Holo-Blok Case Study - Part 2

With SiteScape's mobile 3D scanning, Holo-Blok was able to capture as-builts and translate record drawings more than 10x faster, saving over 100 hours in one project

- Holo-Blok is a boutique technology-focused architecture firm based in Alberta, Canada
- See how Holo-Blok transformed their workflow from archaic pdf as-built markups translated to Revit record models, to instant and comprehensive workflows with SiteScape
- Sitescape technology lowered project costs and accelerated the time to project completion
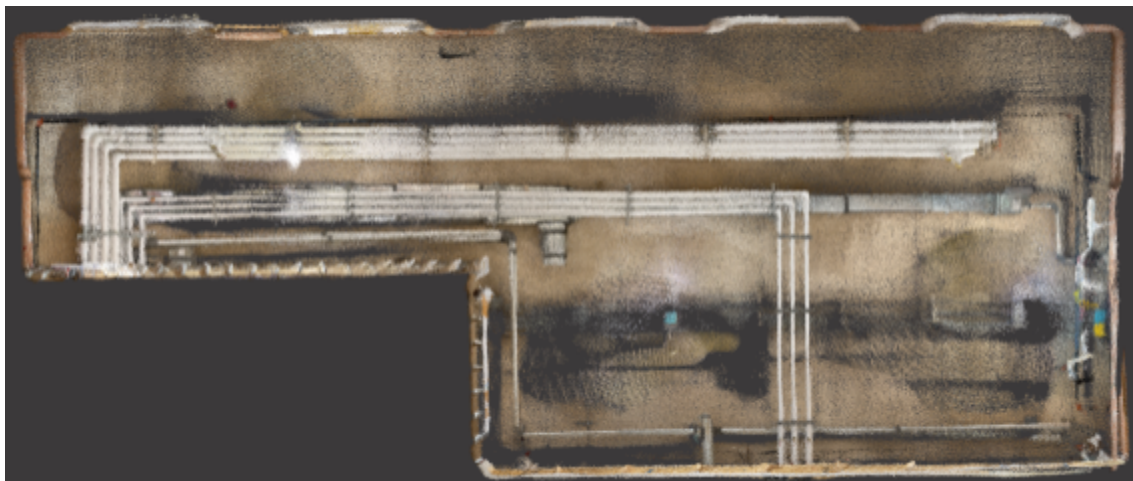
The Holo-Blok team pride themselves on using technology in novel ways to achieve unparalleled efficiency in their work. They spent hours producing final record drawings of major architectural, HVAC, plumbing, and electrical components on large commercial projects which were largely based on ambiguous and incomplete as-built markups.

In the summer of 2020, as they were beginning a new project, the Dentistry Pharmacy Building Redevelopment at the University of Alberta, the Holo-Blok team decided to trial a new workflow using SiteScape to replace as-built drawings and better produce record models. On previous projects, it would normally take each trade discipline 1-2 hours (there are normally dozens of trades on a given project) to mark up each room of a building and then a technologist another 2-4 hours in Revit to interpret the markups and adjust the model to reflect the markups depending on the extent of deviations.

For the Dentistry Pharmacy project, Holo-Blok selected a block of 17 rooms with a similar size (approximately 225 square feet), combination of MEP components, layout, and complexity. With SiteScape, the tradespeople were able to scan each room in 60 seconds and sync the scans to the cloud where they were immediately available to the Holo-Blok team.

Holo-Blok then downloaded the scans, imported them into Revit, and aligned each scan in the Revit model. From there they could use the scans to align the location of components that deviated from the original drawings, add additional components where required, and directly measure and annotate the discrepancies between the two. Including scanning time, this process took two hours for the sample of 17 rooms. The savings realized is between 48 and 95 hours between the trades and Holo-Blok. This is further increased when accounting for the other trades who would now also not need to provide as-built pdf markups and the efficiencies realized when consolidating as-built markups in a single location.

For this sample project, the total area that needed to be documented was 3825 sq ft. The old process would likely require a total time of 51-100 hours for each trade discipline. That

translates to 48-96 seconds per sq ft to capture as-builts and produce record models. With SiteScape, they were down to an average of 3 seconds per sq ft with zero lag in information transfer.

With the average size of 20,000 sq ft for new commercial buildings, this could yield a savings of at least 500 hours between the different trades/consultants or ~$50k per project. For much larger projects with many trades and consultants involved, that savings grows exponentially in relation to the project cost through gained efficiencies.

Commercial grade scanning is expensive. There is a place for it, but on the majority of projects, it's difficult for the project team to justify spending $1k-$2k per hour for laser scanning services at various key milestones of the project. This means that as-builts are generally inaccurate, incomplete, and highly generalized. They are premised on manual measurements with a tape

measure and individually recorded by each discipline by marking up existing pdf drawings in the field. Something invariably gets missed - but with SiteScape it doesn't have to.

SiteScape was easy to use for Holo-Blok and its trade partners. Trades were able to scan upon installation of key components and send those scans instantly to Holo-Blok. There were no issues of concealment occurring before as-builts could be recorded and the collective effort of several trades was combined into a single effort that provide more data and context for the Holo-Blok team to complete its record model.