



EP 02:
The Functional Program: Ken Cates
—Transcript—

Opening

Ken Cates

For me, what my message is, as I told Bridget, is that in the beginning, it's a 15-minute read. And when I get to DD, it ought to be a 30-minute.

Bridget

OK, I'm gonna say it right now. I don't know what DD is.

Ken

Design development.

Bridget

OK, I'm so glad that you all are not just playing Dungeons and Dragons while you're planning hospital facilities and outpatient facilities . . . residential [as well].

Ken

Ha ha ha!

Intro

[Intro music: "Skip to My Lou" by Neal Caine Trio]

Bridget

Welcome to *Between the Lines with FGI*, the podcast brought to you by the Facility Guidelines Institute. In this podcast series, we invite you to listen in on casual conversations related to health and residential care design and construction. Coming to you from the capital of Washington State is John Williams, FGI's VP of content and outreach and chair of the 2026 Health Guidelines Revision Committee.

John Williams

And joining from the great city of St. Louis, birthplace of both Chuck Berry *and Bridget McDougall* is . . . Bridget McDougall, associate editor with FGI. And we're both here because when we talk about design and construction of places where folks receive care, we've got a lot of questions. And our guess is that you do, too.

Bridget

That's because there's a lot to be curious about under the umbrella of health care design and construction. We've got the codes that tell you how to build these spaces, right? But there's more there—*between the lines*, so to speak. And that's what we'll be exploring on this podcast with the help of invited guests and you along for the ride.

John

So, thanks for finding us, and let's get ready to read between the lines with FGI.

[Music fades out.]

Who is Ken Cates?

John

So, Bridget, today we wanna talk about the functional program, right? And guess what I have? A relic, if you will. The 1983-84 edition of the *Guidelines for Construction and Equipment in Hospitals and Medical Facilities*.

Bridget

I was 11.

John

So, in this document, I think we have the very first mention of the functional program. It says, and I quote, "the project sponsor shall provide a program of function." Previous versions of the document call it "the narrative program," but in '84, we string those two words together: functional program.

Bridget

There it is in its infancy. So, here's what I'm curious about in that 198384 edition, where it talks about the program of function, you said? The program of function. OK. Did it give you any more clarity than about what this thing is? Who writes it? Where does it reside? How it's used?

John

Not one bit. I think we're going to have to reach out to a phone a-friend for that.

Bridget

Have we not phoned the *perfect* friend for this? And that is Ken Cates. Today we have the great opportunity to interview Ken Cates on our show.

As cofounder of North Star Management Company, Ken brings four decades of experience with construction and design, and that's a heck of a lot of experience with the functional program. Ken has worked on more than 1,000 projects representing a cumulative value of more than \$2.5 billion. Ken is a renowned speaker for education conferences and programs on the project process.

John

And gosh, when you listen to Ken talk about the functional program and the planning process, he is so passionate. I don't think we could have found a better guest.

Bridget

Absolutely. Ken's been actively involved for many years with FGI, serving on the Health Guidelines Revision Committee in addition to his [FGI] board service.

John

Board President.

Bridget

That's right.

Bridget

In 2009, Ken was honored with the Crystal Eagle Award from the American Society of Health Care Engineering, which recognizes an outstanding ASHE member for excellent leadership qualities, innovation, and overall contribution to ASHE in the field of health care facility management.

John

I didn't know he was a Crystal Eagle.

Bridget

He is! In 2012, Ken was inducted into the Southern Illinois University of Edwardsville Alumni Hall of Fame.

[Music fades in: "Skip to My Lou" by Neal Caine Trio]

Bridget

So, we are really excited to have Ken with us today on the show!

[Music plays then fades out.]

Welcome, Ken

Bridget

Welcome Ken Cates!

Ken

Thank you, thank you.

[Crowd cheering]

Bridget

Yea! This is where there's going to just be tons of audio applause fill-in. So, you'll be speaking to crowds, you know, at a coliseum.

Ken

Well, let me start by saying just how enormous this particular piece of the puzzle of a project puzzle is. In my 40-something years of experience, the use of or not the use of a functional program can determine how successful your project is.

What *is* the functional program? Ken Cates' take.

