

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Education Subventions

12EE – Redevelopment of Island School at 20 Borrett Road, Mid-Levels

Members are invited to recommend to the Finance Committee the upgrading of **12EE** to Category A at an estimated cost of \$536.3 million in money-of-the-day prices as the capital grant from the Government for the in-situ redevelopment of the Island School at 20 Borrett Road, Mid-Levels.

PROBLEM

The English Schools Foundation (ESF) needs to redevelop the Island School (the School) at 20 Borrett Road, Mid-Levels, in order to improve the existing conditions of the school premises and to further enhance the learning and teaching environment of the School.

PROPOSAL

2. The Secretary for Education, on the advice of the Director of Architectural Services, proposes to upgrade **12EE** to Category A at a Government contributed portion to be capped at \$536.3 million in money-of-the-day (MOD) prices for the redevelopment of the School.

/PROJECT

PROJECT SCOPE AND NATURE

3. The subvented project scope includes the demolition of the existing sub-standard school premises at 20 Borrett Road and the construction of an eight-storey, 42-classroom new school premises, including two levels of basement and an underground parking area, on the cleared site to provide the following facilities¹ –

- (a) 42 classrooms;
- (b) four small group teaching rooms;
- (c) seven laboratories;
- (d) eight special rooms, including a design and technology workshop, a home management room, a music room, a conference room, a needlework room, a visual arts room, a stage and a language room;
- (e) a library;
- (f) a student activity centre;
- (g) an assembly hall, a chair store and dressing room;
- (h) areas for physical education including a covered playground, a multi-purpose area, a physical education store and two changing rooms;
- (i) administration offices including a principal's office, four offices for school management, a staff room, a staff common room, a medical inspection room, a social worker's office, a general office, and a printing room and security store;
- (j) other facilities including five preparation rooms for laboratories, a store, a computer-assisted learning room, a computer room, a multi-purpose room, a pantry and two interview rooms; and
- (k) ancillary facilities including a tuck shop, barrack accommodation, lifts, toilets and relevant facilities for the physically disabled.

/4.

¹ The capital grant from the Government is to cover the standard provision by making reference to that of a standard-design public sector secondary school accommodating a student population same as the School. Additional standard facilities such as extra small group teaching rooms, special rooms, etc. and non-standard facilities such as indoor swimming pool, kitchen, etc. are to be funded by ESF.

4. A comparison of the planned facilities for the School with those of a standard-design public sector secondary school, as well as other extra or non-standard facilities to be provided and funded by ESF, is at Enclosure 1.

5. The School falls within a private lot with a site area of about 12 000 square metres (m²). The new school premises after redevelopment will meet the planning target of providing 2 m² of open space per student. A site plan, an artist's impression, floor plans, and sectional plan of the proposed new school premises are at Enclosures 2 to 13.

6. Subject to the funding approval of the Finance Committee (FC), ESF plans to commence the works in the second quarter of 2018 for completion in the first quarter of 2022. To meet the works programme, ESF aims to invite tenders for the proposed works in April 2018. The tender will only be awarded after obtaining FC's funding approval.

JUSTIFICATION

7. The School is an international school under ESF offering secondary curriculum. The school premises was built in 1974 and is over 40 years old. The School currently operates 42 classes. To cater for the School's continuous development, ESF has reviewed and assessed the existing school facilities, and considers that there is inadequate teaching space which adversely affects daily school operation and teaching effectiveness.

8. Moreover, there has been concrete spalling from the ceilings and exterior walls from time to time due to ageing of the school premises. Protective netting has been installed at the school building to prevent spalling concrete from accidentally injuring teachers and students. ESF has earlier engaged a consultant to inspect the structural conditions of the school premises. The inspection report revealed that owing to the continuous ageing of the building, some steel bars have started to corrode, and spalling of concrete and exposure of steel bars would likely accelerate. Continuing maintenance of the existing building would be costly but could not slow down much its ageing process.

9. ESF has attempted to look for suitable sites or vacant school premises on the Island side for re-provisioning but failed. In-situ redevelopment is the only feasible alternative. After considering the information provided by ESF, we agreed in principle its proposal to redevelop the School in light of the existing conditions of the school premises and its plan to improve learning and teaching environment.

10. Having taken into account information provided by ESF on the latest condition of the school premises and for the safety of students and staff of the School, we agreed to an earlier decanting arrangement for the School pending funding approval for the redevelopment project. The School has been temporarily relocated to two vacant school premises in Sha Tin from January 2018 until the completion of the proposed redevelopment project. ESF will bear the renovation and other related costs for the decanting premises. Upon completion of **12EE**, ESF has to vacate the decanting premises and return them to the Government.

FINANCIAL IMPLICATIONS

11. For **12EE**, ESF is eligible for a capital grant from the Government which will be calculated at an amount equivalent to the cost for constructing a standard-design public sector school for the same student population. The capital grant for the non-site-specific works of **12EE** is calculated on the basis of the reference cost of a standard-design public sector secondary school with the same student population as the School², assuming it is constructed on an uncomplicated site with no unusual environmental or geotechnical constraints. As for the site specific works such as demolition works, site formation works, and piling, the capital grant is derived by discounting the total cost of these items based on the ratio of the construction floor area of a standard-design public sector secondary school with the same student population vis-à-vis that of the redeveloped Island School. The total amount of capital grant to be provided by the Government is \$536.3 million in MOD prices, broken down as follows –

	\$ million (in MOD prices)
(a) Site investigation and survey	2.6
(b) Demolition works	27.2
(c) Site formation	72.2
(d) Piling	25.7
(e) Building ³	230.7
(f) Building services	63.6

/(g)

² The reference student population for calculating the amount of Government subvention is 1 272, which is the number of places provided by the School in the 2016/17 school year.

