

Engineering Referral Response

Application Number:	DA2019/0114
To:	Rebecca Englund
Land to be developed (Address):	Lot A DP 39108 , 267 Condamine Street MANLY VALE NSW 2093 Lot B DP 39108 , 267 Condamine Street MANLY VALE NSW 2093

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

Overland Flow:

The Application relies upon an Overland Flow Study prepared by Barrenjoey Consulting Engineers, job number 180803, dated September 2018, previously submitted for DA2018/1579. Please ensure this document is linked to the current Application.

External Works:

Civil works within Kenneth Road and Condamine Street shall be the subject of a Roads Act Approval.

No objections are raised to the proposed development, subject to conditions.

Referral Body Recommendation

Recommended for approval, subject to conditions

Refusal comments

Recommended Engineering Conditions:

FEES / CHARGES / CONTRIBUTIONS

Construction, Excavation and Associated Works Bond (Road)

The applicant is to lodge a Bond with Council as security against any damage or failure to completion of the construction of civil infrastructure works within Kenneth Road and Condamine Street as part of this consent.

The bond shall be valued at 120% the cost of civil infrastructure works. The cost of works shall be determined in consultation with Council by submission of written quote(s) from a suitably qualified, licensed and insured contractor independent from the Applicant.

Details demonstrating 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.

Construction, Excavation and Associated Works Bond (Drainage)

The applicant is to lodge a Bond of \$40,000 as security against any damage or failure to complete the construction of Stormwater drainage works as part of this consent. Details demonstrating 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.

Construction, Excavation and Associated Works Bond (Failure to Remove Waste)

A bond of \$10,000 as security against damage to Council's road(s) fronting the site caused by the transport and disposal of materials and equipment to and from the site.

Reason: Protection of Council's Infrastructure

Construction, Excavation and Associated Works Bond (Maintenance for civil works)

The developer/applicant must lodge with Council a Maintenance Bond for the construction of civil infrastructure works within Kenneth Road and Condamine Street.

The bond is valued at 10% the cost of civil infrastructure works. The value of the bond shall be determined in consultation with Council.

The Maintenance Bond will only be refunded on completion of the six-month Maintenance Period, if work has been completed in accordance with the approved plans and to the satisfaction of Council. The maintenance bond is to be paid prior to Council issuing practical completion.

Reason: Protection of Council's infrastructure.

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

Structures Located Adjacent to Council Pipeline or Council Easement

All structures are to be located clear of any Council pipeline or easement. The Applicant is to ensure footings of any new development within this development consent adjacent to an easement or pipeline are to be designed in accordance with Northern Beaches Council's Warringah Water Management Policy PL850. Details and certification 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.

Basement Carpark Ramp Crest

The Applicant is to ensure the basement carpark ramp provides a crest a minimum 300mm above the 100-year ARI water surface level adjoining the property. Access levels across the road reserve are to comply with AS2890.1. 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.

Pump-Out System Design for Stormwater Disposal

The design of the pump-out system for stormwater disposal will be permitted for drainage of hard surfaces areas such as driveways and basement pavement areas only, and must be designed in accordance with AS/NZS 3500. The Applicant is to provide engineering details demonstrating compliance with this requirement and certified by an appropriately qualified and practising hydraulic engineer. Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure adequate provision is made for the discharge of stormwater from the excavated parts of the site.

Submission Roads Act Application for Civil Works in the Public Road

The Applicant is to submit an application for approval for Infrastructure works on Councils roadway. Engineering plans for the new development works within the road reserve within 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 civil infrastructure works within Kenneth Road and Condamine Street which shall 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:

Kenneth Road

- i. Half road construction to match into existing road layout west of the subject site and to match into road centreline.
- ii. Provision of a layback and vehicular crossing 5.5 metres wide. Removal of any redundant vehicular crossings and laybacks.

- iii. Provision of a minimum 1.5m wide footpath and upgrade of any associated pram ramps.
- iv. Provision of a loading bay and any associated signage, subject to the approval of the Local Traffic Committee.
- v. Provision of any streetscape works in accordance with Council's Warringah Public Space Design Guidelines, including any paving, street furniture etc.

Condamine Street

- i. Provision of a minimum 1.5m wide footpath and upgrade of any associated pram ramps.
- ii. Provision of any streetscape works in accordance with Council's Warringah Public Space Design Guidelines, including any paving, street furniture etc.
- iii. Concurrence shall be obtained from the RMS.

Note: All works shall be undertaken in accordance with the requirements detailed by the RMS in the letter, reference SYD19/00278/04, dated 7 June 2019.

