

# 2023 SIPA Building Excellence Awards



**Official Entry Form**

**APPLICATION DEADLINE: *January 18, 2023***

The Structural Insulated Panel Association (SIPA) is hosting the twentieth annual Building Excellence Awards to recognize association members that build exemplary projects using structural insulated panels (SIPs). The competition allows SIPA members to showcase their best work while demonstrating the design flexibility, sustainability and energy efficiency possible with SIP construction.



**March 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> / PHOENIX, AZ**  
*Winning entries will be showcased at the 2023 SIPA Annual Meeting and SelectSIPs EXPO.*



***Homes and commercial  
buildings completed  
between January 1, 2022  
and December 31, 2022  
are eligible.***

### ***Award Categories:***

- High Performance (*any size or use category - judged only on special High-Performance features or certifications*)
- Single Family 'Small House' under 900 sq. ft.
- Single Family Homes over 3,000 sq. ft.
- Single Family Homes under 3,000 sq. ft.
- Multifamily
- Agricultural
- Commercial/Industrial/Institutional Buildings under 10,000 sq. ft.
- Commercial/Industrial/Institutional Buildings over 10,000 sq. ft.
- Renovations (*residential or commercial, includes additions and retrofit insulated panels*)
- Affordable Housing (*excludes multifamily, home ownership cost must be at or below 50% of median income for location*)

### ***Who is Eligible?***

- The submitting company must be a current SIPA member in good standing
- Structural insulated panels must be used on a minimum of 50% of the building envelope, determined by square footage of exterior walls and roof
- The SIPs used on the project must be provided by a SIPA member manufacturer
- Installers, designers or other parties involved in the project who are not SIPA members will not be recognized in awards materials. However, builders or architects may apply for membership with their entry, but must be full members in good standing prior to the closing date for the entry to receive recognition.
- Project must be completed between January 1, 2022 and December 31, 2022

### ***Winning Entries***

- One winner will be chosen from each category. From the category winners, an Overall Competition Winner and a Runner-Up will be named.
- Judges may hand out Honorable Mentions at their discretion
- Winners will be recognized at the 2023 SIPA SelectSIPs EXPO (Annual Meeting) March 6<sup>th</sup> - 8<sup>th</sup> 2023, Phoenix, Arizona.
- SIPA will promote the winning entries on the SIPA website and issue a press release to outside media

## Guidelines

- Member companies may make multiple entries, but a separate entry form must be completed for each entry (except for same project also submitted to High Performance category)
- SIPA has the right to use the photos to promote SIPs to the construction industry. All entries will be displayed on the SIPA website.
- The deadline for entries is January 18, 2023. All entries must be received at the SIPA office on or before that date.

*The following information and documentation are REQUIRED. Entries without the required items will not be considered.*

- Completed and signed application
- A minimum of two photos showing different views of the completed project
- Photographs must be submitted in digital form and be at least 2400 x 3000 pixels, or 8" x 10" at 300 dpi
- Residential projects are encouraged to have a HERS Index calculated by a RESNET certified home energy rater. High Performance category projects must present a HERS Index with blower door data. Commercial High-Performance projects must provide other documentation of energy efficiency.

*Additional documentation is not required but is highly recommended to give the judges a clear picture of the project's overall design, sustainability, systems integration, and energy efficiency.*

- Additional photos showing the construction process and SIP installation
- Documentation of energy efficiency, such as a HERS report, blower door test results, utility bill data, or infrared thermography
- A thorough description of energy-efficient technologies other than SIPs, as well as other innovative or sustainable features
- Comments from the building owners regarding their satisfaction with the building
- A floor plan of the project. A single page line drawing no larger than 17" x 22" in size is sufficient. Please do not send full blueprints.



