

CONSTRUCTION PHOTOGRAPHY BEST PRACTICES

How to Capture and Store Useful Visual Documentation





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INTRODUCTION

They say a picture is worth a thousand words...
but how much is that in cash?

The most valuable photos aren't sold at Christie's auctions, and they're not the kind of thing you'd hang in a gallery. No, the most valuable photos are the ones that provide indisputable evidence against false claims, potentially saving their owners millions of dollars in damages and legal fees.

In addition to resolving disputes and preventing lawsuits, construction project photos prove their value in other ways. Access to photographs cuts down on travel costs for remote project stakeholders. Repairs and renovations become less expensive when hidden systems can be examined without demolition. Inspection, observation, and other time-consuming tasks can be completed far more efficiently. Once built, facilities can be managed more efficiently with access to construction documentation photographs.

Nowadays, capturing visual documentation on a construction site doesn't even require special equipment. Anyone with an iPhone and a steady hand can easily photograph project conditions. But while taking a photo is easy, capturing all of the photos that you might need and storing them in a useful manner is anything but.

We put together this how-to guide to give you a better idea of what capturing and storing useful construction documentation photographs actually involves.

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WHAT SHOULD BE DOCUMENTED?

The only thing worse than not having any project photography? Having every photograph except for the one you need.

The only way to avoid that outcome is to have a strategy in place for carefully and diligently capturing every important area. Those areas include:

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ORIGINAL SITE CONDITIONS

Before any construction happens, you should take comprehensive photos of the property from every vantage point, as well as adjacent buildings, roads, sidewalks, and other infrastructure.

These “site survey” photos will help protect you from complaints and litigation. If you have proof that a sidewalk was cracked before your teams moved in, for example, then the city won’t have a leg to stand on if they attempt to put the blame on you.

In addition, photographs of original site conditions can help project managers with planning. For example, aerial photographs can be used to plan out optimal locations for equipment, materials, and facilities.

INVISIBLES

Any systems or materials that will eventually become hidden by concrete, drywall, roofing, or siding should be photographed. These “invisibles” include in-slab utilities, plumbing, electrical systems, and waterproofing materials.

Photos of “invisibles” give owners and contractors (and later, facilities teams and renovation workers) a kind of x-ray vision. If there’s an issue, they can pinpoint the problem, identify whether its systemic or isolated, and repair it without tearing out huge chunks of building. By minimizing destructive discovery, repairs, corrections, and renovations can be completed quickly — and at relatively low cost.



PRO TIP:

Progress photography is great for keeping investors or future tenants in the loop and up to date.

PROGRESS

Progress photography means capturing the project at regular intervals or before and after construction milestones. During progress photography, every interior room should be captured from multiple angles, including floor and ceiling, and exterior shots should be taken from various points around the structure. In addition, aerial photographs should be captured in order to view roof or overhead structure progression from an actionable vantage point.

Progress photography makes the project's status visible to stakeholders without requiring them to come on site. For owners, developers, and contractors who are managing projects remotely, these photos can eliminate countless hours of travel.

In addition, progress photography can be used to verify subcontractor pay applications, respond to RFIs and change orders, and complete inspections and observations. In some cases, progress photography can also be useful for security or insurance. Progress photos have been known to help in investigations of stolen equipment and materials or to substantiate claims.



WHEN SHOULD PHOTOGRAPHS BE TAKEN?

Photos of the original site conditions and invisibles, together with comprehensive progress shots, make up a complete visual construction documentation library. However, whether or not these photos will be useful will depend largely on when they're captured.

Original site conditions should be photographed before the first materials or equipment arrive on site. They should represent the site and surrounding areas in a completely untouched state. If site survey photographs are captured after the heavy equipment moves in or after construction begins, they lose their ability to act as a defense against damage claims.

Invisibles should be photographed in the window between final inspection and cover-up. Taking in-slab plumbing as an example, this period would be after the inspector or commissioning agent has given the all-clear and before the concrete is poured.

With the growing popularity of lean and just-in-time construction methodologies, these windows are becoming smaller. Therefore, planning and implementing tight schedules for photography is critical for creating effective documentation. In many cases, photographers will need to go on site at daybreak or at a moment's notice to get their shots.

Progress photos should be captured either at key construction milestones or at regular intervals. Many contractors find it easier to schedule progress shoots weekly or monthly rather than by milestone, as it minimizes the amount of communication required between work crews and photographers.

On large projects, progress photography will likely be a more continuous endeavor. Photographers may document the second floor while workers finish up the third, and then continue to follow the work upward as it's completed.

