Advancing Building Estimation 2017

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Mini-Interview, Gilbane Building Company

What does Gilbane Building Company see as the main priority for improving preconstruction and estimating in 2017? What would you like to achieve this year?

Innovation is happening on each of our projects. This year, we are committed to increasing the velocity of our knowledge capture of those innovations through a leadership program that consists of employees who have a shared passion for making positive change. We're developing playbooks to share from one to many. We're holding hackathons. It's all part of a Lean process improvement approach to achieve our larger Vision 2020. We're looking forward to Advancing Building Estimation as an opportunity to share challenges and successes across the industry and further increase the velocity at which we can improve.

One of the greatest inefficiencies in model-based estimating is creating a shared agreement between owner, architect and contractor on what information should be included in the model at each stage of the process. E.g. ensuring that the quantity data estimators need is in the model. What is Gilbane Building Company doing to resolve this issue?

- We seek to kick off the project with an aligned understanding of the goals, how we'll measure success and an execution plan which details, for each project milestone, exactly what will be drawn and to what level of detail, and who takes responsibility. This is a big matrix, which becomes the Lean visual management system, an open window to performance.
- Then we collaborate as a team to make it happen. The idea behind the Big Room, a physical or virtual meeting space, is to eliminate the silos, assumptions and gaps and build a high performing team that works concurrently to continuously design, trend the estimate, coordinate for fabrication, look ahead and resolve issues in real time.

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There are a range of technologies that are influencing preconstruction such as take-off software, historical data solutions and collaboration tools. What do you see as the greatest technology-influenced disruption in preconstruction today?

The level of accuracy of our laser scans and models has cleared the way for builders to fabricate building elements offsite and bring more prefabricated assemblies to the site. These elements include large pipe and duct assemblies with several hundred pieces arriving as one unit, bathroom pods and other volumetric modular elements, unitized curtain wall assemblies and panelized floor and wall systems. We have projects on which we've reduced onsite labor hours by a third, moving that labor to a safer work location in which quality control can be better assured. Doing the work concurrently in multiple places and bringing together the kit of parts improves the speed to market for the client's facility.

As staff retire, the construction industry is facing a significant skill shortage. This is especially true of estimating departments, where experience and instinct is still critical. What innovation is Gilbane Building Company implementing to recruit, train and retain staff?

The estimating and preconstruction functions are becoming more attractive to developing leaders. In fact, I'm proud to have two of them presenting at Advancing Building Estimation. I'd like to think we offer our employees a welcoming culture and core values, challenging assignments and opportunity for growth, and access to rapidly advancing technology such as laser scanning, building information modeling, and take-off software, and a target value design app called the CostAdvisorSM. And they offer us more! The up-and-coming generation offer us integrated skill sets and curiosity: they ask why, they see what's possible and they go make the future happen.

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What advice would you give to an owner looking to start the team selection process on a new project? What should they consider in terms of alternative project delivery, contracts and culture that they can implement to ensure their project becomes a case study for best practice preconstruction?

Start early! There's enough research and documentation at this point -- whether it be University of Minnesota's research on Integrated Project Delivery, the Associated General Contractors' Collaboration Chronicles series, Dodge Data & Analytics' various industry reports, or Penn State's research on team collaboration. The facts are on the table: with effective collaboration by a team committed to the goals of the project, project outcomes are significantly better.

- First, when the owner assembles the project team early – for example, as the project is being conceptualized – there a dramatic improvement in budget reliability, schedule reliability, and user satisfaction. This means utilizing the Construction Management at Risk contract, or a multi-party IPD contract, which is called an Integrated Form of Agreement.
- Second, utilize qualifications-based selection processes, which may incorporate financial terms, but also focus on talent, discipline and team chemistry. Team matters.
- Third, incentives: In IPD projects, 100% of the participants' profit is at risk, stimulating collaborative team behavior for the good of the project. On CMAR projects, sometimes called IPD-ish, there are often incentives or "share of savings" which, again, drive team behavior for the good of the project.
- Finally, give attention to the project management system: Do you have aligned definitions of success and a visual management system? How will decisions get made? Are you committed to using Lean techniques such as Target Value Design, pull planning, A3 Thinking, as well as planning for prefabrication?

Some owners are well on their way on this journey, for they can see that addressing as many of the unknowns upstream, early in design phase, mitigates risk and variability and positions them for repeatable successes.