

Hi everyone. This is Wayne Rivers at FBI, where *We Build Better Contractors*. One way we do that is by Boot Camp. We have Contractor Business Boot Camp. Send your rising leaders to Boot Camp and you'll be glad you did. So, contact Charlotte for more information.

This week, I want to do a book review, *How Big Things Get Done*. Bob Rainey at Travelers recommended this book and actually gave it to us for free, thanks, Bob. Holy moly, this is so good. I read it. I started reading it at the meeting and finished it on the plane on the way home. It is so good. Every single contractor should buy half a dozen copies of this book and make sure everybody in your organization reads it. It's that good. I mean, it will just blow your mind. So, he talks a great deal about fiasco projects, but also has offsetting examples of great project.

What's a fiasco project? Well, California high speed rail. You've read about that, right? Just a complete utter disaster. The Montreal Olympic game. Most Olympic games are disasters, financial and otherwise, but the Montreal Olympic Games in particular were just a horrifying mess. It's amazing anything got done. The movie *Heaven's Gate*, I don't know if you remember that or not, but it was a big deal 30 years ago, maybe. It cost five times what the original budget was, and it was delivered a year late. It was a flop. It was a floperoo. Yeah. Big expectations and big actors and big producers and directors and all that, but just a big disaster.

What about some great projects? The Hoover Dam, Hoover Dam, out in the wilderness, basically at that point in our country's history, completed two years ahead of schedule. Two years ahead of schedule. The Empire State Building. The Empire State Building went from digging a hole in the ground to finished in 18 months. Can you imagine getting any building done in New York City at this point in 18 months. That's just incredible. The Boeing 747. Now that's a project, right? And we're going to design a new kind of aircraft. Took 28 months from first design to the delivery of the first one. So great projects, large project, mega projects can go very well. They don't often though, the fact is this. Okay, so he writes about... oh, the author is Bent Flyvbjerg, but yeah, *How Big Things Get Done*, great book.

He talks about the iron law of mega projects. The big, like over billion-dollar projects. Some get delivered on time, on budget, about 8.5%. Less than 10%. Can you believe that. Less than 10% of mega projects are delivered on time, on budget. If you factor in one more thing, the benefits expected are realized. Okay, on time, on budget, and the benefit, the anticipated benefits are realized, 0.5%, one half of 1%. That's it. The iron law of mega projects is they fail. So let this be a lesson, a mega project to us might not be a billion dollars. Maybe it's the biggest job we've ever taken. Maybe it's a \$15 million school, or maybe in today's world it's a \$60 million school. But yeah, mega project for us can mean different things from the author of this book.

He says, I love this, projects don't go wrong; they start wrong. That is his conclusion after looking at all these, this analyzing hundreds and hundreds, maybe thousands of projects over time. They don't go wrong, they start wrong. And Dennis has always said this, construction projects lose most of their time in the first third of the job. There's no urgency. And that means that everybody on the back end of the job, you've got trade stacked on trade stacked on trade, and everybody's at wits' end trying to get a job completed on time. Projects don't go wrong. They start wrong. Beautiful sentiment.

He says, the most important thing in a project to consider is why, why are you building this project? Why is this project important to you? If you can get that out of the owner or the developer or the agency, then you'll know. If there's no answer to why, then it might be a project that you don't want to consider. So, one of the success stories that he talks about in the book is the movie Studio Pixar.

Oh, Pixar, Wayne. What has that got to do with construction, my gosh. Well, you don't think producing a movie is a project with a beginning, a middle, an end, a budget. It's of course a project. Pixar has a record that will probably never be excelled in the movie industry. They delivered 21 of 22 projects on time, on budget with outstanding quality. It's 95%. That doesn't happen in the creative world. 95% success rate. That's unbelievable.

So, Pixar has a unique planning process with four steps to it. The first thing is lots of iterations. So, before they release a movie like Toy Story or any of the other giant hits that they've had, it goes through so many different iterations that allows people to experiment all along the way. What if we change this? What if we do that? It sounds exhausting, but it makes sense. It makes sense because over time you sort of find all the problems and the little bugs and the hassles that are in there, and you can refine the story. You can refine the project. So, they take a lot of time on the beginning to think through the project, and they try out lots of different things in terms of being creative.

The second thing is the process ensures that every aspect of the project is examined, scrutinized, eyeballed, and tested. Okay, they want to figure out now what's going to go wrong rather than waiting for later when it costs a lot more to solve what went wrong.

The third thing is this process that they use corrects for what the author's call the illusion of explanatory depth. So, the example that he gave was they give people a line drawing of a bicycle, and they say, now, because we all think a bicycle is a really common thing, we all think we know how bicycles work. Now explain to me how a bicycle works, and nobody can do it. Not even engineers can do it. People think they understand complex things like erecting buildings, paving highways, making movies. They think they understand complex things more than they actually do. So, this process forces people to really explain what they're doing, how they're going to do it, how they're going to execute it. And if they've done all this stuff verbally and informally, then when the formality comes later, they can execute.

And then the fourth point they make in the Pixar process is planning is cheap. Problem surfaced early on are a lot easier to solve than problems that come along in the after 92% of the project is built. You know in construction, that problems are going to arise. If you can predict ahead of time when they're going to arise at what stage of the project, you're likely to have problems and have mitigation procedures in place, or at least thought about, you're going to be much better off than just waiting for problems to rise up and smack you in the face and suddenly your day is not going so well anymore.

The iterative process that Pixar uses surfaces problems sooner rather than later. Makes a lot of sense. 21 out of 22, 95% success rate. Man, I would love to say that FBI delivers 95% projects with a success rate like that, but it really is quite an amazing story. He also offers 11 rules of thumb for better projects. It's a great book. Get your credit card out now. Buy the book and circulate among your people. Read it, take it to heart. It really is one of the best... it's not intended to be a construction book necessarily. It is one of the best construction books I've ever read.

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