

# **Natural Environment Referral Response - Flood**

| Application Number:             | DA2020/0779  |
|---------------------------------|--|
|                                 |  |
| Date:                           | 27/07/2020   |
| То:                             | Penny Wood   |
| Land to be developed (Address): | Lot 18 DP 21687 , 49 Elaine Avenue AVALON BEACH NSW 2107 |

#### 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 complies with the flood controls in the LEP and DCP. A second storey is proposed and will provide shelter in place during extreme flood events.

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:**

# CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

# **Flooding**

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

#### <u>Building Components and Structural Soundness – C1</u>

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 (5.64m 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.

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### 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. All existing electrical equipment and power points located below the Flood Planning Level (4.13m AHD) 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 (4.13m AHD) 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.

#### 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 Pittwater Data Services dated 20/4/20.

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. Details demonstrating compliance are to be submitted to the Certifying Authority for approval.

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Reason - To protect people and reduce public and private losses in accordance with Council and NSW Government policy.

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