

Engineering Referral Response

Application Number:	DA2021/2252
Date:	07/06/2022
To:	Nick Keeler
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 subject site is located on the low side of the road and as such the stormwater disposal is to be in accordance with Section 5.5 of Council's Water management for Development Policy. This requires the applicant to approach the downstream neighbor to obtain a drainage easement prior to considering other options. No evidence for the refusal of an easement has been provided. The drainage design is to be in accordance with Council's Policy. Where an easement is obtained, on-site stormwater detention in accordance with Section 9.3 of the policy is required. Where an easement is not obtained, the discharge is to be via Council's level spreader design in Appendix 4 of the policy.

The proposed driveway may conflict with an existing power pole and Telstra pit in the road reserve. These services must be shown on the plans to ensure the proposed structures are clear. Also the applicant must provide a Traffic Engineer's report to address the sight distance for vehicles exiting the driveway.

The proposal appears to provide two visitor parking spaces in the road reserve. It is unclear how these spaces are to be provided in the design. It is considered that this issue must be assessed by Council's Road asset Team and if they are not supported, the plans must be amended to delete them.

Development Engineering cannot support the application due to insufficient information to address the management of stormwater in accordance with Clause B5 and vehicular access in accordance with Clause B6 of the DCP.

Additional information submitted 19/04/2022

The submitted drainage report fails to include evidence for the refusal of an easement through the downstream property which must be submitted prior to consideration of an alternate method of stormwater disposal for the site. Once this evidence is provided, other methods will be considered.

The submitted report proposes a below ground on-site absorption trench system however there is no infiltration rate by the Geotechnical Engineer or a design in accordance with Council's Water Management for Development Policy. Where the infiltration rate is too low and/or the Geotechnical Engineer does not support this method of stormwater disposal due to Geotechnical risk, the Engineer must provide a level spreader design in accordance with Council's Water Management for Development Policy Appendix 4.

The submitted Traffic Report for the proposed parking area is acceptable. The revised parking location resolves the conflict issues and sight distance issues. The plans appear to show a visitor parking areas on one of the plans however it appears that this may be in error and should be deleted from the plans.

Development Engineering cannot support the application due to insufficient information to address the management of stormwater in accordance with Clause B5.

Additional Information Submitted 24/05/2022

The submitted statutory declaration for the refusal of easement meets the objection of the Water Management for Development Policy and an alternative method of stormwater disposal can be considered for the proposal. The submitted drainage report and plan propose an absorption system with the overflow to a level spreader. The report has not included any infiltration rate by the Geotechnical Engineer or design for the drainage system. A review of the Geotechnical report indicates that rock is present at a depth of 1 metre from the surface and as such it is considered that absorption will not be a suitable method of stormwater disposal for the site. The applicant's Civil Engineer must provide a design for a level spreader in accordance with Appendix 4 of Council's Water Management for Development Policy for assessment. This system will require the provision of an on-site stormwater detention (OSD) system to ensure stormwater flows from the whole site are restricted to the 20% AEP state of nature storm event for all storms events up to and including the 1% AEP storm event.

The parking plan has been amended and is acceptable subject to conditions.

Development Engineering cannot support the application due to insufficient information to address the management of stormwater in accordance with Clause B5.

Additional Information Submitted 2/06/22

The revised stormwater management plan is acceptable.

Development Engineering support the proposal, 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 Design Construct Industries Pty Ltd (DCI) undated 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.

Traffic Management and Control

The Applicant is to submit an application for Traffic Management Plan to Council for approval prior to issue of the Construction Certificate. The Traffic Management Plan shall be prepared to RMS standards by an appropriately certified person.

Reason: To ensure appropriate measures have been considered for site access, storage and the operation of the site during all phases of the construction process.

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 Woolacotts Consulting Engineers, drawing number 21-260_Preliminary Stormwater Management Sketch_SkC02_Rev[B], dated 20.05.2022. 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:

1. Details of the on-site stormwater detention (OSD) tank including sections.
2. Orifice plate design.
3. Details of the level spreader.

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.

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 the driveway crossing and stairs which are to be generally in accordance with the Council's specification for engineering works - AUS-SPEC #1 and Council's standard driveway profile drawing nominated in this consent. The plans shall be prepared by a qualified Civil and Structural Engineer. The design must

include the following information:

1. The driveway crossing is to be 4 metres wide at the road edge and 6.5 metres wide at the boundary.
2. The driveway profile is to be in accordance with Council drawing A4/3330/7 ML.
3. The suspended driveway is to include barriers in accordance with AS/NZS2890.1:2004.
4. Sight distance analysis in accordance with AS/NZS2890.1:2004.
5. Details of the reinstatement of the existing driveway.
6. The stairs in the road reserve are to be 1.2 metres wide.
7. Submission of the completed Form 2 of the Geotechnical Risk Management Policy for Pittwater.
8. All services are to be located and concurrence from the relevant service authority is to be submitted for the proposal. Any alteration required to the services are to be borne by the applicant.

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.

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.

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT

Public Liability Insurance - Works on Public Land

Any person or contractor undertaking works on public land must take out Public Risk Insurance with a minimum cover of \$20 million in relation to the occupation of, and approved works within Council's road reserve or public land, as approved in this consent. The Policy is to note, and provide protection for Northern Beaches Council, as an interested party and a copy of the Policy must be submitted to Council prior to commencement of the works. The Policy must be valid for the entire period that the works are being undertaken on public land.

Reason: To ensure the community is protected from the cost of any claim for damages arising from works on public land.

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.

Traffic Control During Road Works

Lighting, fencing, traffic control and advanced warning signs shall be provided for the protection of the works and for the safety and convenience of the public and others in accordance with RMS Traffic Control At Work Sites Manual (<http://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical-manuals/tcws-version-4/tcwsv4i2.pdf>) and to the satisfaction of the Roads Authority. Traffic movement in both directions on public roads, and vehicular access to private properties is to be maintained at all times during the works

Reason: Public Safety.

Vehicle Crossings

The Applicant is to construct one vehicle crossing 4 metres wide at the kerb to 6.5 metres wide at the boundary in accordance with Northern Beaches Council Drawing No A4-3330/7 ML and the S138 Roads Act 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 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 Council. The application shall include the original completed request forms (NSW Land Registry standard forms 13PC and/or 13RPA) and a copy of the Works-as-Executed plan (details overdrawn on a copy of the approved drainage plan) and Hydraulic Engineers' certification.

The Applicant shall create on the Title a positive covenant in respect to the ongoing maintenance and restriction as to user over the on-site stormwater disposal structures within this development consent. The terms of the positive covenant and restriction as to user are to be prepared to Council's standard requirements at the applicant's expense and endorsed by Northern Beaches Council's delegate prior to lodgment 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 as to user is to be submitted.

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

Reason: Safety and 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.