

CS319284

# Stop Wasting Paper: Digitize Construction Field Support and Safety with PlanGrid

Mike Mehrwin  
CRB

Rob Decker  
CRB

## Learning Objectives

- Learn how to set up a fully digitized project template that incorporates field support as well as safety documentation
- Learn how to set a standard for Record Drawing markups
- Learn about digital workflows for field support and safety using field reports and task tracking
- Glean the data for additional analysis and historical data

## Description

Businesses waste more than trees when they rely on paper documentation to do work. They waste money. They waste time. They invite liability. Every day, businesses in our industry continue to place valuable information that can protect them on paper in the trailer, where it can get lost or damaged, or be inaccessible when needed. If you've ever struggled to put together a complete record drawing set or fished through boxes of loose papers for a safety document, you know how frustrating it can be to do your job with antiquated processes. In this class, we'll show you how to get set up with a program that will help you digitize your field support and safety efforts and bring these processes into the 21st century, using advanced workflows in PlanGrid that go beyond what you can learn from the PlanGrid trainers themselves.

## Who are we?

CRB provides Design, Construction and Consulting Solutions for life sciences and advanced technologies.

## Why is this Important?

For many of our Projects, our clients are developing and producing lifesaving products so every bit of time we can save can have a potential impact to save additional lives. This is one way we can find that time, by leveraging our technical excellence to improve project delivery.

## How did we get to this point?

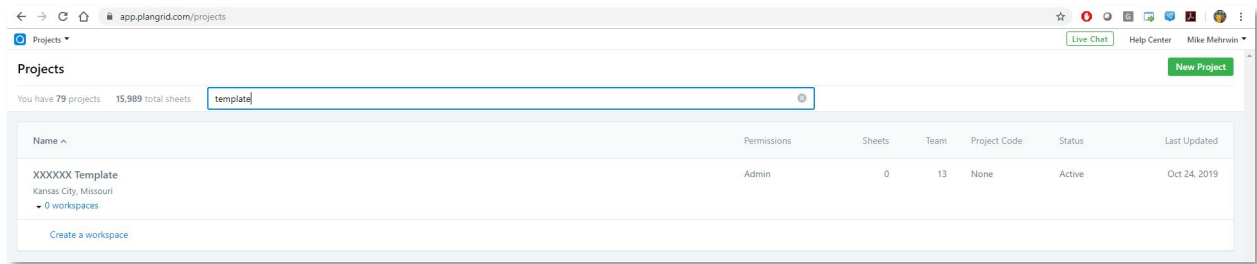
- Recognize Need for Digital Workflow
- PlanGrid v BIM360 Docs/Field?
- Leadership Support and Buy In
- Rollout and Adoption

## Who gets to Participate?

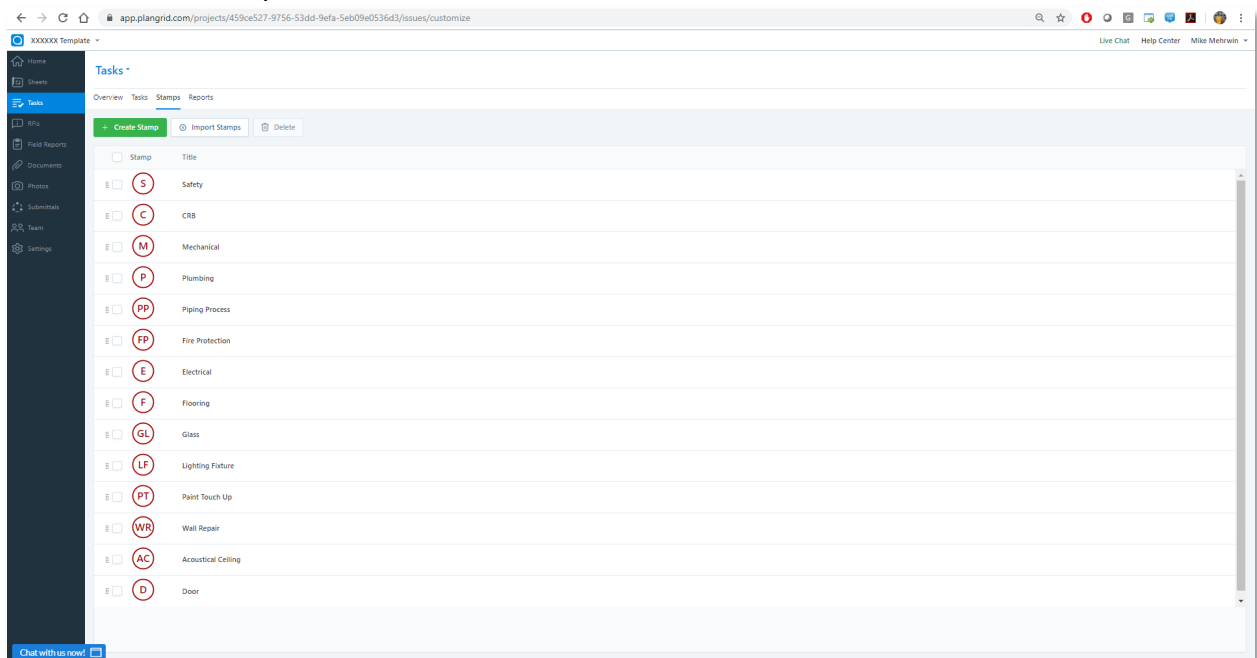
- CRB provides licenses for internal use.
- CRB Invites owners and trade partners to join the project platform with their own licenses, communicated at bid

