For discussion **PWSC(2019-20)17**
on 12 June 2019

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 - CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Universities
The Hong Kong Polytechnic University
30EK – Campus Expansion at Ho Man Tin Slope

Members are invited to recommend to the Finance Committee the upgrading of **30EK** to Category A at an estimated cost of $1,418.0 million in money-of-the-day prices for campus expansion for The Hong Kong Polytechnic University.

PROBLEM

The campus of the Hong Kong Polytechnic University (PolyU) needs expansion to enable the university to deliver the health-related training needs for allied health services for Hong Kong.

PROPOSAL

2. The Secretary-General, University Grants Committee (SG, UGC), on the advice of the Director of Architectural Services (D Arch S) as UGC's Technical Adviser, and with the support of Secretary for Food and Health and the Secretary for Education, proposes to upgrade **30EK** to Category A at an estimated cost of $1,418.0 million in money-of-the-day (MOD) prices for construction of an academic building at Ho Man Tin Slope.

/PROJECT …..

PROJECT SCOPE AND NATURE

3. The site occupies an area of around 11 800 square meters (m^2). The scope of works comprises the construction of an eleven-storey academic and administration building, providing approximately 10 344 m^2 in net operation floor area[1] (NOFA). The following facilities will be provided by the project –

(a) classrooms and lecture theatres of about 720 m^2 in NOFA;

(b) teaching and research laboratories of about 7 354 m^2 in NOFA;

(c) study spaces of about 220 m^2 in NOFA;

(d) offices of about 1 890 m^2 in NOFA;

(e) support and amenities facilities of about 160 m^2 in NOFA; and

(f) public open space from ground floor to the podium deck, including two pedestrian walkways linking Oi Sen Path with Chung Hau Street.

4. Site and location plans, floor plans, view of the building (artist's impression), sectional plans and a list of facilities are at Enclosures 1 to 5 respectively. Subject to funding approval of the Finance Committee (FC), PolyU plans to start construction works in the third quarter of 2019 for completion by 2025. To meet the works programme, PolyU invited tenders for the site formation and foundation works of the project in March 2019. Tender will only be awarded after obtaining FC's funding approval.

JUSTIFICATION

5. In order to increase the manpower of healthcare professionals, the Government has substantially increased the number of healthcare-related training

/places …..

[1] NOFA is the floor area actually allocated to the users of a building for carrying out the intended activities. Unlike the construction floor area which takes into account all areas within the building structure envelope, NOFA does not include areas for such facilities (if any) as toilets, bathrooms and shower rooms, lift lobbies, stair halls, public or shared corridors, stairwells, escalators and lift shafts, pipe or services ducts, barrier-free access facilities, gender mainstreaming of facilities, refuse chutes and refuse rooms, balconies, verandas, open decks and flat roofs, parking spaces, loading and unloading areas and mechanical plant rooms, etc.

places by about 60% (from about 1 150 to about 1 800) in the past decade. In the 2019/20 to 2021/22 UGC triennium, the Government will further increase the number of healthcare-related UGC-funded first-year-first-degree annual intake places of PolyU by 45 for each academic year (including 20 nursing, 20 physiotherapy and 5 optometry).

6. The development parameters of the project are generally based on PolyU's planning application as approved by the Town Planning Board in March 2016.

7. The academic building will provide additional teaching and research facilities for students of the Department of Rehabilitation Science and the School of Optometry, which is in line with the 2018 Policy Address on increasing healthcare manpower to meet the needs of the society.

8. The project will provide health clinics, publicly accessible open space, landscaped area and pedestrian routes linking Oi Sen Path with Chung Hau Street with a view to serving the local community.

FINANCIAL IMPLICATIONS

9. We estimate the capital cost of the project to be $1,418 million in MOD prices, broken down as follows –

		$ million (in MOD prices)
(a)	Site development	76.6
(b)	Piling	167.7
(c)	Building	416.6
(d)	Building services	255.8
(e)	Drainage	92.8
(f)	External works	147.1
(g)	Soft landscaping	16.2

/(h) …..

			$ million (in MOD prices)
(h)	Additional energy conservation, green and recycled features		24.8
(i)	Furniture and equipment		64.9
(j)	Consultants' fees for		23.8
	(i) Contract administration	8.7	
	(ii) Site supervision		
	(1) Management of resident site staff (RSS)	1.6	
	(2) Remuneration of resident site staff (RSS)	13.5	
(k)	Contingencies		131.7
		Total	1,418.0

10. PolyU will engage consultants to undertake contract administration and site supervision of the construction of the project. A detailed breakdown of the estimates for consultants' fees and resident site staff costs by man-months is at Enclosure 6.

11. The construction floor area (CFA) of this project is approximately 18 978 m^2. The estimated construction unit cost, represented by the building and building services costs, is $35,430 per m^2 of CFA in MOD prices. The D Arch S considers, taking into account the building form, site constraint, the relative percentage of laboratory space and the statutory conditions imposed on the development, the estimated construction unit cost is reasonable as compared with similar projects for UGC-funded universities. A detailed account of the CFA vis-à-vis the construction unit cost of **30EK** is at Enclosure 7.

12. Subject to funding approval, PolyU plans to phase the expenditure as follows –

/**Year** …..

Year	$ million (MOD)
2019-2020	42.9
2020-2021	64.8
2021-2022	152.6
2022-2023	387.0
2023-2024	383.9
2024-2025	268.2
2025-2026	42.9
2026-2027	44.4
2027-2028	31.3
	1,418.0

13. 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 2019 to 2028. PolyU will award the contracts on a lump-sum basis as PolyU can clearly define the scope of works in advance. The contracts will provide for price adjustment.

14. The project has no impact on tuition fees. The additional recurrent costs associated with this project will be absorbed by PolyU. The proposal has no additional recurrent financial implications for the Government.

PUBLIC CONSULTATION

15. The proposed new academic building is located on government land at a slope site in Ho Man Tin opposite to its main campus. Before the planning application was approved in 2016, PolyU consulted the Housing and Infrastructure Committee of the Kowloon City District Council on the project on 7 March 2013. Members generally supported the project. PolyU also consulted its staff and students on the project in various presentation and discussion sessions[2]. No adverse comment on the project has been received and the project is generally supported by the University community.

/16. …..

[2] Regular meetings with the user departments have been conducted to consult their comments on the projects. The project is also presented to staff and student during the PolyU 80th Anniversary Exhibition on Campus Development & Green Deck during 3 November to 8 December 2018.

16. We consulted the Legislative Council Panel on Health Services and Panel on Education on 21 January 2019. Members supported submitting the funding proposal to the Public Works Subcommittee for consideration. In response to Members' requests for supplementary information, an information note was issued on 23 May 2019.

