

Flood Management Plan

2 Meager Ave, Padstow

Project No. F21316

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REVISION

REVISION	DATE	COMMENT	APPROVED BY
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Contents

REVISION2

EXISTING SITE CHARACTERISTICS.....4

PROPOSED DEVELOPMENT4

EXISTING FLOODING5

COUNCIL REQUIREMENTS5

MITIGATION FLOODING6

FLOOD MANAGEMENT PROCEDUES8

EXISTING SITE CHARACTERISTICS

The existing site characteristics consist of a single storey dwelling. The topography of the site is a slight fall towards the rear of the property.

The site slopes away from Meager Ave into the Northern and towards the railway corridor. The site is situated adjacent to existing residential properties. This can be seen in the figure below.



Figure 1: Site Location Aerial (Source: Google Maps 2021)

PROPOSED DEVELOPMENT

The proposed works will consist of proposed dual occupancy as seen in Figure 2. The proposed habitable floor level will be RL 3.00. Refer to architectural plans for further details.

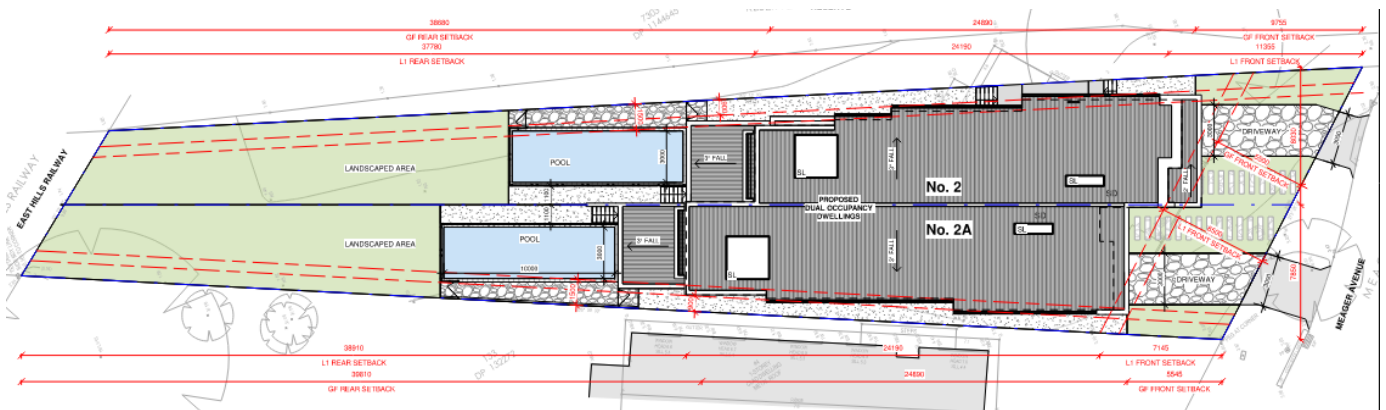


Figure 2: Proposed Development Ground Floor Layout

EXISTING FLOODING

When considering a new development, it is important to assess the impact of existing flooding on the proposed development and also the impact of the proposed development on existing or potential flooding both upstream and downstream of the development.

A.E Consulting Engineers have referred to council flood information certificate to establish the flood conditions of the site.

The flood information above indicates that the existing dwelling is situated inside of the 1% AEP storm event. Council flood information estimates the 1% AEP to be at RL 2.50 AHD.

COUNCIL REQUIREMENTS

Council's Development control plan has identified a flood planning level (FPL) to be the 1% AEP flood level plus 0.5m free board. Council's Development control plan has stated that the proposed development will require:

- Minimum habitable floor level of RL of 3.00m AHD

MITIGATION FLOODING

The following flood mitigation measures are to be adopted to demonstrate a compliant development and prevent adverse flood impacts.

- All new structures below flood planning level must be constructed using flood compatible materials. Reference shall be made to the structural engineering drawings for further details.

By incorporating these mitigation measures and the flood risk management procedures below a compliant development can be achieved, in line with councils Flood Plain Risk Management Policy.

- During flood events many local, major streets and roads will be cut off by floodwaters that may make the escape by vehicle extremely difficult. Travelling through floodwaters on foot or in a vehicle can be very dangerous as obstructions can be hidden under the floodwaters, or it is possible to be swept away, even if in a car, or the water may be polluted. It is recommended that during any flood event, staying within the building as much as practical is always the safest option. If the rainfall event has occurred, do not evacuate the building unless instructed by the State Emergency Services (SES) or police.
- Develop your own 'Family Flood Plan' generally in accordance with this Flood Emergency Response Plan. In the case that flooding should occur and children are home alone, arrangements should be ensured the children are aware not to leave the premises and to follow the 'Family Flood Plan'.
- Stay tuned to ABC 702 on a battery powered radio for official advice and warnings
- Don't allow any children to play in or near flood waters.
- Avoid entering flood waters in all circumstances unless it is necessary. Check the depth in front of you before every step using a stick/pole or similar.
- Stay away from drains, culverts, and areas where the water is deeper than your knee.
- Don't turn on your gas or electricity until it has been checked by a professional/licensed repairer.
- Beware of fallen power lines.
- Notify family and friends of your whereabouts.

