

Community workshops for red zone residents October 2011

Workshop notes – building and housing

The Building Code

1. If I'm rebuilding do I need to meet the requirements of the Building Code and will this add more cost?

All new building work in New Zealand must meet minimum Building Code requirements. The Building Code specifies the minimum structural, durability and safety standards that all building work must perform to.

The cost of meeting the requirements of the Building Code will depend on the nature of the work you are doing.

2. Will the difference in costs associated with upgraded building codes be covered by insurance after the offer?

This will depend on the nature of your specific insurance policy. Talk to your insurer about what is covered by your policy.

3. Does the Building Code change over different districts?

No, the Building Code sets national standards, although design requirements differ from region to region depending on the hazards that are present. For example in areas where there are large amounts of snow or wind or an identified earthquake risk, more robust design will be necessary to achieve the required standard.

The Building Code is designed to minimize harm to people rather than save buildings. The aim is to construct buildings to act like modern cars which have crumple zones for example, with a central cage that limits harm to car passengers. In a very severe earthquake parts of a newer building may fail in a controlled way but it shouldn't collapse catastrophically, enabling people to escape. This was the case with most modern buildings during the recent Canterbury earthquakes.

4. What changes have been made to the Building Code since the quakes?

All new buildings being constructed in Canterbury must comply with the requirements of the New Zealand Building Code and the increased seismic hazard factor for Canterbury.

The seismic hazard factor for the Canterbury earthquake region was increased from 0.22 to 0.3 minimum on 19 May 2011. Concrete slab-on-ground floors must now be reinforced with ductile steel that is tied to the perimeter foundation reinforcement. Unreinforced concrete slabs cannot

be used. This will mean new buildings are constructed better to withstand any future severe earthquakes

The requirement for concrete slab-on-ground floors must now be reinforced was extended to the rest of New Zealand from 1 August 2011.

5. Do rebuilds need to meet the new Building Codes requirements?

Yes, all new building work must comply with the requirements of the Building Code and the increased seismic hazard factor for Canterbury.

6. Can Building Code requirements change in the time it takes to build a house?

You need to build your property to meet the requirements of the issued building consent, at the time it is issued.

7. Will there be further changes to the Code?

The New Zealand Building Code is consistent with international best practice and reflects this country's position as a leader in earthquake engineering. It continues to be improved and updated to reflect new knowledge about buildings and construction practices, how they perform in events such as the series of Canterbury earthquakes, and the natural environment and societal practices.

New Zealand's requirements for earthquake design have been improved progressively since 1935, as knowledge about earthquakes – and how to design buildings to reduce the risk to people and damage to buildings – has improved.

Buildings constructed to Code today are significantly stronger than buildings built in the 1960s such as the Pyne Gould Corporation building. With some exceptions, old buildings (for example, those built of brick before 1940) performed poorly, and new buildings performed well - especially considering the extreme ground shaking.

Liquefaction and lateral spreading was again a factor in some building failures and work is underway to gain a better understanding of implications for the Building Code.

Foundation requirements

8. What are the new foundation requirements for Canterbury?

All new buildings being constructed in Canterbury must comply with the requirements of the New Zealand Building Code and the increased seismic hazard factor for Canterbury.

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Concrete slab-on-ground floors must now be reinforced with ductile steel that is tied to the perimeter foundation reinforcement. Unreinforced concrete slabs cannot be used. This will mean all new buildings are constructed better to withstand future quakes.

The Department, as part of its updated guidance for repairing or rebuilding houses following the earthquakes, has developed three technical categories for foundation systems in the residential Green Zone. The technical categories describe how the land is expected to perform in future significant earthquake events, such as a magnitude 6 earthquake or aftershock.

The three technical categories for foundation systems are:

- **Technical Category 1 (TC1):** Future land damage from liquefaction is unlikely. Standard foundations for concrete slabs and timber floors are acceptable.
- **Technical Category 2 (TC2):** Minor to moderate land damage from liquefaction is possible in future significant earthquakes.

Use standard timber piled foundations (NZS 3604) for houses with lightweight cladding and roofing and suspended timber floors or enhanced concrete foundations (i.e., stiffer floor slabs that better tie the structure together) as outlined in the Department of Building and Housing's 2010 *Guidance on house repairs and reconstruction following the Canterbury earthquake*.

- **Technical Category 3 (TC3):** Moderate to significant land damage from liquefaction is possible in future significant earthquakes. Site-specific geotechnical investigation and specific engineering foundation design is required.

9. What about fences, do they have to be reinforced with ductile steel or mesh?

No, the Building Code does not require fences to be reinforced with ductile steel or mesh.

10. Is it better to build with a concrete slab or timber piles?

The foundation design you use will largely depend on the quality of your land. Your designer and/or engineer will be able to advise which foundation solution is best for your property.