³ Building works cover construction works of pile caps, superstructure and finishes of the building.

		\$ million (in MOD prices)
(g)	Drainage	11.2
(h)	External works	39.9
(i)	Additional energy conservation, green and recycled features measures	6.3
(j)	Noise mitigation measures	4.7
(k)	Remuneration of resident site staff (RSS)	4.2
(l)	Contingencies	48.0
	Total	<hr/> 536.3 <hr/>

12. ESF has engaged consultants to undertake contract administration and site supervision of the project. A detailed breakdown of the estimate for consultants' fees and resident site staff costs by man-months is at Enclosure 14. On top of the capital grant from the Government, ESF will fully bear the professional consultant fee and related cost, as well as the costs for those extra or non-standard facilities of **12EE**. Together with ESF's top-up contribution of \$681.5 million in MOD prices, the total project cost estimate of **12EE** is \$1,217.8 million in MOD prices. The breakdown is at Enclosure 15.

13. The capital grant to be provided by the Government will be capped at \$536.3 million in MOD prices. ESF will be responsible for all additional funding requirements including any higher-than-expected final project cost. The Government and ESF will share all savings arising from lower-than-expected final project cost on a pro-rata basis of their estimated contribution to the project. In line with the respective ratio of Government's contribution, for site-specific construction works (such as demolition of existing structure, site formation and piling), the Government will retain 64.0% of the savings; for other non-site specific works, the Government will retain 45.1% of the savings.

14. Subject to approval, ESF plans to phase the expenditure in the coming financial years as follows –

Year	\$ million (MOD)	
	Capital grant under 12EE	Total estimated project cost incurred / to be incurred
Up to March 2018	–	95.0 ⁴
2018 – 19	–	33.5
2019 – 20	–	126.3
2020 – 21	19.4	446.1
2021 – 22	479.8	479.8
2022 – 23	37.1	37.1
	536.3	1,217.8

15. MOD estimates are derived on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period 2020 to 2023. ESF will deliver the construction works through one lump-sum contract because the School can clearly define the scope of the works in advance. The contract will provide for price adjustments.

16. There will be no additional recurrent expenditure for the Government arising from the project. The cost of furniture and equipment for **12EE** will be borne by ESF. The arrangements are in line with the existing practice.

/PUBLIC

⁴ ESF has engaged a contractor for pre-construction site investigation and a lead consultant to take forward other pre-construction works (e.g. detailed design, technical assessments, tender document preparation, etc.) as well as contract administration and site supervision during the construction stage. The required cost (at around \$95 million) has already been settled by ESF.

PUBLIC CONSULTATION

17. We consulted the Culture, Leisure & Social Affairs Committee of the Central and Western District Council on 16 November 2017. Members acknowledged the redevelopment need of the School and supported the project. Some members have suggested ESF consider developing a more comprehensive greening plan with educational value and adopt appropriate measures to minimise possible nuisance caused during the works period of the proposed project. As elaborated in paragraphs 20 and 31 below, ESF will implement appropriate measures to minimise nuisance caused and incorporate a planting proposal as part of the project.

18. We consulted the Legislative Council Panel on Education (the Panel) on 5 January 2018. Members supported the project.

ENVIRONMENTAL IMPLICATIONS

19. This project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The ESF completed a Preliminary Environmental Review (PER) for the project in June 2017. PER recommended installation of acoustic insulation such as well-gasketed windows and air conditioning for eight classrooms on 1/F to 3/F, three preparation rooms and one special room on 3/F to 4/F. With the mitigation measures in place, traffic noise affecting the teaching and learning environment of the redeveloped school will be reduced to minimum.

20. During construction, ESF 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 and the building of barrier wall for noisy construction activities, frequent cleaning and watering of the project site, and the provision of wheel-washing facilities. The costs of implementing the environmental mitigation measures including an environmental monitoring and audit programme has been included in the building cost estimate in paragraph 11 above.

21. At the planning and design stage, ESF has considered measures to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects). In addition, ESF will require the contractor to reuse inert construction waste (e.g. use of excavated materials for filling within the project site) on site or in other suitable construction sites as far as possible, in order to minimise the

/disposal

disposal of inert construction waste at public fill reception facilities⁵. ESF will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

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

23. ESF estimates that the project will generate in total about 76 560 tonnes of construction waste. Of these, ESF will reuse 13 829 tonnes (18.1%) of inert and non-inert construction waste onsite and 9 139 (11.9%) of inert construction waste on other construction sites. ESF will deliver 51 175 tonnes (66.8%) of inert construction waste to public fill reception facilities for subsequent reuse and 2 297 tonnes (3%) of the mixed inert and non-inert construction waste to sorting facilities to separate the inert from the non-inert portion. ESF will dispose of the remaining 120 tonnes (0.2%) of non-inert construction waste to landfill. The total cost for disposal of construction waste at public fill reception facilities and landfill sites, together with the cost for disposal of mixed inert and non-inert construction waste at sorting facilities, is estimated to be \$4.1 million for this project (based on a unit charge rate of \$71 per tonne for disposal at public fill reception facilities, \$175 per tonne at sorting facilities, and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

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

⁵ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

LAND ACQUISITION

25. This project will not require any land acquisition.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

26. This project will adopt various forms of energy efficient features and renewable energy technologies, in particular –

- (a) heat recovery fresh air pre-conditioners in the air-conditioned space for heat energy reclaim of exhaust air;
- (b) automatic demand control of supplier air; and
- (c) lighting control system in teaching space and common area.

