

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDING

Education – Other

113ET – Extension of Hong Chi Morninghill School, Tuen Mun

Members are invited to recommend to the Finance Committee the upgrading of **113ET** to Category A at an estimated cost of \$61.2 million in money-of-the-day prices for carrying out the extension works at the Hong Chi Morninghill School, Tuen Mun.

PROBLEM

We need to carry out extension works for the Hong Chi Morninghill School, Tuen Mun, to enhance the learning and teaching facilities.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Education, proposes to upgrade **113ET** to Category A at an estimated cost of \$61.2 million in money-of-the-day (MOD) prices for enhancing and increasing the learning and teaching facilities at Hong Chi Morninghill School, Tuen Mun.

PROJECT SCOPE AND NATURE

3. The proposed scope of works of the project includes the construction of a three-storey new annex block with the following facilities -

/(a)

- (a) five classrooms;
- (b) two staff rooms;
- (c) a social worker's room;
- (d) a speech therapy room;
- (e) a multi-purpose area; and
- (f) ancillary facilities including an accessible/fireman's lift, toilets, etc.

4. The proposed new annex block, with a site area of about 710 square metres (m²), will meet the planning target of providing 2 m² of open space per student. The site and location plans, floor plans, sectional drawings, an artist's impression and a plan of barrier-free access for the project are at **Enclosures 1 to 4** respectively.

5. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee for target completion in around two years.

JUSTIFICATION

6. The Education Bureau (the Bureau) is implementing the New Senior Secondary (NSS) academic structure and the improvement measures on extension of years of study for students 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, the Bureau has been gradually carrying out the improvement measures on extension of years of study, which involves operating of additional classes at special schools. Hong Chi Morninghill School, Tuen Mun needs additional facilities, including classrooms and other related facilities, to provide education services for its students at senior secondary level and those for extension of years of study.

7. Hong Chi Morninghill School, Tuen Mun, a school for children with mild intellectual disability, is now operating 12 classes to accommodate a maximum of 180 students. It is restrained by its existing premises, which accommodates 10 classrooms only. It does not have any additional space for infrastructure upgrading and there is a genuine need to construct a new annex block for the school to meet the operational need and improve the teaching and learning environment.

/FINANCIAL

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$61.2 million in MOD prices, broken down as follows -

		\$million (in MOD prices)
(a)	Foundation	5.0
(b)	Building	20.4
(c)	Building services	10.4
(d)	Drainage	3.9
(e)	External works	10.2
(f)	Additional energy conservation, green and recycled features	0.8
(g)	Furniture and equipment (F&E) ¹	0.3
(h)	Consultants' fees for	3.5
	(i) contract administration	3.4
	(ii) management of resident site staff (RSS)	0.1
(i)	Remuneration of RSS	1.1
(j)	Contingencies	5.6
Total		61.2

9. We propose engaging 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 **Enclosure 5**. The construction floor area (CFA) of the project is about 950 m². The estimated
/construction

¹ The estimated cost is based on an indicative list of F&E required.

construction unit cost, represented by the building and building services costs, is \$32,421 per m² of CFA in MOD prices. We consider these comparable to that of similar projects built by the Government.

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

Year	\$ million (in MOD prices)
2020 – 2021	1.0
2021 – 2022	6.3
2022 – 2023	27.4
2023 – 2024	8.1
2024 – 2025	7.3
2025 – 2026	6.4
2026 – 2027	4.7
	<hr/>
	61.2
	<hr/>

11. We have derived the MOD estimates 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 2027. 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 adjustment.

12. The cost of F&E for the project, estimated to be about \$0.3 million, will be borne by the Government according to the existing policy. We estimate the annual recurrent expenditure arising from this project to be \$55.0 million upon full commissioning of the new annex block.

/PUBLIC

PUBLIC CONSULTATION

13. We consulted the Social Services Committee of the Tuen Mun District Council on 16 July 2019 on this project. Members of the Committee supported the project.

14. We consulted the Legislative Council Panel on Education on 8 May 2020. 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. Members also asked about the facilities to be provided in the new annex block and the progress of other special school improvement works projects. Such information was provided to the Panel on 9 September 2020.

