

1. Purpose

The purpose of this document is to provide guidance information to building owners and designers who are considering seismic upgrades to existing buildings.

2. Legislative requirements

Building Act 2004

- s.112 alterations to existing buildings
- s.115 code compliance requirements: change of uses.121 dangerous buildings
- s.124 powers of territorial authorities in respect of dangerous, earthquake-prone, or insanitary buildings

3. Seismic upgrading of an existing building

One of the aims of the Building Act 2004 is to reduce the risks that earthquakes pose to buildings and people in or around them. While any building that has a seismic performance capacity less than the minimum modern requirements may be required to upgrade that performance under s.115, those that are rated at less than 34% of the new building standard (NBS) are a key focus. These earthquake-prone buildings (<34% NBS) are specifically addressed under s.124, and once identified as such, are given a set timeframe in which to be upgraded or vacated.

Note that in Auckland, buildings designed after 1976 are unlikely to be earthquake prone unless they have a critical structural weakness from a design deficiency or unauthorised alteration.

Earthquake strengthening of buildings leads to immediate and long-term benefits, which accrue to building owners, occupiers, insurers and the wider society.

Benefits include:

- reduced death, injury and property damage costs resulting from earthquakes
- reduced social costs and impacts associated with earthquakes
- improved post-earthquake functioning of towns and cities and reduced economic losses

Some of these benefits are difficult to quantify, but they can be very significant, as has become clear following the Canterbury earthquakes.

For these reasons, where an owner voluntarily chooses to upgrade a building because it has been identified as being earthquake-prone and the scope of the work covered under s.112 is predominantly seismic upgrading, consideration should be given to excluding the requirement to also upgrade the following features **unless** it is identified that it is substantially lacking in one or both of:-

1. means of escape from fire; and/or
2. access and facilities for persons with disabilities

Additionally, if the upgrading work affects parts of the building that could not improve the compliance for aforementioned features at the same time, it is less reasonable to expect them to be improved at that time and through the consented works of the seismic upgrade.

The test to be applied in any case is what is 'reasonable and practicable' as clarified under Practice Note AC2226, with the intent being that owners are encouraged and able to carry out the

necessary seismic upgrades on parts of their building that are earthquake-prone, and do not instead hold off such work if upgrading other parts of the structure were required.

Note that this intent does not extend to large-scale or comprehensive alterations or change of use of the building where it would be 'reasonable and practicable' to address means of escape from fire and/or access and facilities for persons with disabilities at that time.

4. Dangerous buildings

In any case where the building is substantially lacking in means of escape from fire, it is very likely that it will not comply as nearly as reasonably practicable with the Building Code and may be deemed a dangerous building. Where a building is deemed dangerous, Council has power under s.124 and s.125, to issue an owner with a dangerous building notice. Council may also seek advice from the New Zealand Fire Service as to whether they deem a building to be dangerous.

Refer to s.121 of the BA04 for a definition of the term ***dangerous building***.

5. Section 112 assessments

A base building fire report and accessibility report must be provided for the building. This report must identify and describe all of the features that are contained within the building and be accompanied by plans showing the location of each specified system or feature.

Factors that Council consider when reviewing these reports include the buildings':

- use
- importance level
- age
- extent of the non-compliance; and
- cost involved in improving compliance

Council can only grant a building consent for the alteration of a building if it is *satisfied on reasonable grounds* that:

- the alteration is only for the purpose of ensuring that the building is no longer earthquake prone
- the proposed seismic upgrade outweighs any detriment that is likely to arise as a result of the building not complying *as near as is reasonably practicable* with provisions of the Building Code that relate to
 - means of escape from fire
 - access and facilities for persons with disabilities
 - after the alteration, the building will continue to comply with provisions of the Building Code, to at least the same extent as before the alteration
- the building cannot be deemed dangerous

6. Reference material

[Auckland Council Earthquake-Prone, Dangerous & Insanitary Buildings Policy 2011-2016](#)