asongroup

5 October 2018

Goodman Property Services (Aust) Pty Ltd
L17, 60 Castlreagh Street
Sydney NSW 2000

Attn: Stephanie Partridge; Development Manager

RE: Oakdale West Estate – Lenore Drive / WNSLR - Response to RMS Comments

Dear Stephanie,

I refer to the proposed development of the Oakdale West Estate and in particular the comments received – via email – from Roads and Maritime Services (RMS) on 21 September 2018. In this regard, we have reviewed the RMS comments with our response provided in Table 1 below.

Table 1: Response to RMS Comments

RMS Comment	Ason Response
The other intersections that have recently been constructed along Old Wallgrove Road were designed on the basis that most traffic is coming from the east (M7/M4) and heading back east to access the M7 and M4. So intersections were designed accordingly.	Noted.
Is a dual left into the Western North South Link Road required on traffic modelling grounds? Having dual left turns means it will be under signal control and could cause queuing in Lenore Drive and the dual left turn should cater for two 26.0m B-doubles to turn at the same time. No other intersection along Old Wallgrove Road has dual left turns other than the Mini Link Road. Preference would be to have single free flow left turn.	Dual left turn lanes were specifically requested by RMS in its previous submission, dated 22 February 2018. The intersection – as modelled – assumed signal control of left-turn movements in the 2036 arrangement when dual left turn lanes are envisaged. Under the proposed 2026 configuration, the left-turn is provided as a left-turn slip lane. The proposed 2036 arrangement is based on network flows provided by GHD; being the most current regional network volumes available-to-date. Furthermore, with reference to the submitted TIA, it is evident that additional lanes are required to provide sufficient capacity for future 2036 network volumes. With regard to dual turns by B-doubles, the following is noteworthy: ■ Dual right turns are not proposed in Lenore Drive into WNSLR in the proposed (2026) design option. Rather this requirement is introduced by RMS in its letter of 22 February and supported by the intersection modelling for 2036 scenario. ■ Austroads *Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections* typically requires opposed turns to be designed for the largest vehicle (in this case a b-double) and a car to turn concurrently. Provision for two b-doubles therefore forming a more onerous design requirement. ■ Construction of the 2036 configuration is understood to be competed by RMS as the Authority ultimately responsible for the planning and construction of the WNSLR in its final form – even if clarity regarding the future ownership and maintenance responsibilities between RMS and Council remain outstanding – such that this is largely a matter for RMS. It is expected that the 'final' intersection design may be subject to further review as part of RMS' current engagement by DP&E to complete final assessment and design of the Southern Link Road which may

RMS Comment	Ason Response
	revisit some of the 2036 land-use and/or network distribution assumptions and thus change the modelled performance of that intersection.
	▪ Lastly, it is unclear from the *Old Wallgrove Road (Roberts Road to Wallgrove Road) Eastern Creek* Review of Environmental Factors (REF) – which includes the Mini Link Road referred by RMS – whether that design caters for concurrent turns by B-doubles, as now being requested by RMS. It would be unreasonable to impose higher design standards on a private developer than RMS has recently required of itself.
Is a dual right turn from Lenore Drive required into the Western North South Link Road. Most traffic especially heavy vehicles would be coming from the east (M7 and M4). If a dual right turn is required it should cater for two 26.0m B-doubles to turn at the same time.	Again, dual right turn lanes were specifically requested by RMS in its previous submission, dated 22 February 2018. As such, they have formed the basis of 'option testing' undertaken for future year scenarios. A requirement to design for concurrent b-double turning paths is considered an onerous requirement but nevertheless could be imposed on the final design through suitable Works Authorisation Deed (WAD) conditions.
Dual right out of the Western North South Link Road into Lenore Drive should cater for two 26.0m B-doubles to turn at the same time. Signals to operate as a double diamond phasing unless otherwise agreed to by Network Operations.	Dual right turn lanes in WNSLR (turning right onto Lenore Drive, eastbound) were found to be required for intersection capacity reasons. The updated SIDRA modelling adopts double diamond signal phasing and associated dedicated lane configurations.
As the dual right turn from the Western North South Link Road into Lenore Drive will be the dominate turn movement and the amount of pedestrians is expected to be very low, it may be beneficial to remove this crossing. However approval would need to be obtained from Network Operations.	Noted. It is expected that the final design of the intersection would be subject to a WAD process where this detail could be confirmed in consultation with RMS Network Operations.
SKC092 does not provide clearance for concurrent opposed right turns (i.e. no diamond phasing), so this option would not be considered.	Noted, however it should be emphasised that SKC092 relates to existing (sub-standard) design and this issue of insufficient clearance for concurrent opposed right turns is a reason why the alternate arrangement (SKC135) is proposed. Per above, it is expected that the final intersection design and requirements for land dedication on the Fitzpatrick site – impacted by any increased intersection footprint - could be pursued as part of the WAD process. Indeed, it is expected that the WAD might be conditioned to such effect.
Design of corner islands to ensure 2.0m clearance for mast arms (NW island on SKC126 looks too small with stop line location as shown).	Noted. Per above, it is expected that the final intersection design and requirements for land dedication on the Fitzpatrick site could be pursued as part of the WAD process. Indeed, it is expected that the WAD might be conditioned to such effect.
SKC135 removes the NE left turn slip and appears to preclude its future provision. It is assumed a slip lane here would be desirable as it is the direction to the M4/M7. Are the bus jump start facilities (on SKC126 and SKC135) warranted (how often; how many)? Existing intersections west of this do not have this facility. The extra lane increases the intersection footprint, which increases both the length of pedestrian crossings and length of all-red signal time, both which reduce intersection efficiency. Further, the bus stops are on the departure of the intersection and in-lane type. When a bus has a jump start, then stops, it will delay all the traffic it just jumped in front of. This would reduce overall network efficiency.	It is understood that the intention was for the LT slip lane on the north approach to be removed as an 'interim' treatment to minimise the extent of works and footprint required, whilst facilitating provision of dedicated right turn bays so that "diamond" signal phasing could be implemented (as required by RMS above). In the longer term – per the 2036 layout – this slip lane is reintroduced. It is noted that the intersection would need to be completely reconstructed to change from the 2026 to 2036 layout in any event due to changes to number of eastbound and westbound lanes. As such, there is little opportunity for the interim (2026) works to be designed to be compatible with the future (2036) configuration.

We trust the above is of assistance and please contact the undersigned should you have any queries or require further information in relation to the above.

Yours sincerely,

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