BY ALL ACCOUNTS, THE BIM FOR MASONRY (BIM-M) INITIATIVE IS MOVING AT AN EVER-INCREASING PACE. In April 2015, the first BIM-M Symposium brought together architects, structural engineers, manufacturers, suppliers, software vendors, construction managers, mason contractors and others. You should have been there. All attendees were interested in seeing what is on the horizon for masonry, and many were there to contribute to development of BIM-M. BIM-M even received an unsolicited offer of financial support to be a new sponsor, based upon the quality of the program.
The symposium was a reflection of the work completed or in progress. In addition, it also was the official release of the Updated Roadmap. The Roadmap is the industry’s plan that is being used to guide the masonry industry toward its goal of making masonry increasingly available and appealing to the design and construction community, to work with Building Information Modeling (BIM).

It was first conceived by the Georgia Institute of Technology’s Digital Building laboratory, under the leadership of Professor Russell Gentry, P.E., and Professor Charles Eastman, who is known as the father of BIM. The Updated Roadmap is available, along with all BIM-M videos, reports and presentations as a free download at www.bimformasonry.org.

The symposium and the Roadmap had many key features for masons and mason contractors. Four noteworthy presentations highlighted the contractor.

Mark Swanson of the International Masonry Institute (IMI) spoke on Operating in a BIM Environment and made several important points:

• BIM provides a tool for coordinating projects
• You can build the building before you build it: the 3D modeling allows the contractor to “see” the conflicts before they arise in the field
• BIM models can be used for quantity take-off, scheduling, planning site logistics, developing virtual mock-ups, reviewing the overall BIM model and more.

Many new software packages and technologies that will benefit the mason contractor are being developed and used. Some software is free for trial. See Swanson’s presentation on the BIM-M website – www.bimformasonry.org – for more information.

Swanson also noted that laser scanning technology is available now as is 3D printing. These and other new ideas may be what you could use to win that future project.
It was interesting to hear from a construction manager as to his perspective on the use of BIM on projects and why mason contractors need to be on board with the technology. Jim Schrader of Power Construction listed several benefits of using BIM:

- Reduction on RFI’s during construction
- Increased accuracy
- Increased efficiencies on installation
- Enhanced communication and coordination.

Power Construction is using BIM for:

- 3D coordination
- 4D scheduling
- 3D site logistics
- FIM documentation
- 3D shop drawings
- Digital submittals
- Estimating and quantitative surveys
- Prefabrication.

To illustrate his points, Schrader highlighted the masonry construction on a major laboratory project for a university research building in the Chicago area, where BIM was used between Power Construction and the mason contractor to meet schedule and avoid conflicts. The audience also heard from Chicago-area mason contractor Peter Sindic of Richards & Weyers Construction with support from Scott Conwell of the IMI. Richards & Weyers Construction was the mason contractor for Power Construction on this project. Sindic provided specific examples of how improved coordination and scheduling led to the successful completion of complicated masonry work on the project, and how they used BIM tools to meet the client’s needs.

The message to mason contractors in all of this is that your clients – owners, general contractors, and construction managers – have determined that BIM works to save them time and money. Thus, masons will be required to work with BIM on their projects. So, mason contractors need to have a plan to provide BIM services for their work and find a way to be profitable doing so.

Another strong message to contractors was delivered by Adrian Siverson of R & D Masonry. His presentation, “How One Mason Contractor Incorporates BIM,” made a big impact on the contractors in the audience. While many contractors may be avoiding or stalling using BIM whenever possible, R & D Masonry embraces it. Siverson stated they use some BIM on every project, whether it is mandated or not.

That is a strong statement not often heard from a mason contractor. More and more project specifications require mason contractors to provide BIM modeling or work with existing models during construction. But, to have a mason contractor recognize benefit on every project is rather unique.

Siverson was clear in his message to contractors: You need to know how to model in BIM to meet project requirements that require BIM. However, on your own, only model what provides you value, and only model to the level of detail that does the job.

R&D Masonry works with several BIM platforms, and the level of effort depends upon the project. He mentioned he may do full BIM models on some projects and sketch up details on others. The key is choosing what does the job. So, BIM is not one-size-fits-all. See Siverson’s presentation online. You will find it interesting.

Finally, we released the Updated Roadmap. BIM-M is heavily supported by the masons and the masonry industry, and advancing the use of BIM is a key priority. The Updated Roadmap (available online) continues through 2017, with activities specific to construction. Since 2012, Darrell McMillian and now Fred Kinateder have led a Contractor Input Working Group (CIWG) of BIM-M. They have spent days meeting and surveying masons on what improvements would help them in the overall construction process. The goal is to take those suggestions and
Mason contractors need to have a plan to provide BIM services for their work, profitably.

find ways to improve masonry construction by implementing changes to BIM technology.

In Phase III of BIM-M, the CIWG will be looking into various means to help the mason. Basically, if it will benefit masonry construction and worker productivity and safety, CIWG will be promoting changes within the abilities of BIM. Kinateder can be reached through the BIM-M website or the CIWG website, http://ciwg.weebly.com. Volunteers are always welcome.

A new endeavor that also needs volunteers is the BIM-M Technology Input group. As outlined in the Roadmap, this proposed group would look specifically at technology issues. These include:

• Existing and proposed mobile apps; BIM-M has a mobile apps seminar that will be continually updated
• Digital tools such as tablets, smart phones, readers, kiosks, hands-free computers, etc. that could improve the efficiency of the mason and mason contractor in any stage of a BIM project
• Equipment such as robotic devices or aids working in tandem with masons who interact with BIM software to improve construction quality and efficiency
• Software that may improve mason proficiency for training, skills development, project operations and management, etc. using BIM.


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