



## BIM Q&A with Ambrose Engineering, Inc.

Transition to Revit Structure Q&A with Yury Shafir & Jeff Drake

Building Information Modeling allows Ambrose Engineering to use the architectural design in developing their structure with greater precision and efficiency; contractors likewise enjoy downstream efficiencies with some of their tasks.

**1** *Recently, Ambrose Engineering made the decision to migrate from 2D drafting tools to the next generation of 3D modeling with Revit Structure. Can you tell us what you've been working on since that decision was made and where the implementation stands today?*

Since we made a commitment to 3D modeling and BIM, almost 90% of our jobs have been designed using Revit Structure, oftentimes even if the client is working in AutoCAD. This allows us to combine modeling and drafting, taking advantage of the best Revit features. We have also created our own product families and templates, thereby allowing ourselves to be more efficient.

Although the formal implementation is long since completed, we treat our application of Revit Structure as an ongoing implementation process with an internal champion who furthers our knowledge and continued use of 3D modeling. There are so many different features and functionalities that we continue to gain new efficiencies.

**2** *Moving to Revit Structure and a parametric modeling environment offers some obvious and not-so-obvious benefits for both Ambrose Engineering and the building industry. Can you cite a few key reasons why this decision was made, and the specific benefits you were looking to achieve?*

Some time ago, MasterGraphics really opened our eyes to the inevitable impact BIM was going to have on the industry, and we wanted to make sure that we didn't get left behind on the technology curve, so the commitment was made. The opportunities for increased efficiency through collaboration are tremendous. In fact, we've already realized efficiencies that weren't expected.

Our ultimate goal is achieving Integrated Project Delivery (IPD) for our clients and our contractors, which should allow 10-15% savings both in time and cost for the building owners. Close collaboration with contractors and consultants during all stages of the project - under the supervision of either the owner or contractor - is essential and can enhance our ability to spot interferences before they occur. A more general benefit we've enjoyed is attracting more jobs from the interested contractors and owners who understand the opportunity presented by this process.

**3** *Ambrose Engineering has been diligent in trying to keep the building industry (Architects and General Contractors) informed regarding its transition from AutoCAD to Revit. However, some parts of the community do not fully understand the value and downstream benefits of Building Information Modeling (BIM). Do you have any words of encouragement for them at this point?*

*continued...*

I'd encourage them to not resist the movement toward BIM but, rather embrace it. I believe the evolution of business will force them, sooner or later, to accept the IPD and BIM as its instrument – so get on board now. Even though an implementation may seem a little intimidating or costly, a company can very quickly start to realize benefits from working with 3D modeling. This isn't simply an expense – it is truly an investment in their future success.

**4** *One concern that some companies seem to have about transitioning to Revit is the availability of resources to help them migrate to this platform. What other resources might you recommend companies consider to learn more about this transition and the new design platform? What advice or recommendations can you offer to ensure a successful implementation?*

Regarding resources, many resources can be identified from the Autodesk and AUGI community pages, including articles, blogs, tips, etc. We also learned a lot from working with MasterGraphics about the possibilities and pitfalls we would face during an implementation.

One key recommendation is to identify a dedicated, open-minded person inside the organization to lead a pilot project. Train that person on the software (MasterGraphics has one-on-one training opportunities, which we fully used for 50% of the staff involved), allow him/her to experiment with the program, learn how to write families, customize the program, read AUGI bulletins and forums, visit user group meetings, etc. That person can then train others (in our case – the other 50% of the staff involved) and provide them and the organization with valuable advice.

The next step is to start with small, simple projects – and do not be afraid to invest a little more time on the first few, as the experience will pay off later. Try to impress your clients with what you can do in Revit to help THEM, to improve the quality of your product, to eliminate misunderstandings, coordination errors during construction, etc.

My final piece of advice is perhaps the most important – the commitment to BIM must be shared and championed by leadership at the top levels of the organization. If leadership is on board, then the firm will withstand and overcome any challenges to the implementation.

**5** *What are the next steps for your team?*

In a tough economy such as this, it is natural and wise to ask ourselves whether we should continue using the BIM approach or whether we should revert to ACAD. But for us, it's going to be BIM more often than not, so we are going to continue working primarily with Revit Structure – we have become so much more efficient. So we'll just keep preparing and looking forward!

Visit the Ambrose Engineering website: [www.ambeng.com](http://www.ambeng.com)

Learn more about Building Information Modeling (BIM): [www.mastergraphics.com/BIM](http://www.mastergraphics.com/BIM)