

**For discussion  
on 31 May 2001**

**PWSC(2001-02)36**

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

### **HEAD 711 - HOUSING**

#### **Education - Secondary**

**Three secondary schools in Area 86, Tseung Kwan O**

#### **Education - Primary**

**Four primary schools in Area 86, Tseung Kwan O**

Members are invited to recommend to Finance Committee to accept in principle the financial implications for the construction of three 30-classroom secondary schools and four 30-classroom primary schools in Area 86, Tseung Kwan O at an estimated cost of some \$655 million in September 2000 prices.

### **PROBLEM**

We need to confirm that funding will be available for the construction of seven schools in the Comprehensive Development Area (CDA) at Area 86, Tseung Kwan O (Area 86) before finalising the relevant Land Grant with the MTR Corporation Limited (MTRCL).

**/PROPOSAL .....**

**PROPOSAL**

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Housing and the Secretary for the Education and Manpower, proposes to seek Finance Committee's acceptance in principle of the financial implications for the construction of three secondary schools and four primary schools, at an estimated total of some \$655 million in September 2000 prices at Area 86.

**PROJECT SCOPE AND NATURE**

3. The seven schools will be designed as an integral part of the Tseung Kwan O depot development and associated residential developments within Area 86. We propose to fund them as standard design schools with standard facilities. A site plan is at Enclosure 1. A list of facilities to be included in the schools is at Enclosure 2.

4. We plan to develop two pairs of primary-cum-secondary schools and one stand-alone primary school on the depot, and one pair of primary-cum-secondary school not on the depot. The indicative construction schedule is as follows -

<b>Pair/ Stand-alone</b>	<b>School type</b>	<b>Target construction start date</b>	<b>Target Completion date</b>
1st	Primary school Secondary school	November 2003 September 2005	May 2005 May 2007
2nd	Primary school Secondary school	November 2006 September 2009	May 2008 May 2011
3rd	Primary school Secondary school	November 2008 September 2010	May 2010 May 2012
Stand-alone	Primary school	November 2009	May 2011

**/JUSTIFICATION .....**

**JUSTIFICATION**

5. Area 86 was rezoned from industrial use to CDA in May 1998. In April 1999, the Town Planning Board approved MTRCL's Master Layout Plan (MLP) for the comprehensive development of Area 86. This will provide an MTRCL depot and station, as well as some 50 residential towers with supporting community facilities. The latest MLP was approved by the Town Planning Board in March 2000.

6. The entire CDA development is designed to accommodate some 58 000 residents in about 21 500 flats upon full completion. The MTRCL plans to develop the area in phases over a 12-year period. The first population intake of 6 000 is forecast to take place by 2005, with full intake of population forecast by 2012. MTRCL has undertaken to fund certain Government, institution, and community (GIC) facilities in Area 86 including –

- (a) two social centres for the elderly,
- (b) one residential care home for the elderly,
- (c) one integrated team of young people services,
- (d) three day nurseries,
- (e) one multi-purpose hall, and
- (f) public open space.

Given the scale and cost of the school construction programme, and the fact that the seven schools will remain wholly Government-owned, Government has agreed to seek funding for the construction of the schools under the Capital Works Reserve Fund (CWRF). This is in line with existing policy whereby Government can exercise discretion to fund GIC facilities within CDAs where such facilities serve wider district or territorial needs and/or are particularly large or extensive.

7. MTRCL's Tseung Kwan O Extension Line is one of three priority projects accepted by the Government in the Railway Development Strategy I and is targetted for completion by late 2002. The line will be extended to Area 86 TKO at a later stage. The related property development in Area 86 will contribute significantly to Government's housing policy objective of providing a steady and sufficient supply of land for housing to meet housing demand in the longer term.

8. In designing the property development at Area 86, MTRCL aims to create Hong Kong's single largest environmentally-friendly township, with comprehensive integrated facilities to meet the aspirations of the community. Towards this end, MTRCL has integrated all seven schools inside the

/development .....

development and made allowance for five of the seven schools to be located on top of the rail depot podium so they will be closer to the MTR station and nearby transport interchanges for the convenience of the school children. If CWRP funding is not available, MTRCL has advised that it would not be in a position to finance the seven schools as designed given the additional costs involved and would have to consider excising these school plots from the Land Grant.

