

## **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 Finance Committee –

- (a) the upgrading of part of **4MJ**, entitled “Expansion of United Christian Hospital – preparatory works”, to Category A at an estimated cost of \$352.3 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) due to physical and space constraints.

### **PROPOSAL**

2. The Secretary for Food and Health proposes to upgrade part of **4MJ** to Category A at an estimated cost of \$352.3 million in money-of-the-day (MOD) prices for the preparatory works for the expansion of UCH.

**/PROJECT .....**

**PROJECT SCOPE AND NATURE**

3. The part of **4MJ** which we propose to upgrade to Category A (i.e. the preparatory works) comprises –

- (a) site surveys and investigations;
- (b) decanting works; and
- (c) consultancy services for outline sketch design, detailed design, as well as tender documentation and assessment for the main works.

Subject to funding approval by the Finance Committee (FC), we plan to start the preparatory works in July 2012 for completion in 2019. While the site surveys and investigations and decanting works are expected to be completed in early 2013 and mid-2014 respectively, consultancy services relating to tendering and design would be needed throughout the redevelopment period.

4. We will retain the remainder of **4MJ** (i.e. the main works) in Category B. The main works, which are planned to commence in phases from 2014-15 for completion in 2021, comprise –

- (a) demolition of existing Blocks F, G and H and low block of Block P;
- (b) construction of a new ambulatory block (i.e. Block A);
- (c) construction of an extension to Block S;
- (d) construction of linkages between the blocks;
- (e) refurbishment of part of Blocks P and S for expansion of facilities following decanting of the services and facilities to the new ambulatory block and the new extension to Block S; and
- (f) landscaping and road works.

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— The existing site plan of UCH and the tentative site plan<sup>1</sup> of UCH upon completion of the main works are at Enclosures 1 and 2 respectively. Subject to the outcome of the detailed design, the main works are estimated to cost about \$8,000 million. Funding for the main works will be sought to dovetail with the implementation programme of the project.

## **JUSTIFICATION**

### **Inadequate clinical space and rising demand for service**

5. At present, the Hospital Authority (HA) provides medical services for the Kwun Tong and Tseung Kwan O districts through its KE cluster, which comprises UCH, Tseung Kwan O Hospital and Haven of Hope Hospital. UCH is a regional acute general hospital with about 1 400 beds, providing a comprehensive range of acute, extended care, ambulatory and community medical services to the local community.

6. UCH was established in 1973 with an extension project completed in 1999. Since then, the population of Kwun Tong, which falls within the service catchment area of the hospital, has grown from 562 400 in 2001 to 622 200 in 2011. According to the latest projection of the Planning Department, the population in Kwun Tong will reach around 666 900 by 2019, and the population in the KE cluster as a whole will increase from 993 700 in 2011 to around 1 097 000 in 2019. Public hospital services in the KE cluster will be insufficient to meet the needs of the increasing population. Moreover, the elderly population aged 65 or above in the KE cluster is projected to increase from 135 200 in 2011 to 168 700 in 2019. The aging population and increase in health awareness of people contribute to the increasing demand for comprehensive medical care from the community.

7. The existing facilities in UCH are inadequate in terms of space, provision and design to meet the high service demand and present-day service requirements. It is necessary to improve the facilities in UCH to provide adequate space and capacity to cope with the anticipated growth in demand for both ambulatory and in-patient services in the KE cluster.

/Need .....

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<sup>1</sup> The tentative site plan may be modified by the consultant in the light of findings of the preparatory works.

## Need for Expansion

### *Ambulatory Care Service*

8. The demand for specialist out-patient (SOP) consultation services at Block S in UCH has grown significantly over the years. The number of SOP attendances increased by around 84% from 283 000 since its commissioning in 1996 to 521 000 in 2011. The physical constraints of the current SOP department have limited the provision of additional clinical facilities to cope with the growing demand. To provide a patient-centred environment, help shorten waiting time and reduce the risk of cross infection among patients, we will expand the existing SOP department by increasing the space from around 3 600 m<sup>2</sup> to around 19 000 m<sup>2</sup> and the number of consultation rooms from 81 to around 180.

