

Engineering Referral Response

Application Number:	DA2023/1527
Proposed Development:	Alterations and additions to a dwelling house including a swimming pool
Date:	22/02/2024
To:	Thomas Prosser
Land to be developed (Address):	Lot B DP 381427 , 187 Riverview Road AVALON BEACH NSW 2107 Lot LIC 577827 , 187 Riverview Road AVALON BEACH NSW 2107

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 proposal is for alterations and additions to the existing dwelling including including a new vehicle crossing , elevated driveway and associated works in the road reserve.

The subject site is located in H1 geotechnical hazard area. The submitted geotechnical report by White Geotechnical Group address the DCP controls.

Stormwater

The submitted stormwater plan proposes discharge to a level spreader which is acceptable in principle. However the geotechnical report recommends stormwater from the proposed development be piped to Pittwater. Due the slope of the site and the potential for geotechnical issues, the applicant shall provide concurrence form the geotechnical engineer regarding the method of stormwater disposal and the proposed location of the spreader and discharge rates.

Assess & works in the Road Reserve

The proposal includes a new driveway which is on grade within the road reserve and elevated within the property. The sections for the driveway indicates the batter within the site, which supports the road, is to be excavated and replaced with a retaining wall at the boundary to support the driveway and

further retaining wall downslope to form a terraced garden.

It is unclear if the retaining wall at the boundary extends along the entire frontage of the site or just under the driveway. Additionally the existing brushwood fence in the road reserve is to be removed. Based on the survey plan the section of the road reserve slopes down significantly between the fence and the boundary and no details are provided as to how this area will be treated once the fence is removed. Details are also required regarding the removal and reinstatement of the existing driveway.

As the proposed works may impact on the support of the roadway comments for the Road Asset team are required on the following points:

- The acceptability of excavating the road batter within the property and construction of a retaining wall along the boundary which would support the road.
- Any covenants or easements that may be required for the retaining wall supporting the roadway.
- The removal of the brushwood fence.
- It appears from google view that the relatively level area outside the brushwood fence is currently being used as parking. Hence Road Asset team to confirm the road alignment and if parking bays should be provided along the frontage.
- Any requirements for the area between the fence and the boundary.
- Any requirements for the fence along the boundary.

Any design changes/details required by the Road Asset team are to be addressed prior to Development Engineering finalising the assessment.

Review 1/2/2024

Stormwater

The previous comments regarding stormwater have not been addressed. Due the slope of the site and the potential for geotechnical issues, the applicant shall provide concurrence from the geotechnical engineer regarding the method of stormwater disposal and the proposed location of the spreader and discharge rates.

Assess & works in the Road Reserve

It is noted the Road Asset team have provided approval for the proposed road works. However additional information requested in the previous referral have not been addressed. Additional information required are:

- It is unclear if the retaining wall at the boundary extends along the entire frontage of the site or just under the driveway. The extent of the retaining wall is to be shown on plan.
- details as to how the area between the brushwood fence and the boundary will be treated once the fence is removed.
- Details regarding the removal and reinstatement of the existing driveway.

Additional Information Provided on 12/02/2024

The amended stormwater plans proposes piped discharge to Pittwater via the existing system in accordance with the geotechnical recommendations. The amended master set shows the retaining wall along the entire frontage. No objections to approval subject to conditions as recommended.

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(s)

The applicant is to lodge a bond with Council for the following:

Crossing / Road Reserve Works

As security against any damage or failure to complete the construction of any vehicular crossings, any road reserve works and removal of any redundant driveways required as part of this consent a bond of \$10 000.

Details confirming payment of the bond(s) are to be submitted to the Principal Certifier 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

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 TfNSW 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.

Stormwater Disposal

The applicant is to submit Stormwater Engineering Plans for the new development within this development consent in accordance with AS/NZS 3500 and Council's Water Management for Development Policy, prepared by an appropriately qualified and practicing Civil or Hydraulic Engineer who has membership to Engineers Australia, National Engineers Register (NER) or Professionals Australia (RPENG) , 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 to Pittwater via the existing system.

Details demonstrating compliance are to be submitted to the Certifier for approval prior to the issue of the Construction Certificate.

Reason: To ensure appropriate provision for disposal of 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 White Geotechnical Group dated 7/3/2023 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 Certifier prior to the issue of the Construction Certificate.

Reason: To ensure geotechnical risk is mitigated appropriately.

Off Street Parking Design

The Applicant shall submit a design for the parking facility in accordance with the relevant 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 and Section 2.6 Design of Domestic Driveways.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Construction Certificate.

Reason: Compliance with this consent.

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 Civil Engineering plans for the design of vehicular crossing and associated works in the road reserve which are to be generally in accordance with the Council's specification for engineering works - AUS-SPEC #1. The plans shall be prepared by a qualified Civil Engineer. The design must include the following information:

1. A vehicular crossing 3.5 meters wide should be constructed in accordance with Council's standard drawing Maximum Low in plain concrete.
2. Structural details of the retaining wall along the boundary supporting the road embankment.
3. The proposed layback to align with the layback of the neighboring properties.
4. The proposed pathway between the road and boundary to be deleted.
5. Details of the removal of the brushwood fence.
6. Details of the removal of the existing driveway and regrading/ landscaping of the road reserve to be shown on plan. Batter between exiting edge of brushwood fence to boundary not to exceed 1:6. The existing grade of the road reserve between the road shoulder and the brushwood fence shall be maintained.
7. The application is to include a geotechnical report that is prepared by an appropriately qualified Geotechnical Engineer to assess the impact of the proposed driveway on the existing batter supporting the road reserve and the design of the retaining wall along the boundary.
8. A services plan indicating all services in the road reserve. Where any services are to be adjusted as a result of the works, approval from the relevant service authority is to be provided.
9. Structural and Geotechnical Engineer's certification of the design of the retaining wall supporting the road batter.

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 Principal Certifier prior to the issue of the Construction Certificate

Reason: To ensure engineering works are constructed in accordance with relevant standards and Council's specification.

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.

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

Certification of Civil Works and Works as Executed Data in accordance with Road Act Approval

The Applicant shall submit a certification by a suitably qualified Civil Engineer, who has membership to Engineers Australia, National Engineers Register (NER) or Professionals Australia (RPENG) that the completed works have been constructed in accordance with this consent and the approved Section 138 and/or Construction Certificate plans. Works as Executed data certified by a registered surveyor in relation to boundaries and/or relevant easements, prepared in accordance with Council's 'Guideline for preparing Works as Executed data for Council Assets' in an approved format shall be submitted to the Principal Certifier for approval prior to the issue of the Occupation Certificate.

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

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 Certifier prior to the issue of an Occupation Certificate.

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

Certification of Off Street Parking Works

The Applicant shall submit a certificate from a suitably qualified person certifying that the parking facility was constructed in accordance within this development consent and the relevant 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 and Section 2.6 Design of Domestic Driveways.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Occupation Certificate.

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 Certifier prior to issue of the Occupation Certificate.

Reason: To ensure geotechnical risk is mitigated appropriately.