



Innovating Architecture

Making the top trends in architecture work for everyone

Imagine taking a tour of a brand new facility—riding the elevator, poking around the new offices, sitting down at the desks—before it has even been built.

It's entirely possible thanks to real-time modeling, just one of the numerous trends and innovations currently rocking the architectural world. However, not all architectural firms have adopted the technology to allow their clients to take digital tours of future facilities. In fact, some firms are lagging behind in incorporating state-of-the-art technologies and techniques that are becoming representative of the top designers.

BLT Architects (BLTa) of Philadelphia, Pennsylvania, is one of those top designers. It has designed projects ranging from \$1 million to \$4 billion, especially in its three major markets of higher education, residential and hospitality. The company also prides itself on being an early adopter of new technologies.

"When I say we are an early adopter, I mean that we are the second person to do

it," explains Michael L. Prifti, FAIA, Managing Partner of BLTa. "We will let some of the bleeding-edge firms try it for the first time, and then we'll watch our competitors' benchmarks. When we see value in something somebody else has tried for the first time and see somebody gaining success, we adopt it very quickly and roll it out."

The approach suits BLTa's marketing intent, particularly in its project types and fee point. Adopting new technologies early can not only enhance a firm's designs but help that firm realize those designs more efficiently.

"It's not necessarily just about cost reduction, but a total reallocation of resources," says Prifti.

Prifti identifies three main trends currently occurring in architecture that are creating efficiencies throughout the industry. Most architectural firms have likely already had experience with each of them and, if they haven't, it might be time for them to take a closer look.

