

► Construction Technology

RAISING THE BAR ON BIM

When construction manager-at-risk SpawGlass completes the second phase of the Student Activity Center/Liberal Arts Building on the University of Texas (UT) campus in Austin, Texas in 2012, facility managers will have a complete and current digital building information model (BIM) that database UT facility managers can use to maintain the structure throughout its life—all from a tablet PC.

“What many people forget is that it’s not the 3D geometric model that provides the greatest value to the owner; it’s the data in the model,” says Chris Tisdell, BIM technologist at SpawGlass. “Whether the architect builds the model or we do, our goal is to deliver a current digital 3D model and database that property owners can use to manage the lifecycle of a structure and as a starting point for renovation or retrofit.”

To prepare the model for use by the owner, SpawGlass BIM experts will tag every building component with a barcode number within the model. Initially, SpawGlass will barcode major and minor MEP equipment for the UT project. By selecting an object’s barcode, the owner or facility manager will be able to view detailed information about components. Each barcode will include all requested information including commissioning data, installation data, maintenance



Image courtesy of Mark Gaynor Photography Inc.

schedule, startup procedures and much more.

When construction is complete, SpawGlass will download the model and database to a Motion F5v durable, mobile computing solution from Motion Computing for use in commissioning. At handover, the owner will have a mobile deliverable that provides the level of coordination in the own-and-operate lifecycle stage that SpawGlass employed while constructing the project. ■



BIG PAYOFF ON A BIG CHANGE

The Discovery Tower in downtown Houston is a 30-story Gold LEED pre-certified building with a 16-month construction schedule.

Marek Brothers Systems, a commercial and residential construction company, was contracted to construct drywall and acoustical ceilings. As the building was coming out of the ground, a potential tenant asked the contractor to define the cost impact of increasing floor heights, adding additional stairs and reconfiguring the core layout—and do it within 48 hours.

Phil Nevlud, drywall sales manager/chief estimator with Marek Brothers Systems, explains that 48 hours is a tough turnaround for any recalculation, but the breadth of changes requested in this particular case might have been impossible. Nevlud was able to overcome the possibility of massive overtime and sleepless nights with the help of digital estimating and takeoff technology, such as On Center Software’s Quick Bid and On-Screen Takeoff.

He explains, “By utilizing On-Screen Takeoff’s many features, we were able to provide comprehensive pricing to various scenarios, which the owner was able to see and validate. We know that by providing colored drawings, which identify the limit and scope of work to be done, On-Screen Takeoff and Quick Bid have helped our team communicate more efficiently and eliminate ‘go backs.’”

Aside from the help On Center Software’s system has provided in terms of customer interaction, Marek Brothers also sees the interoffice benefits of Quick Bid and On-Screen Takeoff. With offices in Atlanta, Dallas, Austin, San Antonio, Harlingen and Houston, Marek believes that On-Screen Takeoff and Quick Bid have helped the firm standardize its estimating process and facilitate data sharing between branches. A digital system that allows for the instant transfer of precise data is an obvious benefit to any construction company, and even more so to a company with multiple offices through a region like the southern U.S. ■