

Engineering Referral Response

Application Number:	DA2023/0689
Proposed Development:	Demolition works and construction of a dwelling house
Date:	28/08/2023
To:	Stephanie Gelder
Land to be developed (Address):	Lot 10 DP 9561 , 7 New Street BALGOWLAH HEIGHTS 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 is in Region 3, Zone 1 and as such OSD is required in accordance with Section 9.3.3.2 of Council's Water Management for Development Policy.

The submitted stormwater plan proposes discharge to the kerb via an OSD system. However, the proposed OSD volume appears low. Additional information required for assessment is as follows:

- Drains model
- Amended plans to show predeveloped and post developed flows including flows from the OSD system and bypass flows.

Additional Information Provided on 26/7/2023

A OSD design that only complies with Section 9.3.3.2.1 is not sufficient and the proposed volume of OSD is not adequate. The design of the OSD system must be in accordance with Section 9.3.3.2. Critical storm events are to be considered in accordance with Section 9.3.3.2.2. PSD shall be determined in accordance with Section 9.3.3.2.3 and Site storage requirements are to comply with Section 9.3.3.2.4.

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

Additional Information Provided on 18/8/2023

The amended stormwater plans and model have been reviewed.

Comments regarding the model are as follows:

- In the ILSAX model the depression storages are not set correctly . Paved is set as 2mm. It should be set as 1mm. Grasses is set as 50mm. it should be 5mm.
- 2019 ARI rainfall data should be used for the model.
- Tc for the grassed areas is set too low. Please refer to tables in the Water Management for Development Policy. Council's review suggests a Tc of approximately 14 -15 mins.
- A predeveloped flow of 30 L/s is too high. Council's review suggests a PSD of approximately 17 L/s.
- The bypass area is too large. More of the site should be captured within the OSD system.
- Subsequently the proposed OSD volume is not sufficient.
- The plans are to show details of all flows including bypass flows.

Please provide amended plans and model for further assessment.

Additional Information Provided on 24/8/2023

The amended stormwater 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 ACOR Consultants, project number CC230039, drawing number C1, C2, C3, C7, dated 24/8/2023. 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. OSD shall be provided in accordance with Section 9.3.3.2. of Council's Water Management for Development Policy.
- ii. PSD shall be determined in accordance with Section 9.3.3.2.3.

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

Vehicle Crossings Application

The Applicant is to submit an application with Council for driveway levels to construct one vehicle crossing 3.5 metres wide in accordance with Northern Beaches Council Standard Drawing Normal High 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), and Civil 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.