ENVIRONMENTAL IMPLICATIONS

17. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). It will not cause any long-term adverse environmental impact. We have included in the project estimates the cost to implement suitable mitigation measures to control short term environmental impacts.

18. During construction, PolyU 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. When the buildings are in use, PolyU will equip all noise sensitive rooms in the proposed development with central air conditioning system and well-gasketted windows / glass wall system to abate road traffic noise impact from nearby roads.

19. At the planning and design stages, PolyU has considered measures (e.g. the optimisation of the foundation layout by suitable piling design and the use of metal hoarding frameworks and signboards so that these materials can be recycled and reused in other projects) to reduce the generation of construction waste where possible. In addition, PolyU will require the contractor to reuse inert construction waste (e.g. excavated materials) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities[3]. PolyU will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

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[3] 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.

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

21. PolyU estimates that the project will generate in total about 44 440 tonnes of construction waste. Of these, PolyU will reuse about 9 360 tonnes (21%) of inert construction waste on site, and deliver 30 620 tonnes (69%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, PolyU will dispose of 4 460 tonnes (10%) of non-inert construction waste at landfills. The total cost of accommodating construction waste at public fill reception facilities and landfill sites, together with the cost for handling mixed inert and non-inert construction waste at sorting facilities, is estimated to be $3.1 million for this project (based on a unit cost of $71/tonne for disposal at public fill reception facilities and $200 /tonne at landfills respectively as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

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

(a) variable speed drive for chillers;

(b) demand control of supply air;

(c) heat energy reclaim of exhaust air;

(d) building energy management system; and

(e) photovoltaic system.

23. For greening features, this project will provide green roof and landscape features/ greening provisions for better building environmental performance. The external wall will also be partially screened by vertical greening.

/24. …..

24. For recycled features, we will adopt rainwater harvesting system and grey water recycling system for landscape irrigation and toilet flushing respectively.

25. The total estimated additional cost for adoption of the above features is around $24.8 million (including $2.4 million for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 5.5% energy savings in the annual energy consumption with a payback period of about eight years.

HERITAGE IMPLICATIONS

26. This project will not affect any heritage site, 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

27. The project does not require any land acquisition.

BACKGROUND INFORMATION

28. To support the second 10-year hospital development plan, improve the clinic facilities in the Department of Health, and upgrade and increase healthcare teaching facilities, the Government has set aside $300 billion as announced in the 2018-19 Budget. Out of this $300 billion provision, the Government has earmarked about $20 billion for short, medium and long-term works projects to upgrade and increase the healthcare teaching facilities of The Chinese University of Hong Kong (CUHK), and the University of Hong Kong (HKU). The latest packages of works projects are set out below –

(a) CUHK

(i) Renovation of facilities in Choh-Ming LI Basic Medical Sciences Building (BMSB) (Short-term project);

(ii) Construction of a teaching-research complex in Tai Po Area 39 (Medium-term project); and

/(iii) …..

(iii) Construction of a multi-purpose building for CUHK's Faculty of Medicine and student residence around the Prince of Wales Hospital (Long-term project)

(b) PolyU

(i) Renovation of healthcare-related teaching facilities within the PolyU campus (Short-term project);

(ii) Campus expansion at Ho Man Tin Slope (Medium-term project); and

(iii) Construction of an integrated teaching building (Long-term project)

(c) HKU

(i) Enhancement of facilities cum medical campus development (Short-term project);

(ii) Construction of additional academic building and ancillary facilities for HKU's Faculty of Medicine (Medium-term project); and

(iii) Redevelopment of Patrick Manson Building at No. 7 Sassoon Road and construction of a university corridor at Sassoon Road Campus (Long-term project).

HKU and CUHK have presented funding proposals for their short to medium expansion needs. This paper focuses on the PolyU.

29. To meet the short to medium term expansion needs, PolyU now proposes constructing an academic building at Ho Man Tin Slope with a view to coping with the additional UGC-funded healthcare training places as specified by the Government. For the long-term works project, the Government will continue to assist PolyU to actively plan for relevant expansion.

30. We upgraded **30EK** to Category B in October 2015. PolyU engaged consultants to carry out topographical survey, site investigation, preliminary design, detailed design and to prepare tender documents at a total cost of $14.3 million. We charged this amount to block allocation **Subhead 8100EX** "Alterations, additions, repairs and improvements to the campuses of UGC-funded institutions". The consultants have completed the topographical survey, site

/investigation …..

investigation, preliminary design and detailed design of the project. Parallel tendering for foundation and site formation works has been adopted in this project.

31. The project will involve felling of 61 trees. All trees to be felled are not important trees[4]. PolyU will incorporate planting proposals as part of the project, including estimated quantities of 278 trees, 11 000 shrubs, 130 000 ground covers and 1 500 m^2 turfs.

32. We estimate that the proposed works will create about 360 jobs (325 for labourers and 35 for professional or technical staff) providing a total employment of 10 800 man-months.

Food and Health Bureau
Education Bureau
June 2019

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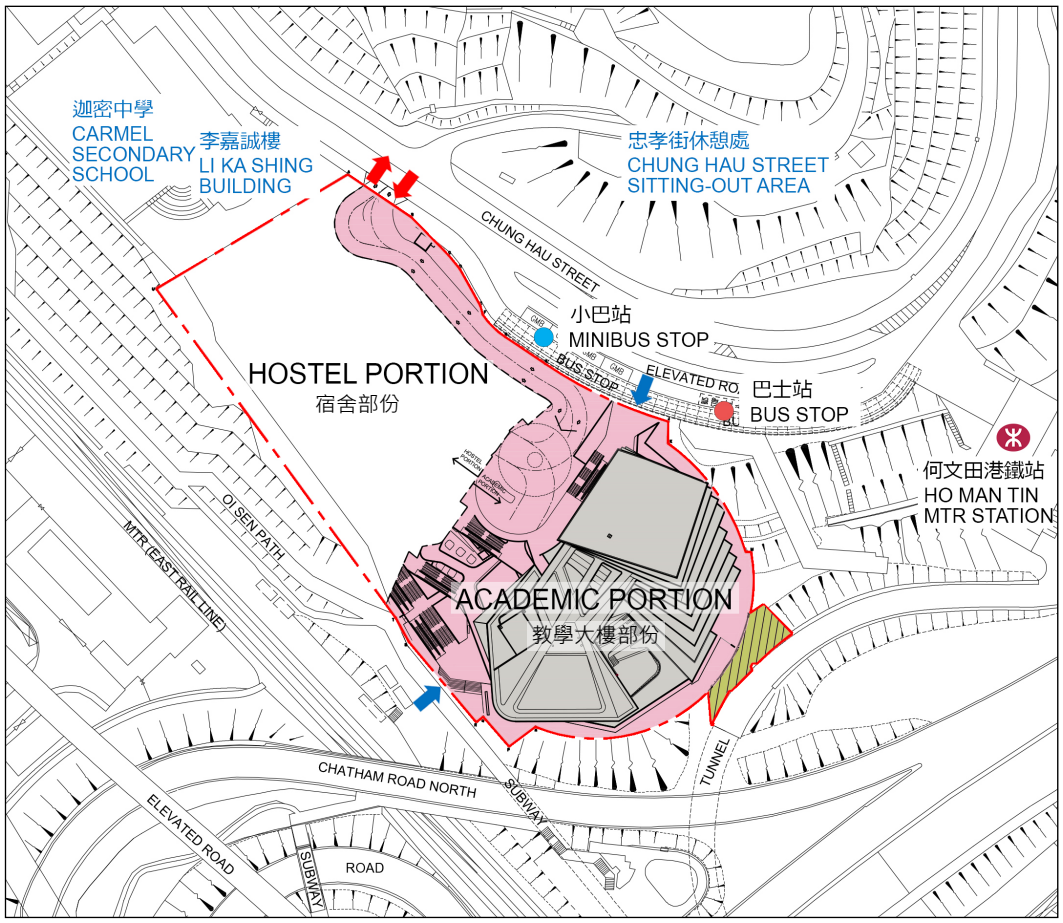
[4] "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

