

The Secret to Boosting Productivity for General Contractors

The general contractor's guide to construction productivity software and how it can better manage their projects.



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Introduction

For the first time, the construction world is embracing a large-scale adoption of technology in the field. This will impact everyone in the industry—from general contractors (GCs) to the subcontractors they so often collaborate with. While those in the field have been hesitant to adopt new technology due to the cumbersome nature of early electronic devices (amidst many other challenges), easy access to modern mobile devices that are lightweight and simple to use have changed that perspective entirely.

The need for GCs to adopt modern digital technologies comes from many factors, including industry demand for alternatives to drive business, a desire to increase efficiency and a need to be nimble in the modern business environment. Additionally, GCs face a multitude of changes in the field on a daily basis. This can include end-user driven changes to specifications, or subcontractors discovering unexpected site conditions when driving piles for the foundation of the project. Nevertheless, technology can help GCs quickly and easily respond to those changes.

Fortunately, a new category of software exists that is proven to increase building efficiency at scale. It's called construction productivity software. It streamlines document control and distribution, provides construction teams with easy access to all relevant information from any device and enables seamless collaboration within teams. With the development of modern mobile devices, software is easier to roll out to the field than ever before.

This e-book will focus on how embracing the right construction software tool can impact:

- **Meeting project schedules and deadlines**
- **Collaborating with subcontractors and owners**
- **Managing construction plans, documents, and versions**
- **Preventing costly errors and rework**
- **Completing effective project closeouts**
- **Attracting talent as the workforce ages**
- **Scaling as an organization grows**

Time savings in the field

Most GCs still connect with subcontractors and architects via telephone, in person and through email. This makes it hard to track RFIs and the resulting changes that has been made. With the right software tool, GCs no longer have to search through files, emails or binders for answers.

For example, drywall subcontractors can't hang their drywall until the HVAC systems that go behind it have been installed. A GC armed with the knowledge of what has been completed means their team can more efficiently direct when different subcontractors should begin their portion of work. When software is standardized across a project (or entire organization), it allows everyone in the field to easily manage their work and collaborate with subcontractors. Removing the ambiguity surrounding the progress of construction gives GCs the confidence to plan and ultimately saves time.

Software also allows contractors to manage offsite prefabrication more effectively. The ideal tool should centralize drawings, data sheets and other project information. This allows teams to make changes and markups on the fly while remotely monitoring the work. If the onsite team makes changes to the drawings, the tool should automatically push this data to your offsite prefabrications team and vice versa. This is especially critical if the facility is located miles away from the project site.

All the project documentation such as submittals and material cut sheets should be available via that same software tool. Ideally, it will also let teams work from any device, whether they are connected to the web or working offline.



Reducing costly errors and rework

Construction sites are always changing. GCs need to closely coordinate with subcontractors and vendors so materials are installed to meet the site conditions. Changes need to be communicated back to the home office and project trailers so they are distributed immediately. This is critical to ensure field modifications and change orders aren't needed later. It's important for GCs to recognize that the use of technology can achieve these goals while delivering a measurable ROI. These tools help reduce the frequency of rework, creating a benefit in the cost of the mistakes that aren't made¹.

When software tools provide a central location to collaborate—one that easily manages work, while providing the ability to link up the home office, project trailer, field workers and subcontractors—it reduces both the amount of time spent on coordination and the risk of building from outdated specifications.



Cloud technology makes collaboration easier

GCs are the quarterback in collaborating with everyone on the project including subcontractors, vendors and project owners. Fortunately, today's software tools positively impact collaboration workflows when working on markups to blueprints and during RFIs. This mobile cloud-based collaboration applies when working with any subcontractors. It means work flows more smoothly—with teams spending less time waiting and more time doing. The best tools allow teams to easily document framing locations and finishing details while working by simply pinning photos and marking up plans.

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“PlanGrid has made our massive construction project possible. Tracking RFIs, completion lists and punch lists (tens of thousands of items long) was made simple through PlanGrid. Additionally, the overall collaboration among the construction, design and operations teams through PlanGrid made communication easy. A project the size of ours would simply not be possible without PlanGrid.”

