REAL SAVINGS

Labor avoided (billable hours)
$89,029

Paper and printing savings
$15,000

Total savings
$104,029

Cost of PlanGrid and hardware
$1,700

ROI
6,019%

PlanGrid customer success story:

T.B. Penick & Sons, Inc.

St. Thomas More Catholic Church

PROJECT SPECS

Budget: $11,206,457.00
Type of Work: General Contracting and Concrete
Region: National
PlanGrid License: 3 users

T.B. Penick & Sons, Inc. provides design-build, general contracting, construction management, and concrete services across the United States. Their project portfolio includes:

- The innovative Twentynine Palms co-generation plant;
- The Lompoc hospital replacement;
- The historic renovation of the Marcus Garvey amphitheatre in New York, and;
- Seismic upgrades (including the upgrade for the SFSU Sutro Library)

As construction manager for T.B. Penick, Paul Sandoval oversaw the building of the sanctuary for the St. Thomas More Catholic Church. Taking around 16 months, it was complete in December, 2015 and finished with a budget of $11,206,457.00.

Construction of the Oceanside, CA sanctuary was a unique project for T.B. Penick. The structure, all concrete and steel with no wood (except for decorative millwork), required a large quantity of cast-in-place concrete. It also called for an air plenum under the sanctuary floor with ductwork coming up through the pew legs—providing climate control while keeping the legs in position.

> "With the structural challenges—as well as trying to eliminate visible ductwork—when you start to put into place all those different elements, and you're dealing with concrete; especially vertical concrete walls that are upwards of 30 feet tall, you don't get second chances."
>
> — **Paul Sandoval**, Construction Manager, T.B. Penick

RFI's and submittals

T.B. Penick's relationship with the architect for this project was new to Sandoval. Rather than a design-build model with a more relaxed relationship, this project adopted the more formal design-bid-build model. Using PlanGrid to facilitate and standardize communication between parties was key to the project's operational success. Sandoval recalls that he and his team got the most value from PlanGrid in managing RFI's and submittals:

> "There was a lot of emphasis on the architecture being done with precision, so the quantity of RFIs was extensive and kind of unseen for this firm. The architect, due to personal preference, wanted to use another program for RFIs. We extracted that information and put it into PlanGrid so that I could more easily share it with my own team. When you have almost 600 RFIs and a submittal process that is growing at an exponential rate because of differences of opinion, you want to have one place to have a master. Whether that be construction drawings or RFIs submittals, it was great to have everything in one spot."

Time savings

Two project engineers and one superintendent used PlanGrid on the project. Over the course of 69.5 weeks, Sandoval estimates they collectively saved 18-23 hours per week.

As primary construction manager, Paul saved a significant amount of time from the automation of annotations and plan distribution:

"Before PlanGrid, our process involved printing everything and then inserting it into the drawings accordingly. This had to be done in one, two, or three sets of plans, which involved printing, cutting out details, writing on the plans, trying to be neat, erasing or covering mistakes, and then distributing the plans to everyone who needed them—not to mention pages would then get ripped or damaged and potentially the process had to be repeated. It was grossly inefficient."

"PlanGrid helped the field crew save time in their day-to-day work activities. It assisted in avoiding long, drawn out days or weeks of overtime pay, and the need for extended shifts or additional manpower. There was no final push involving 16 hour days, 7 days a week."

	Hours saved per week	Hours saved (project duration)	Money saved per week	Money saved (project duration)
Project Engineer	*10*	*695*	*$700*	*$48,650*
Project Engineer	*5*	*347.5*	*$350*	*$24,325*
Superintendent	*3*	*208.5*	*$231*	*$16,054*
Total savings	***18***	***1,251***	***$1,281***	***$89,029***

Paper savings

Compared to a similar project within 10% of the value of St. Thomas More, Sandoval says he spent 75% less on paper costs, saving around $15,000:

"I relied on PlanGrid exclusively and did not print any plans or documents for my own use. I almost always chose to use PlanGrid instead of printing."

While some printing was still necessary, PlanGrid let Sandoval print smaller, letter-sized documents from the office trailer (rather than relying on a reprographics company). The ability to create and send reports and plans directly from the iPad was particularly beneficial:

"A large portion of the cost savings seen between the two projects (with regards to printing costs) came from being able to very quickly and cleanly provide a consultant with accurate and precise information. I have sent very detailed plan sections to them for their review and using this platform reduces the quantity of billable hours on their end."

Return on investment (ROI)

Sandoval purchased two Nailgun licenses and one Dozer license, as well as tablets for his team—a total investment of around $1,700. Paper and labor savings combined came to $104,029, resulting in an ROI of 6,019%.

St. Thomas More Catholic Chiurch completed project