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

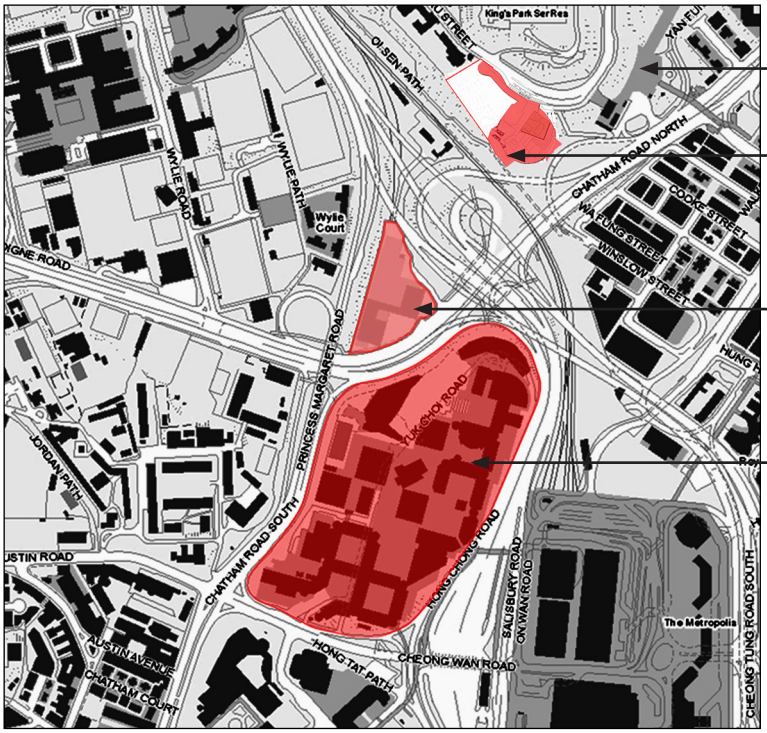


SITE AREA
(excluding green hatched black area):
11800 m²
工地面積
(綠色黑影地帶除外): 11800 平方米

- SITE AREA FOR HOSTEL PORTION: 6853 m²
宿舍工地面積 : 6853 平方米

- SITE AREA FOR ACADEMIC PORTION: 4947 m²
教學大樓工地面積 : 4947 平方米

SITE PLAN
工地平面圖 SCALE 1:1500



Ho Man Tin Station 何文田站

The Hong Kong Polytechnic University - Campus Expansion at Ho Man Tin Slope
香港理工大學 – 何文田斜坡校園擴建工程

