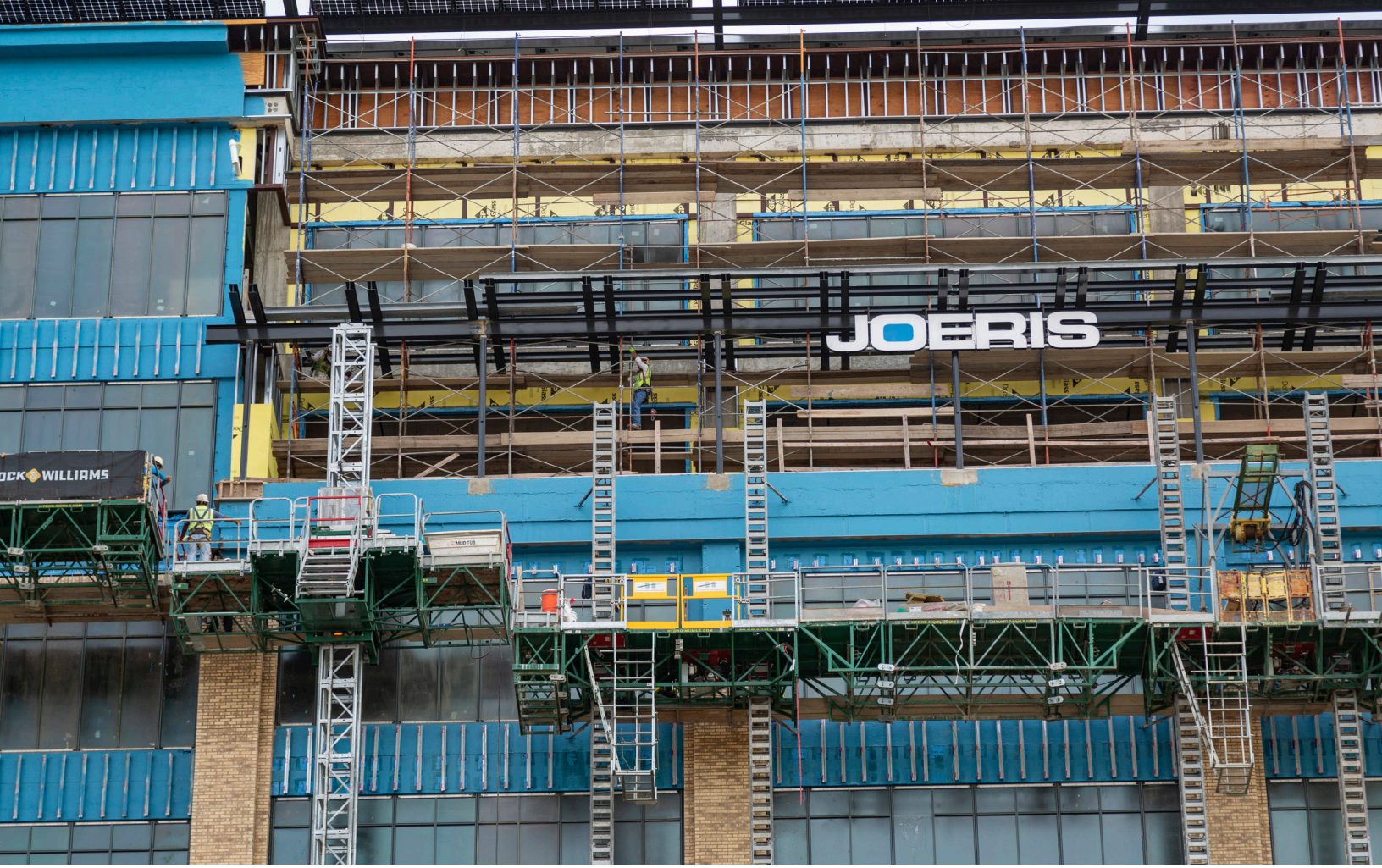


AUTODESK Construction Cloud | JOERIS

How Joeris Improved Estimates with Cloud-based Model Conditioning

Every contractor knows that takeoffs, quantification, and estimating can make or break a project. So much depends on getting this right, yet much of the collaboration process during preconstruction is inhibited rather than supported by available processes.

