

**立法會**  
**Legislative Council**

LC Paper No. CB(1)666/99-00

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(These minutes have been  
seen by the Administration)

**LegCo Panels on Planning, Lands and Works  
and Transport**

**Minutes of joint meeting  
held on Friday, 12 November 1999, at 10:45 am  
in the Chamber of the Legislative Council Building**

**Members present** : Panel on Planning, Lands and Works

- \* Hon Edward HO Sing-tin, SBS, JP (Chairman)
- \* Dr Hon TANG Siu-tong, JP (Deputy Chairman)
- Hon HO Sai-chu, SBS, JP
- \* Ir Dr Hon Raymond HO Chung-tai, JP
- \* Hon LEE Wing-tat
- \* Hon TAM Yiu-chung, GBS, JP

Panel on Transport

Hon Mrs Miriam LAU Kin-yee, JP (Chairman)  
Hon LEE Kai-ming, SBS, JP  
Hon CHAN Wing-chan  
Hon CHAN Kam-lam

**Member attending** : Hon CHAN Kwok-keung

**Members absent** : Panel on Planning, Lands and Works

Hon Ronald ARCULLI, JP  
Hon James TO Kun-sun  
Hon WONG Yung-kan  
Hon LAU Wong-fat, GBS, JP  
Hon Timothy FOK Tsun-ting, SBS, JP

Panel on Transport

Hon LAU Kong-wah (Deputy Chairman)  
Hon Albert HO Chun-yan  
Hon Mrs Selina CHOW LIANG Shuk-ye, JP  
Hon Andrew WONG Wang-fat, JP  
Hon LAU Chin-shek, JP  
Hon Andrew CHENG Kar-foo  
Hon FUNG Chi-kin

(\* Also a member of the Panel on Transport)

**Public officers attending** : Mr Kevin HO  
Deputy Secretary for Transport

Ms Shirley LAM  
Principal Assistant Secretary for Transport

Mr Ken LEUNG  
Director of Highways

Mr John CHAI  
Deputy Project Manager/Major Works  
Highways Department

Mrs Joanna KWOK  
Chief Engineer/Strategic Roads  
Transport Department

**Clerk in attendance** : Miss Odelia LEUNG, Chief Assistant Secretary (1)1

**Staff in attendance** : Ms Sarah YUEN, Senior Assistant Secretary (1)4

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## **I Election of Chairman**

Mr Edward HO was elected Chairman for the joint meeting.

## **II Route 10 - North Lantau to Yuen Long Highway**

(PWSC(1999-2000)67, LC Paper Nos. PWSC18/99-00 and CB(1)337/99-00(01), and three plans tabled at the meeting and circulated to all members thereafter vide LC Paper No. CB(1)373/99-00)

2. The Chairman advised that this meeting was dedicated to examining the Route 10 project - North Lantau to Yuen Long Highway (the project) on which a number of queries had been raised at the Public Works Subcommittee (PWSC) meeting on 3 November 1999.

### Construction timetable

3. Addressing members' concern about the time gap between the commissioning of Route 10 in 2007 and the opening of the Disney Theme Park at Penny's Bay and the Shenzhen-Hong Kong Western Corridor in 2005, the Director of Highways (D of Hy) said that the future Deep Bay Link scheduled for completion in 2005 would serve as the major link road for traffic between Shenzhen and the New Territories and the urban areas. As the Deep Bay Link would be connected with Yuen Long Highway the widening works of which would be completed before 2005, the road network so effected should be able to cope with the cross-boundary traffic before the commissioning of Route 10.