27. For greening features, ESF will provide landscape on part of the roof, and in other appropriate areas for environmental and amenity benefits

28. For recycled features, ESF will adopt a harvesting system to collect rain water for irrigation purpose.

29. The total estimated additional cost for adoption of the above is about \$9.8 million (including \$2 million for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 10% energy savings in the annual energy consumption with a payback period of about 9.5 years.

BACKGROUND INFORMATION

30. We upgraded **12EE** to Category B in September 2014. ESF engaged a lead consultant in December 2013 to undertake the detailed design, PER, topographical survey, tender documents, as well as contract administration and site supervision. ESF also engaged a contractor in December 2014 to undertake necessary pre-construction site investigation. The total cost of the above services, fully borne by ESF, is about \$95 million. The consultant and contractor have completed all of the pre-construction services except preparation of tender documents which are being finalised. The consultant will perform the contract administration and site supervision tasks during the construction stage.

31. There are 155 trees within the project boundary, of which 68 will be preserved and 87 will have to be removed under the proposed works. All of those trees are not important trees⁶. ESF will incorporate a planting proposal as part of the project, including the planting of 87 trees, 17 000 shrubs, 11 000 groundcovers, and 3 000 m² of hydroseeding area.

32. We estimate that the proposed works will create about 630 jobs (570 for labourers and another 60 for professional/technical staff), providing a total employment of 9 800 man-months.

33. As agreed with ESF and reported to the Panel on 9 July 2013 (vide LC Paper No. CB(4)852/12-13(03)), **12EE** is the last ESF school project which will be eligible for a capital grant from the Government. The capital grant equals to 100% of the cost for constructing a standard-design public sector school for the same student population. After this project, the policy regarding financial assistance to ESF's school construction projects will be aligned with that for other international schools, under which no financial support except subject to the approval of FC, an interest-free loan with a ten-year repayment period for construction of schools on greenfield sites allocated by the Government will be provided.

Education Bureau
April 2018

⁶ "Important trees" refer 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, tree 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 metre (m) (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

12EE – Redevelopment of Island School at 20 Borrett Road, Mid-Levels

(A) A comparison of the proposed facilities for Island School with those of a standard-design public sector secondary school

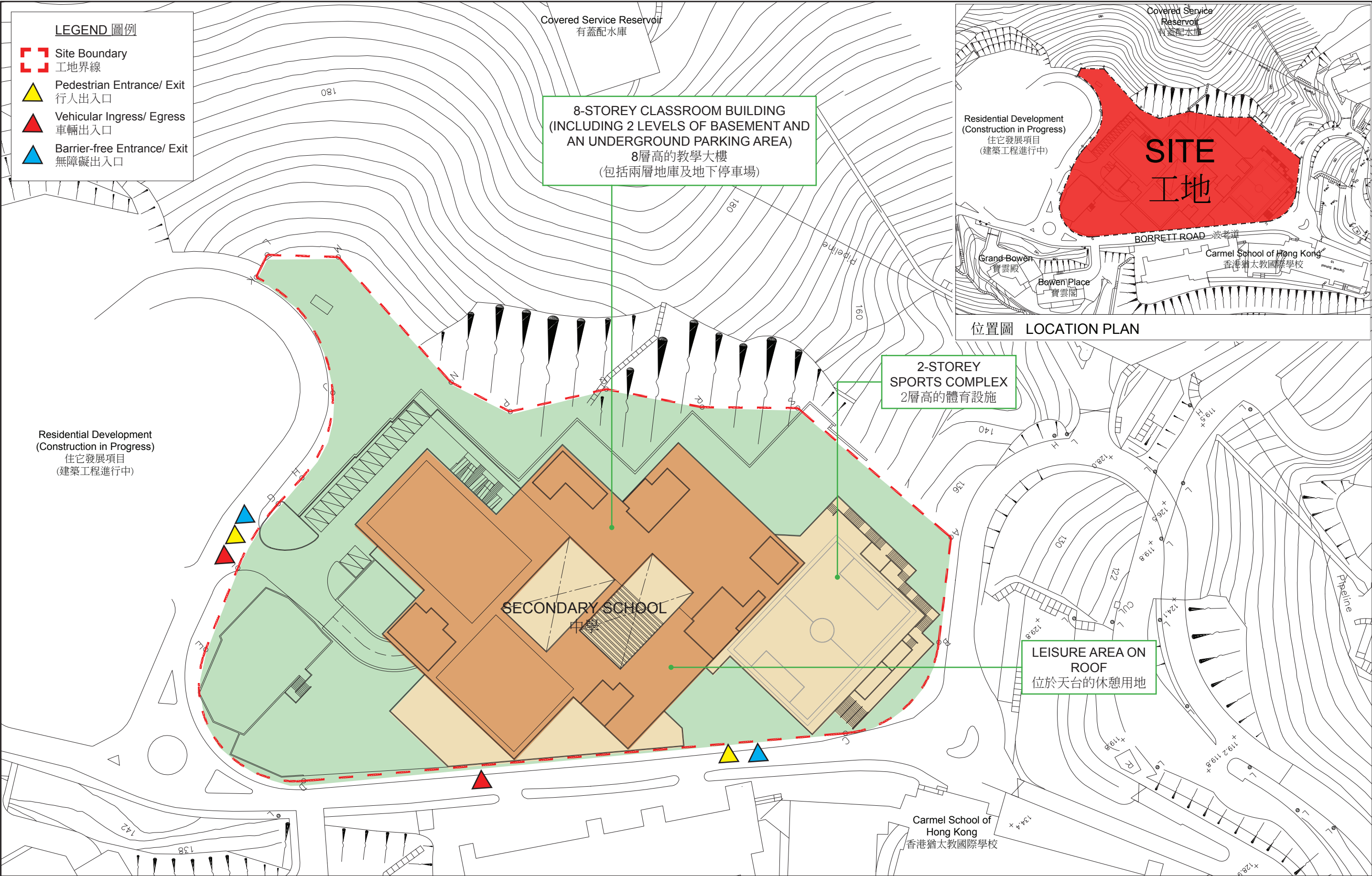
Facilities	12EE	Standard-design public sector secondary school (with a student population same as the School) ⁷
(a) Classroom	42	42
(b) Small group teaching room	15	4
(c) Laboratory	13	7
(d) Special room	16	8
• <i>Design and Technology (D&T) workshop</i>	4	1
• <i>Home management room</i>	2	1
• <i>Music room</i>	1	1
• <i>Conference room</i>	1	1
• <i>Needlework room</i>	2	1
• <i>Visual arts room</i>	4	1
• <i>Stage</i>	1	1
• <i>Language room</i>	1	1
(e) Library	1	1
(f) Student activity centre	1	1
(g) Assembly hall and related facility		
• <i>Assembly hall</i>	1	1
• <i>Chair store and dressing room</i>	1	1
(h) Area for physical education		
• <i>Covered playground</i>	1	1
• <i>Multi-purpose area</i>	9	1
• <i>Physical education store</i>	1	1
• <i>Changing room</i>	4	2
(i) Administration office		
• <i>Principal's office</i>	1	1