John

That says a lot. So, for folks who aren't familiar with the functional program—what *is* it?

Ken

So basically though, to say, well, what is it? You know, what is this thing? It's basically a written document or record of the purpose of a project. And the key project requirements, both operations and facilities that are to be included in that project. And if you think about designing construction industry, we do drawings and specifications and we build mock-ups. There is no other document—booklet—that describes a project other than the functional program.

Bridget

How long is this thing? Are we talking a page? A binder? Binders?

Ken

So, it's an easy read, Bridget, that if you picked up, I'm working on a, say I'm working on a project, big surgery center, if I gave you the functional program for that in 15 minutes or less, you would be able to read it and say, oh, I get it. I know what this project is and why they're doing it. And it's gonna have all these kinds of things in it.

Bridget

We're not talking about binders and binders and binders in a basement.

Ken

No, it's meant to be an easy read. The problem if it's binders and binders is nobody reads it, and [it] gets put on the shelf. So, it's that written record of what the project is. And I think just as importantly to that, when I say written record, it's a living, breathing document. Projects start off very conceptual. What do we know about it? Not much to detail. What size bolt does it have a washer or not? OK. So.

John

All right.

Ken

It's living, breathing—and as we know more information, you update it, but the intent is still, I give it to you, and in 15 minutes, you can read it and say, "I get what you're doing here." Because, you know, people come and go on projects.

And so, when somebody comes to the project and says, say we're going to engage a head nurse of a unit, and then we had a concept plan. And here she comes along. Who explains to her what that is? How does she know what that project is? Oh, well, we'll give you a set of drawings and specs? And in my experience, that's not going to work. You give the functional program, [then] I get it.

John

Almost I've heard it described as "start with the end in mind and articulate that well enough so that we're all going down the same road."

Ken

Yeah, and I think, you know, what you're trying to do with this podcast series, I think, is "what do we read in between the lines?" So, I would say in between the lines—what is it? It's a way to get the owner to be on the same page with what the project means. Get the owner to approve that before the rest of the team, designers, contractors go off and start spending all kinds of hours and money designing and building something to find out it's not what the owner really needs and expects.

Who is responsible for writing one?

Bridget

So, you mentioned the owner, you mentioned designers, contractors, there's a lot of players, right? Who is responsible for writing the functional program?

Ken

Great question. And I can tell you that there was hours of debate about this within the HGRC. Well, the *Guidelines* call it "the governing body," and that's for a reason. That's the owner. It's intended to be the owner. We spent a lot of time on that terminology, but settled on governing body because who is really in charge of the, whoever is in charge of the project. Now, owners will work with planners, architects, a lot of other people to put it together, but the owner is best positioned, and that's why we have it in the *Guidelines* that way.

How do you help people get started?

John

Excellent. So, when you talk about producing one, I've seen folks struggle to produce a functional program or struggle to get one from a facility. One of the common refrains that I always hear is that imagining a comprehensive functional program can be pretty overwhelming. So, when you hear that question or that concern, how do you help people get started?

Ken

Pretty common question. I would say in general, people are overwhelmed by the notion of it and don't wanna do it. People would say, "Well, why can't we just get to designing? Let's just, this is a waste of time." So, you really gotta talk about the *value proposition* there. OK, well, what's the purpose, the rationale for doing the project? How do we expect to operate it? What size?

It's . . . we . . . we wrote those requirements to keep it simple and acceptable to owners. [To] lay out the parts and say, "Here's the benefit of doing that, and here's the time associated with it." Usually when you do that and you can show a good example of it, owners will say, "I get it and that's what I wanna do, because quite frankly, I don't wanna be approving \$100 million for a project that I don't know these other things."

How does an AHJ use it?

John

So, you were talking about the different types of people who use the functional program. How do you see that an AHJ would use this?

Ken

Well, first of all, I would say that the *Guidelines'* primary focus on defining what a functional program is, is to help the AHJ do their job. The AHJs are actively involved in and have been for helping us write these. I think the AHJs view it as, this is an efficiency tool for them. They get up the learning curve immediately, and it comes out of the gate talking about . . . what's enforceable or not enforceable.

John

Absolutely, when I have my AHJ hat on—my regulatory hat—I always think of it as the thing that helps me apply the *Guidelines* the right way.

