

**For discussion
(date to be confirmed)**

PWSC(2015-16)28

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Medical Subventions

4MJ – Expansion of United Christian Hospital

Members are invited to recommend to the Finance Committee –

- (a) the upgrading of part of **4MJ**, entitled “Expansion of United Christian Hospital – main works (demolition and substructure works)”, to Category A at an estimated cost of \$1,791.6 million in money-of-the-day prices; and
- (b) the retention of the remainder of **4MJ** in Category B.

PROBLEM

The capacity of United Christian Hospital (UCH) is inadequate to meet the increasing demand and requirements for healthcare services in Kowloon East (KE).

/PROPOSAL

PROPOSAL

2. The Secretary for Food and Health proposes to upgrade part of **4MJ** to Category A at an estimated cost of \$1,791.6 million in money-of-the-day (MOD) prices to carry out the proposed demolition and substructure works for the expansion of UCH.

PROJECT SCOPE AND NATURE

3. The part of **4MJ** that we propose to upgrade to Category A (i.e. the demolition and substructure works) comprises –

- (a) demolition of existing Blocks F, G and H and Block P (Low);
- (b) foundation works;
- (c) site formation works;
- (d) excavation and lateral support works;
- (e) other associated site works including tree felling and transplanting, utilities diversion, road realignment and temporary traffic diversion works; and
- (f) consultancy services for contract administration and site supervision of the demolition and substructure works.

Plans showing the existing layout of UCH and the proposed demolition and substructure works are at Enclosures 1 and 2 respectively.

4. We plan to commence the demolition and substructure works immediately after obtaining funding approval of the Finance Committee (FC) with a view to completing this part of the main works in late 2019.

5. We will retain the remaining part of **4MJ** in Category B, which mainly covers –

/(a)

- (a) construction of a new ambulatory block (i.e. Block A);
- (b) construction of a new extension to Block S;
- (c) construction of linkages between the blocks;
- (d) refurbishment of Blocks P (High) and S for expansion of facilities; and
- (e) landscaping and road works.

6. Funding for the remaining part of the expansion project will be sought to dovetail with the implementation programme. Subject to FC's funding approval, we aim to proceed with the remaining works in 2019-20 for completion of the whole expansion project in 2022-23.

JUSTIFICATION

7. At present, the KE cluster of the Hospital Authority (HA) manages three hospitals, namely, UCH, Tseung Kwan O Hospital and Haven of Hope Hospital, in the Kwun Tong and Sai Kung districts. UCH was established in 1973 and had an extension project completed in 1999. Over the years, the population of Kwun Tong and Sai Kung districts has grown rapidly. The population of the two districts was 1 088 100 in 2013 and is projected to reach 1 214 700 in 2023 according to the latest projection of the Planning Department. Moreover, the elderly population aged 65 or above in the two districts is projected to increase from 151 700 in 2013 to 226 600 in 2023, representing a significant increase of around 49%.

8. The growing and aging population in the two districts gives rise to increasing demand for both ambulatory and in-patient services which has considerable impact on the provision of healthcare services in the KE cluster. The existing facilities at UCH are however inadequate in terms of space, capacity and design to cope with the rising service demand, the present-day service standard and future service requirement. HA therefore plans to improve and enhance facilities in UCH.

9. The main works of the project comprises demolition of three existing hospital blocks (i.e. Blocks F, G and H) and Block P (Low) of UCH and the in-situ construction of a new ambulatory block (i.e. Block A). There will also be construction of an extension to the existing Block S. Upon the completion of the works, certain services at the existing hospital blocks will be moved to the new ambulatory block and the new extension block. The areas so vacated will then be converted and renovated for the improvement, expansion and rationalisation of clinical and supporting services.