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.

On-site Stormwater Detention

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 Warringah Water Management Policy PL850, and generally in accordance with the concept drainage plans prepared by Barrenjoey Consulting Engineers, job number 180803, drawing number SW1 and SW2, revision DA-A, dated 06/06/19. Detailed drainage plans are to be prepared by a suitably qualified Civil Engineer, who has membership to Engineers Australia, National Engineers Register (NER) and registered in the General Area of Practice for civil engineering.

The drainage plans must address the following:

- i. Appropriate provision shall be made to safely direct emergency overflows towards Condamine Street.

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 disposal and stormwater management arising from 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, 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.

Sub-Soil Seepage

The Applicant is to submit plans demonstrating that all sub-soil seepage drainage is discharged via a suitable silt arrester pit, directly to the nearest road stormwater drainage line being within Condamine Street and is to be carried out in accordance with relevant Australian Standards. (Note: At the time of determination the following (but not limited to) Standards applied:

- Australian/New Zealand Standard AS/NZS 3500.3 - 2003 Plumbing and drainage - Stormwater drainage
- Australian/New Zealand Standard AS/NZS 3500.3 - 2003 / Amdt 1 - 2006 Plumbing and drainage - Stormwater drainage.)

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

Reason: To ensure appropriate drainage and stormwater management on site to protect amenity of residents.

Shoring of Adjoining Property

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

An application to Council for approval under Section 138 of the Roads Act 1993 is required if temporary ground anchors are to be used within Councils road reserve. 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.

Traffic Management and Control

The Applicant is to submit plans an application for Traffic Management Plan to Council for approval. The Traffic Management Plan shall be prepared to RMS standard by an appropriately certified person. An approval from Council is to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

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 in a manner that respects adjoining owner's property rights and protects amenity in the locality, without unreasonable inconvenience to the community.

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 written approval and the written approval is then to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure.

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.

Civil Works Supervision

The Applicant shall ensure all civil works approved in the Section 138 approval are supervised by an appropriately qualified and practising Civil Engineer. Details demonstrating compliance are to be submitted to the Principal Certifying Authority and/or Roads Authority.

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

Notification of Inspections

The Applicant shall notify Council's Development Engineering and Certification team is to be given 48-hour notice when the works reach the following stages:

- a) Installation of Silt and Sediment control devices
- b) Prior to backfilling of pipelines
- c) Prior to pouring of stormwater gully pits
- d) Prior to pouring of kerb and gutter
- e) Subgrade level / basecourse level / subbase
- f) All layers of the road formation are to be proof rolled to Council's satisfaction
- g) Sealing road pavement

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.

Reason: To ensure new Council infrastructure is constructed in accordance with AUSPEC 1 Council's design and specification standards.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Stormwater Disposal

The Applicant shall submit a certificate from a suitably qualified person that the stormwater drainage works have been constructed/installed in accordance with all relevant Australian Standards and Codes. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the 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

The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed footing works have been constructed in accordance with this consent, Northern Beaches Council's Warringah Water Management Policy PL850 and the approved Construction Certificate plans. Civil Engineer demonstrating compliance is to be submitted to the Principal Certifying Authority prior to the issue of the Occupation Certificate.

Reason: Protection of Council's Infrastructure.

Positive Covenant for the Maintenance of Stormwater Pump-out Facilities

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 positive covenant in respect to the ongoing maintenance of the pump-out facility on the property being developed. Northern Beaches Council shall be nominated in the instrument as the only party authorised to release, vary or modify the instrument. Northern Beaches Council's delegate shall sign these documents prior to the submission to the NSW Land Registry Services. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the final Occupation Certificate.

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 adequate provision is made for the stormwater pump out system to be maintained to an appropriate operational standard.

Positive Covenant and Restriction as to User for On-site Stormwater Detention

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 detention 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 as to user for on-site storm water detention 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 detention system is maintained to an appropriate operational standard.

Post-Construction Dilapidation Survey

The Applicant shall 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 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 / demolition dilapidation report must be submitted to Council for review Any damage to Council's stormwater infrastructure is to be rectified prior to the release of any Drainage security bonds.

Reason: Protection of Council's infrastructure.

Certification of Civil Works and Works as Executed Data on Council Land

The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed works have been constructed in accordance with this consent and the approved Section 138 plans. Works as Executed data certified by a registered surveyor prepared in accordance with Council's 'Guideline for preparing Works as Executed data (details overdrawn on a copy of the approved civil plans) for Council Assets' in an approved format shall be submitted to Council for approval prior to the release of any security deposits.

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

