



TRANSFORM YOUR CONSTRUCTION PROJECT HANDOVER PROCESS

*How to Operationalize
Construction Data for Your Clients*



TABLE OF CONTENTS

Abstract	3
The Construction Project Handover Process	4
Digitizing Was the First Step	5
It's Time to Take the Next Step with Operationalized Data	6
Transform the Construction Handover Process	7
What Does Transforming the Handover Process Look Like	7
Why You Need to Transform Your Construction Handover Process	8
Deliver Closeout Data in a Useful and Operationalized Way	8
Conserve Money and Resources	8
Provide Unique, Long-Term Value for Your Customers	8
Build a Predictable Success Model that Drives Repeat Business	8
What to Look for in a Transformational Project Handover Solution	9
AkitaBox: Project Handover Made Simple	10
How Does AkitaBox Work?	10
For Construction Managers	10
For Building Owners	11
Out with the Old, In with the New (and Improved)	12
About AkitaBox	13



ABSTRACT

The transition from construction to facility operations is a complicated process. Building owners need complete, accurate documentation from all phases of design and construction in order to transition to building maintenance and ensure operations run smoothly.

According to the National Institute of Standards and Technology (NIST), an estimated one-third of project data is lost in the handover process, costing owners \$10.6 billion annually to recoup that very same data.¹

As the construction industry has adopted construction project management software, they are better able to streamline the project management process and coordinate people, materials, and equipment throughout. This software also provides a place to collect and manage documentation from the many subcontractors, vendors, and suppliers involved in the project. But the challenge still exists to hand over organized and operationalized project data that is immediately useful for building management and operations teams.

¹ NIST, *Cost Analysis of Inadequate Interoperability in U.S. Capital Facilities Industry*, 2004

THE CONSTRUCTION PROJECT HANDOVER PROCESS

The project handover phase is the transition from construction or renovation to occupancy and use.

Handover data collection begins at the start of a project and continues through the construction and commissioning process. Information is collected from subcontractors and vendors and uploaded into a construction project management solution.

Document collection and management may not be the most exciting aspect of construction, yet it can have the greatest impact on project success and business operations as a whole. Almost every part of the construction process needs to be documented—from the initial contract among the participants of a project, to invoices and lien waivers to facilitate payment. Unfortunately, in many cases, project updates and changes are not adequately recorded as contractors are focused on creating the physical asset, not revising the corresponding documentation.

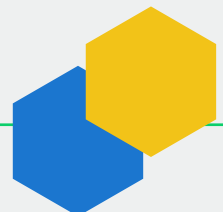
“Construction managers need to keep turnover in mind during the project—not just at the very end. Turnover is usually an afterthought. You basically have to recreate the wheel when putting the turnover materials together.”

—Chad Knutson, Director VDC, Gilbane Building Company

The needs of construction teams are fundamentally different from those of building owners and operators, and as such, the methods of gathering and disseminating project information are at odds with the needs of operations staff. Add in the elements of varying documentation standards plus the availability and accuracy (or lack thereof) of key information, and tension builds in the handover process. Ultimately, this asset information impacts ongoing building operations for decades—so streamlining the process is crucial.

“Owners don’t always empower themselves to take stewardship of their data before a project is built. It is in their best interest to involve the facilities teams in planning because that is the team that is ultimately utilizing the data for the lifetime of the built asset. Owners can save themselves many problems by forming a data strategy, something as simple as naming standards for equipment and assets, to help drive consistency across execution and O&M.”

—Tiffany LaBruno, Product Director, Procore



Digitizing Was the First Step

Traditional construction handover processes typically begin by manually gathering all the documentation associated with a building. Before the advent of digital solutions, massive three-ring binders and stacks of physical paper were simply handed over to the operations team. Thanks to construction project management software, we've already made some progress in improving the handover process.

Today, savvy construction teams leverage project management software to store and organize all the data and documents collected through the construction project. Unfortunately, there hasn't been a way to carry that organization through to the building owner. The multitude of files is ultimately collected and put on a thumb drive or online file sharing system—or worse, reprinted and delivered as a pile of paper.

This approach to turnover is notoriously manual, time-consuming, and has no operational value to the building operator.

“Construction project management software is awesome for logging and working on a construction project. But it’s always a heavy lift trying to extract and attach that information from that system into a standalone turnover deliverable.”