## Consistency starts with a Template

- Start with a blank project



- Customize Stamps



- Create Field Report Folder Structure and upload Templates

The screenshot shows the 'Field Reports' section of the app.plangrid.com interface. On the left sidebar, 'Field Reports' is selected. The main area shows a folder structure under 'Templates (118)' with sub-folders: 'Daily Reports', 'General', 'Quality', 'Safety', and 'Archived Templates'. A red arrow points to the 'Templates (118)' folder, and a red text overlay states '118 Field Reports uploaded to the Template'.

- Field Report Setup Example

The screenshot shows the 'Field Reports' section of the app.plangrid.com interface. The left sidebar shows 'Field Reports' selected. The main area displays a list of templates under 'Templates (118)'. The 'QC Field Checklist' folder is expanded, showing a list of templates. The 'QC Field Checklist\_DIV 01\_General Requirements' template is selected. An 'Edit Report Template' dialog box is open on the right, showing the template name, location, PDF form, and report components.

Name	My Permissions	Created By
<input checked="" type="checkbox"/> QC Field Checklist_DIV 01_General Requirements	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 03_Concrete	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 04_Masonry	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 05_Metals	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 06_Woods and Plastics	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 07_Moisture and Thermal Control	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 08_Doors Windows and Glass	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 09_Finishes	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 10_Specialties	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 11_Equipment	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 21_Fire Protection	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 22_Compressors and Compressed Air Systems	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 23_Oxygen Systems	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 24_Plumbing Waste Piping	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 25_Plumbing Water Piping	Manage, Submit, Review	Mike Mehrwin
<input type="checkbox"/> QC Field Checklist_DIV 26_Vacuum Systems	Manage, Submit, Review	Mike Mehrwin

