

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 706 – HIGHWAYS

Transport – Footbridges and pedestrian tunnels

200TB – Footbridge near MTR Kowloon Bay Station Exit A

Members are invited to recommend to the Finance Committee the upgrading of **200TB** to Category A at an estimated cost of \$175.8 million in money-of-the-day prices.

PROBLEM

The existing footbridge across Kwun Tong Road near MTR Kowloon Bay Station Exit A cannot meet the pedestrian traffic demand, leading to congestion problem.

PROPOSAL

2. The Director of Highways, with the support of the Secretary for Development, proposes to upgrade **200TB** to Category A at an estimated cost of \$175.8 million in money-of-the-day (MOD) prices for the construction of a footbridge across Kwun Tong Road near MTR Kowloon Bay Station Exit A.

PROJECT SCOPE AND NATURE

3. The proposed scope of works under the project comprises –
- (a) construction of a footbridge with a clear width of about 4 metres and about 45 metres in length across Kwun Tong Road near MTR Kowloon Bay Station Exit A;

/(b)

- (b) construction of a barrier-free access (BFA) ramp with a clear width of about 2.4 metres and about 45 metres in length connecting the footbridge mentioned in item (a) above and the existing elevated walkway near MTR Kowloon Bay Station Exit A;
- (c) construction of a staircase with a clear width of about 2 metres at the western end of the footbridge mentioned in item (a) above;
- (d) modification of the existing footbridge No. KF117C for connection to the footbridge mentioned in item (a) above;
- (e) modification of the existing elevated walkway near MTR Kowloon Bay Station Exit A and the existing structure No. KF117B for connection to the access ramp mentioned in item (b) above; and
- (f) construction of ancillary works, including associated road works, bus lay-by reprovisioning, drainage, waterworks, landscaping, public lighting works, as well as installation of street furniture and traffic aids, etc.

—— A layout plan and an artist's impression of the proposed works are at **Enclosure 1**.

4. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee (FC) for target completion in around three years. To commence the construction works as soon as possible, we initiated parallel tendering for the construction works contract in January 2022. The returned tender price has been reflected in the estimated cost of the project. The contract will only be awarded after obtaining funding approval from the FC.

JUSTIFICATION

5. At present, pedestrians at MTR Kowloon Bay Station Exit A and the bus stops on the western footpath of Kwun Tong Road need to make use of the existing footbridge near MTR Kowloon Bay Station Exit A across Kwun Tong Road to reach the residential areas nearby, such as Lower Ngau Tau Kok Estate, Upper Ngau Tau Kok Estate and the southern portion of Amoy Gardens. During peak hours, the existing footbridge is overcrowded and this is not satisfactory.

6. The Government promoted a “Walkable Kowloon East” by improving pedestrian facilities in the Kowloon Bay Business Area, as promulgated in previous Policy Addresses. With the rapid transformation of the Kowloon Bay Business Area, there is a need to provide an additional passage to divert pedestrian flow from the existing footbridge near MTR Kowloon Bay Station Exit A.

7. The proposed footbridge and ramp will provide an alternative passage to connect the existing elevated walkway outside MTR Kowloon Bay Station Exit A and the existing footbridge No. KF117C as well as the western footpath of Kwun Tong Road, thus alleviating the congestion at the existing footbridge and enhancing the connectivity between MTR Kowloon Bay Station and the residential areas nearby.

8. The existing railway viaduct of MTR Kwun Tong Line imposes a headroom restriction at the western end of the existing footbridge near MTR Kowloon Bay Station Exit A. There is an existing staircase of about 1.8 metres high to bring pedestrians from the existing elevated walkway beneath the railway viaduct to the footbridge level. While a stairlift is installed to facilitate wheelchair users with an operating key to overcome the level difference, other pedestrians in need could not use the stairlift without the key, which is possessed by wheelchair users only. The proposed works include the construction of a covered ramp connecting the existing elevated walkway outside MTR Kowloon Bay Station Exit A and the proposed footbridge, which will provide a convenient and reliable BFA. After completion of the proposed works, the congestion at the existing elevated walkway system near MTR Kowloon Bay Station Exit A will be greatly improved.

9. The proposed works will be beneficial to the overall development of Kowloon Bay through improving the connectivity as well as creating a pedestrian-friendly environment for this rapidly-transforming district.

