For discussion **PWSC(2018-19)23**
on 26 and 28 May 2018

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT
Education Subventions
32ED – Conversion to Heung Hoi Ching Kok Lin Association Buddhist Po Kwong School
33ED – Provision of Boarding Section of Hong Chi Pinehill School and reprovisoning of Boarding Section of Hong Chi Pinehill No. 2 School in Tai Po

Members are invited to recommend to the Finance Committee the upgrading of **32ED** and **33ED** to Category A at estimated costs of $197.6 million and $170.2 million respectively in money-of-the-day prices respectively.

PROBLEM

We need to carry out conversion works at Heung Hoi Ching Kok Lin Association Buddhist Po Kwong School (Po Kwong School), Fanling to upgrade and increase teaching facilities as well as to set up a new boarding section for providing boarding places for children with moderate intellectual disability (MoID). We also need to construct a new block to house two separate boarding sections for providing new boarding places for Hong Chi Pinehill School for children with MoID as well as reprovisioned boarding places for Hong Chi Pinehill No. 2 School for children with severe intellectual disability (SID).

/PROPOSAL …..

PROPOSAL

2. The Secretary for Education proposes to upgrade **32ED** to Category A at an estimated cost of $197.6 million in money-of-the-day (MOD) prices for the conversion works at Po Kwong School.

3. The Secretary for Education, on the advice of the Director of Architectural Services, also proposes to upgrade **33ED** to Category A at an estimated cost of $170.2 million in MOD prices for the construction of a new block to house two separate boarding sections, providing 60 new boarding places for Hong Chi Pinehill School for children with MoID and 60 reprovisioned boarding places for Hong Chi Pinehill No. 2 School for children with SID.

4. Details of the above proposals are provided at Enclosures 1 and 2 respectively.

Education Bureau
May 2018

32ED – Conversion to Heung Hoi Ching Kok Lin Association Buddhist Po Kwong School

PROJECT SCOPE AND NATURE

The project involves the construction of two new annex blocks within the existing site boundary of Heung Hoi Ching Kok Lin Association Buddhist Po Kwong School (Po Kwong School), i.e. a teaching annex and an annex to house a boarding section providing 60 new boarding places for children with moderate intellectual disability (MoID). The proposed scope of works is as follows –

New teaching annex

(a) five classrooms;

(b) two special rooms;

(c) a social worker's room;

(d) a staff room;

(e) a store room; and

(f) other ancillary facilities, including an accessible/fireman's lift.

New boarding annex

(a) bedrooms[1] to accommodate 60 boarders and study areas;

(b) a TV/common room;

(c) a dining room;

(d) a kitchen and kitchen store;

/(e) …..

[1] There are four bedrooms in the boarding section.

(e) a laundry;

(f) a drying area;

(g) a warden's office;

(h) a houseparents' and programme workers' office;

(i) a nurse's duty room / sick bay;

(j) two sleep-in rooms for staff on night shift; and

(k) other ancillary facilities, including stores, general office, staff locker and changing room, toilets, bathrooms, an accessible/fireman's lift, and relevant facilities for the disabled.

2. The two proposed new annex blocks will meet the planning target of providing 2 m^2 of open space per student. A site plan, layout plans, a sectional plan, an artist's impression and a barrier-free access plan for the project are at Annexes 1 to 5 to Enclosure 1 respectively. Subject to the funding approval by the Finance Committee (FC), we plan to commence construction in the fourth quarter of 2018 for completion in the second quarter of 2021.

JUSTIFICATION

3. The Education Bureau (EDB) is implementing the New Senior Secondary (NSS) academic structure and the improvement measures on extension of years of study at special schools. According to the NSS academic structure, all students in special schools ought to be provided with three years of senior secondary education. In addition, EDB has been gradually carrying out the improvement measures on extension of years of study, which involves operating additional classes at special schools. Po Kwong School needs additional facilities, including classrooms, special rooms and other related facilities, to provide education services for its students at senior secondary level and those for extension of years of study.

/4. …..

4. Besides, Po Kwong School is not providing any boarding services at present. The demand for boarding places for children with MoID has been on the rise and it is projected that the shortfall in boarding places will persist. At present, there is no supply of MoID boarding places in the Tai Po and North Region[2]. To alleviate the overall shortfall of boarding places for children with MoID, we have decided to effectively utilise the existing site area of Po Kwong School and construct an annex block to provide 60 new boarding places and associated facilities for children with MoID.

FINANCIAL IMPLICATIONS

5. We estimate the capital cost of the project to be $197.6 million in MOD prices (please see paragraph 7 below), broken down as follows –

		$ million (in MOD prices)
(a)	Site works	5.8
(b)	Piling	33.8
(c)	Building[3]	80.2
(d)	Building services	23.5
(e)	Drainage	3.0
(f)	External works	10.4
(g)	Additional energy conservation, green and recycled features	1.9
(h)	Furniture and equipment (F&E)[4]	1.1

/(i) …..

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[2] Tai Po & North Region is one of the seven regions for analysis of provision of school and boarding places in special schools. The other six regions are Hong Kong Island, Kowloon & Tseung Kwan O, Shatin & Sai Kung (excluding Tseung Kwan O), Kwai Tsing & Tsuen Wan, Tuen Mun & Yuen Long, and Outlying Islands.

[3] Building works cover construction of substructure and superstructure of the building.

[4] The estimated cost is based on an indicative list of F&E required.

			$ million (in MOD prices)
(i)	Consultants' fees for		10.7
	(i) contract administration	10.0	
	(ii) management of resident site staff (RSS)	0.7	
(j)	Remuneration of RSS		9.2
(k)	Contingencies		18.0
	Total		197.6

6. We propose to engage consultants to undertake contract administration and site supervision of the project. A detailed breakdown of the estimate for consultants' fees and RSS costs by man-months is at Annex 6 to Enclosure 1. The construction floor area (CFA) of **32ED** is about 3 873 m^2. The estimated construction unit cost, represented by the building and building services costs, is $26,775 per m^2 of CFA in MOD prices. We consider this comparable to that of similar projects built by the Government.

7. Subject to funding approval, we plan to phase the expenditure as follows –

Year	**$ million (MOD)**
2018 – 2019	3.2
2019 – 2020	51.0
2020 – 2021	70.2
2021 – 2022	34.4
2022 – 2023	22.0
2023 – 2024	12.2
2024 – 2025	4.6
	197.6

/8. …..

8. We have derived the MOD estimates 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 2018 to 2025. We will deliver the construction works through a lump-sum contract because we can clearly define the scope of the works in advance. The contract will provide for price adjustments.

9. The cost of F&E for **32ED**, estimated to be about $1.1 million, will be borne by the Government according to the existing policy. We estimate the additional annual recurrent expenditure arising from the project to be $19.3 million.

PUBLIC CONSULTATION

10 We consulted the Social Services, Labour and Economic Affairs Committee of the North District Council on 6 March 2018 on this project. Members of the Committee supported the project.

11. We also consulted the Legislative Council Panel on Education on 13 April 2018. Members of the Panel supported the project and did not raise any objection to the submission of the funding proposal to the Public Works Subcommittee.

ENVIRONMENTAL IMPLICATIONS

12. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We have completed a Preliminary Environmental Review (PER) for the Project and the Director of Environmental Protection agreed with its findings in February 2018. The PER recommended implementation of acoustic windows, acoustic ceiling panels, insulated windows and air-conditioning for rooms and/or areas exposed to traffic noise exceeding the established criteria. With the above mitigation measures in place, traffic noise affecting the noise sensitive environment of the school will be reduced to within the established criteria. The estimated cost of the mitigation measures is $0.5 million[5] in MOD prices. We have included the cost of the mitigation measures as part of the building and building services works in the project estimate.

/13. …..

[5] The cost of provision of air-conditioning for standard teaching facilities will be part of the standard construction cost under the new initiative announced in the 2017 Policy Address, and hence has been excluded from the estimated cost of mitigation measures.

13. 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 and the use of temporary noise barriers 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 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, we will require the contractor to reuse inert construction waste (e.g. use of excavated materials for filling within the site) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities[6]. We 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.

15. At the construction stage, we 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. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We 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.

16. We estimate that the project will generate in total 5 678 tonnes of construction waste. Of these, we will reuse 2 204 tonnes (38.8%) of inert construction waste on site and deliver 2 365 tonnes (41.7%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 1 109 tonnes (19.5%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be $0.4 million for this project (based on a charge rate of $71 per tonne for disposal at public fill reception facilities and $200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

/ENERGY …..

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

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[6] 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.

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

(a) light-emitting diode type light fittings;

(b) heat energy reclaim of exhaust air;

(c) solar hot water system; and

(d) photovoltaic system.

18. For greening features, there will be landscaping, vertical greening and roof greening in the appropriate areas for environmental and amenity benefits.

19. For recycled features, we will adopt a rainwater harvesting system for landscape irrigation with a view to conserving water.

20. The total estimated additional cost for adoption of the above energy conservation measures, greening features and recycled features is around $1.9 million in MOD prices (including $0.2 million for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 4.6% energy savings in the annual energy consumption with a payback period of about eight years.

HERITAGE IMPLICATIONS

21. 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.

LAND ACQUISITION

22. The project does not require any land acquisition.

/BACKGROUND ……

BACKGROUND INFORMATION

23. We upgraded **32ED** to Category B in September 2011. We engaged consultants to undertake the detailed design and preparation of tender documents in November 2014, and engaged contractors to carry out ground investigation in August 2015. The total cost of the consultancy services and works is about $10.6 million. We have charged this amount to block allocation Subhead **8100QX** "Alterations, additions, repairs and improvements to education subvented buildings". The consultants and contractor have completed all the above consultancy services and works. The tender documents for main contract works are under preparation.

24. There are 87 trees within the school boundary. The proposed works will involve felling of 17 trees. All trees to be removed are not important trees[7]. We will incorporate planting proposals as part of the project, including the planting of about 17 trees, 15 large shrubs, 3617 shrubs, 775 groundcovers and 305 climbers.

25. We estimate that the proposed works will create about 68 jobs (60 for labourers and 8 for professional or technical staff) providing a total employment of 1 700 man-months.