Cloud-based model conditioning with connected quantification can streamline the estimating process and lead to better outcomes. Joeris is a Texas-based regional contractor whose diverse project portfolio includes numerous market sectors, including the K-12 and religious markets. Here's how they solved the preconstruction collaboration puzzle with cloud-based estimating.

JOERIS

Customer Snapshot

FIRM SIZE:	<500
FIRM TYPE:	GENERAL CONTRACTOR
REVENUE:	$464 MILLION
FOCUS AREA:	COMMERCIAL, INSTITUTIONAL
HQ:	SAN ANTONIO, TX, US

PHASE:

DESIGN · **PLAN** · BUILD · OPERATE

CAPABILITIES:

- Model Conditioning
- Quantification

OUTCOME:

Cost

Quality

Schedule

How to Overcome Technology Resistance to Implement Cloud-based Preconstruction Collaboration Tools - Start with Conversations

Founded in 1967, Joeris operates primarily in industries that are traditionally slow to adopt new technologies. To tackle the challenges of implementing cloud-based collaboration, Joeris first had to engage the cooperation of all stakeholders, from estimating to design.

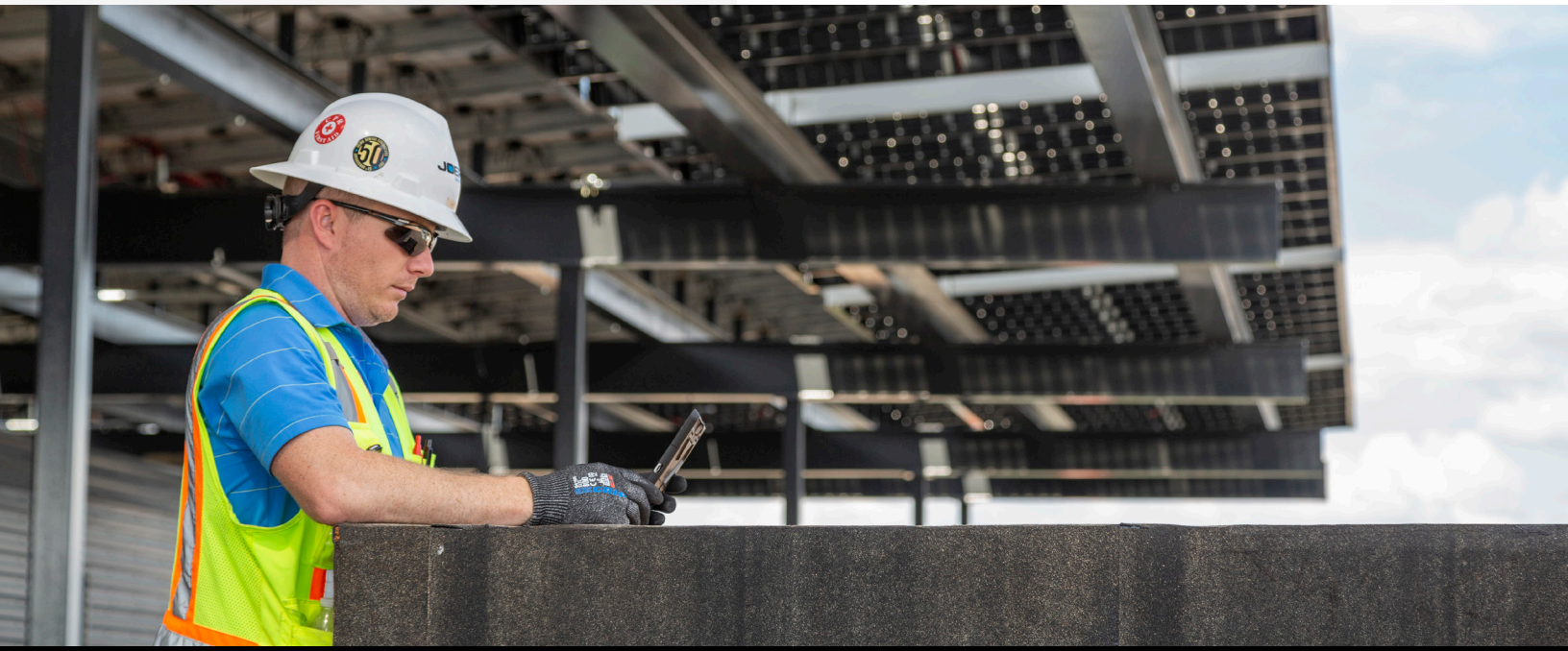
They began with proactive conversations to identify and document construction gaps and challenges in the current approach to preconstruction collaboration. They recognized that transitioning to cloud-based model conditioning would require a shift in mindset for all stakeholders.

