

Wisconsin Leads Way In Mandating BIM Use On Large State Projects

BY LEEANN MATON

In a move that some experts hope will set an example for the building industry, Wisconsin has become the first state to adopt regulations requiring the use of Building Information Modeling (BIM) technology on large state projects.

According to the new standards, the Wisconsin Department of Administration (DOA) will mandate the use of BIM on all projects with a budget of \$5 million or more and on new projects totaling \$2.5 million or more. Supporters of the new guidelines, implemented July 1, hope the changes will help integrate the often disjointed elements of the construction process and move the industry toward a widespread adoption of new technologies.

“It’s really a manifestation of a major owner, i.e. the state of Wisconsin, who sees where this industry is going technologically,” said Mike Fabishak, CEO of the AGC of Greater Milwaukee. “They undoubtedly see the merits of BIM technology, both from a value perspective and a time perspective.”

But the big question — for Chicagoland contractors, at least — is if Illinois and other states will take a cue from Wisconsin and implement BIM guidelines of their own. Builders Association Vice President Mike Schultze did not know of any similar measures being discussed in Illinois, but said that in his opinion, “I think it’ll happen [in Illinois]. It’s just a matter of when.”

Fabishak shared those sentiments, believing that other states may soon follow Wisconsin’s example.

“My guess will be is [that] as this rolls out and other public entities begin to understand what our experiences are, other smart

players will jump on the BIM bandwagon,” Fabishak said.

Wisconsin’s new standards will eventually impact nearly every phase of the building process and mandate that BIM be used from the design phases through bidding, construction and closeout. However, the DOA’s strategic plan for implementation is currently focused on the design and bidding phases, and it will likely be a year or longer before contractors see any big changes, said DOA project manager Bill Napier.

Five projects in Wisconsin will reach the \$5 million threshold and fall under the guidelines. Of the 700 total public projects to take place within the next two years in Wisconsin, 40 are large enough to fall under the new BIM standards, including projects for state agencies such as the Department of Corrections and the Department of Natural Resources, and the 13-campus University of Wisconsin system.

“We saw the industry changing to where some point in the future, BIM will be the standard we will all be using,” said David Helbach, administrator of the Wisconsin Division of State Facilities. “We wanted to be ahead of the curve instead of behind the curve.”

Wisconsin’s impetus for creating the BIM requirements originally came from an executive order signed by Wisconsin Governor Jim Doyle in 2006, which mandated higher standards for energy conservation and sustainability on capital projects. Wisconsin also based its decision upon a successful pilot program it undertook starting in 2008, in which 13 projects totaling more

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Using BIM technology, designers of the University of Wisconsin - Parkside’s newest residence hall were able to revise the original plans (left) as the project evolved. At right is the revised model of the suite-style accommodations, set to open this fall. Madison, Wis.-based Eppstein Uhen Architects designed this project, one of several large projects to utilize BIM since the Wisconsin Department of Administration first launched a pilot program analyzing the technology in 2008. Aiming to increasing energy conservation, efficiency and sustainability, the Wisconsin Department of Administration now mandates BIM be used for all projects above \$5 million.



Photos courtesy of the Wisconsin Department of Administration

“We are giving the nonunion sector a marketing tool,” McCarron said. He said some nonunion shops are telling owners, “Hey, your job could get shut down or delayed because of a jurisdictional dispute.”

But the Plan for the Settlement of Jurisdictional Disputes, also referred to as the “Green Book,” is outdated and too static to effectively serve as a dispute resolution tool, according to McCarron. The Green Book, he said, assigns work by craft, regardless of a trade union’s training abilities or adoption of technological changes.

“The Green Book was established 100 years ago,” when union work represented 80 percent of the construction market, McCarron said. He questioned the wisdom of continuing to rely on the Green Book during a time when union representation has shrunk significantly in the market.

The union membership rate in the construction industry is 15.6 percent, the Bureau of Labor Statistics reported Jan. 28, 2009, in Union Members in 2008.

