



SIPA

Structural Insulated Panel Association

Why Smart Builders Use SIPs – What YOU Need to Know

IBS –Building Systems Council – Las Vegas – Feb 2023

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The Structural Insulated Panel Association (SIPA) is a nonprofit association representing manufacturers, suppliers, dealer/distributors, design professionals and builders committed to providing quality structural insulated panels (SIPs) for all segments of the construction industry.

WHAT ARE SIPS?



SIP = Structural Insulated Panel

- **Composite structural panel**
- **Rigid foam core - EPS, XPS or PU**
- **Structural facings - usually 7/16" OSB**
- **Structural adhesive**

SIP APPLICATIONS

- SIP walls & roof
- SIP walls & truss roof
- SIPs over timber frame
- SIPs & ICF
- Hybrid construction of any kind



SIP APPLICATIONS

Affordable, effective renovation applications



Historic home built in 1872 - 4,467 sqft conditioned space including basement, 1st and 2nd floors. SIPs ready to assemble with all window and door openings precut made for smooth installation.

Beineke Residence, Marion, OH --- HERS 47 (pre-drywall)

SIP APPLICATIONS

Affordable, sustainable, cost-effective housing



South Chicago Work Force housing, Chicago, IL

SIP APPLICATIONS

Affordable, disaster-resistant, LEED Certified housing (twice as strong as conv. 2x4)



Make it Right, New Orleans, LA

(also approved for Florida High Velocity Hurricane Zones)

SIP APPLICATIONS

Engineering possibilities



Ward Home, Sioux Falls, SD



C Sharp, Oak Island, NC

SIP APPLICATIONS

Timber frame



Twin Mountain Home,
Carroll, NH
HERS 32; 0.37 ACH

SIP APPLICATIONS

Craftsman design



Kenilworth Bungalow,
Minneapolis, MN

Passive design



Washington, DC;
HERS 37, 0.6 ACH50

SIP APPLICATIONS

Long roof spans



SIP APPLICATIONS

Simple, effective air sealing and header free windows



SIP APPLICATIONS

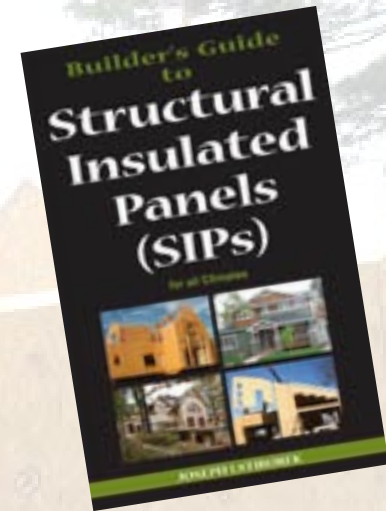
Complex designs simplified



SIP RESOURCES

www.SIPs.org

- Free online *Builder Education with SIPs Training* (BEST) 10 videos (or YouTube)
- SIPA Master Builder Program
- *SIPschool* hands on training events
- *Builder's Guide to SIPs* by Joe Lstiburek
- AIA & GBCI Continuing Education courses
- Find a supplier in your area
- Case studies /tech briefs /project maps
- *Builder Need to Know* guide & checklists
- In depth *Best Practices* and *Connection Details*



SIP RESOURCES

Building with SIPs - Need to Know

BUILDING CONSIDERATIONS

- High-performance building envelopes use SIPs
- SIP performance is based on more than its stated R-value
- HVAC system rightsizing reduces costs and enhances comfort and performance
- SIP structural capabilities cater well to virtually any design
- SIPs are typically factory cut for accuracy, quality and reduced onsite labor
- SIPs are manufactured using "SIP shop (or panelized) drawings"
- SIPs are customized to varying levels depending on client needs
- Roof and wall assemblies
- Factory cut electrical chases reduce electrician time in the field
- Design plumbing into interior walls
- Resource to better understand the science of building with SIPs

CHECKLIST

- High-Performance Building Envelope
- HVAC Systems
- Structural Capabilities
- SIP Sizes
- Shop Drawings
- SIP Fabrication
- SIP Installation
- Roof and Wall Assemblies
- Electrical
- Plumbing



Free copies available here
At SIPA table!

WHY SIPs?

- **Structural Insulated Panels (SIPs) are the easiest, most energy-efficient, insulating framing system available.**
- **Meet or exceed code requirements, while delivering a more comfortable, durable overall building.**
- **SIPs save you time, money and labor.**

Don't be left behind. Build for the future with this third-party verified, flawlessly engineered solution

Questions?



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