

COMPANY

Mortenson Construction

LOCATION

United States and Canada

SOFTWARE

Autodesk® BIM 360™ Field®**Autodesk® BIM 360™ Glue®**

SERVICES

Autodesk® Consulting

Improve efficiency and accuracy

Autodesk helps construction firm implement cloud-based BIM solutions for better project outcomes

We have had a strong relationship with Autodesk Consulting for more than a decade and anticipate that relationship continuing into the future.

—**Ricardo Khan**

Director of Integrated Construction
Mortenson Construction

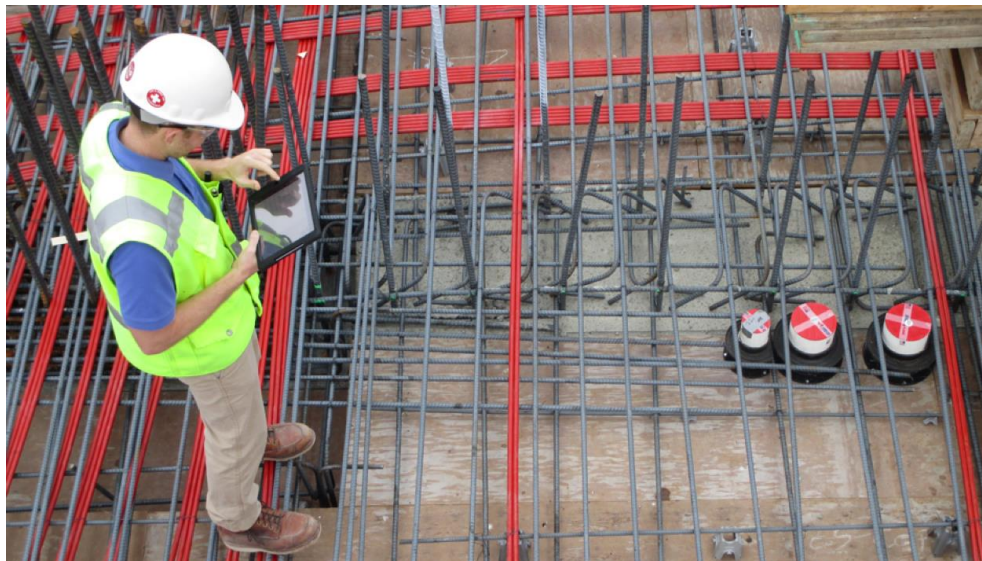


Image courtesy of Mortenson Construction.

Introduction

Established as a family-owned business in 1954, Mortenson Construction has grown into an award-winning company that employs over 3000 team members and serves clients through 10 regional offices in the United States and Canada. The company specializes in key areas—including sports, healthcare, and renewable energy—but ultimately is focused on delivering an exceptional experience to meet the needs of its clients.

While rooted in brick, mortar, and steel, Mortenson's approach today also focuses on virtual design and construction (VDC) and Building Information Modeling (BIM). BIM is an intelligent, model-based process for the planning, design, construction, and management of buildings and infrastructure. "VDC is the process of leveraging the BIM model in our operational work flows and adding value," says Frank Sarno, director of project control at Mortenson. For help in executing this strategy, Mortenson utilizes Autodesk® BIM solutions and Autodesk® Consulting BIM Transformation Services. Since adopting this approach, Mortenson has implemented VDC and BIM on more than 400 projects .

The challenge

Although BIM and VDC are engrained in the company's daily workflows, Mortenson recognizes that opportunity for improvement still exists, particularly in its quality control (QC) processes. "Basically, we wanted our QC professionals to spend more time in the field and less in the trailer re-inputting the data they capture in the field," says Ricardo Khan, director of integrated construction at Mortenson. "Our goal was to find a solution that would reduce the time they spend on QC checklists by half, while improving collaboration and communication among project stakeholders."

To help achieve these goals, Mortenson revamped its internal processes and, in early 2014, signed an Autodesk® BIM 360™ Enterprise Agreement, which included an engagement with Autodesk® Consulting and access to cloud-based BIM 360™ Glue® and BIM 360™ Field software. Because the need for revamping QC processes had been identified long before Mortenson signed the agreement, the deployment had to proceed extremely quickly.

Mortenson has reduced the time it takes to perform quality inspections, while increasing effectiveness

The solution

Mortenson initially began the implementation of its new processes and tools in six regional offices, but quickly increased that number to 10 in order to involve as many teams as possible right from the start.

For help with the transition to BIM 360 Field and BIM 360 Glue, Mortenson engaged Autodesk Consulting to help implement BIM 360, utilizing a “train-the-trainer” approach. In this process, Autodesk trained a select group of quality leaders, who then repeated the training process in their respective business units.

Autodesk Consulting also developed a customized plan for Mortenson by adapting best practices and training materials, developed based on work with numerous enterprise customers, to meet the specific needs of Mortenson. “Autodesk Consulting did that very effectively,” says Khan.

Within a week of the signing of the agreement, Autodesk Consulting had begun training the quality leadership team at Mortenson. “Autodesk Consulting really helped our key trainers around the country get up to speed quickly and learn how to set up and use BIM 360 Field and BIM 360 Glue,” says Scott West, director of quality at Mortenson.

The result

“BIM 360 Glue allowed us to democratize the model for all of our design partners, customers, and preconstruction teams, while BIM 360 Field was a great fit with our revised processes,” says Khan. “It helped eliminate a significant amount of redundancy in data entry by our field engineers, as well as paperwork. Our early findings have shown that we reduced the time it takes to perform

inspections in the field, while increasing the scope and effectiveness of the inspection process.”

As a result, Mortenson has been able to increase the number of inspections it performs, as well as the time that its inspectors can spend in the field with customers instead of in the trailer performing paperwork.

In the first five months of the deployment, Mortenson implemented BIM 360 Field on 58 projects and completed 8,200 checklists with more than 110,800 discrete observations. “Our BIM 360 Field and BIM 360 Glue deployments were very successful and Autodesk Consulting’s train-the-trainer approach was the key,” says Khan. “It was a huge win for us and for Autodesk Consulting.”

Mortenson anticipates turning to Autodesk Consulting in the future. “We have had a strong relationship with Autodesk Consulting for more than a decade and anticipate that relationship continuing into the future,” says Khan.

To learn more, please visit www.autodesk.com/consulting.

Autodesk Consulting really helped our key trainers around the country get up to speed quickly and learn how to set up and use BIM 360 Field and Glue.

—**Scott West**
Director of Quality
Mortenson Construction

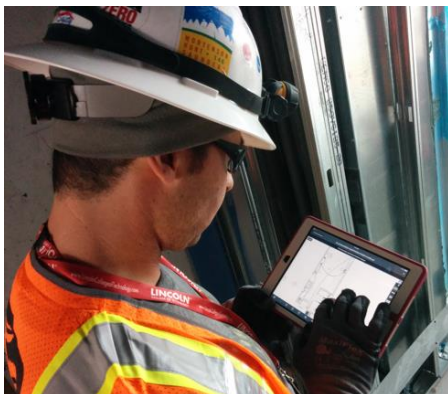


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