

## **Legislative Council Panel on Transport**

### **Kam Tin Bypass**

#### **Purpose**

This paper seeks Members' view on the proposed implementation of the project "Kam Tin Bypass".

#### **Background**

2. The existing Kam Tin Road from Au Tau Roundabout to Route Twisk is a single 2-lane carriageway serving as a main route for the east-west traffic movements through the central part of the New Territories. We anticipate that the expected increase in population<sup>1</sup> and planned developments at Kam Tin and Au Tau together with the commissioning of future roads associated with the West Rail (Phase I) project in 2003 will bring in substantial traffic to overload this road. There is therefore a pressing need to expand the traffic capacity of Kam Tin Road by widening it to a dual 2-lane carriageway.

3. The Stage 1 widening of Kam Tin Road from Au Tau Roundabout to the west of the Kam Tin town centre is already under construction for completion in late 2001. The Stage 2 widening of Kam Tin Road from the east of Kam Tin town centre to Route Twisk is also under design and is scheduled to commence construction in early 2003 for completion in end of 2005.

4. The remaining section of Kam Tin Road through the town centre is now operating beyond capacity at a volume to capacity (V/C) ratio<sup>2</sup> above 1.2 during peak hours. This road section will become a constriction following the commissioning of Stage 1 and Stage 2 widening of Kam Tin Road. As a result, severe traffic congestion will occur along this section of Kam Tin Road. We therefore need to improve this section of Kam Tin Road. However, widening along the existing alignment is not desirable as this would involve considerable land resumption<sup>3</sup> and adverse environmental impact on the town centre. Alternatively, we propose provisioning of Kam Tin Bypass to the north of the town centre, linking Kam Tin Road at the

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<sup>1</sup> The population in the North West New Territories is projected to grow from 0.83 million in 1996 to 1.43 million in 2011.

<sup>2</sup> A V/C (volume to capacity) ratio not greater than 1.0 means that the road has sufficient capacity to cope with the volume of vehicular traffic under consideration. A V/C ratio above 1.0 indicates the onset of mild congestion and a ratio above 1.2 indicates more serious congestion with traffic progressively deterioration with further increases in traffic.

<sup>3</sup> The land abutting the section of Kam Tin Road inside Kam Tin town centre is currently occupied for community, residential and commercial uses.

western and eastern ends of the town centre. Altogether, Kam Tin Bypass and the Stage 1 and Stage 2 widening of Kam Tin Road will ultimately form a continuous dual two-lane standard carriageway between Au Tau and Route Twisk/Lam Kam Road. The existing section of Kam Tin Road inside the town centre will then serve as a local rural road. The actual and projected V/C ratios with and without the proposed roadworks of this road section are indicated below –

**Kam Tin Road at Kam Tin Town Centre**

	<b><u>V/C ratio</u></b>		
	<b>Year</b>	<b>Year</b>	<b>Year</b>
	<b>1999</b>	<b>2003</b>	<b>2011</b>
with proposed roadworks	-	0.23	0.50
without proposed roadworks	1.20	1.33	2.00

**The Proposal**

5. In view of the above considerations, we proposal to construct the Kam Tin Bypass (the Bypass) connecting the existing Kam Tin Road at the western and eastern ends of the Kam Tin town centre. The scope of works includes -

- (a) construction of a 1.3-kilometre long dual 2-lane carriageway;
- (b) provision of pedestrian and cyclist facilities, including a footpath and a cycle track on the north side of the Bypass, construction of two pedestrian/cyclist subways and two traffic signal controlled pedestrian crossings;
- (c) construction of two roundabouts at the junctions of the Bypass and the existing Kam Tin Road;
- (d) construction of two traffic signal controlled road junctions, at the intersections of the Bypass with Kong Tai Road and the access road to Kam Hing Wai;
- (e) provision of about 1.4 kilometres long noise barriers and low noise road surfacing;

- (f) reprovisioning of 1.3 hectares marshland to compensate for the loss of the Painted Snipe's habitat; and
- (g) construction of lay-bys, fire hydrant watermains and retaining walls and associated drainage, slope and landscaping works.