⁷ The capital grant from the Government is to cover the standard provision by making reference to that of a standard-design public sector secondary school accommodating a student population same as the School. Additional standard facilities such as extra small group teaching rooms, special rooms, etc. and non-standard facilities such as indoor swimming pool, kitchen, etc. are to be funded by ESF.

Facilities	12EE	Standard-design public sector secondary school (with a student population same as the School)⁷
• <i>Office for school management</i>	8	4
• <i>Staff room</i>	1	1
• <i>Staff common room</i>	1	1
• <i>Medical inspection room</i>	1	1
• <i>Social worker's office</i>	1	1
• <i>General office</i>	1	1
• <i>Printing room and security store</i>	1	1
(j) Other facilities		
• <i>Preparation room for laboratories</i>	6	5
• <i>Store</i>	3	1
• <i>Computer-assisted learning room</i>	1	1
• <i>Computer room</i>	1	1
• <i>Multi-purpose room</i>	1	1
• <i>Pantry</i>	1	1
• <i>Interview room</i>	4	2
(k) Ancillary accommodation including a tuck shop, barrack accommodation, lifts, toilets and relevant facilities for the physically disabled	Available	Available

(B) Other non-standard facilities for Island School

Facilities	12EE
Art preparation area	1
Canteen	1
Football pitch	1
Indoor swimming pool	1
Kitchen	1
Learning Support Centre (LSC) to support students with special education needs:	
• <i>LSC common area</i>	1
• <i>LSC shower room</i>	1
Meeting room	6
Music practice room	6
Physical Education room	1
Recording studio	1
Sports training centre	1
Vice principal's office	1