/FINANCIAL

FINANCIAL IMPLICATIONS

10. We estimate the capital cost of the project to be \$175.8 million in MOD prices (please see paragraph 12 below), broken down as follows –

		\$ million (in MOD prices)
(a)	Footbridge, ramp and staircase	94.3
	(i) footbridge, ramp and staircase structure	58.9
	(ii) foundations	35.4
(b)	Modification of existing elevated walkway and footbridge	5.3
(c)	Road and drainage works	25.6
(d)	Ancillary works including waterworks, landscaping, public lighting works, street furniture & traffic aids, etc.	8.8
(e)	Environmental mitigation measures	2.3
(f)	Consultants' fees for	2.3
	(i) contract administration	2.1
	(ii) management of resident site staff (RSS)	0.2
(g)	Remuneration of RSS	21.3
(h)	Contingencies	15.9
Total		<u>175.8</u>

11. We propose to engage consultants to undertake contract administration and site supervision of the proposed works. A detailed breakdown of the estimates for consultants' fees and RSS costs by man-months is at **Enclosure 2**.

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

Year	\$ million (in MOD prices)
2022 – 23	13.3
2023 – 24	59.1
2024 – 25	50.0
2025 – 26	28.0
2026 – 27	17.0
2027 – 28	8.4
	<hr/> 175.8 <hr/>

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 2022 to 2028. We will deliver the works using the New Engineering Contract (NEC)¹. The contract will provide for price adjustment.

14. We estimate the annual recurrent expenditure arising from the proposed works to be \$0.33 million.

/PUBLIC

¹ NEC is a suite of contracts developed by the Institution of Civil Engineers, United Kingdom. It is a contract form that emphasises a spirit of mutual trust, cooperation and collaborative risk management between contracting parties.

PUBLIC CONSULTATION

15. We consulted the Working Group on Access to Public Transport for People with Disabilities set up by the Transport Department and the Barrier-Free Community Concern Group of Caritas Community Centre – Ngau Tau Kok on 29 June and 13 November 2020 respectively. Both groups supported the implementation of the proposed works including the ramp access as an additional BFA facility.

16. We consulted the Traffic and Transport Committee of the Kwun Tong District Council on 24 September 2020. The Committee had no objection to the proposed works and acknowledged the need and justifications for providing the footbridge in general.

17. We consulted the Advisory Committee on the Appearance of Bridges and Structures and Associated Structures (ACABAS)² on the aesthetic design of the proposed works. The Committee accepted the proposed aesthetic design.

18. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 29 January and 5 February 2021. During the 60-day statutory objection period, five objections were received. The objections were mainly about the project justification and tree impact arisen from the proposed works. In response, we have explained that the project aims at addressing the overcrowding issue of the existing footbridge and providing a BFA across Kwun Tong Road between MTR Kowloon Bay Station Exit A and Lower Ngau Tau Kok Estate. In addition, the design of the proposed footbridge has been optimised taking into account the site constraints and the possibility to preserve the trees along Kwun Tong Road to the greatest extent. Compensatory planting will also be provided for the tree felled. The objectors did not withdraw their objections. After considering the objections, the Chief Executive-in-Council authorised the road works on 4 January 2022 without modification. The authorisation notice for the proposed works was gazetted on 21 January 2022.

19. We consulted the Legislative Council Panel on Development on the project on 26 April 2022. Members supported the project.

/ENVIRONMENTAL

² ACABAS comprises representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institute of Planners, Architectural Services Department, Highways Department, Housing Department, Civil Engineering and Development Department, and a representative from an architecture or relevant faculty of a local academic institution. It is responsible for vetting the design of bridges and other structures associated with the public highway system, including noise barriers and enclosures, from the aesthetic and visual impact points of view.

ENVIRONMENTAL IMPLICATIONS

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

21. During construction, we will control noise, dust and site run-off nuisances to within the required levels according to the established standards and guidelines through the implementation of mitigation measures in the relevant contract. These 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.

22. At the planning and design stages, we have considered the alignment, design level and construction method of the proposed works to reduce the generation of construction waste where possible. In addition, we 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 facilities³. We will encourage the contractor to maximise the use of recycled/recyclable inert construction waste and the use of non-timber formwork to further reduce generation of construction waste.

