

Engineering Referral Response

Application Number:	DA2021/2478
Date:	30/03/2022
To:	Adam Croft
Land to be developed (Address):	Lot 1 DP 171852 , 44 Kooloora Avenue FRESHWATER NSW 2096

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

7/3/2022:

Application is for alterations and additions to an existing two storey dwelling.

Access

Vehicular access currently is available to the site from Kooloora Avenue via a concrete and gravel driveway, No changes are proposed.

New double carport is proposed.

Stormwater

Proposal is to direct stormwater to Council's drainage system in accordance with existing arrangements.

Council's record has identified that Council's drainage systems are traversing the subject property and will be impacted by the proposed development. As a result Development Engineer cannot support the proposal due to following reasons:

- Applicant has not located Council's drainage systems traversing the site in accordance with Northern Beaches Council's Water Management for Development Policy. In this regards Council's drainage pipe and pits must be accurately located, confirming dimensions and plotting any Council's stormwater drainage assets and associated infrastructure to scale on the DA plans, which must include the proposed works. This should be carried out by a registered surveyor.

- Applicant has not provided details to show that all proposed structures are located clear of any Council's drainage system.
- Applicant has not shown that all structures included any overhangs are located clear of Council's pipe and drainage easements.
- Any excavation proposed must ensure sufficient cover is provided to Council's pipe drainage systems.

30/03/2022:

Existing Council pipes are located on the supplied site survey map.

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:

FEES / CHARGES / CONTRIBUTIONS

Construction, Excavation and Associated Works Bond (Drainage works)

The applicant is to lodge a bond of \$**15,000.00** as security against any damage or failure to complete the construction of stormwater drainage works as part of this consent.

Details confirming payment of the bond are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure.

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 WATER MANAGEMENT for DEVELOPMENT POLICY. Details by an appropriately qualified and practicing Civil Engineer demonstrating that the existing approved stormwater system can accommodate the additional flows, or compliance with the Council's specification 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.

Certification of Structures Located Adjacent to Council Pipeline or Council Easement

All structures are to be located clear of any Council pipeline or easement. Footings of any structure adjacent to an easement or pipeline are to be designed in accordance with Council's Water Management Policy; (in particular Section 6 - Building Over or Adjacent to Constructed Council Drainage Systems and Easements Technical Specification). Any proposed landscaping within a Council easement or over a drainage system is to consist of ground cover or turf only (no trees are permitted) - Structural details prepared by a suitably qualified Civil Engineer demonstrating compliance are to be submitted to the Certifying Authority for approval prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure

Flood Mitigation Measures

Drainage plans detailing the provision of flood mitigation measures as recommended in the Flood Risk Management Report, Job No. 200273 by NB Consulting Engineers, Dated 25/11/2021, Issue C, such as;

- Vehicle barriers or restraints to be provided in carport to prevent floating vehicles leaving the site.
- To allow flood waters to unimpeded and no net loss of flood storage the proposed entry walkaway is to be built as an open timber deck.
- All new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections must be located above the level of 5.05m AHD.
- Any proposed fencing along the boundaries should be provisioned with openings to ensure floodwater is able to flow through.

Details demonstrating compliance are 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.

Vehicle Driveway Gradients

The Applicant is to ensure driveway gradients within the private property are not to exceed a gradient of 1 in 4 (25%) with a transition gradient of 1 in 10 (10%) for 1.5 metres prior to a level parking facility. Access levels across the road reserve are to comply with the allocated vehicle profile detailed in this consent.

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

Reason: To ensure suitable vehicular access to private property.

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 Certifying Authority prior to the issue of the Construction Certificate.

Reason: To provide public and private safety.

Pre-Construction Stormwater Assets Dilapidation Report

The Applicant is to submit a pre-construction / demolition Dilapidation Survey of Council's Stormwater Assets is to be prepared by a suitably qualified person in accordance with Council's Guidelines for Preparing a Dilapidation Survey of Council Stormwater Asset, to record the existing condition of the asset prior to the commencement of works. Council's Guidelines are available at: <https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/general-information/engineering-specifications/2009084729guidelineforpreparingadilapidationsurveyofcouncilstormwaterassets2.pdf>

The pre-construction / demolition dilapidation report must be submitted to Council for approval and the Certifying Authority prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure.

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

Stormwater Disposal

The stormwater drainage works shall be certified as compliant with all relevant Australian Standards and Council's Water Management for Development Policy by a suitably qualified person. Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of Final Occupation Certificate.

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

Certification of Structures Located Adjacent to Council Pipeline or Council Easement

All structures are to be located clear of any Council pipeline or easement. Footings of any structure adjacent to an easement or pipeline are to be designed in accordance with Council's Water Management Policy; (in particular Section 6 - Building Over or Adjacent to Constructed Council Drainage Systems and Easements Technical Specification). Any proposed landscaping within a Council easement or over a drainage system is to consist of ground cover or turf only (no trees are permitted) - Structural details prepared by a suitably qualified Civil Engineer demonstrating compliance are to be submitted to the Certifying Authority for approval prior to the issue of the Occupation Certificate.

Reason: Protection of Council's infrastructure

Positive Covenant and Restriction as to User for Flood Mitigation Measures

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 Flood Mitigation Measures 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 Flood Mitigation Measures as to user is to be submitted.

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

Reason: To ensure the Flood Mitigation Measures is maintained to an appropriate operational standard.

Post-Construction Stormwater Assets Dilapidation Report

The Applicant is to submit a post-construction Dilapidation Survey of Council's Stormwater Assets is to be prepared by a suitably qualified person in accordance with Council's Guidelines for Preparing a Dilapidation Survey of Council Stormwater Asset, to record the existing condition of the asset. Council's Guidelines are available at:

<https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/generalinformation/engineeringsp>

The post-construction dilapidation report must be submitted to Council for approval and the Certifying Authority prior to the issue of the Occupation Certificate.

Reason: Protection of Council's infrastructure.