

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Education – Tertiary/others

101ET – Special school in Area 32, Tin Shui Wai, for severely mentally handicapped children

Members are invited to recommend to Finance Committee the upgrading of **101ET** to Category A at an estimated cost of \$73.9 million in money-of-the-day prices for the construction of a special school with boarding facilities in Area 32, Tin Shui Wai, for severely mentally handicapped children.

PROBLEM

Caritas Lok Kan School (the School) in Wan Chai is currently operating in a substandard building with facilities below current standards. Furthermore, the licence for the use of its school premises will expire on 31 August 2005 and could only be extended to end August 2007.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Education and Manpower (SEM), proposes to upgrade **101ET** to Category A at an estimated cost of \$73.9 million in money-of-the-day (MOD) prices for the construction of a new special school in Area 32, Tin Shui Wai, for severely mentally handicapped (SMH) children to re-provision the School currently in Wan Chai.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of the project comprises the construction of a special school with 80 day-time school places and 60 boarding places for SMH children. The new school premises will include the following facilities –

- (a) School section
 - (i) ten classrooms;
 - (ii) seven special rooms, including a multi-media activity room and an art and craft room;
 - (iii) two small group teaching rooms;
 - (iv) five therapy rooms;
 - (v) two interview rooms;
 - (vi) a staff room and a staff common room;
 - (vii) a student activity centre;
 - (viii) a conference room;
 - (ix) a library;
 - (x) a social worker's room;
 - (xi) an assembly hall-cum-gymnasium;
 - (xii) a basketball court at ground level;
 - (xiii) a green corner¹; and
 - (xiv) other ancillary facilities, including a medical inspection room, a lift and relevant facilities for the handicapped.

/(b)

¹ A 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 greenhouse, a weather station and planting beds.

- (b) Boarding section²
- (i) bedrooms and study areas to accommodate 60 boarders;
 - (ii) a dining/multi-purpose room;
 - (iii) an office for houseparents and programme workers;
 - (iv) a television/common room; and
 - (v) a nurse's duty room/sick bay.

—————
—————
The project will meet the planning target of providing two square metres (m²) of open space per student. A site plan is at Enclosure 1 and views of the new school premises (artist's impression) are at Enclosure 2. We plan to start the construction works in January 2006 for completion in July 2007.

JUSTIFICATION

4. The School is an aided special school for SMH children. At present, the School is providing a total of 64 day-time school places and 32 boarding places with an enrolment rate of 80% for both the school and boarding places in the 2004/05 school year. The existing school section is only 1 200 m² in net operational floor area (NOFA), which falls short of the standard provision³ by about 30%. Some essential facilities such as multi-media activity room, art and craft room, interview room, student activity centre and medical inspection room are also lacking.

/5.

² A 60-place boarding section is provided. This can help SMH children learn how to live independently and to develop adaptive social behaviour and communication skills. Other than **101ET**, eight other SMH schools in Hong Kong also have boarding provisions. SEM will consider providing boarding facilities whenever appropriate, upon request by and agreement with the school sponsor.

³ The approved schedule of accommodation for the special school for SMH children is 1 732 m² in NOFA (excluding the boarding section).

5. At present, the school occupies five of the seven storeys of a building owned by the Mother Superioress of the Daughters of Charity of the Canossian Institute (Hong Kong) under a licence agreement which will end in August 2005. The landlord may only agree to extend the agreement for two years, i.e. up to August 2007, due to the plan to use the site for redevelopment of its St. Francis' Canossian School. Hence, in-situ redevelopment of the School is not feasible. There is no readily available school site in the Hong Kong (HK) Region for reprovisioning the School.

6. After reprovisioning, the new special school premises will be able to accommodate six primary classes (eight pupils each) and four junior secondary classes (eight pupils each), with a capacity for 80 students and a boarding section for 60 students who are in need of intensive care and close supervision. Boarding facilities are regarded as an integral part of a SMH special school to cater for those SMH children with limited mobility or in fragile physical conditions.