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[7] "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 –

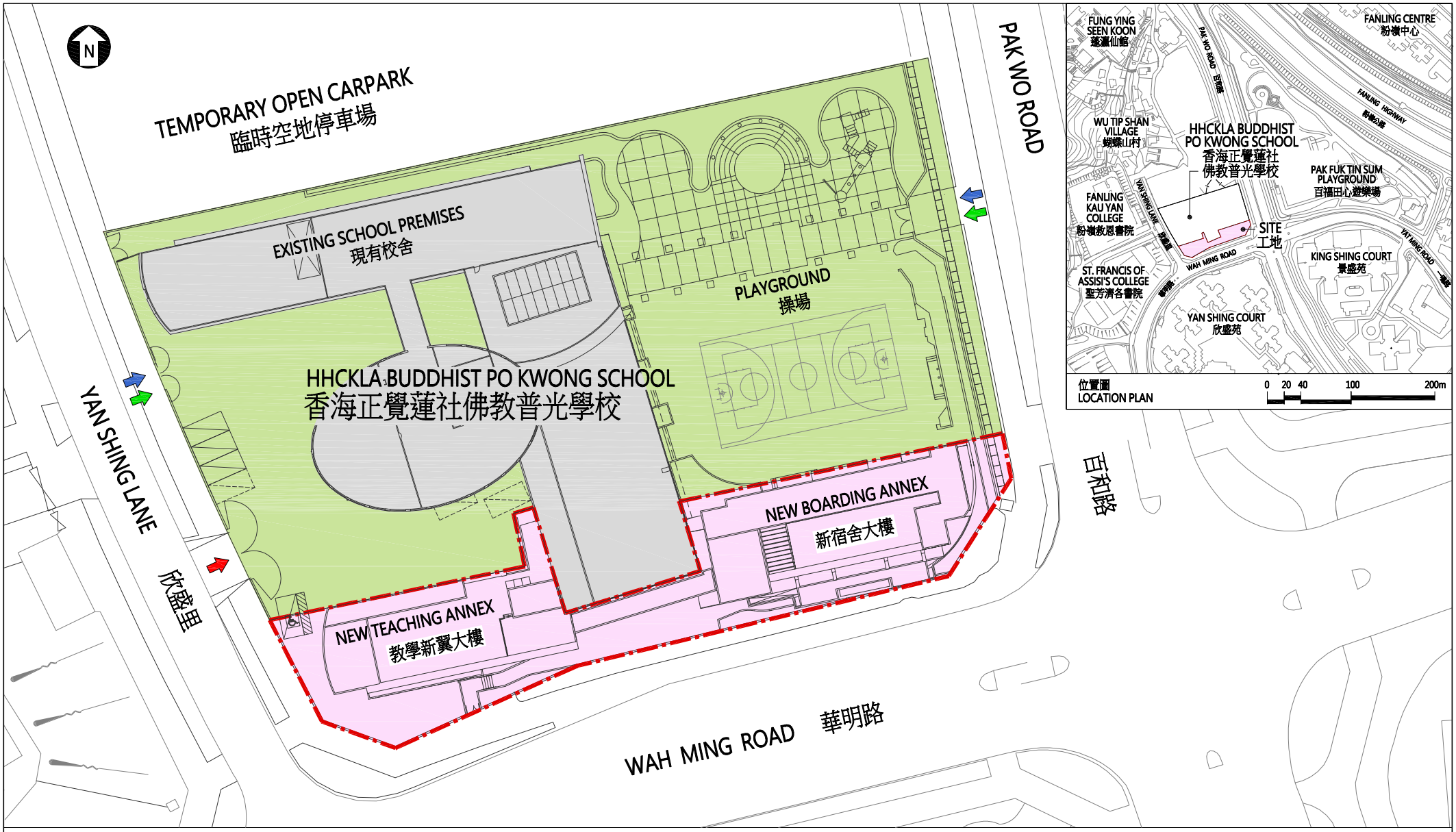
(a) trees of 100 years old or above;

(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;

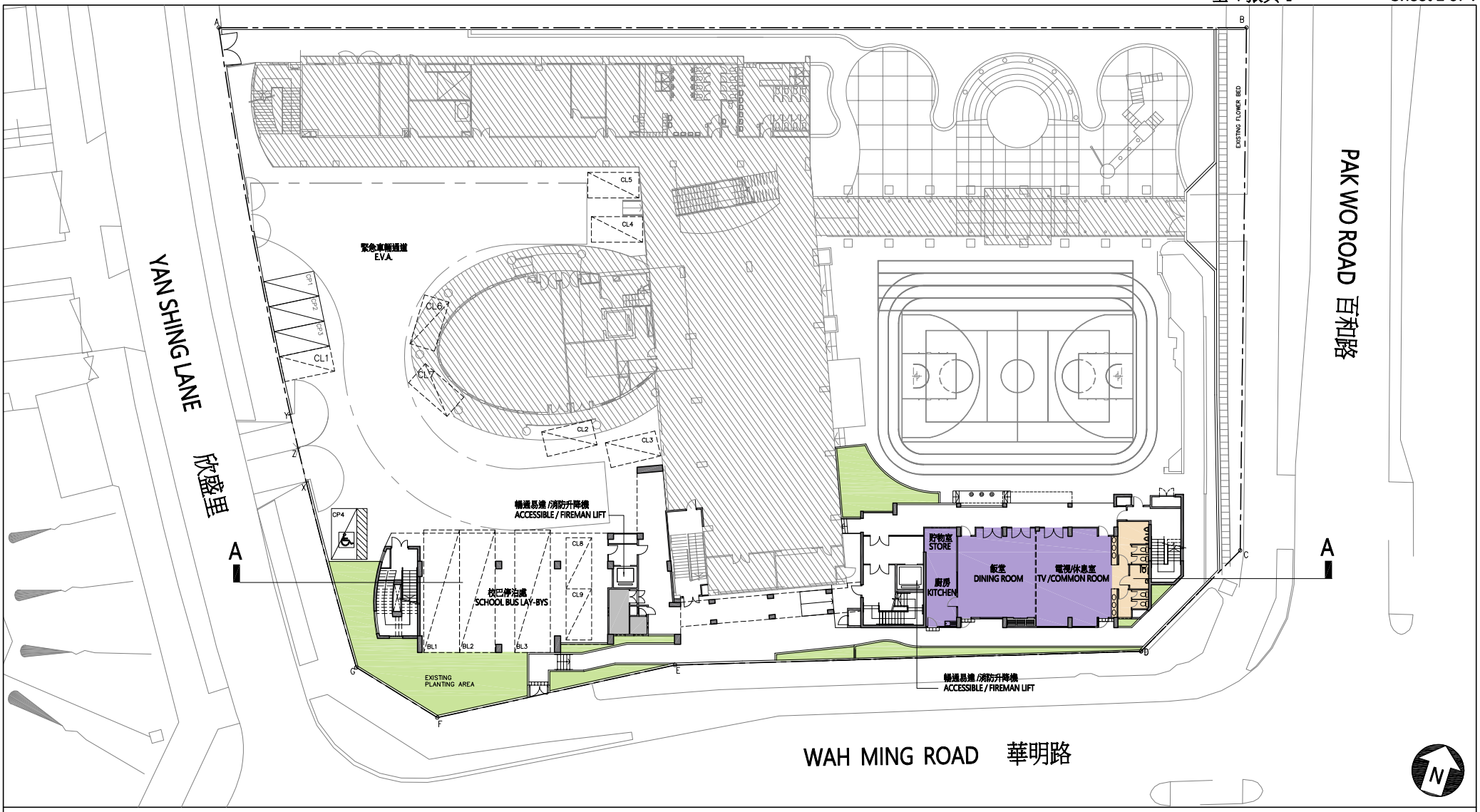
(c) trees of precious or rare species;

(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.



工地平面圖 SITE PLAN	32ED 香海正覺蓮社佛教普光學校改建工程 CONVERSION TO HEUNG HOI CHING KOK LIN ASSOCIATION BUDDHIST PO KWONG SCHOOL	教育局 EDUCATION BUREAU



圖例
LEGEND :

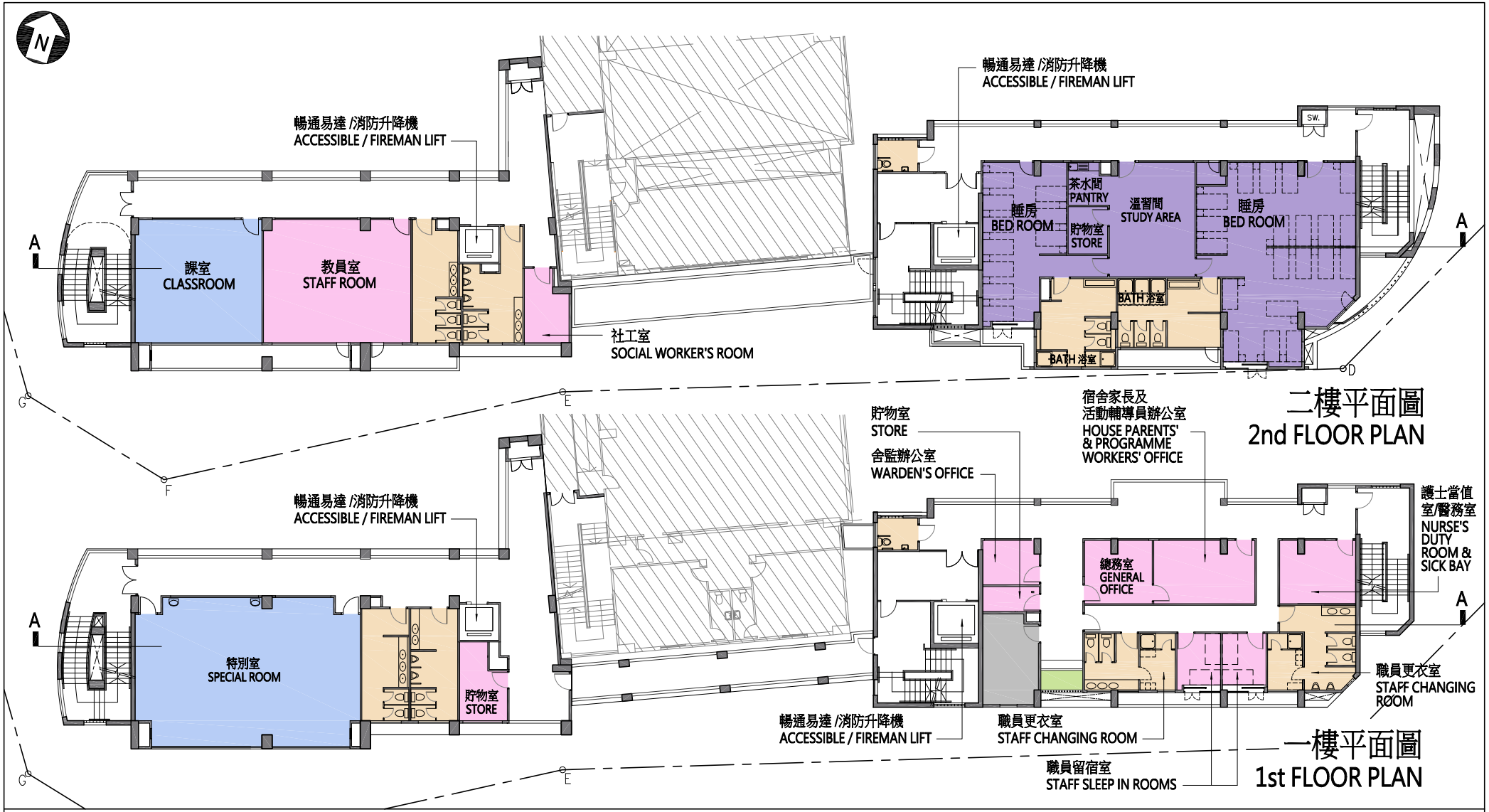
- 機房 PLANT ROOMS
- 睡房及宿舍輔助設施 BEDROOM AND BOARDING ANCILLARY FACILITIES
- 洗手間 TOILET
- 綠化範圍 LANDSCAPE AREA
- 現有校舍 EXISTING SCHOOL BUILDING

