

Tseung Kwan O-Lam Tin Tunnel & Cross Bay Link Consultation Toll Policy

We have noted the preliminary alignment of the tunnel as illustrated in the Newsletter – Issue No. 1 – May 2009.

We understand that the alignment of the tunnel and the extent of reclamation in Tseung Kwan O result from the requirement for a traditional toll plaza at the Tseung Kwan O end of the tunnel. Without a traditional toll plaza, the tunnel could be made as a cashless electronic toll facility¹ or as a non-toll facility.

If no toll plaza were required, it is our understanding that:

Alignment and reclamation construction

- The alignment of the tunnel could be straightened, avoiding the “s” shape which is necessary only in order to align the tunnel with the proposed toll plaza. A straight tunnel:
 - Would be some 400 metres shorter than the “s” shaped tunnel;
 - Would have better visibility than the “s” shape alignment;
 - Would probably have more efficient ventilation than the “s” shape alignment;
- The reclamation at the Tseung Kwan O end of the tunnel could be dramatically reduced, as the tunnel could link directly to the Cross Bay Link – roughly speaking, reclamation to the south west of the meeting point could be eliminated, thereby preserving the natural shoreline to the maximum;
 - 200 metres of road would be reduced, from the avoided reclamation;

Savings

- Very rough calculations indicate savings of some 10-15%, or B\$0.8-B\$1.2, of the estimated B\$8.0 construction cost;
- Additional recurrent savings would arise from reduced maintenance of the shorter tunnel and road, and less wear and tear which would have required maintenance at the toll plaza;
- Further operational savings would be made if either cashless electronic toll or no tolls were to be charged;

¹ Cashless Electronic Toll facilities can be found in many overseas cities such as Melbourne City Link, Sydney Cross City Tunnel, 407 ETR at Toronto, and the Electronic Road Pricing system in Singapore.

- Each vehicle would travel some 600 metres less for each passage through the tunnel, or in total, assuming traffic flow of 60,000 vehicles a day, some 36,000 km of driving would be saved a day, with consequent fuel cost savings, and notional savings in terms of traveling time;

Energy and environment

- Reclamation would be minimized, thereby preserving the natural shoreline to the fullest extent possible;
- Energy gains would be made through reduced consumption of fuel and reduced operational needs;
- Emissions gains would be made because of the shorter distance traveled on each trip and because of no requirement for vehicles to stop and then start at the toll plaza;
- For the no toll option, “rat running” of traffic on un-tolled roads in the area could be reduced, resulting in reduction of waste traveling and associated exhaust and noise emissions.

Attractive Public Transport Interchanges

- In any event, we hope that attractive all-weather bus-bus interchanges can be introduced in both directions near the Tseung Kwan O tunnel portal.

For all these reasons, we have written to the Director of the Civil Engineering and development Department requesting that the investigation phase of the project include a cost-benefit analysis of two main options – namely construction with a toll plaza and construction without a toll plaza. We assume that this will also include analysis of various toll options, bearing in mind the relatively low \$3 toll for use of the existing parallel Tseung Kwan O tunnel, and the need to divert traffic to use the new tunnel.

The Way Forward

This analysis should then be submitted to you to consider further the benefits of constructing or not the proposed toll plaza. We believe that the analysis will demonstrate that the case for building a traditional toll plaza is very weak, and that any toll which might be charged will need to be set at a relatively low level, even zero initially, if the new tunnel is to serve its purpose to attract traffic from the existing tunnel. If tolls are to be charged, we suggest that such tolls be paid through compulsory electronic payment.

Introduce Electronic Toll Payment Across Hong Kong

If electronic toll payment were to be adopted here, it would make sense to introduce such across all toll tunnels with consequent benefits:

- Smoother flow of traffic, with improvements in road safety, fuel efficiency and air emissions;



- Release of existing toll plaza land for other uses, including attractive all weather bus-bus and other public transport interchanges;
- Savings in operational costs of managing the toll booths and maintaining the road surface at toll booths;
- Saving on land take for future toll plazas, for example at the Hong Kong-Zhuhai-Macao Bridge;
- This would also pave the way for the introduction of electronic road pricing in future, should this be found necessary.

We are well aware of the long and contentious history over electronic road pricing. Many, but not all, of the issues would also be raised if electronic toll payment were made compulsory. It would be a major project in its own right, requiring community support. Nevertheless, we suggest that now is an opportune time to give it further consideration.

24th August 2009

