

For discussion
on 12 May 2021

PWSC(2021-22)13

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Education Subventions

97EB – In-situ redevelopment of Wa Ying College at 8 Sheung Wo Street, Kowloon

Members are invited to recommend to the Finance Committee the upgrading of **97EB** to Category A at an estimated cost of \$473.3 million in money-of-the-day prices for the in-situ redevelopment of Wa Ying College at 8 Sheung Wo Street, Kowloon.

PROBLEM

There is redevelopment need of Wa Ying College (WYC) to improve its learning and teaching environment.

PROPOSAL

2. The Secretary for Education, on the advice of the Director of Architectural Services, proposes to upgrade **97EB** to Category A at an estimated cost of \$473.3 million in money-of-the-day (MOD) prices for the redevelopment of WYC.

/PROJECT

PROJECT SCOPE AND NATURE

3. The project scope includes the demolition of the existing buildings of WYC and construction of a 30-classroom secondary school premises on the cleared site to provide the following facilities —

- (a) 30 classrooms;
- (b) three small group teaching rooms;
- (c) six special rooms, comprising a music room, a visual arts room, a computer assisted learning room, a multi-purpose room and two integrated science laboratories;
- (d) 11 equipment-based multi-purpose rooms, comprising a biology laboratory, a preparation room for biology laboratory¹, a physics laboratory, a chemistry laboratory, a preparation room for physics and chemistry laboratory, a dark room for physics, a design and technology workshop, a needlework room, a home management room, a geography room and a computer room;
- (e) a library-cum-language room;
- (f) a guidance activity room;
- (g) two interview rooms;
- (h) a staff room and a staff common room;
- (i) a conference room;
- (j) an assembly hall;
- (k) a student activity centre;
- (l) covered playgrounds;
- (m) multi-purpose areas;

/(n)

¹ The preparation room for biology laboratory is made up of two rooms to suit the floor layout.

- (n) two basketball courts; and
- (o) ancillary facilities including an accessible/fireman's lift, facilities for the disabled, a tuck shop-cum-central portioning area, stores and toilets, etc.

4. The proposed new school premises located at 8 Sheung Wo Street with a site area of about 4 533 square metres (m²) will meet the planning target of providing 2 m² of open space per student. The site and location plan, floor plans, sectional drawings, an artist's impression and a plan of barrier-free access of the new school premises are at **Enclosures 1 to 5** respectively.

5. WYC plans to commence the proposed works upon obtaining funding approval from the Finance Committee for target completion in around three years.

JUSTIFICATION

6. It is the Government's plan to, based on the needs of individual schools, improve the physical conditions and facilities of school premises not built according to the prevailing standards through re-provisioning and in-situ redevelopment projects. WYC is a co-educational aided secondary school with 24 operating classes. The main school building of WYC was built in 1971. Although the school has benefited from the School Improvement Programme previously, it still lacks certain standard facilities such as small group teaching room, computer assisted learning room and student activity centre. In addition, some of its existing facilities such as classrooms, music room, laboratories, visual arts room, library and language room are under-sized according to prevailing standards. The proposed redevelopment project will upgrade the facilities of the school to meet the prevailing standards, and improve the learning and teaching environment.

7. During redevelopment, WYC will be temporarily accommodated at the ex-premises of Cognitio College (Kowloon) at 96 King Fuk Street, San Po Kong.

8. Upon completion of the proposed capital works project, WYC may operate up to 30 classes in the new school premises, subject to the actual enrolment and operational needs.

/FINANCIAL

FINANCIAL IMPLICATIONS

9. WYC estimates the capital cost of the project to be \$473.3 million in MOD prices, broken down as follows –

	\$million
	(in MOD prices)
(a) Demolition works	9.5
(b) Site formation	54.9
(c) Piling	18.9
(d) Building ²	206.6
(e) Building services	81.6
(f) Drainage	9.4
(g) External works	15.1
(h) Additional energy conservation, green and recycled features	7.9
(i) Furniture and equipment (F&E) ³	6.1
(j) Consultants' fees for	11.6
(i) contract administration	10.6
(ii) management of resident site staff (RSS)	1.0

/(k)

² Building works cover construction substructure and superstructure of the building.

³ The estimated cost of F&E is prepared with reference to the F&E reference list provided by the Education Bureau (EDB) for a new 30-classroom secondary school adopting the standard schedule of accommodation. The actual cost will be subject to a survey on the conditions of the existing F&E.

		\$million (in MOD prices)
	(k) Remuneration of RSS	8.7
	(l) Contingencies	43.0
	Total	473.3

10. WYC proposes 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 6**. The construction floor area (CFA) of the project is about 13 968 m². The estimated construction unit cost, represented by the building and building services costs, is \$20,633 per m² of CFA in MOD prices. This unit cost is comparable to that of similar projects undertaken by the Government.

11. Subject to funding approval, WYC plans to phase the expenditure as follows –

Year	\$ million (in MOD prices)
2021 – 22	8.9
2022 – 23	63.8
2023 – 24	177.2
2024 – 25	124.5
2025 – 26	41.9
2026 – 27	29.1
2027 – 28	27.9
	473.3

12. 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 2021 to 2028. WYC will deliver the construction works through lump sum contracts because the School can clearly define the scope of works in advance. The contracts will provide for price adjustment. The final amount of capital subvention shall be subject to submission of final account by WYC to the satisfaction of the Government.

13. The cost of F&E for the project, estimated to be about \$6.1 million (in MOD prices), will be borne by the Government according to the existing policy. We estimate the annual recurrent expenditure⁴ arising from this project to be \$81.2 million upon full commissioning of the new school premises.

PUBLIC CONSULTATION

14. We provided the Social Services Committee of the Kowloon City District Council with an information paper on the latest details of the proposed in-situ redevelopment project in December 2020. Members of the Committee did not raise any concern about the project.

15. We consulted the Legislative Council Panel on Education on 30 March 2021. 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

16. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). WYC has completed a Preliminary Environmental Review (PER) for the project in April 2021. The PER has concluded and the Director of Environmental Protection agreed that the project would not have any long-term environmental impacts.

/17.

⁴ The estimated annual recurrent expenditure arising from this project is prepared on the basis of the standard unit cost for a 30-classroom aided secondary school for the 2019/20 school year.