The Hong Kong Polytechnic University Phase 8 香港理工大學第八期

The Hong Kong Polytechnic University
香港理工大學校園

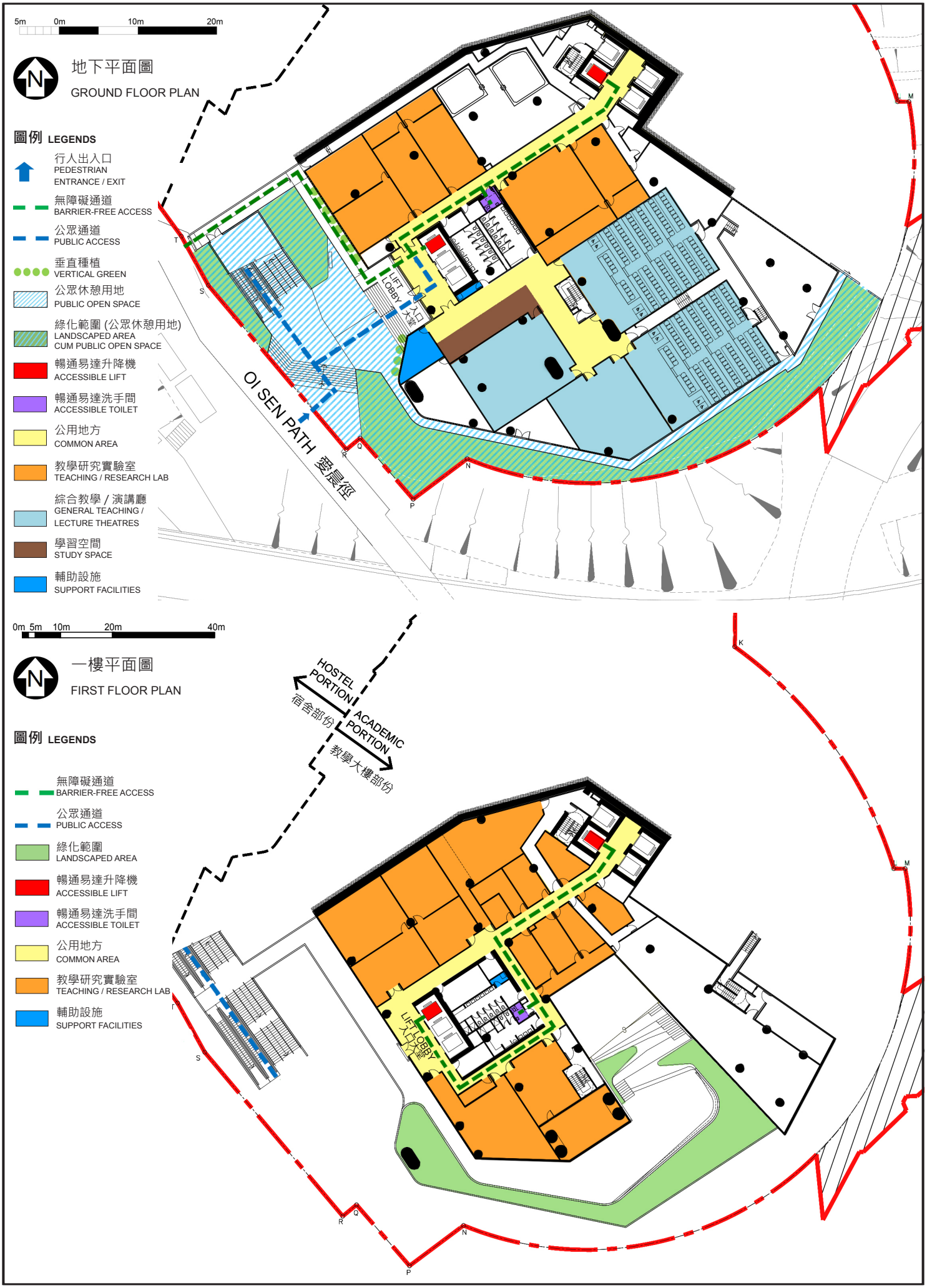
LOCATION PLAN
位置圖

車輛出入口
VEHICULAR INGRESS / EGRESS

行人出入口
PEDESTRIAN ENTRANCE / EXIT

工地界線
SITE BOUNDARY

綠色黑影線地帶
GREEN HATCHED BLACK AREA


5m 0m 10m 20m
地下平面圖
GROUND FLOOR PLAN
圖例 LEGENDS
行人出入口
PEDESTRIAN ENTRANCE / EXIT
無障礙通道
BARRIER-FREE ACCESS
公眾通道
PUBLIC ACCESS
垂直種植
VERTICAL GREEN
公眾休憩用地
PUBLIC OPEN SPACE
綠化範圍 (公眾休憩用地)
LANDSCAPED AREA CUM PUBLIC OPEN SPACE
暢通易達升降機
ACCESSIBLE LIFT
暢通易達洗手間
ACCESSIBLE TOILET
公用地方
COMMON AREA
教學研究實驗室
TEACHING / RESEARCH LAB
綜合教學 / 演講廳
GENERAL TEACHING / LECTURE THEATRES
學習空間
STUDY SPACE
輔助設施
SUPPORT FACILITIES
OI SEN PATH 愛晨徑
LIFT LOBBY 入口大廳
0m 5m 10m 20m 40m
一樓平面圖
FIRST FLOOR PLAN
圖例 LEGENDS
無障礙通道
BARRIER-FREE ACCESS
公眾通道
PUBLIC ACCESS
綠化範圍
LANDSCAPED AREA
暢通易達升降機
ACCESSIBLE LIFT
暢通易達洗手間
ACCESSIBLE TOILET
公用地方
COMMON AREA
教學研究實驗室
TEACHING / RESEARCH LAB
輔助設施
SUPPORT FACILITIES
HOSTEL PORTION
宿舍部份
ACADEMIC PORTION
教學大樓部份
LIFT LOBBY 入口大廳


5m 0m 10m 20m
N
二樓平面圖
SECOND FLOOR PLAN
圖例 LEGENDS
無障礙通道
BARRIER-FREE ACCESS
公眾通道
PUBLIC ACCESS
綠化範圍
LANDSCAPED AREA
暢通易達升降機
ACCESSIBLE LIFT
暢通易達洗手間
ACCESSIBLE TOILET
公用地方
COMMON AREA
教學研究實驗室
TEACHING / RESEARCH LAB
學習空間
STUDY SPACE
輔助設施
SUPPORT FACILITIES
LIFT LOBBY
入口大堂
T
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R
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P
N
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M


0m 5m 10m 20m 40m
N
三樓平面圖
THIRD FLOOR PLAN
圖例 LEGENDS
無障礙通道
BARRIER-FREE ACCESS
公眾通道
PUBLIC ACCESS
垂直種植
VERTICAL GREEN
綠化範圍
LANDSCAPED AREA
暢通易達升降機
ACCESSIBLE LIFT
暢通易達洗手間
ACCESSIBLE TOILET
公用地方
COMMON AREA
教學研究實驗室
TEACHING / RESEARCH LAB
學習空間
STUDY SPACE
輔助設施
SUPPORT FACILITIES
LIFT LOBBY
入口大堂
K
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N


