

Engineering Referral Response

Application Number:	DA2018/1225
To:	Alex Keller
Land to be developed (Address):	Lot 32 DP 25164 , 35 Earl Street BEACON HILL NSW 2100

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

Development Engineers have reviewed the proposal and cannot support the proposal due to the following reasons.

1. Insufficient details are submitted to Council for assessment with respect to the conveyance of stormwater surface flow through the development site and impact on Council's stormwater drainage system. In this regard, the following must be submitted to Council for assessment:

- Typical cross section of the open channel
- All cross sections and long sections must show council's existing pipeline to outline cover
- Minimum height clearance of 400mm to be provided under the suspended driveway
- All structures to be in accordance with Council's Water Policy.
- Minimum cover proposed over Council pipeline to be specified where the open channel is to be constructed
- Top water surface level is to be shown on all cross sections – sufficient clearance to be provided between top water surface level and underside of driveway slab
- Details of how stormwater runoff within the open channel is to be dissipated at the southern end of the development site to minimise stormwater impact on the adjacent downstream property. All works are to be located wholly within the development site

For further clarification on the above matter, please contact Council's Stormwater Operations & Planning Team on 1300 434 434.

Not supported for approval due to lack of information to address:
DA2018/1225

- Council's Stormwater pipeline clearance for the development and overland flooding in accordance with clause C6 Building over or adjacent to Constructed Council Drainage Easements

Note: Vehicle access to the proposed Lot 2 is satisfactory using Council's Normal High driveway profile. This driveway profile is to be used to direct any surface stormwater surcharging from Earl Street towards the eastern side of the proposed driveway and onto the proposed open channel.

Further assessment dated 3/5/2019

Reference is made to trim documents no. 2019/206802, 2019/161115, 2019/185507.

Development Engineers have reviewed the above information and raise no objections to the proposal subject to conditions.

For clarity the minimum finished surface level of the garage shall be no less than 119.88m AHD for flood protection and to attain adequate vehicle access from Earl Street. Appropriate condition is recommended in this referral response.

Referral Body Recommendation

Recommended for approval, subject to conditions

Refusal comments

Recommended Engineering Conditions:

FEES / CHARGES / CONTRIBUTIONS

Construction, Excavation and Associated Works Bond (Drainage)

A Bond of \$5,000.00 as security against any damage to Council's stormwater drainage infrastructure as a result of undertaking any works as part of this consent.

Reason: Protection of Council's Infrastructure

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

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.

<https://www.warringah.nsw.gov.au/sites/default/files/documents/policies-register/environment/water-management-policy/2016-011845-water-management-policy-current.pdf>

A statement of compliance is to be prepared by a suitably qualified Civil Engineer and submitted to the Certifying Authority for approval prior to issue of the Construction Certificate.

Reason: Protection of Council's Infrastructure (DACENF11)
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Submission of Engineering Plans

Engineering plans are to be submitted to the Northern Beaches Council for approval pursuant to section 68 of Local Government Act 1993. The submission is to include four (4) copies of Civil Engineering plans for the design of overland flow swale/channel 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 and or Council's Minor Works Policy.

The applicant is to complete and lodge the following form with Council.

<https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/pdf-forms/stormwater-drainage-approval/4022-stormwater-drainage-approval-application-18-19.pdf>

Associated fee with the above application is to be paid at time of lodgement.

The overland flow swale/channel must be:

1. Minimum 2.6 metres wide
2. Located centrally over the centerline of Council's existing stormwater pipeline traversing the development site.
3. Proposed rip rap dissipator located at the southern end of the development site is to be located wholly within the proposed drainage easement.
4. Proposed landscaping within the swale/channel is to be to Council's Team Leader, Stormwater Operations & Planning satisfaction.

Stormwater runoff from the existing dwelling on proposed Lot 1 is to be collected and piped to Council's stormwater pipeline. Details of the proposal are to be provided to Council.

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

Reason: To ensure compliance with Council's specification for engineering works.

Pre-Construction Stormwater Assets Dilapidation Report

Survey 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 Principal 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

Civil Works Supervision

All civil works approved in the Construction Certificate are to be supervised by an appropriately qualified and practising Civil Engineer. Details demonstrating compliance are to be submitted to the Principal Certifying Authority

Reason: To ensure compliance of civil works with Council's specification for engineering works.

Notification of Inspections

Council's Development Engineer is to be given 48 hours notice when the works reach the following stages:

- (a) Installation of Silt and Sediment control devices
- (b) Construction of overland flow swale/channel

NOTE: Any inspections carried out by Council do not imply Council approval or acceptance of the work, and do not relieve the developer/applicant from the requirement to provide an engineer's certification. Council approval or acceptance of any stage of the work must be obtained in writing, and will only be issued after completion of the work to the satisfaction of Council and receipt of the required certification

Reason: To ensure new Council infrastructure is constructed to Council's requirements.

Maintenance of Road Reserve

The public footways and roadways adjacent to the site shall be 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**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

Post-Construction Dilapidation Survey

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 in order to determine if the asset has been damaged by the works. Council's Guidelines are available at

<https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/general-information/engineering-specifications/2009084729guidelineforpreparingadilapidationsurveyofcouncilstormwaterassets2.pdf>

The post construction dilapidation report must be submitted to the Council for review and the Principal Certifying Authority prior to the issue of the Occupation Certificate. Any damaged to Council's stormwater infrastructure is to be rectified in accordance with Council's technical specifications prior to the release of the security bond.