SITE PLAN
 平面圖

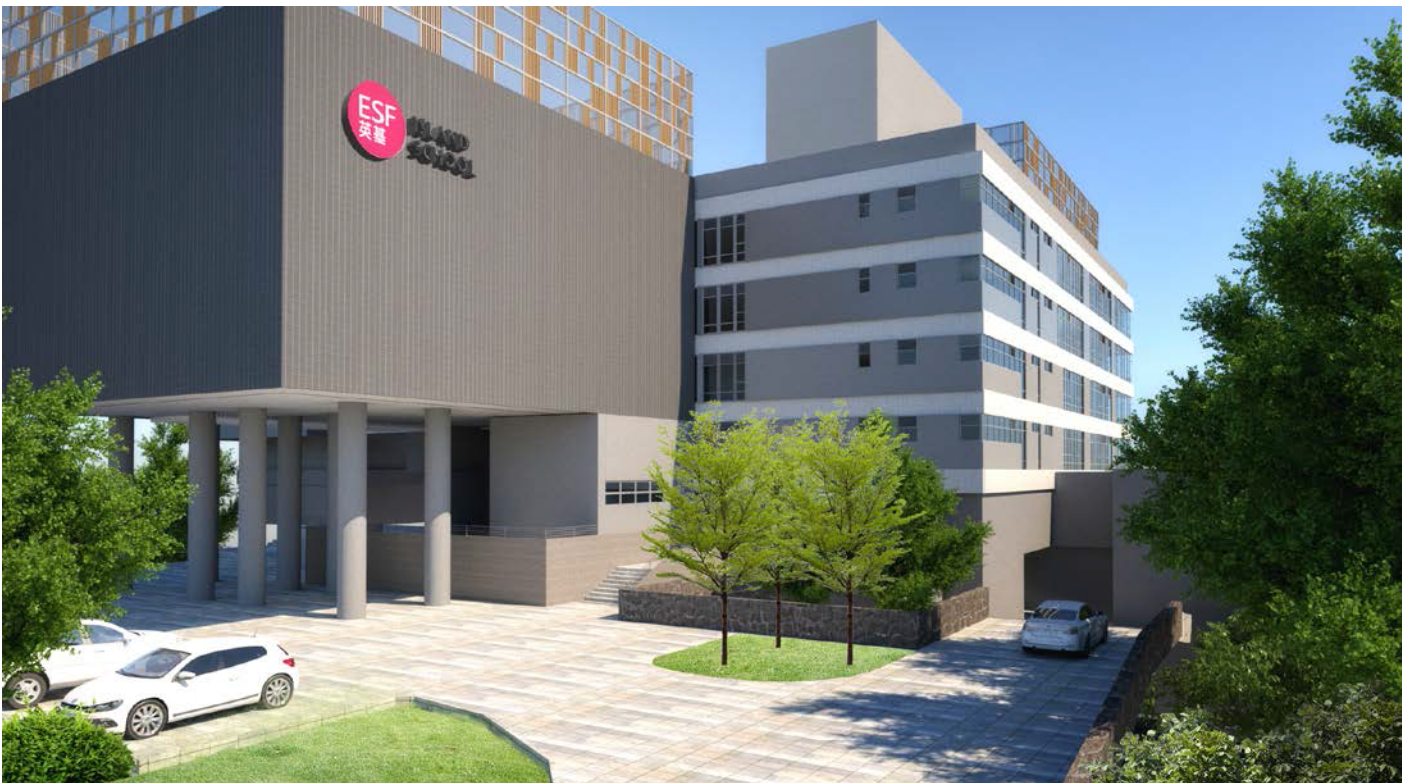
12EE - REDEVELOPMENT OF ISLAND SCHOOL AT 20 BORRETT ROAD, MID-LEVELS
 重建位於中半山波老道20號的港島中學



VIEW OF THE SCHOOL PREMISES FROM NORTHEAST (THE LOWER END OF BORRETT ROAD)

(ARTIST'S IMPRESSION)

