

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

### **HEAD 703 – BUILDINGS**

#### **Education – Tertiary/other**

#### **97ET – Reprovisioning of Society of Boys' Centres Shing Tak Centre School at New Clear Water Bay Road, Kwun Tong**

Members are invited to recommend to Finance Committee the upgrading of **97ET** to Category A at an estimated cost of \$76.5 million in money-of-the-day prices for the reprovisioning of Society of Boys' Centres Shing Tak Centre School to New Clear Water Bay Road, Kwun Tong.

### **PROBLEM**

The existing school premises of Society of Boys' Centres Shing Tak Centre School in To Kwa Wan are far below current standards. There is no space for redevelopment on the existing school site.

### **PROPOSAL**

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Education and Manpower (SEM), proposes to upgrade **97ET** to Category A at an estimated cost of \$76.5 million in money-of-the-day (MOD) prices for reprovisioning the school for social development (SSD) from To Kwa Wan to New Clear Water Bay Road, Kwun Tong.

**/PROJECT .....**

**PROJECT SCOPE AND NATURE**

3. The scope of the project comprises the construction of a school section and a boarding section for the SSD at New Clear Water Bay Road, Kwun Tong. The new premises will have the following facilities –

- (a) School section
  - (i) ten classrooms;
  - (ii) eleven special rooms;
  - (iii) two small group teaching rooms;
  - (iv) a library;
  - (v) an assembly hall;
  - (vi) a multi-purpose area;
  - (vii) a staff room and a staff common room;
  - (viii) two social worker's rooms;
  - (ix) a basketball court;
  - (x) a green corner<sup>1</sup>;
  - (xi) a conference room (to be shared with the boarding section);
  - (xii) two interview rooms (to be shared with the boarding section);
  - (xiii) a student activity centre (to be shared with the boarding section); and
  - (xiv) other ancillary facilities, including a lift and facilities for the handicapped (to be shared with the boarding section); and

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<sup>1</sup> The green corner is a designated area inside the campus to enable students to develop an interest in horticulture and natural environment. The green corner may include a green house, a weather station and planting beds.

- (b) Boarding section
- (i) an administration unit, including five staff offices;
  - (ii) an after-school care programme unit, including a study room and a staff duty room;
  - (iii) a residential unit, including 15 bedrooms, five sitting rooms, five study rooms, a quarter for the superintendent, five staff duty rooms and five sleep-in rooms for staff; and
  - (iv) other ancillary facilities, including a multi-purpose hall, a kitchen and a central laundry plus linen store.

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The project will meet the planning target of providing two square metres of open space per student. A site plan is at Enclosure 1 and computer rendering drawings of the school premises are at Enclosure 2. We plan to start the construction works for **97ET** in November 2003 for completion in June 2005.

## JUSTIFICATION

4. The Society of Boys' Centres Shing Tak Centre School is currently operating seven primary classes with a total of 105 places for students with moderate to severe behavioural and emotional difficulties. It receives subvention from the Education and Manpower Bureau. The 60 boarding places and 45 after-school care places are subvented by the Social Welfare Department. The net operational floor area (NOFA) of the existing school premises of approximately 320 square metres falls short of the standard provision<sup>2</sup> by about 88%. Certain essential facilities such as computer room, computer-assisted learning room, small group teaching rooms, design and technology workshop, integrated science laboratory and other special rooms/workshops are not available. This hinders future development and the quality of education.

/5. ....

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<sup>2</sup> The approved schedule of accommodation for the SSD of the same class structure is 2 627 square metres in NOFA (excluding the boarding section).

5. The physical facilities of the school are grossly sub-standard and fail to cope with new demand. We need to re-provision and upgrade the school to become a standard ten-classroom SSD. The boarding section of the SSD needs to be re-provisioned together with the school section as it is an integral part of the service which provides residential facilities for students in need of intensive care and close supervision. After re-provisioning, the new school premises will be able to accommodate four primary classes and six junior secondary classes, with a capacity for 150 students. The boarding section will provide an improved environment for the 60 boarding places for students of the school who require residential treatment. After-school care places will be increased from 45 to 60 to meet the needs for care and supervision of non-residents whose parents/guardians work long hours or on shift. Based on the latest population statistics, SEM forecasts that there will be a shortfall of 159 SSD places against the supply of 840<sup>3</sup> by the 2005/06 school year. The capacity provided by the proposed project will help meet the demand.

## FINANCIAL IMPLICATIONS

6. We estimate the capital cost of the project to be \$76.5 million in MOD prices (see paragraph 7 below), made up as follows –

	<b>\$ million</b>
(a) Slope stabilisation	4.2
(b) Foundation	3.0
(c) Building	36.0
(d) Building services	14.5
(e) Drainage and external works	7.5
(f) Furniture and equipment (F&E) <sup>4</sup> for –	7.1
(i) School section	4.4
(ii) Boarding section	2.7

/(g) .....

