

## Engineering Referral Response

<b>Application Number:</b>	DA2023/0660
<b>Proposed Development:</b>	Demolition works and construction of a dwelling house
<b>Date:</b>	14/08/2023
<b>To:</b>	Grace Facer
<b>Land to be developed (Address):</b>	Lot 7 DP 2366 , 76 Soldiers Avenue FRESHWATER NSW 2096 Lot 8 DP 2366 , 76 Soldiers Avenue FRESHWATER NSW 2096

### 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

The development site can drain to the street and is under 450 m<sup>2</sup> and hence on site detention is not required. Vehicle crossing is proposed. The development will require the relocation of an existing stormwater converter at developers expense. The proposed relocation is not supported due to the use of a steel plate. The amended design needs to show an integral concrete culvert solution. Show proposed concrete footpath reconstruction.

The proposed development is linked to a dwelling construction on the neighbouring lot as per DA2023/0661. The amended submission should outline the proposed staging of works as Councils stormwater infrastructure impacts both sites. Please outline which DA includes the stormwater system relocation works.

### Engineering Comments 08.08.23

Amended engineering plans have been provided showing a different vehicle crossing alignment which will negate the need for a road plate over Councils footpath. This is supported. I have no further objections to the proposal.

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:

**Drainage Works**

As security against any damage or failure to complete the construction of stormwater drainage works required as part of this consent a bond of \$30,000.

**Crossing / Kerb & Gutter / Footpath Works**

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 a bond of \$20,000.

**Maintenance for Civil Works**

A maintenance bond of \$30,000 for the construction of stormwater outlet culvert and lintel. The maintenance bond will only be refunded upon completion of the six month maintenance period, if work has been completed in accordance with the approved plans and to the satisfaction of Council. The maintenance bond is to be paid prior to Council prior to issuing of practical completion.

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**

**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 the street kerb.

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 identified in the Geotechnical Report referenced in Condition 1 of this consent are to be incorporated into the construction plans. 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.

## **Vehicle Crossings Application**

The Applicant is to submit an application with Council for driveway levels to construct one vehicle crossing 3 metres wide in accordance with Northern Beaches Council Standard Drawing A4-3330/1 N in accordance with Section 138 of the Roads Act 1993.

Note, driveways are to be in plain concrete only.

The fee associated with the assessment and approval of the application is to be in accordance with Council's Fee and Charges.

A Council approval is to be submitted to the Certifier prior to the issue of the Construction Certificate.

Reason: To facilitate suitable vehicular access to private property.

## **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.

The submitted plans shall be amended to ensure that all car parking spaces shall comply with the following requirements:

1. The maximum longitudinal grade for any internal parking space shall not exceed 5%.
2. The maximum cross-fall for any internal parking space shall not exceed 2%

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 the diversion of an existing stormwater culvert/ converter downstream of the proposed vehicle crossing generally in accordance with Stormwater Management plans by Nastasi & Associates project number 29447SW drawing no. C1, C2, C3 & C4 rev D dated 26.07.2023 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. The amended plans shall provide a detailed plan and section of connection between existing and proposed system.
2. Provide longitudinal section of proposed culvert, showing any crossing utility services.
3. Provide Structural Engineers certification for the culvert and lintel design.
4. Provide a plan, longitudinal section and cross sections at 1m intervals for the footpath works.

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.

#### **Pre-Construction Stormwater Assets Dilapidation Report**

The Applicant is to submit a pre-construction / demolition Dilapidation Survey of Council's Stormwater Assets prepared by a suitably qualified person in accordance with Council's Guidelines for Preparing a Dilapidation Survey of Council Stormwater Asset, to record the existing condition of the asset prior to the commencement of works. Council's Guidelines are available at: <https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/general-information/engineering-specifications/2009084729guidelineforpreparingadilapidationsurveyofcouncilstormwaterassets2.pdf>

The pre-construction / demolition Dilapidation Report must be submitted to Council for approval and the Principal Certifier prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure.

### **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.

### **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 Certifier and/or Roads Authority.

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

### **Notification of Inspections**

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 and/or culverts and pits.
- (c) Prior to pouring of footpath

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.

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

### **Post- Construction Stormwater Assets Dilapidation Report (Council stormwater assets)**

The Applicant shall submit a post-construction Dilapidation Survey of Council's Stormwater Assets. The Survey is to be prepared by a suitably qualified person in accordance with Council's Guidelines for Preparing a Dilapidation Survey of Council Stormwater Asset in order to determine if the asset has been damaged by the works. Council's Guidelines are available at <https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/general-information/engineering-specifications/preparingdilapidationsurveyforcouncilstormwaterassets.pdf>

The post-construction / demolition dilapidation report must be submitted to Council for review and approval. Any damage to Council's stormwater infrastructure is to be rectified prior to the release of any Drainage security bonds. Council's acceptance of the Dilapidation Survey is to be submitted to the Principal Certifying Authority prior to the issue of the Occupation Certificate.

Reason: Protection of Council's infrastructure.

### **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 person. 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.

### **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 Certifier prior to the issue of an Occupation Certificate.

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

### **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.

All car parking spaces shall be compliant with the following requirements:

1. The maximum longitudinal grade for any internal parking space does not exceed 5%.
2. The maximum cross-fall for any internal parking space does not exceed 2%

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

Reason: Compliance with this consent.