從東北面(波老道較低段)望向校舍構思圖

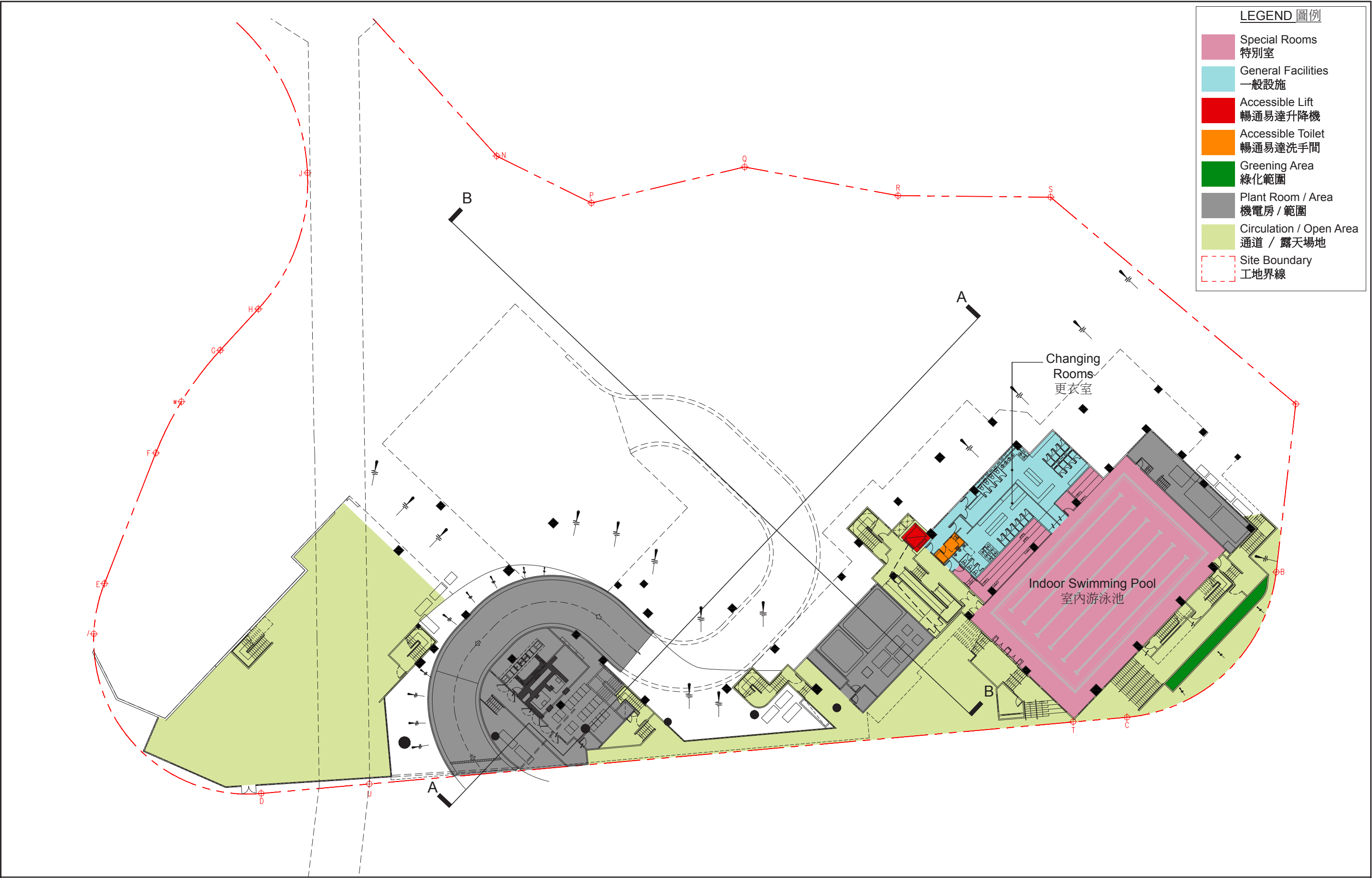


VIEW OF THE SCHOOL PREMISES FROM SOUTHEAST (THE HIGHER END OF BORRETT ROAD)

(ARTIST'S IMPRESSION)

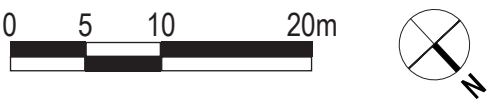
從東南面(波老道較高段)望向校舍構思圖

12EE – REDEVELOPMENT OF ISLAND SCHOOL AT 20 BORRETT ROAD, MID-LEVELS
重建位於中半山波老道20號的港島中學



LG3 FLOOR PLAN 地下低層三樓平面圖

12EE - REDEVELOPMENT OF ISLAND SCHOOL AT 20 BORRETT ROAD, MID-LEVELS
重建位於中半山波老道20號的港島中學



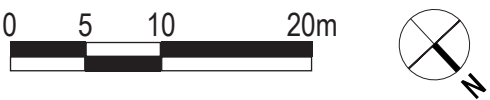


LG2 FLOOR PLAN 地下低層二樓平面圖



LG1 FLOOR PLAN 地下低層一樓平面圖

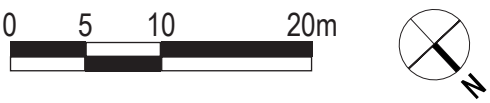
12EE - REDEVELOPMENT OF ISLAND SCHOOL AT 20 BORRETT ROAD, MID-LEVELS
重建位於中半山波老道20號的港島中學





GROUND FLOOR PLAN 地下平面圖

12EE - REDEVELOPMENT OF ISLAND SCHOOL AT 20 BORRETT ROAD, MID-LEVELS
重建位於中半山波老道20號的港島中學





FIRST FLOOR PLAN 一樓平面圖

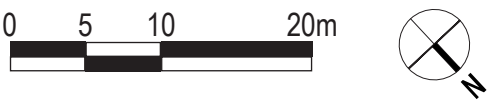
12EE - REDEVELOPMENT OF ISLAND SCHOOL AT 20 BORRETT ROAD, MID-LEVELS
重建位於中半山波老道20號的港島中學





SECOND FLOOR PLAN 二樓平面圖

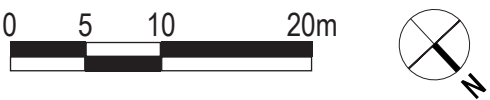
12EE - REDEVELOPMENT OF ISLAND SCHOOL AT 20 BORRETT ROAD, MID-LEVELS
重建位於中半山波老道20號的港島中學