9. With the advancement of medical technology, the trend of medical treatment is to focus on ambulatory care service in order to reduce burden on in-patient services. However, the existing main hospital building of UCH, which was designed back in late 1980s, could only provide limited ambulatory services. Space constraint has hindered the development of ambulatory services in the hospital, and day care services can only be provided in a limited scale. We propose to develop a new ambulatory block for accommodating new designated centres (such as the Continence Care Centre and Adolescent Health Centre) and the expanded centres (such as the Diabetes Centre and Breast Centre) to provide comprehensive and integrated healthcare services.

### *Cancer Service*

10. There were nearly 20 300 new oncology cases in HA in 2011 and about 2 900 of them (or 14%) were residents of the KE cluster. At present, cancer service for patients in the KE cluster is relatively limited, covering only day chemotherapy for new cancer patients. After diagnosis and surgery, UCH has to refer most cancer patients to Pamela Youde Nethersole Eastern Hospital (PYNEH) or Queen Elizabeth Hospital (QEH) outside the KE cluster for radiotherapy and/or chemotherapy treatments. In 2011, about 32 000 attendances at PYNEH and QEH oncology clinics were residents of the KE cluster. We propose to develop a new Oncology Centre at the UCH to provide radiotherapy, chemotherapy and psycho-social care, which will alleviate the need to transfer patients across clusters and improve accessibility to cancer service for patients in the KE cluster. The Oncology Centre will have a total floor area of around 11 000 m<sup>2</sup>.

*/In-patient .....*

*In-patient Convalescent and Rehabilitation Service*

11. The in-patient convalescent and rehabilitation service in KE cluster is inadequate. Currently, the extended care services of UCH are supplemented by around 230 convalescent/rehabilitation/infirmarary beds in Kowloon Hospital (KH) of the Kowloon Central cluster. In 2011, there were around 2 500 transfers from UCH to KH. The expansion in the capacity of convalescent and rehabilitation service at UCH with additional extended care wards will cater for the increasing medical needs of the growing and aging population in the KE cluster, reduce cross-cluster transfers and enhance continuity of care, especially in the context of community support networks such as social welfare services, non-governmental organisation support, community nursing services and housing arrangements, etc.

*Accident and Emergency (A&E) Service*

12. The current space of the A&E Department at UCH is already fully utilised, leaving no room for the provision of an Emergency Medicine (EM) Ward to help reduce in-patient burden and avoid unnecessary hospitalisation. There is a need to expand the existing A&E Department to enhance operational efficiency through co-location of related services to streamline patients' flow and facilitate multi-disciplinary collaboration. The A&E Department will be expanded from around 1 800 m<sup>2</sup> to around 5 200 m<sup>2</sup> to cater for the provision of an EM Ward as well as additional treatment facilities.

*Other Services*

13. Apart from the above, other acute services (including operating theatres, coronary care unit and intensive care unit) will be improved, expanded and rationalised. In addition, medical technology provisions will be modernised and upgraded to support the future model of care.

**The Expansion Project**

14. The main works of the project comprise demolition of three existing hospital blocks (i.e. Block F, G and H) and the lower block of Block P for the construction of a new ambulatory block (i.e. Block A). An extension to one of the existing hospital blocks, namely Block S, will also be constructed. Some services at existing hospital blocks will be moved to the new ambulatory block and the new extension block upon their completion. The areas so vacated at the existing hospital blocks will be converted and renovated for the improvement, expansion and rationalisation of clinical and supporting services. We expect that the total number of beds will be increased from about 1 400 to around 1 700 after the expansion.

