ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 711 – HOUSING

Transport –Footbridges and pedestrian tunnels 187TB – Footbridge improvement works at Siu Hong Road, Tuen Mun

Members are invited to recommend to the Finance Committee the upgrading of **187TB** to Category A at an estimated cost of \$129.5 million in money-of-the-day prices.

PROBLEM

We need to improve the existing footbridge at Siu Hong Road, Tuen Mun to provide barrier-free access and to cater for the additional pedestrian flow to be brought about by the new public housing developments in Tuen Mun Area 54 (TM54).

PROPOSAL

2. The Director of Highways, with the support of the Secretary for Transport and Housing, proposes to upgrade **187TB** to Category A at an estimated cost of \$129.5 million in money-of-the-day (MOD) prices for the improvement works of the existing footbridge at Siu Hong Road, Tuen Mun.

PROJECT SCOPE AND NATURE

3. The proposed scope of works under the project includes –

- (a) widening of the existing footbridge at Siu Hong Road from about 2.8 metres (m) to about 4.8 m;
- (b) construction of a lift tower with a passenger lift and installation of two sets of escalators; and
- (c) ancillary works, including lighting, electrical and mechanical (E&M) installations, drainage, landscaping and associated utility works.

A site plan and an artist's impression of the proposed footbridge improvement works are at Enclosures 1 and 2.

4. Subject to the funding approval of the Finance Committee within this legislative session, we plan to commence the construction of the proposed works in late 2016 for completion in mid-2019.

JUSTIFICATION

5. There will be public housing developments in TM54. The Hong Kong Housing Authority (HA) has commenced the construction of a public rental housing development at the Site 2 of TM54 (the Development) to provide about 4 600 flats for a population of about 13 000. The Development will be completed in the first quarter of 2017.

/ 6.

6. It is anticipated that most of the residents of the Development who opt for the railway as a means of public transport will gain access to Siu Hong Station of MTR West Rail Line, which is located on the podium level, by using the existing footbridge on Siu Hong Road. There is a need to widen the existing footbridge and to provide escalators to improve its capacity to cater for the additional pedestrian flow generated by the Development. In view of the level difference of about 13 m between Siu Hong Road and the footbridge deck, a passenger lift, as a barrier-free facility, and two sets of escalators will be provided to cater for that level difference.

7. Before the completion of the proposed project in mid-2019, a footpath alongside the Light Rail track will be formed to connect the Development to Siu Hong Road to reach Siu Hong Station directly. There will be interfacing issues between the works site of the footpath and the Development, as well as the need for utility diversion works. We plan to entrust the design and construction of the proposed works to HA for better coordination. Upon completion of the footbridge improvement works, it will be handed over to relevant departments for management and maintenance.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$129.5 million in MOD prices (please see paragraph 9 below), broken down as follows –

			\$ mi	llion
(a)	Cons	truction works		80.4
	(i)	foundation	51.1	
	(ii)	bridge deck	7.8	
	(iii)	lift tower	11.6	
	(iv)	lighting and E&M systems	9.9	
(b)	Land	scaping works		3.8
(c)	Asso	ciated civil works		5.6

			\$ million	
(d)	On-cost payable to HA ¹		11.2	
(e)	Contingencies		9.0	
		Sub-total	110.0	(in September 2015 prices)
(f)	Provision for price adjustment	t	19.5	
		Total	129.5	(in MOD prices)

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

Year	\$ million (Sept 2015)	Price adjustment factor	\$ million (MOD)
2016 - 2017	10.7	1.05775	11.3
2017 - 2018	39.0	1.12122	43.7
2018 - 2019	30.5	1.18849	36.2
2019 - 2020	19.0	1.25980	23.9
2020 - 2021	10.8	1.33539	14.4
	110.0		129.5

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 2016 to 2021. Subject to funding approval, HA will deliver the proposed works under a lump sum contract. The contract will provide for price adjustments.

11. We estimate the annual recurrent expenditure arising from this project to be about \$2.1 million.

/ **PUBLIC**

¹ This is the estimated cost (an assumed rate of 12.5% of the estimated construction cost) to be changed by HA for the design, administration and supervision of the project.

PUBLIC CONSULTATION

12. We consulted the Environment, Hygiene and District Development Committee (EHDDC) of Tuen Mun District Council (TMDC) on the proposed improvement works on 15 November 2013. Members supported the proposal and urged for the early implementation of the improvement works.

13. We consulted the Advisory Committee on the Appearance of Bridges and Associated Structures $(ACABAS)^2$ on 15 March and 19 April 2016. ACABAS considered the proposed design of the footbridge acceptable.

14. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 23 October 2015 and received no objection during the public exhibition period. The notice of authorization was gazetted on 12 Feburary 2016.

15. We consulted the Legislative Council Panel on Housing on the proposed works on 12 April 2016. Members generally supported the proposed works. Some Panel Members inquired how the residents of Site 2 could access the Siu Hong Station before completion of the project. The information is provided under paragraph 7 above.

ENVIRONMENTAL IMPLICATIONS

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

/ 17.

² ACABAS, 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 highway system, including noise barriers and enclosures, from the aesthetic and visual impact points of view.

17. During construction, HA will control noise, dust, and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contract. These include the use of non-percussive pile driving system, frequent cleaning and watering of the site, and the provision of wheel-washing facilities to minimise noise and dust impact. Also, temporary site drains will be provided at the peripheral of the site to collect the surface run-off.

18. At the planning and design stages, HA have considered measures to reduce the generation of construction waste where possible. In addition, HA 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, to minimise the disposal of inert construction waste to public fill reception facilities³. HA 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.

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

/ 20.

³ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

20.

HA estimates that the project will generate in total 4 300 tonnes of construction waste. Of these, HA will deliver 4 200 tonnes (97.7%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, HA will dispose 100 tonnes (2.3%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill

reception facilities and landfill sites is estimated to be \$125,900 for this project (based on a unit charge rate of \$27 per tonne for disposal at public fill reception facilities and \$125 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 or buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

22. The project does not require land acquisition.

BACKGROUND INFORMATION

23. We upgraded **187TB** to Category B in September 2014. The detailed design for the proposed works has been completed in March 2016.

/ 24.

24. There are 27 trees affected by the proposed works. HA will transplant one tree and remove 26 trees in the works. All trees to be removed are not important trees⁴. HA will incorporate planting proposals as part of the proposed works, including planting of 26 trees at surrounding planters.

25. We estimate that the proposed works will create about 40 jobs (31 for labourers and nine for professional/technical staff) providing a total of employment of 1 038 man-months.

Transport and Housing Bureau May 2016

⁴ "Important trees" refer to trees on 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 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 or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

Enclosure 1 附件一





工 榜 訂 蓟 項 日 編 號 「O/「B 屯 門 兆 康 路 的 行 人 天 橋 改 善 工 程 PWP ITEM NO. 187TB

FOOTBRIDGE IMPROVEMENT WORKS AT SIU HONG ROAD, TUEN MUN

構思圖 ARTIST'S IMPRESSION DRAWING