

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Education – Tertiary/other

96ET – Special school in Area 3, Yuen Long, for moderately mentally handicapped children

Members are invited to recommend to Finance Committee the upgrading of **96ET** to Category A at an estimated cost of \$78 million in money-of-the-day prices for the construction of a special school with boarding section in Area 3, Yuen Long, for moderately mentally handicapped children.

PROBLEM

The existing school premises of the Hong Chi Morninglight School, Wah Fu, are far below current standards. There is no room for expansion to improve the teaching and learning environment.

PROPOSAL

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Education and Manpower, proposes to upgrade **96ET** to Category A at an estimated cost of \$78 million in money-of-the-day (MOD) prices for the construction of a new special school for moderately mentally handicapped (MoMH) children in Area 3, Yuen Long, to re-provision the existing one at Wah Fu Estate, Aberdeen.

PROJECT SCOPE AND NATURE

3. The scope of the project comprises the construction of a special school, with 100 places for MoMH children, in Area 3, Yuen Long. The new school will include the following facilities –

- (a) ten classrooms;
- (b) seven workshops/special rooms;
- (c) two small group teaching rooms;
- (d) three speech therapy rooms;
- (e) two interview rooms;
- (f) a staff room and a staff common room;
- (g) a student activity centre;
- (h) a conference room;
- (i) a library;
- (j) a resource room;
- (k) an assembly hall-cum-gymnasium;
- (l) a basketball court on ground level;
- (m) ten six-person bedrooms and study areas (for the boarding section¹);
- (n) a dining/multi-purpose room (for the boarding section);
- (o) a houseparents/program workers' office (for the boarding section);

/(p)

¹ A 60-place boarding section is provided. This can help MoMH children learn how to live independently and to develop adaptive social behaviour and communication skills. Other than the project proposed, four other MoMH schools in Hong Kong also have boarding provisions. The Director of Education will consider providing boarding facilities whenever appropriate, upon request and agreement with the school sponsor.

- (p) a green corner²; and
- (q) other ancillary facilities including a lift and relevant facilities for the handicapped.

The project will meet the planning target of providing two square metres of open space per student. A site plan and two views of the model of the school premises are at Enclosures 1 and 2 respectively. We plan to start the construction works for **96ET** in March 2003 for completion in late July 2004.

JUSTIFICATION

4. The existing school premises of Hong Chi Morninglight School, Wah Fu, are on the ground floor of Wah Mei House in Wah Fu Estate. The school, approximately 479 square metres in net operational floor area, falls short of the standard provision³ by about 73%. Certain basic facilities such as assembly hall, computer-assisted learning room and student activity centre are also lacking. We consider the school and its facilities grossly sub-standard and should therefore be reprovisioned and upgraded to a standard MoMH school with six primary classes and four junior secondary classes in order to improve the teaching and learning environment.

5. While the provision of special school places for MoMH children is planned on a territory-wide basis, the Director of Education (D of E) will, as far as possible, try to meet the demand on a regional basis. This is to achieve a more even distribution of school places among different regions and to minimise the travel distance of MoMH children to school as far as possible. Based on the latest population statistics, D of E forecasts that the shortfall of MoMH places in New Territories North West Region will increase to 97 in the 2006/07 school year and there is a surplus of MoMH school places in the Hong Kong Region. By reprovisioning the school to Yuen Long, the estimated demand in the Hong Kong Region can still be fully met by the other MoMH schools in the same region such as The Jockey Club Hong Chi School in Wanchai and Tung Wah Group of Hospitals Tsui Tsin Tong School in the Southern District, while the shortfall in the New Territories North West Region can be alleviated.

/FINANCIAL

² 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.

³ The approved schedule of accommodation for the special school for MoMH children of the same class structure is 1 793 square metres in net operational floor area (excluding boarding section).

