

Earthquake-Prone Building Policy 2006

Introduction and Background

Under Section 131 of the Building Act 2004 (the Act) all territorial authorities are required to adopt a policy on earthquake-prone buildings by 31 May 2006.

The definition of an earthquake prone building is set out in Section 122 of the Act as follows:

“Having regard to its conditions and to the ground on which it is built, and because of its construction, the building:

- (a) will have its ultimate capacity exceeded in a moderate earthquake (as defined in the regulations); and*
- (b) would be likely to collapse causing –*
 - i. injury or death to persons in the buildings or to persons on any other property;*
or
 - ii. damage to any other property.”*

The Act also notes that this definition does not apply to buildings used wholly or mainly for residential purposes unless that building comprises 2 or more storeys and contains 3 or more household units.

The building regulations define a moderate earthquake as:

“In relation to a building, an earthquake that would generate shaking at the site of the building that is of the same durations as, but that is one-third as strong as, the earthquake shaking (determined by normal measures of acceleration, velocity and displacement) that would be used to design a new building at the site.”

This document sets out Otorohanga District Councils response to the policy requirements of the Act in relation to Earthquake prone buildings.

The policy includes:

- 1 The approach that Otorohanga District Council will take in performing its functions under the Building Act 2004;
- 2 Otorohanga District Councils priorities in performing those functions; and
- 3 How the policy will apply to heritage buildings.

Earthquake-Prone Building Policy 2006

1.0 Otorohanga District Council's Policy Approach

1.1 Policy Principles

The provisions of the Building Act in regard to earthquake prone buildings reflect the governments concern with the life safety of the public in buildings and more particularly, the need to address life safety in the event of an earthquake. The Act requires Council to develop and adopt a policy for the management of earthquake prone buildings but provides discretion in the approach to be adopted and implementation of the policy. This policy document is Otorohanga District Council's response to the requirements of the Act.

1.2 Policy Approach

In the past Otorohanga District Council has adopted a passive approach to the management of earthquake prone buildings (EPB's). Council has actively engaged in the identification of potential EPB's but further investigation of the these buildings structural integrity has been at the discretion of building owners, or until such time as Council receives an application for building consent. At this stage Council has then actively pursued assessment of the identified building and structural improvements, where warranted.

Under the new requirements of the 2004 Building Act Council will continue to implement a similar approach with the exception of buildings constructed prior to 1935.

These buildings will be labeled as priority buildings and identification, assessment and improvements of them will be actively pursued.

In adopting this approach Otorohanga District Council will:

- Review its whole building stock to identify buildings that are potentially earthquake prone under the Building Act 2004;
- Compile and maintain a register of identified potentially EPB's, including identifying priority buildings for full assessment;
- Advise and actively work with owners of identified potentially EPB's;
- Encourage owners to obtain an assessment of the buildings structural integrity from a suitably qualified structural engineer;
- Work with and encourage owners of priority buildings to have structural assessments undertaken and upgrade these buildings where necessary; and
- Manage the necessity for assessment and upgrading of other potentially EPB's at the time an application for a building consent is received.

2.0 Identifying Earthquake Prone Buildings

2.1 Process for Identification

Otorohanga District Council will:

- Identify from its records, as far as practicable, buildings which are potentially earthquake prone. Where necessary and/or appropriate the building will also be visually inspected. When making its assessment Council will take into account the

condition and construction of the building and the ground upon which the building is constructed;

- Compile a list of potentially earthquake prone buildings;
- Categorise potentially EPB's as follows:
 1. **Priority Buildings** - being those constructed prior to 1935;
 2. **Other buildings** - all other buildings.
- Inform and consult with owners of buildings identified as being potential earthquake prone;
- Work with and encourage owners of priority buildings to have assessments carried out on their building.

2.2 Assessment Criteria

Assessments of potentially earthquake prone buildings should be undertaken by an appropriately qualified professional and use the New Zealand Society of Earthquake Engineers document "Recommendations For the Assessment and Improvement of the Structural Performance of Buildings in Earthquakes."