9. To avoid interface problems and to ensure timely completion of the proposed schools, MTRCL will construct the seven schools as part of the Land Grant conditions for the comprehensive development in Area 86. But since the school construction programme straddles some seven to eight years and the design standards for Government-built public sector schools may be subject to change over time, we cannot seek specific funding approval for all seven schools at this stage. Rather, we intend to invite Finance Committee to accept in principle a financial commitment estimated at some \$655 million in September 2000 prices (based on current design standards) for the construction of the schools in question. We will seek the actual amounts for individual schools in MOD prices as they are required over the development period.

## **DEMAND FOR SCHOOL PLACES**

10. In accordance with the Hong Kong Planning Standards and Guidelines, the provision of primary school places is planned on a district basis to obviate the need for young pupils to travel a long distance to attend schools. For secondary schools, the provision is planned on a territory-wide basis. Where feasible, primary and secondary schools may be constructed in a CDA (such as Area 86, TKO) to meet the demand arising from the future population in the area. In the case of Area 86, there shall be a total of four primary and three secondary schools.

## **FINANCIAL IMPLICATIONS**

11. The current cost estimates for this project are based on D Arch S' reference costs for building a Year 2000 design 30-classroom secondary school and 30-classroom primary school. Details of these costs, including the various assumptions on which they are based, are listed at Enclosure 3. We estimate the total capital costs of the three secondary schools to be \$306.9 million and the four primary schools to be \$347.6 million in September 2000 prices, made up as follows -

/(a) .....

		\$ million		
		Three secondary schools	Four primary schools	Total
(a)	Piling	33.0	36.0	69.0
(b)	Building	175.5	198.0	373.5
(c)	Building services	40.5	46.0	86.5
(d)	Drainage and external works	30.0	36.0	66.0
(e)	Contingencies	27.9	31.6	59.5
Total		306.9	347.6	654.5
				<b>Say 655.0</b>

12. We plan to phase the expenditure for the seven schools over nine years. We will refine the capital cost estimates as the timing and scope of the individual schools become firm.

13. Government will limit the funding contribution for the seven schools concerned to that which would be payable by Government were it to construct the schools as standard design schools on a non-complicated green field site basis (as explained in Enclosure 3). Should the standard design for Government-built public sector schools change over time, we will adjust the schedule of accommodation and reference costs accordingly. In any event, the schedule of accommodation for the proposed seven schools will be no less favourable than that of standard design Government-built public sector schools prevailing at the time the projects are upgraded to Category A of the Public Works Programme and will be subject to the approval of the Director of Education. MTRCL has agreed to absorb the associated on-costs (usually charged at 16.5% of the works estimate) arising from the seven school projects.

/14. ....

14. We estimate the annually recurrent expenditures for each secondary school and each 30-classroom primary school to be \$40.8 million and \$23.1 million respectively. The new schools will be allocated to meet the increase in demand for school places. Therefore individual school sponsors will bear the costs of furniture and equipment, estimated to be \$9.4 million for each secondary school and \$4.5 million for each 30-classroom primary school.

## **PUBLIC CONSULTATION**

15. MTRCL invited all Sai Kung District Councillors to attend a briefing session on the MLP of Area 86 in March 2000. Councillors attending the briefing session generally supported the MLP.

## **ENVIRONMENTAL IMPLICATIONS**

16. The MTRCL completed an environmental assessment report for the development scheme as part of the MLP submitted to the Town Planning Board. This included the seven schools. The MLP has included the proposed mitigation measures to minimise traffic noise impact, which include appropriate design and orientation of school buildings, erection of solid boundary walls, and building setbacks. The environmental assessment report was accepted by the Environmental Protection Department in March 2000.

## **LAND ACQUISITION**

17. This project does not require land acquisition.

## **BACKGROUND INFORMATION**

18. We plan to execute the Land Grant for the site at Area 86, TKO to the MTRCL as soon as possible to enable the construction of the proposed seven schools to start in November 2003 for completion in stages by May 2012. The MTRCL will hand over all seven schools to the Government upon completion.

