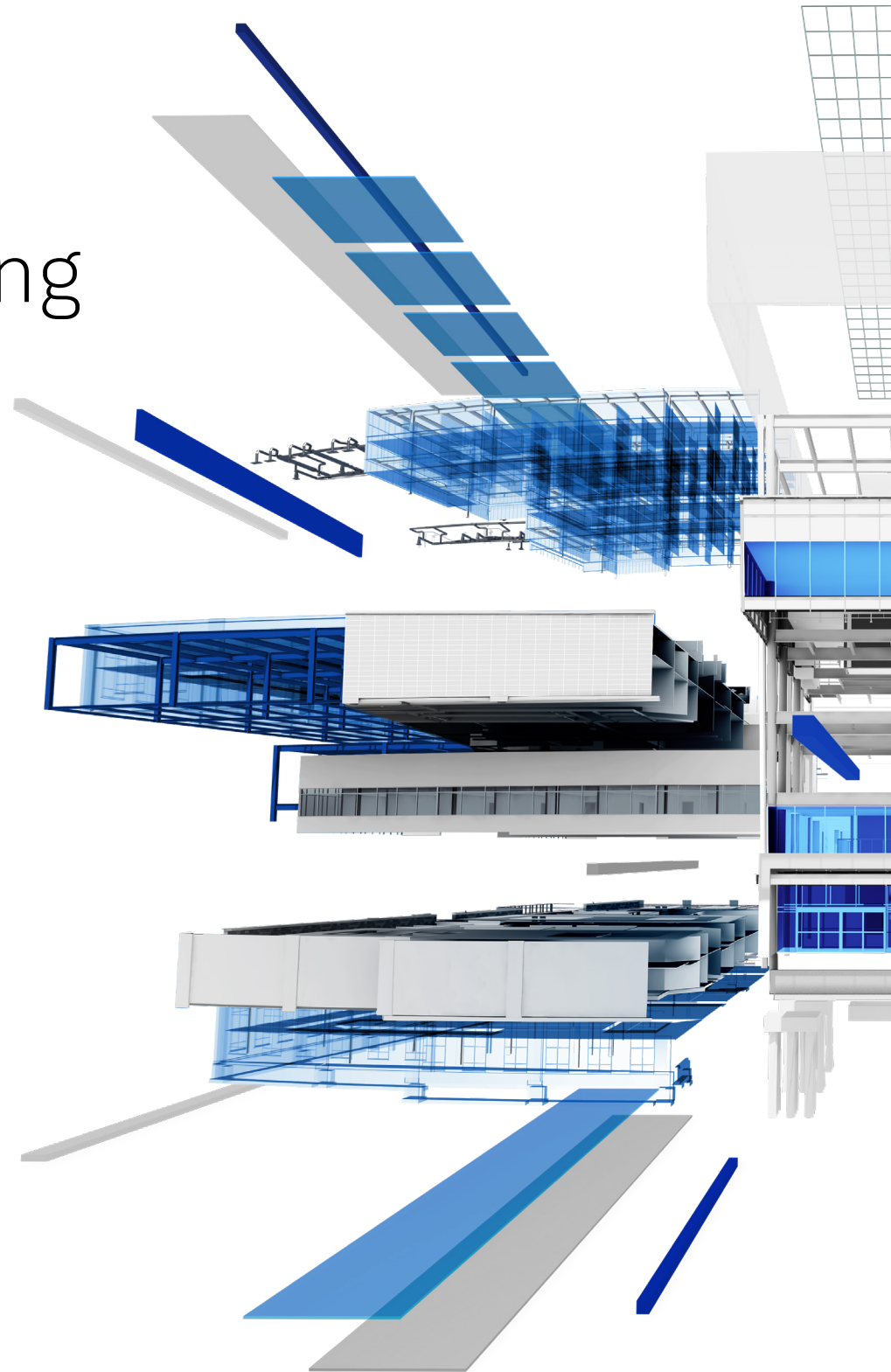


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Your Guide to Achieving the Extraordinary with BIM

