

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Transport – Car parks

23TP – Public Vehicle Park at Areas 4 and 30 (Site 2), Sheung Shui

24TP – Public Vehicle Park at Area 99, Tung Chung

HEAD 711 – HOUSING

Transport – Interchange/bus termini

85TI – Public Transport Interchange at Tung Chung Area 99

Members are invited to recommend to the Finance Committee the upgrading of **23TP**, **24TP** and **85TI** to Category A at estimated costs of \$385.1 million, \$167.5 million and \$269.0 million in money-of-the-day prices respectively.

PROBLEM

We need to carry out the above works projects (the Projects) to increase the provision of public car parking spaces and to meet the demand for public transport services in response to public aspiration.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Transport and Housing, proposes to upgrade the following projects to Category A -

/(a)

- (a) **23TP** at an estimated cost of \$385.1 million in money-of-the-day (MOD) prices for the construction of a public vehicle park at Areas 4 and 30 (Site 2), Sheung Shui; and
- (b) **24TP** at an estimated cost of \$167.5 million in MOD prices for the construction of a public vehicle park at Area 99, Tung Chung.

3. The Director of Highways, with the support of the Secretary for Transport and Housing, also proposes to upgrade the following project to Category A -

- (a) **85TI** at an estimated cost of \$269.0 million in MOD prices for the construction of a public transport interchange at Area 99, Tung Chung.

PROPOSED ENTRUSTMENT TO THE HONG KONG HOUSING AUTHORITY

4. The Government plans to entrust the design and construction of the Projects to the Hong Kong Housing Authority to facilitate better coordination of the design and construction interface between the Projects and the Public Housing Developments in which the Projects are located.

PROJECT SCOPE AND NATURE

5. Details of the Projects are provided at **Enclosures 1 to 3** respectively.

Transport and Housing Bureau
April 2021

23TP - Public Vehicle Park at Areas 4 and 30 (Site 2), Sheung Shui

PROJECT SCOPE AND NATURE

The project site is located at Areas 4 and 30 (Site 2), Sheung Shui and occupies an area of about 3 300 square metres (m²). The proposed scope of works under this project includes -

- (a) a nine-storey aboveground public vehicle park (PVP)¹ providing about 320 and about ten public parking spaces for private cars (PCs) and light goods vehicles (LGVs) respectively; and
- (b) ancillary facilities, including a shroff office, plant rooms, etc.

2. A site and location plan, floor plans, a sectional drawing, an artist's impression and a barrier-free access plan for the project are at **Annexes 1 to 8 to Enclosure 1**.

3. We plan to commence the construction of the project upon obtaining funding approval from the Finance Committee (FC) for target completion in around three years.

JUSTIFICATION

4. In response to public aspiration, the Government in recent years has formulated and is actively pursuing a host of short- and medium- to long-term measures to increase parking spaces as appropriate. The proposed PVP is one of the 20 works projects committed in the 2019 Policy Address Supplement, which altogether will provide a total of around 5 100 public parking spaces by batches.

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¹ There will be a garden with leisure and recreational facilities, including a badminton court, a basketball court and landscaping areas, on the roof top of the proposed PVP, as well as at-grade landscaping areas which form part of the ancillary facilities for the Public Housing Development (PHD) at Areas 4 and 30, Sheung Shui. These facilities fall outside the scope of the project and will be funded by the Hong Kong Housing Authority (HKHA) separately.

5. There were two fee-paying public car parks under short-term tenancies (STTs) at Areas 4 and 30, Sheung Shui. The two STT car parks were vacated in August and November 2020 respectively to make way for the PHD project in two sites, namely Site 1 and Site 2, also at Areas 4 and 30, Sheung Shui (the PHD Project) to be funded and implemented by HKHA². While the PHD Project will provide ancillary parking spaces³ for PCs, motorcycles and LGVs in accordance with the parking standards under the Hong Kong Planning Standards and Guidelines to cater for its self-generated parking demand, the Transport Department (TD) sees a genuine need for the proposed PVP to meet the local demand for public parking spaces in view of the termination of the two STT car parks. Based on parking surveys and observations, including the numbers of recorded illegal parking, the recorded utilisation rates of parking spaces at STT car parks⁴, as well as car parks at public housing and private developments in the vicinity of the PHD project site, TD estimates that there will be a public parking demand for about 320 PCs and about ten LGVs.

6. Prior to the commissioning of the proposed PVP, a new STT car park with about 300 parking spaces has commenced operation in part of Site 1 in March 2021 as an interim measure to address the public parking demand in the area. After the commissioning of the proposed PVP, this STT car park will be terminated and the subject land so vacated will be handed over to HKHA for construction of part of the PHD Project. The construction programme of the proposed PVP is expected to tie in with that of the PHD Project in the said part of Site 1. If funding approval from FC could not be obtained in the current legislative session, there will be a delay in the construction programme of the PHD Project in part of Site 1.

7. HKHA will make provision in the design of the project to facilitate future connection between the proposed PVP and the PHD in Site 2.

8. Upon completion, the proposed PVP will be handed over to the Government for necessary preparatory work (including installation, testing and commissioning of electronic equipment and engagement of a contractor for

/management

² The PHD Project will be implemented in phases and the first phase of population intake is scheduled for mid-2020s.

³ The PHD Project will provide about 154, 29 and 18 ancillary parking spaces for PCs, motorcycles and LGVs respectively.

⁴ Covering STT car parks that were in operation at the time of surveys, including the now terminated STT car parks.

management, operation and maintenance of the proposed PVP) prior to its commissioning, estimated to be in around 2024-25. Afterwards, the STT car park site would be vacated and the construction works for the remaining phase of PHD in Site 1 will thereafter commence. The proposed PVP and its ancillary facilities will be managed by the Government.

FINANCIAL IMPLICATIONS

9. The capital cost of the project is estimated to be \$385.1 million in money-of-the-day (MOD) prices, broken down as follows -

	\$ million (in MOD prices)
(a) Site works	5.8
(b) Piling	48.9
(c) Building ⁵	188.0
(d) Building services	49.4
(e) Drainage	7.3
(f) External works	5.0
(g) Additional energy conservation, green and recycled features	2.4
(h) On-cost payable to HKHA ⁶	38.4
(i) Furniture and equipment ⁷	4.9

/(j)

⁵ Building works comprise construction of substructure and superstructure of the proposed PVP building.

⁶ This is the estimated cost (12.5% of the construction cost) to be charged by HKHA for the design, administration and supervision of the project.

⁷ The estimated cost is based on an indicative list of furniture and equipment required.

	\$ million (in MOD prices)
(j) Contingencies	35.0
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Total	385.1
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10. The construction floor area (CFA) of this project is about 14 476 m². The estimated construction unit cost, represented by the building and building services costs, is \$16,400 per m² of CFA in MOD prices. We consider this unit cost comparable to that of similar projects built by the Government.

11. Subject to funding approval, we plan to phase the expenditure as follows -

Year	\$ million (in MOD prices)
2021 – 22	11.5
2022 – 23	46.1
2023 – 24	94.5
2024 – 25	148.8
2025 – 26	45.7
2026 – 27	26.6
2027 – 28	11.9
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	385.1
	<hr/>

12. 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 2028. Subject to funding approval, HKHA will deliver the proposed works through a lump sum contract as the scope of the works can be clearly defined in advance. The contract will provide for price adjustment.

13. We estimate the annual recurrent expenditure arising from this project to be \$3.36 million⁸.

PUBLIC CONSULTATION

14. The Housing Department and TD jointly consulted the District Minor Works and Environmental Improvement Committee of the North District Council on the PHD project together with the proposed PVP and its ancillary facilities under the project on 21 January 2019. The Committee rendered support for the PVP. We consulted the Legislative Council Panel on Transport on the project on 5 January 2021 (Panel Paper (LC Paper No. CB(4)320/20-21(03))). Members were generally supportive of the provision of more public parking spaces. To address their enquiries and concerns, we have provided them with a supplementary information paper before the Public Works Subcommittee (PWSC) meeting for the project.

ENVIRONMENTAL IMPLICATIONS

15. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). HKHA completed a Preliminary Environmental Review (PER) for the project, the findings of which were agreed by the Director of Environmental Protection in November 2020. The PER concluded that the project would not cause long-term adverse environmental impacts. HKHA has included in the project estimates the cost to implement suitable mitigation measures to control short-term environmental impacts.

/16.

⁸ The annual recurrent expenditure excludes the electricity fee for EV chargers.

16. During construction, HKHA will request the contractors to control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures. These include the use of silencers, mufflers and movable noise barriers for noisy construction activities, frequent cleaning and water spraying at the works site, and the provision of wheel-washing facilities for dust control.

17. At the planning and design stages, HKHA has considered measures (e.g. using metal site hoardings so that these materials can be recycled or reused in other projects) to reduce generation of construction waste wherever possible. In addition, HKHA will require the contractors to reuse inert construction waste on site or in other suitable construction sites as far as possible in order to minimise disposal of inert construction waste at public fill reception facilities (PFRFs)⁹. HKHA will encourage the contractors to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

18. At the construction stage, HKHA will require the contractors to submit for approval a plan setting out waste management measures, which will include appropriate mitigation measures 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 contractors to separate inert portion from non-inert construction waste on site for disposal at appropriate facilities. HKHA will control the disposal of inert and non-inert construction waste at PFRFs and landfills respectively through a trip-ticket system.

19. HKHA estimates that the project will generate in total about 18 710 tonnes of construction waste. Of these, HKHA will reuse about 1 010 tonnes (5.4%) of inert construction waste on site and deliver about 16 060 tonnes (85.8%) of inert construction waste to PFRFs for subsequent reuse. HKHA will dispose of the remaining 1 640 tonnes (8.8%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRFs and landfill sites is estimated to be about \$1.5 million for the project (based on a unit charge rate of \$71 per tonne for disposal at PFRFs and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N).

/HERITAGE

⁹ PFRFs are specified in Schedule 4 to the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste at PFRFs requires a licence issued by the Director of Civil Engineering and Development.

HERITAGE IMPLICATIONS

20. The project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

21. The project does not require any land acquisition.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

22. The project will adopt various forms of energy efficient features, in particular -

- (a) variable refrigerant volume air-conditioning system;
and
- (b) light-emitting diode general lighting fittings.

23. For greening features, HKHA will provide landscaping at appropriate locations for environmental and amenity benefits.

