



Floor Level Advice Note for Applicants

Introduction

The District Plan requires floor levels to be set at a certain level. The level is determined by two things - AEP level and freeboard. Further detail on each of these topics is included below. A flow chart to assist in the decision making process is also appended to the end of this note.

AEP – Annual Exceedance Probability

The Annual Exceedance Probability is the chance or probability of a natural event (such as storm tide) of a particular size or greater occurring or being exceeded annually and is usually expressed as a percentage.

1% AEP means designing a building to avoid the 1 in a 100 flood event. This is a bigger and less frequent flood. To avoid the 1 in 100 year event, floor levels must be higher and therefore it is more onerous on applicants to achieve.

2% AEP means designing a building to avoid the 1 in a 50 year flood event. This is a smaller, more frequent flood. To avoid the 1 in 50 year flood, floor levels are not as high and therefore this is less onerous on applicants. This is the minimum to meet BC requirements for new buildings.

The District Plan rules (zone standards) require the floor levels of buildings in the coastal environment to be set above the 1% AEP level. The requirements in the coastal environment are more onerous given their proximity to the coast and susceptibility to flooding. It is to be noted that the "Coastal Environment" is plotted on built form maps with the District Plan.

The rules for properties anywhere else in the District, including the town centre, require the floor levels within buildings to be set at the less onerous 2% AEP level.

The AEP level for each property is determined by the Regional Council. Applicants must obtain a letter from the Regional Council confirming the applicable AEP level and this letter must be submitted with the building consent/resource consent application. The letter must be issued within 6 months of the date of application.

Freeboard

A freeboard allowance is added to the calculated flood level to account for any uncertainties associated with historical data and hydraulic assessments.

The application of a freeboard is at the Councils discretion. However, the table below taken from the Subdivision and Development Standard NZS4404:2010 and will be used as a baseline when determining the appropriate freeboard to be applied.

Table 3: Minimum Freeboard Requirements

Type of Structure	Freeboard height above design inundation level
Non-habitable residential buildings and detached garages*	0.20m
Commercial and industrial buildings*	0.30m
Habitable dwellings (including attached garages)*	0.50m
Major community facilities related to supply of electricity, telecommunications, water supply or wastewater disposal	0.60m
Bridges and buildings over watercourses (freeboard to the underside of structure)^	0.60m

* Levels as per NZS4404: 2010 Land Development and Subdivision Infrastructure

^ Levels as per NZTA Bridge Manual, SP/M/022, 3rd edition, May 2016

In some instances, particularly in the Coastal Environment, the Regional Council are unable to provide precise AEP levels due to uncertainty around modelled information. In these circumstances, the Regional Council are likely to include an allowance for imprecision, and this inclusion will be confirmed in the letter they provide detailing the appropriate AEP level. Given the level of uncertainty in respect of these properties, it is considered appropriate to continue to impose minimum freeboard requirements in accordance with the table above. Any reduction below the AEP + minimum freeboard requirement needs to be supported by evidence in the form of an engineer's report will be required to justify the level proposed.

What do the floor level rules apply to?

The rules (zone standards) in the District Plan refer to the floor level of "buildings". There is no exception for non-habitable buildings. The definition of "building" in the plan has been changed to the Building Act definition, which is very broad (see Sections 8 and 9 <http://www.legislation.govt.nz/act/public/2004/0072/141.0/DLM306036.html>). That means that almost everything is caught – including non-habitable buildings.

It is also worth noting that the Building Act contains a schedule (Schedule 1 - <http://www.legislation.govt.nz/act/public/2004/0072/141.0/DLM5770963.html>) that sets out projects for which building consent is not required. These projects still fall within the definition of building, they are simply excluded from the need to obtain a building consent.

As such, some things that do not require building consent (because they are excluded from building consent requirements by Schedule 1) may still require resource consent because they are caught by the overall definition of building. This includes things like "single storey detached buildings less than 10m² in floor area etc.

The floor level (AEP + freeboard) shall be measured from the prescribed water level (e.g a 1% or 2% AEP event + freeboard) to either the building platform level, the underside of the floor joists, or underside of the floor slab.

Conclusion

If a proposal can meet the floor level requirements (1 or 2% AEP + the appropriate freeboard), no resource consent is required. In this circumstance, even if a resource consent is required for some other reason, applicants do not need to provide information on this point.

If a proposal cannot meet the floor level requirements, resource consent is required. Any application would need to be accompanied by a report from a qualified engineer that explains why the floor levels are able to be below the relevant AEP levels (i.e. how the building would cope in flood conditions). Additionally, the applicant will need to review the policies on flooding in the District Plan and demonstrate compliance as part of any application for resource consent.