Next, Choose Easy-to-Use Tools

Joeris tried a variety of tools and chose to adopt Assemble within Autodesk Construction Cloud™. Joeris uses Assemble to model data in preconstruction, drive increased collaboration, and shorten preconstruction timelines. But one of its biggest benefits was its ease of use.

"This tool allows you to have an experience similar to the one you would have with a company like Amazon, getting the information you want quickly," said Andy Gajbhiye, Joeris' Director of Construction Technologies.

Stakeholders across the board appreciate how easy Assemble makes it to engage in quick communication and fast decision making.



Then Put the Right Teams in Charge of Implementation

Adopting new technology is a journey, one which Joeris admits wasn't a success initially.

"We have been doing model-based cost estimating since 2013. We had a different implementation strategy where we put the BIM department at the head of the implementation, which was a mistake," says Senior Estimator Daniel Olivares. "Just because it is a BIM model doesn't mean the BIM department should lead the process. BIM is a tool that makes the estimating process better."

Instead, the firm put estimators in charge, empowering them to drive the implementation. Because it was primarily their process that was being modified, this approach was more successful.

Then, they implemented ongoing training that helped estimators grow used to the cloud-based model conditioning tools and reinforced their use.

Prove Out the Success of Preconstruction Collaboration

Once they had fine-tuned their implementation of Assemble, Joeris used it for preconstruction collaboration on two pilot projects.

Project 1: A Church Education Building - The initial design included a worship center, administration wing, and education wing. When the first estimate was returned with a $20 million budget, the owner had to scale back. Assemble was used in the design phase to apply construction data to the model for transparent communication between construction management (CM), owner, and design team.

Project 2: Elementary School Prototype - Here, the architect shared the model every week as part of a standard design process. Joeris used Assemble to monitor design progress and changes, proactively asking questions and delivering input from the estimating team. Olivares, who led the pilot process, explains the accuracy modeling can have on the final estimate, "From our schematic design estimate to our bid day, we were within 0.5% of our initial estimate when the numbers came in."

"Being able to update our estimate weekly helped the design team steer their design," says Olivares. "Steering that design process is the goal of the Construction Manager."

Establish a Winning Process for PreConstruction Collaboration

With a growing body of successfully piloted implementations at a project level, Joeris now has a tried-and-true method to help its team members adopt the use of construction data during preconstruction.

