

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Education Subventions

89EB – Redevelopment of Diocesan Girls' School, a direct subsidy scheme school at Jordan Road, Kowloon

Members are invited to recommend to Finance Committee the upgrading of **89EB** to Category A at an estimated total cost of \$208.6 million in money-of-the-day prices for the partial in-situ redevelopment of Diocesan Girls' School, a direct subsidy scheme school, at Jordan Road, Kowloon.¹

PROBLEM

Diocesan Girls' School (DGS), a direct subsidy scheme (DSS) school, is currently operating in substandard condition and should be redeveloped when opportunity arises.

/PROPOSAL

¹ This paper should be read in conjunction with PWSC(2008-09)66. The two projects covered in these two papers form a single redevelopment project contemplated by the school sponsor and seek government subventions under two government policies of direct subsidy scheme and private independent schools as elaborated in the respective papers. It is noted that the two schools are designed as an integrated building. Many of the above-standard facilities to be financed by the schools themselves are shared between the schools.

PROPOSAL

2. The Secretary for Education (SED), on the advice of the Director of Architectural Services (D Arch S), proposes to upgrade **89EB** to Category A at an estimated total cost of \$208.6 million in money-of-the-day prices for partial in-situ redevelopment of DGS into a 36-classroom secondary school at Jordan Road, Kowloon.

PROJECT SCOPE AND NATURE

3. The project scope comprises the demolition of the existing school buildings, the renovation of an existing building and the construction of new school premises with the following facilities² –

- (a) 36 classrooms;
- (b) 16 special rooms, including a computer-assisted learning room, a language room and a multi-purpose room;
- (c) a staff room;
- (d) a staff common room;
- (e) an assembly hall;
- (f) three small group teaching rooms;
- (g) a guidance activity room;
- (h) two interview rooms;
- (i) a student activity centre;
- (j) a conference room;
- (k) a library;

/(1)

² These facilities include those standard facilities that are to be funded by the capital grant and do not include three additional small group teaching rooms, a science project laboratory and a swimming pool that are to be funded by the school sponsor's contributions.

- (l) multi-purpose area;
- (m) two basketball courts;
- (n) green corner³; and
- (o) ancillary accommodation including a lift and relevant facilities for the handicapped.

4. Renovation works will be carried out in the existing building constructed under the School Improvement Programme (SIP) at level 3 to accommodate a library together with associated facilities such as three project rooms, teacher's resources area, and computer assisted learning room to take advantage of the existing structural span of the gymnasium at level 4. It also facilitates the sharing of resources such as computers and reference materials, and allows improved management of facilities especially after school hours. Miscellaneous renovation works will be carried out to facilitate access for the disabled and connections between the existing and the new building. A comparison of the proposed facilities with those of standard design school is at Enclosure 1.

5. The proposed new 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 views of the school premises (artist's impression) are at Enclosure 3. The school sponsor plans to start works in April 2009 for completion in August 2011.

JUSTIFICATION

6. DGS has joined the direct subsidy scheme since 2005 and is currently operating 30 classes in the existing premises with 28 classrooms, sharing the campus at Jordan Road with Diocesan Girls' Junior School (DGJS). Though some improvement works were carried out to DGS/DGJS compound over the years, most of the facilities are substandard as most school buildings were completed more than 35 years ago. Despite the provision of a block through the

/SIP

³ 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.

SIP in 2006, the existing school accommodation and facilities do not meet the prevailing standard design for a public sector secondary school. For example, the area of most facilities, including classrooms, Geography room, library and stores are well below 70% of the standard provisions. Certain essential facilities for effective teaching and learning such as multi-purpose room, Design and Technology workshop, small group teaching rooms, guidance activity room, Career Master's room, Deputy Principal's rooms, staff common room, School Social Worker's office, printing and security store and conference room are lacking. The situation is further aggravated by the need for frequent repairs. Redevelopment is the only way to provide quality learning and teaching environment for the teachers and students of the school.

7. We propose to redevelop DGS in line with the established policy for upgrading the facilities of DSS schools⁴ to the latest prevailing standards. In the redevelopment, the block provided to DGS through SIP would be retained⁵. The capital subvention for DGS' redevelopment will be correspondingly adjusted downward against the standard reference construction cost of a public sector secondary school of a comparable scale. During redevelopment, DGS will be temporarily accommodated at the vacated school premises of the ex-Tack Ching Girls' Middle School in Sham Shui Po.

