage, water mains, roadworks, landscaping and other ancillary works.
Brief account of progress:	Works contracts commenced in November 2015 for phased completion by 2019.

* * *

PWP item no.:	**65TR**
Project title:	Detailed Feasibility Study for Environmentally Friendly Linkage System (EFLS) for Kowloon East
Date of upgrading to Category A	July 2015

Approved project estimate:	$92.3 million
Project scope:	(a) evaluation of the most suitable green transport mode(s) for EFLS and formulation of a well-planned integrated multi-modal linkage system to enhance the connectivity of Kowloon East; (b) examination of financial viability and environmental acceptability as well as technical feasibility for EFLS; (c) examination of the impact of the proposed Kwun Tong Transportation Link on the use of the water body at the Kwun Tong Typhoon Shelter and Kai Tak Approach Channel and formulation of mitigation measures; (d) review and examination on the network development for EFLS; and (e) assessment on innovative designs, and arrangements for enhancing attractiveness and cost-effectiveness for EFLS.
Brief account of progress:	A 2-month Interim public consultation on the Stage 1 of the Detailed Feasibility Study for EFLS for Kowloon East was completed on 2 July 2017. Comments so received are being consolidated. The second stage of the Detailed Feasibility Study for EFLS for formulation of its alignment, coverage and implementation programme was in progress. Public consultation on the outcome of the Study was planned for mid-2018.

* * *

PWP item no.:	**797CL** (part upgraded from **469CL**)
Project title:	Kai Tak development – Stage 3B and 5A infrastructure works at former north apron area

Date of upgrading to Category A:	May 2016
Approved project estimate:	$2,152.8 million
Project scope:	Stage 3B – Construction of roads, an elevated landscaped walkway, a pedestrian subway, demolition of an existing flyover, road modification works, associated drainage, sewerage, watermains, landscaping and other ancillary works. Stage 5A – Construction of roads, a pedestrian subway, associated drainage including box culverts, sewerage, watermains, landscaping and other ancillary works.
Brief account of progress:	Works contracts commenced in stages starting from September 2016 for substantial completion by phases by end 2020.

* * *

PWP item no.:	**237LP**
Project title:	Kowloon East Regional Headquarters and Operational Base-cum-Ngau Tau Kok Divisional Police Station
Date of upgrading to Category A:	May 2016
Approved project estimate:	$3,186 million
Project scope:	Demolition of existing vacated Kai Tak Operational Base (KTOB), construction of an integrated complex and demolition of building and facilities upon commissioning of the integrated complex
Brief account of progress:	Construction of the integrated complex commenced in July 2016 for completion in 2019.

* * *

PWP item no.:	**271ES**
Project title:	A 30-classroom secondary school at Site 1A-2, Kai Tak development
Date of upgrading to Category A:	June 2016
Approved project estimate:	$446.7 million
Project scope:	Construction of a 30-classrooms secondary school and ancillary facilities
Brief account of progress:	Construction commenced in December 2016 for completion in 2019.

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PWP item no.:	**272RS**
Project title:	Kai Tak Sports Park– construction works
Date of upgrading to Category A:	June 2017
Approved project estimate:	$31,898 million
Project scope:	Design, construction and operation of the Kai Tak Sports Park which occupied a site of around 28 hectare in the north apron of the former Hong Kong International Airport in Kai Tak comprising a multi-purpose Main Stadium, a Public Sports Ground, an Indoor Sports Centre, retail outlets and dining facilities and public open space.
Brief account of progress:	Prequalification of tenderers completed in September 2017. Tender was invited.

* * *

PWP item no.:	**92MM** (part upgraded from **87MM**)
Project title:	New Acute Hospital at Kai Tak Development Area – preparatory works
Date of upgrading to Category A:	July 2017
Approved project estimate:	$769.3 million
Project scope:	(a) consultancy services for outline the sketch design and detailed design, as well as preparation of tender documentation and tender assessment for the proposed NAH and the adjoining section of the waterfront promenade; and (b) site investigations and minor studies (such as preliminary environmental review, tree and topographical surveys, utilities survey and survey for impact assessment studies, etc.).
Brief account of progress:	(a) Project has been entrusted to the Hospital Authority (HA). Consultants were engaged by HA in September 2017. (b) Tender for Foundation, Excavation & Lateral Support, and Basement Excavation Works was issued in March 2018. (c) Outline design of Main Building Works is in progress.

Redevelopment of Kwong Wah Hospital

PROJECT SCOPE AND NATURE

The part of **13MD** which we propose to upgrade to Category A (i.e. superstructure and associated works for phase 1 redevelopment of Kwong Wah Hospital (KWH)) comprises –

(a) construction of the first phase of a new hospital complex to accommodate most of the core clinical services currently located in the Main Hospital Building;

(b) provision of associated external and landscaping works; and

(c) consultancy services for contract administration and site supervision.

2. A site plan showing the location of the proposed hospital complex (phase 1) is at Annex 1 to Enclosure 3. The floor plans, sectional drawing and a perspective view (artist's impression) of the new hospital complex are at Annexes 2 to 23 to Enclosure 3.

3. Subject to funding approval by the Finance Committee (FC), we plan to commence the proposed main works in the fourth quarter of 2018 with a view to completing the whole redevelopment of KWH project in 2025. To meet the programme, the Hospital Authority (HA) has invited tenders on 26 January 2018. The contract will only be awarded upon obtaining FC's funding approval. KWH will remain functional at all times during the works and any disruption of services, if unavoidable, will be kept to a minimum.

4. We will retain the remaining part of **13MD** in the Ten-year Hospital Development Plan (HDP), which mainly covers demolition of the East and North Wings of the existing Main Hospital Building, Tung Wah Group of Hospitals (TWGHs) Yu Chun Keung Memorial Medical Centre and Staff Barracks for the construction of phase 2 of the new hospital complex, as well as alteration and addition works to TWGHs Tsui Tsin Tong Out-patient Building.

/JUSTIFICATION …..

JUSTIFICATION

5. KWH was established in 1911 and is a major acute hospital offering a comprehensive range of acute care services in the Kowloon Central Cluster (KCC)[1]. The majority of the KWH buildings were built over 50 years ago, with outdated building services installations and deteriorating structural condition. Its space provision is inadequate for meeting the service demand nowadays. Located in a densely populated area, KWH is one of the busiest hospitals in HA. In 2016-17, there were around 97 350 inpatient and day inpatient discharges and deaths, and around 362 400 specialist outpatient (clinical) attendances at the KWH, accounting for 5.5% and 4.8% respectively of that for all HA hospitals. The extremely heavy utilisation has accelerated deterioration of its facilities. Although the population of Kowloon City, Yau Tsim Mong and Wong Tai Sin districts in 2016 was 1 186 900 and is projected to decrease slightly to 1 180 700 in 2024, elderly of 65 years old or above will rise from 189 100 in 2016 to 279 500 in 2024 (representing an increase of 48%).

6. HA proposes to conduct a comprehensive redevelopment of KWH to cope with the anticipated growth in medical service demand. The redevelopment proposal will enable KWH to meet the standard of a modern acute hospital, enhance its operational efficiency and efficacy, as well as to provide a patient-oriented environment with adequate capacity and capability for the delivery of holistic and seamless healthcare services.

7. HA formulated the Clinical Services Plan (CSP) for KCC in 2016, which provides an overarching clinical development strategy and delineates the roles of individual hospitals within the Cluster. According to the CSP, KWH will provide acute medical services and specialist care for the community, especially for residents in Yau Tsim Mong District. Hospitals and institutions in KCC will adopt a collaborative approach to ensure comprehensive care and enhance service linkage for patients from various districts in the Cluster. Under the service network arrangement, acute services for KCC will be provided by the New Acute Hospital (NAH) in Kai Tak and by KWH. The acute hospitals in KCC will be supported by the extended care hospitals nearby to enhance the continuity of care for patients within the respective catchment districts. In particular, Our Lady of Maryknoll Hospital, Wong Tai Sin Hospital and Hong Kong Buddhist Hospital will form a service network with the NAH in Kai Tak while Kowloon Hospital will provide convalescent and rehabilitation services for patients transferred from KWH.

/8. …..

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[1] As at end December 2017, KCC comprises the following hospitals and institutions: Hong Kong Buddhist Hospital, Hong Kong Eye Hospital, Hong Kong Red Cross Blood Transfusion Service, Kowloon Hospital, Kwong Wah Hospital, Our Lady of Maryknoll Hospital, Queen Elizabeth Hospital, TWGHs Wong Tai Sin Hospital.

8. Demand for healthcare services in the Kowloon region was considered as a whole in the capacity planning of KWH. Factors of consideration include the pace of population growth and ageing in the surrounding areas, cross-cluster utilisation of services, changes in service model, advancement in medical technology, and the roles of the various hospitals and how their services could complement one another. Insofar as the planning of hospital beds is concerned, the projected number of acute and extended care bed requirement of hospitals in the Kowloon Region is 14 200 by 2031. Taking into account the additional beds to be provided under the relevant hospital projects committed in the Ten-year HDP for the Kowloon Region[2] and other capital works projects, the number of hospital beds in the Kowloon Region will be increased from 10 537 as at end March 2015 to around 13 200 in 2031[3]. HA will regularly review the service demand according to regular updates in population projection.

9. A comprehensive redevelopment of KWH can augment the role of KWH as an acute hospital providing a full range of in-patient and ambulatory care services. The redevelopment project is planned to embrace the philosophy of ambulatory care as a new model of service delivery. Ambulatory care services will be delivered among different clinical specialties in a patient oriented setting with a view to reducing the need for hospitalisation. New medical oncology services including front-line management, consultation services and chemotherapy programmes will be provided in the ambulatory care centre. Other services including clinical pathology, allied health, business support and staff facilities will also be enhanced and expanded. The redeveloped KWH will also accommodate the reprovisioned facilities of Chinese Medicine services and preventive care services currently run by TWGHs, including its integrated Chinese and western medicine in-patient accommodation with over 50 self-financed beds.

10. Apart from an expanded Accident & Emergency department, the redeveloped KWH will have its in-patient services considerably strengthened with ample provision of isolation facilities, appropriate alignment of critical care services, as well as improved access to diagnostic and treatment facilities. Upon completion of the redevelopment project, we aim to provide an additional 374 beds, 10 additional operating theatres and six haemodialysis day beds. The annual capacity for specialist outpatient clinic attendances will also be increased by 255 600 to around 600 000 upon redevelopment.

/FINANCIAL …..

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[2] These projects include expansion of Haven of Hope Hospital with 160 additional beds, expansion of United Christian Hospital with 560 additional beds, redevelopment of Kwong Wah Hospital with 380 additional beds, redevelopment of Our Lady of Maryknoll Hospital with 56 additional beds and expansion of Lai King Building in Princess Margaret Hospital with 400 additional beds.

[3] The estimation has included the planned capacity of the NAH. The capacity of the future redevelopment of healthcare facilities at the vacated site of Queen Elizabeth Hospital will be subject to detailed planning at a later stage.

FINANCIAL IMPLICATIONS

11. We estimate the total capital cost of the proposed main works to be $10,083.3 million in money-of-the-day (MOD) prices (including the contribution from TWGHs of $34 million)(please see paragraphs 13 and 14 below), broken down as follows –

			$ million (in MOD prices)
(a)	Basement		80.9
(b)	Building works[4]		4,534.3
(c)	Building services[5]		2,971.6
(d)	Drainage and external works		48.5
(e)	Additional energy conservation, green and recycled features		106.9
(f)	Furniture and equipment (F&E)[6]		1,195.0
(g)	Consultants' fees for		101.7
	(i) Contract administration	97.5	
	(ii) Management of resident site staff (RSS)	4.2	
(h)	Remuneration of RSS		127.7
(i)	Contingencies		916.7
	Total		10,083.3

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[4] Building works cover construction of superstructure of the building.

[5] Building services works cover electrical installations, ventilation and air conditioning installations, fire services installations, lifts and other specialist installations, etc.

[6] Based on an indicative list of F&E items at Annex 25 to Enclosure 3 and their estimated prices.

12. HA will engage consultants to (i) undertake contract administration; and (ii) directly employ RSS for the supervision of the proposed construction works. A detailed breakdown of the estimate for consultants' fees and RSS costs by man-months is at Annex 24 to Enclosure 3. The construction floor area (CFA) of the proposed first phase of a new hospital complex is approximately 145 916 m^2. The estimated construction unit cost represented by the building and the building services costs is $51,440 per m^2 of CFA in MOD prices. We consider the unit cost reasonable as compared with that of similar projects.

13. TWGHs, the parent organisation of KWH, has undertaken to contribute $34 million in MOD price towards the capital cost of the proposed works under this funding application. The Government will fund the remaining commitment of $10,049.3 million in MOD prices for this part of the project, calculated as follows –

		$ million (in MOD prices)
(a)	Capital cost to be funded by the Government	10,049.3
(b)	Contribution from TWGHs	34.0
	Total	10,083.3

14. Subject to funding approval, we plan to phase the expenditure of the project as follows –

Year	**$ million (MOD)**	
	Funded under 13MD	**Total construction cost**
2018 – 2019	277.8	287.8
2019 – 2020	843.9	855.9
2020 – 2021	2,213.0	2,225.0
2021 – 2022	2,861.0	2,861.0
2022 – 2023	1,557.0	1,557.0

/**Year** ….

Year	$ million (MOD)	
	Funded under 13MD	**Total construction cost**
2023 – 2024	1,343.9	1,343.9
2024 – 2025	952.7	952.7
	10,049.3	10,083.3

15. 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 2018 to 2025. Subject to funding approval, HA will award the contract on a lump-sum basis because the scope of the works can be clearly defined in advance. The contract will provide for price adjustment.

16. HA has assessed the requirements for F&E for this project, and estimates the F&E costs to be $1,195.0 million. The proposed F&E provision represents 15.8% of the construction cost of the project[7]. An indicative list of major F&E items (costing $1 million or above per item) to be procured for the project is at Annex 25 to Enclosure 3.

17. We estimate the additional annual recurrent expenditure arising from the whole redevelopment project to be in the order of around $1,658.0 million.

PUBLIC CONSULTATION

18. HA consulted the Yau Tsim Mong District Council (YTMDC) on the proposed project on 30 November 2017. Members of the YTMDC supported the proposed project.

19. We consulted the Legislative Council Panel on Health Services on 19 March 2018. Members of the Panel supported the submission of the funding proposal to the Public Works Subcommittee for consideration.

/ENVIRONMENTAL …..

[7] Represented by building, building services, drainage, external works cost.

ENVIRONMENTAL IMPLICATIONS

20. The KWH redevelopment project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). HA has completed the Preliminary Environmental Review (PER) for the project which covers the proposed superstructure and associated works as stated in paragraph 1, and the remaining construction works as stated in paragraph 4. The PER has concluded and the Director of Environmental Protection agreed that the project would not have long-term adverse environmental impacts with implementation of suitable mitigation measures.

21. For the proposed superstructure and associated works, HA has incorporated into the works contract the mitigation measures recommended in the PER for construction works in order to ensure that the environmental impacts arising from the superstructure and associated works are within standards and guidelines. These measures include the use of silenced construction plants and temporary noise barriers or screens for noisy construction activities, avoiding noisy construction activities during examination periods of the nearby educational institutions, frequent cleaning and watering of the site, and the provision of wheel-washing facilities, etc. Provisions have also been included in the contract to require the contractor to implement necessary measures to prevent causing disturbance and nuisance to the nearby sensitive receivers including educational institutions. HA has included in the project estimates the cost for the implementation of the environmental mitigation measures.

22. At the planning and design stages, HA has 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 facilities[8]. HA 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.

/23. …..

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[8] Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

23. At the construction stage, HA 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. HA will ensure that the day-to-day operations on site comply with the approved plan. HA will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. HA will control the disposal of inert and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

24. HA estimates that the project will generate in total 305 800 tonnes of construction waste. Of these, HA will reuse 3 060 tonnes (1.0%) of inert construction waste on site and deliver 276 750 tonnes (90.5%) of inert construction waste to public fill reception facilities for subsequent reuse. HA will dispose of the remaining 25 990 tonnes (8.5%) 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 $24.8 million for this project (based on a unit charge rate of $71 per tonne for disposal at public fill reception facilities and $200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

25. This project will adopt various forms of energy efficient features and renewable energy technologies, in particular –

(a) high efficiency air-cooled oil free chillers;

(b) automatic demand control of supply air;

(c) automatic demand control of chilled water circulation system;

(d) heat pipes for heat energy reclaim of exhaust air;

(e) heat pump for domestic hot water, space heating and dehumidification;

(f) building energy management system;

(g) direct current variable speed fan coil unit;

(h) Alternating current-variable voltage variable frequency motors and regenerative devices for lift; and

(i) solar hot water system.

/26. …..

26. For recycled features, HA will adopt rainwater harvesting system and condensate water recycling system for irrigation purpose.

27. The total estimated additional cost for adoption of the energy conservation measures, greening features and recycled features is around $106.9 million (including $36.8 million for energy efficient features) which has been included in the cost estimate of this project. The energy efficient features will achieve 6.4% energy savings in the annual energy consumption with a payback period of about nine years.

