

## Natural Environment Referral Response - Flood

<b>Application Number:</b>	DA2021/2257
<b>Date:</b>	07/01/2022
<b>To:</b>	Maxwell Duncan
<b>Land to be developed (Address):</b>	Lot 100 DP 1069144 , 75 The Corso MANLY NSW 2095 Lot 101 DP 1069144 , 75 The Corso MANLY NSW 2095 Lot 102 DP 1069144 , 75 The Corso MANLY NSW 2095 Lot 1 DP 1034722 , 42 North Steyne MANLY NSW 2095

### 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 property has different flood levels at the front and rear. The relevant flood levels are as follows:  
North Steyne: 1% AEP flood level = 4.98m AHD; FPL = 5.28m AHD; PMF = 5.28-5.31m AHD.  
Henrietta Lane: 1% AEP flood level = 5.23m AHD; FPL = 5.53m AHD; PMF = 5.52m AHD.

The proposed development comprises major alterations and additions, including an extension to the basement carpark, but consideration is given in this assessment to the fact that it is an existing building. For instance, the floor level of the office/retail area fronting Henrietta Lane is permitted at a level of 5.0m AHD with a folding flood gate, however, the Lifts 1 and 2 still need to be adequately protected up to the FPL. The plans show that they are protected up to the FPL of 5.28m AHD from North Steyne, but not up to the FPL of 5.53 from Henrietta Lane. Either the flood gate to the office/retail area needs to be self-actuating, or there needs to be a physical barrier (eg a wall) up to 5.53m AHD between the office/retail area and the lifts. This requirement has been conditioned.

The proposed development generally complies with the flood requirements of the DCP and LEP.

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:

### Building Components and Structural Soundness – B1

All new development below the Flood Planning Level (FPL) (5.28m AHD from the North Steyne entrances, and 5.53m AHD from the Henrietta Lane entrances) shall be constructed with flood compatible materials.

### Building Components and Structural Soundness – B2

All new development must be designed to ensure structural integrity up to the Probable Maximum Flood (PMF) level (5.28-5.31m AHD from the North Steyne entrances, and 5.52m AHD from the Henrietta Lane entrances), taking into account the forces of floodwater, wave action, flowing water with debris, buoyancy and immersion.

### Building Components and Structural Soundness – B3

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 must have residual current devices installed to cut electricity supply during flood events. The motors for the lifts need to be above the FPL.

### Floor Levels – C1

New floor levels within the development shall be set at or above the levels shown in the plans.

### Car parking – D6

All access, ventilation and any other potential water entry points to the basement car park shall be protected up to the Flood Planning Level. The flood gate on the driveway is to protect up to 5.53m AHD and is to be self-actuating. The flood gate for the office/retail entry off Henrietta Lane is to protect up to 5.53m AHD. Lifts 1 and 2 are to be protected from water up to 5.28m AHD from North Steyne, and up to 5.53m AHD from Henrietta Lane. Protection up to the FPL from Henrietta Lane requires either that the folding flood gate shown on the plans is replaced with a self-actuating flood gate, or that a physical barrier is constructed up to 5.53m AHD high between the office/retail area and Lift 2.

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 (B2)**

A suitably qualified structural engineer is to certify the structural stability of the new development considering lateral flood flow, buoyancy, suction effects, wave action and debris load impact up to the Probable Maximum Flood (PMF).

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.

**Certification of Services (B3)**

A suitably qualified electrical engineer or contractor is to certify that all new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections are located above the Flood Planning Level and any existing electrical devices, wiring and the like located below the FPL are protected from flood water or have residual current devices installed to cut electricity supply during flood events. This includes the motors for the lifts.

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.

**Basement Car Parking (D6)**

A registered surveyor is to certify that all access, ventilation and any other potential water entry points to the basement car park have been constructed at or above the Flood Planning Level (ie 5.28m AHD from the North Steyne direction, and 5.53m AHD from the Henrietta Lane direction).

The flood gate on the driveway is to protect up to 5.53m AHD and is to be self-actuating. The flood gate for the office/retail entry off Henrietta Lane is to protect up to 5.53m AHD. Lifts 1 and 2 are to be protected from water up to 5.28m AHD from North Steyne, and from water up to 5.53m AHD from Henrietta Lane. Protection up to the FPL from Henrietta Lane requires either that the folding flood gate shown on the plans is replaced with a self-actuating flood gate, or that a physical barrier is constructed up to 5.53m AHD high between the office/retail area and Lift 2.

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

**Restriction as to User and Positive Covenant over any flood gate**

A restriction as to user shall be created on the title over any flood gate in order to:

1. Prohibit the removal or modification of any flood gate.
2. The flood protection offered by any flood gate must be continuous and at a minimum level of 5.53m AHD. Such levels are to be detailed to Australian Height Datum on the Section 88B instrument and submitted to Council for approval.

Northern Beaches Council shall be nominated as the sole authority empowered to release, vary or modify such restriction.

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.

**Positive Covenant for self-actuating flood gate**

The Applicant shall submit a positive covenant (under the provisions of Section 88B of the Conveyancing Act 1919) to be created on the final plans and accompanying 88B instrument, requiring the proprietor of the land to maintain any flood gate structures in accordance with the industry and

manufacturing standards to ensure ongoing flood protection.

The terms of the positive covenant are to be prepared to Council's standard requirements, which are available from Northern Beaches Council. Northern Beaches Council shall be nominated as the sole authority empowered to release, vary or modify such covenant.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Occupation 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.