

Item	Traffic Engineer Referral Letter dated 11/09/2019	Response Notes from Relevant Consultant									
1	<p>Parking</p> <p>3 x One Bed apartments = 1.8 spaces 26 x Two Bed apartments = 26 spaces 12 x Three Bed apartments = 24 spaces Subtotal: 52 spaces Visitors (41 apartments) = 7 spaces Total: 59 spaces</p> <p>The applicant is providing 57 parking spaces and 29 bicycle spaces. This comprises a shortfall of 2 vehicle spaces. All parking provisions are to be accommodated onsite. The shortfall of 2 spaces is unacceptable as the parking demand in the area is high and will not support the shortfall.</p> <p>Visitor parking spaces must be denoted on the plans</p>	<p>We understand from our last meeting that this matter was now resolved.</p>									
2	<p>Access</p> <p>Concern is raised that the Accessible parking spaces are not designed to AS2890.1. They should be 2.4m wide and have a 2.4m shared space adjoining them. The plans indicate a shared space of less than 2.4m. The shared spaces should also be protected with a bollard as required by AS2890.6 section 2.2.1(e)</p> <p>The Shared Area adjacent to basement level space 12 is sited in a parking aisle. This is unacceptable and will expose disabled drivers to potential injury from circulating/reversing traffic. AS 2890.6 Fig 2.4 requires the shared area to be sited on the side of the space that is furthest from the parking aisle.</p>	<p>DDA Response(ABS Access): These are adaptable unit parking spaces not accessible parking spaces. The requirement isn't for a 2.4m shared zone as stated in AS2890 but for a 3.8m wide space as stated in AS4299 for Adaptable Housing. The Manly DCP also states for a 3.8m wide space.</p> <p>AS2890 (1.3.2) clearly stated that an aisle can be used as a shared zone. In fact spaces also have a shared zone at the rear (which is the most common transfer method) that is always in a shared zone.</p> <p>ATTACHMENT 1: ABS Response dated 13 September 2019.</p>									
3	<p>2 of the bike racks are located alongside the driving aisle (adjacent to space 7) and are deemed exposed to safety risk of a car hitting the user and/or parked bikes.</p>	<p>Architect Response (Wolski Coppin): 2 bike racks relocated/added to the 2 racks adjacent to the lift= 4 total in this area.</p> <p>ATTACHMENT: Revised Architecture Plans DA01 & DA02 (Revision C dated 09 October 2019).</p>									
4	<p>Space 12 is deemed unsafe and completely exposed, further impacting on available widths within the basement carpark aisles.</p>	<p>Traffic Engineer Response (TTPA): No. 12 is entirely compliant with AS2890.1 being located adjacent to a 3.0m wide aisle (this is further demonstrated by turning path assessment)</p> <p>ATTACHMENT 3: Traffic Response (by TTPA) dated 06 October 2019.</p>									
5	<p>There is no waiting bay for vehicles waiting to access the turntable on the basement level. Vehicles must be able to wait in a location which does not obstruct use of other spaces or access along the parking aisle. The turntable must be designed for safe forward in and forward out access using AS 2890.1:2004 (Off-street car parking) B99 vehicle. Plans showing the swept path of a B99 vehicle entering and exiting parking spaces 7,8 15,16 from the turntable in a forward direction using the waiting bay, and exiting the parking spaces in a forward direction using the turntable (and passing the occupied waiting bay) shall be provided. Independent egress from spaces 9 & 10 using the turntable and passing the occupied waiting bay shall also be demonstrated.</p>	<p>Architect Response (Wolski Coppin): turntable amended to 4500 diameter, waiting bay added at bottom of the ramp basement level and inside the roller shutter on ground floor. Traffic signals also indicated.</p> <p>ATTACHMENT: Revised Architecture Plans DA01 & DA02 (Revision C dated 09 October 2019).</p> <p>Traffic Engineer Response (TTPA): Because of the very low level of traffic movement in the vicinity of the turntable (maximum 1-2 vtpH in peak periods) any concurrent movements would be extremely infrequent. Entering cars will drive straight onto the turntable which will be operated by driver "remote control" to a position where the driver will simply reverse into the parking space.</p> <p>The period of time taken for this manoeuvre will be very little more than that taken to drive in and reverse directly into the space particularly as the turntable will align the car with the centre line of the space and avoid any 3-point turns which are often required with a 5.8m wide aisle. There will not be any delay or obstruction to other cars anymore than would occur with a car entering or departing a space in the normal way and there is no need for a designated "waiting bay".</p> <p>ATTACHMENT 3: Traffic Response (by TTPA) dated 06 October 2019.</p>									
