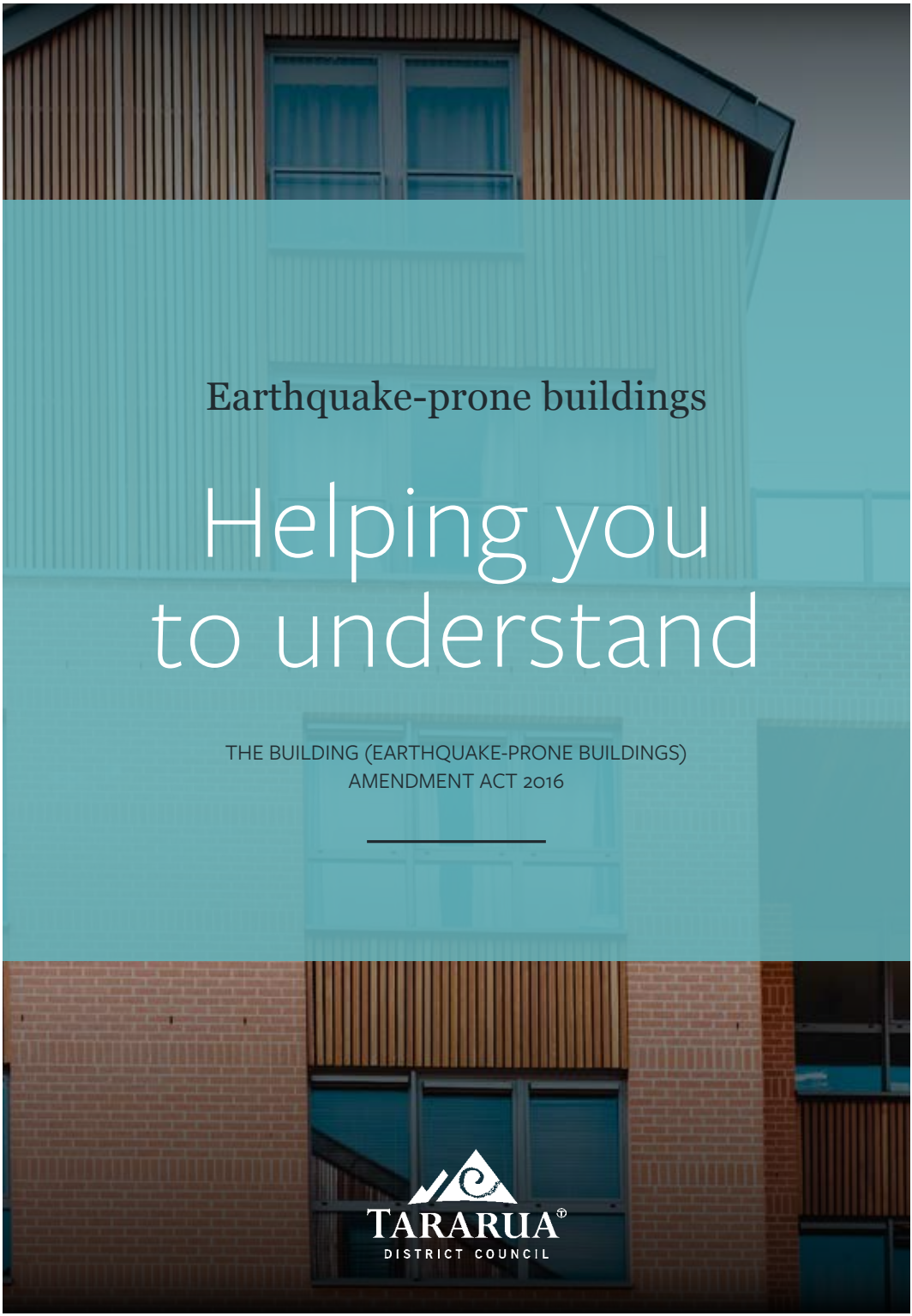


Earthquake-prone buildings

Helping you to understand

THE BUILDING (EARTHQUAKE-PRONE BUILDINGS) AMENDMENT ACT 2016

TARARUA DISTRICT COUNCIL

" The new system aims to strike the right balance between protecting people from harm in an earthquake, the costs of strengthening or removing buildings, and impacts on hertiage "

New system for managing earthquake-prone buildings

New Zealand is extremely prone to seismic activity and ensuring the safety of people is paramount. Buildings need to be safe for occupants and users.

The Building (Earthquake-prone Buildings) Amendment Act 2016 introduced major changes to the way earthquake-prone buildings are identified and managed under the Building Act. It uses knowledge learned from past earthquakes in New Zealand and overseas.