8. Upon completion, the new premises will provide DGS with 36 classrooms for operating 36 classes with a symmetrical class structure enabling students to complete six years of secondary education in the same school under the New Academic Structure for Senior Secondary Education. Since DGS recruits students from all over the territory, the increase of classes will only have a marginal impact, if any, on the supply and demand balance of public sector school places in Yau Tsim Mong District, in which DGS is located.

9. It is the school's vision to facilitate effective teaching and learning where students can realise their potential and pursue lifelong learning, and teachers can excel in pedagogy, stimulate young minds and encourage them to extend excellence beyond the classroom. The school focuses on promoting a holistic development strategy based on religious principles and sound moral values; offering liberal arts, science and technology curricula to cultivate a spirit

/of

⁴ Under the existing policy, the Government may offer, upon application, a one-off cash grant to schools under the DSS to upgrade their facilities up to the prevailing standards for aided schools.

⁵ Renovation works will be carried out at the SIP block to complement the overall design with a view to enhancing the operational efficiency of both DGS and DGJS.

of intellectual exploration and to develop analytical skills; providing a wide range of extra-curricular activities to acquire life, social and communication skills; recruiting and retaining well-qualified, committed and caring staff; and providing high quality teaching facilities to fulfill the current and future needs of students. Corresponding facilities and accommodations are needed to cater for effective teaching and learning and realising such a vision.

FINANCIAL IMPLICATIONS

10. The capital grant for the redevelopment project is calculated having regard to the reference cost of a standard design 36-classroom public sector secondary school. The reference costs are based on an uncomplicated site with no unusual environmental or geotechnical constraints. Based on the site-specific requirements, we will also provide the school sponsor with capital grants for demolition, noise mitigation measures, tree preservation and transplants, and energy conservation measures. We estimate the capital grant to be \$208.6 million in MOD prices (see paragraph 13 below), made up as follows –

	\$ million
(a) Capital grant for school construction	220.7
The cost of building a standard design 36-classroom secondary school is \$220.7 million in September 2008 prices, as advised by D Arch S.	
(b) Adjustment on capital grant due to site specific construction works	(35.8)
(i) Adjustment due to retention of SIP Block and connection to new buildings	(54.5)
(ii) Adjustment on piling (Reduction on piling cost to suit site condition)	(5.8)
(iii) Demolition cost	13.3
(iv) Noise mitigation measures	3.8

/(v)

	\$ million	
(v) Tree preservation and transplants	2.9	
(vi) Energy conservation measures	2.2	
(vii) Contingency for capital grant due to site specific construction works	2.3	
(c) Consultants' fees for –		2.4
(i) Contract administration	1.6	
(ii) Site supervision	0.7	
(iii) Out-of-pocket expenses	0.1	
	Sub-total	187.3 (in September 2008 prices)
(d) Provision for price adjustment		21.3
	Total	208.6 (in MOD prices)

11. The school sponsor estimates the total capital cost of the school to be \$384.4 million in MOD prices (see paragraph 13 below) and the breakdown is as follows –

	\$ million
(a) Demolition	13.3
(b) Piling	39.3
(c) Building	171.5
(d) Building services	56.7
(e) Drainage	4.6
(f) External works	23.8
(g) Energy conservation measures	2.3

/(h)

	\$ million	
(h) Consultants' fees for –	7.7	
(i) Contract administration	3.9	
(ii) Site supervision	3.6	
(iii) Out-of-pocket expenses	0.2	
(i) Contingencies	31.1	
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Sub-total	350.3	(in September 2008 prices)
(j) Provision for price adjustment	34.1	
	<hr/>	
Total	384.4	(in MOD prices)
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_____ A detailed breakdown of the estimate for consultants' fees by man-months is at Enclosure 4.

12. The estimated total construction cost of the school (\$384.4 million in MOD prices) is higher than the capital grant (\$208.6 million in MOD prices) by \$175.8 million (in MOD prices), due to the reprovisioning and construction of above-standard facilities. The difference will be borne by the school sponsor and the capital grant provided by the Government will be capped at \$208.6 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 lower-than-expected tender outturn (excluding the grant for site specific construction works) on a pro-rata basis of their estimated contribution to the project (i.e. 49.8% for the Government and 50.2% for the school sponsor). For site specific construction works under Government's subvention, the Government will retain all savings in case they arise.