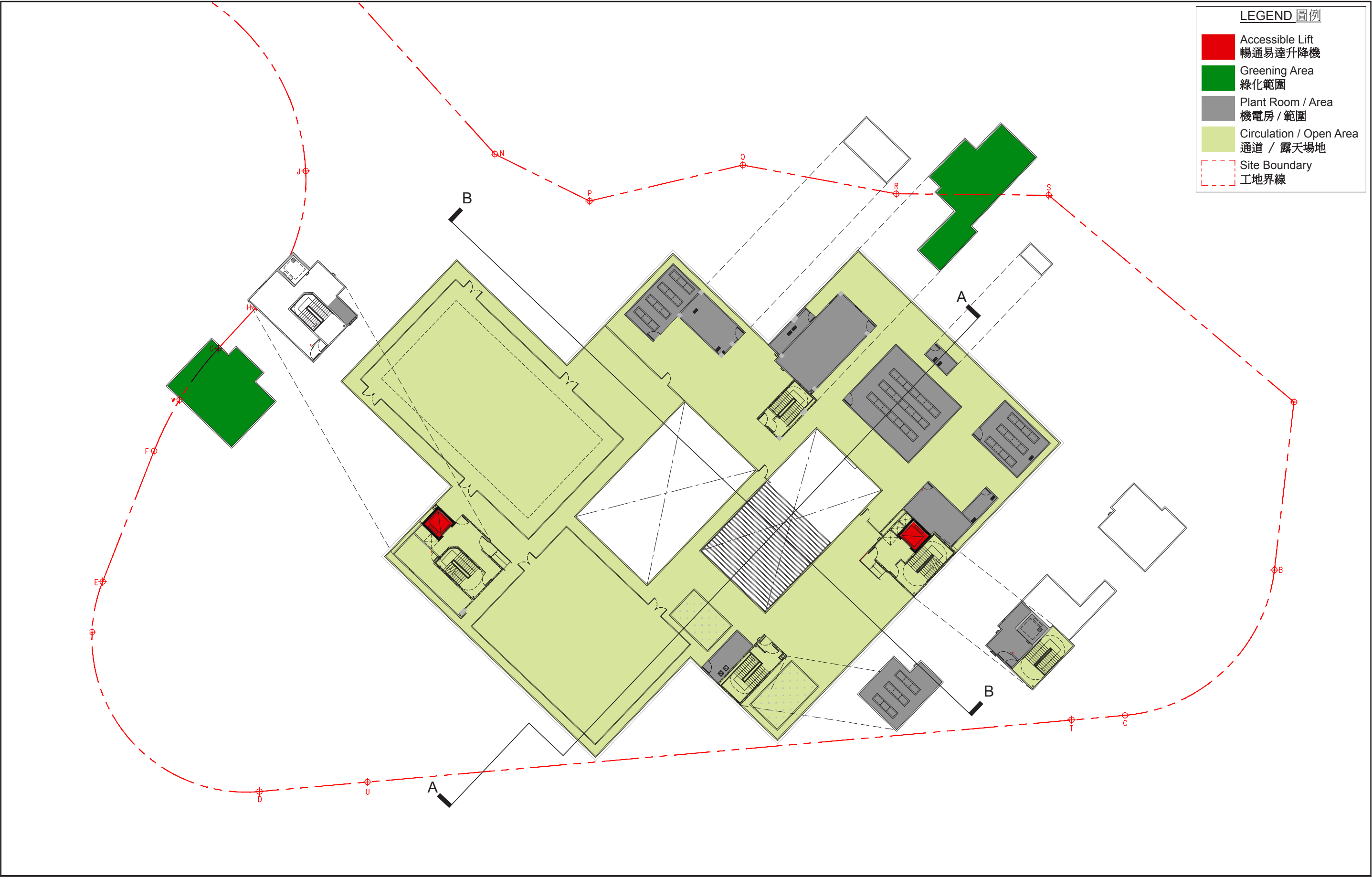
THIRD FLOOR PLAN 三樓平面圖

12EE - REDEVELOPMENT OF ISLAND SCHOOL AT 20 BORRETT ROAD, MID-LEVELS
重建位於中半山波老道20號的港島中學





