

Addressing NZBC B1 liquefaction requirements policy

Purpose

The intent of this policy is to ensure the liquefaction requirements of NZBC B1 are met.

Policy

Geotechnical investigations

Appropriate geotechnical investigations undertaken by a suitably qualified and experienced chartered geotechnical professional are required to confirm the suitability of the ground for either of the following:

- Residential buildings – new or relocated;
- Major additions to existing residential buildings when the proposed addition comprises a floor area greater than 30% of the ground floor area of the original building;
- All building in close proximity to potential or recognised geological hazards;
 - evident from the site;
 - or from either known or recorded hazards (available from Hawkes Bay Regional Council (HBRC) Hazard Information Portal), public records including but not limited to GNS data and maps available at the time of site assessment;
 - or through preliminary geotechnical appraisal of new subdivisions and requirements of consent notices.
 - In general, areas of hazard include:
 - On or at the base of sloping land or on ridge tops;
 - Fill material;
 - Coastal environments particularly within identified erosion zones;
 - Areas at risk of inundation by flooding, adjacent to watercourses;
 - Known or interpreted fault traces;
 - Areas identified as potentially prone to liquefaction/lateral spread.

Site specific geotechnical investigation is not required for:

- Out-buildings less than 150m² e.g. pole sheds without concrete floors or with concrete floors but not attached to foundations; portal frame metal clad sheds (these guidelines do not apply to any tilt panel buildings);
- Stand-alone garages and carports;

- Re-piling of residential buildings;
- Sleep-outs with a maximum floor area of 30m², in association with an existing residential building and may include a toilet and shower;
- Small residential building additions with proposed increased floor area less than 30% of the existing residential building ground floor area, providing the existing foundations can be adequately assessed. In this case the new foundations can be constructed to the same design as the existing foundations, or to the equivalent required by the New Zealand Standard – NZS 3604:2011 Timber Framed Buildings (providing adequate structural connection can be made between the existing and the proposed additions).

Limitations for exclusions

- Despite the exclusions from site specific geotechnical investigation listed above, proposed building work related to a residential building may require further liquefaction hazard investigation in the following circumstances:
 1. If there is an existing geotechnical report or other information relating to liquefaction hazard for the property or on an adjoining property, then the report and any recommendations must be considered by the engineer for the proposed building work.
 2. When the value of the proposed building work, or additions, or the residential building to which additions are attached is significant, then it is recommended that building owners consider appropriate geotechnical investigation is undertaken.