

## Engineering Referral Response

<b>Application Number:</b>	DA2020/0579
<b>Date:</b>	13/07/2020
<b>To:</b>	Tony Collier
<b>Land to be developed (Address):</b>	Lot 29 DP 5464 , 27 Warriewood Road WARRIEWOOD NSW 2102 Lot 28 DP 5464 , 25 Warriewood Road WARRIEWOOD NSW 2102

### Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m<sup>2</sup> 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

No objections to the proposed development for apartments , townhouses and subdivision subject to conditions.

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 (Road damage)

The applicant is to lodge a bond with Council of \$40000 as security against any damage to Councils adjoining road and footpath network.

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

### **Geotechnical Report Recommendations have been Incorporated into Designs and Structural Plans**

The recommendations of the risk assessment required to manage the hazards as identified in the Geotechnical Report prepared by Geotechnique dated 28 May 2020 are to be incorporated into the construction plans. Prior to issue of the Construction Certificate, Form 2 of the Geotechnical Risk Management Policy for Pittwater (Appendix 5 of P21 DCP) is to be completed and submitted to the Accredited Certifier. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure geotechnical risk is mitigated appropriately.

### **Traffic Management and Control**

The Applicant is to submit an application for Traffic Management Plan to Council for approval prior to issue of the Construction Certificate. The Traffic Management Plan shall be prepared to RMS standards by an appropriately certified person.

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.

### **On-site Stormwater Detention Details**

The Applicant is to submit stormwater drainage plans detailing the provision of on-site stormwater detention in accordance with Northern Beaches Council's Warriewood Valley Water Management Specification dated 2001, and generally in accordance with the concept drainage plans prepared by SGC [Project No 20160112](#), drawing number SW101, SW200, SW201, SW202, SW203, SW204, SW300, SW301 (all issue D), dated 26 May 2020. Detailed drainage plans are to be prepared by a suitably qualified Civil Engineer, who has membership to National Professional Engineers Register (NER) or RPENG (Professionals Australia) 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.

### **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.

### **Tanking of Basement Level**

The basement area is to be permanently tanked. The Applicant is to submit structural details of the tanking, prepared by a suitably qualified Engineer. Where temporary dewatering works are required on the development site during construction, the developer/applicant must apply for and obtain a bore license from the NSW Office of Environment and Heritage. The bore license must be obtained prior to commencement of dewatering works. All requirements of the NSW Office of Water are to be complied with and a copy of the approval must be submitted to the Certifying Authority. Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To prevent ingress of sub-surface flows into the basement area and to comply with State Government Requirements.

### **Utilities Services**

Prior to the issue of the Construction Certificate, the Applicant is to obtain the following:

- (a) A letter from the utility provider confirming that satisfactory arrangements have been made for the approved development have been made; and
- (b) Evidence that notification has been received from a utility authority that, requirements for the development can be provided.

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

Reason: To ensure that services have been provided as required by this Consent.

### **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.

### **Construction Certificate Drainage Details**

The applicant is to provide drainage plans including specifications and details showing the site stormwater management to the Accredited Certifier for approval prior to the issue of the Construction Certificate. Such details are to be accompanied by a certificate from qualified practicing Civil Engineer with NER or RPENG accreditation, that the stormwater management system complies with the requirements of section 3.1.2 Drainage of the Building Code of Australia Housing Provision and AS/NZS 3500.3.2 - Stormwater Drainage.

Reason: To ensure appropriate provision for disposal and maintenance stormwater management arising from the development.

### **Geotechnical Report Recommendations have been correctly incorporated into designs and structural plans**

The Applicant is to submit Form 2 of the Geotechnical Risk Management Policy for Pittwater (Appendix 5 of P21 DCP) and is to be completed and submitted to the Accredited Certifier, prior to issue of the Construction Certificate.

Reason: To ensure geotechnical risk is managed appropriately.

### **Water Management Report - Warriewood Valley**

The detailed design of all works associated with the water management system must provide for a complete system, which meets the objectives and requirements of the Warriewood Valley Water Management Specification (February 2001).

The System is to be in accordance with the revised Water Management Report in accordance with condition C1.

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

Reason: To ensure water is managed appropriately and in accordance with the requirements of the Warriewood Valley Water Management Specification and Pittwater 21 DCP.

### **Certification of Water Management Report**

A qualified practising Civil Engineer with corporate membership of the Institute of Engineers Australia (M.I.E), or who is eligible to become a Corporate member, and has appropriate experience is to certify that the Water Management Report and all associated plans and detailed design are in accordance with the Warriewood Valley Water Management Specification (February 2001), and as meeting the requirements of these conditions.

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

Reason: To ensure water is managed appropriately and in accordance with the requirements of the

Warriewood Valley Water Management Specification and Pittwater 21 DCP.

### **Pre-commencement Dilapidation Report**

The applicant must prepare and submit a pre-commencement dilapidation report providing an accurate record of the existing condition of adjoining public property and public infrastructure (including roads, gutter, footpaths, etc). A copy of the report must be provided to Council, any other owners of public infrastructure and the owners of adjoining and affected private properties.

The pre-construction / demolition dilapidation report must be submitted to Council for concurrence with evidence submitted to the Certifying Authority prior to the issue of the any Construction Certificate and the commencement of any works including demolition.

Reason: Protection of Council's infrastructure during construction.