## Judging Criteria

**Each entry will be judged on the following criteria:**

- Design and structural engineering innovation
- Creative use of SIP construction
- Environmental sustainability

**New High Performance Category criteria:**

- Projects can compete both here and in specific building type category
- Only features pertaining to eco-efficiency, health, resilience, and renewable energy are considered here
- Energy efficiency (quantified by HERS Index, blower door and other data)

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## PARTICIPANT INFORMATION

Company Name: Moonlight Architecture

Contact Name: Andy Roehl

Address: 1149 Settlemire Road

City: Lebanon State: Ohio Zip: 45036

Phone: (513) 305-7712

Email: andy@moonlightarchitecture.com Website: www.moonlightarchitecture.com

## CATEGORY ENTRY (check one category)

- ☐ Single Family 'Small House' under 900 sq. ft.
- ☐ Single Family Homes over 3,000 sq. ft.
- ☒ Single Family Homes under 3,000 sq. ft.
- ☐ Multifamily
- ☐ Agricultural
- ☐ Commercial/Industrial/Institutional Buildings under 10,000 sq. ft.
- ☐ Commercial/Industrial/Institutional Buildings over 10,000 sq. ft.
- ☐ Renovations
- ☐ Affordable Housing
- ☒ High Performance (multiple category entry permitted)

## PROJECT INFORMATION

Project Name: Clough Residence

Address: 2721 Struthers Road

City: Grass Lake State: Michigan Zip: 49240

Date completed: 2 / 15 / 2022

Total cost of project (exclusive of land): ~\$400,000

Dimensions of building (all floors of multi-story building):

- 32' x 53'-1" single story + unfinished basement

- 14' x 16' screened-in 3-seasons room

- 16' x 7' covered front porch + storm cellar

- 10' x 15' storage loft in gable above bathrooms

- 3,402 total square feet of conditioned space

- 43,260 total cubic feet of conditioned volume

Asking price/purchase price (Affordable Housing only):

Total sq. ft. of conditioned space:

3,402 (Main Level + unfinished conditioned basement + storage loft)

## BUILT BY (if different than applicant)

Company Name: CSW, LLC

Contact Name: Phone: (517) 673-6029

Address: 406 Mt. Vernon Drive

City: Blissfield State: Michigan Zip: 49228

## PANELS MANUFACTURED BY (SIPA members only)

Company Name: PFB America Corporation (Insulspan, Michigan)

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**DESIGNED BY** (if different than applicant – SIPA will only recognize members)

Company Name: Moonlight Architecture		
Contact Name: Andy Roehl	Phone: (513) 305-7712	
Address: 1149 Settlemire Road		
City: Lebanon	State: Ohio	Zip: 45036

**Please answer each question with as much detail as possible to help in the judging process.**  
**Attach additional sheets if necessary.**

Describe the end use of the building:

The project is a single family home for Robert and Mary Ann Clough who retired to Michigan from North Carolina. The homeowners wanted a high performing home to live their days of retirement.

How did SIP construction help you get this job?

The homeowners retired from aerospace engineering and understood the benefits of using a progressive material to provide energy savings through their days of retirement. I was contacted by the homeowners through a referral from the panel manufacturer to design a home that meets the energy requirements. My practice specifically focuses on high performance residential using SIPs.

SIP wall thickness and core material: 6.5" with EPS core (U-0.039)
SIP roof thickness and core material: 10.25" with EPS core (U-027)

Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy?

SIPs became the end user energy hero on the project assisting in providing the home with an envelope that exceeded Michigan's stringent energy codes by 58.2% and a blower door test of 0.81 ACH @ 50 pascals, even with a wood burning fireplace insert.

The efficient design allowed for quick installation with the ability to dry-in the envelope before Michigan's harsh winter came in.

Construction costs were on-par with comparative projects in the area using conventional construction methods.

Describe any innovative design elements or structural engineering involved:

Southern exposure clerestory windows and overhangs designed for shading in the summer (passive solar) while providing reflected indirect lighting in the main living space. Basement constructed using insulated precast concrete panels (Superior Walls) providing continuous insulated envelope from basement slab to roof peak. Insulated storm shelter under front porch. Rainwater falls into a gravel french drain which is collected in a cistern for reuse. The gravel pre-filters the water. Performed Manual J Calculations early in the project to determine best strategy for envelope requirements and HVAC sizing. Utilized high lofted ceilings to underside of SIP roof for airy feel. Clerestory windows filter down into hallway to utilize natural daylighting to reduce the amount of lighting needed. All lighting is LED including low-voltage puck lighting on underside of roof panels.

