# ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

#### HEAD 706 – HIGHWAYS Transport – Footbridges and pedestrian tunnels 188TB – Footbridge near MTR Kowloon Bay Station Exit B

Members are invited to recommend to the Finance Committee the upgrading of **188TB** to Category A at an estimated cost of \$173.5 million in money-of-the-day prices.

#### PROBLEM

We need to construct a footbridge across Kwun Tong Road and connect to MTR Kowloon Bay Station Exit B and the future East Kowloon Cultural Centre (EKCC) in order to alleviate the congestion at the existing walkway system and enhance connectivity between the MTR Station, the future EKCC and the nearby residential areas.

#### PROPOSAL

2. The Director of Highways, with the support of the Secretary for Development, proposes to upgrade **188TB** to Category A at an estimated cost of \$173.5 million in money-of-the-day (MOD) prices for the construction of another footbridge across Kwun Tong Road near MTR Kowloon Bay Station Exit B.

#### 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 6 metres and about 45 metres in length, connecting the existing elevated walkway adjoining MTR Kowloon Bay Station Exit B, an existing footbridge No. KF(LNTKE) and the EKCC under construction;
- (b) modification of about 10 metres in length of the existing elevated walkway adjoining MTR Kowloon Bay Station Exit B for connection to the proposed footbridge;
- (c) modification of the elevated platform at the eastern end of the existing footbridge No. KF(LNTKE) for connection and support to the proposed footbridge;
- (d) provision of a staircase at the western end of the proposed footbridge with a clear width of about 3 metres;
- (e) provision of a covered ramp for barrier-free access connecting to the existing elevated walkway adjoining MTR Kowloon Bay Station Exit B; and
- (f) ancillary works, including associated road, drainage, water mains, sewerage, utilities, landscaping and public lighting works, etc.

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

4. Subject to funding approval of the Finance Committee (FC), we plan to commence the proposed works in the second quarter of 2019 for completion in the first half of 2022. To achieve this programme, tenders were invited for the proposed works in December 2018, but we will only award the contract after obtaining FC's funding approval.

## JUSTIFICATION

5. At present, pedestrians at MTR Kowloon Bay Station Exit B need to make use of the existing footbridge No. KF(LNTKE) to travel to and from the eastern footpath of Kwun Tong Road and the residential areas nearby. During peak hours, the existing elevated walkway is often overcrowded and this is not satisfactory. With the rapid development of the Kowloon Bay area and in anticipation of the commissioning of the EKCC at around end-2021, the crowdedness at the existing pedestrian passage will further worsen.

6. The proposed footbridge will provide an alternative passage to connect the existing elevated walkway at MTR Kowloon Bay Station Exit B and the EKCC under construction as well as the eastern footpath of Kwun Tong Road, thus alleviating the congestion at the existing walkway system (comprising the elevated walkway, footbridge No. KF(LNTKE) and staircases) and enhancing connectivity between the MTR Kowloon Bay Station Exit B, the future EKCC and the nearby residential areas.

7. The railway viaduct of MTR Kwun Tong Line imposes a headroom restriction at the western end of the existing footbridge No. KF(LNTKE). There is an existing staircase of about 1.8 metres high to bring pedestrians from the lower platform of the existing footbridge beneath the railway viaduct to the footbridge level. While a stairlift is being built at the existing staircase under another project, we take the opportunity to include in the proposed works a covered ramp connecting the proposed footbridge to the lower platform of the existing footbridge to provide a more convenient and reliable barrier-free access. After completion of the proposed works, the existing walkway system near MTR Kowloon Bay Station Exit B will be greatly improved.

## FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$173.5 million in MOD prices (please see paragraph 10 below), broken down as follows –

		\$ (in M	\$ million (in MOD prices)	
(a)	Footbridge		94.1	
	(i) footbridge structure	51.0		
	(ii) foundation	43.1		
(b)	Modification of existing footbridge and elevated walkway		6.2	
(c)	Road and drainage works		22.5	
(d)	Public lighting works		3.1	
(e)	Landscaping, utilities works, etc.		7.4	

		\$ million (in MOD prices)
(f)	Environmental mitigation measures	1.7
(g)	Consultants' fee for	2.9
	(i) contract administration	2.1
	(ii) management of resident site staff (RSS)	0.8
(h)	Remuneration of RSS	20.3
(i)	Contingencies	15.3
	Total	173.5

9. We propose to engage consultants to provide services for contract management and site supervision for the project. A detailed breakdown of the estimate for consultants' fees and RSS costs by man-months is at **Enclosure 2**.

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

Year	\$ million (MOD)
2019 - 2020	15.5
2020 - 2021	32.5
2021 - 2022	47.7
2022 - 2023	39.4
2023 - 2024	22.6
2024 - 2025	11.8
2025 - 2026	4.0
-	173.5

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 2019 to 2026. Subject to funding approval, we will deliver the works under the New Engineering Contract (NEC) form.<sup>1</sup> The contract will provide for price adjustments.

12. We estimate the annual recurrent expenditure arising from the proposed works to be \$0.36 million.

## PUBLIC CONSULTATION

13. On 18 May 2017, we consulted the Working Group on Access to Public Transport for People with Disabilities under the Transport Department. The Working Group supported the proposed works including the ramp access as an additional barrier-free access facility.

