4415
16 May 2013

GEOTECH
consulting ltd

Selwyn District Council
PO Box 90
Rolleston

Attention: Craig Friedel

Dear Sir,

RE: Plan Change – Conifer Grove, Prebbleton, - PC 36

Geotechnical Report Peer Review

Geotech Consulting has been asked to carry out a peer review on the geotechnical report for this proposed plan change to allow subdivision of the properties at 100 & 132-156 Birches Rd and 132 Hamptons Rd (Lot 9 DP 301739, Lot 1 DP 22302 and Pt RS 3967 totaling 12.3 ha) into 17 lots. The report is by Geoscience Consulting NZ Ltd dated 4 March 2013, for Conifer Grove Trustees Ltd. In particular the peer review is to ensure compliance with the CERA guidelines for the geotechnical assessment of subdivisions.

The report is describes a site investigation of twelve test pits to 3 m depth across the site and 4 scala penetrometer tests on each of lots 2 – 13 (lots 14 – 17 were inaccessible and lots 16, 17 & 1 each have an existing house on them). The test pits showed topsoil over silt to about 0.2 – 1.1m, over sandy gravel. Deeper information is reported from four Ecan well logs in the area (two are on the site) typically showing silt to 1.5m over gravel to 6.5 – 8.5m over a peat layer 0.5 – 2.5m thick, underlain by further gravel. The Ecan data base indicates a ground water level of 3.2 – 6.3m depth.

The liquefaction hazard is described as low, given the gravel soils and depth to groundwater, and that an equivalent Foundation Technical category TC1 is appropriate. The scala tests indicate that the site mainly complies with “good ground” as defined in NZS3604, although there may be some areas of weaker ground which might require specific foundation design. Although field testing of the surface silt and sand is recommended at building consent stage for each lot, the dense gravel is consistent with

The ground conditions as reported are consistent with those identified in investigations carried out by this company in relation to PC21. That investigation included two boreholes drilled to identify the deeper soil profile and specifically the soft layer at 6 – 8m depth. The conclusion was that the layer, although soft, was at a depth where it would have little impact on development at or close to the ground surface, and that it was not liquefiable.

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We agree that there is minimal to no liquefaction potential at the site and an equivalent TC1 category is appropriate. The extent of work reported complies with the intent of the CERA requirements at plan change stage, with a suitable number of tests and relevant deep bores to determine the ground profile as required.

Yours faithfully
Geotech Consulting Limited

Ian McCahon