ENVIRONMENTAL IMPLICATIONS

15. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap 499). We completed a Preliminary Environmental Review (PER) in December 2019. The PER recommended the installation of insulated windows for the speech therapy room at 2/F exposed to traffic noise exceeding the limits set out in the Hong Kong Planning Standards and Guidelines, in addition to the standard provision of air-conditioning for all standard teaching facilities. With such mitigation measures in place, the project will not be exposed to long-term environmental impacts. We have included in the project estimates the cost to implement these mitigation measures.

16. 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 contract. These measures 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 site, and the provision of wheel-washing facilities to prevent dust nuisance.

17. 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 which was generated during new building construction (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

public fill reception facilities (PFRFs)². 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.

18. 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 PFRFs and landfills respectively through a trip-ticket system.

19. We estimate that the project will generate in total about 2 510 tonnes of construction waste. Of these, we will reuse about 70 tonnes (2.8%) of inert construction waste on site and deliver 2 150 tonnes (85.7%) of inert construction waste to PFRFs for subsequent reuse. We will dispose of the remaining 290 tonnes (11.5%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRFs and landfill sites is estimated to be \$0.2 million for this project (based on a unit charge rate of \$71 per tonne for disposal at PFRFs and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

20. 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

21. This project does not require any land acquisition.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

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

/(a)

² PFRFs are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste at PFRFs requires a licence issued by the Director of Civil Engineering and Development.

- (a) heat recovery fresh air pre-conditioners in the air-conditioned space for heat energy reclaim of exhaust air;
- (b) light-emitting diode (LED) type light fittings; and
- (c) photovoltaic system.

23. For greening features, there will be landscaping, vertical greening and green roof at appropriate areas for environmental and amenity benefits.

24. The total estimated additional cost for adoption of the above features is around \$0.8 million (including \$0.1 million for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 6.1% energy savings in the annual energy consumption with a payback period of about ten years.

BACKGROUND INFORMATION

25. We upgraded **113ET** to Category B in September 2017. We engaged consultants to undertake various services at a total cost of about \$4.1 million. The services and works provided by the consultants were funded under block allocation **Subhead 3100GX** “Project feasibility studies, minor investigations and consultants’ fees for items in Category D of the Public Works Programme”. The consultants and contractor have completed all the above consultancy services and works for the pre-contract stage.

26. There are nine trees within the project boundary and all these trees will be removed by felling. All trees proposed to be felled are having poor form, poor structure and/or poor health. They have low amenity value and will have low survival rate if transplanted, and thus are recommended to be felled. All trees to be removed are not important trees³. We will incorporate planting proposals as part

/of

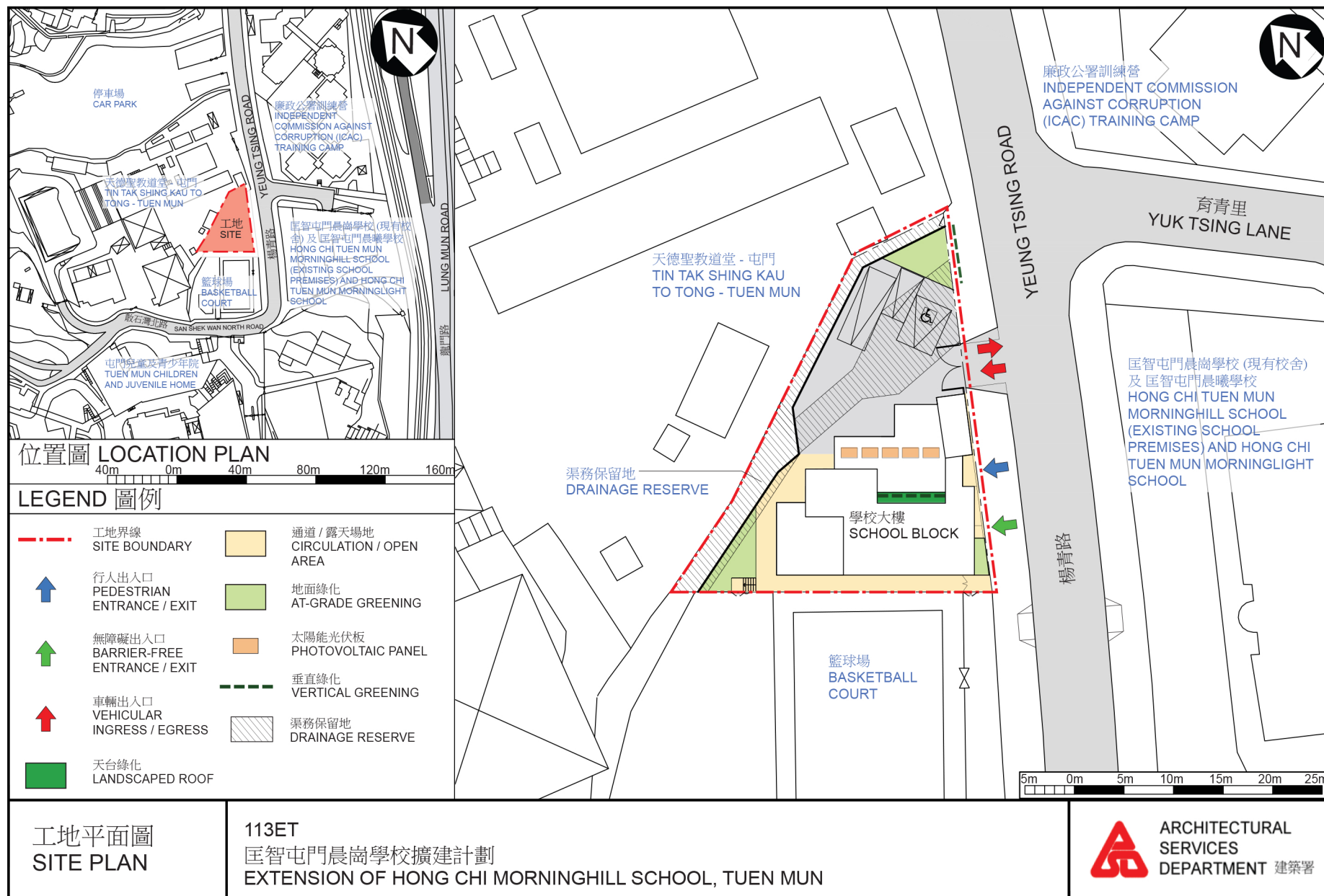
³ “Important trees” refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