5m 0m 10m 20m
四樓平面圖
FOURTH FLOOR PLAN
圖例 LEGENDS
無障礙通道
BARRIER-FREE ACCESS
公眾通道
PUBLIC ACCESS
綠化範圍
LANDSCAPED AREA
暢通易達升降機
ACCESSIBLE LIFT
暢通易達洗手間
ACCESSIBLE TOILET
公用地方
COMMON AREA
教學研究實驗室
TEACHING / RESEARCH LAB
學習空間
STUDY SPACE
輔助設施
SUPPORT FACILITIES
HOSTEL PORTION
宿舍部份
ACADEMIC PORTION
教學大樓部份
LIFT LOBBY 升降機大堂
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五樓平面圖
FIFTH FLOOR PLAN
圖例 LEGENDS
無障礙通道
BARRIER-FREE ACCESS
公眾通道
PUBLIC ACCESS
綠化範圍
LANDSCAPED AREA
暢通易達升降機
ACCESSIBLE LIFT
暢通易達洗手間
ACCESSIBLE TOILET
公用地方
COMMON AREA
教學研究實驗室
TEACHING / RESEARCH LAB
學習空間
STUDY SPACE
輔助設施
SUPPORT FACILITIES
HOSTEL PORTION
宿舍部份
ACADEMIC PORTION
教學大樓部份
LIFT LOBBY 升降機大堂
J
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5m 0m 10m 20m
六樓平面圖
SIXTH FLOOR PLAN
圖例 LEGENDS
車輛出入口
VEHICULAR INGRESS / EGRESS
無障礙通道
BARRIER-FREE ACCESS
公眾通道
PUBLIC ACCESS
綠化範圍
LANDSCAPED AREA
暢通易達升降機
ACCESSIBLE LIFT
暢通易達洗手間
ACCESSIBLE TOILET
公用地方
COMMON AREA
教學研究實驗室
TEACHING / RESEARCH LAB
輔助設施
SUPPORT FACILITIES
E. V. A.
緊急車輛通道
HOSTEL PORTION
宿舍部份
ACADEMIC PORTION
教學大樓部份
LIFT LOBBY
升降機大堂
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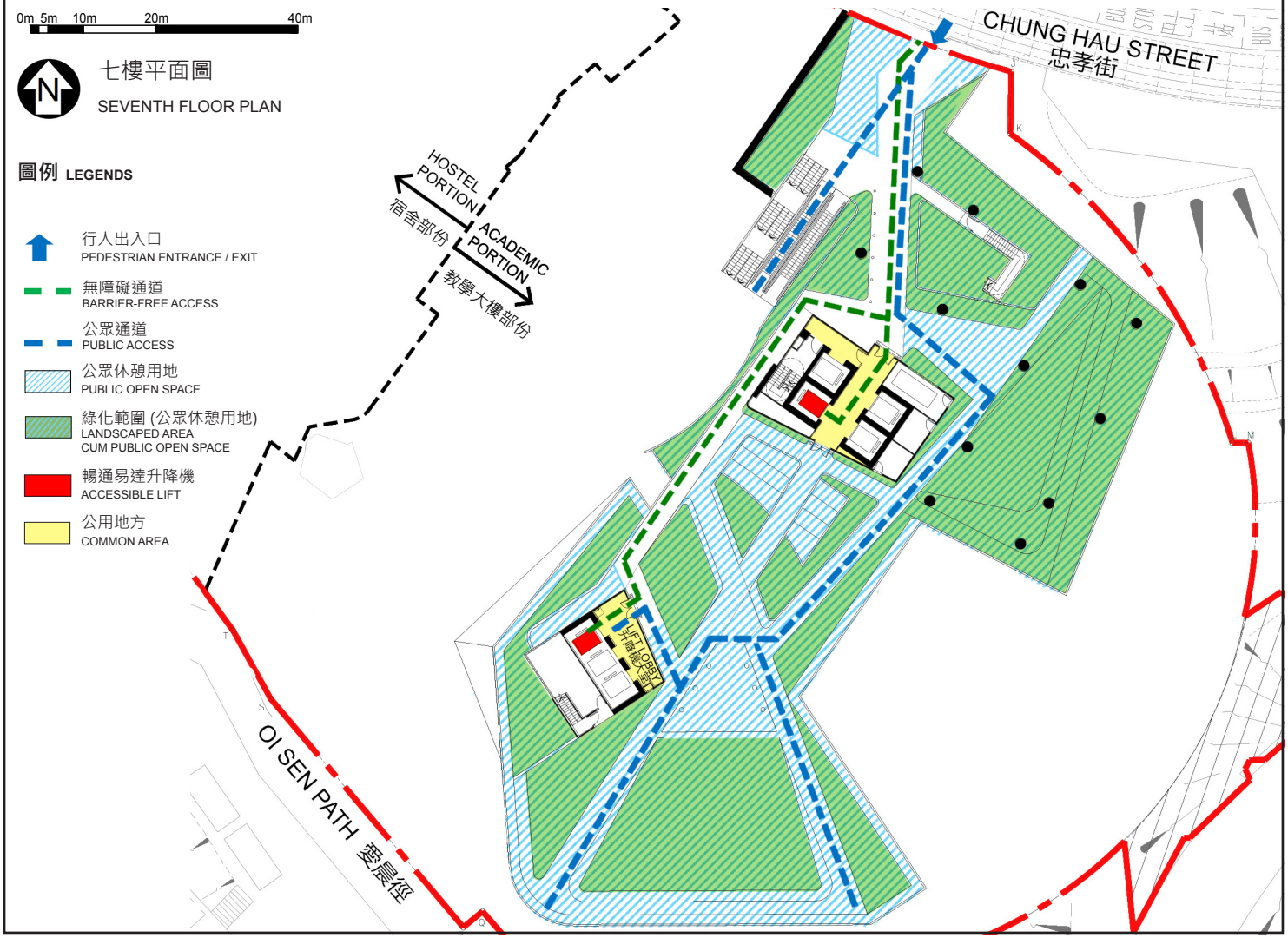
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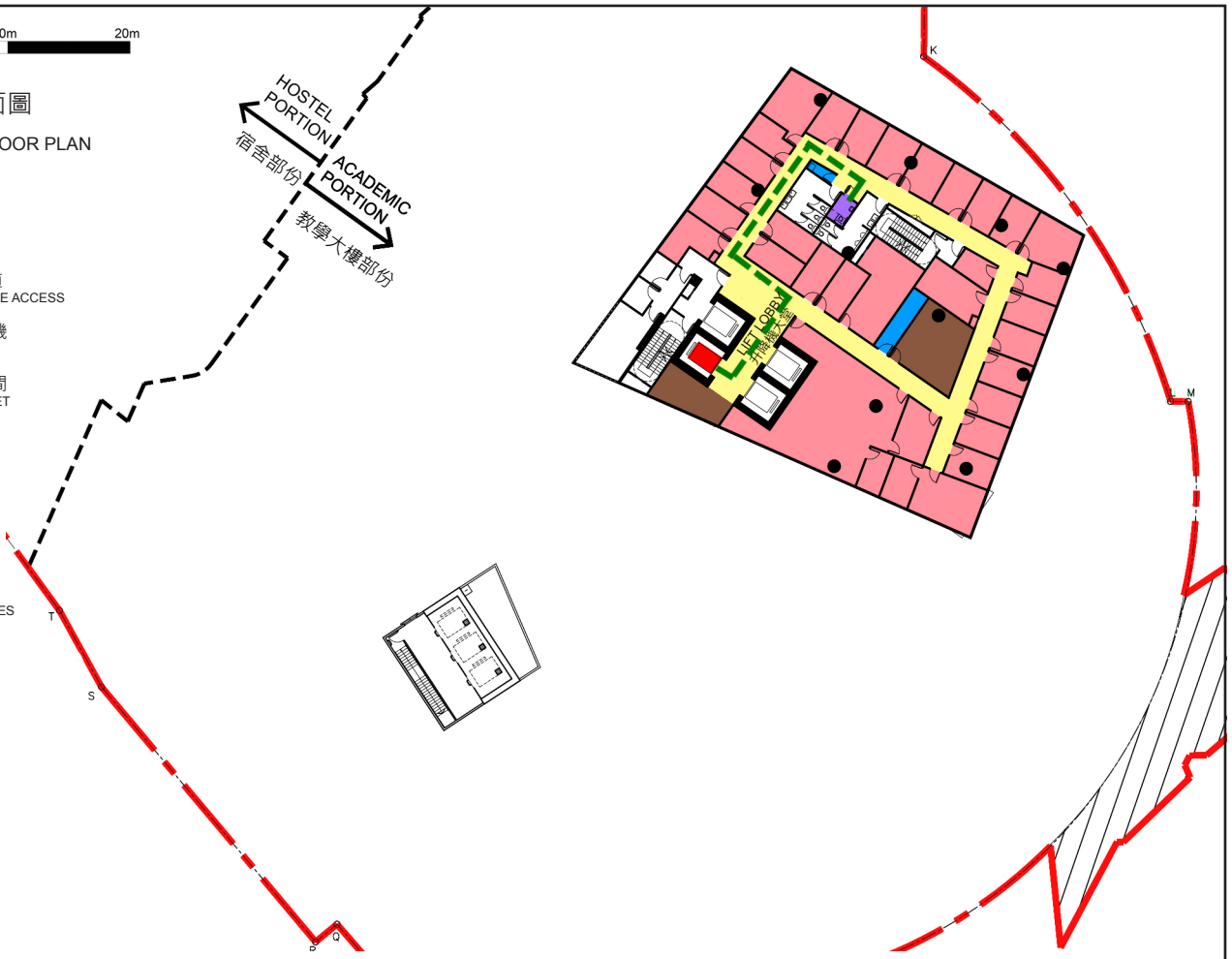
七樓平面圖
SEVENTH FLOOR PLAN
圖例 LEGENDS
行人出入口
PEDESTRIAN ENTRANCE / EXIT
無障礙通道
BARRIER-FREE ACCESS
公眾通道
PUBLIC ACCESS
公眾休憩用地
PUBLIC OPEN SPACE
綠化範圍 (公眾休憩用地)
LANDSCAPED AREA
CUM PUBLIC OPEN SPACE
暢通易達升降機
ACCESSIBLE LIFT
公用地方
COMMON AREA
CHUNG HAU STREET
忠孝街
HOSTEL PORTION
宿舍部份
ACADEMIC PORTION
教學大樓部份
LIFT LOBBY
升降機大堂
OI SEN PATH 愛晨徑
K
M
S
T

