

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Education Subventions

86EB – A direct subsidy scheme secondary school at Inverness Road, Kowloon Tong

Members are invited to recommend to Finance Committee the upgrading of **86EB** to Category A at an estimated cost of \$85.4 million in money-of-the-day prices for the construction of a direct subsidy scheme secondary school at Inverness Road, Kowloon Tong.

PROBLEM

We need to provide more diversity in our school system and give parents more choice in the selection of schools for their children.

PROPOSAL

2. The Secretary for Education and Manpower (SEM), on the advice of the Director of Architectural Services (D Arch S), proposes to upgrade **86EB** to Category A at an estimated cost of \$85.4 million in money-of-the-day (MOD) prices for the construction of a 30-classroom direct subsidy scheme (DSS) senior secondary school at Inverness Road, Kowloon Tong.

3. The construction cost of the school premises is estimated to be \$110.4 million in MOD prices, comprising \$85.4 million of government subvention and \$25 million to be borne by the school sponsor. The amount of government subvention, being no more than the cost of constructing a standard design public sector school accommodating the same number of students, will be provided to the school sponsor in the form of a capital grant for the sole purpose of building the school premises. The school sponsor will be responsible for the design and construction of the school premises to deliver its special curriculum with emphasis on arts, media and design.

PROJECT SCOPE AND NATURE

4. The school premises will adopt a non-standard design with the following planned facilities –

- (a) 30 classrooms;
- (b) 17 special rooms, including a broadcasting studio, a students' artifact studio-cum-tool's room, a multimedia room and an imaging room;
- (c) three small group teaching rooms;
- (d) a guidance activity room;
- (e) two interview rooms;
- (f) two staff rooms;
- (g) a staff common room;
- (h) a conference room;
- (i) a library, including a language laboratory;
- (j) an assembly hall (which is specially equipped to serve as a multimedia auditorium);
- (k) a dance studio;
- (l) a gymnasium;
- (m) a basketball court;
- (n) a covered playground;

- (o) a rooftop playground;
- (p) a green corner¹; and
- (q) ancillary accommodation, including a lift and relevant facilities for the handicapped.

Due to site constraint, the school premises cannot accommodate a running track. A comparison of the facilities proposed under **86EB** with those of a standard design secondary school is at Enclosure 1.

5. The school premises will meet the planning target of providing two square metres of open space per student. A site plan is at Enclosure 2 and a view of the school premises (artist's impression) is at Enclosure 3. Subject to the Finance Committee's funding approval, the school sponsor plans to start the piling works in August 2005 and superstructure works in February 2006 for completion in February 2007.

JUSTIFICATION

6. With the provision of nine-year free education since 1978, the majority of schools in Hong Kong have been public sector schools offering conventional curriculum. There is a need to inject more diversity into our school system and give parents more choices in the selection of schools and curricula, given the multiple talents of our young people and cultural diversity in the community, and the multi-faceted demands on our work force in the face of fast changing technology and increasing globalisation.

7. The school will be a co-educational senior secondary school providing a viable alternative to the conventional curriculum to cater for individual aptitude and interests. It will be the first of its kind in Hong Kong to implement programmes on creative education. Dedicated to developing youngsters' creative potential and nurturing a talent pool for our creative industries, the school will offer a curriculum encompassing a string of creative subjects, including architecture, design, fashion, film and advertising on top of the regular syllabus for the development of generic learning skills. Apart from inviting prominent figures to give lectures on a short-term basis in an attempt to give students more inspiration, internship programmes will also be offered for students to obtain work experience in the area they specialise in.

/8.

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.

8. Upon completion of **86EB**, the school sponsor is willing to share the use of some of the school's facilities at the Kowloon Tong site, such as the multimedia auditorium, with the community.

9. Since the proposed school offers a special curriculum and will be recruiting students from all over the territory, it fills a market niche. The operation of this school will only have a marginal impact on the supply and demand balance of public sector school places in the Kowloon City District, in which **86EB** is located. Nonetheless, for background information, the Kowloon City District may have a projected surplus of 32 secondary classes by the 2007/08 school year, after taking into account the supply from the proposed school.

FINANCIAL IMPLICATIONS

10. The capital grant for the school premises is calculated on the basis of the reference cost of a standard design public sector secondary school. The reference cost is based on an uncomplicated site with no unusual environmental or geotechnical constraints. We estimate the capital grant to be \$85.4 million in MOD prices (see paragraph 13 below), make up as follows –

	\$ million
(a) Capital grant for school construction	84.0

The cost of building a standard design 30-classroom secondary school with 1 160 students is \$97.4 million in September 2004 prices, as advised by D Arch S. The equivalent provision for the secondary school with 1 000 students² will be \$84 million.
(\$97.4 million ÷ 1 160 x 1 000)

/(b)

² The school plans to offer eight classes (with a class size of 35) at each of the level from Form 4 to Form 6. Form 7 will have six classes with total of 160 students (the new academic structure of three years' senior secondary education will be implemented from the 2009/10 school year).

