

Technology

Implementing the newest technology on a construction project not only fosters better team communication but saves time and money. S. M. Wilson employs the latest innovations on our projects, including:

BIM (Building Information Modeling): Building information modeling (BIM) is the process of creating, managing and using integrated visual, 3D/4D/5D models to design and build a facility. Our knowledge of BIM technology reduces field errors and conflicts resulting in fewer change orders and opportunities for schedule improvements and lower costs.

Augmented and Virtual Reality: Augmented and virtual reality gives the team a chance to visualize each project phase and see any errors before they surface later. Having instant virtual models can help to accelerate the construction process. This is an available option to include if it makes sense for project priorities.

StructionSite: 360° photo documentation through cloud-based StructionSite allows our team to track the quality of a project and provides:

- Increased quality control using the photos and virtual walk-throughs in weekly subcontractor meetings.
- Interactive progress photo documentation – we can photograph a space in the same location regularly for interactive jobsite progress documentation. A link of this documentation can be embedded on an interactive PDF and turned over to the Owner, thus allowing the Owner to “see beyond the walls” for facility management.
- The ability to tag items within the space on PlanGrid, with either text or a hyperlink. These files can be used for As-Built and O&M delivery by linking product information via O&M documents.

- Provides the ability for all project partners to virtually walk the project without being constrained by the limited view of traditional photos.
- Provides time-lapse capability for viewing project progress.

Drones: Drones can be used to monitor site changes over time. They are able to capture multiple angles of the site and can be kept for job site documentation, as well as show progress to Owners and interested stakeholders.

Laser Scanning: Use of laser scanning during construction provides:

- Pull measurements on nearly anything at an accuracy within about 1%.
- Raw point cloud data which can be merged with MEP BIM Models can occur for renovated areas or new construction in progress to check the accuracy of an install.
- Quality check on the level and plumbness prior to performing the next scheduled work items to limit noncompliant work and cost of rework.