

FAQs

Modular Construction

[What is modular building?](#)

[How long has modular existed?](#)

[What is the future of modular?](#)

[What is the advantage of building modular?](#)

[What is the disadvantage of building modular?](#)

[How popular is modular building?](#)

Modular Building Institute

[Why is MBI important?](#)

[How does MBI influence the industry?](#)

[Benefits for MBI members?](#)

Modular Construction

What is modular or offsite building?

The Modular Building Institute describes modular building as:

“Modular construction is a process in which a building is constructed off-site, under controlled plant conditions, using the same materials and designing to the same codes and standards as conventionally built facilities – but in about half the time. Buildings are produced in volumetric, 3D ‘modules’ that when put together on site, reflect the identical design intent and specifications of the most sophisticated site-built facility – without compromise.”

Modular building is just one type of the many offsite construction processes. Other offsite construction processes include, but aren’t limited to: precast concrete, wall panels, MEP (mechanical, electrical, plumbing) systems, and bathroom pods. Offsite construction is

assembling materials or constructing building components at a location other than the final building site.

How long has it been around and how has it been used in the past?

Modular construction has been around for centuries. In the 1850s, the British built huts and shipped them to Australia during the gold rush, and during the Crimean War, at least one hospital (Renkioi Hospital) was built in the UK and transported to Turkey to treat injured British soldiers.

In the 1970s, Walt Disney World constructed the Contemporary Resort using a modular design, and prior to that, a 21-story, 500-room hotel was built using modular in about seven months in San Antonio for the 1968 World's Fair. The Hilton Palacio del Rio still stands in San Antonio and is still the highest modular building ever constructed in the US, set to be usurped by a 25-story building in New York by the end of 2016. At the time, modular construction was touted by both projects as being the method of the future, but progress stagnated as the US entered a recession.

What is the future of modular construction?

Modular construction is really taking off in the lodging and multifamily (apartments) markets. Modular components (i.e., electrical racks and bathroom 'pods') are being increasingly used in office and healthcare settings as well. Modular is poised to make leaps and bounds in the construction market share in the next few years, provided manufacturers can keep up with the demand. I expect we will see a lot of general contracting firms try their hand at offsite construction – whether it be a small manufacturing facility created for one project, or a larger one for multiple projects.

What are the advantages of modular building?

One of MBI's taglines is "Greener. Faster. Smarter.":

Modular construction is greener because the factory-controlled construction process generates less waste; creates fewer site disturbances as on-site traffic is greatly minimized from workers, equipment, and suppliers; and allows for tighter construction. Also, some modular buildings are relocatable and can be disassembled and relocated or refurbished for new use, reducing the demand for raw materials and minimizing the amount of energy expended to create a building to meet the new need.

Modular construction is faster because construction occurs simultaneously with site work, allowing projects to be completed in up to half the time of traditional construction. Weather delays are also much less of an issue when using modular construction, as 60 to 90 percent of the construction is completed inside a factory. Despite the rapid completion of buildings, faster does NOT mean lower quality. Modular buildings are built to meet or exceed the same building codes and standards as site-built structures, and use the same architect-specified materials as conventionally constructed buildings, like wood, concrete and steel.

Modular construction is smarter because of the above reasons, as well as increased safety: the indoor construction environment reduces the risks of accidents, falls, and other related liabilities for workers. Modular construction has nearly limitless design opportunities. Modular units may be designed to fit in with external aesthetics of any existing building. Modular units, once assembled, can be indistinguishable from their site-built counterparts, unless the architect chooses to highlight this unique construction process through the building's design.

Are there disadvantages to this type of building? If so, what are they?

The largest disadvantage for the end user is typically in the planning process. It's better for a project to plan for modular from the start. From our 2015 Permanent Modular Construction Annual Report:

“By the time a project has been designed, the schedule set, let out for bid, and awarded, it's often too late to bring in a modular contractor wanting to streamline the process and change the schedule. What often results is either avoidance of modular or perhaps worse: forcing a modular solution after the fact.”

Our members have also experienced issues with transportation – routes must be planned for large modules to be transported. Another problem can be uneducated code officials that think of modular as lesser quality, when in actuality, modular buildings must all be built to the local code where the building is to be sited.