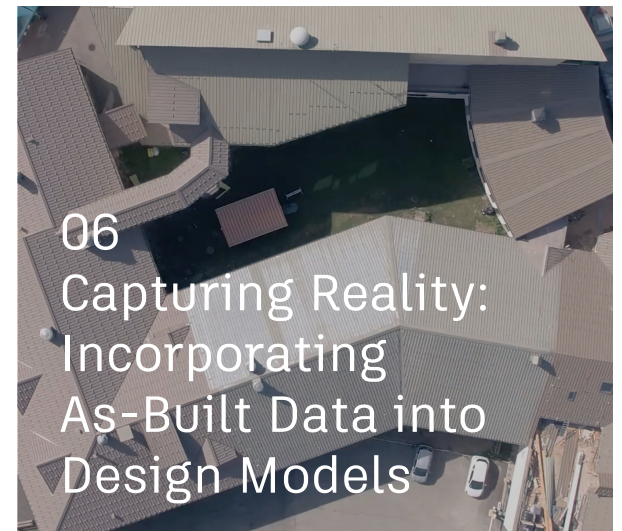
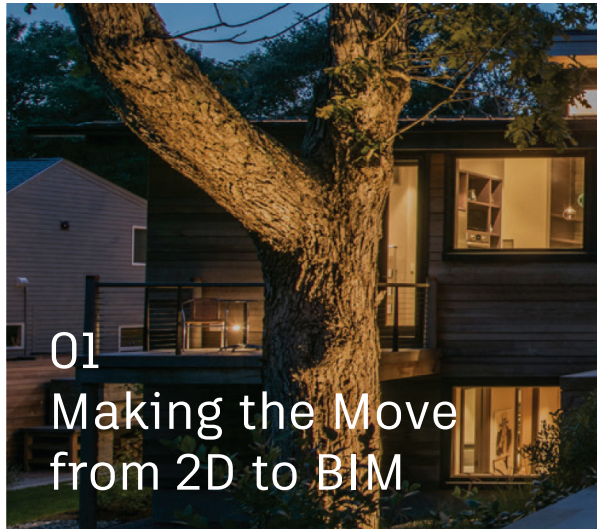
In your quest to stand out from the competition and win and retain business, BIM (building information modeling) processes can help. BIM tools facilitate data continuity and accuracy, help designers discover optimal designs and unlock new levels of creativity and innovation.

This guide to BIM technologies and workflows can help you use BIM to automate the ordinary and achieve the extraordinary.



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Your Guide to Achieving the Extraordinary with BIM





01 Making the Move from 2D to BIM

Learn, evolve, and invest in your workflows by moving from CAD to BIM. While it's natural to have concerns about the investment and learning curve associated with moving from CAD to BIM workflows, most architects today simply cannot afford to continue working in two dimensions.

Competency in BIM can help architects compete for more projects, accelerate the design process, and increase client satisfaction. Increasingly, owners are either requiring model-based designs or stating a preference for them, and BIM capabilities qualify firms to compete for these projects, meet mandates, and participate in collaborative project delivery.

According to industry stakeholders, firms that adopt BIM can expect to outperform previous practices after just three projects.

Discover the workflows that will help smooth your firm's transition to BIM.

[View Workflows >](#)

