For discussion **PWSC(2019-20)28**
on 1 April 2020

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 711 – HOUSING
Support – Others
191GK – Community hall, general outpatient clinic and maternal and child health centre at Ching Hong Road, Tsing Yi

Civil Engineering – Land development
795CL – Site formation and infrastructure works for public housing developments at Pok Fu Lam South
812CL – Site formation and infrastructure works for public housing developments at Pik Wan Road, Yau Tong

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT
Civil Engineering – Land development
666CL – Formation, roads and drains in Area 54, Tuen Mun – phase 1 stage 2
681CL – Formation, roads and drains in Area 54, Tuen Mun – phase 2

Members are invited to recommend to the Finance Committee –

(a) the upgrading of **191GK, 795CL, 812CL, 666CL** and part of **681CL** to Category A at estimated costs of $1,033.2 million, $4,571.3 million, $1,823.3 million, $48.2 million and $264.3 million in money-of-the-day prices respectively; and

(b) the retention of the remainder of **681CL** in Category B.

/PROBLEM …..

PROBLEM

2. We need to carry out the following projects –

(a) **191GK** to provide a community hall (CH), a general outpatient clinic (GOPC) and a maternal and child health centre (MCHC) to support the Tsing Yi community at large;

(b) **795CL** to carry out site formation and infrastructure works to support the proposed public housing developments at Pok Fu Lam South;

(c) **812CL** to carry out site formation and infrastructure works to support the proposed public housing developments at Pik Wan Road, Yau Tong;

(d) **666CL** phase 1 stage 2 [1] works to carry out site formation and ancillary works to support the proposed public housing development in Area 54, Tuen Mun; and

(e) **681CL** phase 2 stage 4B [2] works to carry out site formation and associated road infrastructure works to support the proposed public housing and school developments in Area 54, Tuen Mun.

PROPOSAL

3. The Director of Architectural Services, with the support of the Secretary for Transport and Housing, proposes to upgrade **191GK** to Category A at an estimated cost of $1,033.2 million in money-of-the-day (MOD) prices for provision of a CH, GOPC and MCHC.

4. The Director of Civil Engineering and Development, with the support of the Secretary for Transport and Housing, proposes to upgrade the following projects to Category A –

/(a) …..

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[1] The phase 1 works are implemented in two stages, namely stages 1 and 2.

[2] The phase 2 works are implemented in six stages, namely stages 1, 2, 3, 4A, 4B and 4C.

(a) **795CL** at an estimated cost of $4,571.3 million in MOD prices for the site formation and infrastructure works; and

(b) **812CL** at an estimated cost of $1,823.3 million in MOD prices for the site formation and infrastructure works.

5. The Director of Civil Engineering and Development, with the support of the Secretary for Development, proposes to upgrade the following projects to Category A –

(a) **666CL** phase 1 stage 2 works at an estimated cost of $48.2 million in MOD prices for the site formation and ancillary works; and

(b) **681CL** phase 2 stage 4B works at an estimated cost of $264.3 million in MOD prices for the site formation and associated road infrastructure works.

6. Details of **191GK, 795CL**, **812CL, 666CL** and **681CL** are provided at **Enclosures 1 to 5** respectively.

Transport and Housing Bureau
Development Bureau
March 2020

191GK –Community hall, general outpatient clinic and maternal and child health centre at Ching Hong Road, Tsing Yi

PROJECT SCOPE AND NATURE

We propose to upgrade **191GK** to Category A and the scope of works comprises –

(a) reprovision of a CH, including a multi-purpose hall with seating capacity of 450 persons, a conference room and other ancillary facilities, and demolition of the existing Cheung Ching Estate Community Centre (CCECC);

(b) provision of a GOPC, including consultation rooms, treatment rooms, assessment rooms, a pharmacy and other ancillary facilities;

(c) reprovision of an MCHC, including consultation rooms, interview rooms, a treatment room, a cervical screening room, a breastfeeding room and other ancillary facilities; and

(d) ancillary works including road works, public lighting facilities, drainage, sewerage, water supply, site formation and landscaping works, etc.

2. The location and site plan, floor plans, sectional plans, artist's impressions and the barrier-free access plan of the proposed works are at **Annexes 1 to 11 to Enclosure 1**.

3. Subject to the timely funding approval by the Finance Committee (FC), we expect that the construction of superstructure of the CH can commence in the fourth quarter of 2020 for completion in 2023. After the new CH is in operation, we will demolish the existing CCECC and construct the GOPC and MCHC. The whole project is expected to be completed in 2029. In order to meet the tight construction schedule, we plan to invite tenders in parallel for the construction works listed in paragraphs 1(a) and part of 1(d) above to enable early commencement of the works of **191GK**. Tenders will only be awarded after obtaining FC's funding approval.

/**JUSTIFICATION** …..

JUSTIFICATION

Community Hall

4. To meet the demand for facilities from the local community, residents and increasing population, we propose to reprovide a CH with up-to-date facility standards and to demolish the existing CCECC (including the community hall located inside).

General Outpatient Clinic

5. In view of the ageing population of Tsing Yi area, it is expected that the community's demand on publicly-funded healthcare services will continue to grow. There are difficulties at the existing Tsing Yi Cheung Hong GOPC and Tsing Yi Town GOPC to cope with the growing demand. The Food and Health Bureau/the Hospital Authority (HA) hence proposes to build a GOPC for expanding the primary care services.

6. The proposed GOPC will provide medical consultations, a basic range of nursing and allied health services, and some patient empowerment activities.

Maternal and Child Health Centre

7. At present, there is only one MCHC on Tsing Yi Island, which is located in a commercial centre of Cheung Hong Estate under tenancy, namely Tsing Yi MCHC. The existing MCHC premises cannot be expanded to meet the growing service needs of the community due to space constraints. Taking the opportunity of the Ching Hong Road North development, the Department of Health proposes to reprovide and expand the Tsing Yi MCHC within the development, not only for avoidance of disruption of services arising from tenancy issues in future, but also for continuation and long-term development of services, thereby enhancing the service delivery and meeting the demands of the community.

Project implementation

8. We propose to reprovide a CH in the public housing development at Ching Hong Road North (Ching Hong Road North development, the key development parameters are at **Annex 12 to Enclosure 1**), and to use the land vacated from the demolition of the existing CCECC to construct two public housing domestic blocks, to reprovide the MCHC and to provide a GOPC.

/9. …..

9. The proposed works form part of the Ching Hong Road North development, so they have to be implemented in conjunction with the public housing development. We plan to entrust the design and construction of the proposed works to the Hong Kong Housing Authority (HKHA), to facilitate better design coordination and construction interface between the proposed works and the adjacent public housing development under construction in parallel. Upon completion of the works, the GOPC will be handed over to the HA for management and maintenance, whereas the CH and MCHC will be handed over to the relevant government departments for management and maintenance.

FINANCIAL IMPLICATIONS

10. We estimate the capital cost of the proposed works to be $1,033.2 million in money-of-the-day (MOD) prices, broken down as follows –

		$ million (in MOD prices)
(a)	Demolition	30.7
(b)	Site works	26.4
(c)	Foundation	50.9
(d)	Building[1]	422.2
(e)	Building services[2]	214.9
(f)	Drainage	19.4
(g)	External works	30.0
(h)	Additional energy conservation and green features	6.0

/$ million …..

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

2 Building services works cover electrical installations, ventilation and air conditioning installations, fire services installations, lifts installations and other specialist installations.

			$ million (in MOD prices)
(i)	On-cost payable to HKHA[3]		100.1
(j)	Furniture and equipment[4]		38.7
(k)	Contingencies		93.9
		Total	1,033.2

11. The construction floor area (CFA) of **191GK** is about 12 292 m^2. The estimated construction unit cost, represented by the building works and building services costs, is $51,830 per m^2 of CFA in MOD prices. We consider this comparable to that of similar projects built by the Government.

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

Year	**$ million (MOD)**
2020 – 2021	5.2
2021 – 2022	44. 0
2022 – 2023	62.4
2023 – 2024	34.0
2024 – 2025	48.2
2025 – 2026	63.6
2026 – 2027	83.1
2027 – 2028	152.9
2028 – 2029	177. 0

/Year …..

3 This is the estimated cost (12.5% of the construction cost) payable to HKHA for the design, administration and supervision of the project.

4 The estimated cost is based on an indicative list of furniture and equipment required.

Year	$ million (MOD)
2029 – 2030	143.5
2030 – 2031	81.1
2031 – 2032	59.1
2032 – 2033	43.9
2033 – 2034	35.2
	1,033.2

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 from 2020 to 2034. HKHA will deliver the proposed works through lump sum contracts because the scope of the works can be clearly defined in advance. The contracts will provide for price adjustments.

14. We estimate the annual recurrent expenditure arising from this proposed works to be about $99.2 million, including $66.4 million[5] for the GOPC.

PUBLIC CONSULTATION

15. We consulted the Housing Affairs Committee of the Kwai Tsing District Council (KTDC) on 3 October 2017 about the proposed development at Ching Hong Road North, which includes the public housing and the proposed CH, GOPC and MCHC, and we also consulted the Planning and District Facilities Management Committee of the KTDC on 19 February 2019 about the proposed CH. The Committees supported the proposed works.

16. We consulted the Legislative Council Panel on Housing on 9 March 2020. The Panel supported the submission of the funding proposal for the proposed works to the Public Works Subcommittee for consideration.

/ENVIRONMENTAL …..

5 Hospital Authority will arrange to secure the recurrent expenditure under the established practice.

ENVIRONMENTAL IMPLICATIONS

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

18. HKHA has incorporated into the works contracts the mitigation measures that the contractor should implement to control noise, dust and site run-off nuisances during construction to within established standards and guidelines. These measures include the use of silencers, mufflers, movable noise barriers or enclosures and quiet plants to reduce noise generation, frequent cleaning and watering of the work sites, installations of sprinklers and the provision of wheel-washing facilities to minimise dust generation, and the use of temporary drains to collect site runoff for on-site treatment before discharge.

19. At the planning and design stages, HKHA 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, HKHA will require the contractor to reuse inert construction waste (e.g. excavated soil and rock fill) on site or at other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities [6] (PFRF). HKHA 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.

20. At the construction stage, HKHA 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. HKHA will ensure that the day-to-day operations on site comply with the approved plan. HKHA will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. HKHA will control the disposal of inert construction waste and non-inert construction waste at PFRF and landfills respectively through a trip-ticket system.

/21. …..

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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.

21. HKHA estimates that **191GK** project will generate in total about 26 620 tonnes of construction waste. Of these, HKHA will reuse about 200 tonnes (0.8%) of inert construction waste on site and deliver 24 000 tonnes (90.2%) of inert construction waste to PFRF for subsequent reuse. HKHA will dispose of the remaining 2 420 tonnes (9.0%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRF and landfill sites is estimated to be about $2.19 million for this project (based on a unit charge rate of $71 per tonne for disposal at PFRF and $200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

22. 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 ACQUSITION

23. The project does not require any resumption of private land.

ENERGY CONSERVATION AND GREEN FEATURES

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

(a) building energy management system ;

(b) variable speed drive for chillers; and

(c) solar powered light fittings.

25. For greening features, HKHA will provide green roof and vertical greening as well as planting areas for environmental and amenity benefits.

26. The total estimated additional cost for adoption of the above features is about $6.0 million (including $2.9 million for energy efficient features), which has been included in the cost estimate of the project. The energy efficient features are expected to achieve 5.5% energy savings in the annual energy consumption with a payback period of about eight years.

/**BACKGROUND** …..

BACKGROUND INFORMATION

27. We upgraded **191GK** to Category B in September 2018.

28. **191GK** will involve removal of 250 trees. All trees to be removed are not important trees[7]. HKHA will incorporate planting proposal as part of the proposed works including the planting of 250 trees, and about 5 000 number of shrubs/ground covers/climbers.

29. We estimate that **191GK** will create about 80 jobs (74 for labourers and another 6 for professional or technical staff), providing a total employment of 7 250 man-months.

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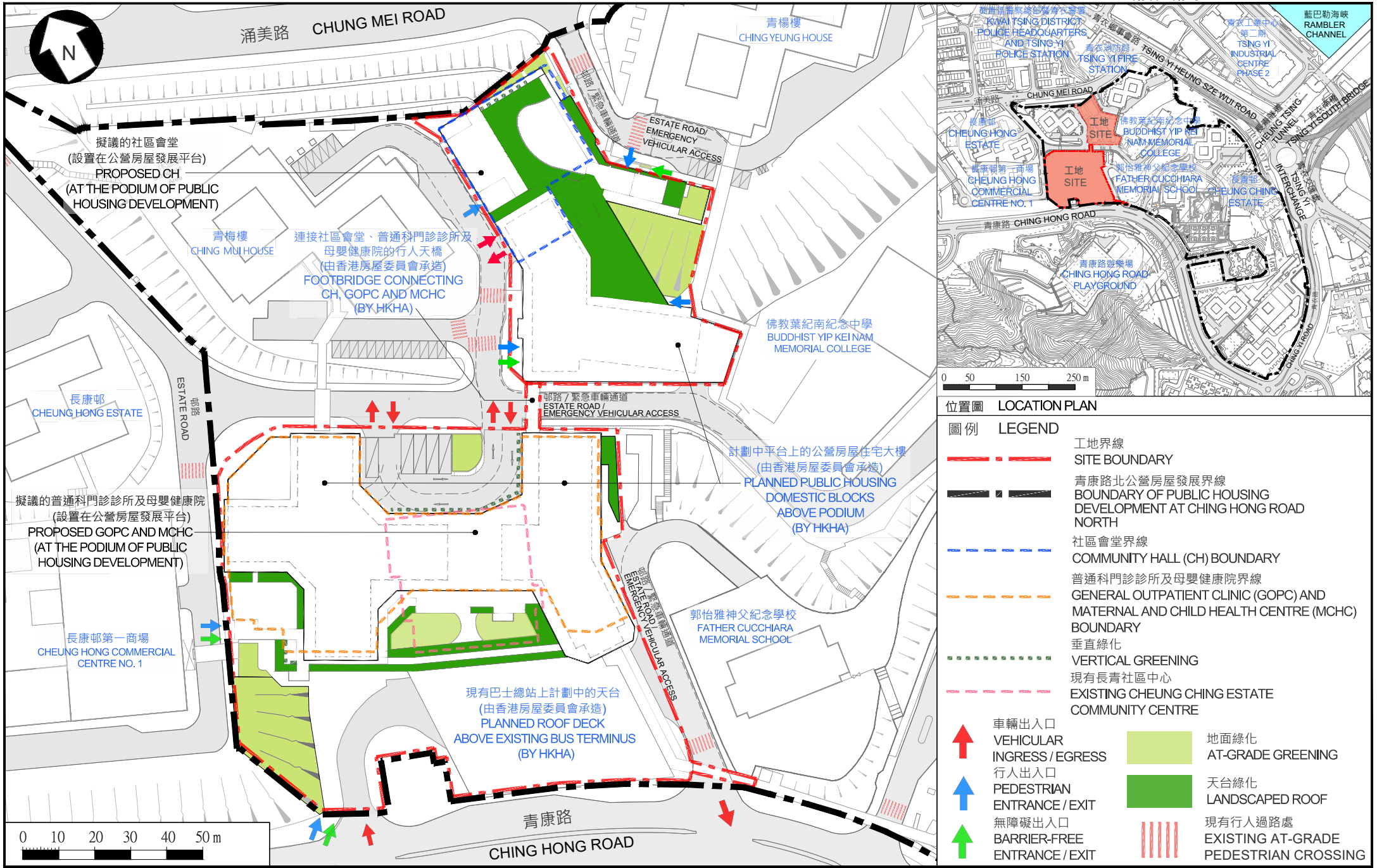
7 "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

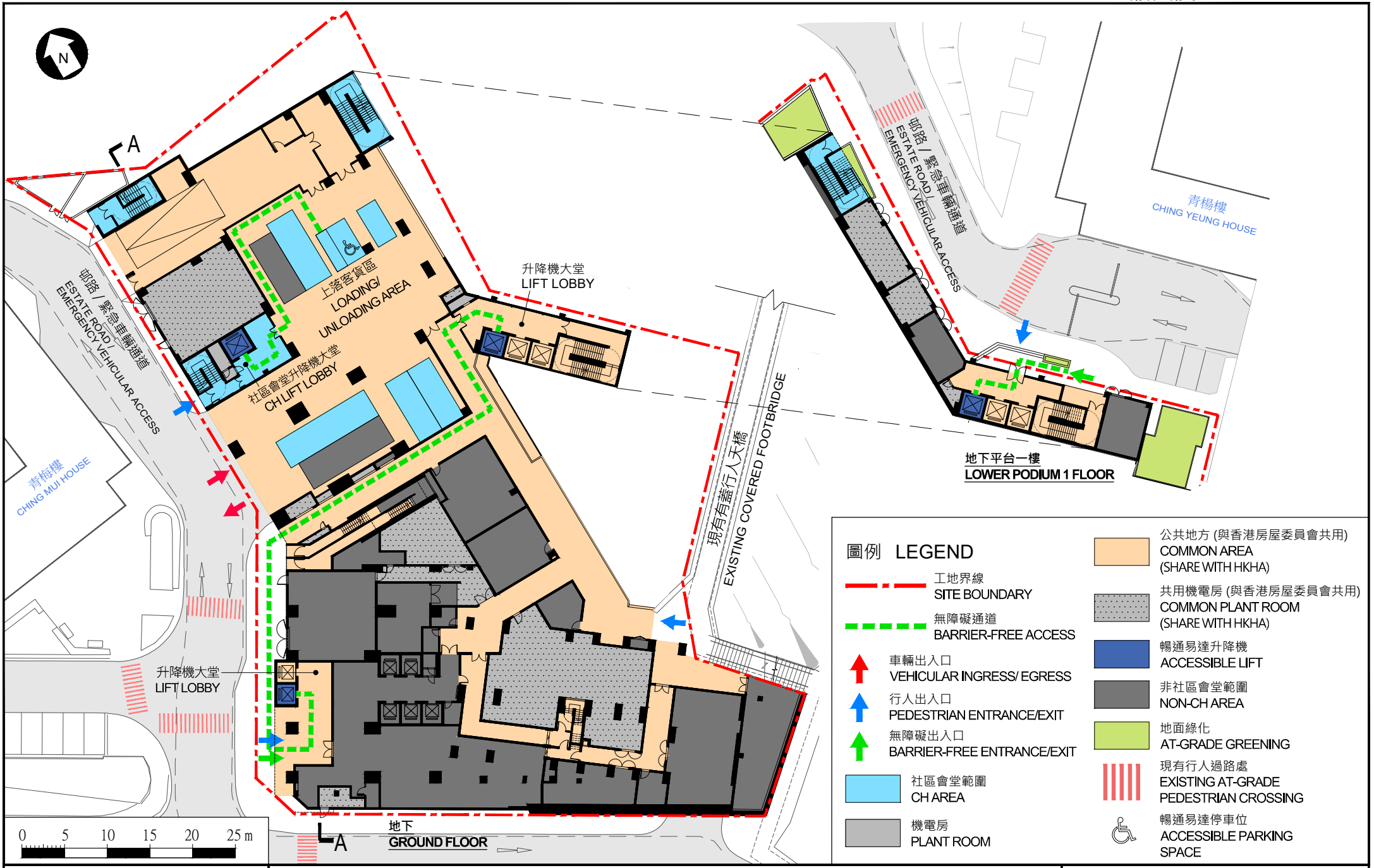
(a) trees of 100 years old or above;
(b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;
(c) trees of precious or rare species;
(d) trees of outstanding form (taking account 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 to or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with height/canopy spread equal to or exceeding 25 m.



