For information

LEGISLATIVE COUNCIL PANEL ON PLANNING, LANDS AND WORKS

Formation and servicing of Area 36, Fanling - remaining works

Purpose

This paper informs Members of our proposal to carry out road widening and junction improvement works in Sheung Shui/Fanling area.

Background

- 2. Area 36, Fanling is earmarked mainly for housing developments which include, inter alia, about seven hectares of land for pubic housing and two hectares of land for a Hong Kong Housing Society (HKHS) public housing scheme. The Director of Housing commenced the public housing construction in November 1999. The development will provide about 7 000 flats to accommodate 21 000 persons in phases between November 2003 and February 2005. The HKHS plans to commence its housing project in August 2001 to provide about 920 flats for 3 200 persons by October 2004.
- 3. In January 1999, we completed a traffic impact assessment (TIA) in connection with the proposed developments in Area 36. The TIA identified that improvements to eight junctions and four sections of existing roads in the Sheung Shui/Fanling area are required to cope with the additional traffic demand arising from the planned residential developments in Area 36.
- 4. In February 2000, we engaged consultants to undertake detailed design and investigations for the proposed road works. The consultants have now completed the detailed design and drawings.

Project Scope and Nature

- 5. We propose to carry out the following road improvement works (coloured pink on the site plan at Enclosure 1) -
 - (a) improvement of six existing road junctions and two roundabouts in the Sheung Shui/Fanling area;
 - (b) widening of four sections of existing roads at Fan Kam Road, Po Shek Wu Road and So Kwun Po Road;
 - (c) relocation of a bus bay and provision of a loading/unloading bay at Choi Yuen Road.
 - (d) extension of five existing pedestrian subways beneath the widened roads; and
 - (e) associated drainage and landscaping works.
- 6. We plan to start the construction works in November 2001 for completion in July 2003. The estimated project cost is \$54.1 million in money-of-the-day prices.

Justifications

- 7. The proposed road works are essential to support the planned housing developments at Area 36, Fanling. According to the TIA conducted in January 1999, some junctions and sections of existing roads in Sheung Shui / Fanling are currently operating beyond their design capacities. The traffic condition will further deteriorate in 2004 due to the additional traffic demand arising from the planned residential developments in Area 36.
- 8. With the proposed improvements in place, the eight concerned junctions will have adequate capacities to cope with the projected traffic in 2004 and 2011. A summary of the performance of the critical junctions during peak hours in the years 2001, 2004 and 2011 with and without the proposed improvements is shown at Enclosure 2.

Public Consultation

- 9. We consulted the Traffic and Transport Committee (T&TC) of the then North Provisional District Board on the proposed works on 21 September 1998. Members of the T&TC supported the proposal.
- 10. We gazetted the proposed road widening and junction improvement works under the Roads (Works, Use and Compensation) Ordinance on 8 September 2000 and received no objection. The Secretary for Transport authorized the proposed roadworks on 22 December 2000.

Environmental Implications

11. We completed a Preliminary Environmental Review (PER) in January 2001. The PER concluded that the project would not have long term adverse environmental implications. As for the short term construction impacts, we will control noise, dust and site run-off to within established standards and guidelines by incorporating appropriate environmental pollution control clauses in the works contract.

Way Forward

12. We plan to seek the Public Works Sub-Committee's endorsement for funding support in May 2001.

Territory Development Department April 2001

Enclosure2

<u>Enclosur</u>								
	Junction performance during peak hours							
Junction	Without junction improvement			With junction improvement				
	2001	2004	2011	2004	2011			
Po Shek Wu Road/ Choi Yuen Road signalised junction ¹	-23%	-35%	-43%	10%	10%			
Po Shek Wu Road/ Po Wan Road signalised junction	-28%	-44%	-34%	-6%2	3%			
So Kwun Po Road/ Jockey Club Road signalised junction	-16%	-21%	-34%	32%	13%			
Fanling Highway/ So Kwun Po Road roundabout ³	0.91	1.04	2.87	0.59	0.74			
So Kwun Po Road/ Pak Wo Road signalised junction	-2%	-19%	-54%	74%	19%			
Fan Kam Road/ Po Kin Road priority junction (to be converted to a signalised junction)	0.68	1.08	1.63	30%	13%			

The performance of a signalised road junction is indicated by its reserve capacity (RC). A RC equals to or greater than 0 means that the road junction has sufficient capacity to cope with the volume of vehicular traffic under consideration and the resultant traffic will flow smoothly. A RC below 0 indicates that the junction is overloaded, thus resulting in traffic queues and longer delay time

Full junction improvement cannot be implemented due to site restrictions at this junction which will be slightly overloaded in 2004. However, the traffic condition will improve after 2010 upon the completion of Fanling Bypass planned under Kwu Tung North and Fanling North development.

The performance of a roundabout and a priority junction is indicated by the design flow/capacity (DFC) ratio. A DFC ratio equals to or less than 1.0 means that the road has sufficient capacity to cope with the volume of vehicular traffic under consideration and the resultant traffic will flow smoothly. A DFC ratio above 1.0 indicates the onset of congestion; above 1.2 indicates more serious congestion with traffic speeds progressively deteriorating with further increases in traffic.

	Junction performance during peak hours						
Junction	Without junction improvement			With junction improvement			
	2001	2004	2011	2004	2011		
Fan Kam Road /Castle Peak Road priority junction (to be converted to a signalised junction)	1.34	1.5	6.45	31%	6%		
Fanling Highway/ Po Shek Wu Road/Fan Kam Road roundabout	1.08	1.55	1.53	0.84	0.83		