0 1 2 3 4 5 10 15 20m

地下平面圖
GROUND FLOOR PLAN

32ED
香海正覺蓮社佛教普光學校改建工程
CONVERSION TO HEUNG HOI CHING KOK LIN ASSOCIATION BUDDHIST PO KWONG SCHOOL

教育局
EDUCATION BUREAU



圖例
LEGEND :

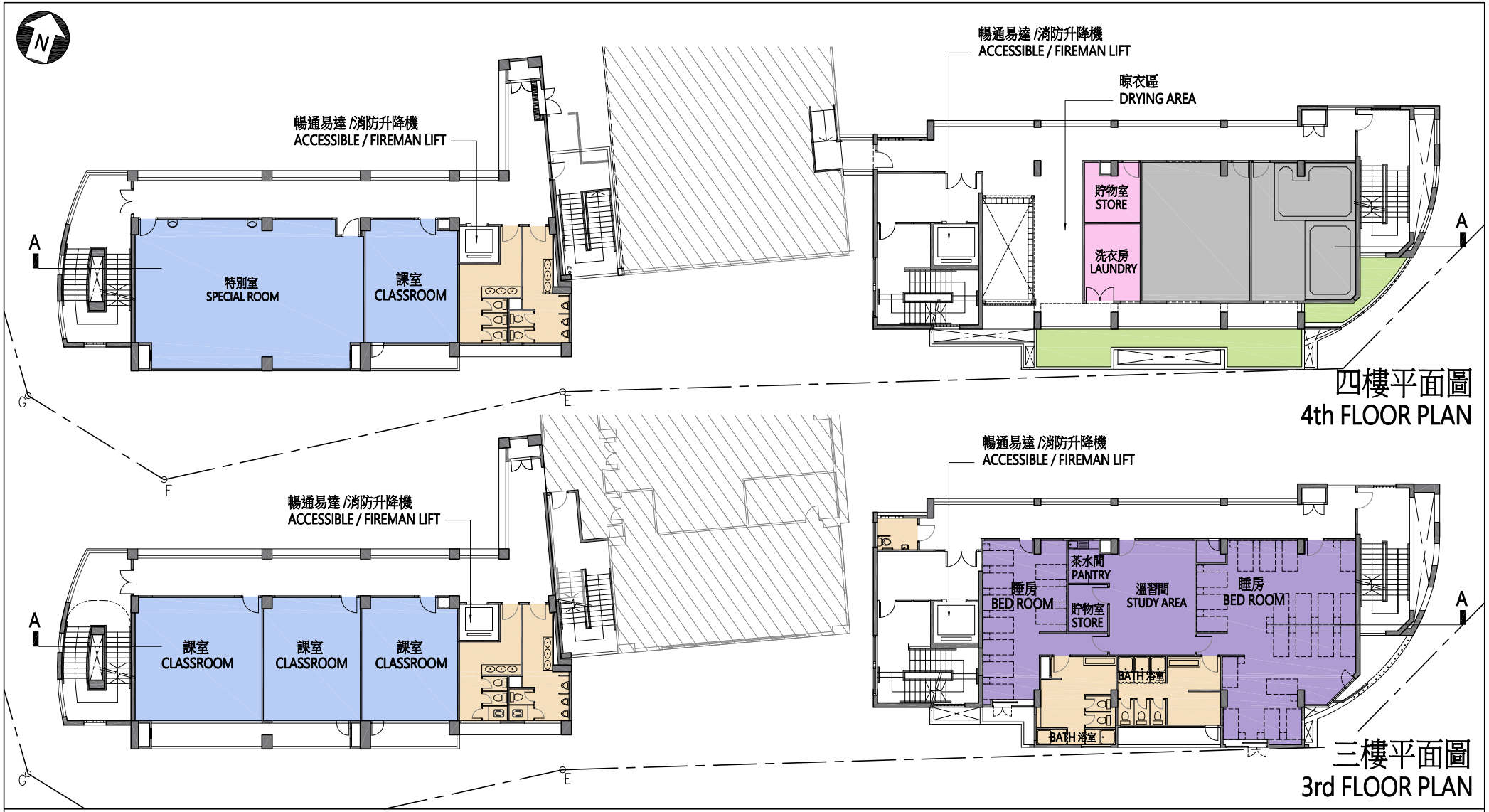
- 教職員範圍 STAFF AREA
- 教學室 TEACHING ROOM
- 機房 PLANT ROOMS
- 洗手間 TOILET
- 睡房及宿舍輔助設施 BEDROOM AND BOARDING ANCILLARY FACILITIES
- 綠化範圍 LANDSCAPE AREA
- 現有校舍 EXISTING SCHOOL BUILDING