工地平面圖
SITE PLAN

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

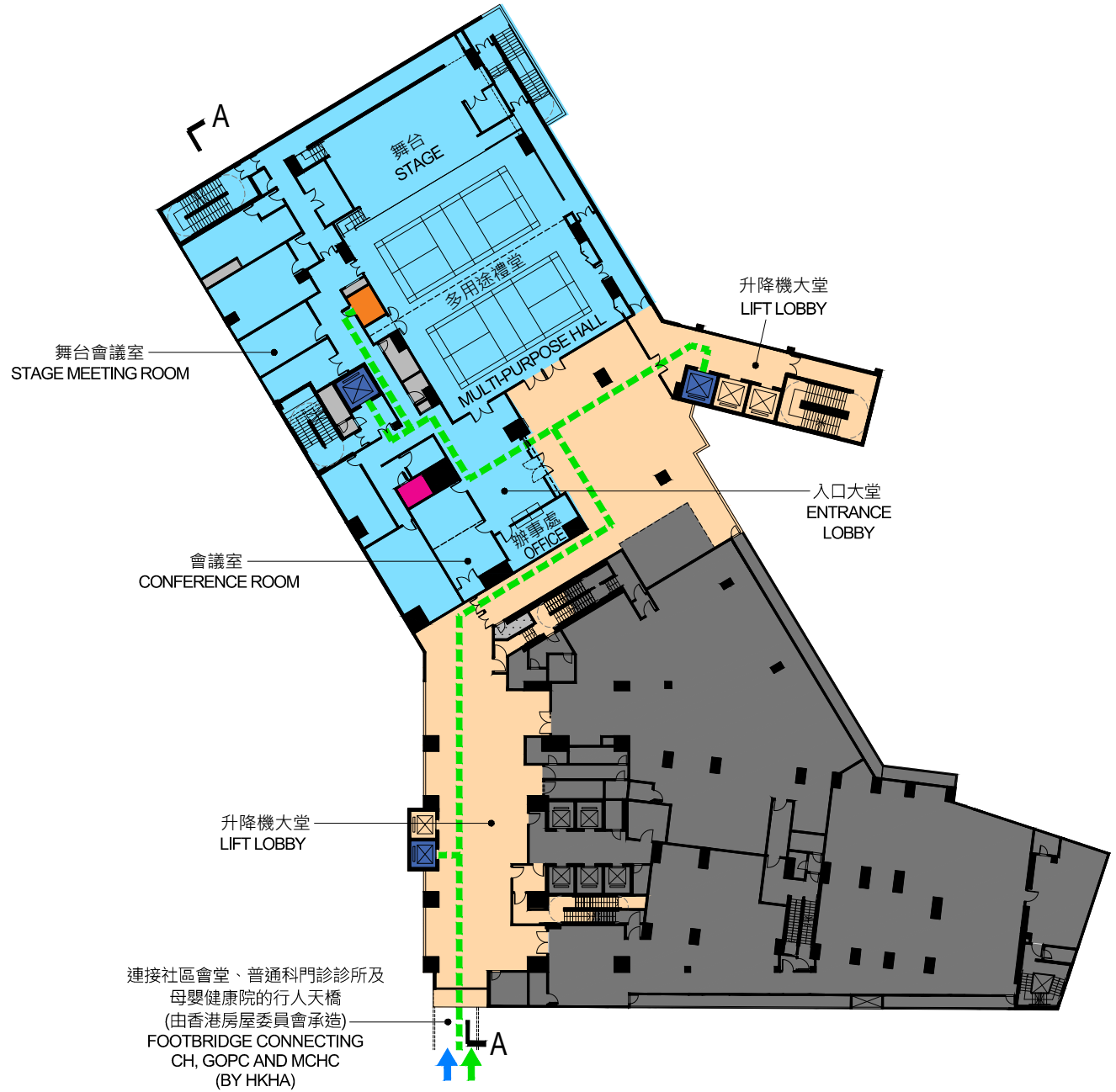
ARCHITECTURAL SERVICES DEPARTMENT 建築署



社區會堂地下平台一樓及地下平面圖
CH LOWER PODIUM 1 (L P 1) &
GROUND FLOOR PLAN

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

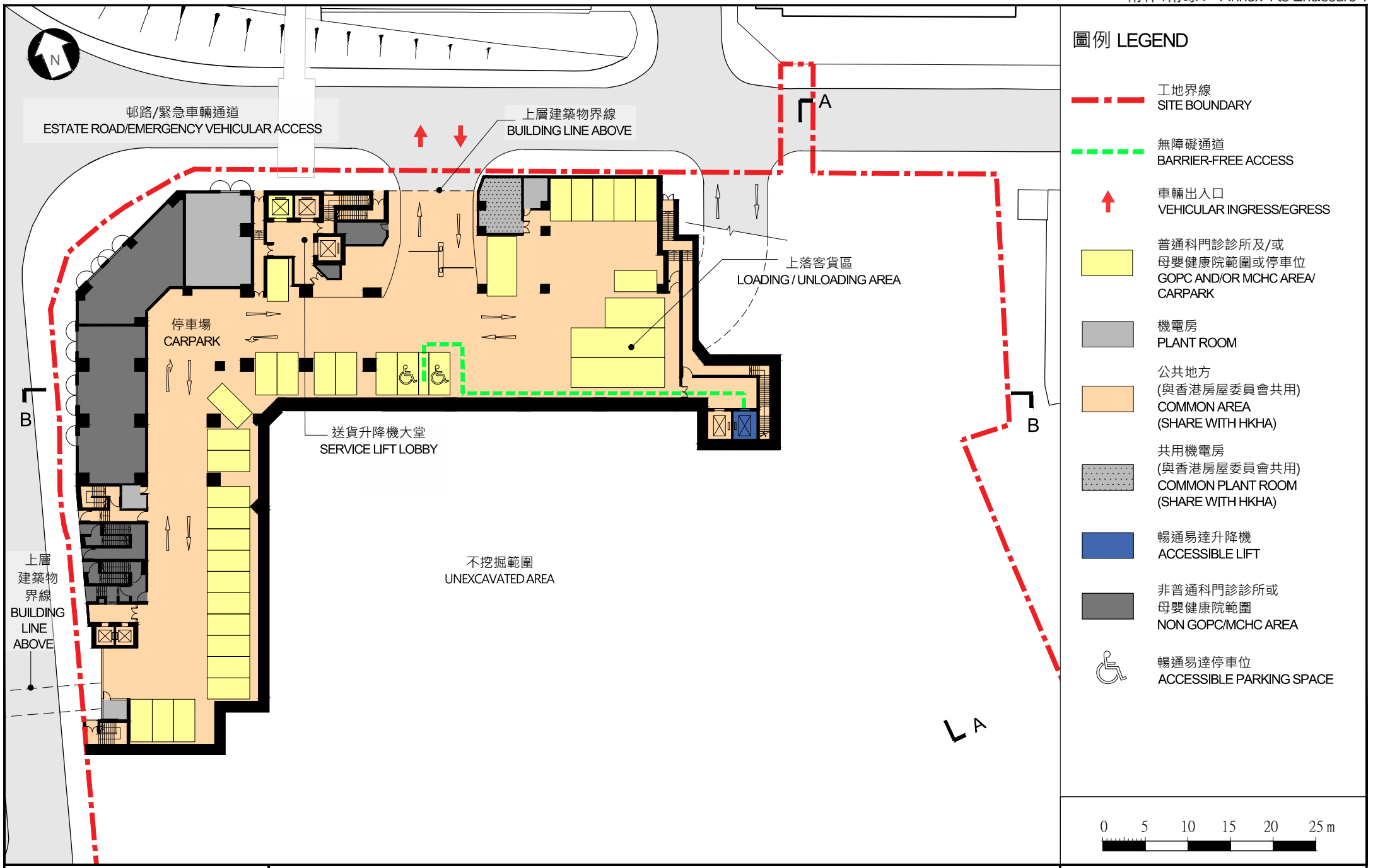
- 無障礙通道 BARRIER-FREE ACCESS
- 社區會堂範圍 CH AREA
- 機電房 PLANT ROOM
- 公共地方 (與香港房屋委員會共用) COMMON AREA (SHARE WITH HKHA)
- 共用機電房 (與香港房屋委員會共用) COMMON PLANT ROOM (SHARE WITH HKHA)
- 暢通易達升降機 ACCESSIBLE LIFT
- 暢通易達洗手間 ACCESSIBLE TOILET
- 通用洗手間 UNIVERSAL TOILET
- 非社區會堂範圍 NON-CH AREA
- 行人出入口 PEDESTRIAN ENTRANCE/EXIT
- 無障礙出入口 BARRIER-FREE ENTRANCE/EXIT

0 5 10 15 20 25 m

社區會堂平台一樓平面圖
CH PODIUM 1 (P1) FLOOR PLAN

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

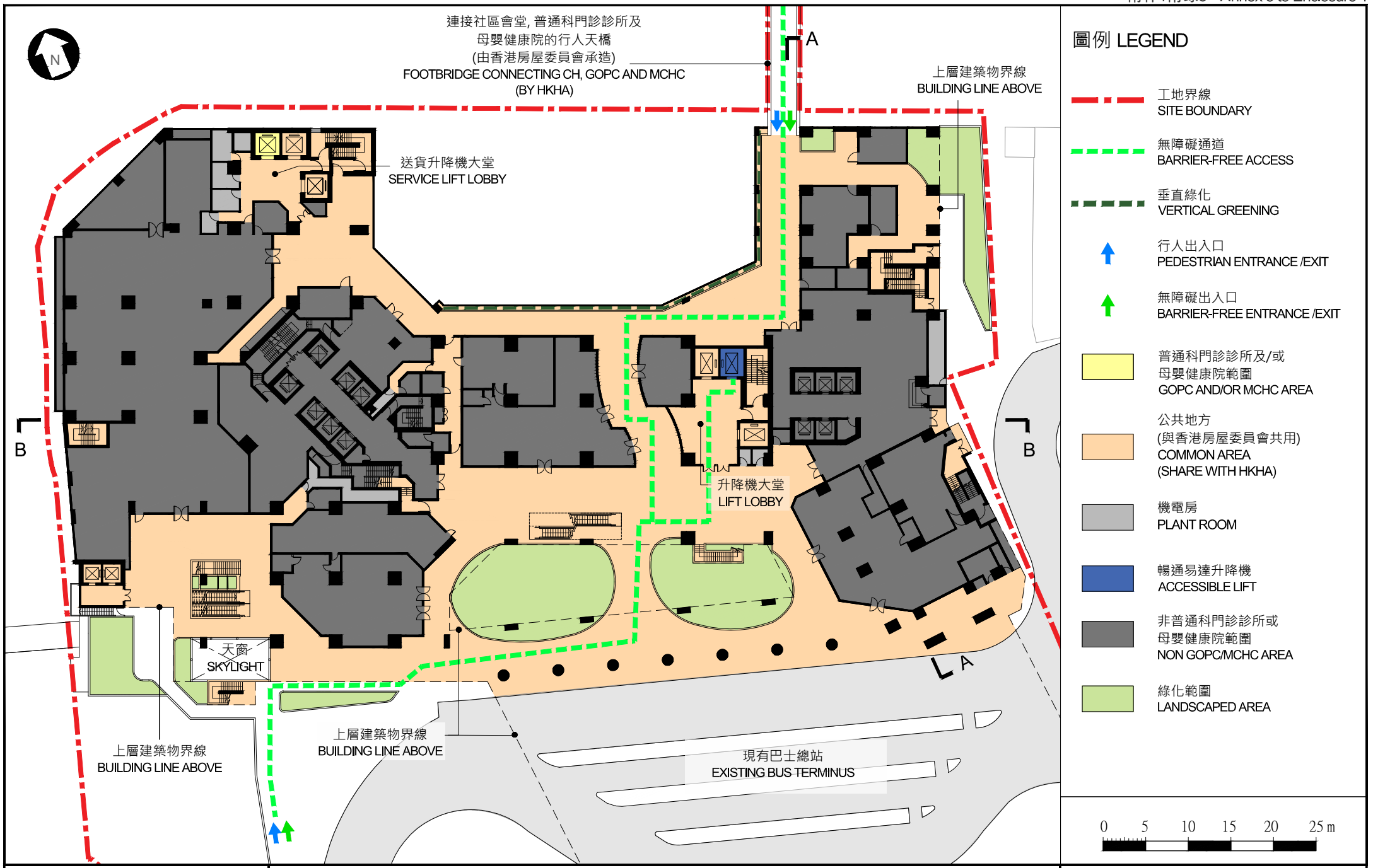
ARCHITECTURAL SERVICES DEPARTMENT 建築署



普通科門診診所及母嬰健康院
地下低層平面圖
GOPC AND MCHC
LOWER GROUND (LG) FLOOR PLAN

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

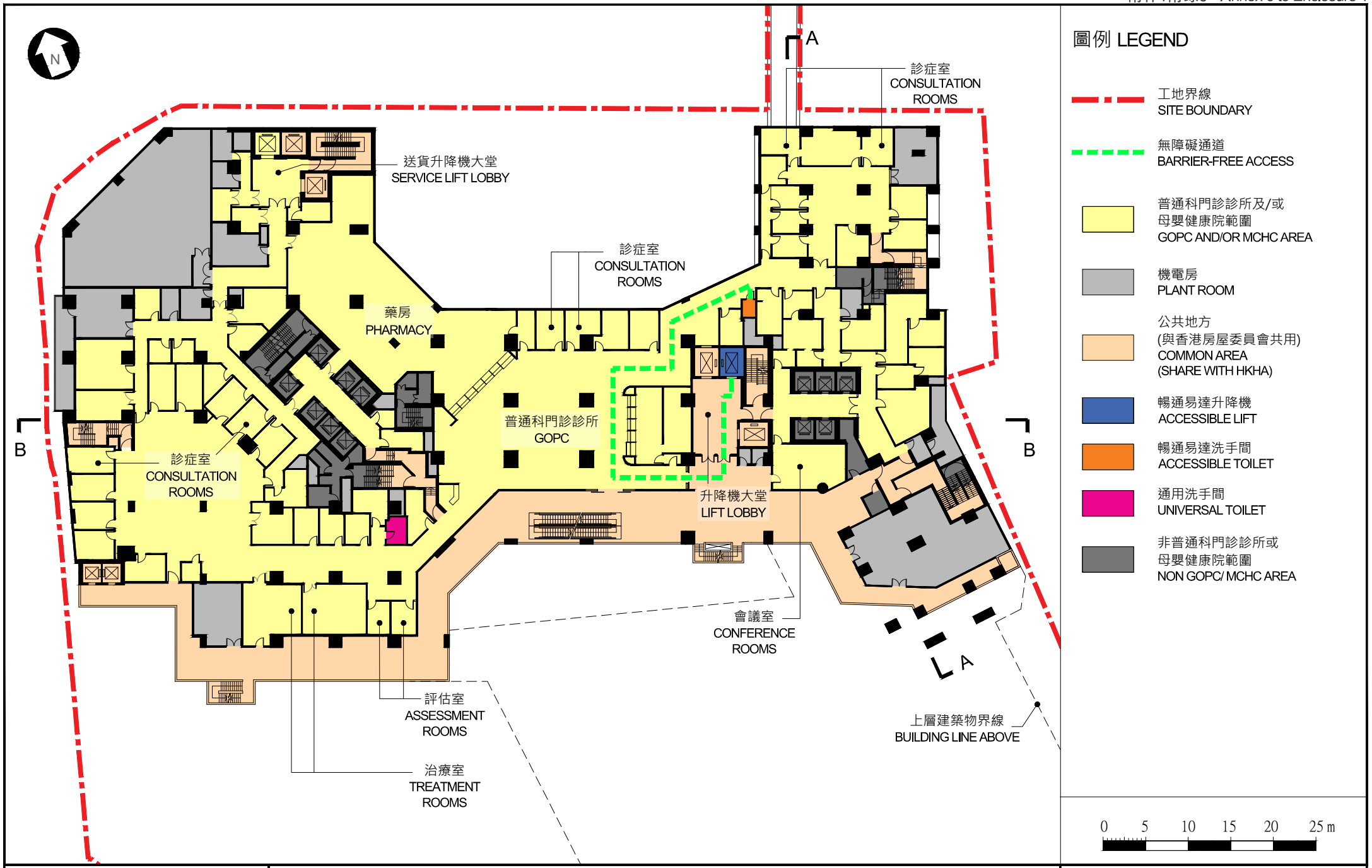
ARCHITECTURAL SERVICES DEPARTMENT 建築署



普通科門診診所及母嬰健康院
平台二樓平面圖
GOPC AND MCHC
PODIUM 2 (P2) FLOOR PLAN

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

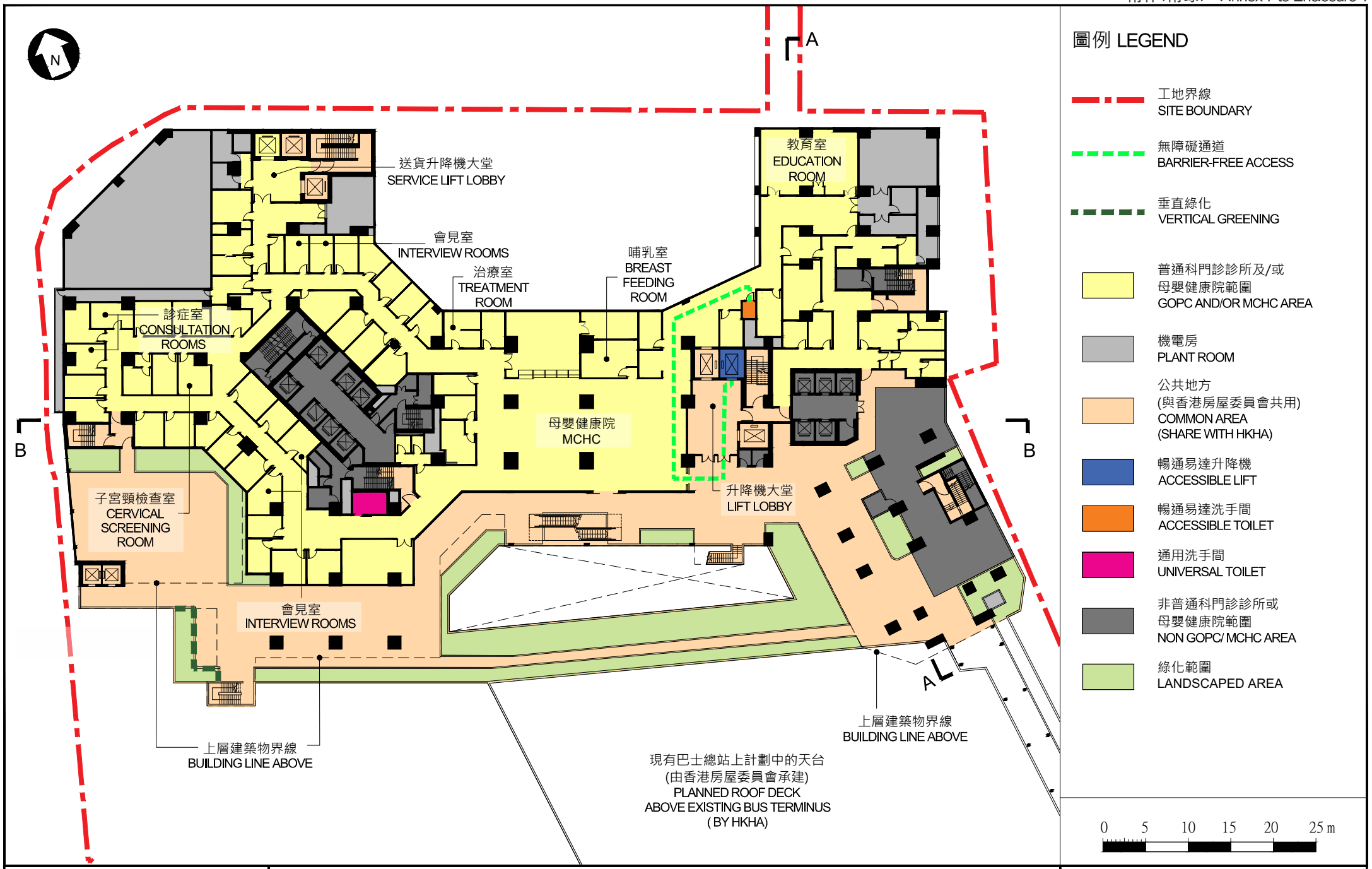
ARCHITECTURAL SERVICES DEPARTMENT 建築署



普通科門診診所及母嬰健康院
平台三樓平面圖
GOPC AND MCHC
PODIUM 3 (P3) FLOOR PLAN

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

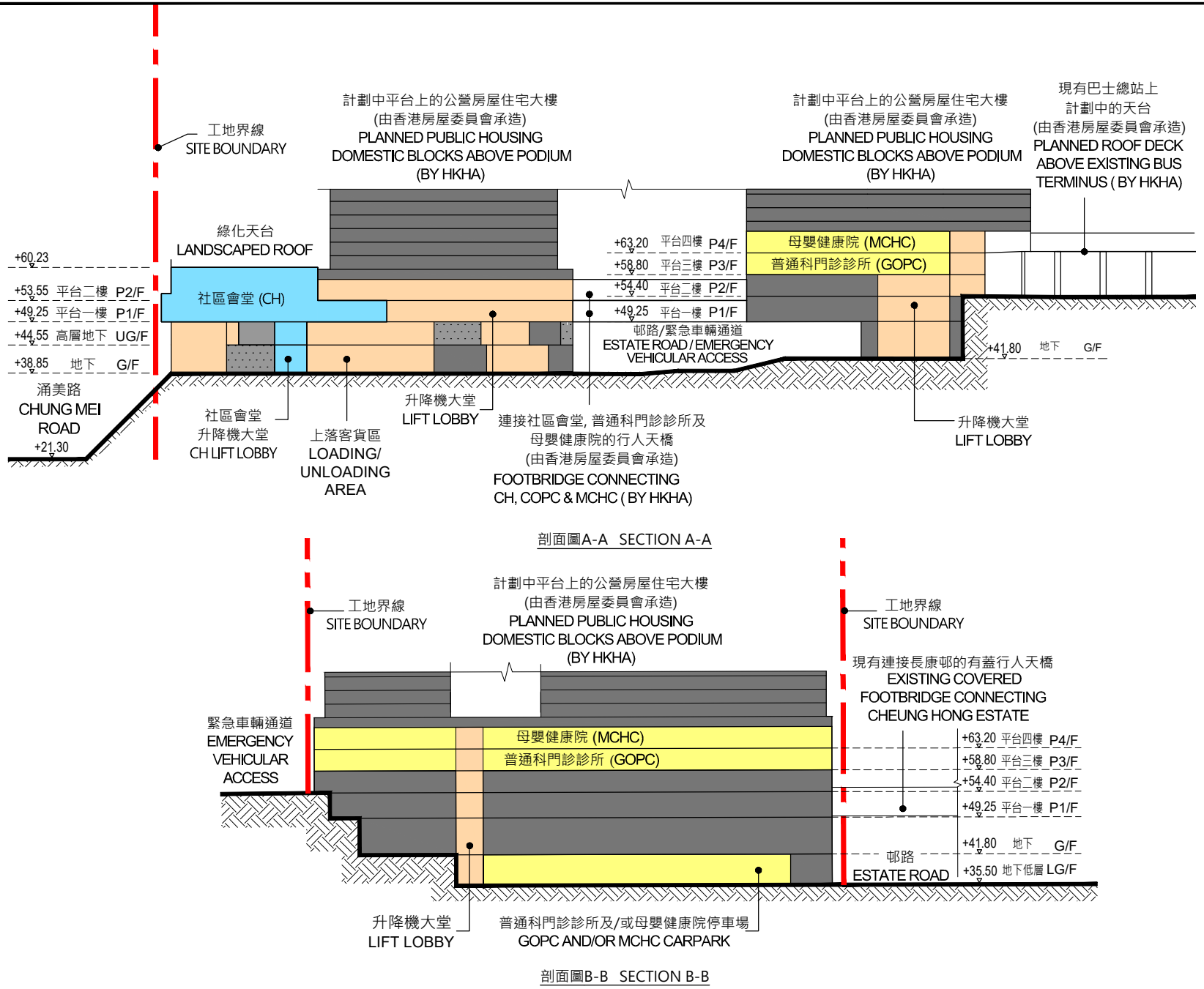
ARCHITECTURAL SERVICES DEPARTMENT 建築署

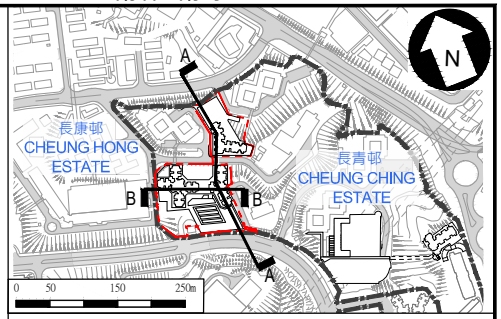


普通科門診診所及母嬰健康院
平台四樓平面圖
GOPC AND MCHC
PODIUM 4 (P4) FLOOR PLAN

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

ARCHITECTURAL SERVICES DEPARTMENT 建築署





索引圖 **KEY PLAN**

圖例 LEGEND

- 工地界線 SITE BOUNDARY
- 青康路北公營房屋發展界線 BOUNDARY OF PUBLIC HOUSING DEVELOPMENT AT CHING HONG ROAD NORTH
- 社區會堂範圍 CH AREA
- 普通科門診診所及/或母嬰健康院範圍 GOPC AND/OR MCHC AREA
- 機電房 PLANT ROOM
- 公共地方 (與香港房屋委員會共用) COMMON AREA (SHARE WITH HKHA)
- 共用機電房 (與香港房屋委員會共用) COMMON PLANT ROOM (SHARE WITH HKHA)
- 非社區會堂,普通科門診診所或母嬰健康院範圍 NON CH, GOPC/MCHC AREA