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Planning and implementing tight schedules for photography is critical for creating effective documentation.

PRO TIP:

If you time your progress shoots to be concurrent with subcontractor pay application deadlines, you can use the photos to verify completion of work before releasing payment.



WHO SHOULD TAKE THE PHOTOS?

Owners and developers have two choices for capturing their photographic construction documentation — the **contractor's in-house team**, or a **third-party provider**. In turn, contractors sometimes have the opportunity to choose whether to capture photographs themselves or hire a third party in order to meet the owner's documentation requirements.

On the surface, using an existing employee to capture the project's visual documentation may appear to be an inexpensive and attractive option.

However, there are significant problems with the in-house approach that should be carefully considered:

- ▶ If the in-house resource is not a trained construction photographer, they will often be less efficient or unfamiliar with which critical systems to capture and when to do so.
- ▶ The opportunity cost of taking a member of the project team away from their typical duties to capture and store hundreds or thousands of project photos may be costly.
- ▶ Turnover is extremely high among the entry-level construction professionals who are generally tapped to take progress photos, so training will likely be a constant responsibility.
- ▶ In-house employees may not be available last-minute or outside of normal operating hours.
- ▶ An in-house photographer might have limited active construction site experience, and therefore become a safety risk when on site.
- ▶ Projects will not wait while in-house photographers are out on vacation or sick leave.
- ▶ When in-house employees leave, their knowledge of the photography and filing process often goes with them.
- ▶ The independence and reliability of in-house employees may be questioned if a dispute arises as to defects in the work performed or damage to pre-existing infrastructure.



If a contractor's goal is to gather a few photos for the weekly report in order to fulfill a contractual obligation, then sending an entry-level employee on site with their iPhone is an effective course of action. However, if the goal is to reduce legal, operational, and financial risk, then a more robust solution is required.

Third-party documentation providers typically have large teams that are working on a variety of projects simultaneously. That means there's always someone available to go on site, even with little notice. In addition, full-time professional construction photographers will operate more efficiently than an in-house employee capturing sporadic photos and they'll know how to stay safe on a job site. Better yet, they'll be required to carry their own insurance policy and safety certifications.

However, perhaps the most important reason to choose a third party for your visual documentation needs is the storage and indexing process.

PRO TIP:

Visual documentation is like an insurance policy, and should therefore be insulated from cost-cutting measures. Hiring a third party can help prevent actionable visual documentation from being treated like another vulnerable line item.



HOW SHOULD PHOTOS BE STORED?

Capturing photographs of a construction project is one thing — making those photographs useful and easily accessible for the project team is another.

If you've ever taken a bunch of photos on vacation and decided to upload the good ones to share or print, then you know how tedious it can be to sort through even one or two hundred photographs. If you're like most people, the "family vacation" folder might still be sitting on your desktop.

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Multivista interactive floor plans map every photo to its exact location on the project plans along with the date it was captured.

PRO TIP:

Multivista provides access to the captured images for an unlimited number of project team members at no additional cost. Use them to give access to subcontractors, facilities teams, investors, and more!

Labeling and indexing construction site photography is the same concept magnified by an order of thousands. You can save photos to a hard drive or a cloud-storage platform, but without the right information to accompany them, they aren't going to be very useful.

Project stakeholders need to be able to identify exactly where and when a photo was captured. In addition, they need to be able to use some kind of search method to bring up the exact photo they need. Without an established storage solution, the only way to meet these criteria would be through a complex, manual system of file names and folders. Indexing photos this way could take weeks or months, if it ever gets done at all.

Multivista, the leading provider of visual construction documentation, overcame this problem by developing a proprietary cloud-based software platform. Multivista interactive floor plans map every photo to its exact location on the project plans along with the date it was captured. For progression photos, users can find the location of interest and click forward or backward in time through images captured on different dates.

Multivista indexes all photographs within 24 hours — meaning the photos become useful exactly one day after being taken, rather than sitting on a hard drive in perpetuity.



CONCLUSION

In-house teams and third-party providers are not mutually exclusive. After all, more coverage is never a bad thing.

Multivista customers have the ability to use the Multivista platform to index and store their own photographs, in addition to those photos captured by Multivista professionals. Using the Multivista mobile app, in-house photographers can take pictures with their smartphones or tablets and upload them to user-specific folders, or even add them to the interactive floorplan.

By developing and implementing a comprehensive visual documentation strategy with the help of a third party like Multivista, owners, developers, and contractors can find out exactly how much a photo is really worth.

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