Their method is comprehensive:

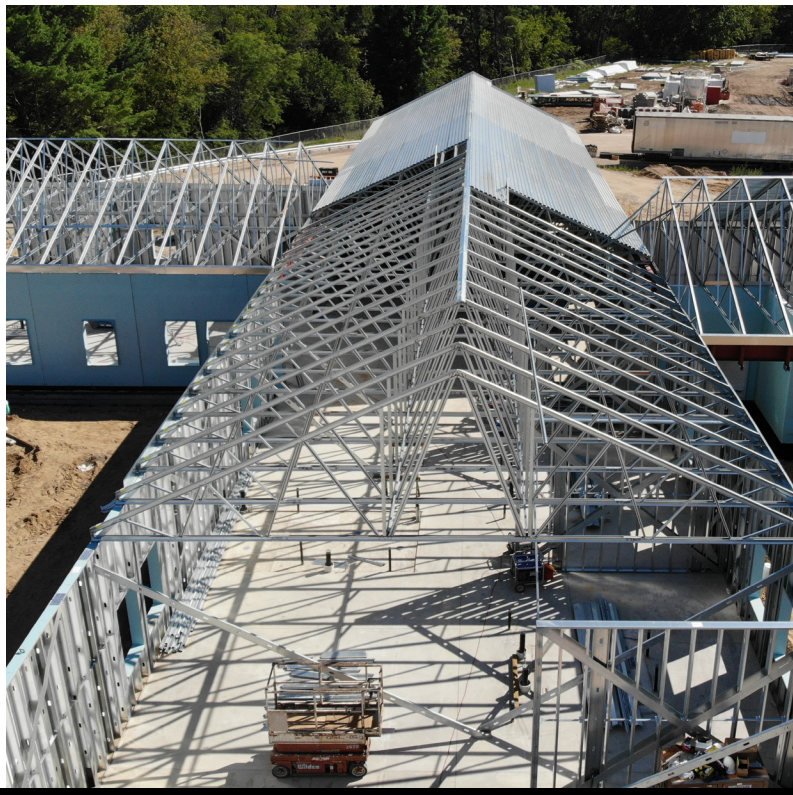
Noted earlier, Joeris assigned estimators the responsibility for leading collaboration between estimation and VDC - empowering the actual users of the process change.

They canned the blanket training and shifted to one-on-one coaching, acknowledging you can't hand out a new tool and expect overnight adoption or success.

They proactively spread success stories, like the two above, communicating to their staff that this was moving from an initiative to a standard.

They also coached executive leadership through one-on-one personalized coaching, recognizing change is better driven from the top-down. Coaching focused on how the process would change and the resulting efficiency gained, rather than on the tool itself.

They measured and communicated success not by ROI but by meaningful value creation within their processes- a staff-centric way of showing success. To define value, Joeris measured both tangible and intangible benefits. An example from internal Joeris metrics:



As this strategy evolved, Joeris began to realize their real goal was not to implement a new tool but to develop estimating staff to be 'VDC - enabled.' Gajbhiye concludes that this change is rooted in the mindset, "True change is 90% psychology. You have to show teams what the value of uptake would be in their daily lives, telling a story of how doing nothing is ultimately more painful than change."

Yield the Benefits of Cloud-based Model Conditioning

In the end, Joeris had a powerful story of the practical benefits of using construction data to enable preconstruction collaboration. They note five process evolutions that have made adoption worth the effort for their teams:

- Better Project Understanding. Bringing in a superintendent or project manager during the design phase and showing them the 3D models can quickly point out where challenges in construction may occur.
- Monitoring the Design Progress and Changes. Accessing the model between milestones gives ease of tracking quantities and costs in Assemble's color-coded 3D environment.
- Quantity Verification. Visualizing project quantities in the models for subcontractors makes for faster, easier, and more accurate information transfers in the BID phase.

> "Being able to update our estimate weekly helped the design team steer their design, Steering that design process is the goal of the Construction Manager."
>
> **-Daniel Olivares**
> Senior Estimator,
> Joeris

- Smart Sheets with Linked Objects. It makes reviewing design sheets and drilling into design detail quickly and user-friendly in the 3D environment.
- Mobile Access (iPad and iPhone). Enables greater access for faster collaboration and decision-making.

Gained through a dedicated trial and error process of driving change, Joeris is an example of how innovative technology combined with strategic implementation can further adopt models and construction data to benefit collaboration during preconstruction.