

## Reality Capture Services Provide High Level of Truth

Having trusted, high-quality data at the beginning of a project is critical because it forms the foundational "truth" upon which all subsequent decisions, models, and strategies are built. Starting with unreliable data often leads to compounded errors, wasted resources, and project failures, whereas trusted data ensures efficiency, accuracy, and confidence in the final outcomes.

Incorporating Reality Capture Services at the earliest phases of a renovation project helps establish this high level of trust for the following reasons:

Reality Capture Services can document a project photographically creating a "Virtual Tour" of a property. A "Virtual Tour" consists of numerous 360 degree panoramic images stitched sequentially together that emulate the geospatial environment in which the images were taken. Various technologies are capable of hosting "Virtual Tours" online allowing teams to visit the job site virtually from the convenience of a web browser and internet connection.

This convenience drives efficiencies associated with verifying existing conditions wherever and whenever a team member is unsure of a particular detail. Leveraged as a collaborative tool for all team members, across all phases of a project, the Virtual Tour streamlines communications and accelerates decision making because of its ability to visually trust the data it's representing.

Because it's less expensive to fix problems during the planning and design phases of a project, than the construction phase, every renovation project regardless of scale and scope can benefit from a Virtual Tour of the property.

Reality Capture Services can also digitize a property using LiDAR scanning technology. Depending on the technology platform being used, LiDAR scanners can also photograph a property at the same time. However, it is important to understand that not all LiDAR scanning platforms create a web hosted Virtual Tour so project stakeholders should understand which platforms will work best for their specific projects.

LiDAR scanners are rated at different levels of accuracy as a trade-off to cost. The most accurate LiDAR scanners are expensive and require a longer turn time for deliverables than moderate level LiDAR scanners. Just as every size renovation project will benefit from a "Virtual Tour", the same is true with LiDAR scanning.

Residential and small commercial projects can generally benefit from "Affordable" LiDAR scanning platforms as the accuracy level is comparable to manual field measuring practices, however LiDAR scanning is faster and more comprehensive than manual practices and also provides a Virtual Tour. As a result, "Affordable" LiDAR scanning

services are often less expensive than manual practices as they are faster and eliminate return visits to confirm missed data.

Larger commercial or industrial projects will generally benefit from more accurate LiDAR scanners as they can digitize large spaces with greater accuracy, requiring fewer scans that reduce labor costs.

Regardless of the accuracy rating for the scanner, both “Affordable” and high-end LiDAR scanners create excellent point clouds used for creating accurate CAD floorplans, elevations, or Revit models. Some design teams are proficient in creating their own deliverables however many firms prefer Reality Capture specialists to provide the desired deliverables as a faster option for getting a jumpstart on their projects. With the help of the “Virtual Tour”, this workflow provides design professionals with the QA/QC process required for achieving the desired high level of trust on their projects.