<sup>3</sup> The provision of the current Society of Boys' Centres Shing Tak Centre School (105 places) has not been taken into account.

<sup>4</sup> Based on the estimated F&E requirement of the standard schedule of accommodation.

	<b>\$ million</b>	
(g) Consultants' fees for –	3.0	
(i) Contract administration	2.1	
(ii) Site supervision	0.9	
(h) Contingencies	6.8	
Sub-total	82.1	(in September 2002 prices)
(i) Provision for price adjustment	(5.6)	
Total	76.5	(in MOD prices)

D Arch S proposes to engage consultants to undertake contract administration and site supervision for the project. A detailed breakdown of the estimate for consultants' fees by man-months is at Enclosure 3. The construction floor area (CFA) of 97ET is about 8 577 square metres (comprising 6 186 square metres for the school section and 2 391 square metres for the boarding section). The estimated construction unit cost, represented by the building and building services costs, is \$5,888 per square metre of CFA in September 2002 prices. The estimated construction unit cost is comparable to that for other similar projects built by the Government.

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

<b>Year</b>	<b>\$ million (Sept 2002)</b>	<b>Price adjustment factor</b>	<b>\$ million (MOD)</b>
2003 – 04	4.0	0.94300	3.8
2004 – 05	33.0	0.93003	30.7
2005 – 06	32.9	0.93003	30.6
2006 – 07	9.0	0.93003	8.4
2007 – 08	3.2	0.93003	3.0
	82.1		76.5

8. We have derived the MOD estimates on the basis of the Government's latest forecast of trend labour and construction prices for the period 2003 to 2008. We will deliver the works through a fixed-price lump-sum contract because the contract period will be less than 21 months and we can clearly define the scope of works in advance, leaving little room for uncertainty.

9. The annual recurrent expenditure of the current Society of Boys' Centres Shing Tak Centre School is about \$17.8 million. After the reprovisioning, the annual recurrent expenditure is estimated to be \$24.8 million.

## **PUBLIC CONSULTATION**

10. We consulted the Kwun Tong District Council on 25 March 2003. Members of the Council supported the project. The school sponsor has been involved throughout the planning and design stages. Parents support the reprovisioning of the school to the new site.

## **ENVIRONMENTAL IMPLICATIONS**

11. We engaged a consultant to conduct a Preliminary Environmental Review (PER) and Landfill Gas Hazard Assessment (LFGHA) for **97ET** in December 2002. The PER concluded that the school would not be subject to adverse environmental impacts provided that we implement the following environmental mitigation measures to keep the road traffic noise impact within the limits recommended in the Hong Kong Planning Standards and Guidelines –

<b>Mitigation measures</b>	<b>Estimated cost \$ million (in Sept 2002 prices)</b>
(a) Classroom block	1.3
Provision of insulated windows and air-conditioning to ten classrooms and three special rooms from the 1/F to 3/F at the north-eastern façade	

/(b) .....

<b>Mitigation measures</b>	<b>Estimated cost \$ million (in Sept 2002 prices)</b>
(b) Special room block	0.7
Provision of insulated windows and air-conditioning to one special room on 1/F at the north-eastern façade; two special rooms and two small group teaching rooms from the 1/F to 3/F at the south-western façade; and two special rooms from the 2/F to 3/F at the south-eastern façade	
(c) Dormitory block	0.7
Provision of insulated windows and air-conditioning to six bedrooms from the 2/F to 3/F at the northern façade; and five sitting rooms from the 1/F to 3/F at the southern façade	

We have included the costs of the above mitigation measures as part of the building services works in the project estimate.

12. The LFGHA concluded that with the implementation of gas precaution measures into the building design, such as the provision of natural or mechanical ventilation to the ground floor rooms, installation of gas detectors at high sensitive targets, and the adoption of landfill gas monitoring, the potential hazard upon the school associated with the landfill gas emission will be reduced to within acceptable level. The estimated cost for implementing such measures is \$400,000, which is included as part of the building works in the project estimate.

13. 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.

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

15. 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. 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. D Arch S will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities. D Arch S will record the disposal, reuse and recycling of C&D materials for monitoring purposes. We estimate that the project will generate about 2 100 cubic metres (m<sup>3</sup>) of C&D materials. Of these, we will reuse about 1 400 m<sup>3</sup> (66.7%) on site, 400 m<sup>3</sup> (19%) as fill in public filling areas<sup>5</sup>, and dispose of 300 m<sup>3</sup> (14.3%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$37,500 for this project (based on a notional unit cost<sup>6</sup> of \$125/m<sup>3</sup>).

## LAND ACQUISITION

16. The project does not require land acquisition.

**/BACKGROUND .....**

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<sup>5</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.