Reason: Protection of Council's Infrastructure

CONDITIONS THAT MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF ANY STRATA SUBDIVISION OR SUBDIVISION CERTIFICATE**Provision of Services for Subdivision**

The applicant is to ensure all services including, water, electricity, telephone and gas are provided

located and certified by a registered surveyor on a copy of the final plan. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

Reason: To ensure that utility services have been provided to the newly created lots

Restriction as to User - proposed Lot 2

A restriction as to user shall be created on the title restricting the construction of any future dwelling to the minimum finished floor levels of the dwelling on proposed Lot 2 for flood protection in accordance to the levels nominated in the flood report.

The finished surface level of any new vehicle crossing servicing proposed Lot 2 along the northern property boundary alignment must be no lower than RL120.80m AHD. Minimum finished surface level of the garage shall be no lower than 119.88m AHD.

The terms of such restriction are to be prepared by a registered surveyor to Northern Beaches Council's satisfaction at the applicant's expense. Northern Beaches Council shall be nominated as a party to release, vary or modify such restriction.

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

Reason: Flood protection

Services

All utilities/services and street lighting is to be installed by the applicant/developer. Certification is to be provided to Council stating the above requirement has been complied with. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

Reason: Public safety and to ensure services have been provided for the newly created lots

Stormwater Drainage and Utility Services Plan

A plan of subdivision identifying the location of water, gas, telephone, electricity and stormwater drainage in relation to boundaries and/or relevant easements, prepared by a registered surveyor is to be submitted to Council. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

Reason: To ensure that services have been provided with appropriate easements as required by the Conveyancing Act 1919

Survey Plan - Construction Identification

A declaration by a registered surveyor shall be provided to Council as evidence that all construction has been effected within the appropriate property, easement boundaries and rights of carriageway. This shall be in the form of a copy of the final subdivision or easement plan, with the distances from the boundaries to the edges of these structures endorsed in red thereon and signed by the surveyor. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

Reason: To ensure accurate location of buildings, access and services

Sydney Water Compliance Certification

A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney

Water Corporation. Application must be made through an authorised Water Servicing Co-ordinator. Please refer to the Building Developing and Plumbing section of the web site www.sydneywater.com.au <<http://www.sydneywater.com.au>> then refer to “Water Servicing Coordinator” under “Developing Your Land” or telephone 13 20 92 for assistance. Following application a “Notice of Requirements” will advise of water and sewer infrastructure to be built and charges to be paid. Please make early contact with the Co-ordinator, since building of water/sewer infrastructure can be time consuming and may impact on other services and building, driveway or landscape design. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

Reason: To ensure compliance with the statutory requirements of Sydney Water

Easement for Drainage

An easement for drainage (under the provisions of Section 88B of the Conveyancing Act) is to be created on the final plan of subdivision the accompanying 88B instrument to ensure all drainage infrastructure is located within the appropriate easement(s). Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

Reason: Council's Subdivision standards and statutory requirements of the Conveyancing Act 1919

Easement to Drain Water - Channel/Floodways

Existing drainage easement 1.83 metre wide is to be extinguished. An easement to drain water shall be created in favour of Council over the channel/floodway to encompass the 1 in 100 year recurrence frequency predicted water surface level. The easement shall be minimum 2.6 metres wide and is to be contained wholly within proposed Lot 2. The easement is to be centrally located over the centerline of Council's stormwater pipeline traversing the development site.

Terms of the easement shall include restricting any alteration to the levels and/or any construction on the land. No structures are to be constructed over the overland flow swale/channel without written approval from Council. Any proposal to construct over the overland flow swale/channel must be obtained from Council pursuant to Section 68 of Local Government Act 1993. Above terms of the easement must be to the satisfaction of Northern Beaches Council.

The easements are to be detailed on the final plan of subdivision. All costs associated with the above are to be borne by the applicant.

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

Reason: To identify flood affected areas on the property title

Easement for Services

An easement for services (under the provisions of Section 88B of the Conveyancing Act) is to be created on the final plan of subdivision and the accompanying 88B instrument to ensure all utility services are located within the appropriate easement(s). Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate

Reason: Council's Subdivision standards and statutory requirements of the Conveyancing Act 1919

Overland flow swale/channel Certification

Prior to issue of a subdivision certificate and upon completion of the construction of the overland flow swale/channel and associated rip rap, a consulting engineer registered with Engineers Australia is to certify the constructed works are in accordance with approved plans, and include a “works as executed” (WAE) drawing certified by a registered surveyor and overdrawn in red on a copy of the

approved plans.

Reason: To ensure stormwater disposal is constructed to standard specifications AUSPEC and approved plans

Release of Subdivision Certificate

To enable the lodgement of the final plan at the NSW Land and Property Information Department the Subdivision Certificate shall not be issued until the Final Occupation Certificate for the approved development has been issued.

Reason: To ensure that the plans relate to approved development

Subdivision Certificate Application

Prior to the issue of the Subdivision Certificate, a completed Subdivision Certificate form, a final plan of subdivision prepared in accordance with the requirements of the Conveyancing Act 1919 are to be submitted to Council. Nine copies of the final plan of subdivision are to be submitted. All plans of survey are to show connections to at least two Survey Co-ordination Permanent Marks. The fee payable is to be in accordance with Council's fees and charges

Reason: Statutory requirement of the Conveyancing Act 1919

Title Encumbrances

All easements, rights of carriageway, positive covenants and restrictions as to user as indicated on the plans and required by this consent are to be created on the title naming Northern Beaches Council as the sole authority empowered to release or modify. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate

Reason: To ensure proper management of land