

For discussion on  
19 January 2001

## **Legislative Council Panel on Transport**

### **Lantau North-South Road Access**

#### **PURPOSE**

This paper seeks Members' views on the proposed way forward for improving the north-south access of Lantau.

#### **BACKGROUND**

2. On 24 November 2000, we briefed Members on the decision of the Director of Environmental Protection (DEP) that the Environmental Impact Assessment Report of the proposed Lantau North-South Road Link between Mui Wo and Tai Ho Wan did not meet the requirements of the Technical Memorandum of the EIAO and the study brief. We undertook that we would urgently consider alternative solutions to solve the north-south access problem of Lantau and revert to the panel in two months' time.

#### **ALTERNATIVE SOLUTION**

3. An inter-departmental working group has looked into the following possibilities –

- (a) tunnel option;
- (b) a new overland alignment; and
- (c) widening of Tung Chung Road.

#### **Tunnel Option**

4. While a tunnel option will have less direct environmental problems, essential safety requirements demand separate compartments for traffic in opposite directions, with enough space for vehicles to overtake in

case of breakdown in each direction. This will require the construction of a dual-2 tunnel which will have over-provided for the traffic demand. A twin tube tunnel will also incur a very high capital cost of about \$5 billion and an annual recurrent maintenance cost of \$100 million. Moreover, the tunnel portal areas and the associated approach roads, particularly in Mui Wo, would have significant environmental and land resumption implications. All relevant departments agree that the tunnel option should not be pursued.

### **A New Overland Alignment**

5. The possibility of finding a new alignment overland was thoroughly investigated. Initially a corridor between Mui Wo and Siu Ho Wan appeared plausible. However, investigation and site visits revealed that the road would have a very steep gradient at the northern shore along Siu Ho comparable to the most dangerous part of the existing Tung Chung Road, unless it adopted a long zigzag alignment, resulting in severe landscape and visual impact visible from North Lantau Highway. This alignment would also affect the upper part of the Tai Ho catchment area which is environmentally sensitive and should be avoided as far as possible. A connection to the South Lantau Road at Mui Wo would encounter similar difficulties as the southern connection of the tunnel option as mentioned in paragraph 4. All relevant departments agree that no feasible overland route could be identified.

### **Widening of Tung Chung Road**

6. Back in November 1996, we had carried out a feasibility study on the improvement of Tung Chung Road to 2-lane standard. The study found that after widening of the road along the existing alignment (on-line widening), the road would have 4 km of substandard gradient, of which 500 m would have a gradient of 20%. Moreover, the works would affect about 10 hectares of the Country Park.

7. If the gradients were to be improved to the normal standard, a meandering alignment (off-line widening) with sharp bends across the Tung Chung valley would have to be adopted, which would have serious environmental impacts with about 13 hectares of natural woodland and 20 hectares of Country Park affected. The on-line widening scheme was presented to the Country Parks Committee (CPC) under the Country and Marine Parks Board (CMPB) in March 1997. The CPC expressed concern

about the impacts of the works to the Country Park, and advised other alternative north-south routes should be considered.

8. We have re-examined the feasibility of widening Tung Chung Road. We found that by adjusting the alignment and not providing a climbing lane, the area of country park to be affected would be reduced from 20 hectares to 15 hectares.

## **PROPOSAL**

9. Having exhausted all options, we believe widening of Tung Chung road is the most promising solution which is practicable, quick and cost-effective.

10. Widening of Tung Chung Road is always not an easy task in view of the difficult terrain, the potential impact on the country park and on other environmentally sensitive areas such as Tung Chung Stream. Traffic would to a certain extent be affected when the works are carried out. We will ensure safety standards are met by using additional traffic management measures including the installation of arrester beds, central dividers at certain road bends and enhanced warning signs. In view of its difficult topography, the upgraded Tung Chung Road will still have to be closed to general traffic. We will, however, accord South Lantau Road permit holders 24-hour access. We will continue to regulate access at the northern end of Tung Chung Road. Emergency access at any time will be allowed.

