7 Secrets to Improve Productivity for Plumbing Subcontractors

The Plumbing Contractor’s guide to construction productivity software and how it can empower them on the project site.
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Introduction

Have you ever had to turn down a project when you didn’t want to? It’s a hard decision to turn down work, but this scenario is becoming increasingly common among Plumbing Subcontractors in recent years. This isn’t necessarily because business is booming, although it certainly can in today’s economy. It’s happening because teams don’t have enough resources to successfully execute the volume of work that is coming in the door. At a glance this may seem like a good problem to have, but when the cause is driven by constant labor shortages—it paints a scary picture for the future of the industry.

There is mounting pressure on Plumbing Contractors to become more efficient and productive than ever before. With labor shortages, retiring workers and aging structures requiring increased maintenance—the demand for skilled plumbers continues to increase while the number available to do the work plummets.

How can you successfully coordinate projects when you can’t be confident your resources will meet today’s plumbing demands, much less those in the future?

This is where software comes into play. Construction Productivity Software streamlines document control and distribution, provides construction teams with easy access to all relevant information from any device and enables seamless collaboration across teams. With modern mobile devices, empowering your field teams through software is easier than ever before.

Plumbing Subcontractors are a large part of any construction project and their success significantly impacts the overall project delivery. This e-book will focus on how embracing the right construction software tool can impact:

- Meeting project schedules and deadlines
- Collaborating with GCs and other trades
- Managing sheets, blueprints and versions
- Preventing costly errors and rework
- Completing effective project closeouts
- Attracting talent as the workforce ages
- Scaling as your organization grows
Most Plumbing Subcontractors still connect with other trades via telephone, in person and through email. This makes it hard to track each decision or change that has been made. With the right software tool, you no longer have to search through files, emails or binders for answers.

For example, Plumbing Subcontractors typically can’t install piping until main and branch ductwork has been installed above ceiling. Armed with the knowledge of what has been completed means your team can more efficiently execute their portion of work. The right tool also allows field teams to easily manage their own work and collaborate with the other subcontractors. Removing the ambiguity surrounding your own progress versus that of the other trades gives you the confidence to plan and ultimately saves time. Additionally, many Project Managers will take an hour to walk project sites with their foreman to review overall progress and help bill the project correctly. Using PlanGrid, Plumbing Subcontractors can document work much more accurately and cut down on time wasted walking the project to confirm percent complete for the billing processes.

Software also allows you to manage offsite prefabrication activities more effectively. The tool should centralize your drawings, data sheets and other project information. This allows you to make changes and markups on the fly while remotely monitoring the work and provide accurate field measurements with corresponding progress photos—streamlining communication between the field and your fabrication shops. If your onsite team makes changes to the drawings, the tool should automatically push this data to your fabrication facility 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 piping/plumbing submittals and cut sheets should be available via that same software tool. Ideally, it will also let your team work from any device, whether they are connected to the web or working offline.

“But, most importantly where PlanGrid has helped us is with coordination between the plumbing, mechanical, electrical and sprinkler trades. The center section of our building is incredibly tight with hardly any room to breathe. PlanGrid was immensely useful with the coordination aspect as we were able to overlay plans on a big screen in the trailer and on-the-fly in the field.”

— Amol Soman, Samet Corporation
Reducing costly errors and rework

Construction sites are always changing. Subcontractors and GCs need to closely coordinate 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 subcontractors to recognize that the use of technology can achieve these goals, and delivers ROI too. These tools help reduce the frequency of rework, creating a benefit in the cost of the mistakes you don’t make.3

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

It’s typical for Plumbing Subcontractors to face challenges with documentation on projects and are often asked to “make systems work” if the drawings aren’t accurate or are missing details. It’s important to document this work to get paid accurately, especially when change orders come into play. Software tools that offer documentation features allow subcontractors an opportunity to prevent ripping out systems installed based off old drawings.

Cloud technology makes collaboration easier

Plumbing Subcontractors frequently collaborate with building owners and other design team professionals. Moreover, more than half of Electrical Subcontractors report that they collaborate directly with Plumbing and HVAC professionals on projects.4

Today’s software tools are impactful when working on markups to blueprints and during RFIs. This mobile cloud-based collaboration applies to working with GCs or any other trade that may be at the project site. It means your work flows more smoothly—with teams spending less time waiting and more time doing. The best tools allow teams to easily document key valve locations and equipment installation details while you’re working by simply pinning photos and marking up your plans.
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Your whole team can work off the master set anywhere, anytime

Drawings are constantly updated. It can be tricky to keep up with all the changes and how they impact your work and schedule. It’s especially tough when you’re working alongside other specialty contractors. Software tools empower you with fast and seamless coordination. This helps your team stay on track, while ensuring everyone on the jobsite is accountable for their part of the work. 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 gives you workflows with better insight into a project, helping schedule just-in-time delivery.