5m 0m 10m 20m

八樓平面圖
EIGHTH FLOOR PLAN

圖例 LEGENDS

- 無障礙通道 BARRIER-FREE ACCESS
- 暢通易達升降機 ACCESSIBLE LIFT
- 暢通易達洗手間 ACCESSIBLE TOILET
- 公用地方 COMMON AREA
- 辦公室 OFFICE
- 學習空間 STUDY SPACE
- 輔助設施 SUPPORT FACILITIES



0m 5m 10m 20m 40m

九樓平面圖
NINTH FLOOR PLAN

圖例 LEGENDS

- 無障礙通道 BARRIER-FREE ACCESS
- 暢通易達升降機 ACCESSIBLE LIFT
- 暢通易達洗手間 ACCESSIBLE TOILET
- 綠化範圍 LANDSCAPED AREA
- 公用地方 COMMON AREA
- 辦公室 OFFICE
- 學習空間 STUDY SPACE
- 輔助設施 SUPPORT FACILITIES

5m 0m 10m 20m

十樓平面圖
TENTH FLOOR PLAN

圖例 LEGENDS

- 無障礙通道 BARRIER-FREE ACCESS
- 暢通易達升降機 ACCESSIBLE LIFT
- 暢通易達洗手間 ACCESSIBLE TOILET
- 綠化範圍 LANDSCAPED AREA
- 公用地方 COMMON AREA
- 辦公室 OFFICE
- 學習空間 STUDY SPACE
- 輔助設施 SUPPORT FACILITIES