—Chad Knutson, Director VDC, Gilbane Building Company

Project documentation helps future facility managers operate and maintain the building. It typically includes:

- Asset warranty information
- Commissioning documentation
- Operations and maintenance (O&M) manuals
- Asset data (make, model, serial number, photos, etc.)
- Record drawings (“as-builts”)
- Training documentation or videos
- Design drawings
- Construction photos



The Shortfalls of the Current Process

While this first step in digitizing the construction project information has made general contractors and their teams more effective and efficient, challenges still exist for the handover process.

1. It can take hundreds of hours to manually extract and organize all the documents, data, drawings, and images to hand over to building owners and operators.
2. In many cases, the documentation ends up sitting on a shelf or hard drive and doesn't provide the long-term operational value a building owner needs to save on as-built acquisition costs.
3. These static records provide a snapshot of the building the moment it is handed over. There is no easy way to update the data as items in the building are maintained and replaced. Ultimately, this leaves a knowledge gap for owners, who may not have all the data they need for long-term planning and maintenance.

The National Institute of Standards and Technology estimates U.S. operations and maintenance firms spend at least \$4.8 billion annually verifying that documentation accurately represents existing conditions in their facilities and another \$613 million transferring that information into a useful format.²

It's Time to Take the Next Step with Operationalized Data

Construction managers need to move beyond simply digitizing data and begin operationalizing it.

Making this change doesn't need to be daunting. New technology solutions are available that streamline the transition of data from the construction phase to the operations phase. Taking advantage of these tools can make the handover process easier for both the construction manager and building owner. In addition, forward-looking construction firms can leverage these tools as a competitive advantage.

According to Deloitte, 76 percent of engineering and construction executives plan to invest in digital technology this year.³

By taking digitization one step further with operationalized facility and asset data, it's possible to support more proactive management as well as more accurate operational and financial planning.

² SE Blueprint, [Tech Trends Digital Handover of Construction](#), 2020

³ Deloitte, [2022 Engineering and Construction Industry Outlook](#), 2021

TRANSFORM THE CONSTRUCTION HANDOVER PROCESS

Many components of construction have already gone digital—from sales to project management to building models. But to transform your project handover process, you must go beyond the transition from paper-based handover packages to static electronic files.

What Does Transforming the Construction Handover Process Look Like?

Construction handover transformation is streamlining the flow of information from construction to building operations and facility management (FM). It's providing project data in a format that's easily migrated into your clients' FM system to become operational on day one. This more transparent approach, driven by better data, results in a greater return on investment for every dollar or every hour—for both you and your customers.

“The construction turnover process isn't bad—it's getting the data out to the building owner. But data becoming operationalized is not happening today. Even if you organize the handover data really well, it's coming out in folders or a hyperlinked PDF.”

—Josh Lowe, Chief Solutions Officer, AkitaBox



Why You Need to Transform Your Construction Handover Process

Transforming the handover process significantly improves collaboration between contractors and building owners. The data you provide at handover is incredibly important for ongoing facilities management. It's basically a huge owner's manual for your client's entire building. It can provide the owner with access to information to confirm the building has been built to the specs, is compliant, and has proper warranties in place. Then the owner can pass this information on to the teams responsible for maintaining the assets.

Besides improved organization, operationalizing construction data provides numerous benefits:

Deliver Closeout Data in a Useful and Operationalized Way

Putting asset info into a meaningfully organized format lets owners operationalize construction data for short- and long-term benefit. It enables the owner/operator to understand what they have upon handover and then make daily and strategic decisions on how best to maintain and optimize it. All the decisions are based on real-time information about buildings and assets, their condition, and the continuing work being done on them.

Conserve Money and Resources

The countless man-hours required to complete the traditional handover cannot be ignored. Between gathering the information and then extracting it afterward, significant amounts of operational and employee time are used—which all ties back into the cost. In many instances, contractors are forced to work overtime to keep up with the manual workload and deliver projects based on industry standards. Transformative handover solutions make it easy to stay organized and up to date as construction projects move forward. This eliminates time-consuming documentation collection and extraction during the closeout phase, so employees can work on more impactful projects.

Provide Unique, Long-Term Value for Your Customers

Operationalizing this data gives owners the foundation they need to establish required maintenance schedules for each of their buildings and the assets within those buildings. Having this data up front means better long-term planning, not just for maintenance but also for regular inspections, capital planning, and budget allocation. This is a powerful opportunity for construction managers to provide long-term value for owners.