24. The total estimated additional cost for adoption of the features mentioned in paragraph 22 and 23 above is around \$2.4 million (including \$0.3 million for energy efficient features), which has been included in the cost estimate of the project. The energy efficient features will achieve 3.5% energy savings in the annual energy consumption with a payback period of about eight years.

SMART FEATURES

25. The project will adopt various forms of smart features, in particular -

- (a) electric vehicles (EV) charging facilities for not less than 30% of the car parking spaces; and EV charging enabling provisions for the remaining car parking spaces in the proposed PVP; and

/(b)

- (b) electronic equipment, including access control system, license plate recognition system, parking bay information system¹⁰, electronic patrol system, etc.

The costs for adoption of the above smart features have already been included in the cost estimate of the project.

TRAFFIC IMPLICATIONS

26. According to the Traffic Impact Assessment conducted by HKHA for the PHD projects in Sheung Shui, in which the proposed PVP is also covered, the project will not cause insurmountable traffic impact in the area concerned. During construction, HKHA will require the contractors to implement appropriate temporary traffic arrangements (TTA) to minimise the traffic impacts and to facilitate the related construction works. In addition, HKHA will request the contractors to display publicity boards on site to provide details of the TTA and the anticipated completion dates of individual sections of works. HKHA will also require the contractors to set up a telephone hotline to respond to public enquiries and complaints.

BACKGROUND INFORMATION

27. We upgraded **23TP** to Category B in August 2019. The planning and preliminary design of the project have been completed.

28. The proposed works for the project will involve the felling of 21 trees within the site boundary. All trees to be felled are not important trees¹¹. HKHA will incorporate planting proposals as part of the project, including the planting of about 50 trees and about 9 000 shrubs/groundcover/climbers.

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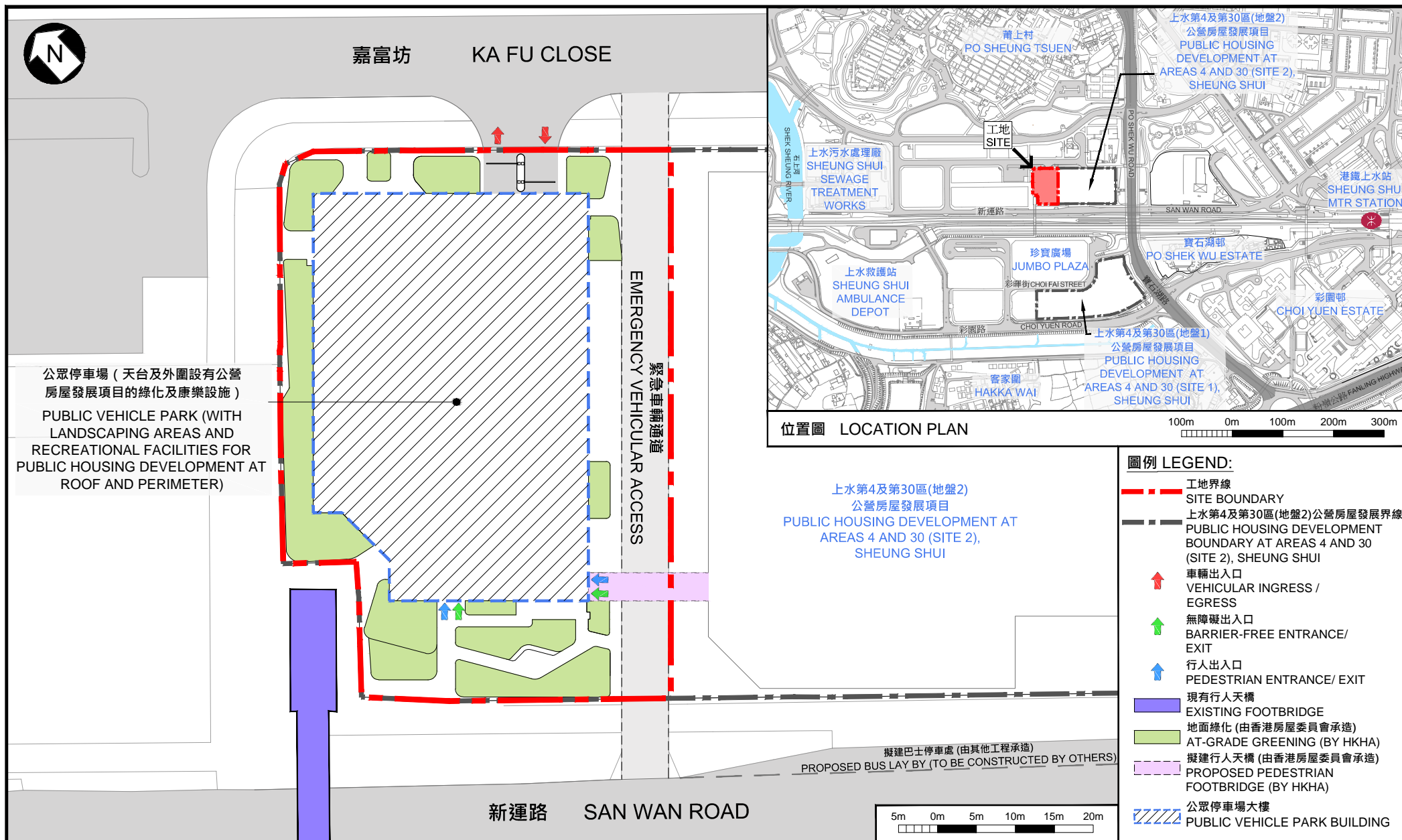
¹⁰ Real-time parking vacancy information of the proposed PVP will be released through TD's mobile app "HKemobility".

¹¹ "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria -

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or heritage monument, and trees in memory of important persons or events;
- (c) trees of precious or rare species;
- (d) trees of outstanding forms (taking account of overall tree sizes, shapes and any special features), e.g. trees with curtain like aerial roots, trees growing in unusual habitats; or
- (e) trees with trunk diameter equal or exceeding 1.0 metre (measured at 1.3 metres above ground level), or with height/canopy spread equal or exceeding 25 metres.

29. We estimate that the proposed works will create about 70 jobs (60 for labourers and ten for professional or technical staff) providing a total employment of 2 150 man-months.

30. We invited tenders for the proposed works in January 2021 and have updated the project estimate accordingly to \$385.1 million in MOD prices, which is lower than our estimate of \$421.3 million in MOD prices when we consulted the Panel on Transport in January 2021 (Panel Paper (LC Paper No. CB(4)320/20-21(03))) by around 9%. We consider the latest project estimate has reflected the prevailing market situation and should be adequate for the proposed works.

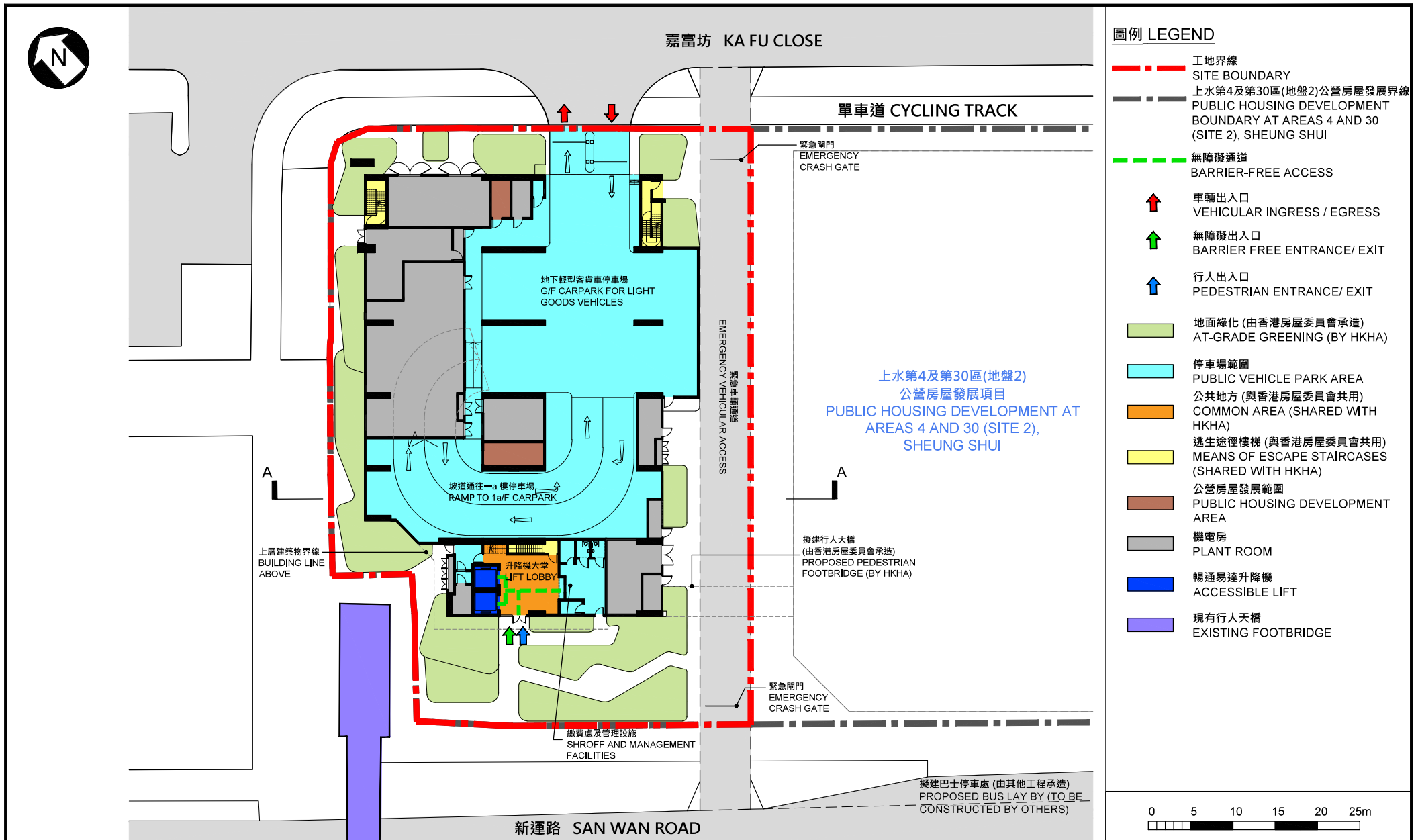


工地平面圖
SITE PLAN

23TP
上水第4及第30區(地盤2)的公眾停車場
PUBLIC VEHICLE PARK AT AREAS 4 AND 30 (SITE 2), SHEUNG SHUI