What does it actually look like in practice?

Bridget

So, help me take the idea of the process of writing a functional program off of the pages of the *Guidelines*. We talk about all the different folks that are involved, but I'm really imagining in real life, in the day-to-day, who starts with it and how do they go around to these different players and get their input. What does that look like?

Ken

OK, great question. So, let's think about it in some key buckets of who are the, we say multidiscipline, who do we mean by that, OK? So, it's driven by the owner. So, the owner saying, I want to move forward with this project. I mean, your, your chief executive officer is going to be driving vision. Sometimes they're a strategy person. The financial person is going to say, how much can we afford?

Then you've got to pull in key stakeholders from that particular department—bring department expertise. Then you got to have somebody from your facilities group participate in it, OK? So, the multidiscipline team starts with the executive and then they go out to the market and bring in others. And that's how the basic team is put together.

How do you factor in future change of function or space?

John

And you make a good point about that strategic approach, because when people are building these buildings, they're building them to last for decades. So, when they think about, "Well, I do these types of surgeries today, how do you factor in the idea of what types of surgeries are we gonna be doing 10 years from now, or 15 years from now?"—or is that even a consideration?

Ken

Yeah. The way you get there is you involve people in this discussion during functional programming that are big thinkers. You bring in your key physicians who are attending conferences where they're talking about this. You bring in your nursing staff. All of those folks, the leaders of all of those groups are engaged at a higher level with their profession. And those are the kinds of things they talk about.

And again, it's a—honestly—it's a couple-hour meeting and you get the right people in the room, you facilitate a discussion, it's a couple of paragraphs. Does that make sense?

Bridget

That's probably the most helpful thing I've heard anyone say is what you just said about we're talking a couple hours in a room, key people around, and out of that comes a couple paragraphs.

Ken

It's really, you know, all you need. Now, I will tell you the challenge is you got to have a leader of the process. Doing a functional program is a mini-project unto itself. It involves a lot of people. You got to bring rigor to the process. You got to put things in order. So, you gotta have somebody that can drive it, which is, you know, pretty hard because what goes with that is you better have the time to drive it.

And so, to me, what you do when you're talking about the value of functional programming, what it is like we're doing here, in that conversation needs to be some honest dialogue about who are the right people that should participate in leading the process in participating in the, in writing the information. I—one of my big—you know—"in between the lines" [revelations] is just because you're an expert in a certain area, that doesn't mean you know how to write.

Major players and roles

John

So, it sounds like you'd need at least one person with strong project management kind of skills; you need somebody who's really good at writing and translating between different types of jargon; and then a whole host of experts that can look at it—provide content and edit.

Ken

And if you manage the schedule with, like you said, John, the right project manager, they'll come to the meeting and know it's gonna be efficiently run. I know what to expect. They're gonna take my input and they're gonna capture it. It's worth my time. I'll go. Because it's so important. If people don't show up to the meetings, because it's a given—they're all too busy. They don't show up to the meetings. How are you going to get that intel? And who does that?

Then what happens to the . . . the quality of the functional program? Well, back to my beginning statement, if all of that starts to erode, nobody really knows what the project is. And here we are, you know, a freight train, 110 miles an hour. We got designers drawing stuff. We got contractors digging holes for foundations. Has anybody really understood and signed off on what that is?

John

Right, and to your point, these folks are really busy. And that key piece of being able to say, "I trust this person to capture my concept. I trust this person to capture the intent or the core bits of the information."

Ken

Yeah. I mean, you just have to build your team where you have, um, whomever is facilitating the meeting, so they're a great project leader and such should not be the person trying to take the notes. OK? And, you know, this team is made up of—you've got an architect planner, maybe you have engineers, you know, maybe you have facility manager. Anybody who you're looking for their expertise in their ears to really be hearing what's going on you should not expect them to be taking the notes.

Where do people get stuck?

John

Right? So, let's assume we've got the right project team. We've got a great project manager, a great editor, and you've got this buy-in from the main folks that have the content. Where have you seen people get stuck?

