

10 December 2020
Ref 19516

NSW Department of Planning, Industry & Environment
4 Parramatta Square
12 Darcy Street
PARRAMATTA NSW 2150

Attn: Aditi Coomar
Aditi.coomar@planning.nsw.gov.au

Dear Aditi,

SSD-10444
PROPOSED PRESCHOOL & PRIMARY SCHOOL
1 ROSEMEAD ROAD, HORNSBY
SITE ACCESS & DRIVER VISIBILITY MATTERS

I refer to your email to Ruth O'Brien of *Planning Ingenuity* dated 2 December 2020 requesting additional information in respect of the abovementioned development proposal (SSD-10444). The following advice is provided in respect of the site access matters raised in your email.

As you're aware, the local community engaged a traffic consultant to undertake a peer review of the traffic and transport assessment report submitted with the previous (withdrawn) development application. Notwithstanding, in the context of the application history and the design of the proposed vehicular access arrangements (which remain generally consistent with the withdrawn scheme), the relevant comments raised in your email are still of relevance.

The peer review study indicates that only 26m sight distance is available for vehicles as they head west along Dural Street before taking the left-turn bend onto Rosemead Road, whilst *Austroroads* requires 42m. Extracts of their assessment are reproduced below and on the following page.



Figure 7.1
(Source: nearmap)

Design speed (km/h)	Absolute minimum values Only for specific road types and situations ⁽¹⁾ based on $d = 0.46$ ^{(2), (3)}			Desirable minimum values for most urban and rural road types based on $d = 0.36$			Desirable values for major highways and freeways based on $d = 0.26$	
	$R_T = 1.5s^{(4)}$	$R_T = 2.0s^{(4)}$	$R_T = 2.5s$	$R_T = 1.5s^{(4)}$	$R_T = 2.0s^{(4)}$	$R_T = 2.5s$	$R_T = 2.0s$	$R_T = 2.5s$
40	30	36	–	34	40	45	–	–
50	42	49	–	48	55	62	–	–
60	56	64	–	64	73	81	–	–
70	71	81	–	83	92	102	113	123
80	88	99	–	103	114	126	141	152
90	107	119	132	126	139	151	173	185
100	–	141	155	–	165	179	207	221
110	–	165	180	–	193	209	244	260
120	–	190	207	–	224	241	285	301
130	–	217	235	–	257	275	328	346

Table 7.1: Stopping sight distance for cars on sealed roads

[Source: Austroads' Guide to Road Design, Part 3: Geometric Design]

In my opinion however, the position at which the visibility check is taken from is incorrect as it is taken along the kerbline of Rosemead Road – i.e. the apex of where Dural Street meets Rosemead Road.

In reality however, a driver will be able to see earlier than the peer review suggests, as indicated in the aerial image below – i.e. a driver will be able to see a car in front of them by looking between the street trees and the front boundary fences, as is typical driver behaviour. This methodology achieves a sight distance of approximately 36m, compared to the 26m suggested in the peer review study. It is also pertinent to note that in my *multiple* site visits, there has never been any cars parked on the southern side of Rosemead Road, to the east of the proposed entry driveway, which would restrict visibility.



Furthermore, the peer review study also used a speed limit of 50km/h as the basis of their assessment. Whilst it is acknowledged that the legal speed limit of Dural Street and Rosemead Road is 50km/h, the *actual* speed of vehicles is much lower.

As detailed in the traffic and parking assessment report submitted with the DA, “tube” traffic surveys were undertaken in Rosemead Road, opposite No.4, towards the western end of the site frontage where the road is straight. The results of those surveys indicated that the 85th percentile speed of vehicles was 43km/h. As such, the speed of vehicles as they slow down to take the bend from Dural Street onto Rosemead Road would be even lower, as they would have had time to speed up by the time they drove over the “tube” counter.

The above claim is supported by an *actual* test which indicated that after 6 tests, the average vehicle speed taking the bend from Dural Street onto Rosemead Road was in the order of 32km/h.

Reference to the Austroads stopping sight distance table on the previous page indicates that for a 40km/h design speed, the sight distance requirement is 30m. As noted in the foregoing, in my opinion the available sight distance is approximately 36m, thereby exceeding the 30m requirement for a 40km/h road.

It is also worth noting that should the development be approved, it is likely that a 40km/h School Zone speed limit will be imposed in the vicinity of the site, consistent with TfNSW requirements for schools.

With respect to the pedestrian sight triangle at the site’s proposed exit driveway onto Rosemead Road, as per the AS2890.1:2004 extract below, it is noted that the front fence treatment is a timber paling fence, approximately 1m high, as per the architectural plan extract below.