<sup>6</sup> This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m<sup>3</sup>), nor the cost to provide new landfills (which are likely to be more expensive) when the existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.



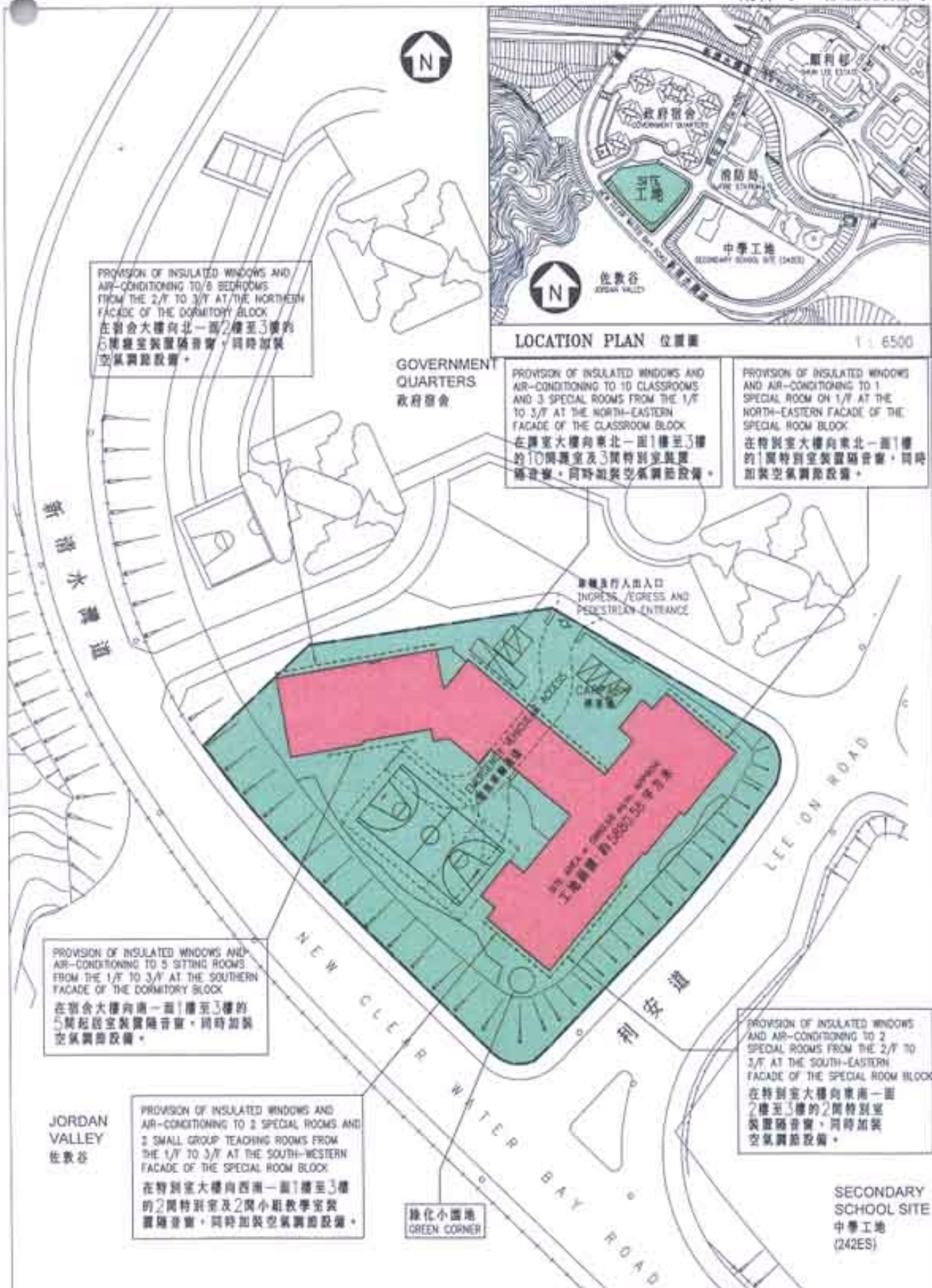
**BACKGROUND INFORMATION**

17. We upgraded **97ET** to Category B in May 2002. We engaged a term contractor to carry out the site investigation in April 2003 and consultants to undertake the topographical survey and detailed design in June 2002, PER and LFGHA in December 2002 and tender documentation in May 2003 of the project at a total cost of \$3.5 million. We charged this amount to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". The term contractor and consultants have completed the site investigation, topographical survey, detailed design, PER and LFGHA of the project. The consultants are finalising the tender documents.

18. We estimate that the project will create some 110 jobs comprising ten professional/technical staff and 100 labourers, totalling 1 800 man-months.