23. 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 the day-to-day operations on site comply with the approved plans. 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 public fill reception facilities and landfills respectively through a trip-ticket system.

24. We estimate that the proposed works will generate in total about 5 400 tonnes of construction waste. Of these, we will reuse about 800 tonnes (15%) of inert construction waste on site and deliver about 3 800 tonnes (70%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 800 tonnes (15%) of non-inert construction waste at
/landfills

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.

landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be \$0.43 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 IMPLICATIONS

25. 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

26. The proposed works do not require any acquisition of private land.

TREE IMPLICATIONS

27. Of the 81 trees within the project boundary, 65 trees will be preserved. The proposed works will involve removal of 16 trees, including six trees to be felled, two trees to be transplanted to Lower Ngau Tau Kok Estate and eight trees to be replanted within the project site. Besides one tree of particular interest⁴ will be affected during the implementation of the project.

/28.

⁴ Trees of particular interest are defined in paragraph 2.6.1 of the Guidelines for Tree Risk Assessment and Management Arrangement promulgated by the Development Bureau. Examples of trees of particular interest are listed as follows:

- Old and Valuable Trees (OVTs) and trees that are potentially registerable in the Register of OVTs;
- Trees of 100 years old or above;
- Trees with trunk diameter equal to or exceeding 1.0 metre (measured at 1.3 metres above ground level), or with height/canopy spread equal to or exceeding 25 metres;
- Stonewall trees or trees of outstanding form (taking account of overall tree sizes, shape and any special features);
- Rare tree species listed in “Rare and Precious Plants of Hong Kong” (<http://herbarium.gov.hk/PublicationsPreface.aspx?BookNameId=1>) published by Agriculture, Fisheries and Conservation Department;
- Endangered plant species protected under the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586);
- Tree species listed in the Forestry Regulations (Cap. 96A) under the Forests and Countryside Ordinance (Cap. 96);
- Well-known Fung Shui trees;
- Landmark trees with evidential records to support the historical or cultural significance of the trees;
- Trees which may arouse widespread public concerns; and
- Trees which may be subject to strong local objections on removal.

28. A summary of the tree of particular interest affected is provided at **Enclosure 3**. We will incorporate the planting proposal as part of the project, including estimated quantities of 23 trees and 22 800 shrubs.