	\$ million	
(b) Consultants' fees	1.0	
<p>Having examined and revised the consultants' fees estimated by the school sponsor, D Arch S considers the figure acceptable. For schools built by the Government, consultancy services are arranged through the Architectural Services Department.</p>		
	Sub-total	85.0 (in September 2004 prices)
(c) Provision for price adjustment	0.4	
	Total	85.4 (in MOD prices)

_____ A detailed breakdown of the estimate for consultants' fees by man-months is at Enclosure 4.

11. The school sponsor estimates the construction cost of the school premises to be \$110.4 million in MOD prices (see paragraph 13 below). D Arch S has examined and endorsed the cost estimate, made up as follows –

	\$ million
(a) Piling	12.9
(b) Building	57.5
(c) Building services	18.8
(d) Drainage	2.9
(e) External works	4.3
(f) Consultants' fees for –	3.4
(i) Contract administration	2.1
(ii) Site supervision	0.9
(iii) Out-of-pocket expenses	0.4

		\$ million	
(g)	Contingencies	10.0	
	Sub-total	109.8	(in September 2004 prices)
(h)	Provision for price adjustment	0.6	
	Total	110.4	(in MOD prices)

12. As the estimated construction cost (\$110.4 million in MOD prices) is higher than the capital grant (\$85.4 million in MOD prices), the difference (\$25 million) will be borne by the school sponsor. The capital grant provided by the Government will be capped at \$85.4 million in MOD prices. The school sponsor will be responsible for all additional funding requirements, whether due to higher-than-expected tender outturn or other variations. The Government and the school sponsor will share all savings arising from a lower-than-expected tender outturn pro-rata to their estimated contribution to the project (i.e. 77.4% for the Government and 22.6% for the school sponsor).

13. Subject to approval, the school sponsor will phase the expenditure as follows –

Year	\$ million (Sept 2004)		Price adjustment factor	\$ million (MOD)	
	Capital grant under 86EB	Construction cost		Capital grant under 86EB	Construction cost
2005 – 06	2.2	14.6	1.00450	2.2	14.7
2006 – 07	75.7	88.1	1.00576	76.1	88.6
2007 – 08	7.1	7.1	1.00576	7.1	7.1
	<u>85.0</u>	<u>109.8</u>		<u>85.4</u>	<u>110.4</u>

14. 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 2008. The school sponsor

/will

will deliver the piling works and superstructure works through two lump-sum contracts because the school sponsor can clearly define the scope of works in advance. The contracts will not provide for price adjustment because the contract period will not exceed 21 months.

15. The cost of furniture and equipment for the school will be borne by the school sponsor. This is in line with the existing policy. We estimate the annual recurrent expenditure for **86EB** to be \$30.5 million.

PUBLIC CONSULTATION

16. We consulted the Kowloon City District Council on **86EB** on 14 November 2002. Most members of the Council supported the project.

17. We consulted the Legislative Council Panel on Education on 30 May 2005. The Panel had no objection to our plan to submit the project to the Public Works Subcommittee for consideration.

ENVIRONMENTAL IMPLICATIONS

18. The school sponsor engaged a consultant to conduct Preliminary Environmental Review (PER) for **86EB** in May 2005. The PER recommended the provision of insulated windows and air-conditioning for rooms which may be exposed to traffic noise above 65 dB, i.e. exceeding the limits recommended in the Hong Kong Planning Standards and Guidelines. The recommended mitigation measures are as follows –

Mitigation measures	Estimated cost \$ million (in Sept 2004 prices)
Insulated windows and air-conditioning for –	
(a) 12 classrooms from 3/F to 5/F at the northern façade of the teaching block	0.8
(b) four classrooms and three small group teaching rooms from 3/F to 5/F at the southern façade of the teaching block	0.5

The school sponsor has included the cost of the above mitigation measures as part of the building services in the project estimate in paragraph 11 above.

19. During construction, the school sponsor 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.

20. At the planning and design stages, the school sponsor has considered measures to reduce the generation of construction and demolition (C&D) materials. The school sponsor 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. The school sponsor will use suitable excavated materials for filling within the site to minimise off-site disposal. In addition, the school sponsor will require the contractor to use metal site hoardings and signboards so that these materials can be recycled or reused in other projects.

21. The school sponsor 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. The school sponsor will ensure that the day-to-day operations on site comply with the approved WMP. The school sponsor 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 school sponsor will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities. The school sponsor will record the disposal, reuse and recycling of C&D materials for monitoring purposes. The school sponsor estimates that the project will generate about 10 000 cubic metres (m³) of C&D materials. Of these, the school sponsor will reuse about 8 500 m³ (85%) on site, and dispose of about 1 500 m³ (15%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$187,500 for this project (based on a notional unit cost³ of \$125/m³).