0 1 2 3 4 5 10 15m

一樓及二樓平面圖
1st & 2nd FLOOR PLAN

32ED
香海正覺蓮社佛教普光學校改建工程
CONVERSION TO HEUNG HOI CHING KOK LIN ASSOCIATION BUDDHIST PO KWONG SCHOOL

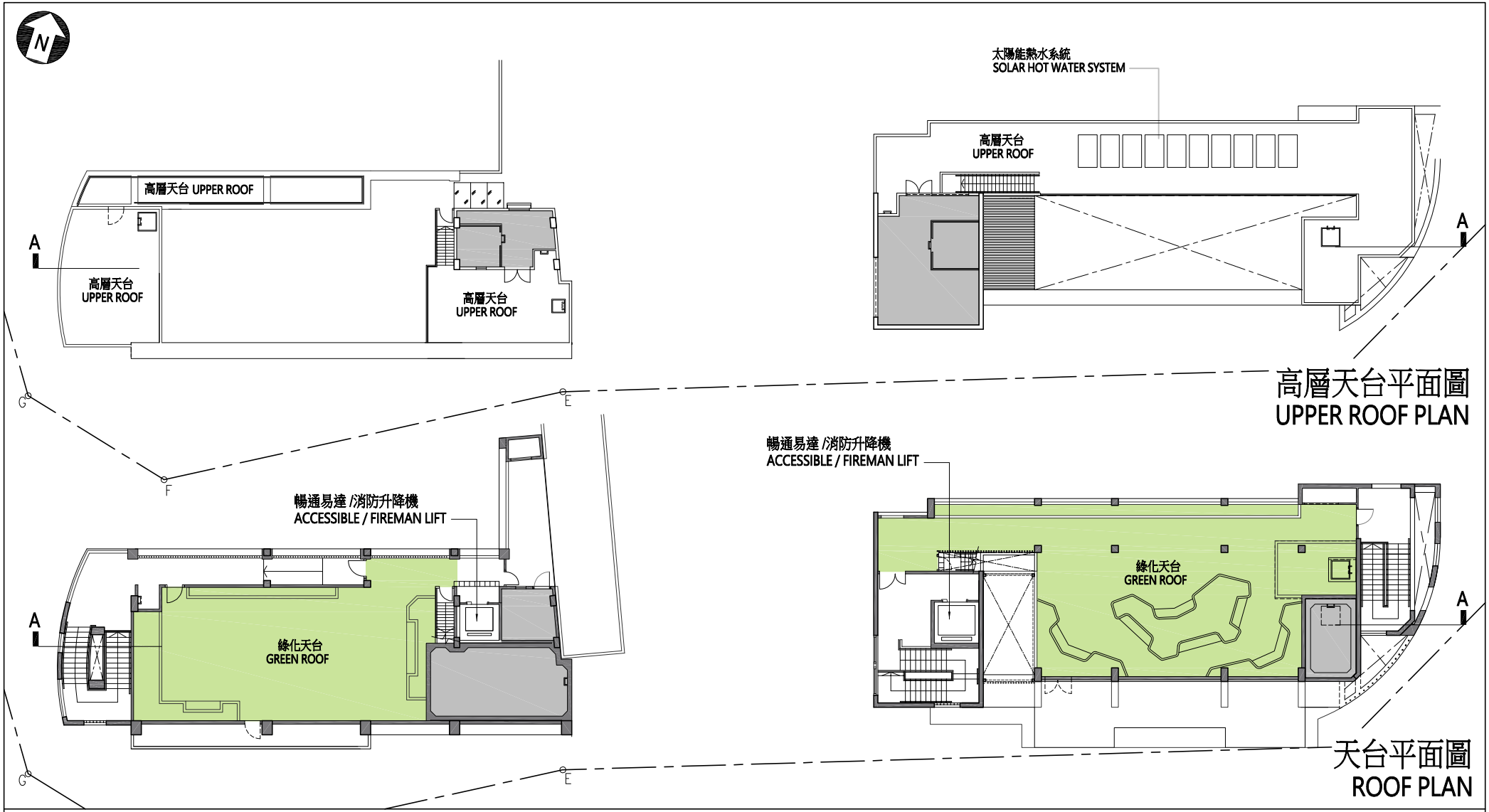
教育局
EDUCATION BUREAU



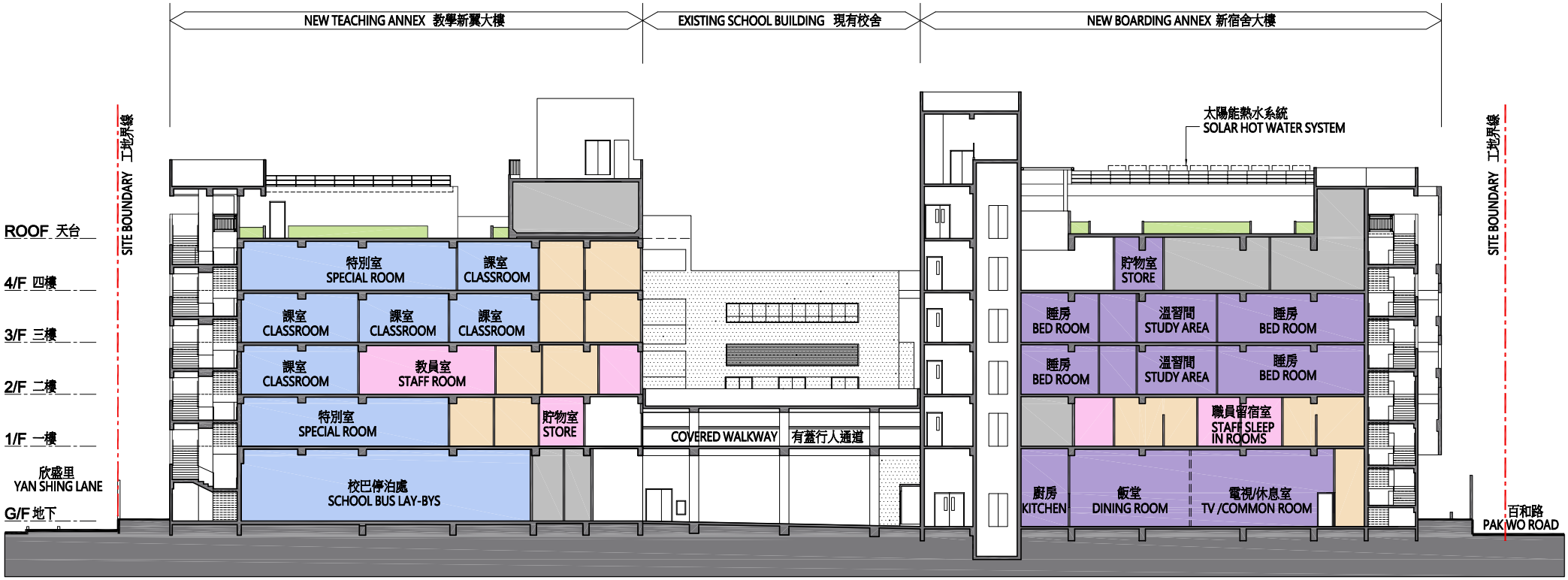
三樓及四樓平面圖
3rd & 4th FLOOR PLAN

32ED
香海正覺蓮社佛教普光學校改建工程
CONVERSION TO HEUNG HOI CHING KOK LIN ASSOCIATION BUDDHIST PO KWONG SCHOOL

教育局
EDUCATION BUREAU



天台及高層天台平面圖 ROOF & UPPER ROOF PLAN	32ED 香海正覺蓮社佛教普光學校改建工程 CONVERSION TO HEUNG HOI CHING KOK LIN ASSOCIATION BUDDHIST PO KWONG SCHOOL	教育局 EDUCATION BUREAU



圖例 LEGEND :

- 工地界線 SITE BOUNDARY
- 綠化範圍 LANDSCAPE AREA
- 教職員範圍 STAFF AREA
- 教學室 TEACHING ROOM
- 機房 PLANT ROOMS
- 洗手間 TOILET
- 睡房及宿舍輔助設施 BEDROOM AND BOARDING ANCILLARY FACILITIES

0 1 2 3 4 5 10 15m

剖面圖 A-A
SECTION A-A

32ED
香海正覺蓮社佛教普光學校改建工程
CONVERSION TO HEUNG HOI CHING KOK LIN ASSOCIATION BUDDHIST PO KWONG SCHOOL

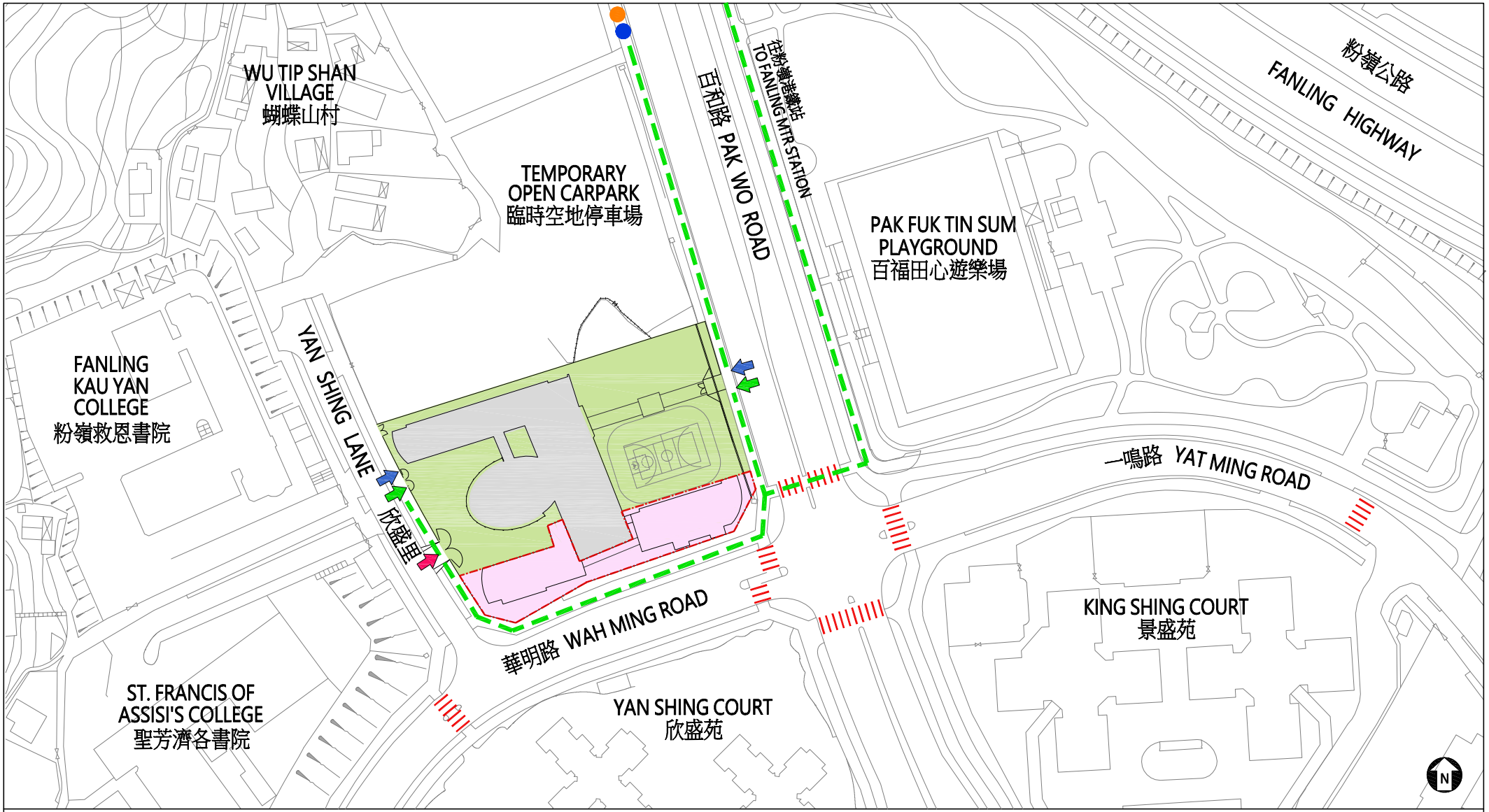
教育局
EDUCATION BUREAU

從東南面望向大樓的構思透視圖
PERSPECTIVE VIEW FROM SOUTH-EAST DIRECTION (ARTIST'S IMPRESSION)

32ED
香海正覺蓮社佛教普光學校改建工程
CONVERSION TO HEUNG HOI CHING KOK LIN ASSOCIATION BUDDHIST PO KWONG SCHOOL

教育局
EDUCATION BUREAU

從北面望向大樓 的構思透視圖 PERSPECTIVE VIEW FROM NORTH DIRECTION (ARTIST'S IMPRESSION)	32ED 香海正覺蓮社佛教普光學校改建工程 CONVERSION TO HEUNG HOI CHING KOK LIN ASSOCIATION BUDDHIST PO KWONG SCHOOL	教育局 EDUCATION BUREAU



圖例 LEGEND :

- 工地界線 SITE BOUNDARY
- 工地範圍 WORKS AREA
- 現有行人過路處 EXISTING AT-GRADE PEDESTRIAN CROSSING
- 巴士站 BUS STOP
- 小巴站 MINI-BUS STOP
- 現有學校範圍 EXISTING SCHOOL AREA
- 無障礙通道 BARRIER-FREE ACCESS
- 無障礙出入口 BARRIER-FREE ENTRANCE / EXIT
- 車輛出入口 VEHICULAR INGRESS / EGRESS
- 行人出入口 PEDESTRIAN ENTRANCE / EXIT

0 5 10 20 30m

無障礙通道平面圖
PLAN OF BARRIER-FREE ACCESS

32ED
香海正覺蓮社佛教普光學校改建工程
CONVERSION TO HEUNG HOI CHING KOK LIN ASSOCIATION BUDDHIST PO KWONG SCHOOL

教育局
EDUCATION BUREAU

32ED – A Conversion to Heung Hoi Ching Kok Lin Association Buddhist Po Kwong School

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	–	–	–	6.7
		Technical	–	–	–	1.5
					Sub-total	8.2#
(b)	Resident site staff (RSS) costs (Note 3)	Professional	14	38	1.6	1.8
		Technical	146	14	1.6	6.4
					Sub-total	8.2
	Comprising -					
	(i) Consultants' fees for management of RSS				0.6#	
	(ii) Remuneration of RSS				7.6#	
					Total	16.4

* 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' fees for contract administration are calculated in accordance with the existing consultancy agreement for the design and construction of **32ED**. The construction phase of the assignment will only be executed subject to Finance Committee's funding approval to upgrade **32ED** to Category A.

3. The actual man-months and actual costs will only be known after completion of the construction works.

Remarks

The figures in this Annex are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 5 of the main paper.

