CONSULTING ENGINEERS LTD.

P O Box 12 027, Hamilton 3248
Mobile +64 21 731 595
Telephone +64 7 855 4458
Email jd@mahipai.co.nz

20 August, 2025

RoofTG Pacific Ltd
90-104 Felton Matthew Avenue
Auckland

Attention: L Bester

Dear Laura,

re: Shake roof tile cyclic test, screw fixed

You have engaged us to summarise the test result for your Shake pressed steel roof tiles in 0.39 mm Grade 300 steel. The tests were carried out at the MRM test facility in August 2025; their report contains the raw data and test details, the reference being 08/2025/RTG/1 and the testing officer was S Hayman. The tile panels were fixed to battens with 9g screws 38 mm long, installed parallel to the roof plane, at a nominal spacing of 312 mm along their leading edge. Up-slope tiles are overlapped on the folded upstand of the underlying row at each batten. The screw fixes both overlapped and underlying shake. The battens were 50x40 SG8 *pinus radiata*. The test set-up was arranged such that three tile panels were unaffected by edge conditions. The strength of the battens, including their fixings to rafters, is not part of the test.

The result have been depreciated as per AS/NZS 1170.0 Table B1 (as referenced in AS 1562.1 Table 5.1 via AS 4040.2 clause 6). For ULS, a 10% CoV was used. As per Australian practice, we have taken just two results from the test.

The peak pressure attained during the L-H-L cyclic test was held for 1 minute. A sampling factor of 1.38 has been applied to the raw test result (from Table B1, more conservative in this case than Table 5.1).

The design value for ULS suction pressures on Shake from the cyclic test is 5.8 kPa.

Yours faithfully,

J T Dale

J T Dale CPEng 55660

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