**Edit Report Template**

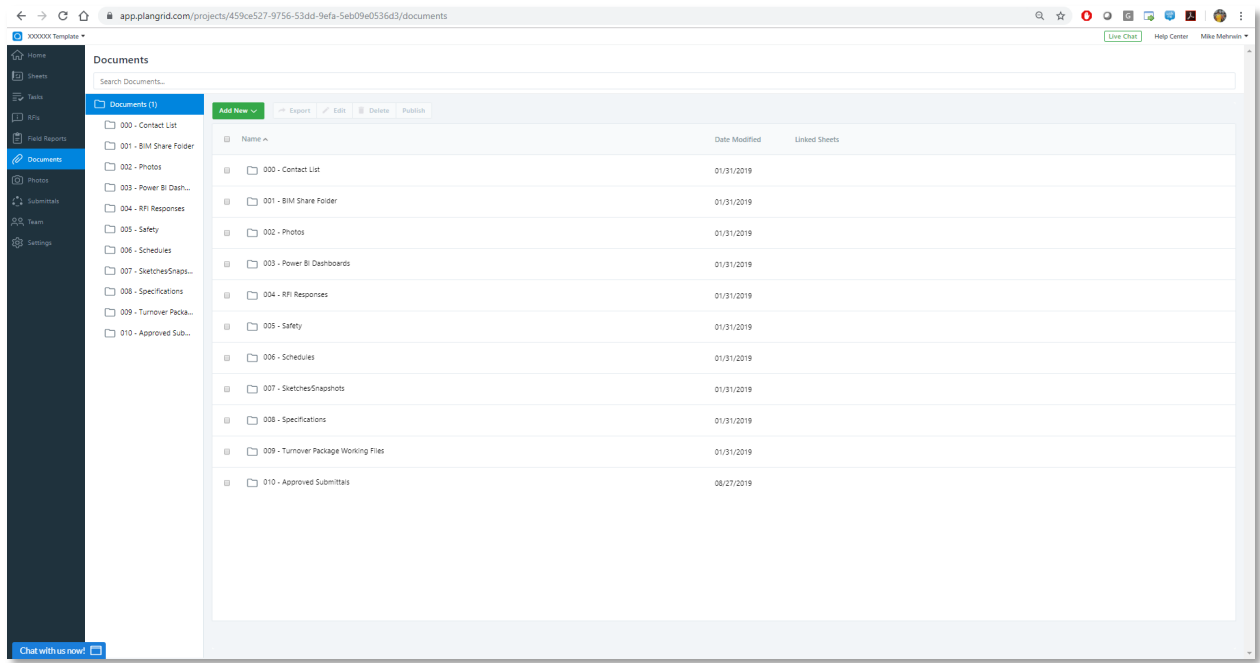
Template Name: QC Field Checklist\_DIV 01\_General Requirements

Location: Quality/QC Field Checklists

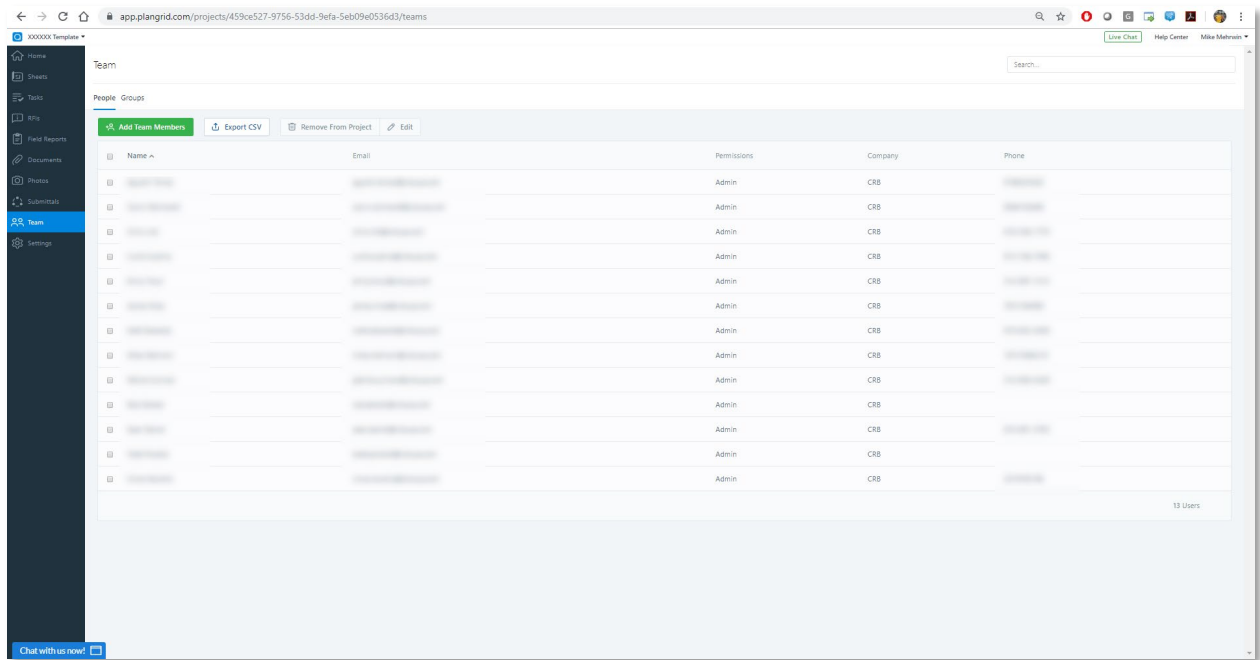
PDF Form: QC Field Checklist\_DIV 01\_General Requirements.pdf