— A site plan is at Enclosure 1.

6. Two roundabouts will be constructed at the ends of the Bypass to connect the existing Kam Tin Road and other new roads to be built in association with the West Rail (Phase I) project. To cater for vehicular access to Kam Hing Wai and other peripheral villages to the north of the Bypass near its eastern end, two traffic signal controlled road junctions will be constructed.

7. The local villagers commonly travel within the Kam Tin area by bicycles and on foot. To enhance safety of cyclists and pedestrians, we will provide pedestrian and cyclist facilities, including a footpath and a cycle track on the north side of the Bypass, construction of two pedestrian/cyclist subways and two traffic signal controlled pedestrian crossings.

8. As a result of traffic along the proposed Bypass, some nearby residents will be exposed to noise levels higher than the limits in established standards and guidelines. We will install 1.4 kilometres long noise barriers (1 metre to 8 metres high) and provide low noise road surfacing along full length of the road to mitigate the impact. The Bypass will also affect an existing marsh habitat, which has been a breeding and roosting site for the Painted Snipe, a local rare bird species. We will reprovision the marshland with vegetation and drainage measures suitable for the use of the Painted Snipe.

9. To minimise traffic disruption during construction, we will carry out temporary traffic diversion arrangements as and when necessary.

### **Financial Implications**

10. We estimate the capital cost of this project to be \$290.8 million in MOD prices (see paragraph 11 below), made up as follows –

	<b>\$million</b>	
(a) Roadworks, associated footpaths and cycle track	86.1	
(b) Pedestrian/cyclist subways	36.6	
(c) Drainage works and fire hydrant watermains	38.8	
(d) Environmental mitigation measures	49.9	
(i) Noise barriers	27.0	
(ii) Noise-reducing road surfacing	7.9	
(iii) Reprovisioning of marshland	15.0	
(e) Landscaping works	7.2	
(f) Consultants' fees	29.6	
(i) Construction stage	2.1	
(ii) Site staff costs (including EM&A <sup>4</sup> programme)	27.5	
(g) Contingencies	21.7	
Sub-total	269.9	(at September 2000 prices)
(h) Provision for price adjustment	20.9	
Total	290.8	(in MOD prices)

11. We estimate the additional annual recurrent expenditure to be \$5.4 million.

### **Public Consultation**

12. We consulted the Pat Heung Rural Committee and Kam Tin Rural Committee on 19 December 1998 and 29 December 1998 respectively. We also consulted the Traffic and Transport Committee and the Environmental Improvement Committee of the then Yuen Long Provisional District Board on 5 January 1999 and 28 January 1999 respectively. All these Committees endorsed the Bypass and requested the Administration to accord high priority to the project.

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<sup>4</sup> We will engage consultants to implement an Environmental Monitoring and Audit (EM&A) Programme at an estimated cost of \$1.5 million to ensure timely and effective implementation of the recommended mitigation measures

13. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance on 30 April 1999 and 7 May 1999 respectively and received seven objections. One objector withdrew its objection unconditionally. For the remaining six unresolved objections, four objectors withdrew their objections with conditions. Details of the unresolved objections are as follows –

- (a) The four objections which were withdrawn with conditions were related to matters of land resumption. All the objectors agreed to withdraw their objections subject to implementation of certain modifications to the proposed road scheme, including minor re-alignment of the Bypass and revision to works site limit. These modifications have been incorporated into the proposed road scheme.
- (b) One objector requested shifting the road alignment to avoid resuming his lot and permission to erect containers in the lot for temporary residential purpose. These two requests were not entertained due to site constraints and inappropriate land use of the concerned lot respectively. The objector also considered the compensation rate for resumption too low. We explained to the objector the existing resumption policy and pointed out that he could refer the case to the Lands Tribunal if no agreement on the compensation for land resumption could be reached between him and the Government. He disagreed with the existing resumption policy and maintained his objection.
- (c) One objector was concerned about the potential impact of the works of the road scheme on a marsh habitat, on which a local rare bird species, the Painted Snipe, dwelled. We have addressed this concern and proposed to re-provision for permanent use some pieces of marshland under the project as compensation for the loss of the habitat. We will undertake the management of the concerned marshland and will patrol the areas periodically to ensure no unauthorised use. Although the objector had no adverse comments on our proposal and agreed to the associated detailed design in principle, he maintained his objection.