11. Will all foundations be raised to prevent liquefaction (silt) getting into the house: variation 48, flooring, slabs sunk?

No, the type of foundation solution you apply will depend on your land. For example:

- If you are rebuilding or repairing foundations in Green Zone Technical Category 1 Standard foundations for concrete slabs and timber floors are acceptable.
- If you are rebuilding or repairing foundations in Green Zone Technical Category 2 you can use standard timber piled foundations (NZS 3604) for houses with lightweight cladding and roofing and suspended timber floors; or enhanced concrete foundations as outlined in the Department of Building and Housing's *2010 Guidance on house repairs and reconstruction following the Canterbury earthquake*.
- If you are rebuilding or repairing foundations in Green Zone Technical Category 3 you will need site-specific geotechnical investigation and specific engineering foundation design.

Local councils also set floor levels as part of their district plan requirements under the Resource Management Act. You or your designer will need to check with your local council about what additional floor level requirements they may have imposed on your proposed building site.

12. Do the new foundation requirements apply to the Waimakariri district?

Yes, the requirement for concrete slab-on-ground floors to be reinforced and tied to perimeter foundations with reinforcement applies to all new buildings throughout New Zealand. This includes buildings in the Waimakariri district.

13. What about raft slabs? Are these required in Christchurch?

Raft slabs are one of many options that may be considered for houses on land that has experienced liquefaction or lateral spread, or land where there is a significant risk of liquefaction or lateral spread in future large earthquakes, for example land in Green Zone Technical Category 3. Talk to your designer/engineer about foundation options.

Geotechnical reports

14. If I already have a building consent and geotechnical report why do I need to pay for another one to satisfy my bank or insurer?

This will depend on when the building consent was granted and when the geotechnical report was carried out, especially if you are in Green Zone Technical Category 3. Talk to your insurer in the first instance.

15. Does every section need a geotechnical report? (including new subdivisions, existing homes)

If your property is in TC3 and you have foundation damage or you are proposing to build a new house you will require further geotechnical investigation and site specific engineering foundation design. You do not need a geotechnical report to carry out repairs to foundations in TC1 and TC2.

If you are buying a property in a new subdivision we recommend that you request a recent geotechnical report from the developer, or commission one yourself, and have this reviewed by an engineer or designer. A designer or engineer will be able to tell you what, if any, implications there are for your building design. You should also talk this matter over with your insurer before purchasing the land.

Depending on what technical category the property is in, the Council may request a copy of a recent geotechnical report as part of the building consent process.

16. Will a geotechnical report tell me what foundation solution is required?

If your property is in green zone TC3 and you have foundation damage, or you are building a new house, you will require further geotechnical investigation and site specific engineering foundation design.

Further geotechnical investigation will identify the best foundation solution for your property.

17. Who pays for geotechnical reports?

If your property is in Green Zone Technical Category 3, talk to your insurer in the first instance as this may be covered by your insurance policy.

If you are buying a new property you have the right to demand a geotechnical report from the property owner/developer. If there isn't one available it is in your best interests to obtain a geotechnical report and seek advice about what the report's findings might mean for both your building design and your insurer before purchasing the property.

18. Are geotechnical reports required in other cities?

Geotechnical reports are common place in areas where there is a known natural hazard risk and where the terrain is variable, for example steep cliff sites or reclaimed land areas.

Building products and materials

19. What are the best performing building structure materials above the foundations?

This will depend on the design of your building and what Technical Category your property is in. For example, if your property is in Technical Category 2 lightweight materials such as tin not tiled roofs, and weatherboards opposed to masonry or brick veneer may be more appropriate. Seek advice about this from your designer.

20. Where can you research information about building materials?

The Department of Building and Housing's website is a good place to start. It has information and guidance to help homeowners rebuild or repair with confidence. Go to <http://www.dbh.govt.nz>

Talk to your builder or designer about products and building materials. Suppliers such as Placemakers, Carters, Mitre 10 and ITM are also very knowledgeable about building products and materials.

The internet is also a good place to carry out some research. Most product manufacturers publish product information.

21. What is Linear made of?

Product specifications will vary between manufacturers. Visit the product manufacturer's website or ask your designer/builder for detailed information about products and materials.

The Department of Building & Housing also hosts a register of certified building products. These building products have been tested to confirm that they comply with the New Zealand Building Code. Refer to the online register at: <http://www.dbh.govt.nz/product-certification-current-register>

The building process

22. How long will it take to build a new home?

This will depend on the nature of your design and availability of practitioners. Your designer or builder should be able to give you an indication of how long the build process will take.

There are a number of things that can influence build times such as, the weather, design or product changes, and the availability of materials and building practitioners / sub-contractors. You also need to factor in the time it takes to obtain the necessary consents.

