

## Natural Environment Referral Response - Flood

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| <b>Application Number:</b>             | DA2020/1126   |
| <b>Date:</b>                           | 09/10/2020  |
| <b>To:</b>                             | Jordan Davies   |
| <b>Land to be developed (Address):</b> | Lot 3 DP 6544 , 1545 Pittwater Road NORTH NARRABEEN<br>NSW 2101 |

### Reasons for referral

This application seeks consent for the following:

- All Development Applications on land below the 1 in100 year flood level;
- All Development Applications located on land below the Probable Maximum Flood levels.

And as such, Council's Natural Environment Unit officers are required to consider the likely impacts on drainage regimes.

### Officer comments

The proposed DA generally meets the flood controls in the LEP and DCP. The proposed development is suspended above the Flood Planning Level (3.53m AHD). The Flood Emergency Response Strategy is Shelter In Place with internal stair access to first floor of the principle dwelling. The carport is proposed at the existing surface level 2.56m AHD.

The proposal is therefore supported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

### Recommended Natural Environment Conditions:

#### Flooding

In order to protect property and occupants from flood risk the following is required:

##### Building Components and Structural Soundness – C1

All new development shall be designed and constructed as flood compatible buildings in accordance with Reducing Vulnerability of Buildings to Flood Damage: Guidance on Building in Flood Prone Areas, Hawkesbury-Nepean Floodplain Management Steering Committee (2006).

##### Building Components and Structural Soundness – C2

All new development must be designed and constructed to ensure structural integrity up to the Probable Maximum Flood (4.85m AHD), taking into account the forces of floodwater, wave

action, flowing water with debris, buoyancy and immersion. Structural certification shall be provided confirming the above.

#### Building Components and Structural Soundness – C3

All new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections must be waterproofed and/or located above the Flood Planning Level (3.53m AHD). All existing electrical equipment and power points located below the Flood Planning Level must have residual current devices installed cut electricity supply during flood events.

#### Storage of Goods – D1

Hazardous or potentially polluting materials shall not be stored below the Flood Planning Level unless adequately protected from floodwaters in accordance with industry standards.

#### Flood Emergency Response – E2

Appropriate access to the shelter in place refuge should be available from all areas of the new development.

#### Floor Levels – F1

New floor levels within the development shall be set at or above the Flood Planning Level of (3.53m AHD)

#### Floor Levels – F2

The underfloor area of the dwelling below the 1% AEP flood level is to be designed and constructed to allow clear passage of floodwaters. The underfloor perimeter of the dwelling is to have a minimum of 50% open area below the 1% level (3.03m AHD).

#### Car parking – G6

Car ports are to be designed to allow flood waters to pass through and are to have a minimum of 50% open area below the 1% flood level.

#### Fencing – H1

Fencing (including pool fencing, boundary fencing, balcony balustrades and accessway balustrades) shall be open for passage of flood waters - All new fencing on the property must be design with a minimum of 50% open area between the 1% flood level and natural ground level, to allow flood waters to pass through.

#### Recommendations

The development must comply with all recommendations outlined in:

- The Flood Management Report prepared by NB Consulting Engineers dated 30th July, 2020.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

**Reason:** To reduce the impact of flooding and flood liability on owners and occupiers of flood-prone

property and reduce public and private losses in accordance with Council and NSW Government policy.

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

### **Certification of the structural stability of the building**

A suitably qualified structural engineer is to certify the structural stability of the shelter in place considering lateral flood flow, buoyancy, suction effects, and debris load impact of the PMF design flood depths and velocities. The PMF flood level is 4.85m AHD. Details demonstrating compliance are to be submitted to the Certifying Authority for approval.

Reason: To reduce the impact of flooding and flood liability on owners and occupiers of flood-prone property and reduce public and private losses in accordance with Council and NSW Government policy.