Report Components: Weather, Notes, Assignees, Reviewers

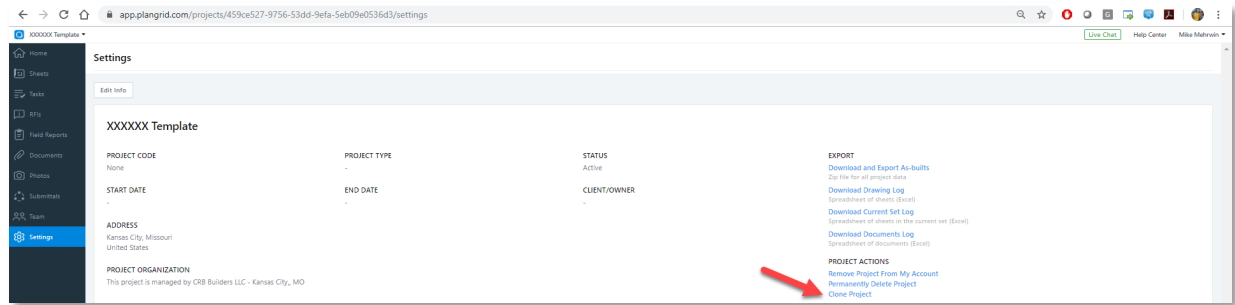
- Create Documents Folder Structure



- Assign Admins that need Project Access

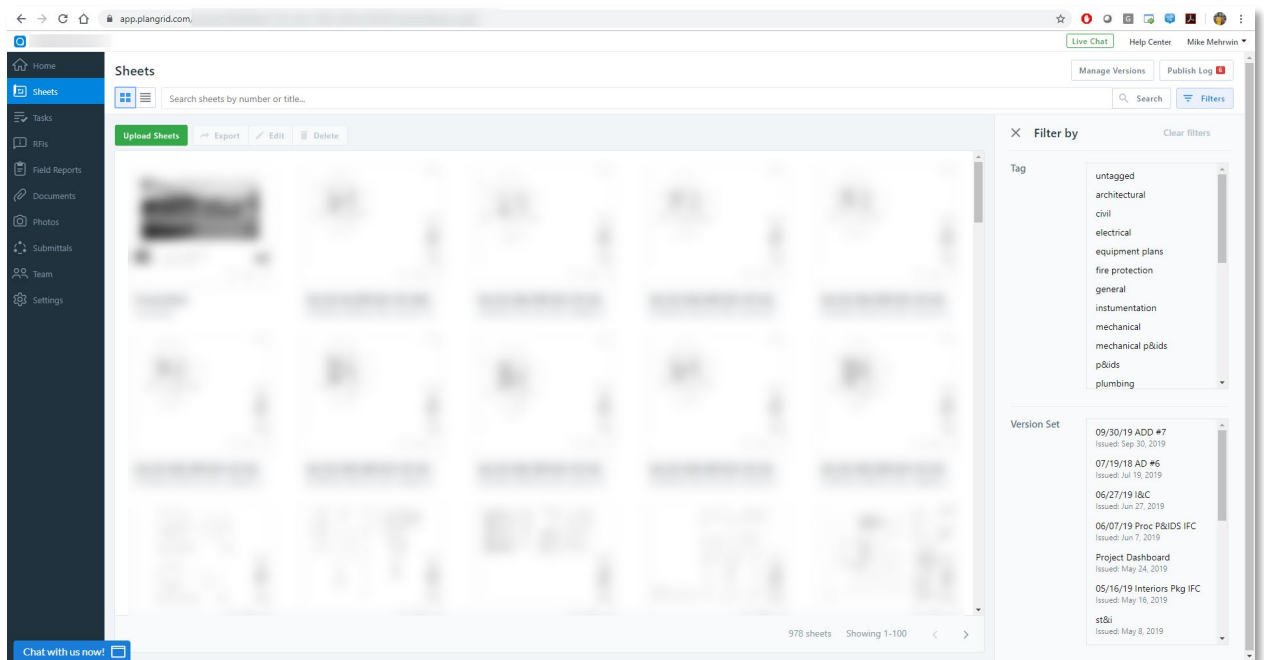


- Clone the Template to Make New Organization Projects