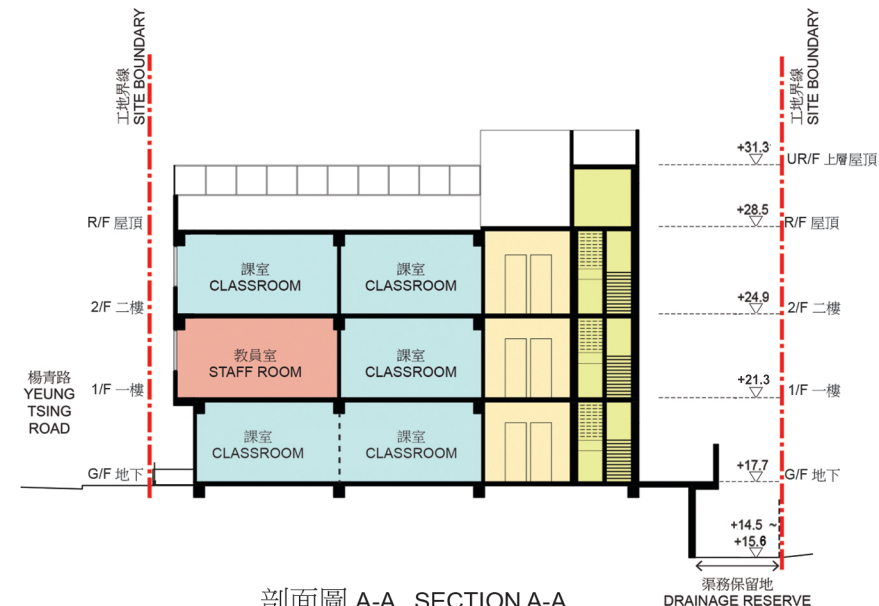
- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking 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 metres above ground level), or with height/canopy spread equal or exceeding 25 metres.

of the project, including the planting of about 50 shrubs, 20 climbers and 355 groundcovers.

27. We estimate that the proposed works will create about 25 jobs (21 for labourers and four for professional/technical staff) providing a total employment of 460 man-months.