6	<p>Swept path plots showing a B99 vehicle circulating up and down throughout the carpark aisles and ramps shall be provided.</p>	<p>ATTACHMENT 3: Traffic Response (by TTPA) dated 06 October 2019. Response includes revised swept paths.</p>									
7	<p>Whistler Street is in a high pedestrian activity area and it is therefore important that there is good sight distance to pedestrians using the footpath. The plans do not provide for this and the use of a traffic safety mirror to overcome this shortcoming is considered substandard. Sight line triangles consistent with the requirements of AS2890.1 section 3.2.4 and Fig 3.3 shall be provided.</p>	<p>Traffic Engineer Response (TTPA): This carpark will be used solely by residents familiar with the circumstances. The AS2890.1 Section 3.4 requirement for a sight triangle makes no qualification between a single dwelling and a 2000 space retail carpark. It is proposed to:</p> <p>a. Provide a small elevated/angled mirror at the boundary to enable egressing drivers to sight pedestrians approaching from the north along the footpath b. Provide STOP instructions for exiting drivers at the boundary.</p> <p>There are many developments which have been approved in Manly Town Centre with these provisions. The provision of a 2.0m x 2.5m sight triangle on the boundary at this location is considered to be a very poor urban design outcome.</p> <p>ATTACHMENT 3: Traffic Response (by TTPA) dated 06 October 2019.</p>									
8	<p>The Traffic impact assessment report has sought to justify the use of a single lane two way ramp between the ground floor and basement level parking spaces by reference to section 3.2.2 of AS2890.1. That part of the standard relates to widths of access driveways where they connect to a public road. The width of the ramp linking the two carpark levels should be determined by reference to table 2.2 which would require the ramp to be no less than 5.5m in width for two way operation. The provision of a single lane ramp with convex mirrors as indicated on the plans is considered substandard.</p>	<p>Traffic Engineer Response (TTPA): AS2890.1 Section 3.2.2 permits a 3.0m wide driveway connection to a collector road if the traffic generation of a site is less than 30 vtpH. The projected peak traffic generation of the proposed development of 0.29 vtpH per apartment equates to 12 vtpH (10 in the peak direction and 2 in the non-peak direction). The distribution of the internal movements will be as shown in the attached diagram where it can be seen that the movements on the connecting ramp during the 1 hour AM and PM peak periods will be:</p> <div><table><tr><td></td><td>AM</td><td>PM</td></tr><tr><td>IN</td><td>1</td><td>6</td></tr><tr><td>OUT</td><td>6</td><td>1</td></tr></table></div> <p>Thus, the peak conflict on the ramp will be 1 vt per hour and 7 vt per hour in total, therefore, it is quite apparent that:</p> <p>a. The now proposed traffic signal separation of the extremely low order of vehicle movements will quite satisfactorily provide controlled separation b. There will not be any queuing within the carpark c. The single lane ramp (which is not unusual in a low volume traffic circumstance) will be quite satisfactory when the projected peak traffic movement will be less than 25% of the maximum criteria specified in AS2890.1.</p> <p>ATTACHMENT 3: Traffic Response (by TTPA) dated 06 October 2019.</p>		AM	PM	IN	1	6	OUT	6	1
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IN	1	6									
OUT	6	1									
9	<p>The parking areas on the ground floor and basement level are poorly dimensioned. All aisles widths and parking bay widths and lengths must be shown including for small car and disabled parking bays.</p>	<p>Architect Response (Wolski Coppin): Carparking levels basement and ground have been dimensioned.</p> <p>ATTACHMENT: Revised Architecture Plans DA01 & DA02 (Revision C dated 09 October 2019).</p>									
10	<p>Space 7 (ground floor) and space 12 (basement) are too short. As these spaces are obstructed at both ends they must be no less than 6.5m in length (AS 2890.1 Fig 2.3 note 3)</p>	<p>Architect Response (Wolski Coppin): columns have been relocated on basement & ground to accommodate the 6.5m length.</p> <p>ATTACHMENT: Revised Architecture Plans DA01 & DA02 (Revision C dated 09 October 2019).</p>									
11	<p>Stacked parking spaces are to be allocated to a single unit.</p>	<p>Noted.</p>									