Building Component	Flood Compatible Material	Building Component	Flood Compatible Material
Flooring and Sub Floor Structure	<ul style="list-style-type: none"> • pier and beam construction or • suspended reinforced concrete slab 	Doors	<ul style="list-style-type: none"> • solid panel with waterproof adhesives • flush door with marine ply filled with closed cell foam • painted material construction • aluminium or galvanised steel frame
Floor Covering	<ul style="list-style-type: none"> • clay tiles • concrete, precast or in situ • concrete tiles • epoxy, formed-in-place • mastic flooring, formed-in-place • rubber sheets or tiles with chemical set adhesive • silicone floors formed-in-place • vinyl sheets or tiles with chemical-set adhesive • ceramic tiles, fixed with mortar or chemical set adhesive • asphalt tiles, fixed with water resistant adhesive • removable rubber-backed carpet 	Wall and Ceiling Linings	<ul style="list-style-type: none"> • brick, face or glazed • clay tile glazed in waterproof mortar • concrete • concrete block • steel with waterproof applications • stone, natural solid or veneer, waterproof grout • glass blocks • glass • plastic sheeting or wall with waterproof adhesive
Wall Structure	solid brickwork, blockwork, reinforced, concrete or mass concrete	Insulation	<ul style="list-style-type: none"> • foam or closed cell types
Windows	Aluminium frame with stainless steel or brass rollers	Nails, Bolts, Hinges and Fittings	<ul style="list-style-type: none"> • galvanised • removable pin hinges

Figure 3: Flood Compatible Material

FLOOD MANAGEMENT PROCEDUES

1. Floods surrounding the subject site are considered as “flash floods” and no warning systems are available. Storms leading to major flooding are typically 2 hours long, however shorter storms as little as a 30 minutes long can produce significant flooding. Once the storm passes floodwater usually disappear rapidly.
2. During floods many local and major streets and roads will be cut by floodwaters. Traveling through floodwaters on foot or in a vehicle can be very dangerous as the water may be polluted, obstructions can be hidden under the floodwaters, or you could be swept away. Council recommends staying within the home as much as practical as this is the safest option. If you need to leave the home do so early in the flood event, before the flood level reaches the rear of the dwelling.
3. Develop your own family flood plan and be prepared if flooding should occur while the kids are coming home from school or when you are returning from work. Talk to the Council to determine the safer travel routes that are less likely to be cut by floodwaters.
4. For below ground garages do not attempt to save the car if floodwaters start to enter the garage, it is too dangerous as water levels will rise rapidly and you could be trapped.
5. As the flood level approaches the garage floor level (but only if safe to do so) relocate any items that may be damaged by water, or poisons, or wastes to as high a level as possible.
6. As the flood level approaches the habitable floor level:
 - i) gather medicines, special requirements for babies or the elderly, mobile phones, first aid kit, special papers and any valuables into one location,
 - ii) put on strong shoes, raise any items within the home that may be damaged by water (e.g. photo albums) to as high a level as possible, with electrical items on top. Turn off and disconnect any large electrical items such as a TV that cannot be raised.
 - iii) place wet towels across the bottom and lower sides of external doors to slow down the entry of water through the door.
7. In the very rare event that floodwaters may enter the home collect items from 6.i) above and move to an upper level if possible, or if in a single level dwelling provide a chair in the kitchen to enable access to the kitchen bench preferably adjacent to the window. Ensure window is not locked or key readily available. Do not evacuate the home unless instructed to do so by the SES or the Police. Remember floodwaters are much deeper and flow much faster outside.
8. In the case of a medical emergency ring 000 as normal, but explain about the flooding.
9. A laminated copy of this flood plan should be permanently attached (glued) on an inside cupboard door in the kitchen and laundry and to the inside of the electrical meter box.
10. This flood management plan should be reviewed every 5 years, particularly with the potential effects of Climate Change with sea level rise and increased rainfall intensities

We trust that this information is sufficient for your purposes, however should you have any queries in regards to this report please feel free to contact the undersigned.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'A. El Hussein', with a stylized flourish extending to the right.

Ali El Hussein

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