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

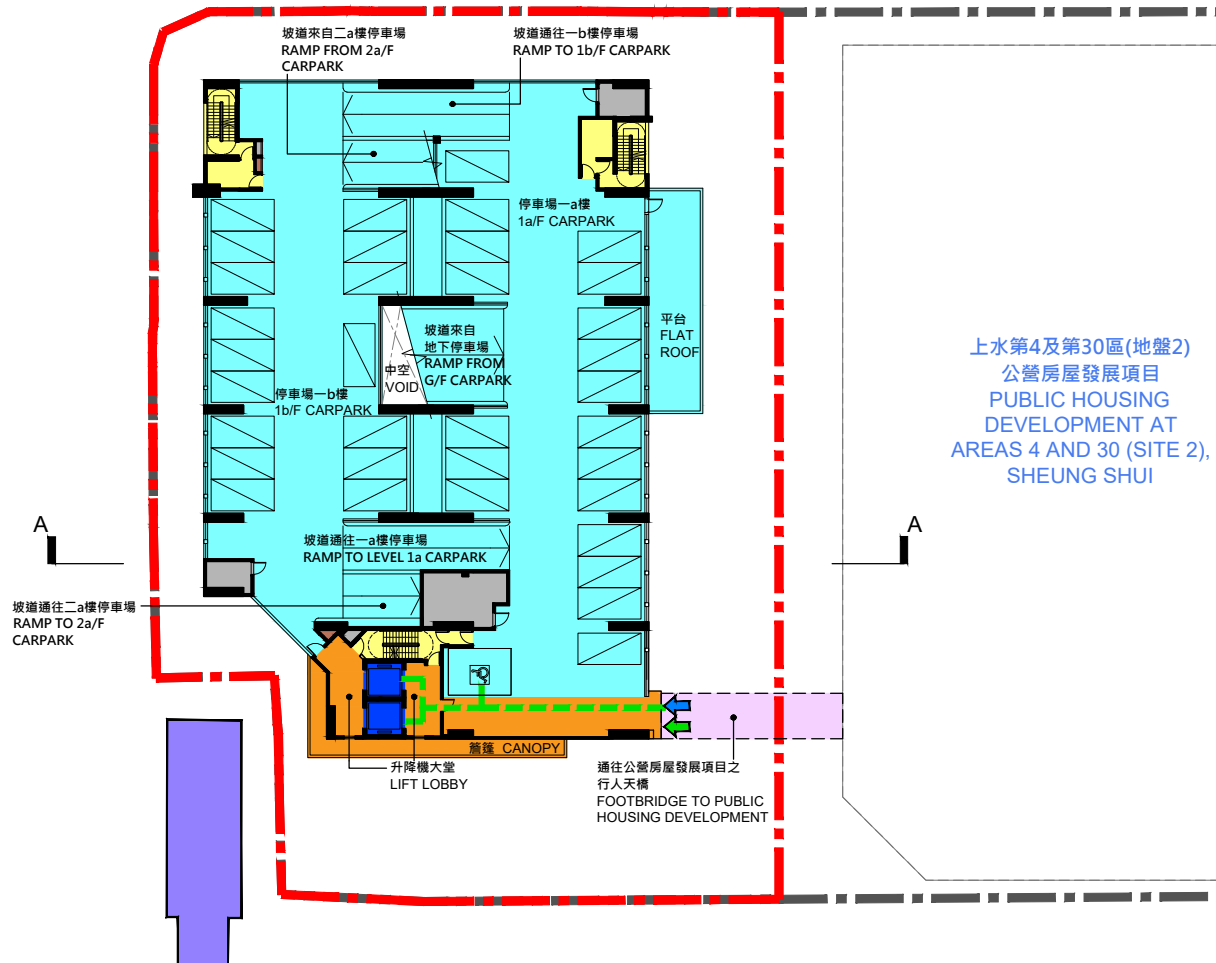


地下平面圖
GROUND
FLOOR PLAN

23TP
上水第4及第30區(地盤2)的公眾停車場
PUBLIC VEHICLE PARK AT AREAS 4 AND 30 (SITE 2), SHEUNG SHUI

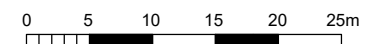


ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

- 工地界線
SITE BOUNDARY
- 上水第4及第30區(地盤2)公營房屋發展界線
PUBLIC HOUSING DEVELOPMENT BOUNDARY AT AREAS 4 AND 30 (SITE 2), SHEUNG SHUI
- 無障礙通道
BARRIER-FREE ACCESS
- ↑ 無障礙出入口
BARRIER FREE ENTRANCE EXIT
- ↑ 行人出入口
PEDESTRIAN ENTRANCE EXIT
- 停車場範圍
PUBLIC VEHICLE PARK AREA
- 公共地方 (與香港房屋委員會共用)
COMMON AREA (SHARED WITH HKHA)
- 逃生途徑樓梯 (與香港房屋委員會共用)
MEANS OF ESCAPE STAIRCASES (SHARED WITH HKHA)
- 機電房
PLANT ROOM
- 公營房屋發展範圍
PUBLIC HOUSING DEVELOPMENT AREA
- 現有行人天橋
EXISTING FOOTBRIDGE
- 擬建行人天橋 (由香港房屋委員會承造)
PROPOSED PEDESTRIAN FOOTBRIDGE (BY HKHA)
- 暢通易達升降機
ACCESSIBLE LIFT
- ♿ 暢通易達停車位
ACCESSIBLE PARKING SPACE
- 停車場車位
PARKING SPACE

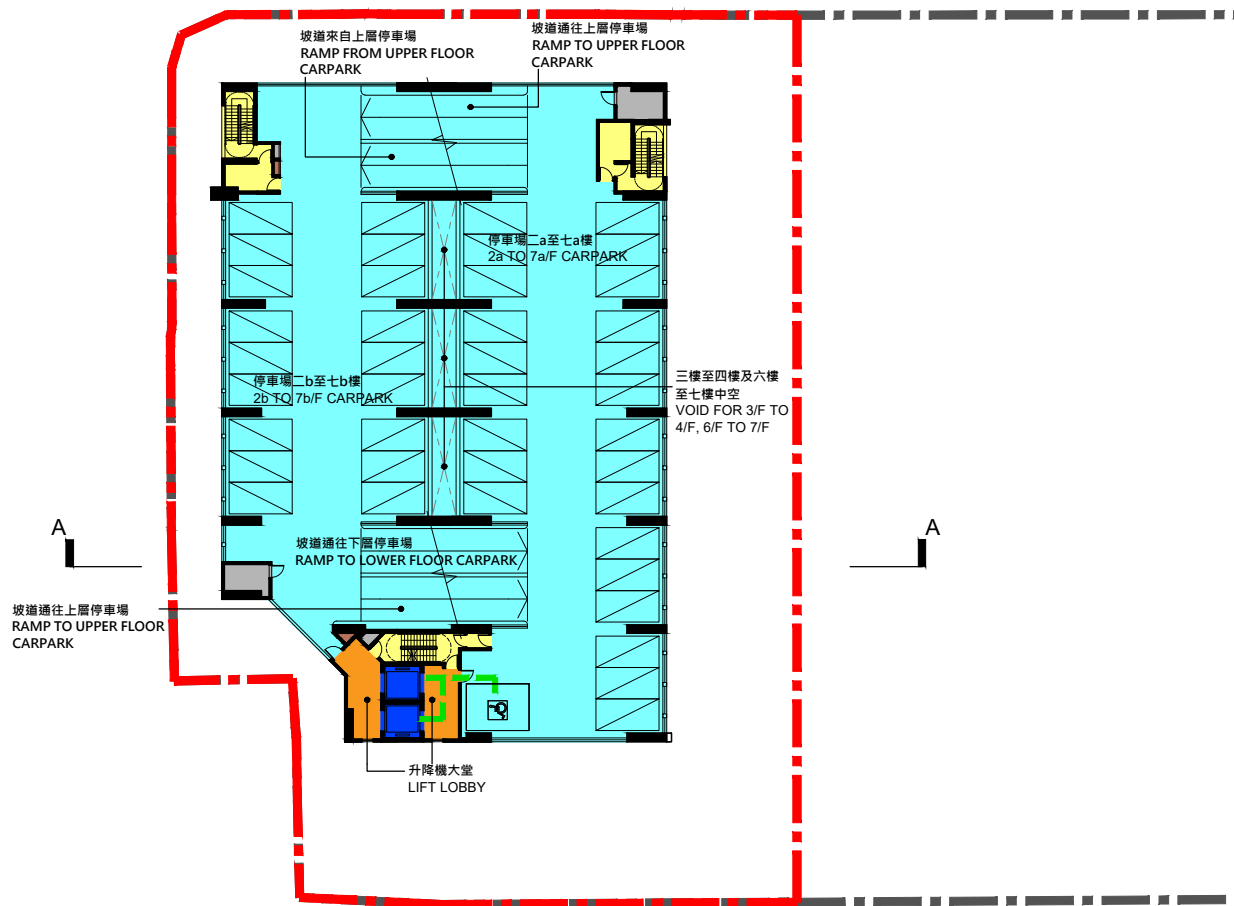


一a樓及一b樓
平面圖
LEVEL 1a & 1b
FLOOR PLAN

23TP
上水第4及第30區(地盤2)的公眾停車場
PUBLIC VEHICLE PARK AT AREAS 4 AND 30 (SITE 2), SHEUNG SHUI

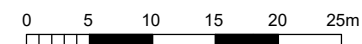


ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

- 工地界線
SITE BOUNDARY
- 上水第4及第30區(地盤2)公營房屋發展界線
PUBLIC HOUSING DEVELOPMENT
BOUNDARY AT AREAS 4 AND 30
(SITE 2), SHEUNG SHUI
- 無障礙通道
BARRIER-FREE ACCESS
- 停車場範圍
PUBLIC VEHICLE PARK AREA
- 公共地方 (與香港房屋委員會共用)
COMMON AREA (SHARED WITH
HKHA)
- 逃生途徑樓梯 (與香港房屋委員會共用)
MEANS OF ESCAPE STAIRCASES
(SHARED WITH HKHA)
- 機電房
PLANT ROOM
- 公營房屋發展範圍
PUBLIC HOUSING DEVELOPMENT
AREA
- 暢通易達升降機
ACCESSIBLE LIFT
- 暢通易達停車位
ACCESSIBLE PARKING SPACE
- 停車場車位
PARKING SPACE