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86 區地界範圍  
AREA 86  
SITE BOUNDARY

百勝角鐵路隧道  
(興建中)  
Pak Shing Kok  
Train Tunnels  
(under construction)

擬建中學暨小學  
PRIMARY-CUM-  
SECONDARY  
SCHOOL  
SITE AREA = 13,150 M<sup>2</sup>

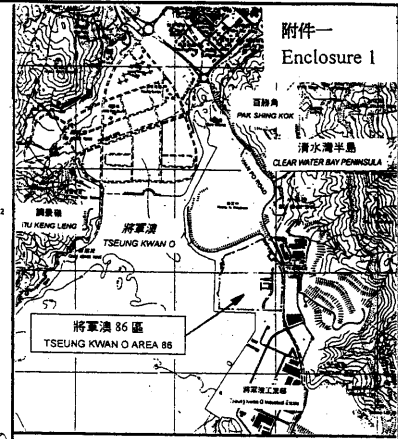
77 區  
(堆填區)  
AREA 77  
(LANDFILL)

擬建小學  
PROPOSED  
PRIMARY  
SCHOOL  
SITE AREA = 6,200 M<sup>2</sup>

滙水抽水站  
SALT WATER  
PUMPING  
STATION

車站及車廠  
STATION AND  
DEPOT

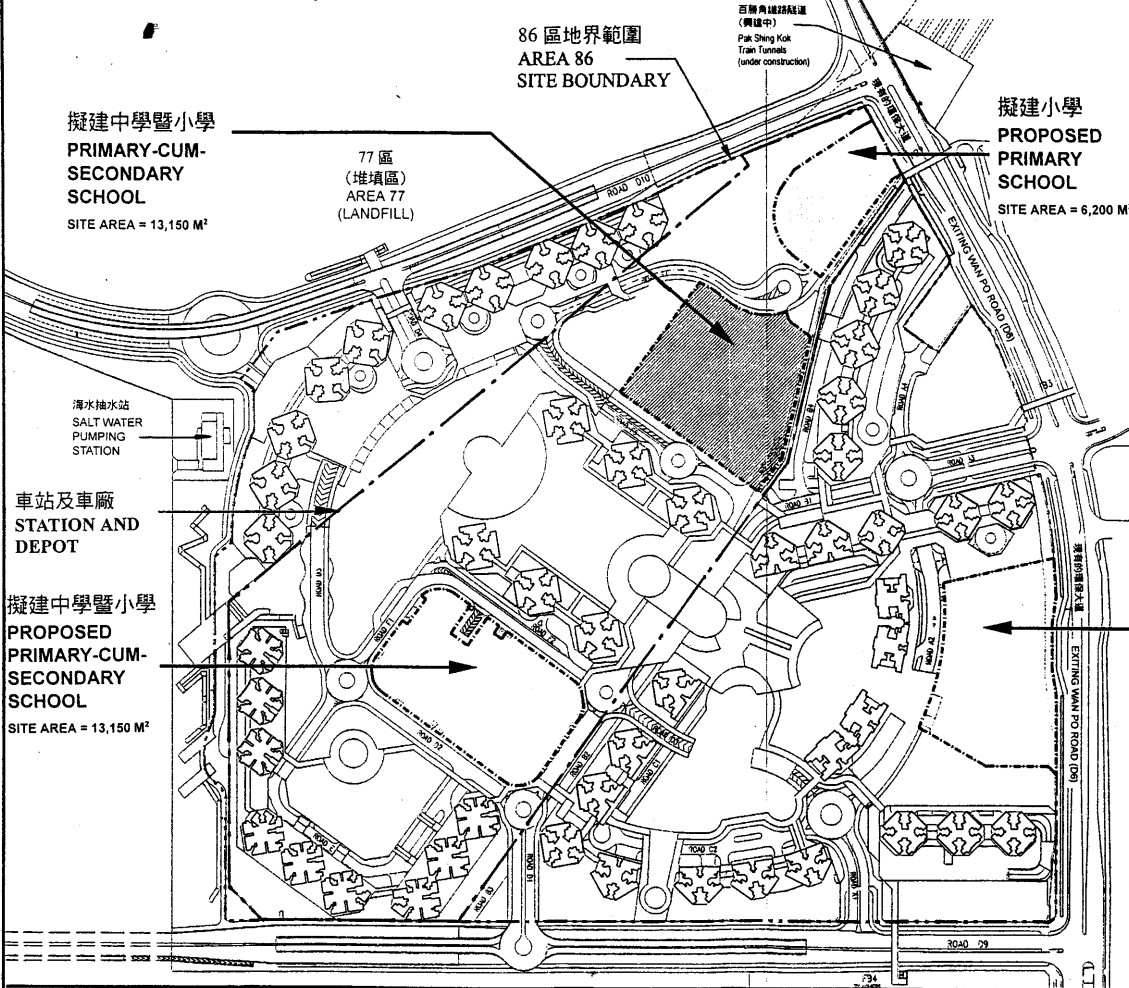
擬建中學暨小學  
PROPOSED  
PRIMARY-CUM-  
SECONDARY  
SCHOOL  
SITE AREA = 13,150 M<sup>2</sup>



LOCATION PLAN 位置圖

註：  
除另有說明外，所有道路工程均為建議工程。  
NOTE:  
ALL ROADWORKS ARE PROPOSED WORKS  
UNLESS OTHERWISE STATED.