14. On 28 March 2000, the Chief Executive-in-Council authorised the project with modifications as set out in paragraph 13.

### **Environmental Implications**

15. We completed an Environmental Impact Assessment (EIA) in March 1996 for the project. A further review of the EIA report, which was entitled “Additional Review Phase 2 Working Paper (Environmental)”, was prepared in February 1999. The EIA report and the additional review were agreed by all concerned government departments.

16. The EIA study and the additional review concluded that with the implementation of the recommended mitigation measures, the environmental impacts arising from the project could be mitigated to within established standards and guidelines. We shall implement the recommendations of the approved EIA report and its review accordingly. The key measures include establishing permanent mitigation areas on site for the Painted Snipe’s habitat; implementation of noise barriers and noise-reducing road surfacing to minimise the noise impact; and landscaping of roadside areas to reduce visual impacts. For short term construction impact, we will implement an Environmental Monitoring and Audit (EM&A) Programme to ensure timely and effective implementation of the recommended mitigation measures. We estimate the cost of implementing the environmental mitigation measures to be \$49.9 million and EM&A programme to be \$1.5 million. We have included this cost in the overall project estimate.

17. We have considered in the planning and design stages reducing the generation of construction and demolition material (C&DM) as much as possible. About 5 000 cubic metres of C&D waste will be disposed of at landfills. We have achieved minimising the volume of C&DM in the detailed design of the works, through matching as far as possible the proposed level of Bypass to that of the adjoining ground and maximising the reuse of excavated material from the site to form the earth embankment where the Bypass rests on. We will require the contractor to implement necessary measures to minimise the generation of C&DM and to reuse and recycle C&DM. We shall control the disposal of C&D waste to the designated landfill through a trip ticket system. We shall record the disposal, reuse and recycling of C&DM for monitoring purposes.

18. We have assessed the impact on air quality for the construction and operational phases of the Bypass. Our assessment shows that with the stipulation of appropriate dust suppression measures, the air quality during

the construction phase can be held well within the Hong Kong Air Quality Objective (AQO). Our assessment also concludes that for the operational phase, AQO can be met and the road traffic exhausts will not produce unacceptable impact on the residents in the vicinity of the Bypass.

