Using OpenSpace for Remote Site Management, Joeris Keeps Project on Schedule During COVID Lockdown

Texas–Based General Contractor Also Saves Time and Avoids Rework Costs by Using 360 Photo Documentation Technology

Goal: Access a 360 View of Interiors and Avoid Rework

San Antonio–based Joeris General Contractors has a strong reputation for its work with school districts and is leading the way in adopting new technology.

The company's Austin office began a new project to remodel a 90,000–square–foot elementary school in December 2019. It was looking for a technology solution that would allow it to capture a 360 view of building interiors, since drones can only be used outside. It had previously tried a solution that required setting up heavy equipment on a tripod, which was unsuitable for regular use.

Since one of Joeris's core principles is to eliminate waste, it was also looking for a solution that would help avoid rework.

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>
> JB Peel
> *Senior Project Manager,* Joeris General Contractors

Strategy: Use OpenSpace to Enable Remote Project Management in the Time of COVID

Joeris began using OpenSpace early in the project and quickly understood the time savings the technology provides. Instead of spending hours per day manually taking photos and then uploading and organizing them, the project engineer could simply walk the site with a 360 camera mounted to his hard hat, and thousands of 360 photos would automatically be mapped to the project plan. He settled on a cadence of walking the site twice a week for two hours at a time to fully capture the entire 90,000–square–foot area.

"If you were to manually capture the same level of documentation and then store, label and share it, it could take 40 hours per week," said senior project manager JB Peel.

The Joeris team described OpenSpace's software as "foolproof" and requiring minimal training.

"As long as you can understand a floor plan, you can use the software," said project manager Tony Moreno.

In addition to ease-of-use, OpenSpace was an improvement over a previous 360 photo documentation solution Joeris had tried in several respects. OpenSpace lets them compare areas of the site to the BIM model and compare two points in time, and it only takes 10 to 15 minutes to upload the documentation.

COVID lockdowns began a few weeks after Joeris started using OpenSpace, and the team relied on it for remote project management. Before the pandemic, owner representatives had visited the site two to three times a week, and architects and engineers had come weekly or bi-weekly. By enabling virtual walkthroughs that reflected up-to-date site conditions, OpenSpace allowed critical collaboration between stakeholders to continue.

For example, there was a recent debate over where to place a hatch and ladder to give access to the school's roof. The original plan called for them to be installed in a closet, but an OpenSpace capture alongside the BIM model showed that previously unnoticed pipes above the ceiling would be an obstruction. From there, Joeris was able to get all parties to agree to find a different location.

OpenSpace is spoiling the owners," Peel said. "After we did the training, [an owner representative] said, 'Why aren't all GCs using this software?' He picked up a phone and called his other GCs and said, 'I want OpenSpace on all my projects.'

The benefit of documenting true site conditions that aren't reflected in existing plans is especially important on a remodel, where new systems are being installed in old buildings and there are numerous unknowns.

THOUSANDS
OF DOLLARS SAVED ON REWORK COSTS

MORE THAN

10X **FASTER**
THAN MANUAL CAPTURE

100X **MORE COMPLETE**
DOCUMENTATION
THAN MANUAL CAPTURE

"It's been a big time-saver in our communications with the owners and architects," Moreno said.

OpenSpace is also being used to inform payments. Owner representatives and consultants can do virtual walkthroughs while reviewing percent completions from Joeris to approve the company's invoices at a time when live access to the project site is limited.

Results:

Peel intends to use OpenSpace on all of his projects moving forward. "It's a force multiplier due to the time savings on documentation and communication," he said.

He and his colleagues have found it to be a multifaceted solution that drives results in several areas:

- **Time savings:** Joeris's project engineer, Eric Mares, spends just four hours each week walking the site with OpenSpace—which is a tenth of the time he might have spent manually taking pictures and then uploading and organizing them. On a project prior to having OpenSpace, he took nearly 9,000 manual photos. "I spent a good chunk of my days doing that

and then referencing and finding certain items when issues came up," Mares said.

- **Effective remote project management:** "OpenSpace allows us to have real-time coordination with our project teams when they're remote," said Peel. "If we walk on a Tuesday and have an RFI meeting on a Wednesday, we can pull up that walk and the model and clarify and coordinate issues in real-time" instead of waiting for a future date to meet in person, Peel said. As of this writing, the project is still on schedule to be complete in November 2020.

