

BC Update 184: Joint MBIE/NZGS liquefaction and ground improvement geotechnical guidance

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New geotechnical guidance on liquefaction and ground improvement has been produced jointly by MBIE and New Zealand Geotechnical Society (NZGS). The guidance will be of interest to geotechnical professionals and Building Consent Authorities.



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Released as Module 3 and appendices to previously published Module 5a, these documents add to the growing Earthquake Geotechnical Engineering Practice series.

Module 3

Module 3: Identification, assessment and mitigation of liquefaction hazards replaces the NZGS document published in July 2010 (Module 1 – Guideline for the identification, assessment and mitigation of liquefaction hazards).

Module 3: Identification, assessment and mitigation of liquefaction hazards (<https://www.building.govt.nz/building-code-compliance/b-stability/b1-structure/geotechnical-guidance-3/>)

Appendices to Module 5A

Module 5A appendices 3, 4 and 5 relate to specification of ground improvement for residential properties in the Canterbury region. They consist of:

- Appendix 3 - Methods of measurement & Basis for payment
- Appendix 4 - Example schedule of prices
- Appendix 5 - Example drawings.

The appendices were developed for Canterbury, but are likely to apply in other parts of the country. They are issued as a separate document and will be amalgamated into the next revision of Module 5A.

Appendices 3, 4 and 5 to Module 5A: Specification of ground improvement for residential properties in the Canterbury region (<https://www.building.govt.nz/building-code-compliance/b-stability/b1-structure/geotechnical-guidance-3/>)

Both documents are also available on the NZGS website and are being issued for public comment. NZGS members are encouraged to make use of these documents and return comments to the NZGS Secretary at modulefeedback@nzgs.org (<https://www.building.govt.nz/mailto:modulefeedback@nzgs.org>) within six months for consideration by the editorial committee.

We will progressively release other modules in the MBIE/NZGS Earthquake Geotechnical Engineering series during the year.

Worked examples

MBIE has also recently published worked examples for assessing and selecting appropriate foundations/shallow ground improvement to residential properties in liquefaction-prone areas. These accompany section 15.3 and Appendix C4 of the guidance *Repairing and rebuilding houses affected by the Canterbury earthquakes*.

[Foundation assessment – worked examples](https://www.building.govt.nz/building-code-compliance/canterbury-rebuild/supplementary-guidance/assessment-of-foundation-solutions-for-residential-technical-category-3-properties-worked-examples/) (<https://www.building.govt.nz/building-code-compliance/canterbury-rebuild/supplementary-guidance/assessment-of-foundation-solutions-for-residential-technical-category-3-properties-worked-examples/>)



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