0m 5m 10m 20m 40m

天台平面圖
ROOF FLOOR PLAN

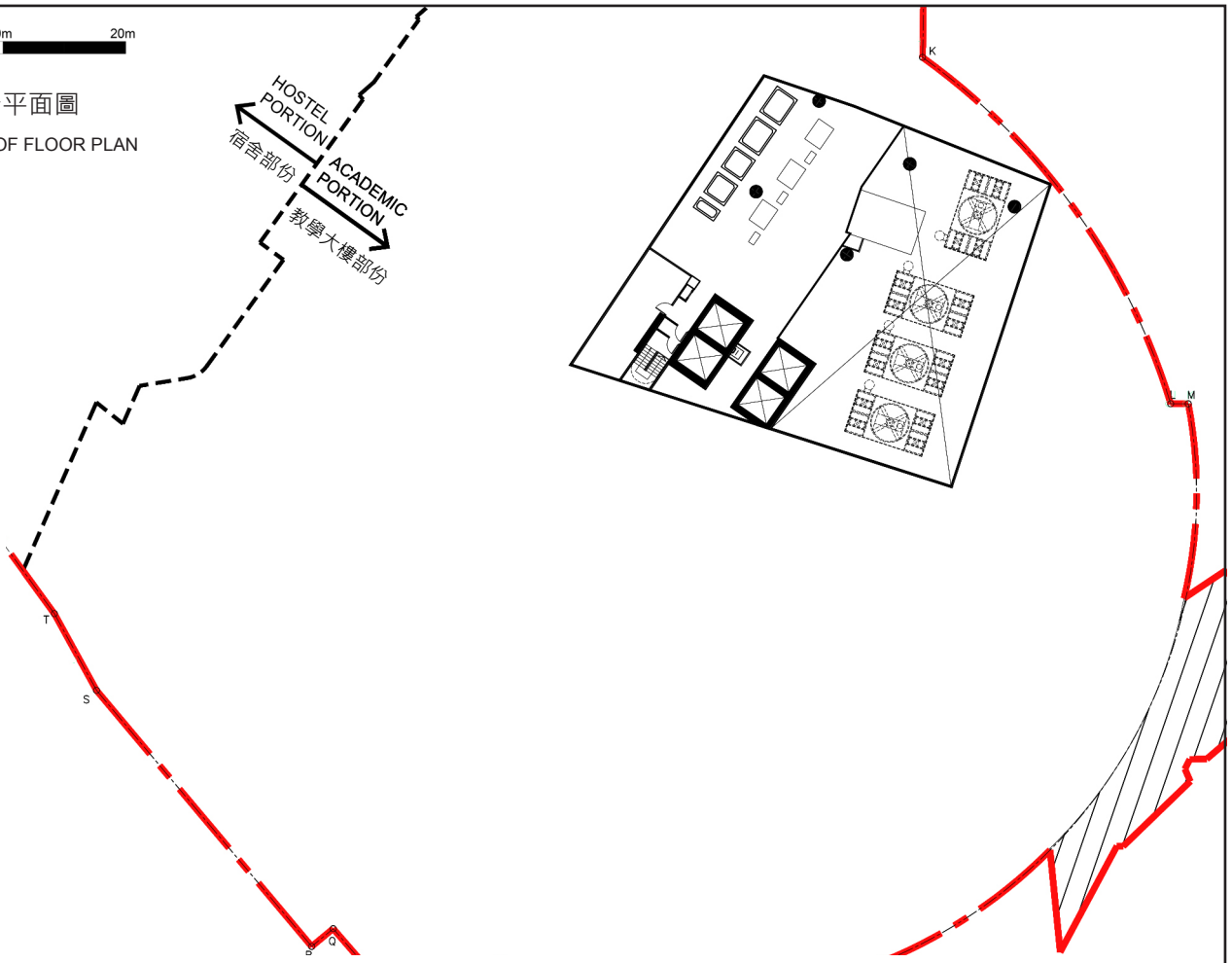
圖例 LEGENDS

- 暢通易達升降機 ACCESSIBLE LIFT
- 公用地方 COMMON AREA

5m 0m 10m 20m

N

上層天台平面圖
UPPER ROOF FLOOR PLAN



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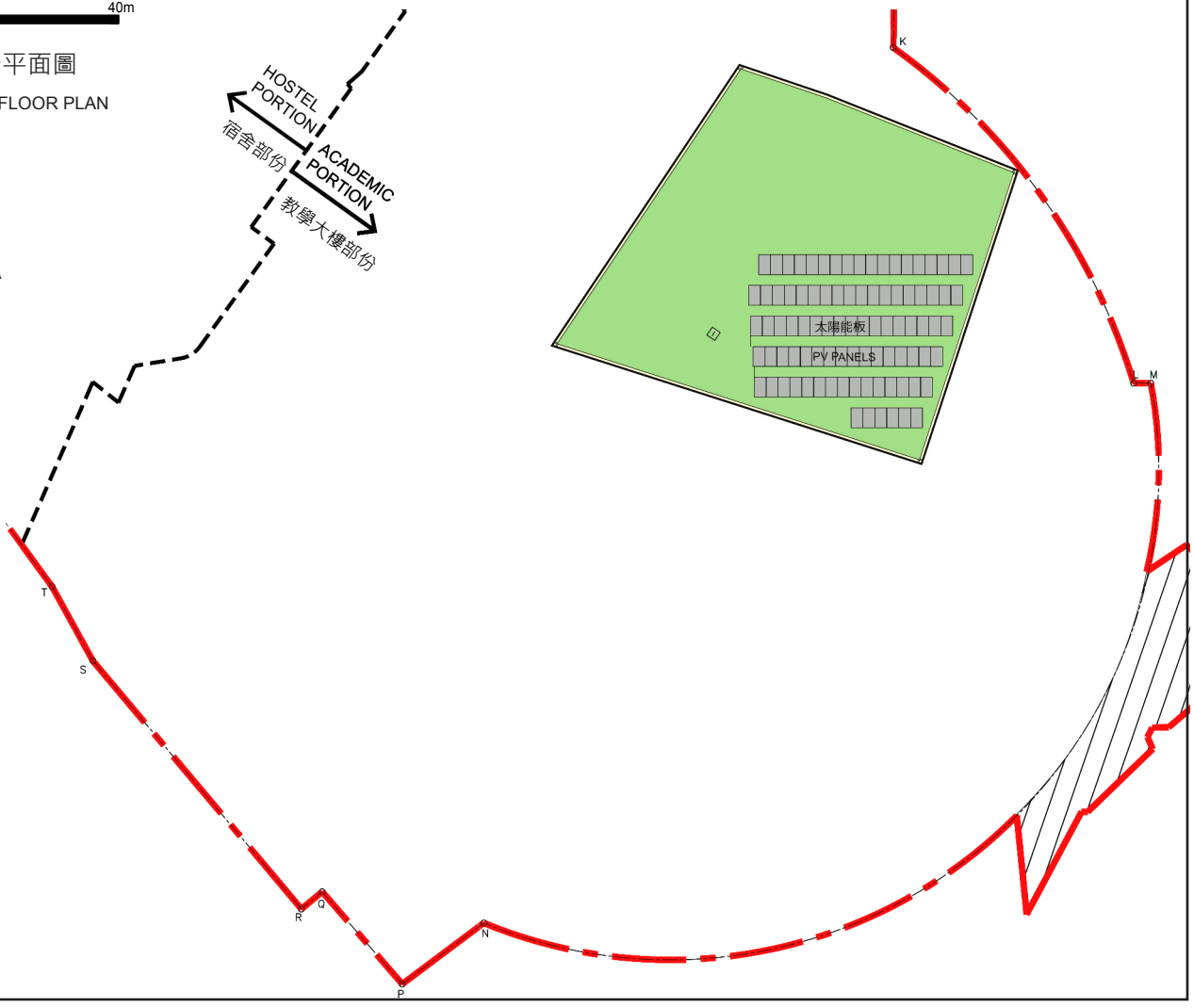
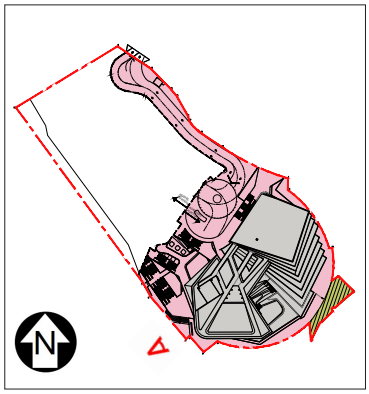
頂層天台平面圖
TOP ROOF FLOOR PLAN

圖例 LEGENDS

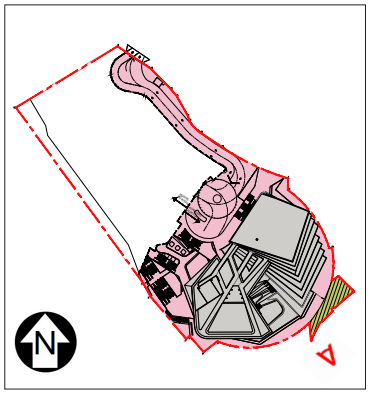
綠化範圍
LANDSCAPED AREA





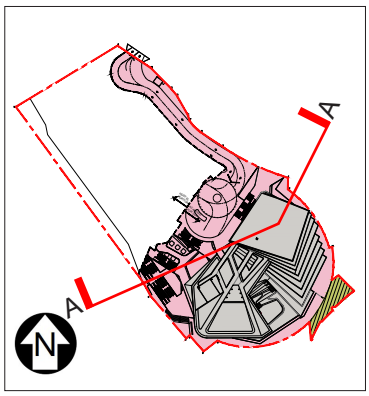
從西南面望向教學大樓的構思圖

VIEW OF ACADEMIC BUILDING FROM SOUTHWEST (ARTIST'S IMPRESSION)



從東南面望向教學大樓的構思圖

VIEW OF ACADEMIC BUILDING FROM SOUTHEAST (ARTIST'S IMPRESSION)