17. WYC will incorporate into the works contract the mitigation measures recommended in the PER to control the environmental impacts arising from the project to within established standards and guidelines. These measures include the installation of well-gasketed windows for noise sensitive rooms, provision of air-conditioning installations for all standard teaching facilities; the use of silencers, mufflers, acoustic linings or shields for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities to minimize dust generation, and proper treatment of site runoff to avoid illegal effluent discharge during construction.

18. At the planning and design stages, WYC 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, WYC will require the contractor to reuse inert construction waste (e.g. use of excavated materials for filling within the site) on site as far as possible in order to minimise the disposal of inert construction waste at public fill reception facilities (PFRFs)⁵. WYC 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.

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

20. WYC estimates that the project will generate in total 47 810 tonnes of construction waste. Of these, WYC will reuse 25 817 tonnes (54%) of inert construction waste on site and deliver 17 212 tonnes (36%) of inert construction waste to PFRFs for subsequent reuse. WYC will recycle 947 tonnes (2%) and dispose of the remaining 3 834 tonnes (8%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRFs and landfill sites is estimated to be \$2.0 million for this project (based on a unit charge rate of /\$71

⁵ 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.

\$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

21. The project will not affect any heritage sites, i.e. all declared monuments, proposed monuments, graded historic sites/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.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

23. 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; and
- (b) photovoltaic system.

24. For greening features, this project will provide green roof and landscape features/ greening provisions for better building environmental performance.

25. For recycled features, this project will adopt rainwater harvesting system for irrigation purpose.

26. The total estimated additional cost for adoption of the above features is around \$7.9 million (including \$0.8 million for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 6.0% energy savings in the annual energy consumption with a payback period of about ten years.

/BACKGROUND

BACKGROUND INFORMATION

27. We upgraded **97EB** to Category B in September 2018. WYC engaged a contractor to undertake ground investigation, and consultants to undertake various services at a total cost of about \$13 million. We have charged this amount to block allocation **Subhead 8100QX** “Alterations, additions, repairs and improvements to education subvented building”. The consultants and contractor have completed ground investigation and layout design works for the pre-contract stage.

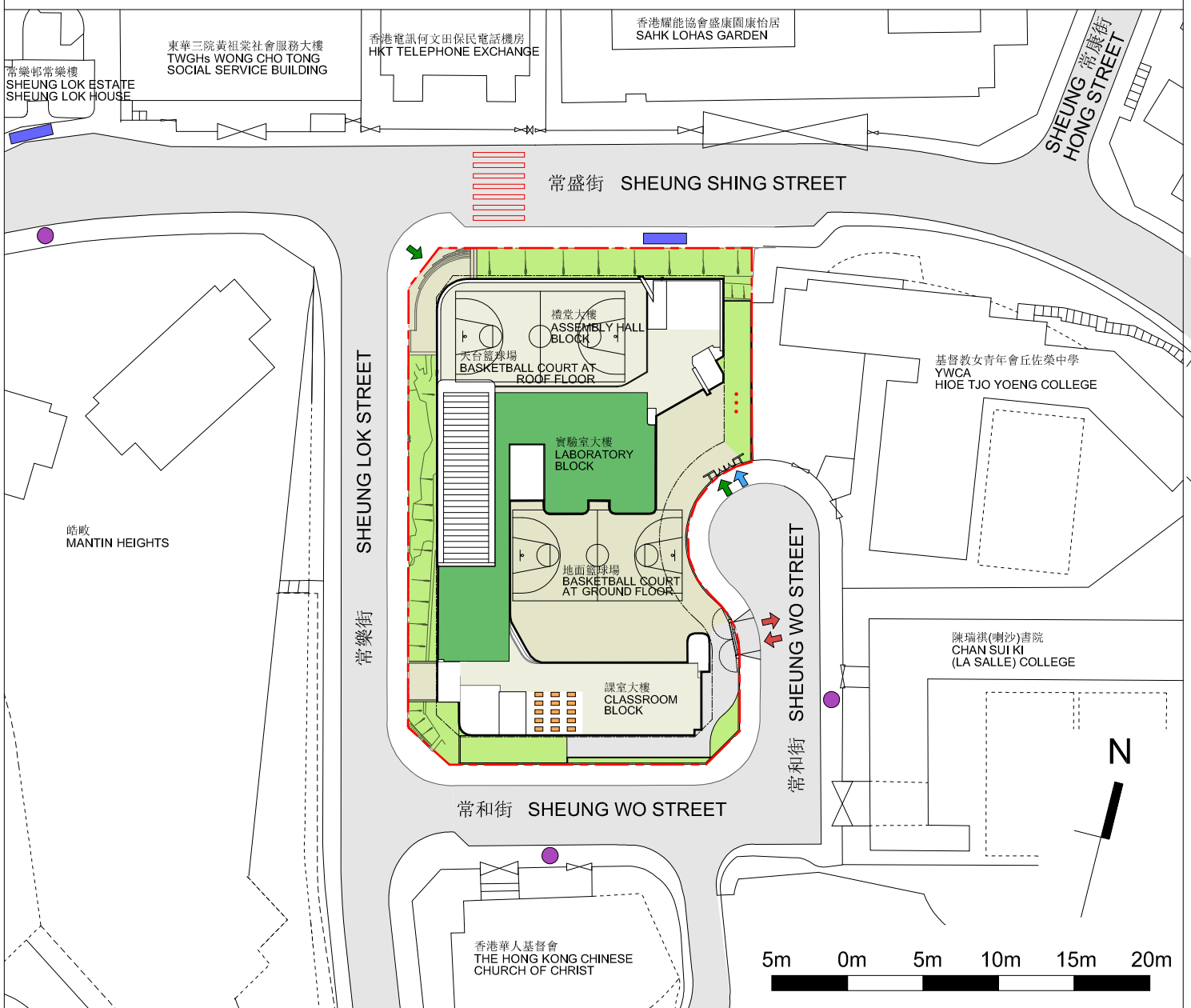
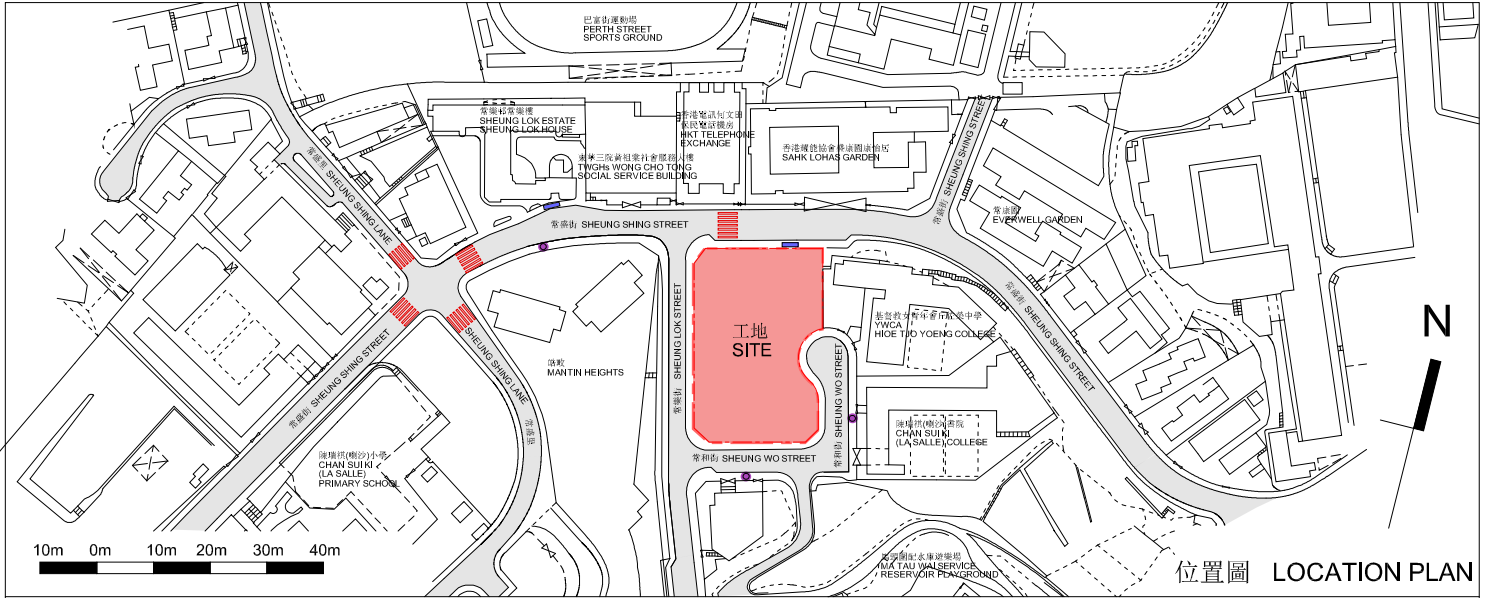
28. Of the 26 trees within the project boundary, all of them which are not important trees⁶ will be felled. WYC will incorporate planting proposals as part of the project, including estimated quantities of 26 trees and 12 512 shrubs.

