

LIFE IN THE FAST LANE:
SPEED TO
MARKET IN
HEALTHCARE



Photo courtesy of Turner Construction.

HIDDEN VALUE

UPFRONT COSTS

Some argue that prefabricated or modular construction is more expensive. These upfront costs don't consider the benefits that are harder to quantify but provide real value.

UNSEEN SAVINGS

Schedule Savings

Increased Quality

Safer Construction Site

Minimized Site Disruption

Less Waste

Decreased General Conditions

Reusable Materials

More Detailed Trade Coordination

RENEWED FOCUS ON SPEED TO MARKET

Of the many effects of the pandemic, one is a renewed focus on speed to market for many healthcare projects.

Whether it has been paused, stalled, derailed, or reviving, there is an emphasis on bringing back the right projects: projects that will help recapture revenue lost during the pandemic, address priority infrastructure issues that were put on hold, or get ahead of any anticipated slowdowns in public funding that infrastructure projects rely on. Healthcare executives that move fast and hard on productivity and make bold moves to prepare for the future will come out ahead.

Consider that after World War II, residential construction mobilized to capitalize on the increased demand for housing. Rows and rows of humble modular homes were built to promote growth and reconstruction, delivered for a set cost, a set schedule, and a defined level of quality. A lot has changed since that post-war boom, some things for the better.

Beyond huddling in a big room to pull-plan the schedule, what else can be done to reduce the project schedule?

We propose a few ideas.



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POTENTIAL FOR PREFABRICATION: THINK OF PROJECTS AS A SERIES OF PRODUCTS



Of the many effects of the pandemic, one is a renewed focus on speed to market for many healthcare projects.

Prefabrication and modular construction are not new but have gained a new following as more and more owners recognize that construction technology and techniques have evolved to support a better way to build. Prefabrication and modular construction, versus the traditional linear approach to construction, are particularly well-suited for buildings with calculated repetition of standardized building components. This requires a fundamental shift from looking at a construction project as “a project.” Instead, start by looking at the building components of a project as a series of products.

Leverage Repetitive Elements by Standardizing Your Product Portfolio

Many owners plan and design facilities and the selected components as individual or isolated, but more organizations recognize the benefits from developing modular/prefabricated prototypes that streamline the planning process. These range from individual components within large, complex hospitals to complete ambulatory facilities. Develop standard components or room types based on best practices for your system or hospital, including lean operational and evidence-based research to ensure the components promote innovation based on continuous improvement. Challenge your teams to think differently about what is possible in how these products are designed, developed, and delivered.

Develop a Product Management Process That Will Engage the Team and Align with Prefabrication and Modular Construction

One of the perceived negatives to prefabrication and modular construction is that projects that utilize these concepts can take longer to design than traditional construction projects. Designers have had to adjust how they design and learn how to align the design process with the manufacturing process.

Foster the opportunity to encourage prefabrication and modular early in the design process. Designers should NOT design first and “fit” prefabrication or modular to the design. For prefabrication and modular to be effective, they need to be incorporated into the overall design. Working with a design and construction team knowledgeable in prefabrication will enable you to explore what is possible and choose options that support and further the project goals. Design decisions need to be made upfront; changes later in the design process become more difficult, and ultimately more costly. Design firms should develop libraries of components that promote more manufacturing, which will shorten the design schedule.

Develop a Top 10 Prefabricated or Modular Products List

Develop a Top 10 for every project, which will often include components ranging from bathroom pods and multi-trade racks and risers to stair towers and stainless-steel wall panels for surgery suites. Working with our clients, contractors, and trade partners, we assess these and other components to assess the overall value to a project.

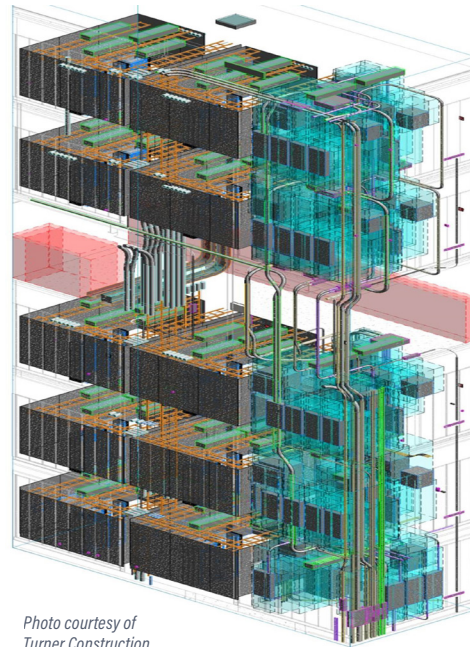


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TACKLING THE COST VERSUS VALUE EQUATION

Inherently, we recognize prefabrication and modular construction have a number of benefits.

