

4415  
29 November 2012

Selwyn District Council  
PO Box 90  
Rolleston

Attention: Ben Rhodes



Dear Ben,

**RE: Plan Change – High St, Southbridge, Geotechnical Report Peer Review**

Geotech Consulting has been asked to carry out a peer review on the geotechnical report for this 6ha site subdivision of Part Paddock 2A DP 44. The report by Golder Associates Ltd dated April 2012, for Roxborough property Developers Ltd was reviewed in our letter of 9 July 2012. We raised a concern about the liquefaction potential at the site, and this was forwarded on to the consultant. Golder Associates Ltd have responded in a letter dated 14 November 2012. The important aspects elaborated on in the geotechnical section of that letter are:

- The gravels were logged as “gravelly sands and sandy gravels” but Golder confirm that these soils are “mainly clast supported” and therefore “not particularly susceptible to liquefaction”.
- Golder confirm that the water table was measured some hours after pit excavation and are therefore reliable, but concede that higher levels are possible.
- Golder suggest that ground improvement is warranted, the design to follow more geotechnical testing for the design of the subdivision.
- Golder believe that the site “could be classified as TC1”.

It is noted that the test pit logs ALL describe this material as gravelly sand. We suggest that if the material is clast supported, then the logging is somewhat deficient. We also note that all the responses to all aspects are conditioned and the conclusion is that the site “could” be TC1.

My concern with respect to liquefaction remains and I consider that a TC1 equivalent classification is premature at this stage. I suggest that TC2 equivalent is appropriate for the land in its current state without further testing and information on the liquefaction susceptibility, but that it could be changed to TC1 equivalent classification if further testing and analysis demonstrates TC1 compliance, or if the suggested ground improvement is done and tested to demonstrate the effectiveness.

Yours faithfully

**Geotech Consulting Limited**

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