

 Two electricians wearing orange hard hats and blue work clothes are working on a complex electrical assembly. They are using tools to adjust and secure large metal cables and components. The scene is set in an industrial or utility environment.

Why Implementing Construction Productivity Software is Critical for Electrical Subcontractors

A discussion on why embracing software tools is the next step for Electrical Subcontractors to empower themselves on the project site.

What's Inside

3 Introduction

4 A Case Study - Power Design Inc.

5 Communication Problems Lead to Business Problems

6 The Challenges for Electrical Subcontractors and How Modern Tools Help

Software for the field saves time

Modern mobile technology is in the Cloud, making collaboration easier

Your whole team can work off the master set

Effective project closeouts and seamless as-builts

Software reduces costly errors and rework

Adopting technology attracts younger talent as your existing workforce ages

Scaling as your organization grows

12 Electrical Subs using PlanGrid

12 References



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 individual Electrical Subcontractors to the large General Contractors (GCs) 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 Electrical Subcontractors 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, these subcontractors face a multitude of changes in the field on

a daily basis. This can include end-user driven changes to specifications, or unexpected site conditions during an electrical installation. Technology can help subcontractors quickly and easily respond to those changes.¹

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 GCs and other trades
- Managing sheets, blueprints, versions
- Preventing costly errors and rework
- Effective project closeouts
- Attracting talent as the workforce ages
- Scaling as your organization grows



“Electrical contractors today face a dynamic landscape with new technologies and digital solutions, evolving codes and standards, an aging workforce, environmental concerns, and rapidly changing customer requirements.”

— Philip B. Santoro, Independent Electrical Contractors Platinum Industry Partner¹



A Case Study - Power Design Inc.

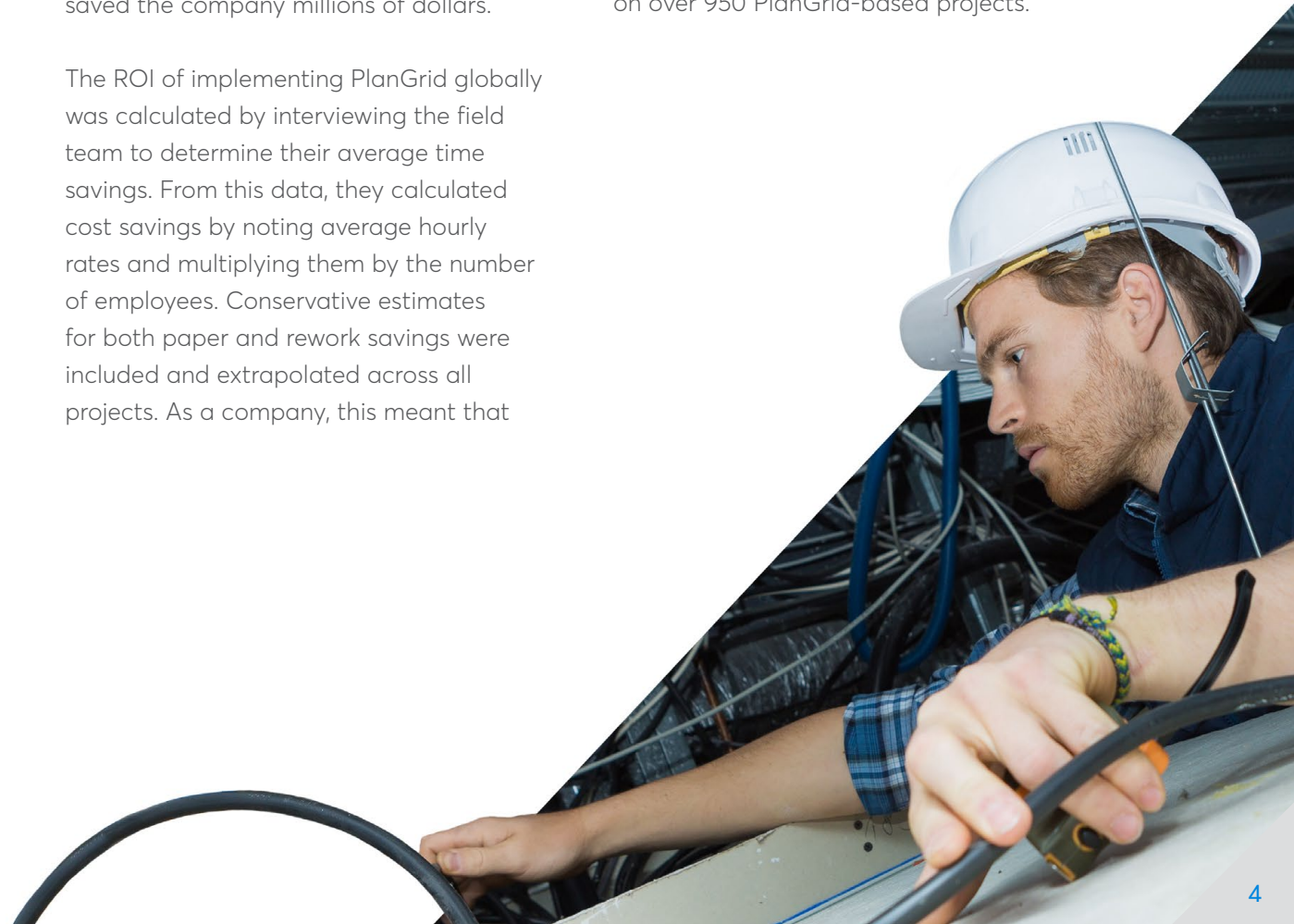
Power Design Inc. (PDI) is one of the largest Electrical Subcontractors in the United States. They specialize in multi-family projects and frequently gain national acclaim for their work. While PDI is known for their innovative technology, prior to adopting PlanGrid they didn't have an effective mobile solution in place for plan management. Reams of paper were going in and out of the field, making it impossible to keep up with the most current set of drawings. There were huge delays getting new plans between change orders. Often times, additional change orders would be issued before they could distribute revised plans for the first one.