FINANCIAL IMPLICATIONS

6. We estimate the capital cost of this project to be \$78 million in MOD prices (see paragraph 7 below), made up as follows –

	\$ million	
(a) Piling	16.6	
(b) Building	33.7	
(c) Building services	9.0	
(d) Drainage and external works	7.8	
(e) Furniture and equipment ⁴	4.1	
(f) Consultants' fees for contract administration ⁵	0.6	
(g) Contingencies	6.8	
Sub-total	78.6	(in September 2002 prices)
(h) Provision for price adjustment	(0.6)	
Total	78.0	(in MOD prices)

The construction floor area (CFA) of **96ET** is about 6 350 square metres (comprising 4 336 square metres for the school section and 2 014 square metres for the boarding section). The estimated construction unit cost, represented by the building and building services costs, is \$6,724 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 –

/2003

⁴ Based on the estimated furniture and equipment requirement in accordance with the standard schedule of accommodation for a special school for MoMH children.

⁵ The consultants' fees form an optional part of the lump-sum price quoted by the consultant selected to undertake tender documentation as mentioned in paragraph 16 of the paper. Subject to approval for **96ET** to be upgraded to Category A, D Arch S will direct the necessary work to be carried out.

Year	\$ million (Sept 2002)	Price adjustment factor	\$ million (MOD)
2003 – 04	32.8	0.99250	32.6
2004 – 05	34.5	0.99250	34.2
2005 – 06	8.3	0.99250	8.2
2006 – 07	2.0	0.99250	2.0
2007 – 08	1.0	0.99250	1.0
	78.6		78.0

8. We 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. We estimate the additional annual recurrent expenditure of the project to be \$9.2 million.

PUBLIC CONSULTATION

10. We consulted the Yuen Long District Council on 13 May 2002. 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. Parents are also informed that their children can continue with their studies in the new school in Area 3, Yuen Long, or be transferred to other schools for MoMH children on the Hong Kong Island if they wish.

ENVIRONMENTAL IMPLICATIONS

11. We engaged a consultant to conduct a Preliminary Environmental Review (PER) for 96ET in January 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 –

Mitigation measures	Estimated cost \$ million (in Sept 2002 prices)
(a) Provision of insulated windows and air-conditioning to resource room on the 1/F at the northern façade of the classroom block	0.1
(b) Provision of insulated windows and air-conditioning to two small group teaching rooms and one multi-purpose room on the 1/F at the eastern façade of the classroom block	0.2
(c) Provision of insulated windows and air-conditioning to five classrooms, one music room and two bedrooms for students from the 1/F to 2/F at the southern façade of the classroom block	0.8
(d) Construction of a three-metre high boundary wall along the eastern, southern and western sides of the site	0.8

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

12. During construction, we will control noise, dust and site runoff 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.

13. At the planning and design stage, 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 project 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 project 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.

14. 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 2 200 cubic metres (m³) of C&D materials. Of these, we will reuse about 1 400 m³ (63.6%) on site, 450 m³ (20.5%) as fill in public filling areas⁶, and dispose of 350 m³ (15.9%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$43,750 for this project (based on a notional unit cost⁷ of \$125/m³).

LAND ACQUISITION

15. The project does not require land acquisition.

/BACKGROUND

⁶ 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.

