Traffic Engineer Referral Response

Application Number:	DA2023/1289
Proposed Development:	Demolition works and construction of Shop Top Housing
Date:	10/01/2024
Responsible Officer	
Land to be developed (Address):	Lot 21 DP 571298 , 1112 - 1116 Barrenjoey Road PALM BEACH NSW 2108

Officer comments

Proposal description: Shop top housing at 1112-1116 Barrenjoey Road, Palm Beach

The traffic team has reviewed the following documents:

· Plans (Master Set) – Revision C, designed by Koichi Takada Architects, dated 24/08/2023,

· Traffic and Parking Assessment Report, prepared by Varga Traffic Planning, dated 29/08/2023,

· The *Statement of Environmental Effects* prepared by BBF Town Planners, dated September 2023.

Parking requirement and design:

· The Pittwater DCP applies to the subject site. The DCP provides parking rates for this type of land use and the parking spaces should be provided in accordance with the DCP requirements. According to the DCP, a total of approximately 29 spaces should be provided, allocated as:

Residential uses: 14 spaces @ 2 spaces per apartment

Residential visitor spaces: 2 spaces @ 1 space per 3 apartments

Retails uses: 14 spaces (including 1 accessible parking and a loading zone).

· The provision of 14 car parking spaces to the residents and 2 visitor spaces satisfy the council DCP for residential uses. However, the provision of a total of 7 spaces (6 retail spaces and 1 retail service bay) for retail uses results in a shortfall of 7 spaces. The developer has proposed that the shortfall in retail spaces be addressed by using the available council car park, located opposite the site. The use of council car park to offset a shortfall in retail parking is not supported as this car park is heavily utilized with vacant parking spaces, particularly on weekends difficult to find. Hence, retail spaces in full compliance with DCP parking rates should be provided.

· A minimum of 1 accessible parking should be provided in accordance with the DCP for both the commercial and residential uses which requires 3% of parking requirement for retail and residential uses to be accessible or a minimum of 1 space for each.

· The architectural plans show retail spaces as tandem spaces. It should be noted that the use of tandem spaces for retail/commercial parking is not favoured with such spaces generally only supported one a limited basis for use by residents of the same unit. Each tandem space pair should be reallocated for use by a the same residential unit.

· The architectural plans show a total of 6 bicycle spaces in a bike storage area at ground floor. The DCP requires 2-3 spaces for residential use and a minimum of 4 spaces for the retail uses. The 6 spaces are considered satisfactory however access to these spaces is constrained requiring cyclists to negotiate several hinged doorways. Open doorways or sliding door would be preferable.

· The car spaces should be designed in accordance with AS 2890.1 and their dimensions should be annotated on the plans.

· A section plan should be provided showing a minimum of 2.2m headroom clearance in the car park under the ramp. A section plan should also be provided for the height clearance of the ramp.

Access Driveway

· The driveway is located at the southern end of the site, where it impacts upon the existing bus stop and shelter. While this is not opposed it will result in a need for relocation of the bus shelter and potentially adjustment to the location of the existing bus stop and Bus Zone signage. These works will need to take place at full cost to the applicant. The relocated bus shelter should be sited as near as possible to its existing location potentially just north of the proposed driveway but it shall remain on the frontage of development site. A concept location for relocation of the shelter to be shown on plans. kerbside trees may be impacted by an relocation of the bus shelter and these should be plotted to demonstrate the impact of the works

· The driveway is measured to be approximately 6.4m wide including 300mm kerb on both sides. The two-way driveway width is extended for a minimum of 6.7m length. These dimensions must be confirmed and annotated on plans.

· All the RL and grades along the full length of the vehicle access ramp should be annotated on plans. In addition, a long section of the ramp showing no vehicle scraping occurring between the road and basement parking level, must be provided.

· There is a small portion of circular ramp, the outer kerb of this circular ramp should be min 500mm as per AS2890.1-2004.

· The vehicle crossover details are not shown on the plans. Separate approval for the proposed crossover will be required from TfNSW with details to be marked on plans. Entering vehicle swept paths for B85 passing B99 vehicles into the vehicle crossing should be plotted.