0 10 20 30 40 50 m

剖面圖
SECTIONS

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

ARCHITECTURAL SERVICES DEPARTMENT 建築署

從北面望向大樓的構思透視圖
PERSPECTIVE VIEW FROM NORTH DIRECTION

構思圖
ARTIST'S IMPRESSION

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

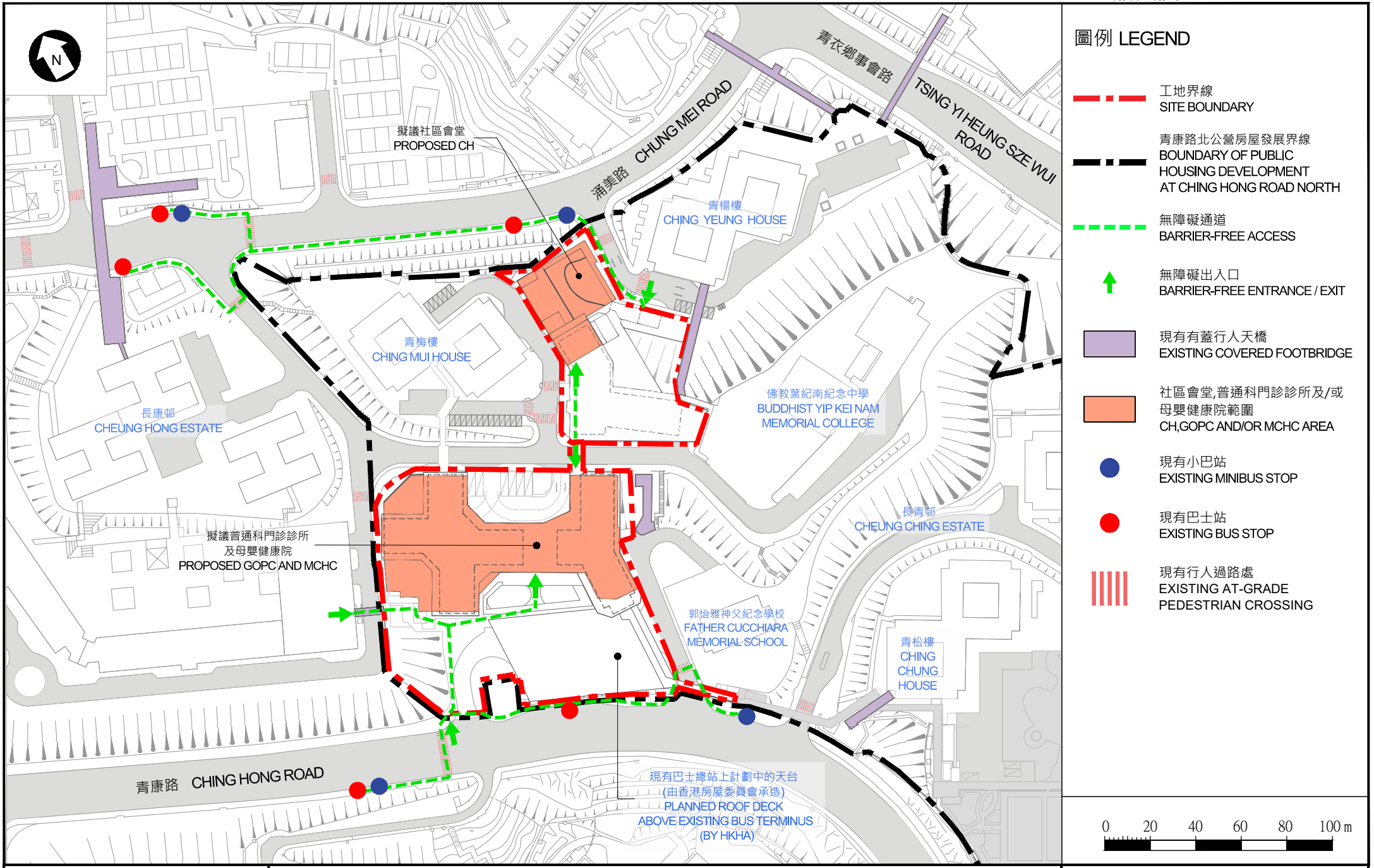
ARCHITECTURAL SERVICES DEPARTMENT 建築署

從東北面望向大樓的構思透視圖
PERSPECTIVE VIEW FROM NORTH-EAST DIRECTION

構思圖
ARTIST'S IMPRESSION

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

ARCHITECTURAL SERVICES DEPARTMENT 建築署



無障礙通道平面圖
PLAN OF BARRIER-FREE ACCESS

191 GK
青衣青康路社區會堂, 普通科門診診所及母嬰健康院
COMMUNITY HALL, GENERAL OUTPATIENT CLINIC AND MATERNAL AND CHILD HEALTH CENTRE AT CHING HONG ROAD, TSING YI

ARCHITECTURAL SERVICES DEPARTMENT 建築署

Key development parameters of the public housing development at Ching Hong Road North

Site area	About 3.6 hectares
Gross floor area	About 172 100 square metres
Allowable building height	155 or 170 metres above principal datum
No. of domestic block	4
Flat number	About 3 200
Anticipated population	About 7 800
Commencement date	In phases from 2019 to 2023
Completion date	In phases from 2024 to 2029
Ancillary facilities	CH, GOPC, MCHC, Social and Recreational Centre for the Disabled (Physically Handicapped), Integrated Children and Youth Services Centre, Residential Care Home for the Elderly, Day Care Centre for the Elderly, Neighbourhood Elderly Centre, Day Nursery Centre, Family Multi-Intellectual Centre, a kindergarten (6 classrooms), retail facilities, carparks, podium gardens, children play areas, basketball courts, badminton courts, open space, etc.

795CL – Site formation and infrastructure works for public housing developments at Pok Fu Lam South

PROJECT SCOPE AND NATURE

We propose to upgrade **795CL** to Category A and the scope of works comprises –

(a) site formation works and construction of associated retaining structures and slopes;

(b) construction of a single two-lane carriageway, footpaths and lay-bys, including an elevated road, for connecting the Kai Lung Wan North Site with the junction of Pok Fu Lam Road and Victoria Road;

(c) road improvement works at the junction of Pok Fu Lam Road and Victoria Road, and road widening works for a section of Victoria Road connecting to the junction;

(d) construction/ modification of lay-bys and footpath widening works including the construction of covered footpath at Shek Pai Wan Road;

(e) construction of two footbridges with associated lifts across Shek Pai Wan Road;

(f) road improvement works at Wah Lok Path, Wah King Street, Wah Fu Road and near World Fair Court; and

(g) ancillary works including drainage, sewerage, water supply and landscaping.

2. The location and site plan together with sections of the proposed works are at **Annexes 1 and 2 to Enclosure 2**.

/3. …..

3. Subject to timely funding approval by the Finance Committee (FC), we expect **795CL** to commence in mid-2020. The site formation works will be completed in phases from 2022 to 2023 for the construction of the proposed public housing developments at Pok Fu Lam South. The other infrastructure works will be completed in phases from 2026 to 2027 to tie in with the population intake of the public housing developments. In order to meet the tight construction schedule, we plan to invite tenders in parallel to enable early commencement of the works of **795CL**. Tenders will only be awarded after obtaining FC's funding approval.

JUSTIFICATION

4. We propose to carry out **795CL** for the provision of formed land and associated infrastructure at five government lands in Pok Fu Lam South, namely sites at Wah Lok Path, Wah King Street, Wah Fu North, Kai Lung Wan North and Kai Lung Wan South to tie in with the public housing developments. The key development parameters and the conceptual plan of the public housing developments are at **Annexes 3 and 4 to Enclosure 2**.

5. According to the findings of the traffic impact assessment, we also propose to carry out the improvement works on road and transport networks as listed in paragraph 1(b) to (f) above to accommodate the traffic needs arising from the proposed developments.

FINANCIAL IMPLICATIONS

6. We estimate the capital cost of the proposed works to be $4,571.3 million in money-of-the-day (MOD) prices, broken down as follows –

			$ million (in MOD prices)
(a)	Site formation works and geotechnical works		2,489.7
(b)	Road works		698.7
(c)	Footbridges with associated lift towers		123.3
(d)	Ancillary works including drainage, sewerage, water supply and landscaping		400.4
(e)	Consultants' fee for		37.5
	(i) contract administration	13.6	
	(ii) management of Resident Site Staff (RSS)	23.9	
(f)	Remuneration of RSS		374.7
(g)	Contingencies		447.0
	Total		4,571.3

7. In view of insufficient in-house resources, we propose to engage consultants to undertake contract administration and site supervision of the proposed works. A breakdown of the estimates for consultants' fees and RSS costs by man-months is at **Annex 5 to Enclosure 2**.

/8. …..

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

Year	$ million (MOD)
2020 – 2021	45.0
2021 – 2022	713.8
2022 – 2023	1,170.6
2023 – 2024	765.9
2024 – 2025	599.9
2025 – 2026	419.3
2026 – 2027	451.2
2027 – 2028	251.0
2028 – 2029	154.6
	4,571.3

9. 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 from 2020 to 2029. Civil Engineering and Development Department (CEDD) will deliver the proposed works under New Engineering Contract[1]. The contract will provide for price adjustments.

10. We estimate the annual recurrent expenditure arising from the proposed works to be about $9.4 million.

/**PUBLIC** …..

[1] New Engineering Contract is a suite of contracts developed by Institution of Civil Engineers, United Kingdom. It is a contract form that emphasises cooperation, mutual trust and collaborative risk management between contracting parties.

PUBLIC CONSULTATION

11. We consulted the District Development and Housing Committee (DDHC) of Southern District Council (SDC) on the proposed works on 19 July 2018. The DDHC generally did not object in principle to the proposed works, but the DDHC showed concerns on the proposed road improvement scheme at the junction of Pok Fu Lam Road and Victoria Road, the timetable of the construction of the South Island Line (West) and the connectivity of the five government lands and the nearby community.

12. We also briefed the DDHC about the proposed works on 27 May 2019. The DDDC opined that the South Island Line (West) should be implemented as soon as possible to tie in with some large developments in the district including the public housing developments at Pok Fu Lam South, Wah Fu Estate Redevelopment, Cyberport Expansion and Queen Mary Hospital Redevelopment, etc. The DDHC also showed concerns on the design of the junction of Pok Fu Lam Road and Victoria Road, the design of footbridges and the paving pattern of footpath as well as the connectivity among developments, etc. We will continue to follow up with these issues.

13. We gazetted the proposed road works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) (RO) and the proposed sewerage works under RO as applied by Section 26 of the Water Pollution Control (Sewerage) Regulation (Cap. 358AL) on 21 September 2018. After the gazettal, we received 241 objections regarding the proposed road works whereas no objection was received regarding the proposed sewerage works. We met with the objectors to explain the details of the works. In the end, nine objectors withdrew their objections unconditionally, while the remaining 232 objectors maintained their objections. The unresolved objections were mainly related to tree, heritage, environmental, traffic and transport impacts arising from the proposed works. We subsequently submitted the objections and the correspondence with the objectors (including meeting minutes) to the Chief Executive in Council for consideration. On 8 October 2019, the Chief Executive in Council authorised the proposed road works without modification. The notice of authorisation was subsequently gazetted on 25 October 2019.

14. CEDD consulted the Advisory Committee on the Appearance of Bridges and Associated Structures[2] (ACABAS) about the design of the retaining structures, elevated carriageway, covered footpath and footbridges on 19 February 2019, 19 March 2019, 16 July 2019, 20 August 2019, 17 September 2019, 19 November 2019 and 17 December 2019. The ACABAS accepted in principle on the design and made some suggestions. We will refine the aesthetic design of the related structures and continue to consult ACABAS.

15. We consulted the Legislative Council Panel on Housing on 2 December 2019. The Panel supported the submission of the funding proposal for the proposed works to the Public Works Subcommittee for consideration.

ENVIRONMENTAL IMPLICATIONS

16. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). CEDD has completed the Preliminary Environmental Review (PER) for the project. The PER has concluded and the Director of Environmental Protection has agreed that the project would not cause any long-term environmental impacts. We have included in the project estimate the cost to implement suitable mitigation measures to control short-term environmental impacts.

17. CEDD has incorporated into the works contracts the mitigation measures that the contractor should implement to control noise, dust and site run-off nuisances during construction to within established standards and guidelines. These measures include the use of silencers, mufflers, movable noise barriers or enclosures and quiet plants to reduce noise generation, frequent cleaning and watering of the work sites, installations of sprinklers and the provision of wheel-washing facilities to minimise dust generation, and the use of temporary drains to collect site runoff for on-site treatment before discharge.

/18. …..

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[2] The Advisory Committee on the Appearance of Bridges and Associated Structures, which comprises representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institute of Planners, an academic institution, Architectural Services Department, Highways Department, Housing Department, and Civil Engineering and Development Department, is responsible for vetting the design of bridges and other structures associated with the public highway system, including noise barriers and semi-enclosures, from aesthetic and visual impact points of view.

18. At the planning and design stages, CEDD has considered the design levels and layout of the proposed site formation so as to reduce the generation of construction waste where possible. In addition, CEDD will require the contractor to reuse inert construction waste (e.g. excavated soil and rock fill) on site or at other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities[3] (PFRF). CEDD 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 generation of construction waste.

19. At the construction stage, CEDD 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. CEDD will ensure that the day-to-day operations on site comply with the approved plan. CEDD will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. CEDD will control the disposal of inert construction waste and non-inert construction waste at PFRF and landfills respectively through a trip-ticket system.

20. CEDD estimates that **795CL** will generate in total about 1 362 000 tonnes of construction waste. Of these, CEDD will reuse about 18 000 tonnes (1.3%) of inert construction waste on site and deliver 1 215 000 tonnes (89.2%) of inert construction waste to PFRF for subsequent reuse. CEDD will dispose of the remaining 129 000 tonnes (9.5%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRF and landfill sites is estimated to be about $112.1 million for this project (based on a unit charge rate of $71 per tonne for disposal at PFRF and $200 per tonne for disposal at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

/HERITAGE .....

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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 at public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

HERITAGE IMPLICATIONS

21. Pursuant to the Development Bureau Technical Circular (Works) No. 6/2009, CEDD has found three graded structures of old Dairy Farm in Pok Fu Lam, namely the Paddock C18 (Grade 3 historic building) which is within the project site boundary, and the Manure Pit (Grade 2 historic building) and Paddock C17 (Grade 3 historic building) which are within 50 metres outside the project site boundary. CEDD has carried out a Heritage Impact Assessment ("HIA") in accordance with the prevailing requirements for heritage conservation. The Antiquities Advisory Board ("AAB") was consulted on the HIA report at the AAB meeting held on 12 December 2019. The HIA report proposed to preserve the three graded structures in-situ through appropriate measures and members were generally supportive to the findings and recommendations of the HIA report. CEDD will ensure that the construction works will comply with the mitigation measures, recommendations and the requirements stipulated in the HIA report.

TRAFFIC IMPLICATIONS

22. CEDD has conducted a traffic impact assessment for the proposed public housing developments at Pok Fu Lam South. According to the findings of the assessment, the road and traffic networks will be able to accommodate the traffic needs arising from the proposed developments after implementation of the proposed improvement measures. CEDD will also implement temporary traffic arrangements and appropriate control measures on the construction vehicles in order to minimise the traffic impact to the nearby roads during construction.

LAND ACQUISITION

23. The project does not require any land acquisition.

BACKGROUND INFORMATION

24. We upgraded **795CL** to Category B in September 2015.

/25. …..

25. CEDD engaged consultants in June 2016 to undertake the detailed design and site investigation for **795CL** at an estimated cost of about $27.0 million in MOD prices. This amount is charged to the Block Allocation **Subhead B100HX** "Minor housing development related works, studies and investigations for items in Category D of the Public Works Programme". CEDD has completed the detailed design for **795CL**.

26. Of the 5 277 numbers of trees within the project site boundary, 1 179 numbers of trees will be preserved. The project will involve the removal of 4 098 numbers of trees, including 4 080 numbers of trees to be felled and 18 numbers of trees to be transplanted. Among the affected trees, 40 numbers of trees are important trees[4], of which the details were summarised at **Annex 6 to Enclosure 2**. We will incorporate planting proposals as part of the proposed works, including estimated quantities of 4 120 numbers of whips, about 73 000 numbers of shrubs and 3 870 square metres of grassed area.

27. We estimate that the proposed works will create about 1 075 jobs (870 for labourers and another 205 for professional or technical staff) providing a total employment of 45 850 man-months.

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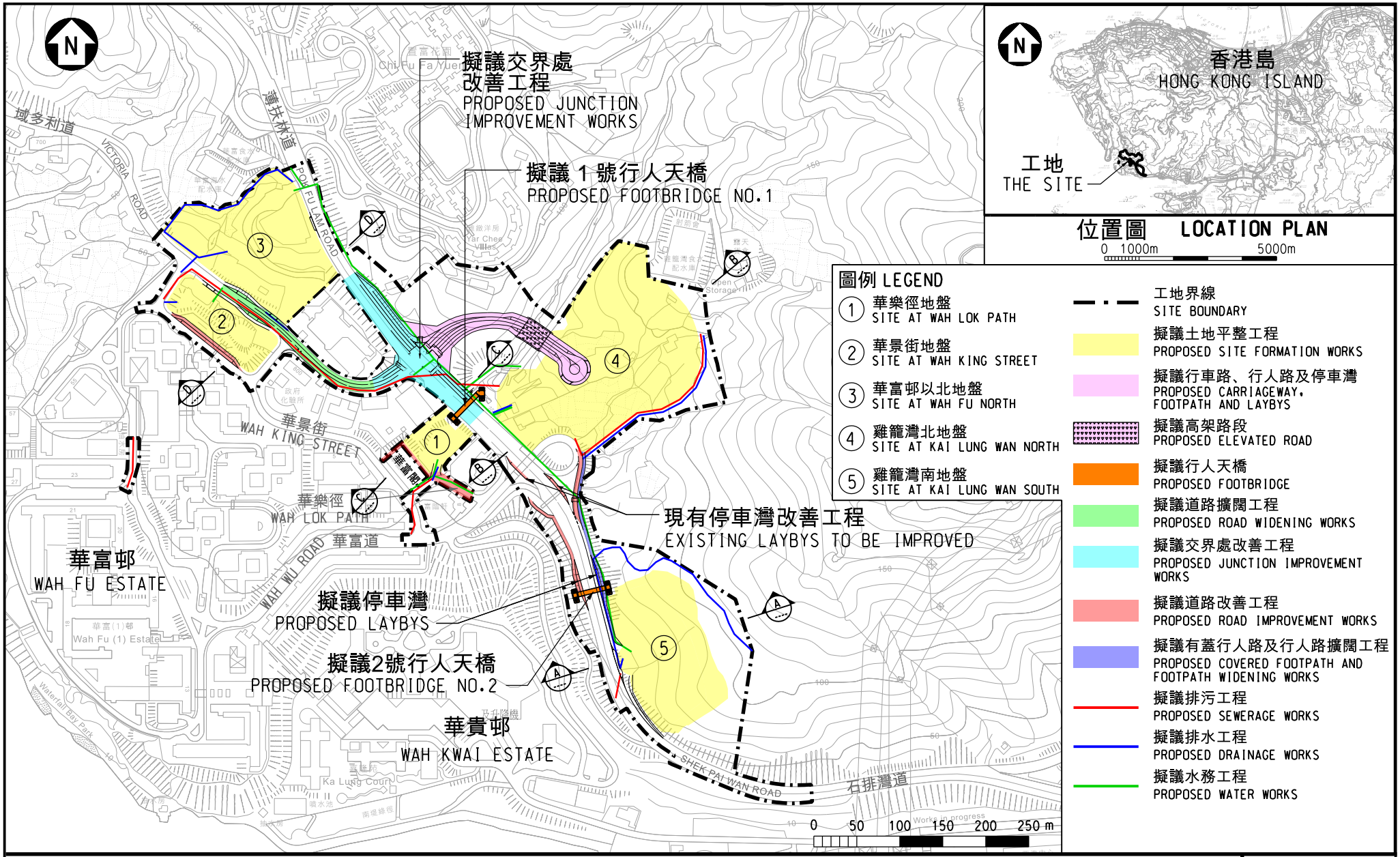
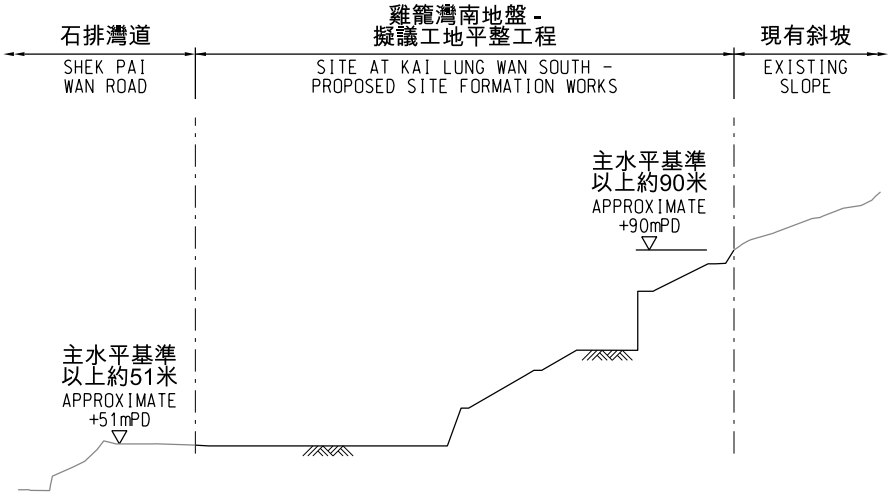
[4] "Important trees" refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –
(a) trees of 100 years old or above;
(b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or 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
(e) trees with trunk diameter equal to or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with a height/canopy spread equal to or exceeding 25 m.



