

For discussion  
on 6 June 2001

PWSC(2001-02)44

## **ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE**

### **HEAD 708 - CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT**

#### **Education Subventions**

**29ED - Redevelopment of Hong Chi Pinehill School, Nam Hang, Tai Po**

**30ED - Redevelopment of Hong Chi Pinehill No. 3 School, Nam Hang, Tai Po**

Members are invited to recommend to Finance Committee to approve new commitments of \$67.6 million and \$88.0 million in money-of-the-day prices under **29ED** and **30ED** respectively for the redevelopment of Hong Chi Pinehill School and Hong Chi Pinehill No. 3 School at Nam Hang, Tai Po.

### **PROBLEM**

The Hong Chi Pinehill School for moderately mentally handicapped children and Hong Chi Pinehill No. 3 School for severely mentally handicapped children are operating in sub-standard premises. Their facilities are dilapidated and their space provisions are inadequate.

### **PROPOSAL**

2. The Director of Education (D of E), on the advice of the Director of Architectural Services (D Arch S) and with the support of the Secretary for Education and Manpower, proposes to create new commitments of \$67.6 million and \$88.0 million in money-of-the-day (MOD) prices under **29ED** and **30ED** respectively for the redevelopment of Hong Chi Pinehill School and Hong Chi Pinehill No. 3 School at Nam Hang, Tai Po.

**/PROJECT .....**

**PROJECT SCOPE AND NATURE**

3. The scope of the projects comprises demolition and in-situ redevelopment of the existing school premises of the two schools. The new school buildings will have the following facilities -

	<b>29ED</b>	<b>30ED</b>
(a) classrooms	10	10
(b) special rooms	7	8
(c) library	1	1
(d) resource room	1	1
(e) remedial teaching rooms	2	2
(f) student activity centre	1	1
(g) speech therapy rooms	3	3
(h) interview rooms	2	2
(i) staff room	1	1
(j) staff common room	1	1
(k) assembly hall-cum-gymnasium	1	1
(l) 10-person bedroom study areas (for boarding section)	-	6
(m) dining room (for boarding section)	-	1
(n) staff areas and associated ancillary accommodation including a lift and relevant facilities for the handicapped	yes	yes

4. The site plans for **29ED** and **30ED** are at Enclosure 1. D Arch S plans to start the demolition works of the two schools at the end of September 2001. Construction works for the new school buildings will commence in January 2002 for completion in March 2003.

**/JUSTIFICATION .....**

**JUSTIFICATION**

5. The Hong Chi Association runs three special schools in Tai Po, namely Hong Chi Pinehill School (for the purpose of clarity, this is referred to as No. 1 School below although this does not feature in the official name of the school), Hong Chi Pinehill No. 2 School (No. 2 School) and Hong Chi Pinehill No. 3 School (No. 3 School). No. 1 School (with a designed capacity of 100 places) caters for moderately mentally handicapped children, and No. 2 and No. 3 Schools (with a respective capacity of 56 and 64 places) cater for severely mentally handicapped children. They are located adjacent to one another in Pinehill Village, Nam Hang, Tai Po.

6. The existing facilities of No. 1 School and No. 3 School are sub-standard, outdated and spatially underprovided. The total floor area of No. 1 School is 72% less than that of the standard provision of special schools for moderately mentally handicapped children. The total floor area of No. 3 School is 75% less than that of the standard provision of special schools for severely mentally handicapped children. Feasibility studies conducted under the School Improvement Programme (SIP) have confirmed that the improvement option is not technically feasible and recommended a complete redevelopment of both schools in-situ. Improvements to No. 2 School will be carried out under the SIP.

7. To improve the teaching environment and the effectiveness of the education provided by the schools, we consider that No. 1 and No. 3 Schools should be redeveloped and their facilities upgraded to meet current standards. As the two schools are adjacent to each other, we propose to implement the redevelopment works simultaneously.

8. The provision of special school places for moderately and severely mentally handicapped children is planned on a territory-wide basis. In practice, in deciding the location for the reprovisioning of an existing special school, D of E takes into account the demand for such school places in different regions. The aim is to achieve an even distribution of special school places among different regions as far as possible.

9. Taking into account the future demand both in Tai Po and other districts nearby, and the existing sub-standard conditions of No.1 and No. 3 Schools, we propose to redevelop No.1 and No. 3 Schools with comparable standard Year 2000 design schools for 100 moderately handicapped children and 80 severely handicapped children respectively.