LAND ACQUISITION

22. The project does not require land acquisition.

/BACKGROUND

³ 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.

BACKGROUND INFORMATION

23. We upgraded **86EB** to Category B in April 2003. The school sponsor engaged consultants to carry out the PER, site investigation, detailed design and tender documentation for the project. We will charge the Government's contribution of \$466,000 to block allocation **Subhead 8100QX** "Alterations, additions, repairs and improvements to education subvented buildings". The consultants have carried out these services except for the tender documents which are being finalised.

24. The proposed construction of the secondary school will involve removal of 19 trees, including eight to be felled and 11 to be transplanted elsewhere. All trees to be removed are not important trees⁴. We will incorporate planting proposals as part of the project, including an estimated quantity of 50 trees.

25. We estimate that the proposed works will create about 170 jobs (150 for labourers and another 20 for professional/technical staff) providing a total employment of 2 000 man-months.

Education and Manpower Bureau
May 2005

⁴ Important trees include trees on the Register of Old and Valuable Trees, and any other trees which meet one or more of the following criteria –

- (a) trees over 100 years old;
- (b) trees of cultural, historical or memorable significance;
- (c) trees of precious or rare species;
- (d) trees of outstanding form; or
- (e) trees with trunk diameter exceeding one metre (measured at one metre above ground level).

Enclosure 1 to PWSC(2005-06)24

**86EB – A direct subsidy scheme secondary school at Inverness Road,
Kowloon Tong**

A comparison of the facilities proposed under 86EB with those of a standard design 30-classroom secondary school

Facilities	86EB	Standard design secondary school
Classroom	30	30
Special room	17	16
Small group teaching room	3	3
Guidance activity room	1	1
Interview room	2	2
Staff room	2	1
Staff common room	1	1
Student activity centre	–	1
Conference room	1	1
Library	1	1
Assembly hall	1	1
Multi-purpose area	–	1
Dance studio	1	–
Gymnasium	1	–
Basketball court	1	2
Covered playground	1	1
Rooftop playground	1	–
Green corner	1	1
Ancillary accommodation, including a lift and relevant facilities for the handicapped	Available	Available

INSULATED WINDOWS AND AIR-CONDITIONING FOR 12 CLASSROOMS FROM 3/F TO 5/F AT NORTHERN FACADE OF THE TEACHING BLOCK.
 在教學大樓向北一面3樓至5樓的12間課室裝置隔音窗及空調

實用教育中心
 PRACTICAL EDUCATION CENTRE



興建中的延文禮士道擴展部份
 INVERNESS ROAD EXTENSION
 (UNDER CONSTRUCTION)

綠化小天地
 GREEN CORNER

車務出入口
 INGRESS

行人出入口
 PEDESTRIAN ENTRANCE

工地面積 5300平方米
 SITE AREA: 5300 M²

天台操場
 ROOFTOP PLAYGROUND

公屋地盤
 PUBLIC HOUSING SITE

籃球場
 BASKETBALL COURT

器材室
 STORE

職員室
 STAFF ROOM

多媒體課室
 MULTIMEDIA AUDITORIUM

舞蹈室
 DANCE STUDIO

畫廊及書室
 GALLERY & LIBRARY

空地
 OPEN SPACE

古蹟
 HISTORICAL BUILDING

聯合道
 JUNCTION ROAD

行人出入口
 PEDESTRIAN ENTRANCE

空地
 (未來東頭西移)
 VACANT SITE
 (FUTURE TUNG TAU WEST PUBLIC HOUSING ESTATE)

墳場
 CEMETARY

侯王廟
 HAU WONG TEMPLE

INSULATED WINDOWS AND AIR-CONDITIONING FOR 4 CLASSROOMS AND 3 SMALL GROUP TEACHING ROOMS FROM 3/F TO 5/F AT SOUTHERN FACADE OF THE TEACHING BLOCK.
 在教學大樓向南一面3樓至5樓的4間課室和3間小組教學室裝置隔音窗及空調



VIEW OF THE SCHOOL PREMISES FROM SOUTH EASTERN DIRECTION
(ARTIST'S IMPRESSION)

從東南面望向校舍的構思圖

TITLE 8086EB

九龍塘延文禮士道的 1 所直接資助計劃中學

A DIRECT SUBSIDY SCHEME SECONDARY SCHOOL

AT INVERNESS ROAD

KOWLOON TONG

**86EB – A direct subsidy scheme secondary school at Inverness Road,
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Breakdown of the estimate for consultants' fees

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants' staff costs					
Site supervision ^(Note 2)	Technical	24.3	14	1.6	0.7
(b) Out-of-pocket expenses ^(Note 3)					
Lithography and other direct expenses					0.3
					1.0

* 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. We will only know the actual man-months and actual cost for site supervision after completion of the construction works.
3. Out-of-pocket expenses are the actual costs incurred. The consultants are not entitled to any additional payment for overheads or profit in respect of these items.