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Please list any certifications the project received, such as ENERGY STAR, LEED, National Green Building Standard, WELL, Passive House, Green Globes or local green building programs. Only list certifications that are completed:

RESNET HERS Index

HERS Index (required only for High Performance Category and recommended for residential projects):

RESNET Registered (confirmed) 47.

Blower door test results (ACH50) (required only for High Performance Category and recommended for residential projects):

0.81 ACH50

Energy use intensity in kBtu/ft2 (required only for High Performance Category and recommended for commercial projects):

13.1 Btuh/ft2 heating (70° winter IDB) ; 6.8 Bth/ft2 cooling (75° summer IDB)

Describe the HVAC system used on the project:

Entire home is conditioned in the summer with a 2-ton central condenser (13 SEER) and 48,000 BTU, 96 AFUE LP furnace. The home is supplementally heated by a enclosed (self contained) wood burning fireplace insert. Home is continuously ventilated with Energy Recovery Ventilator (ERV) providing 177 CFM in 10-hour increments, exceeding ASHRAE requirements for indoor air quality ventilation. The system was sized by Moonlight Architecture utilizing ACCA certified software. Ducts tested results 26 CFM @ 25 pascals.

Describe any other energy-saving materials used in the building envelope other than SIPs. List U-values of windows used and the U or R-value of any insulation materials. (judged only for High Performance Category)

- Insulated precast concrete foundation walls (Superior Walls) R-Value: 12.5
- Sunrise Windows (EnergyStar) U-Factor: 0.27 ; SHGC: 0.26 (insulated frames with integral brick mould for tighter installation).
- Energy Star shingles, prepared for solar panel installation.

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar (judged only for High Performance Category):

- 100% LED Lighting
- Passive solar heating and daylighting measures.
- ERV Ventilation

Were any solar panels installed on the project? If so, indicate the size of the system (judged only for High Performance Category):

No solar panels installed at final inspection, however the project is solar-ready. Panels anticipated to be installed within the next year. South roof plane exceeds area needed for Net-Zero.

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Please list any sustainable materials or design features not listed above, such as recycled materials, low-VOC finishes, landscaping, etc. (judged only for High Performance Category):

- All low-VOC interior finishes.

Any additional comments on the project:

- SIP engineering and project consultant engineering by SIPA Member Eclipse Engineering.
- Annual Energy Costs:

	As Designed	Michigan Performance Max.
Heating =	\$1,325	\$3,804
Cooling =	\$114	\$192
Water Heating =	\$398	\$398
Lights/Appliances =	\$947	\$947
Total =	\$2,784	\$5,301

52.5% Yearly Savings

CHECKLIST

- ☒ My company is a SIPA member. Panels for this project were manufactured by a SIPA member.
- ☒ I have answered ALL the questions completely
- ☒ I have enclosed the two required electronic images of the completed project meeting the requirements stated in the SIPA Building Excellence Awards guidelines

**PLEASE CONFIRM:** I have read and understand the rules for this competition. This entry is structural insulated panel construction as defined in the SIPA Building Excellence Awards guidelines. I understand by making this submission that my pictures will be used by the Structural Insulated Panel Association (SIPA) to promote the use of structural insulated panels. I hereby give permission to SIPA to use the enclosed pictures for any use they see fit in that endeavor. I understand that where possible, SIPA will give credit for pictures used to my company as listed above.

Signature: 

Date: 01 / 26 / 2023

Entries that do not contain all required materials or are received after January 18, 2023 will not be considered Complete application and submit electronically to [info@sips.org](mailto:info@sips.org) Extended to 01 / 26 / 2023

Or send hard copy applications to SIPA office: P.O. Box 39848, Ft. Lauderdale, FL 33339