HERITAGE IMPLICATIONS

28. The Tung Wah Museum is a Declared Monument (DM) which is near to the project site boundary. Pursuant to the Development Bureau Technical Circular (Works) No. 6/2009, this project is subject to a Heritage Impact Assessment (HIA). HA has carried out a HIA to assess the effect of the redevelopment project on the DM and devised measures to mitigate the impacts concerned. The HIA report was considered by the Antiquities and Monuments Office (AMO) of the Leisure and Cultural Services Department which raised no objection to the report. We then consulted the Antiquities Advisory Board (AAB) on the HIA report at its meeting on 4 June 2015 and members were generally supportive of the findings of the HIA. We will ensure that the construction works and future maintenance will comply with the mitigation measures, recommendations and requirements stipulated in the HIA report. In case of any amendments to the recommended mitigation measures, recommendations and requirements stipulated in the HIA report, we will further consult the AMO and the AAB as necessary to formulate additional mitigation measures to ensure that any possible impact on the heritage site is acceptable from the conservation perspective.

LAND ACQUISITION

29. This proposed works do not require any land acquisition.

BACKGROUND INFORMATION

30. In February 2013, FC approved upgrading part of **13MD** as **14MD** "Redevelopment of Kwong Wah Hospital – preparatory works" at an estimated cost of $552.7 million in MOD prices for preparatory works including site surveys and investigations, decanting works and consultancy services for outline sketch plans, detailed design, as well as tender documentation and assessment for the main works.

/31. …..

31. The redevelopment of KWH (main works for phase 1 and 2) is one of the projects covered by the HDP. In April 2016, FC approved upgrading part of **13MD** as **15MD** "Redevelopment of Kwong Wah Hospital – main works (demolition and substructure works for phase 1)" at an estimated cost of $654.8 million in MOD prices for main works including demolition, foundation works, and excavation and lateral support works for phase 1. We upgraded part of **13MD** (i.e. Redevelopment of Kwong Wah Hospital – main works (superstructure and associated works for phase 1)) to Category B in January 2018.

32. The proposed redevelopment of KWH will involve removal of 46 trees inside the building lot, including 44 trees to be felled and two trees to be transplanted within the project site. All the trees to be removed are not important trees[9]. We will incorporate planting proposals as part of the whole redevelopment project, including estimated quantities of 44 trees and 4 952 m^2 of green coverage area.

33. We estimate that the proposed superstructure and associated works will create about 3 400 jobs (3 000 for labourers and another 400 for professional or technical staff) providing a total employment of around 67 200 man-months.

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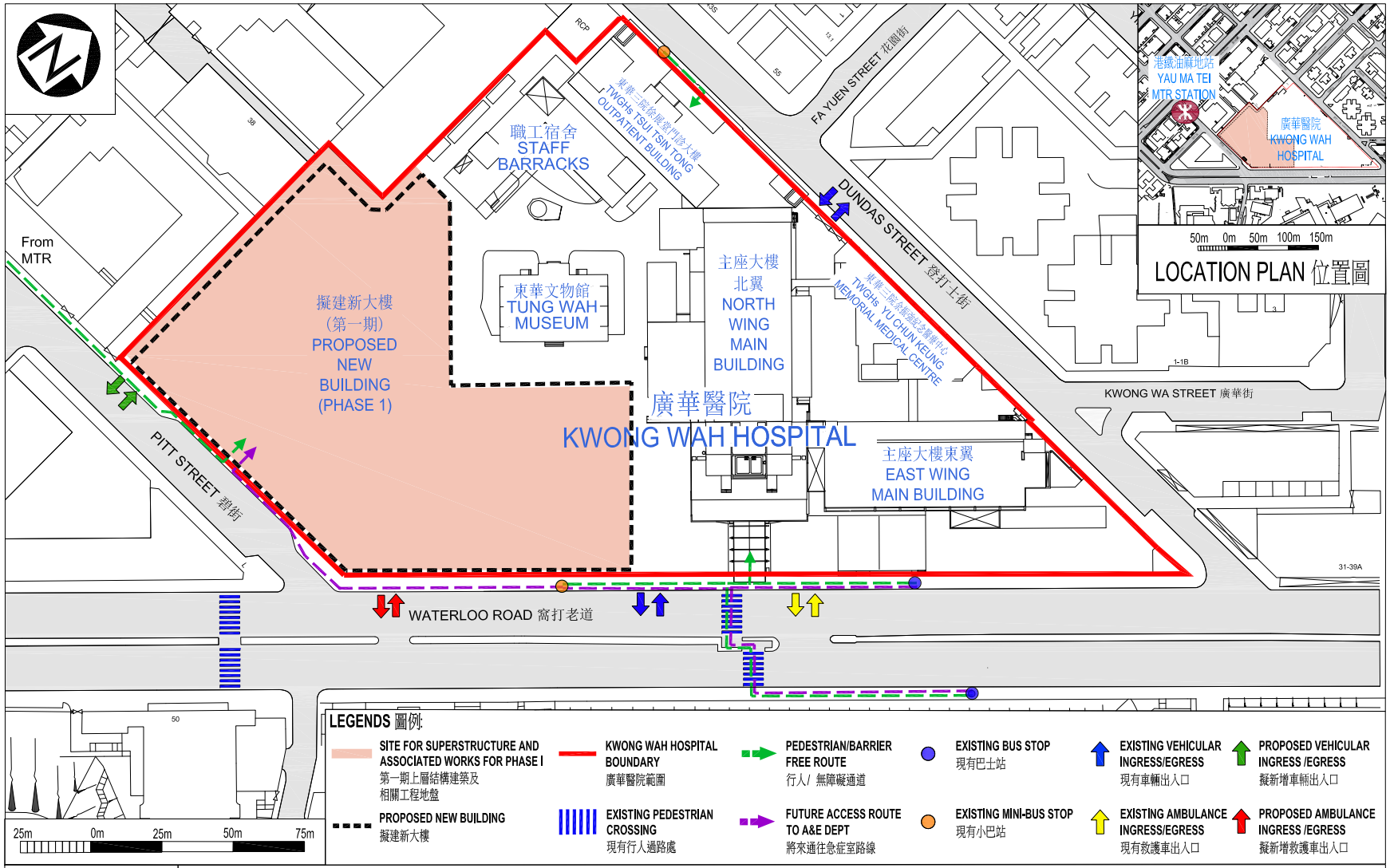
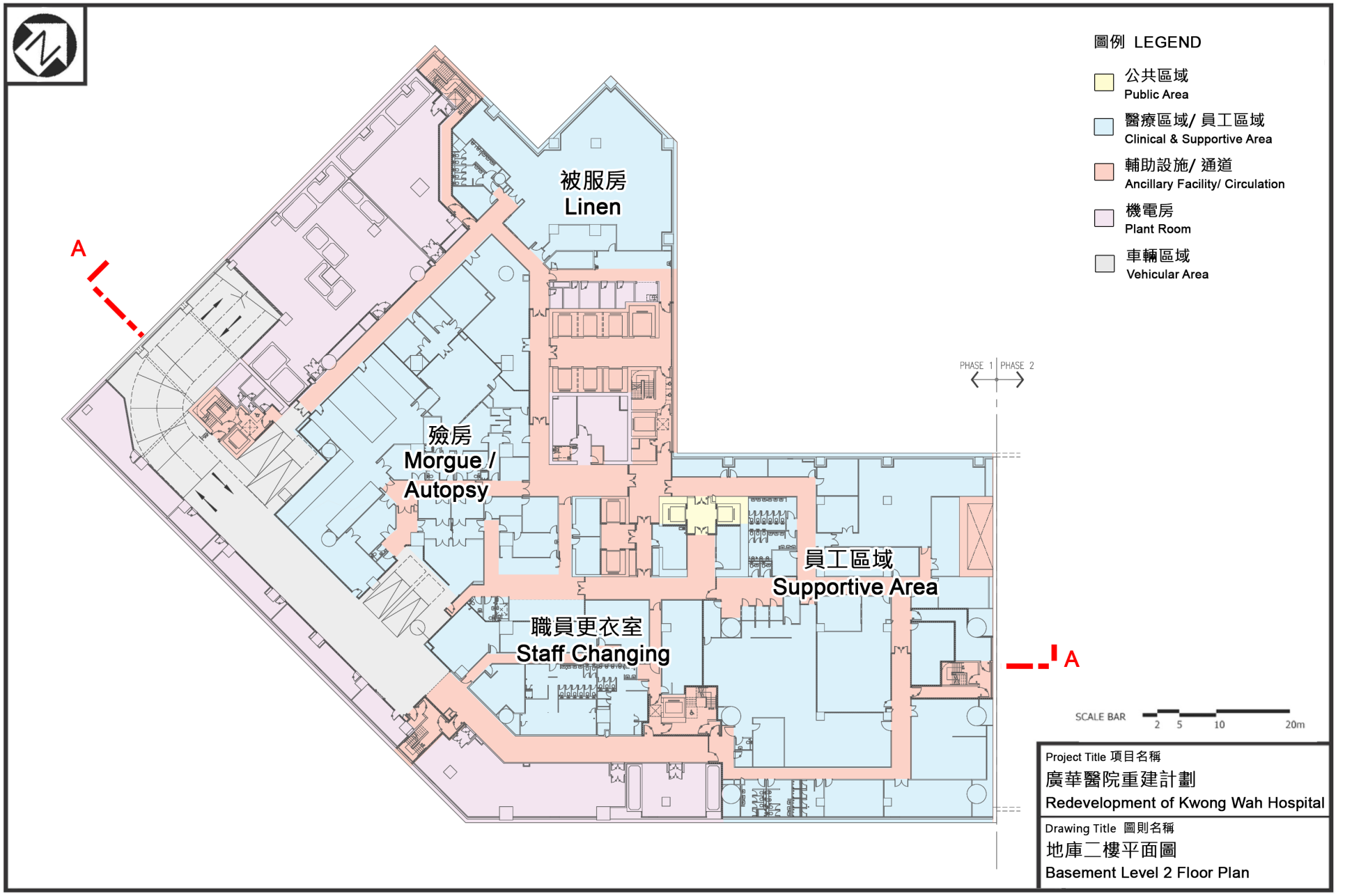
[9] "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

(a) trees of 100 years old or above;
(b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees 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 the overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
(e) trees with a trunk of diameter equal to or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with a height or canopy spread equal to or exceeding 25 m.

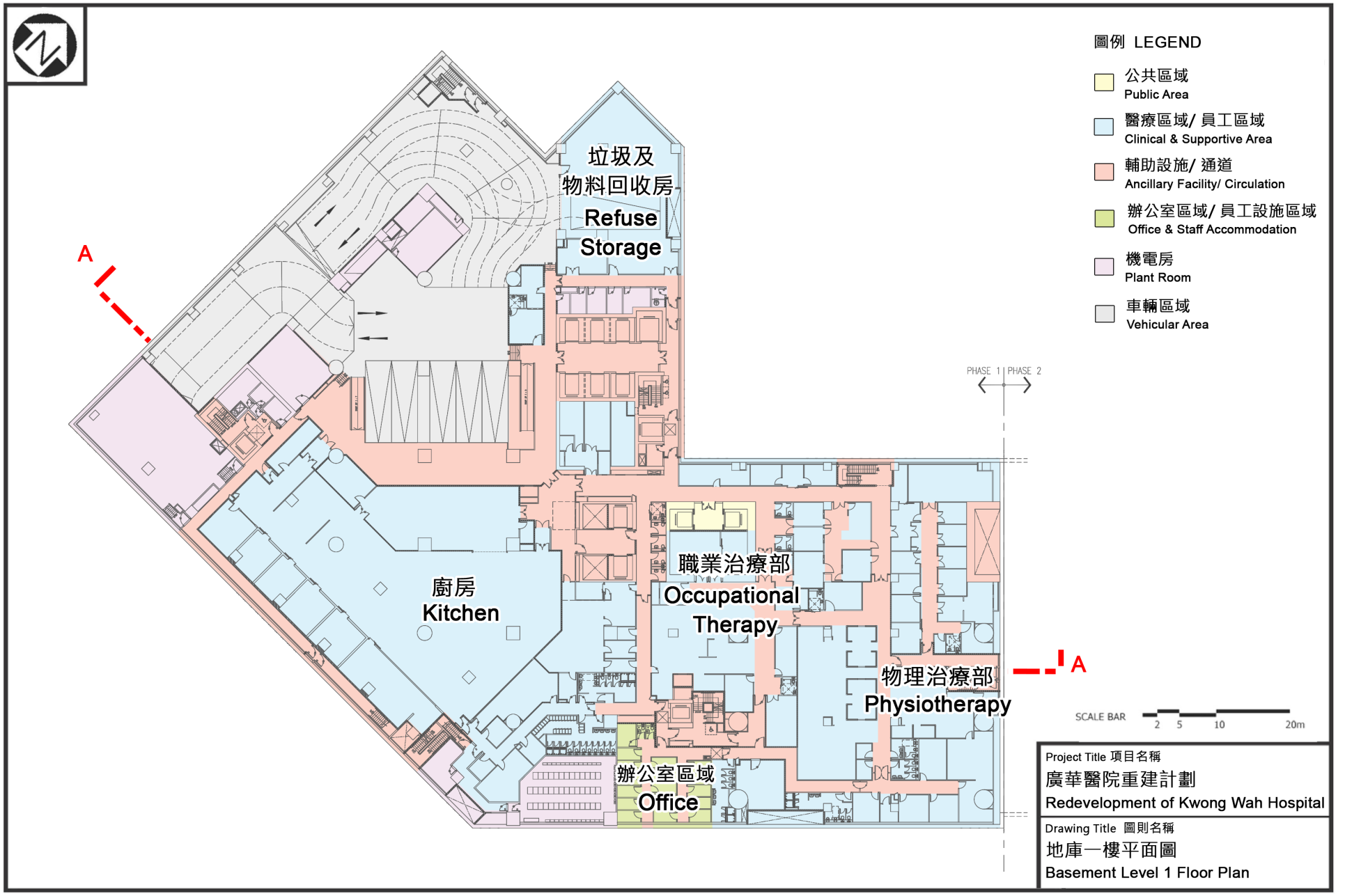


SITE PLAN 工地平面圖	8013MD (PART) REDEVELOPMENT OF KWONG WAH HOSPITAL - MAIN WORKS (SUPERSTRUCTURE AND ASSOCIATED WORKS FOR PHASE I) 廣華醫院重建計劃 - 主要工程 (第一期的上層結構建築和相關的工程)

附件3 附錄1 Annex 1 to Enclosure 3



附件3 附錄2 Annex 2 to Enclosure 3



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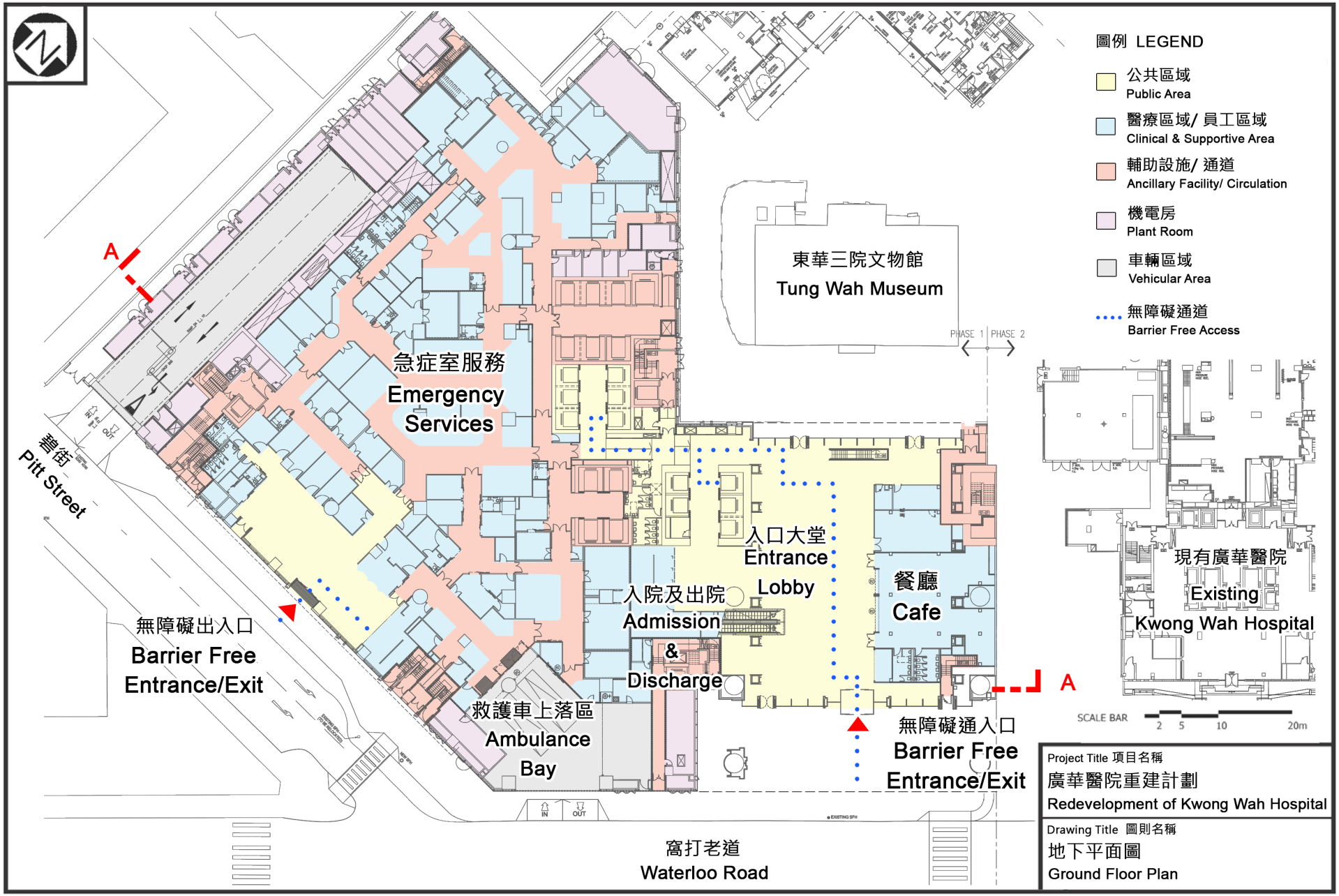

