Chapter 1

The Room After

The reviewers had gone home.

Eric Telesmanich and I were alone in an office at the National Renewable Energy Laboratory in Golden, Colorado, with a report on the table between us. It was the week of November 12, 2007. A week earlier, four serious professionals from the Design-Build Institute of America had arrived on site to conduct an Independent Project Review of the draft Research Support Facility (RSF) Request for Proposals that Eric and I had been developing together for most of the last several months. They had interviewed twelve members of the NREL and Department of Energy project team. They had sat in on the first *one-on-one* meeting with the three shortlisted design-build teams. They had delivered a formal in-brief on day one and a formal out-brief on day four. Now it was Monday afternoon or Tuesday morning — I no longer remember which — and Eric and I had the report and the draft RFP in hand.

The report made eighteen recommendations, organized into three categories. Category 1 was labeled "Must be addressed to maximize potential for success/ mitigate unacceptable risk." There were three items in Category 1. Category 2 was "Should be re-considered in light of potential risks posed by current approach." Six items. Category 3 was "Suggested changes to strengthen approach." Nine items. Eighteen recommended changes against a document I had spent months writing and Eric had spent months reviewing by my side, page by page, section by section, learning a method while helping to capture it.

I need to tell you who wrote the report, because it matters. The review team was led by Diana Hoag and Craig Unger. Craig was a past president of DBIA. He had been the Procurement Executive for the Federal Bureau of Prisons. He was, and is, one of the most respected figures in the design-build profession in the United States. He was also, in the summer of 2007, a few months before he walked into the NREL offices as lead reviewer, my co-instructor in the multi-day DBIA training course that Eric attended before NREL hired me. Craig and I had helped train Eric and his team in DBIA best practice. Now Craig had reviewed a document Eric and I had written together, and the report on the table between us was the result.

The first item in Category 1 was about the price.

The draft RFP established sixty-four million two hundred sixty-one thousand dollars as the required proposed price on a firm fixed-price procurement. It also required the three competing teams to break that figure down into standard building-element categories and show their profit. The DBIA report noted that this was inconsistent with DBIA's best practice. DBIA's best practice, the report explained, was called build-to-budget: establish the sixty-four million as a ceiling and let the offerors propose whatever price below that ceiling they believed was appropriate. Both approaches, the report said, had the same goal — to emphasize the supremacy of technical and management factors in the evaluation. But mandating the dollar figure eliminated the opportunity for price competition, and that was inconsistent with the DBIA practice. The recommendation was to revise the draft RFP to establish the sixty-four million as the maximum contract amount rather than the *required* amount.

I want you to understand something about this recommendation before we go any further. It was made by serious professionals, in good faith, applying the considered best practice of the premier professional body in their field, to a draft document authored by a trainer that professional body had itself credentialed. The recommendation was not hostile. It was not sloppy. It was not the product of a reviewer who had failed to read the document or missed its intent. It was the recommendation that DBIA best practice, correctly understood and carefully applied, required DBIA's reviewers to make. And it asked Eric to take out the single most important structural feature of the document we had written.

The price was fixed because the price had to be fixed for the rest of the procurement to mean what it was supposed to mean. If the price floated — if offerors could propose at any figure below the ceiling — then the competition would become, in part, a competition on price. And the moment the competition became even partly a competition on price, the teams that would win would be the teams willing to shave the price to win, which meant the teams willing to defer the hard work of figuring out how to deliver the building at the price until after the contract was signed and the owner was captive. The whole point of fixing the price at sixty-four million was to tell the three teams, before they wrote a word of their proposals, that price was not the variable. The variable was everything else — the design, the energy performance, the quality of the spaces, the hundred other things the owner actually cared about. Fixing the price turned the competition into a competition on value delivered at a known cost, and that was the only kind of competition that would get NREL the building NREL was actually trying to build.

DBIA's best practice, honestly followed, would have dismantled that. Not because the DBIA reviewers did not understand the goal — they understood it and said so

explicitly in the report, in the same sentence in which they recommended changing it. They understood that both approaches were aimed at the same thing. They still recommended the change, because their job was to apply DBIA best practice, and DBIA best practice was build-to-budget.

