

## Natural Environment Referral Response - Flood

<b>Application Number:</b>	DA2020/1475
<b>Date:</b>	14/12/2020
<b>To:</b>	Penny Wood
<b>Land to be developed (Address):</b>	Lot 7 DP 1448 , 353 Pittwater Road NORTH MANLY NSW 2100

### 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 works comprise demolition of the existing dwelling with a car port and construction of a larger two-storey dwelling with a garage.

The site is affected by the High Flood Risk Precinct, with a 1% AEP flood level of 3.15m AHD, Flood Planning Level (FPL) of 3.65m AHD and Probable Maximum Flood (PMF) level of 5.65m AHD.

The proposed floor levels are compliant with Part E11 of the Warringah DCP (2011), with the ground floor level at 3.65m AHD, the upstairs floor level at 6.775m AHD, and the garage floor level at 3.15m AHD.

However the filling of the underfloor area is not compliant with Controls A1 and F2:

Control A1 (with reference to the Flood Prone Land Design Standard): The development must be "designed and constructed so that in a 1% AEP flood event there is no net loss of flood storage/floodway....".

Control F2: "All development structures must be designed and constructed so as not to impede the floodway or flood conveyance on the site, as well as ensuring no loss of flood storage in a 1% AEP Event...". From the Flood Prone Land Design Standard, "For suspended pier/pile footings, there must also be sufficient openings in perimeter walls located below the 1% AEP flood level to allow for the flood waters to flow through unimpeded: a) The underfloor area of the dwelling below the 1% AEP flood level is to be designed and constructed to allow clear passage of floodwaters; and (b) 50-75% of the perimeter of the underfloor area is of an open design between the natural ground level and the 1% AEP flood level. Only 25-50% of the perimeter would be permitted to be solid; and (c) No solid areas of the perimeter of the underfloor area would be permitted in a floodway".

The Flood Management Plan by Zait Engineering Solutions (18.06.2020) states that "the proposed dwelling will be built on piers at 1.8m c/c (or as per structural details) allowing water to pass beneath the structure." However the submitted plans show that the construction is on a "RC waffle pod slab", supported on a filled elevated base. Floodwaters would not be able to pass underneath a waffle slab, which cannot be suspended, therefore the available flood storage in the 1% AEP flood would be reduced. The slab needs to be suspended and supported on piers/piles, with openings in the perimeter such that flood waters can pass underneath, at least to the extent that overall available flood storage in

the 1% AEP flood is not reduced.

The plans do not provide details of any new fencing or gate. If any of the fencing or gate is replaced, details must be shown on the plans, and must comply with Control H1: "Fencing, including pool fencing, shall be designed so as not to impede the flow of flood waters and not to increase flood affectation on surrounding land. Appropriate fencing must comply with the Flood Prone Land Design Standard", with the Standard stating that "Fencing ... shall be open for passage of flood waters - All new fencing on the property must be flood compatible with 50-75% of the fence being of an open design between the natural ground level and the Flood Planning Level....".

The plans need to be updated to comply with the DCP, and the Flood Management Report needs to provide storage calculations that are compatible with the submitted plans.

The proposal is therefore unsupported.

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

**Recommended Natural Environment Conditions:**

Nil.