29. We estimate that the proposed works will create about 220 jobs (190 for labourers and 30 for professional or technical staff) providing a total employment of 3 150 man-months.

Education Bureau
May 2021

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) tree of cultural, historical or memorable significance e.g. Fung Shui trees, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) tree 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, tree 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.



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|------------------------------|--|--|---------------------------------------|---------------------------------------|-----------------------------|---------------------------|---|
| — 工地界線
SITE BOUNDARY | — 現有行人過路處
EXISTING AT-GRADE PEDESTRIAN CROSSING | ☀ 太陽能光伏板
PHOTOVOLTAIC PANEL | ↑ 行人出入口
PEDESTRIAN ENTRANCE / EXIT | ↑ 車輛出入口
VEHICULAR INGRESS / EGRESS | ■ 地面綠化
AT-GRADE GREENING | ■ 天台綠化
LANDSCAPED ROOF | ■ 通道 / 露天場地
CIRCULATION / OPEN SPACE |
| ● 現有巴士站
EXISTING BUS STOP | ● 現有小巴士站
EXISTING MINIBUS STOP | ↑ 無障礙出入口
BARRIER-FREE ENTRANCE / EXIT | | | | | |

工地平面圖
SITE PLAN

97EB
九龍常和街8號華英中學重建計劃
IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT
8 SHEUNG WO STREET, KOWLOON



<p>--- 工地界線 SITE BOUNDARY</p> <p>--- 無障礙通道 BARRIER-FREE ACCESS</p>	<p>■ 地面綠化 AT-GRADE GREENING</p> <p>■ 教室 TEACHING ROOM</p>	<p>■ 通道 / 露天場地 CIRCULATION / OPEN SPACE</p> <p>■ 暢通易達升降機 ACCESSIBLE LIFT</p>	<p>■ 暢通易達洗手間 ACCESSIBLE TOILET</p> <p>■ 電機房 PLANT ROOM</p>	<p>■ 教職員範圍 STAFF AREA</p> <p>■ 洗手間 TOILET CHANGING RM</p>
<p>下層地面平面圖 LOWER GROUND FLOOR PLAN</p>	<p>97B 九龍常和街8號華英中學重建計劃 IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT 8 SHEUNG WO STREET, KOWLOON</p>			



工地界線 SITE BOUNDARY	行人出入口 PEDESTRIAN ENTRANCE / EXIT	地面綠化 AT-GRADE GREENING	通道 / 露天場地 CIRCULATION / OPEN SPACE	暢通易達洗手間 ACCESSIBLE TOILET	教職員範圍 STAFF 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	教室 TEACHING ROOM	暢通易達升降機 ACCESSIBLE LIFT	電機房 PLANT ROOM
					洗手間 TOILET CHANGING RM

地面平面圖
GROUND FLOOR PLAN

97B
九龍常和街8號華英中學重建計劃
IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT
8 SHEUNG WO STREET, KOWLOON



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| 工地界線
SITE BOUNDARY | 通道 / 露天場地
CIRCULATION / OPEN SPACE | 暢通易達洗手間
ACCESSIBLE TOILET | 教職員範圍
STAFF AREA |
| 無障礙通道
BARRIER-FREE ACCESS | 教學室
TEACHING ROOM | 暢通易達升降機
ACCESSIBLE LIFT | 電機房
PLANT ROOM |
| | | 洗手間
TOILET | 更衣室
CHANGING RM |

一樓平面圖
1/F FLOOR PLAN

97EB
九龍常和街8號華英中學重建計劃
IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT
8 SHEUNG WO STREET, KOWLOON



