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TRAN 3/9/21 Pt 6

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21 February 2000

Mr Andy Lau
Clerk to Panel
LegCo Secretariat
3/F, Citibank Tower
3 Garden Road
Central, Hong Kong

Dear Mr Lau,

Review of Speed Limit in Hong Kong

At the meeting of the LegCo Panel on Transport held on 28 January 2000, Members requested the Administration to provide the design standard and specifications of North Lantau Highway and West Kowloon Highway. The details are set out at Annex A.

It is noted that the design speeds of the North Lantau Highway and the West Kowloon Highway are 100 km/h and 85 km/h respectively. However, the two highways were built to a standard slightly above the design standard because the site conditions could accommodate a better road alignment. In reviewing the speed limits of the two roads in 1999, the Transport Department considered that their speed limits could be adjusted upwards to 110 km/h and 100 km/h respectively, taking into account the geometry and alignment of the roads concerned and the actual average speed recorded on the two roads.

The Administration explained the relationship between speeding and traffic accidents at the Panel meeting on 28 January 2000. The UK's Transport Research Laboratory (TRL) has further developed a statistical relationship between the occurrence of injury accidents and the proportion of drivers who exceeds the speed limit. The relationship is that if the percentage of speeders increases by 10%, the accident frequency would be expected to increase by 1.1% if all other factors are held constant. In Hong Kong, we do not maintain comprehensive statistics showing the relationship between the seriousness of speeding and the number of traffic accidents. However, the

Transport Department has conducted a study on the accident figures on Hong Kong's major highways for 1998. The findings have revealed that, in general, the higher the average speed, the higher the accident rate. Details of the average speed and the accident rate of the major highways are at Annex B.

Yours faithfully,

(Brian Lo)
for Secretary for Transport

Encl

cc C for T (Attn: Mr Alan Kam)

**Design Standards and Specifications
of the North Lantau Highway
(extracted from North Lantau
Development Topic Report TR9)**

	Desirable	Min/Max*
Design Speed (km/h)		
Main Carriageway	100	-
Slip Roads	85	70 (min)
Port Peninsula Road	85	-
Horizontal Radius (m)		
Main Carriageway	500	350 (min)
Slip Roads	250	125 (min)
Maximum Gradients (%)		
Main Carriageway	-	2.5
Slip Roads - up	-	4.0
Slip Roads - down	-	6.0
Maximum Superelevation (%)		
Main Carriageway	-	7.0
Slip Roads	-	10.0
Sight Distance (m)		
Main Carriageway	225	165 (min)
Slip Roads	165	95 (min)

* The lowest standard accepted due to site constraints at limited locations.

**Design Standards and Specifications
of the West Kowloon Highway
(extracted from West Kowloon Expressway
Preliminary Report Vol.1 - Engineering Feasibility)**

	Desirable	Min/Max
Design Speed (km/h)		
Main Carriageway	85	-
Slip Roads	70	-
Horizontal Radius (m)		
Main Carriageway	-	1250 (min)
Maximum Gradients (%)		
Main Carriageway	4.0	8.0
Connecting routes	5.0	10.0
Sight Distance (m)		
Main Carriageway	-	165 (min)
Slip Roads	-	-

**Relationship between the Accident Rates
and Average Speed on Hong Kong's Major Highways in 1998**

	<u>Average Speed (85% Percentile)</u>	<u>Accident Rate (per million veh-km)</u>
(1) Yuen Long Highway	80 km/h	0.14
(2) Tate's Cairn Highway	81 km/h	0.25
(3) Tsing Kwai Highway	85 km/h	0.28
(4) Tolo Highway	85 km/h	0.33
(5) Fanling Highway	90 km/h	0.34
(6) Sha Tin Road	89 km/h	0.38
(7) San Tin Highway	94 km/h	0.49
(8) North Lantau Highway*	94 km/h	0.22
(9) West Kowloon Highway	91 km/h	0.83

* For North Lantau Highway, its relatively low accident rate is due to its much better road alignment and geometry.