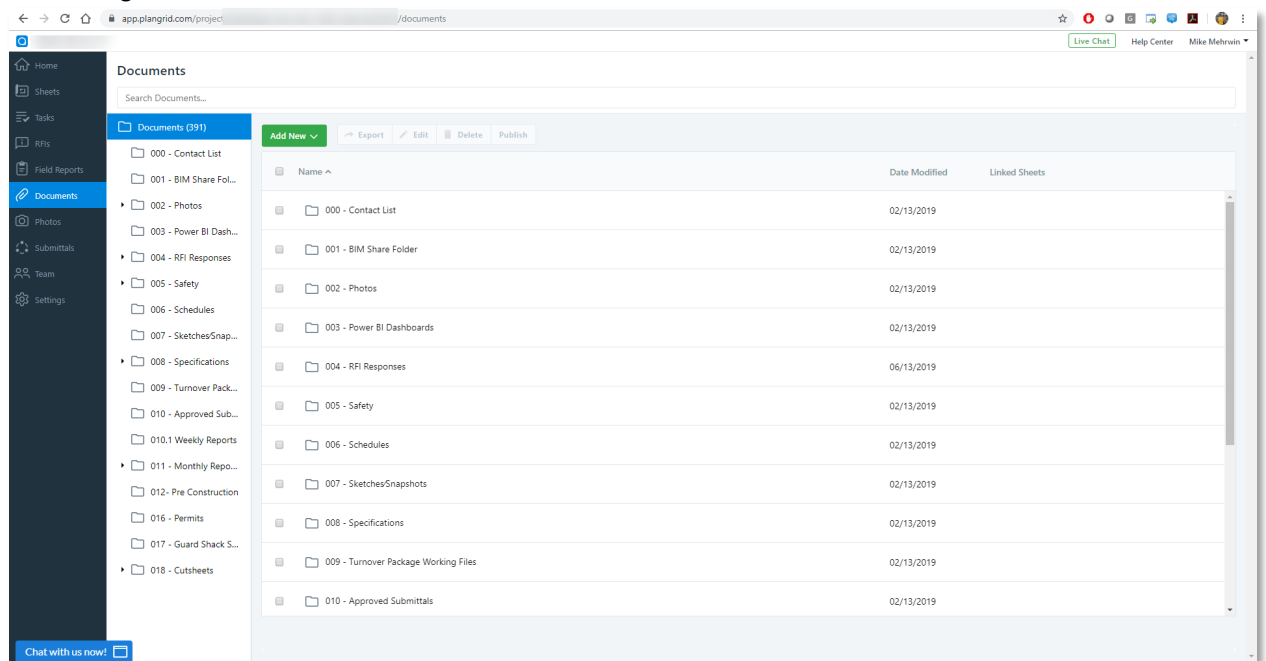


## Record Drawing Strategy

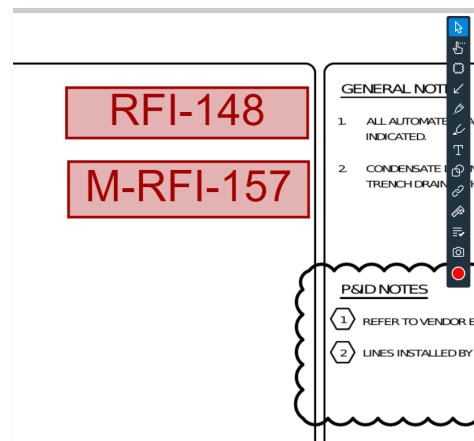
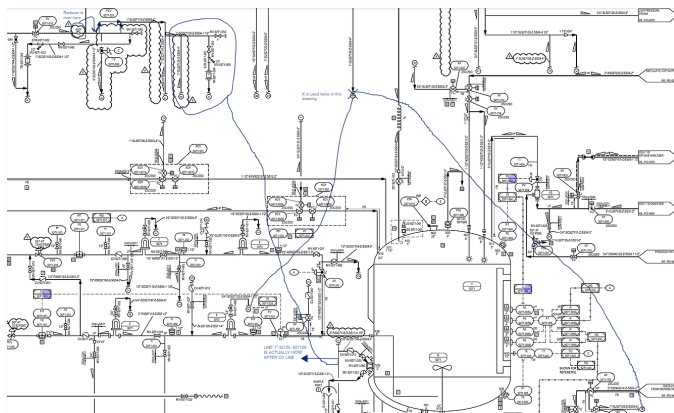
- Using the Project File for Turnover Package Deliverable
- Minimum Standard of Use
- Sheets- Electronic Stick Set



