

Engineering Referral Response

Application Number:	DA2022/0901
Date:	07/11/2022
To:	Anne-Marie Young
Land to be developed (Address):	Lot 56 DP 8139 , 67 Quirk Street DEE WHY NSW 2099

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

Applicants seeks approval to demolish existing dwelling and construction of a new swimming pool. Proposed new driveway and vehicular crossing is acceptable subject to removal of the existing redundant crossing.

The subject site falls towards the rear properties. Stormwater management plans provides for a detention drainage system with a dispersion type drainage system (Level Spreader). Council's Water Management for Development Policy, in particular Stormwater Drainage from Low Level Properties clause 5.5.1.2. recommends various stages for stormwater drainage disposal assessment, which does not appear to have been considered and/or undertaken. Council will accept a written evidence of drainage easements rights/refusal in accordance with stage 2 of Clause 5.5.1.2.2 of Northern Beaches Council's "Water Management for Development Policy" in this regard. As a result the submitted stormwater management cannot be assessed.

Development Engineers cannot support the application due to insufficient information to address the disposal of stormwater in accordance with Clause C4 of the DCP.

Additional Information submitted 26/08/2022

The documentation including statutory declaration as evidence for the refusal of a drainage easement satisfies the requirements of Council's Water Management for Development Policy. As such the

submitted stormwater management plan has been assessed and the design is not acceptable. The following issues must be addressed by the applicant's Civil Engineer.

1. The determined 5 year pre development site discharge rate is too high and must be reduced to suit the time of concentration determined in Council's Water Management for Development Policy.
2. The resultant OSD volume is also too low and must be increased to ensure the 5 year PSD is not exceed in all storms up to and including the 100 yr storm event.
3. The overland flow paths for the detention basin must ensure access to the existing secondary dwelling is not impeded, Also the OSD basin must be designed to ensure pedestrian access is achieved without requiring pedestrians to enter the basin.
4. The proposed method of discharge from the site is to be via a level spreader along the contour a minimum of 3 metres from the rear boundary to ensure no concentration of flows.

Development Engineers cannot support the proposal, due to insufficient information to address the disposal of stormwater in accordance with clause C4 of the DCP.

Additional information submitted 13/10/2022

The amended stormwater plan has addressed points 1, 3 and 4. In terms of the volume of the OSD system, it is unclear from the plans if there is sufficient volume as the calculation sheet on drawing D01 indicates the flow for both the 5 and 100 year storm events as 15 litres per second however the flow from the OSD is 10 litres per second for the 5 year storm event and only 7 litres per second for the 100 year storm event. In this regard, it is considered that the 'Drains' model be provided to demonstrate the post development flows from the site and to ensure there is sufficient OSD volume.

Also Section 2 through the OSD basin must include the boundaries and show the proposed path to the granny flat on the eastern side. Also the inlet pipe from RWT 1 must be shown in the correct location.

Development Engineers cannot support the proposal, due to insufficient information to address the disposal of stormwater in accordance with clause C4 of the DCP.

Additional information submitted 28/10/2022

The additional information including computer model for the design, report and amended plans have addressed the outstanding issues.

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

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 Northern Beaches Consulting Engineers, drawing number 211230 D01, D02, D03 and D04, D05 Issue D and D06 Issue A, dated 25/10/22. Detailed drainage plans are to be prepared by a suitably qualified Civil Engineer, who has membership to the Engineers Australia, National Engineers Register (NPER) and registered in the General Area of Practice for civil engineering.

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 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 3 metres wide in accordance with Northern Beaches Council Drawing Normal 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. The redundant layback and crossing are to be restored to kerb and 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 Civil 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 an Occupation Certificate.

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