二a樓及二b樓至七
a樓及七b樓平面圖
LEVEL 2a & 2b
TO 7a & 7b
FLOOR PLAN

23TP

上水第4及第30區(地盤2)的公眾停車場

PUBLIC VEHICLE PARK AT AREAS 4 AND 30 (SITE 2), SHEUNG SHUI

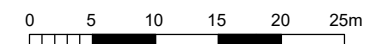


ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

- 工地界線
SITE BOUNDARY
- 上水第4及第30區(地盤2)公營房屋發展界線
PUBLIC HOUSING DEVELOPMENT
BOUNDARY AT AREAS 4 AND 30
(SITE 2), SHEUNG SHUI
- 停車場範圍
PUBLIC VEHICLE PARK AREA
- 公共地方 (與香港房屋委員會共用)
COMMON AREA (SHARED WITH
HKHA)
- 逃生途徑樓梯 (與香港房屋委員會共用)
MEANS OF ESCAPE STAIRCASES
(SHARED WITH HKHA)
- 機電房
PLANT ROOM
- 公營房屋發展範圍
PUBLIC HOUSING DEVELOPMENT
AREA
- 暢通易達升降機
ACCESSIBLE LIFT
- 天台綠化 (由香港房屋委員會承造)
LANDSCAPED ROOF (BY HKHA)
- 停車場車位
PARKING SPACE

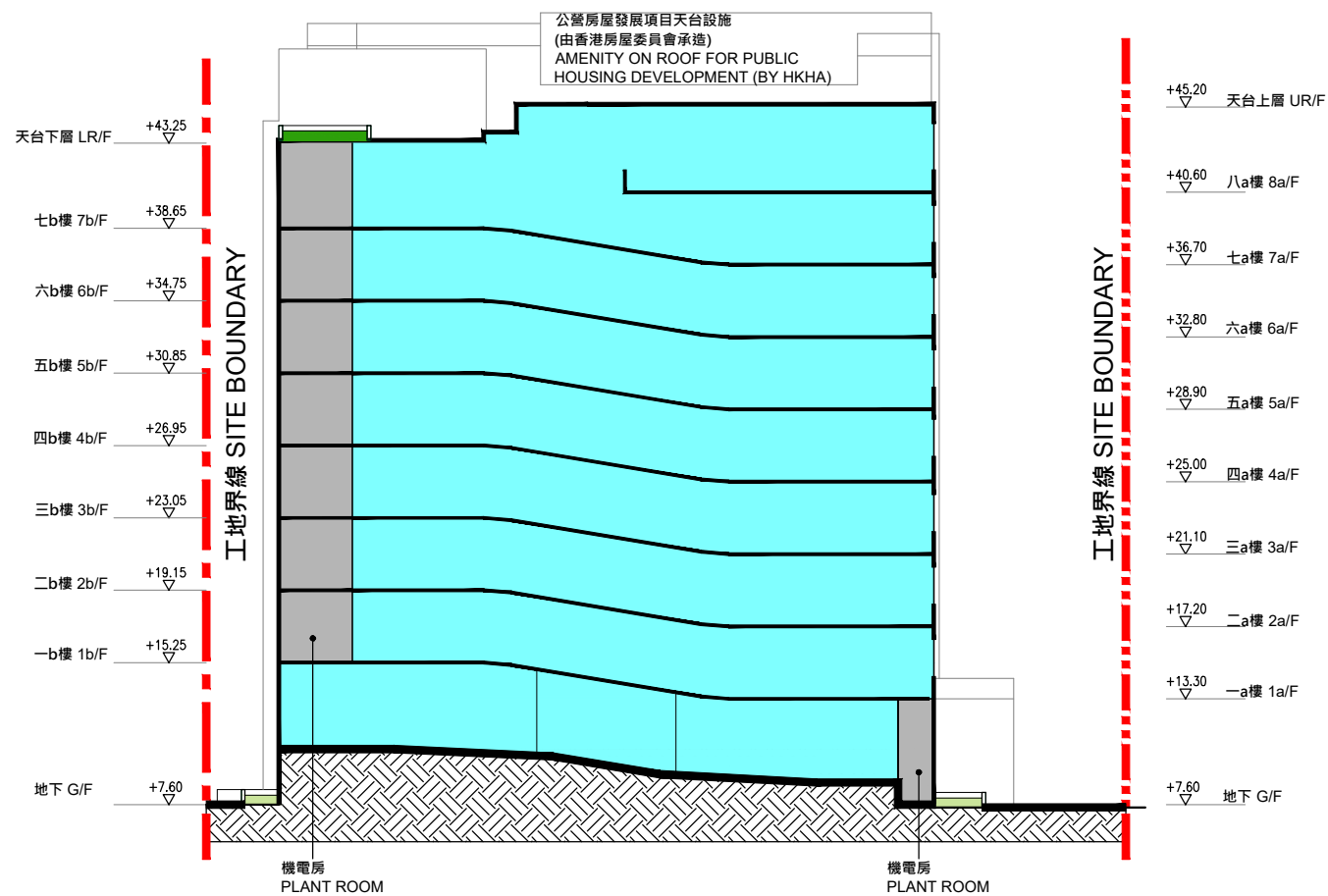


天台下層平面圖
LOWER
ROOF PLAN

23TP
上水第4及第30區(地盤2)的公眾停車場
PUBLIC VEHICLE PARK AT AREAS 4 AND 30 (SITE 2), SHEUNG SHUI

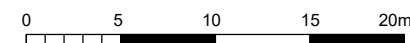


ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

- 工地界線
SITE BOUNDARY
- 停車場範圍
CAR PARK AREA
- 機電房
PLANT ROOM
- 地面綠化 (由香港房屋委員會承造)
AT-GRADE GREENING (BY HKHA)
- 天台綠化 (由香港房屋委員會承造)
LANDSCAPED ROOF (BY HKHA)



A-A 剖面圖
SECTION A-A

23TP
上水第4及第30區(地盤2)的公眾停車場
PUBLIC VEHICLE PARK AT AREAS 4 AND 30 (SITE 2), SHEUNG SHUI



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



從北面望向大樓的構思透視圖

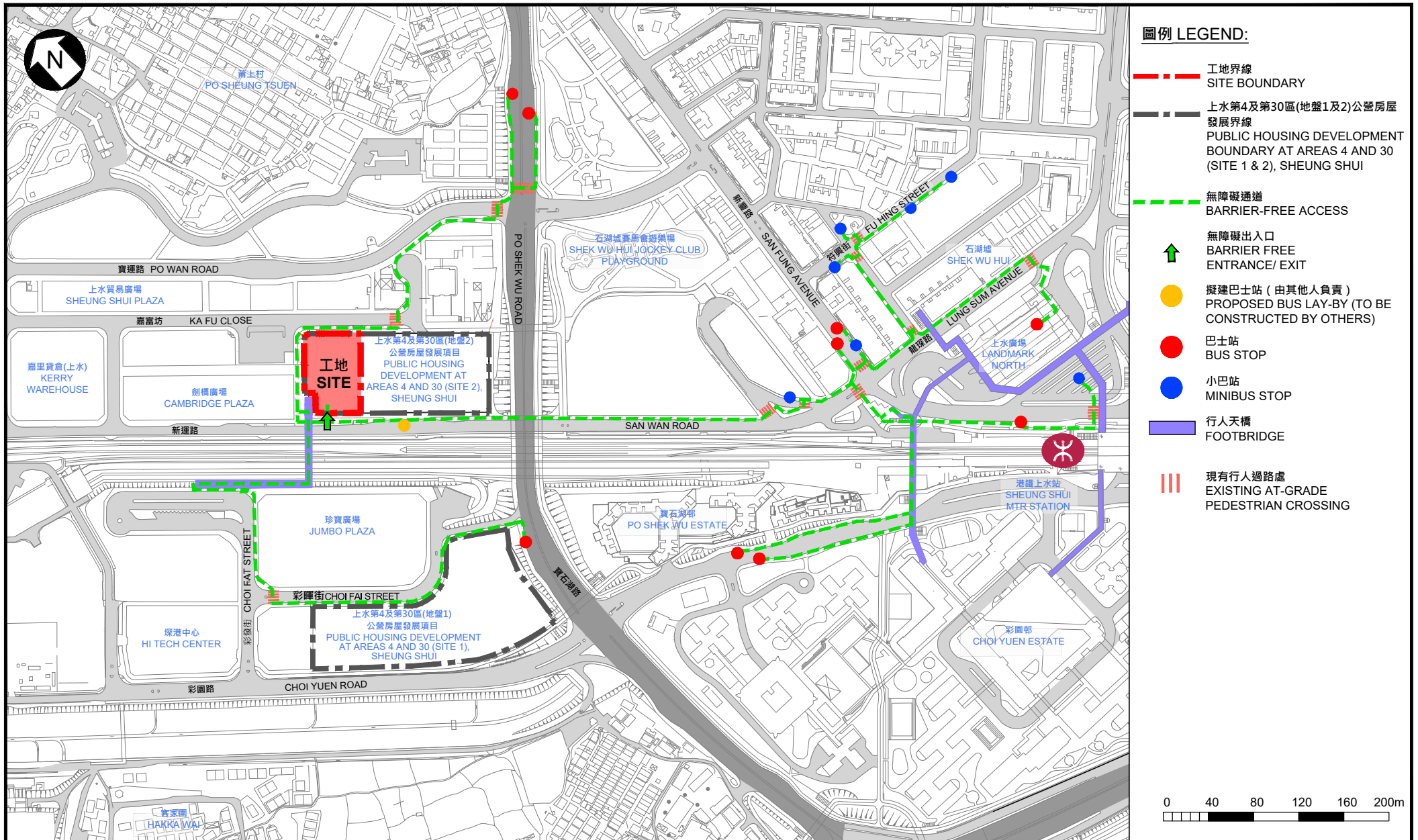
PERSPECTIVE VIEW FROM NORTH DIRECTION (ARTIST'S IMPRESSION)

構思圖
ARTIST'S
IMPRESSION

23TP
上水第4及第30區(地盤2)的公眾停車場
PUBLIC VEHICLE PARK AT AREAS 4 AND 30 (SITE 2), SHEUNG SHUI



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



無障礙通道平面圖
PLAN OF
BARRIER-FREE
ACCESS

23TP
上水第4及第30區(地盤2)的公眾停車場
PUBLIC VEHICLE PARK AT AREAS 4 AND 30 (SITE 2), SHEUNG SHUI



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

24TP - Public Vehicle Park at Area 99, Tung Chung

PROJECT SCOPE AND NATURE

The project site is located at Area 99, Tung Chung and occupies an area of about 4 900 square metres (m²). The proposed scope of works under this project includes -

- (a) a one-level underground public vehicle park (PVP) providing about 80 public parking spaces for private cars (PCs); and
- (b) ancillary facilities, including a shroff office, plant rooms, etc.