10. The UCH expansion project will provide additional space and upgraded facilities to meet the increasing service demand for specialist out-patient service. The total construction floor area (CFA) of the hospital will be expanded from around 160 000 square metres (m²) to around 350 000 m² upon project completion. We plan to expand the CFA of the specialist out-patient department from around 3 600 m² to around 19 000 m² and to increase the number of consultation rooms from 81 to around 180. Other ambulatory care services at UCH will also be enhanced to provide the community with comprehensive and integrated healthcare services. A new Oncology Centre with a CFA of around 15 000 m² will be developed to provide radiotherapy, chemotherapy and psychosocial care for cancer patients of the KE cluster. In addition, the expansion project will enhance convalescent and rehabilitation service in KE cluster. We expect that the total bed capacity including inpatient and day beds will be increased from about 1 400 to around 1 960 after the expansion including enhanced convalescent and rehabilitation services. The existing diagnostic and treatment facilities including operating rooms, coronary care unit, intensive care unit, radiology department, accident and emergency department and endoscopy centre will be improved, expanded and/or rationalised. The number of operating theatres will increase from 13 to 18 after the expansion project.

11. UCH will remain functional at all times during the implementation of the demolition and substructure works and any disruption of services, if unavoidable, will be kept to a minimum. During demolition of the four blocks, viz. Blocks F, G, H and P(Low), the affected facilities and services, which are mainly supporting facilities such as administration offices, will be temporarily relocated to other existing hospital buildings and the decantation blocks constructed at UCH and Tseung Kwan O Hospital under the “Expansion of UCH – preparatory works” item approved by the FC in July 2012. The clinical services and facilities at the four blocks to be demolished will continue to be provided in UCH.

FINANCIAL IMPLICATIONS

12. HA, in consultation with the Director of Architectural Services, estimates the cost of the proposed demolition and substructure works to be \$1,791.6 million in MOD prices (please see paragraph 14 below), broken down as follows –

		\$ million	
(a)	Demolition works	94.0	
(b)	Piling/foundation works	583.2	
(c)	Site formation works	46.8	
(d)	Excavation and lateral support works	476.0	
(e)	Associated site works including tree felling and transplanting, utilities diversion, road realignment and temporary traffic diversion works	114.8	
(f)	Consultants' fees for	20.2	
	(i) contract administration	18.8	
	(ii) management of resident site staff	1.4	
(g)	Remuneration of resident site staff	18.8	
(h)	Contingencies	105.2	
	Sub-total	1,459.0	(in September 2014 prices)
(i)	Provision for price adjustment	332.6	
	Total	1,791.6	(in MOD prices)

13. Due to insufficient in-house resources, we propose to engage consultants to undertake contract administration and construction supervision for the demolition and substructure works. A detailed breakdown of the estimates for consultants' fees and resident site staff costs by man-months is at Enclosure 3.

14. Subject to funding approval, HA will phase the expenditure as follows –

Year	\$ million (Sept 2014)	Price adjustment factor	\$ million (MOD)
2015 – 16	60.0	1.05725	63.4
2016 – 17	290.0	1.12069	325.0
2017 – 18	350.0	1.18793	415.8
2018 – 19	420.0	1.25920	528.9
2019 – 20	253.0	1.33475	337.7
2020 – 21	86.0	1.40483	120.8
	1,459.0		1,791.6

15. HA has 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 2015 to 2021. Since the scope of the works can be clearly defined in advance, HA will award the contract on a lump-sum basis. The contract will provide for price adjustment.

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

PUBLIC CONSULTATION

17. We consulted the Kwun Tong District Council (KTDC) on the project on 2 February 2012 and updated KTDC on the current status of the project on 4 November 2014. Members of the KTDC supported the project.

18. We consulted the Legislative Council Panel on Health Services on 19 January 2015 and Members supported the project.

/ENVIRONMENTAL

ENVIRONMENTAL IMPLICATIONS

19. The UCH expansion 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 demolition and substructure works as stated in paragraph 3, and the remaining construction works as stated in paragraph 5. 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.

20. For the proposed demolition and substructure works, HA will incorporate into the works contract mitigation measures recommended in the PER in order to ensure that the environmental impacts arising from the demolition and substructure works are within established standards and guidelines. These measures include the use of silenced construction plants and temporary noise barriers for noisy demolition and construction activities, avoiding noisy demolition and 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 will also be 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.

