

Taking a Proactive Approach to Optimizing Construction Collaboration and Documentation: Case Study

Collaboration is one of the most critical elements in a successful construction project, but it is also one of the most challenging. It involves multiple stakeholders with diverse roles and interests.

Architects and engineers must work in close harmony to ensure that the project's design aligns with structural integrity and functional requirements. Their collaboration is crucial to strike a balance between aesthetics and feasibility.

Contractors and subcontractors need to collaborate effectively to execute the project according to the approved plans and specifications, managing timelines, budgets, and quality standards. Their coordination is vital to ensure smooth construction operations.

The project owner or client must actively engage with all stakeholders, providing clear project objectives, communicating expectations, and resolving conflicts promptly. The owner's involvement is crucial to align the project with their vision and ensure overall project success.



Effective collaboration among these stakeholders is paramount, as it enables seamless information sharing, enhances decision-making processes, promotes risk mitigation, and ultimately leads to a successful construction project that meets everyone's objectives.

In this case study, we explore how to take a proactive approach to collaborating by using the Cupix 3D spatial digital twin platform to document everything from existing conditions to certificate of occupancy.



Common Collaboration Challenges

Despite all best efforts, construction projects can be plagued with issues that cost time and money. Some of the most common are:

- **Lack of coordination among multiple teams**

With various stakeholders involved, including engineers, architectural teams, and general contractors, maintaining effective coordination and communication can be a struggle leading to delays, misunderstandings, and rework.

- **Inefficient site documentation**

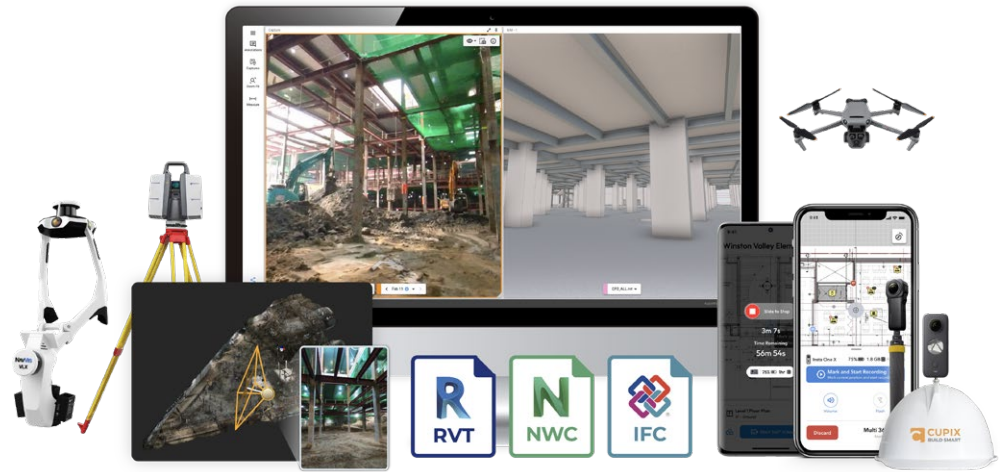
Traditional methods of documenting site conditions, such as relying on photographs and manual data entry, prove time-consuming and prone to errors. The lack of comprehensive and easily accessible information can hinder decision-making and problem-solving.

- **Limited on-site access for remote team members**

Remote team members, such as architects or consultants, often encounter difficulties in accessing and assessing the site accurately. This results in delays in addressing issues and making critical decisions.

A Single Source of Truth

To overcome these challenges, construction managers and contractors have implemented the use of Cupix, a collaborative construction documentation platform. Cupix enabled them to share a single source of truth on the project state and progress, yielding:



- **Streamlined collaboration and communication**

Cupix provided contractors with a centralized platform where all stakeholders could access and share visual information. This improved communication and enabled real-time collaboration, minimizing miscommunication and facilitating quicker decision-making.

- **Comprehensive site documentation**

By leveraging Cupix's capabilities, contractors captured site conditions using 360-degree cameras to create interactive models called "point clouds." These point clouds allowed stakeholders to virtually explore the site, visualize real conditions, and make accurate measurements. The comprehensive documentation streamlined the decision-making process and reduced rework.

