

East West Link Needs Assessment Study Team
Department of Infrastructure
Level 49
80 Collins Street
Melbourne, VIC, 3000

8 August 2007

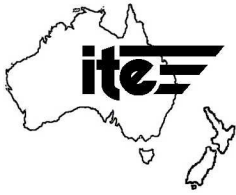
Dear Sir/Madam,

The Australia and New Zealand Section of the Institution of Transportation Engineers (ITEANZ) welcomes the opportunity to provide a submission to the East West Link Needs Assessment. The Institute of Transportation Engineers (ITE) is an international educational and scientific association of transportation professionals responsible for meeting mobility and safety needs. The Australia and New Zealand Section was established in the 1960's and has more than 200 members with the most active group based in Melbourne.

ITEANZ is pleased to see the level of public and professional interest in the Needs Assessment, reflected in the large number of high quality submissions published on the study website. As these submissions cover in some depth the general issues noted in the reference questions, we have taken the opportunity to focus on two specific technical issues. These relate to part of Issue 2, the capacity of existing and planned infrastructure to meet future requirements and to the quality of the traffic modelling analysis used for the study.

Several submissions have supported the concept of a road tunnel extending west from the current Eastern Freeway terminal in a number of different configurations. Some of these tunnel proposals suggest the incorporation of intermediate exits along the tunnelled length, onto inner city arterial roads such as Nicholson Street and Royal Parade. On a simple analysis of travel patterns, these exits would seem desirable to serve the significant proportion of Eastern Freeway traffic that wishes to access inner city destinations. This approach is also consistent with the origin-destination surveys conducted as part of the earlier Northern Central City Corridor Study.

The inclusion of inner city exits from any such tunnel needs careful consideration as to how the traffic system would subsequently operate during times of high demand, traditionally peak periods but now an increasing part of each day. There is limited capacity on the northern inner city road network to cater for increased traffic demand at these times. Under these conditions, inner city exits run the risk of relocating queuing from the open-air environment of the Eastern Freeway to an underground location further west. Tunnel exits should be designed to discharge to a location where the demand can be accommodated and which fits within overall travel demand patterns and objectives; this is more important than for surface roads due to the desirability of avoiding traffic queuing underground. It should be noted that these challenges with inner city tunnel exits relate to longer road tunnels rather than shorter tunnels typically used in localised grade separations.



In Melbourne, operational experience of the challenges associated with congestion at inner city tunnel exits can be found with the CityLink Domain Tunnel prior to the westbound Kingsway entry ramp. Conditions at this location are arguably more favourable than for some inner city exits from an East-West tunnel from the Eastern Freeway due to the availability of an area at ground-level to store traffic at the exit, and the high capacity of Kingsway, particularly to the south, aiding in the discharge of traffic. Despite these mitigating factors, CityLink frequently needs to reduce the capacity of the Domain Tunnel in the morning peak by closing a lane and reducing speed limits to prevent queuing inside the tunnel.

Many of our members remain sceptical, based on past experience, of the quality of the base data used in the computer modelling of Melbourne's regional traffic demands. Suitable checks need to be made to confirm that the basic travel patterns incorporated in the Origin-Destination matrices that are inherent within the models adequately reflect the current travel patterns by using up to date data. Key factors include the regional to regional traffic patterns including data relating to the distance travelled on freeway segments across Melbourne. Too often professionals and laypersons alike form opinions and make decisions based on the perception that there is a high proportion of traffic that is destined for the CBD. This can be readily clarified/confirmed by developing a clear understanding of the length of trips made on the freeway network and the related trip origins and destinations from empirical survey data.

If you require any further information or clarification regarding the above please contact Emma Donnelly, Secretary of ITEANZ, on 9811 3111.

Yours faithfully,

Daniel Przychodzki
Acting President
Institute of Transportation Engineers Australia and New Zealand Section