— **Casey Clark**
Whiting Turner Contracting Company





A master set the whole team can work off of anywhere, anytime

Drawings are constantly updated. It can be tricky to keep up with all the changes and how they impact the work and schedule. It's especially tough when multiple subcontractors are scattered across a project site. Software tools empower teams to coordinate quickly and seamlessly. This helps teams stay on track, while ensuring everyone on the jobsite is accountable for their part of the work.

The importance of coordination becomes clear when using prefabricated materials on a project. Successfully leveraging prefabrication require extensive pre-planning to ensure the delivery and installation is properly timed². If a team doesn't know exactly when to deliver the prefabricated materials, much of the cost savings typically generated will be lost.

If laydown area space is limited, poorly timed deliveries can cause big headaches for the whole project when there isn't enough space to store the materials. Construction productivity software provides workflows with better insight into a project, helping schedule just-in-time delivery.

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“PlanGrid is a great way to provide information to our field teams as soon as it is available. This allows them to incorporate changes and have information on the front line to keep the project moving.”

— **Traci Leonard**
The Worthing Companies

Additionally, GCs should be sure to select a tool that stores all their project data within it. A contractor's mantra should be “If it doesn't live in the tool, it doesn't exist!” This will ensure teams have one place they're looking to for information. Centrally locating documents removes the need for duplicate entry of data or an extensive and confusing search to find information.

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“PlanGrid has been a major help to our company. PlanGrid has allowed us to always keep up with document changes, which is vital. The ability for easy references through links, overlaying, punchlist items and RFIs are just a few of the items that make our projects run smoother.”

– **Dominic Bergs**
Chasse Building Team





Effective project closeouts and seamless as-builts

Traditional closeout packages have been insufficient for project owners. Typically, 30% of data associated with a project is lost during turnover³. A digital drawing set lasts for the lifetime of the building. When all the documentation is stored electronically, it creates an easy package to turn over at project completion. This ensures a happy owner and helps secure future projects. When using the right software tools, substantial data loss at turnover becomes a thing of the past. This also helps GCs, owners and subcontractors work together when warranty issues arise after project closeout.

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It used to take four to five people at least a week or more to get all final redlines and as-builts put together at turnover. With PlanGrid it only takes a couple of hours for us to ship our turnover package, but equally important is the fact that we're confident in the quantity and quality of the data we're sharing."

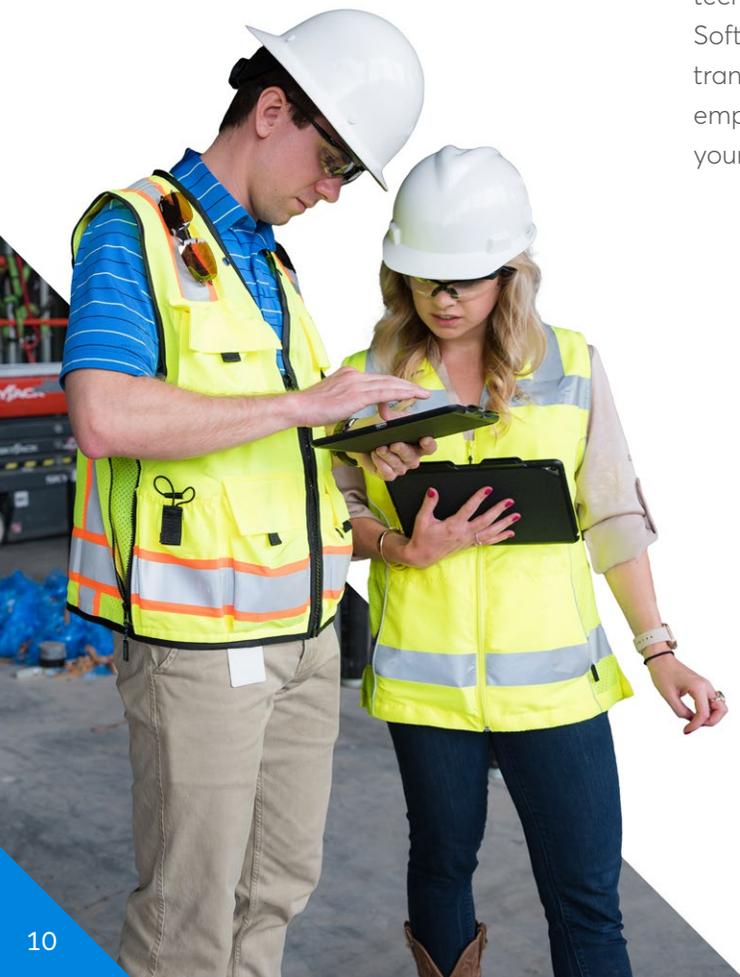
— **Kalen Wallace**
Mechanical Engineer, VEC Inc.