4. On Mrs Miriam LAU's enquiry on the possibility of expediting the implementation programme at Annex K to the paper (LC Paper No. CB(1)337/99-00(01)) (the paper), D of Hy said that Annex K was a summary of the necessary procedures. Each of them would involve many complicated steps working in parallel or in sequence. The implementation programme was worked out based on the Administration's experience in handling large-scale projects. Whenever possible, efforts would be made to expedite the process. For example, certain procedures could be conducted in parallel. The detailed design of Tsing Lung Bridge would be conducted concurrently with the statutory procedures of the Roads (Works, Use and Compensation) Ordinance (the Roads Ordinance). The detailed design process might also be shortened. Some steps however could only be taken after the completion of certain procedures. For example, the commencement of construction works would be contingent on completion of the statutory procedures and the land resumption process.

5. The Chairman said that even the detailed design for the project could be completed earlier, works could not commence unless the Roads Ordinance process was completed. The Chairman and Mrs Miriam LAU pointed out that as land resumption would take the longest time, some works that did not involve land resumption should proceed first. D of Hy said that the Administration could not say for certainty at this stage which steps could be shortened. Whether or not objection would be raised to the project under the Roads Ordinance would be crucial. The time required for land resumption would depend on the circumstances of each case. The Deputy Secretary for Transport (DS for T) said that the extent of land to be resumed could only be confirmed after completion of the detailed design for the project. At members' request, the Administration agreed to provide a detailed programme for the 26 months required for the Roads Ordinance and the land resumption procedures, indicating all the critical paths.

(*Post-meeting note:* The required programme has been provided and circulated to all members vide LC Paper No. CB(1)394/99-00.)

6. Noting that the construction time of Tsing Ma Bridge and the Jiangyin Yangtse River Bridge in the Mainland was five years each, Mr LEE Wing-tat questioned the long completion time of the Tsing Lung Bridge. In response, D of Hy clarified that the estimated construction time of the Tsing Lung Bridge was also five years. However, time was needed for completion of the numerous pre-contract activities.

#### Provision of connections with other road networks

##### *The interchange at Tsing Lung Tau*

7. D of Hy briefed members on the reasons set out in the paper as to why the Administration did not consider it practicable and desirable to provide an interchange between Route 10 and Tuen Mun Road at Tsing Lung Tau.

8. Noting that predicted low traffic demand was one of the reasons given for not providing the interchange, Mr CHAN Kam-lam enquired about the required volume of vehicular traffic to justify the provision of a transport interchange. In response, D of Hy explained that low traffic demand was only one of the many reasons for deciding against the provision of an interchange at Tsing Lung Tau. The major reasons were engineering constraints and safety considerations, for example, the need to relocate the north tower of Tsing Lung Bridge 220 m to 270 m into the Ma Wan Channel would affect the navigational channel width; and the substandard slip road gradient and curvature would affect the design of the interchange. The Chief Engineer/Strategic Roads, Transport Department supplemented that the Administration had not set a fixed traffic volume for the provision of a transport interchange. Each road project would be considered on its own merits having regard to the traffic demand, engineering constraints and the availability of alternative routes.

9. Mr CHAN Kam-lam opined that as the major purpose for constructing Route 10 was to provide an alternative external road link to Lantau, this purpose could not be achieved without the provision of an interchange at Tsing Lung Tau to connect Route 10 with Tuen Mun Road. In response, D of Hy replied that other interchanges located at So Kwun Wat and Siu Lam could serve this purpose.

10. Mr TAM Yiu-chung pointed out that residents of Tsuen Wan and Kwai Chung would have direct access to the Lantau Link upon the completion of Tsing Yi North Coastal Road in 2001 but residents of Sham Tseng and Ting Kau could not access the Lantau Link directly without an interchange at Tsing Lung Tau. In response, DS for T referred members to Plan R10/012 tabled at the meeting and said that at present residents in Sham Tseng and Ting Tau could reach the Lantau Link through Tuen Mun Road via Sham Tseng Interchange. An interchange at Tsing Lung Tau could only shorten the travel distance by less than one kilo-metre and the travelling time by less than one minute. D of Hy supplemented that as shown by Plan R10/015 tabled, the

shortest route from Sham Tseng and Ting Kau to Lantau should be by way of Ting Kau Bridge, not Tsing Lung Bridge. Referring to Plan R10/012, he further pointed out that residents of Sham Tseng and Ting Kau could use Route 10 via Siu Lam Interchange to go to New Territories North.