How popular is modular building now? Why is it popular?

Modular construction comprises just less than 3 percent of all new construction starts in the US. This construction method is best used in any market with lots of repetition – like hospital rooms, offices, classrooms, hotel rooms, dorms, to name a few. The multifamily/apartment market is taking off as millennials enter the workforce and move out of their parents' homes. MBI expects that to be the greatest area of growth in the next five years. Many high profile projects are either in progress or have already been completed in high density areas like San Francisco and New York City.

MBI projects a growth to about 5 percent of new construction starts in the next five years. That's still a small part of the market, but the construction industry as a whole tends to be very slow to adopt what they perceive as new methods.

Modular Building Institute

What is the importance of the MBI?

Founded in 1983, the Modular Building Institute is the only international trade association representing the commercial modular construction industry. Members include manufacturers, builders, suppliers of materials and services, as well as architects and owners/developers. It is MBI's mission to expand the use of offsite construction through innovative construction practices, outreach and education to the construction community and customers, and

recognition of high quality modular designs and facilities. Each spring, MBI hosts World of Modular, its annual convention and tradeshow. Open to both members and nonmembers, this is the best place to learn about the latest innovation in the modular construction industry.

How does the MBI benefit the industry as a whole?

MBI provides education for end users on how best to utilize modular construction and what its benefits are for a variety of markets. This mainly benefits PMC builders and manufacturers, as their products can be used in many of the same situations as site-built construction. For RB companies, MBI Government Affairs staff works tirelessly to ensure that relocatable buildings are acknowledged and included state, provincial, national, and international building codes (primarily in the US and Canada, where a majority of our membership is based), which allows companies that own “fleets” of RBs – like classrooms or construction trailers – to continue to do business without overhauling their entire fleet at once. MBI also hosts the industry’s largest convention and tradeshow – World of Modular (www.worldofmodular.org). In 2015, World of Modular had more than 750 attendees from 24 countries across the world. World of Modular offers educational breakouts, networking, and expo time for modular manufacturers, dealers, and suppliers of goods and services.

What benefits the MBI offers its members?

Members have access to information and resources to remain competitive and strong in a volatile business climate. MBI provides tools that can be applied to members’ operations – strengthening the ties to customers and the community. In addition, MBI members receive the following benefits:

- **Protection:** Every year, MBI monitors and reviews thousands of different bills and proposed regulations to determine their potential impact on our industry. MBI has taken the lead to introduce, change and defeat legislation and regulations that would have an adverse impact on our industry’s ability to utilize our assets in the manner in which they were intended. We have successfully protected our members’ interests in numerous states and provinces on issues ranging from taxation, plan approval, code compliance, relocation and recertification. MBI updates and alerts members to pending and enacted legislation and regulations impacting the industry at the federal, state and local levels.
- **Networking, Training, & Educational Programs:** Members are able to make valuable contacts and contribute to the advancement of the industry through their involvement at MBI events, including local “Town Hall”-style gatherings, educational summits held across North America, and of course, World of Modular.
- **Discounts:** Members receive special offers from a variety of companies all focused on providing value while saving money, including FedEx, UPS, CMD Group, Office Max, GoToMeeting, to name a few.
- **Recognition:** MBI recognizes the best modular buildings annually through its Awards of Distinction contest. MBI also recognize individuals who have contributed to the industry through the Hall of Fame and Lifetime Achievement awards.

- **Leads and Referrals:** The MBI referral service carefully screens all leads generated by the MBI website and encourages potential clients to use the services of our MBI membership, then places these leads with the appropriate member based on a product and geographic basis.
- **Industry Analysis:** MBI gathers and distributes statistical information about the size and growth of the industry. MBI's annual reports have become the leading source of information on this industry and is widely used by investment firms, banks, and the media.
- **Promoting Integrity and Professionalism:** MBI promotes integrity and quality in the modular industry by having their members subscribe to the MBI Code of Business Ethics & Conduct, viewable online.
- **Membership Directory:** All MBI members receive a free listing in the MBI Membership Directory - the only directory dedicated exclusively to the commercial factory-built industry. Industry professionals look to the directory as an informative resource throughout the year. Advertising Opportunities are also available.