· The traffic report (Page 17) mentions that the vehicular movements will be controlled by a traffic light signal system assisted by a waiting bay and convex mirrors. However, no waiting bay is marked on plans, neither are convex mirrors shown. The plans should be amended to show traffic signal displays at both top and bottom of the ramp with convex mirrors also shown as a back up and at locations within the basement carpark where sightlines are constrained. Waiting bays at top and bottom of the ramp should also be marked with plots of a B99 vehicle passing a waiting B85 and forwards ingress and egress from those bays by a B85 plotted.

· The ramp to the basement carpark is curved and of a width that can only accommodate one vehicle over most of its length of approximately 25m. There is concern that despite traffic signal control, two vehicles may encounter each other on the ramp. To address this concern, a queuing

analysis should be presented to demonstrate the likelihood of two vehicles meeting each other on the ramp. This is to be presented in an updated traffic report.

· The intercom & security card swipe is shown on right hand side as a vehicle enters the ramp, this means entering vehicles would be driving on the right to open the security door, resulting in a potential for conflict with an exiting vehicle driving to the left. The swipe point should be moved to a central pillar.

Vehicle swept paths

· The traffic report provides a swept path for B85 passing B99 at the top and bottom of the ramp. However, it is not a continuous swept path. The entering B85 vehicle does not start at the same point where it stops while giving way to the exiting vehicle. This suggests there may be conflict between entering and exiting vehicles at the top of the ramp. Modifications to the design should be made to allow for the propped entering vehicle to continue on its same path of travel to enter the carpark or, alternatively revised swept paths provided to demonstrate a continuous path of travel between kerbside and the basement carpark. Also, the swept path at the basement on page 23 of 43 seems to have "turn wheel from stop turned on" rather than a continuous path of travel to demonstrate passing of B85 & B99, which is not acceptable. An updated single movement swept path should be provided as per AS 2890.1 not reliant upon maneouvring from a stopped position.

· Swept paths should be provided for all the critical spaces such as residential space no. 1, residential space no. 6, retail space no. 19 and residential space no. 23.

Loading/Servicing

· The traffic report advises that all loading and servicing will be undertaken by courier vans and utilities and the like. In practice this is not expected to be the case. It is noted that the basement appears to have a roof level that could accommodate access by a Small Rigid Vehicle (requiring 3.5m clearance and parking space dimensions of 3.5m x 6.4m). No mention is made of the loading activities associated with removalist vehicles for the residential component which as a minimum would require use of a small rigid vehicle. The DCP requires adequate space for delivery vehicles be provided. The single shared retail/service bay sized to accommodate only standard passenger vehicles is considered inadequate. It should be sized at a minimum to accommodate a small rigid vehicle A dedicated SRV space should be provided with a swept path and clearance plots of the largest vehicle entering and exiting the subject site in a forward direction. As the property frontage is signposted as Bus Zone and No Stopping, there is no capacity for delivery vehicles to be accommodated at kerbside hence it is essential that they be accommodated offstreet.

Sight Distance

· The architectural plan shows 2m x 2.5m sight triangles at the boundary in accordance with AS 2890.1. A note saying “Sight triangles to be clear of landscaping or any obstruction higher than 900mm” should be provided on the plans.

Traffic Generation Impact

· The traffic report estimates the proposed development will generate around 12.4 peak hour vehicle movements based upon rates in the RMS guide to traffic generating development. This is not disputed. Some reduction in the generated traffic to account for previous small retail tenancies on the land is considered reasonable with net generated traffic from the site, as a result, below 10 vehicles per hour in peak periods and unlikely to have a noticeable impact upon road network conditions on Barrenjoey Road.

Conclusion
Given the concerns outlined above with regard to inadequate levels of offstreet parking, lack of detail regarding bus shelter relocation, absence of vehicle crossing details, insufficient detail regarding swept paths, insufficient detail regarding traffic signal displays/convex mirrors/waiting bays, unacceptable location for vehicle swipe card/intercom and inadequate offstreet loading/servicing bay, the development cannot be supported at this time.

The proposal is therefore unsupported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

Recommended Traffic Engineer Conditions:

Nil.