7. While the provision of special school places for SMH children is planned on a territory-wide basis, we will, as far as possible, try to meet the demand on a regional basis. Based on the latest population statistics, we forecast that there will be a shortfall of 73 SMH places in the New Territories North West (NTNW) Region in the 2007/08 school year. By reprovisioning the School to NTNW, the shortfall in the NTNW Region can be alleviated. With the relocation of the School, there will be a projected shortfall of 50 SMH school places in HK Region, which will be more than offset by the 132 surplus places projected for the Kowloon Region in that school year.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$73.9 million in MOD prices (see paragraph 9 below), made up as follows –

/(a)

| | | \$ million | |
|-----|---|-------------------|-------------------------------|
| (a) | Foundation | 6.0 | |
| (b) | Building | 35.3 | |
| (c) | Building services | 10.2 | |
| (d) | Drainage | 1.8 | |
| (e) | External works | 6.4 | |
| (f) | Furniture and equipment (F&E) ⁴ | 4.5 | |
| (g) | Consultants' fees for – | 3.0 | |
| | (i) Contract administration | 1.5 | |
| | (ii) Site supervision | 1.5 | |
| (h) | Contingencies | 6.3 | |
| | Sub-total | 73.5 | (in September 2004 prices) |
| (i) | Provision for price adjustment | 0.4 | |
| | Total | 73.9 | (in MOD prices) |

We propose to engage consultants to undertake contract administration and site supervision of the project. A detailed breakdown of the estimate for consultants' fees by man-months is at Enclosure 3. The construction floor area (CFA) of **101ET** is about 6 650 m² (comprising 4 986 m² for the school section and 1 664 m² for the boarding section). The estimated construction unit cost, represented by the building and the building services costs, is \$6,842 per m² of CFA in September 2004 prices. We consider this unit cost reasonable as compared with similar projects undertaken by the Government.

/9.

⁴ Based on the F&E reference list prepared by the Education and Manpower Bureau (EMB) for new SMH schools adopting the standard schedule of accommodation. EMB will net-off the F&E cost of those serviceable items to be redeployed to the new school premises at a later stage.

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

| Year | \$ million (Sept 2004) | Price adjustment factor | \$ million (MOD) |
|-----------|---------------------------|----------------------------|---------------------|
| 2005 – 06 | 1.0 | 1.00450 | 1.0 |
| 2006 – 07 | 32.0 | 1.00576 | 32.2 |
| 2007 – 08 | 30.0 | 1.00576 | 30.2 |
| 2008 – 09 | 8.0 | 1.00576 | 8.0 |
| 2009 – 10 | 2.5 | 1.00953 | 2.5 |
| | 73.5 | | 73.9 |

10. We have derived the MOD estimate on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output for the period 2005 to 2010. We will deliver the works through a lump-sum contract because we can clearly define the scope of the works in advance. The contract will not provide for price adjustment because the contract period will not exceed 21 months.

11. The annual recurrent expenditure of the School was \$17 million in the 2003/04 school year. Upon reprovisioning, the annual recurrent expenditure is estimated to be \$25.8 million. The increase is mainly attributable to the increase in the number of day-time school places and boarding places.

PUBLIC CONSULTATION

12. We consulted the Yuen Long District Council on 19 November 2004. Members of the Council supported the project. The school sponsor has been involved throughout the planning and design stages. We also consulted the parents of existing students and they support the reprovisioning of the School to the new site. Parents are also informed that their children can continue their schooling in the new school premises in Tin Shui Wai or be transferred to other SMH schools in HK and Kowloon regions.