11. We will minimise the impact of the widening works on Tung Chung stream, ranked in importance in ecological terms only second to Tai Ho stream. Tung Chung stream lies in the valley west of the existing Tung Chung Road, mostly in the northern section where the gradient of the road is within the safety limit. We propose to widen this section of Tung Chung Road on-line, and to the eastern side. The existing Tung Chung Road will serve as a buffer to any run-off from the work site during construction to minimise the risk of polluting the stream. The destruction of woodland habitat will also be handled sensitively. We will adopt designs that will minimise cutting of slopes and encroachment into the Country Park. The project will also include compensatory planting of trees and landscaping to mitigate environmental disturbance.

12. A site plan illustrating the preliminary recommended alignment is at the **Annex**.

13. The cost of the widening scheme is estimated to be about \$1 billion. We anticipate that the widening works will be completed in end 2006. We will take every measure to fast-track the implementation. The widening works will be carried out in sections, and where feasible each section will be opened to traffic as it is completed to bring about local improvements.

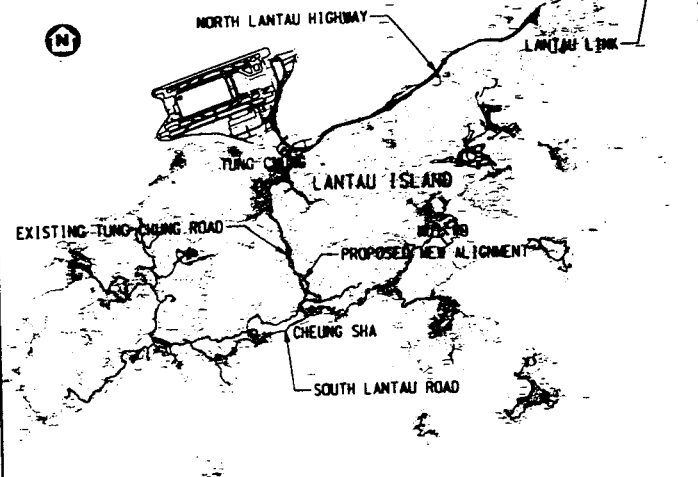
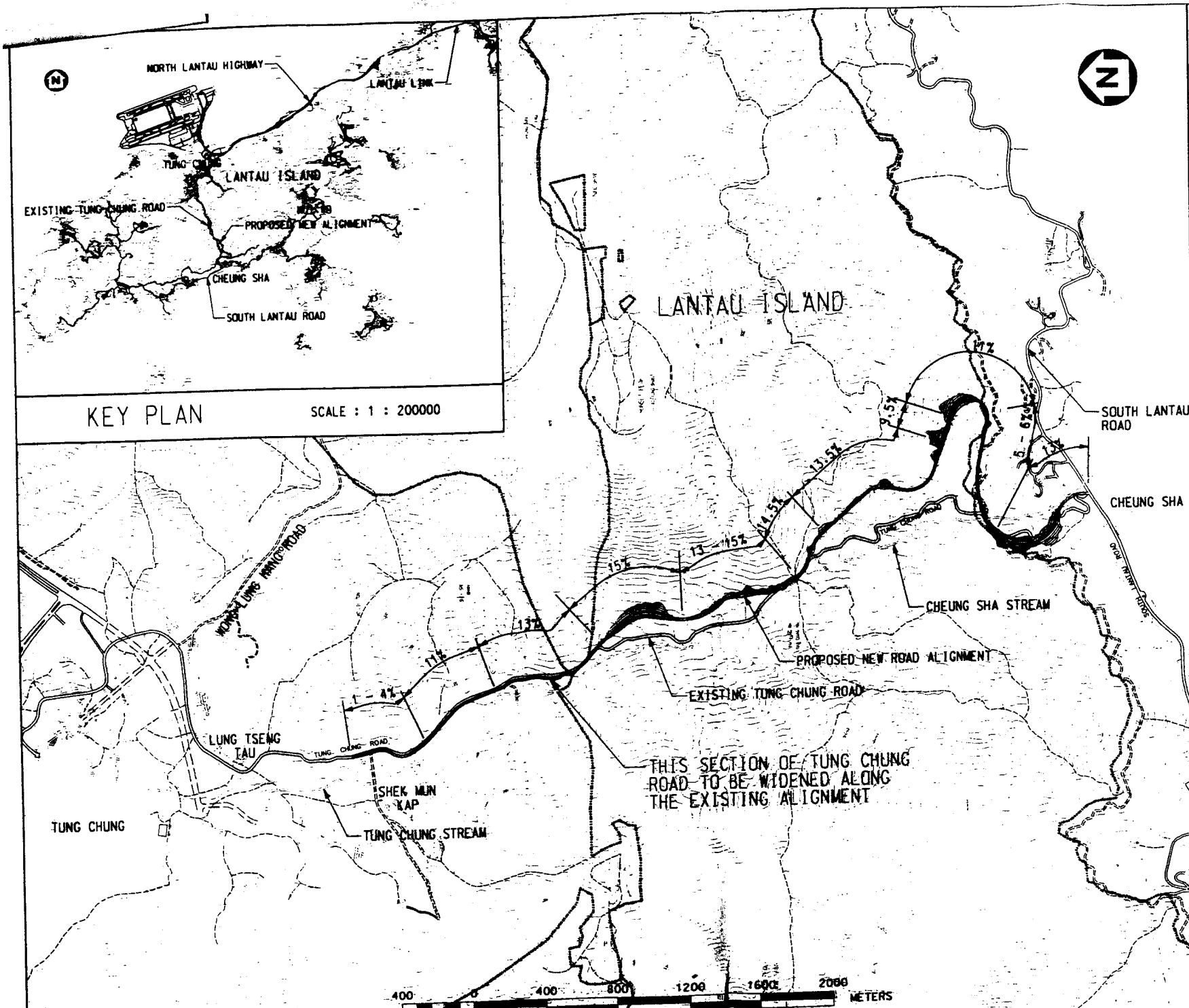
### **PUBLIC CONSULTATION**