Tech attracts younger talent as the existing workforce ages

The median age of construction workers in 2000 was 37.9, while in 2010 it was 40.4⁴. This means that the average age of a team is also increasing.

As a large part of the workforce moves toward retirement, it's increasingly important to attract young talent. Ensuring that cutting-edge technology is available to them is one way of drawing in that much-needed cohort. Adopting a best-in-class software tool is one way for companies to attract this younger tech-driven part of the workforce. Software tools can also facilitate the transfer of knowledge from experienced employees through a platform that younger workers understand.





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Some of the subcontractors who perform most of the labor at construction sites—from carpenters to plumbers to drywall installers—say they cannot find the manpower to handle the surge of homes, condominiums, apartments, hotels and retail projects under way or planned.”

— **John Hielscher**
Herald Tribune⁵



Scaling as your organization grows

When business is booming, organizations often rapidly increase in size to accommodate the new work. Growing from a small organization to a larger one can make problems in existing processes painfully obvious. Construction productivity tools are one way to make company growth successfully scale. You can rely on paper drawings and memory for small projects, but that's a recipe for disaster as projects get more complex and teams grow.





How Fortis Group uses PlanGrid to improve project communication and relationships

Fortis Group is a Canadian full-service general contractor that has designed and built over two million square feet of retail, commercial, recreational and industrial space. Fortis controls every phase of a project, from conception to close-out. As a result, the company is always looking for innovative solutions to build smarter.

Empowering Fortis employees in the field

Empowering Fortis Employees in the Field

The problem for Fortis was simple. The company needed a way to quickly transmit information from the office to job sites and to subcontractors as they worked on projects. Fortis didn't want to force an unproven solution on their team.

After a four month trial, Fortis saw a vast improvement in the speed of communication between the office and the field. Site supervisors who had once needed a project manager to email them important documents could now simply look them up on iPads while out in the field.



Better communications, best results

Any construction project generates lots of paperwork. With PlanGrid, all of that information is captured and available on a tablet. Rob Chatel is a site supervisor for Fortis Group, so he spends more time on work sites than anyone. And when he runs into a challenge, he can solve it right then and there.

"I had to explain to a subcontractor how we wanted a wood canopy building done...the angle, the way the wood needed to be cut, the dimensions," he says. "I pulled up the site plan on my iPad, used the measurement tool to scale it and the highlighting tool to show exactly where on site I wanted it. We could scale it out right then and there and then email the equipment rental company on the spot to tell them how much fencing we were going to need. No one had to go searching for information and then come back to double-check it."

Improving relationships with clients

Fortis prides itself on its use of best practices in its business, and PlanGrid helps the company show that to its clients. This starts in the bidding stage, when Fortis shows prospective customers how PlanGrid has helped integrate its office and field operations in order to bring projects in on time and under budget.

"Sharing how we use PlanGrid proves to the client that communication is key; that we're innovative in that respect," DeThomasis says. "We invest heavily in technology since it's a proven method of improving communication and maximizing production. Our ownership group allows us to do this because they recognize the value in it."





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“We wanted the employees [in the field] to pick the tech that would make their job easier and fit seamlessly into their day to day operations.”