## **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.

### **Traffic Control During Road Works**

Lighting, fencing, traffic control and advanced warning signs shall be provided for the protection of the works and for the safety and convenience of the public and others in accordance with RMS Traffic Control At Work Sites Manual (<http://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical-manuals/tcws-version-4/tcwsv4i2.pdf>) and to the satisfaction of the Roads Authority. Traffic movement in both directions on public roads, and vehicular access to private properties is to be maintained at all times during the works

Reason: Public Safety.

### **Vehicle Crossings**

The Applicant is to construct **one** vehicle crossing **6** metres wide in accordance with Northern Beaches Council Drawing No A4-3330/ **Normal** 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. 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

### **Stormwater Disposal**

The stormwater drainage works shall be certified as compliant with all relevant Australian Standards and Codes and the Warriewood Valley Water Management Specification 2001 by a suitably qualified Civil Engineer with NER or RPENG accreditation (Civil). Details demonstrating compliance including certification and work as executed plans are to be submitted to the Principal Certifying Authority for review prior to the issue of any Occupation Certificate.

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

### **Post-Construction Road Reserve Dilapidation Report (Major Development)**

The applicant must bear the cost of all restoration works to Council's road, footpath and drainage assets damaged during the course of this development.

A Post Construction Dilapidation Report after the completion of all building works is to demonstrate that there is no damage to Council infrastructure prior to the refund of any security deposits.

Reason: To ensure security against possible damage to Council property.

### **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 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.

#### **Geotechnical Certification Prior to Occupation Certificate**

The Applicant is to submit the completed Form 3 of the Geotechnical Risk Management Policy (Appendix 5 of P21 DCP) to the Principal Certifying Authority prior to issue of the Occupation Certificate.

Reason: To ensure geotechnical risk is mitigated appropriately.

#### **Completion of Water Management Report**

The Applicant shall submit a Water Management Report certifying the all works associated with the water management system required under these conditions of consent and the Warriewood Valley Water Management Specification (February 2001) and submitted to the Principal Certifying authority prior to the issue of the Occupation Certificate.

Reason: To ensure Stormwater Management has been built in accordance with the plans and specifications required under this consent.

#### **Updated Water Management Report**

A copy of the updated/revised Water Management Report required under these conditions of this development consent must be submitted to Council. The Water Management Report must contain all reports, assessments and plans as required by the Warriewood Valley Water Management Specification (February 2001).

An operation and performance manual is to be submitted to the Principal Certifying Authority prior to the issue of the final Occupation Certificate.

Reason: To ensure Stormwater Management has been built in accordance with the plans and specifications required under this consent.

### **CONDITIONS THAT MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF ANY STRATA SUBDIVISION OR SUBDIVISION CERTIFICATE**

#### **Positive Covenant for On-site Stormwater Detention**

A positive covenant (under the provisions of Section 88B of the Conveyancing Act 1919) is to be created on the final plan of subdivision and accompanying 88B instrument, requiring the proprietor of the land to maintain the on-site stormwater detention structure in accordance with the standard requirements of Council. The terms of the positive covenant are to be prepared to Council's standard requirements, which are available from Northern Beaches Council. Northern Beaches Council shall be nominated as the sole authority empowered to release, vary or modify such covenant. Details

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

Reason: To ensure ongoing maintenance of the on-site detention system.

### **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 of subdivision. 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.

### **Right of Carriageway**

The Applicant shall create a right of carriageway (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision and accompanying 88B instrument, to include all vehicular access and manoeuvring areas. 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 the statutory requirements of the Conveyancing Act 1919.

### **Services**

The Applicant shall ensure all utilities/services and street lighting is installed. The Applicant is to submit a Certification stating the above requirement has been complied with by the relevant authority(s) and/or authorised contractor.

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

Reason: To ensure services have been provided in accordance with the relevant authorities requirements.

### **Certification of On-site Detention System (New Subdivision)**

A Certificate is to be submitted by a qualified experienced practicing Civil Engineer with corporate membership of the Institute of Engineers Australia (M.I.E), or who is eligible to become a Corporate member and has appropriate experience and competence in the related field confirming to the satisfaction of the Principal Certifying Authority that the on-site stormwater detention has been constructed in accordance with the plans nominated on the Development Consent and relevant conditions of Development Consent. The Subdivision Certificate will not be released until this certification has been submitted and the Principal Certifying Authority has confirmed that this condition has been satisfied.

Reason: To ensure the On-site Detention System has been built to the appropriate standard

### **Sydney Water Compliance Certification**

The Applicant shall submit a Section 73 Compliance Certificate under the Sydney Water Act 1994 issued by 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) <<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 fees to be paid. Please make early contact with the coordinator, 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**

The Applicant shall create an easement for drainage (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision, to accompany the Section 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 for Services**

The Applicant shall create an easement for services (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision, to accompany the Section 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.

### **Release of Subdivision Certificate**

The final plan of subdivision will not be issued by Council until the development has been completed in accordance with terms and conditions of the development consent.

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

### **Subdivision Certificate Application**

The Applicant shall submit a Subdivision Certificate Application to Council, which is to include a completed Subdivision Certificate form and checklist, a final plan of subdivision prepared in accordance with the requirements of the Conveyancing Act 1919, four copies of the final plan of subdivision and all relevant documents including electronic copies. This documentation is to be submitted to Council prior to the issue of the Subdivision Certificate. 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**

The Applicant shall ensure all easements, rights of carriageway, positive covenants and restrictions as to user as detailed on the plans and required by the development consent are to be created on the title naming 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.