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Education and Manpower Bureau  
June 2003



PROVISION OF INSULATED WINDOWS AND AIR-CONDITIONING TO 8 BEDROOMS FROM THE 2/F TO 3/F AT THE NORTHERN FACADE OF THE DORMITORY BLOCK  
 在宿舍大樓向北一面2樓至3樓的8間寢室裝置隔音窗，同時加裝空氣調節設備。

GOVERNMENT QUARTERS  
 政府宿舍

PROVISION OF INSULATED WINDOWS AND AIR-CONDITIONING TO 10 CLASSROOMS AND 3 SPECIAL ROOMS FROM THE 1/F TO 3/F AT THE NORTH-EASTERN FACADE OF THE CLASSROOM BLOCK  
 在課室大樓向東北一面1樓至3樓的10間課室及3間特別室裝置隔音窗，同時加裝空氣調節設備。

PROVISION OF INSULATED WINDOWS AND AIR-CONDITIONING TO 1 SPECIAL ROOM ON 1/F AT THE NORTH-EASTERN FACADE OF THE SPECIAL ROOM BLOCK  
 在特別室大樓向東北一面1樓的1間特別室裝置隔音窗，同時加裝空氣調節設備。

LOCATION PLAN 位置圖 1 : 6500

PROVISION OF INSULATED WINDOWS AND AIR-CONDITIONING TO 5 SITTING ROOMS FROM THE 1/F TO 3/F AT THE SOUTHERN FACADE OF THE DORMITORY BLOCK  
 在宿舍大樓向南一面1樓至3樓的5間起居室裝置隔音窗，同時加裝空氣調節設備。


JORDAN VALLEY  
 佐敦谷

PROVISION OF INSULATED WINDOWS AND AIR-CONDITIONING TO 2 SPECIAL ROOMS AND 2 SMALL GROUP TEACHING ROOMS FROM THE 1/F TO 3/F AT THE SOUTH-WESTERN FACADE OF THE SPECIAL ROOM BLOCK  
 在特別室大樓向西南一面1樓至3樓的2間特別室及2間小組教學室裝置隔音窗，同時加裝空氣調節設備。

綠化小園地  
 GREEN CORNER

PROVISION OF INSULATED WINDOWS AND AIR-CONDITIONING TO 2 SPECIAL ROOMS FROM THE 2/F TO 3/F AT THE SOUTH-EASTERN FACADE OF THE SPECIAL ROOM BLOCK  
 在特別室大樓向東南一面2樓至3樓的2間特別室裝置隔音窗，同時加裝空氣調節設備。

SECONDARY SCHOOL SITE  
 中學工地  
 (242ES)


Title 97E1 REPROVISIONING OF SOCIETY OF BOYS' CENTRES SHING TAK CENTRE SCHOOL AT NEW CLEAR WATER BAY ROAD, KWUN TONG 在觀塘新清水灣道重置香港扶幼會盛德中心學校	drawn by WINNIE WONG	date 25.04.2003	drawing no AB/5454/XD 101/a	scale 1:1000
	approved NORA LEUNG	date 25.04.2003	 ARCHITECTURAL SERVICES DEPARTMENT	
	office ARCHITECTURAL BRANCH			



電腦繪製的校舍模擬圖（西南面）  
COMPUTER RENDERING DRAWING OF THE SCHOOL PREMISES (SOUTH-WESTERN VIEW)



電腦繪製的校舍模擬圖（東北面）  
COMPUTER RENDERING DRAWING OF THE SCHOOL PREMISES (NORTH-EASTERN VIEW)

Title 97ET REPROVISIONING OF SOCIETY OF BOYS' CENTRES SHING TAK CENTRE SCHOOL AT NEW CLEAR WATER BAY ROAD, KWUN TONG 在觀塘新清水灣道重置 香港扶幼會盛德中心學校	drawn by WINNIE WONG	date 25.04.2003	drawing no. AB/5454/XD 102	scale N.T.S.
	approved NORA LEUNG	date 25.04.2003	 ARCHITECTURAL SERVICES DEPARTMENT	
	office ARCHITECTURAL BRANCH			

**97ET – Re-provisioning of Society of Boys’ Centres Shing Tak Centre School  
at New Clear Water Bay Road, Kwun Tong**

**Breakdown of the estimate for consultants’ fees**

Consultants’ staff costs			Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a)	Contract administration (Note 2)	Professional	–	–	–	1.6
		Technical	–	–	–	0.5
(b)	Site supervision (Note 3)	Professional	9.7	38	1.6	0.9
					Total	<hr/> 3.0 <hr/>

\* MPS = Master Pay Scale

**Notes**

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants. (At 1 October 2002, MPS point 38 is \$57,730 per month.)
2. The consultants’ staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **97ET**. The assignment will only be executed subject to Finance Committee’s approval to upgrade **97ET** to Category A.
3. The consultants’ staff costs 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.