工務計劃項目編號 795CL
薄扶林南公營房屋發展之工地平整及基礎設施工程
PWP ITEM NO. 795CL
SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS AT POK FU LAM SOUTH

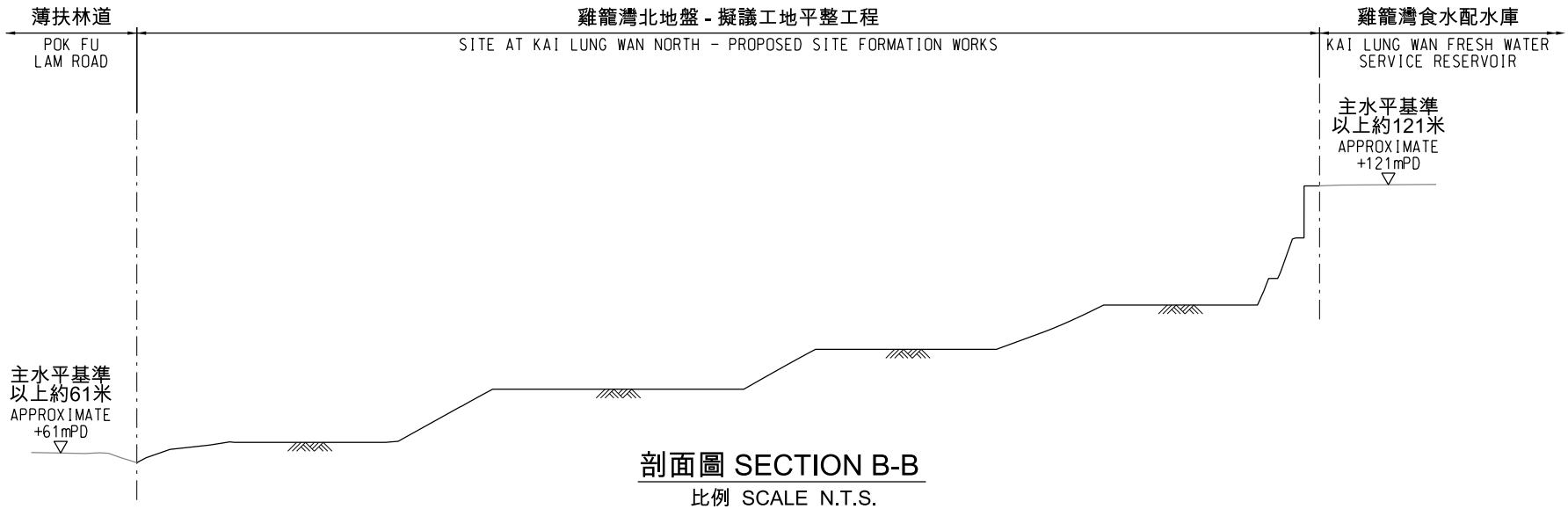
工地平面圖
SITE PLAN

附件 2 附錄1 Annex 1 to Enclosure 2



剖面圖 SECTION A-A

比例 SCALE N.T.S.



剖面圖 SECTION B-B

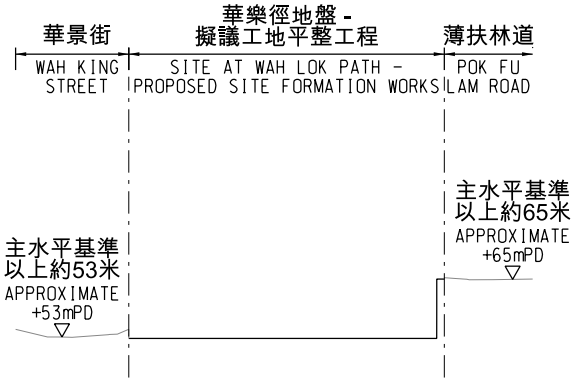
比例 SCALE N.T.S.

工務計劃項目編號 795CL
薄扶林南公營房屋發展之工地平整及基礎設施工程

PWP ITEM NO. 795CL

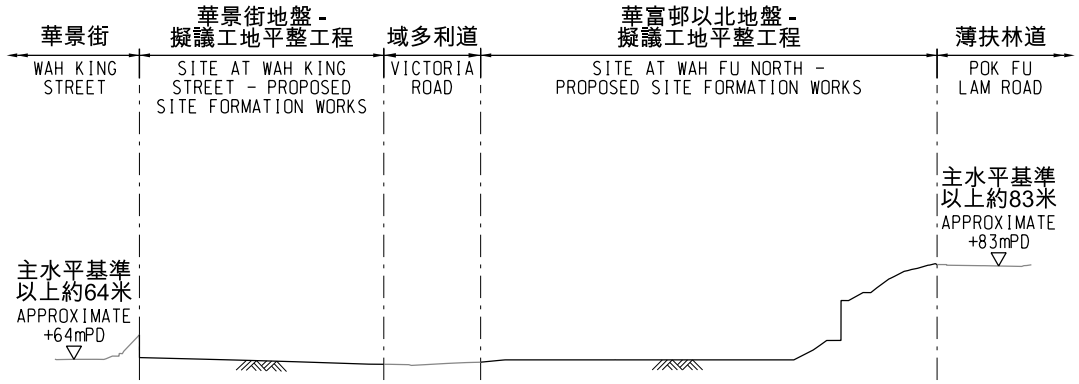
SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS AT POK FU LAM SOUTH

剖面圖
SECTIONS



剖面圖 SECTION C-C

比例 SCALE N.T.S.



剖面圖 SECTION D-D

比例 SCALE N.T.S.

工務計劃項目編號 795CL
薄扶林南公營房屋發展之工地平整及基礎設施工程

PWP ITEM NO. 795CL

SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS AT POK FU LAM SOUTH

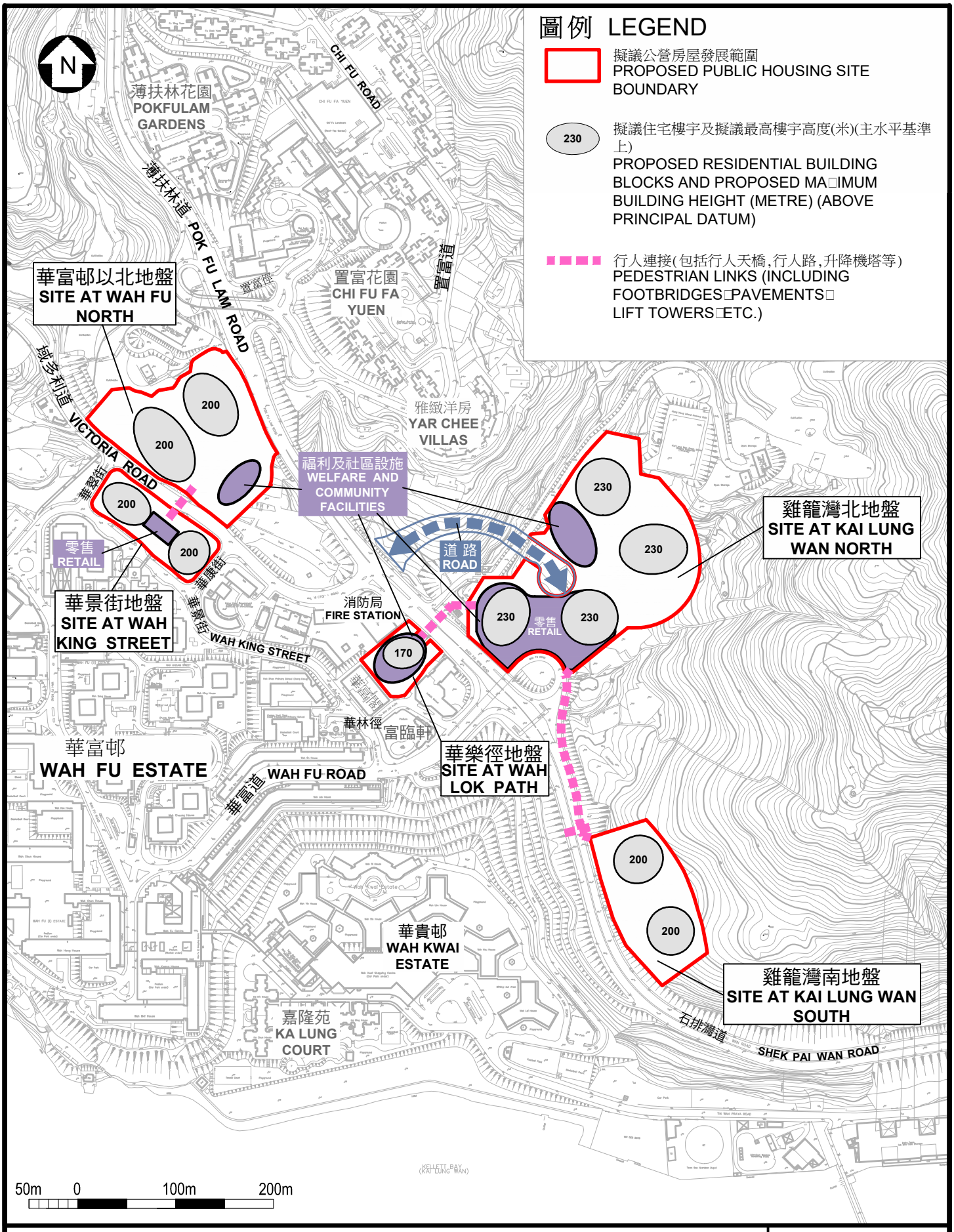
剖面圖
SECTIONS

Annex 3 to Enclosure 2

Key development parameters of the public housing developments at Pok Fu Lam South

Site area	A total of about 8 hectares
Total gross floor area	Not more than 500 000 m^2
Building height restriction	High bands of +200 metres above Principal Datum (mPD) and +230mPD
No. of domestic blocks	11 (Subject to detailed design)
No. of flats	About 8 900
Projected population	About 26 900
Completion date	Starting from 2026 in phases
Non-domestic facilities	Ancillary parking spaces, local open spaces, kindergarten, recreation, welfare, community and retail facilities, etc [Note]

[Note] In addition to the above facilities, we plan to provide a Public Vehicle Park of about 7 000 m^2 so as to meet the local demand. Funding proposal for the Public Vehicle Park is planned to be submitted to the Legislative Council for approval in later sessions.



工務計劃項目編號 795CL
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SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS AT POK FU LAM SOUTH

概念平面圖
CONCEPTUAL PLAN

795CL - Site formation and infrastructure works for public housing developments at Pok Fu Lam South

Breakdown of the estimates for consultants' fees and resident site staff costs (in September 2019 prices)

			Estimated man-months	Average MPS* Salary point	Multiplier (Note 1)	Estimated fee ($ million)
(a)	Consultants' fees for contract administration (Note 2)	Professional	--	--	--	8.9
		Technical	--	--	--	2.1
					Sub-total	11.0#
(b)	Resident site staff (RSS) costs(Note 3)	Professional	1 231	38	1.6	169.1
		Technical	3 227	14	1.6	156.1
					Sub-total	325.2
	Comprising –					
(i)	Consultants fees for management of RSS				19.5#	
(ii)	Remuneration of RSS				305.7#	
					Total	**336.2**

*MPS = Mater 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 point 38 = $85,870 per month and MPS point 14 = $30,235 per month).

2. The consultants' staff cost for the contract administration is calculated in accordance with the existing consultancy agreement for the investigation, design and construction of **795CL**. The construction phase of the assignment will only be executed upon FC's approval to upgrade **795CL** to Category A.

3. We will only know the actual man-months and actual costs 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 6 of Enclosure 2.

Annex 6 to Enclosure 2

795CL – Site formation and infrastructure works for public housing developments at Pok Fu Lam South

Summary of "Important Trees" to be affected

Tree ref. no.[1]	Species		Measurements			Amenity value[3]	Form	Health condition	Structural condition	Suitability for transplanting[4]		Conservation status[5]	Recommendation	Department to provide expert advice to Lands Department	Additional remarks
	Scientific name	Chinese name	Height (m)	DBH[2] (mm)	Crown spread (m)	(Good / Fair / Poor)				(High / Medium / Low)	Remarks		(Retain/Transplant /Fell)		
T0125	*Ficus microcarpa*	細葉榕	14	1650	13	Good	Fair	Fair	Fair	Low	On slope, impractical to prepare rootball	-	Fell	Agriculture, Fisheries and Conservation Department (AFCD)	Important Tree (DBH>=1m); On slope; Multi-trunk
T0271	*Ficus microcarpa*	細葉榕	13	1575	18	Good	Fair	Fair	Fair	Low	On slope, impractical to prepare rootball	-	Fell	Highways Department (HyD)	Important Tree (DBH>=1m); On slope; Multi-trunk
T0467	*Ficus microcarpa*	細葉榕	15	3050	20	Good	Fair	Fair	Fair	Low	On free standing masonry structure, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On free standing masonry structure; Multi-trunk
T0674	*Ficus elastica*	印度榕	15	3400	25	Poor	Poor	Fair	Poor	Low	Poor amenity value, form & structure; On slope, impractical to prepare rootball	-	Fell	HyD	Important Tree (DBH>=1m); On slope; Multi-trunk; Heavily damaged after typhoon Mangkhut; Nearly all crown behind the existing corrugated fence have been lost

Tree ref. no.[1]	Species		Measurements			Amenity value[3]	Form	Health condition	Structural condition	Suitability for transplanting[4]		Conservation status[5]	Recommendation	Department to provide expert advice to Lands Department	Additional remarks
	Scientific name	Chinese name	Height (m)	DBH[2] (mm)	Crown spread (m)	(Good / Fair / Poor)				(High / Medium / Low)	Remarks		(Retain/Transplant /Fell)		
T0765	*Ficus microcarpa*	細葉榕	15	1750	20	Fair	Poor	Fair	Fair	Low	Poor form; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Moderately leaning; Moderately asymmetric crown
T0928	*Ficus microcarpa*	細葉榕	25	2080	30	Fair	Poor	Fair	Fair	Low	Poor form; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Low live crown ratio; Messy form
T0977	*Ficus microcarpa*	細葉榕	20	2450	30	Good	Fair	Fair	Fair	Low	Partially rooted on rock, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); Partially rooted on rock; Multi-trunk
T0993	*Ficus microcarpa*	細葉榕	15	1040	30	Fair	Poor	Fair	Poor	Low	Poor form & structure; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Severe branch decay; Messy form; Heavily vined
T1007	*Ficus microcarpa*	細葉榕	20	1350	30	Good	Good	Fair	Good	Low	On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope

Tree ref. no.[1]	Species		Measurements			Amenity value[3]	Form	Health condition	Structural condition	Suitability for transplanting[4]		Conservation status[5]	Recommendation	Department to provide expert advice to Lands Department	Additional remarks
	Scientific name	Chinese name	Height (m)	DBH[2] (mm)	Crown spread (m)	(Good / Fair / Poor)				(High / Medium / Low)	Remarks		(Retain/Transplant /Fell)		
T1203	*Ficus microcarpa*	細葉榕	12	1000	15	Fair	Poor	Fair	Fair	Low	Poor form; Growing on rock, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Growing on rock; Multi-trunk; Moderately asymmetric crown; Messy form
T1482	*Ficus microcarpa*	細葉榕	13	1000	10	Fair	Poor	Fair	Fair	Low	Poor form; On stonewall, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); Stonewall Tree; Multi-trunk; Moderately leaning; Moderately asymmetric crown; Low live crown ratio
T1613	*Artocarpus hypargyreus*	白桂木	12	405	6	Fair	Poor	Fair	Poor	Low	Poor form & structure; On slope, impractical to prepare rootball	RPPHK	Fell	AFCD	Important Tree (rare species); On slope; On loose rock; Moderately leaning; Poor taper; Low live crown ratio
T1725	*Lagerstroemia fordii*	廣東紫薇	8	145	4	Fair	Poor	Fair	Fair	Low	Poor form; On slope; Close to concrete wall, impractical to prepare rootball	Cap.96; RPPHK	Fell	HyD	Important Tree (rare species); On slope; Close to concrete wall; Moderately leaning; Low live crown ratio

Tree ref. no.[1]	Species		Measurements			Amenity value[3]	Form	Health condition	Structural condition	Suitability for transplanting[4]		Conservation status[5]	Recommendation	Department to provide expert advice to Lands Department	Additional remarks
	Scientific name	Chinese name	Height (m)	DBH[2] (mm)	Crown spread (m)	(Good / Fair / Poor)				(High / Medium / Low)	Remarks		(Retain/Transplant /Fell)		
T2070	*Celtis sinensis*	朴樹	8	1030	12	Poor	Poor	Fair	Poor	Low	Poor amenity value, form & structure; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope, Co-dominant stems; Moderately leaning; Severe asymmetric crown
T2283	*Lagerstroemia fordii*	廣東紫薇	7	135	4	Fair	Poor	Fair	Poor	Low	Poor form & structure	Cap.96; RPPHK	Fell	AFCD	Important Tree (rare species); On slope; Growing on rock; Exposed roots; Heavily leaning; Poor taper; Heavily vined
T2285	*Lagerstroemia fordii*	廣東紫薇	6	365	4	Fair	Poor	Fair	Poor	Low	Poor form & structure	Cap.96; RPPHK	Fell	AFCD	Important Tree (rare species); On slope; On rocky soil; Multi-trunk; Broken branches; Heavily vined
T2298	*Lagerstroemia fordii*	廣東紫薇	9	435	6	Fair	Poor	Fair	Poor	Low	Poor form & structure	Cap.96; RPPHK	Fell	AFCD	Important Tree (rare species); On slope; On rocky soil; Heavily leaning; Dense sucker growth; Poor taper; Low live crown ratio
T2642	*Ficus microcarpa*	細葉榕	9	1000	12	Fair	Poor	Fair	Fair	Low	Poor form; On slope, impractical to prepare rootball	-	Fell	HyD	Important Tree (DBH>=1m); On slope; Heavily leaning; Severe asymmetric crown

Tree ref. no.[1]	Species		Measurements			Amenity value[3]	Form	Health condition	Structural condition	Suitability for transplanting[4]		Conservation status[5]	Recommendation	Department to provide expert advice to Lands Department	Additional remarks
	Scientific name	Chinese name	Height (m)	DBH[2] (mm)	Crown spread (m)	(Good / Fair / Poor)				(High / Medium / Low)	Remarks		(Retain/Transplant /Fell)		
T2643	*Ficus microcarpa*	細葉榕	9	1000	10	Fair	Poor	Fair	Fair	Low	Poor form; On slope, impractical to prepare rootball	-	Fell	HyD	Important Tree (DBH>=1m); On slope; Heavily leaning
T2993	*Ficus elastica*	印度榕	12	1480	9	Fair	Poor	Fair	Fair	Low	Poor form; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Moderately leaning; Messy form
T2994	*Ficus elastica*	印度榕	12	2570	9	Fair	Poor	Fair	Fair	Low	Poor form; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Moderately leaning; Messy form
T3037	*Ficus microcarpa*	細葉榕	15	1150	8	Fair	Poor	Fair	Poor	Low	Poor form & structure; On slope, partly on rock, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Partly on rock; Poor taper; Low live crown ratio
T3054	*Ficus elastica*	印度榕	16	2120	10	Fair	Poor	Fair	Fair	Low	Poor form; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Messy form
T3150	*Lagerstroemia fordii*	廣東紫薇	8	225	4	Fair	Poor	Fair	Poor	Low	Poor form & structure; On rocky slope, impractical to prepare rootball	Cap.96; RPPHK	Fell	AFCD	Important Tree (rare species); On rocky slope; Heavily leaning; Poor taper; Low live crown ratio