Education Bureau
October 2020





剖面圖 A-A SECTION A-A



地面平面圖 GROUND FLOOR PLAN

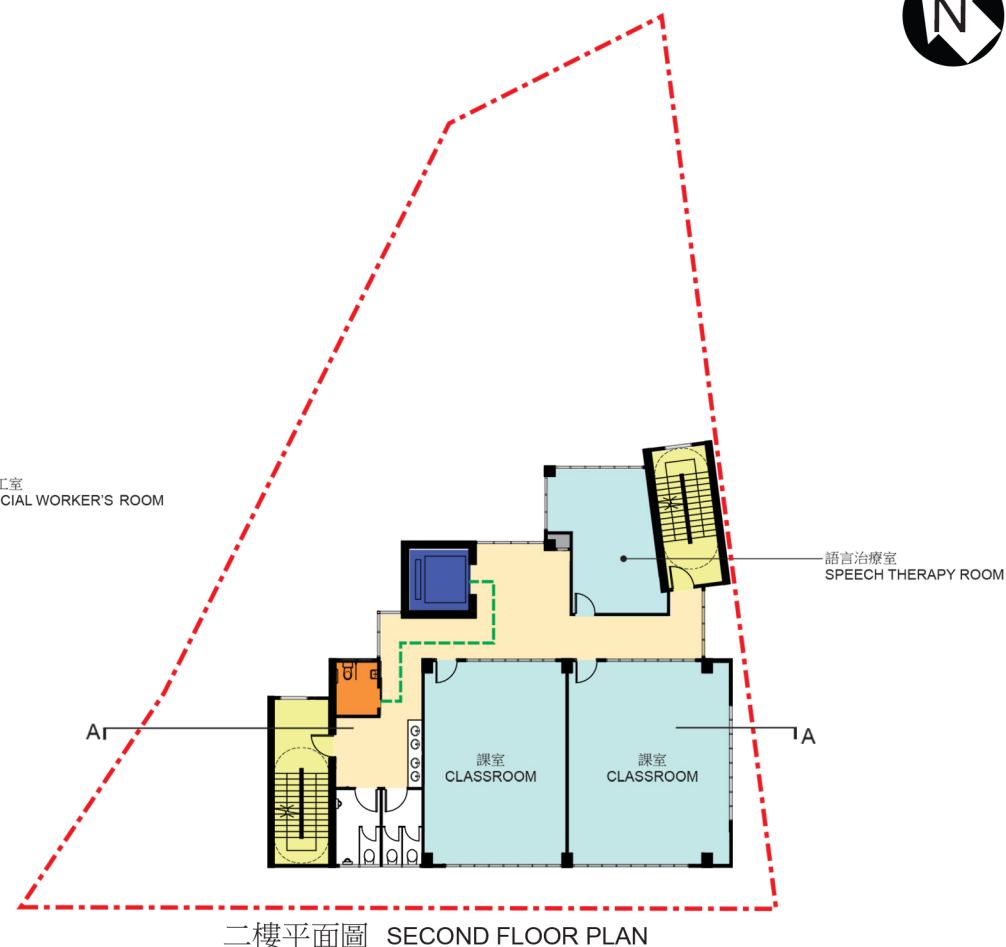
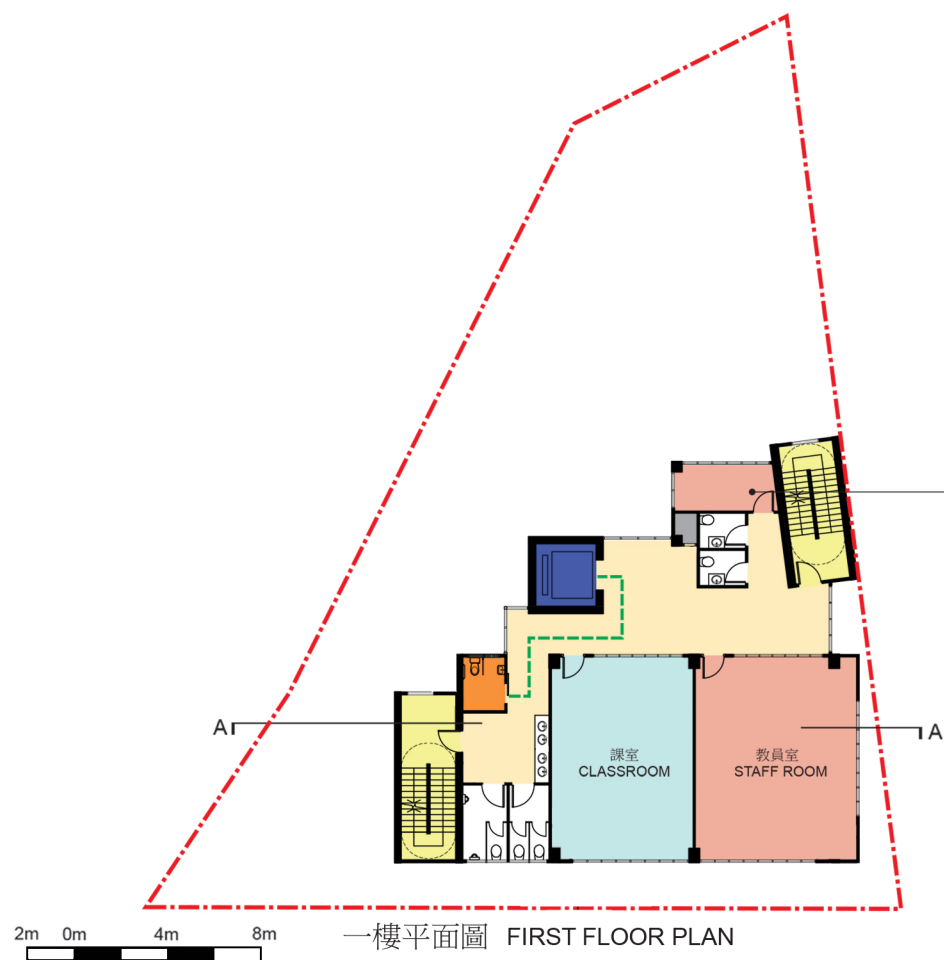
- | | | | | | | | | | | | | | |
|---|---------------------------------|---|--|---|---|--|---|---|---------------------------|---|----------------------------|---|------------------------------|
|  | 工地界線
SITE BOUNDARY |  | 垂直綠化
VERTICAL GREENING |  | 無障礙出入口
BARRIER-FREE
ENTRANCE / EXIT |  | 通道 / 露天場地
CIRCULATION / OPEN
AREA |  | 地面綠化
AT-GRADE GREENING |  | 教職員範圍
STAFF AREA |  | 暢通易達洗手間
ACCESSIBLE TOILET |
|  | 無障礙通道
BARRIER-FREE
ACCESS |  | 行人出入口
PEDESTRIAN
ENTRANCE / EXIT |  | 車輛出入口
VEHICULAR
INGRESS / EGRESS | | |  | 教學室
TEACHING ROOM |  | 暢通易達升降機
ACCESSIBLE LIFT |  | 電機房
PLANT ROOM |

