For discussion **PWSC(2003-04)60**
on 17 December 2003

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 706 – HIGHWAYS
Transport – Footbridges and pedestrian tunnels
150TB – Reconstruction of two footbridges across Choi Hung Road near Shatin Pass Road and Tai Shing Street

Members are invited to recommend to Finance Committee the upgrading of **150TB** to Category A at an estimated cost of $46.2 million in money-of-the-day prices for the reconstruction of two footbridges across Choi Hung Road near Shatin Pass Road and Tai Shing Street.

PROBLEM

We need to reconstruct the existing footbridges across Choi Hung Road near Shatin Pass Road and Tai Shing Street to meet the prevailing design standards.

PROPOSAL

2. The Director of Highways, with the support of the Secretary for the Environment, Transport and Works, proposes to upgrade **150TB** to Category A at an estimated cost of $46.2 million in money-of-the-day (MOD) prices for the reconstruction of two footbridges across Choi Hung Road near Shatin Pass Road and Tai Shing Street.

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PROJECT SCOPE AND NATURE

3. The scope of **150TB** comprises –

(a) demolition of two existing footbridges across Choi Hung Road near Shatin Pass Road and Tai Shing Street;

(b) construction of two four-metre (m) wide covered footbridges at the original locations of the two footbridges at 3(a) above;

(c) associated road, landscaping, drainage, watermain diversion and electrical and mechanical (E&M) works.

A site plan with elevations of the proposed footbridges is at the Enclosure.

4. We have substantially completed the detailed design for the project. We plan to start the construction works in June 2004 for completion in February 2006.

JUSTIFICATION

5. Wong Tai Sin (WTS) district is a developed community with a relatively large elderly population[1] and intensive developments, including housing estates, markets, bus terminus, educational institutions and recreational facilities. Pedestrian flow in the area is heavy.

6. The existing footbridges near Shatin Pass Road and Tai Shing Street are two pedestrian links spanning across the dual two-lane Choi Hung Road. Pedestrians rely heavily on these footbridges to commute between WTS and San Po Kong. According to a recent survey conducted by the Transport Department, the two footbridges are heavily patronised, as reflected in the hourly pedestrian flows during the morning peak and non-peak periods as follows –

/**Pedestrian** .....

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[1] According to the 2001 Population Census, 88 799 persons of age 60 or above resided in the WTS district, representing about 20% of the total residents of 444 630 in the district while the corresponding figure for Hong Kong as a whole was 1 000 849 persons (representing 15% of the total population of 6 708 389 persons).

	Pedestrian flow per hour	
	Peak	**Non-peak**
Footbridge near Shatin Pass Road	2 800	1 700
Footbridge near Tai Shing Street	2 600	1 500

7. The two footbridges, which were constructed in the early 1970s, are not provided with covers. Pedestrians are therefore exposed to adverse weather. Furthermore, the one near Tai Shing Street is not equipped with access facilities for disabled persons who will have to make a detour of some 190 m to the other footbridge near Shatin Pass Road where ramps are provided to cross Choi Hung Road.

8. Due to site constraints and loading considerations of the existing footbridges, we will reconstruct them at their original locations and provide covers and lifts to enhance safety, comfort and convenience of pedestrians, especially the elderly and disabled persons. We will also connect the footbridge near Tai Shing Street to Tai Shing Street Market to provide a through passage for patrons of the market.

9. During reconstruction of the footbridges, we will provide two temporary signalised pedestrian crossings across Choi Hung Road at-grade at the west arm of the junctions of Choi Hung Road/Shatin Pass Road and Choi Hung Road/Tai Shing Street/Tseuk Luk Street to ensure smooth pedestrian flow. We will monitor closely the situation and implement traffic management measures as and where appropriate.

FINANCIAL IMPLICATIONS

10. We estimate the cost of the project to be $46.2 million in MOD prices (see paragraph 11 below), made up as follows –

/**million** .....

			$ million	
(a)	Demolition works		1.3	
(b)	Construction of two footbridges		40.9	
	(i) civil works	31.2		
	(ii) E&M works	9.7		
(c)	Road, drainage, landscaping and watermain diversion works		0.8	
(d)	Electrical and Mechanical Services Trading Fund (EMSTF) charges[2]		1.6	
(e)	Contingencies		2.6	
		Sub-total	47.2	(in September 2003 prices)
(f)	Provision for price adjustment		(1.0)	
		Total :	46.2	(in MOD prices)

Item 10(b)(ii) includes provision of two lifts on each side of the two footbridges.

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

/**Year** .....