--- 工地界線
SITE BOUNDARY

--- 無障礙通道
BARRIER-FREE
ACCESS

通道 / 露天場地
CIRCULATION /
OPEN SPACE

天台綠化
LANDSCAPED
ROOF

暢通易達洗手間
ACCESSIBLE
TOILET

教學室
TEACHING
ROOM

禮堂 / 學生活動中心
ASSEMBLY HALL
STUDENT ACTIVITY
CENTRE

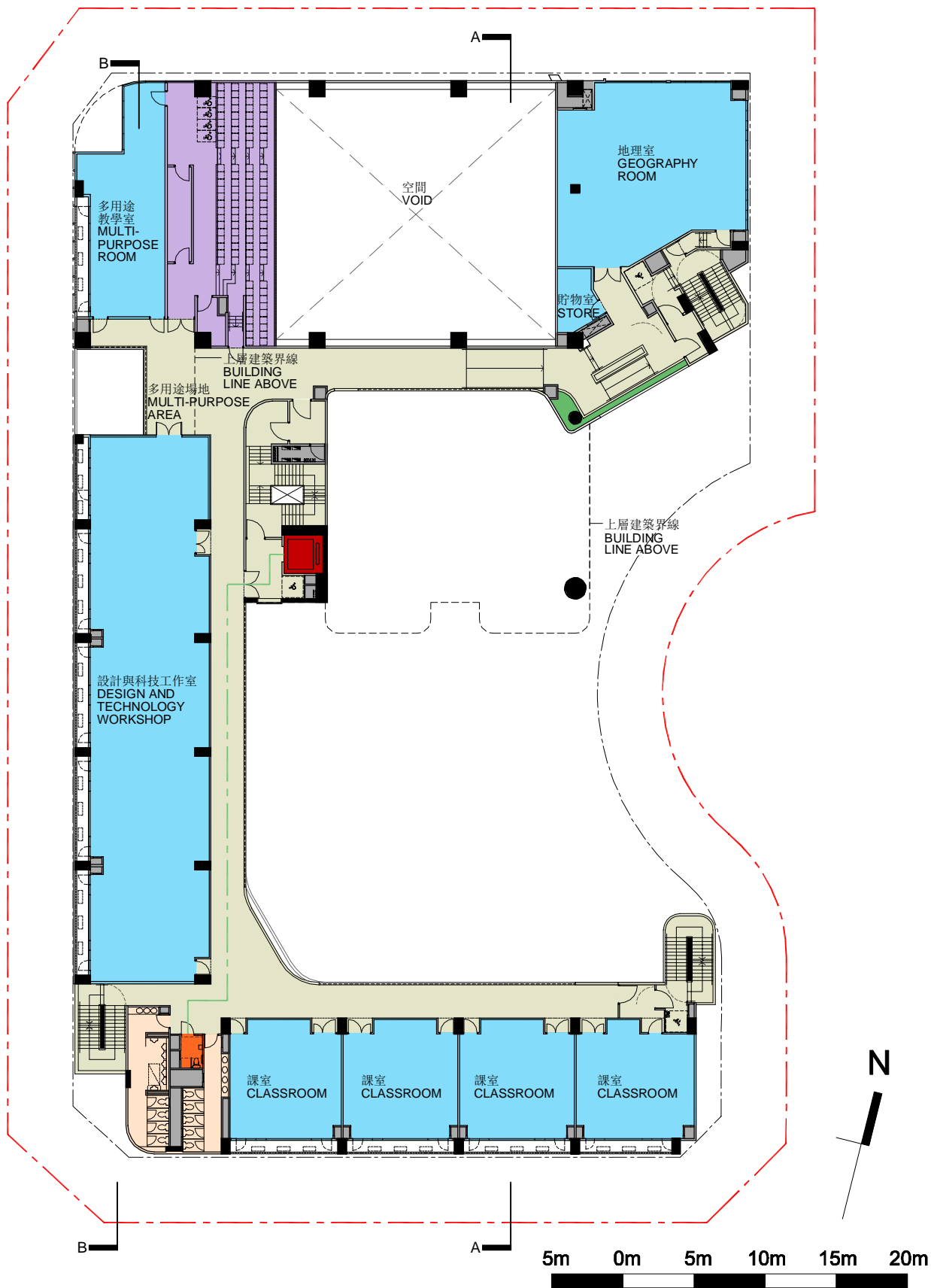
暢通易達升降機
ACCESSIBLE
LIFT

電機房
PLANT ROOM

洗手間
TOILET
CHANGING RM

二樓平面圖
2/F FLOOR PLAN

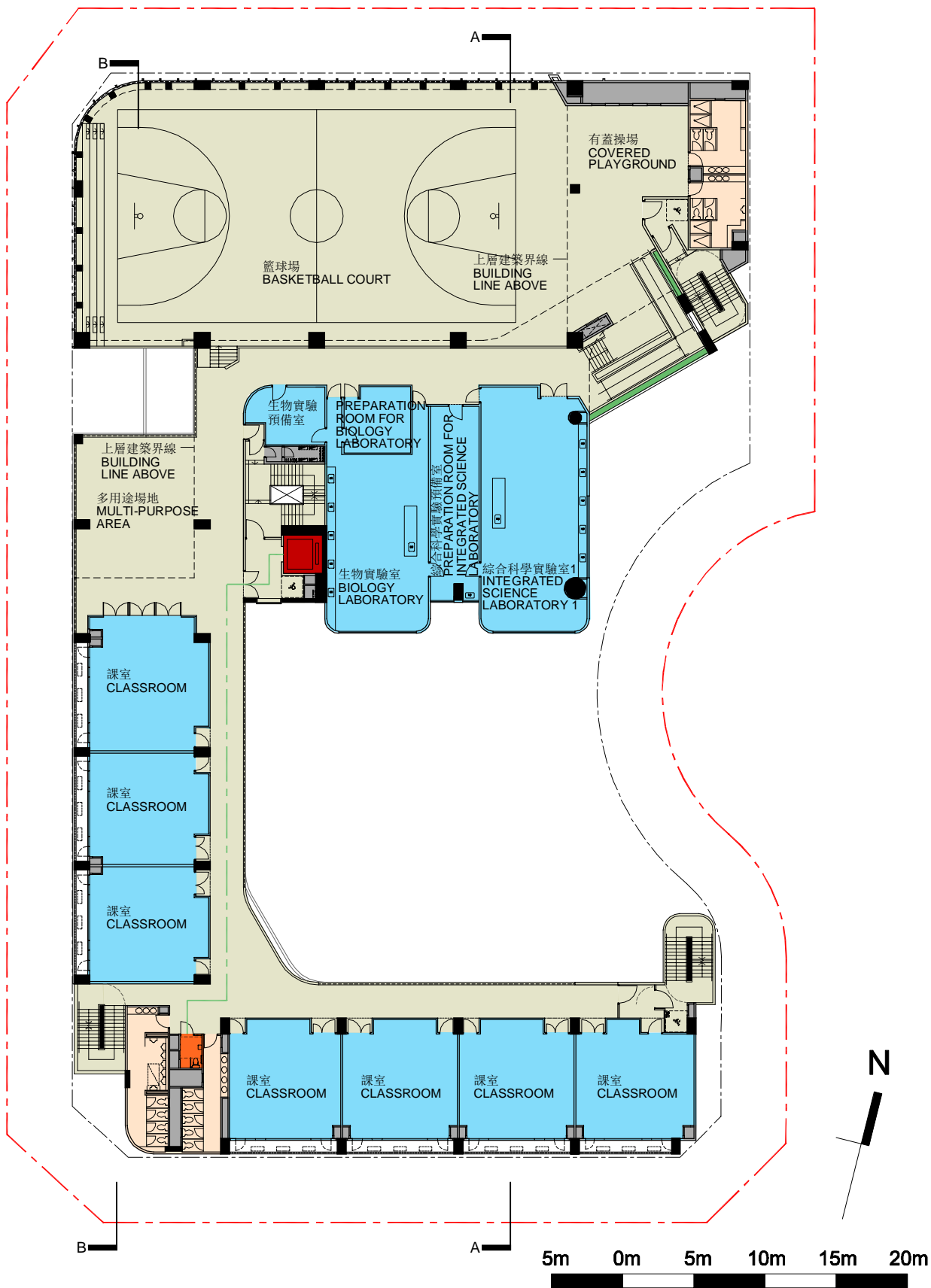
97B
九龍常和街8號華英中學重建計劃
IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT
8 SHEUNG WO STREET, KOWLOON



