

## Engineering Referral Response

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| <b>Application Number:</b>             | DA2019/0263   |
| <b>To:</b>                             | Rebecca Englund   |
| <b>Land to be developed (Address):</b> | Lot 3 DP 1115877 , 53 B Warriewood Road WARRIEWOOD NSW 2102<br>Lot 3 DP 942319 , 53 Warriewood Road WARRIEWOOD NSW 2102 |

### Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m<sup>2</sup> or
- Alterations to existing or new driveways or
- Where proposals affect or are adjacent to Council drainage infrastructure incl. watercourses and drainage channels or
- Torrens, Stratum and Community Title Subdivisions or
- All new Commercial and Industrial and RFB Development with the exception of signage or
- Works/uses in flood affected areas

And as such, Council's development engineers are required to consider the likely impacts on drainage regimes.

### Officer comments

#### Development Engineering comments 10/7/19

#### Stormwater drainage comments reconstruction of Councils drainage line.

- 1) The Lintel width of Pit 2-1 is to be increased in size to 3m .
- 2) The dogleg in the Council drainage line is to be removed between Pits 2-7 and Pit 2-9 and pipe realigned so the line and any future easement over the line is parallel to the side boundary.
- 3) An overland flow is to be provided above the Council stormwater line from Lorikeet Grove to the head wall in Narrabeen creek. This is to cater for any pit or pipe blockages.
- 4) The proposed butterfly pit in the existing Lorikeet Grove road pavement is to be removed and replaced with an offset inlet pit,. This pit is to be installed 1 m clear of the proposed Pheasant Place vehicle access.

### General comments.

- 5) The access driveway to the GPT is to be widened to allow a service vehicle to park

adjacent to the GPT.

- 6) The proposed vehicle crossing to Lot 17 is to be removed and access to be via driveway No1.

### **Traffic Network Comments proposed road design.**

#### **Warriewood Road**

- The frontage to Warriewood Road requires a half road construction.
- Kerb and Guttering (vertical faced kerb only will be permitted) with the face of the kerb located 10.9m from face of existing kerb on the northern side.
- Plans need to show a cross-section where the centreline of the road is located 5.1m from the existing kerb on the northern side, as well as a proposed 3.7m traffic lane, and 2.1m indented parking bay.
- As the traffic lane is 3.7m which is reduced from the required 4.2m for a sub-arterial road, the shared path is to be increased to 2.5m shared path and is to be located directly adjacent to kerb and fully within the Public Road Reserve.
- Shared driveways should be considered to maximise on-street parking, within the indented parking bay

The approved conditions for N0330/14 - 53c Warriewood Road, required indented parking bays on Warriewood Road and a 2.5m wide shared path.

#### **Pheasant Place**

The latest version of the WVRMP requires an access road to be 7.5m wide which allows parking on both sides of the road, a 1.5m wide footpath, and a road reserve width of 12.5m.

The adjacent development at 53c Warriewood Road was approved with a 7.2m road reserve, which incorporates a 6m wide road and 1.2m footpath.

Note that the approved plans for 53c show that the entire kerb lies within the labelled carriageway so the effective road width would be 5.7m. The carriageway is the distance between kerb faces.

A total road reserve width of 10m is proposed for this development with the required 1.5m road widening and 1.2m footpath accommodated within the remaining 2.8m road reserve.

The 1.5m footpath is required, as approved conditions in N0330/14 - 53c Warriewood Road, specify that the 1.2m footpath provided on the eastern side will be removed and reinstated with turf when the internal road and footpath in 53, 53A, and 53B has been completed.

If the portion of Pheasant Place for 53c was constructed according to the plans, and a 6m wide road is to be provided between kerbs, the remaining area for the footpath would be 1m.

Services are to be contained within the road reserve which would be restricted by the proposal.

Shared driveways should be considered to maximise on-street parking. Based on the swept paths provided this should be considered for Lot 10 and 11 to allow better access for waste collection vehicles approaching the turning area.

It is noted that some on-street parking will need to be removed and parking restrictions would be required.

### **Waste Vehicle Access**

The turning area in Pheasant Place must be designed to cater for safe movements by a waste collection vehicle minimum 9.7m in length, to accommodate the existing vehicle type for all turning movements.

Turning path No 01 details the Pheasant Place kerb to kerb width of 7.2m which is not consistent with the Cross section B. No parking is to be also detailed within the affected Garbage Truck turn path area.

The current proposal therefore cannot be supported due to the issues raised regarding the road design in accordance with the WVRMP. Any changes to accommodate additional widths would more than likely impact other areas of the development.

### **Previous comments**

The stormwater drainage plans which detail the provision of treatment of upstream catchment flows, site storm water drainage and the provision of on site stormwater detention are not supported for the following reasons;

- It appears that the proposed kerb alignment within Warriewood Road does not match into the existing. An appropriately designed kerb transition should be provided and extend past the temporary accessway. The v- grate Pit 2/2 is to be deleted and upgraded to a letter box type pit and consideration should be given to inlet capacity and blockage factor.
- Stormwater flows within Warriewood Road that bypass existing Pit 2/1 are considered unsafe and a hazard to both pedestrians and vehicles. Accordingly the upstream pipe flows up to the 1 in 100 year ARI event are to be piped across Warriewood Road to an upgraded downstream drainage system between ( Pit 2/1 and 2/10), to reduce flows in Warriewood Road to safe levels. Additionally bolt down lids are not to be installed and the system is to feature grated inlet pits for future council maintenance and inspections.
- It is considered that the proposed retaining wall on the western boundary of the site may impede upstream overland sheet flows.
- The proposed surrogate sag within the Lorikeet Grove extension is considered unsatisfactory. The existing sag within Lorikeet Grove should be maintained and the proposed road drainage within Lorikeet Grove redesigned/regraded to suit.
- The existing sag pit on the northern side of Lorikeet Grove is proposed to be modified to a butterfly grate. This impact has not been considered or modelled with respect to inlet capacity or blockage factor.
- The access to the proposed GPT conflicts with the lintel for proposed Pit 1/16. The access should be amended to be a minimum 1m clear of any stormwater lintel.
- Section C of the proposed Basin indicates that a 30mm freeboard is proposed over the emergency weir, which is considered inadequate.  
.The proposed ungraded Council stormwater line (refer to section A) needs to be a minimum of 1m from any proposed retaining wall footings . Easements widths are to comply with Councils DCP.

### **Referral Body Recommendation**

Recommended for refusal

### **Refusal comments**

### **Recommended Engineering Conditions:**

Nil.