

Engineering Referral Response

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| Application Number: | DA2019/0905 |
| To: | Ashley Warnest |
| Land to be developed (Address): | Lot 25 DP 11547 , 45 Carefree Road NORTH NARRABEEN NSW 2101 |

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 Geotechnical Risk Assessment has been conducted and certified by NPER M Eng Sc with BE Hons Soil Mechanics. No Development Engineering objection subject to conditions and approval to remove trees.

Referral Body Recommendation

Recommended for approval, subject to conditions

Refusal comments

Recommended Engineering Conditions:

**CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION
CERTIFICATE**

Stormwater Disposal

The applicant is to demonstrate how stormwater from the new development within this consent is disposed of to an existing approved system or in accordance with Northern Beaches Council's PITTWATER DCP21 clause B510 and B 5.7. Details by an appropriately qualified and practicing Civil Engineer demonstrating that the stormwater management system shall be designed generally in accordance with the hydraulic report prepared by Woolacotts Consulting Engineers dated 11 September 2019 and in compliance with the Council's Pittwater DCP21 are to be submitted to the Certifying Authority for approval prior to the issue of the Construction Certificate.

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

Geotechnical Report Recommendations have been Incorporated into Designs and Structural 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. The Geotechnical Engineer shall certify that the proposed stormwater disposal and management for the site does not compromise any geological risk for slip failure.

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.

Submission Roads Act Application for Civil Works in the Public Road

The Applicant is to submit an application for approval for Infrastructure works on Council's roadway. Engineering plans for the new development works within the road reserve and this development consent are to be submitted to Council for approval under the provisions of Sections 138 and 139 of the Roads Act 1993.

The application is to include four (4) copies of Civil Engineering plans for the design of vehicular crossing which are to be generally in accordance with the Council's specification for engineering works - AUS-SPEC #1. The plan shall be prepared by a qualified structural civil engineer. The design must include the following information:

1. Structural details of the driveway. A report prepared by a geotechnical engineer is required in support of the structural engineers design.
2. Retaining wall/piers are to be contained within the private property.
3. Balustrade must be designed in accordance with AS/NZS 2890.1:2004 clause
4. No structures other than a 1.2 meter balustrade wall is permitted within the public road.
5. Cross-section details in compliance with Council standard profile is to be provided. All public utility services are to be detailed on the plan.
6. Written approval for utility service authorities is to be submitted.
7. Redundant layback/access way is to be reinstated.

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 ensure engineering works are constructed in accordance with relevant standards and Council's specification.

Utilities Services

Prior to the issue of the Construction Certificate, the Applicant is to obtain the following:

- (a) A letter from the utility service authority affected by the vehicular access confirming that satisfactory arrangements have been made for the approved development have been made; and
- (b) Evidence that notification has been received from a utility authority that, requirements for the development can be provided.

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

Reason: To ensure that services have been provided as required by this Consent.

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, except where site conditions permit the following:

- (a) maximum height of 900mm above or below ground level and at least 900mm from any property boundary, and
- (b) Comply with AS3700, AS3600 and AS1170 and timber walls with AS1720 and AS1170.

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.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Vehicle Crossings

The Applicant is to construct one vehicle crossing 4.0 metres wide in accordance with Northern Beaches Council Drawing No A4-3330/3 and the driveway levels application approval. Structural detail must be submitted with the S 138 Road Act application. 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 and bitumen. 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

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.

Certification of Stormwater Water Management Report

The Applicant shall submit a certificate from a suitably qualified practising Civil Engineer with corporate membership of the Institute of Engineers Australia (M.I.E.), or equivalent and has appropriate experience and competence in the related field, that the drainage/stormwater management system has been installed to the manufacturer's specification (where applicable) and completed in accordance with the engineering plans and specifications required within this development consent is to be submitted to the Principal Certifying Authority prior to the issue of the final Occupation Certificate.

Reason: To ensure Stormwater Management has been built in accordance with the plans and specifications required under this consent.