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2 September 2017

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Dear Tessa

ADDENDUM 2 TO WEST GATE TUNNEL PROJECT TRANSPORT EVIDENCE STATEMENT - MATTER 21701517 – RESPONSE TO SUBMISSIONS ON BEHALF OF VICROADS

This second addendum letter has been prepared to supplement the Transport Evidence Report (referred to as Report) to the Inquiry and Advisory Committee of the West Gate Tunnel (WGT) Project. This letter includes my comments on matter in the submissions on behalf of VicRoads.

Dohertys Road

VicRoads submission stated “Hobsons Bay CC, once again supported by the evidence of Mr O’Brien, submits that there should be further consideration of potential access ramps at Dohertys Road. Mr O’Brien states the following:

“... Another important connection that should be considered is between Dohertys Road and Princes Freeway west. Dohertys Road ramp connections to the west would divert truck traffic away from Millers Road, again relieving Millers Road. It would provide much needed access from the west into the Grieve Parade industrial area south of Dohertys Road. Sketch examples of such interchanges are shown in Figure 5 (Dohertys Road) and Figure 6 (Grieve Parade)”.

In support of this opinion, Mr O’Brien has put forward the following figure:

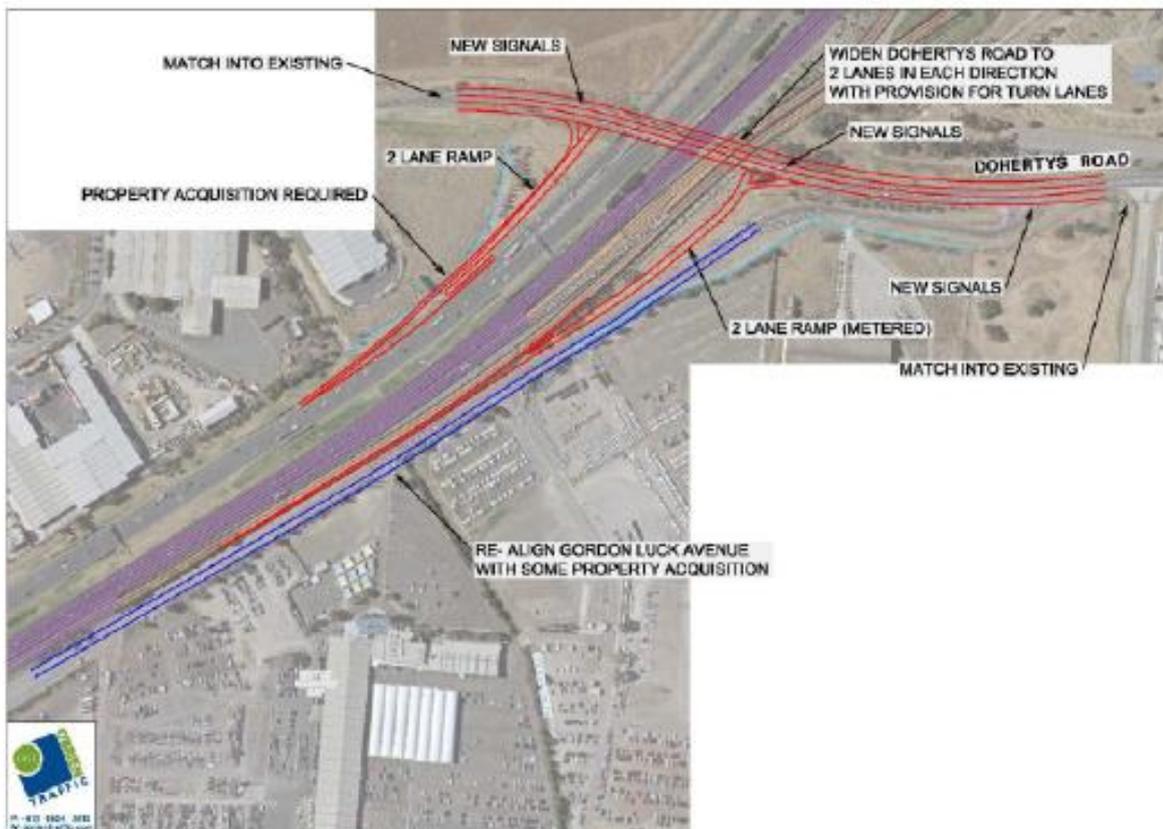


Figure 5: Potential west facing ramps at Dohertys Road to/from M1

98 As with the ramps proposed at Grieve Parade, VicRoads' position is that the IAC should not make any recommendation for further consideration of ramps at Dohertys Road. Any ramps constructed at Dohertys Road would conflict with proposed or modified ramp connections from the Project and M80 and cannot be incorporated, either safely or efficiently. Any connection between the M80 and Dohertys Road (to the north) would be physically constrained by reason of the braided connections with the M80, West Gate Freeway, Princes Freeway West and proposed Project interchange areas”.