21. 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 facilities¹. 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.

/22.

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

22. 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.

23. HA estimates that the project will generate about 691 650 tonnes of construction waste in total. Of these, HA will reuse about 6 917 tonnes (1%) of inert construction waste on site and deliver 643 235 tonnes (93%) of inert construction waste to public fill reception facilities for subsequent reuse. HA will dispose of the remaining 41 498 tonnes (6%) 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 \$22.6 million for this project (based on a unit charge rate of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation).

HERITAGE IMPLICATIONS

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

LAND ACQUISITION

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

BACKGROUND INFORMATION

26. We upgraded **4MJ** to Category B in September 2010.

27. UCH is an acute regional general hospital with bed capacity of around 1 400 that runs a 24-hour accident and emergency department and provides a full range of acute, ambulatory, extended care and community medical services. Its clinical specialties include medicine, surgery, orthopaedics and traumatology, paediatrics, ear, nose and throat, obstetrics and gynaecology and intensive/coronary care.

28. UCH has eight hospital blocks, namely, Blocks F and G (completed in 1972), Block H (completed in 2001)², Block J (completed in 1993), Blocks K and L (completed in 1988), Block P (completed in 1999) and Block S (completed in 1995). Blocks J, K, L and S were constructed under an extension project which was approved in 1984 and completed in 1999. Redevelopment of Block P as well as minor refurbishment to Block G were also undertaken under the extension project.

29. In July 2012, the FC approved upgrading part of **4MJ** as **5MJ** “Expansion of United Christian Hospital – preparatory works” at an estimated cost of \$352.3 million in MOD prices for preparatory works including site surveys and investigation, decanting works and consultancy services for outline sketch design, detailed design, as well as tender documentation and assessment for the main works. HA started preparatory works in August 2012 and has substantially completed the site surveys and investigations as well as decanting works in end 2014. The detailed design and tender preparation for demolition and substructure works for the new ambulatory block and the extension to Block S have been completed while the detailed design for the remaining part of the expansion project is underway.

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² To maximise site utilisation, we need to demolish Block H (two storeys) and Block P (Low) (two storeys including basement) which were completed in 2001 and 1999 respectively for expansion. The other two blocks to be demolished are Blocks F and G which were completed over 40 years ago.

