

The Process of BIM — An Owner's Overview of Core BIM Processes

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During the webcast we answered as many questions as possible. However, due to lack of time we could not get to all of them. Here are the responses to the remaining questions. Please be aware that some questions with a similar theme may be grouped together into one response.

Can you share any thoughts or insights into encouraging participation in trade or design subs that are not as technologically adept, in order to get the most value out of your BIM implementation?

The best approach that we have found is to start the discussion around what their current process is and have them identify what they like about it (pluses) and what they feel they could improve upon (delta). This way, you don't get into a technology discussion, but one of process. Once you get their input, you can discuss how your approach and use of technology can help overcome their challenges.

We've been attempting to market this approach for nine years. How do you market this to owners and convince them this is their most successful method for construction?

Obviously you need to build up a relationship with an owner in order to have meaningful discussions on the way to procure projects. I find the best approach is to have discussions with the owner and design partners at the same time - essentially you get the team to define the process that works best for them.

What levels of cost savings have you realized in incorporating this process versus a conventional siloed method?

We have tracked the performance of projects in terms of mitigating preventable change and enhancing project productivity. Please contact Jim Mynott at jmynott@mccarthy.com (949) 851-8383 for further discussion.

Do you think that the project and available resources would be better served by a complete design-assist collaborative effort between the designers and the trade specialist prior to the bid/quantification process?

We find that, the more you can create a truly collaborative team that has full knowledge of how to design and build the project the better the end result. It is not about who does what, but that the project team is having the right discussions and making the right decisions early.

Do you see the delivery methods adapting to this process?

Yes, we are already seeing a shift in the market. What is interesting is that the shift has been back towards solid processes and away from relying on technology as the fix.

In the future, how do you see the Elevator/ Escalator industry being involved in BIM?

I see elevators/escalator manufacturers and installers being an integral part of the process — fully integrated in the coordination process — ideally as early as possible.

How are you seeing BIM being practically applied in the field by commissioning and operations?

We have been able to gain alignment on the development and execution of construction checklists so that it is seamless to the project participants — BIM has been utilized through tools such as BIM 360 Field and Glue to

collect and manage the data/issues as well as turnover of key data for owner operations.

Do you as a contractor see this as a consideration when selecting small subs for your jobs?

We look at alignment on process and ability to work with our team. Ability to create and coordinate their scope of work via models is one of the items that is evaluated, but not the only one.

Have you seen clients that are willing to invest in BIM for project execution for existing building projects?

It has not been our experience that Owners are willing to spend the money to convert existing facilities into a FM platform. Typically, the cost to scan, convert and name the objects with true FM data does not provide the value they can get from the Federated model with smart objects during design and construction

Will this idea of modularization lead to a central production facility or can it be established in the field?

The modularization approach presented was actually more on the design side — creating high definition “modules” that drive subsequent building layout and structure. Whether or not this leads to off-site construction is a consideration; but we have found that it streamlines construction even if in place due to the repetitive nature of the modules.

While employing BIM, do you still use a CDA (Construction Detailing Activity) process with the trades?

The CDA process that was traditionally used (light table overlays) has now been replaced by performing clash detection and resolution via the Federated BIM. Execution plan requirements utilize the tools to allow the trade contractors to perform the clash and clash resolution with dedicated hierarchies in the BIM. By processing these search sets, the CDA process occurs at a much earlier phase

in design thereby “leaning out” the CDA process and allowing for design and coordination one time.

I have seen resistance from architects saying that BIM is too expensive to employ. How do you overcome this?

We start with a discussion on their core processes and what their deliverables are — not just initially, but also all through RFI’s and Change Orders and CA. By doing this, we can identify the value proposition. While converting from AutoCAD to Revit is a change for design firms, the productivity savings available for the coming years is much greater than the investment.

Will this presentation be available for viewing by additional staff?

Yes, the presentation deck as well as a recording of the presentation are available at www.mccarthy.com/webcasts.

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