**FINANCIAL IMPLICATIONS**

10. We estimate the capital cost of **29ED** and **30ED** to be \$67.6 million and \$88.0 million respectively in MOD prices (see paragraph 11 below), made up as follows -

	<b>\$ million</b>		
	<b>29ED</b>	<b>30ED</b>	
(a) Demolition and site formation	3.6	0.9	
(b) Piling	3.7	5.1	
(c) Building	31.0	44.0	
(d) Building services	8.8	11.7	
(e) Drainage and external works	7.9	9.5	
(f) Furniture and equipment	3.1	4.3	
(g) Consultants' fees for contract administration	5.3	7.1	
(h) Contingencies	5.4	7.0	
Sub-total	68.8	89.6	(in September 2000 prices)
(i) Provisions for price adjustment	(1.2)	(1.6)	
Total	67.6	88.0	(in MOD prices)

The construction floor area for **29ED** and **30ED** are 4 447 square metres and 6 528 square metres respectively. The construction unit costs of **29ED** and **30ED**, represented by building and building services costs, are \$8,950 per square metre and \$8,532 per square metre respectively in September 2000 prices. D Arch S considers the estimated construction unit costs comparable to similar school projects built by the Government. A breakdown by man-months of the cost estimate for consultants' fees is at Enclosure 2.

11. Subject to approval, we will phase the expenditure as follows -

Year	\$ million (Sept 2000)		Price adjustment factor	\$ million (MOD)	
	29ED	30ED		29ED	30ED
2001 - 02	16.3	21.5	0.98000	16.0	21.1
2002 - 03	36.0	45.0	0.97976	35.3	44.1
2003 - 04	16.5	23.1	0.98759	16.3	22.8
	68.8	89.6		67.6	88.0

12. We derived the MOD estimates on the basis of Government's latest forecast of trend labour and construction prices for the period 2001 to 2004. We will tender all demolition works and all construction works under two separate fixed-price lump-sum contracts because the contract periods will be less than 21 months each and we can clearly define the scope of works in advance, leaving little room for uncertainty.

13. We estimate the annually recurrent expenditure for **29ED** and **30ED** to be \$14.5 million and \$28.8 million respectively.

## PUBLIC CONSULTATION

14. We consulted the Tai Po District Council on **29ED** and **30ED** in March 2000. Members of the District Council supported the projects.

## ENVIRONMENTAL IMPLICATIONS

15. We conducted Preliminary Environmental Reviews (PERs) for **29ED** and **30ED** in July 1998 and June 1999 respectively. The PERs concluded that both **29ED** and **30ED** would not be subject to adverse environmental impacts. During construction, we will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contracts. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

16. ....

16. At the planning and design stages of these projects, we have considered measures to reduce the generation of construction and demolition (C&D) materials. The consultants engaged by D Arch S have introduced more prefabricated building elements into the design to avoid temporary formwork and construction waste. These include dry-wall partitioning and proprietary fittings and fixtures. Suitable excavated materials will be used for filling within the site to minimise off-site disposal. In addition, the contractor will be required to use metal site hoardings and signboards so that these materials can be recycled or reused in other projects.

17. D Arch S will require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. D Arch S will ensure that the day-to-day operations on site comply with the approved WMP. The consultants engaged by D Arch S will control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip-ticket system. The contractor will be required to separate public fill from C&D waste for disposal at appropriate facilities. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes. We estimate that the C&D materials to be generated and recycled or disposed of at public fill or at landfills by **29ED** and **30ED** to be as follows -

Project No.	Total C&D materials generated	C&D materials reused/recycled at site		C&D materials to public filling areas <sup>1</sup>		C&D waste to landfills	
	m <sup>3</sup>	m <sup>3</sup>	%	m <sup>3</sup>	%	m <sup>3</sup>	%
<b>29ED</b>	670	35	5	400	60	235	35
<b>30ED</b>	1 140	60	5	680	60	400	35

The high proportion of C&D waste is due to the complete demolition of two existing school premises.

## LAND ACQUISITION

18. The projects do not require any land acquisition.

/BACKGROUND .....

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<sup>1</sup> A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering.