2. A site and location plan, floor plans, a sectional drawing, an artist's impression and a barrier-free access plan for the project are at **Annexes 1 to 6 to Enclosure 2**.

3. We plan to commence the construction of the project upon obtaining funding approval from the Finance Committee (FC) for target completion in around three years.

JUSTIFICATION

4. In response to public aspiration, the Government in recent years has formulated and is actively pursuing a host of short- and medium- to long-term measures to increase parking spaces as appropriate. The proposed PVP is one of the 20 works projects committed in the 2019 Policy Address Supplement, which altogether will provide a total of around 5 100 public parking spaces by batches.

5. The Hong Kong Housing Authority (HKHA) has planned to implement the Public Housing Development at Area 99, Tung Chung (the PHD

/Project

Project). Amongst others, the PHD Project will provide ancillary parking spaces¹ for PCs, motorcycles and LGVs in accordance with the parking standards under the Hong Kong Planning Standards and Guidelines so as to cater for its self-generated parking demand.

6. In the light of the population intake in Tung Chung in recent years, the Transport Department (TD) considers it opportune to provide a PVP in order to meet the local parking demand. Based on the parking surveys and observations, including the numbers of recorded illegal parking, the recorded utilisation rates of parking spaces at a nearby short-term tenancy car park, as well as carparks at public housing and private developments in the vicinity of the PHD project site, TD estimates that there will be a public parking demand for about 80 PCs. To optimise land use, an underground PVP is proposed, which will integrate with a public transport interchange (PTI)² to be provided at ground level. The completion of the construction of the proposed PVP and PTI is planned to tie in with the completion of the PHD Project. If funding approval from FC could not be obtained in the current legislative session, there will be a delay in the construction of the proposed PVP and PTI.

7. Upon completion, the proposed PVP will be handed over to the Government for necessary preparatory work (including installation, testing and commissioning of electronic equipment and engagement of a contractor for management, operation and maintenance of the proposed PVP) prior to its commissioning. The proposed PVP and its ancillary facilities will be managed by the Government.

FINANCIAL IMPLICATIONS

8. The capital cost³ of the project is estimated to be \$167.5 million in money-of-the-day (MOD) prices, broken down as follows -

/(a)

¹ The PHD Project will provide about 200, 39 and 21 ancillary parking spaces for PCs, motorcycles and light goods vehicles (LGVs) respectively.

² Constructed above the proposed PVP, the PTI will be funded by a separate Public Works Programme item (i.e. **85TI**) and share the same foundation with the proposed PVP (please refer to **Enclosure 3** for details).

³ The foundation and basement cost mentioned in paragraph 8(b) and 8(c) only form part of the total foundation and basement cost. Please see paragraph 8 of **Enclosure 3** for the breakdown of estimated capital cost for the proposed PTI project.

		\$ million (in MOD prices)
(a)	Site works	2.6
(b)	Foundation	27.6
(c)	Basement	35.7
(d)	Building	39.7
(e)	Building services	23.5
(f)	Drainage	3.6
(g)	Additional energy conservation, green and recycled features	0.5
(h)	On-cost payable to HKHA ⁴	16.7
(i)	Furniture and equipment ⁵	2.4
(j)	Contingencies	15.2
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Total		167.5
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9. The construction floor area (CFA) of this project is about 3 287 m². The estimated construction unit cost, represented by the building and building services costs, is \$19,227 per m² of CFA in MOD prices. We consider this unit cost comparable to that of similar projects built by the Government.

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

/Year

⁴ This is the estimated cost (12.5% of the construction cost) to be charged by HKHA for the design, administration and supervision of the project.

⁵ The estimated cost is based on an indicative list of furniture and equipment required.

Year	\$ million (in MOD prices)
2021 – 22	5.2
2022 – 23	21.9
2023 – 24	36.9
2024 – 25	66.5
2025 – 26	20.3
2026 – 27	12.0
2027 – 28	4.7
	<hr/>
	167.5
	<hr/>

11. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period 2021 to 2028. Subject to funding approval, HKHA will deliver the proposed works through a lump sum contract as the scope of the works can be clearly defined in advance. The contract will provide for price adjustment.

12. We estimate the annual recurrent expenditure arising from this project to be \$1.56 million⁶.

PUBLIC CONSULTATION

13. TD consulted the Traffic and Transport Committee of the Islands District Council on the project on 21 September 2020. The Committee rendered support for the PVP.

/14.

⁶ The annual recurrent expenditure excludes the electricity fee for EV chargers.

14. According to the Notes of the Approved Tung Chung Extension Area Outline Zoning Plan No. S/I-TCE/2, the proposed PVP use within “Residential (Group A)3” zone in Area 99 requires planning permission from the Town Planning Board (TPB). After considering the departmental and public comments on 6 November 2020, the relevant planning application was approved by the Rural and New Town Planning Committee of the TPB.

15. We consulted the Legislative Council Panel on Transport on the project on 5 January 2021 (Panel Paper (LC Paper No. CB(4)320/20-21(03))). Members were generally supportive of the provision of more public parking spaces. To address their enquiries and concerns, we have provided them with a supplementary information paper before the Public Works Subcommittee (PWSC) meeting for the project.

ENVIRONMENTAL IMPLICATIONS

16. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). HKHA completed a Preliminary Environmental Review (PER) for the project, the findings of which were agreed by the Director of Environmental Protection in October 2020. The PER concluded that the project would not cause long-term adverse environmental impacts. HKHA has included in the project estimates the cost to implement suitable mitigation measures to control short-term environmental impacts.

17. During construction, HKHA will request the contractors to control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures. These measures include the use of silencers, mufflers and temporary acoustic linings or shields for noisy construction activities, frequent cleaning and water spraying at the works site, and the provision of wheel-washing facilities for dust control.

18. At the planning and design stages, HKHA has considered measures (e.g. optimising the steel bar bending schedule to minimise scraps) to reduce generation of construction waste wherever possible. In addition, HKHA will require the contractors to reuse inert construction waste (e.g. use of excavated materials for filling within the site) on site or in other suitable construction sites as far as possible in order to minimise the disposal of inert construction waste at

/public

public fill reception facilities (PFRFs)⁷. HKHA will encourage the contractors to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

19. At the construction stage, HKHA will require the contractors to submit for approval a plan setting out waste management measures, which will include appropriate mitigation measures 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 contractors to separate inert portion from non-inert construction waste on site for disposal at appropriate facilities. HKHA will control the disposal of inert and non-inert construction waste at PFRFs and landfills respectively through a trip-ticket system.

20. HKHA estimates that the project will generate in total about 16 060 tonnes of construction waste. Of these, HKHA will reuse about 270 tonnes (1.7%) of inert construction waste on site and deliver about 15 420 tonnes (96.0%) of inert construction waste to PFRFs for subsequent reuse. HKHA will dispose of the remaining 370 tonnes (2.3%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRFs and landfill sites is estimated to be about \$1.2 million for the project (based on a unit charge rate of \$71 per tonne for disposal at PFRFs and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N).

HERITAGE IMPLICATIONS

21. The project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

22. The project does not require any land acquisition.

/ENERGY

⁷ PFRFs are specified in Schedule 4 to the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste at PFRFs requires a licence issued by the Director of Civil Engineering and Development.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

23. The project will adopt various forms of energy efficient features, in particular -

- (a) variable refrigerant volume air-conditioning system;
and
- (b) light-emitting diode general light fittings.

24. The total estimated additional cost for adoption of the above features is around \$0.5 million (including \$0.1 million for energy efficient features), which has been included in the cost estimate of the project. The energy efficient features will achieve 3.5% energy savings in the annual energy consumption with a payback period of about eight years.

SMART FEATURES

25. The project will adopt various forms of smart features, in particular -

- (a) electric vehicles (EV) charging facilities for not less than 30% of the car parking spaces; and EV charging enabling provisions for the remaining car parking spaces in the proposed PVP; and
- (b) electronic equipment, including access control system, license plate recognition system, parking bay information system⁸, electronic patrol system, etc.

The cost for adoption of the above smart features have already been included in the cost estimate of the project.

TRAFFIC IMPLICATIONS

26. According to the Traffic Impact Assessment conducted by HKHA for Area 99, Tung Chung, the proposed PVP will not cause insurmountable traffic

/impact

⁸ Real-time parking vacancy information of the proposed PVP will be released through TD's mobile app "HKemobility".