The system which came into effect on 1 July 2017 is consistent across the country and focusses on the most vulnerable buildings in terms of people's safety.

It categorises New Zealand into three seismic risk areas and sets time frames for identifying and taking action to strengthen or remove earthquake-prone buildings.

It provides more information for people using buildings such as nationally consistent EPB notices with ratings for earthquake-prone buildings and a public earthquake-prone buildings register (the EPB register).

What earthquake-prone means

A building, or part of a building, is earthquake prone if it will have its ultimate capacity exceeded in a moderate earthquake and, if it were to collapse, would do so in a way that is likely to cause injury or death to persons in or near the building or on any other property, or cause damage to any other property.

Council will determine if a building or part of a building is earthquake prone using the EPB methodology, a document which sets out how Council identify potentially earthquake-prone buildings, how engineers undertake engineering assessments, and how Council determine whether a building, or part, is earthquake prone, and if it is, its earthquake rating.

Why buildings are managed for earthquake risk

Experience from Christchurch and overseas has shown that the failure of earthquake-prone building, or parts, can endanger lives.

Thirty-nine people lost their lives when unreinforced masonry buildings failed during the Christchurch earthquake on 22 February 2011. Earthquake risk reduction is a priority in New Zealand.

New Zealand has had a progressive approach to improving standards for new buildings and earthquake-resistant design since design standards for buildings were first introduced into New Zealand in 1935, following the Napier earthquake.

Advancements in the knowledge of seismicity, material properties and the response of buildings in earthquake shaking has resulted in progressive refinements to requirements for the design and detail of buildings.

The system introduced on 1 July 2017 provides leadership and direction on how to manage the risks to public safety posed by existing buildings, including those constructed prior to the introduction of certain design standards.

Overview of the system

Under the new system for managing earthquake-prone buildings, Council, engineers and building owners have key roles to play.

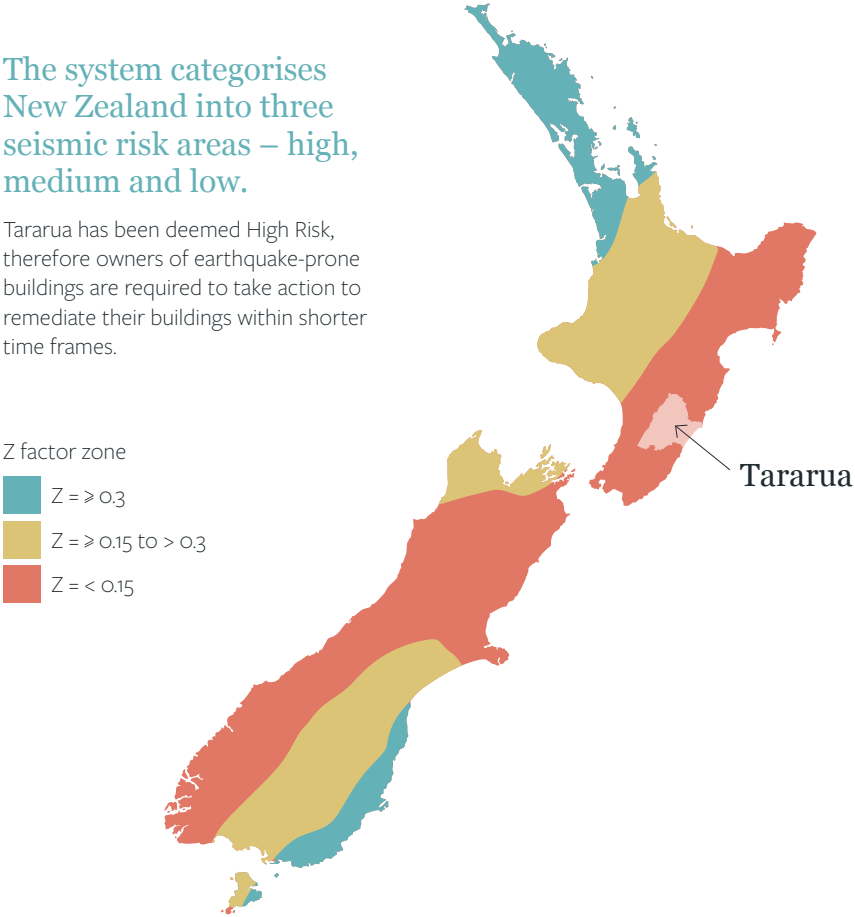
These are set out in the Building Act and can be summarised as:

- Council identify potentially earthquake-prone buildings.
- Owners who are notified by their Council must obtain engineering assessments of the building carried out by suitably qualified engineers. Council may have already completed an assessment for some buildings.
- Council determine whether buildings are earthquake prone, assign ratings, issue notices and publish information about the buildings in a public register.
- Owners are required to display notices on their building and to remediate their building.
- Owners are required to carry out seismic work within set time-frames.

