

Engineering Referral Response

Application Number:	DA2023/0313
Proposed Development:	Construction of a dwelling house including swimming pool
Date:	07/07/2023
To:	Dean Pattalis
Land to be developed (Address):	Lot 29 DP 23447 , 67 Woolgoolga Street NORTH BALGOWLAH NSW 2093

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 construction of a new dwelling.

The site falls to the rear and as such stormwater design shall be in accordance with Section 5.5 of Council's Water Management for Development Policy. Easement refusal letters have been submitted.

The submitted stormwater plan proposing an OSD system discharging via a level spreader is unsatisfactory. The issues to be addressed are:

- The OSD tanks are located in an enclosed space which is not acceptable. The OSD system shall have 24/7 access for ventilation and maintenance purposes. The tanks must not be located under habitable areas.
- It is unclear if the bypass area of 306.95m² has been included in the discharge calculations. The design of the level spreader must be in accordance with Appendix 4. Total discharge including bypass flows and controlled flows through the level spreader must not exceed the 20% AEP state of nature storm event. The plans are to be amended to clearly show discharge flows from level spreader as well as bypass areas.
- Drains model shall be provided for assessment.

Additional Information Provided on 7/6/2023

The amended stormwater plan and Model have been reviewed. The amended stormwater plans are unsatisfactory. The OSD tank has been relocated to to the front of the site and hence a majority of the site bypasses. Based on the Site Areas plan 285m² bypasses and an area 213m² is left out of the

calculations which totals an area of approximately 500m². The flows from this area far exceeds the PSD of 23l/s previously calculated which is not acceptable. The proposed volume of OSD is not sufficient.

The plans are to be amended as follows:

- The OSD tank is to be relocated to the rear of the property, recommended under the pool deck.
- All pervious and impervious areas upstream of the OSD tank shall be directed to the tank.
- Areas downstream of the tank can be considered as bypass.
- Previously calculated PSD of 23l/s is accepted.
- All flows including bypass flows and from the OSD shall be limited to the PSD for all storms.

The Drains model shall be updated to:

- include preburst rainfall data
- correct values for depression storages
- the bypass is to be modelled separately to the OSD system.
- The overflow from the OSD tank is to be included.

Amended plans and model are to be submitted for further assessment.

Additional Information Provided on 23/6/2023

The amended model and plans have been reviewed. Amendments required are as follows:

- The control pit is to be deleted. The orifice is to be located within the OSD tank
- The surface inlet pit north of the pool is to be connected to the OSD tank
- Overflow pipe to be located above the TWL
- The catchment plan to be amended to suit

The Drains model shall be updated to:

- the bypass is to be modelled separately to the OSD system.
- The overflow from the OSD tank is to be included.

Amended plans and model are to be submitted for further assessment.

Additional Information Provided on 5/7/2023

The amended model and plans have been reviewed. No objections to approval subject to conditions as recommended.

The proposal is therefore supported.

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

Recommended Engineering Conditions:

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION

CERTIFICATE

On-Site Stormwater Detention Details

The Applicant is to provide a certification of drainage plans detailing the provision of on-site stormwater detention in accordance with Northern Beaches Council's Water Management for Development Policy, and generally in accordance with the concept drainage plans prepared by Stellen Consulting, drawing number DR-000, DR-001, DR-003, DR-004, DR-005, DR-006, revision 3, dated 5/7/2023. Detailed drainage plans are to be prepared by a suitably qualified Civil Engineer, who has membership to Engineers Australia, National Engineers Register (NER) or Professionals Australia (RPENG) and registered in the General Area of Practice for civil engineering.

The drainage plans must address the following:

- i. Level spreader system to be designed in accordance with Appendix 4.
- ii. The level spreader should not be located within three meters of the side or rear boundary
- iii. Level spreader to be located parallel to the contours

Detailed drainage plans, including engineering certification, are to be submitted to the Certifier for approval prior to the issue of the Construction Certificate.

Reason: To ensure appropriate provision for disposal and stormwater management arising from development.

Vehicle Crossings Application

The Applicant is to submit an application with Council for driveway levels to construct one vehicle crossing 3.0 metres wide in accordance with Northern Beaches Council Standard Drawing Normal in accordance with Section 138 of the Roads Act 1993.

Note, driveways are to be in plain concrete only.

The fee associated with the assessment and approval of the application is to be in accordance with Council's Fee and Charges.

A Council approval is to be submitted to the Certifier prior to the issue of the Construction Certificate.

Reason: To facilitate suitable vehicular access to private property.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Road Reserve

The applicant shall ensure the public footways and roadways adjacent to the site are maintained in a safe condition at all times during the course of the work.

Reason: Public safety.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Positive Covenant and Restriction as to User for On-site Stormwater Disposal Structures

The Applicant shall lodge the Legal Documents Authorisation Application with the original completed request forms (NSW Land Registry standard forms 13PC and/or 13RPA) to Council and a copy of the Works-as-Executed plan (details overdrawn on a copy of the approved drainage plan), hydraulic engineers' certification.

The Applicant shall create on the Title a restriction on the use of land and a positive covenant in respect to the ongoing maintenance and restriction of the on-site stormwater disposal structures within this development consent. The terms of the positive covenant and restriction are to be prepared to Council's standard requirements at the applicant's expense and endorsed by Northern Beaches Council's delegate prior to lodgement with the NSW Land Registry Services. Northern Beaches Council shall be nominated as the party to release, vary or modify such covenant. A copy of the certificate of title demonstrating the creation of the positive covenant and restriction for on-site storm water detention as to user is to be submitted.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of an Occupation Certificate.

Reason: To ensure the on-site stormwater disposal system is maintained to an appropriate operational standard.