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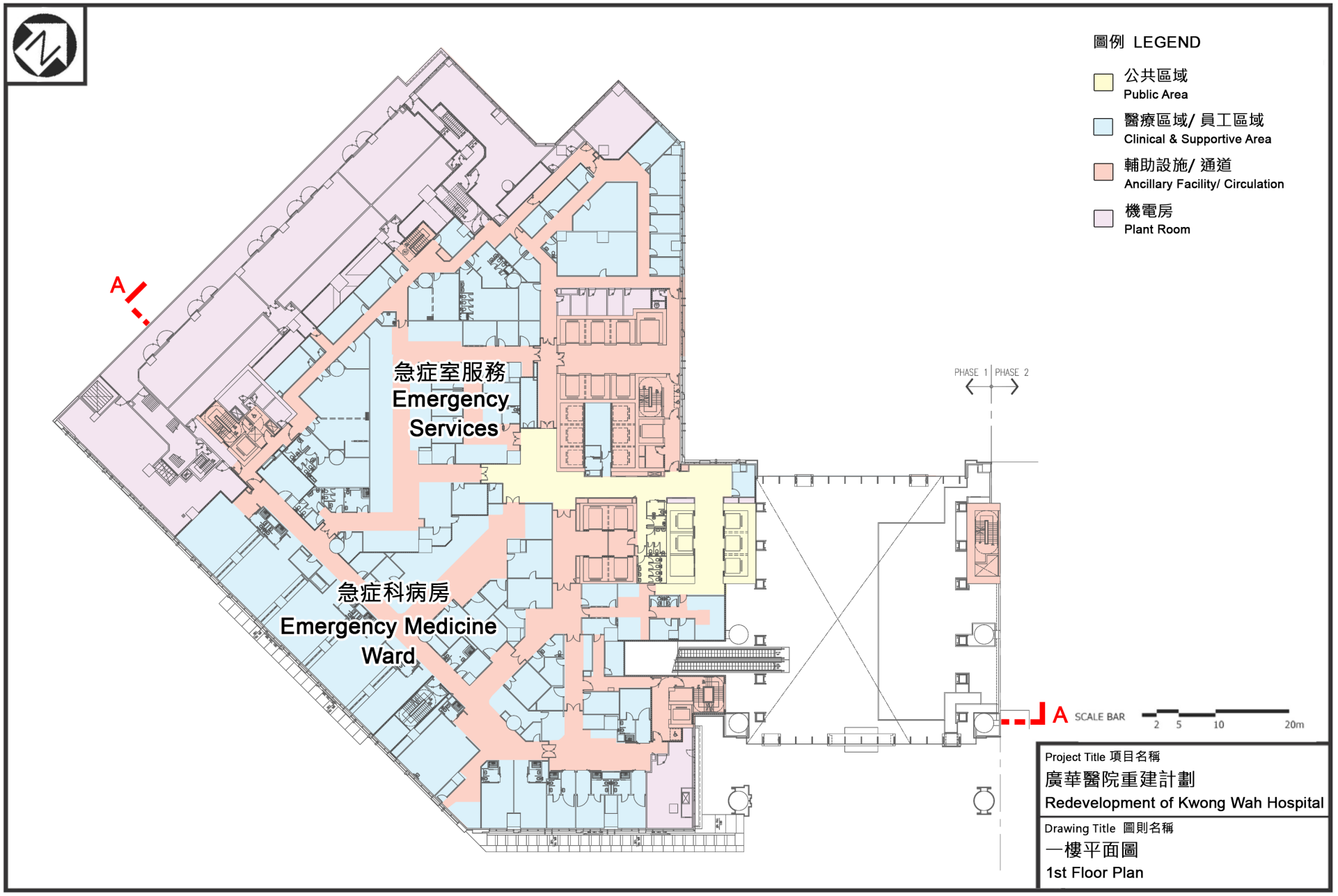

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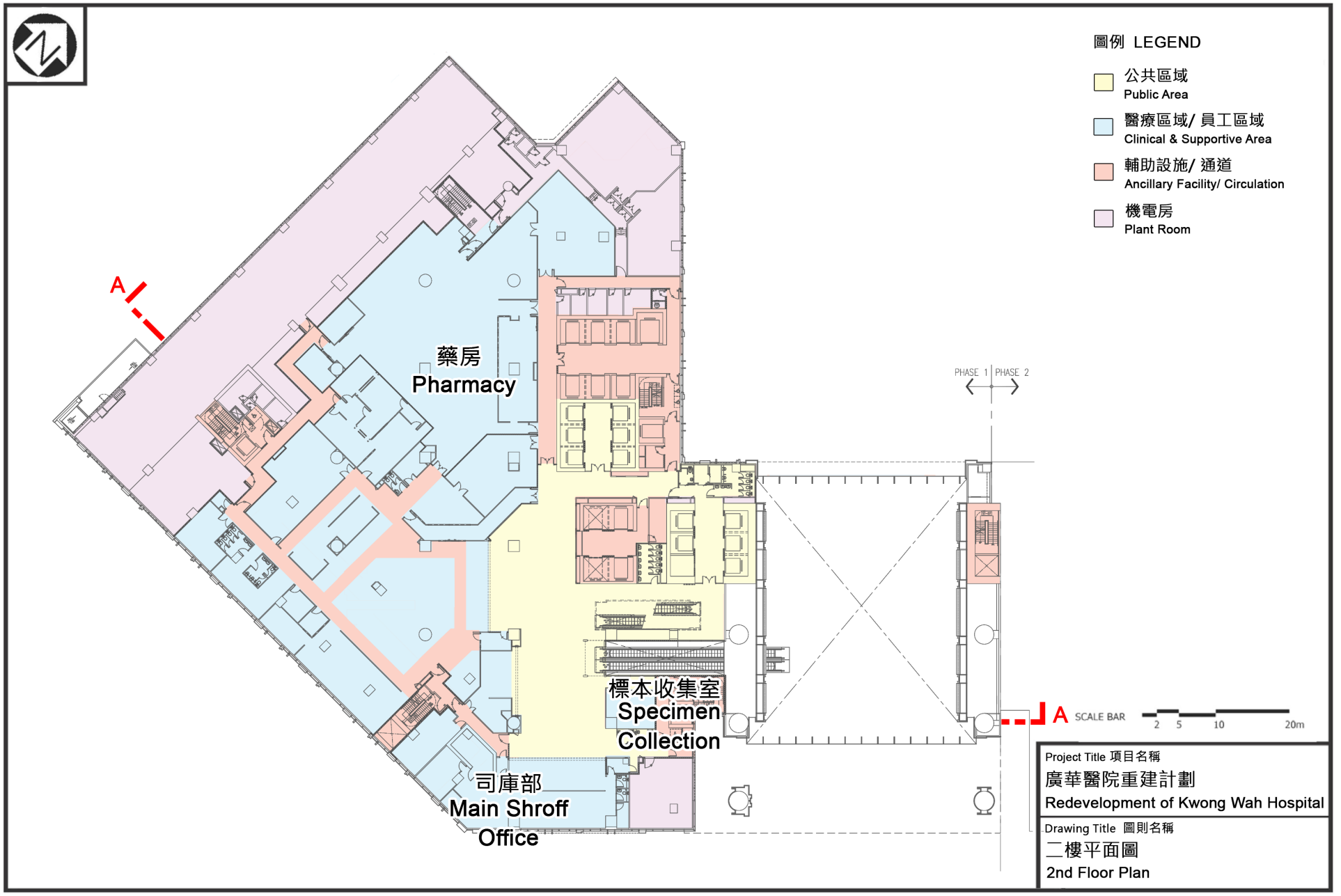
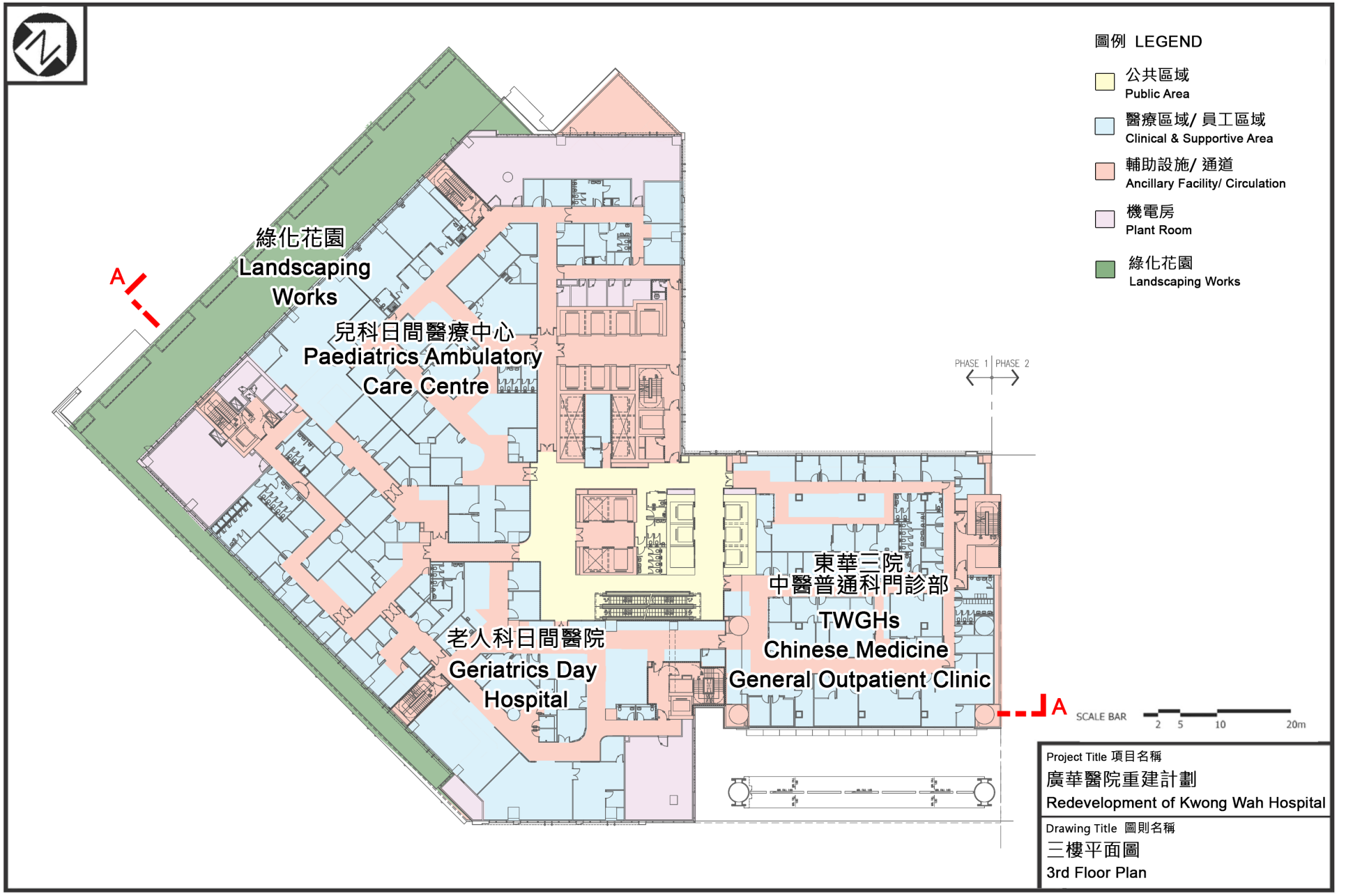


附件3 附錄6 Annex 6 to Enclosure 3



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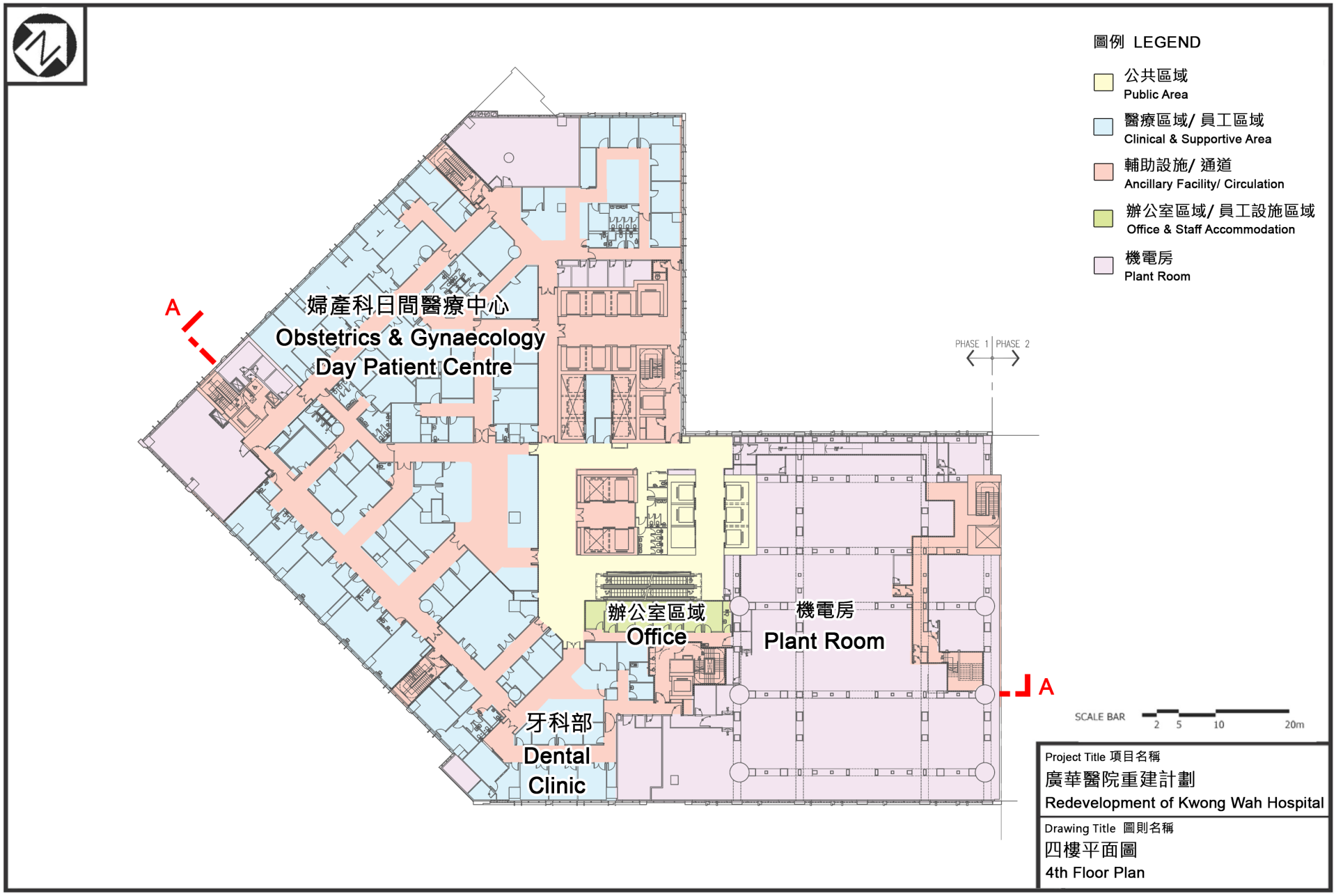