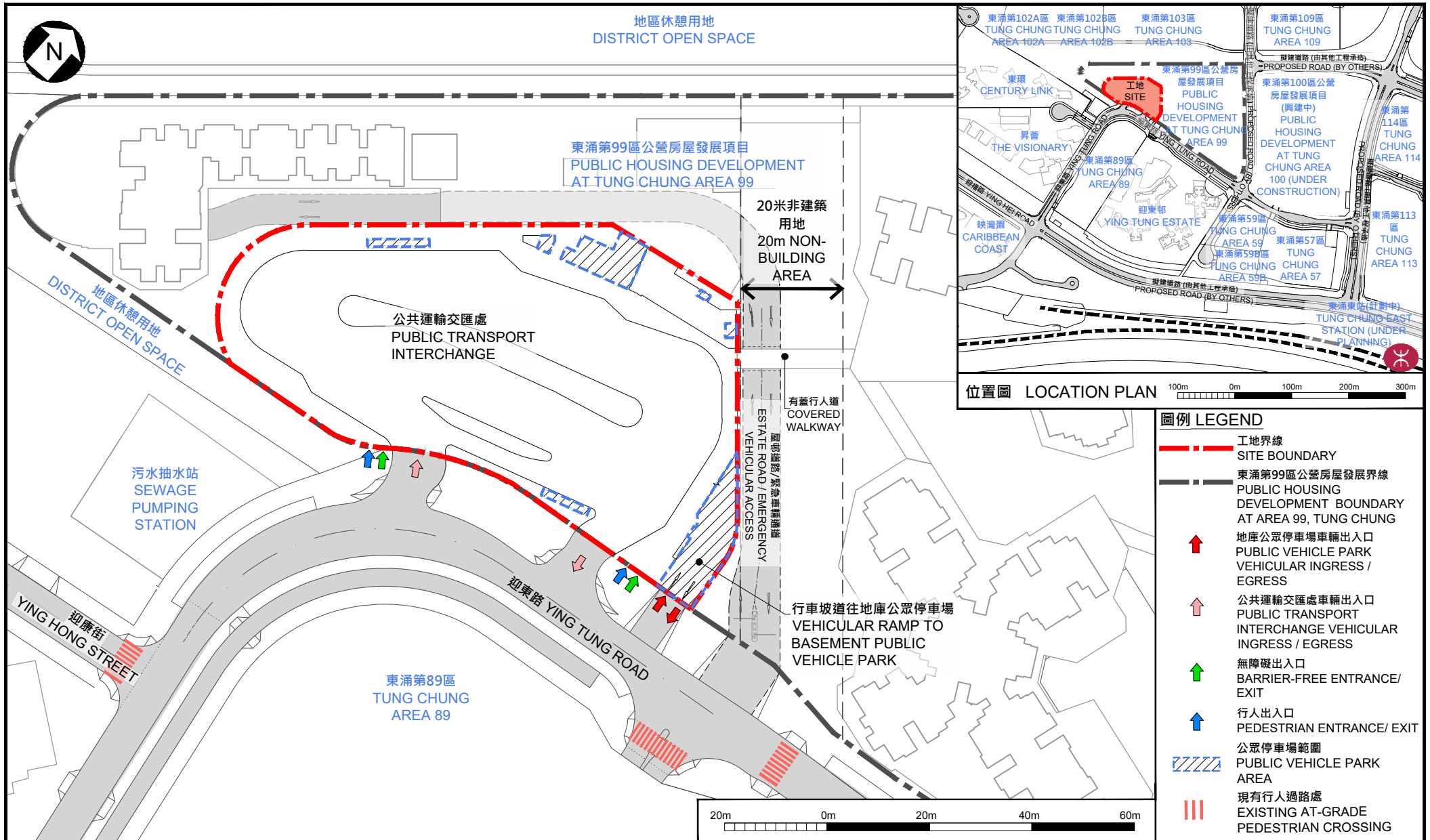
impact in the area concerned. During construction, HKHA will require the contractors to implement appropriate temporary traffic arrangements (TTA) to minimise the traffic impacts and to facilitate the related construction works. In addition, HKHA will request the contractors to display publicity boards on site to provide details of the TTA and the anticipated completion dates of individual sections of works. HKHA will also require the contractors to set up a telephone hotline to respond to public enquiries and complaints.

BACKGROUND INFORMATION

27. We upgraded **24TP** to Category B in August 2019. HKHA engaged contractors to undertake ground investigation (GI) works at a total cost of about \$1.8 million. The works provided by HKHA were funded under block allocation **Subhead 3100GX** “Project feasibility studies, minor investigations and consultants’ fees for items in Category D of the Public Works Programme”. All the GI field works have been completed.

28. The project will not involve removal of trees.

29. We estimate that the proposed works will create about 35 jobs (30 for labourers and five for professional or technical staff), providing a total employment of 800 man-months.