地面平面圖及剖面圖
GROUND FLOOR
PLAN AND SECTION

113ET
匡智屯門晨崗學校擴建計劃
EXTENSION OF HONG CHI MORNINGHILL SCHOOL, TUEN MUN



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



--- 工地界線
SITE BOUNDARY

--- 無障礙通道
BARRIER-FREE
ACCESS

通道 / 露天場地
CIRCULATION /
OPEN AREA

教學室
TEACHING ROOM

教職員範圍
STAFF AREA

暢通易達升降機
ACCESSIBLE LIFT

暢通易達洗手間
ACCESSIBLE TOILET

電機房
PLANT ROOM

一樓及二樓平面圖
FIRST AND SECOND
FLOOR PLAN

113ET
匡智屯門晨崗學校擴建計劃
EXTENSION OF HONG CHI MORNINGHILL SCHOOL, TUEN MUN



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



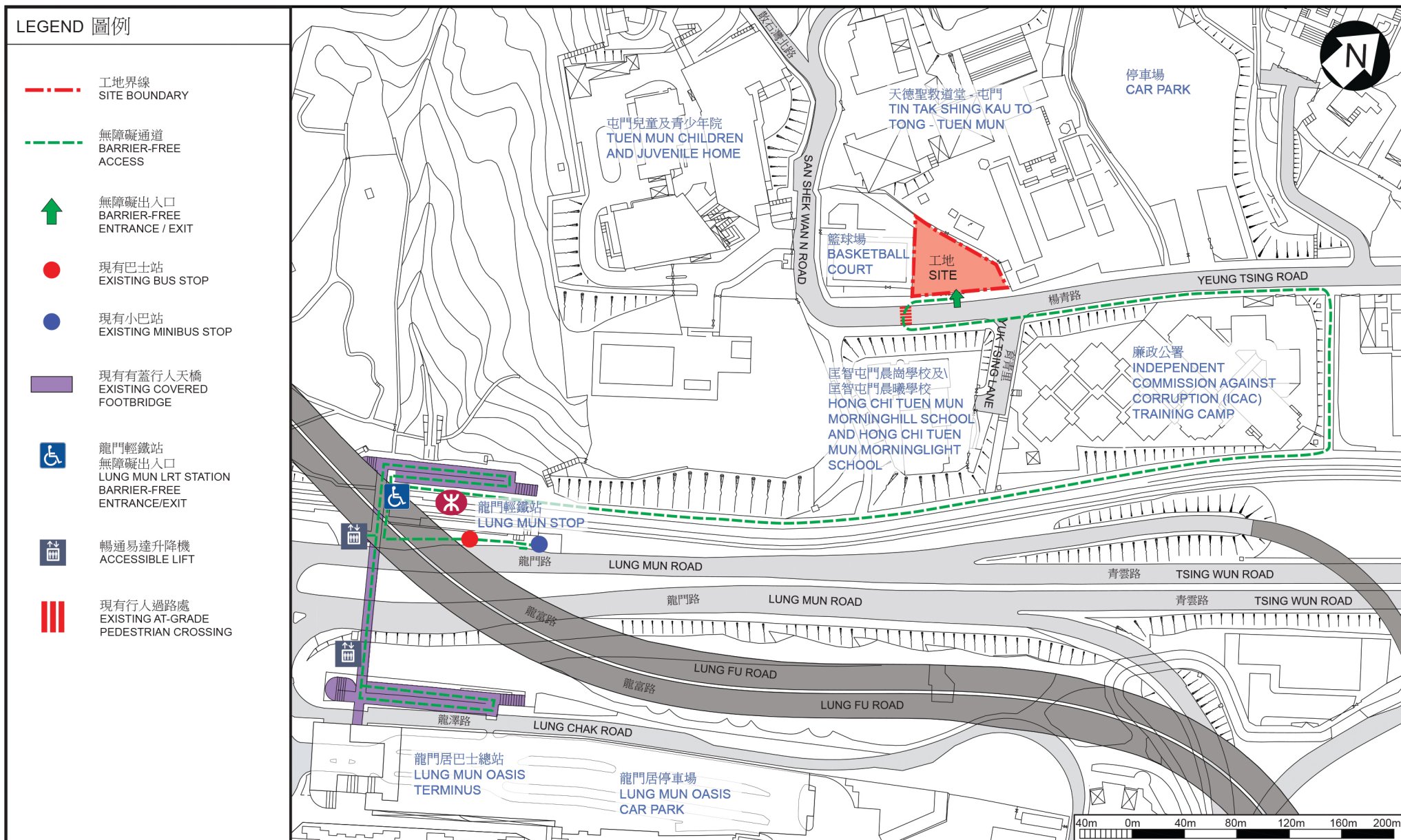
從楊青路望向學校的構思透視圖
PERSPECTIVE VIEW FROM YEUNG TSING ROAD

構思圖
ARTIST'S
IMPRESSION

113ET
匡智屯門晨崗學校擴建計劃
EXTENSION OF HONG CHI MORNINGHILL SCHOOL, TUEN MUN



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



無障礙通道平面圖
PLAN OF BARRIER-FREE
ACCESS

113ET
匡智屯門晨崗學校擴建計劃
EXTENSION OF HONG CHI MORNINGHILL SCHOOL, TUEN MUN

113ET – Extension of Hong Chi Morninghill School, Tuen Mun**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2020 prices)**

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a)	Consultants' fees for contract administration (Note 2)	Professional	–	–	1.8
		Technical	–	–	1.2
				Sub-total	3.0#
(b)	Resident site staff (RSS) costs (Note 3)	Professional	–	–	–
		Technical	23	1.6	1.1
				Sub-total	1.1
	Comprising -				
	(i) Consultants' fees for management of RSS			0.1#	
	(ii) Remuneration of RSS			1.0#	
				Total	4.1

* 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 14 = \$30,235 per month).
2. The consultants' fees for contract administration are calculated in accordance with the existing consultancy agreement for the design and construction of **113ET**. The assignment will only be executed subject to Finance Committee's funding approval to upgrade the project 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 Enclosure are shown in constant prices correlate with the MPS salary point of the same year. The figures marked with # are shown in MOD prices in paragraph 8 of the main paper.