

The Sandbagging Trap

By Matthew Scheps, PE, PMP, *Interface Consulting*

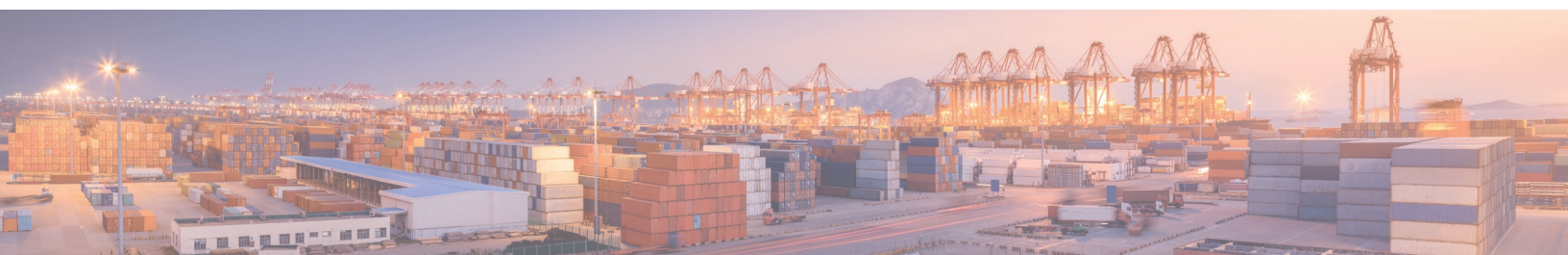
2022 has included rising material and labor prices which has affected many construction projects throughout the year. Looking ahead, these increased input prices will likely continue to place an increased burden on project teams. An increased focus in 2023 on accurate and timely cost/quantity reporting may help teams successfully execute projects. This article explores one of the associated pitfalls I have witnessed in the field.

When I began my career in construction working for a large general contractor, knowing project cost was a condition of employment, and one could not truly know cost without accurate and timely reporting. The project manager gathered the project staff to discuss why it was not acceptable to sandbag. Sandbagging is the practice of holding unreported quantities of work performed in one's "back pocket" to report during future, less productive time periods, or hiding labor and equipment cost overruns on a certain task by coding excess costs to an unrelated cost code. While sandbagging may appear enticing to a project team so its periodically reported progress looks more consistent, four project execution reasons that necessitate accurate and timely reporting are:

- **To facilitate cost to complete (profit) projections:** Forecasting a project's cost at completion requires accurate knowledge of actual cost to date and percent complete. More accurate forecasting requires this level of detail on a cost code basis. Accurate and timely reporting results in a straightforward calculation, using the cost incurred per percent complete to forecast the cost at 100% complete. However, if costs or quantities are sandbagged, this calculation will be inaccurate. For example, if installed quantities are not reported, projected cost to complete

would result in an inflated cost at completion. Similarly, if incurred costs are not reported timely, or are reported to a different cost code, the projected cost to complete will yield an underestimate of the cost at completion. Project managers and company executives rely upon accurate and timely cost and quantity reporting to forecast accurate expenditures and earnings projections.

- **To forecast remaining schedule:** Similar to cost to complete projections, forecasting remaining work durations requires accurate percent complete calculations. This requires the knowledge of installed quantities and total quantities in order to calculate activity percent complete and remaining activity durations. If quantities are sandbagged, the calculation will result in an overestimate of the true remaining duration. This overestimate of the remaining duration might then further impact profit projections by overestimating the remaining time-based costs.
- **To identify the greatest impact for additional resources:** Field supervisors use project reporting to identify appropriate resource allocation to achieve the greatest impact on profitability, schedule, or both. However, if project quantities or cost components are not accurately reported, that opportunity is lost. Sandbagging prohibits field supervision from optimally allocating labor and equipment resources.
- **For accurate historical costs:** Many contractors track each project's final individual work item productivity rates into a database, which then provides their estimating teams with reliable data to bid upcoming projects. The estimating team looks for performance history from similar work performed on completed



projects to estimate the productivity per item on a bid for an upcoming project. Field teams sometimes complain that certain activities were underestimated. The underestimating may have resulted from sandbagging.

For example, perhaps on a previous project the field team inadvisably coded dewatering cost overruns to the excavation code because it had been outperforming on the excavation work and thus had budget to spare. The estimate on the next project will likely again be bid using the insufficient dewatering rates, but the project team will be working in a literal and metaphorical hole if excavation is awarded to another contractor.

In addition to the project execution pitfalls, sandbagging might prohibit a contractor from recovering all of its damages in the event of a time and material change order, request for equitable adjustment, or claim. When issues develop beyond the control of the contractor and a productivity claim arises, a measured mile analysis is often implemented. A measured mile measures productivity during the unimpacted, or least impacted period and compares it to the impacted period. This data is used to calculate the economic damages resulting from productivity impacts.

The measured mile must reflect an accurate history of the project, as shown through contemporaneous project documents. Sandbagging results in inaccurate and untimely reporting, which will affect the reliability of the analysis. For example, many projects experienced productivity impacts because of COVID-19. If a project team sandbagged quantities prior to COVID and then claimed those additional quantities after COVID, the measured mile may not accurately reflect the productivity impacts. Project teams can set themselves up for success in the future by not

sandbagging, despite its tempting nature.

Interface Consulting's diverse professional backgrounds include considerable experience analyzing project risks, reporting and measuring progress, and quantifying productivity impacts. Our team remains available to assist owners and contractors with evaluating their unique projects.



Matthew Scheps PE, PMP, is a senior consultant with Interface Consulting International, Inc. As a former project engineer and project manager with over 10 years of industry experience, Mr. Scheps provides construction expert services and claims analysis, specializing in project management, cost analysis, change order management, planning, and procurement. To learn more, call 713-626-2525 or email Mr. Scheps at mscheps@interface-consulting.com.