- **BIM coordination**

Visually comparing the BIM models to Cupix 360 views and tracking progress against BIM with Cupix 3D point clouds enabled communicating work progress and completion to everyone on the project at all times.

- **Remote accessibility and involvement**

Cupix enabled remote team members to virtually access the site and actively participate in discussions and problem-solving sessions. This eliminated the need for physical presence and facilitated efficient collaboration regardless of location.

“Cupix has been helping us bridge BIM to the field. In our BIM coordination meetings, we are able to use Cupix to observe conditions, take measurements, and address issues such as undisclosed structures not evident in plans”

Jared Graffagnino
Director of VDC, GHC Architects

The Payoff

Cupix brings significant improvements to construction projects, resulting in:

- **Enhanced efficiency and productivity**

Cupix provided contractors with a centralized platform where all stakeholders could access and share visual information. This improved communication and enabled real-time collaboration, minimizing miscommunication and facilitating quicker decision-making.

- **Improved accuracy and quality**

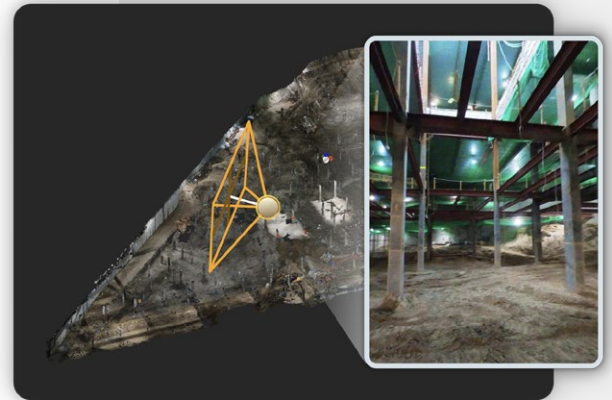
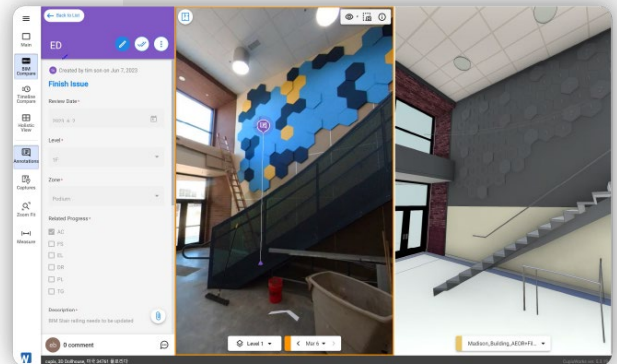
Cupix's point clouds allowed for more precise measurements, minimizing errors in design and construction. Stakeholders could compare design models with actual site conditions, enabling early detection of discrepancies and avoiding costly rework.

- **Time and cost savings**

By eliminating the need for physical site visits and reducing rework, Cupix significantly reduced project timelines and costs. Remote team members could contribute effectively, reducing travel expenses and improving overall project efficiency.

- **Enhanced client satisfaction**

With improved collaboration, accurate documentation, and faster problem-solving, contractors experienced higher client satisfaction levels. Clear and visual communication through Cupix helped manage client expectations and address potential issues proactively.



“With Cupix, the usual back-and-forth of requesting pictures or information has been eliminated. Now, we can share the exact on-site view through Cupix, enabling stakeholders to explore the area, assess the situation, and promptly approve solutions on the spot. This streamlined process has significantly reduced the time spent on approvals and decision-making.”

Jared Graffagnino
Director of VDC, GHC Architects





“Cupix has brought everyone onto the same page, bridging the gap between the project manager, trade partners, engineers, and architects. Since not everyone can visit the site daily, Cupix allows them to stay informed and proactive throughout the project's development by providing a clear and up-to-date view of the site at any given time.”

Jared Graffagnino
Director of VDC, GHC Architects

The Takeaway

The adoption of Cupix resulted in enhanced efficiency, improved accuracy, time and cost savings, and higher client satisfaction. By leveraging Cupix's capabilities, general contractor firms can streamline collaboration among various teams, improve site documentation, and enable remote access. These improvements contribute to successful project outcomes and demonstrate the value of using advanced construction documentation technology.

If you are interested in learning more about how Cupix can help you become more collaborative on your projects please contact the Cupix sales team here: [Contact Us | Cupix](#)

