

Engineering Referral Response

Application Number:	DA2022/1211
Proposed Development:	Demolition works and construction of a dwelling house including swimming pool
Date:	12/05/2023
To:	Adam Croft
Land to be developed (Address):	Lot 23 DP 16081 , 23 Lancaster Crescent COLLAROY NSW 2097

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

12/05/2023:

Evidence of easement refusal from property owners of 54 & 56 Cumberland Avenue are provided (internal ref: TRIM 2023/136847 & 2023/198033).

Comments from Road Assets Team are also incorporated in conditions.

No objections to approval subject to conditions as recommended.

For Planner:

Please recommend the use of Geotech Report at design and construction phase of this development.

09/11/2022:

Development application is for demolition of existing and construction of a new 3 storey dwelling with attached double garage and in ground swimming pool.

Access

A suspended driveway from Lancaster Crescent is proposed. Provided plans do not show the impact on neighbouring driveway and no cross-sections from the road are provided. Also, presently public land has been blocked with metal fence on western side of existing driveway.

There are submissions from neighbours regarding possibility of future footpath in the area please seek comments from Road Assets Team.

Stormwater

Site is falling to the rear. Stormwater plans by Barrenjoey Consulting Engineers, Job No 220405, Drawing No Sw1 & Sw1, Dated 01/07/2022 proposes stormwater detention system with level spreader, calculated volume of tank appears to be low for level spreader. Stormwater flows from entire site should be controlled down to state of nature 5 years storm event in accordance with appendix 4 of Council's Water Management for Development Policy. Calculations are to be shown on plans for pre and post development.

But before Council consider amended plans the Stormwater drainage for the site shall demonstrate compliance with Council's Water Management for Development Policy, particularly Stormwater Drainage from Low Level Properties Technical Specification Section 5.5 .As the subject site falls to the rear, an easement to drain water is to be created in favor of the site over the downstream properties. Evidence of owners consent by the property owners (54 & 56 Cumberland Avenue) shall be submitted with the Development Application. The Application shall be supported by a long section of the inter-allotment drainage to the connection with Council's road drainage system.

b) Should this method of stormwater disposal not be possible, evidence shall be submitted with the Application.

For sample letter refer Appendix 2, Easement Letter of Council's Water Management for Development Policy

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:

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 (Transport for NSW) 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 provide a certification of drainage plans detailing the provision of on-site stormwater detention in accordance with Northern Beaches Council's Water Management for Development Policy and generally in accordance with the concept drainage plans prepared by Barrenjoey Consulting Engineers, Job No 220405, Drawing No Sw1 & Sw1, Dated 01/07/2022 . Detailed drainage plans are to be prepared by a suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Professional Engineers Register (NPER) and registered in the General Area of Practice for civil engineering.

The drainage plans must address the following:

- i. Level Spreader to be designed in accordance with Appendix 4 of Council's Water Management for Development Policy.
- ii. 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.

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 copy of Civil Engineering plans for the design of suspended driveway and how it ties into the adjoining driveway crossing, 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) Engineering details for the vehicle crossing and pedestrian pathway to be prepared by a qualified practicing Structural Engineer with corporate membership of the Institute of Engineers Australia (M.I.E) and has appropriate experience and competence in the related field.
- 2) Vehicle crossing to be 4.5 metres wide at the kerb and the driveway profile to be in accordance with Northern Beaches Council's standard Drawing No A4-3330/05EL. Detailed design of the suspended driveway and how it ties into the adjoining driveway crossing.
- 3) The driveway design should not obstruct pedestrian access in the public domain. At least 2.5m (may be more) clear space is required for pedestrians, to ensure appropriate sight distance.
- 4) Structural Engineers design certificate for design of elevated driveway and any supporting retaining structure.
- 5) Details of provision for landscaping following removal of existing driveway to be provided. At least 3m clearance is required to ensure future vegetation growth does not obstruct carriageway or verge. Landscape officer to assess plant selections.
- 6) Any void underneath elevated driveway to be covered with plantation.
- 7) details of design of proposed stairs and retaining walls on the public road reserve, Stairs will need to comply with Council's standards for pedestrian stairways
- 8) At a minimum, the drawings must show the works in plan view, longitudinal section, details at a relevant scale including all existing levels, any existing services/ infrastructure to be retained in the area of works.
- 9) Longitudinal section of driveway from street gutter invert to parking space within site with existing and proposed levels and grades
- 10) All driveways gradients and safe sight distances etc. shall be designed comply with AS 2890.1:2004 (Off-street Parking Standards).
- 11) Existing services plan to be provided and any adjustment to existing services are to be approved by the relevant service authority with all costs associated borne by the applicant
- 12) Details of provisions of Physical controls as per Australian/New Zealand Standard AS/NZS 2890.1:2004 parking facilities - Off-street car parking, in particular Section 2.4.5
- 13) 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.
- 14) The Applicant shall reinstate all redundant laybacks and vehicular crossings to conventional kerb and gutter, footpath or grassed verge as appropriate with all costs borne by the applicant.

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

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.

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.

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.

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 (infrastructure works to be handed over to Council)

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 for vehicle crossing & elevated driveway

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 TfNSW (Transport for NSW) Traffic Control At Work Sites Manual 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**

Reinstatement of Kerb

The Applicant shall reinstate all redundant laybacks and vehicular crossings to conventional kerb and gutter, footpath or grassed verge as appropriate with all costs borne by the applicant.

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

Reason: To facilitate the preservation of on street parking spaces.

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

The Applicant shall lodge a Legal Documents Authorisation Application with Council. The application is to include the original completed request forms (NSW Land Registry standard forms 13PC and/or 13RPA) and a copy of the Works-as Executed plan (details overdrawn on a copy of the approved drainage plan by a Registered Surveyor) and Hydraulic Engineers' final certification and photographic evidence for the completed onsite stormwater detention system works.

A guide to the process can be found on Council's website using the following link:

<https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/pdfforms/legaldocumentsauthoris-on-site-stormwater-detentionsystems/guide-submitting-ldaa-nov19.pdf>

The form for the application can be found on Council's website using the following link:

<https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/pdfforms/legaldocumentsauthoris-on-site-stormwater-detention-systems/4023-legal-documentsauthorisationoct19.pdf>

The Applicant shall create on the Title a positive covenant in respect to the ongoing maintenance and restriction as to user over the on-site stormwater detention system 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 the on-site stormwater detention system 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 and not altered

Certification Elevated Parking Facility Work

The Applicant shall submit a Structural Engineers' certificate certifying 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.

Retaining wall

The retaining wall works shall be certified as compliant with all relevant Australian Standards and Codes by a Structural Engineer. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any final Occupation Certificate.

Reason: Public and Private Safety