15. The new ambulatory block will accommodate the following new and existing non-in-patient services and facilities –

*New services*

- (a) Oncology Centre;
- (b) Continence Care Centre;
- (c) Adolescent Health Centre;
- (d) Training Centre;

*Existing and expanded services*

- (e) Specialist Out-patient Department;
- (f) Psychiatric Out-patient Department and Day Hospital;
- (g) Electro-diagnostic Unit;
- (h) Multi-specialty Day Centre;
- (i) Various ambulatory centres such as Renal Dialysis Centre, Diabetes Centre and Breast Centre, etc.;
- (j) Allied Health Out-patient Services and Medical Social Services Department;
- (k) Pathology Department;
- (l) Hong Kong Poison Information Centre;
- (m) department offices; and
- (n) ancillary facilities including administrative and supporting services (such as Medical Records Department and stores, callrooms/overnight rooms, staff changing rooms, staff recreational facilities and carparks).

16. The extension wing to Block S will accommodate the following new and existing services and facilities –

*/New .....*

*New service*

- (a) Peri-operative Centre;

*Existing and expanded services*

- (b) Endoscopy Centre;
- (c) in-patient ward accommodation; and
- (d) department offices.

17. To ensure that there will be no disruption to the continuity of services for patients during implementation of the project, UCH will make appropriate decanting arrangements for its services. Details of the decanting arrangement will be considered in the detailed design and planning stage.

**FINANCIAL IMPLICATIONS**

18. HA, in consultation with the Director of Architectural Services, estimates the cost of the proposed preparatory works to be \$352.3 million in MOD prices, broken down as follows –

	<b>\$ million</b>
(a) Consultants' fees for	197.8
(i) Outline sketch plan	43.3
(ii) Detailed design	66.5
(iii) Tender documentation and assessment	88.0
(b) Site surveys and investigations	5.0
(c) Decanting works	72.0
(d) Contingencies	27.5
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Sub-total	302.3 (in September 2011 prices)
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	<b>\$ million</b>
(e) Provision for price adjustment	50.0
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Total	<u>352.3<sup>2</sup></u> (in MOD prices)

Owing to lack of sufficient in-house resources, HA will engage consultants (for services detailed in paragraph 18(a)) and contractors (for services detailed in paragraph 18(b) and (c)) to carry out the preparatory works. A breakdown by man-months of the estimated consultants' fees for carrying out services detailed in paragraph 18(a) is at Enclosure 3.

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

<b>Year</b>	<b>\$ million (Sept 2011)</b>	<b>Price adjustment factor</b>	<b>\$ million (MOD)</b>
2012 – 13	21.3	1.05325	22.4
2013 – 14	171.1	1.11118	190.1
2014 – 15	60.5	1.17229	70.9
2015 – 16	5.4	1.23677	6.7
2016 – 17	13.7	1.30479	17.9
2017 – 18	8.3	1.37656	11.4
2018 – 19	11.0	1.45227	16.0
2019 – 20	11.0	1.53214	16.9
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	302.3		352.3
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<sup>2</sup>

The estimate has taken into account the returned tender price for paragraph 18(a) and the estimated cost for paragraphs 18(b) and (c).



20. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period 2012 to 2020. HA will award the contracts on a lump-sum basis given the clearly defined scope.

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

## **PUBLIC CONSULTATION**

22. HA consulted the Kwun Tong District Council (KTDC) and Sai Kung District Council (SKDC) on 2 and 7 February 2012 respectively. Members of the KTDC and the SKDC supported the proposed project.

23. We consulted the Legislative Council Panel on Health Services on 12 March 2012. Members of the Panel supported the project.

## **ENVIRONMENTAL IMPLICATIONS**

24. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). HA will engage consultants to carry out a Preliminary Environmental Review for the proposed expansion of UCH at the design stage and will submit the findings to the Director of Environmental Protection for agreement.

25. The proposed preparatory works will not cause any adverse environmental impact. HA will implement standard environmental pollution control measures to manage the environmental impact of the site investigation works.

26. The proposed preparatory works will only generate very little construction waste. HA will require the consultant to fully consider measures to minimise the generation of construction waste and to reuse/recycle construction waste as much as possible in the future implementation of the construction project.