Tree ref. no.[1]	Species		Measurements			Amenity value[3]	Form	Health condition	Structural condition	Suitability for transplanting[4]		Conservation status[5]	Recommendation	Department to provide expert advice to Lands Department	Additional remarks
	Scientific name	Chinese name	Height (m)	DBH[2] (mm)	Crown spread (m)	(Good / Fair / Poor)				(High / Medium / Low)	Remarks		(Retain/Transplant /Fell)		
T3189	*Lagerstroemia fordii*	廣東紫薇	7	120	3	Fair	Poor	Poor	Poor	Low	Poor form, health & structure; On rocky slope, impractical to prepare rootball	Cap.96; RPPHK	Fell	AFCD	Important Tree (rare species); On rocky slope; Heavily leaning; Poor taper; Low live crown ratio; Low leaf density
T3195	*Ficus benjamina*	垂葉榕	12	1230	18	Fair	Poor	Fair	Poor	Low	Poor form & structure; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Low live crown ratio; Messy form
T3240	*Artocarpus hypargyreus*	白桂木	9	260	5	Fair	Poor	Fair	Poor	Med	-	RPPHK	Transplant	AFCD	Important Tree (rare species); On slope; Moderately leaning; Poor taper; Low live crown ratio
T3252	*Ficus elastica*	印度榕	15	4240	22	Good	Fair	Fair	Fair	Low	On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk
T3340	*Ficus variegata*	青果榕	16	1150	10	Fair	Poor	Fair	Poor	Low	Poor form & structure; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Poor taper; Low live crown ratio

Tree ref. no.[1]	Species		Measurements			Amenity value[3]	Form	Health condition	Structural condition	Suitability for transplanting[4]		Conservation status[5]	Recommendation	Department to provide expert advice to Lands Department	Additional remarks
	Scientific name	Chinese name	Height (m)	DBH[2] (mm)	Crown spread (m)	(Good / Fair / Poor)				(High / Medium / Low)	Remarks		(Retain/Transplant /Fell)		
T3350	*Artocarpus hypargyreus*	白桂木	8	250	5	Fair	Poor	Fair	Poor	Low	Poor form & structure; On slope, impractical to prepare rootball	RPPHK	Fell	AFCD	Important Tree (rare species); On slope; Heavily leaning; Poor taper; Low live crown ratio
T3481	*Artocarpus hypargyreus*	白桂木	6	100	2	Fair	Poor	Fair	Poor	Med	-	RPPHK	Transplant	AFCD	Important Tree (rare species); On slope; Moderately leaning; Poor taper; Heavily vined
T4212	*Ficus benjamina*	垂葉榕	13	1300	8	Fair	Poor	Fair	Poor	Low	Poor form & structure; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Poor taper; Low live crown ratio
T4336	*Ficus elastica*	印度榕	12	4920	16	Fair	Poor	Fair	Fair	Low	Poor form; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Messy form
T4556	*Ficus elastica*	印度榕	13	7140	17	Fair	Poor	Fair	Fair	Low	Poor form; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Messy form
T4613	*Ficus elastica*	印度榕	14	4730	10	Fair	Poor	Fair	Fair	Low	Poor form; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Messy form

Tree ref. no.[1]	Species		Measurements			Amenity value[3]	Form	Health condition	Structural condition	Suitability for transplanting[4]		Conservation status[5]	Recommendation	Department to provide expert advice to Lands Department	Additional remarks
	Scientific name	Chinese name	Height (m)	DBH[2] (mm)	Crown spread (m)	(Good / Fair / Poor)				(High / Medium / Low)	Remarks		(Retain/Transplant /Fell)		
T5074	*Ficus microcarpa*	細葉榕	12	1950	14	Fair	Poor	Fair	Poor	Low	Poor form & structure; On slope, impractical to prepare rootball	-	Fell	HyD	Important Tree (DBH>=1m); On slope; Multi-trunk; Heavily leaning; Severe asymmetric crown
T6344	*Aquilaria sinensis*	土沉香	12	310	6	Fair	Poor	Fair	Poor	Low	Poor form & structure; On slope, impractical to prepare rootball	Cap.586; RPPHK; CPRDB	Fell	HyD	Important Tree (rare species); On slope; Co-dominant trunks; Trunk cut and removed; Moderately leaning; Low live crown ratio
T6666	*Aquilaria sinensis*	土沉香	4	115	5	Fair	Poor	Fair	Poor	Med	-	Cap.586; RPPHK; CPRDB	Transplant	AFCD	Important Tree (rare species); On slope; Heavily leaning; Poor taper; Heavily vined
T7964	*Ficus elastica*	印度榕	18	4250	12	Fair	Poor	Fair	Poor	Low	Poor form & structure; On slope, impractical to prepare rootball	-	Fell	AFCD	Important Tree (DBH>=1m); On slope; Multi-trunk; Messy form; Heavily vined
T7987	*Ficus benjamina*	垂葉榕	18	1050	8	Fair	Poor	Fair	Poor	Low	Poor form & structure	-	Fell	AFCD	Important Tree (DBH>=1m); Moderately leaning; Heavily pruned; Dense epicormic growth

1 There are no trees within site boundary are under the Register of Old and Valuable Trees.
2 DBH of a tree refers to its diameter at breast height (i.e. measurement at 1.3 m above ground level).
3 Amenity value of the tree is assessed by its functional values for shade, shelter, screening, reduction of pollution and noise and also its fung shui significance, and classified into the following categories.
Good: important trees which should be retained by adjusting the design layout accordingly.
Fair: trees that are desirable to be retained in order to create a pleasant environment, which includes healthy specimens of lesser importance than “Good” trees.
Poor: trees that are dead, dying or potentially hazardous and should be removed.
4 Assessment has taken into account conditions of individual trees at the time of survey (including health, structure, age and root conditions), site conditions (including topography and accessibility), and intrinsic characters of tree species (survival rate after transplanting).
5 Conservation status is based on the rarity and protection status of the species under relevant ordinances in Hong Kong, such as
RPPHK – Species included in AFCD publication "Rare and Precious Plants of Hong Kong (2003)";
Cap. 586 – Native plants listed in Protection of Endangered Species of Animals and Plants Ordinance, Cap. 586;
Cap. 96 – Species Scheduled under Forests and Countryside Ordinance, Cap 96;
CPRDB – Species Included in "China Plant Red Data Book".

812CL – Site formation and infrastructure works for public housing developments at Pik Wan Road, Yau Tong

PROJECT SCOPE AND NATURE

We propose to upgrade **812CL** to Category A and the scope of works comprises –

(a) site formation works and construction of associated retaining structures and slopes;

(b) construction of pedestrian walkway systems including footpath and two footbridges;

(c) road widening works at Ko Chiu Road and Ko Chiu Path;

(d) road improvement works at Pik Wan Road, Lei Yue Mun Road and junctions of (i) Pik Wan Road and O King Road, (ii) Pik Wan Road and Ko Chiu Road, and (iii) Cha Kwo Ling Road and Ko Chiu Road; and

(e) ancillary works including drainage, sewerage, water supply and landscaping.

2. The location and site plan together with sections of the proposed works are at **Annexes 1 and 2 to Enclosure 3**.

3. Subject to timely funding approval by the Finance Committee (FC), we expect **812CL** to commence in mid-2020. The site formation and infrastructure works are expected to be completed in 2023 for the construction of the proposed public housing developments at Pik Wan Road, Yau Tong, while the pedestrian walkway systems will be completed in phases from 2026 onwards to tie in with the population intake of the public housing developments. In order to meet the tight construction schedule, we plan to invite tenders in parallel for the construction works listed in paragraphs 1(a), (c), (d)(i)&(ii), and (e) above to enable early commencement of the works of **812CL**. Tenders will only be awarded after obtaining FC's funding approval.

/ **JUSTIFICATION** .....

JUSTIFICATION

4. We propose to carry out **812CL** for the provision of formed land and associated infrastructures for public housing developments. The key development parameters and the conceptual plan of the public housing develoments are at **Annexes 3 and 4 to Enclosure 3**. We also propose the associated pedestrian walkway systems, road improvement and widening works to mitigate the increase in traffic flow arising from the population intake of the public housing developments, as well as to enhance the pedestrian connectivity among the proposed public housing developments, housing estates in the vicinity, and the Yau Tong town centre.

FINANCIAL IMPLICATIONS

5. We estimate the capital cost of the proposed works to be $1,823.3 million in money-of-the-day (MOD) prices, broken down as follows –

		$ million (in MOD prices)
(a)	Site formation works and retaining structures	912.6
(b)	Walkway systems with associated lift towers	379.7
(c)	Slope improvement works	70.5
(d)	Roadworks including road widening, road and junction improvement works	36.0
(e)	Ancillary works including drainage, sewerage, water supply and landscaping works	91.3
(f)	Consultants' fees for	12.9
	(i) contract administration	8.4
	(ii) management of Resident Site Staff (RSS)	4.5

/**$ million** .....

		$ million (in MOD prices)
(g)	Remuneration of RSS	149.0
(h)	Contingencies	171.3
	Total	1,823.3

6. In view of insufficient in-house resources, we propose to engage consultants to undertake contract administration and site supervision of the proposed works. A breakdown of the estimates for consultants' fees and RSS costs by man-months is at **Annex 5 to Enclosure 3**.

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

Year	**$ million (MOD)**
2020 – 2021	20.0
2021 – 2022	379.6
2022 – 2023	454.6
2023 – 2024	290.8
2024 – 2025	220.8
2025 – 2026	144.5
2026 – 2027	175.4
2027 – 2028	124.5
2028 – 2029	13.1
Total	1,823.3

/8. …..

8. 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 from 2020 to 2029. Civil Engineering and Development Department (CEDD) will deliver the proposed works under New Engineering Contract[1]. The contract will provide for price adjustments.

9. We estimate the annual recurrent expenditure arising from the proposed works to be about $9.9 million.

PUBLIC CONSULTATION

10. We consulted the Housing Committee (HC) of the Kwun Tong District Council on the proposed works on 29 May 2018. In response to the HC's suggestion of enhancing pedestrian connectivity, we have revised the original scheme with one footbridge to two footbridges, and then circulated the revised scheme of two footbridges and lifts to the HC on 19 July 2018. No objection to the revised scheme was received.

11. We gazetted the proposed road works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) (RO) and the proposed sewerage works under RO as applied by Section 26 of the Water Pollution Control (Sewerage) Regulation (Cap. 358AL) on 9 November 2018. No objection was received. The notice of authorisation was subsequently gazetted on 15 February 2019.

12. CEDD consulted the Advisory Committee on the Appearance of Bridges and Associated Structures[2] (ACABAS) about the design of the pedestrian walkway systems on 15 January 2019. The ACABAS accepted the proposed design.

/13. …..

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[1] New Engineering Contract is a suite of contracts developed by Institution of Civil Engineers, United Kingdom. It is a contract form that emphasizes cooperation, mutual trust and collaborative risk management between contracting parties.

[2] The Advisory Committee on the Appearance of Bridges and Associated Structures, which comprises representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institution of Planners, academic institutions, Architectural Services Department, Highways Department, Housing Department and Civil Engineering and Development Department, is responsible for vetting the design of bridges and other structures associated with the public highway system, including noise barriers and semi-enclosures, from aesthetic and visual impact points of view.

13. We consulted the Legislative Council Panel on Housing on 3 June 2019. The Panel supported the submission of the funding proposal for the proposed works to the Public Works Subcommittee for consideration.

ENVIRONMENTAL IMPLICATIONS

14. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). CEDD has completed the Preliminary Environmental Review (PER) for the project. The PER has concluded and the Director of Environmental Protection has agreed that the project would not cause any long-term adverse environmental impacts. We have included in the project estimate the cost to implement suitable mitigation measures to control short-term environmental impacts.

15. CEDD has incorporated into the works contracts the mitigation measures that the contractor should implement to control noise, dust and site run-off nuisances during construction to within established standards and guidelines. These measures include the use of silencers, mufflers, movable noise barriers or enclosures and quiet plants to reduce noise generation, frequent cleaning and watering of the work sites, installations of sprinklers and the provision of wheel-washing facilities to minimise dust generation, and the use of temporary drains to collect site runoff for on-site treatment before discharge.

16. At the planning and design stages, CEDD has considered the design levels and layout of the proposed site formation so as to reduce the generation of construction waste where possible. In addition, CEDD will require the contractor to reuse inert construction waste (e.g. excavated soil and rock) on site or at other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities[3] (PFRF). CEDD 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.

/17. …..

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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.

17. At the construction stage, CEDD 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. CEDD will ensure that the day-to-day operations on site comply with the approved plan. CEDD will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. CEDD will control the disposal of inert construction waste and non-inert construction waste at PFRF and landfills respectively through a trip-ticket system.

18. CEDD estimates that **812CL** will generate in total about 285 400 tonnes of construction waste. Of these, CEDD will reuse about 32 000 tonnes (11.2%) of inert construction waste on site and deliver 224 000 tonnes (78.5%) of inert construction waste to PFRF for subsequent reuse. CEDD will dispose of the remaining 29 400 tonnes (10.3%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRF and landfill sites is estimated to be about $21.8 million for this project (based on a unit charge rate of $71 per tonne for disposal at PFRF and $200 per tonne for disposal at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

19. 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.

TRAFFIC IMPLICATIONS

20. The project will not cause any adverse traffic impact. CEDD will implement the temporary traffic arrangements to facilitate temporary partial road closures for the construction works. CEDD will display publicity boards on site giving details of the temporary traffic arrangements, and the anticipated completion dates of individual sections of works. In addition, CEDD will set up a telephone hotline to respond to public enquiries or complaints.

LAND ACQUISITION

21. The project does not require any land acquisition.

BACKGROUND INFORMATION

22. We upgraded **812CL** to Category B in September 2016.

23. CEDD engaged consultants in April 2017 to undertake the detailed design and site investigation for **812CL** at an estimated cost of about $19.45 million in MOD prices. This amount is charged to the Block Allocations **Subhead B100HX** "Minor housing development related works, studies and investigations for items in Category D of the Public Works Programme". CEDD has completed the detailed design for **812CL**.

24. Of the 1 335 numbers of trees within the project boundary 47 numbers of trees will be preserved. The proposed project will involve the removal of 1 288 numbers of trees, including 1 278 numbers of trees to be felled and 10 numbers of collapsed tree to be removed. Among the affected tress, one tree is important tree[4], details of which were summarised at **Annex 6 to Enclosure 3**. CEDD will incorporate planting proposals as part of the project, including estimated quantities of 180 numbers of whips and about 3 000 numbers of shrubs.

25. We estimate that the proposed works will create about 570 jobs (460 for labourers and another 110 for professional or technical staff) providing a total employment of 19 650 man-months.

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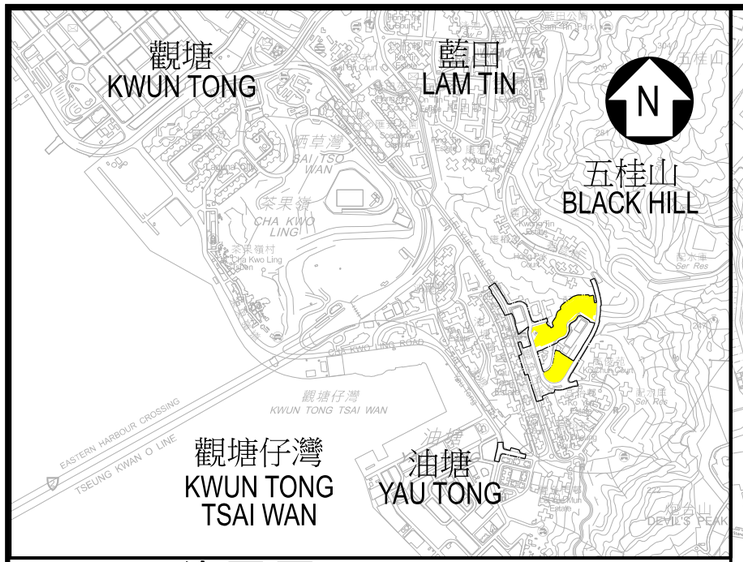
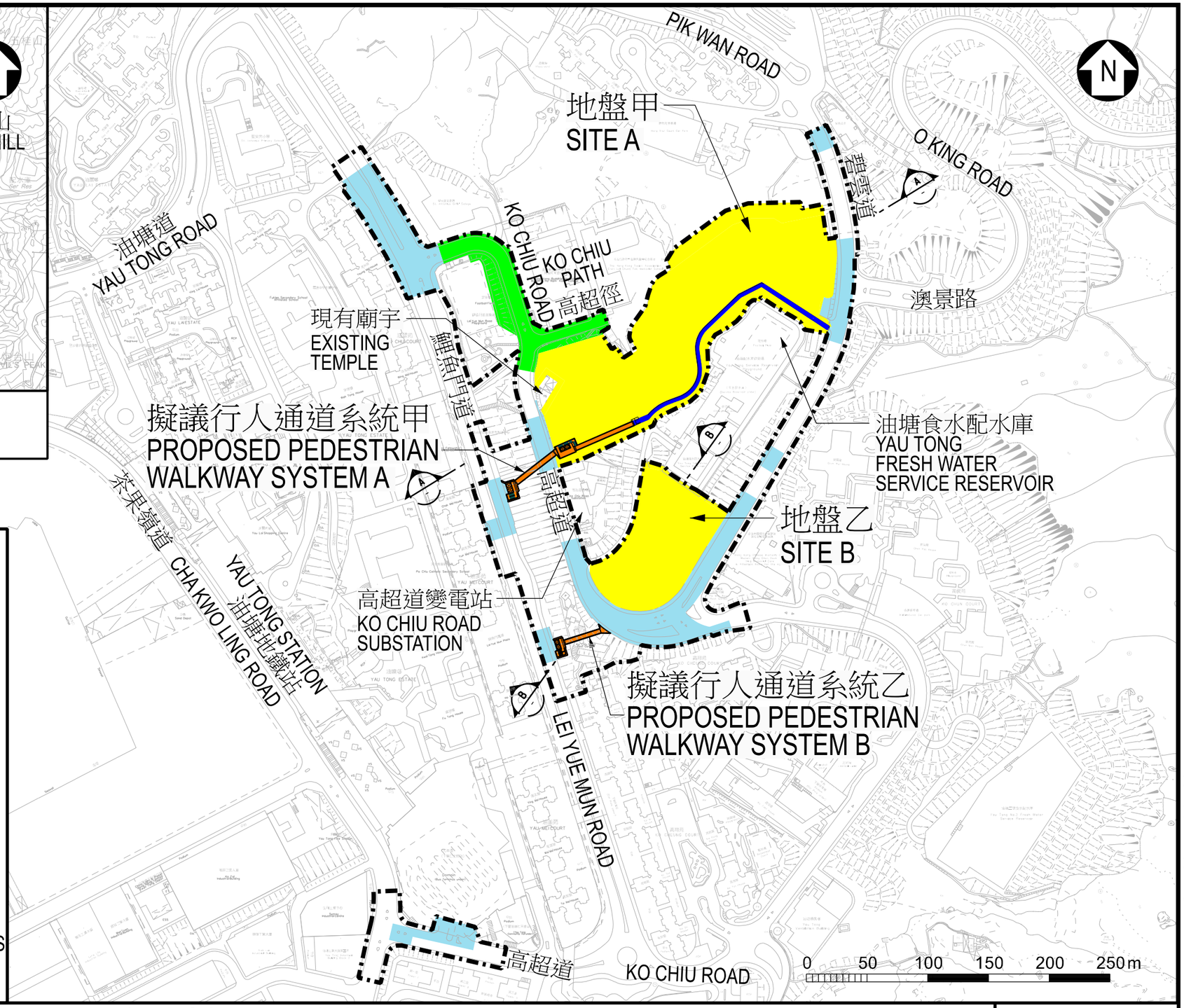
[4] "Important trees" refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –
(a) trees of 100 years old or above;
(b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or 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
(e) trees with trunk diameter equal to or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with a height/canopy spread equal to or exceeding 25 m.