*Other transport connections*

11. In reply to Mr TAM Yiu-chung's enquiries about the emergency access from Castle Peak Road to Route 10 and the possibility of widening it for normal traffic, D of Hy pointed out that the gradient of the emergency access was steep and it was not recommended on safety ground for use by the public.

12. Mr LEE Kai-ming enquired whether a slip road would be provided from Tsing Lung Bridge to Ng Kwu Leng to cater for future developments there. In reply, D of Hy said that Tsing Lung Bridge would be linked to the future Chok Ko Wan Link Road which would in turn be connected to Yam O Interchange, the North Lantau Highway, and other parts of Lantau.

Mode of implementation

13. Referring to paragraphs 16 and 17 of the paper, the Chairman and Ir Dr Raymond HO expressed reservations about the Administration's assessment of the merits of adopting the "Design and Build" (D&B) or "Build-Operate-Transfer" (BOT) arrangements for the construction of Route 10. They pointed out that a D&B approach would expedite the implementation of a project as the contractor could make the design with reference to the expertise of its team and the equipment available. This would avoid possible delays in implementation due to engineering difficulties, in particular for large projects like Tsing Lung Bridge. A D&B arrangement could also save costs as it was unlikely that a D&B contractor would design the relevant structures in such a way that would require the procurement of equipment not readily available to him. They disagreed with the Administration's view that the potential risk of substantial contractual disputes was high if the Government did not have direct control on the detailed design. They pointed out that on the contrary, since a D&B contractor would be responsible for both design and construction, accountability would be clear and disputes could be resolved easier. They were also concerned that the "Engineer's Design" arrangement for Tsing Lung Bridge seemed to go against the trend of adopting D&B approach in Government works.

14. In response, DPM(MW)/Hy D and D of Hy made the following points: -

- (a) Whilst the Administration agreed that a D&B approach could normally save time and cost in completion of a project, such advantages were not evident for Tsing Lung Bridge. Since the detailed design for Tsing Lung Bridge could be conducted in parallel with the statutory procedures, the time that could be gained by adopting the D&B arrangements, if any, was very limited. As for cost, there would not be much saving in

consultancy fee as the Contractor would still be engaging a consulting engineer to carry out the design and Government also had to engage a consulting engineer to examine the design under the D&B arrangement.

- (b) As the broad design scope of Tsing Lung Bridge taking into account various constraints already existed, the room for unique design according to the equipment and expertise of a D&B contractor was relatively small. Nevertheless, the Administration intended to specify in the contract for the consulting engineer for Tsing Lung Bridge that there should be flexibility in the design to allow inputs from the contractor. In this way, the contractor could make use of its equipment and team of expertise.
- (c) Past experience on D&B projects showed that even minor amendments proposed by the Government to the Contractor's design would be considered as contract alterations and contractual disputes would arise.
- (d) In the Administration's view, the D&B approach would be better for simple building projects where the scope and detailed requirements could be clearly defined. As for most large civil engineering projects, given the larger degree of uncertainty of geological conditions and other complex design considerations, an "Engineer's Design" approach was usually better. Moreover, as the Tsing Ma Bridge and a vast majority of other ACP projects had been successfully built with the "Engineer's Design" approach, the Administration considered it undesirable to introduce uncertainties by using a different procurement method.

15. The Chairman and Ir Dr Raymond HO remained unconvinced. They opined that since the Administration intended to allow suggestions from the contractor, there was no reason why the D&B approach should not be adopted in the first place. Ir Dr HO also pointed out that variations to large-scale projects were common whatever the approach. Moreover, in the case of the Airport Core Programme (ACP) projects for which the "Engineer's Design" approach was adopted, contractual disputes were many. Members requested the Administration to provide statistics on contractual disputes relating to ACP contracts.