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## HERITAGE IMPLICATIONS

27. 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

28. The proposed preparatory works and main works do not require land acquisition.

## BACKGROUND INFORMATION

29. We included **4MJ** in Category B in September 2010.

30. UCH is a regional acute general hospital with around 1 400 beds that runs a 24-hour A&E 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.

31. UCH has eight hospital blocks, namely, Blocks F and G (completed in 1972), Block H (completed in 2001)<sup>3</sup>, Block J (completed in 1993), Blocks K and L (completed in 1988), Block P (completed in 1999)<sup>3</sup> and Block S (completed in 1995). The extension project which was approved in 1984 and completed in 1999 comprised construction of Blocks J, K, L and S, redevelopment of Block P, as well as minor refurbishment to Block G.

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

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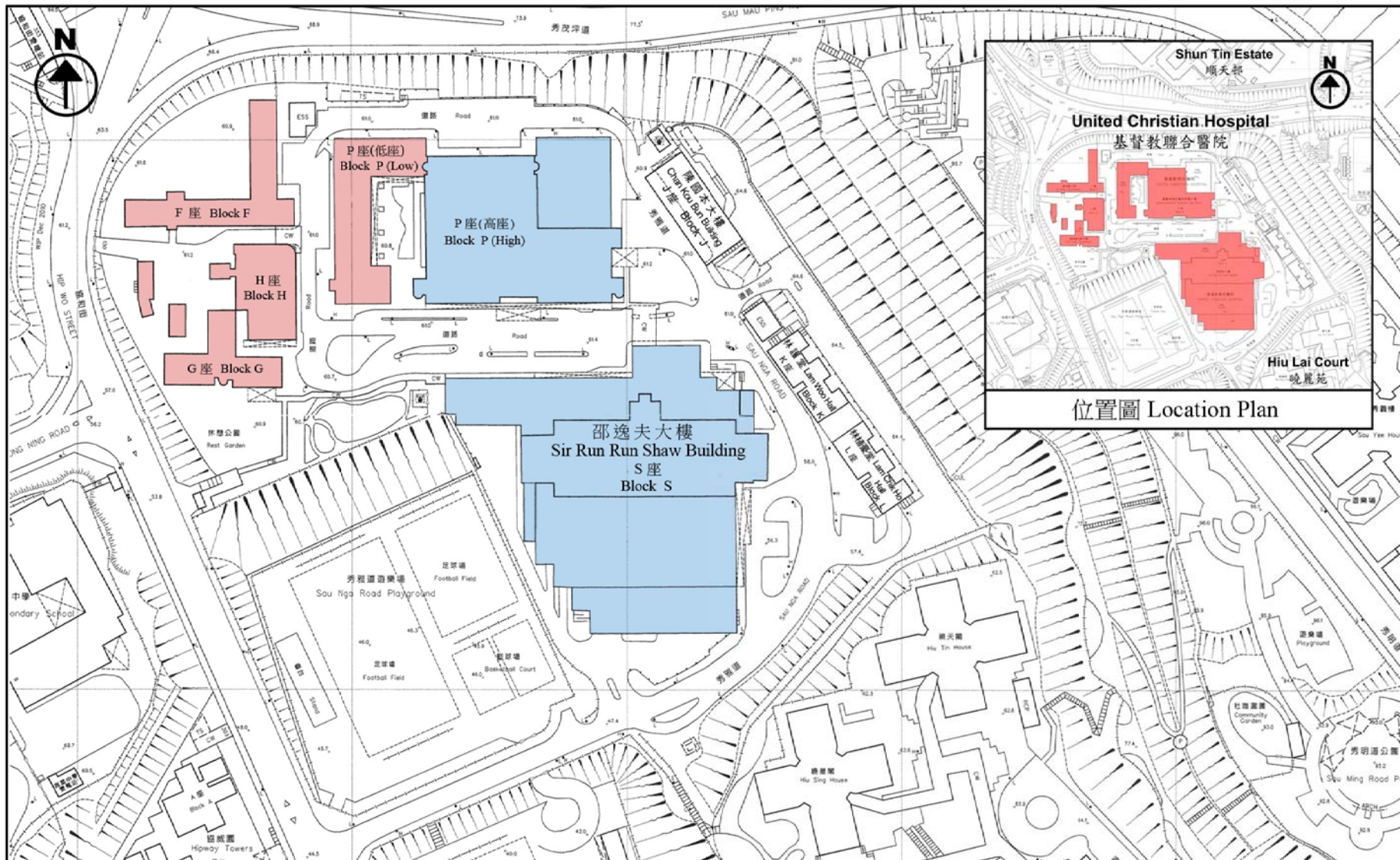
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<sup>3</sup> To maximise site utilisation, we need to demolish Block H (2 storeys) and the lower block of Block P (2 storeys including 1 basement) which were completed about 14 years ago for redevelopment. The other two blocks to be demolished are Blocks F and G which were completed some 40 years ago.

