

## Engineering Referral Response

Application Number:	DA2021/2232
Date:	07/06/2022
To:	Adam Susko
Land to be developed (Address):	Lot B DP 416603 , 1851 Pittwater Road BAYVIEW NSW 2104

### 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

*Planner comment: At the time of writing final conditions and comments remain outstanding from Council's Development Engineering department, however the extent of those comments are not considered to be tantamount to a recommendation other than Approval.*

*On that basis, this report is proceeding to the DDP in anticipation of Engineering comments being received before that date.*

### 3/3/2022:

The development application is for the demolition of the existing dwelling and construction of a dual occupancy residence with landscape works.

### Access

There is bushland Reserve between the site and Pittwater Road therefore the site has no direct frontage to Pittwater Road.

Pedestrian access is by a public pathway runs beside the northern side of the site.

There is existing driveway and crossing from Vista Avenue. No changes are proposed to existing driveway.

Existing driveway seems to be non compliant to Council's standard driveways profiles, applicant to apply for vehicle crossing application.

### Stormwater

No site stormwater management plans are provided.

Applicant to provide the same.

### **Geotech**

Site is mapped as Geotechnical Hazard Area H1.

Geotechnical assessment by ASCENT Geotechnical Consulting, Ref AG 21412, Dated 2nd Dec 2021 is provided with form 1 and 1a.

### **13/04/2022:**

Stormwater plans prepared by ITM Design Pty Ltd, Issue A, Job No 21/154, Drawing No-H-DA-00 to H-DA-03, Dated 04/04/2022 are provided.

Onsite Stormwater Detention system for both dwellings is proposed but no hydraulic calculations are provided (Volumes of tanks etc.).

Also it is unclear that how much freeboard is available between habitable floor and top of OSD tank?

Underground OSD tanks should have maintenance access hatch and it must be able to be accessed externally to the building.

Applicant to provide hydraulic calculations, sections showing locations of tanks (with dimensions) and access to tanks.

### **07/06/2022:**

Additional information is provided.

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 Bond (Drainage works)**

The applicant is to lodge a bond of \$1000 as security against any damage or failure to complete the construction of stormwater drainage works as part of this consent.

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.

### **Construction, Excavation and Associated Works Security Bond (Crossing / Kerb)**

The applicant is to lodge a Bond of \$5000 as security against any damage or failure to complete the construction of any vehicular crossings, kerb and gutter, any footpath works and removal of any redundant driveways required as part of this consent.

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 ASCENT Geotechnical Consulting, Ref AG 21412, Dated 2nd Dec 2021 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.

### **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 ITM Design Pty Ltd, Issue A, Job No 21/154, Drawing No-H-DA-00 to H-DA-03, Dated 04/04/2022. 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. OSD to be provided in accordance with Clause 9.0 of Council's Water Management for Development
- ii. Underfloor must be adequately ventilated
- iii. All discharge control devices and pits are to be located externally to all structures and buildings so that 24-hour access to the OSD system is possible.
- iv. 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 four (4) copies of Civil Engineering plans for the design of vehicular crossing in Vista Avenue 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) A vehicular crossing of at least 3m wide at the kerb in Vista Avenue to chainage 16.00 (refer site plan by EMIAT Pty Ltd, Drawing No.- Dated 21/02/2022, Issue B) in accordance with Council's drawing 3330/ 3NL.

- 2) 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.
- 3) Longitudinal section of driveway from street gutter invert with existing and proposed levels and grades
- 4) All driveways gradients and safe sight distances etc. shall be designed comply with AS 2890.1:2004 (Off-street Parking Standards).
- 5) Any adjustment to existing services are to be approved by the relevant service authority with all costs associated borne by the applicant
- 6) Details of connection between retained footpath/public pathway and the new driveway.
- 7) To facilitate satisfactory and safe access to and from the proposed development the site access is restricted to 'Forward In and Forward Out' vehicle movement. All vehicle maneuvering should be within the site.

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.

To facilitate satisfactory and safe access to and from the proposed development the site access is restricted to 'Forward In and Forward Out' vehicle movement. All vehicle maneuvering should be within the site.

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, 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.

### **Stormwater Drainage Application**

The applicant is to provide a stormwater drainage application under Section 68 of the Local Government Act 1993 to Council for approval. The submission is to include four (4) copies of Civil Engineering plans for the design of the pipeline connection to the existing Council's stormwater pit in the public pathway which are to be generally in accordance with the civil design approved with the Development Application and Council's specification for engineering works - AUS-SPEC #1. The form can be found on Council's website at [www.northernbeaches.nsw.gov.au](http://www.northernbeaches.nsw.gov.au) > Council Forms > Stormwater Drainage Application Form.

The fee associated with the assessment and approval of the application is to be in accordance with Council's Fees and Charges. Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure appropriate provision for disposal and maintenance stormwater management and compliance with the BASIX requirements, arising from the development.

## **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 and Section 68 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 backfilling of pipelines
- (c) Prior to connection to Council pit
- (d) 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.

### **Vehicle Crossings**

The Applicant is to construct one vehicle crossing 3 metres wide in accordance with Northern Beaches Council Drawing No A4-3330/ 3NL 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 Council's Water Management for Development Policy by a suitably qualified person. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any final Occupation Certificate.

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

### **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' certification and photographic evidence for the completed on-site 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-detention-systems/guide-submitting-lda-anov19.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 legaldocumentsauthorisationoct19.pdf](https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/pdfforms/legaldocumentsauthoris:-on-site-stormwater-detention-systems/4023%20legaldocumentsauthorisationoct19.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 lodgment 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.

#### **Certification of parking and turning movements**

The Applicant shall submit a Civil Engineers' certificate certifying that the turning movements within site were constructed in accordance within this development consent and the provisions of Australian/New Zealand Standard AS/NZS 2890.1:2004 parking facilities - car parking of turning area. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the final 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 Certifying Authority prior to issue of the Occupation Certificate.

Reason: To ensure geotechnical risk is mitigated appropriately.

#### **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 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 Certifying Authority for approval prior to the issue of the Occupation Certificate.

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