Before implementing PlanGrid, PDI conducted a lengthy vetting process that included a review for features like uploading, versioning and tagging of plans; multi-user collaboration; mobile functionality, including offline mode; managing issues on the jobsite; and a toolbar with calibration, hyperlinking, attachments and photos.

PDI piloted PlanGrid as their primary mobile app on their Arbor Row, Block E project, which was a 461-unit apartment building in Fairfax, VA. As a result of rolling out the tool, the job went entirely paperless and ultimately saved the company millions of dollars.

The ROI of implementing PlanGrid globally was calculated by interviewing the field team to determine their average time savings. From this data, they calculated cost savings by noting average hourly rates and multiplying them by the number of employees. Conservative estimates for both paper and rework savings were included and extrapolated across all projects. As a company, this meant that

they would save more than \$4.3 million per year if their entire field staff was using PlanGrid. Paper savings came to \$600,000 annually and they projected a \$2.4 million savings in rework costs. To date, PDI has scaled to over 900 users working on over 950 PlanGrid-based projects.



“

As the company's staff continued to grow 40% year after year, it became mission-critical to bridge the communication gap. Adopting a mobile solution like PlanGrid was key in supporting the field.”

— Taylor Precourt, PDI IT Release Manager



The Challenges for Electrical Subcontractors and How Modern Tools Help

Many Electrical Subcontractors still manage their work manually. Modern productivity tools solve the challenges a manual work environment creates and can yield a huge impact on how you operate as a business. Teams who leverage these tools spend less time on administrative tasks like keeping field workers up to date with new plans, issues, shop drawings or Requests for Information (RFI). Additionally, coordination with GCs and other trades is smoother when everyone can easily see when and how they fit in.

The Independent Electrical Contractors (IEC) organization understands the growing need for adoption of these modern tools. Back in 2014 they stated that, "This digital transference has become increasingly evident within the electrical contracting community. Today, the role of the electrical contractor is being reshaped as new digital platforms and tools offer possibilities for changing the way they work, think and interact with their customers and networks."¹



Why Implementing Construction Productivity Software is Critical for Electrical Subcontractors

Software for the field saves time

Most Electrical 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 of documents for answers.

For example, electricians can't pull wire until all conduit piping and junction boxes are installed. With the knowledge of which runs are ready for wire pulls, an electrician can prepare to execute the correct portion of work in the most efficient manner.² Construction productivity tools eliminate this problem by allowing your field teams to easily collaborate with other subcontractors. Removing the ambiguity of where other subcontractors are at with their portion of work gives you the confidence to plan, and ultimately saves time.

Additionally, all the project documentation, such as electrical gear submittals and light fixture cut sheets, will be available via that same software tool. Ideally, the tool that you adopt should allow your team to work from any device, whether they are connected to the web or offline.



