PlanGrid Customer Success Story:

Bartlett Cocke

Summary

» Bartlett Cocke, one of Texas' largest general contractors, implemented PlanGrid on two large scale health facilities in 2014.

» In addition to expected savings related to printing costs, the two teams also reported significant savings related to decreased time and rework.

Average Savings

Time	$130,540
Paper	$29,750
Rework	$37,800
ROI	4,189%

"[PlanGrid is the] best thing to happen in construction in the last 10 years…cuts time in half, and drawings are always current."

—Luis Berumen, Project Manager

Project 1: University of Texas Health Center at San Antonio - Academic Learning and Teaching Center

This $45 million, 125,000 square foot teaching center houses classroom space, lecture halls, labs for students (medicine, dentistry and nursing), a digital anatomy lab and administrative space. The unique challenges of this project included working on an occupied campus, a project site with minimal laydown area and a complex, underground tunneling effort for tie-in to existing campus utility mains.

Savings

Time	$167,024
Paper	$21,000
Rework	$189,000
Total	**$377,024**
Cost of PlanGrid	$11,250
ROI	3,251%

Project 2: Christus Santa Rosa Health System - Children's Hospital of San Antonio

Bartlett Cocke General Contractors is fully renovating 12 floors of the existing Christus Santa Rosa Health System City Centre campus structure, complete with a new façade. The unique challenges of this $135 million project include working in and around an occupied hospital, maintaining hospital mission critical operations, a project site with minimal laydown area and laser scanning of existing building for BIM coordination of new and existing building components in order to transform the landmark building into a modern, world-class children's hospital.

Savings

Time	$194,056
Paper	$38,500
Rework	$567,00
Total	**$799,556**
Cost of PlanGrid	$15,300
ROI	5,126%

Time Savings

PROJECT 1

To calculate time savings, we sent out a survey to the team asking, “About how many hours per week does PlanGrid save you, compared to using paper blueprints?” For superintendents, we used the average time savings of five hours of savings/week, and for architects, 7.5 hours of savings/week. Together the nine team members reported a total savings of 1,612 hours/year. Multiplying that out by the national average salary for their respective positions, we calculate the total time savings to be$167,024/year.

PROJECT 2

We sent the same survey to team members on this project. Five project managers and four superintendents responded, all reporting time savings of at least five hours per week. On average, the project management team reported 8.1 hours saved per week, per person, and the superintendents reported 6.63 hours per week, per person. Together, the nine team members who replied to the survey reported a savings of 67 hours per week or 3,484 hours per year. Incorporating the national average salary, the total time savings results in $194,056/year. This total savings does not include the time savings from the 20 other members on the project.

Paper Savings

PROJECT 1

Bartlett Cocke General Contractors reported an internal budget of $6,000 for paper blueprints. They also reported an average of $500 - $1,000 budgeted by each of their subcontractors. For the purpose of this calculation, we used an average of the reported budget which is $750/subcontractor. We estimated about 20 major trades on a given project* which nets to a $15,000 total budget for all subcontractors. Therefore, the total paper savings is $21,000.

PROJECT 2

Bartlett Cocke General Contractors reported an internal budget of $13,500 for paper blueprints. They also reported an average of $1,000 - $1,500 budgeted by each of their subcontractors. For the purpose of this calculation, we’ll use an average of the reported budget which is $1,250/subcontractor. We estimate about 20 major trades on a given project* which nets $25,000 total budget for all subcontractors. Therefore, the total paper budget including the general contractor is $38,500.

Rework Savings

PROJECT 1

Rework is one of the most costly disruptions to a construction project. Rework is also one of the hardest construction costs to measure, yet its negative impact on the construction schedule and budget is something that cannot be ignored. Based on user feedback, one of the main causes of rework is the field worker's accidental usage and building off of outdated drawings. This is due to the difficulty of physically distributing constantly changing drawing sheets and updating them with the most current information (e.g., Addenda, ASIs, PRs, RFI responses, submittal responses, etc…). According to a research report written for UC Berkeley by Dr. Peter Pei-Yin Feng, the cost of rework directly resulting from "poor document control" can range anywhere from 0.12% to 0.72% of total project costs. For this case study, we will use the average of this range which is 0.42%. This means that on a $45 million project, on average the cost of rework due to poor version control is $189,000. PlanGrid's complete platform, automatic syncing, distribution, and versioning of new sheets eliminate this problem.

PROJECT 2

Using the same cost of poor document control of 0.42% means that on this $135 million project, on average the cost of rework due to building off old data is $567,000.

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