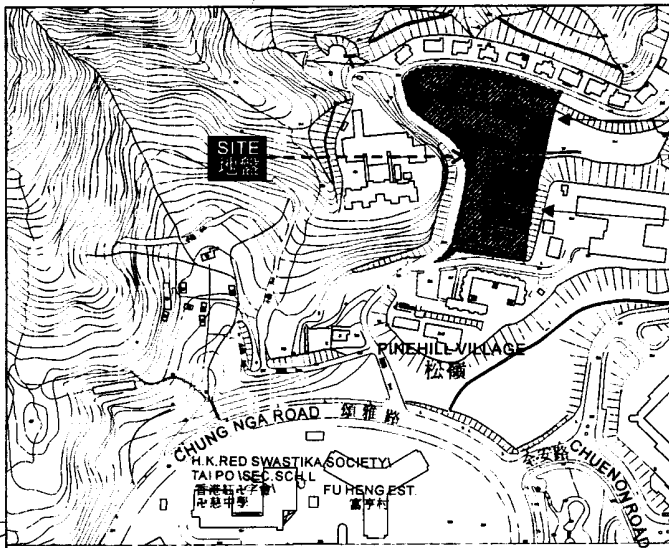
**BACKGROUND INFORMATION**

19. To minimise disturbance to the educational services provided by the schools whilst the new school buildings are under construction, No. 1 School was temporarily re-provisioned to the former Tai Po Government Primary School on 1 September 2000. Temporary accommodation for No. 3 School will be provided both on and off site as necessary during the construction period. Renovation works for the temporary accommodation (including No. 2 School and Hong Chi Pinehill Advanced Training Centre) are in progress. The cost of these works will be charged to **Head 708** block allocation **Subhead 8100QX** "Alterations, additions, repairs and improvements to education subvented buildings".

20. We upgraded **29ED** and **30ED** to Category B in April 1999 and November 1999 respectively. We engaged consultants to carry out PERs for **29ED** and **30ED** in July 1998 and June 1999 respectively, detailed designs for the two schools in April 2000, topographical surveys in September 2000 and tender documentation for the building works in June 2001. We also employed a term contractor to carry out site investigations in December 2000. The total costs for the above items are \$7.4 million for **29ED** and \$12.7 million for **30ED**. We charged these amounts to block allocation **Subhead 8100QX**. The consultants and term contractor have completed the PERs, topographical surveys, detailed designs, site investigations, and are preparing the tender documentation of the projects. Tender documentation for the demolition works is being carried out by D Arch S using in-house staff resources.

21. We estimate that the proposed works under **29ED** will create some 100 jobs with a total of 1 620 man-months comprising three professional staff, seven technical staff and 90 labourers. The works under **30ED** will create some 130 jobs with a total of 2 130 man-months comprising three professional staff, seven technical staff and 120 labourers.

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Hong Chi Pinehill No.3 School