擬建中學暨小學  
PROPOSED  
PRIMARY-CUM-  
SECONDARY  
SCHOOL  
SITE AREA = 13,150 M<sup>2</sup>



DRAWING TITLE

將軍澳 86 區七所學校之分布圖

LAYOUT PLAN FOR THE SEVEN SCHOOLS AT AREA 86 TSEUNG KWAN O

**Facilities of Year 2000 Standard Design Schools**

<b>Facilities</b>	<b>Each secondary school</b>	<b>Each primary school</b>
(a) Classrooms;	30	30
(b) Special rooms (including a computer-assisted learning room and a language room);	16	6
(c) Remedial teaching rooms ;	3	4
(d) Guidance activity room;	1	1
(e) Interview rooms;	2	2
(f) Staff rooms;	2	2
(g) Staff common room;	1	1
(h) Student activity centre;	1	1
(i) Conference room;	1	1
(j) Library;	1	1
(k) Assembly hall (which, together with the roof of the assembly hall block, can also be used for a wide range of physical activities such as badminton, gymnastics and table-tennis);	1	1
(l) Multi-purpose area;	1	1
(m) Basketball courts (inclusive of two on ground level and a further one at the rooftop of the assembly hall block); and	3	3
(n) Ancillary accommodation including a lift and relevant facilities for the handicapped.	yes	yes



## Enclosure 3 to PWSC(2001-02)36

### Reference costs of school projects

\$ million (in Sept 2000 prices)

	Each secondary school	Each primary school
(a) Piling	11.0	9.0
(b) Building	58.5	49.5
(c) Building services	13.5	11.5
(d) Drainage and external works	10.0	9.0
(e) Contingencies	9.3	7.9
	<hr/>	<hr/>
Total	102.3	86.9
	<hr/>	<hr/>
(f) Construction floor area	12 238 m <sup>2</sup>	10 727 m <sup>2</sup>
(g) Construction unit cost {[(b)+(c)]÷(f)}	\$5,883/m <sup>2</sup>	\$5,687/m <sup>2</sup>

### Assumptions for reference cost for both secondary school and primary school

1. The estimation is based on the assumption that the school site is uncomplicated and without abnormal environmental restrictions. No allowance is reserved for specific environmental restrictions such as the provision of insulated windows, air-conditioning and solid boundary walls to mitigate noise impacts on the school.
2. No site formation works/geotechnical works are required as they are normally carried out by other government departments under a separate engineering vote before the handing-over of the project site for school construction.

3. No consultancy services are required.
4. Furniture and equipment costs are excluded as they are usually borne by the sponsoring body for new schools.
5. The reference cost for comparison purpose is subject to review regularly. D Arch S will review, and revise if necessary, the reference cost which should be adopted for future projects.

**Additional assumptions for reference cost for secondary school only**

6. Piling cost is based on the use of 138 numbers of steel H-piles at an average depth of 30 metres, on the assumption that percussive piling is permissible. It also includes costs for pile caps, strap beams and testing. No allowance is reserved for the effect of negative skin friction due to fill on reclaimed land.
7. Cost for drainage and external works is for a standard secondary school site area of 6 950 square metres built on an average level site without complicated geotechnical conditions, utility diversions, etc. (i.e. a green field site).

**Addition assumption for reference cost for primary school only**

8. Piling cost is based on the use of 112 numbers of steel H-piles at average depth of 30 metres, on the assumption that percussive piling is permissible. It also includes costs for pile caps, strap beams and testing. No allowance is reserved for the effect of negative skin friction due to fill on reclaimed land.
9. Cost for drainage and external works for a standard 30-classroom primary school site area of 6 200 square metres built on an average level site without complicated geotechnical conditions, utility diversions, etc. (i.e. a green field site).