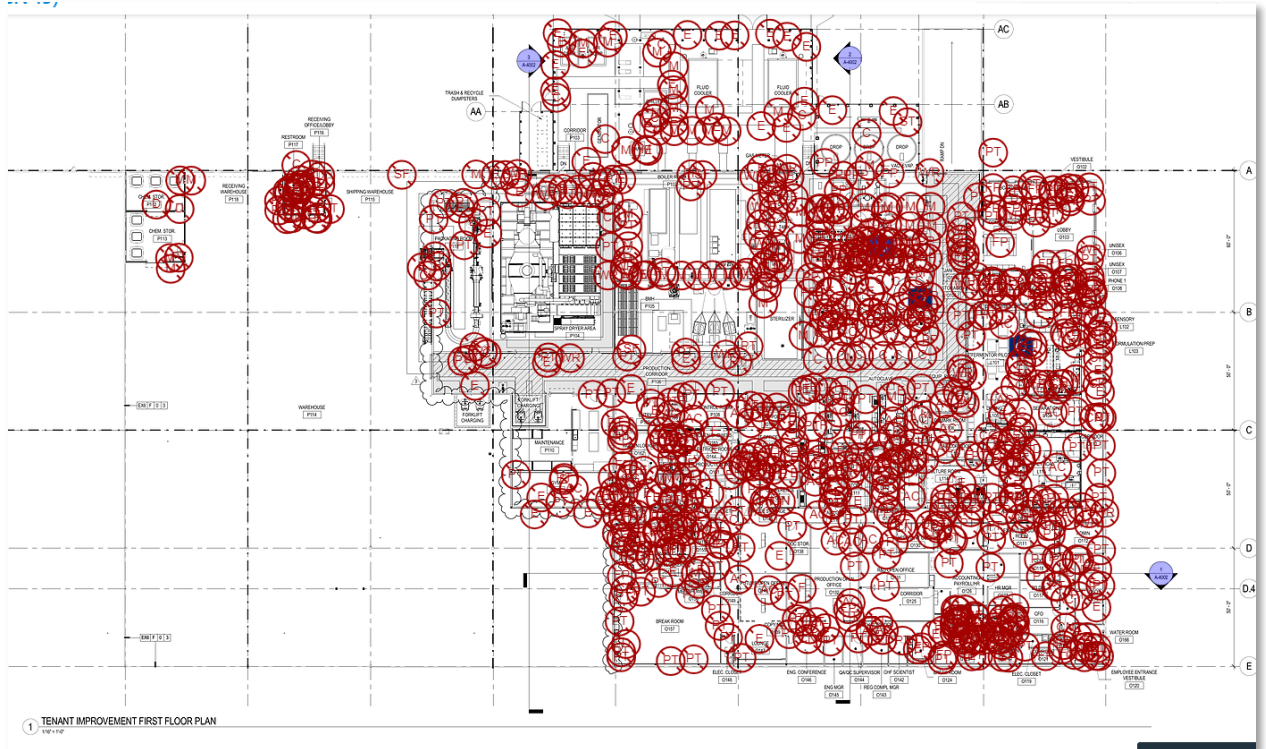
- Accessing Documents



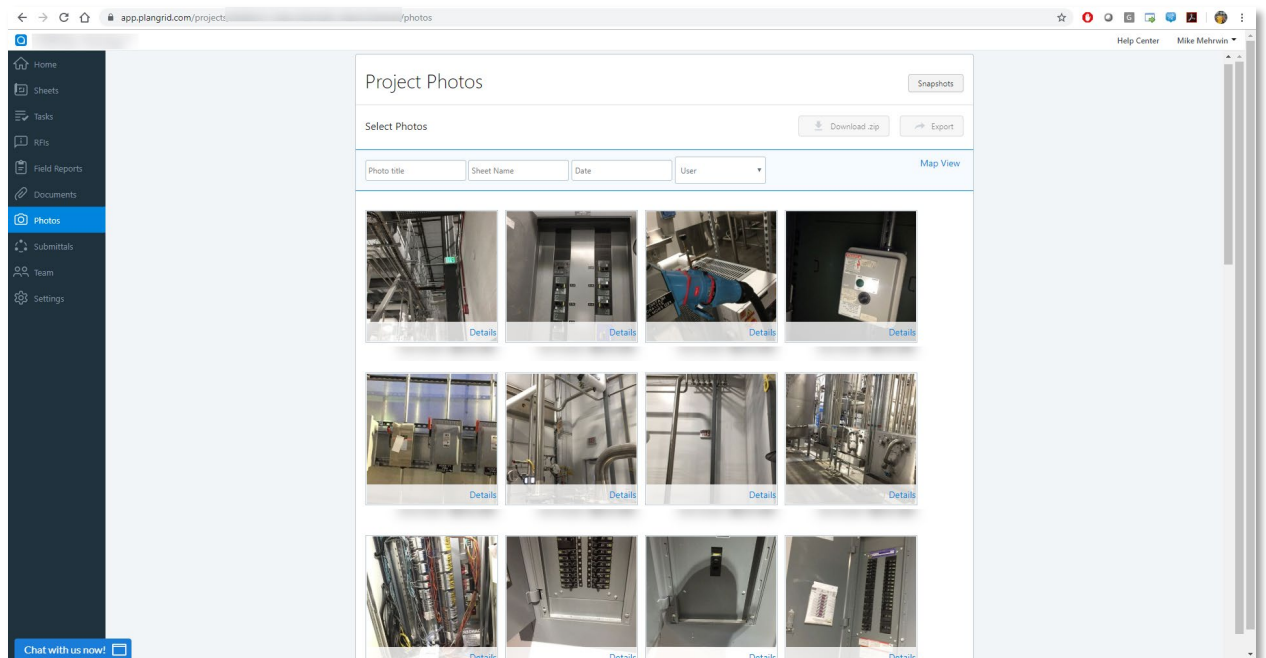
- Markups- Field Redlines for Record Set (Include