

and misperceptions that can lead to an estimate that is either too ambitious or doesn't align with client requirements, even if using construction estimating software.

Gaining this true understanding hinges on opening the lines of communication between the client and contractor. Dialogue

Otherwise there's the real risk of operating on assumptions

and tasks necessary to accomplish the objectives of the project. It's these details that construction estimating software relies on to produce an estimate that is realistic, accurate, and meets client requirements.



After becoming familiar with the vision and requirements of a project, it's easier to reach back to the most comparable past projects from which to import data that will further inform the estimate and establish a baseline. Naturally, there will be differences between those previous projects and the current one. Those earlier discussions with the client will help determine the project-specific differences in scope and constraints to adjust for in the estimate, including design, materials, labor rates, etc.

Those aren't the only kinds of data that will have value as the new estimate comes together. While reviewing historical project data, conduct a risk analysis not of just the type and degree of risks but their measured impact as evidenced through earned value management (EVM) metrics. The trends and trajectories of these performance indicators give clues to the ways in which real-world risks affected costs and schedules, and whether contingency plans played a mitigating role. If there's a possibility they could surface in this project, use them as what-if scenarios against which to run forecasts of their impact on cost (CPI) and schedule performance indicators (SPI). And from there, develop contingency plans that can be put into place when CPI and SPI values react to the onset of those risks.

Turning to real-world historical data and retrospective risk evaluation has the added benefit of countering any unintended or ambitious tendency toward optimism bias, a common factor in project outcomes widely missing the mark against original estimates.



The fact that there are so many ways to approach the process, and so many different types of estimators and methods of estimation, may make it seem like there's no consistent way to do things. But, there are some basic steps construction estimators go through that can be standardized to make the process more manageable, efficient, and effective.

Beyond the process itself, there's also the opportunity to standardize the actual estimates. And why not when there's commonality in the kinds of information estimators gather? It can certainly make estimators' jobs that much easier. Construction estimating software helps support both with essential built-in formulas and fields that consistently capture the details estimators need to ensure completeness. And one of the ways this software streamlines estimates is in its ability to manage the endless cost assemblies for frequently built components, a huge advantage when working on complex capital projects. All of this combined helps markedly reduce the number of changes stemming from miscalculations, data entry errors, or overlooked line items that can happen during the estimation phase and can also limit the number of change orders during construction.

There's certainly value in implementing something that's repeatable. It introduces a degree of predictability and confidence in an otherwise involved and layered process that has historically been susceptible to unintended missteps.

While there are different types of tools available for developing estimates, the scale and complexity of today's capital projects are compelling construction companies to turn to robust construction estimating software. 