位置圖 LOCATION PLAN

0 750 1500 2250 3000 3750 m



圖例 LEGEND:

- 工地界線 SITE BOUNDARY
- 擬議土地平整工程 PROPOSED SITE FORMATION WORKS
- 擬議行人天橋 PROPOSED FOOTBRIDGE
- 擬議行人路 PROPOSED FOOTPATH
- 擬議道路擴闊工程 PROPOSED ROAD WIDENING WORKS
- 擬議道路改善工程及附屬工程 PROPOSED ROAD IMPROVEMENT WORKS AND ANCILLARY WORKS

工務計劃項目編號 812CL
油塘碧雲道公營房屋發展之工地平整及基礎設施工程
PWP ITEM NO. 812CL
SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS AT PIK WAN ROAD, YAU TONG

工地平面圖 SITE PLAN

附件 3 附錄 1 Annex 1 to Enclosure 3

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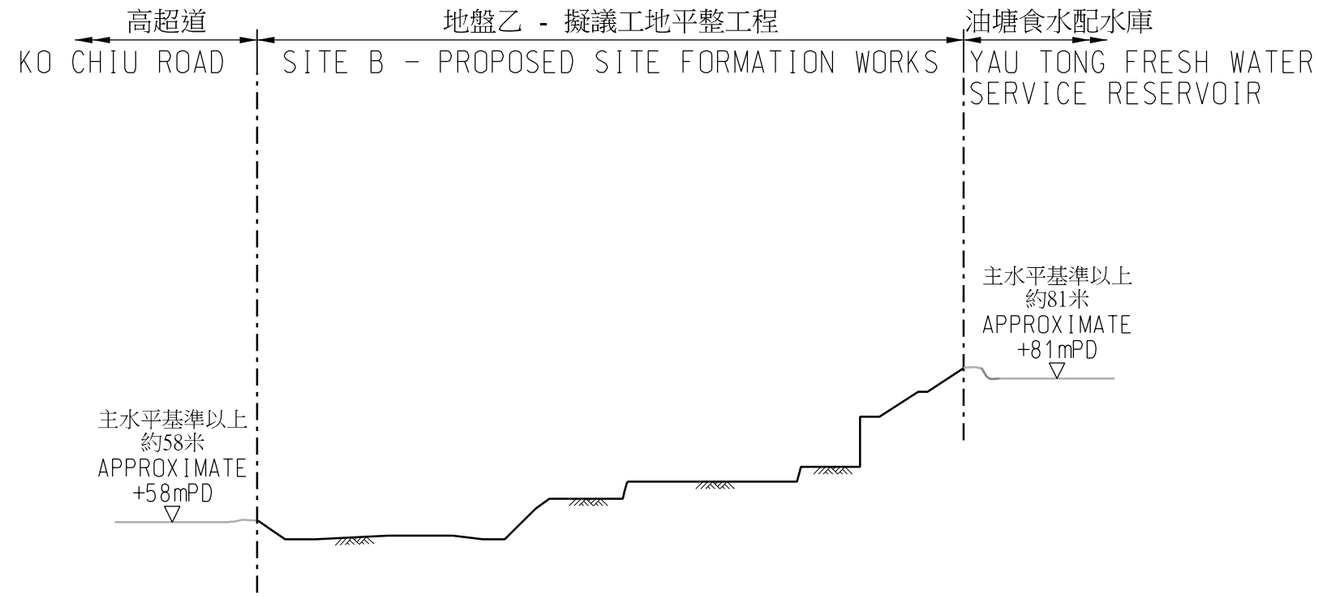
剖面圖 SECTION A-A

比例 SCALE N.T.S.



剖面圖 SECTION B-B

比例 SCALE N.T.S.

工務計劃項目編號 812CL
油塘碧雲道公營房屋發展之工地平整及基礎設施工程

PWP ITEM NO. 812CL

SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS AT PIK WAN ROAD, YAU TONG

剖面圖 SECTIONS

PBA_CE59_PWSC_0002A(sdw_do_20200319).DGN

附件 3 附錄 2 Annex 2 to Enclosure 3

Annex 3 to Enclosure 3

Key development parameters of the public housing developments at Pik Wan Road, Yau Tong

Site area	A total of about 2.5 hectares
Permitted plot ratio	Total : 9 Domestic: 7.5
No. of domestic blocks	5
No. of flats	About 3 120
Projected population	About 8 700
Completion date	In phases between 2026 and 2028
Ancillary facilities	General out-patient clinic[#], child assessment centre[#], residential care home for the elderly cum day care unit, child care centre, integrated home care services team, neighbourhood elderly centre sub-base, kindergarten, parking spaces for private cars and motorcycles, children's play area, greening and open spaces, etc.

[#] Funding proposal is planned to be submitted to the Legislative Council for approval in later sessions.

工務計劃項目編號 812CL
油塘碧雲道公營房屋發展之工地平整及基礎設施工程
PWP ITEM NO. 812CL
SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENTS AT PIK WAN ROAD, YAU TONG

概念平面圖
CONCEPTUAL PLAN

附件3 附錄4 Annex 4 to Enclosure 3

812CL – Site formation and infrastructure works for public housing development at Pik Wan Road, Yau Tong

Breakdown of the estimates for consultants' fees and resident site staff costs (in September 2019 prices)

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
(a)	Consultants' fee for contract administration (Note 2)	Professional	--	--	--	5.7
		Technical	--	--	--	1.4
					Sub-total	7.1#
(b)	Resident site staff (RSS) costs (Note 3)	Professional	493	38	1.6	67.7
		Technical	1 301	14	1.6	62.9
					Sub-total	130.6
	Comprising –					
	(i) Consultants' fees for management of RSS				3.8#	
	(ii) Remuneration of RSS				126.8#	
					Total	**137.7**

* 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 = $85,870 per month and MPS salary point 14 = $30,235 per month).

2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the investigation, design and construction of the **812CL**. The construction phase of the assignment will only be executed subject to FC's approval to upgrade **812CL** to Category A.

3. We will only know the actual man-months and actual costs 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 Enclosure 3.

Annex 6 to Enclosure 3

812CL – Site formation and infrastructure works for public housing developments at Pik Wan Road, Yau Tong

Summary of "Important Tree" to be affected

Tree ref. no.[1]	Species		Measurements			Amenity value[3]	Form	Health condition	Structural condition	Suitability for transplanting[4]		Conservation status[5]	Recommendation	Department to provide expert advice	Additional remarks
	Scientific name	Chinese name	Height (m)	DBH[2] (mm)	Crown spread (m)	(Good / Fair / Poor)				(High / Medium / Low)	Remarks		(Retain/Transplant /Fell)		
T030	*Ficus microcarpa*	細葉榕	8	1300	22	Fair	Fair	Fair	Poor	Low	Preparation of intact and sufficient-sized root ball is not practical due to the topography (e.g. steep slope, shallow substratum, structures); tree with poor health and/or form and/or structural condition for transplantation; species of low post-transplantation survival rate.	-	Fell	Lands Department	Important Tree; On slope, dead branches, crooked branches, hangers, multi-stems. T030 is a mature tree with low anticipated survival rate after transplantation as heavy root and crown pruning required leads irreservable tree form, health and structural condition after transplantation.

1 There are no trees within site boundary are under the Register of Old and Valuable Trees.

2 DBH of a tree refers to its diameter at breast height (i.e. measurement at 1.3 m above ground level).

3 Amenity value of the tree is assessed by its functional values for shade, shelter, screening, reduction of pollution and noise and also its fung shui significance, and classified into the following categories

Good: important trees which should be retained by adjusting the design layout accordingly.

Fair: trees that are desirable to be retained in order to create a pleasant environment, which includes healthy specimens of lesser importance than "Good" trees.

Poor: trees that are dead, dying or potentially hazardous and should be removed.

4 Assessment has taken into account conditions of individual trees at the time of survey (including health, structure, age and root conditions), site conditions (including topography and accessibility), and intrinsic characters of tree species (survival rate after transplanting).

5 Conservation status is based on the rarity and protection status of the species under relevant ordinances in Hong Kong, such as

RPPHK – Species included in AFCD publication "Rare and Precious Plants of Hong Kong (2003)";
Cap. 586 – Native plants listed in Protection of Endangered Species of Animals and Plants Ordinance, Cap. 586;
Cap. 96 – Species Scheduled under Forests and Countryside Ordinance, Cap 96;
CPRDB – Species Included in "China Plant Red Data Book".

666CL – Formation, roads and drains in Area 54, Tuen Mun – phase 1 stage 2

PROJECT SCOPE AND NATURE

The remaining part of **666CL** which we propose to upgrade to Category A as phase 1 stage 2 works comprises –

(a) formation of about 0.7 hectare of land for public housing development;

(b) construction of slopes, retaining walls, drainage works and other ancillary works; and

(c) implementation of environmental mitigation measures and an Environmental Monitoring and Audit (EM&A) programme for the works mentioned in paragraphs (a) to (b) above.

2. The layout plan of the proposed works is at **Annex 1 to Enclosure 4**.

3. Subject to timely funding approval by the Finance Committee (FC), we plan to commence the proposed works in early 2021 for handing over the formed site to the Housing Department (HD) for public housing development in 2023 and completion of all the proposed works in 2025. We plan to invite tenders in parallel for the construction works list in the first paragraph above to enable early commencement of the works. Tenders will only be awarded after obtaining FC's funding approval.

JUSTIFICATION

4. Area 54 of Tuen Mun is situated at the north western part of Tuen Mun between Po Tin Estate and Siu Hong Court, which is planned mainly for public housing development, as well as schools, government, institution or community facilities, and the associated infrastructure works. The Civil Engineering and Development Department (CEDD) has implemented the site formation and infrastructure works in a timely and orderly manner through two phases with a number of construction stages. The layout plan of the development of Area 54 of Tuen Mun is at **Annex 2 to Enclosure 4**. The phase 1 works under

666CL are carried out in two stages. The stage 1 works[1] commenced in November 2015. The formed site was handed over to HD in October 2017 for construction of public housing, and the remaining infrastructure works will be completed in 2020.

5. The proposed works mentioned in the first paragraph above are the remaining stage 2 works under **666CL** which comprise formation of Site 5 and construction of slopes, retaining walls, drainage works and other ancillary works. The formed site is expected to be handed over to HD in 2023 for development of about 700 numbers of public housing flats. The key development parameters are at **Annex 3 to Enclosure 4**.

FINANCIAL IMPLICATIONS

6. We estimate the capital cost of the proposed works to be $48.2 million in money-of-the-day (MOD) prices, broken down as follows –

			$ million (in MOD prices)
(a)	Site formation works and geotechnical works		37.9
(b)	Road works		1.7
(c)	Ancillary works including drainage and landscaping works		3.2
(d)	Consultants' fees for		1.0
	(i) Advisory services for New Engineering Contract (NEC)[2] administration	0.9	
	(ii) EM&A programme	0.1	
(e)	Contingencies		4.4
	Total		48.2

/7. …..

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[1] The phase 1 stage 1 development of Area 54 of Tuen Mun comprises formation of Site 1&1A and construction of associated roads.

[2] New Engineering Contract is a suite of contracts developed by Institution of Civil Engineers, United Kingdom. It is a contract form that emphasises cooperation, mutual trust and collaborative risk management between contracting parties.

7. While the construction of the proposed works will be supervised by in-house staff, we plan to engage consultants to provide advisory services for NEC administration and to implement the EM&A programme for the project. A breakdown of the estimates for consultants' fees by man-months is at **Annex 4 to Enclosure 4**.

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

Year	$ million (MOD)
2021 – 2022	6.7
2022 – 2023	23.4
2023 – 2024	7.8
2024 – 2025	4.1
2025 – 2026	3.4
2026 – 2027	2.8
	48.2

9. 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 2021 to 2027. We will deliver the proposed works under NEC with provision for price adjustments.

10. We estimate the annual recurrent expenditure arising from the proposed works to be about $60,000.

PUBLIC CONSULTATION

11. We consulted the Tuen Mun Rural Committee on the development plan and proposed works in Area 54 of Tuen Mun on 22 April 2016. We consulted the Environment, Hygiene and District Development Committee of the Tuen Mun District Council on 18 March 2016 and 20 May 2016. The committees supported the implementation of the proposed works.

/12. …..

12. We consulted the Legislative Council Panel on Development on 20 January 2020. Members supported the submission of the funding proposal to the Public Works Subcommittee for consideration.

ENVIRONMENTAL IMPLICATIONS

13. The proposed works are covered in the "Planning and development study of potential housing sites in Area 54, Tuen Mun" (the Study), which is a designated project under Schedule 3 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). In September 1999, the EIA report for the Study was approved under EIA Ordinance. The EIA findings were subsequently reviewed taking into account the latest development proposals. The EIA report and the subsequent environmental reviews concluded that the environmental impact of the works in the Study could be controlled to within the criteria under EIA Ordinance and the Technical Memorandum on EIA Process. We shall implement the measures recommended in the approved EIA report and the subsequent environmental reviews. The key measures include frequent watering of the site, provision of wheel-washing facilities, covering of materials on trucks, use of silenced construction plant, and provision of mobile noise barriers. We will also implement the EM&A programme recommended in the EIA report and the environmental reviews.

14. At the planning and design stages, we have considered the design levels and layout of the proposed site formation so as to reduce generation of construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil) 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[3] (PFRF). We 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 reduce the generation of construction waste.

/15. …..

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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 at public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

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 PFRF and landfills respectively through a trip-ticket system.

16. We estimate that the proposed works will generate about 64 000 tonnes of construction waste. Of these, we will reuse about 46 000 tonnes (72%) of inert construction waste on site and deliver about 13 000 tonnes (20%) of inert construction waste to PFRF for subsequent reuse. We will dispose of the remaining 5 000 tonnes (8%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRF and landfills is estimated to be about $1.9 million for the proposed works (based on a unit charge rate of $71 per tonne for disposal at PFRF and $200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

17. The proposed works 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.

TRAFFIC IMPLICATIONS

18. The traffic impact assessment for the proposed works was completed and concluded that the proposed works would not cause any significant traffic impact to surrounding areas.

19. During construction, we will establish Traffic Management Liaison Group and closely liaise with the Transport Department, the Hong Kong Police Force and other stakeholders to discuss, scrutinise and review the proposed temporary traffic arrangements with a view to minimising the traffic impacts arising from the proposed works.

/**LAND** …..

LAND ACQUISITION

20. We have reviewed the design of the proposed site formation works to minimise the extent of land acquisition. We will resume about 3 766 square metres (m^2) of private land and clear 6 950 m^2 of government land for the proposed site formation works. The cost of land resumption and clearance estimated at about $64.3 million will be charged to **Head 701 – Land Acquisition**. The land resumption and clearance will affect two land owners. The affected land owners will be offered ex-gratia allowances. A breakdown of the land acquisition costs is at **Annex 5 to Enclosure 4**.

BACKGROUND INFORMATION

21. We upgraded **666CL** to Category B in January 2000.

22. In February 2000, we included an item under the Block Allocations **Subhead 7100CX** "New towns and urban area works, studies and investigations for items in Category D of the Public Works Programme" at an approved cost of $9.4 million in MOD prices for carrying out site investigation and engagement of consultants to undertake detailed design of the site formation and infrastructure works for the phase 1 development in Area 54 of Tuen Mun.

23. On 12 June 2015, the FC approved upgrading of part of **666CL** as **788CL** "Formation, roads and drains in Area 54, Tuen Mun – phase 1 stage 1 works" to Category A, at an approved project estimate of $493.4 million in MOD prices, for carrying out site formation works at Site 1&1A for public housing development and associated infrastructure works. The site formation and associated infrastructure works commenced in November 2015. The site formation works were completed in October 2017 and the remaining works will be completed in 2020.

/24. …..

24. Of the 148 trees within site boundary of the proposed works, 28 trees will be preserved. The proposed works will involve felling of 119 trees. Besides, 1 important tree[4] will be transplanted. A summary of the important tree affected is provided at **Annex 6 to Enclosure 4**. We plan to plant a total of 61 trees and 60 seedling trees, of which 16 trees and 60 seedling trees will be planted by CEDD under the proposed works, and HD will plant another 45 trees under their housing development project at Site 5.

25. We estimate that the proposed works will create about 25 jobs (20 for labourers and another 5 for professional or technical staff) providing a total employment of 550 man-months.

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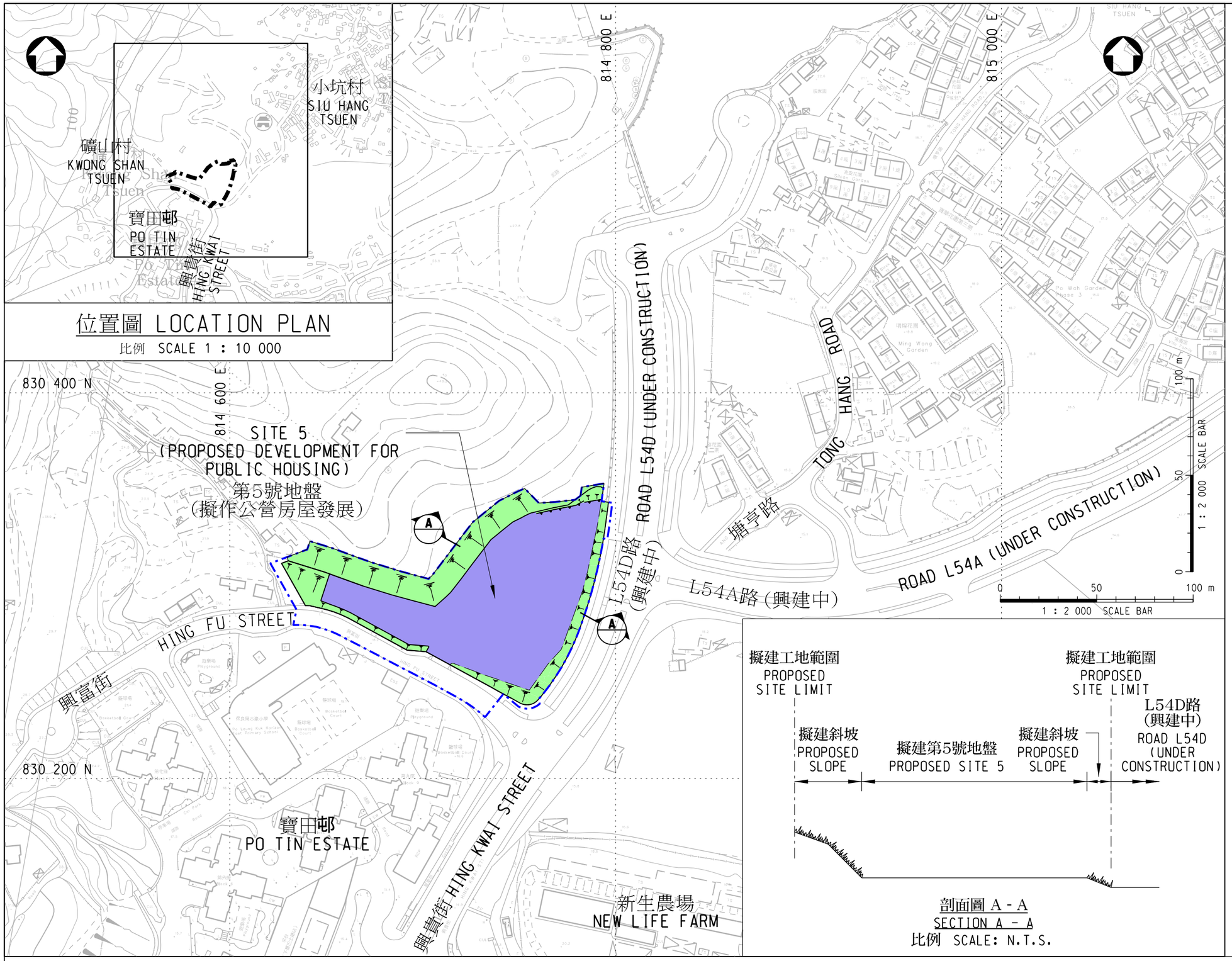
[4] "Important trees" refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

(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
(e) trees with a trunk diameter equal to or exceeding 1.0 m (measured at 1.3 m above ground level), or with a height/canopy spread equal to or exceeding 25 m.



位置圖 LOCATION PLAN

比例 SCALE 1 : 10 000

圖例 LEGEND :

- 擬建工地範圍 PROPOSED SITE LIMIT
- 擬建土地平整工地 PROPOSED SITE FORMATION WORKS AREA
- 擬建斜坡 PROPOSED SLOPE
- 擬建護土牆 PROPOSED RETAINING WALL

剖面圖 A - A
SECTION A - A
比例 SCALE: N.T.S.

drawing title 圖則名稱

工務工程計劃 - 7666CL
屯門第54區土地平整、道路及渠務工程第1期第2階段 - 平面圖

PWP ITEM - 7666CL
FORMATION, ROADS AND DRAINS IN AREA 54, TUEN MUN - PHASE 1 STAGE 2 - LAYOUT PLAN

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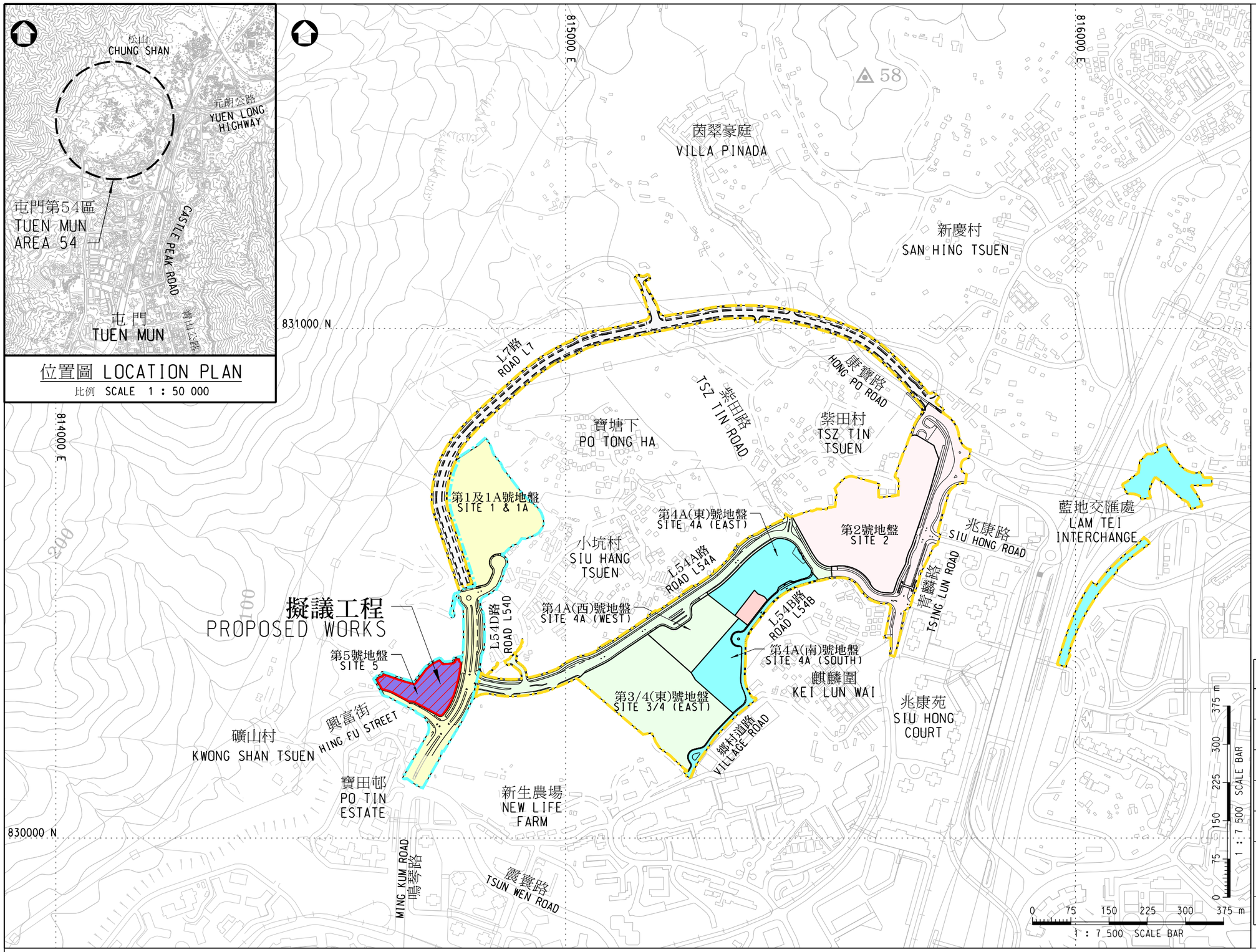
位置圖 LOCATION PLAN
比例 SCALE 1 : 50 000