23. What support is there to build houses that are accessible for the disabled and special needs?

Talk to your designer or builder about your individual requirements. There are also several disability and mobility advocate groups such as Enable NZ who can provide advice support and assistance. Refer www.enable.co.nz as an example.

Building consents

24. Do you have to own the section to get building consent?

Yes, you have to be, or are going to be, the owner of the property to apply for a building consent. Most Building Consent Authorities (local councils) will request evidence of this when you apply for a building consent. Evidence can include a current copy of a Certificate of Title, or if you have just entered into a sale and purchase agreement to buy the land a copy of this agreement will suffice. .

Building Consent gives you approval for you to carry out building work, in accordance with the approved plans and specifications you submitted in your consent application.

25. How long does it take to get a building consent?

The Building Consent Authority (local council) is required to process your building consent application within 20 working days however this is dependent on you providing all the information they require at the application stage.

Many people experience much longer waiting times, usually this is because the application is incomplete and additional information is required. Assuming you or your designer has submitted a complete application you are within your rights to have it processed within the statutory timeframe. Refer www.dbh.govt.nz/consumer-complaints for information on making complaints about Building Consent Authorities.

26. Is there going to be a set consent fee?

Yes, there is a fee. The fee, paid to your local Building Consent Authority, is usually based on the cost of processing the application, or on a scale based on the value of the project. Fees vary from Building Consent Authority to Building Consent Authority and there may be additional charges. Most fee structures are published on local Council's websites.

27. How will the council cope with the increased number of building consent applications?

The Department of Building and Housing is currently working with the Christchurch City Council to implement a streamlined consenting system.

Waimakariri District, Selwyn District and Christchurch City Councils are all conscious of the consenting and inspection workload ahead and are taking steps to ramp up their capacity and capability to manage this work.

28. How do I find out what alterations/additions I can make to an existing building?

Talk to your designer/builder in the first instance about what you want, and then talk to your local council about what you need to do to meet the requirements of the Building Code. Refer www.dbh.govt.nz/publications-about-the-building-act-2004 for further information on building law and consenting requirements

29. What building work can be done without building consent?

There is a range of low-risk building and repair work that can be done without the need for building consent, for example replacing or altering linings or finishes of any internal wall, ceiling or floor in a house. All building work must meet the requirements of the Building Code.

Talk to your Building Consent Authority (local council) about your plans or visit the Department of Building and Housing's website for more information. Go to: www.dbh.govt.nz/buildingactreview-exemptions

Finding/hiring competent builders

30. Are there enough builders in Canterbury to undertake the rebuild?

The Department of Building and Housing is working with the Building and Construction Sector Productivity Partnership (a joint initiative between the Department and the building and construction sector) to help ensure there are sufficient numbers of skilled people in the industry to rebuild Canterbury.

As at 28 October, there were 2202 licensed building practitioners in Canterbury. Licensed building practitioners (LBPs) are independently assessed by the government as competent and can be held accountable through the licensing scheme.

The Department of Building and Housing's Licensed Building Practitioner Register has details of LBPs in Canterbury. To view the LBP register visit www.dbh.govt.nz/lbp

31. How do I find a good builder?

Ask around. Some of the best recommendations for designers and builders come from friends, family and colleagues.

Choose Licensed Building Practitioners (LBPs). Designers, builders, site foreman, exterior plasters, brick and block layers and other tradespeople who become LBPs are independently assessed by the government as competent and can be held accountable through the licensing scheme.

The Department of Building and Housing's Licensed Building Practitioner Register has details of LBPs in Canterbury. To view the LBP register visit www.dbh.govt.nz/lbp

Temporary Accommodation Assistance

32. What financial assistance is available when insurance assistance runs out?

Temporary Accommodation Assistance (financial assistance) is available for homeowners, including those in the Red Zone, whose homes are uninhabitable and their insurance cover for temporary accommodation has or is about to run out.

Temporary Accommodation Assistance can help with rent, board or motel stays. It is available to all eligible homeowners, regardless of income and is paid at the following rates.

Single,	\$180.00
Married, civil union or de facto couple without children, or for a sole parent with 1 dependant child	\$275.00
Married, civil union or de facto couple with 1 or more dependent children, or for a sole parent with 2 or more dependent children	\$330.00

For more information, visit www.quakeaccommodation.govt.nz or call 0800 67 32 27.

Renting

33. Are there rental properties available?

Yes. Rental properties can be found on websites such as TradeMe or Realeste.co.nz, as well as various real estate and property management companies' websites.

If your home has been damaged by the earthquakes the Canterbury Earthquake Temporary Accommodation Service (CETAS) can help you

find temporary accommodation. This includes homes in the private rental market and temporary village accommodation.

For more information, visit www.quakeaccommodation.govt.nz or call 0800 67 32 27.

34. What happens to your animals when you have to rent?

This will depend on your landlord. Talk to the property owners about pets before you enter a tenancy agreement.