

Updated Response to Traffic Matters raised in TfNSW Letter (dated 7/09/21)	
Matter Raised	Response
The network model shows inconsistent cycle times for each intersection. A 120 second cycle time should be used in the network model.	The SIDRA network model has been updated with a cycle time of 120 seconds used for all scenarios. An updated summary table of the SIDRA results is attached.
The network model should consider a scenario where the Rooty Hill Road South/Church Street intersection is not signalised (e.g. left-in/left-out), for the intersections that have been modelled.	A scenario where the intersection of Church Street/RHRS is not signalised (and turning movements are limited to left in/left out) has been analysed. The results are presented in the attached table. This results in additional right turning traffic at the intersection of Rooty Hill Road South (RHRS)/Goldsbro Glade, with the LOS reducing from B to C and the right turn bay on RHRS into Goldsbro Glade overflowing. We note that Council support the proposed traffic signals at the intersection of Church Street/RHRS (improves access to the existing playing fields) and that limiting turning movements to LI/LO would restrict access to the existing playing fields. The provision of traffic signals would also improve pedestrian connectivity across RHRS, between the residential area on the western side of RHRS, and Stage 3 ECQ/existing playing fields
Further clarification is requested regarding the assumptions used in the trip distribution change from 50-50 to 75-25 using Church Street versus Cable Place.	<p>Our traffic report that accompanied the SSD assumed a 50/50 split of traffic accessing Stage 3 to/from the south using Church Street and Cable Place. This was subsequently revised to 75/25 Church Street/Cable Place. The reason for changing the traffic distribution is set below:</p> <ul style="list-style-type: none"> <li>• a review found that Church Street provides more direct access to Stage 3 (along RHRS) than via Goldsbro Glade (less turns, not having to travel through a roundabout, less delays at traffic signals, less distance to travel along a lower order road);</li> <li>• the at-grade car park (which provides the most direct access to the centre) would be the most desirable car park for customers to use. The at-grade car park is more accessible from Church Street; and</li> <li>• the revised Concept Plan for Stage 3 orientates the building such that RHRS and Church Street are the primary address, meaning the Church Street access is more prominent and obvious for visitors.</li> </ul> <p><i>Note that the section of Cable Place within the ECQ development is now named Goldsbro Glade via the registered deposited plan.</i></p>

<p>It is understood that a left turn deceleration lane cannot be achieved at the Rooty Hill Road South/Church Street intersection due to environmental/historical artefact concerns. The submitted concept plan for the new traffic control signals at this intersection shows a lane being provided on this land and the need for tree removal. Confirmation is requested regarding the extent of the proposed civil works associated with the proposed traffic control signals on the land with environmental/historical artefact issues.</p>	<p>The attached plans show that provision of a separate left turn deceleration lane has a greater impact on the sensitive environmental/heritage areas on the NE corner of the intersection of RHRS/Church Street</p> <p>The area of land on the north east corner of the RHRS/Church Street intersection is environmentally sensitive and is part of the State Heritage Listing. In relation to the environmental impacts, the Environment Protection Biodiversity Conservation Act (EPBC Act) requires that proposed impacts be minimised. Likewise, the Heritage Act requires that proposed impacts in the item be minimised. The proposed traffic signals at the RHRS/Church Street intersection (without a separate left turn deceleration lane) provide an appropriate traffic outcome that minimises the environmental and heritage impacts on the land on the north east corner of the intersection.</p> <p>As per our discussion on 21/10/21 – a high angle left turn slip lane has been provided from RHRS into Church Street</p>
<p>The proposed right turn bay on Rooty Hill Road South seems too short for the estimated Stage 3 trip generation and will likely need to be extended. It is also not clear as to whether this right turn bay is adequate to cater for loading vehicle and the right turn movements.</p>	<p>The 95th percentile queue in the Saturday Midday + 10 years scenario (worst case) is 32m long. The right turn bay into Church Street is 55 metres long. This is considered adequate.</p>
<p>The Rooty Hill Road South/Minchinbury Street intersection would need to have a left-in/left-out treatment. Further information needs to be provided with regard to the redistribution of traffic as a result of this left-in/left-out treatment on the road network.</p>	<p>As per our discussion on 21/10/21, the intersection of RHRS/Minchinbury Street has been made LI/LO. Existing right turning traffic is low (at some 5 to 10 vehicles per hour in the PM peak hour). With right turning movements at Minchinbury Street are removed, alternative access is available via Penfold Street and Cawarra Street to the south.</p>
<p>The Rooty Hill Road South/St Agnes Avenue intersection would need to have a left-in/ left-out treatment.</p>	<p>As per our discussion on 21/10/21, the intersection of RHRS/St Agnes Avenue has been made LI/LO. Existing right turning traffic is low (at some 5 to 10 vehicles per hour in the PM peak hour). Alternate access to St Agnes Avenue from the north is available via Church Street, with a turning head provided just to east of the playing field access).</p>
<p>The proposed staged pedestrian crossing is not supported at the Rooty Hill Road South/Church Street intersection location.</p>	<p>As per our discussion on 21/10/21, the staged crossing has been replaced by a single crossing. The SIDRA has modelling is based on a single crossing.</p>

Adequacy of the length of the existing left turn lane from Rooty Hill Road South into the Great Western Highway.	The 95th percentile queue in the Weekday afternoon + 10 years scenario (worst case) is 75m long. The existing left turn bay onto GWH is 105 metres long. This is considered adequate.
Capacity of the dual right turn from the Great Western Highway turning right onto Rooty Hill Road South.	The 95th percentile queue in the Weekday afternoon + 10 years scenario (worst case) is 75m long in both lanes. The existing right turn bay into RHRS are 105m and 95m long. Therefore capacity of some 50m is available.
Weaving manoeuvres after the dual right turn lane from the Great Western Highway into Rooty Hill Road South, which then joins the right turn bay at the Rooty Hill Road South/Cable Place intersection.	These manoeuvres are unchanged from the original concept approval. However we note that the provision of right turn access to Church Street from RHRS would reduce this weave manoeuvre as more traffic would continue northbound on RHRS.