圖例 LEGEND:

- 第1期工程範圍 LIMITS OF PHASE 1 WORKS
- 第2期工程範圍 LIMITS OF PHASE 2 WORKS
- 第1期第1階段工程範圍 (7788CL) LIMITS OF PHASE 1 STAGE 1 WORKS (7788CL)
- 第1期第2階段工程範圍 (7666CL-2) LIMITS OF PHASE 1 STAGE 2 WORKS (7666CL-2) [擬議工程] [PROPOSED WORKS]
- 第2期第1階段工程範圍 (7744CL) LIMITS OF PHASE 2 STAGE 1 WORKS (7744CL)
- 第2期第2階段工程範圍 (7755CL) LIMITS OF PHASE 2 STAGE 2 WORKS (7755CL)
- 第2期第3及第4A階段工程範圍 (7789CL) LIMITS OF PHASE 2 STAGES 3 AND 4A WORKS (7789CL)
- 第2期第4B階段工程範圍 (7681CL-4B) LIMITS OF PHASE 2 STAGE 4B WORKS (7681CL-4B)
- 第2期第4C階段工程範圍 (7681CL-4C) LIMITS OF PHASE 2 STAGE 4C WORKS (7681CL-4C)
- 根據屯門分區計劃大綱圖而預留的L7路走線 RESERVED ROAD L7 ACCORDING TO TUEN MUN OUTLINE ZONING PLAN

地盤 SITE	發展類型 DEVELOPMENT TYPE
第1及1A號地盤 SITE 1 & 1A	公營房屋 PUBLIC HOUSING
第2號地盤 SITE 2	公共租住房屋 PUBLIC RENTAL HOUSING
第3/4(東)號地盤 SITE 3/4 (EAST)	公營房屋 PUBLIC HOUSING
第4A(東)號地盤 SITE 4A (EAST)	學校發展 SCHOOL DEVELOPMENT
第4A(南)號地盤 SITE 4A (SOUTH)	公營房屋 PUBLIC HOUSING
第4A(西)號地盤 SITE 4A (WEST)	社區會堂及體育館發展 COMMUNITY HALL AND SPORTS CENTRE DEVELOPMENT
第5號地盤 SITE 5	公營房屋 PUBLIC HOUSING

drawing title 圖則名稱

屯門第54區發展布局圖
TUEN MUN AREA 54 GENERAL LAYOUT

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Annex 3 to Enclosure 4

Key development parameters of the public housing developments at Tuen Mun Area 54 Site 5

Site area	A total of about 0.7 hectares
No. of domestic blocks	1
No. of flats	About 700
Projected population	About 2 300
Completion date	Year 2026 - 27
Ancillary facilities	Integrated children and youth services centre, neighbourhood elderly centre, parking spaces for private cars and motorcycles, children's play area, greening and open spaces, etc.

666CL – Formation, road and drains in Area 54, Tuen Mun – phase 1 stage 2

Breakdown of the estimates for consultants' fees (in September 2019 prices)

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
(a)	Consultants' fees for advisory services for New Engineering Contract (NEC) administration (Notes 2 & 3)	Professional	3.5	38	2.0	0.6
		Technical	2.0	14	2.0	0.1
					Sub-total	0.7#
(b)	Consultants' fees for Environmental Monitoring and Audit (EM&A) programme (Note 2)	Professional	0.5	38	2.0	0.1
		Technical	0.5	14	2.0	0.0
					Sub-total	0.1#
					Total	**0.8#**

*MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS salary point to arrive at the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices (as at now, MPS point 38 = $85,870 per month and MPS point 14 = $30,235 per month).

2. The consultants' staff costs for advisory services for NEC administration and EM&A programme are based on the estimates prepared by the Director of Civil Engineering and Development. The actual man-months and fees will only be known when we have selected the consultants through the usual competitive fee bidding system.

3. CEDD will deploy in-house staff to supervise the construction of the proposed works. The fees in (a) above will be used for engaging consultants to provide professional advisory services for CEDD's detailed arrangements for NEC administration.

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 6 of Enclosure 4.

Annex 5 to Enclosure 4

666CL – Formation, road and drains in Area 54, Tuen Mun – phase 1 stage 2

Breakdown of land acquisition cost

			$ million
(I)	**Estimated cost for land acquisition (resumption of private land)**		**56.32**
(II)	**Estimated cost for land clearance**		**0.85**
	(a) Ex-gratia allowances (EGAs) (e.g. crop compensation, disturbance allowance for cultivators, EGA for miscellaneous permanent improvements to farms, EGA for open-air/ outdoor business undertakings and EGA for "Tun Fu" ceremonial fees, etc.)	0.85	
(III)	**Interest and Contingency payment**		**7.17**
		Total	**64.34**
			(say 64.3)

Note
The above estimated land acquisition cost is based on the prevailing rates as at Oct 2019.

Annex 6 to Enclosure 4

666CL – Formation, roads and drains in Area 54, Tuen Mun – phase 1 stage 2

Summary of "Important Tree" to be affected

Tree ref. no. [1]	Species		Measurements			Amenity Value [3]	Form	Health condition	Structural condition	Suitability for Transplanting [4]		Conservation Status [5]	Recommendation	Department to Provide Expert Advice to Lands Department	Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH [2] (mm)	Crown Spread (m)	(Good / Fair / Poor)				(High / Medium / Low)	Remarks		(Retain/transplant/ fell)		
H253	*Aquilaria sinensis*	土沉香	3	100	1	Poor	Poor	Fair	Fair	Low	Poor form; On slope	Cap.586; RPPHK; CPRDB	Transplant	Agriculture, Fisheries and Conservation Department	Important Tree (rare species); On slope; Main trunk broken with proliferation of sprouts with weak attachment

[1] There are no trees within site boundary that are under the Register of Old and Valuable Trees.

[2] DBH of a tree refers to its diameter at breast height (i.e. measurement at 1.3 m above ground level).

[3] Amenity value of the tree is assessed by its functional values for shade, shelter, screening, reduction of pollution and noise and also its fung shui significance, and classified into the following categories.
Good: important trees which should be retained by adjusting the design layout accordingly.
Fair: trees that are desirable to be retained in order to create a pleasant environment, which includes healthy specimens of lesser importance than "Good" trees.
Poor: trees that are dead, dying or potentially hazardous and should be removed.

[4] Assessment has taken into account conditions of individual trees at the time of survey (including health, structure, age and root conditions), site conditions (including topography and accessibility), and intrinsic characters of tree species (survival rate after transplanting).

[5] Conservation status is based on the rarity and protection status of the species under relevant ordinances in Hong Kong, such as:
RPPHK – Species included in AFCD publication "Rare and Precious Plants of Hong Kong (2003)";
Cap. 586 – Native plants listed in Protection of Endangered Species of Animals and Plants Ordinance, Cap. 586;
CPRDB – Species Included in "China Plant Red Data Book".

681CL – Formation, roads and drains in Area 54, Tuen Mun – phase 2

PROJECT SCOPE AND NATURE

The part of **681CL** which we propose to upgrade to Category A as phase 2 stage 4B works comprises –

(a) formation of about 1 hectare (ha) of land for public housing development and about 1.3 ha of land for school development;

(b) construction of the following road works –

(i) a single two-lane local distributor road, Road L54B, of about 200 metres (m) long;

(ii) a single two-lane village road of about 100 m long;

(iii) widening of a section of existing village road to a single two-lane carriageway; and

(iv) local improvement to some of the approach and exit roads of Lam Tei Interchange;

(c) construction of vertical noise barriers of about 155 m long and 5 m high;

(d) construction of footpaths, slopes, retaining walls, drainage works, waterworks, landscaping works and other ancillary works; and

(e) implementation of environmental mitigation measures and an Environmental Monitoring and Audit (EM&A) programme for the works mentioned in paragraphs (a) to (d) above.

2. The layout plans and sections of the proposed works are at **Annex 1 to Enclosure 5**.

/3. …..

3. We will retain the remainder of **681CL** in Category B, which comprises the construction of infrastructure works under the remaining stage 4C to cater for the public housing development at San Hing Road and Hong Po Road in Tuen Mun. Funding for the remainder of **681CL** will be sought to dovetail with the implementation programme of the public housing development.

4. Subject to timely funding approval by the Finance Committee (FC), we plan to commence the proposed works in early 2021 for completion in 2025. We plan to invite tenders in parallel for the construction works list in the first paragraph above to enable early commencement of the works. Tenders will only be awarded after obtaining FC's funding approval.

JUSTIFICATION

5. Area 54 of Tuen Mun is situated at the north western part of Tuen Mun between Po Tin Estate and Siu Hong Court, which is planned mainly for public housing development, as well as schools, government, institution or community (G/IC) facilities, and the associated infrastructure works. The Civil Engineering and Development Department (CEDD) has implemented the site formation and infrastructure works in a timely and orderly manner through two phases with a number of construction stages. The layout plan of the development of Area 54 of Tuen Mun is at **Annex 2 to Enclosure 5**. The phase 2 works under **681CL** are carried out in six stages. The stage 1 to stage 4A works commenced progressively between 2011 and 2015. The formed sites were handed over to the Housing Department (HD) in 2013 and 2017 for construction of public housing while the associated infrastructure works have been progressively completed from 2016 onwards.

6. The proposed works mentioned in the first paragraph above are the stage 4B works under **681CL** which include formation of Site 4A (South) for public housing development. The formed site is expected to be handed over to HD in 2023 for development of about 1 000 numbers of public housing flats. The key development parameters are at **Annex 3 to Enclosure 5**. A site will also be formed at Site 4A (East) to cater for school development by the relevant government department. Besides, we will erect vertical noise barriers at the north of Site 4A (East) to serve as a traffic noise mitigation measure for school development. Meanwhile, we propose to construct Road L54B and connecting village road as well as providing local improvement to some approach and exit roads of Lam Tei Interchange, including widening of part of the carriageway and change of road markings, to cater for traffic demand arising from the development.

/**FINANCIAL** …..

FINANCIAL IMPLICATIONS

7. We estimate the capital cost of the proposed works to be $264.3 million in money-of-the-day (MOD) prices, broken down as follows –

			$ million (in MOD prices)
(a)	Site formation works and geotechnical works		169.7
(b)	Road works		49.8
(c)	Noise barriers		5.7
(d)	Ancillary works including drainage, waterworks and landscaping works		10.5
(e)	Consultants' fees for		4.6
	(i) Advisory services for New Engineering Contract (NEC)[1] administration	3.9	
	(ii) EM&A programme	0.7	
(f)	Contingencies		24.0
	Total		264.3

8. While the construction of the proposed works will be supervised by in-house staff, we plan to engage consultants to provide advisory services for NEC administration and to implement the EM&A programme for the project. A breakdown of the estimates for consultants' fees by man-months is at **Annex 4 to Enclosure 5**.

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

/Year …..

[1] New Engineering Contract is a suite of contracts developed by Institution of Civil Engineers, United Kingdom. It is a contract form that emphasises cooperation, mutual trust and collaborative risk management between contracting parties.

Year	$ million (MOD)
2020 – 2021	0.8
2021 – 2022	29.9
2022 – 2023	52.5
2023 – 2024	74.8
2024 – 2025	52.9
2025 – 2026	48.8
2026 – 2027	4.6
	264.3

10. 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 proposed works under NEC with provision for price adjustments.

11. We estimate the annual recurrent expenditure arising from the proposed works to be about $530,000.

PUBLIC CONSULTATION

12. We consulted the Tuen Mun Rural Committee on the development plan and proposed works in Area 54 of Tuen Mun on 22 April 2016. We consulted the Environment, Hygiene and District Development Committee (EHDDC) of the Tuen Mun District Council (TMDC) on 18 March 2016 and 20 May 2016. We also consulted EHDDC of TMDC on the proposed improvement to Lam Tei Interchange on 23 November 2018. The committees supported the implementation of the proposed works.

/13. …..

13. The road works were divided into two parts for gazetting under the Roads (Works, Use and Compensation) Ordinance (Cap 370). The first part[2] was gazetted on 12 August 2016. One objection was received during the statutory objection lodging period. In response to the objection, layout and alignment of the road works were revised and an amendment scheme was gazetted on 5 May 2017. No objection was received against the amendment scheme during the statutory objection lodging period. After the publication of the amendment scheme, the earlier objection was withdrawn unconditionally. The notice of authorisation was gazetted on 18 August 2017. The second part[3] of the road works was gazetted on 1 February 2019. No objection was received during the objection lodging period and the notice of authorisation was gazetted on 21 June 2019.

14. We consulted the Legislative Council Panel on Development on 20 January 2020. Members supported the submission of the funding proposal to the Public Works Subcommittee for consideration.

ENVIRONMENTAL IMPLICATIONS

15. The proposed works (except the proposed local improvement of Lam Tei Interchange) are covered in the "Planning and development study of potential housing sites in Area 54, Tuen Mun" (the Study), which is a designated project under Schedule 3 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). In September 1999, the EIA report for the Study was approved under EIA Ordinance. The EIA findings were subsequently reviewed taking into account the latest development proposals. The EIA report and the subsequent environmental reviews concluded that the environmental impact of the works in the Study could be controlled to within the criteria under EIA Ordinance and the Technical Memorandum on EIA Process. We shall implement the measures recommended in the approved EIA report and the subsequent environmental reviews. The key measures include frequent watering of the site, provision of wheel-washing facilities, covering of materials on trucks, use of silenced construction plant, and provision of mobile noise barriers. We will also implement the EM&A programme recommended in the EIA report and the environmental reviews.

/16. …..

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[2] The first part of road scheme in this gazette relates to the construction of Road L54B near Site 4A (East) under **681CL**.

[3] The second part of road scheme in this gazette relates to the construction of Road L54B Extension (village road) and Improvement Works at Lam Tei Interchange under **681CL**.

16. The proposed local improvement of Lam Tei Interchange is not a designated project under the EIA Ordinance. We completed an environmental review for the proposed works and agreed the findings with the Director of Environmental Protection that the proposed works will not have significant environmental impact.

17. At the planning and design stages, we have considered the design levels and layout of the proposed site formation and road works so as to reduce generation of construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil) 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[4] (PFRF). We 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 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 PFRF and landfills respectively through a trip-ticket system.

19. We estimate that the proposed works will generate about 74 000 tonnes of construction waste. Of these, we will reuse about 48 000 tonnes (65%) of inert construction waste on site and deliver about 12 000 tonnes (16%) of inert construction waste to PFRF for subsequent reuse. We will dispose of the remaining 14 000 tonnes (19%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRF and landfills is estimated to be about $3.7 million for the proposed works (based on a 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)).

/HERITAGE …..

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[4] 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 at public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

HERITAGE IMPLICATIONS

20. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites or buildings and Government historic sites identified by the Antiquities and Monuments Office (AMO). Part of the proposed works is within the Siu Hang Tsuen and Kei Lun Wai Sites of Archaeological Interest. We have conducted archaeological review for the proposed works site and concluded that no impact due to the proposed works on the Sites of Archaeological Interest was anticipated. As a precautionary measure, the AMO should be informed immediately in case of discovery of antiquities or supposed antiquities during the course of construction works. Agreement from the AMO will be sought on the follow-up actions if required.

TRAFFIC IMPLICATIONS

21. The traffic impact assessment for the proposed works was completed and concluded that the proposed works would not cause any significant traffic impact to surrounding areas.

22. During construction, we will establish Traffic Management Liaison Group and closely liaise with the Transport Department, the Hong Kong Police Force and other stakeholders to discuss, scrutinise and review the proposed temporary traffic arrangements with a view to minimising the traffic impacts arising from the proposed works.

LAND ACQUISITION

23. We have reviewed the design of the proposed site formation and road works to minimise the extent of land acquisition. We will resume about 17 509 square metres (m^2) of private land and clear 29 895 m^2 of government land for the proposed site formation and road works. The cost of land resumption and clearance estimated at about $299.0 million will be charged to **Head 701 – Land Acquisition**. The land resumption and clearance affects 33 land owners and nine households involving 11 persons. The affected land owners or eligible households will offer ex-gratia allowances and / or, where eligible, accommodation in public housing in accordance with the established rehousing policy. A breakdown of the land acquisition costs is at **Annex 5 to Enclosure 5**.

/**BACKGROUND** …..

BACKGROUND INFORMATION

24. **681CL** were included in Category B in September 2000.

25. On 25 May 2001, the FC approved upgrading of part of **681CL** as **686CL** "Consultants' fees and site investigation for site formation, roads and drains in Area 54, Tuen Mun – phase 2" to Category A, at an approved project estimate of $25.9 million in MOD prices, for carrying out site investigation and engagement of consultants to undertake detailed design of the site formation and infrastructure works for the phase 2 development in Area 54 of Tuen Mun.

26. On 15 April 2011, the FC approved upgrading of part of **681CL** as **744CL** "Formation, roads and drains in Area 54, Tuen Mun – phase 2 stage 1 works" to Category A, at an approved project estimate of $325.2 million in MOD prices, for carrying out site formation works at Site 2 for public housing development and associated infrastructure works. The site formation and associated infrastructure works commenced in September 2011 and were completed in September 2016. CEDD handed over the first formed site to the HD for construction of housing in 2013. The first completed public rental housing, named as Yan Tin Estate, commenced population intake in early 2018.

27. On 11 May 2012, the FC approved upgrading of part of **681CL** as **755CL** "Formation, roads and drains in Area 54, Tuen Mun – phase 2 stage 2 works" to Category A, at an approved project estimate of $178.9 million in MOD prices, for construction of the Tuen Mun Area 54 sewage pumping station. Construction of the sewage pumping station commenced in October 2012 and was completed in May 2016.

28. On 12 June 2015, the FC approved upgrading of part of **681CL** as **789CL** "Formation, roads and drains in Area 54, Tuen Mun – phase 2 stages 3 and 4A works" to Category A, at an approved project estimate of $553.1 million in MOD prices, for carrying out site formation works at Site 3/4 (East) for public housing development, Site 4A (West) for G/IC development and associated infrastructure works. The site formation and associated infrastructure works commenced in November 2015. The site formation works of Site 3/4 (East) were completed in October 2017 and the remaining works will be completed in 2020.

/29. …..

29. Of the 241 trees within site boundary of the proposed works, 63 trees will be preserved, 2 trees will be transplanted and 176 trees will be felled. All trees to be removed are not important trees[5]. We plan to plant a total of 118 trees, 60 seedling trees and about 14 000 shrubs, of which 58 trees, 60 seedling trees and about 14 000 shrubs will be planted by CEDD under the proposed works, and HD will plant another 60 trees under the housing development project at Site 4A (South).

30. We estimate that the proposed works will create about 70 jobs (60 for labourers and another 10 for professional or technical staff) providing a total employment of 2 950 man-months.

