Green with Envy

CAN THE BENEFITS OF GREEN BUILDING OUTWEIGH ITS UP-FRONT COSTS? By Kate Burrows

Companies cannot truly participate in green building unless they are green themselves," says Tom Perry, director of engineering services at Shawmut Construction. He stresses that the challenges involved in the cost of green building can be overcome if contractors operate with a true commitment to sustainability.

Boston-based Shawmut Construction has been active in the green building market for nearly a decade, and boasts a portfolio of more than 20 LEED-certified projects. "Many of our clients are interested in building green, and we've developed a great resume of high-profile projects at Brown University, MIT and Yale, to name a few," Perry explains.

Although the up-front cost of green materials can be steep, these challenges can be overcome through focusing on the big picture. "Companies need to prove to clients that, financially, it can be smart to spend more on up-front costs of sustainable projects," Perry says. "As a company, we use a lifecycle cost analysis to show the client the return on investment, and prove that taking certain steps will save them money in the long run."

Several years ago, the cost of green materials was much higher than traditional products. But, contractors can manage these increases by partnering with experienced professionals.

"The key is to consult with contractors and design teams that know how to build green, and truly understand the process," Perry explains. "It's important to use established best practices to build high-performance buildings. We have some very experienced teams at Shawmut, and if you can draw on the talent of your employees, you can bring the cost down considerably."

Throughout Shawmut's market, green building is gaining in popularity, and is becoming much more prevalent, Perry says. The company performs much of its work throughout Boston, completing historic renovations and remolds. Building green in historic buildings creates a unique challenge, but Shawmut is up to the task.

"There are a lot of challenges in incorporating..."
high-performance elements into these buildings, so offering the solutions that work best for each structure is something we excel at,” Perry explains.

The firm recently completed Harvard University’s Byerly Hall project, and worked closely with the design team to develop solutions that would fit within the historic fabric of the campus, while remaining as cost-effective as possible.

The project is seeking LEED gold certification, and features five geothermal wells drilled and developed by Shawmut Construction. The low-impact system circulates groundwater to heat and cool the building. The team devised a hybrid system of operation for the vents, which utilize both closed and open styles of geothermal well operation, Shawmut says.

Sustainability Redefined

Many high-profile sustainable projects nationwide are implementing unique cost-saving measures. In fact, New York City’s Freedom Tower is currently using iCrete, a new technology in concrete that reduces carbon emissions and lowers the cost of a traditional concrete product. According to Tom Schneider, senior vice president of sales, marketing and operations, iCrete is a sustainable system that can help companies save money while building green. “We have found that the iCrete system provides ready-mix producers with extremely high-strength concrete that utilizes 40 percent less cement in the mix,” Schneider says.

Employing the same materials currently used to make concrete, the company designs a formula specific to the client’s resources and the project’s requirements. The result is a stronger concrete that optimizes raw material while reducing carbon emissions, according to Schneider.

Concrete Savings

Schneider says one of the company’s biggest accomplishments is being selected to provide its services for the Freedom Tower project. “The qualifications for being selected for this project were very extensive,” he says. “The owner wanted a very dense concrete that was very workable and environmentally friendly.”

Many architects and engineers are looking for environmentally friendly concrete that has design flexibility. The iCrete system can potentially save clients 40 percent or more than traditional high-strength concrete, Schneider adds. “We can control the amount of cement added to the mix so precisely that these products can save builders money while helping them build sustainably.”