

March 10, 2025

Yellowbird Mobile Homes Inc.

5920 Wilkins Drive

Chilliwack, BC V2R 3E5

Attn: Esther

Dear Esther:

Re: Structure Assessment of Snow Load for Manufactured Home – MH Reg# 6776.

As requested, West Edge Engineering Ltd. (WEE) undertook a structural review of the above mobile unit. The purpose of the review was to determine the capability of the structure to support a snow load and provide a certification for use in a new location.

A site inspection was performed on October 15, 2024. The unit was manufactured by Can Amera Homes Ltd, R.R.1, Sexsmith Road, in 1977. It is a double wide 24'x48' model called 'Berdick', or '5224ck', with serial no. 1229. It is a wood frame structure built on steel base frame with steel outriggers. The roof construction consists of triangular trusses that span to the exterior walls. The trusses are 30" deep at the peak with a 1-1/2" x 1-1/2" top and bottom chord and are spaced at 16" oc. There are vertical and diagonal 1-1/2" x 1-1/2" web members at the 1/3 points with metal connector plates. At the tall end, a 24" deep girder truss has 2x4 top and bottom chords with a plywood web.

The wall studs were not visible, but were estimated to be 2x3 at 16" oc and are bearing on the floor rim board.

The floor system base consists of 2 steel rails running the length of the units, 32" in from the exterior wall, with tapered steel support brackets welded to the outside of the rails and extending to the exterior edge of the unit. The outrigger support brackets are spaced at 8ft oc. The wood floor joists run above and perpendicular to the steel rails and span 32" to the exterior rim board. The floor joists were measured to be 2x6 at 16" oc. Based on the construction, and similar units, the floor rim board was estimated to be a 2-ply 2x6.

Based on the above observations, WEE performed calculations for capacity of the load bearing components to support the snow load. Because of the steel rail and outrigger floor design, the roof

trusses, wall studs, and floor joists were all required to be evaluated to determine the snow load bearing capacity.

Our calculations show the manufactured unit is capable of supporting an unfactored roof design snow load of 1.9 kPa (40 psf).

Please review the above and contact the undersigned if you have any questions.

Yours truly,

Konrad Duerr, P.Eng., M.A.Sc.
Structural Engineer

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WEST EDGE ENGINEERING LTD.

EGBC Permit Number 1001594

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