Seismic risk areas and time frames

The system categorises New Zealand into three seismic risk areas – high, medium and low.

Tararua has been deemed High Risk, therefore owners of earthquake-prone buildings are required to take action to remediate their buildings within shorter time frames.



Time frames for identifying earthquake-prone buildings

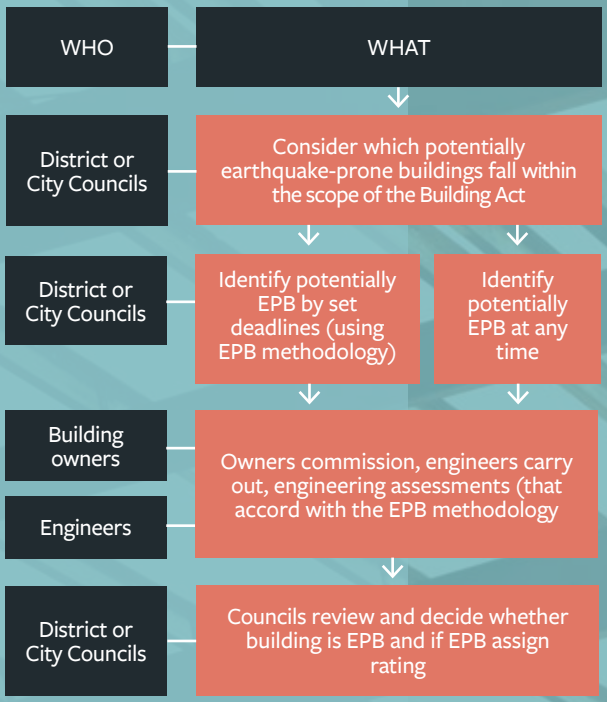
Seismic risk area	Council must identify potentially earthquake-prone buildings by:		Owners of earthquake-prone buildings must carry out seismic work within (time from issue of EPB notice):	
	Priority	Other	Priority	Other
High	**1-Jan-20**	**1-Jul-22**	**7.5 years**	**15 years**
Medium	1-Jul-22	1-Jul-27	12.5 years	25 years
Low	N/A	1-Jul-32	N/A	35 years

Tararua has been deemed as a high-risk seismic area.
Therefore, Council and building owners will need to adhere to the timeframes indicated.

Who does what?

Council, engineers and building owners have key responsibilities for managing earthquake-prone buildings (EPBs).

This is outlined in the diagram below:



What the system for managing earthquake-prone buildings means for you

Knowing and understanding the system for managing earthquake-prone buildings is important for everyone.

The focus of the system is protecting people from harm in an earthquake.

Council, engineers and building owners have key responsibilities for managing earthquake-prone buildings, to help identify priority buildings in their district.

Building users and communities will have better access to information about earthquake-prone buildings and may be asked for their input if their district has priority buildings.

Up-to-date information on earthquake-prone buildings, and earthquake ratings, will help people understand how buildings are expected to perform in a moderate earthquake.

Council and earthquake-prone buildings

Council plays a key role in the new systems for managing earthquake-prone buildings.

Under the system for managing earthquake-prone buildings Council must:

- Identify potentially earthquake-prone buildings and notify the building owners
- Consider engineering assessments provided by building owners
- Determine if a building is earthquake prone and, if it is, assign an earthquake rating
- Issue EPB notices to owners of earthquake-prone buildings
- Publish information about earthquake-prone buildings on the EPB register

Identifying potentially earthquake-prone buildings

Council will assess what work they have done to date to identify potentially earthquake-prone buildings, and what information they already have on buildings in our district.

Council may have some building information on file. This information will be assessed against the EPB Methodology to determine next steps.

Council may also identify earthquake-prone buildings through business as usual activities at any time.

Owners of potentially earthquake-prone buildings

Owners of buildings must take action within set time frames if their building is considered to be potentially earthquake prone or determined as earthquake prone and an EPB notice is issued.

