May 3, 2011

To Whom It May Concern:

This letter is in response to a request for information on the design of unvented attics.

EnergyWise Structures suggests the following guidelines to help provide an effective unvented attic assembly:

1. Eliminate all attic vents from traditional designs (This includes all eave vents, ridge vents, gable vents, etc.). If an attic is built with vents, the vents should be blocked off and sealed using Lapolla FL500, an open-cell polyurethane spray foam insulation, which provides the qualities of a complete air barrier and insulation.

2. Eliminate the use of vent baffles – By eliminating the attic vents, the unvented attic negates the need for vent baffles. This type of design corresponds to the use of SIPs as a roofing system. SIPs (Structurally Insulated Panels) are comprised of an EPS foam board center that is pressure bonded between osb outer sheathing. SIPs have been a successful roofing system for many years. The application of polyurethane foam to the underside of roof decks is similar to SIP construction.

3. Insulate the attic using Lapolla FL500 – Our research has shown that a nominal thickness of 6 inches of Lapolla FL500 will perform as well as or better than R-60 blown-in insulations. To achieve a completed sealed attic assembly the foam insulation should be applied directly to the underside of the roof sheathing and "tied into" the walls of the attic or room below. In vertical applications, such as gable ends or pony walls, the foam should be applied at a nominal thickness of 3 ½ inches where necessary, and will perform as well as or better than R-19 conventional insulations.

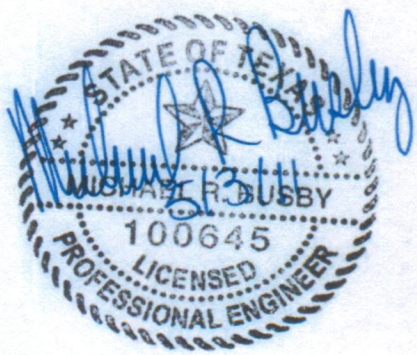
Note: The foam applied in the attic to form an unvented attic space should be applied in accordance with the IRC 2009 R 806.4 and Lapolla evaluation report ESR 2847 .5 lb foam FL 500.

Sincerely,

R. L. Rue

Richard L. Rue

Michael R. Busby, PhD, PE



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