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

/2009 – 10

Year	\$ million (Sept 2008)		Price adjustment factor	\$ million (MOD)	
	Capital grant under 89EB	Construction cost		Capital grant under 89EB	Construction cost
2009 – 10	-	30.8	1.04000	-	32.0
2010 – 11	55.7	171.3	1.08160	60.2	185.3
2011 – 12	124.1	140.7	1.12486	139.6	158.3
2012 – 13	7.5	7.5	1.16986	8.8	8.8
	187.3	350.3		208.6	384.4

14. We have derived the MOD estimate on the basis of Government's latest forecast of trend rate of change in the prices of public sector building and contribution output for the period 2009 to 2013. The school sponsor will deliver the works through lump-sum contracts as it can clearly define the scope of works in advance. The contracts will provide for price adjustment to reflect market fluctuations in labour and material costs.

15. The cost of furniture and equipment for **89EB** will be borne by the school sponsor. We estimate that the annual recurrent expenditure for **89EB** to be \$47.5 million. These arrangements are in line with the existing policy.

PUBLIC CONSULTATION

16. We circulated an information paper on **89EB** to Yau Tsim Mong District Council on 10 July 2008. Members of the Council did not raise objection to the project.

17. The Legislative Council Panel on Education discussed the private school policy in March 1999. Members supported the policy to foster the growth of a quality private school sector including DSS schools. We also consulted the Legislative Council Panel on Education on 24 October 2005 on our review of the School Building Programme. Members noted our plan on redevelopment and reprovisioning existing schools with substandard facilities. **89EB** is a project to redevelop an existing DSS school which is operating in substandard premises.

/ENVIRONMENTAL

ENVIRONMENTAL IMPLICATIONS

18. The school sponsor engaged a consultant to conduct a Preliminary Environmental Review (PER) for **89EB** in December 2008. The PER recommended provision of solid fence wall at site boundary, insulated windows and air-conditioning for rooms exposed to traffic noise 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 2008 prices)
(a) Insulated windows and air-conditioning for all 36 classrooms	2.9
(b) Insulated windows and air-conditioning for three small group teaching rooms on 5/F and 8/F at southern façade and eight special rooms including multi-purpose room, Design and Technology workshop, Geography room, Biology lab, Physics lab, Chemistry lab and two Integrated Science labs on 4/F to 8/F at the southern, northern and western façades of the buildings	0.9
(c) Insulated windows and air-conditioning for two small group teaching rooms on 8/F at the southern facade and Science Project lab on 8/F at the eastern façade of the buildings	0.2 (Cost borne by the school sponsor)

With such mitigation measures in place, the project would not have long term adverse environmental impact. The school sponsor has included the above mitigation measures as part of the building and building services works in the project estimate in paragraph 11 above.

19. During construction, the school sponsor will control noise, dust and site run-off nuisances 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. The school sponsor has considered measures (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects) in the planning and design stages to reduce the generation of construction waste where possible. In addition, the school sponsor will require the contractor to reuse inert construction waste (e.g. use of excavated soil for backfilling within the site) on site or in other suitable construction sites as far as possible, in order to minimize the disposal of construction waste to public fill reception facilities⁶. The school sponsor will encourage the contractor to maximize the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimize the generation of construction waste.

21. The school sponsor will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation measures to avoid, reduce, reuse and recycle inert construction waste. The school sponsor will ensure that the day-to-day operations on site comply with the approved plan. The school sponsor will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. The disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively will be controlled through a trip-ticket system.

22. The school sponsor estimates that the project will generate in total about 34 353 tonnes of construction waste. Of these, about 1 719 tonnes (5.0%) of inert construction waste will be reused on site and 5 845 tonnes (17.0%) of inert construction waste will be reused on other construction sites, and 23 701 tonnes (69.0%) of inert construction waste will be delivered to public fill reception facilities for subsequent reuse. In addition, 3 088 tonnes (9.0%) of non-inert construction waste will be disposed at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$1,025,927 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne⁷ at landfills).

/ADDITIONAL

⁶ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

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 \$90m/m³), nor the cost to provide new landfills (which is likely to be more expensive), when the existing ones are filled.

ADDITIONAL ENERGY CONSERVATION MEASURES

23. This project has adopted various forms of energy efficient features, renewable energy technology and green features, including -

- (a) occupancy and daylight sensors for lighting control;
- (b) heat recovery fresh air pre-conditioners for air-conditioned rooms;
- (c) variable refrigerant volume air-conditioning units;
- (d) light-emitting diode (LED) type exit signs; and
- (e) automatic lighting and ventilation control for lifts.