- **Reduced rework costs:** By effectively letting Joeris see into walls, OpenSpace will save the company thousands of dollars in rework costs over the course of the project. Instead of having to punch multiple holes in a wall to investigate plumbing or electrical conduits at a cost of up to $5,000 per instance, they can diagnose issues by pulling up relevant 360 photo documentation from before the wall was closed.

- **Better communication with owners:** OpenSpace enables owners to track progress and be more engaged with day-to-day developments, which makes it faster and easier to course-correct when issues arise. "OpenSpace is spoiling the owners," Peel said. "After we did the training, [an owner representative] said, 'Why aren't all GCs using this software?' He picked up a phone and called his other GCs and said, 'I want OpenSpace on all my projects.'

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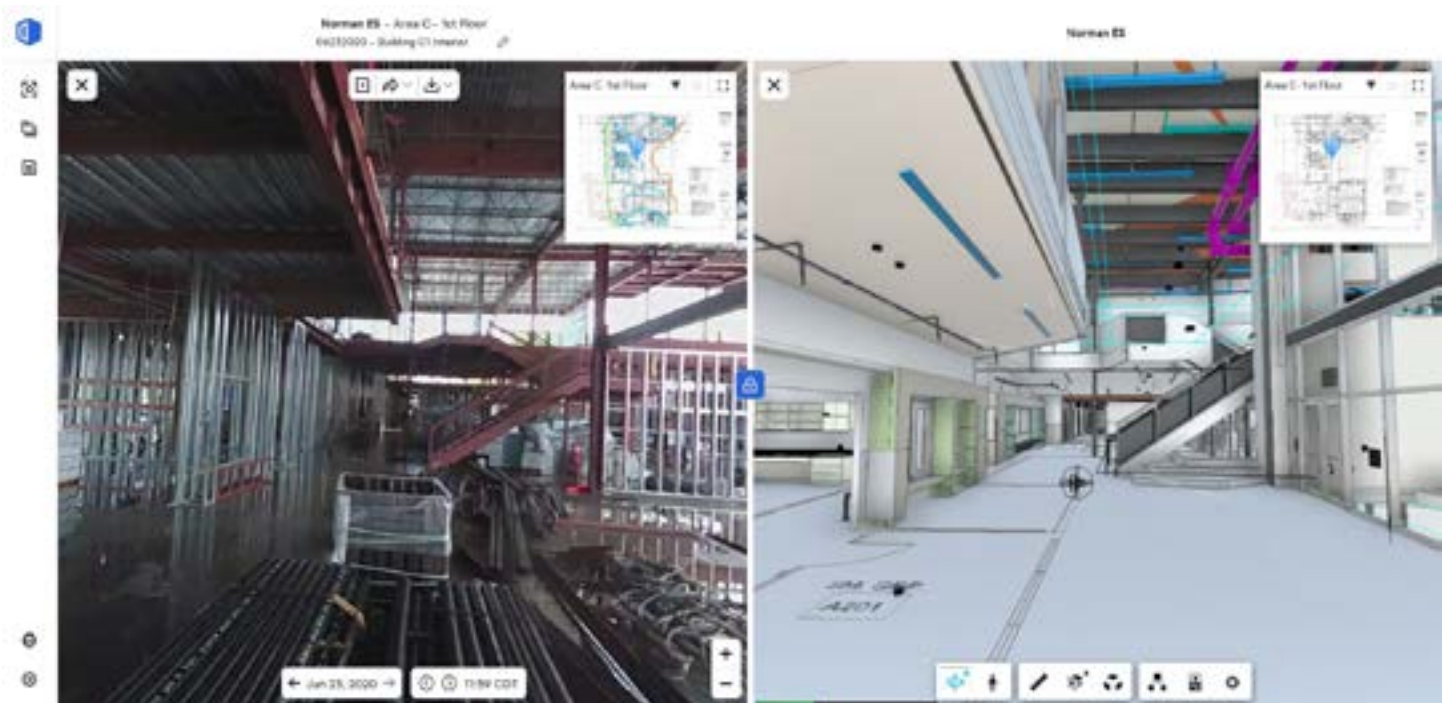
Joeris used OpenSpace to compare areas of the site to the BIM model.