Links for RFI Responses and Sketches)



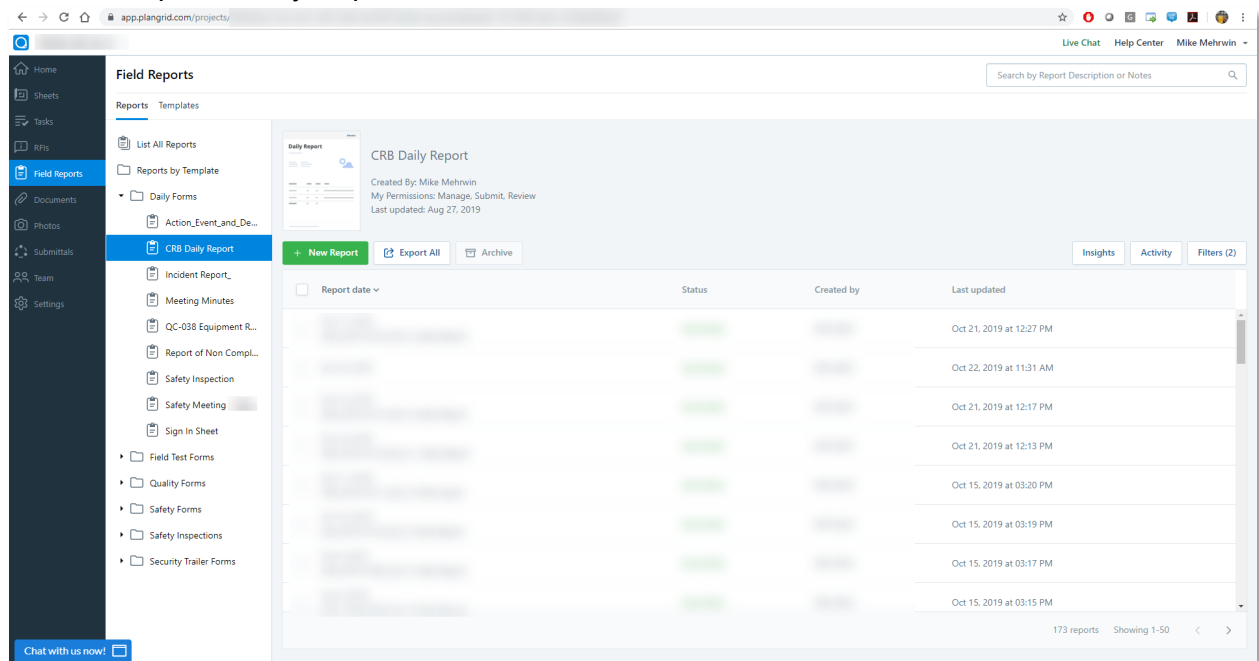
- Tasks, Including Site Observations, System Walkdowns and Punch Lists



