

Consultant's Take



BY JOHN MIOLOGOS
Executive Vice President,
Architecture, Engineering &
Construction Management
WD Partners, Dublin, Ohio

BIM is the Future for Integrated, Collaborative Design

Building Information Modeling (BIM), which enables fully integrated three-dimensional design development, began gaining popularity among design-build leaders in early 2000. A game-changing technology, it has been increasingly embraced for the development of new restaurant concepts. Yet, despite its many collaborative and integrative advantages, developers of more established multiunit restaurants have been surprisingly reluctant to adopt this dynamic technology.

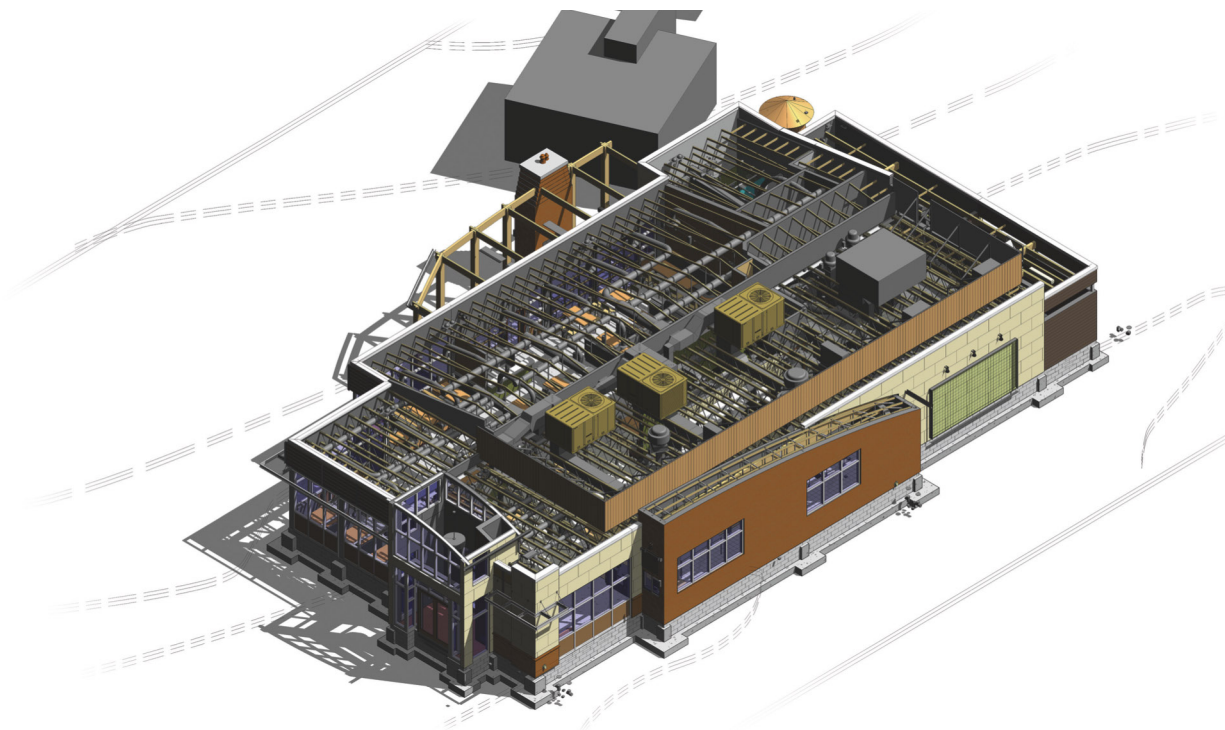
Why the reluctance? Many restaurant chains are hesitant to part with legacy investments, remaining fiercely loyal to the computer aided design systems they know and love. In some ways, it's similar to the trepidation many felt when the architectural/engineering industry shifted from hand

drafting to CAD in the 1980s. But this is a common misunderstanding of the flexible role BIM can serve in restaurant design and development because it can, in fact, enhance legacy systems versus replace them.

If you haven't tried BIM yet, it may be time to reconsider. Like any change in process, however, it's important to balance opportunities with challenges and keep a few important considerations in mind.

BIM Advantages

It gets everyone on board early. BIM facilitates input early on, which is especially beneficial for new restaurant chains developing their signature trade dress. Thanks to the creation of a virtual 3D environment, restaurant developers can essentially experience a walk-through before construction even



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begins. From the start, they'll know how the back and front of the house look, enabling them to be more decisive and better prepared for the approvals process with their operations team.

It adds precision. Because BIM software is data-intensive, it allows for easy quantification of building materials — detailing exactly how many bricks an outside wall requires and how many fixtures the front requires, for example. With the addition of actual counts to assigned attributes, suppliers benefit from a much more fully realized model and have the ability to make more informed bids.

It adapts to change. BIM is ideal for the revision stage, lending itself to streamlined modifications and updates that the project team can view immediately. And because the BIM model links mechanical, electrical, plumbing, structural and civil disciplines into one central database, a change anywhere is a change everywhere.

It helps avoid conflict. With BIM, restaurant development teams can detect clashes among elements and potential

constructability issues at the front end of a project, in the office instead of on the job. This can drastically reduce change orders, save thousands of dollars in wasted effort, and accelerate the build process and time to market.

BIM Considerations

It can require a shift in time. Those new to BIM may be surprised by how much time it takes on the front end, during design and development. Creating a 3D model with intricate details can take twice as long as a 2D rendering. CAD loyalists must have faith that all the hard work upfront will result in less effort later, with time and cost savings during the construction documentation phase.

It demands more mastery. Designing with BIM software can be a complex process, requiring a much higher level of expertise than designing with AutoCAD. And the learning curve can be extensive, with a typical training period lasting six months or more and sometimes resulting in a radical reorganization of workflow.

It can cause “family” frustration.

Getting all restaurant suppliers up to speed can also be a challenge. As mentioned, many manufacturers still haven't made the switch to BIM. As such, more technically advanced architects, designers and contractors find themselves at their mercy, especially when it comes to creating “families” — intelligent, interoperable 3D blocks that all parties must contribute to in order to build the single, cohesive BIM model.

The bottom line: We're big fans of BIM, but we also know how important it is to implement it on a case-by-case basis, carefully considering project lifecycles and only introducing it when it can provide true value. It may be difficult to introduce BIM mid-project, for example, where systems and project management tactics are already established. But for many other projects, especially those establishing a new set of prototypes, BIM is an indispensable tool that eliminates redundancies, enhances productivity, and serves as crucial connective tissue for disparate systems and contributors.