



## Alternative saves money, time, aggravation

By Francine Townsend / Construction  
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For nonprofit organizations developing affordable housing, colleges building new dormitories and investors who own developable land but don't have experience, today's complex development and construction environment can be daunting. System built construction is a solution that greatly streamlines the construction timeline, lowers costs and makes the entire construction process far less cumbersome.

With system built construction, buildings are largely built in factories and then quickly assembled onsite. The varieties of today's system built construction include concrete and metal frame, which can be used for building high-rise structures of up to 11 stories, and wood frame modular construction, which entails shipping modules that are 90 percent complete both on the exterior and interior to then assemble onsite.

The per-square-foot costs of system built construction are anywhere from 10 percent to 20 percent lower than stick built. Many costs other than those associated with building materials and labor are also reduced or eliminated with system built construction. Here's how.

**A Significantly Shortened Construction Timeline.** A conventionally built 40,000-square-foot building takes 10 to 12 months to be substantially complete. In contrast, a project this size takes one month with modular. Site preparation work and production of the product occur simultaneously. Winter conditions don't stop progress; 90 percent of the work is done indoors at the factory. With conventional construction, the loan interest expense alone associated with the extended building schedule is six to 10 times that of system built.

**Better Financial Structure.** There's no need to dole out progress payments over many months because construction occurs too fast for progress payments

to be required. A deposit of roughly 10 percent of the cost of the product the factory is going to deliver is made anywhere from four to six weeks in advance of when the factory begins construction. Then, once the product is shipped, the other 90 percent is paid.

**Faster Time to Market.** Obviously, if you substantially complete your project in 10 percent of the time required by conventional construction, you can be selling or renting 90 percent sooner. This accelerated revenue can be applied to the outstanding loan, invested or both.

**Lower Architectural, Engineering Costs.** System built factories must produce their own progress drawings, production drawings and engineered stamped plans. These soft costs can be deducted from your budget. Typical architectural and engineering fees cost 5 percent of the total project; this can be cut in half with modular construction.

**Reduced Pilferage and Waste.** With conventional construction, onsite theft and waste can easily reach \$2 to \$5 per square foot. The potential for such losses is reduced with modular construction.

The final thing that's important to understand about system built construction is that it produces quality. The factories have multiple inspection points where third-party inspectors sign off on all work. Put in place to assure that the specific building codes of the region to which the product is going are followed, this stringent system provides many more inspections than conventional construction. The result is a high quality product that comes with excellent guarantees.

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