33ED – Provision of Boarding Section of Hong Chi Pinehill School and reprovisioning of Boarding Section of Hong Chi Pinehill No. 2 School in Tai Po

PROJECT SCOPE AND NATURE

The project involves the construction of a new boarding block to house two separate boarding sections for providing 60 new boarding places for Hong Chi Pinehill School for children with moderate intellectual disability (MoID) and 60 reprovisioned boarding places for Hong Chi Pinehill No. 2 School for children with severe intellectual disability (SID) at the Pinehill Village, Tai Po. The proposed scope of works for each boarding section includes –

(a) bedrooms[1] to accommodate 60 boarders and study areas;

(b) a TV/common room;

(c) a dining/multi-purpose room;

(d) a kitchen and kitchen store;

(e) a laundry;

(f) a drying area;

(g) a warden's office;

(h) a houseparents' and programme workers' office;

(i) a nurse's duty room/sick bay;

(j) two sleep-in rooms for staff on night shift; and

(k) other ancillary facilities, including stores, general office, staff locker and changing room, toilets, bathrooms, accessible/fireman's lift(s)[2], and relevant facilities for the disabled.

/2. …..

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[1] Five bedrooms for Hong Chi Pinehill School and four bedrooms for Hong Chi Pinehill No. 2 School.

[2] Two accessible/fireman's lifts for Hong Chi Pinehill School and one accessible/fireman's lift for Hong Chi Pinehill No. 2 School to cater for operational needs.

2. The proposed new boarding block will meet the planning target of providing 2 m^2 of open space per student. A site plan, layout plans, a sectional plan, an artist's impression and a barrier-free access plan for the project are at Annexes 1 to 5 to Enclosure 2 respectively. Subject to the funding approval of the Finance Committee, the School Sponsoring Body (the SSB) plans to commence construction in the fourth quarter of 2018 for completion in the fourth quarter of 2020.

JUSTIFICATION

3. The demand for boarding places for children with MoID has been on the rise. Hence, there is a need to provide additional boarding places to alleviate the overall shortfall of boarding places for children with MoID. At present, there is no supply of MoID boarding places in the Tai Po and North Region[3]. Subject to the completion of the proposed new boarding section for the Hong Chi Pinehill School in Tai Po, it is expected that the provision of 60 boarding places for children with MoID will help alleviate both the regional and the territory-wide demand.

4. It is the Government's plan to, based on the needs of the schools, improve the physical conditions and facilities of school premises not built according to the prevailing standards through reprovisioning and redevelopment. Hong Chi Pinehill No. 2 School, a school for children with SID, currently provides 60 boarding places for these children. The existing boarding section is co-located with a pre-school centre under the same SSB in a premises built about 50 years ago. It falls short of certain facilities such as houseparents' and programme workers' office and sleep-in-rooms for night shift staff, and some of its existing facilities such as sick bay and warden office are undersized according to prevailing standards. Due to site constraints, reprovisioning is considered the most effective way to improve the facilities and environment of the existing boarding section. The proposed new boarding block will be situated adjacent to the school. It will be more convenient for their children with SID to commute from the new boarding section to the school.

/FINANCIAL …..

[3] Tai Po & North Region is one of the seven regions for analysis of provision of school and boarding places in special schools. The other six regions are Hong Kong Island, Kowloon & Tseung Kwan O, Shatin & Sai Kung (excluding Tseung Kwan O), Kwai Tsing & Tsuen Wan, Tuen Mun & Yuen Long, and Outlying Islands.

FINANCIAL IMPLICATIONS

5. The SSB of the two concerned schools estimates the capital cost of the project to be $170.2 million in MOD prices (please see paragraph 7 below), broken down as follows –

			$ million (in MOD prices)
(a)	Site formation		10.5
(b)	Piling		16.8
(c)	Building[4]		69.1
(d)	Building services		27.8
(e)	Drainage		4.9
(f)	External works		14.5
(g)	Additional energy conservation, green and recycled features		1.7
(h)	Furniture and equipment (F&E)[5]		1.8
(i)	Consultants' fee for (i) contract administration (ii) management of resident site staff (RSS)	 4.0 0.3	4.3
(j)	Remuneration of RSS		3.4
(k)	Contingencies		15.4
	Total		170.2

/6. …..

[4] Building works cover construction of substructure and superstructure of the building.

[5] The estimated cost is based on an indicative list of F&E required. The actual cost will be subject to a survey on the conditions of the existing F&E.

6. The SSB proposes to engage 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 Annex 6 to Enclosure 2. The construction floor area (CFA) of **33ED** is 2 928 m^2. The estimated construction unit cost, represented by the building and building services costs, is $33,094 per m^2 of CFA in MOD prices. This is comparable to that of similar school projects undertaken by the Government.

7. Subject to approval, the SSB plans to phase the expenditure as follows –

Year	$ million (MOD)
2018 – 2019	16.5
2019 – 2020	53.6
2020 – 2021	82.1
2021 – 2022	7.9
2022 – 2023	9.8
2023 – 2024	0.3
	170.2

8. The 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 from 2018 to 2024. The SSB will deliver the construction works through a lump-sum contract because the SSB can clearly define the scope of the works in advance. The contract will provide for price adjustments.

9. The cost of F&E for **33ED**, estimated to be $1.8 million, will be borne by the Government according to the existing policy. We estimate the additional annual recurrent expenditure arising from the project to be $14.7 million.

PUBLIC CONSULTATION

10. We consulted the Social Services Committee of Tai Po District Council on 10 January 2018 on this project. Members of the Committee supported the project.

11. We consulted the Legislative Council Panel on Education on 2 February 2018. Members of the Panel supported the project and did not raise any objection to the submission of the funding proposal to the Public Works Subcommittee.

ENVIRONMENTAL IMPLICATIONS

12. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The SSB has completed a Preliminary Environmental Review (PER) for the project in January 2018. The PER concluded and the Director of Environmental Protection agreed that the Project would not have long-term environmental impacts.

13. During construction, the SSB 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. The SSB has included in the project estimates the cost to implement suitable mitigation measures to control short-term environmental impacts.

14. At the planning and design stages, the SSB 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, the SSB will require the contractor to reuse inert construction waste (e.g. use of excavated materials for filling within the site) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities[6]. The SSB 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.

/15. …..

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[6] 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.

15. At the construction stage, the SSB 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. The SSB will ensure that the day-to-day operations on site comply with the approved plan. The SSB will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. The SSB 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.

16. The SSB estimates that the project will generate in total about 3 220 tonnes of construction waste. Of these, the SSB will reuse about 853 tonnes (26.5%) of inert construction waste on site and deliver 2 183 tonnes (67.8%) of inert construction waste to public fill reception facilities for subsequent reuse. The SSB will dispose of the remaining 184 tonnes (5.7%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be about $0.2 million for this project (based on an unit charge rate of $71 per tonne for disposal at public fill reception facilities and $200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

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

(a) heat energy reclaim of exhaust air;

(b) energy management system;

(c) light-emitting diode type light fittings;

(d) solar hot water system; and

(e) photovoltaic system.

18. For greening features, this project will provide landscape garden and planters in part of the roofs and terraces for environment and amenity benefits.

19. For recycled features, the SSB will adopt rainwater harvesting system for landscape irrigation with a view to conserving water.

20. The total estimated additional cost for adoption of the above energy conservation measures, greening features and recycled features is around $1.7 million in MOD prices (including $0.1 million for energy efficient features), which has been included in the cost estimates of this project. The energy efficient features will achieve 5.4% energy savings in the annual energy consumption with a payback period of about eight years.

HERITAGE IMPLICATIONS

21. The 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.

LAND ACQUISITION

22. The project does not require any land acquisition.

BACKGROUND INFORMATION

23. We upgraded **33ED** to Category B in October 2015. The SSB engaged consultants to undertake the detailed design and preparation of tender documents in May 2016, and engaged contractors to carry out ground investigation and topographical survey in November 2016. The total cost of the consultancy services and works is about $5.6 million. We have charged this amount to block allocation Subhead **8100QX** "Alterations, additions, repairs and improvements to education subvented buildings". The consultants and contractor have completed all the above consultancy services and works. The tender documents for main contract works are under preparation.

/24. …..

24. Of the 138 trees within the project boundary, 52 trees will be preserved. The proposed works will involve removal of 86 trees, including 80 trees to be felled and six trees to be replanted within the project site. All trees to be removed are not important trees[7]. The SSB will incorporate planting proposals as part of the project, including the planting of about 80 trees, 2 652 shrubs, 31 242 ground covers, and 75 m^2 of grassed area.

25. We estimate that the proposed works will create about 132 jobs (120 for labourers and another 12 for professional / technical staff) providing a total employment of 1 570 man-months.

26. The estimated cost of the project was adjusted to $170.2 million, compared with $177.9 million as mentioned in the discussion paper for the Panel on Education meeting held on 2 February 2018[8]. The adjustment was brought about by the changes to the design of the proposed building block, including the relocation of photovoltaic panels and the removal of ground slabs at certain area, as proposed by the SSB with a view to facilitating their daily maintenance and management work and achieving higher project cost effectiveness.