- Photos



- **Field Reports- Daily Reports**



## **Advanced Workflows for a Challenging Project**

### **Why?**

- Clients were very paper dependent
- Press hard- Three Copies
- Open to discussion of a better way

### **Challenges**

- Everything we had was on paper
- We didn't know how to digitize
- Workflows conflicted with current standards
- Field Reports in PlanGrid have limits

### **Getting the most out the tool**

- Training
- Overcome Status Quo Resistance
- More Training
- Rapid Support Structure
- Even More Training

### **Moving Beyond the Minimums**

- Full Field Report Integration
- Paperless Execution
- Tracking Man Hours
- Safety Integration
- Quality Plan Integration



## Data Collection and Analysis

### Where are we putting it?

- Leaving what we can in PlanGrid
- Some duplication into current Project Management Software
- Extracting to Delphi Data Warehouse (in progress)

### What are we doing with it?

- Tracking Hours for Safety Reporting within Power BI
- Gathering Data for Trending of Safety Observations, Quality
- Eliminating Duplication of Efforts in Existing Reporting

## Is it worth it?

### Benefits

- Template fosters Standard Project Execution (Saves Time and Money)
- Mobile access to Current Plans and advanced tools (Saves Time and Paper)
- Simple User Interface fostered adoption (Saves Time)
- Confidence in Current Plans (Latest Version on top Saves Time, Money and Paper)
- Happy Users (Saves Frustration)
- Increased Collaboration (Saves Time and Paper)

### Passive Data collection for the office

Within the last year (October 2018-October 2019)

- Over 21,000 sheets in use on 70+ projects
- Over 7,100 field reports completed
- Nearly 13,000 photos captured
- Over 4,200 Tasks (Issues) created

### What are we saving?

- Paper
- Time
- Money
- Sanity

...and most importantly

Implementing these workflows at CRB is Saving Lives.

## **Speaker(s)**

Mike Mehrwin serves CRB as the regional VDC manager for construction. He has 20 years of design and construction experience focused on communication and teaching. In his tenure at CRB, Mehrwin has expanded VDC processes on a variety of building projects in the biopharmaceutical and food + beverage industries. As a designer, he has been responsible for coordinating design models for over 10 years and understands the efficiencies that can be gained from constructing a project virtually. Through visualization, conflicts can be resolved, progress can be tracked and all of the stakeholders can easily see how each part of the project comes together to become greater than the sum of its parts. Mehrwin is currently leading the charge to bring the office to the field, building a strong program based on PlanGrid and BIM 360 Glue workflows. Mehrwin holds a Bachelor of Arts in management and human relations and a Master of Business Administration from MidAmerica Nazarene University.

Rob Decker serves CRB as a BIM lead for Midwestern construction projects. He has 10 years of design and construction experience focused on building takeovers, expansions and large-scale remodels. While at CRB, Decker has expanded virtual design and construction processes on a variety of projects in the advanced technology industries. As a BIM lead, he is responsible for coordinating design models, including coordination of multidisciplinary scope of work, development and maintenance of BIM standards and coordination of BIM models through the construction process. Fieldwork involves preliminary project scope discovery, measurements of complete sites and coordination with management of scope of work on site as well as site observation at project possession. Decker is currently on a team that is bringing the office to the field, building a strong program based on PlanGrid and BIM 360 Glue workflows. Decker holds a diploma in AutoCAD computerized drafting and design from Vatterott College.