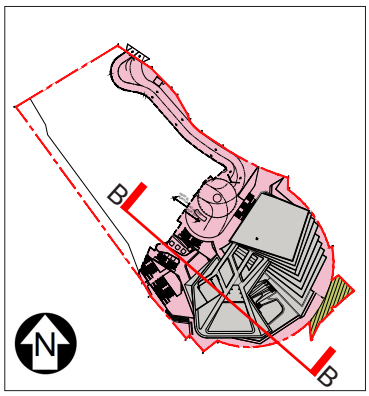
5m 0m 10m 20m

圖例 LEGENDS

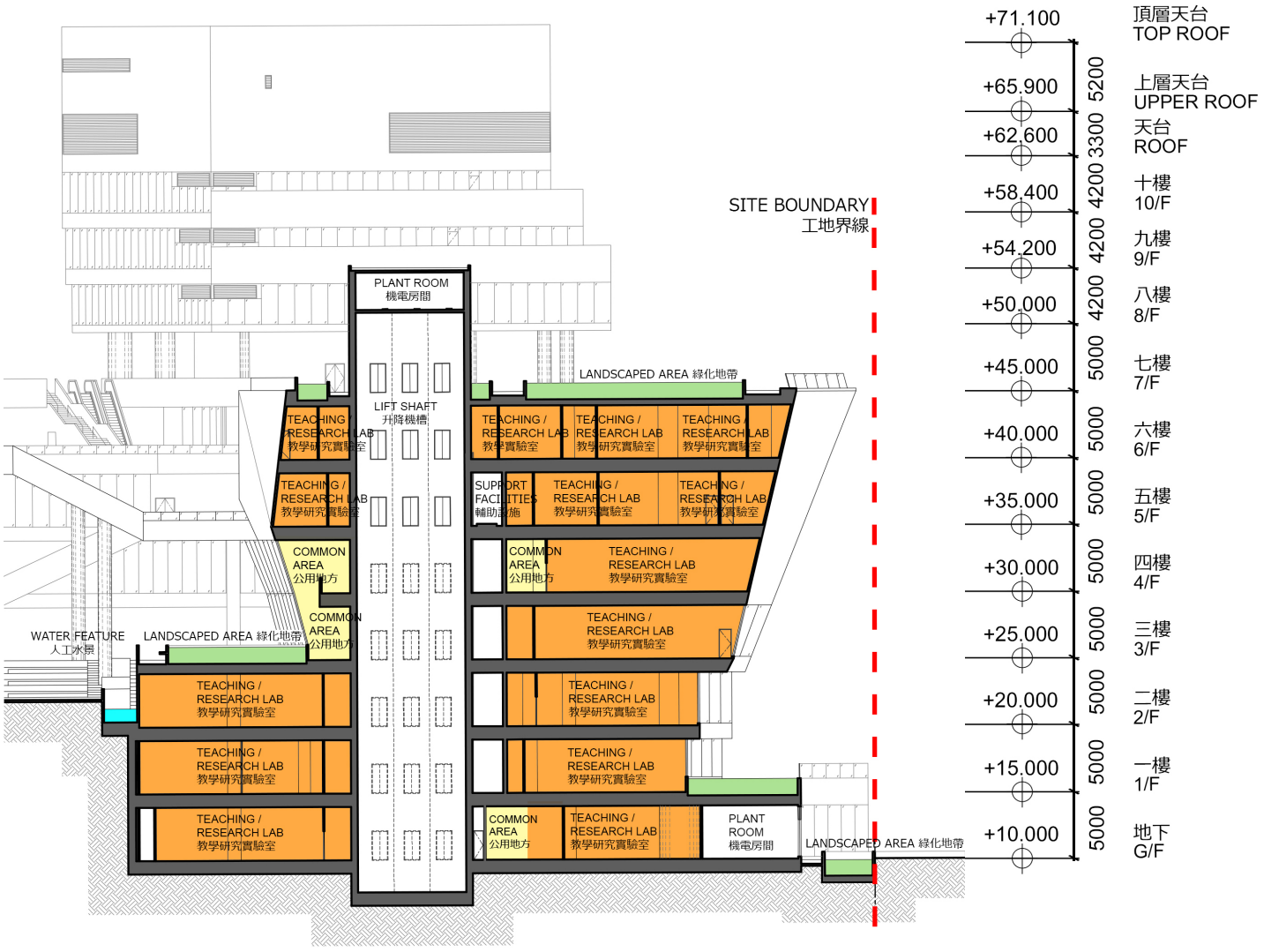
- 綠化範圍 LANDSCAPED AREA
- 教學研究實驗室 TEACHING / RESEARCH LAB
- 辦公室 OFFICE
- 公用地方 COMMON AREA
- 學習空間 STUDY SPACE

剖面圖 A - A

SECTION A - A



5m 0m 10m 20m



圖例 LEGENDS

工地界線 SITE BOUNDARY
綠化範圍 LANDSCAPED AREA
公用地方 COMMON AREA
人工水景 WATER FEATURE
教學研究實驗室 TEACHING / RESEARCH LAB

剖面圖 B - B

SECTION B - B

Enclosure 5 to PWSC(2019-20)17

The Hong Kong Polytechnic University
30EK – Campus Expansion at Ho Man Tin Slope

List of Facilities

	Facilities	Estimated floor area in net operational floor area (NOFA) (m^2)
(a)	Classroom facilities*	720
(b)	Teaching & research laboratories*	7 354
(c)	Study spaces*	220
(d)	Offices*	1 890
(e)	Support & amenities facilities*	160
	Total	**10 344**

CFA = 18 978 m^2

** Subject to layout refinement and finalisation with user groups*

Enclosure 6 to PWSC(2019-20)17

The Hong Kong Polytechnic University
30EK – Campus Expansion at Ho Man Tin Slope

Breakdown of the estimate for consultants' fees and resident site staff costs (in September 2018 prices)

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
(a)	Consultants' fees for contract administration (Note 2)	Professional	–	–	–	8.7
		Technical	–	–	–	–
					Sub-total	8.7#
(b)	Resident site staff (RSS) cost (Note 3)	Professional	12	38	1.6	1.6
		Technical	224	14	1.6	10.3
	Comprising –				Sub-total	11.9
	(i) Consultants' fees for management of RSS				1.6#	
	(ii) Remuneration of RSS				10.3#	
					Total	20.6

* 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 (subject to Financial Committee (FC)'s funding approval, MPS salary point 38 = $81,975 per month, and MPS salary point 14 = $28,725 per month.)

2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreements for the design and construction of Campus Expansion at Ho Man Tin Slope**.** The assignment will only be executed subject to FC's approval to upgrade **30EK** to Category A.

3. We will only know the actual man-months and actual costs for site supervision 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 figures marked with # are shown in MOD prices in paragraph 9 of the main paper.

Enclosure 7 to PWSC(2019-20)17

The Hong Kong Polytechnic University
30EK – Campus Expansion at Ho Man Tin Slope

Breakdown of the construction floor area (CFA) vis-à-vis the construction unit cost

(a)	Breakdown of CFA of the Campus Expansion at Ho Man Tin Slope	**Estimated floor area (m^2)**
	Net operational floor area (NOFA)	10 344
	Circulation areas, toilets	6 020
	Mechanical and electrical plants	2 614
	CFA	18 978
(b)	NOFA / CFA ratio	55%
(c)	Estimated construction unit cost (represented by the building and building services costs)	$35 430 per m^2 of CFA (in MOD prices)