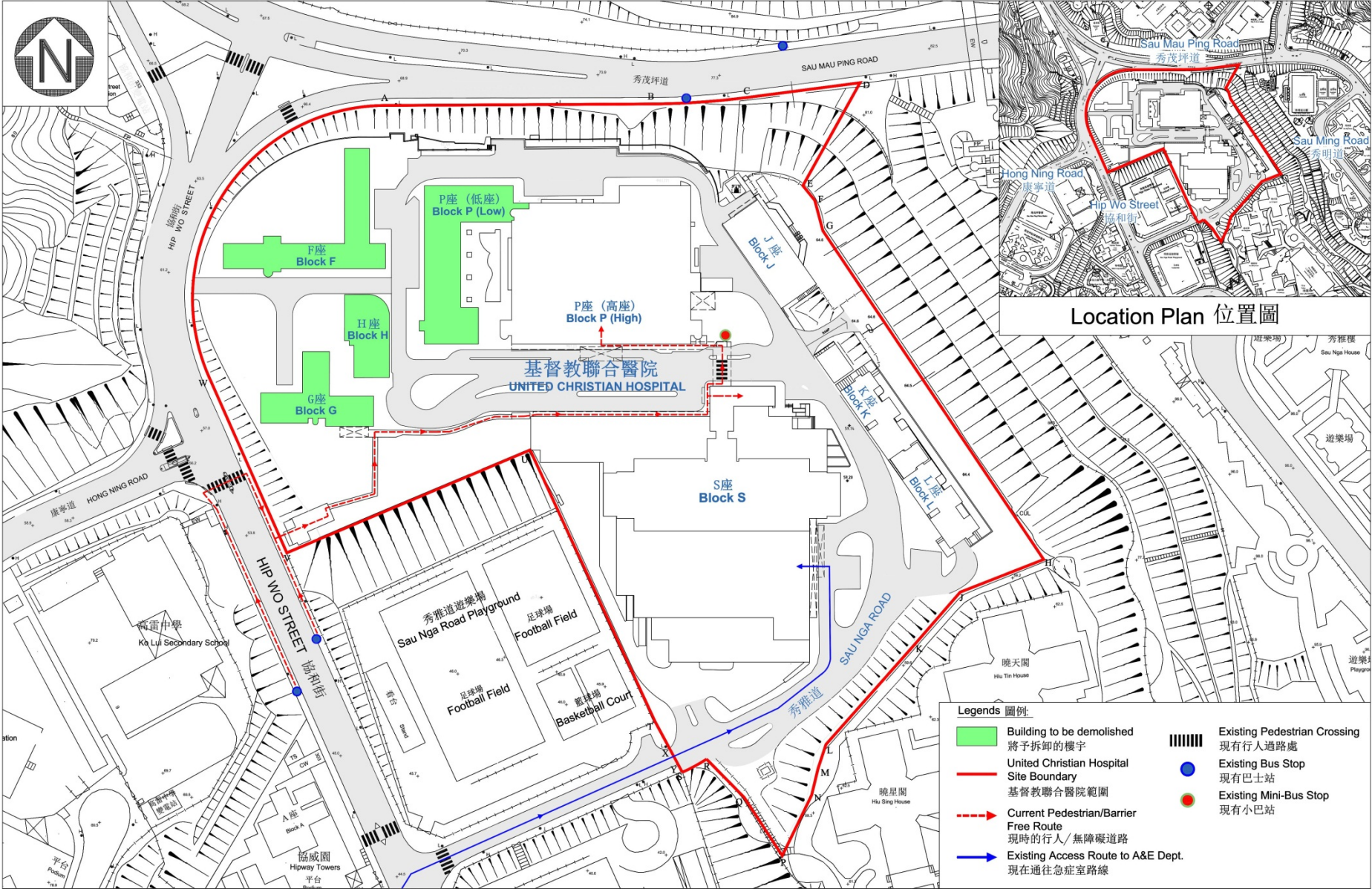
30. The proposed works will involve removal of 397 trees including 390 trees to be felled and seven trees to be transplanted elsewhere. All the trees to be removed are not important trees³. We will incorporate planting proposals as part of the whole expansion project, including estimated quantities of 252 trees, 13 300 shrubs and 340 m² of grassed area.

31. We estimate that the proposed demolition and substructure works will create about 380 jobs (340 for labourers and another 40 for professional or technical staff) providing a total employment of around 16 300 man-months.