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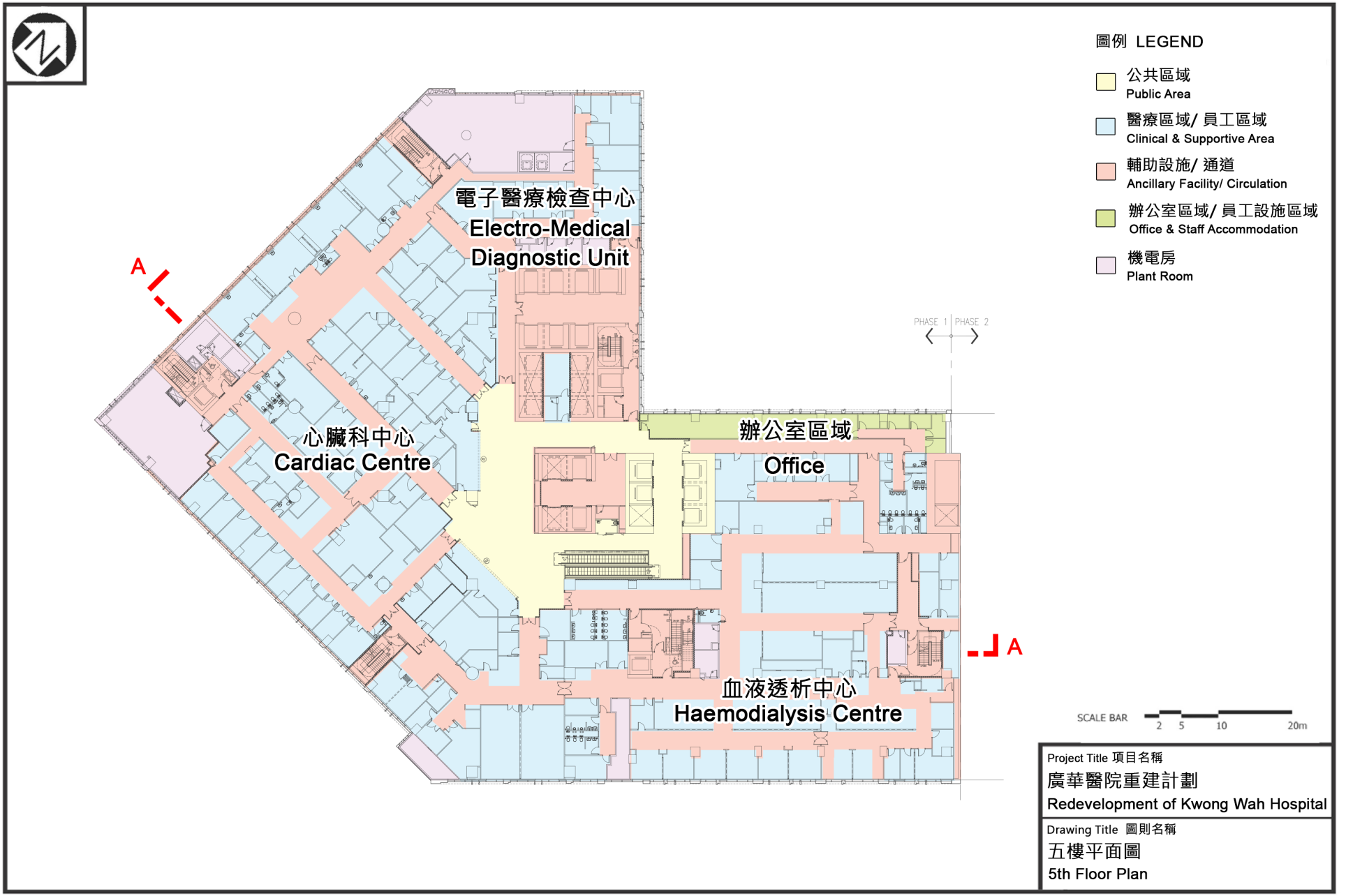

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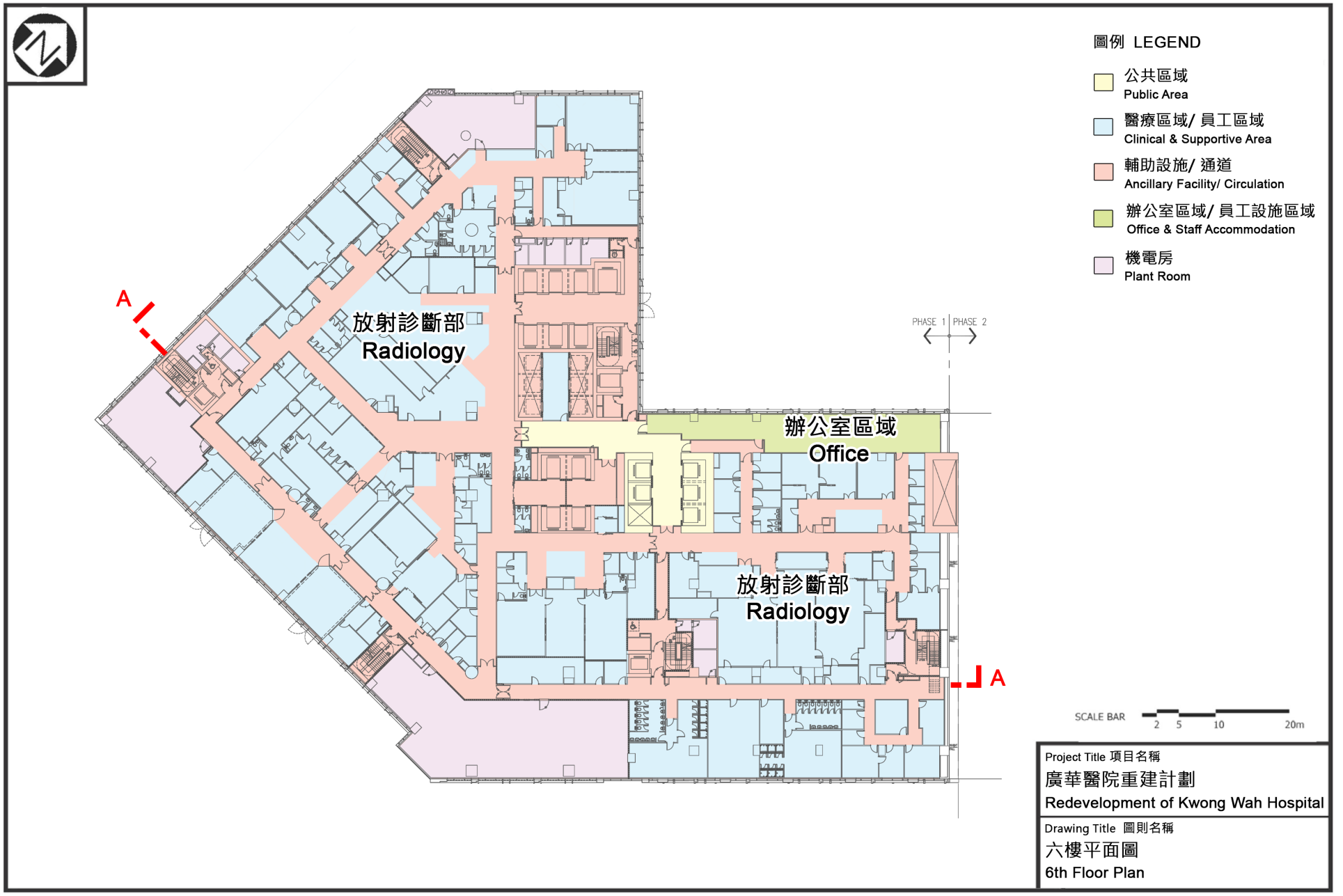

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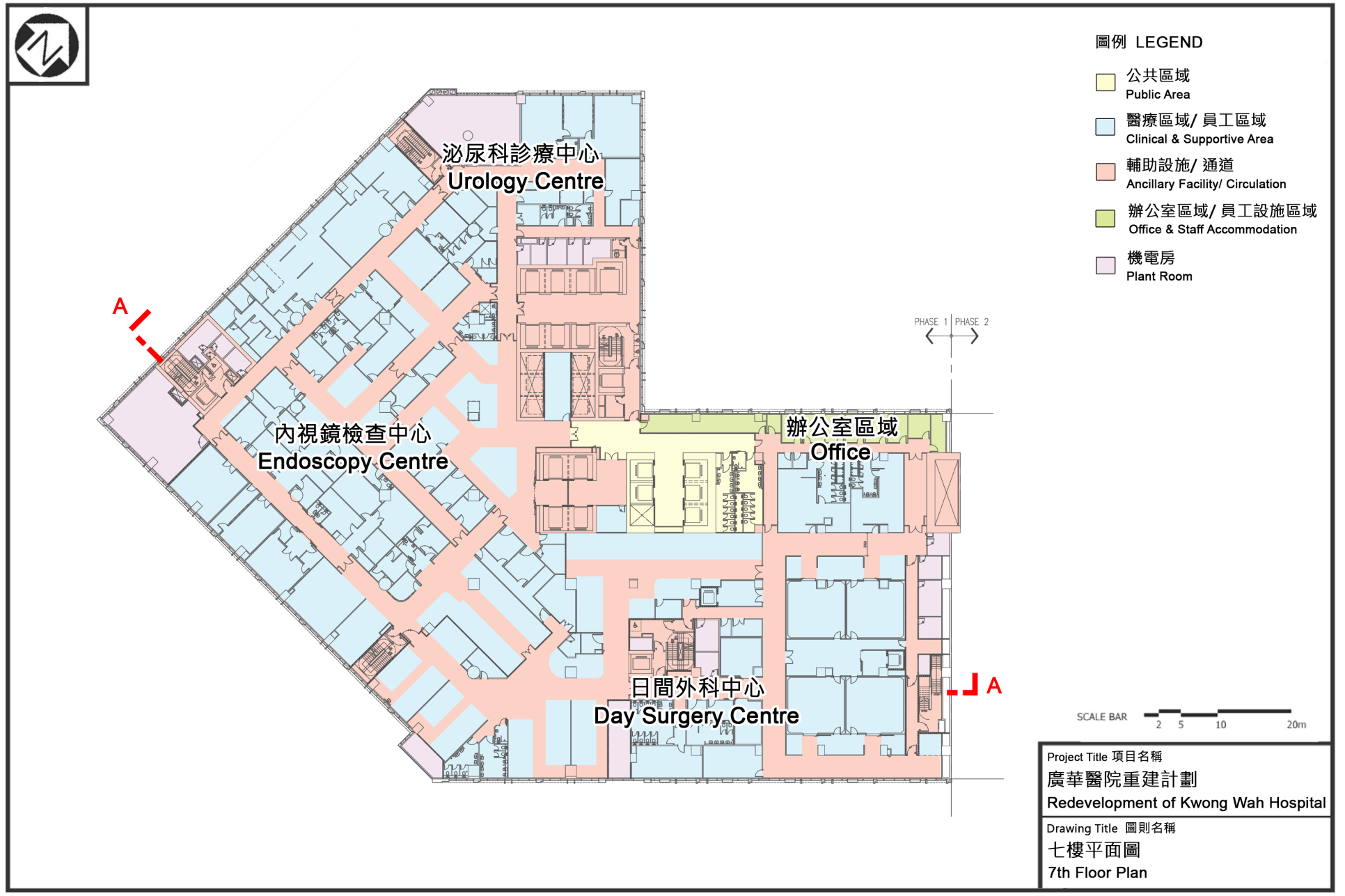

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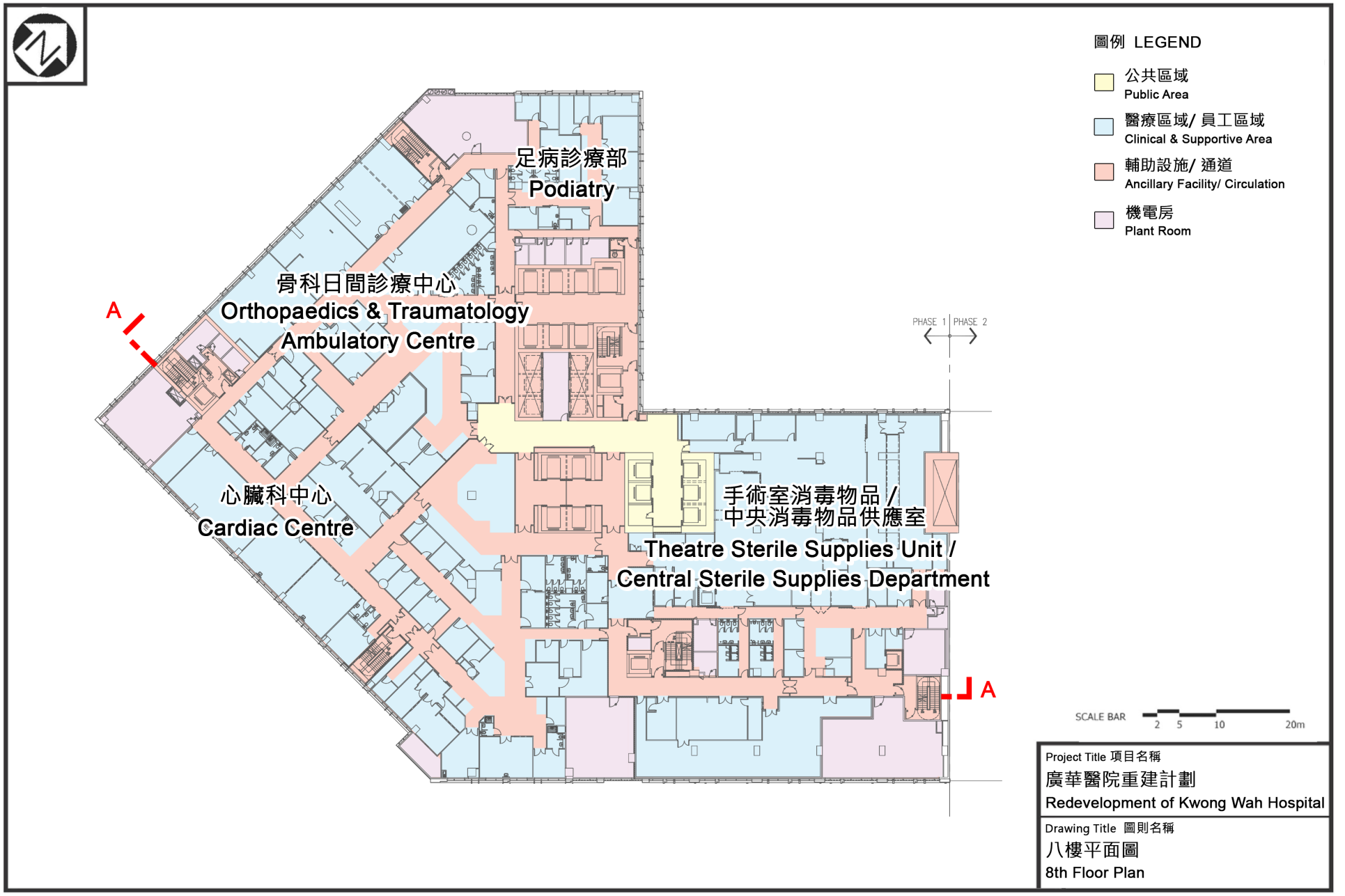

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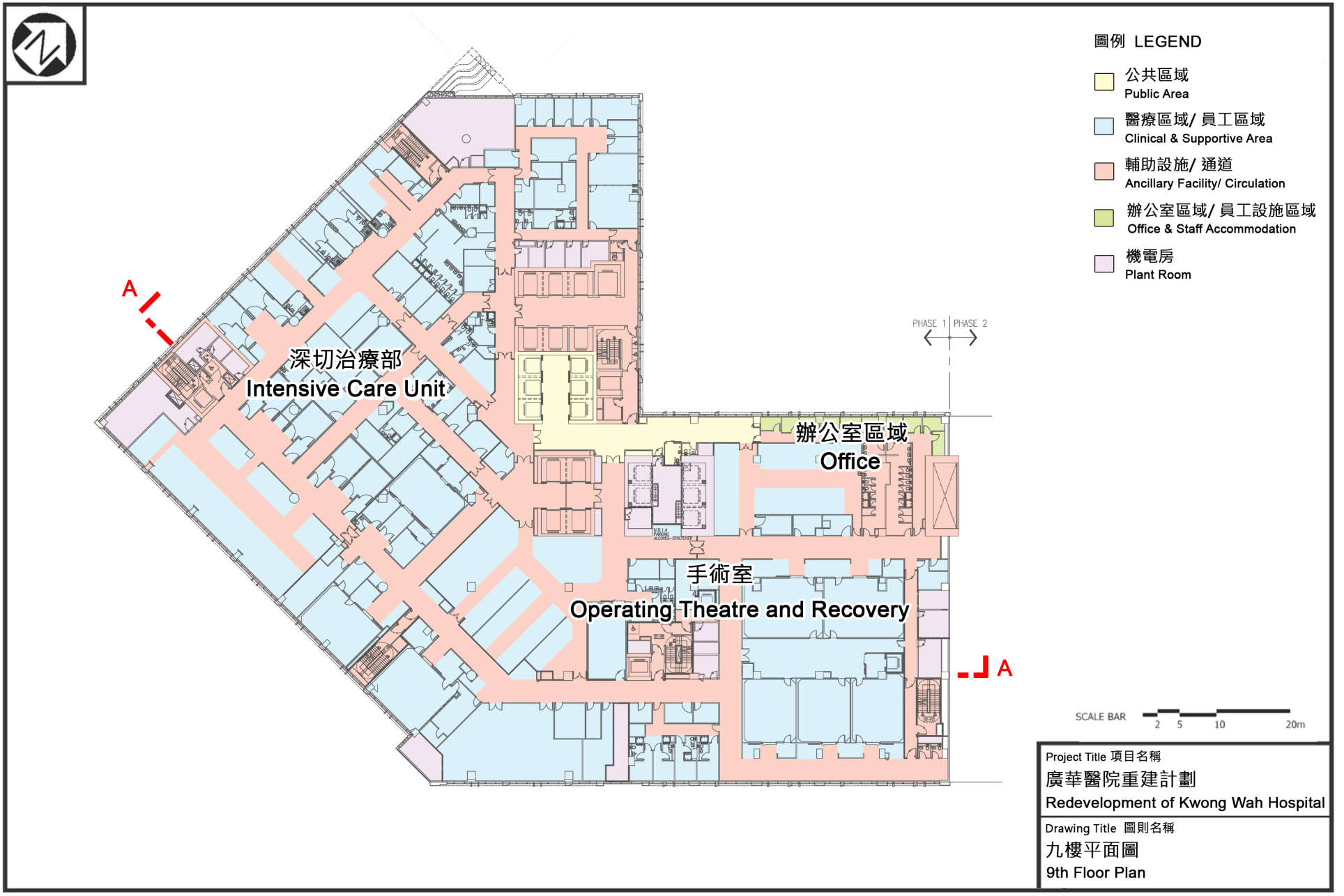

