

Our Ref: 13S1098200

21 June 2013

Karimbla Constructions Services (NSW) Pty Ltd
Level 11, 528 Kent Street
SYDNEY NSW 2000

Attention: Mr. Walter Gordon

Dear Walter,

**RE: MODIFICATIONS TO CHILD CARE CENTRE, 14-18 BOONDAH ROAD,
WARRIEWOOD**

As requested, GTA Consultants has reviewed the response by Department of Planning and Infrastructure (DP&I) following the exhibition of the above project (signed by Ben Lusher, dated 38/05/2013). The response includes the following with regard to the car park and access arrangements:

- *The Department raises concerns with the proposed layout of the car parking area. The Department requests further consideration of the design of the parking arrangement, including identification of any staff parking within the proposed parking area and a turning bay as discussed with the GTA Consultants "Traffic Impact Assessment".*
- *Additional justification is to be provided for the access arrangements off the internal road and consideration of concerns regarding the potential conflicts between vehicles entering the car parking area and residents exiting basement car parking areas.*

In addition, we have reviewed Pittwater Council's submission (16 May 2013), which includes discussion on Council's concerns regarding some aspects of the car parking/access arrangements, which are discussed below.

Car Parking Layout

The plan showing the layout of the proposed car park has been updated to reflect the changes recommended in the Traffic Impact Assessment report, including the provision of a turning bay. The turning bay would be clearly identified to discourage parking within it.

Council's submission suggests that "designated pick up and drop off points" should be provided for the centre, as the proposal requires parents/carers to enter the car park then park their car to drop off or pick up their children. It is unclear from Council's submission what is intended by a "designated pick up and drop off point" however it implies that such a facility would not require parents/carers to enter the car park nor park their car. Clearly unless two adults are in the car, all parents/carers must park their car, as all children at a long day care centre must be accompanied to and from and be signed in and out the centre by a parent/carer.

Any pick up/drop off facility outside of the proposed car park would be likely to be on-street, potentially requiring parents/carers to parallel park along the kerbline on Macpherson Street or the internal roadway. Children and parents/carers may then enter or exit the car from the

driver's side of the parked vehicle, and/or need to cross a road in order to access the centre. This would increase the safety risks to parents/carers and children compared with the proposal to separate all pick up and drop off activity from any passing traffic. It is an inherently safer arrangement to separate the movement of parents/carers and children from the movement of vehicles.

The entire car park, being separated from the public on-street parking, is effectively a pick up and drop off area for the use of the centre's parents/carers, and maximises the separation of the pedestrian movements of the children and parents/carers from passing traffic. The dimensions of the parking spaces and aisle allow for ease of use for short stay parking in which all doors of the parked car can be fully opened to assist parents/carers getting children in and out of the car. The aisle width of 6.325m exceeds the minimum required for single manoeuvre entry and exit to and from each car parking space. A pedestrian path is provided between all parking spaces and the entry door of the centre, and does not require parents/carers or children to cross the path of moving vehicles at any time.

Council's submission also suggests that the internal parking aisle is too narrow for cars to safely exit the car park without obstructing cars entering the facility, and the driveway width should be redesigned. The proposed 6.0m wide driveway minimises the crossing width for pedestrians and cyclists on the path, while maintaining sufficient width for the movement of vehicles. The aisle width and driveway width comply with or exceed the minimum requirements of the Australian Standard. Drivers of larger vehicles may need to wait to allow a vehicle to pass in the opposite direction, which is a situation which occurs in many car parks with little or no problem.

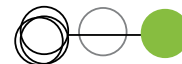
The likelihood of there being two vehicles travelling in opposing directions in the vicinity of the driveway/aisle area has been assessed in order to quantify the potential issue. As noted in the Traffic Impact Assessment report, it is likely that the car usage rates for child care centres reported by RMS would not eventuate at this centre, as it would draw a reasonable portion of its staff and children from within the centre itself, and from the nearby residential developments, all within walking distance. Based on the RMS rates, the busiest hour at the centre would be the morning peak hour, with 80 vehicle movements per hour, assumed to be 40 movements in and 40 movements out. As a conservatively high gauge of the potential for conflict, it is assumed that two vehicles could not pass at all over a distance of 15m. On this basis, the probability of there being two vehicles travelling in opposing directions within the potential conflict area is 1.3% or 1 in 78. This is a low probability, and considering the robust nature of the values used, and the likely familiarity of car park users with the layout, it is considered that there would not be any significant traffic congestion resulting from the proposed layout.

Should Council wish the driveway to be widened further, this may be achieved by reducing the width of the landscaping bays within the car park, or by widening the driveway towards the south.

Staff Parking Allocation

With regard to allocation of parking spaces to staff, it is noted that neither Pittwater Council's DCP nor the RMS's *Guide to Traffic Generating Developments* specify what portion of the required spaces would be used by staff and what portion would be used by parents/carers.