Responsibilities of building owners

If Council notifies you that your building is potentially earthquake prone you must:

- Provide an engineering assessment within 12 months or provide other information to the Council if you suspect your building has been identified as potentially earthquake-prone in error. You may be able to apply for one extension of up to 12 months.
- Notify the Council that you do not wish to obtain a report. If you do so the Council must determine your building to be earthquake prone with the lowest rating and may obtain an engineering assessment and recover costs from the building owner.
- Once your building is determined as earthquake prone you must:
  - Display the EPB notice issued by the Council on the building
  - Carry out seismic work on the earthquake-prone building, so that it is no longer earthquake prone, within the specified time frame.

Priority buildings

Priority buildings are certain types of earthquake-prone buildings in high and medium seismic risk areas that are considered to present a higher risk because of their construction type, use or location.

Priority buildings need to be identified and remediated within half the time available for other buildings in the same seismic risk area.

There are two key categories of priority buildings:

- Those that are prescribed in the Building Act, which include certain hospital, emergency and education buildings.
- Those that are described in the Building Act and determined with community input, which include parts of unreinforced masonry buildings that could fall in an earthquake onto a thoroughfare with sufficient pedestrian or vehicle traffic to warrant prioritisation, and buildings that could impede transport routes of strategic importance if they were to collapse in an earthquake. Councils will need to undertake public consultation to decide with their communities which routes or thoroughfares this should apply to.

Buildings that may be earthquake-prone

The system for managing earthquake-prone buildings categorises New Zealand into three seismic risk areas and sets time frames for identifying and taking action to strengthen or demolish earthquake-prone buildings.

If you own the following type of building it may be considered potentially earthquake prone:

- An unreinforced masonry (URM) building that has not been strengthened
- A building of three or more storeys designed before 1976
- A one or two storey building designed before 1935 other than URM and timber buildings (this only apples in high and medium seismic risk areas).

If Council has reason to suspect your building is earthquake prone, it may identify your building as potentially earthquake prone at any time even if it's outside the categories identified in the EPB methodology. For example, if the Council becomes aware of issues that could impact your building's performance such as a particular construction type or ground conditions.

If your building is located in a high or medium seismic risk area, it may also be a priority building.

Priority buildings are certain types of buildings in high and medium seismic risk areas that are considered to present a higher risk because of their construction, type, use or location. Priority buildings need to be identified and remediated within half the time allowed for other buildings in the same seismic risk areas.

Council will inform you if your building is a priority building when they identify it as potentially earthquake prone and request an engineering assessment.

Obtaining an engineering assessment of a potentially earthquake-prone building

If Council has written to say your building is potentially earthquake-prone, you should contact an engineer with relevant skills and experience to obtain an engineering assessment.

At a minimum this must be a structural engineer who is also a Chartered Professional Engineer.

You have 12 months to provide an engineering assessment or other information about your building.

If you need more time you can ask Council for an extension of up to 12 months.

If you believe your building has been strengthened to an acceptable standard, and you already have an assessment by a Chartered Professional Engineer, provide evidence to Council as soon as possible.

Council determines that your building is earthquake-prone

If Council determines that your building is earthquake prone it will assign it an earthquake rating and issue an EPB notice.

You must display this notice in a prominent place on your building.

Information about your building will also be entered in the EPB register of earthquake-prone buildings.

The EPB notice will include the time frame for completing seismic work on your building. For example, if your building is a high priority building and is in a high seismic risk area, you will have seven and a half years to strengthen or demolish the building from the date of the EPB notice.

Users of earthquake-prone buildings

If you use or occupy an earthquake-prone building, or live or work in an area where there are earthquake-prone buildings, the system will give you better information about how a building is expected to perform in an earthquake.

There will be information about earthquake-prone buildings in the following places:

- EPB notices displayed on buildings which carry the earthquake rating for the building and the date that seismic work must be completed
- The online public EPB register of earthquake-prone buildings with information provided by Council. The information available will increase over time as Council determine more earthquake-prone buildings and upload data.

Public information about earthquake-prone buildings

Information about earthquake-prone buildings will be publicly displayed on the buildings themselves and available in an online register.

EPB notices must be placed on all buildings that are determined to be earthquake prone. These notices contain the building's earthquake rating (where available) and the deadline for it to be remediated.

The information must also be entered in a public register of earthquake-prone buildings which is maintained by MBIE. Information is entered by Council and will build up progressively as Council determine which buildings are earthquake prone.

Doing the work

If your building is determined earthquake prone you will have a set time frame for undertaking seismic work to ensure your building is no longer earthquake prone.

This will be specified on the EPB notice issued to you.

However, if you are planning substantial alterations to an earthquake-prone building or part, you must do the required seismic work at the same time as the alterations.