匡智松嶺第三校

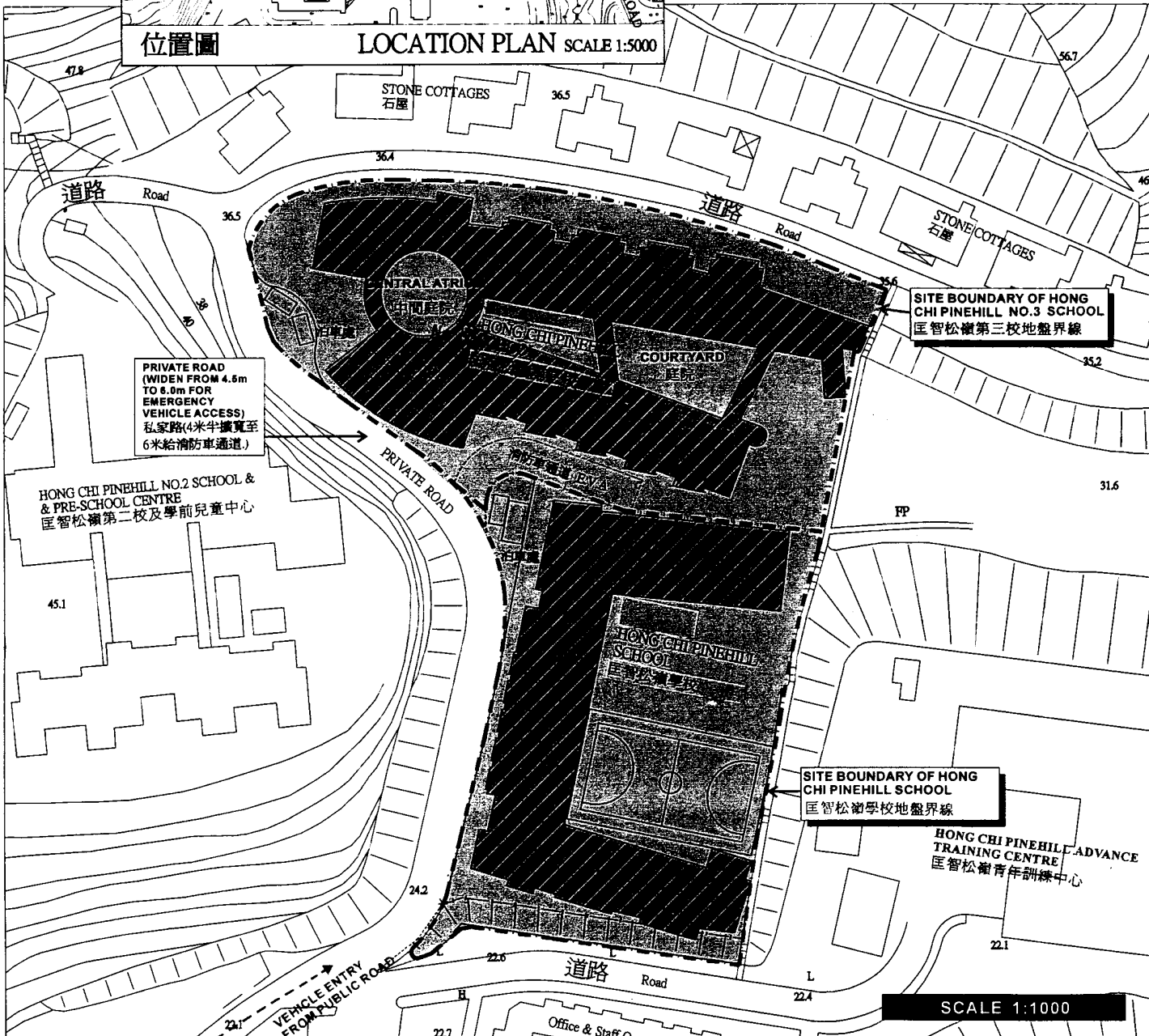
Hong Chi Pinehill School

匡智松嶺學校



位置圖

LOCATION PLAN SCALE 1:5000



SITE BOUNDARY OF HONG CHI PINEHILL NO.3 SCHOOL  
匡智松嶺第三校地盤界線

SITE BOUNDARY OF HONG CHI PINEHILL SCHOOL  
匡智松嶺學校地盤界線

SCALE 1:1000

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**UNG CHAN + PARTNERS LTD**  
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 148 CONNAUGHT ROAD C., HONG KONG  
 TEL 2815 3306 FAX 852-2541 1761  
 粵語專線 148 粵語專線 852-2541 1761

TITLE: 29ED 重建大埔南坑匡智松嶺學校  
 REDEVELOPMENT OF HONG CHI PINEHILL SCHOOL, NAM HANG, TAI PO  
 30ED 重建大埔南坑匡智松嶺第三校  
 REDEVELOPMENT OF HONG CHI PINEHILL NO. 3 SCHOOL, NAM HANG, TAI PO

DWG TITLE: **LOCATION PLAN**  
**位置圖**

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JOB NO:	00003	DATE:	24-5-2001
DRAWN:	BT	CHECK:	KC
SCALE:	AS SHOWN	APPROVE:	
CAD File:	J:\PROJECT\	DWG NO:	SITE-01 (B)



**Enclosure 2 to PWSC(2001-02)44**

**29ED - Redevelopment of Hong Chi Pinehill School, Nam Hang, Tai Po**

**30ED - Redevelopment of Hong Chi Pinehill No. 3 School, Nam Hang, Tai Po**

**Breakdown of estimate for consultants' fees**

Consultants' staff costs	Estimated man-months		Average MPS* salary point	Multiplier factor	Estimated fee (\$million)	
	29ED	30ED			29ED	30ED
Contract administration						
Professional	26.0	34.0	38	2.4	3.6	4.7
Technical	37.0	52.0	14	2.4	1.7	2.4
				Total	5.3	7.1

\* MPS = Master Pay Scale

**Notes**

1. A multiplier factor of 2.4 is applied to the average MPS point to arrive at the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices. (At 1.4.2001, MPS point 38 = \$57,525 per month and MPS point 14 = \$19,055 per month.)
2. The consultants' fees for the work during the construction stage formed an optional part of the lump-sum price quoted by the consultants selected to carry out the project designs and tender documentation mentioned in paragraph 20 of the paper. Subject to Members' approval to create new commitments for **29ED** and **30ED**, the Director of Architectural Services will direct the necessary works to be carried out.