TRAFFIC IMPLICATIONS

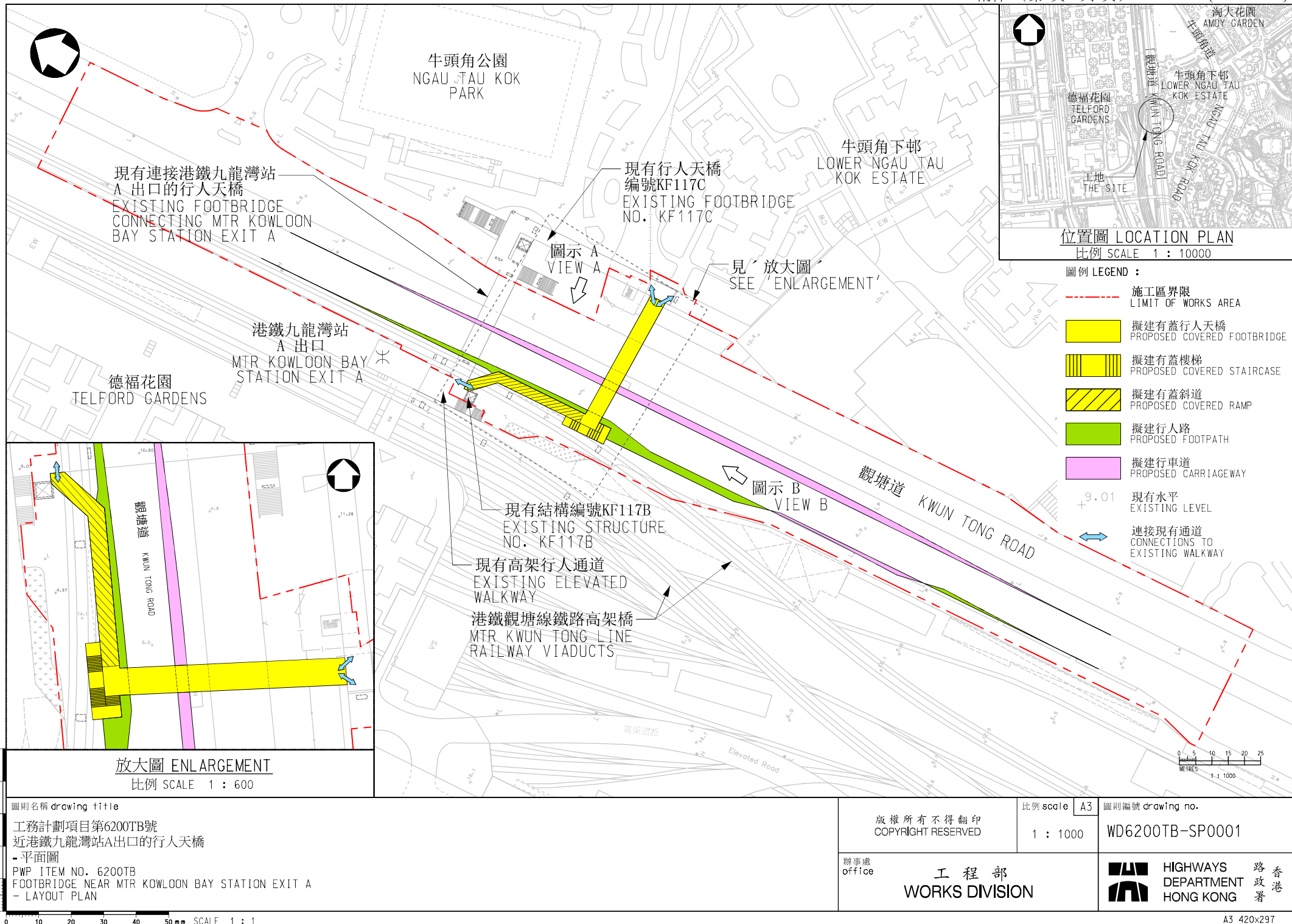
29. The proposed works will not cause significant traffic impact during construction. To facilitate the related construction works, we will implement temporary traffic arrangements (TTA) and set up a traffic management liaison group to discuss and vet the TTA. This group comprises representatives from the Highways Department and its contractor, the Hong Kong Police Force, the Transport Department and other relevant government departments. We have specified requirements for implementing the TTA in the works contract to minimise the traffic impacts during construction. We will also display publicity boards on site to provide details of the TTA and the anticipated completion dates of individual sections of works. In addition, we will set up a telephone hotline for public enquiries.