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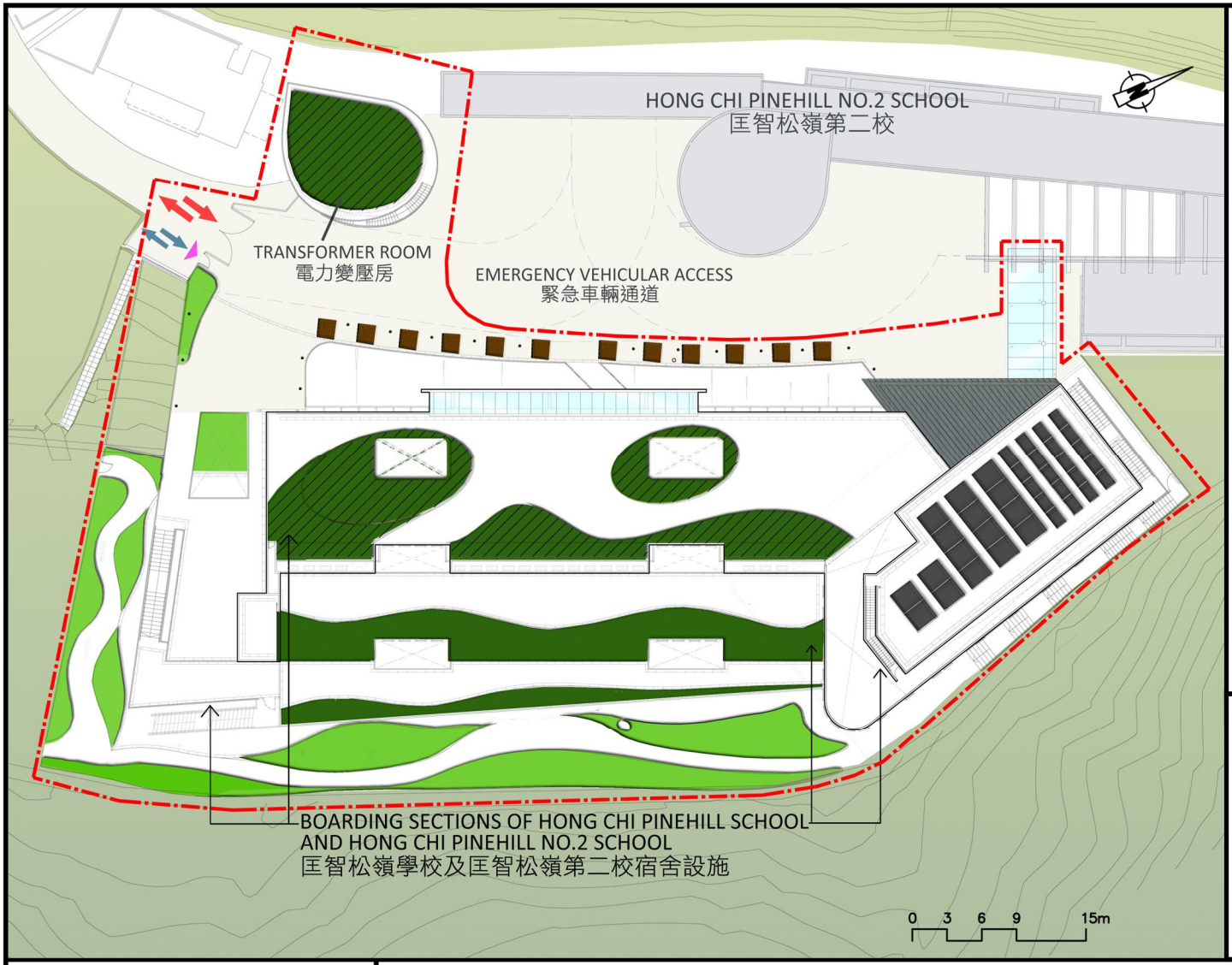
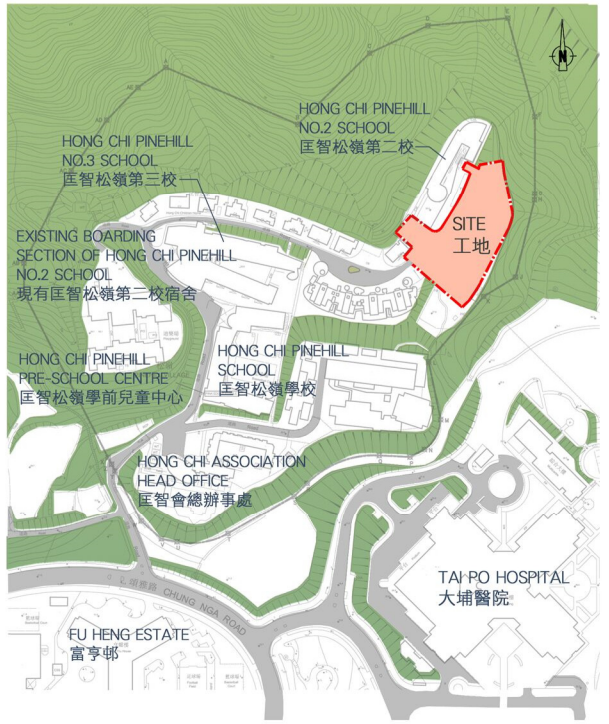
[7] "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –
(a) trees of 100 years old or above;
(b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage 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 (measured at 1.3 metre above ground level), or with height/canopy spread equal or exceeding 25 metres.

[8] The relevant Panel paper is LC Paper No. CB(4)535/17-18(01).



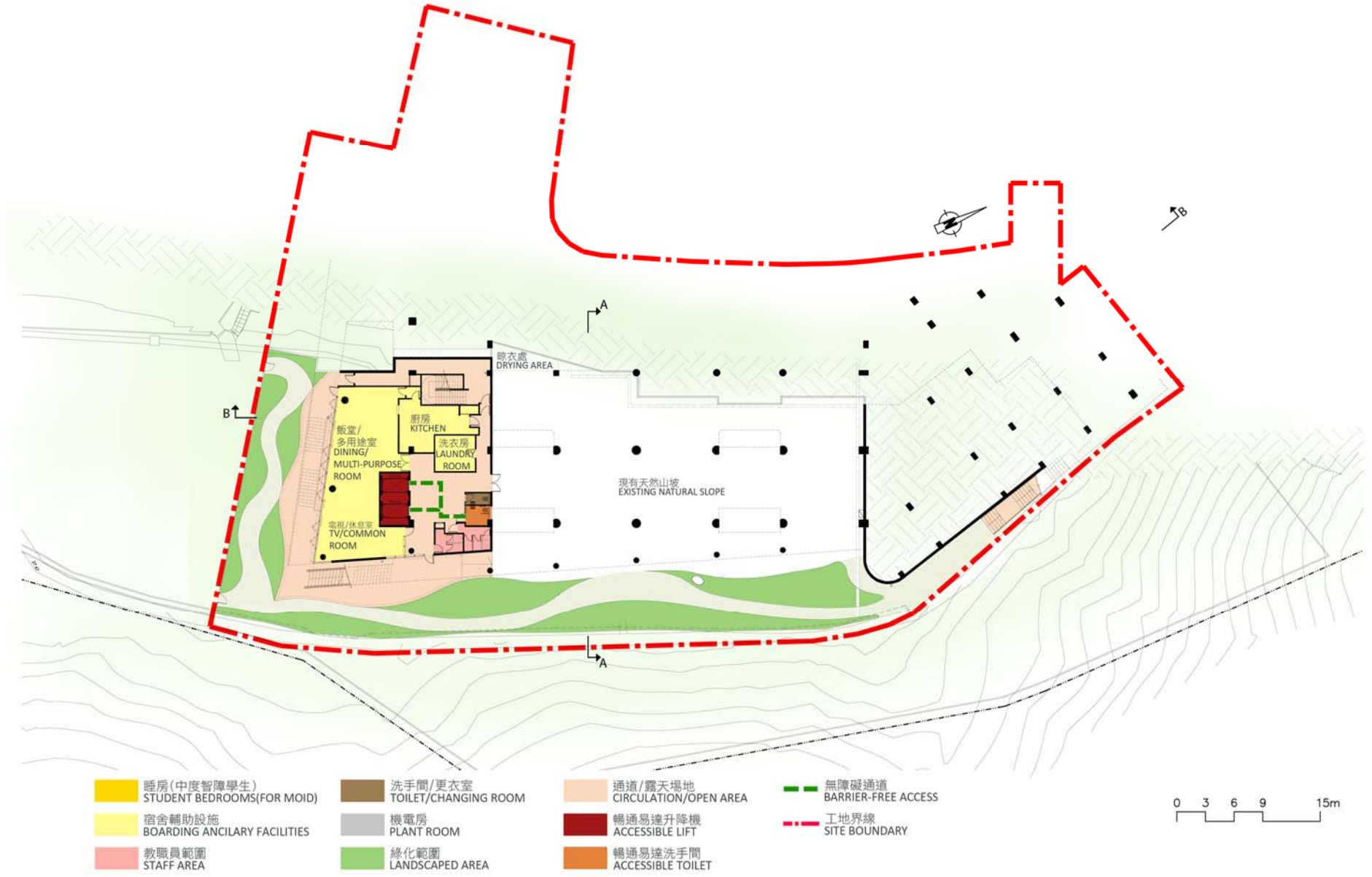


LOCATION PLAN 位置圖

- 無障礙出入口 BARRIER-FREE ENTRANCE/ EXIT
- 車輛出入口 VEHICULAR INGRESS/ EGRESS
- 行人出入口 PEDESTRIAN ENTRANCE/ EXIT
- 工地界線 SITE BOUNDARY
- 太陽能光伏板 PHOTOVOLTAIC PANEL
- 地面綠化 AT-GRADE GREENING
- 屋頂綠化 LANDSCAPED ROOF

工地平面圖
SITE PLAN

33ED
大埔匡智松嶺學校宿舍設施及重置匡智松嶺第二校宿舍設施
PROVISION OF BOARDING SECTION OF HONG CHI PINEHILL SCHOOL AND
REPROVISIONING OF BOARDING SECTION OF HONG CHI PINEHILL NO.2 SCHOOL IN TAI PO