I did not, sitting in that room with Eric, have a vocabulary for what I was looking at. I knew the recommendation was structurally wrong for what we were trying to do. I knew that Craig and Diana and Tom and Sheree were not wrong about DBIA best practice; they were right about DBIA best practice, and DBIA best practice was the problem. I knew that if we accepted the recommendation the building would still get built and would probably still be a good building, and I knew that if we did not accept the recommendation we would be telling four serious professionals from the institute that had trained Eric and his team that we had read their report carefully and were setting aside its most important finding. What I did not know, in November of 2007, was that there was a name for the thing DBIA best practice was doing to our document. I would not find that name until 2025, eighteen years later, after a decade of silence and the slow work of going back over fifty years of building to figure out what the buildings had been trying to teach me. The name is in a later chapter of this book. I am not going to give it to you yet.

What I want you to see, right now, is Eric.

Eric Telesmanich was the Site Operations Project Manager for the Research Support Facility. He had authority inside NREL to carry a decision like this one up the chain to the people above him, and the people above him had authority to carry it further, and somewhere above them was the Department of Energy and somewhere above that was the federal government and somewhere in all of that were what I later, with some affection and some exhaustion, started calling the twenty bosses. Eric was the singular point through which a decision about the draft RFP could reach the people whose signatures would make the RFP real. Not me. I was the author. I had written the words in the document on the table. But the document was not mine. It was NREL's, because NREL was the owner, and the person in the room with the authority to treat it as NREL's was Eric.

We conceded a point or two from the report. I do not remember which ones. There were eighteen items, some of them genuinely strengthening, some of them matters of format and housekeeping, and we took the ones that made the document better without taking the ones that would have dismantled it. On the structural questions — the fixed price, the prioritization of objectives, the protocol of one-on-one meetings with the three teams, the substantiation regime that would govern how the winning design-builder would prove compliance with the

performance requirements — Eric held the line. He did not hold it because I asked him to. He held it because he had been through the training, he had been at my side through the months of drafting, he had seen the structure of the document from inside, and he believed in the structure. He was the owner, represented by one man in one chair, and the owner said no.

The RFP went out in December of 2007, substantially as Eric and I had written it. The contract was awarded in the spring of 2008. The Research Support Facility was completed on time and on budget. It became the largest net-zero office building in the United States. It was the most-toured building in American architecture for the better part of a decade. The Design-Build Institute of America, the same institute whose independent project review and Best Practices had recommended that we dismantle the fixed price, later gave the project its highest award.

I want you to hold that last sentence in your hand for a moment, because it is the hinge of this chapter and, in a way, the hinge of this whole book. The same body that, in November of 2007, applied its considered best practice to our draft and found that our most important structural feature was a departure from that best practice, later recognized the finished building as exemplary work. Both judgments were sincere. Both judgments were made by competent professionals acting in good faith within their institutional roles. There is no villain in this story. There is no failure of integrity on any side of the room. What there is, and what the rest of this book is about, is a structural condition that made the framework Eric and I were using invisible to the credentialed professional review on the front end, and legible to the same institution only as an outcome on the back end, by which time the institution doing the honoring had no vocabulary for what it was honoring.

The reviewers could not see the *structural* framework because the framework did not exist in their vocabulary. They could only see the places where our document departed from the vocabulary they had. When the building worked, they had no words for why it had worked other than the words they already possessed, which were the words of design-build best practice. So they gave the building an award for being an exemplary design-build project, which it was, and the structural feature that had made it work — the feature they had recommended removing — disappeared into the general glow of success without ever being named.

Eric held the line because he believed in the structure. He could not have told you, in November of 2007, what I am telling you now about why the structure mattered. We knew the structure was right the way a carpenter knows a joint is secure by the *sound* of the hammer —not from theory, but from fifty years, in my case, of

watching what happens to owners who let the price float in a procurement that was supposed to be about value. Eric knew it from one year of careful apprenticeship and a sound instinct about his own institution's interest. That was enough. It was enough because he had the authority, and the authority had to be singular, and he was willing to use it.

I did not know, in November of 2007, that singularity was a law. I did not know the law had a name. I did not know, thirty years after building barns in Iowa, fifteen years after I became an architect and a design-builder, and nine months into writing a document for a federal research agency at the outer edge of what the building industry believed was possible, that I was participating in a scene that would one day be the opening of a book. I knew Eric, I knew the document, I knew the report on the table, and I knew that the four people who had written the report were right about everything except the thing that mattered most.

This book exists because I spent the next eighteen years figuring out what that thing was.