

## Engineering Referral Response

Application Number:	DA2020/0112
Date:	07/05/2020
To:	Jordan Davies
Land to be developed (Address):	Lot 7 DP 23583 , 602 Warringah Road FORESTVILLE NSW 2087

### 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

#### Development engineering comments 5/05/2020

**The submitted DRAINS model/ Overland Flow Study has been reviewed and the model/study is satisfactory. No objections to the development application subject to conditions.**

#### Development engineering comments 27/4/2020

##### 1) Driveway access :

**The applicant is required to submit a driveway profile drawn at a suitable scale that refers to/uses Councils standard vehicle crossing profiles.**

**Concurrence from RMS is required as to the new proposed access driveway on Warringah Road. This item has previously been mentioned.**

### **Development engineering comments 2/4/2020**

The Overland Flow study prepared by J&F Designs dated 16 December has been reviewed and the following further information/clarifications are required:

- 1) The applicant is to submit the DRAINS model to council for review.
- 2) The design consultant is to confirm whether the required inlet blockage factors have been applied to the drains model as per the requirement of Council's Auspec One design document. They are 50% for sag pits and 25% for on grade pits.

### **Previous comments**

The proposed display home and carparking area is not supported for the following reasons:

1. A overland flow study is required to determine the 1 in 100 year ARI water level in the easement/ council pipeline adjacent to the development site. Furthermore, the study is to consider the potential flooding of the site from Warringah Road stormwater drainage system. The site is adjacent to a inlet pit in Warringah road that carries a substantial amount of upstream stormwater. Cross sections detailing the 1 in 100 year ARI water surface level are to be provided at appropriate intervals.

Water surface profiles are to be detailed for the existing and proposed conditions for the development site as well as both upstream and downstream of the development site. DRAINS and Hec-Ras computer program is preferred for this application.

The proposed development must comply with all requirements of Council's Section 9.3, Overland Flow of Council's PL 850 Water : Water Management Policy. Runoff from the developed site must not cause a detrimental effect on any property.

- 2) The location of the vehicle crossing/driveway is to be amended to be clear of the telstra pit. The service provider will not accept vehicles driving over the pit .

- 3) Any proposed amended crossing/driveway location is to be submitted to the RMS for concurrence as they are the roads authority.

The proposal is therefore unsupported.

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 (Protection of Councils Drainage Infrastructure)**

The applicant is to lodge a bond of \$15000 as security against any damage to Councils stormwater drainage line which runs through the site.

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**

**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 **WARRINGAH WATER MANAGEMENT POLICY PL850**, and generally in accordance with the concept drainage plans prepared by Ibrahim and Drainage Consultants, drawing number C9075-00312 **Sheets 1- 2, IssueA**. 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) .

The drainage plans must address the following: i. The drainage plans are to be amended to reflect the amended driveway crossing location and carparking layout as detailed on the Clarendon Homes Plans Issue K 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.

**Vehicle Crossings Application**

The Applicant is to submit an application for driveway levels with Council in accordance with Section 138 of the Roads Act 1993. 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 facilitate suitable vehicular access to private property.

**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 site stormwater connection into councils drainage line which is to be generally in accordance with the stormwater drainage concept plans 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 stormwater management.

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

The Applicant is to submit a pre-construction / demolition Dilapidation Survey of Council's Stormwater Assets is to be 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 Certifying Authority 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.

### **Vehicle Crossings**

The Applicant is to construct **one** vehicle crossing **5.5** metres wide in accordance with Northern Beaches Council Drawing No A4-3330/ **Extra Low** 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 Codes by a suitably qualified person. 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.

### **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 the Legal Documents Authorisation Application with the original completed request forms (NSW Land Registry standard forms 13PC and/or 13RPA) to Council and a copy of the Works-as-Executed plan (details overdrawn on a copy of the approved drainage plan), hydraulic engineers' certification.

The Applicant shall create on the Title a restriction on the use of land and a positive covenant in respect to the ongoing maintenance and restriction of the on-site stormwater disposal structures 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 for on-site storm water detention as to user 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.

**Post-Construction Dilapidation Report (Major Development)**

The applicant must bear the cost of all restoration works to Council's road, footpath and drainage assets damaged during the course of this development.

A Post Construction Dilapidation Report after the completion of all building works is to demonstrate that there is no damage to Council infrastructure prior to the refund of any security deposits.

Reason: To ensure security against possible damage to Council property.

**Construction of a Dish Drain (Southern Boundary)**

A dish drain is to be constructed on the southern boundary in accordance with the Section 7 recommendations contained within the revised Overland Flow Path Assessment Report prepared by J and F Designs dated 15 April 2020.

The design engineer who prepared the report is to provide certification prior to the issue of the occupation certificate that the dish drain has been constructed in accordance with the recommendations of the report.

Reason: Management of overland flow.