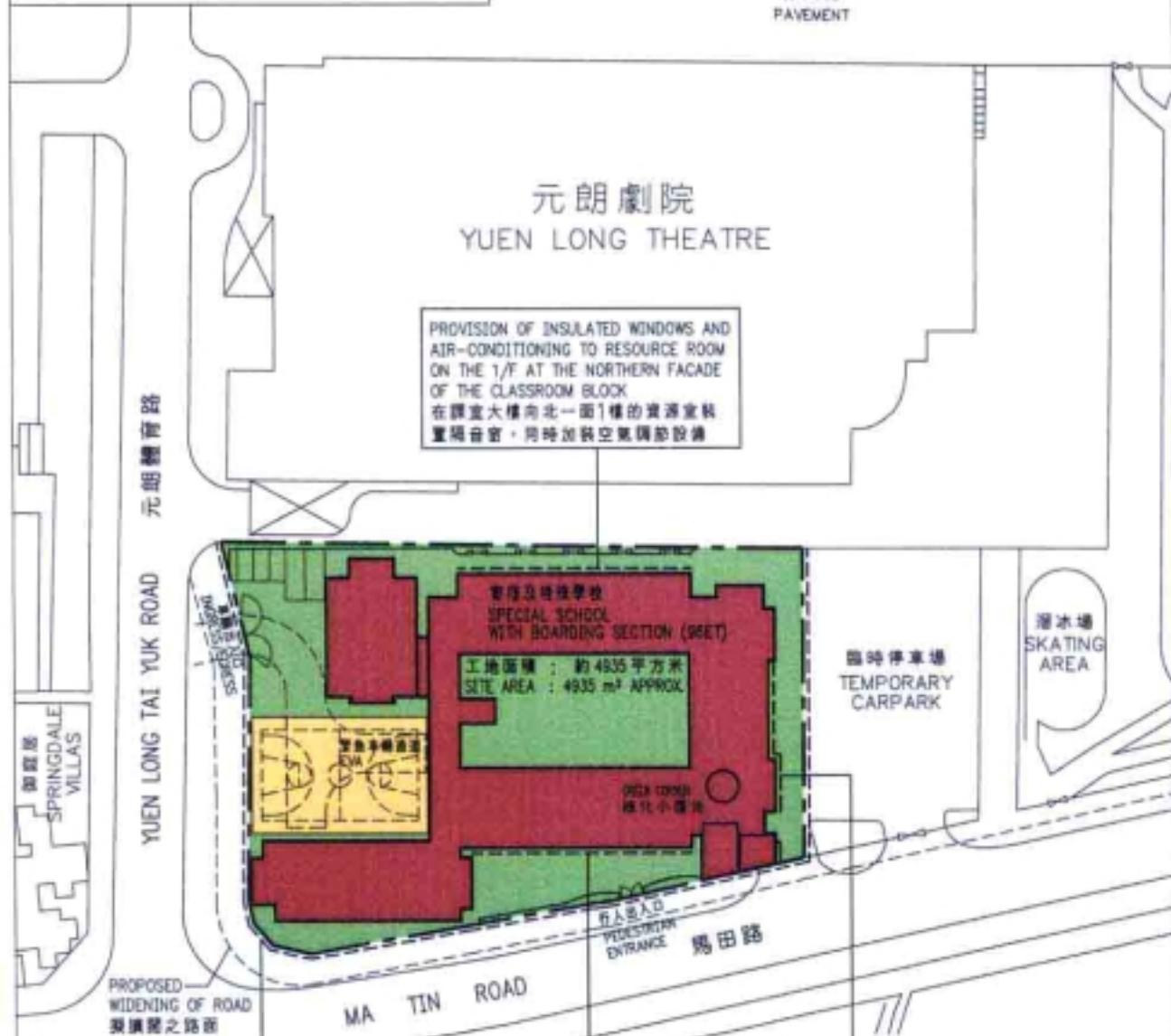
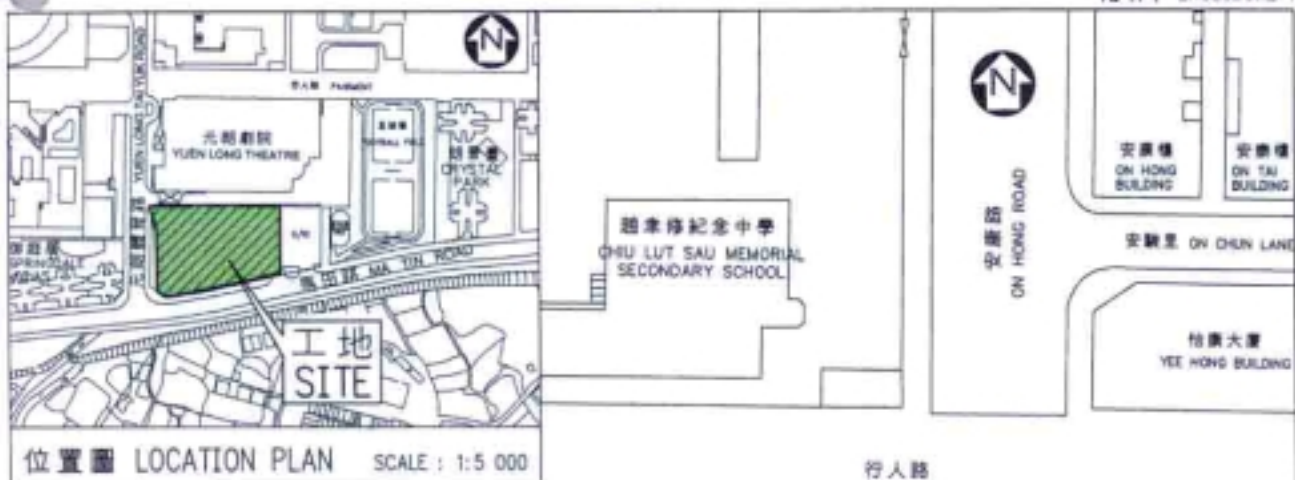
⁷ This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90 per/m³), nor the cost to provide new landfills (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

