



AUTODESK **CONSTRUCTION CLOUD**™

GRANITE®

How Granite Construction Reduces Rework with Better Field Collaboration and Communication

Effective field collaboration and communication on a large project is key to staying on schedule and avoiding rework. This is especially true in heavy civil construction, where multiple stakeholders and hundreds of field workers, designers, engineers, and contractors must work together to prevent errors and ensure quality delivery.

Using a cloud-based construction management platform is one way to prevent errors, ensure quality, and increase field productivity. On the California Department of Transportation (Caltrans) Highway 99 Realignment project, Granite Construction deployed Plangrid within Autodesk Construction Cloud™ to save labor hours and rework costs. Their work is leading a shift in the industry toward better field collaboration and communication enabled by cloud-based construction management.



Customer Snapshot

FIRM SIZE: >5000
FIRM TYPE: GENERAL CONTRACTOR
REVENUE: 3 BILLION
FOCUS AREA: INFRASTRUCTURE
HQ: WATSONVILLE, CA, US

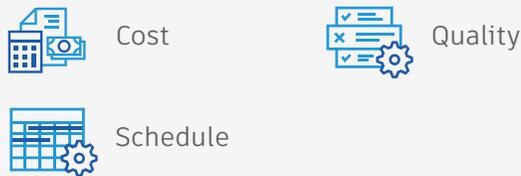
PHASE:



PRODUCTS:



VALUE DRIVERS:



Faster Communication Is Easy with Cloud-based Construction Management

Granite Construction [Granite] is a heavy civil general contractor with a deep history of building American transportation systems. Tasked with building the \$150 million Highway 99 Realignment project in Fresno, CA, they needed an effective way to coordinate significant complexity. The project involved moving several miles of highway from adjacent Union Pacific railroad tracks, relocating multiple local streets and utilities, and removing and replacing three bridges.

On the Highway 99 Realignment project, Caltrans required that Granite provide mobile devices for the field. Granite chose PlanGrid to help improve communication and collaboration on the project.

Randy Lucchesi, Lead Project Engineer at Granite, says that implementing PlanGrid across Caltrans, Granite, and the subcontractors on Highway 99 made the process of sharing project information dramatically faster.

“Our supervisors can sit with an inspector in the field and know that we’re looking at the right information needed to resolve the problem now,” he says. “It’s not, ‘you’re working off an old plan sheet, I need to run into the office to verify,’ or, ‘we need that RFI that was responded to three weeks ago, but I don’t have it with me.’”

The project also involved boundary encroachment for existing businesses and properties, requiring coordination between Granite and Caltrans. Caltrans



used PlanGrid to share plans for the outside properties they needed to build on, so the field foremen and inspectors could compare drawings and identify conflicts.

Better Field Collaboration Means Less Rework

Plan revisions often get lost during complex projects. On Highway 99, a project with several thousand drawings and separate teams for day and night shifts, coordination and keeping up with changes was critical.

PlanGrid helped prevent significant errors that could have derailed the entire project by successfully and instantly sharing plan revisions with the field. The application notified the project team when and where their plans had changed and allowed users to overlay and compare different sheet versions easily.

“PlanGrid helped me catch what would have been a \$30,000 to \$40,000 mistake,” says Lucchesi. “I saw an area of the roadway that wasn’t graded properly, and when the foreman, who wasn’t using PlanGrid, pulled out his paper plans, I quickly opened PlanGrid to show him that there was a revision. They were able to fix it before it became an issue.”

While Granite’s project managers and project engineers used PlanGrid to keep drawings and construction documents organized, the field quickly adopted it for its mobility and ease of use to access the latest versions without unnecessary back and forth.

“It’s simple for people in the field to use, and plans download to your device, so you’re not reliant on

internet connectivity,” says Lucchesi. “Whether you’re working in a metropolitan area (like we are) or out in the middle of nowhere, it works.”

PlanGrid Improves Field Productivity

Granite runs a PlanGrid training at least once per quarter on the Highway 99 project, either at the end of daily safety/production meetings, or by dedicating entire meetings to foreman-specific training. PlanGrid’s consulting team has also come to the site as needed to offer hands-on training and demos. The training and support more than pays for itself in field productivity gains.

As the lead project engineer, Lucchesi saves hours a week by having the latest plans on his mobile device. “We have more than 2,100 sheets for this project, and I’m easily saving at least a few hours a week by not having to go back and forth from the office. I’m able to find the sheet I need in seconds,” he says.

PlanGrid - Easy To Implement, Easy To Use, The Way of The Future

Granite has seen considerable gains in-field productivity by using PlanGrid on dozens of other projects, including the Folsom Dam Spillway in Folsom, CA, where the company saved as much as \$500,000 in rework costs and an average of five hours per person per week. Granite continues to explore rolling out PlanGrid across projects in other regions across the country.