*(Post-meeting note: The Administration's reply has been circulated to all members vide LC Paper No. CB(1)394/99-00.)*

16. In reply to Ir Dr Raymond HO's enquiry on the possibility of adopting the BOT approach for the construction of Tsing Lung Bridge alone, DS for T advised that as the bridge had to be completed as soon as practicable to provide an early alternative road link between Lantau and the rest of the territory, adoption of the BOT approach might not be appropriate as it would take time to specify the rights and obligations of the BOT contractor. Moreover, a BOT Tsing Lung Bridge might not be commercially viable because its toll had to be comparable to the toll for Tsing Ma Bridge. The present toll was only \$15 one way. At members' request, the Administration agreed

to provide more information on adopting the "Engineer's Design" vis-à-vis the D&B approach in the procurement of Tsing Lung Bridge.

*(Post-meeting note: The required information has been provided and circulated to all members vide LC Paper No. CB(1)394/99-00.)*

### Project costs

17. Mrs Miriam LAU queried the high cost of the Route 10 project. In response, DS for T said that the total cost of Route 10 was estimated to be around \$24.8 billion. The Principal Assistant Secretary for Transport (PAS for T) added that the cost for constructing the southern section of Route 10 was about \$17.7 billion and that for the northern section was around \$7 billion.

### Project impacts

18. As to Mr CHAN Wing-chan's question on the extent of reclamation required for implementing the Route 10 project, D of Hy said that small-scale reclamations would be needed to accommodate the toll plaza east of Lantau Island and the foundation of the tower of Tsing Lung Bridge at Tsing Lung Tau. He further explained that the majority of the large quantities of construction waste to be generated from the project as a result of the construction of a number of large tunnels would be re-used as fill material for the above reclamation projects as well as other reclamation projects.

19. Addressing Mr CHAN Wing-chan's concern about the impact of the project on marine traffic, D of Hy advised that the Marine Department had already endorsed the marine impact assessment report of Tsing Lung Bridge. At Mr TAM Yiu-chung's request, DS for T agreed to provide information on the width of the Ma Wan Navigational Channel, the forecast traffic volumes, the estimated accident statistics at the location, and how these figures compared with those of the Rambler Channel.

*(Post-meeting note: The required information has been provided and circulated to all members vide LC Paper No. CB(1)394/99-00.)*

20. On Mr CHAN Wing-chan's further enquiry about the environmental impacts of the project, in particular the visual impact on the residential developments in its vicinity and the channel for raising objection, D of Hy said that aesthetics was subjective. Some people would prefer flats with a bridge view. As regards noise, the relevant EIA recommended the implementation of certain noise mitigation measures to control the impacts within the established standard. Since the project would be gazetted under the Roads Ordinance, objection could be raised under statutory procedures.

### Other concerns

21. Noting the availability of land for residential development in Tai Lam Chung,

Mr LEE Wing-tat cast doubt on the projected population there as shown in Plan R10/012 tabled. In response, D of Hy explained that the estimated population of 8,135 in Tai Lam Chung in 2006 had already taken into account the potential residential development. At members' request, he undertook to provide further information on the basis for the projected population growth in Tai Lam Chung and Tsing Lung Tau.

*(Post-meeting note: The required information has been provided and circulated to all members vide LC Paper No. CB(1)394/99-00.)*

22. Mr CHAN Kam-lam queried why the proposed speed limit at Tsing Lung Bridge was as high as 100 km/hour, D of Hy clarified that this was only the design speed and the actual speed limit would be set at a lower level out of management considerations.

23. In response to Mr HO Sai-chu, DS for T said that the Administration would provide all the required information before re-submitting the funding application to the PWSC on 17 November 1999.

### **III Any other business**

24. There being no other business, the meeting ended at 12:20 pm.

Legislative Council Secretariat  
28 December 1999