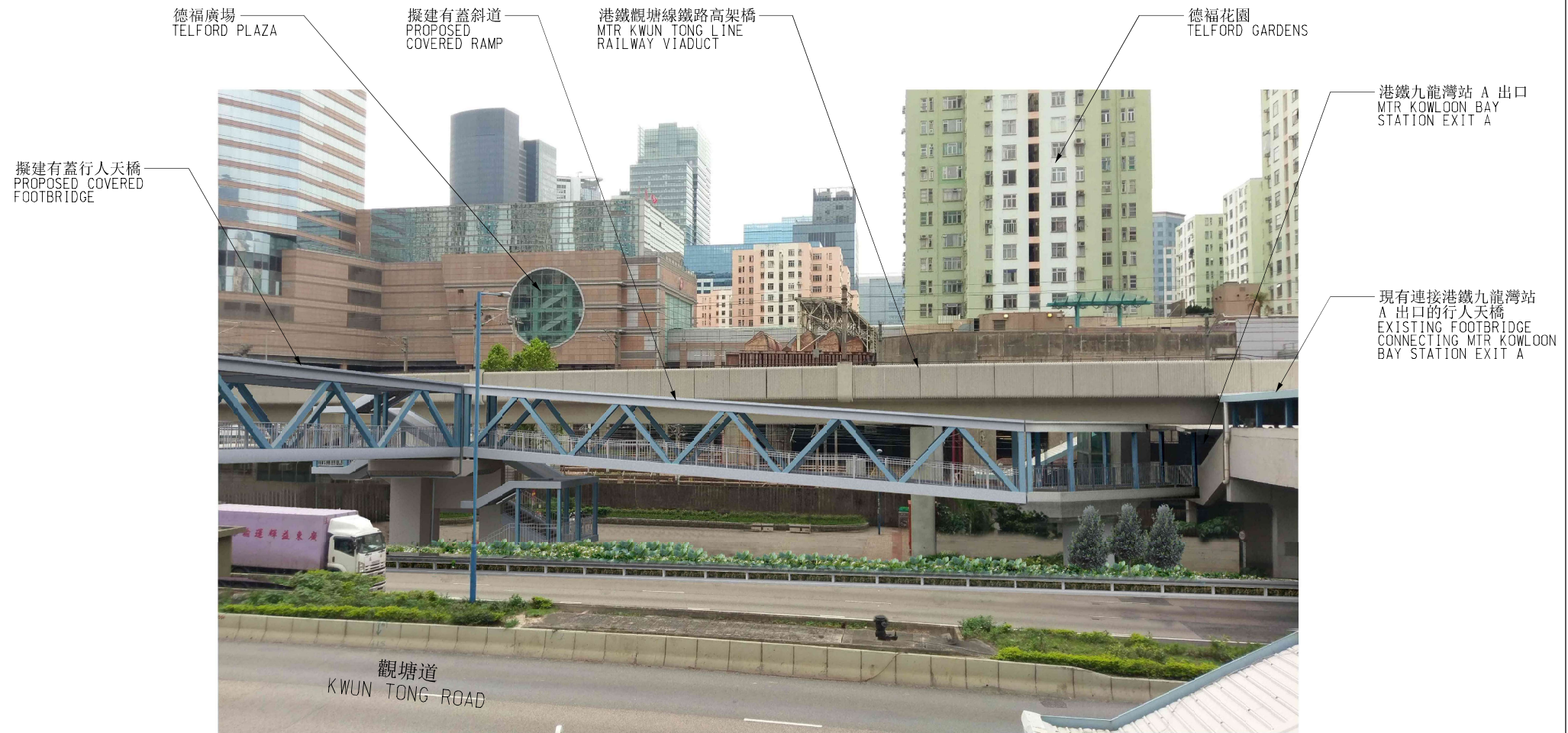
BACKGROUND INFORMATION

30. In August 2019, we engaged an engineering consultant to undertake the investigation, design and ground investigation works at an estimated cost of about \$5.7 million under block vote allocation **Subhead 6100TX** “Highway works, studies and investigations for items in Category D of the Public Works Programme”. The investigation works and the detailed design have been completed.

31. We estimate that the project will create about 55 jobs (45 for labourers and 10 for professional or technical staff), providing a total employment of about 1 820 man-months.

Development Bureau
Highways Department
May 2022





圖示 A
VIEW A

圖則名稱 drawing title

工務計劃項目第6200TB號
近港鐵九龍灣站A出口的行人天橋

構思圖

PWP ITEM NO. 6200TB
FOOTBRIDGE NEAR MTR KOWLOON BAY STATION EXIT A
- ARTIST'S IMPRESSION

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比例 scale A3

NA

圖則編號 drawing no.

WD6200TB-SP0002

辦事處
office

工程部
WORKS DIVISION



HIGHWAYS DEPARTMENT
HONG KONG 路香港 政署

德福花園
TELFORD GARDENS

港鐵觀塘線鐵路高架橋
MTR KWUN TONG LINE
RAILWAY VIADUCT

淘大花園
AMOY GARDENS

擬建有蓋行人天橋
PROPOSED COVERED
FOOTBRIDGE

現有連接港鐵九龍灣站
A 出口的行人天橋
EXISTING FOOTBRIDGE
CONNECTING MTR KOWLOON
BAY STATION EXIT A

圖示 B
VIEW B

觀塘道
KWUN TONG ROAD

50 mm SCALE 1 : 1
40
30
20
10
0

圖則名稱 drawing title

工務計劃項目第6200TB號
近港鐵九龍灣站A出口的行人天橋

- 構思圖

PWP ITEM NO. 6200TB
FOOTBRIDGE NEAR MTR KOWLOON BAY STATION EXIT A
- ARTIST'S IMPRESSION

50 mm SCALE 1 : 1
0 10 20 30 40

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比例 scale A3

NA

圖則編號 drawing no.

