



Case Study

Volpatt Construction Corporation

3D Modeling and Sensor Data for Building and Equipment Management

Founded in 1991, Volpatt Construction Corporation is one of the most respected building contractors in the Western Pennsylvania Tri-State Area. The company works across multiple industries including, commercial, community, healthcare, higher education, industrial, institutional, and religious institutions. From pre-construction and construction management to general contracting, design-build, and sustainable construction, Volpatt is on the cutting edge of the construction marketplace.

Looking for ways to improve site safety, track workforce efficiency, and reduce costs, Volpatt is working with Ursa Leo to combine digital twin technology with data from wearable technology that allows for remote tracking of the workforce on a 3D rendering of the project site. The system also detects if someone has tripped, stumbled, or fallen. It can recognize impacts and hazardous gasses, allowing for real-time safety monitoring.

Using head-mounted 360-degree cameras, Supervisors walk the project as often as daily to generate the 3D data needed to create the models. The data is converted into a digital twin of the space that is uploaded to a dashboard and reviewed remotely with customers to regularly highlight project evolution.

“We see the use of this technology as a way to help maintain a safer worksite resulting in more consistent OSHA compliance, reduction in incident rates, and lower insurance costs. Our team also uses these models for real-time project review with owners, design professionals and project management staff. The models have helped streamline the construction process resulting in fewer trips to the site, faster issue resolution and cost reductions for all parties,” said Raymond Volpatt, President of Volpatt Construction. “Our partnership with UrsaLeo has made us one of the most innovative construction companies in the tri-state area.”