![Engineering News-Record](ENR logo)

Risk Management

Kitchell Joins Companies Reporting Benefits From Predictive Safety Analytics

Predictive analytics promises to help contractors understand where risk to workers, like this one at an apartment project in Union, N.J., may be concentrated. *Photo: Richard Korman for ENR*

May 27, 2021

Jonathan Barnes

In less than a year of use, a new predictive safety method employed by Kitchell Corp. has helped the the big Phoenix-based contractor reduce injuries 25%, the company reports. Of special value is how the system allowed Kitchell to focus on the small number of its projects where the risk of accidents was concentrated. But that only happened after many adjustments in collecting the data.

The report was part of March 26 webinar held in conjunction with Smartvid.io., whose platform aggregates and classifies safety information while photographing (and interpreting) site conditions.

Depending on the work being done on a jobsite, said Carl McFarland, Kitchell's head of technology and venture development, the company's top 10 highest-risk projects included some of the smaller projects, due to the nature of the work being done.

"For us, it's about the dynamics as a whole," McFarland said. "One thing we noticed right away—we are seeing smaller projects in the top 10 high-risk projects."

> **With 40 to 55 active projects being monitored at any one time, Kitchell found that 79% of all safety incidents occurred in one of the company's riskiest projects.**

The risk on any jobsite could vary from week to week. But with 40 to 55 active projects being monitored at any one time, Kitchell found that 79% of all safety incidents occurred in one of the 10 riskiest projects.

Kitchell's report represents another step forward for predictive analytics as a safety tool. Last year, the Predictive Analytics Strategic Council, a coalition of more than a dozen major contractors, insurers and technology firms, released a white paper outlining how predictive analytics can be incorporated into a construction firm's workflows in ways that reduce safety incidents.

The data gathered provides leading indicators of potential accidents. The white paper cautions that companies should not view predictive analytics as certainties, but rather as probabilistic models of potential hazards.

Among the members of the council are Barton Mallow, Skanska and Webcor Builders.

Incident and accident staff report quality is critical to successful predictive analytics. McFarland noted that 50% of hazard observations were made by just 5% of the staff.

Last year, McFarland described some of the problems overcome in the program's early stages. For example, he said in a report published by Dodge Data & Analytics, Kitchell had to make sure that the digital tool provided a way for workers to make accurate and timely reports. There had to be fields for hazard identification, location and person responsible for correcting.

A critical part of the program, McFarland said in the recent webinar, was to have data showing who was working on a particular project, their past performance and what work they perform. "You have to do inspections, but it's the quality of inspections that matters most."

The new process helped the contractor rethink key metrics.

"When we started this [tech] journey, we were monitoring inspections, but we weren't seeing the results," McFarland said. "The analysis validated that it's not about quantity of inspections; Smartvid.io is helping us focus in the highest-risk projects, those facilities and workers as they change weekly."

What matters most might be, for some projects, the fact that a higher-risk task such as excavation is being done in a particular week.

"We are working with those field teams to ensure that the sheet [provided to them on safety] each week will allow them to focus on trends or other areas needing help," McFarland said.

Recent Articles By Jonathan Barnes

Emcor Group Reports Solid But Lower Profits in 2020

Joe Biden Declared Winner, But Key State's Building Trades Leaders Note Failure To Form a Solid Blue Bloc

Pittsburgh correspondent Jonathan Barnes, who has reported for Fortune and the Wall Street Journal, has published essays in Sampsonia Way, Dos Passos Review and the Pittsburgh Post-Gazette.

The latest news and information
#1 Source for Construction News, Data, Rankings, Analysis, and Commentary

JOIN ENR UNLIMITED