33. We estimate that the proposed preparatory works will create about 220 jobs (140 for labourers and another 80 for professional/technical staff) providing a total employment of 3 420 man-months.

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Food and Health Bureau  
May 2012



# 8004MJ - Expansion of United Christian Hospital 基督教聯合醫院擴建計劃

Site Plan of Existing United Christian Hospital (Not to Scale)  
 基督教聯合醫院現時平面圖 (不按比例)

- Buildings to be demolished 將予拆卸的樓宇
- Buildings to be refurbished 將翻新的樓宇





**4MJ (Part) – Expansion of United Christian Hospital****Breakdown of estimates for consultants' fees (in September 2011 prices)**

Consultants' staff costs <sup>Note 1</sup>			Estimated man- months	Average MPS <sup>e</sup> salary point	Multiplier (Note 2)	Estimated fee (\$ million)
A. Outline sketch plan						
(a)	Architectural	Professional	98	38	2.0	12.2
		Technical	236	14	2.0	10.0
(b)	Building services	Professional	32	38	2.0	4.0
		Technical	68	14	2.0	2.9
(c)	Structural engineering	Professional	16	38	2.0	2.0
		Technical	38	14	2.0	1.6
(d)	Quantity surveying	Professional	3	38	2.0	0.4
		Technical	7	14	2.0	0.3
(e)	Project management	Professional	50	38	2.0	6.2
		Technical	88	14	2.0	3.7
					Sub-total	43.3
B. Detailed design						
(a)	Architectural	Professional	130	38	2.0	16.2
		Technical	316	14	2.0	13.4
(b)	Building services	Professional	43	38	2.0	5.4
		Technical	90	14	2.0	3.8
(c)	Structural engineering	Professional	32	38	2.0	4.0
		Technical	76	14	2.0	3.2
(d)	Quantity surveying	Professional	3	38	2.0	0.4
		Technical	5	14	2.0	0.2
(e)	Project management	Professional	100	38	2.0	12.5
		Technical	175	14	2.0	7.4
					Sub-total	66.5

Consultants' staff costs <sup>Note 1</sup>			Estimated man-months	Average MPS* salary point	Multiplier (Note 2)	Estimated fee (\$ million)
C. Tender documentation and assessment						
(a)	Architectural	Professional	163	38	2.0	20.3
		Technical	395	14	2.0	16.7
(b)	Building services	Professional	54	38	2.0	6.7
		Technical	113	14	2.0	4.8
(c)	Structural engineering	Professional	40	38	2.0	5.0
		Technical	92	14	2.0	3.9
(d)	Quantity surveying	Professional	45	38	2.0	5.6
		Technical	120	14	2.0	5.1
(e)	Project management	Professional	100	38	2.0	12.5
		Technical	175	14	2.0	7.4
					Sub-total	88.0
					<b>Total</b>	197.8

\* MPS = Master Pay Scale

### Notes

1. The actual man-months and actual fees will only be known after completion of the preparatory works.
2. A multiplier of 2.0 is applied to the average MPS 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 = \$62,410 per month and MPS salary point 14 = \$21,175 per month.)