

Engineering Referral Response

Application Number:	DA2020/1743
Date:	22/07/2021
To:	Anne-Marie Young
Land to be developed (Address):	Lot 3 DP 26532 , 45 Lantana Avenue WHEELER HEIGHTS NSW 2097

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 submitted stormwater management plan proposes a combined rainwater and on-site stormwater detention (OSD) tank for the site. A review of the plans indicates that both roof water and surface water is collected and connected to the rainwater tank which is not permitted. In this regard, only roof water is to be connected to the rainwater tank with the overflow connected to the OSD tank. The 'Drains' model must be submitted for the revised design and a long section for the piped connection to the Council drainage pipe in Lantana Ave. All existing services must be shown on the long section to ensure the pipe connection has adequate clearance.

The access report and drawings propose a pedestrian crossing adjacent to the site to enable pedestrians to access the bus stop on the northern side of Lantana Ave. It is considered that this proposal be assessed by Council's Traffic Engineers. It may be necessary for a footpath to be constructed on the southern side of Lantana Ave to access this bus stop and the bus stops in Veterans Parade as per the requirement in the submitted access report.

The internal vehicular access, grade, driveway crossing width and pedestrian crossing within the site are to be assessed by Council's Traffic Engineers.

Development Engineers cannot support the proposal due to insufficient information to address clause C4 of Warringah DCP.

Amended plans and information submitted 18/6/21 and 30/6/21

The submitted 'Drains' file has been reviewed and is satisfactory. The revised drainage design has

located the OSD tank under habitable floors which is unacceptable and cannot be supported. The volume of the OSD tank has been reduced by the rainwater re-use tank volume provided for 'Basix' which is not permitted for this type of development. The OSD volume must be increased to the site storage requirement of 63 cubic metres.

It is noted that a footpath is required on the southern side of Veterans Pde as per Council's Traffic Engineer's comments. This issue can be conditioned together with the vehicle crossing once comments are received from Council's Traffic Engineer.

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

Amended plans and information submitted 12/7/2021

The proposed OSD has been relocated outside any habitable floor. However, it is unclear how the connection between OSD storage tank, High early discharge pit, SF tank and rainwater tank. When the connection is unclear, the functions of the high early discharge pit and SF tank are in question. The overflow from the OSD tank may flow into the SF tank which may affect the functionality of the SF tank.

Some sections of these tanks and pipe connections shall be provided to demonstrate the function of these tanks.

As such, Development Engineers place a condition to address the concern.

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 Security Bond (Footpath)

The applicant is to lodge a bond with Council of \$ 15,000 as security against any damage or failure to complete the construction of any footpath work and bus stop required 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

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 Istruct Consulting Engineers, Project number 201110, Drawing Number D01- D04 and dated 8/7/2021.

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. the details to indicate the pipe connection between Rainwater tank, OSD tank, StormFilter tank and High Early Discharge Chamber

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 footpath 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 civil engineer. The design must include the following information:

- 1) provision of a 1.5 metres wide footpath to the nearest bus stops within Lantana Avenue
- 2) provision of two pram ramps adjacent to the bus stops
- 3) provision to a bus stop outside of 33 Lantana Aveune

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, 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.

Shoring of Council's Road Reserve (Temporary road anchors)

Should the proposal require shoring to support an adjoining property or Council land, the Applicant shall provide the adjoining properties with engineering drawings, detailing the proposed shoring works for their consideration and approval.

Written approval from Council under Section 138 of the Roads Act 1993 is required if temporary ground anchors are to be used within Council's road reserve. The Owner's approval is to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure that owners consent is obtained for ancillary works, and to ensure the protection of adjoining properties and Council land.

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.

Stormwater Drainage Application

The applicant is to provide a stormwater drainage application under Section 68 of the Local Government Act 1993 to Council for approval. The submission is to include four (4) copies of Civil Engineering plans for the design of the pipe connection to Council stormwater pit which are to be generally in accordance with the civil design approved with the Development Application and Council's specification for engineering works - AUS-SPEC #1. The form can be found on Council's website.

The fee associated with the assessment and approval of the application is to be in accordance with Council's Fees and Charges. Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure appropriate provision for disposal and maintenance stormwater management and compliance with the BASIX requirements, arising from the development.

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.

Vehicle Crossings

The Applicant is to construct one vehicle crossing 5.5 metres wide at boundary in accordance with Northern Beaches Council Drawing No A4-3330/ 1 N 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 proposed driveway must be at least 1 metres away Council's stormwater intels.

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.