Software also allows you to capture productivity data with access to measurement and overlay tools. For example, this allows you to calculate and compare how much piping and insulation you’ve installed on a project.

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

“Each block [of the project] has an architectural, structural, plumbing, electrical, mechanical and interior design set of drawings. That means that we have 18 different sets of drawings, all of which are continuously changing due to ASIs. PlanGrid is my favorite tool because it has completely eliminated the problems that have arisen in the past due to one mistakenly using an outdated plan sheet.”

— Brett Hauser, Weis Builders

“PlanGrid saves time, and time is money in the construction business. I always have complete plans at my fingertips.”

— Jason Edgerton, Mega Plumbing of the Carolinas
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 turnover. 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 with them. When using the right software tools, substantial data loss at turnover becomes a thing of the past. This also helps owners, GCs and subcontractors when warranty issues arise after project closeout.

“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.
The median age of construction workers in 2000 was 37.9, while in 2010 it was 40.4. This means that the average age plumbing workers 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. Adapting a best-in-class software tool is one way for your company to attract this younger tech-driven part of the workforce. Software tools can also facilitate the transfer of knowledge from your experienced employees through a platform that younger workers understand.

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. This is no different for Plumbing Subcontractors. Construction productivity tools are one way to make company growth successfully scale. You can rely on paper drawings and memory for a small projects, but that's a recipe for disaster as projects get more complex and teams grow.

“We need more than 100,000 new workers to take care of the ones that are retiring,” said Cindy Sheridan, chief operating officer, Plumbing-Heating-Cooling Contractors.”

— National Association (PHCC) Educational Foundation.
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Case Study - VEC, Inc.

Founded in 1968, VEC, Inc. is a total solutions provider that specializes in industrial, oil and gas and low voltage work in the midwestern United States. VEC trusts PlanGrid on all major projects for collaboration, information sharing and successful turnover to owners.

Ensuring teams have the right information and streamlining documentation

For years now, technology has played a foundational role in how VEC does business. It helps the company bring projects to completion faster and has become a major selling point and differentiator when bidding on new work.

For example, documentation and inspections can be particularly challenging for oil and gas projects due to the precision and level of detail that must be captured. For VEC, documenting everything efficiently and correctly is important from a time savings perspective. It also strengthens their relationship with project owners, who will need access to precise as-built information for quality control and emergencies in the future.

The company knows the risks that come with having outdated information in the field. VEC’s head document controller Dominique Fuentes shares, “even missing one sheet revision can cause a several hundred thousand dollar mistake that has to be redone.”

Centralized project information and consistent field documentation

With PlanGrid, field documentation and as-builts at VEC have become extremely efficient and reliable. VEC owns a four million dollar prefabrication facility where the team welds pipes and prepares other materials before they get shipped out to the jobsite.

Kalen Wallace, Integration Manager at VEC, explains, “85% of the welding work and documentation is done in pre-fab, and it all lives in PlanGrid. Once the field team gets the materials, it’s easy for them to log details and photos right there in the plans from anywhere.” When unexpected conditions arise or plans need to change on the fly, PlanGrid enables the VEC team to be dynamic while communicating and documenting changes properly.
Results: Increased productivity and more data at turnover

For VEC, the increase in productivity driven by PlanGrid is clear in many ways. Chad Dager, QA and Project Manager at VEC, explains, “an inspector can now work with 12 or more welders at a time because of how streamlined the process is; before, I could manage three or four maximum.”

Turning over projects is now easier, too. Because all of the work that the team does is managed and communicated in PlanGrid, there’s no second guessing how up-to-date information is, or chasing down weld numbers from weeks or months ago. VEC has used PlanGrid for years and now highlights the tool as part of its “Innovation” package. This is where the company touts its use of technology on projects.

“PlanGrid empowers our projects to become digital and connected, resulting in increased efficiency, collaboration and profitability on the jobsite. It keeps our project team on the same page, moving in the same direction.”

— Dominic R. Spelich, Executive Vice President, VEC Inc.
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Subcontractors using PlanGrid

References

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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.
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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