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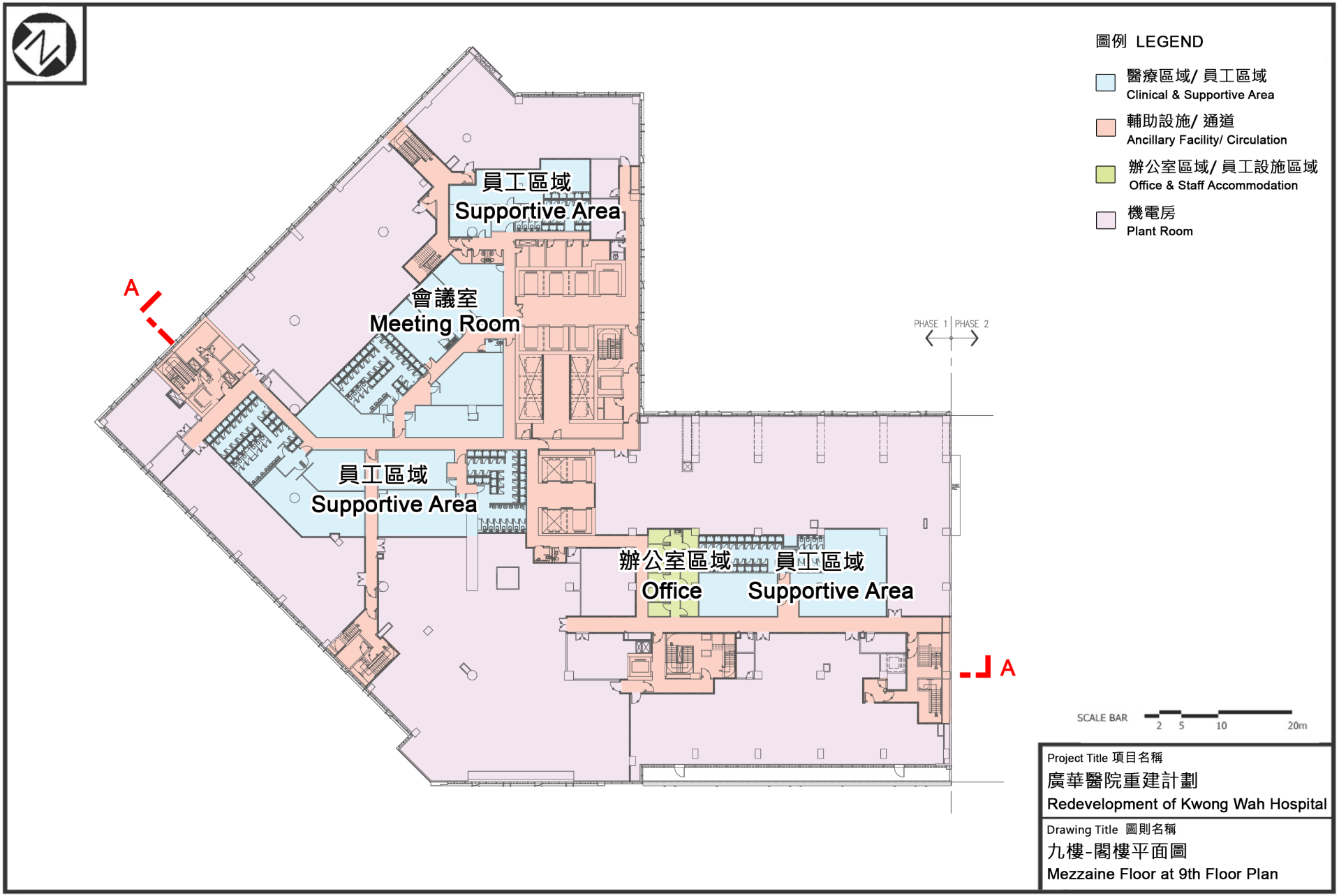

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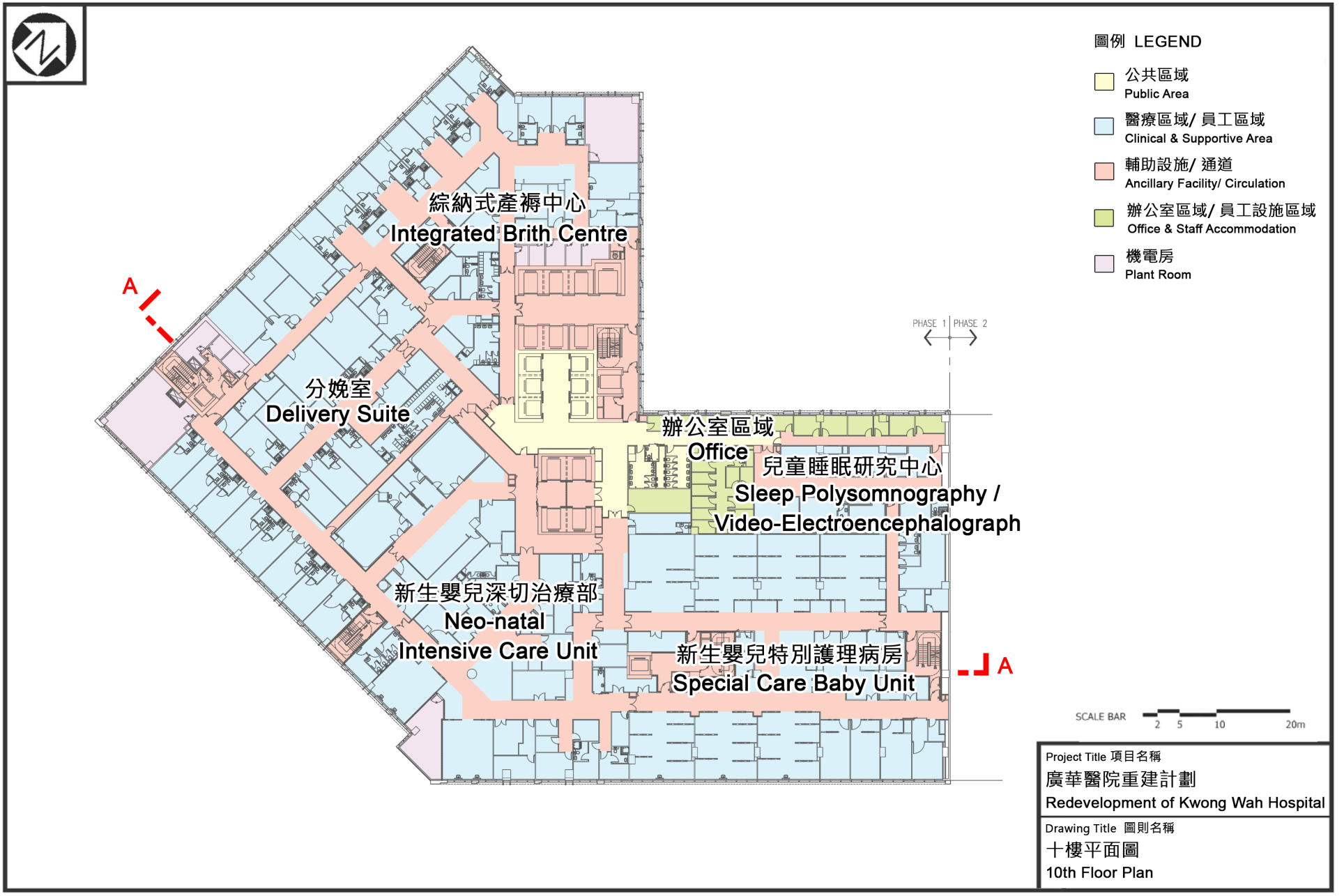
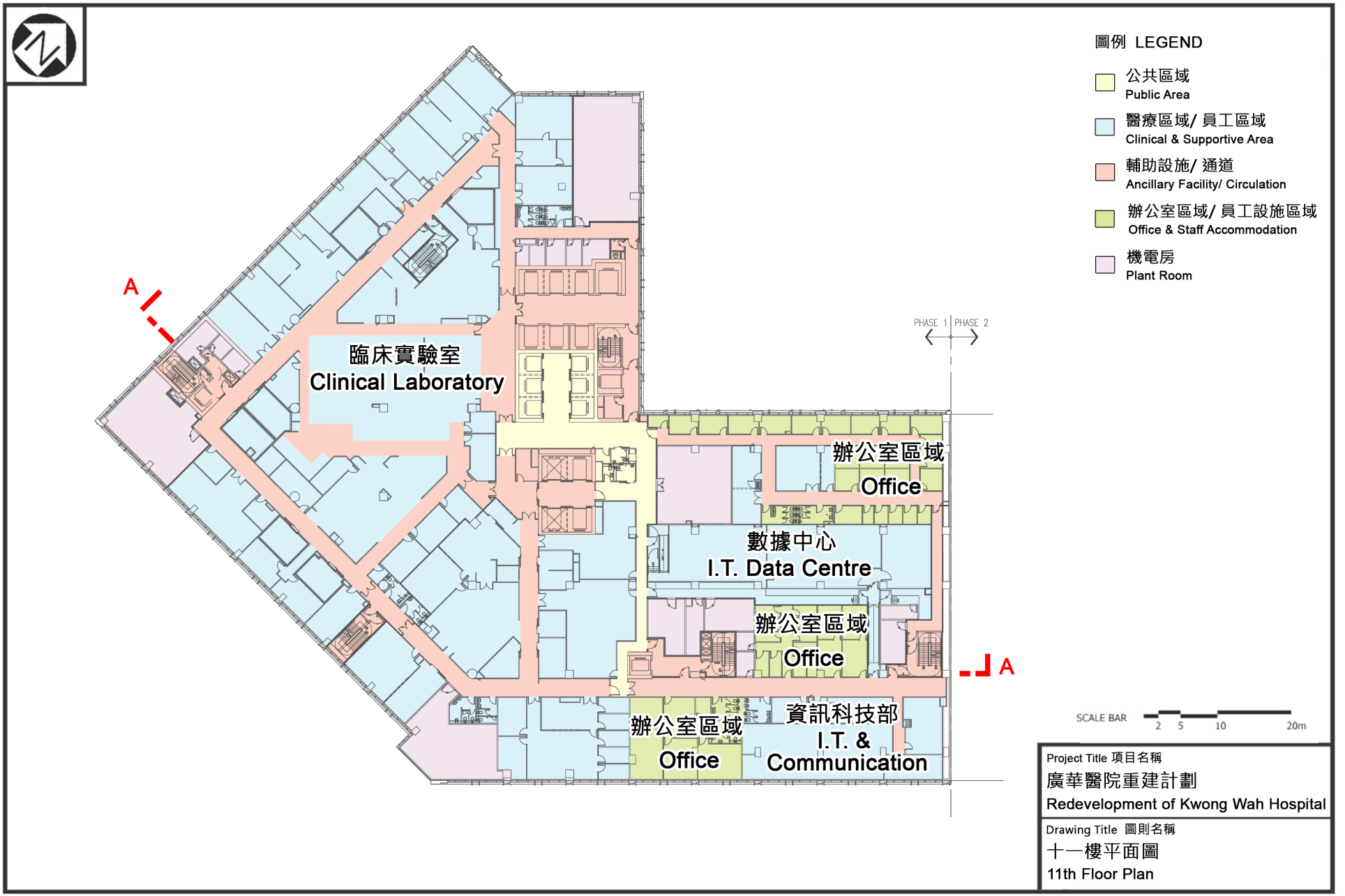
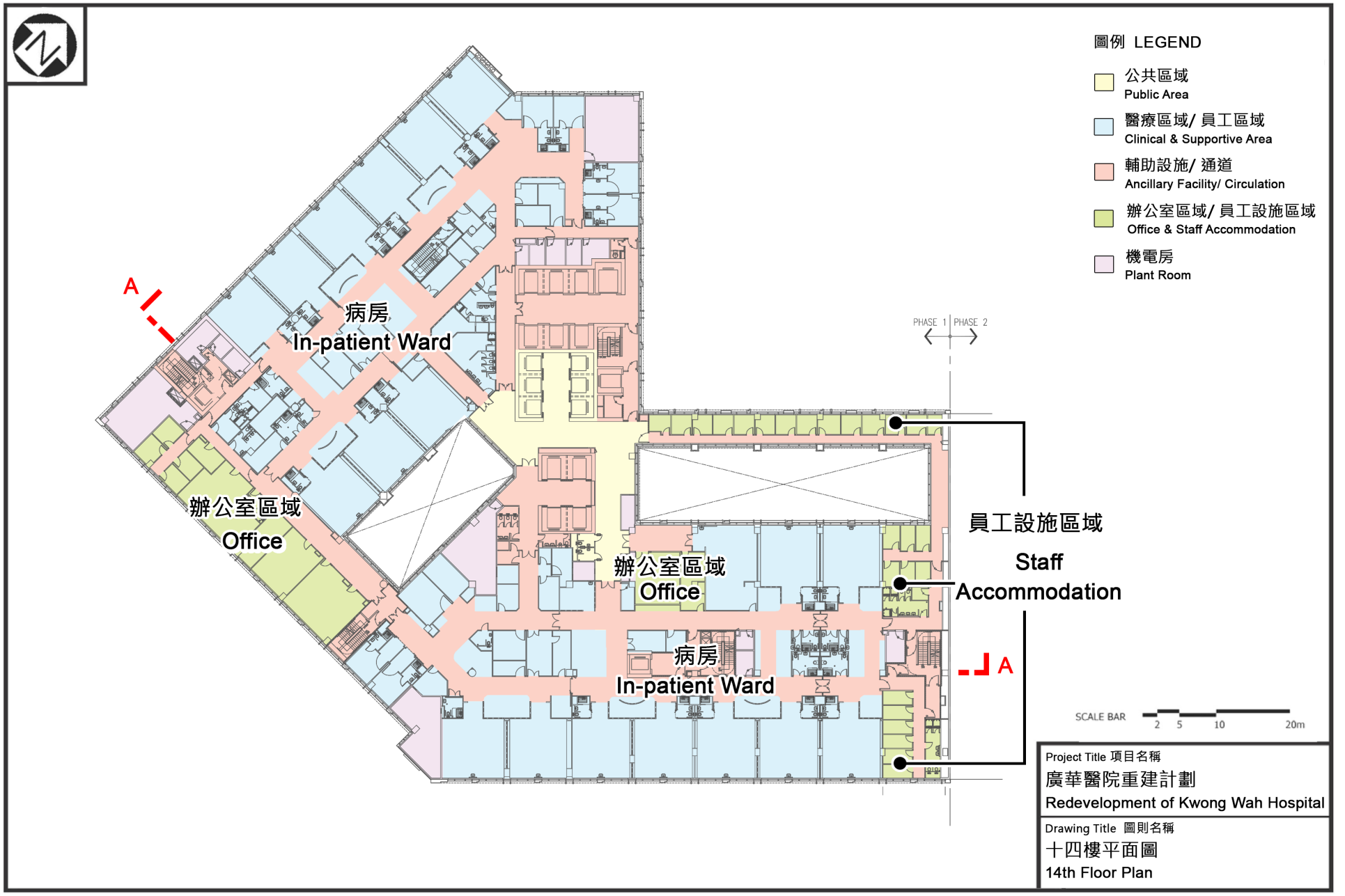

綜納式產褥中心
Integrated Brith Centre
分娩室
Delivery Suite
辦公室區域
Office
兒童睡眠研究中心
Sleep Polysomnography /
Video-Electroencephalograph
新生嬰兒深切治療部
Neo-natal
Intensive Care Unit
新生嬰兒特別護理病房
Special Care Baby Unit
A
A
PHASE 1
PHASE 2
圖例 LEGEND
公共區域
Public Area
醫療區域/ 員工區域
Clinical & Supportive Area
輔助設施/ 通道
Ancillary Facility/ Circulation
辦公室區域/ 員工設施區域
Office & Staff Accommodation
機電房
Plant Room
SCALE BAR
2
5
10
20m
Project Title 項目名稱
廣華醫院重建計劃
Redevelopment of Kwong Wah Hospital
Drawing Title 圖則名稱
十樓平面圖
10th Floor Plan