14. We consulted the Islands District Council and the Country and Marine Parks Board on 11 January 2001. They generally supported the Tung Chung Road widening proposal. The Islands District Council asked for early completion of the project. The Country and Marine Parks Board provided very useful comments on minimising the impact on the environment and the Country Park.

### **ADVICE SOUGHT**

15. Members are invited to comment on the proposal to proceed with the Tung Chung Road widening scheme.

Transport Bureau  
Government Secretariat  
January 2001



KEY PLAN

SCALE : 1 : 20000

NOTES:

LEGEND :

- PROPOSED CUTTING SLOPE 1:1.3
- PROPOSED FILLING SLOPE 1:1.5
- COUNTRY PARK BOUNDARY
- PROPOSED ROAD GRADIENT 13%
- PROPOSED VIADUCT
- PROPOSED ROAD

A	12/00	GENERAL REVISION	SIGN
no.	date	description	init:
REVISION			
designed	T. Y. CHEUNG	SIGNED	drawn
	16/12/2000		H. Y. YIP
checked	T. Y. CHEUNG	SIGNED	approved
	16/12/2000		W. LI
			SIGN
			19/12/20

contract no.

file no.

project no.

contract  
LANTAU NORTH-SOUTH ROAD LINK

drawing title  
TUNG CHUNG ROAD IMPROVEMENT (MAX. 15% GRADIENT)

drawing no. MW6718TH-GLO007A scale 1 : 200

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office  
MAJOR WORKS PROJECT MANAGEMENT OFFICE

HIGHWAYS DEPARTMENT HONG KONG



THIS SECTION OF TUNG CHUNG ROAD TO BE WIDENED ALONG THE EXISTING ALIGNMENT