McCarron cited a number of examples of significant worksite changes that have altered how jobs are conducted. For example, he pointed out that concrete is not mixed on the job site anymore—it comes premixed, and that a lot of equipment that was previously assembled at the worksite is now prefabricated. The next 10 years

could quadruple the changes the industry has seen in the past 20, “So are we going to still rely on the Green Book?” he asked.

EFCA: A WORK IN PROGRESS

On the issue of legislation, McCarron called the congressional debate over the Employee Free Choice Act (S. 560, H.R. 1409) “a work in progress.”

“We were pushing to get it done before the August recess,” but then Senate Majority Leader Harry Reid (D-Nev.) said that was not going to happen, according to McCarron. “So we are looking at September or [some point during] the rest of the year-post health care reform,” he said.

“The Senate is the problem,” McCarron said. He said progress on passing the bill is being stymied by Democratic opponents of the bill’s card-check provisions, which would amend the National Labor Relations Act to require the National Labor Relations Board to certify a union as the bargaining representative of a group of employees if a majority of them sign valid union authorization cards.

However, provisions that would require mandatory arbitration are still in the legislation and should make it into the final bill, McCarron said. “But they are talking about expediting an election in 10 days.”

“That will be interesting — how that would work,” he said.

He said he sees the election provision as helpful because employers would be either prohibited from meeting to dissuade employees from forming a union, or if they did meet, would be required to give union representatives equal time and access to the workers to make pro-representation counter arguments.

KEY TO JOB SITE SAFETY IS ENFORCEMENT

On the issue of recent regulations intended to help reduce injuries and fatalities on construction jobs, McCarron said, “You can have all the laws on the books you want. They need to be enforced—with fines and real consequences—for people to be safe.”

“From everything I hear from the Obama administration and Department of Labor,” according to McCarron, what the unions considered lax enforcement under the Bush administration is changing towards a stronger focus on compliance. In their own training programs, Carpenters representatives explain to their members where a lot of the break points are on safety, he said. A nonunion worker does not get that level of training, he added.

The construction industry has made safety a priority, according to McCarron, but he said there is still work to be done.

DAVIS-BACON SURVEYS NEEDED

McCarron also said Department of Labor prevailing wage determination surveys have to be done faster to establish new benchmarks. The surveys are crucial, he said, to update determination information that the Bush administration either did not update or processed too selectively. As a result, some markets have not been surveyed since the early 1990s, he said.

McCarron acknowledged that there may be a few issues in current Davis-Bacon Act rules that could be tweaked, but he said enforcement to ensure that employers pay prevailing wages in compliance with the law is the biggest issue relating to the act for his union.

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than \$300 million in value used BIM for architectural and structural design. Participants reported improved communication and understanding of the project because of BIM technology.

The AGC of Greater Milwaukee is looking upon the new standards as a positive development for the industry as a whole.

“Public agencies not surprisingly often serve as incubators in terms of trying to progress new initiatives,” Fabishak stated. “I think that the more we find our owners asking for this, it begins to move the industry in a direction that will provide better value, more transparency and understanding of how projects will fit together.”

Even while embracing the benefits of BIM regulations, through, Fabishak said he advocates a “thoughtful and cautious” vetting of new technologies in order to create real benefit for builders.

“The same degree of cautiousness that exists in our industry relative to change is probably not uncharacteristic of public owners,” he said. “It’s a matter of best practices. If there’s a better way to milk the cow, then let’s figure it out.”

Napier, the DOA Project Manager and a BIM specialist, recommended that contractors begin to “develop awareness and monitor application” of BIM because of the changes to come. He also said that the DOA is basing the guidelines on open standards for interoperability, meaning that they are not locking into one brand of BIM software.

“We have implemented, we believe, within the capability of the technology and the capability of those using it,” Napier said, emphasizing that full implementation “is going to be a long process, years to come.”