



"Revit Architecture is critical in our efforts to design and construct our projects more sustainably. It is enabling us to approach our work in a way that is consistent with our mission."

Laura Lesniewski
Principal
BNIM Architects

Sustainable design makes sense.

Because all BNIM projects require maximum efficiency and minimal impact on the environment, **BNIM** has standardized on **Revit® Architecture** software.

The Firm

For the professionals at BNIM Architects, sustainable design is not an afterthought. It is simply the way they design. Based in Kansas City, Missouri, BNIM has built a national reputation for excellence in architecture, planning, interior design, and landscape architecture that strives for a minimal ecological footprint on the natural world. With the help of Elements, the firm's cutting-edge sustainable consulting division, BNIM's architects and designers have been closely involved with the US Green Building Council and in the creation of the LEED® rating system for "green" building. They believe that it is possible—and necessary—to design, construct, and operate buildings that combine environmental responsibility with sound business practices. Recently, BNIM standardized on Revit Architecture software. "We looked at all of our options," says Eddy Krygiel, an Associate at the firm, "and decided Revit Architecture had the best support and the best future direction."

The Challenge

Since adopting the new software a few years ago, BNIM has completed one project, is in construction administration on three more, and has a total of 15 in progress. "At that time we decided that every new project would use Revit Architecture," says Krygiel.

Fast-Track Schedules

One of the largest is the 1,140,000-square-foot Internal Revenue Service processing center in Kansas City. Designed in partnership with 360 Architecture, this mega-facility is currently under construction. "It was very complex, with a tough schedule and multiple owners," says Steve McDowell, a Principal at BNIM. "We knew we needed a design tool that could handle all the potential changes. That's why we made the decision to use Revit Architecture."

A Need for Green

It was also important to the client that the finished building attain a LEED® Silver Rating. BNIM needed to perform numerous daylighting studies and energy analyses and be ready to quickly modify them in response to design changes.



Kansas City design firm BNIM relied on Revit Architecture software to

- Clearly convey complex design information to clients with powerful modeling tools
- Use the model for daylighting studies
- Work with the contractor to efficiently manage the staging and on-time delivery of project materials
- Virtually eliminate coordination mistakes, rework, and unnecessary causes of wasted effort and materials
- Reduce the project's "carbon footprint" by improving project efficiency and accuracy

The Solution

Because Revit Architecture is a building information modeling (BIM) software application, it allows architects to track several sustainable design strategies on any given project—without sacrificing other project needs.

Learn from the Source

To get started on the IRS project, BNIM turned to Autodesk Consulting. "We had a large number of people go through the Revit Architecture implementation program," says Krygiel. "It worked out quite well. They were very professional and efficient—and available to answer questions at any time, which saved us a lot of time and effort. As a result, we stayed with Revit Architecture all the way through construction documents, and we've been using it ever since."

Do More

Once the architects began to design, Revit Architecture automatically created other project information, such as coordinated floor plans, elevations, sections, 3D views, and renderings. The model is also able to capture material data for use by the team as needed throughout the life of the project.

And Do It Better

"As a result, we spent less time on creating construction documents and almost no time cross-referencing them," says Laura Lesniewski, a BNIM Principal. "What we used to do painstakingly by hand, Revit Architecture does automatically—and almost without error." And when the architects needed to make a change, Revit Architecture automatically updated all other views of the model. "Because we were more efficient in this area, we were able to pay more attention to design."

See the Light

Revit Architecture also made it easier to perform the necessary daylighting within the standard design environment. "We used the Revit Architecture model as a basis for our daylighting studies," says Lesniewski. "That helped inform the design and demonstrated to the client the level of light quality in the finished project."

Get the Price Right

"On another project, we used Revit Architecture to supply the contractor with material takeoffs—such as areas or quantities—straight from the model," says Krygiel. "It helped inform their pricing. We've also found that our cost estimates have been much closer to actual costs, and the design team receives feedback more quickly." Plus, the model is a perfect resource for obtaining up-to-date schedules of building materials—making it possible to determine percentages of material reuse, recycling, and salvage.

Build Integrated Teams

One of the firm's goals is to reuse the model and share its valuable design data with mechanical, electrical, and plumbing engineers, as well as other key consultants, fabricators, and construction professionals. "That helps balance all components and systems in the building so it all comes together in a highly efficient design," says Krygiel.

The Result

"On one of our projects, we are months ahead of schedule," says Krygiel. Revit Architecture, as well as help from Autodesk Consulting and training from the reseller, played a crucial role. "Revit has proven very successful for us," adds McDowell.

To learn more about Revit Architecture, visit www.autodesk.com/revitarchitecture.