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DEPARTMENT 政 署
HONG KONG

200TB – Footbridge near MTR Kowloon Bay Station Exit A**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2021 prices)**

			Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a)	Consultants' fees for contract administration (Note 2)	Professional	—	—	—	1.6
		Technical	—	—	—	0.2
		Sub-total				1.8#
(b)	Resident site staff (RSS) costs (Note 3)	Professional	70	38	1.6	9.6
		Technical	188	14	1.6	9.1
		Sub-total				18.7
	Comprising –					
(i)	Consultant's fee for management of RSS					0.2#
(ii)	remuneration of RSS					18.5#
Total						20.5

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS 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 consultant's staff cost for contract administration is calculated in accordance with the existing consultancy agreement relating to the project. The construction phase of the assignment will only be executed subject to the Finance Committee's approval to upgrade **200TB** to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.

Remarks

The cost figures in this Enclosure are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 10 of the main paper.

200TB－近港鐵九龍灣站 A 出口的行人天橋
200TB－Footbridge near MTR Kowloon Bay Station Exit A
受影響的具特別價值樹木摘要
Summary of “trees of particular interest” affected

樹木 參考編號 Tree ref. no.	樹木品種		樹木大小			觀賞價值 ¹	形態	健康狀況	結構狀況	適合移植的程度 ²		保育狀況 ³	建議	補充備註
	Species		Measurements			Amenity Value ¹	Form	Health Condition	Structural Condition	Suitability for Transplanting ²		Conservation Status ³	Recommendation	Additional Remarks
	學名 Scientific Name	中文名 Chinese Name	高度 Height (米) (m)	胸徑 ⁴ DBH ⁴ (毫米) (mm)	樹冠 闊度 Crown Spread (米) (m)	(高／中／ 低) (High/ Medium/ Low)	(良好／一般／欠佳) (Good/ Fair/ Poor)			(高／中／ 低) (High/ Medium/ Low)	備註 Remarks	(保留／移植／ 砍伐) (Retain/ Transplant/ Fell)		
T47	<i>Ficus microcarpa</i>	細葉榕	15	1 300	24	中 Medium	一般 Fair	一般 Fair	一般 Fair	低 Low	樹木位置與擬議工程有衝突。樹木非常大但健康狀況一般，移植後存活率低，因此不建議移植。 Tree location is in conflict with the proposed works. The size of the tree is very large but the health condition is fair. The survival rate after transplantation is low. Transplantation is therefore not recommended.	否 Nil	砍伐 Fell	要準備完好和具足夠規模的根球並不可行。 Preparation of intact and sufficient-sized root ball is not practical. 移植 T47 涉及長時間臨時封閉觀塘道，對交通造成重大影響。 Transplantation of T47 requires prolonged temporary closure of Kwun Tong Road leading to substantial traffic impact.

¹ 評估樹木的觀賞價值是基於它的遮蔭、避風雨、屏障、減低污染的效用，以及其他環境因素等，分級如下－

高：屬重要樹木，應予保留，並相應調整設計布局。

中：屬適宜保留的樹木，以締造優美環境，包括稍遜於「高」級的健康樹木。

低：屬枯死、垂死或有潛在危險的樹木，應予移除。

Amenity value of a tree is assessed by its functional values for shade, shelter, screening, reduction of pollution and other environmental factors, etc, and classified into the following categories -

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

Medium: trees that are desirable to be retained in order to create a pleasant environment, which includes healthy specimens of lesser importance than “High” trees.

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

² 評估時已考慮這棵樹在調查時的狀況(包括健康、結構、樹齡及根部狀況)、現場狀況(包括地勢及便達程度)，以及樹種的內在特性(移植後的存活率)。

Assessment has taken into account conditions of the tree 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).

³ 保育狀況基於該品種是否屬於香港有關法例下所訂明的稀有性和受保護物種的狀態，例如《香港稀有及珍貴植物》、《國際自然保護聯盟瀕危物種紅色名錄》和《林區及郊區條例》。

Conservation status is based on the rarity and protection status of the species under relevant ordinances in Hong Kong, such as Rare and Precious Plants of Hong Kong, the International Union for Conservation of Nature Red List of threatened Species and the Forests and Countryside Ordinance.

⁴ 樹木的胸徑是指在地面以上1.3米的位置量度的樹幹直徑。

Diameter at Breast Height (DBH) of a tree refers to its trunk diameter at breast height (i.e. measured at 1.3 metres above ground level).