附件3 附錄16 Annex 16 to Enclosure 3

附件3 附錄17 Annex 17 to Enclosure 3



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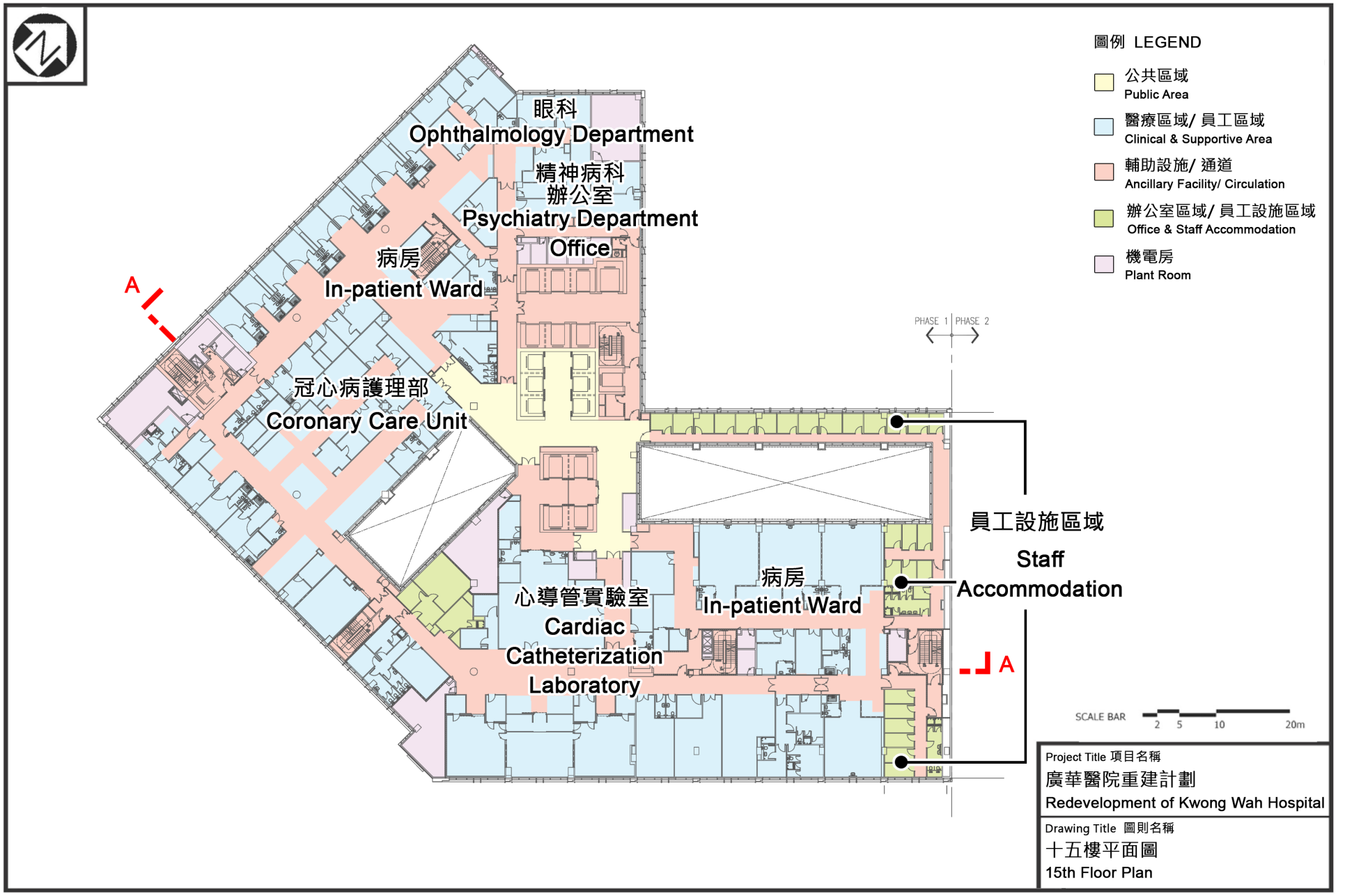

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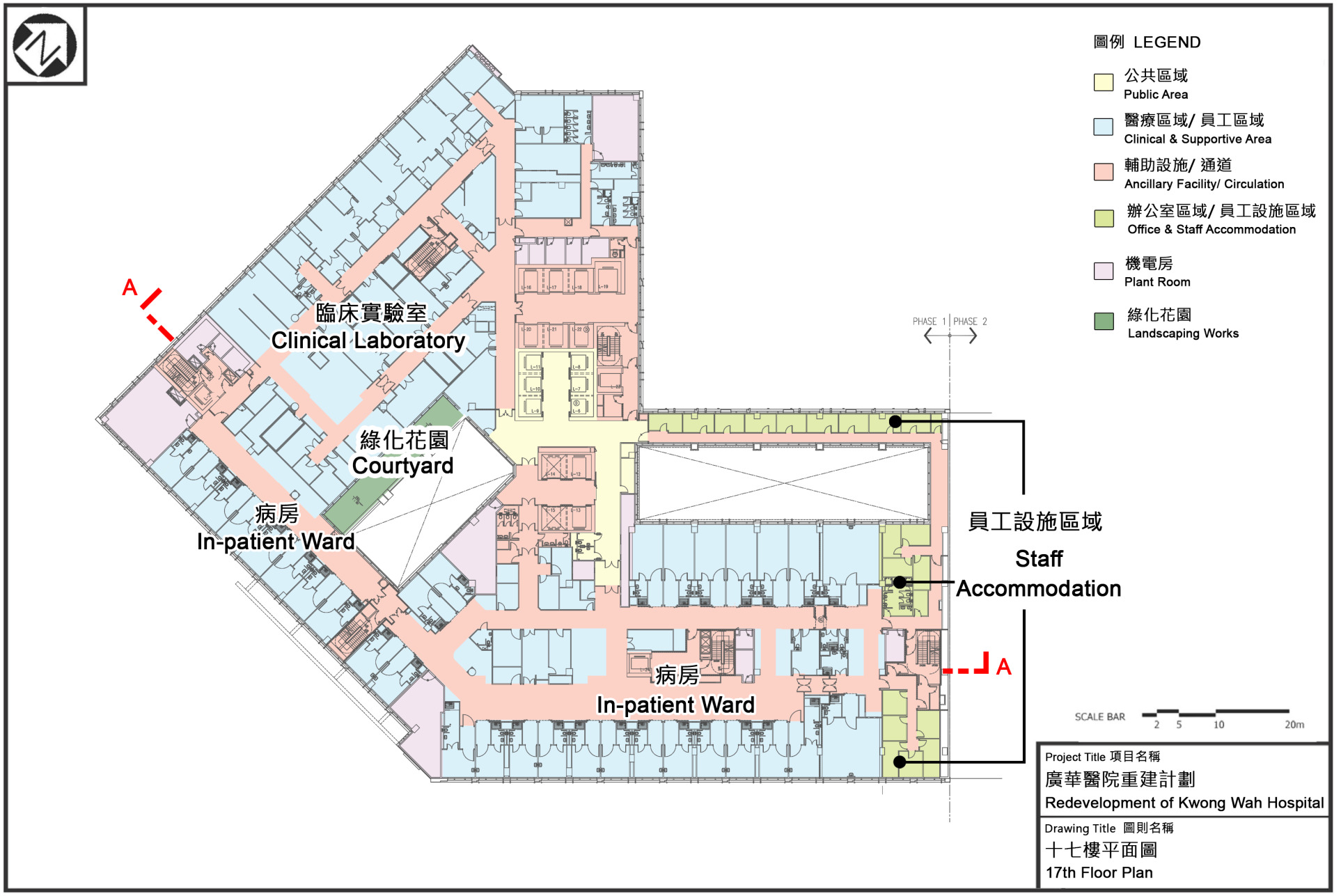
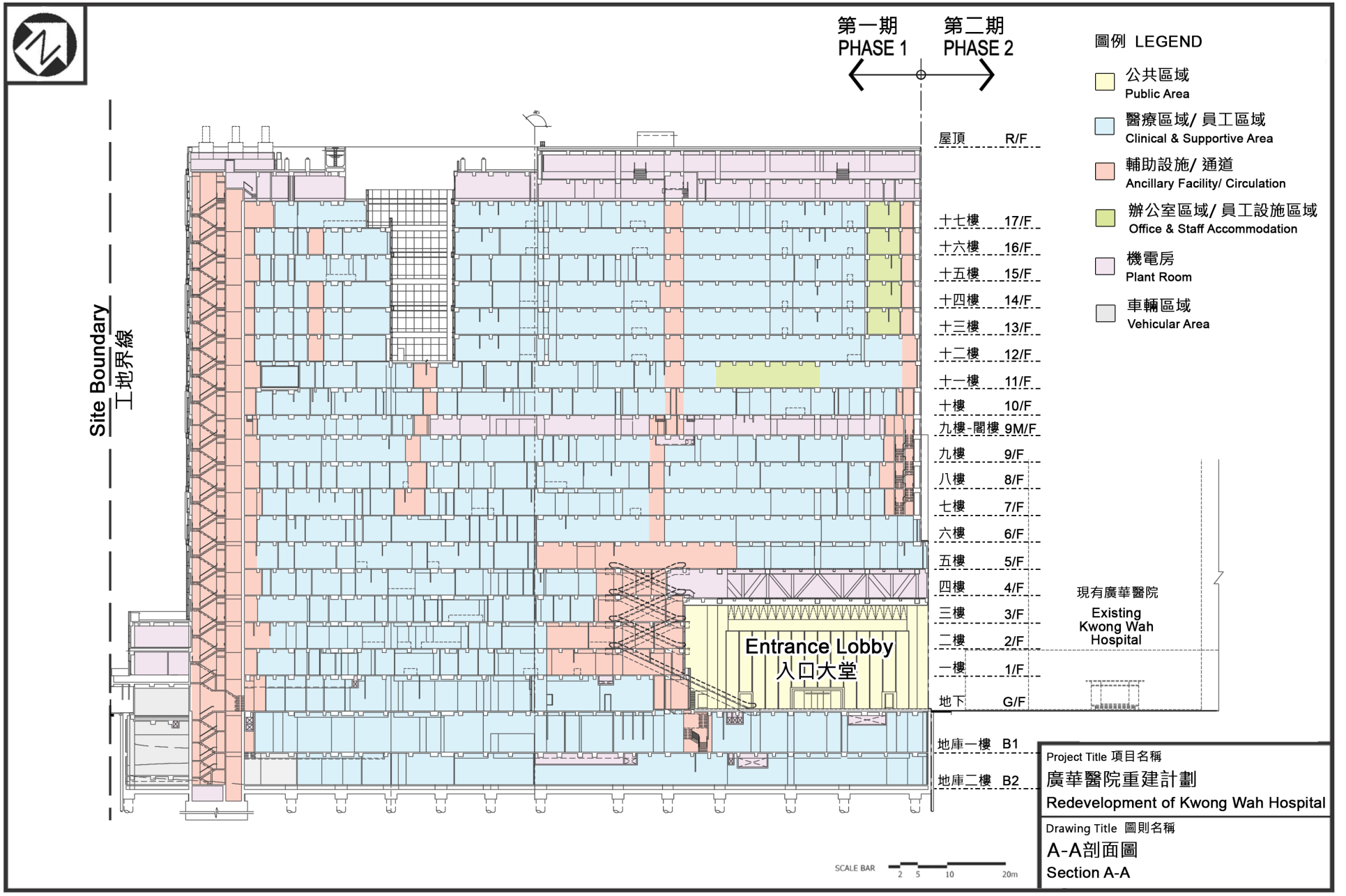
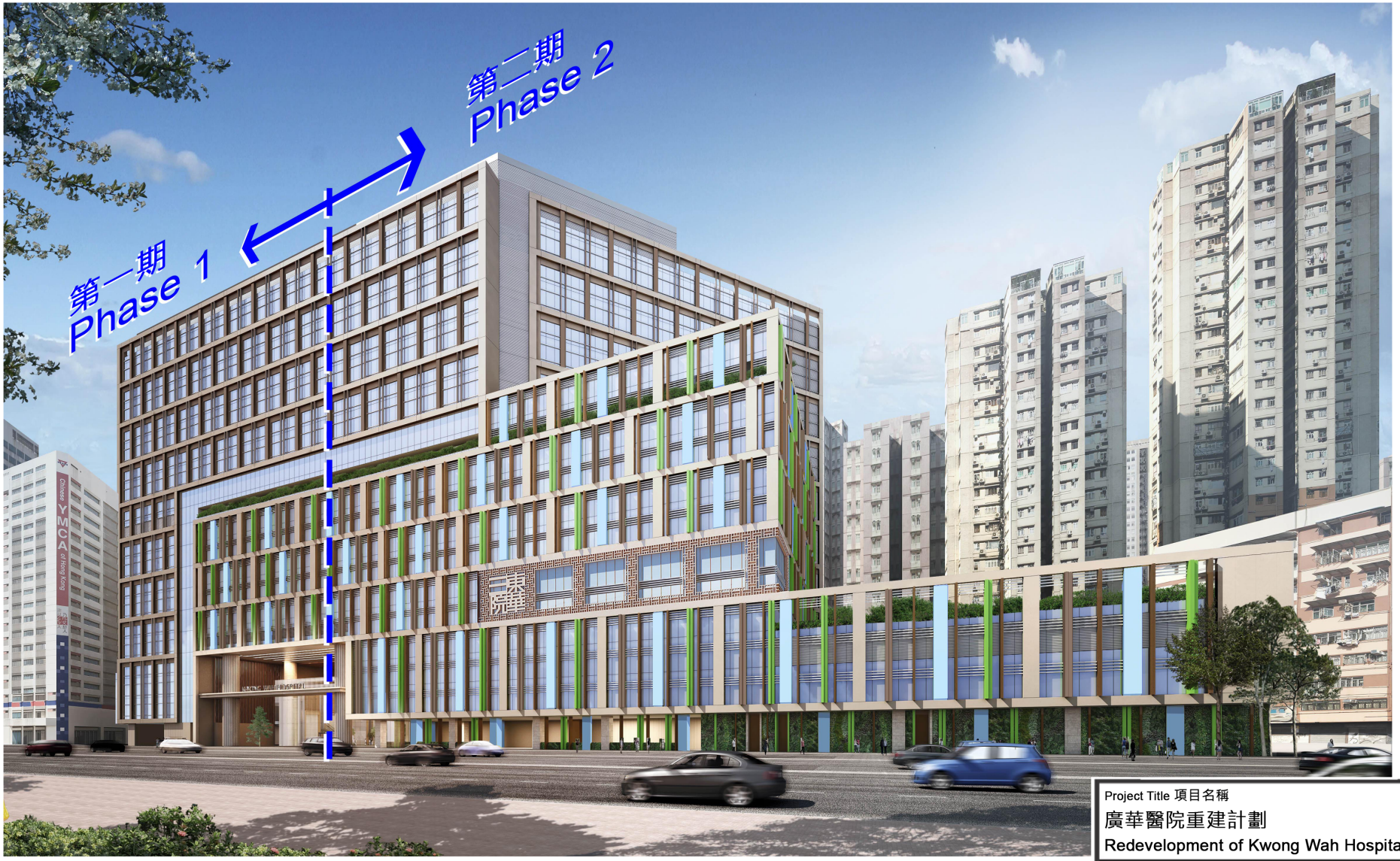
附件3 附錄20 Annex 20 to Enclosure 3



附件3 附錄21 Annex 21 to Enclosure 3



附件3 附錄22 Annex 22 to Enclosure 3



從窩打老道望向重建後的廣華醫院
View of Kwong Wah Hospital from Waterloo Road

Project Title 項目名稱
廣華醫院重建計劃
Redevelopment of Kwong Wah Hospital

Drawing Title 圖則名稱
構思圖
Artist's Impression

附件3 附錄23 Annex 23 to Enclosure 3

13MD – Redevelopment of Kwong Wah Hospital

Breakdown of the estimates for consultants' fees and resident site staff (RSS) costs (in September 2017 prices)

		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
Consultants' fees for contract administration (Note 2)	Professional	-	-	-	47.7
	Technical				29.5
		-	-	-	
				Sub-total	77.2#
Resident site staff (RSS) costs (Note 3)	Professional	457	38	1.6	57.6
	Technical	1 066	14	1.6	46.9
				Sub-total	104.5
Comprising –					
(i) Consultants' fee for management of RSS			3.3 #		
(iii) Remuneration of RSS			101.2#		
				Total	**181.7**

* 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 now, MPS salary point 38 = $78,775 per month and MPS salary point 14 = $27,485 per month).

2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for preparatory works of **13MD**. The construction phase of the assignment will only be executed subject to the Finance Committee's approval to upgrade part of **13MD** to Category A.

3. The consultants' staff cost for site supervision is based on the estimate prepared by the Hospital Authority. We will only know the actual man-months and actual fees will only be known after completion of the proposed works.

Remarks

The figures in this Annex are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 11 of Enclosure 3.