- - - 工地界線 SITE BOUNDARY
- - - 無障礙通道 BARRIER-FREE ACCESS
- 通道 / 露天場地 CIRCULATION / OPEN SPACE
- 教學室 TEACHING ROOM
- 暢通易達洗手間 ACCESSIBLE TOILET
- 暢通易達升降機 ACCESSIBLE LIFT
- 禮堂 / 學生活動中心 ASSEMBLY HALL / STUDENT ACTIVITY CENTRE
- 電機房 PLANT ROOM
- 洗手間 TOILET / CHANGING RM
- 天台綠化 LANDSCAPED ROOF

三樓平面圖 3/F FLOOR PLAN

97B 九龍常和街8號華英中學重建計劃 IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT 8 SHEUNG WO STREET, KOWLOON



--- 工地界線
SITE BOUNDARY

通道 / 露天場地
CIRCULATION /
OPEN SPACE

暢通易達洗手間
ACCESSIBLE
TOILET

--- 無障礙通道
BARRIER-FREE
ACCESS

天台綠化
LANDSCAPED
ROOF

教室
TEACHING
ROOM

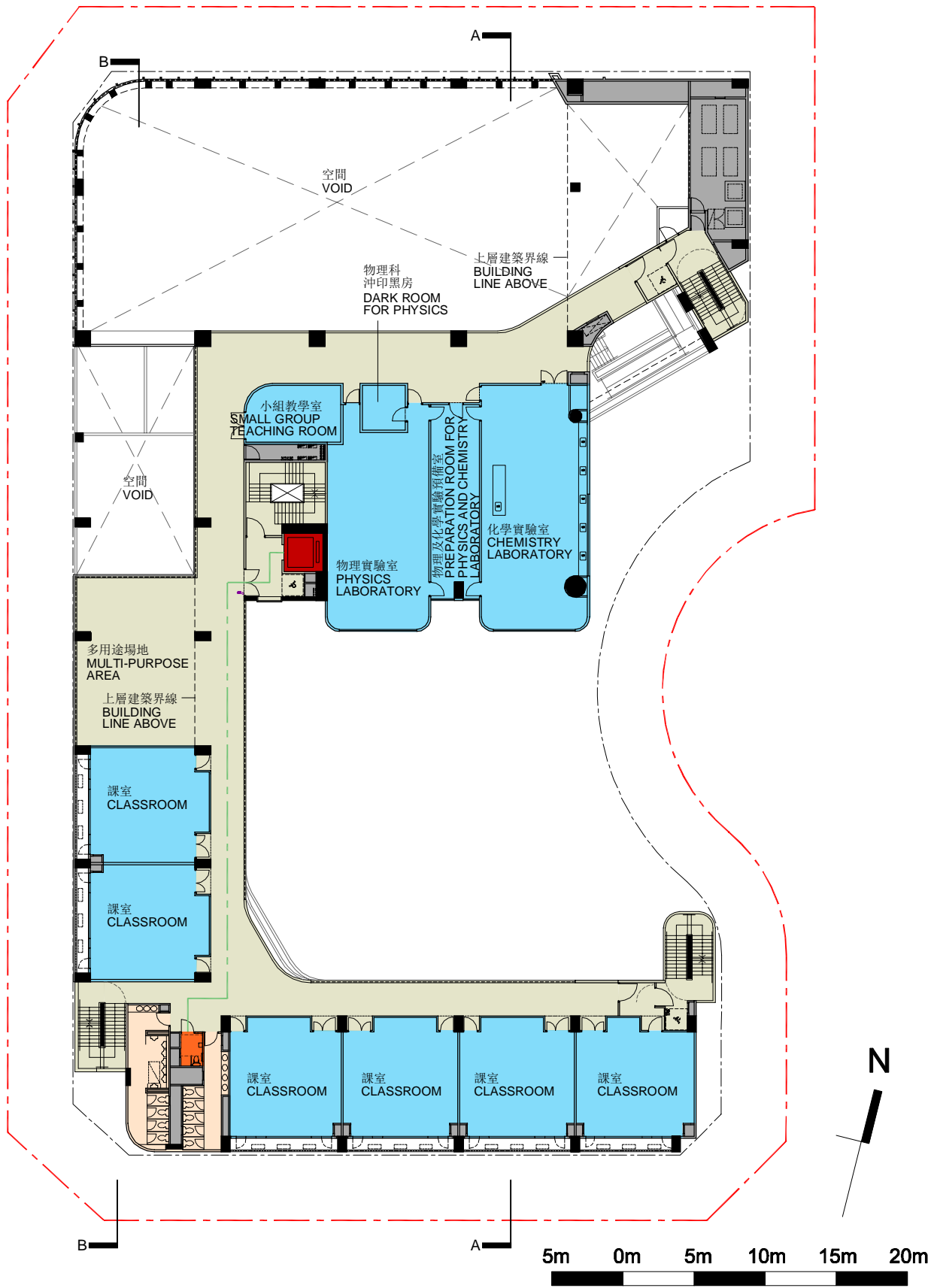
暢通易達升降機
ACCESSIBLE
LIFT

電機房
PLANT ROOM

洗手間
TOILET
CHANGING RM

四樓平面圖
4/F FLOOR PLAN

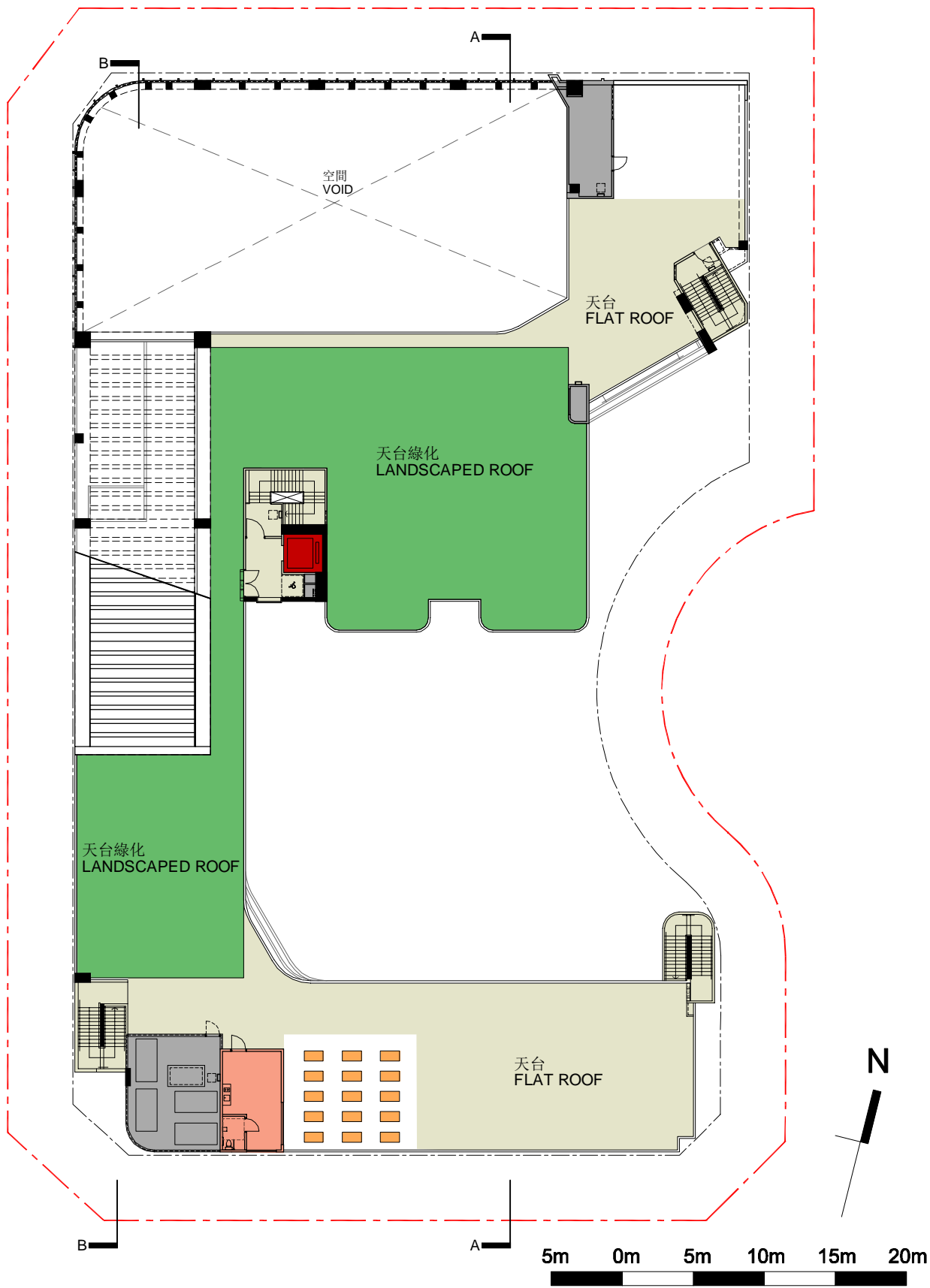
97B
九龍常和街8號華英中學重建計劃
IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT
8 SHEUNG WO STREET, KOWLOON



- - - 工地界線 SITE BOUNDARY
- - - 無障礙通道 BARRIER-FREE ACCESS
- 通道 / 露天場地 CIRCULATION / OPEN SPACE
- 暢通易達洗手間 ACCESSIBLE TOILET
- 教室 TEACHING ROOM
- 暢通易達升降機 ACCESSIBLE LIFT
- 電機房 PLANT ROOM
- 洗手間 TOILET
- 洗手間 CHANGING RM