But what about the cost? There is debate about whether prefabrication or modular construction is more or less expensive than traditional construction. The answer is not always obvious, and sometimes, it depends. Certainly, cost savings are generated by indirect benefits such as the efficiency in labor hours, reduced on-site labor, reduced material waste, schedule savings, and associated construction financing. When quantified, these savings can be significant.

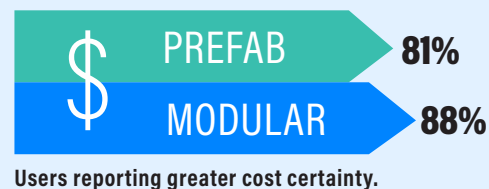
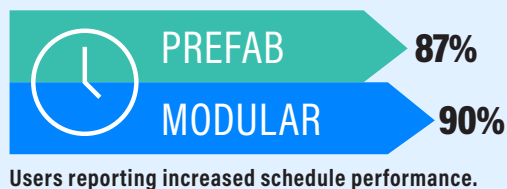
Clients often cite cost-predictability as one benefit to prefabrication. Initial project costs are calculated to include set costs for specific building components, lowering the risk of escalation and fluctuating labor costs. The availability and cost of skilled labor, particularly in the mechanical, electrical, and plumbing trades can be a major burden to a project budget; with prefabrication, that burden can be offset by lower-cost manufacturing labor.

It is important to bring your contractor in early on the discussion of cost. They can quickly determine if the cost of prefabrication is reasonable. Some may argue that the prefabricator should be located within a reasonable

radius of the construction site to offset shipping costs, which are dependent on weight, size, and distance. However, with shipping, it still may be less than paying union labor rates for on-site construction in certain areas of the country. Even in rural areas, where there may be a serious shortage of skilled labor, there is often a bump in labor rates to bring skilled labor from out of town. Contractor and trade contractor General Conditions, which are based on the schedule, will also decrease. In one example, a contractor elected to bid out bathrooms at a major academic medical center as both prefabricated and traditional on-site construction. Three of the four low bids, including the lowest bid, were for prefabricated pods.

Typical evaluations of prefab are cost-based, not value-based assessments. Schedule savings alone can generate significant revenue, whether by months for a large facility with modular components to weeks or days in an operating room with modular wall panels. Prefabrication and modular construction can take significantly less time to build than on-site construction through better upfront coordination, construction of multiple components simultaneously, and elimination of weather-related delays. Using a conservative average of \$100,000.00 per day in revenue for an operating room using modular wall panels, schedule savings are major revenue boost. Shaving months off the schedule for a hospital is real value.

MODULAR CONSTRUCTION BENEFITS:



Source: Prefabrication and Modular Construction 2020. The Dodge Data & Analytics.



Photos courtesy of Turner Construction.



IMPORTANT POINTS TO CONSIDER:

- Think of projects as a series of products
- Leverage repetitive elements by standardizing your product portfolio
- Engage the team to develop a product management process that will promote the benefits of prefabrication and modular construction
- Challenge your teams to think differently about what's possible in how these products are designed, developed and delivered
- Develop a Top 10 prefabricated or modular products list to explore
- Cost and value are dependent on several factors; make sure that you and your team evaluate each to determine what is best for your organization

PRIORITIZING SPEED TO MARKET

As hospitals and health systems face the pressure to be more agile and deliver the right care to their communities as quickly and competitively as possible, speed to market has become a priority. But healthcare organizations have struggled to achieve speed to market when they are faced with architects, engineers, or construction teams who cannot think differently about project delivery.

As we look to post-pandemic planning, now is the time to push your teams to think beyond traditional project delivery.

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