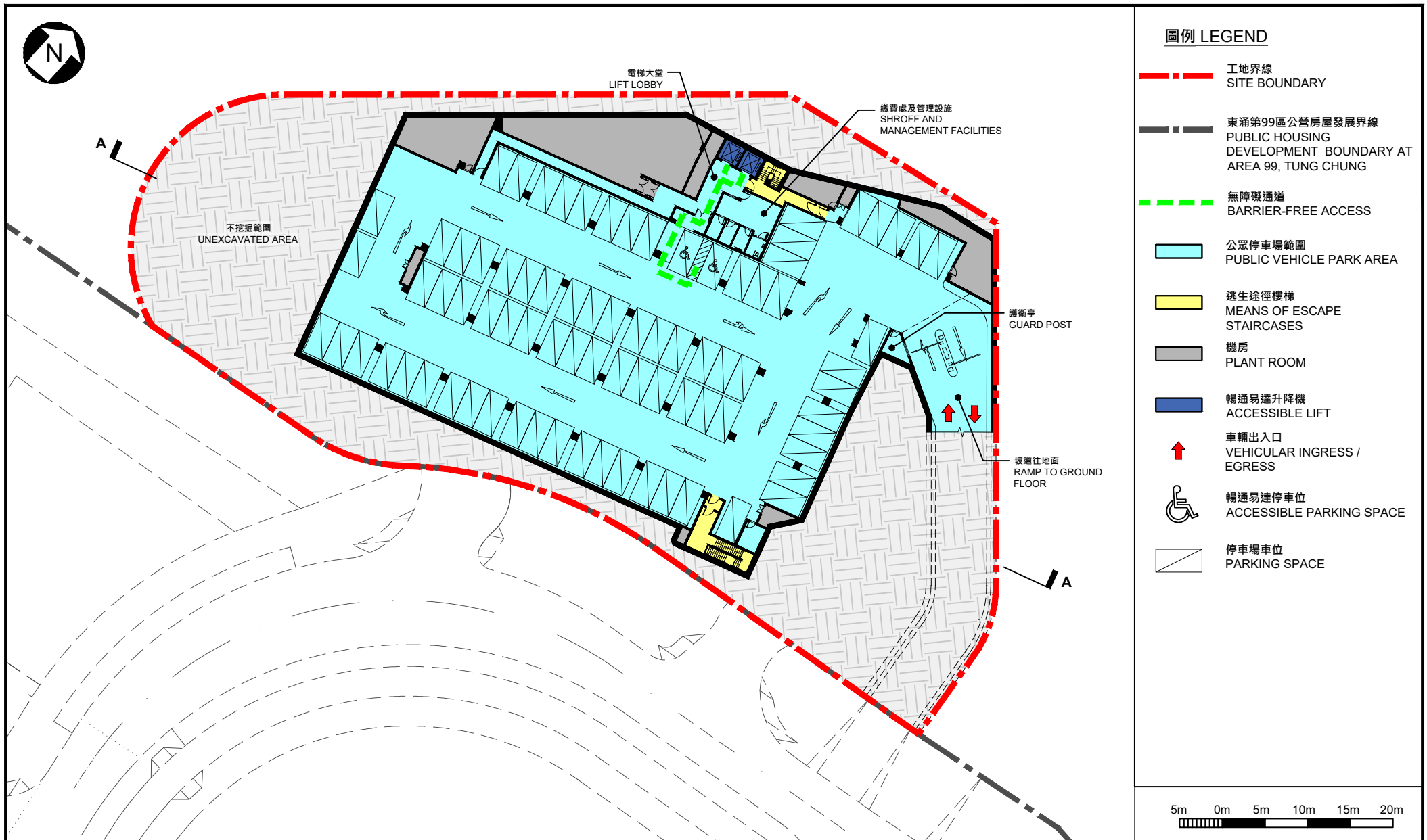


工地平面圖
SITE PLAN

24TP
東涌第99區的公眾停車場
PUBLIC VEHICLE PARK AT AREA 99, TUNG CHUNG



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

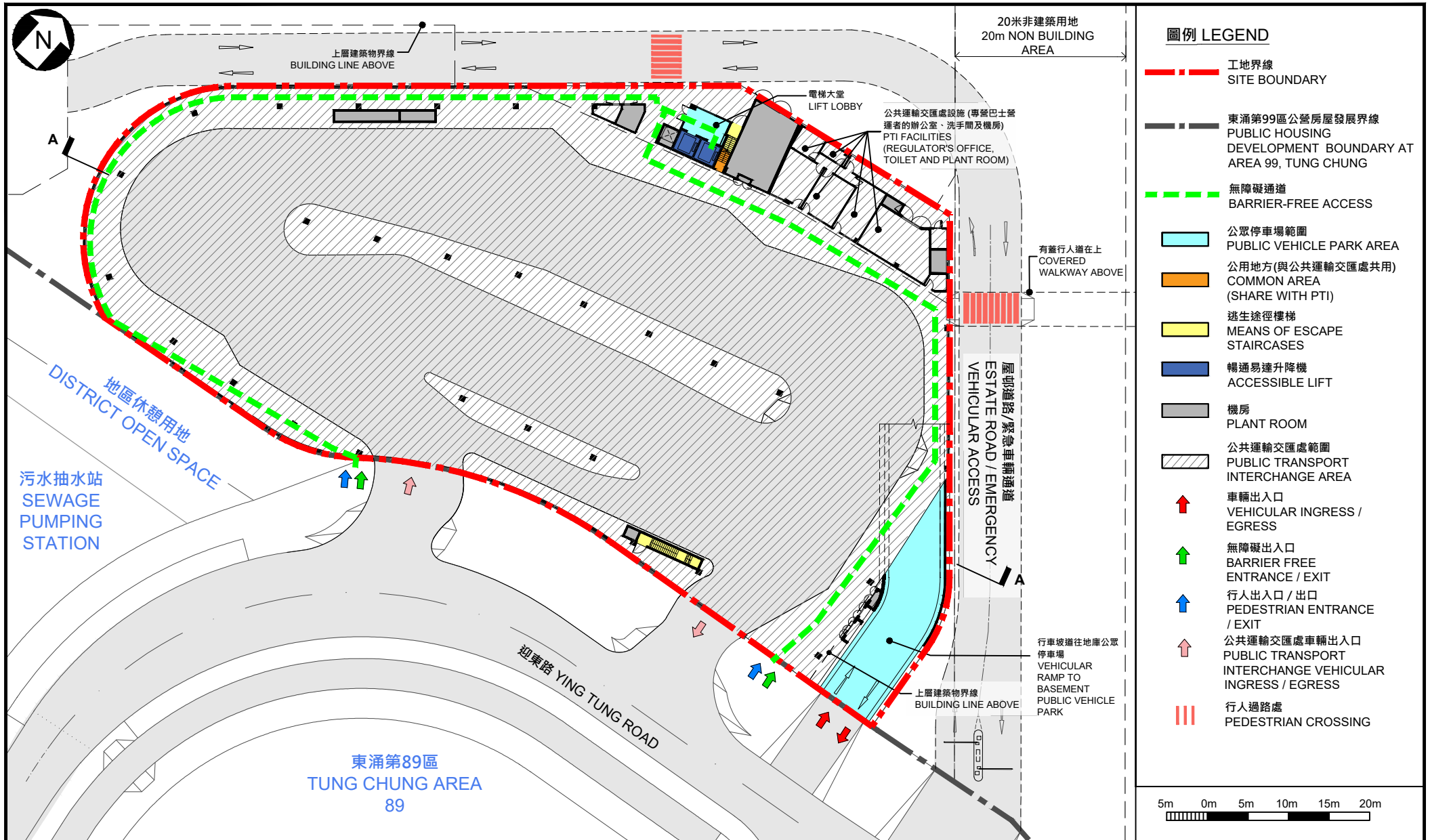


地庫平面圖
BASEMENT
FLOOR PLAN

24TP
東涌第99區的公眾停車場
PUBLIC VEHICLE PARK AT AREA 99, TUNG CHUNG



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

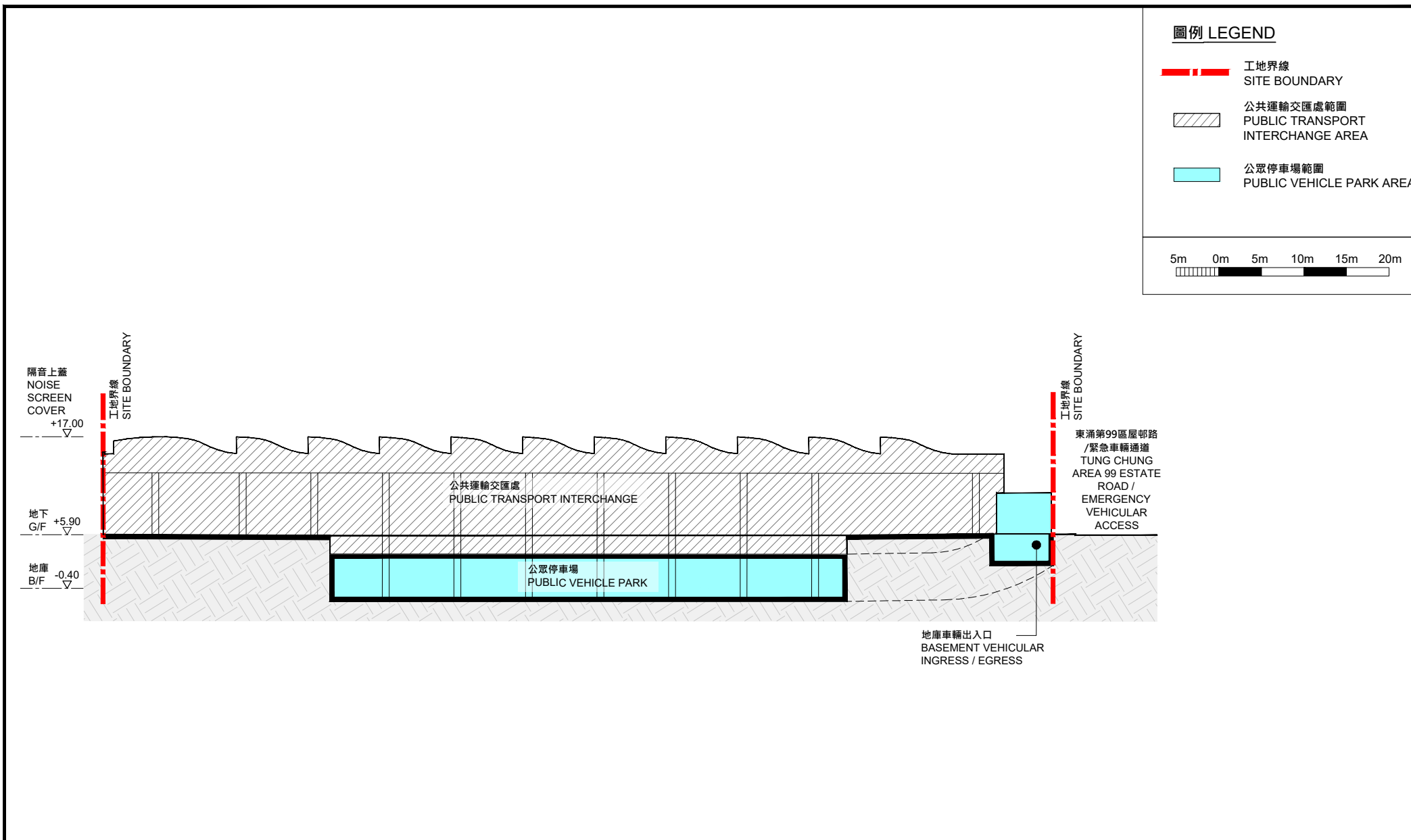


地下平面圖
GROUND
FLOOR PLAN

24TP
東涌第99區的公眾停車場
PUBLIC VEHICLE PARK AT AREA 99, TUNG CHUNG



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



A-A 剖面圖
SECTION A-A

24TP
東涌第99區的公眾停車場
PUBLIC VEHICLE PARK AT AREA 99, TUNG CHUNG



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



從東南面望向大樓停車場的構思透視圖

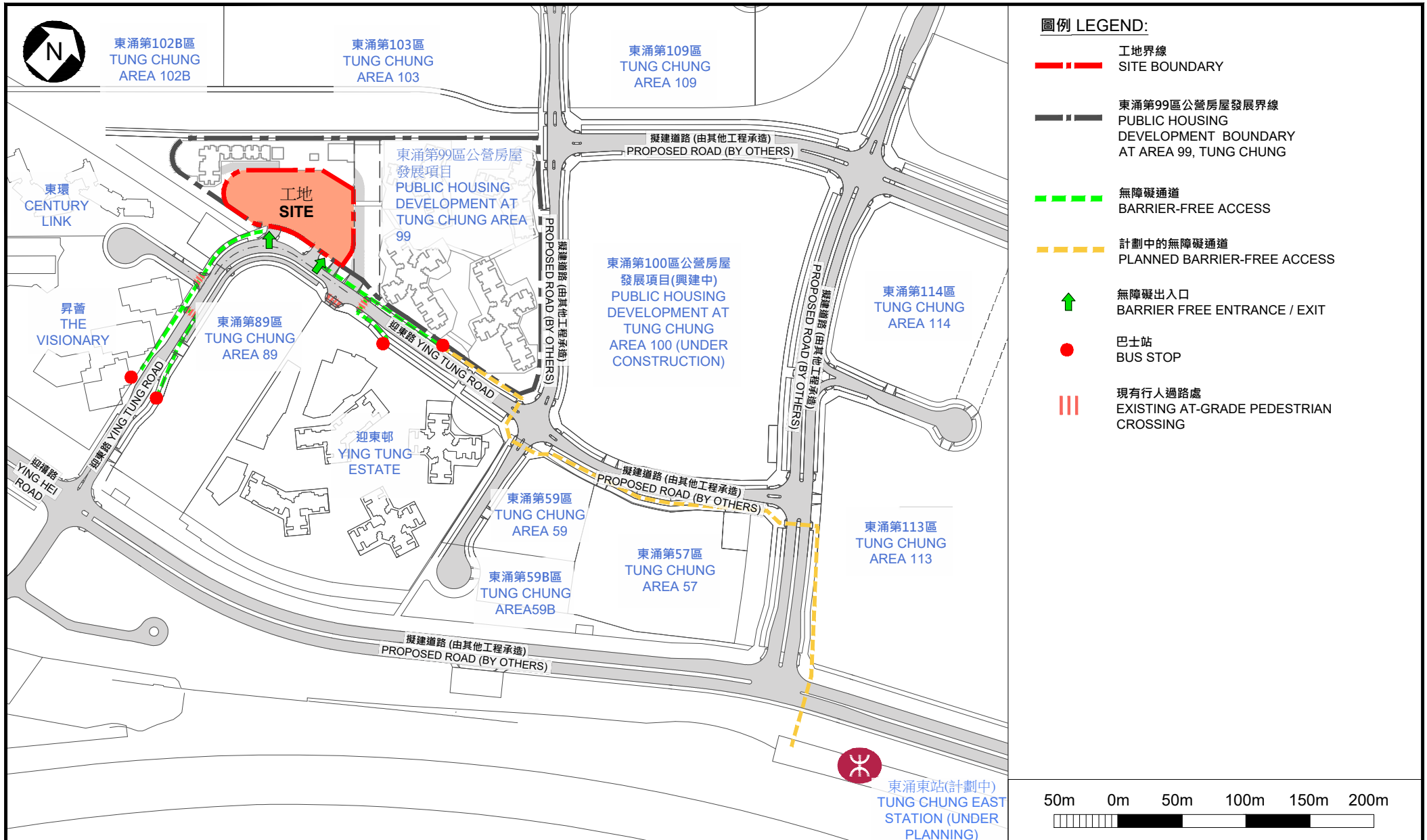
PERSPECTIVE VIEW FROM SOUTH EAST DIRECTION (ARTIST'S IMPRESSION)

構思圖
ARTIST'S
IMPRESSION

24TP
東涌第99區的公眾停車場
PUBLIC VEHICLE PARK AT AREA 99, TUNG CHUNG



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



無障礙通道平面圖
PLAN OF
BARRIER-FREE
ACCESS

24TP
東涌第99區的公眾停車場
PUBLIC VEHICLE PARK AT AREA 99, TUNG CHUNG



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

85TI – Public Transport Interchange at Tung Chung Area 99

PROJECT SCOPE AND NATURE

The proposed scope of works under this project includes –

- (a) construction of a public transport interchange (PTI) with pick-up / drop-off bays and stacking bays for franchised buses;
- (b) construction of regulator's office and toilet with the associated works; and
- (c) associated works including but not limited to roadworks, noise cover, electric vehicle charging facilities for electric buses, lighting, drainage, electrical and mechanical (E&M) systems, etc.

