For Information

Legislative Council Panel on Transport

Northwest New Territories Traffic and Infrastructure Review

INTRODUCTION

At the meeting of the Legislative Council Panel on Transport held on 25 June 2004, Members discussed LC Paper No. CB(1)/2180/03-04(02), which set out, inter alia, the latest progress on the Northwest New Territories (NWNT) Traffic and Infrastructure Review (the Review), and requested the Administration to provide supplementary information on the following -

(a) the basis of the assessment that the existing highway network in the NWNT has adequate capacity to cope with the traffic demand arising from the commissioning of the Hong Kong – Shenzhen Western Corridor (HK-SWC) and the Deep Bay Link (DBL);

(b) improvement measures to transport networks in Tuen Mun and Yuen Long to cope with the traffic flow; and

(c) the response to the submission from Route 3 (Country Park Section) Company Limited on the "Comparative Study on Easterly Link – Option 4 vs Option 6A".

THE ADMINISTRATION'S RESPONSE

Capacity of the Existing Road Network in NWNT

2. In assessing the adequacy of the capacity of an existing highway network, we would take into account the total capacity of the strategic roads in the area concerned as a whole. Indeed, it is our policy intention that utilisation of existing road networks should be maximised before consideration would be given to providing new highway infrastructures.

3. We assume that traffic from HK-SWC and DBL would use Tuen Mun Road (TMR) and Route 3 (Country Park Section)(CPS), which are the two major strategic roads in NWNT, for access to the urban areas and container ports. The two roads have a daily combined capacity of 250 000 vehicles. At

present, the two roads carry a daily traffic of 150 400 vehicles with an overall average volume to capacity (v/c) ratio[1] of 0.88 observed during the morning peak period. Taking into account the anticipated increase in cross boundary traffic after completion of HK-SWC and population growth in the region, we estimate that the daily traffic using TMR and Route 3 will be about 203 500, with an overall average v/c ratio in the morning peak hour of about 1.06 in 2011.

4. A table summarising the key traffic and planning figures is provided below.

	TMR and Route 3 Combined Traffic Condition			**NWNT**
	AM flow[1]	**Average AM v/c ratio**	**AADT[2]**	**Population**
Existing[3]	8,270	0.88	150,400	1.04 million
2011[4]	9,960	1.06	203,500	1.19 million

Notes :
1. In terms of vehicles/hour
2. AADT – Annual Average Daily Traffic
3. The AADT at Lok Ma Chau (LMC) is 30 000
4. It is projected that the AADT at LMC and HK-SWC will be 25 000 and 49 000 respectively in 2011

Improvement measures to transport networks in Tuen Mun and Yuen Long

5. We have set out in LC Paper No. CB(1)/2291/02-03(04) the blueprint for the transport infrastructure in NWNT which included four packages of highway projects. As we have pointed out, the various packages identified will be subject to continuous review to suit changing circumstances and planning assumptions. Specifically, we have mentioned in LC Paper No. CB(1)/2180/03-04(02) that a number of major strategic developments in Lantau are under planning and that the timing and scale of these developments would impact on the programme for the provision of these major new highway infrastructures in the area. We expect that a clearer picture on the planning of these major developments will be available by early 2005, by which time we

[1] A v/c ratio is normally used to reflect the traffic situation during peak hours. A v/c ratio equal to or less than 1.0 means that the road has sufficient capacity to cope with the volume of vehicular traffic under consideration. A v/c ratio above 1.0 indicates the onset of mild congestion and a v/c ratio between 1.0 and 1.2 indicates a manageable degree of congestion.

should have further information to work out a proposed programme for the necessary infrastructure support for NWNT and Lantau.

6. In the short to medium terms, our forecast is that the existing road network in NWNT would be adequate to cope with the anticipated traffic growth. That said, we are aware that there may be pressure at some sections in the Tuen Mun Town Centre of TMR at the peak hours upon commissioning of HK-SWC and DBL. Apart from widening the section of Yuen Long Highway between Lam Tei and Shap Pat Heung Interchange and Castle Peak Road, the former of which is scheduled for completion by end 2005 while the majority section of the latter will be completed also by 2005[2], we will implement improvement measures to the Town Centre Section (TCS) of TMR. Details have been set out in LC Paper No CB(1)1912/03-04(26) which are recapitulated below :

Improvement Measures		**Benefits**
1.	Widening of TMR at Tsing Tin Road Interchange section to dual 3-lane	V/C ratio to decrease from the expected level of 1.18 to below 1
2.	Lengthening/Widening of Bus Bays at TMR – TCS	Increase capacity of bus bays so as to reduce obstruction to the main road traffic. The lengthened bus bay at Tseng Choi Street would help reduce the queuing length of buses by one-third.
3.	Improvement of Merging Lane from Tuen Hi Road into TMR – TCS	Improved traffic merging arrangement from Tuen Hi Road to TMR northbound will improve local traffic flow and road safety conditions. This would lower the possibility of traffic accident due to the insufficient merging distance.
4.	Modification of Directional Signs to encourage motorists to use other parallel routes in lieu of TMR – TCS for journeys to Tsuen Wan and Kowloon	Diversion of traffic from TMR – TCS to the parallel routes will reduce the traffic loading at TMR – TCS. Assuming 10% (about 180 vehicles) of the vehicles at Tuen Mun West would be encouraged to use Wong Chu Road, the v/c ratio of the TMR-TCS (Wong Chu Road Section) would be brought down to about 1.09.

[2] Widening of the section of Castle Peak Road between Ka Loon Tsuen to Siu Lam is scheduled for completion by April 2007.

We would continue to monitor closely the traffic conditions of the road network in the area and to identify additional improvement measures as and when necessary.

Response to Submission from Route 3 (CPS) Company on "Comparative Study on Easterly Link – Option 4 vs Option 6A"

7. We have examined the submission from Route 3 (CPS) Company on "Comparative Study on Easterly Link – Option 4 vs Option 6A" (the Submission). While the study concluded that Option 4 performs better than Option 6A, we cannot find from the Submission sufficient information to point to the conclusion. Moreover, many assumptions adopted in the Submission have to be clarified and substantiated. They include the following two fundamental assumptions -

(a) <u>Feasibility of a "sunken" road</u>

8. The study considers that the main section of Option 4 should be constructed in sunken (depressed) form along the alignment of a proposed road running at the northern border of Hung Shiu Kiu to minimise environmental impacts and constraints/conflicts with the proposed road. We cannot however find from the Submission information to illustrate how a sunken road alignment is feasible engineering wise. It should be noted that the Easterly Link Road would have to be connected to the DBL mainline/viaduct at a high level and the gradient requirements would effectively mean that the length of a sunken road, if achievable, would be very limited.

(b) <u>Traffic split between TMR and Route 3</u>

9. The Submission's finding that the total capacity of TMR and Route 3 is adequate in handling the traffic demand up to 2011 tallies with our findings. However, there is no information to show the assumptions adopted in the Submission regarding the predicted traffic split between the two roads. For example, the Submission does not appear to have taken into account the HK-SWC traffic originating or terminating at NWNT and Northeast New Territories and which would unlikely use TMR or Route 3. There is also no information in the Submission to show how the toll levels of Route 3 and the two options of the Easterly Link Road impact on the share of traffic between the two roads.

ADVICE SOUGHT

10. Members are invited to note the contents of this paper.

Environment, Transport and Works Bureau
July 2004