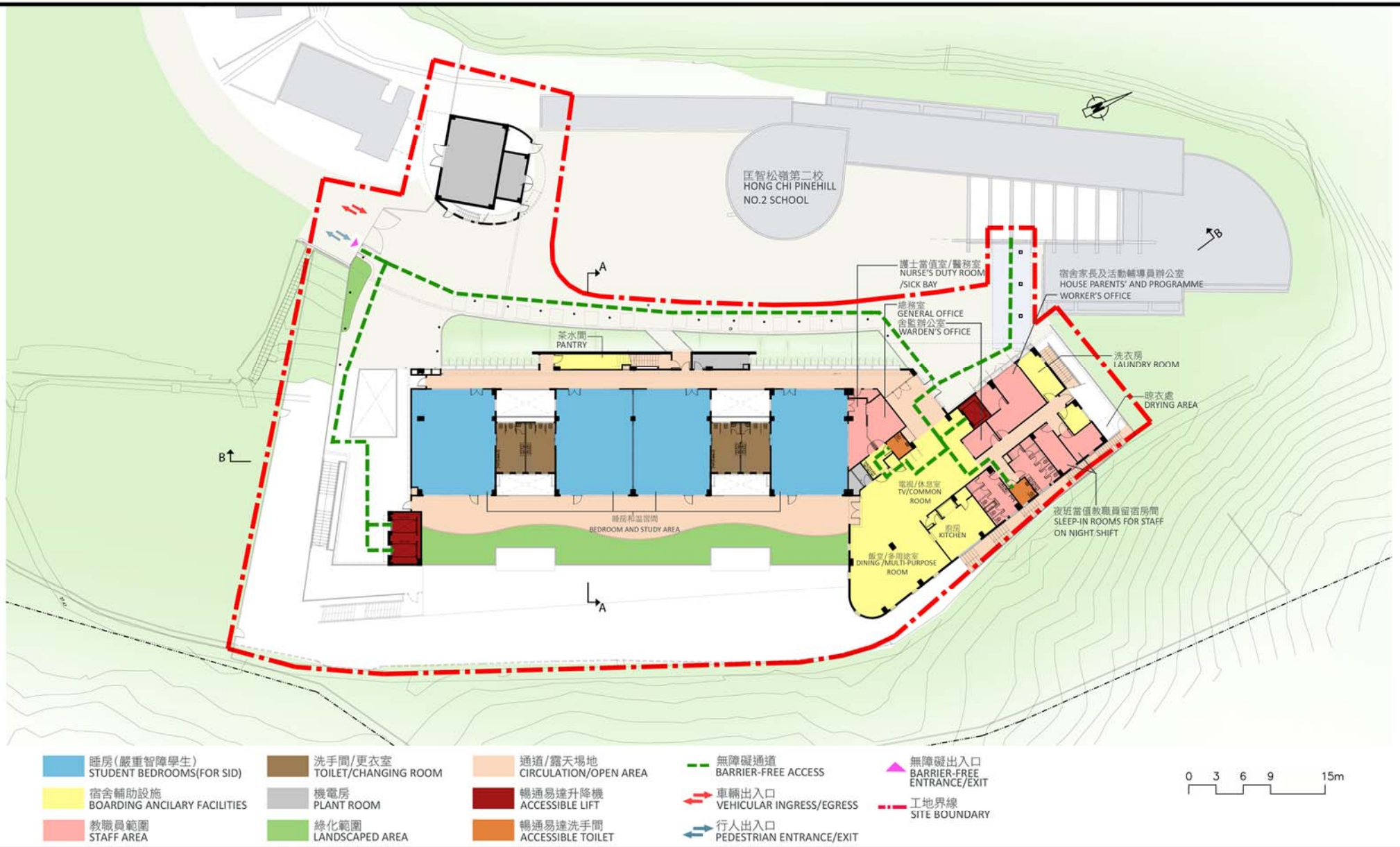


一樓平面圖
LEVEL 1 LAYOUT PLAN

33ED
大埔匡智松嶺學校宿舍設施及重置匡智松嶺第二校宿舍設施
PROVISION OF BOARDING SECTION OF HONG CHI PINEHILL SCHOOL AND
REPROVISIONING OF BOARDING SECTION OF HONG CHI PINEHILL NO.2 SCHOOL IN TAI PO

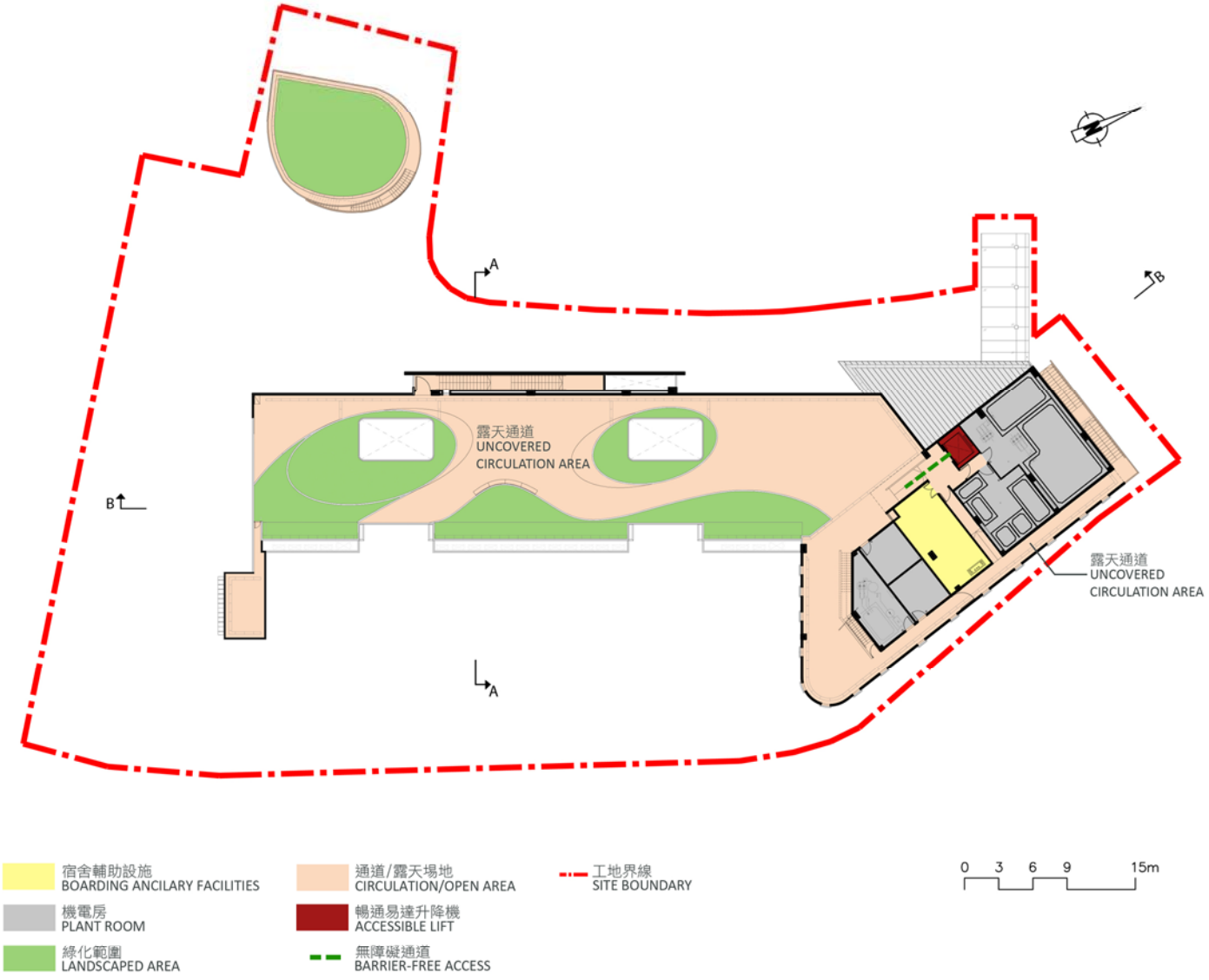
二樓平面圖
LEVEL 2 LAYOUT PLAN

33ED
大埔匡智松嶺學校宿舍設施及重置匡智松嶺第二校宿舍設施
PROVISION OF BOARDING SECTION OF HONG CHI PINEHILL SCHOOL AND
REPROVISIONING OF BOARDING SECTION OF HONG CHI PINEHILL NO.2 SCHOOL IN TAI PO



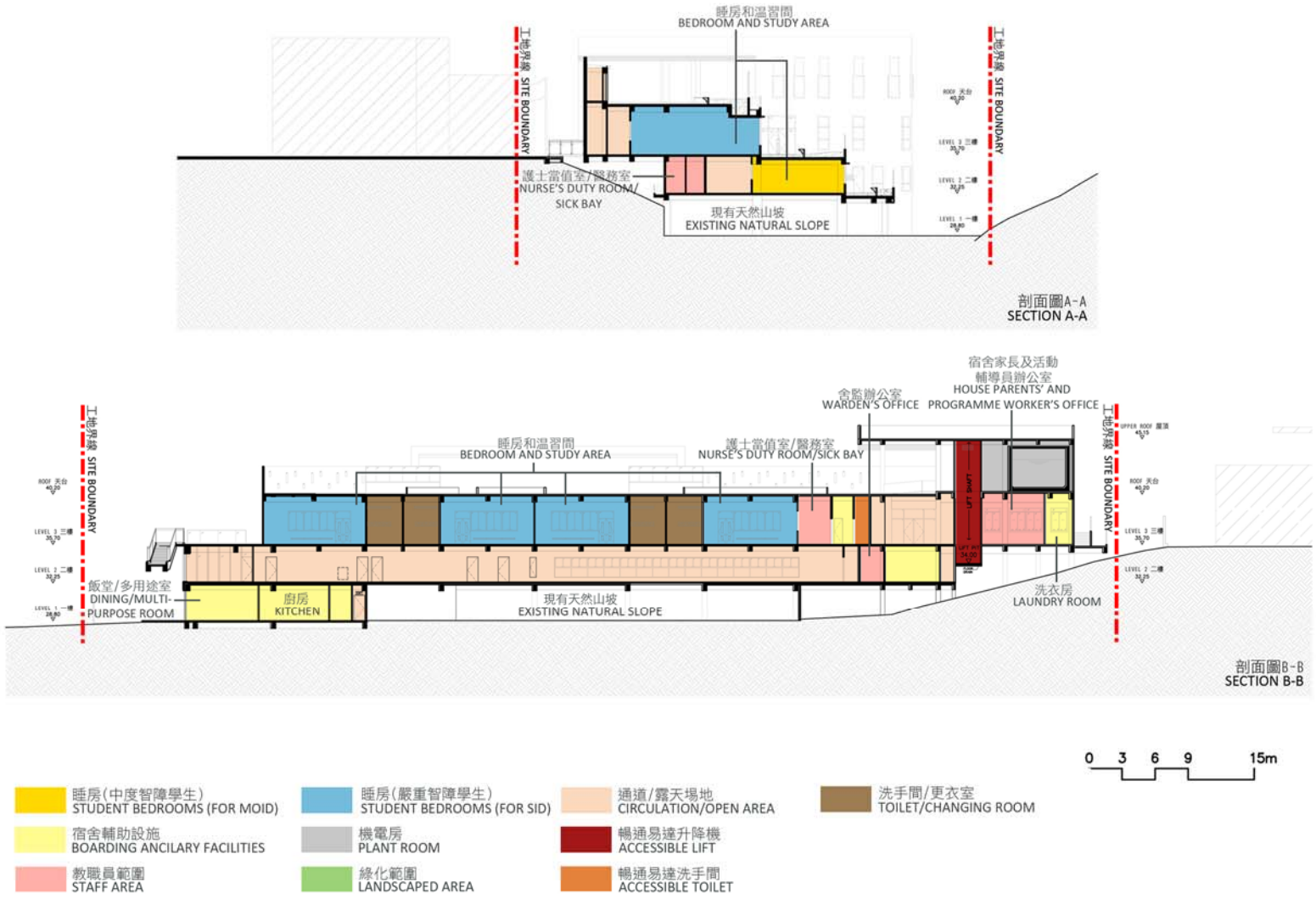
三樓平面圖
LEVEL 3 LAYOUT PLAN

33ED
大埔匡智松嶺學校宿舍設施及重置匡智松嶺第二校宿舍設施
PROVISION OF BOARDING SECTION OF HONG CHI PINEHILL SCHOOL AND
REPROVISIONING OF BOARDING SECTION OF HONG CHI PINEHILL NO.2 SCHOOL IN TAI PO



天台平面圖
ROOF LAYOUT PLAN

33ED
大埔匡智松嶺學校宿舍設施及重置匡智松嶺第二校宿舍設施
PROVISION OF BOARDING SECTION OF HONG CHI PINEHILL SCHOOL AND
REPROVISIONING OF BOARDING SECTION OF HONG CHI PINEHILL NO.2 SCHOOL IN TAI PO