An appropriate allocation of spaces to staff has been considered with reference to the likely number of staff at the proposed centre, and by comparison with the requirements of several other Councils around northern Sydney.



Current legislation specifies the number of educators required per child, with compliance with these ratios to be achieved by 2016. In New South Wales, one educator is required for every four children aged 0 to 24 months, every five children aged over 24 months to less than 36 months, and every ten children aged 36 months or over. Based on the proposed number of children by age as shown on the architectural plans, a total of 18 educators would be required for this centre. Depending on the management of the centre, there may be a centre director and chef who may not be included in the staff numbers above, so it is estimated that the centre may have up to 20 staff.

The neighbouring Warringah LGA's DCP 2011 also does not specify allocation of parking spaces to staff, rather refers only to the total parking requirement of one space per four children based on the maximum number of children authorised at the centre. Hornsby Council's Draft DCP 2012 has the same requirement, as does Ku-ring-gai Council's DCP 43, which notes that the requirement includes staff parking, although it does not specify what portion of the total should be for staff.

Ryde City Council's DCP 2010 and Hunter's Hill Council's DCP 26 both require one car space per eight children and one space per two staff, which is equivalent to 13 general and 10 staff spaces for the proposed centre at Warriewood.

Willoughby Council requires 1 space per 10 children for long day care centres, one space for each full time staff member, one space for every two part time staff and one space for deliveries. This is equivalent to 10 general spaces, and up to 20 staff spaces depending on staffing arrangements and one delivery space.

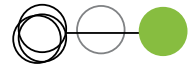
The review of other Councils' requirements indicates that there is vast variation in the number of spaces and the allocation of spaces to staff. Given the likelihood that some staff would be drawn from within the development or neighbouring developments, and the encouragement to reduce private vehicle travel, it is considered that no more than 10 spaces should be allocated to staff. Should DP&I require that staff parking spaces be allocated, it is recommended that the allocated spaces be at the southern end of the car park, closest to the driveway. This would minimise walking distances for the parents/carers and children between the parked vehicles and the entrance to the centre.

Potential Conflicts with Exiting Residential Traffic

D&PI requested that additional information be provided regarding the proposed access arrangements off the internal road and the potential conflicts between vehicles entering the car parking area and residents exiting the basement car parking areas.

The internal road provides access to the two entry/exits for the Stage 1 basement car parking, both located on the eastern side of the internal road. One residential driveway (Access 1) lies to the north of the proposed childcare driveway, and one residential driveway (Access 2) lies to the south of the proposed childcare driveway. Based on the assessment undertaken by Halcrow regarding the impacts of the then proposed deletion of the internal roadway¹, the peak hour traffic generation of the residential component of the Stage 1 development is estimated at 113 vehicle trips per hour, of which approximately 90 trips per hour would be in the peak direction, i.e. leaving the site during the morning peak hour.

¹ Letter to Walter Gordon of Meriton Apartments from Penny Dalton of Halcrow, 26 October 2011



As a gauge of the level of delay and queues which may form as a result of interaction between vehicles entering the childcare car parking (40 trips per hour) and residents exiting the basement car parking areas (90 trips per hour over two exits), the area has been analysed using SIDRA Intersection, assuming that a single four way intersection is formed between the childcare access and the northern basement car park, and that the basement car park entry/exits would each generate 90 exiting and 23 entering trips during the morning peak hour. The assessment shows that vehicles entering the childcare car park would experience an average delay of 0.4 seconds per vehicle, with a 95th percentile queue of 0.3 vehicles. Vehicles exiting the northern basement car park would experience an average delay of 2.3 seconds per vehicle, with a 95th percentile queue of 0.6 vehicles. Thus, delays associated with the movement of vehicles would be negligible. Considering that the northern basement access is offset from the childcare access, it is also improbable that a queue of vehicles waiting to turn into the childcare centre would form on the internal road which would delay residential vehicles waiting to exit the northern driveway of the basement car park.

Vehicles would be limited to low speeds on the internal road, and sight distances between the basement car park accesses and the childcare access are good. The potential for conflict is therefore considered to be low.

Conclusions

This review has found that the issues raised by DP&I and Pittwater Council regarding the car parking layout do not warrant redesign of the proposed development.

- The car parking arrangements minimise the potential for conflict between parents/carers/children and vehicles through separation of the childcare car parking from passing traffic and design for ease of use by proposed users.
- The potential for conflict at the childcare driveway and aisle is very low, and would not result in any significant traffic congestion.
- Should parking spaces be allocated to staff, it is recommended that no more than 10 spaces be allocated, and that these be the spaces farthest from the childcare centre's entry doors.
- The potential for conflict and congestion due to the layout of the childcare access and residential basement accesses is very low, and delays and queues in the area would be negligible.

Naturally, should you have any questions or require any further information, please do not hesitate to contact me in our Sydney office on (02) 8448 1800.

Yours sincerely

GTA CONSULTANTS

Penny Dalton
Associate