Modern mobile technology is in the Cloud, making collaboration easier

Electrical Subcontractors collaborate frequently with building owners and other design team professionals on the electrical design, with 74 percent reporting "high" or "medium" levels of collaboration. Additionally, just over half of Electrical Subcontractors report that they collaborate with Mechanical and HVAC professionals on projects, and one-third collaborate with plumbers and other industry trades.³

Today's software tools are impactful when working on markups to blueprints or sheets and during RFIs. This mobile cloud-based collaboration applies universally to working with GCs, mechanical contractors 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.



"I don't have to carry around a huge roll of blueprints that get all wrinkled, torn, and full of coffee stains. One of my guilty pleasures is when another trade says something like 'Hey, you put your electrical box in the wrong, spot-move it!' Then I calmly reach into my safety vest, pull out the iPad, find the sheet, zoom in, and prove them wrong."

— Jessie Magana, Sprig Electric



Your whole team can work off the master set

Drawings are constantly being updated. It can be tricky to keep up with all the changes and how they impact your work and schedule. It's especially tough during exterior, interior and dry-in, 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 portion of the work.

The importance of seamless coordination becomes clear when using prefabricated electrical equipment on a project. Using prefabricated materials requires extensive pre-planning and coordination to properly time the delivery and installation.⁴ If an Electrical Subcontractor doesn't know exactly when to deliver their materials for installation, much of the cost savings typically generated using this fast track method will be lost. Construction Productivity Software gives you workflows with better insight into a project, helping schedule just-in-time delivery of the materials.

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“Digital prints are the greatest thing to come to construction since the hammer. The ability to quickly jump to details and not flip for days to find them is amazing.”

— Daniel Byrne, Collins Electric



Why Implementing Construction Productivity Software is Critical for Electrical Subcontractors

Effective project closeouts and seamless as-builts

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.

Software reduces costly errors and rework

Construction sites are always changing. Field workers and GCs need to closely coordinate so materials are installed to meet the site conditions. That information needs to be communicated back to the home office and project trailers so changes are caught immediately. This is critical to ensure field modifications and change orders aren't needed later.

All subcontractors need to recognize that the use of technology delivers ROI. These tools help reduce the frequency of rework, creating a benefit in the cost of the mistakes you don't make.⁵

When software tools provide a central location to collaborate—one that easily links up the GC, home office, project trailer, field workers and other subcontractors—it reduces the amount of time spent on coordination and the risk of installing electrical work to outdated specifications.



Adopting technology attracts younger talent as your existing workforce ages

The age demographic of Electrical Subcontractors is increasing, with the average age of an electrical employee hovering near 57.³ As the older portion of the workforce moves toward retirement, it's increasingly important to attract young talent. Adopting a software tool is one way for your company to attract this younger technology-driven part of the workforce.

It is also important to note that the number of electrical workers between ages 35 and 54 has had an alarming drop. Between 2006 and 2016, the percentage of employees working at electrical firms in this age range dropped from 59 percent of the total workforce to just 30 percent.³ With a 29 percent drop, it's clear that the available number of young skilled electrical workers is rapidly decreasing. This means the fight to hire top young talent will get more difficult as 2025 approaches. Ensuring that cutting-edge technology is available for them is one way of drawing in that much-needed young talent.



"A good job is no longer just about a pension, but rather a flexible employer who welcomes new ideas, including how to take advantage of new digital solutions and platforms, and who gives their employees room to grow and expand their skill sets."

— Philip B. Santoro, Independent Electrical Contractors Platinum Industry Partner¹

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 readily apparent, and it's no different for Electrical Subcontractors. A recent survey of electrical subcontracting companies showed that 21 percent of them increased in size over the previous 12 to 18 months.³ Construction productivity tools, as outlined above, are one way to make company growth successfully scale. It may be manageable to rely on paper drawings and your memory for a single project or a small team, but that's a recipe for disaster as projects get larger and more complicated.



Why Implementing Construction Productivity Software is Critical for Electrical Subcontractors

Electrical Subs using PlanGrid



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PlanGrid makes life easier, makes projects more profitable and helps make our Electricians the best in the industry!