Food and Health Bureau
June 2015

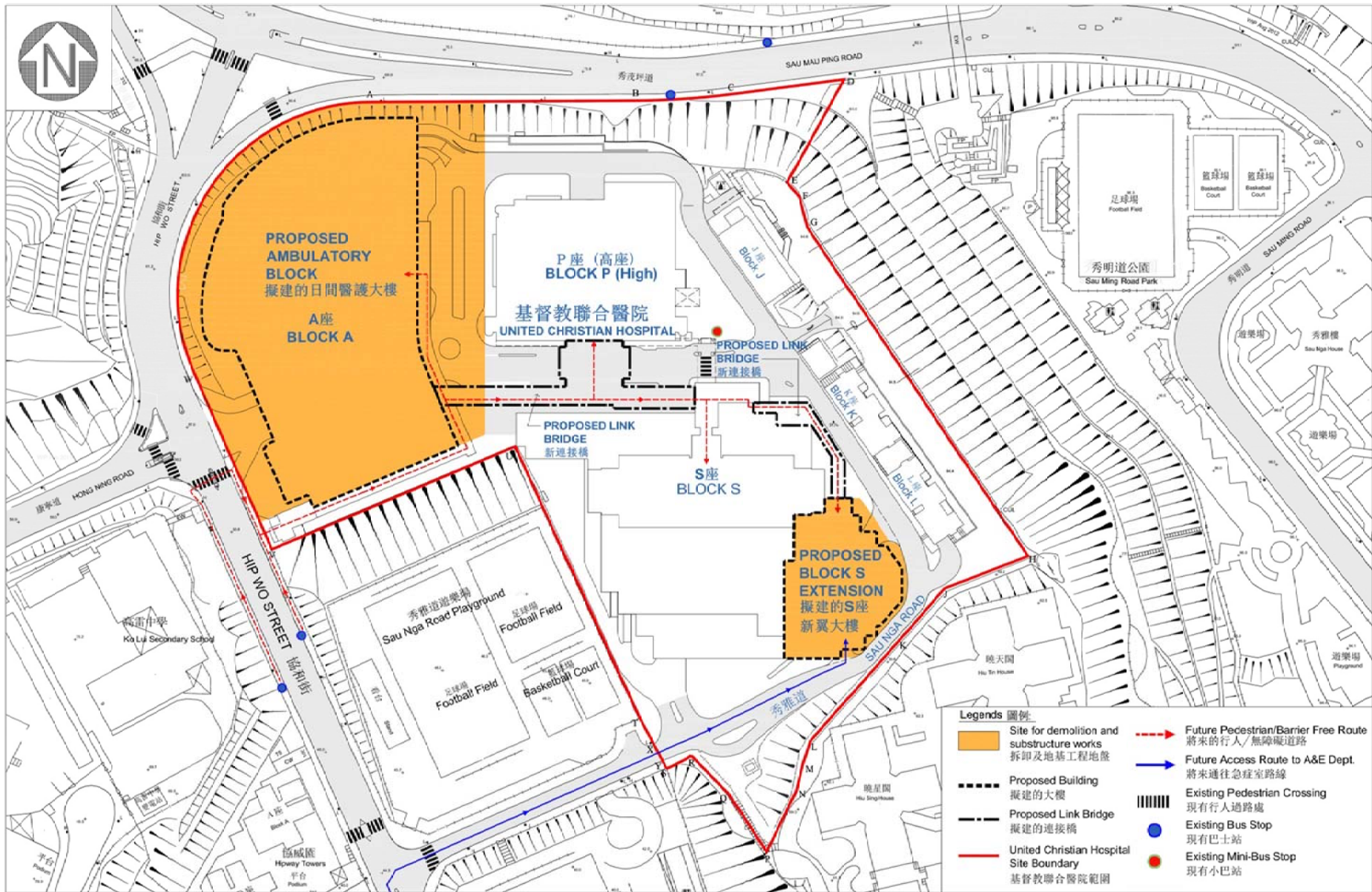
³ “Important trees” refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more the following criteria –

- (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.



Project Title 項目名稱
8004MJ - Expansion of United Christian Hospital
基督教聯合醫院擴建計劃

Existing Site Location Plan (Not to scale)
現時工地平面圖 (不按比例)



Project Title 項目名稱
8004MJ - Expansion of United Christian Hospital
基督教聯合醫院擴建計劃

Site Location Plan (Not to scale)
工地平面圖 (不按比例)

4MJ (Part) – Expansion of United Christian Hospital

**Breakdown of the estimates for consultants’ fees and resident site staff (RSS) costs
(in September 2014 prices)**

		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants’ fees for contract administration (Note 2)	Professional	-	-	-	16.4
	Technical	-	-	-	2.4
				Sub-total	18.8
(b) RSS costs (Note 3)	Professional	56	38	1.6	6.4
	Technical	354	14	1.6	13.8
				Sub-total	20.2
Comprising –					
(i) Consultants’ fees for management of RSS				1.4	
(ii) Remuneration of RSS				18.8	
				Total	39.0

* 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 = \$71,385 per month and MPS salary point 14 = \$24,380 per month).
2. The consultants’ staff cost for contract administration is calculated in accordance with the existing consultancy agreement for preparatory works of **4MJ**. The construction phase of the assignment will only be executed subject to FC’s approval to upgrade part of **4MJ** to Category A.
3. The actual man-months and actual fees will only be known after completion of the construction works.