Simply a Better Way of Working
Architecture Solutions

Botswana Innovation Hub – SHoP Architects.
Now is the time to achieve the competitive advantage of BIM.

Rapid Industry Changes Create Opportunities
The troubled global economy of the past few years has wrought significant changes in the architectural industry. In many regions, spending on new construction projects has plummeted—provoking fierce competition among those firms left standing after industry closures and consolidation. Developing economies have also contributed to industry change by providing abundant work to firms capable of securing projects on an international scale and collaborating with geographically dispersed project team members.

On virtually all projects, savvy clients and building owners are demanding more for their investment. They want increased building performance, innovation, and a return on investment (ROI) that they can measure in real-world cost and time savings, as well as in more abstract ways, such as greater end-user productivity and satisfaction.

Green Mandates Drive Innovation
One of the biggest changes has been the steady shift toward practices that reduce the impact of building projects on the environment. Perceived initially as a luxury among many in the profession, these types of practices are now in high demand, and are often mandated by both public agencies and private industry owners, who value energy efficiency, “green” building materials, zero-waste systems, and carbon footprint reductions. Indeed, sustainable design practices have thrived even in some of the regions hardest hit by the recent economic downturn, as spending has moved to more affordable retrofit and energy efficiency projects.

Win New Clients—and Gain Competitive Advantage
To maintain a competitive edge and stay profitable in this challenging business climate, architectural firms of all sizes—from large multinationals to home-based businesses—are adopting new workflows, tools, and technologies. Leading these new process changes and workflows is Building Information Modeling, or BIM. Demand for BIM is growing rapidly, particularly among building owners and government agencies, many of which now require BIM on their projects.

With BIM, architects can obtain unprecedented insight into how buildings will perform—long before construction begins. This insight can help you design more efficiently, obtain earlier approvals, and deliver higher-quality, more sustainable designs with fewer complications during the construction process. Ultimately, this approach helps project teams achieve more consistent, predictable outcomes, which can increase client satisfaction. And, as many organizations have discovered, BIM is better for their business.

“We averted 17 potentially costly field clashes and 21 RFI-only issues,” reports Crawford Smith, BIM specialist at SERA Architects, discussing the project team’s success in modernizing the aging Edith Green/Wendell Wyatt Federal Building in downtown Portland, Oregon. “By comparing the cost estimate to fix the field issues against the cost of the software and the investment in project time for clash detection, we calculated that using Autodesk BIM solutions for coordination on this project led to a 300 percent return on investment.”

BIM is a design process that relies on intelligent, information-rich models as the foundation for design, simulation, and collaboration at every stage of the project lifecycle.
To help building professionals take advantage of the benefits that Building Information Modeling (BIM) offers, Autodesk provides a comprehensive portfolio of integrated solutions that help architects design, visualize, simulate, document, and build better buildings.

**Design and Document**

- **Autodesk® Revit® software**
  Built for BIM, Autodesk Revit helps you to model and analyze design concepts and more accurately maintain your vision through design, documentation, and construction. Use information-rich models to make more informed design decisions to support sustainable design, clash detection, construction planning, and fabrication. Any design change you make is updated throughout your project, keeping design and documentation coordinated and more reliable.

- **AutoCAD® software**
  Architects can design, document, and share drawings more accurately and efficiently with native DWG™ support, presentation-ready graphics, and powerful automation, management, and editing tools that minimize repetitive tasks and speed time to completion.

- **AutoCAD® Architecture software**
  Architects can boost design productivity with a comprehensive library of architecture-specific tools and components that more quickly generate schedules, elevations, and sections, and automate repetitive drafting tasks.

**Visualize**

- **Autodesk® Showcase® software**
  Showcase provides an easy-to-use, real-time 3D presentation and rendering tool that helps transform CAD files into compelling imagery, movies, and real-time presentations for interactive design reviews, marketing imagery, and sales presentations.

- **Autodesk® 3ds Max® Design software**
  This visualization studio-in-a-box provides advanced modeling, rendering, and animation tools to help architects create cinematic-quality visuals for marketing and selling their concepts to internal and external stakeholders.

**Simulate**

- **Autodesk® 360 Energy Analysis for Autodesk® Revit®**
  Available to Autodesk Subscription customers of Autodesk Revit products, this service provides architects with powerful Autodesk 360, cloud-based analysis capabilities that enable them to quickly gain insight into the energy consumption and building lifecycle costs of conceptual and detailed designs, helping them create more sustainable building designs.

- **Autodesk® Green Building Studio®**
  Designed for those who want to perform whole-building energy analysis to better understand energy use and carbon footprint implications of building designs, this web service is delivered to certain Autodesk® Subscription customers through Autodesk 360.

**Build**

- **Autodesk® Navisworks® software**
  This line of products helps design professionals improve control over project outcomes by enabling the integration of multiple 3D models and multifORMAT data into a single model that all project stakeholders can analyze and review for better coordination, conflict resolution, and planning—long before construction begins.

Autodesk extends the value of many of its products, services and solutions with Autodesk 360, a cloud-based platform that helps architects, building industry professionals, and other project stakeholders dramatically improve the way they access, view, review, and edit designs — with virtually infinite computing power and the ability to work anytime, anywhere. In addition, select benefits help the entire team more easily design, visualize, and simulate their ideas.
On a fast-track project, you don’t have the luxury of going back and modifying early portions of the designs at the end of the project. Everyone—contractors, architects, interior designers, and engineers—needs to be able to align their vision for the end result in almost real time. I don’t know how you could do that without BIM.

—Damian Serrano
BIM Project Coordinator
RLF