/ENVIRONMENTAL

ENVIRONMENTAL IMPLICATIONS

13. We engaged a consultant to conduct a Preliminary Environmental Review (PER) for **101ET** in August 2004. The PER recommended that, since all classrooms and special rooms will be provided with air-conditioning and well gasketed windows of minimum thickness of six millimetres, no additional noise mitigation measures would be needed. 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 contract. 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. We have 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. We 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. We will ensure that the day-to-day operations on site comply with the approved WMP. We will control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip-ticket system. We will require the contractor 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 project will generate about 8 500 cubic metres (m³) of C&D materials. Of these, we will reuse about 1 250 m³ (14.7%) on site, 7 000 m³ (82.4%) as fill in public filling areas⁵, and dispose of 250 m³ (2.9%) at landfills. The notional cost of accommodating C&D waste at landfill sites is

/estimated

⁵ 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 and Development.

estimated to be \$31,250 for this project (based on a notional unit cost⁶ of \$125/m³).

LAND ACQUISITION

16. The project does not require land acquisition.

BACKGROUND INFORMATION

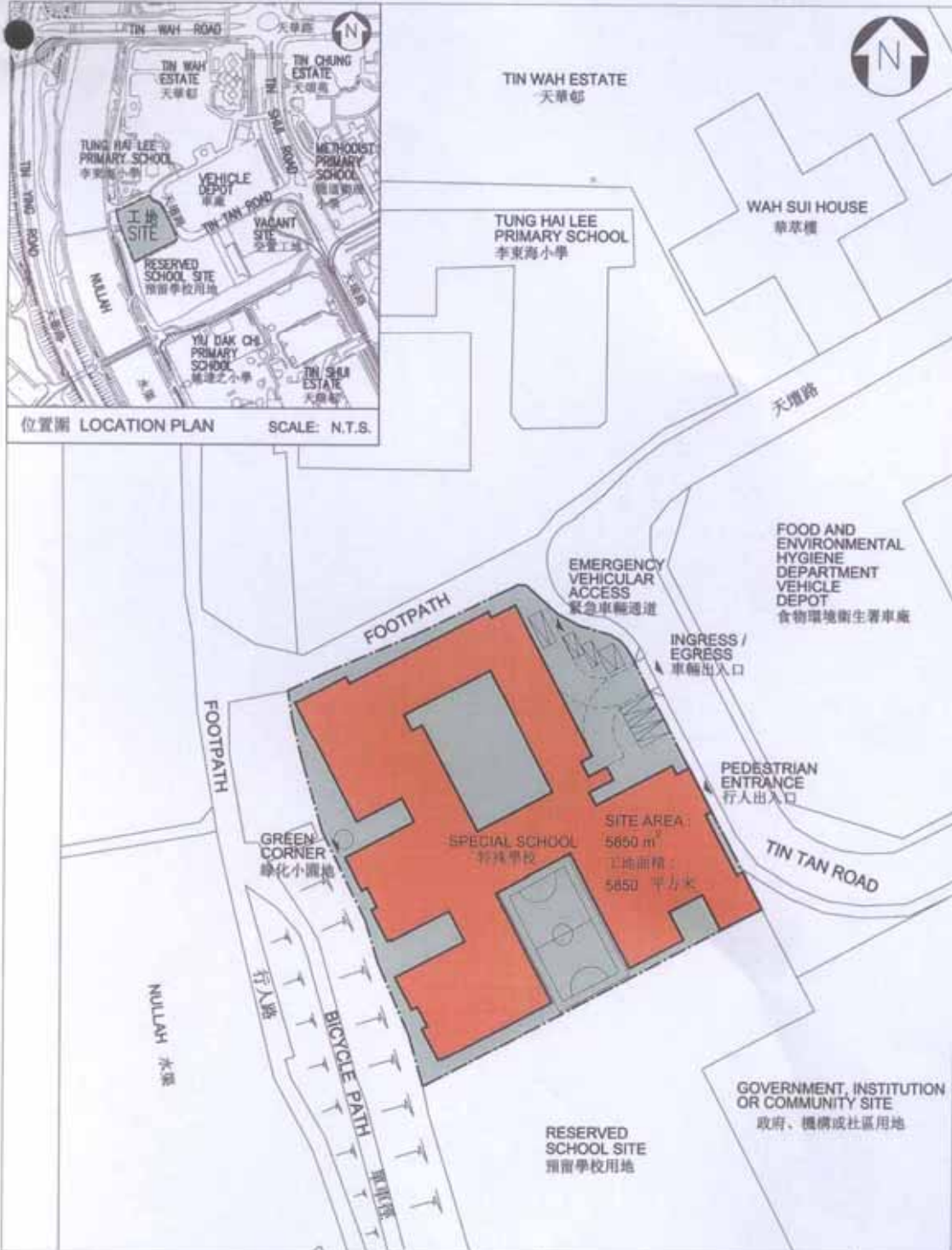
17. We upgraded **101ET** to Category B in October 2003. We engaged a term contractor to carry out a site investigation in February 2005; and consultants to carry out the building design and PER in August 2004 and prepare tender documents in April 2005 at a total cost of \$2.8 million. We charged this 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 has completed the site investigation and the consultants have completed the building design and PER and are finalising the tender documents.