14. We consulted the Traffic and Transport Committee of the Kwun Tong District Council on 6 June 2017. The Committee supported the proposed works.

15. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 24 November 2017 and received no objection. The authorisation notice was gazetted on 16 March 2018.

16. We consulted the Advisory Committee on the Appearance of Bridges and Associated Structures<sup>2</sup> on 17 April 2018 on the aesthetic design of the proposed works. The Committee accepted the proposed aesthetic design.

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

<sup>&</sup>lt;sup>2</sup> Advisory Committee on the Appearance of Bridges and Associated Structures, comprising 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 architectural or relevant faculty from a local academic institution, 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.

17. We consulted the Legislative Council Panel on Development on 19 December 2018. While some Members gave support for the proposed works, some other Members raised concerns about the estimated cost of the proposed footbridge. At the request of the Panel on Development, we have provided supplementary information after the meeting.

# ENVIRONMENTAL IMPLICATIONS

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

19. During construction, we will require the contractor to 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 use of silencers, mufflers and temporary acoustic lining or shields for noisy construction activities, frequent cleaning and watering of the site and provision of wheel-washing facilities.

20. At the planning and design stages, we have considered the alignment of the proposed footbridge and method of construction to reduce generation of construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. use of excavated materials for backfilling) 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<sup>3</sup>. We 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.

21. 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 measures 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 inert construction waste from non-inert construction waste on site for disposal at

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<sup>3</sup> 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.

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.

22. We estimate that the proposed works will generate in total about 5 860 tonnes of construction waste. Of these, we will reuse about 1 300 tonnes (22.2%) of inert construction waste on site and deliver 3 740 tonnes (63.8%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 820 tonnes (14%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be about \$0.43 million for the project (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

23. 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.

## LAND ACQUISITION

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24. The proposed works do not require any land acquisition.

## TRAFFIC IMPLICATIONS

25. We have conducted a traffic impact assessment for the proposed works. According to the assessment findings, with the implementation of appropriate temporary traffic arrangements (TTAs), the proposed works will not cause significant impact on the local traffic during the construction stage. We will set up a traffic management liaison group<sup>4</sup> to review and agree on the TTAs. We will specify the requirements for implementing the TTAs in the works contract to facilitate construction works and minimise traffic impacts during construction. We will also display publicity boards on site, providing details of the TTAs and

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The traffic management liaison group will comprise representatives of the contractor, the Hong Kong Police Force, the Transport Department, public transport operators and other relevant government departments.

the anticipated completion dates for individual sections of works. In addition, we will set up a telephone hotline to respond to public enquiries.

# **BACKGROUND INFORMATION**

26. We upgraded **188TB** to Category B in September 2015.

27. In October 2016, we engaged an engineering consultant to undertake the investigation, design and ground investigation works at an estimated cost of about \$3.3 million under block allocation **Subhead 6100TX** "Highway works, studies and investigations for items in Category D of the Public Works Programme". The investigation and detailed design works have been completed.

28. The proposed works will involve removal of 32 trees including 24 trees to be transplanted within the project boundary and 8 trees to be felled. All trees to be transplanted and removed are not important trees<sup>5</sup>. We will incorporate planting proposals as part of the project, including the compensatory planting of 8 trees.

29. We estimate that the project will create about 65 jobs (50 for labourers and 15 for professional or technical staff), providing a total employment of about a total of 2 000 man-months.

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"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;

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- (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 m (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

30. As mentioned in paragraph 4 above, tenders were invited for the proposed works in December 2018. Based on the returned tender prices available in February 2019 after the Panel on Development meeting, we have updated the project estimate. We consider that the latest estimate, which is about 35% less than our earlier estimate as stated in the Panel paper (LC Paper No. CB(1)323/18-19(06)), has reflected the prevailing market situation, and the latest estimate should be adequate to deliver the proposed works with the project scope remains unchanged.

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Development Bureau April 2019







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附件1〔第2頁,共2頁〕 Enclosure 1 (Sheet 2 of 2)

-得寶花園 TAK BO GARDEN

#### 188TB – Footbridge near MTR Kowloon Bay Station Exit B

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

				Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$million)
(a)	Con	sultants' fee for	Professional	_	_	_	1.5
Cu (N	cont (Note 1	ract administration	Technical	_	_	_	0.3
						Sub-total	1.8#
(b)	Resi	esident site staff SS) costs <sup>(Note 3)</sup>	Professional	74	38	1.6	9.7
	(RS		Technical	178	14	1.6	8.2
						Sub-total	17.9
	Comprising –						
	(i)	Consultants' fees for management of RSS				0.6#	
	(ii)	Remuneration of RSS				17.3#	
						Total	19.7
* ]	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 = \$81,975 per month and MPS salary point 14 = \$28,725 per month).
- 2. The consultants' fee for contract administration is calculated in accordance with the existing consultancy agreement for the investigation, design and construction of the **188TB**. The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade **188TB** to Category A.
- 3. The consultants' staff costs for site supervision is based on the estimate prepared by the Director of Highways. The actual man-months and actual costs will 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 8 of the main paper.