24. For renewable energy technology, this project has adopted photovoltaic system for generation of electricity.

25. For greening features, this project has included landscape areas on G/F, 4/F and 6/F. Planters, lawn areas, potted plants, climbers will be provided on these floors of the school building for environmental benefit.

26. The total estimated additional cost for adoption of the above features is around \$2.2 million, which has been included in the cost estimate for the project. There will be about 8.4% energy savings in the annual energy consumption.

HERITAGE IMPLICATIONS

27. This project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interests and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

28. The project does not require any land acquisition.

/BACKGROUND

BACKGROUND INFORMATION

29. We upgraded **89EB** to Category B in September 2007. The school sponsor has engaged consultants to carry out ground investigation in August 2007, topographical survey in March 2008, the PER in December 2008 and detailed design in August 2008, and to prepare tender documents. The costs for the above services amount to \$8.3 million. We will charge the subvented portion which is \$3.5 million to block allocation **Subhead 8100QX** "Alterations, additions, repairs and improvements to education subvented buildings." The school sponsor will bear the remaining non-subvented portion at a total cost of \$4.8 million. The consultants have completed all services except for the preparation of tender documents which are being finalized.

30. The proposed construction of the whole project will involve removal of 32 trees, including 24 trees to be transplanted within the project site and eight to be felled. All trees to be removed are not important trees⁸. The school sponsor will incorporate planting proposals as part of the project, including planting of 45 new trees.

31. We estimate that the proposed works will create about 165 jobs (146 for labourers and another 19 for professional/technical staff) providing a total employment of 4 250 man-months.

Education Bureau
January 2009

⁸ "Important trees" refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria :-

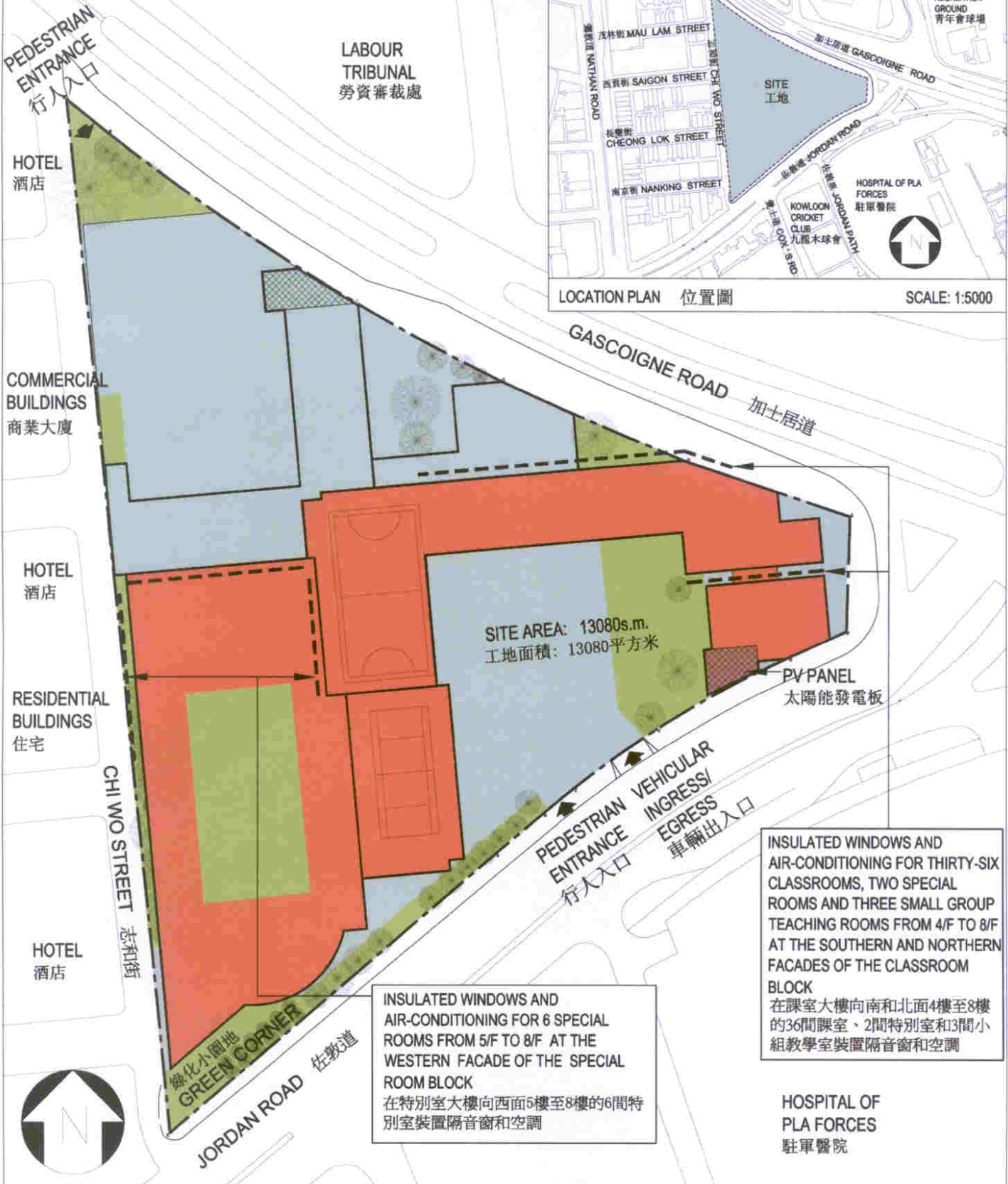
- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, trees as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 metres (measured at 1.3 metre above ground level), or with height/canopy spread equal or exceeding 25 metres.