– Mike DeThomasis
Fortis' Vice President of Operations

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See a Live Demo

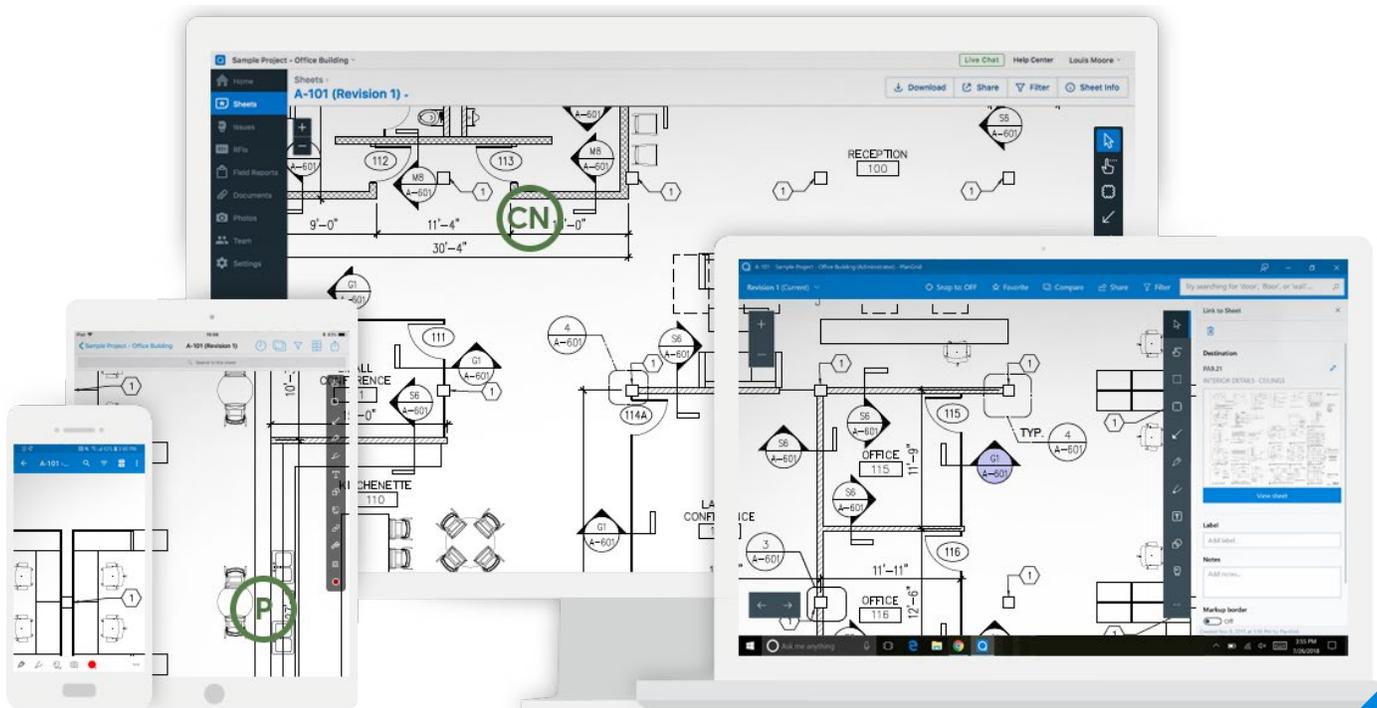
or give us a call at +1 (415) 429-1227

PlanGrid's Construction Productivity Software is the easiest and most cost-effective way to get substantial return on your investment in construction mobile apps. By using PlanGrid you will:

- **Complete projects faster:** 90% of project costs occur in the field and not in the office. This includes wasted time and project delays. With PlanGrid, you can reduce wasteful trips to the trailer and time delays, while eliminating costly rework. PlanGrid also allows for faster collaboration and communication.
- **Reduce costs:** PlanGrid allows you to optimize productivity in the field, which eliminates time waste that causes project overruns. By completing projects early or on time with PlanGrid, contractors will benefit from reduced costs.
- **Win more bids:** The best way to bid more competitively is not just to track costs so you can provide more accurate estimates — it's to improve your overall productivity. PlanGrid's Construction Productivity Software will allow you to increase productivity so you can reduce costs and win more bids.



PlanGrid is construction productivity software used on more than 1 million projects across 90 countries. Our software helps teams collaborate more efficiently with access to an intelligent record set on any device.





Used on more than 1,000,000 projects around the world, PlanGrid is the first construction productivity software that allows contractors and owners in commercial, heavy civil, and other industries to collaborate, collect, and share project information from any desktop or mobile device through the entire project lifecycle.

PlanGrid increases project efficiency by streamlining document management, providing construction teams with easy access to all project information from any device, and enabling seamless collaboration within teams.

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