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DATE: 31 Jul 2015 **COMPANY:** All Season PVC Decking Mfg. Ltd.

> FROM: Gary L. Hodgson, P.Eng.

RE: Proposed Residential Decking Using All Season PVC Decking Product

All Season PVC Decking Mfg. Inc. (All Season) manufactures a polyvinylchloride (PVC) material alternative to traditional lumber products which is suitable for exterior use only. I have reviewed test reports, brochures and photos of the All Season decking materials. The accompanying test report contains photos of the product. It is proposed to support the PVC decking on wood joists spaced at 16" centres. The deck boards shall be fastened with a fastening clip with #8 stainless steel screws 1 1/2" (38mm) long, with 2 screws per joist. All deck boards must span over 2 spans or more. The boards shall be placed with 1/8"-1/4" (3mm - 6mm) gap or space between them, and screws shall be 1/4" (6.3mm) minimum from an edge and 1/2" (12.7mm) minimum from an end.

Please see the attached technical data and descriptions of the decking product in this report. The testing was performed by Intertek Testing Services NA Ltd. of Mississauga, ON in 2015. Testing was performed in accordance with ICC-ES AC174 "Acceptance Criteria for Deck Board Span Ratings and Guard Rail Systems (Guard Rails)" in conjunction with ASTM D7032-08, "Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guard Rail Systems and ASTM D6341, "Standard Test Method for Determination of the Linear Coefficient of Expansion of Plastic Lumber and Plastic Lumber Shapes Between -30 deg. F. And 140 deg. F. (34.4 deg. C. and 60 deg. C.).

Intertek Testing Services NA Ltd. Report No. 102030696TOR-001:

Intertek conducted tests to establish the load capacity of the deck boards. Copies of the test report are attached.

According to the report, the decking members placed on top of and perpendicular to joists spaced at 16" centres are capable of supporting a total load of 100 psf (refer to Table 1) which exceeds the Ontario Building Code (OBC) Cl. 9.4.1.1(2) requirement of 50 psf. It is pointed out that this material may only be used for stair treads if the support stringers are spaced at 12" centres or less.

The Intertek report is useful in that the product was tested under high and low temperatures. It is my opinion that the deck boards will probably have the same durability as pressure-treated lumber.

It is my opinion that the test reports accompanying this letter establish that the deck supplied by All Season meets the loading and safety requirements of the OBC.

This approval is intended for the exclusive use of All Season PVC Decking Mfg. Inc. in the Province of Ontario.

Gary L. Hodgson, P.Eng.