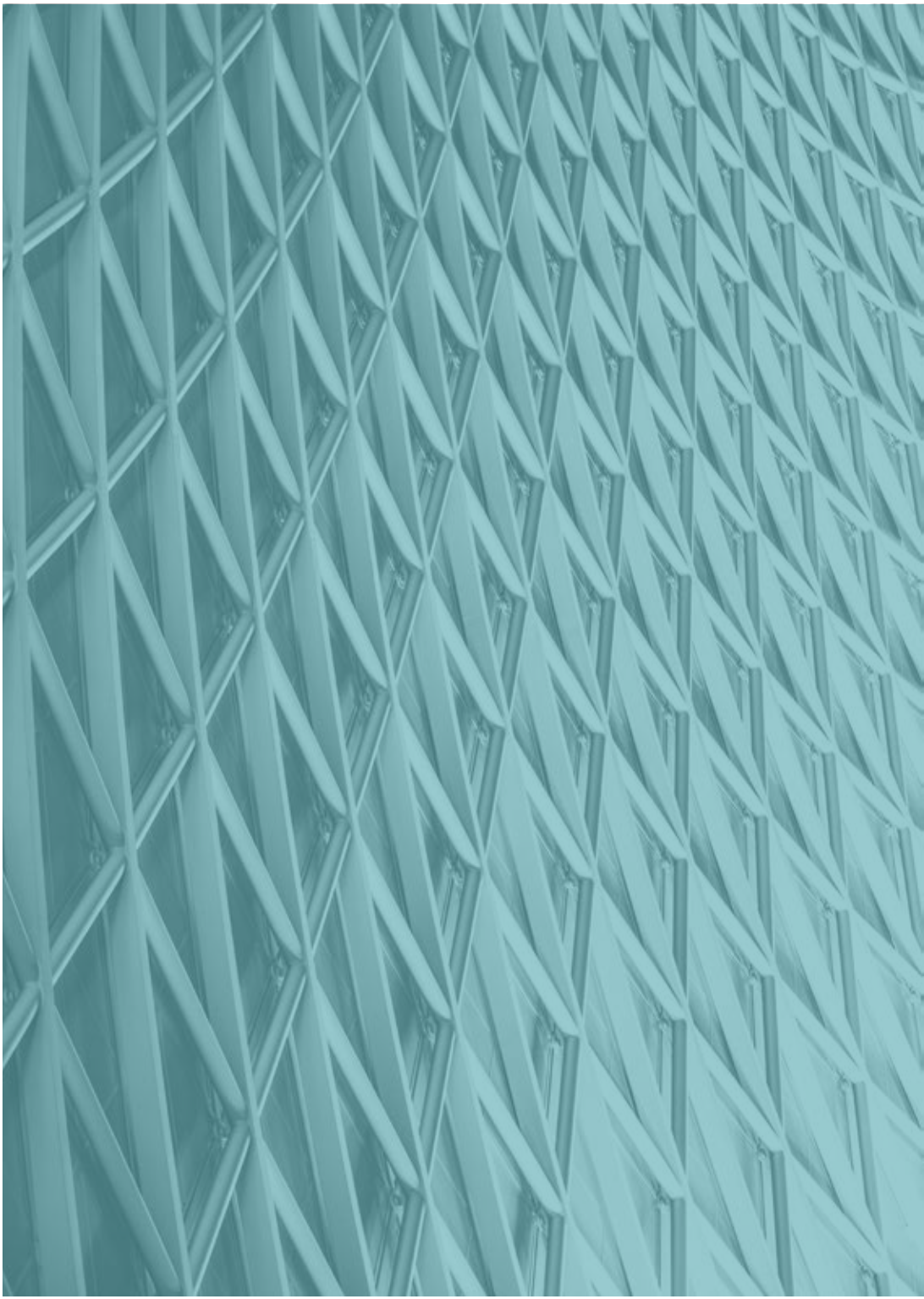
Work with your building professional to agree an approach to the work that is suitable for your building and your budget.

You will need to think about:

- The resources you can commit to the project within the set time frame
- The potential impact on tenants in the building.

Council can give you advice on the consent requirements for seismic work on your building and ways to respect heritage values.

If the work will involve fencing off part of the pavement or street, check what council permits or fees will be required.



More information

You can find more information about the system for managing earthquake-prone buildings in the following sources:

Tararua District Council
www.tararuadc.govt.nz

MBIE / Building Performance
www.building.govt.nz/managing-earthquake-prone-buildings

New Zealand Legislation
www.legislation.govt.nz/act/public/2016/0022/DLM5616102.html

TARARUA
DISTRICT COUNCIL

www.tararuadc.govt.nz