Andrew O'Brien Comments:

Regarding “Any ramps constructed at Dohertys Road would conflict with proposed or modified ramp connections from the Project and M80 and cannot be incorporated, either safely or efficiently”, this comment is wrong and cannot be substantiated. Firstly, the proposed ramps do not conflict in any way with the proposed new or modified connections between M1 and M80 – they are to the west of any other connections. The proposed ramps are virtually a mirror image of the Grieve Parade exiting ramps – Grieve Parade is a half diamond interchange facing east and located east of the M80 interchange, and our proposed Dohertys Road ramps are west facing and located t the west of the M80 interchange. There is absolutely no reason that such proposed ramps cannot be operated ‘safely and efficiently’.

Regarding “. Any connection between the M80 and Dohertys Road (to the north) would be . . .”, this has not been proposed so is a red herring.

The submission continues: “99 These connections would only further complicate the merging, diverging and weaving movements required by vehicles in the area, and would jeopardise the performance of the relevant motorway section. This is particularly concerning given that the relevant motorway section is immediately downstream of three connections coming together”

Andrew O'Brien Comments:

With respect to “would only complicate the merging, diverging and weaving movements required”, the comment shows a lack of understanding of modern freeway operations and operations practice.

With respect to the off-ramp, O'Brien Traffic has slightly revised the initial sketch to bring the off-ramp nose slightly further to the west – enabling a separation of that ramp and the ramp to M80 of about 300 m. This separation is quite common in modern networks – e.g. Great South Road exit within the SH1/SH20 interchange in Auckland – which operates quite satisfactorily. The westbound off-ramp to Montague Street is only 280 m before the off-ramp to Tullamarine. A diverge is usually not an operational issue. As a general principle, successive exits need to be separated by a minimum of about 250 m to allow for lane changing and to be appropriately signed.

The proposed on-ramp from Dohertys Road is proposed to merge onto the connector from the tunnel to Princes Freeway – with the merge completed before that ramp merges onto the Princes Freeway mainline. The Dohertys Road on-ramp would have ramp metering – so there would be no operational merge issues. The proposed amended plan is shown in **Figure 1**. It addresses VicRoads issues.

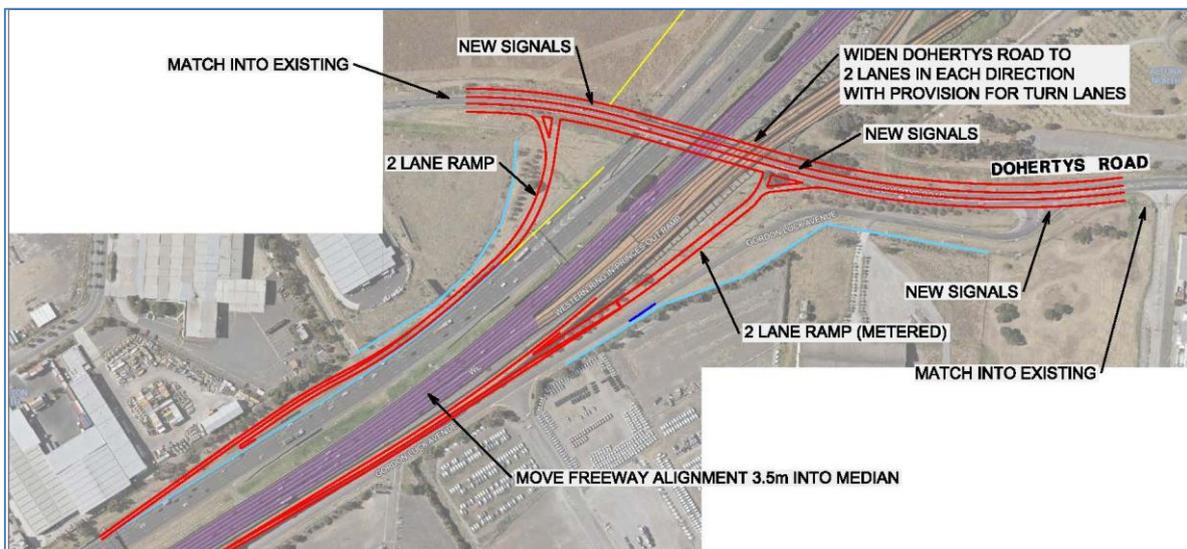


FIGURE 1: Modified plan for Dohertys Road west-facing ramps

The potential weave manoeuvres involved would be between the Kororoit Creek Road ramps and the exit to Dohertys Road, and between the tunnel connection and Kororoit Creek Road. The distances involved are greater than those which require weaving analysis.

In my opinion, the submissions on these issues are not supported by any analysis or evidence and are, in fact, wrong.