13MD – Redevelopment of Kwong Wah 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)
Analyzers, Laboratory, Clinical Chemistry, Automated	1	4.500	4.500
Analyzers, Laboratory, Clinical Chemistry/Immunoassay	1	1.330	1.330
Analyzers, Laboratory, Hematology, Blood Grouping, Automated	1	1.800	1.800
Analyzers, Laboratory, Immunoassay, Chemiluminescent	2	1.260	2.520
Analyzers, Laboratory, Mass Spectrometry, Microorganism Identification	1	2.678	2.678
Analyzers, Laboratory, Molecular Assay, Genetic Testing	1	1.500	1.500
Arthroscopic Shaver Systems for Hip Arthroscopy	1	1.137	1.137
Arthroscopic Shaver Systems for Shoulder Arthroscopy	1	1.091	1.091
Automated Delivery Technology	1	1.780	1.780
Automatic Washer Return Conveyor	1	2.500	2.500
Automation Systems for Tablet Dispensing, Packaging & Inspection, Outpatient Pharmacy	2	2.883	5.766
Automation Systems, Medication Dispensing, Outpatient Pharmacy	1	3.501	3.501
Automation Systems, Operating Room, Endoscopic	1	1.250	1.250

Item description	Quantity	Unit cost ($ million)	Total cost ($ million)
Automation Systems, Operating Room, Endoscopic (included Endoscopic Camera System)	2	1.590	3.180
Closed Circuit Television (CCTV) System	1	2.576	2.576
Data Interface Units, Physiologic Monitor/Information System	1	12.186	12.186
Digital Radio Communication System	1	4.322	4.322
Digitizers, Laboratory Slide	1	1.500	1.500
Direct Digital General Radiography Unit	2	2.450	4.900
Disinfectors, Liquid Germicide, Flexible Endoscope; and Cabinets, Storage, Endoscope; and Water Purification Systems, Reverse Osmosis	1	16.592	16.592
Dispensing Shelving System	1	1.560	1.560
Electroencephalographs, Computerized	1	1.252	1.252
Endolap Video System, with Video Laparoscope	1	10.412	10.412
Endolap Video System	4	9.828	39.312
Endoscopy System	1	1.505	1.505
Facility Booms, Ceiling-Mounted Intensive Care Unit	1	6.116	6.116
Facility Booms, Ceiling-Mounted, Operating Theatre (OT), Obstetrics & Gynaecology, Day Surgery	8	2.200	17.600
General Radiography Unit	2	2.450	4.900
Heart-Lung Support Units	2	1.860	3.720
Image Processors, Video, Endoscopy and Cameras, Video, Endoscope	1	1.010	1.010

Item description	Quantity	Unit cost ($ million)	Total cost ($ million)
Image Processors, Video, Endoscopy and Cameras, Video, Endoscope, Infrared Observation	5	1.080	5.400
Incubators, Infant, Transport	1	1.300	1.300
Information Systems, Data Management, Anesthesia	1	10.396	10.396
Information Systems, Data Management, Bedside and Monitors, Physiologic, Multipurpose, Bedside, Neurosurgery	1	7.650	7.650
Information Systems, Data Management, Bedside and Monitors, Physiologic, Multipurpose, Bedside, Intensive Care Unit	1	13.246	13.246
Information Systems, Data Management, Bedside and Monitors, Physiologic, Multipurpose, Bedside, Medicine & Geriatrics	1	7.072	7.072
Information Systems, Data Management, Cardiovascular	1	2.200	2.200
Information Systems, Data Management, Obstetric	1	17.168	17.168
Information Systems, Picture Archiving And Communication, Radiology	1	10.005	10.005
Intercom System	1	2.876	2.876
Joss Paper Burner	1	1.220	1.220
Microscopes, Light, Operating, High Resolution	1	4.100	4.100
Microscopes, Light, Operating	1	1.918	1.918
Microscopes, Light, Operating, Neurosurgery (Included Accessories for	1	3.609	3.609

Item description	Quantity	Unit cost ($ million)	Total cost ($ million)
Interface with Existing Stereotactic Systems, Image-Guided, Surgical, Multiprocedure)			
Mobile Storage System	1	1.863	1.863
Monitoring Systems, Physiologic, Cardiac Electrophysiology	2	1.980	3.960
Monitors, Central Station and Monitors, Physiologic, Multipurpose, Bedside, Medicine & Geriatrics In-Patient Ward	3	1.215	3.645
Monitors, Central Station and Monitors, Physiologic, Multipurpose, Bedside, Medicine & Geriatrics Isolation Ward	1	1.735	1.735
Monitors, Physiologic, Multipurpose, Bedside, Neonatal Intensive Care Unit	1	2.568	2.568
Monitors, Physiologic, Multipurpose, Bedside and Monitors, Telemetric, Physiologic	1	1.698	1.698
Operating Tabletops, Spinal	1	1.280	1.280
Public Address System	1	2.958	2.958
Radio-Frequency Identification (RFID)	1	5.669	5.669
Radiofrequency Therapy Systems, Tissue Ablation, Cardiac	2	1.856	3.712
Radiographic Systems, Digital, Mammographic	1	5.906	5.906
Radiographic Units, Mobile	3	1.200	3.600
Radiographic/Fluoroscopic Systems, Angiography/Interventional	1	25.500	25.500

Item description	Quantity	Unit cost ($ million)	Total cost ($ million)
Radiographic/Fluoroscopic Systems, Angiography/Interventional (Included Hybrid Control Room Accessory)	1	44.500	44.500
Radiographic/Fluoroscopic Systems, Cardiovascular	2	26.000	52.000
Radiographic/Fluoroscopic Systems, General-Purpose, Cystometrogram	1	7.200	7.200
Radiographic/Fluoroscopic Systems, General-Purpose, Endoscopy	2	6.500	13.000
Radiographic/Fluoroscopic Systems, General-Purpose, Digital Subtraction Angiography System	1	24.000	24.000
Radiographic/Fluoroscopic Units, Mobile, Operating Theatre and Day Surgery	2	2.100	4.200
Radiographic/Fluoroscopic Units, Mobile (Flat Panel), Radiology	1	1.890	1.890
Radiographic/Fluoroscopic Units, Mobile and Stereotactic Systems, Image-Guided, Surgical, Multiprocedure	1	12.060	12.060
Recorders, Physiologic, Sleep/Awake	1	2.339	2.339
Scanning Systems, Laser, Optical, Coherence, Tomography, Intravascular	2	1.100	2.200
Scanning Systems, Magnetic Resonance Imaging, Full-Body, 3.0 Tesla	1	30.000	30.000
Scanning Systems, Magnetic Resonance Imaging, Full-Body, 1.5 Tesla	1	25.000	25.000
Scanning Systems, Ultrasonic, General-Purpose, Radiology	1	1.860	1.860
Scanning Systems, Ultrasonic, General-Purpose, Obstetrics and Gynaecology	2	1.498	2.996

Item description	Quantity	Unit cost ($ million)	Total cost ($ million)
Scanning Systems, Ultrasonic, Intravascular, Medicine & Geriatrics Cardiac Centre	1	1.200	1.200
Scanning Systems, Ultrasonic, Intravascular, Medicine & Geriatrics Cardiac Catheterization Laboratory	1	1.400	1.400
Soiled Linen Collection System	1	6.076	6.076
Stereotactic Systems, Image-Guided, Cardiac Mapping/Ablation	2	2.160	4.320
Stereotactic Systems, Image-Guided, Surgical, Multiprocedure, Spine	1	3.811	3.811
Stereotactic Systems, Image-Guided, Surgical, Multiprocedure, Neurosurgery	1	3.983	3.983
Stereotactic Systems, Image-Guided, Surgical, Multiprocedure, Spine and Knee	1	3.707	3.707
Sterilizing Units, Plasma	2	1.300	2.600
Sterilizing Units, Steam, Bulk	6	2.400	14.400
Tables, Operating	5	1.650	8.250
Telecommunications System	1	20.348	20.348
Video Systems, Endoscopic	4	1.405	5.620
Video Systems, Endoscopic (Without Endo System) (Included Surgical pendant, anaesthetic pendant, OT Lamp & Audio-visual System)	1	6.413	6.413
Video Systems, Endoscopic (Included Video Laparoscope)	3	4.070	12.210
Washer/Decontamination Units, Cart	2	2.000	4.000

Item description	Quantity	Unit cost ($ million)	Total cost ($ million)
Washer/Decontamination Units, Surgical Instrument	7	1.200	8.400
Water Purification Systems	1	4.000	4.000
Water Purification Systems, Reverse Osmosis, Haemodialysis, for Intensive Care Unit	1	3.140	3.140
Water Purification Systems, Reverse Osmosis, Haemodialysis, for Medicine & Geriatrics In-Patient Ward	1	3.271	3.271
Water Purification Systems, Reverse Osmosis, Haemodialysis, for Medicine & Geriatrics Haemodialysis Centre	1	4.469	4.469
Workstations, Haemodialysis	1	1.280	1.280

Redevelopment of Our Lady of Maryknoll Hospital

PROJECT SCOPE AND NATURE

The part of **88MM** which we propose to upgrade to Category A (i.e. preparatory works for redevelopment of Our Lady of Maryknoll Hospital (OLMH)) comprises –

(a) site investigation including site survey, ground investigation, and slope and geologic survey;

(b) building survey including inspection and assessment of condition and elements of existing buildings;

(c) renovation of the Out-patient Department (OPD) Building for decanting;

(d) other decanting works such as modification or diversion of existing building services and utilities as well as provision of temporary storage and supporting services accommodation; and

(e) consultancy services for outline sketch design, detailed design as well as tender documentation and assessment for the main works.

2. A site plan showing the location of the proposed redevelopment is at Annex 1 to Enclosure 4.

3. Subject to funding approval by the Finance Committee (FC), we plan to commence the proposed preparatory works in the second quarter of 2018 with a view to completing the whole redevelopment project in 2024. To meet the programme, the Hospital Authority (HA) invited tenders for the proposed preparatory works in February 2018. The contract will only be awarded upon obtaining FC's funding approval. Any disruption of services, if unavoidable, will be kept to a minimum.

4. We will retain the remaining part of **88MM** in the Ten-year Hospital Development Plan (HDP), which mainly covers the demolition of North and East Wings; construction of a new building; and refurbishment of the OPD Building upon decanting of facilities to the new block.

/**JUSTIFICATION** …..

JUSTIFICATION

5. Founded by the Maryknoll Sisters in 1961, OLMH provides holistic care to patients and is committed to promoting primary health in the community. With the provision of 236 beds (as at 31 March 2017), OLMH offers both in-patient and out-patient services as a community hospital.

6. HA formulated the Clinical Services Plan (CSP) for Kowloon Central Cluster (KCC) in 2016, providing an overarching clinical development strategy and delineated the roles of individual hospitals within the cluster. According to the CSP, acute services for KCC will be provided by the New Acute Hospital (NAH) in Kai Tak and by Kwong Wah Hospital (KWH). The acute hospitals in KCC will be supported by the extended care hospitals nearby to enhance the continuity of care for patients within the respective catchment districts. In particular, OLMH, Wong Tai Sin Hospital (WTSH) and Hong Kong Buddhist Hospital will form a service network with the NAH in Kai Tak while Kowloon Hospital will provide convalescent and rehabilitation services for patients transferred from KWH. OLMH will focus its efforts on serving the needs of the residents in Wong Tai Sin (WTS) district as a non-acute hospital principally providing ambulatory care services and elective in-patient services.

7. The service demand in WTS district, where OLMH is situated, has been growing over the years. The elderly population aged 65 or above in the district is expected to increase from 73 300 in 2016 to 102 400 in 2024, representing a notable increase of 40%. The service utilisation in OLMH is increasing. The number of in-patient and day in-patient discharges and deaths increased from 10 170 in 2010-11 to 12 468 in 2016-17 while the specialist out-patient (clinical) attendances rose from 68 309 in 2010-11 to 68 720 in 2016-17. The limited capacity of the hospital buildings poses constraint to expand or improve the existing facilities through expansion or re-planning to resolve operational deficiencies. The antiquated design of the existing wards does not support quality patient care and the spacing between beds is sub-optimal from infection control perspectives.

8. There are a total of three blocks in OLMH. Except for the OPD Building which was completed in 1999, the other two hospital buildings were constructed over 50 years ago and have deteriorated to an unsatisfactory state. Full repair and maintenance has become uneconomically costly. Perennial problems of water leakage through the building fabric occurs while the physical constraints such as limited capacity in headroom, configuration, floor plate size

/and …..

and structural loading have impeded expansion to meet growing service demand or improvements of facilities. The haphazard and piecemeal developments in OLMH over the years have also resulted in functionally interrelated departments, such as the Rehabilitation Departments and Integrated Community Health Promotion Centre being scattered over different parts of the hospital, thus compromising their operational effectiveness and efficiency.

9. The redevelopment of OLMH will be implemented in two stages, namely preparatory works and main works. Upon completion of the redevelopment project, we aim to provide an additional 40 inpatient beds[1] and 16 haemodialysis beds. The annual capacity for specialist and general out-patient clinic attendances will be increased by 75 900 and 20 800 respectively upon redevelopment.

10. Providing that the Accident & Emergency (A&E) services of the NAH in Kai Tak New Development Area are not yet commenced by the time OLMH's redevelopment is completed, HA, according to the service needs of the WTS residents, will implement a pilot scheme to extend the service hours for evening clinic to 12:00 midnight in OLMH to serve the local community until A&E services of NAH commenced.

FINANCIAL IMPLICATIONS

11. We estimate the capital cost of the proposed preparatory works to be $197.0 million in MOD prices (please see paragraph 12 below), broken down as follows –

		$ million (in MOD prices)
(a)	Site investigation and building survey	2.7
(b)	Renovation of OPD Building for decanted works	1.6
(c)	Decanting works	28.4

/$ million …..

[1] Taking into consideration the feedback received during the District Council consultation process, the number of inpatient beds is increased by 40 compared to that in the original plan.

			$ million (in MOD prices)
(d)	Consultants' fees for		146.4
	(i) design, preparation of tender documents and assessment of tenders	143.2	
	(ii) contract administration for renovation works and decanting works	3.2	
(e)	Contingencies		17.9
		Total	197.0

A breakdown by man-months of the estimated consultancy fees is at Annex 2 to Enclosure 4.

12. Subject to funding approval, we plan to phase the expenditure of the project as follows –

Year	**$ million (MOD)**
2018 – 2019	46.3
2019 – 2020	87.7
2020 – 2021	17.6
2021 – 2022	17.2
2022 – 2023	16.8
2023 – 2024	11.4
	197.0

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 2018 to 2024. Subject to funding approval, HA will award the contract on a lump-sum basis because the scope of the works can be clearly defined in advance. The contract will provide for price adjustment.

/14. …..

14. The proposed preparatory works will not give rise to any additional recurrent expenditure.

PUBLIC CONSULTATION

15. HA consulted the Wong Tai Sin District Council (WTSDC) on the proposed project on 9 January 2018. While members of the WTSDC supported expediting the redevelopment of OLMH, they urged HA to include extra medical services (including the Accident and Emergency services, 24-hour out-patient services and increased number of hospital beds) in the redeveloped hospital.

16. Taking into consideration other hospital redevelopment projects within the district and the decanting arrangement, HA has reviewed the design of some of the planned facilities in the OLMH to make space for additional hospital beds. According to the preliminary technical assessment, the planned bed capacity of the redeveloped OLMH could be further increased by 40 inpatient beds, bringing the total number of beds to 292 beds.

17. The HA values highly of the suggestion from WTS residents and community representatives to extend the service hours of the OLMH Family Medicine Clinic (FMC). During the OLMH redevelopment, the general outpatient services of OLMH FMC would not be affected. Upon completion, the capacity of general outpatient services would be strengthened and it is anticipated that around 20 000 additional consultation quotas can be provided subject to the manpower and resources circumstances. As mentioned in paragraph 10 above, HA, according to the service needs of the WTS residents, will implement a pilot scheme to extend the service hours for evening clinic to 12:00 midnight in OLMH to serve the local community until A&E services of NAH commenced.

18. We consulted the Legislative Council Panel on Health Services on 19 March 2018. Members of the Panel supported the submission of the funding proposal to the Public Works Subcommittee for consideration. Supplementary information will be submitted to the Panel.

/ENVIRONMENTAL …..

ENVIRONMENTAL IMPLICATIONS

19. The proposed preparatory works are not a designated project under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) and will not cause any adverse environmental impact. We will implement suitable mitigation measures to control short-term environmental impact arising from the site investigation works. We will engage consultants to carry out a Preliminary Environmental Review (PER) for the proposed redevelopment project at the design stage and agree the findings with the Director of Environmental Protection. We will also take note of any EIAO implication arising from the proposed redevelopment project as identified in the PER and meet the EIAO requirements, if required.

20. The proposed preparatory works will only generate very little construction waste. We will require the consultants to fully consider measures to minimise the generation of construction waste and to reuse or recycle construction waste as much as possible in future implementation of the construction project.

HERITAGE IMPLICATIONS

21. This project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites and buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

22. This proposed works do not require any land acquisition.

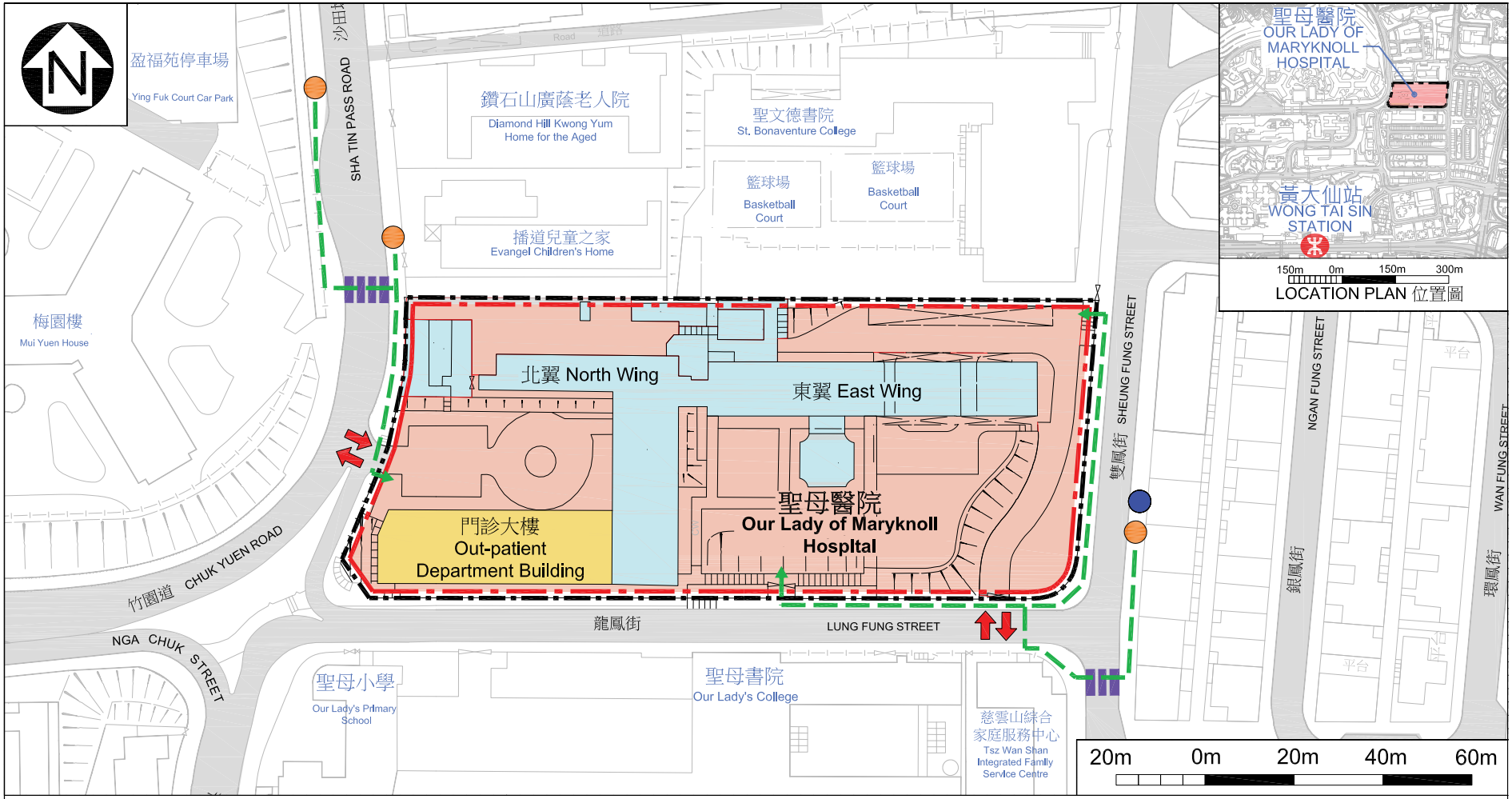
BACKGROUND INFORMATION

23. The redevelopment of OLMH is one of the projects covered by the HDP. We upgraded part of **88MM** (i.e. preparatory works for redevelopment of OLMH) to Category B in January 2018.