Build a Predictable Success Model that Drives Repeat Business

There's no question that construction is a relationship-based business. Contractors that provide a good experience to their clients are more likely to work with them again and be referred to other projects. A poor handover can be a decisive factor that impacts overall client satisfaction and can tarnish an otherwise successful project. Providing data in an operational format increases the value of construction services by providing owners the information and foundation needed to improve their own facility management, asset management, and capital planning processes.

What to Look for in a Transformational Project Handover Solution

Handing over operational data is more than just an improved file sharing system. To be effective, it should be integrated into design and construction projects from the very beginning. To make it work, teams must:

- **Find a flexible solution:** Handover documents come in a range of formats. Your construction handover solution must be able to handle, store, and share documentation in all of these different formats. You'll also want flexibility when it comes to organizational structure and updates. One of the biggest challenges in construction handover is making sure documents are continually updated as changes are made. If your solution is built to handle this, you're already one step ahead.
- **Create a solid data infrastructure:** Having a flexible solution will make it much easier to create a solid and comprehensive data infrastructure. A platform that includes file folders and tags will make it easy to find and organize items as they are added instead of having to wait until the end of the project.
- **Stick to industry standards:** Industry standards exist to encourage interoperability and safety. Therefore, your solution should allow you to build out your documentation according to the appropriate industry and data exchange standards.

A transformational construction handover process will create an “owner’s manual” for the building, including a comprehensive list of assets that need to be maintained, where they are located, and what action is required to maintain them.



AKITABOX: PROJECT HANDOVER MADE SIMPLE

AkitaBox was built *for* construction and facility management *by* construction and facility management experts. It's specially designed to operationalize critical building data so that information can be transferred from construction to operations in a meaningful way. By combining location-based asset mapping and information tagging, AkitaBox establishes a searchable information infrastructure where each piece of data is associated with specific locations and assets within a building.

AkitaBox tools set up your team for a successful handoff starting from the very beginning of your project.

How Does AkitaBox Work?

For Construction Managers

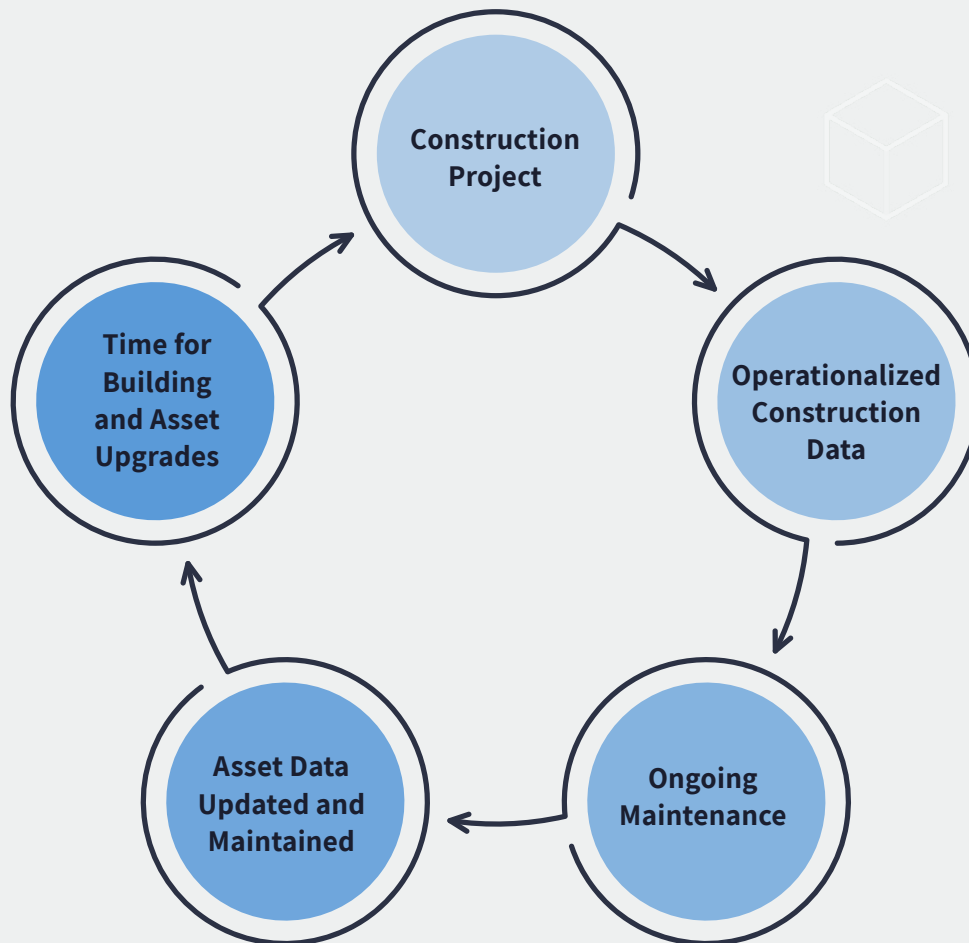
Construction managers use AkitaBox to operationalize data for building owners in the following ways:

- Load digital floor plans and as-built drawings to map assets to the most accurate and up-to-date floorplans.
- Set the locations of each asset on floor plans and establish asset relationships. These relationships are associated upstream and downstream, so anytime something is done to one asset, you know exactly what other assets are impacted.
- Associate the O&M manuals, warranties, spec sheets, manufacturer info, and any other relevant information to each asset or room. This gives maintenance techs everything they need in one place.



For Building Owners

By setting up building documentation in this way, everything is searchable, associated with the correct locations/ assets, and easy to access from anywhere. The building owner can continue using AkitaBox as a comprehensive facilities management system for maintenance management, asset management, inspections, and capital planning. Starting with the construction data they receive at turnover, the operations team can continue updating the building data in AkitaBox—so they'll always have the accurate building information they need.

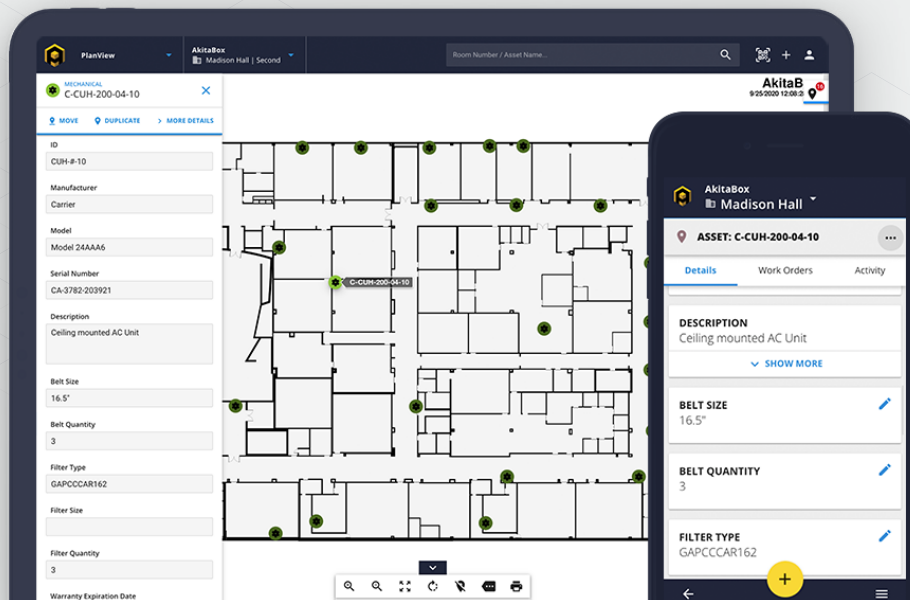


This paves the way to establish the round trip of data. In the Round Trip Data Model as seen above, construction data is operationalized and turned over to the owner and operations team. That team continues to update and maintain the data as maintenance and management tasks are completed. The building owner can then review this data and use it to make recommendations for future construction projects. This cycle continues and ensures the owner always has access to the latest information about their assets so they can plan for the long term.

OUT WITH THE OLD, IN WITH THE NEW (AND IMPROVED)