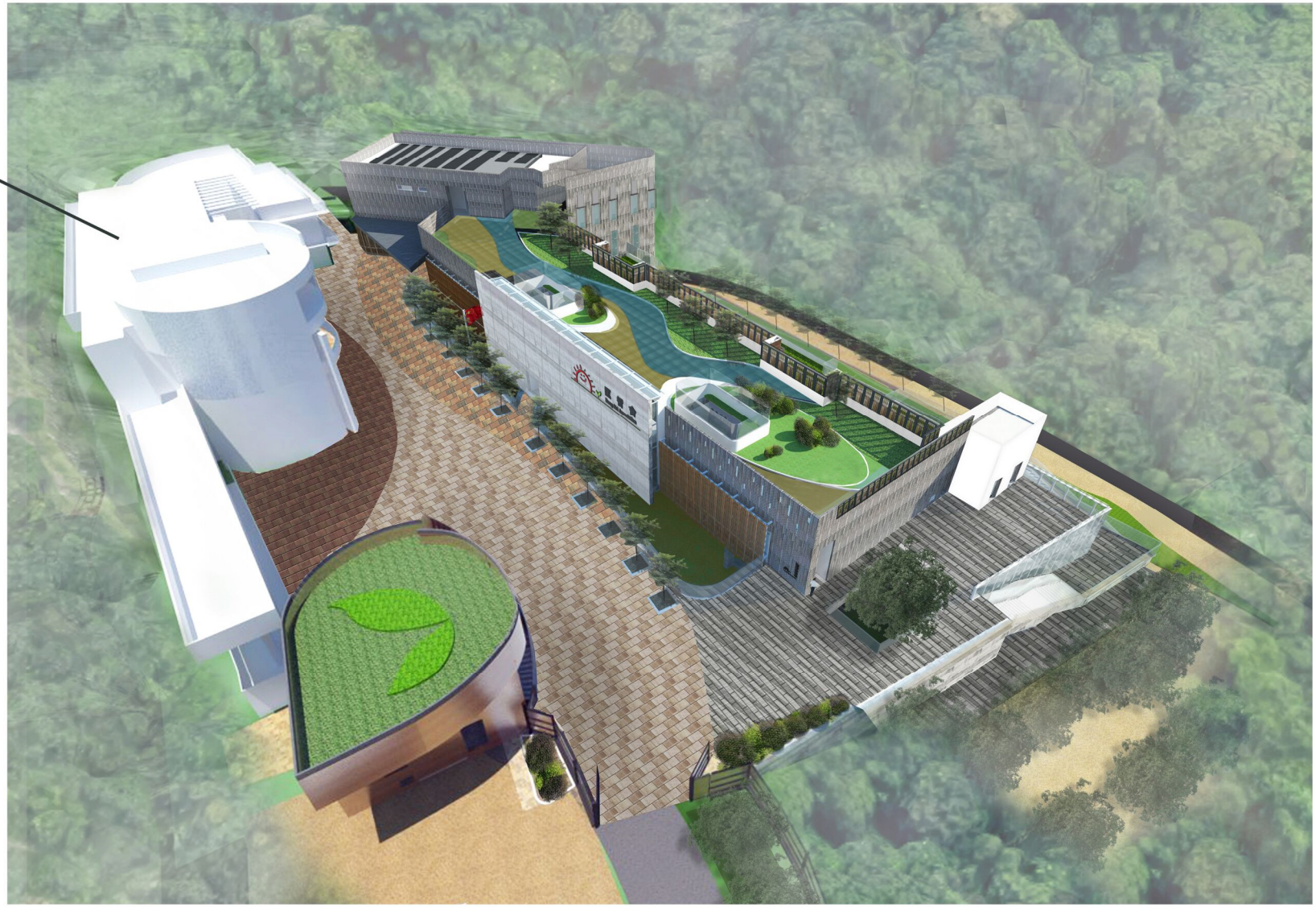


剖面圖
SECTION

33ED
大埔匡智松嶺學校宿舍設施及重置匡智松嶺第二校宿舍設施
PROVISION OF BOARDING SECTION OF HONG CHI PINEHILL SCHOOL AND
REPROVISIONING OF BOARDING SECTION OF HONG CHI PINEHILL NO.2 SCHOOL IN TAI PO

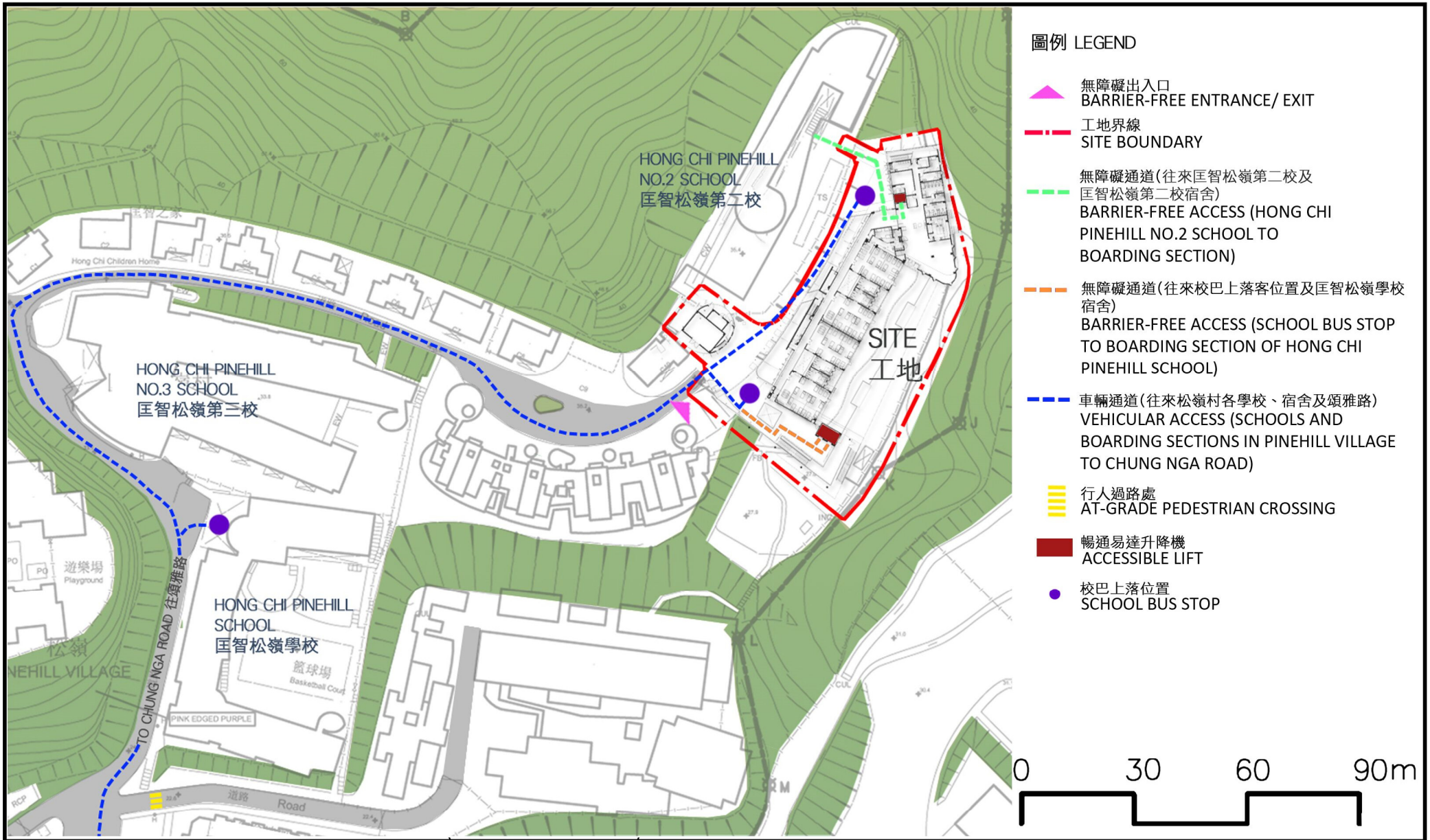
從東南面望向宿舍的構思鳥瞰圖
AERIAL VIEW FROM SOUTH EASTERN DIRECTION (ARTIST'S IMPRESSION)

構思圖 ARTIST'S IMPRESSION	33ED 大埔匡智松嶺學校宿舍設施及重置匡智松嶺第二校宿舍設施 PROVISION OF BOARDING SECTION OF HONG CHI PINEHILL SCHOOL AND REPROVISIONING OF BOARDING SECTION OF HONG CHI PINEHILL NO.2 SCHOOL IN TAI PO



從西南面望向宿舍的構思鳥瞰圖
AERIAL VIEW FROM SOUTH WESTERN DIRECTION (ARTIST'S IMPRESSION)

構思圖 ARTIST'S IMPRESSION	33ED 大埔匡智松嶺學校宿舍設施及重置匡智松嶺第二校宿舍設施 PROVISION OF BOARDING SECTION OF HONG CHI PINEHILL SCHOOL AND REPROVISIONING OF BOARDING SECTION OF HONG CHI PINEHILL NO.2 SCHOOL IN TAI PO



無障礙通道平面圖
PLAN OF
BARRIER-FREE ACCESS

33ED
大埔匡智松嶺學校宿舍設施及重置匡智松嶺第二校宿舍設施
PROVISION OF BOARDING SECTION OF HONG CHI PINEHILL SCHOOL AND
REPROVISIONING OF BOARDING SECTION OF HONG CHI PINEHILL NO.2 SCHOOL IN TAI PO

33ED – Provision of Boarding Section of Hong Chi Pinehill School and reprovisioning of Boarding Section of Hong Chi Pinehill No. 2 School in Tai Po

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	–	–	–	2.1
	Technical	–	–	–	1.4
				Sub-total	3.5#
(b) Resident site staff Costs (RSS) (Note 3)	Professional	–	–	–	–
	Technical	76	14	1.6	3.3
				Sub-total	3.3
Comprising –					
(i) Consultants' fees for management of RSS				0.3#	
(ii) Remuneration of RSS				3.0#	
				Total	**6.8**

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of resident site staff supplied by the consultants (as at now, 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 **33ED**. The construction phase of the assignment will only be executed subject to the Finance Committee's approval to upgrade **33ED** to Category A.

3. The actual man-months and actual costs will only be known after completion of the construction works.

Remarks

The figures in this Annex are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 5 of the main paper.