

7 reasons why hotel developers are attracted to modular construction

By **SUNDIP PATEL**

Construction costs are on the rise. In order for some projects to pencil out, developers are having to get a little creative. For the hotel industry, this means taking a serious look at modular construction.

Modular construction is far from new. But until recently, the idea of modular construction conjured images of pre-fab starter homes and mobile home parks—certainly not the construction quality a high-end hotel would demand. Or is it?

A growing number of hotel developers are starting to embrace modular construction. Even premium brands, from Marriott to Hilton, are starting to integrate modular construction into some of their new hotel projects. Some would call it one of the industry's best kept secrets.

What is “modular” construction?

In short, modular construction is a process by which a building is constructed either

partially or completely off-site. The process uses advanced technology, a range of materials, scales, and systems, and digital software to produce modules, or “pods,” that are eventually transported to the development site. Think of it like building with LEGOs. Each individual LEGO is made in a factory and then shipped to the final consumer for assembly.

Sometimes, only a portion of a building is fabricated off-site. For instance, a hotel developer might use modular construction to create bathroom pods which are later integrated into the hotel suites at a later date. At the other end of the spectrum, entire hotel rooms can be built, transported, and stacked into a steel-frame hotel structure.

Advantages of modular construction

Modular construction has a number of benefits, particularly in light of rising construction costs.

#1

Quality control

Because modular construction takes place in a factory-like setting, developers have better control over the construction process. All units are built using the same machines, the same materials, designed to the same codes and standards, and under the same controlled conditions. There’s no need to worry, for instance, that a particularly humid day will warp construction materials—something that might occur when building outdoors using traditional construction methods.

#2

Less material waste

The cost of construction materials—from plywood to steel, to the gypsum used in drywall—climbed 4.8 percent last year alone. Modular construction uses advanced manufacturing processes, which allows

construction to proceed with laser-like precision, reducing material waste along the way.

#3

Shorter construction timelines

Modular construction typically shortens construction timelines by 30 percent to 50 percent as compared to traditional building methods. Several construction processes can occur simultaneously: for instance, a construction crew can dig the foundation at the same time hotel rooms are being constructed off-site. And because anywhere from 60 percent to 90 percent of a new building can be prefabricated, modular construction also mitigates the risk of weather-related construction delays. This allows a project to come online sooner, creating a faster return on investment for shareholders.

“One of the biggest factors that is a hook in the hospitality industry is speed to market,” explains Michael Merle, the director of Boise, Idaho-based Guerdon Enterprises. “On a smaller 100-room hotel, from groundbreaking to certificate of occupancy, we’re able to get to market typically in six months less than [hotel developers] can do in a site-built perspective.”

#4

Lower labor costs

The recent building boom has created a shortage of skilled labor. A survey from the U.S. Chamber of Commerce indicates that 60 percent of contractors have trouble finding skilled labor. This labor shortage has driven construction costs 5.2 percent higher on average over the past year.

Modular construction reduces a developer’s labor costs.

The Ritz-Craft Corporation, a modular construction facility based in Pennsylvania, says employees are given a narrow concentration, like tiling floors or sanding

drywall. This not only increases productivity, but the discrete concentration means that the company can train people with zero construction experience to become skilled laborers in as little as two weeks. Rather than paying \$50 to \$100 an hour for traditional construction labor in places like San Francisco or New York City, hotel developers who build off-site can access skilled labor for as little as \$15 to \$20 per hour in places like rural Pennsylvania.

#5

Stronger buildings

Innovations in modular construction have made prefabricated units stronger than ever. They can withstand transportation over high distances and craning onto foundations—even in strong winds. Unlike the prefabricated units of yesteryear, hotels built modularly today are just as strong as those built using traditional construction methods.

#6

Lower overall construction costs

According to McKinsey, the nearly \$600 billion U.S. construction industry is riddled with inefficiencies. Large projects across asset classes typically take 20 percent longer than expected to finish and run up to 80 percent over budget. Modular construction eliminates much of the uncertainties inherent with traditional construction. Better quality control, less material waste, shorter construction timelines, lower labor costs, and stronger buildings all result in lower overall construction costs.

#7

Endless design opportunities

Modular construction, with its ability to use tools like 3D printers, allows developers to integrate unique design features into their construction projects. Even historic hotels can be remodeled using modular construction;

units can be designed to match the aesthetics of the existing property.

The modular construction pipeline

The Modular Building Institute reports that modular hotel construction in the U.S. increased by 31 percent between 2015 and 2016 alone. Modular hotel projects are popping up from coast-to-coast. Guerdon is at the forefront of several of these projects, including the Hawthorne, a 354-key hotel in California, and Canyon Lodge, a 410-key hotel at Yellowstone National Park.

On the east coast, the citizenM hotel is planned for Bowery Street in Manhattan. The 20-story hotel will have 300 rooms in total, 210 of which will be prefabricated in Poland before being stacked and sealed as part of this project.

Just last year, Marriott International announced it will be diving head-first into modular construction. The company expected to sign 50 hotel deals in 2017 that incorporated prefabricated guestrooms or bathrooms.

“Construction is the next frontier for innovation, and modular is leading the way,” says Eric Jacobs, Marriott International’s chief development officer of select brands, North America. “By working with our pre-approved modular partners, owners can open hotels faster, put associates to work earlier, and generate revenues sooner. It’s another example of Marriott’s focus on optimizing our partners’ return on investment.”

By all indications, an industry that has traditionally developed hotels brick-by-brick, nail-by-nail, is poised for massive transformation in the years to come. We will be monitoring the landscape closely to see how quickly other hotel developers, and which brands, enter the fray. 



ABOUT THE AUTHOR

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