- Matt Hittinger, King's Electric Services

References

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3 [2016 Profile of the Electrical Contractor](#), Chuck Ross, Electrical Contractor Magazine

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Why Implementing Construction Productivity Software is Critical for Electrical Subcontractors

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:

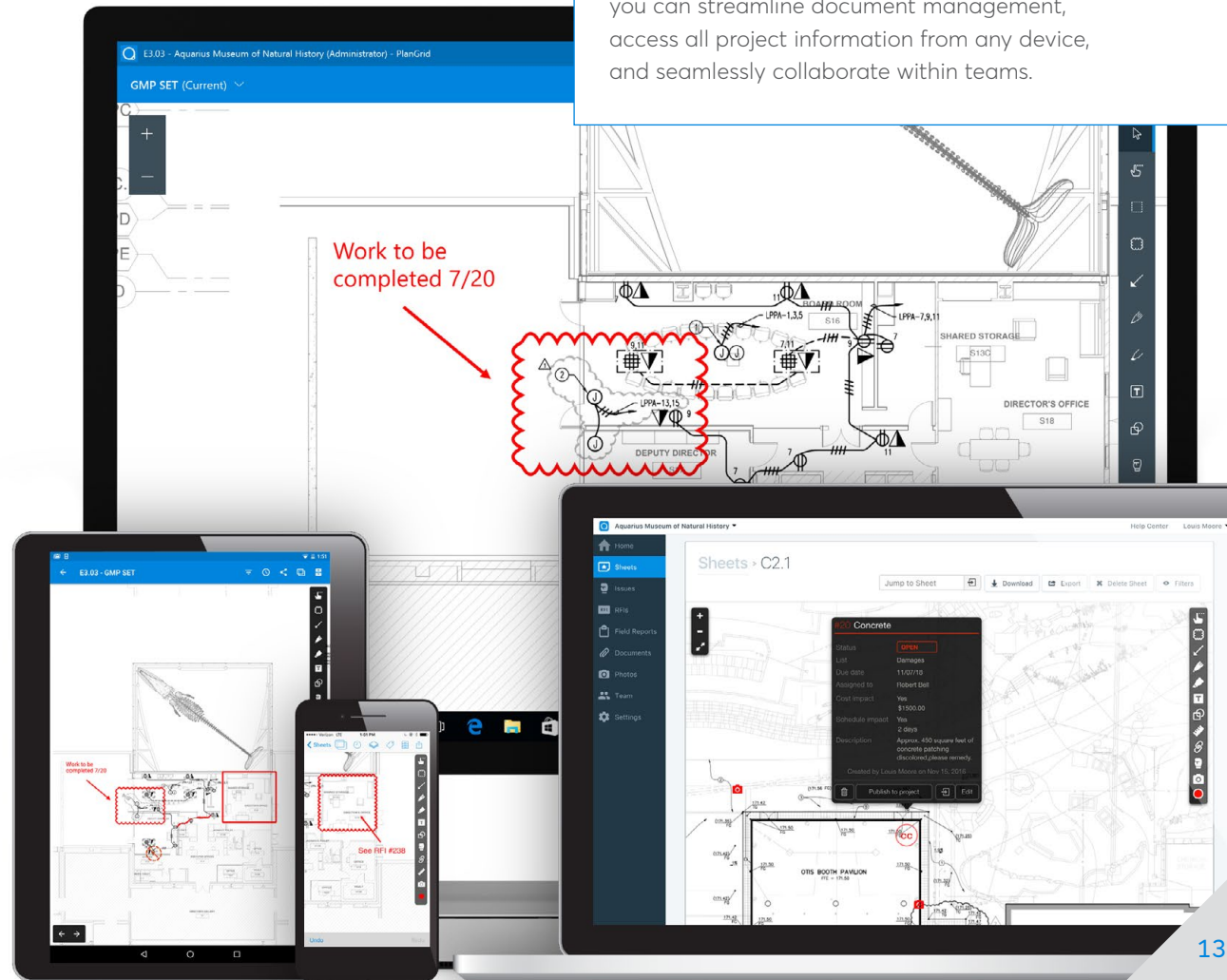
- **Complete projects faster:** 90% of project costs occur in the field and not in the office. This includes wasted time and project delays. With PlanGrid, you can reduce wasteful trips to the trailer and time delays, while eliminating costly rework. PlanGrid also allows for faster collaboration and 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.



Try PlanGrid for Free



There is a reason why PlanGrid is not only the #1 construction app, but also the highest rated. With PlanGrid construction productivity software, you can streamline document management, access all project information from any device, and seamlessly collaborate within teams.





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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