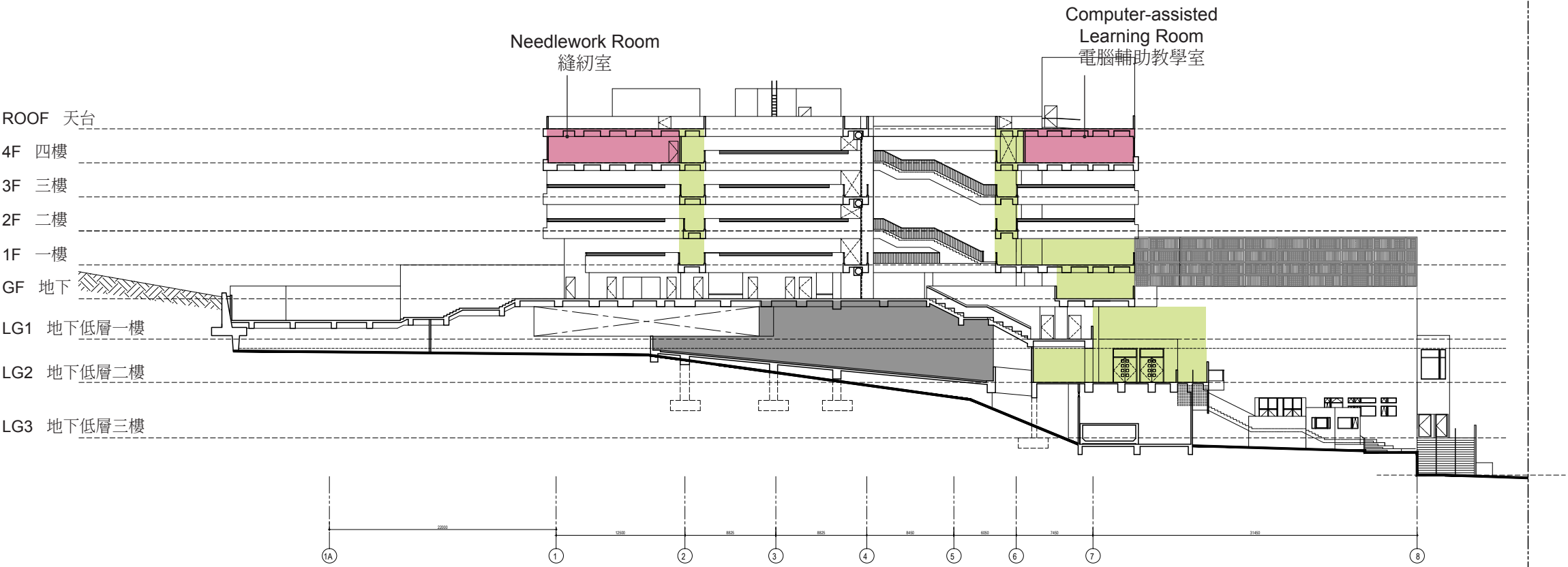
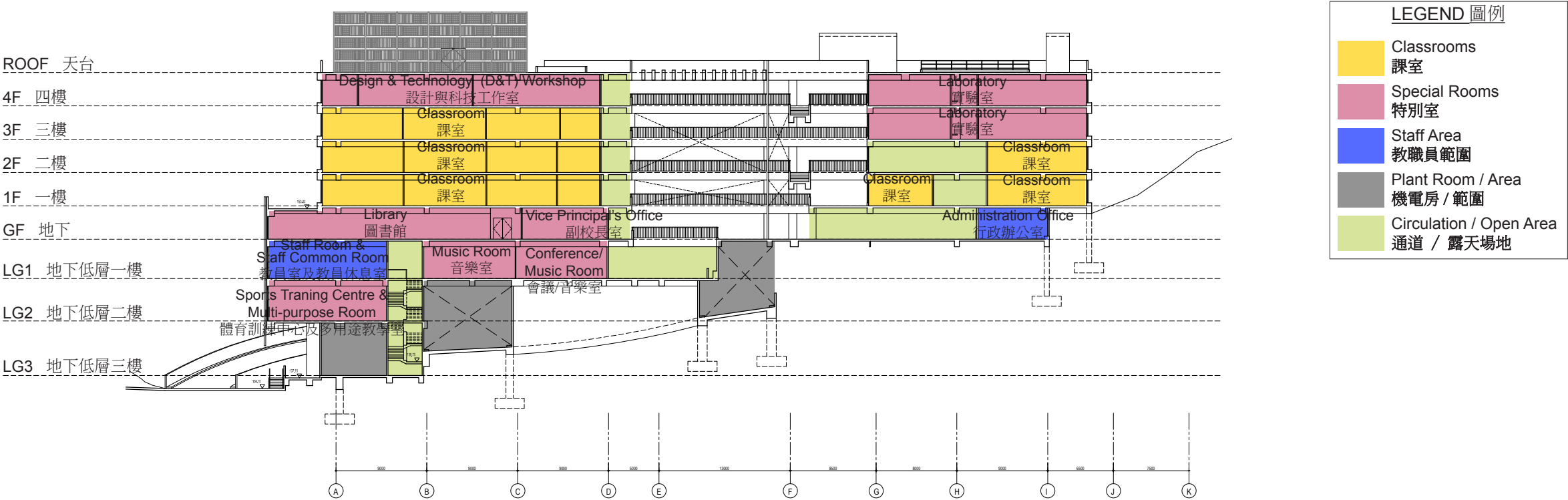
FOURTH FLOOR PLAN 四樓平面圖



ROOF FLOOR PLAN 天台平面圖

12EE - REDEVELOPMENT OF ISLAND SCHOOL AT 20 BORRETT ROAD, MID-LEVELS
重建位於中半山波老道20號的港島中學





TOP 上面：SECTION A-A 剖面圖 A-A
 BOTTOM 下面：SECTION B-B 剖面圖 B-B

Enclosure 14 to PWSC(2018-19)1

12EE – Redevelopment of Island School at 20 Borrett Road, Mid-Levels

Breakdown of the estimates for consultants' fees and resident site staff costs (in September 2017 prices)

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants' fees for contract administration (Note 2)	Professional	—	—	—	92.4
	Technical	—	—	—	—
				Sub-total	92.4
(b) Resident site staff (RSS) costs (Note 3)	Professional	29	38	1.6	3.6
	Technical	159	14	1.6	7.0
				Sub-total	10.6
Comprising –					
(i) Consultant's fees for management of RSS				0.5	
(ii) Remuneration of RSS				10.1	
				Total	103#

*MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of RSS supplied by the consultants (as at now, MPS salary point 38 = \$78,775 per month and MPS salary point 14 = \$27,485 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 **12EE**. The construction phase of the assignment will only be executed subject to FC's funding approval to upgrade **12EE** to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.

Remarks

The cost figures in this Enclosure are shown in constant prices to correlate with the MPS salary point of the same year. The figure marked with # represents the total consultant's fee and RSS costs. For the Government subvented portion, it is shown in MOD prices in paragraph 11 of the main paper.

12EE – Redevelopment of Island School at 20 Borrett Road, Mid-Levels

Breakdown of total project cost estimate

	\$ million (in MOD price)
(a) Site investigation and survey	4.6
(b) Demolition works	37.0
(c) Site formation	102.9
(d) Piling	38.5
(e) Building	467.5
(f) Building services	236.5
(g) Drainage	15.0
(h) External works	40.4
(i) Additional energy conservation, green and recycled measure	9.8
(j) Noise mitigation measures	4.7
(k) Furniture and equipment (F&E)	70.4
(l) Consultants' fee for	
(i) contract administration	92.4
(ii) management of RSS	0.5
(m) Remuneration of RSS	11.2
(n) Contingencies	86.4
Total	1,217.8