#### **For Information**

### Legislative Council Panel on Transport

# PWP Item No. 7811TH – Ping Ha Road Improvement – remaining works (Ha Tsuen Section)

#### PURPOSE

This paper informs Members of our proposal to part-upgrade **7811TH**, "Ping Ha Road Improvement – remaining works (Ha Tsuen Section)", to Category A in order to carry out the construction works for the improvement of the Ha Tsuen section of Ping Ha Road (PHR) between Tin Wah Road and Sha Chau Lei.

### **PROJECT SCOPE**

2. **7811TH** is a combined project of **7794TH** Ping Ha Road Improvement – Remaining Works (Northern Part of Ha Tsuen Section) and **7799TH** – Ping Ha Road Improvement – Remaining Works (Southern Part of Ha Tsuen Section). The full scope of works under **7811TH** comprises the improvement of the Ha Tsuen section of PHR between Tin Wah Road and Tin Ying Road, with a total length of about 2.5 kilometre (km), and the associated drainage works, waterworks, landscaping works and noise abatement measures.

3. The scope of the part of **7811TH** we propose to upgrade to Category A comprises –

(a) widening and realignment of about 1.65 km of PHR between Tin Wah Road and Ha Tsuen Shi to a 10.3 metre (m) wide single two-lane carriageway;

- (b) widening and realignment of about 280 m of PHR between Ha Tsuen Shi and Sha Chau Lei from a single two-lane carriageway to a 14.6 m wide single four-lane carriageway;
- (c) construction of about 260 m long 7.3 m wide access roads at Ha Tsuen Shi;
- (d) construction of about 960 m of drainage channels with the width ranging from 1.35 m to 2.5 m, 260 m of box culverts with width ranging from 3.3 m to 4.5 m and ancillary works;
- (e) construction of associated footpaths, cycle tracks, retaining walls, drainage works, waterworks and landscaping works;
- (f) construction of about 90 m long 2 m high vertical noise barriers, 150 m long 3 m high vertical noise barriers, 840 m long 5 m high vertical noise barriers, and 110 m long 5.5 m high with 2 m cantilever noise barriers; and
- (g) implementation of necessary environmental mitigation measures and an Environmental Monitoring and Audit (EM&A) programme for the works mentioned in items

   (a) to (f) above.

A site plan showing the proposed works is at **Enclosure 1**. A drawing showing the perspective view of the noise barriers is at **Enclosure 2**.

4. We plan to start the construction works in November 2007 for completion by November 2010.

#### **JUSTIFICATION**

5. The existing Ha Tsuen section of PHR between Tin Wah Road and

Sha Chau Lei is sub-standard. Some sections of the road are as narrow as 5.5 wide, which make it difficult for container trucks to run in opposite direction. At road junctions and run-ins, heavy vehicles need to turn and manoeuvre at a very slow speed. As a result, traffic congestions occur along PHR. As PHR serves as a major access for local traffic in Tin Shui Wai and its nearby area, it is necessary to carry out improvement works.

6. The Ha Tsuen section of PHR is also prone to flooding, with majority of the road subject to flooding under a 1 in 50-year return period<sup>1</sup>. It is therefore necessary to improve the drainage capacity of the area.

7. The critical sections of the existing PHR are operating at the traffic volume and capacity (v/c) ratio<sup>2</sup> of 1.06 during the peak hours. With further developments in the area, it is expected the critical sections will be working beyond their capacity by 2011 if no improvement works are to be carried out. It is therefore necessary to widen, realign and upgrade the Ha Tsuen section of PHR to relieve traffic congestion, improve road safety and increase the capacity of the road to cope with the anticipated traffic growth. We expect that the v/c ratio will be improved to 0.5 to 0.65 with the completion of the proposed works.

### FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$170.0 million in MOD prices as follows –

		\$ million
(a)	Road works	50.0
(b)	Drainage works	40.0

<sup>&</sup>lt;sup>1</sup> "Return period" is the average number of years during which a certain severity of flooding will occur once, statistically. A longer return period means a rarer chance of occurrence of a more severe flooding.

<sup>&</sup>lt;sup>2</sup> Volume to capacity ratio (v/c ratio) is an indicator which reflects the performance of a road. A v/c ratio equal to or less than 1.0 means that a road has sufficient capacity to cope with the volume of vehicular traffic under consideration and the resultant traffic will flow smoothly. A v/c ratio above 1.0 indicates the onset of congestion; above 1.2 indicates more serious congestion with traffic speeds progressively deteriorating with further increase in traffic.

(c)	Noise barriers		45.0	
(d)	Waterworks		6.0	
(e)	Landscaping works		8.0	
(f)	Environmental mitigation measures and EM&A		3.0	
	(i) mitigation measures at construction stage	1.2		
	(ii) EM&A programme	1.8		
(g)	Contingencies		15.0	
	Sub-total		167.0	(in September 2006 prices)
(h)	Provision for price adjustment		3.0	2000 prices)
	Total		170.0	(in MOD prices)
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9. We estimate the annual recurrent expenditure arising from this project to be \$896 000.

# **PUBLIC CONSULTATION**

10. We consulted the Ha Tsuen Rural Committee and Traffic and Transport Committee of Yuen Long District Council on 28 April 2006 and 3 May 2006 respectively. Both Committees supported the project and urged its early implementation.

11. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (the Ordinance) on 27 October 2006 and 3 November

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\$ million

2006 as an amendment to the original road scheme<sup>3</sup>. We received one objection, which is not objecting to the road scheme, but on the compensation arrangement for resuming his lot. We explained to the objector the existing land resumption policy and his right under the law. Notwithstanding our explanation, the objector refused to withdraw his objection.

12. Having considered the unresolved objection, the Chief Executive in Council authorized the project under the Ordinance on 8 May 2007 and the notice of authorisation will be gazetted on 25 May 2007.

13. We also consulted the Advisory Committee on the Appearance of Bridges and Associated Structures<sup>4</sup> on the aesthetic design of the noise barriers on 20 March 2007. The Committee accepted the proposed aesthetic design.

# ENVIRONMENTAL IMPLICATIONS

14. The proposed works to be part-upgraded under 7811TH is not a designated project under the Environmental Impact Assessment Ordinance and an environmental permit is not required for the construction and operation of the proposed work.

15. We completed an Environmental Impact Assessment (EIA) report on "Ping Ha Road Improvement – Ha Tsuen Section" in 1998 which includes the proposed works. The EIA report, which was endorsed by the Director of Environmental Protection in 1998, concluded that with the installation of purpose-built noise barriers, the traffic noise impacts to most of the noise

<sup>&</sup>lt;sup>3</sup> The original road scheme was gazetted under the Roads (Works, Use and Compensation) Ordinance on 9 October 1997 and 17 October 1997 under the Public Works Project (PWP) item number 7275TH. No objection was received. The scheme was authorised by the then Secretary for Transport in 1998. The amendment to the original road scheme gazetted in 2006 was under the PWP items 7794TH and 7799TH.

<sup>&</sup>lt;sup>4</sup> The Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS), which comprises representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, Architectural Services Department, Highways Department, Housing Department, Planning Department and Civil Engineering and Development Department, is responsible for vetting the design of bridges and other structures associated with the public highway system, including noise barriers and semi-enclosures, from the aesthetic and visual impact points of view.

sensitive receivers (NSR) could be reduced to the levels meeting the statutory requirements.

16. In consideration of the latest traffic forecast, we are conducting an environmental review (ER) based on the previous EIA report. The preliminary findings of the ER indicate that the project will not cause insurmountable long-term environmental impacts. In respect of noise impacts, we undertake to adopt all the required mitigation measures, including the provision of noise barriers, to be recommended by the ER and agreed by the Director of Environmental Protection.

17. We will incorporate the environmental mitigation measures recommended in the ER report into the works contract to control pollution arising from construction works within established standards and guidelines. These measures include frequent watering of the site and provision of wheel-washing facilities to reduce emission of fugitive dust, the use of quiet construction plant to reduce noise generation and other procedures as recommended in Environmental Protection Department's Recommended Pollution Control Clauses. Furthermore, we will implement the Environmental Monitoring and Audit (EM&A) programme recommended in the We have included \$3.0 million in the project estimate for ER report. implementing the environmental mitigation measures and the EM&A programme.

18. We have considered the alignment and the designed level of road works at Ping Ha Road in the planning and design stages to reduce the generation of construction and demolition (C&D) materials and to reuse/recycle such materials as much as possible. In addition, we will require the contractor to reuse inert C&D materials (e.g. excavated materials) for filling within the project site or in other suitable construction sites as far as possible, in order to minimize the disposal of C&D materials to public fill reception facilities. We will encourage the contractor to maximize the use of recycled or recyclable C&D materials, as well as the use of non-timber formwork to further minimize the generation of construction waste.

19. We will require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. We will 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 fill reception facilities<sup>5</sup> and landfills respectively through a trip-ticket system. We will require the contractor to separate public fill from C&D materials for disposal at appropriate facilities. We will also record the disposal, reuse and recycling of C&D materials for monitoring purposes.

20. We estimate that the project will generate about 41 580 tonnes of C&D materials. Of these, we will reuse about 31 680 tonnes (76%) on site, and deliver about 5 400 tonnes (13%) as fill to public fill reception facilities for subsequent reuse. In addition, we will dispose of about 4 500 tonnes (11%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfill sites is estimated to be about \$708 300 for this project (based on an unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne<sup>6</sup> at landfills).

# LAND ACQUISITION

21. We have to resume about 4.07 hectares (ha) of agricultural land for the project. We had already resumed 3.93 ha under the original scheme and shall resume additional 0.14 ha under the amendment scheme. The clearance for the project affects 300 structures and 5 households in total. The cost of land acquisition and clearance is about \$89.5 million for the proposed works. The cost of land acquisition will be charged to **Head 701 – Land Acquisition**.

# WAY FORWARD

22. We intend to submit the project to the Public Works

<sup>&</sup>lt;sup>5</sup> Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of public fill in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

<sup>&</sup>lt;sup>6</sup> 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<sup>3</sup>), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

Sub-Committee and Finance Committee of the Legislative Council on 20 June 2007 and 6 July 2007 respectively for partly upgrading 7811TH to Category A. Subject to funding approval, we plan to start the construction works in November 2007 for completion by November 2010.

23. We are carrying out the design of the remaining section of **7811TH** between Sha Chau Lei and Tin Ying Road. We will consult Members on our proposal to upgrade the remaining part of the project by end of 2008.

# **ADVICE SOUGHT**

24. Members are invited to note the contents of this paper.

Environment, Transport and Works Bureau May 2007





註釋 NOTES :



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DEVELOPMENT DEPARTMENT



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