89EB – Redevelopment of Diocesan Girls’ School, a direct subsidy scheme school at Jordan Road, Kowloon

A comparison of the facilities proposed under the redevelopment of DGS with those of standard design school

Facilities	Redevelopment of DGS	Standard design school
	36-classroom secondary school	36-classroom secondary school
Classroom	36	36
Special room	17	16
Staff room	1	1
Staff common room	1	1
Assembly hall	1	1
Small group teaching room	6	3
Guidance activity room	1	1
Interview room	2	2
Student activity centre	1	1
Conference room	1	1
Library	1	1
Multi-purpose area	1	1
Basketball court	2	2
Swimming pool	1	—
Green corner	1	1
Ancillary accommodation, including lifts and relevant facilities for the handicapped	Available	Available

The red portion indicates a multi-storey complex, part of which will be for use by DGS, including areas and facilities in common use with DGJS.
 紅色部份標示一座多層建築物，部份供拔萃女書院使用，部份地方及設施與拔萃女小學共用。



PEDESTRIAN ENTRANCE
行人入口

LABOUR TRIBUNAL
勞資審裁處

HOTEL
酒店

COMMERCIAL BUILDINGS
商業大廈

HOTEL
酒店

RESIDENTIAL BUILDINGS
住宅

HOTEL
酒店

CHI WO STREET
志和街

JORDAN ROAD
佐敦道

GREEN CORNER
綠化小園地

SITE AREA: 13080s.m.
工地面積: 13080平方米

PV PANEL
太陽能發電板

PEDESTRIAN ENTRANCE
行人入口

VEHICULAR INGRESS/EGRESS
車輛出入口

INSULATED WINDOWS AND AIR-CONDITIONING FOR 6 SPECIAL ROOMS FROM 5/F TO 8/F AT THE WESTERN FACADE OF THE SPECIAL ROOM BLOCK
 在特別室大樓向西面5樓至8樓的6間特別室裝置隔音窗和空調

INSULATED WINDOWS AND AIR-CONDITIONING FOR THIRTY-SIX CLASSROOMS, TWO SPECIAL ROOMS AND THREE SMALL GROUP TEACHING ROOMS FROM 4/F TO 8/F AT THE SOUTHERN AND NORTHERN FACADES OF THE CLASSROOM BLOCK
 在課室大樓向南和北面4樓至8樓的36間課室、2間特別室和3間小組教學室裝置隔音窗和空調