18. The proposed reprovisioning of a special school in Area 32, Tin Shui Wai, will not involve any tree removal proposals. We will incorporate planting proposals as part of the project, including estimated quantities of 60 trees, 400 shrubs, 1 200 annuals and 60 m² of grassed area.

19. We estimate that the proposed works will create about 90 jobs (80 for labourers and another ten for professional/technical staff) providing a total employment of 1 250 man-months.

Education and Manpower Bureau
May 2005

⁶ 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/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.



| | | | | |
|--|--|---------------------|---|--------------------|
| TITLE 101ET SPECIAL SCHOOL IN AREA 32, TIN SHUI WAI, FOR SEVERELY MENTALLY HANDICAPPED CHILDREN 天水圍第32區的1所 嚴重智障兒童特殊學校 | DRAWN BY 繪圖 AMAN MA | DATE 日期 22-03-05 | DRAWING NO. 圖號 AB/6357/XA101 | SCALE 比例 1:1000 |
| | APPROVED 覆核 JOEL CHAN | DATE 日期 22-03-05 |  ARCHITECTURAL SERVICES DEPARTMENT 建築署 | |
| | OFFICE 辦事處 ARCHITECTURAL BRANCH 建築設計處 | | | |



從西北面望向校舍的構思圖

VIEW OF THE SCHOOL PREMISES FROM NORTH-WESTERN DIRECTION (ARTIST'S IMPRESSION)



從東北面鳥瞰校舍的構思圖

BIRD'S EYE VIEW OF THE SCHOOL PREMISES FROM NORTH-EASTERN DIRECTION (ARTIST'S IMPRESSION)

TITLE 101ET
SPECIAL SCHOOL IN AREA 32,
TIN SHUI WAI, FOR SEVERELY
MENTALLY HANDICAPPED CHILDREN
天水圍第32區的1所
嚴重智障兒童特殊學校

DRAWN BY 繪圖
AMAN MA

DATE 日期
22-03-05

DRAWING NO. 圖號
AB/6357/XA102

SCALE 比例
N.T.S.

APPROVED 覆核
JOEL CHAN

DATE 日期
22-03-05

OFFICE 辦事處
ARCHITECTURAL BRANCH 建築設計處



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

101ET – Special school in Area 32, Tin Shui Wai, for severely mentally handicapped children

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 | Professional | – | – | – | 0.8 |
| | (Note 2) | Technical | – | – | – | 0.7 |
| (b) | Site supervision | Technical | 52.1 | 14 | 1.6 | 1.5 |
| | (Note 3) | | | | | |
| | | | | | Total | 3.0 |

* 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. (As at 1 January 2005, MPS point 14 = \$18,010 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 **101ET**. The assignment will only be executed subject to Finance Committee's approval to upgrade **101ET** to Category A.
3. The consultants' staff cost 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.