DrJ ENGINEERING
6300 Enterprise Lane | Madison, WI 53719 | drjengineering.org

Kaiser Moanalua Vertigo 5010 Cladding Attachment: 24-DrJ-0008
January 15, 2024

Mr. Ronald A. Factor
Geolam, Inc.
9 Shorncliffe Ave.
Toronto, ON M4V 1S9

Re: KMOA Exterior Refresh 5010 Cladding Connection[1,2,3]

Dear Mr. Factor:

The purpose of this letter is to provide confirmation that the exterior cladding, proposed to be used on the Kaiser Moanalua (KMOA) Exterior Refresh project, located in Oahu, Hawaii, is adequate to resist the project's design wind pressures and meets the relevant requirements of the 2018 IBC.

The proposed exterior cladding for the KMOA project is Geolam Inc.'s Vertigo 5010 hybrid aluminum/WPC cladding. The maximum project-specific components and cladding (C&C) design wind pressures were calculated as 102.54 psf and 166.18 psf in the positive (toward the exterior wall) and negative (away from the exterior wall), respectively. (These wind pressures match the wall wind pressures you provided by SSFM International, Inc.) The design pressures, calculated according to ASCE 7-16, are based on the following wind design parameters:

- Wind Speed, V = 166 mph
- Risk Category = IV
- Exposure Category = C

These strength-level design pressures, converted to ASD design pressures, become 61.52 psf and 99.7 psf, respectively.

The Vertigo 5010 siding has undergone wind pressure testing in accordance with ASTM E330/E330M. This testing produced allowable design wind pressure values of 92 psf and 110 psf in the positive and negative directions, respectively.

1 The scope of work contained herein is limited to the specific engineering and/or code compliance analysis undertaken in this Research Report, which is also known as a duly authenticated report. This work has been prepared by an Approved Source, who is a Registered Design Professional (RDP). No representation or warranty is expressed or implied by this Research Report beyond the scope of work performed. Information, data, and/or analysis that becomes available in the future may justify modifications to this Research Report.

2 Approval of an RDP takes place when the RDP is properly licensed in this state. Professional engineering laws grant the RDP the ability to undertake commerce applying engineering principles in their area of expertise.

3 Capitalized terms are defined in the building code, reference standards, TPI 1, the NDS, AISI S202, professional engineering law, and Appendix A: Definitions/Commentary. Otherwise, terms not defined shall have ordinarily accepted meanings as the context implies. The contracted scope of work is defined in the DrJ Schedule 1 and Appendix B: Project/Deliverables.

It is DrJ's conclusion that Geolam's Vertigo 5010 cladding is acceptable to be use on the exterior walls of the Kaiser Moanalua Exterior Refresh project and meets the requirements set forth by the 2018 IBC, Chapter 14 and Section 1609. This conclusion is based on the cladding being installed in the following manner, which is in alignment with the connection used in the pressure testing. Any deviation from the following requirements is not within the scope of this letter and will require additional analysis.

- Cladding panels are attached to 18-gauge minimum steel studs, or vertical steel furring, spaced no greater than 24" on center. Cladding is attached to each intersecting stud/framing member.
- Cladding panels are attached to steel studs/framing through wood structural panel sheathing no thicker than 1/2".
- Cladding panels are attached using #8x1-5/8" self-tapping flat head screws.

If you have any questions or need further information, please let us know. If your request is time-sensitive, Ryan's cell phone is 608-206-5159 and Jacob's cell phone is 262-483-1436. Thank you.

Respectfully yours,

Jacob Zylka, P.E.
Staff Engineer
608-310-6735

Ryan Dexter, P.E.
Vice President of Engineering
608-310-6744