HOSPITAL OF PLA FORCES
駐軍醫院

LOCATION PLAN 位置圖 SCALE: 1:5000



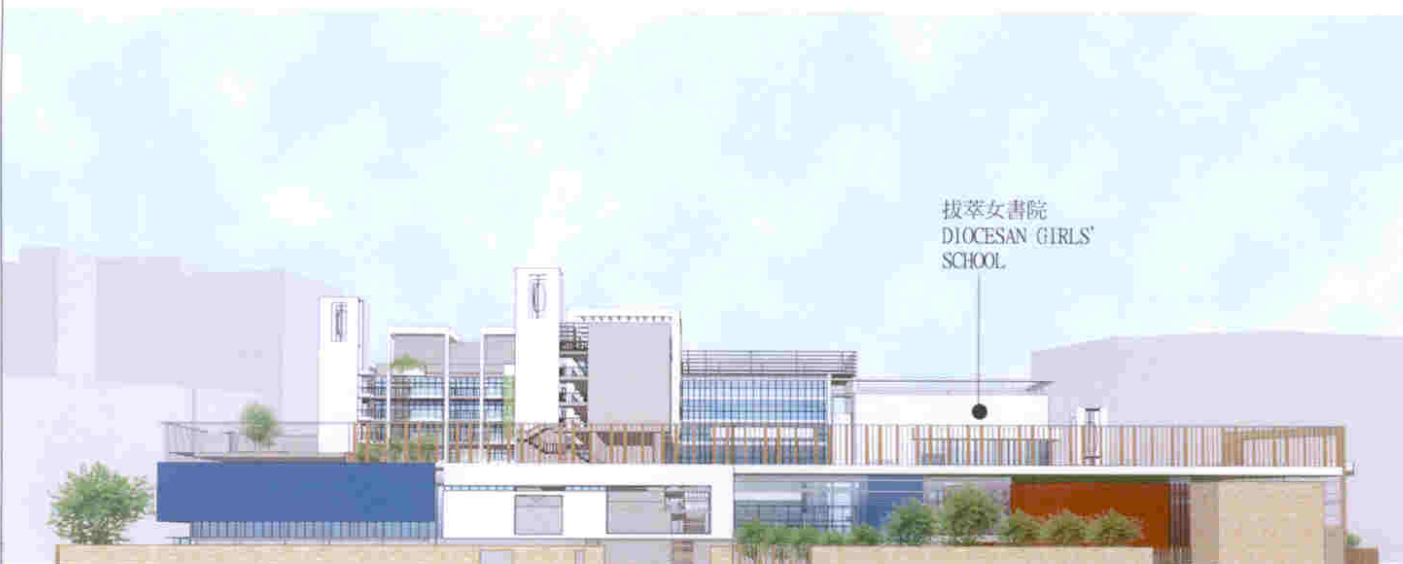
TITLE 89EB

九龍佐敦道拔萃女書院(一所直接資助計劃學校)重建計劃
 REDEVELOPMENT OF DIOCESAN GIRLS' SCHOOL,
 A DIRECT SUBSIDY SCHEME SCHOOL AT JORDAN ROAD, KOWLOON



從南面望向校舍入口的構思圖

VIEW OF THE SCHOOL ENTRANCE FROM SOUTHERN DIRECTION (ARTIST'S IMPRESSION)



從西面志和街望向校舍的構思圖

VIEW OF THE SCHOOL PREMISES FROM WESTERN DIRECTION AT CHI WO STREET (ARTIST'S IMPRESSION)

TITLE 89EB

九龍佐敦道拔萃女書院(一所直接資助計劃學校)重建計劃

REDEVELOPMENT OF DIOCESAN GIRLS' SCHOOL,

A DIRECT SUBSIDY SCHEME SCHOOL AT JORDAN ROAD, KOWLOON



從南面佐敦道望向校舍的鳥瞰效果圖
AERIAL VIEW FROM JORDAN ROAD



從北面加士居道望向校舍的鳥瞰效果圖
AERIAL VIEW FROM GASCOIGNE ROAD

TITLE 89EB

九龍佐敦道拔萃女書院(一所直接資助計劃學校)重建計劃
REDEVELOPMENT OF DIOCESAN GIRLS' SCHOOL,
A DIRECT SUBSIDY SCHEME SCHOOL AT JORDAN ROAD, KOWLOON

89EB – Redevelopment of Diocesan Girls’ School, a direct subsidy scheme school at Jordan Road, Kowloon

Breakdown of the estimate for consultants’ fees

		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants’ staff cost					
(i) Contract administration ^(Note 2)	Professional	–	–	–	1.6
(ii) Site supervision ^(Note 3)	Technical	21	14	1.6	0.7
				Sub-total	2.3
(b) Out-of-pocket expenses ^(Note 4)					
Lithography and other direct expenses					0.1
				Sub-total	0.1
				Total	2.4

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the resident site staff cost supplied by the consultants. (As at 1 April 2008, MPS point 14 is \$19,835 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 **89EB**. The assignment will only be executed subject to Finance Committee’s approval to upgrade **89EB** to Category A.
3. We will only know the actual man-months and actual costs for site supervision after completion of the works.
4. 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.