24. The proposed preparatory works will not involve any tree removal or planting works.

/25. …..

25. We estimate that the proposed works will create about 60 jobs (15 for labourers and another 45 for professional or technical staff) providing a total employment of around 1 030 man-months.



LEGENDS 圖例:

- OUR LADY OF MARYKNOLL HOSPITAL BOUNDARY 聖母醫院範圍
- SITE BOUNDARY 工地範圍
- BUILDING TO BE RETAINED AND RENOVATED 將予保留及整修的樓宇
- BUILDING TO BE DEMOLISHED 將予拆卸的樓宇
- EXISTING BUS STOP 現有巴士站
- EXISTING MINI-BUS STOP 現有小巴站
- EXISTING PEDESTRIAN / BARRIER FREE ROUTE 現有行人/ 無障礙道路
- EXISTING MTR STATION 現有港鐵站
- EXISTING VEHICULAR INGRESS / EGRESS 現有車輛出入口
- EXISTING PEDESTRIAN CROSSING 現有行人過路處

SITE PLAN (EXISTING) 工地平面圖(現時)	8088MM REDEVELOPMENT OF OUR LADY OF MARYKNOLL HOSPITAL 聖母醫院重建計劃

附件 4 附錄 1 Annex 1 to Enclosure 4

88MM – Redevelopment of Our Lady of Maryknoll Hospital - preparatory works

Breakdown of the estimates for consultants' fees (in September 2017 prices)

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fees ($ million)
(a)	Consultants' fees for design, preparation of tender documents and assessment of tenders (Note 2)	Professional	502	38	2.0	79.1
		Technical	855	14	2.0	47.0
					Sub-total	126.1#
(b)	Consultant's fees for contract administration for site investigation, renovation and decanting works (Note 2)	Professional	12	38	2.0	1.9
		Technical	19	14	2.0	1.0
					Sub-total	2.9#
					Total	**129.0#**

*MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff cost including the consultants' overheads and profit for staff employed in the consultants' offices (as at now, MPS salary point 38 = $78,775 per month and MPS salary point 14 = $27,485 per month).

2. The consultants' staff cost is based on the estimate prepared by the Hospital Authority. We will only know the actual man-months and actual fees cost after completion of the preparatory works.

Remarks

The figures in this Annex are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 11 of Enclosure 4.

Redevelopment of Grantham Hospital, phase 1

PROJECT SCOPE AND NATURE

The part of **3MP** which we propose to upgrade to Category A (i.e. preparatory works for the redevelopment of Grantham Hospital (GH), phase 1) comprises –

(a) site investigation including soil investigation, geologic survey maps for the building design;

(b) building survey including inspection and assessment of the condition of the existing buildings for planning of construction works;

(c) decanting works for services and facilities in Nurse Quarters Block 1 and Block 2 which will be demolished under phase 1; and

(d) consultancy services for outline sketch design, detailed design as well as tender documentation and assessment for the main works.

2. A site plan showing the location of the proposed phase 1 redevelopment is at Annex 1 to Enclosure 5.

3. Subject to funding approval by the Finance Committee (FC), we plan to commence the proposed preparatory works in the second quarter of 2018 with a view to completing phase 1 of the redevelopment project in 2024. To meet the programme, the Hospital Authority (HA) has invited tenders for the proposed preparatory works in February 2018. The contract will only be awarded upon obtaining FC's funding approval. GH will remain functional at all times during the works and any disruption of services, if unavoidable, will be kept to a minimum.

4. We will retain the remaining part of **3MP** in the Ten-year Hospital Development Plan (HDP), which mainly covers demolition of the Senior Staff Quarters, Nurse Quarters Block 1 and Block 2; decanting works; and construction of two new blocks, Block A and Block B.

/**JUSTIFICATION** …..

JUSTIFICATION

5. Established in 1957 by the Hong Kong Anti-Tuberculosis Association (currently known as Hong Kong Tuberculosis, Chest and Heart Disease Association (HKTCHDA)), GH is one of the seven hospitals in the Hong Kong West Cluster (HKWC) of HA with 388 beds (as at 31 March 2017), serving the residents of the Central and Western District as well as the Southern District.

6. According to the population estimates published by the Census and Statistics Department and the population projections of 2015-2024 compiled by the Planning Department, the elderly population (aged 65 or above) will increase from 84 500 in 2016 to 125 300 in 2024 (an increase of 48%) even though there will be a slight decrease in the overall population served by HKWC from 518 300 to 515 400 during the same period. In light of the anticipated sharp increase in the elderly population, it is important to allow patients, especially those with chronic conditions, to have timely and one-stop comprehensive ambulatory care on a multidisciplinary basis in order to prevent long-term complications.

7. With an ageing population in Hong Kong, it is estimated that the number of patients diagnosed with cancer will continue to increase. Furthermore, with early diagnosis and improved treatment options, cancer patients can survive longer, meaning service needs will grow for post-treatment surveillance and follow-up. As part of a holistic approach to care, the demand for integrated palliative care services is also anticipated to grow, along with the public expectation for one-stop continuous quality care at the end of life.

8. According to the Clinical Services Plan (CSP) for the HKWC formulated by HA in March 2013, GH is proposed to be redeveloped as an academic ambulatory care centre, with strong presence of cancer service, integrating clinical services, teaching and research. Ambulatory care, which serves to relieve the pressure on in-patient services, re-engineer service delivery by adopting new advancements in diagnosis and treatment through out-patient clinics, day services and community care, and facilitate the provision of one-stop services for patients on an multidisciplinary basis, is of increasing importance in future care models. The redevelopment of GH will complement the clinical programmes in the Cluster, especially Queen Mary Hospital which will mainly concentrate on emergency and acute care.

/9. …..

9. The GH compound comprises the Main Hospital Building built in the 1950s, an extension block named Kwok Tak Seng Heart Centre built in 1982, and several other blocks such as staff quarters, mortuary, nursing school, etc. scattered over the hospital site without any linkage connecting the various buildings for convenient access for patient, staff and the public. The Main Hospital Building and Kwok Tak Seng Heart Centre are only connected up to the fourth floor, hindering the smooth delivery of patient services between these two blocks, which are seven-storeys high. The only lift in the Heart Centre is also inadequate for maintaining effective transportation and delivery flow for people and goods.

10. Most of the buildings of GH were constructed over 50 years ago without any major refurbishment project undertaken. The physical conditions of the hospital blocks have deteriorated to an undesirable state. The existing facilities of GH also lag behind modern health care standards in terms of space provision, ward layout, structural loading and infection control. For example, the infrastructure of the buildings such as floor loading and floor-to-floor height cannot accommodate new requirements for major equipment, ventilation system, modern technology and research, etc., which have impeded the development of GH to incorporate appropriate modern health care service delivery models, as well as enhance teaching and research facilities to help meet rising healthcare demand.

11. Underpinned by the CSP for HKWC, and given its strategic location, we propose to redevelop GH in phases into an academic health centre with the provision of (i) a premier Cancer Centre providing evidence-based cancer services including personalised care, chemotherapy and radiotherapy, complementing the oncology services in HKWC; (ii) a state-of-the-art Academic Ambulatory Care Centre which provides a comprehensive range of advanced and high-tech ambulatory services for chronic diseases, such as cardio-metabolic diseases related to the heart and diabetes and the associated complications affecting the eyes, kidneys, and other vital organs; and (iii) a Teaching and Research facility focusing on clinical and translation research.

12. Taking the opportunity, The University of Hong Kong (HKU) proposed to HKTCHDA and HA to establish two centres under the redevelopment of GH, namely a Centre for Clinical Innovation and Discovery (CCID) and an Institute of Cancer Care (ICC). The establishment of a CCID and ICC will enable translational research by adopting the most advanced technology in screening, diagnosis and treatment of cancer, such as genetic and genomic development. Since cancer care involves multiple disciplines including allied health professionals, the ICC will provide a platform for developing programmes to address the psycho-social needs of cancer patients.

/13. …..

13. The GH redevelopment project will be carried out in two phases. The phase 1 redevelopment will provide an additional oncology centre and three additional operating theatres upon redevelopment. The scope of facilities and services to be provided by the phase 1 redevelopment includes a Cancer Centre, an Ambulatory Care Centre, a Clinical and Translational Research Centre, ancillary as well as administrative and supporting services.

FINANCIAL IMPLICATIONS

14. We estimate the capital cost of the proposed preparatory works to be $422.5 million in MOD prices (please see paragraph 15 below), broken down as follows –

		$ million (in MOD prices)
(a)	Site investigation and building survey	2.6
(b)	Decanting works	9.9
(c)	Consultants' fees for design, preparation of tender documents and assessment of tenders	371.6
(d)	Contingencies	38.4
	Total	422.5

A breakdown by man-months of the estimated consultancy fees is at Annex 2 to Enclosure 5.

15. Subject to funding approval, we plan to phase the expenditure of the project as follows –

Year	**$ million (MOD)**
2018 – 2019	49.3

/**Year** …..

Year	$ million (MOD)
2019 – 2020	108.8
2020 – 2021	81.8
2021 – 2022	55.0
2022 – 2023	57.8
2023 – 2024	69.8
	422.5

16. 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 2018 to 2024. Subject to funding approval, HA will award the contract on a lump-sum basis because the scope of the works can be clearly defined in advance. The contract will provide for price adjustment.

17. The proposed preparatory works will not give rise to any additional recurrent expenditure.

PUBLIC CONSULTATION

18. HA consulted the Southern District Council (SDC) on the proposed redevelopment of GH on 16 November 2017 and 8 March 2018 respectively. Although in general Members of the SDC supported the proposed project, they strongly requested the inclusion of works to improve pedestrian connectivity to GH into the GH redevelopment project, so that the construction of any pedestrian links such as footbridges could tie in with the GH's redevelopment works. HA will explore with relevant Government departments the feasibility of enhancing the pedestrian connectivity to GH. HA also consulted the Culture, Leisure and Social Affairs Committee (CLSAC) of the Central and Western District Council (C&WDC) on the proposed project on 8 February 2018. Members of the CLSAC of C&WDC supported the proposed project.

19. We consulted the Legislative Council Panel on Health Services on 19 March 2018. Members of the Panel supported the submission of the funding proposal to the Public Works Subcommittee for consideration.

/ENVIRONMENTAL …..

ENVIRONMENTAL IMPLICATIONS

20. The proposed preparatory works are not a designated project under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) and will not cause any adverse environmental impact. We will implement suitable mitigation measures to control short-term environmental impacts arising from the site investigation works. We will engage consultants to carry out a Preliminary Environmental Review (PER) for the proposed project at the design stage and agree the findings with the Director of Environmental Protection. We will also take note of any EIAO implications arising from the proposed project as identified in the PER and meet the EIAO requirements, if required.

21. The proposed preparatory works will only generate very little construction waste. We will require the consultants to fully consider measures to minimise the generation of construction waste and to reuse or recycle construction waste as much as possible in the future implementation of the construction project.

HERITAGE IMPLICATIONS

22. 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 ACQUISITION

23. This proposed works do not require any land acquisition.

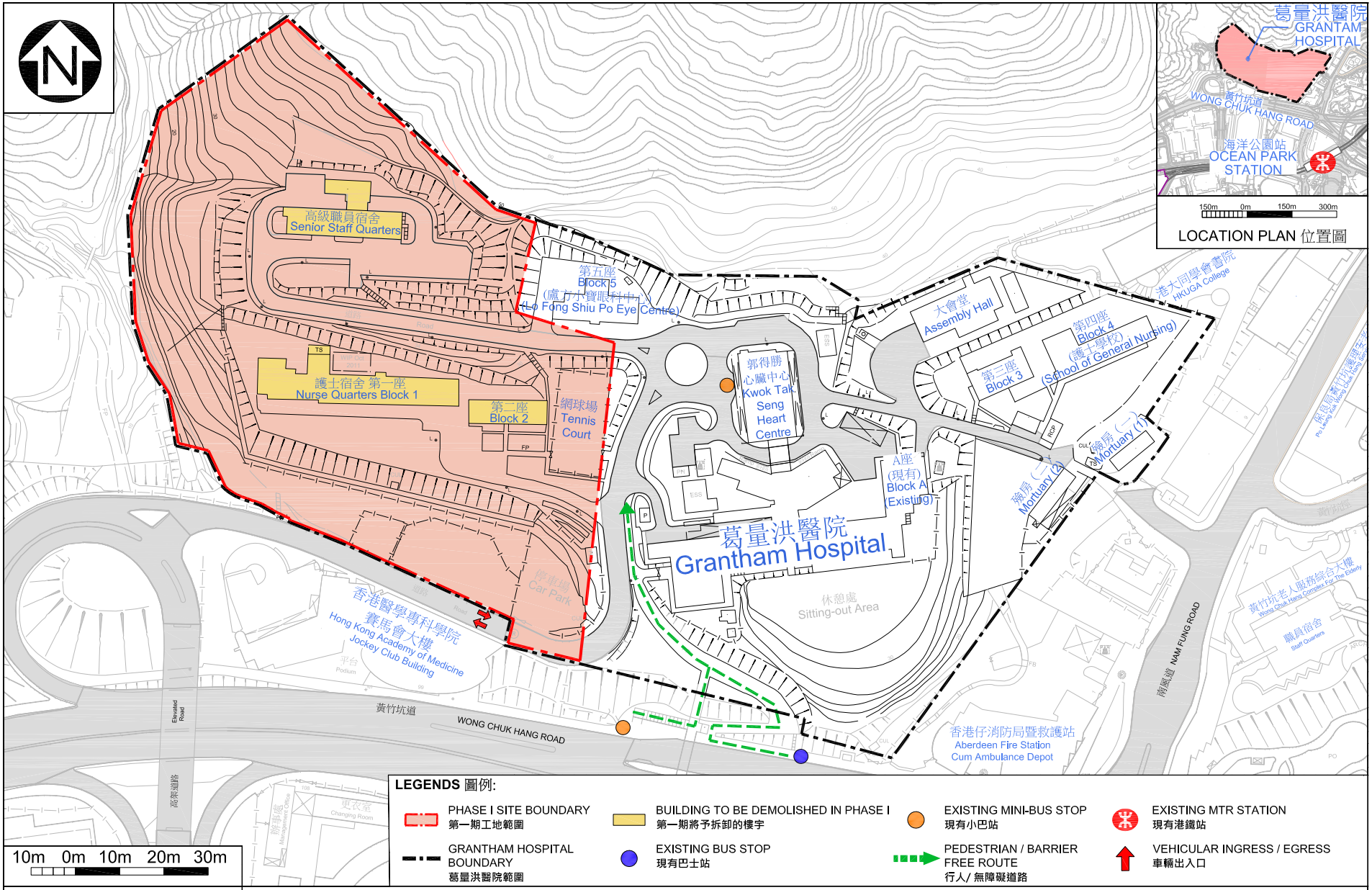
BACKGROUND INFORMATION

24. The redevelopment of GH, phase 1 is one of the projects covered by the HDP. We upgraded part of **3MP** (i.e. preparatory works for redevelopment of GH, phase 1) to Category B in January 2018.

25. The proposed preparatory works will not involve any tree removal or planting works.

/26. …..

26. We estimate that the proposed works will create about 50 jobs (5 for labourers and another 45 for professional or technical staff) providing a total employment of around 1 800 man-months.



SITE PLAN
工地平面圖

8003MP
REDEVELOPMENT OF GRANTHAM HOSPITAL, PHASE I
葛量洪醫院重建計劃第一期

3MP – Redevelopment of Grantham Hospital, phase 1 - preparatory works

Breakdown of the estimates for consultants' fees (in September 2017 prices)

		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
Consultants' fees for design, preparation of tender documents and assessment of tenders (Note 2)	Professional	1 248	38	2.0	196.6
	Technical	2 120	14	2.0	116.5
				Total	**313.1#**

*MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff cost including the consultants' overheads and profit for staff employed in the consultants' offices (as at now, MPS salary point 38 = $78,775 per month and MPS salary point 14 = $27,485 per month).

2. The consultants' staff cost is based on the estimate prepared by the Hospital Authority. We will only know the actual man-months and actual cost after completion of the preparatory works.

Remarks

The figures in this Annex are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 14 of Enclosure 5.