

Engineering Referral Response

| | |
|---------------------------------|---|
| Application Number: | DA2021/2582 |
| Date: | 08/09/2022 |
| To: | Julie Edwards |
| Land to be developed (Address): | Lot 106 DP 17189 , 58 Whale Beach Road 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 alterations to the existing dwelling and the construction of a secondary dwelling at the rear.

Stormwater

The stormwater plan submitted proposed to connect the additions and the secondary dwelling to the existing system to the street gutter. However there are no visible points of discharge along the street frontage and as the site falls to the rear it is unclear how the site stormwater is discharged.

Hence the applicant shall submit a stormwater management plan detailing the discharge of stormwater from the proposed development in accordance with Clause 5.5 of Council's Water Management for Development Policy. All stages of the Clause are to be addressed.

Parking Area

The proposal includes the demolition of the existing garages to the rear and the utilization of the existing driveway as parking area. However the exiting driveway levels do not comply with the current standards for parking areas. All proposed parking area grades are to be in accordance with AS2890.1.

Geotechnical

The site is identified as in a geotechnical hazard area H2. As new development is proposed, in accordance with Clause 8.1 of Pittwater DCP a geotechnical report and certified forms shall be submitted.

Additional Information Provided on 9/8/2022

Applicant has submitted a geotechnical report and Forms in accordance with Pittwater 21 DCP.

Stormwater

Applicant has submitted a statutory declaration stating that the easement option was not viable. The submitted stormwater plan proposes an above ground basin and Atlantis cells as an OSD system discharging to a level spreader. Underground OSD systems require access for maintenance and as such Atlantis cells are not supported. The plans shall be amended to provide an alternate method of detention system.

As two OSD systems are proposed, calculation detailing the outflow from each system to the level spreader shall be shown on the plans and the Drains model submitted.

The suitability of the proposed level spreader with regard to slope stability shall be addressed in the Geotechnical report as stated on the stormwater plans.

Additional Information Provided on 7/9/2022

The amended stormwater plans are satisfactory subject to conditions. The Geotechnical report concurs with the proposed level spreader design. 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

Geotechnical Report Recommendations have been Incorporated into Designs and Structural Plans

The recommendations of the risk assessment required to manage the hazards as identified in the Geotechnical Report prepared by White Geotechnical Group dated 22/8/2022 are to be incorporated into the construction plans. Prior to issue of the Construction Certificate, Form 2 of the Geotechnical Risk Management Policy for Pittwater (Appendix 5 of P21 DCP) is to be completed and submitted to the Accredited Certifier. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure geotechnical risk is mitigated appropriately.

Certification and Design of Elevated Parking Facility Work

The Applicant shall submit a Structural Engineers' design and certificate certifying that the elevated parking facility is designed in accordance within this development consent and the provisions of Australian/New Zealand Standard AS/NZS 2890.1:2004 parking facilities - Off-street car parking, in particular Section 2.4.5 Physical controls.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: Safety and Compliance with this consent.

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 NB Consulting Engineers, job number 2205070, drawing number D01, D02, D03, D04, dated 2/9/2022. Detailed drainage plans are to be prepared by a suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Professional Engineers Register (NPER) and registered in the General Area of Practice for civil engineering.

The drainage plans must address the following:

- i. Roof discharge for the secondary dwelling and the overflow from the RWT are to be connected directly to the below ground OSD tanks.

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

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

Structural Adequacy and Excavation Work

Excavation work is to ensure the stability of the soil material of adjoining properties, the protection of adjoining buildings, services, structures and / or public infrastructure from damage using underpinning, shoring, retaining walls and support where required. All retaining walls are to be structurally adequate for the intended purpose, designed and certified by a Structural Engineer.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

Reason: To provide public and private safety.

Vehicle Crossings Application

The Applicant is to submit an application for driveway levels with Council in accordance with Section 138 of the Roads Act 1993. The fee associated with the assessment and approval of the application is to be in accordance with Council's Fee and Charges.

An approval is to be submitted to the Certifying Authority 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.

Vehicle Crossings

The Applicant is to construct one vehicle crossing 4.0 metres wide in accordance with Northern Beaches Council Drawing Extra Low and the driveway levels application approval. An Authorised Vehicle Crossing Contractor shall construct the vehicle crossing and associated works within the road reserve in plain concrete. All redundant laybacks and crossings are to be restored to footpath/grass. Prior to the pouring of concrete, the vehicle crossing is to be inspected by Council and a satisfactory "Vehicle Crossing Inspection" card issued.

A copy of the vehicle crossing inspection form is to be submitted to the Principal Certifying Authority.

Reason: To facilitate suitable vehicular access to private property.

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 Certifying Authority prior to the issue of final Occupation Certificate.

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

Certification Elevated Parking Facility Work

The Applicant shall submit a Structural Engineers' certificate certifying that the elevated parking facility was constructed in accordance within this development consent and the provisions of Australian/New Zealand Standard AS/NZS 2890.1:2004 parking facilities - Off-street car parking, in particular Section 2.4.5 Physical controls. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the final Occupation.

Reason: Compliance with this consent.

Geotechnical Certification Prior to Occupation Certificate

The Applicant is to submit the completed Form 3 of the Geotechnical Risk Management Policy (Appendix 5 of P21 DCP) to the Principal Certifying Authority prior to issue of the Occupation Certificate.

Reason: To ensure geotechnical risk is mitigated appropriately.