



UAA Professional Development Seminar Series

Structural Design of Plywood- Polyurethane Foam Structural Insulated Panels (SIPs) and Associated Testing

Presented by Scott Hamel, P.E., S.E., Ph.D.

Professor Hamel will provide a brief overview of the primary ASTM and ICC testing standards used for SIPs in construction, an overview of the design standards (or lack thereof) and building code provisions related to SIP construction, and a summary of a full regime of structural tests performed at UAA on Ply-PU SIPs produced by Alaska Insulated Panels (AIP). Various tests have been conducted, including transverse panel bending of various sizes, transverse bending of panels with factory and field spline connections, lintel bending, racking shear, and axial load (compression) tests. Results of the testing, along with the resulting design values for both short- and long-term loads, will be presented.

Originally from New Hampshire, Dr. Hamel completed a B.S. in Civil Engineering at Worcester Polytechnic Institute (WPI) in Massachusetts and a Master's in Civil Engineering, with an emphasis in structures, at the University of Colorado Boulder. Between degrees, he worked as a bridge inspector, roadway designer, and bridge engineer in Boston, and as a structural engineer in Denver, designing hospitals, museums, and courthouses. After earning his license as a Professional Engineer in Colorado, he returned to school and completed his doctorate in structural engineering at the University of Wisconsin-Madison.

Friday, November 16, 2018

11:45 am-12:45 pm

UAA College of Engineering, EIB 211