2.3 Taking Action on Earthquake-Prone Buildings

Once a building is confirmed as being earthquake prone Council will:

- Liaise and work with the owners of the building;
- Update Councils register to confirm that the building is earthquake prone and identify the buildings status on its respective property file.
- Identify the building as being earthquake prone on any Land Information Memorandum (LIM) prepared for that property and include a statement that further details are available from the Council to those who can demonstrate a genuine interest in the property.
- Invoke its powers in accordance with Section 124 and/or 126 of the Building Act 2004, or any other section which may be appropriate in the circumstances.

2.4 Interacting with Building Owners

Council acknowledges that implementation of this policy will require early and on-going communication with owners of potentially earthquake prone buildings. This includes:

- Writing to and actively engaging in consultation with owners of buildings identified as being potentially earthquake prone;
- Informing these owners of the policy; its interpretation and implications; and the options available to them with its implementation;
- Working with owners to achieve mutually acceptable outcomes.

3.0 Interaction Between Earthquake Prone Building Policy and Related Sections of Building Act 2004

3.1 Section 112 – Alterations to existing buildings

When a building consent application is received under Section 112 for a building that is identified as being potentially earthquake prone Council will not issue a building consent unless it is satisfied that the building is not earthquake prone and that the building work

will not detrimentally affect the building's compliance with the Building Code. This will require the owner of the building to engage an appropriate expert to investigate and assess the structural integrity of the building.

Were the assessment confirms that the building is earthquake prone, and Council is satisfied with this assessment, Council will invoke its powers under Section 124 of the Building Act, as appropriate, in relation to the particular circumstances of the building in question.

3.2 Sections 115 – Change of use of buildings

When an application is received for a building consent to change the use of a building that is identified as being potentially earthquake prone it will be a requirement of the building consent that the owner make a detailed assessment of the earthquake performance of the building to determine whether or not it is an earthquake prone building in its existing condition.

If the building is shown to be earthquake prone then the Council will require the building to be strengthened to comply as near as is reasonably practicable with every provision of the Building Code that relates to structural performance as required by Section 115(b)(i)(A).

When issuing building consents under Sections 112 to 116A of Act for an alteration, change of use, extension of life or subdivision Council will also consider the requirements of the Act relating to dangerous and insanitary buildings. Council will require that any action necessary to reduce or remove the dangerous or insanitary situation to be undertaken at the same time as (or before if appropriate) the building work set out in the consent application.

4.0 Impact of the Policy

Otorohanga District Council's past practice in dealing with Earthquake Prone Buildings has been well received by the community. The approach adopted in this policy is similar, being a passive approach in terms of general building stock and active in terms of priority buildings.

Implementation of the policy will come at a low cost to the community. While Council will actively encourage building owners, detailed assessments will be at the discretion of building owners, unless an application is received for building consent. At this time the applicant will be required undertake a structural assessment, at their cost, in order for Council to determine, and be satisfied that the building is not earthquake prone.

It is not anticipated that the policy will generate any adverse social or cultural effects within the community. Where buildings are identified that have social, cultural or historic significance Council will work with the building owners and other statutory/interest parties to address and resolve any concerns.

The approach within this policy is based on the environmental conditions particular to the Otorohanga District. Council will monitor the effectiveness and appropriateness of the policy and review it within 5 years after its adoption date.

5.0 Application of Policy to Heritage Buildings

Otorohanga District Council believes it is particularly important that its heritage buildings have a good chance of surviving a major earthquake. However, Council does not wish to see the intrinsic value of these buildings adversely affected by structural improvement measures. Heritage buildings will be assessed in the same way as other potentially EPB's. Council will actively work with owners of these buildings, and the Historic Places Trust where appropriate, to identify mutually acceptable ways of managing the risk associated with these buildings.