

Engineering Referral Response

Application Number:	DA2022/0742
Date:	10/10/2022
To:	Luke Zajac
Land to be developed (Address):	Lot 2 DP 25969 , 78 Chisholm Avenue AVALON BEACH NSW 2107

Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m2 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

The proposal is for the alterations and additions to the existing dwelling.

Stormwater

The submitted stormwater plan is not satisfactory. The site falls to the rear and the method of stormwater discharge shall be in accordance with Clause 5.5.1.2 of Council's Water Management for Development Policy. All stages of the Clause are to be addressed.

The stormwater plan proposes to discharge via a level spreader however no supporting calculations have been provided. Additional information required for assessment are:

- It is unclear if the option of an easement has been investigated in accordance with Stage 1 of Clauses 5.5.1.2. Where an interallotment easement is not viable, a refusal of easement must be provided.
- If the stormwater discharge is proposed via a level spreader the design shall be in accordance with Appendix 4.
- Stormwater flows from the whole site are to be restricted for all storm events up to and including the 1% AEP storm event.
- Total site discharge including bypass flows and controlled flows through the level spreader must not exceed the 20% AEP state of nature storm event for all storms.
- A catchment plan shall be provided showing bypass areas and the areas draining to the OSD system.
- Calculations shall be shown on plan including:

-Predeveloped and post developed impervious areas

- Predeveloped flows for the 1%, 5%, 20% AEP storm events
 - Post developed flows for the 1%, 5%, 20% AEP storm events. The discharge from the OSD and the bypass flows are to be shown.
- Concurrence shall be provided from the geotechnical engineer for the proposed method of discharge via a level spreader.

Additional Information Received on 10/10/2022

The amended stormwater plan proposes an OSD system for the developed areas and the undeveloped areas to the rear are not included in the calculations. The proposed OSD volume is unsatisfactory.

There appears to be an error in the tabulated flows as the total flows and the discharge from the OSD do not match and the total flow for the 5% AEP storm is higher than the 1% AEP storm. The drains model shown does not have an overflow component. Based on the area discharging to the OSD system it is unlikely that a volume 3.75m^3 is sufficient to control the discharge without overflow.

The applicant shall provide amended plans with an appropriately sized OSD system to control the flows through the level spreader such that the flows do not exceed the 20% AEP state of nature storm event for all storms. The calculations are to include flows from the OSD, bypass flows and total flows from the level spreader. The existing flows from the undeveloped area to the rear are to be included.

The proposal is therefore unsupported.

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

Recommended Engineering Conditions:

Nil.