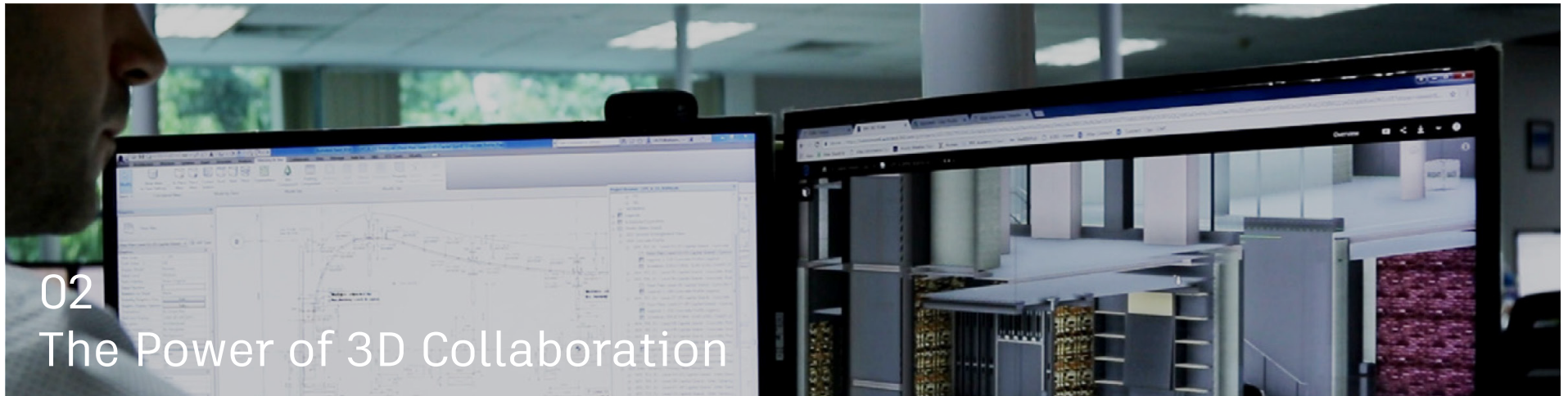
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If you're working in 2D and you make the change to BIM, your life is going to change in ways you can't even imagine.

Jill Neubauer

Founder and Principal Architect
JNA



Any successful building project requires collaborative input from multiple teams with different areas of expertise. Those teams might be spread across different cities, states, or even continents.

Cloud-based collaboration tools let architects and extended team members work together in real-time on a single design, ensuring that all stakeholders have the latest information. Through cloud-connected BIM collaboration, designers can access plans in an instant, rather than waiting for large files to download. Managers can even monitor work being done by teams across the country or the world in real time – helping to catch mistakes in the moment, prevent time-intensive rework, and create a more cohesive design.

Seventy-four percent of architects say that BIM leads to better multiparty communication.

Learn more about how BIM and cloud-connected tools enhance design collaboration.

[View Workflows >](#)

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BIM breaks down barriers by embracing information mobility, making everyone use the same set of standards and processes.

Trieu Nguyen Lau
BIM Integration Specialist
Atlas



03

Connecting Design to Fabrication

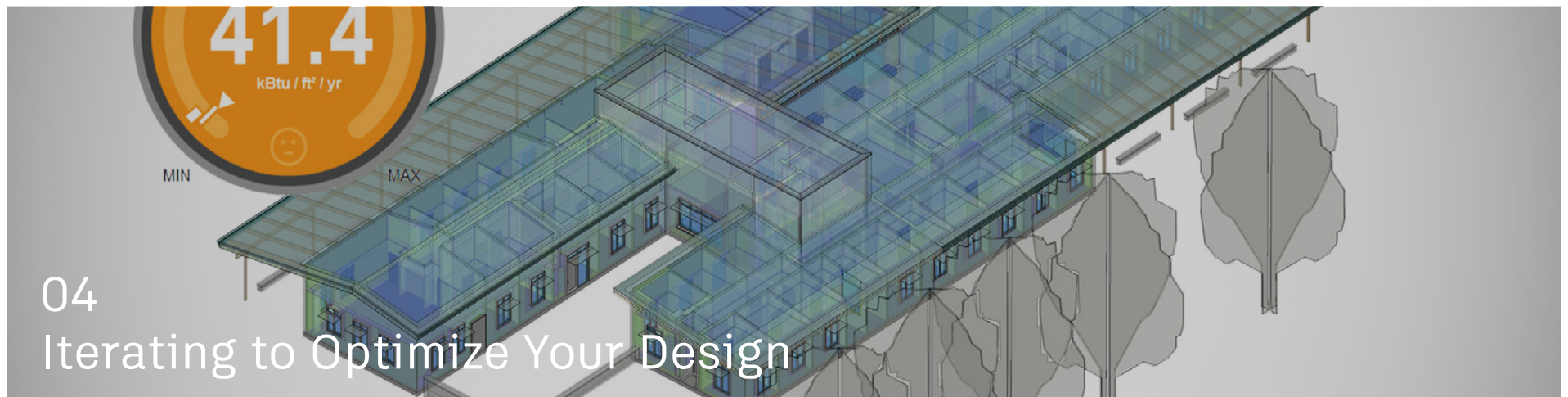
For an architect, there's perhaps no more satisfying feeling than seeing a design become reality. But breakdowns in communication between teams, or complicated design plans, can lead to designs being altered during construction.

