



## Innovation and Energy Efficiency Distinguish Winners of the SIPA Building Excellence Awards

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April 21, 2010 – SIPA recognized five of the most energy-efficient and unique buildings constructed with structural insulated panels during 2009 at the SIPA Annual Meeting & Conference in Chicago, Illinois. Now in its eighth year, the SIPA Building Excellence Awards highlight innovative projects using high performance structural insulated panels (SIPs) as the basis for energy-efficient, green buildings.

To be eligible, all entries must use SIPs for at least 50% of the building envelope. Entries were evaluated on energy efficiency, design and structural engineering innovation, and other SIPs-related factors that contributed to the overall success of the project.



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Las Vegas architecture firm [SSA Architecture](#) took top honors as the Overall Competition Winner and winner in the Commercial/Industrial/Institutional category with the Jacob E. Manch Elementary School in Las Vegas, Nevada. SSA succeeded in reducing energy use of the 68,000 sq. ft. school by 50 percent over the Clark County School District's typical construction methods without increasing the construction budget. Working with SIP manufacturer [Premier Building Systems](#) and dealer/distributor [Shell Building Systems](#), crews were able to dry in the building in just 90 days, knocking 50 to 60 percent off of the construction schedule. The school is 100 percent daylighted and uses off-perpendicular walls to mitigate noise reverberation from a nearby Air Force base. Students are encouraged to learn about the energy and water saving aspects of the school's construction through several Building as a Learning Tool stations positioned throughout the building.



The Overall Competition Runner-Up was the Kenilworth Bungalow in Minneapolis, Minnesota, submitted by [Domain Architecture & Design](#), and [Panelworks Plus](#). Using a traditional turn-of-the-century design, the 3,394 sq. ft. bungalow was built with SIPs from [Extreme Panel Technologies](#) to achieve a HERS Index of 49, a 51 percent increase in energy efficiency over a code-built home. The home includes a host of resource-efficient building products and received a LEED-H Platinum certification from the U.S. Green Building Council. Domain Architecture & Design impressed judges with their emphasis on sustainability in the design phase. Careful spatial planning and room sizing allowed the overall footprint of the home to be downsized; and a thorough cost analysis was conducted to select energy-efficient technologies with the shortest payback. The Kenilworth Bungalow was also selected as the winner of the Single Family Homes Over 3,000 sq. ft. category.



Texas builder [Ferrier Custom Homes](#) claimed the Single Family Homes Under 3,000 sq. ft. category with the Sampson Residence, a 2,438 sq. ft. LEED-H Platinum home in Cleburn, Texas. The judges were impressed by the builder's detailed cost-benefit analysis and passive solar orientation conducted during the design process. SIP walls and roof from [FischerSIPS](#) help this home stay cool in the Texas climate and reach a HERS Index of 47. The home's site orientation takes advantage of prevailing winds and natural ventilation to limit the use of air conditioning. One hundred percent of the home's water supply comes from rainwater harvested on the roof. In addition to receiving the prestigious LEED-H Platinum rating, the home is certified under Energy Star, Green Built Texas, the Emerald Level of the National Green Building Standard, and the Builders Challenge.



In the Multifamily category, SIP manufacturer [Premier Building Systems](#) was chosen for their work on the Sarann Knight Apartments in Las Vegas, Nevada. Crews were able to install SIP walls on the 4-story, 82-unit complex

in just 80 days, amounting to significant labor savings for the contractor. SIP construction enabled heating and cooling costs to be reduced by 60 percent.



SIP manufacturer [Energy Panel Structures](#) took home the award in the Agricultural category for the VanGelder Farm Shop in Sibley, Iowa. Energy Panel Structures used 18-foot-tall SIP walls to provide continuous insulation and have plenty of room to work on large farm equipment. The shop has in-floor radiant heating with a 95 percent efficient modulating boiler, significantly reducing the shop's operating cost.



SIPA added a new category for SIP renovations this year and the inaugural award was claimed by [Greentech Construction](#) for applying SIPs to a salvaged 1862 timber frame. GreenTech dismantled and then reassembled the complete timber frame from a nineteenth-century farm house and clad the home with SIPs from [Insulspan](#). The

resulting 6,000 sq. ft. home has a geothermal heating system and a heat recovery ventilator, resulting in a HERS Index of 40.

An honorable mention was awarded in the Single Family Homes Under 3,000 sq. ft. category to [Timberline Panel Company](#) for the Brandt/Schaller Eco Home in New Hartford, Connecticut. This extremely energy-efficient 2,700 sq. ft. home has a HERS Index of 4 and uses close to net zero energy over the course of a year.

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