16. We upgraded **96ET** to Category B in October 2001. We engaged a consultant to carry out a PER in January 2002 and employed a term contractor to carry out a topographical survey and site investigation in September 2001 at a total cost of \$700,000. We also engaged a consultant to prepare the tender documents at a cost of \$313,500. We charged these amounts to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". The consultant and the term contractor have completed the PER, topographical survey and site investigation. D Arch S has completed the detailed design of the project with in-house staff resources. The consultant has completed the tender documentation.

17. We estimate that the proposed works under **96ET** will create some 100 jobs with a total of 1 640 man-months comprising one professional staff, four technical staff and 95 labourers.


Education and Manpower Bureau
December 2002



CONSTRUCTION OF A 3m HIGH BOUNDARY WALL ALONG THE EASTERN, SOUTHERN AND WESTERN SIDES OF THE SITE
沿地盤向東、南及西三面邊界興建一幅3米高圍牆

PROVISION OF INSULATED WINDOWS AND AIR-CONDITIONING TO 5 CLASSROOMS, 1 MUSIC ROOM AND 2 BEDROOMS FROM THE 1/F TO 2/F AT THE SOUTHERN FACADE OF THE CLASSROOM BLOCK
在課室大樓向南一面1樓至2樓的5間課室、1間音樂室及2間睡房裝置隔音窗，同時加裝空氣調節設備

PROVISION OF INSULATED WINDOWS AND AIR-CONDITIONING TO 2 SMALL GROUP TEACHING ROOMS AND 1 MULTI-PURPOSE ROOM ON THE 1/F AT THE EASTERN FACADE OF THE CLASSROOM BLOCK
在課室大樓向東一面1樓的2間小組教學室及1間多用途教學室裝置隔音窗，同時加裝空氣調節設備


title 96ET 元朗第3區的1所中度弱智兒童特殊學校 SPECIAL SCHOOL IN AREA 3, YUEN LONG, FOR MODERATELY MENTALLY HANDICAPPED CHILDREN	drawn by C. S. WONG / W.M. YU	date 14.11.02	drawing no. AB/5822/XA101	scale 1 : 1000
	approved Y. K. MOK	date 14.11.02	 ARCHITECTURAL SERVICES DEPARTMENT	
	office ARCHITECTURAL BRANCH			



從東南面拍攝的學校模型圖
VIEW OF SCHOOL MODEL FROM SOUTH-EAST



從西北面拍攝的學校模型圖
VIEW OF SCHOOL MODEL FROM NORTH-WEST

title 96ET 元朗第3區的1所中度 弱智兒童特殊學校 SPECIAL SCHOOL IN AREA 3, YUEN LONG, FOR MODERATELY MENTALLY HANDICAPPED CHILDREN	drawn by W. M. YU	date 4.12.2002	drawing no. AB/5822/XA102	scale N.T.S.
	approved Y. K. MOK	date 4.12.2002	 ARCHITECTURAL SERVICE DEPARTMENT	
	office ARCHITECTURAL BRANCH			