Engineering Referral Response

Application Number:	DA2020/1289

Date:	22/01/2021
To:	Anne-Marie Young
Land to be developed (Address):	Lot 9 DP 15762 , 11 Bruce Street MONA VALE NSW 2103

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

Stormwater Disposal
The location of the dispersion trench at the rear boundary is not supported. The proposed dispersion system shall be designed in accordance with Councils Water management for Development Policy Appendix 4. The dispersion system should have a minimum 3m setback from the side or rear boundary, as well as from any on-site building or neighboring buildings. It is suggested that the level spreader be located downstream of the u-shaped stone wall adjacent to the proposed pool.

Driveway Access.
The proposed elevated driveway in the road reserve is not supported. The proposed driveway profile is inconsistent with the adjacent driveways in Bruce Street. The slab level at the boundary is significantly higher than the existing ground level which raises safety concerns for pedestrian and cannot be supported. It is recommended that a low level driveway profile be utilized similar to the adjacent driveways. The driveway profiles must be in accordance with one of Council's standard profiles. The road reserve adjoining the new crossing is to include maximum batters of 1 in 6 and the boundary levels to the adjacent properties in either side must match the existing levels.

The proposed application cannot be supported by Development Engineering due to lack of information to address:

- Stormwater Management in accordance with Council's Water Management for Development Policy
- Access and Parking in accordance with Clause B6.0 of Pittwater 21 DCP 2014.

Additional information provided 12/01/2021

Driveway Access.
As the levels required for the low level policy is not achievable, the normal driveway profile shown in the amended plans is acceptable as long as the suspended slab does not extend to the carriageway. Conditions are included to this effect.

Stormwater Disposal

Based on the letter provided by Crozier Geotechnical Consultants dated 5/01/2021 certifying that the geotechnical impact from the proposed location of the dispersion trench will be negligible, the design and location of the dispersion system is acceptable.

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:

Stormwater Disposal
The applicant is to submit Stormwater Engineering Plans for the new development within this development consent, prepared by an appropriately qualified and practicing Civil Engineer, indicating all details relevant to the collection and disposal of stormwater from the site, buildings, paved areas and where appropriate adjacent catchments. Stormwater shall be conveyed from the site in accordance with Northern Beaches Council's Water Management for Development Policy and generally in accordance with the concept plans by Michal Korecky, drawing no.20076 Sheet SW-1, SW-2, dated 24/09/2020.

Details demonstrating compliance 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 the development.

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 Crozier Geotechnical Consultants dated October 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.

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 partially elevated vehicular crossing and grading of the road reserve 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. 3m wide partially elevated driveway crossing in accordance with Council's Drawing No. A4-3330/3 NL.. The first 2m of the driveway is to be slab on ground with the elevated section extending over the property boundary to the parking facility.
2. The road reserve adjoining the new crossing is to include maximum batters of 1 in 6 and the levels in the road reserve are to match the existing levels along the boundary of the site and the adjoining properties.
3. Barriers on both sides of the elevated section of the driveway extending to the boundary and elevated carport in accordance with AS2890.1 Clause 2.4.5 Physical Controls.
4. Wall to be constructed along either side of elevated section of the driveway to prevent access under the elevated driveway in the road reserve.
5. Any adjustment of the location of the services in the road reserve to have concurrence of the relevant service authorities.

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.

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.

Driveway Works in the Road Reserve Supervision
The Applicant shall ensure the driveway works approved in the Section 138 approval are supervised by an appropriately qualified and practising Consulting 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 in Road Reserve
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) Prior to pouring driveway crossing

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.

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.

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 by a suitably qualified Civil Engineer. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

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

Certification Elevated Parking Facility Work
The Applicant shall submit a Structural Engineers' certificate certifiying that the elevated parking facility was constructed in accordance within this development consent and the provisions of Australian/New Zealand Standard AS/NZS 2890.1:2004 parking facilities - Off-street car parking, in particular Section 2.4.5 Physical controls. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the final Occupation.

Reason: Compliance with this consent.

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.