— 2. The layout plan and artist's impression of the project are at **Annexes 1 and 2 to Enclosure 3** respectively.

3. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee (FC) for target completion in around three years.

JUSTIFICATION

4. Tung Chung New Town Extension is one of the major development projects being taken forward by the Government to increase the land supply over the next 10 years, involving 130 hectares reclamation works at Tung Chung East. The first batch of reclaimed land has been handed over to Hong Kong Housing Authority (HKHA) for public housing development, and it is expected that a total of about 10 000 public housing units will be made available in 2024. To meet the demand of public transport services arising from the increasing population in Tung Chung East and in accordance with the Approved Tung Chung Extension Area Outline Zoning Plan No. S/I-TCE/2, we propose to construct a new PTI at Tung Chung Area 99 with seven pick-up/ drop off bays and eight stacking bays for franchised buses.

5. The new PTI at Tung Chung Area 99, will form an integral part of the essential transport infrastructure of Tung Chung East with major population intake¹, providing convenient and accessible transport facilities to facilitate public transport ridership. The timely completion of the PTI is especially important given that the commuting need of the first batch of residents to Tung Chung East will be taken care of by the road networks. The Transport Department will continue to enhance the public transport network of Tung Chung and consider necessary franchised bus service adjustments in the district in a timely manner having regard to the population intake and passengers' demand. To enhance the waiting environment for passengers and facilitate their use of the PTI, franchised bus companies will provide seating facilities and real-time bus arrival information display panels at the PTI where appropriate.

6. To follow the principle of "single site, multiple uses", the proposed PTI is at ground level and integrated with an underground public vehicle park (PVP) underneath, which is funded separately under another project **24TP** (Enclosure 2 refers). There will also be a public housing development at Tung Chung Area 99. If the funding approval from FC could not be obtained in the current legislative session, there will be a delay in the construction of both the proposed PTI and PVP.

7. Upon completion of the project, the proposed PTI will be managed and maintained by relevant government departments.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$269.0 million in MOD prices, broken down as follows –

/(a)

¹ According the Explanatory Statement of the Approved Tung Chung Extension Area Outline Zone Plan No. S/I-TCE/2, the planned population in Tung Chung East is around 147 200.

	\$ million (in MOD prices)
(a) Construction of PTI	38.0
(b) Construction of Noise Cover ²	171.9
(c) Other Associated Works	7.0
(d) Energy Conservation Measures	0.4
(e) On-cost payable to HKHA ³	27.2
(f) Contingencies	24.5
Total	<u>269.0</u>

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

Year	\$ million (in MOD prices)
2021 – 22	12.3
2022 – 23	44.9
2023 – 24	110.4
2024 – 25	38.8
2025 – 26	25.8

/Year

² The estimated cost for construction of noise cover includes PTI's shares of major common structure with PVP (**24TP**) which is supporting the noise cover above (see **Enclosure 2**).

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

Year	\$ million (in MOD prices)
2026 – 27	20.7
2027 – 28	16.1
Total	<hr/> 269.0 <hr/>

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 from 2021 to 2028. Subject to funding approval, HKHA will deliver the project under a lump sum contract. The contract will provide for price adjustments.

11. We estimate the annual recurrent expenditure arising from the project to be \$3.17 million.

PUBLIC CONSULTATION

12. HKHA consulted the Islands District Council on 25 February 2019 about the proposed public housing developments at Tung Chung Area 99 and Area 100, including the associated facilities such as the proposed PTI, etc. The District Council raised no objection.

13. We consulted the Legislative Council Panel on Transport on the project on 5 January 2021 (Panel Paper (LC Paper No. CB(4)320/20-21(03))). While Members raised no objection to the submission of the funding proposal for the project to the Public Works Subcommittee for consideration, they requested more information at the Panel meeting, such as detailed design of the proposed PTI and review of the cost estimate. We have provided the supplementary information required by the Members to the Panel on Transport before the Public Works Subcommittee meeting for the project.

ENVIRONMENTAL IMPLICATIONS

14. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). HKHA completed an Environmental Assessment Study (EAS) for the project. The EAS concluded and the Director
/of

of Environmental Protection agreed that the project would not cause long-term environmental impacts with the implementation of mitigation measures such as provision of noise cover at the PTI. We have included in the project estimate the cost to implement suitable mitigation measures to control short-term environmental impacts.

15. HKHA will request the contractor to control noise, dust, and site run-off nuisances during construction to within established standards and guidelines through the implementation of mitigation measures in the construction contract. These measures include the use of silencers, mufflers and temporary acoustic lining or shields for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

16. At the planning and design stages, HKHA has considered measures (e.g. use pre-fabricated items as much as possible) to reduce the generation of construction waste where possible. In addition, HKHA will require the contractor to reuse inert construction waste (e.g. excavated soil and rock fill) 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 (PFRFs)⁴. HKHA will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formworks to further reduce the generation of construction waste.

17. 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 and non-inert construction waste at PFRFs and landfills respectively through a trip-ticket system.

18. HKHA estimates that the proposed project will generate in total 39 130 tonnes of construction waste. Of these, HKHA will reuse 330 tonnes (0.8%) of inert construction waste on site and deliver 38 540 tonnes (98.5%) of inert construction waste to PFRFs for subsequent reuse. HKHA will dispose of
/260

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

260 tonnes (0.7%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRFs and landfill sites is estimated to be \$2.79 million for this project (based on a unit charge rate of \$71 per tonne for disposal at PFRFs and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

19. The project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

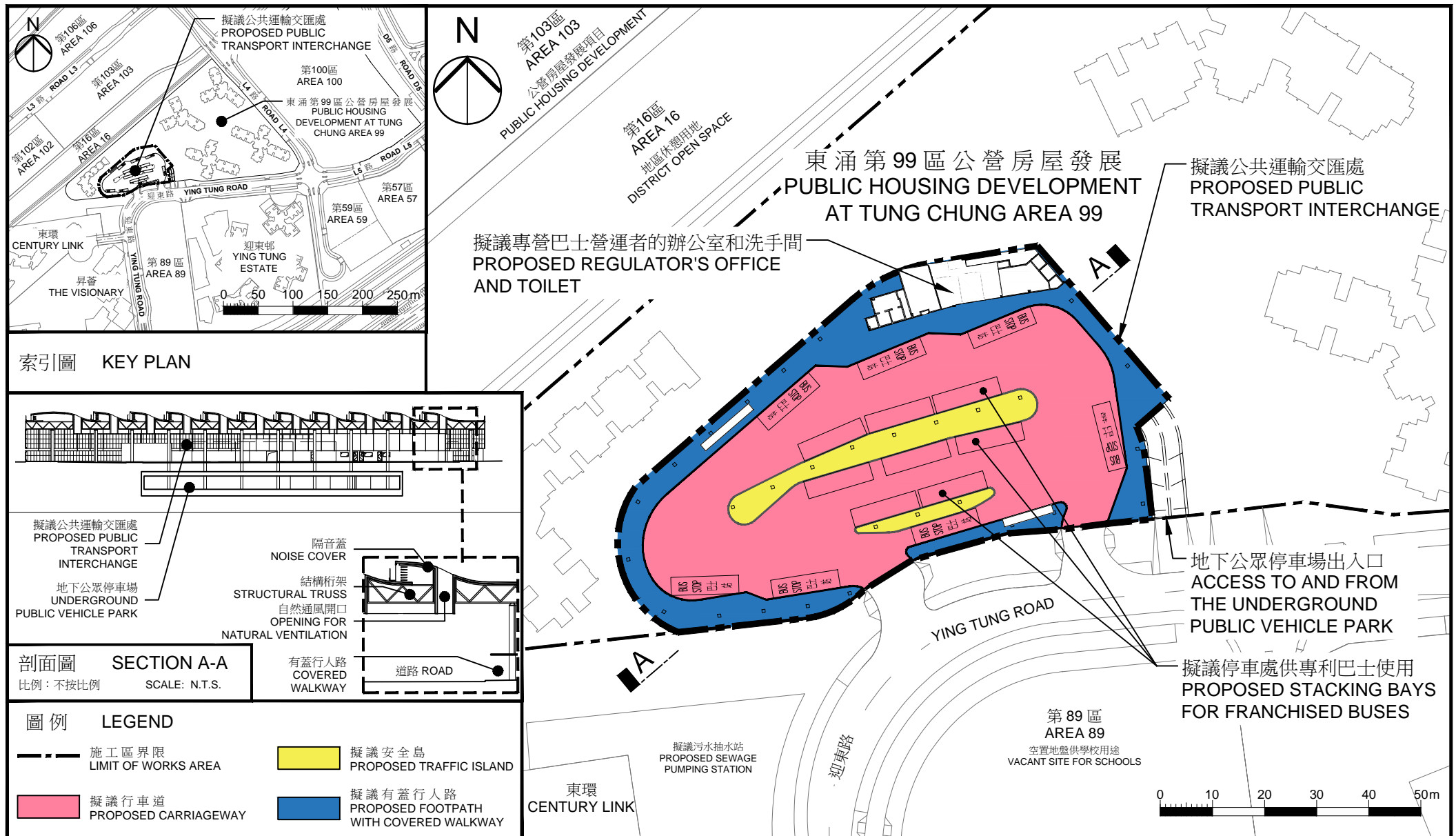
20. The project does not require land acquisition.

BACKGROUND INFORMATION

21. We upgraded **85TI** to Category B in September 2020.

22. The project will not involve any removal of trees.

23. We estimate that the proposed works will create about 85 jobs (70 for labourers and 15 for professional or technical staff) providing a total employment of 2 500 man-months.



工程計劃項目編號85TI
東涌第99區的公共運輸交匯處
PWP ITEM NO. 85TI

PUBLIC TRANSPORT INTERCHANGE AT TUNG CHUNG AREA 99

工地平面圖
SITE PLAN



工程計劃項目編號85TI
東涌第99區的公共運輸交匯處
PWP ITEM NO. 85TI

PUBLIC TRANSPORT INTERCHANGE AT TUNG CHUNG AREA 99

構思圖
Artist's Impression
Drawing



工程計劃項目編號85TI
東涌第99區的公共運輸交匯處
PWP ITEM NO. 85TI

PUBLIC TRANSPORT INTERCHANGE AT TUNG CHUNG AREA 99

構思圖
Artist's Impression
Drawing