The submission continues:

“100 In assessing the submissions made by Hobsons Bay CC, the IAC is invited to be mindful that freeway-to-freeway (system) interchanges are primarily designed to cater for strategic (generally longer) trips within the broader road network. Direct connections from the arterial road network into a system interchange generally introduces the potential for short trips that can cause undesirable turbulence and complexity of movements in the motorway network. These additional short trips are likely to adversely affect flows, and cause both congestion and unsafe traffic conditions within critical parts of the road network. In VicRoads’ view, there are existing and appropriate arterial connections at Boundary Road, Princes Highway West, Kororoit Creek Road and Fitzgerald Road, each of which involve a declared arterial road designed to provide access to the broader network, including the motorway network.

101 Having regard to Mr O’Brien’s suggested figure, VicRoads submits that:

- (a) the inclusion of additional ramps would further increase traffic demands by attracting additional trips to the Princes Freeway between Dohertys Road and Kororoit Creek Road, a route which is already sufficiently accommodated by arterial roads (and noting the deleterious effect of introducing short trips into the freeway network);*
- (b) the proposed North-East bound exit ramp creates two exit ramps (one service, one system) in immediate proximity to each other, which is considered to be poor freeway design because it introduces confusion by a lack of clarity around traffic movements and will result in overuse of the left lane(s) of the Princes Freeway on the approach to a critical system junction;*
- (c) the proposed merge location of South-West bound entry ramp is immediately upstream of the main ramp joining the freeway mainline and is, therefore, unsafe. At such a location, drivers on the system ramp connection need to be concentrating on the mainline traffic and adjusting their speed/position to merge safely, not dealing with local traffic movements merging from the left; and*
- (d) further land acquisitions would be necessary to accommodate the ramps, and this is outside the scope of the Project”.*

Andrew O'Brien Comments:

With respect to the comment: *“Direct connections from the arterial road network into a system interchange generally introduces the potential for short trips that can cause undesirable*

turbulence and complexity of movements in the motorway network”, there is no proposal to introduce a such a connection. By definition, one cannot have direct connections from an arterial into a system interchange – any arterial access to a freeway is via a service (local) interchange.

With respect to the comment: *“These additional short trips are likely to adversely affect flows, and cause both congestion and unsafe traffic conditions within critical parts of the road network”*, the comment implies that there will be an increased number of short trips, but does not argue why that might occur. The experience would indicate that this would not occur. The on-ramps would be metered at busy times. Experience in Melbourne and Auckland is that, with ramp metering, short trips are discouraged with about 20% reduction in trips using the ramps during metered periods. In any case, with ramp metering, congestion is relieved where there is a merging or weaving issue.

With respect to the comment: *“there are existing and appropriate arterial connections at Boundary Road, Princes Highway West, Kororoit Creek Road and Fitzgerald Road, each of which involve a declared arterial road . . .”*, that comment is irrelevant. Of course these are *“appropriate arterial connections”*. The issue is further raised in point (a) *“the inclusion of additional ramps would further increase traffic demands by attracting additional trips to the Princes Freeway between Dohertys Road and Kororoit Creek Road”*. As discussed above, ramp metering will deter short trips. If the Dohertys Road west-facing ramps were provided, the interchange spacing between them and Kororoit Creek Road interchange would be about 3 km – well above the average across Melbourne. The distance between Kororoit Creek Road and Millers Road, the next local interchange that provides a direct connection to the south of the WGF, is about 6 km. This, I believe, is greater than the spacing of any other local interchanges in Melbourne.

The comment under (b) that *“the proposed North-East bound exit ramp creates two exit ramps (one service, one system) in immediate proximity to each other, which is considered to be poor freeway design”* is addressed by our modified proposal to take the off-ramp off a little further to the west. This would result in a perfectly adequate exit ramp spacing.

The comment under (c) that *“the proposed merge location of South-West bound entry ramp is immediately upstream of the main ramp joining the freeway mainline and is, therefore, unsafe”* is interesting – as well as wrong. The minimum acceptable distance from successive merges is about 250 m – i.e. just beyond the completion of the first merge (320 m from the physical nose).

I would invite the IAC to view the existing eastbound on-ramp designs at Grieve Parade and Millers Road. Each has a truck bypass lane merge downstream of the ramp signals that is designed so that the trucks are forced to merge (there being no shoulders) adjacent to where general traffic has to merge into mainline traffic. Robert Morgan and I both wrote to VicRoads about that design suggesting it was a serious safety issue, but I never even received a response. To suggest that our proposal is unsafe is wrong and hypocritical. The proposed on-ramp, as redesigned, is as safe as any other on-ramp in Melbourne.

With respect to item (d), if the widening of the westbound mainline took place in the median, the proposed ramp would not require any additional widening to the south of that which is currently proposed by the Project.

Yours sincerely

O'BRIEN TRAFFIC

A handwritten signature in blue ink that reads 'Andrew O'Brien'.

Andrew O'Brien
Chairman and Director