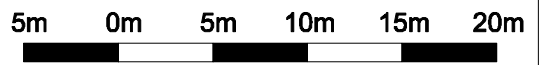
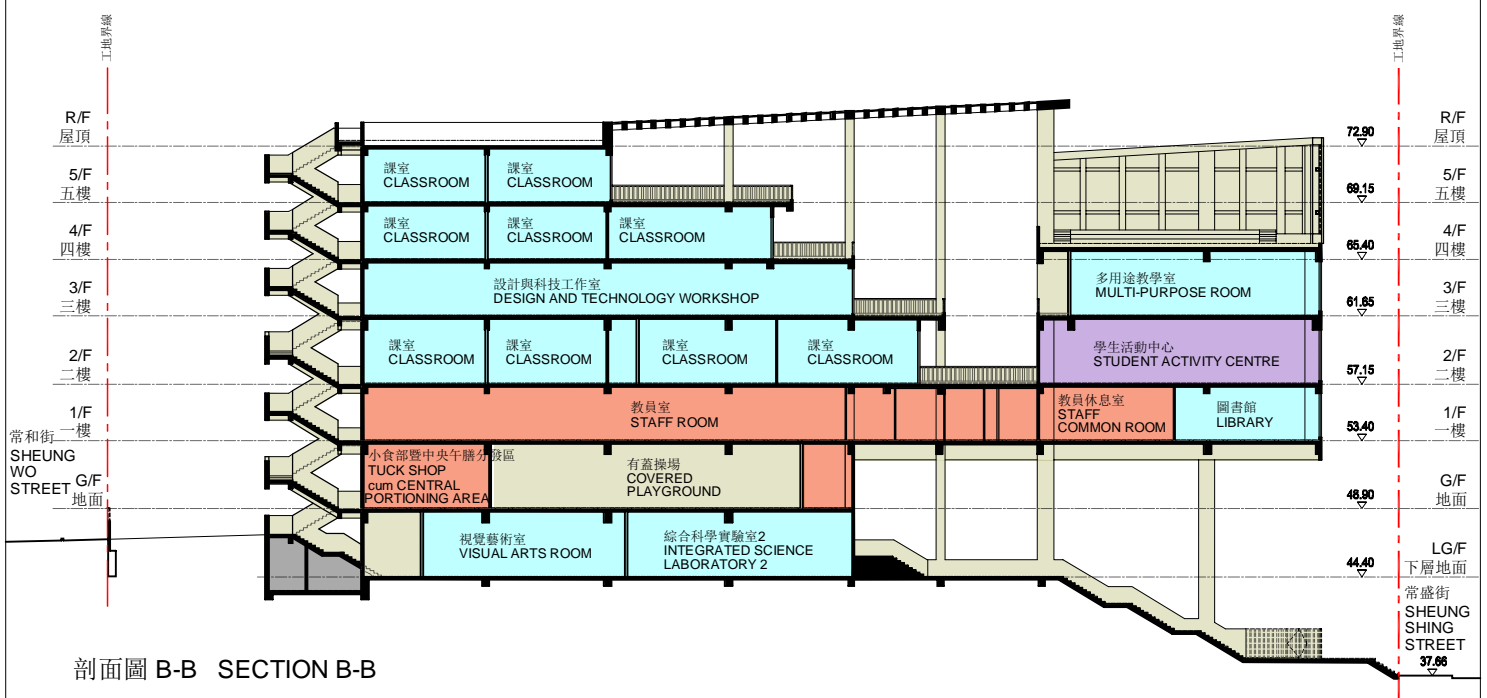
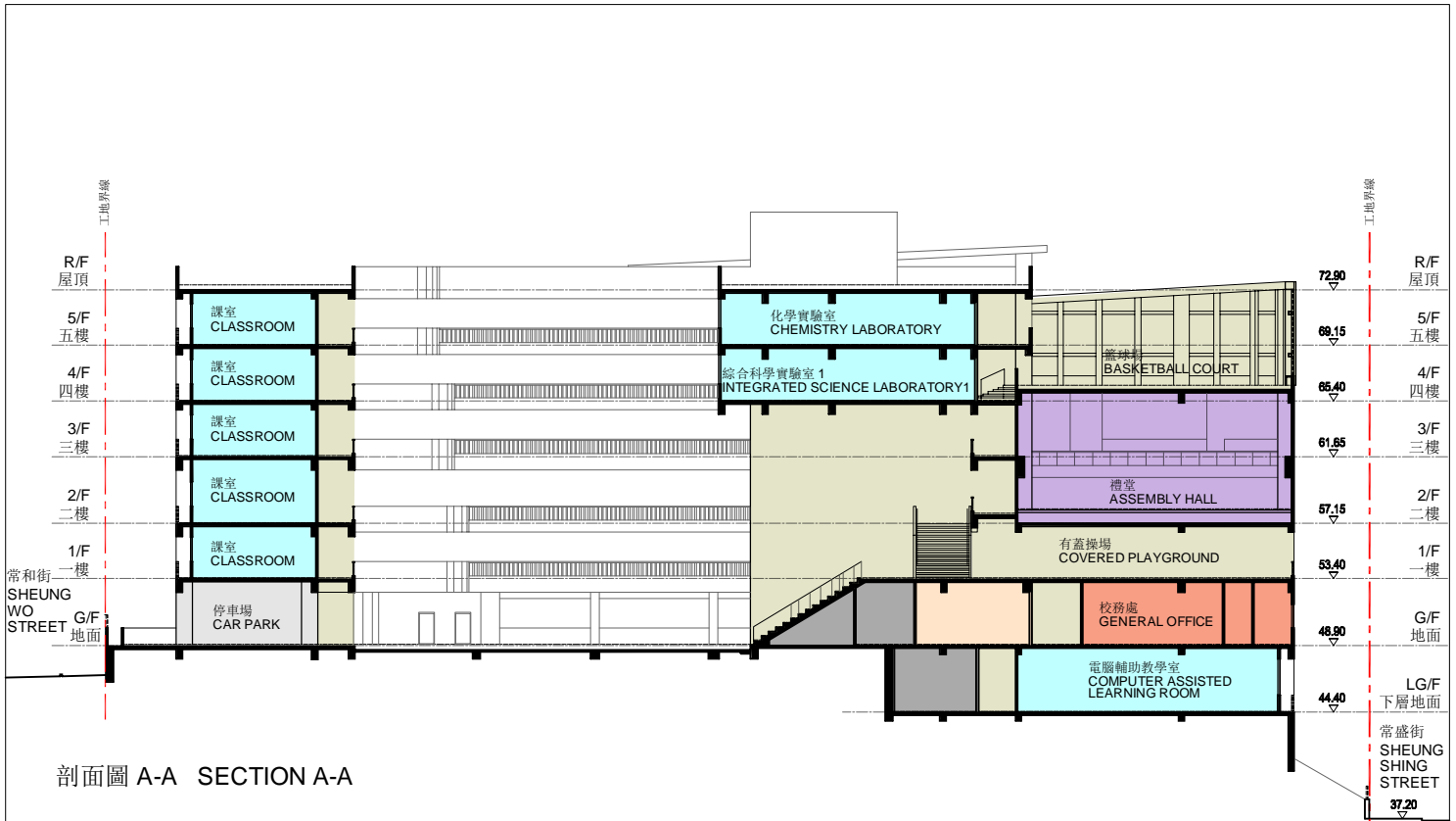
五樓平面圖
5/F FLOOR PLAN

97B
九龍常和街8號華英中學重建計劃
IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT
8 SHEUNG WO STREET, KOWLOON



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|------------------------------|------------------------------|---------------------------------------|---------------------|
| 工地界線
SITE BOUNDARY | 太陽能光伏板
PHOTOVOLTAIC PANEL | 通道 / 露天場地
CIRCULATION / OPEN SPACE | 教職員範圍
STAFF AREA |
| 無障礙通道
BARRIER-FREE ACCESS | 天台綠化
LANDSCAPED ROOF | 暢通易達升降機
ACCESSIBLE LIFT | 電機房
PLANT ROOM |