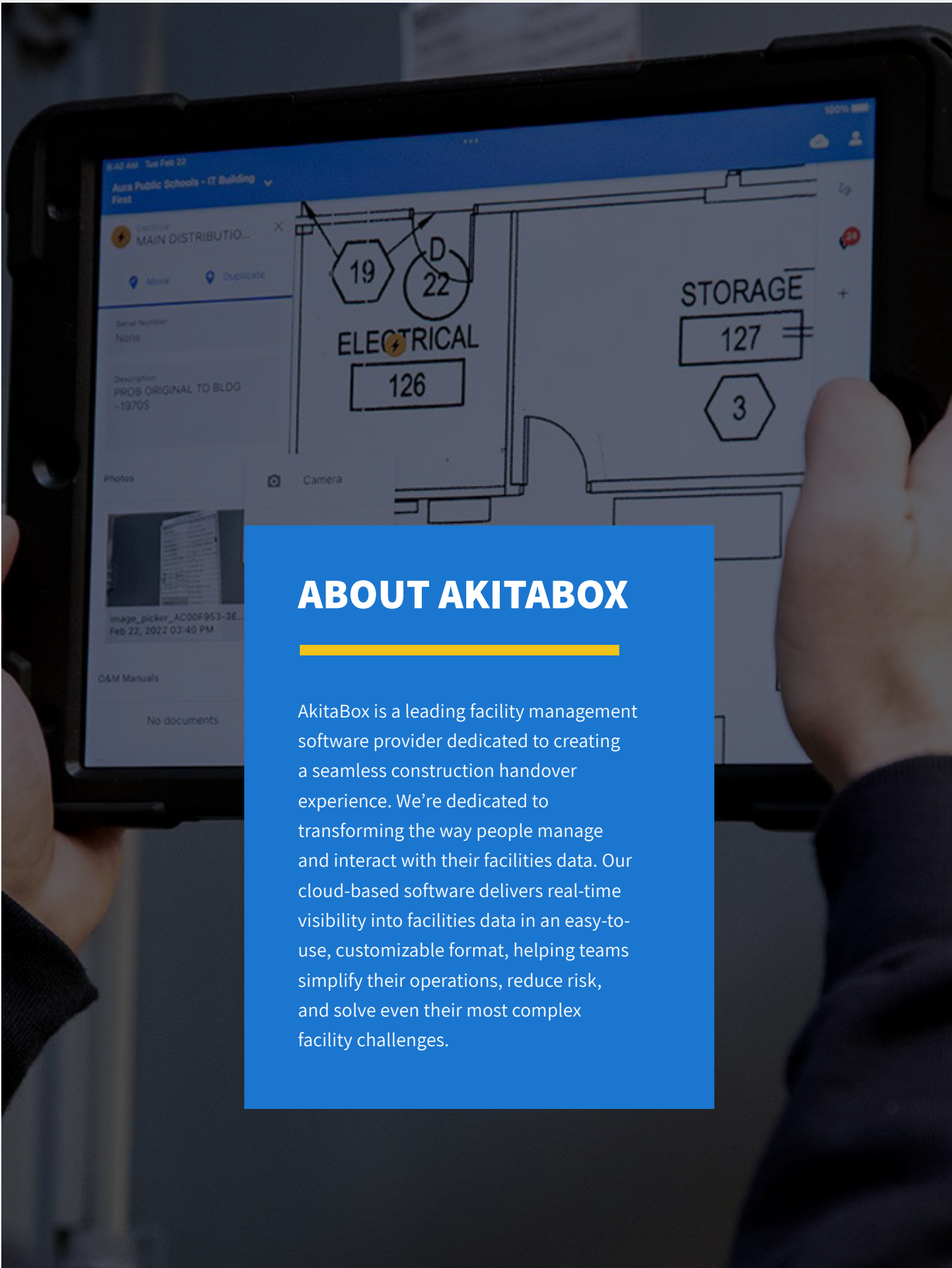
Although handover is traditionally linked to the final step of construction, it's the first step of your client's takeover of long-term operations and maintenance of an asset. Leveraging modern solutions makes the project handover process not only simpler but more successful. It benefits building owners and facility managers, which cultivates the relationships that remain essential in the construction industry and conserves valuable time and resources—a true win-win for everyone involved.

Leading business owners are looking to adapt and stay relevant in a new age of digitization. By modernizing the handover process, you minimize errors and increase the long-term value of your completed assets. Implementing a robust construction handover solution, like AkitaBox, will organize your data and improve client experiences, giving your company a sharp competitive edge.



**READY TO SEE HOW AKITABOX CAN IMPROVE
YOUR HANDOVER PROCESS?**

TALK TO AN EXPERT



ABOUT AKITABOX

AkitaBox is a leading facility management software provider dedicated to creating a seamless construction handover experience. We're dedicated to transforming the way people manage and interact with their facilities data. Our cloud-based software delivers real-time visibility into facilities data in an easy-to-use, customizable format, helping teams simplify their operations, reduce risk, and solve even their most complex facility challenges.