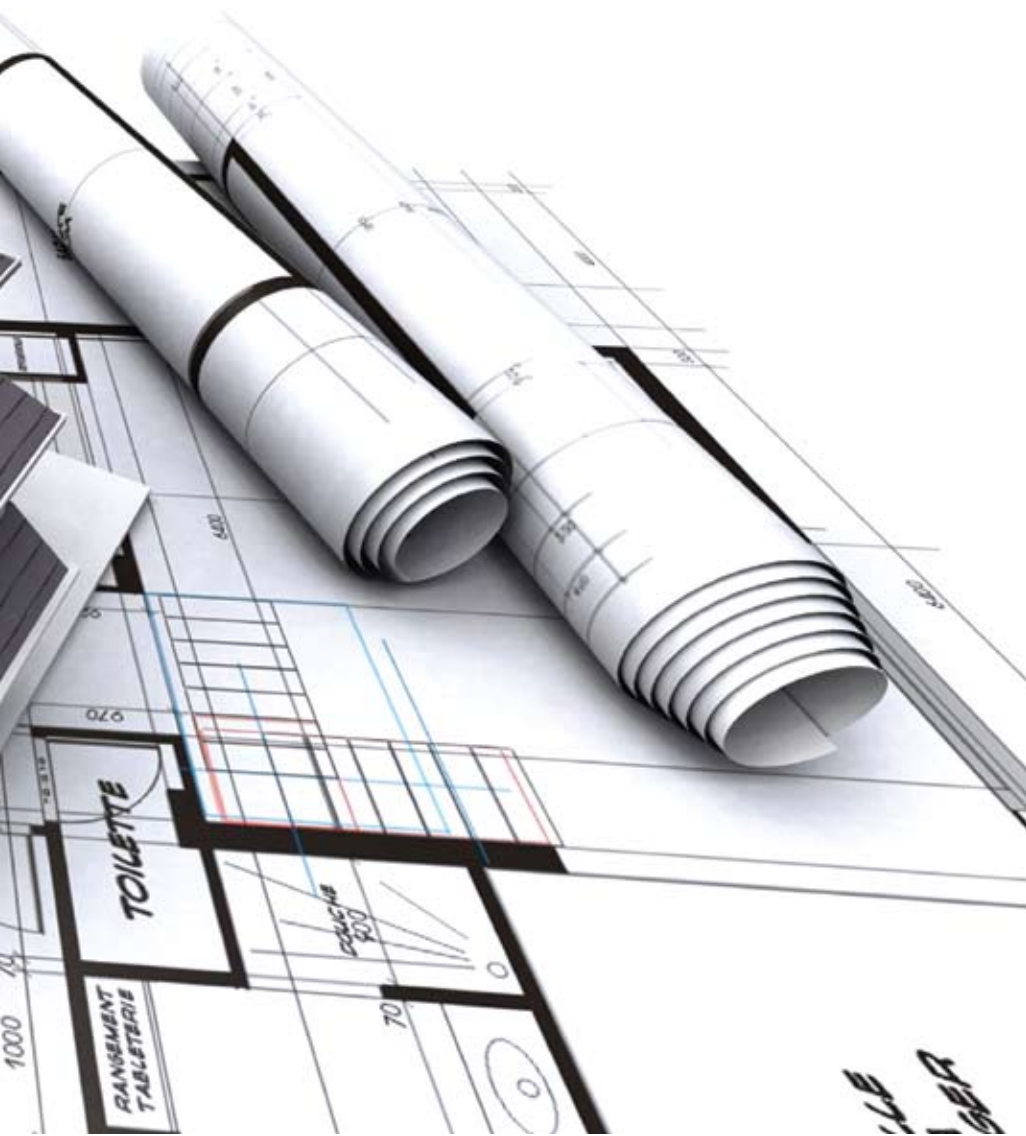
BUILDING INFORMATION MODELING

Just because the term Building Information Modeling (BIM) is nothing new, firms don't always realize all of the opportunities BIM brings to the table—and how deep it can go.

For those unfamiliar, BIM is simply a method for creating and managing building data throughout a project's life cycle, often manifesting that data in the form of 3-D images to increase accessibility. It's a way for architects to work in tandem with project teams, rapidly integrating their firm's ideas along with input from the owners.

"We are working in three dimensions right from the beginning. It is a very quick way to show visualizations of a building for comment and comprehension by clients and our construction teammates," says Prifti.

Thanks to BIM, clients could come to BLTa or any architectural firm that utilizes it, explain what they want in a new project, and have something created that speaks to their image and where they want to be in the mar-



ketplace—and even see how it can be done within any designated budget and schedule.

“The more rapidly we can show you what’s in our heads in response to your request, the better,” says Prifti. “In the old days, when people used blueprints, we would be taking a three-dimensional idea in our head, translating it to two dimensions on paper, giving that piece of paper to a contractor and then making that contractor have to take that two-dimensional description and create a 3-D object out of it. There were a lot of opportunities for translation and, in the worst cases, miscommunication.”

The ability to easily alter designs created via BIM makes it an especially useful tool for contractors. While architects design for function and aesthetics, contractors may be focused on sequencing of trades and construction schedules—and they may have a lot of changes to implement.

Other modeling and rendering techniques besides BIM are expanding the skills of the ar-

chitecture industry. Energy modeling is great for simulating a building’s energy use and the aforementioned real-time modeling can allow owners to maneuver through their future projects like a video game.

Real-time modeling, however, has traditionally been more expensive than other techniques and requires sophisticated PCs to run properly. BLTa is looking for ways around this by examining ways to export real-time models into simpler software that a client can look at via the web or with a different program that the client is more comfortable with. Additionally, the cost of real-time modeling has already come down dramatically.

SUSTAINABILITY

A second widespread trend in architecture is one that’s permeating every industry these days—sustainability. It seems every company is trying to become greener.

“Sustainability is ultimately going to become mainstream and you will see that good

practices already trend in the direction of sustainability,” explains Prifti. “No one would use toxic materials because they thought it was a good idea. They’ve generally been using smarter products all along.”

BLTa aims for LEED Silver or Gold certification—or alternative third-party certifier Green Globes, as type of certification is beside the point—whether or not the client wants to apply for official certification at the end. It’s all about creating a sustainable design.

“Now, I believe that achieving the equivalency of LEED basic or LEED Silver is a low cost,” says Prifti. “There’s no reason not to do it.”

SMART GROWTH AND REUSE

The third trend is a vital one. “Smart growth and reuse is the most fundamental aspect of sustainability,” says Prifti.

Smart growth is a popular endeavor—avoiding urban sprawl by developing projects that are environmentally and fiscally smart. Development is tending toward mixed-use and transit-oriented projects that embody this. BLTa’s work is predominantly urban, even bringing urban building practices to suburbs and small towns.

“It’s about being a good neighbor, placemaking in the spaces that adjoin our buildings and designing beautiful buildings,” says Prifti.

Along with that, nearly half of BLTa’s work is for the reuse of existing buildings—one of the top ways to be sustainable. The firm recently completed a LEED Gold-certified project for Penn State University’s Borland Building, reusing the former Borland Laboratories and turning it into a new art and digital media building.

“The fundamental basis of its sustainability is that we have taken a building from the early 20th century and made it into a state-of-the-art building in every way, shape and form,” says Prifti.

Between BIM, sustainability and smart growth and reuse, there are a lot of innovations in modern architecture that firms need to be cognizant of and may want to consider taking the leap into if they haven’t already. Firms may even be further along than they realize.

“Firms should begin by examining every bit of work that is in their office right now and benchmarking it against LEED and Green Globes standards. Undoubtedly, they already meet a great number of these criteria. Firms can then see where it is they can improve and where they can work with their clients to improve,” explains Prifti. “This is important because the bar is going to be raised. What is a baseline sustainable building today will no longer qualify in the future, and we need to accomplish even more each day we practice.” □