<p>天台平面圖 ROOF FLOOR PLAN</p>	<p>97B 九龍常和街8號華英中學重建計劃 IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT 8 SHEUNG WO STREET, KOWLOON</p>	
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- 無障礙通道 BARRIER-FREE ACCESS
- 通道 / 露天場地 CIRCULATION / OPEN SPACE
- 教職員範圍 STAFF AREA
- 電機房 PLANT ROOM
- 禮堂 / 學生活動中心 ASSEMBLY HALL / STUDENT ACTIVITY CENTRE
- 洗手間 TOILET / CHANGING RM
- 教學室 TEACHING ROOM



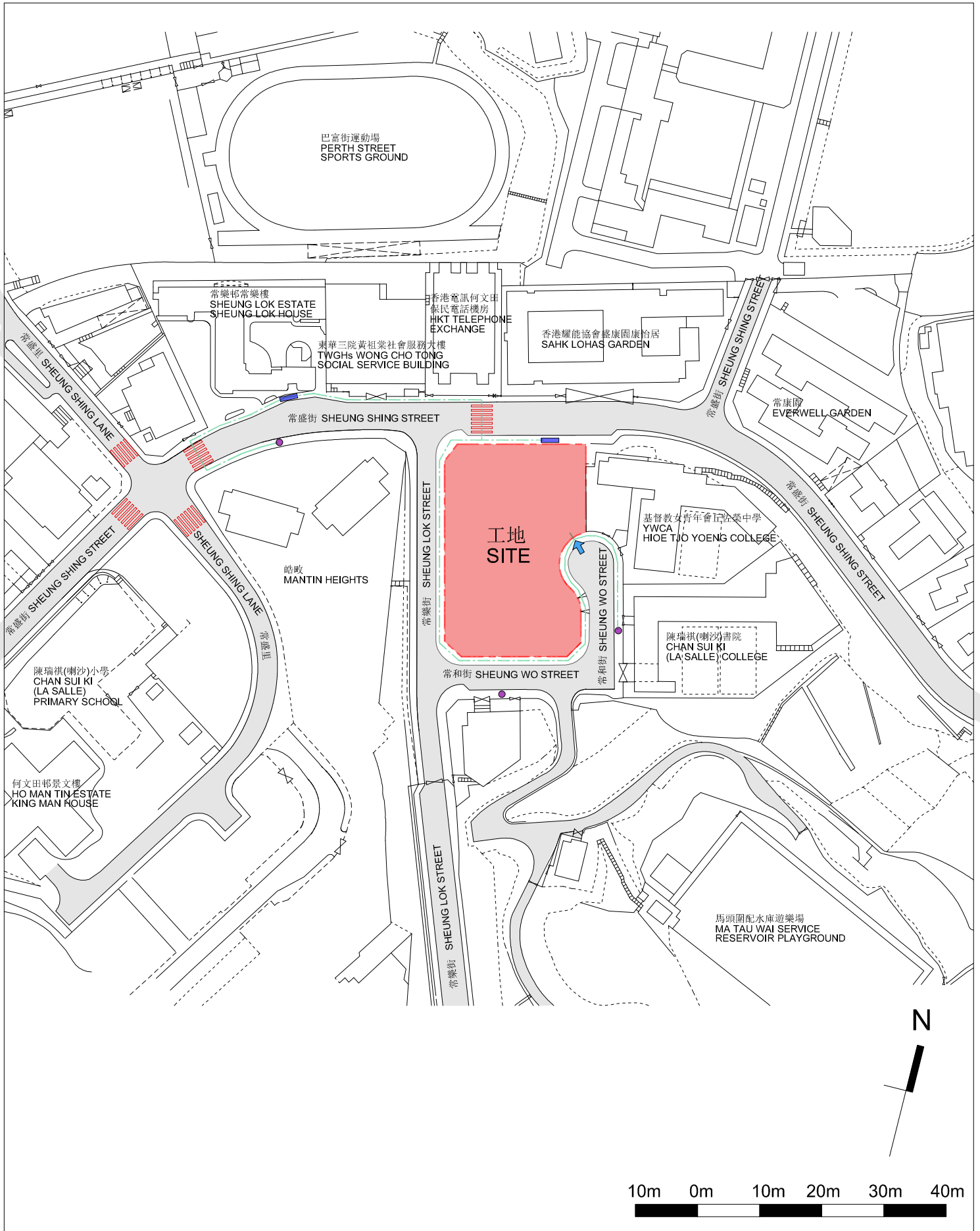
從西面望向中學的構思透視圖
PERSPECTIVE VIEW FROM WESTERN DIRECTION



從東面望向中學的構思透視圖
PERSPECTIVE VIEW FROM EASTERN DIRECTION

構思圖
ARTIST'S IMPRESSION

97EB
九龍常和街8號華英中學重建計劃
IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT
8 SHEUNG WO STREET, KOWLOON



<p>— 工地界線 SITE BOUNDARY</p> <p>— 現有巴士站 EXISTING BUS STOP</p>	<p>— 現有行人過路處 EXISTING AT-GRADE PEDESTRIAN CROSSING</p> <p>— 現有小巴士站 EXISTING MINIBUS STOP</p>	<p>— 無障礙出入口 BARRIER-FREE ENTRANCE / EXIT</p>	<p>— 無障礙通道 BARRIER-FREE ACCESS</p>
<p>無障礙通道平面圖 PLAN OF BARRIER-FREE ACCESS</p>		<p>97B 九龍常和街8號華英中學重建計劃 IN-SITU REDEVELOPMENT OF WA YING COLLEGE AT 8 SHEUNG WO STREET, KOWLOON</p>	

97EB – In-situ redevelopment of Wa Ying College at 8 Sheung Wo Street, Kowloon

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	–	–	–	5.9
	Technical	–	–	–	3.0
				Sub-total	8.9#
(b) Resident site staff (RSS) costs (Note 3)	Professional	-	-	-	-
	Technical	168	14	1.6	8.1
				Sub-total	8.1
Comprising -					
(i) Consultant's fees for management of RSS				0.8#	
(ii) Remuneration of RSS				7.3#	
				Total	17.0

*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 **97EB**. 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 to correlate with MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 9 of the main paper.