

National Association of Home Builders



Panelized Homes

Custom Designs, Your Building Solution



NAHB Building
Systems Councils

www.nahb.org/Panel



What is a Panelized Home?

Today's builders and buyers recognize that building a new home stick by stick on a lot is often not the most efficient building method.

Increasingly, homes are being built using a panelized building system—a construction technique that utilizes advanced technology, quality materials, and a controlled work environment—to build wall panels and construct an energy-efficient and durable home in less time.

Constructed Indoors, Carefully Delivered

While there are several types of panelized building systems to choose from, each begins by constructing your home's essential structural components in a climate-controlled facility.

Skilled craftsmen guide wall sections from the raw material stage to completed panels before carefully loading them onto a truck for delivery to your home site.

From there, the panels come together quickly and easily to create the home's shell and await the completion of exterior cladding and interior finishing work.

Resources

Watch it come together:
www.nahb.org/PanelizedVideo

To find a manufacturer serving your area:
www.nahb.org/PanelizedDirectory

Gallery of homes:
www.nahb.org/PanelizedHomePhotos

For more information:
www.nahb.org/Panel



Benefits of a Panelized Home

Flexible Design

- Whether you are looking for a modern or traditional design, contemporary or rustic feel, there is a panelization style to fit your needs and budget, and there are endless options for customization.
- With computer-assisted design (CAD) programs, designers and engineers can turn just about any idea into a working blueprint. The plans for your home can be sent directly from a designer's computer to the panelization shop floor, ensuring your home is built accurately and efficiently.

Saves Time, Saves Money

- Your new home's panels can be engineered and fabricated in a manufacturing facility in just a few days before being shipped to your home site.
- Once on site, the shell of a panelized home can be erected and made weather-tight in a matter of days, reducing labor expenses.
- Delays because of weather, material delivery, and subcontractor schedules—often unavoidable in stick-built construction—are much less of a problem with panelized homes, because the construction is completed in a controlled factory environment. These potentially costly hold-ups are reduced or outright eliminated.

Quality Construction

- Each worker in a panelized facility has been trained to do a particular job and is an expert in that specialized aspect of home construction, resulting in higher quality and more consistency.
- State-of-the-art machines produce panels that are engineered to the highest standard, ensuring your home is built precisely square and dimensionally correct.
- Your home's panels are built to meet your local building codes before they leave the facility, even if your area requires special features to compensate for high winds, floods, or other considerations.



Environmentally Friendly

- The precision of panelized construction makes these homes known for increased energy efficiency and lower heating and cooling costs.
- Factory assembly means reduced construction material waste, less job site disturbance, and easier site clean-up.
- Because most panelized homes are weather-tight in a matter of days, your new home is kept safe and dry and is less prone to the warping, mold, mildew, and squeaking that adverse weather may cause in traditionally-built homes.

Study Shows Multiple Benefits to Panelized Building

Those who use panelized construction methods are rewarded in several ways, says a study released by the Partnership for Advancing Technology in Housing (PATH). In a survey of builders across the southeastern and southwestern parts of the United States, PATH concluded that more home builders are adopting panelized construction because of its benefits, including long-term cost savings, shorter construction times, reduced labor and material costs, and enhanced energy performance.

PATH is a public-private initiative dedicated to accelerating the development and use of technologies that radically improve the quality, durability, energy efficiency, environmental performance, and affordability of America's housing market.

Learn more about why builders are choosing panelized construction methods at <http://www.pathnet.org>.

Panelized Homes: What's Your Type?



Whole House/ Open Wall Packages

These packages are delivered to the home site as a complete set of engineered exterior and interior wall panels, structural floor systems, exterior decks, and roof and floor trusses. Some home panel packages contain just the structural components of the home, while others are full and complete home packages, including everything from windows and doors to siding, paint, and even appliances.

“We started the ground work on July 10, foundation on July 21, framing on July 29 and electrical, plumbing, and HVAC on August 14. Our walkthrough was September 22. Our home was completed in less than the 120 days that was guaranteed. Fantastic!”

—Janelle N.

Panelized Homes: What's Your Type?



Structural Insulated Panels (SIPs)

Structural Insulated Panels (SIPs) are custom-designed, prefabricated wall, roof, and floor panels made of a rigid foam core that is sandwiched between structural skins, usually two pieces of oriented strand board (OSB). Homes built with SIPs feature a tight building envelope that is uniformly insulated, generating annual energy savings and a comfortable living environment.

“I started to build panelized housing when I saw how much time it would save me. I don’t have to worry about weather or subcontractor scheduling any longer. These little assurances add up to big time and cost savings, which I can pass along to my home buyers.”

—Robert G.

Panelized Homes: What's Your Type?



Round and Geometric Structures

If you're thinking outside the box, panelized circular and geometric structures might have what you want. Round, octagonal, dome, and other geometric structures are constructed with panels and offer home buyers stunning panoramic vistas and enhanced wind resistance.

“The final hurricane ties were secured on our panelized house on August 10, three days later Hurricane Charley came across our island with winds around 140 miles per hour. On the following Sunday, we drove down to check on our home. There was not a drop of water inside, nothing blown apart, just a few shingles came loose.”

—Paul and Erma D.

Panelized Homes: What's Your Type?



Post and Beam/ Timber Frame

Relying on centuries-old building methods to create rustic yet elegant structures, post and beam homes feature upright, solid timbers (posts) and supporting horizontal, solid timbers (beams) that are tied together with a variety of truss systems (king post, hammerbeam, etc.) to form the home's frame.

Timber frame homes are a style of traditional post and beam construction where the supporting timbers are connected by wood joinery rather than metal fasteners.

Once the frame is constructed, post and beam homes are typically finished with walls, floors, and ceiling systems built from prefabricated panels, usually SIPs.

“Our home was completed from footing to final inspection in 87 days.”

—McBryde and Katherine H.

Panelized Homes: What's Your Type?



Trusses and Structural Building Components

Trusses and components—preassembled frames for roof, floor, and ceiling systems—are commonly accepted building blocks of most new homes, whether stick-built or panelized. These components help builders shape a home's frame, minimize on-site construction time, and greatly reduce job site waste. While they were once considered to be radical technology, they are now prevalent in nearly all new homes.

“In 1989 when Hurricane Hugo hit the coast of South Carolina and people were evacuating their homes, we did not leave ours. The next morning I went out to inspect our panelized home expecting to find damage. There was none. In 1996, when South Carolina was brushed by another hurricane, we again chose to remain at home while others left for shelters. Again the next morning, I went out to inspect for damage and there was no damage.”

—Howard and Brenda P.



About the Council

The Panelized Building Systems Council is America's resource for panelized home construction. From connecting panel manufacturers with future homeowners to helping builders convert to a panelized building method, the Council has a wealth of information and experience with all types of panelized building systems.

The Panelized Building Systems Council is one of the National Association of Home Builders' Building Systems Councils, which represents the systems-built housing industry across the country.



NAHB Panelized Building Systems Council

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