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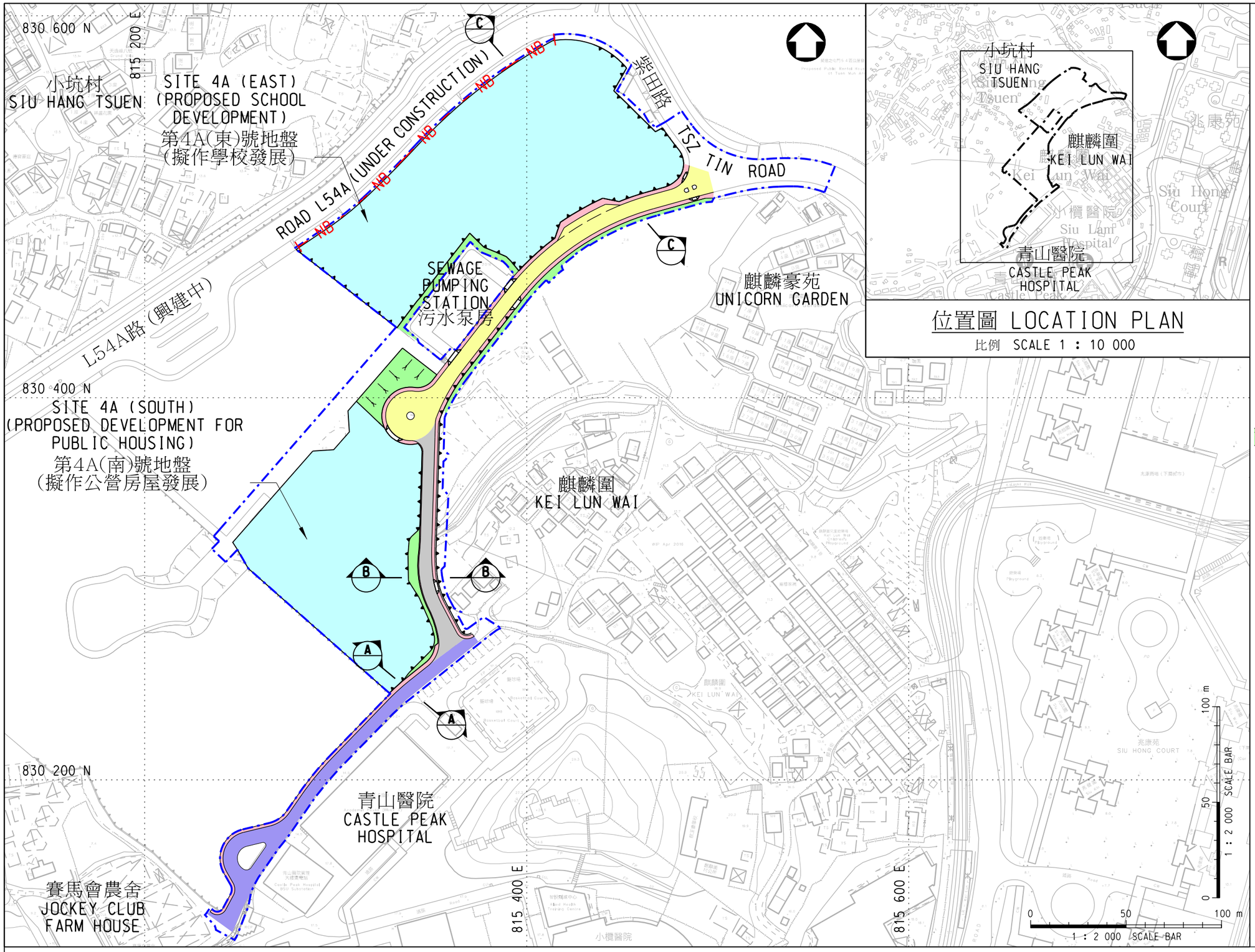
[5] "Important trees" refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

(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
(e) trees with a trunk diameter equal to or exceeding 1.0 m (measured at 1.3 m above ground level), or with a height/canopy spread equal to or exceeding 25 m.



位置圖 LOCATION PLAN

比例 SCALE 1 : 10 000

圖例 LEGEND :

- 擬建工地範圍 PROPOSED SITE LIMIT
- 擬建土地平整工地 PROPOSED SITE FORMATION WORKS AREA
- 擬建L54B路行車道 PROPOSED ROAD L54B CARRIAGEWAY
- 擬新建鄉村道路 PROPOSED NEW VILLAGE ROAD
- 擬擴闊鄉村道路 PROPOSED WIDENING OF VILLAGE ROAD
- 擬建行人路 PROPOSED FOOTWAY
- 擬建花槽/種植地帶 PROPOSED PLANTER / LANDSCAPING AREA
- 擬建斜坡 PROPOSED SLOPE
- 擬建護土牆 PROPOSED RETAINING WALL
- - NB - 擬建5米垂直隔音屏障 PROPOSED VERTICAL NOISE BARRIERS OF 5m HIGH
- 擬建行人過路處 PROPOSED PEDESTRIAN CROSSING
- 擬建車輛出入通道 PROPOSED VEHICULAR RUN-IN

drawing title 圖則名稱

工務工程計劃 - 7681CL (部分)
屯門第54區土地平整、道路及渠務工程第2期第4B階段 - 平面圖

PWP ITEM - 7681CL (PART)
FORMATION, ROADS AND DRAINS IN AREA 54, TUEN MUN - PHASE 2 STAGE 4B - LAYOUT PLAN

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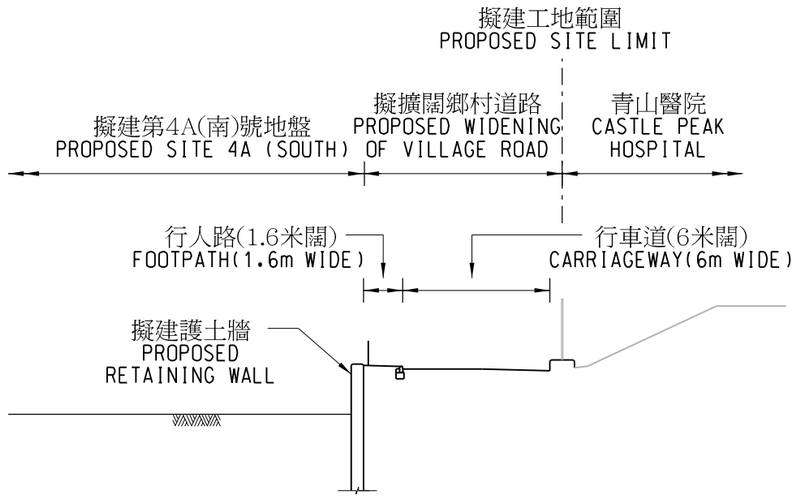
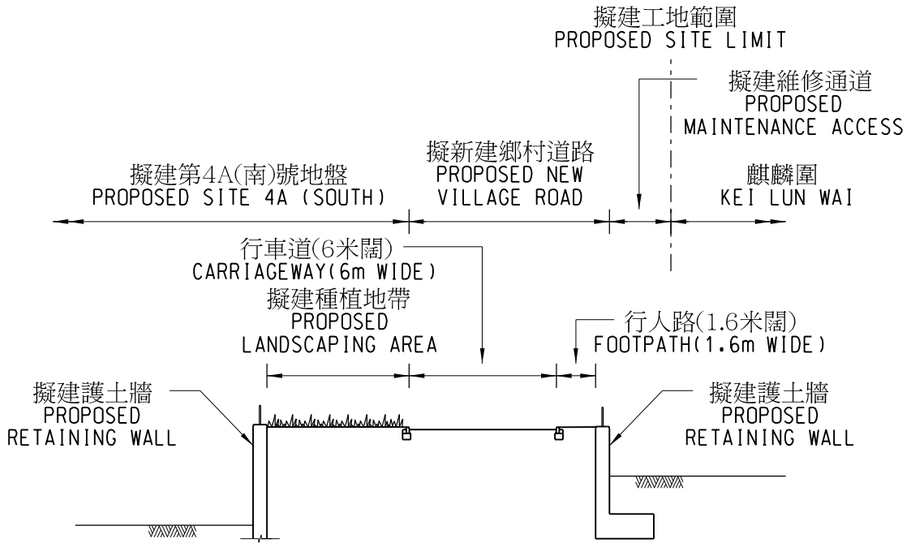
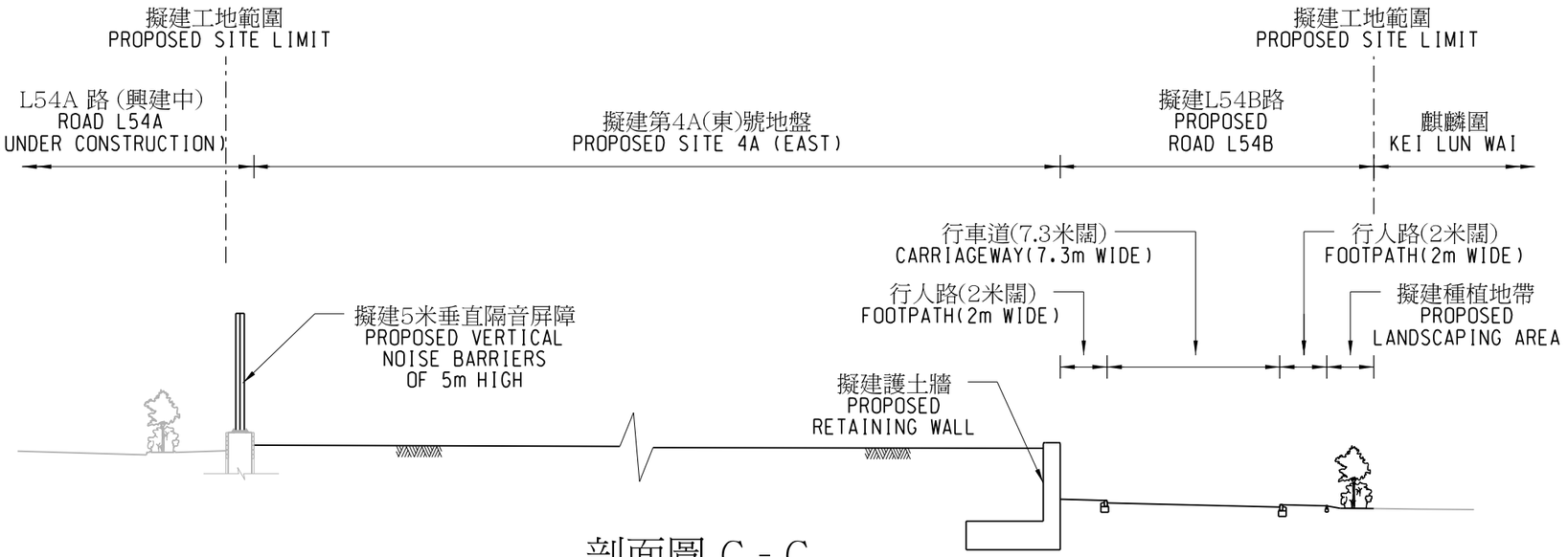


剖面圖 A - A
SECTION A - A
比例 SCALE: N.T.S.



剖面圖 B - B
SECTION B - B
比例 SCALE: N.T.S.



剖面圖 C - C
SECTION C - C
比例 SCALE: N.T.S.

drawing title 圖則名稱

工務工程計劃 - 7681CL（部分）
屯門第54區土地平整、道路及渠務工程第2期第4B階段 - 剖面圖

PWP ITEM - 7681CL (PART)
FORMATION, ROADS AND DRAINS IN AREA 54, TUEN MUN - PHASE 2 STAGE 4B - SECTIONS

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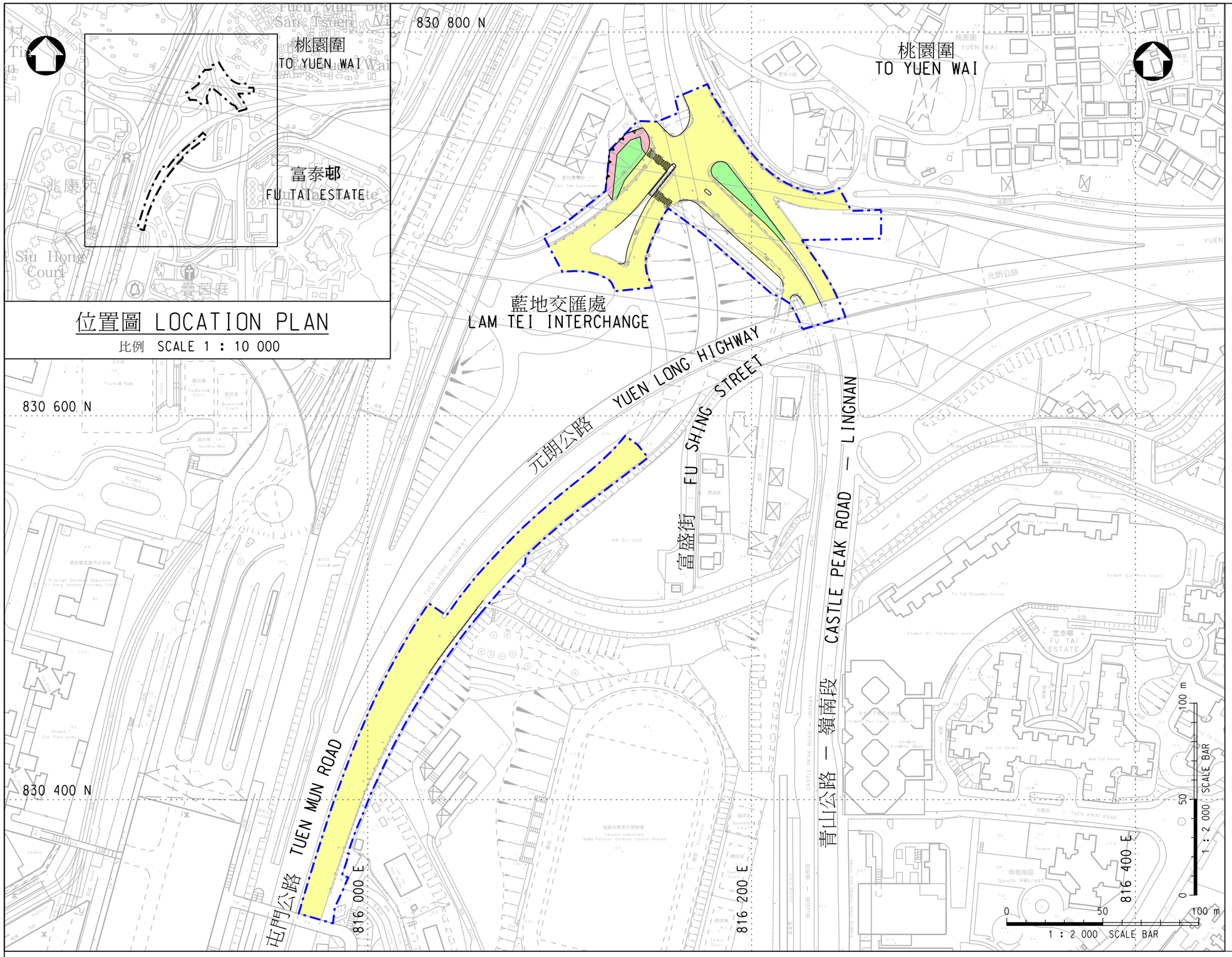
位置圖 LOCATION PLAN

比例 SCALE 1 : 10 000



圖例 LEGEND :

- 擬建工地範圍 PROPOSED SITE LIMIT
- 擬擴闊行車道及更改道路標記 PROPOSED WIDENING OF CARRIAGEWAY AND CHANGE OF ROAD MARKINGS
- 擬建行人路 PROPOSED FOOTWAY
- 擬建花槽/種植地帶 PROPOSED PLANTER / LANDSCAPING AREA
- 擬建護土牆 PROPOSED RETAINING WALL
- 擬建行人過路處 PROPOSED PEDESTRIAN CROSSING

drawing title 圖則名稱

工務工程計劃 - 7681CL (部分)
屯門第54區土地平整、道路及渠務工程第2期第4B階段 - 平面圖

PWP ITEM - 7681CL (PART)
FORMATION, ROADS AND DRAINS IN AREA 54, TUEN MUN - PHASE 2 STAGE 4B - LAYOUT PLAN

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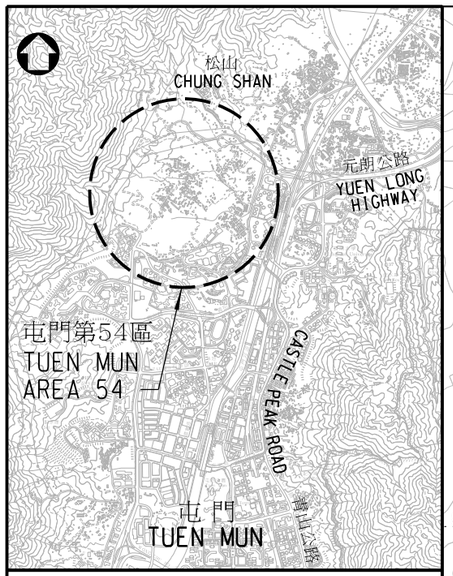

位置圖 LOCATION PLAN

比例 SCALE 1 : 50 000

815000 E

816000 E

814000 E

831000 N

830000 N

58

茵翠豪庭
VILLA PINADA

新慶村
SAN HING TSUEN

L7路
ROAD L7

紫田路
TSZ TIN ROAD

康寶路
HONG PO ROAD

寶塘下
PO TONG HA

紫田村
TSZ TIN TSUEN

第1及1A號地盤
SITE 1 & 1A

第4A(東)號地盤
SITE 4A (EAST)

第2號地盤
SITE 2

小坑村
SIU HANG TSUEN

L54A路
ROAD L54A

兆康路
SIU HONG ROAD

藍地交匯處
LAM TEI INTERCHANGE

L54D路
ROAD L54D

第4A(西)號地盤
SITE 4A (WEST)

L54B路
ROAD L54B

青麟路
TSING LUN ROAD

擬議工程
PROPOSED WORKS

第5號地盤
SITE 5

第4A(南)號地盤
SITE 4A (SOUTH)

麒麟圍
KEI LUN WAI

興富街
HING FU STREET

第3/4(東)號地盤
SITE 3/4 (EAST)

兆康苑
SIU HONG COURT

礦山村
KWONG SHAN TSUEN

鄉村道路
VILLAGE ROAD

擬議工程
PROPOSED WORKS

寶田邨
PO TIN ESTATE

新生農場
NEW LIFE FARM

MING KUM ROAD
鳴琴路

震寰路
TSUN WEN ROAD

200

100

0 75 150 225 300 375 m

1 : 7 500 SCALE BAR

圖例 LEGEND:

- 第1期工程範圍 LIMITS OF PHASE 1 WORKS
- 第2期工程範圍 LIMITS OF PHASE 2 WORKS
- 第1期第1階段工程範圍 (7788CL) LIMITS OF PHASE 1 STAGE 1 WORKS (7788CL)
- 第1期第2階段工程範圍 (7666CL-2) LIMITS OF PHASE 1 STAGE 2 WORKS (7666CL-2)
- 第2期第1階段工程範圍 (7744CL) LIMITS OF PHASE 2 STAGE 1 WORKS (7744CL)
- 第2期第2階段工程範圍 (7755CL) LIMITS OF PHASE 2 STAGE 2 WORKS (7755CL)
- 第2期第3及第4A階段工程範圍 (7789CL) LIMITS OF PHASE 2 STAGES 3 AND 4A WORKS (7789CL)
- 第2期第4B階段工程範圍 (7681CL-4B) LIMITS OF PHASE 2 STAGE 4B WORKS (7681CL-4B) [擬議工程] [PROPOSED WORKS]
- 第2期第4C階段工程範圍 (7681CL-4C) LIMITS OF PHASE 2 STAGE 4C WORKS (7681CL-4C)
- 根據屯門分區計劃大綱圖而預留的L7路走線 RESERVED ROAD L7 ACCORDING TO TUEN MUN OUTLINE ZONING PLAN

地盤 SITE	發展類型 DEVELOPMENT TYPE
第1及1A號地盤 SITE 1 & 1A	公營房屋 PUBLIC HOUSING
第2號地盤 SITE 2	公共租住房屋 PUBLIC RENTAL HOUSING
第3/4(東)號地盤 SITE 3/4 (EAST)	公營房屋 PUBLIC HOUSING
第4A(東)號地盤 SITE 4A (EAST)	學校發展 SCHOOL DEVELOPMENT
第4A(南)號地盤 SITE 4A (SOUTH)	公營房屋 PUBLIC HOUSING
第4A(西)號地盤 SITE 4A (WEST)	社區會堂及體育館發展 COMMUNITY HALL AND SPORTS CENTRE DEVELOPMENT
第5號地盤 SITE 5	公營房屋 PUBLIC HOUSING

drawing title 圖則名稱

屯門第54區發展布局圖

TUEN MUN AREA 54 GENERAL LAYOUT

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Annex 3 to Enclosure 5

Key development parameters of the public housing developments at Tuen Mun Area 54 Site 4A (South)

Site area	A total of about 1.0 hectare
No. of domestic blocks	1
No. of flats	About 1 000
Projected population	About 3 000
Completion date	Year 2026 - 27
Ancillary facilities	Kindergarten, parking spaces for private cars and motorcycles, children's play area, greening and open spaces, etc.

681CL (Part) – Formation, road and drains in Area 54, Tuen Mun – phase 2

Breakdown of the estimates for consultants' fees (in September 2019 prices)

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
(a)	Consultants' fees for advisory services for New Engineering Contract (NEC) administration (Notes 2 & 3)	Professional	16.0	38	2.0	2.7
		Technical	8.0	14	2.0	0.5
					Sub-total	3.2#
(b)	Consultants' fees for Environmental Monitoring and Audit (EM&A) programme (Note 2)	Professional	3.0	38	2.0	0.5
		Technical	2.0	14	2.0	0.1
					Sub-total	0.6#
					Total	**3.8#**

*MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS salary point to arrive at the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices (as at now, MPS point 38 = $85,870 per month and MPS point 14 = $30,235 per month).

2. The consultants' staff costs for advisory services for NEC administration and EM&A programme are based on the estimates prepared by the Director of Civil Engineering and Development. The actual man-months and fees will only be known when we have selected the consultants through the usual competitive fee bidding system.

3. CEDD will deploy in-house staff to supervise the construction of the proposed works. The fees in (a) above will be used for engaging consultants to provide professional advisory services for CEDD's detailed arrangements for NEC administration.

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 7 of Enclosure 5.

Annex 5 to Enclosure 5

681CL (Part) – Formation, road and drains in Area 54, Tuen Mun – phase 2

Breakdown of land acquisition cost

			$ million
(I)	**Estimated cost for land acquisition (resumption of private land)**		**261.89**
(II)	**Estimated cost for land clearance**		**3.72**
	(a) Ex-gratia allowances (EGAs) for domestic occupiers (e.g. EGA for permitted occupiers of licensed structures and surveyed squatters affected by clearance and domestic removal allowance, etc.)	1.23	
	(b) Other ex-gratia allowances (e.g. crop compensation, disturbance allowance for cultivators, EGA for miscellaneous permanent improvements to farms, EGA for open-air/ outdoor business undertakings and EGA for "Tun Fu" ceremonial fees, etc.)	2.49	
(III)	**Interest and Contingency payment**		**33.34**
		Total	**298.95**
			(say 299.0)

Note
The above estimated land acquisition cost is based on the prevailing rates as at Oct 2019.