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[2] Since the establishment on 1 August 1996 under the Trading Fund Ordinance, the EMSTF charges government departments for design and technical consultancy services for E&M installations provided by the Electrical and Mechanical Services Department (EMSD). The services rendered for this project include carrying out the design on all E&M installations and providing technical advice to the Government on all E&M works and their impacts on the project from maintenance and general operation points of view.

Year	$ million (Sep 2003)	Price Adjustment Factor	$ million (MOD)
2004 – 2005	8.0	0.98225	7.9
2005 – 2006	28.0	0.97734	27.4
2006 – 2007	7.7	0.97245	7.5
2007 – 2008	3.5	0.96759	3.4
	47.2		46.2

12. We have derived the MOD estimate on the basis of the Government's latest forecast of trend labour and construction prices for the period 2004 to 2008. We will tender the proposed works under a standard remeasurement contract because the quantities of foundation are subject to variation due to actual site conditions. The contract will not provide for price adjustments as the contract period will not exceed 21 months.

13. At present, the total recurrent expenditure for the existing footbridges is $53,000. We estimate the annual recurrent expenditure upon completion of the project to be $1 million.

PUBLIC CONSULTATION

14. We consulted the Traffic and Transport Committee of the Wong Tai Sin District Council (WTSDC) on 2 January 2001. Members supported the project and requested its early completion. We briefed the WTSDC of the progress of the project on a regular basis.

15. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance on 2 November 2001 and received two objections. One of the objectors opined that there was no imminent need for the project, and was concerned about the construction and demolition (C&D) waste generated by the proposed works and the temporary pedestrian facilities during construction. We explained that the project was needed to provide an access for disabled persons for crossing Choi Hung Road near Tai Shing Street and would enhance

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the comfort of all pedestrians. During construction, we would minimise the generation of C&D waste by implementing a waste management plan (WMP) under the construction contract and provide two temporary signalised at-grade crossings for the pedestrians. The objector maintained his objection. The other objector requested the Administration to link up the footbridge near Tai Shing Street to the bus layby fronting Choi Hung Road Playground by providing an additional landing. We explained that it was not technically feasible to construct a landing in compliance with the prevailing standards at the requested location. Nonetheless, the pedestrians can access the bus layby via the staircase behind Ho Lap College. The objector maintained his objection.

16. Having considered the unresolved objections, the Chief Executive-in-Council authorised the proposed works on 21 October 2002. The notice of authorisation was gazetted on 25 October 2002.

17. We circulated an information paper to the Legislative Council Panel on Transport in November 2003. Members raised no objection to this project.

ENVIRONMENTAL IMPLICATIONS

18. This project is not a designated project under the Environmental Impact Assessment Ordinance and will not cause any long-term environmental impact. However, we will implement short-term environmental mitigation measures for this project at an estimated cost of $140,000. We have included this cost in the project estimate.

19. We will require the contractor to submit a WMP for approval. The WMP will include appropriate mitigation measures to minimise, reuse and recycle the C&D materials. We will require the contractor to ensure that the day-to-day operations on site comply with the approved WMP. We will control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip-ticket system. We will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities.

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20. We estimate that the project will generate 2 100 cubic metres (m^3) of C&D materials. Of these, we will reuse about 250 m^3 (12%) on site, about 1 825 m^3 (87%) as fill in public filling areas[3] and dispose of about 25 m^3 (1%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be $3,125 for this project (based on a notional[4] unit cost of $125/$m^3$).

LAND ACQUISITION

21. The proposed works do not require land acquisition.

BACKGROUND INFORMATION

22. We upgraded **150TB** to Category B in March 2001.

23. The proposed works will involve removal of 14 trees, including nine trees to be felled, one tree to be transplanted elsewhere and four trees to be replanted within the project site. All trees to be removed are not important trees[5]. We will incorporate planting proposals as part of the project, including estimated quantities of 13 trees and 103 square metres of grassed area.

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[3] A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering.

[4] This estimate has taken into account the cost of developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at $90/$m^3$), nor the cost to provide new landfills (which are likely to be more expensive) when the existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.

[5] Important trees include trees on the Register of Old and Valuable Trees, and any other trees which meet one or more of the following criteria –

(a) trees over 100 years old;
(b) trees of cultural, historical or memorable significance;
(c) trees of precious or rare species;
(d) trees of outstanding form; or
(e) trees with trunk diameter exceeding one metre (measured at one metre above ground level).

24. We estimate that the proposed works will create some 70 jobs, comprising 10 professional/technical staff and 60 labourers, totalling 900 man-months.

Environment, Transport and Works Bureau
December 2003