BIM tools help architects know that their design can be developed to a level that supports fabrication – making it more likely that design continuity will be maintained by others later in the development process. When all stakeholders are able to work from the same BIM model, the final project more closely follows the original intent of the designer.

Connecting design with fabrication in this way can increase client satisfaction, too. In a SmartMarket report from Dodge Data & Analytics, 90 percent of project owners said that BIM produced better construction documents, and 70 percent said it improved their ability to plan construction.

Discover how model-based workflows can better support connections between the design and build phases of complex projects.

[View Workflows >](#)



Three-dimensional workflows are well-suited for concept design and rapid prototyping, making it possible for architects to use these processes to explore a full range of design options.

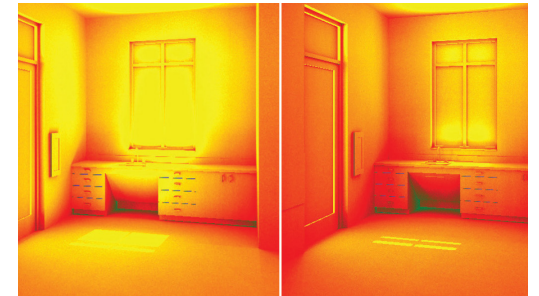
Using a model created in BIM, architects have the ability to use computational design to quickly explore dozens of possibilities and use analysis tools to provide data-based insights that inform design decisions. This allows designers to create and test multiple iterations of a model and instantly see any larger impacts. For example, an architect can see the impact of building positions on lighting and overall building performance.

With sustainability goals top-of-mind, testing these iterations early on in the design process can vastly improve building performance. According to Dodge Data & Analytics, 93 percent of project owners say that BIM tools improve design quality.

Learn more about how BIM capabilities are helping architects to optimize their designs.

[View Workflows >](#)

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We're able to explore several options and identify an optimal approach early on.

Brandon Garrett
Architect/Associate
Dekker/Perich/Sabatini



05

Communicating Design and Intent

When architects present plans to stakeholders and the public, two-dimensional drawings can appear lackluster – and, sometimes, downright mystifying to those without a design background.

By contrast, the 3D models produced using BIM tools allow designers to create stunning, intuitive visualizations that convey their design intent. These 3D renderings bring future projects to life for clients and can help architects win bids and sway public opinion in favor of their proposals. And, according to Dodge Data & Analytics, 91 percent of project owners say that BIM tools have increased their ability to understand architects' designs.

Referencing visualizations during the design process contributes to better project outcomes. For example, a firm designing a new hospital might show a 3D model or an immersive experience of a nursing station to the actual nurses who will staff the facility, and then be able to incorporate well-informed feedback.

Discover how BIM capabilities – including virtual reality (VR) and augmented reality (AR) – can help architects clearly communicate their design intent.

[View Workflows >](#)



06

Capturing Reality: Incorporating As-Built Data into Design Models

Capturing and inputting data from conventional topographical surveys can be both time-consuming and costly. As a result, architects can struggle to gain a clear picture of existing conditions to use as foundation for design.

Using reality capture tools, however, designers can gather data on existing spaces and incorporate point clouds into BIM software. A point cloud provides detailed ground-surface measurements and accurate representations of assets such as lampposts, surface water drains, signs, and vegetation. With point cloud data pulled into BIM, designers can base a model on existing conditions, and enable clients to stand in an unbuilt space and visualize how their final project will look in the context of the existing environment.

Firms can even provide clients with as-built records of constructed buildings as projects wind down, helping clients operate and maintain their infrastructure more efficiently.

Learn more about how reality capture and BIM tools are helping designers incorporate as-built data into their workflows.

[View Workflows >](#)

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It is easy to visualize a project, this helps as well to have a better vision and make better decisions and see things quicker before work starts on the site.

Adrien Truwant
Co-founder at ATFF



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