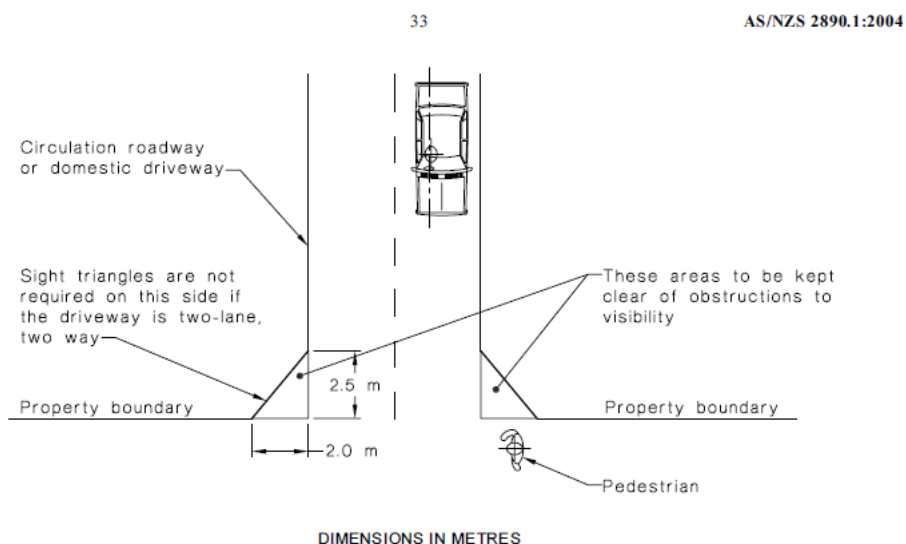
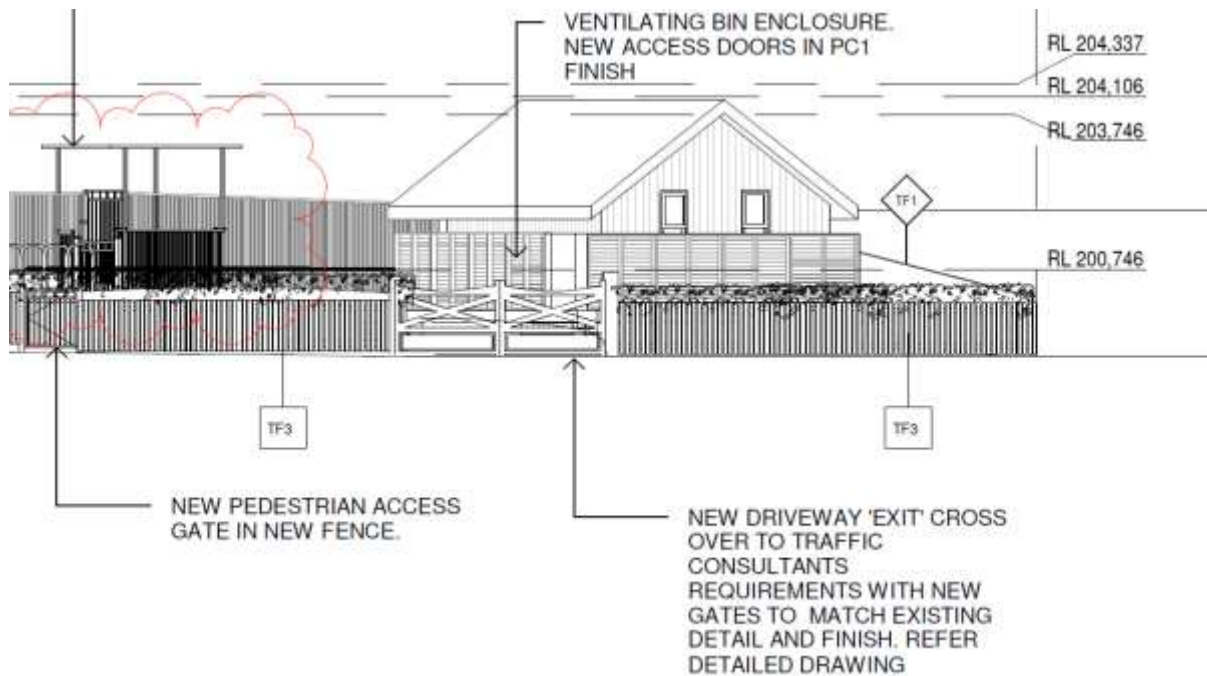


FIGURE 3.3 MINIMUM SIGHT LINES FOR PEDESTRIAN SAFETY



TF3 - TIMBER PALING FENCE APPROXIMATELY 1000MM HIGH.

DETAILING AND PICKET TOP PROFILE TO BE CONFIRMED WITH HERITAGE ARCHITECT AT THE CONSTRUCTION CERTIFICATE STAGE.



Accordingly, the proposed front fence treatment will allow sufficient intervisibility between drivers exiting the site and pedestrians walking along the frontage footpath.

Lastly, in accordance with previous advice received from Council, the entry and exit driveways will be restricted to left-in/left-out only. A driver approaching the site from William Street who then turns right onto Rosemead Road would *not* be permitted to enter the entry driveway, they would need to continue driving until they found a safe location to enable them to turn left into the site. This would likely require them to turn right onto Lisgar Road, left onto William Street, left onto Frederick Street and left onto Dural Street.

A No Right Turn sign will be installed at the entry driveway, clearly visible to vehicles driving along Rosemead Road. Similarly, a Left Turn Only sign will also be installed at the exit driveway. It is recommended that this requirement be included as part of the consent conditions, should the development be approved. Lastly, it is pertinent to note that both staff and parents will quickly become aware of the restrictions and ensure they approach and depart accordingly.

Please do not hesitate to contact me on telephone 9904 3224 should you have any enquiries.

Yours sincerely

Chris Palmer
Executive Engineer B.Eng (Civil)
Varga Traffic Planning Pty Ltd