### **Land Acquisition**

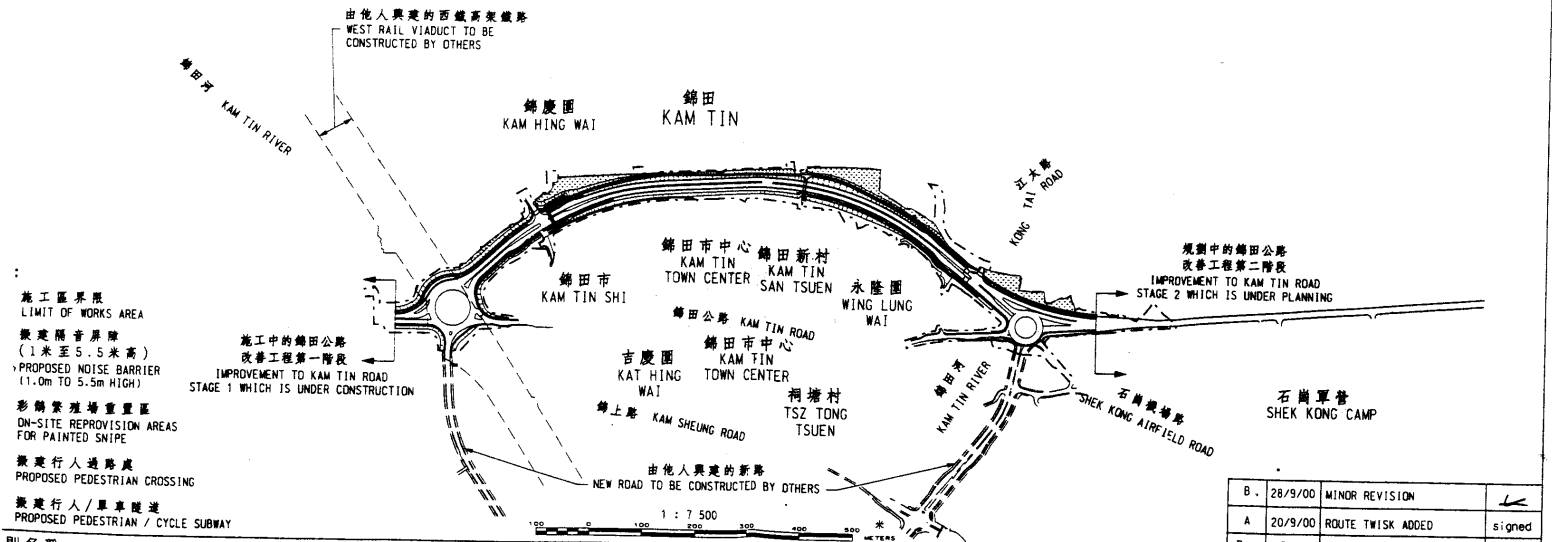
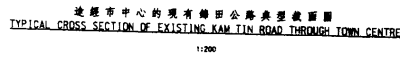
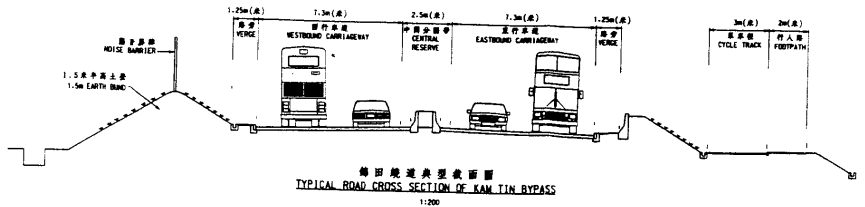
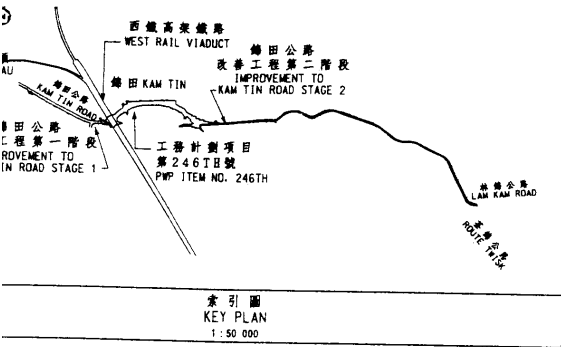
19. We require resumption of 73 665 square metres of agricultural land. The clearance for the project will affect 84 families. The Director of Housing will offer eligible clearerees accommodation in public housing or temporary housing areas in accordance with the existing housing policy. We will charge the land resumption costs, estimated at \$220 million (at December 1999 prices), to **Head 701** – “Land Acquisition” **Subhead 1100CA** – “Compensation and ex-gratia Allowances in respect of projects in the Public Works Programme”.

### **The way forward**

20. We will seek the approval of the Public Works Sub-Committee of the Finance Committee on 10 January 2001 to upgrade the project to Category A. We plan to start works in June 2001 for completion in January 2003.

### **Advice Sought**

21. Members are invited to provide comments on the project before we seek the approval of the Public Works Sub-Committee.



Rev.	Date	Description	Initial
B.	28/9/00	MINOR REVISION	←
A	20/9/00	ROUTE TWISK ADDED	signed

designed	W.Y.KWOK signed 6/9/00	drawn	L.Y.LEUNG signed 6/9/00	drawing no. 圖號 PMH6246/1PS/004B	scale 比例 AS SHOWN
checked	W.Y.KWOK signed 8/9/00	approved	S.W.WONG signed 8/9/00		
office	MAJOR WORKS PROJECT MANAGEMENT OFFICE 主要工程管理處		HIGHWAYS DEPARTMENT HONG KONG		路 政 署