

# USING BIM TO WIN EARLY

By Andy O’Nan

In a tight economy, competition for work is more intense. Many contractors will find themselves to be one of ten or more competing for a project. How can they separate their companies from the crowd?

Standard business development selling points, such as safety record, Leadership in Energy and Environmental Design (LEED) experience, and company history are going to be washed out by many firms making similar claims. Successful firms will gain technological advantages in these tough times. By adding value to the owner’s project early, they will be able to avoid being commoditized and can reduce the number of true competitors to

just a few or possibly none at all.

Building Information Model (BIM) technology can offer a source of such added value. The term BIM means many different things to different people, but in short it is a technology used to virtually construct a building for the purposes of coordination, visualization, documentation, costing, and scheduling. An enormous opportunity exists for contractors to engage their prospects and customers in a more fun and interactive way using this technology.

BIM software falls into two major categories: micro BIM and macro BIM. Micro BIM is a detailed simulation of the building created for the purposes

of documenting and coordinating how to build a building. This includes design tools, such as Revit Architecture, and model analysis tools, such as Solibri. These tools are increasingly more common among leading Architecture/Engineering/Construction (AEC) firms during the design development and downstream phases. Macro BIM is a less graphically detailed simulation built for the purposes of early decision making. The significance of macro BIM is that it enables the contractor to get involved early and add value to the project during both the conceptual and schematic phases.

## EXPANDING POSSIBILITIES WITH BIM

Preconstruction efforts to add value early are obviously not a new concept. The recent shift is in pairing a company’s knowledge and experience with BIM technology early. Today, many owners may ask a contractor to provide three to four project alternatives, but in truth, if they could reasonably look at 100, they would. By using macro BIM, this is a possibility.

Many firms, such as Clark Construction Company, are utilizing macro BIM to create a living 3-D estimate of the concept. They are then using it to more clearly communicate the scope of work and analyze more options than previously feasible in the same amount of time. The bar has been raised because the owner can now interactively engage team members more effectively than ever before and, ultimately, get more value out of the process.

Communication is the key to making the process work. Many builders may spend a week or more preparing a conceptual estimate that is as accurate and defensible as possible. When it comes time to review their work with the owner, it is easy for them to get caught up in the details and focus on their own silo. It is far more engaging for customers to get involved in a conversation about their concerns and needs. The visual model is an aid that bridges the communication gap between contractors and their customers, and can be a huge differentiator.

The macro BIM process, which enables real-time visual conceptual estimating, also increases the predictability of the budget. Because of the visual nature of the review process, many more disconnects between the owner, the architect, and the contractor are revealed. The team can be far more certain that the project costs, the design intent, and the owner expectations are aligned because there are far fewer assumptions that go undefined.

Relationships will always be a huge factor in winning work, but contractors can build on their relationships by adding project value and improving their ability to communicate the scope. They can use macro BIM to help owners make more informed decisions and reduce their financial exposure due to uncertainty. It will pay in the end to use BIM to win early. ♦



**COMPONENT SUMMARY**

Project: [Name]  
Revision: [Number]  
Date: [Date]

ITEM	DESCRIPTION	QUANTITY	UNIT	PRICE	TOTAL
1	Foundation	100	sq ft	\$100.00	\$10,000.00
2	Structure	100	sq ft	\$100.00	\$10,000.00
3	Roofing	100	sq ft	\$100.00	\$10,000.00
4	Interior	100	sq ft	\$100.00	\$10,000.00
5	Exterior	100	sq ft	\$100.00	\$10,000.00
6	MEP	100	sq ft	\$100.00	\$10,000.00
7	Landscaping	100	sq ft	\$100.00	\$10,000.00
8	Site Work	100	sq ft	\$100.00	\$10,000.00
9	Other	100	sq ft	\$100.00	\$10,000.00
10	Subtotal	1000	sq ft	\$1000.00	\$100,000.00

## ABOUT the AUTHOR

Andy O’Nan is director of marketing and sales for Beck Technology, developers of DProfiler™ software. Andy has been serving AEC customers for 8 years, and spends time with many top construction companies and industry associations promoting the use of BIM to reduce waste in the AEC industry. DProfiler was developed by construction leader The Beck Group to integrate cost directly into conceptual models. For more information, please visit [www.beck-technology.com](http://www.beck-technology.com).