Ken

Cost and schedule. That's the 800-pound elephant in the room. As a good practice, organizations should be establishing a project budget and schedule based on a thorough functional program, right? Your less guessing leads to more certainty. And so, where they hit a wall is, you know, you go through this process and people dream big. And then when, when folks try to put a number to it and a schedule to it . . . it's . . . it shocks people.

John

It seems like to be successful, it seems like you need to have a real clear intentional level setting of expectations in the beginning of the process and say, "Hey, this is going to be something we need to invest time in."

What does the industry need?

Ken

I think as an industry, what would really help us all is a really good example. Maybe a handbook that says, you know, here's how to go about doing it—you know, sort of a master's class in this—and then include a really good example or maybe example for a small, simple project to a complicated project that you can hand an executive and then 15 minutes they read it and say, I want to do that.

And maybe that's something I try to focus on as I'm slowing down in my career. But as an industry, that's what we need. It sells. And I don't mean the word sells in a derogatory way. You've got to convince the executives at a health care organization they need to do this.

John

It's about that value proposition.

Ken

Right. I think that goes back to John's comment—you know—John's saying, you know, how do you help people cause they feel overwhelmed or don't understand it back to your original question. I think that's what we have to do. And where I've evolved to is I've created this example and that's what I show them. And I review it with them. You know, here's the layout, boom, go take and read it. And it's, it's like immediate.

John

Tangible. Concrete.

Ken

We're doing that—

Bridget

Ken, you know folks are gonna say, where is that example? Give me that example, where is it? Do you have it buried in the backyard somewhere? We gotta know.

Ken

[Laughs] I know. Well, yeah, well—File 13. I'm just saying that I think the question was, what can we, should we do related to education? There's a great opportunity here for us collectively as an industry to do this. There's tons of experience out there doing these things. Anybody with experience that's done functional programs is going to say the same and agree with me on the challenges that we face. It's a matter of what do we do about it? If it's really that great, which it is, what do we do about it to make it like selling ice cream on the beach? Everybody wants some.

John

Yeah, a crash course in functional program herding, a crash course in functional program design or something like that.

Is it true a functional program can be written on a napkin?

Bridget

I've got to ask the napkin question. So, I was at a conference last year and I was in a room and folks were asked you know how many know about the functional program, spattering of hands went up, how many people write them, and even more disturbing spattering in my opinion—so, to speak to your opportunity for education. But someone mentioned at that conference that it [the functional program] can be as small as a picture on a napkin. Is that . . . is that true?

Ken

Well, technically correct, but you got to write a paragraph about what the purpose is. A picture doesn't tell what the purpose of the project is.

Bridget

So, you're gonna need a bigger napkin is what you're saying.

Ken

You need to be, but I think that person is correct in that if you're doing a simple—just pick on a—we're going to renovate a—a nursing unit. It's cosmetic. We're not changing the walls. We've got distributed nursing—you know—we got things operationally. It is working well, but man, it looks beat up and worn out and the patient experience is not as ideal as it should be. So, we're going to redo the walls and blah, blah. I mean, it's a couple of pages. But you say that—that the existing MEP systems are in great shape and providing what needs to be provided. The layout configuration works with our current nursing model and what we predict our future will be—you know. It's two pages.

John

And then as an AHJ, I love those kind of functional programs because I can quickly go through it and go, “OK, well, you’re not starting to sedate people in these rooms. You’re not restraining people in this space. You’re not turning this patient room into an operating room.” Quickly, if I can go down and validate that the function isn’t really changing, that makes it so much easier.

Ken

Yeah, right. And you just got to say that though. That’s where the napkin needs to include a paragraph that says what it does. And I mentioned this earlier—is that it says to the AHJ—it also says to the design team. “The owner has reviewed and approved—agrees with—this scope of work.”

What advice do you have for those starting out?

Bridget

Well, that leads to my wrap-up question for you, and that would be, what would Ken today—Ken Cates today—say to the Ken Cates that just learned about the functional program years ago?

Ken

There’s lots of things I would say—but related to functional program, I would say “Ken, go find somebody with great experience who is trusted and respected and somehow convince them to let you shadow them and have them as your mentor—and say, ‘I’ll come in after hours. Can I take you to lunch every other week or once a month—and let me pick your brain’—and value it and do something with it.” I would do that.

Wrap up/Goodbye

Bridget

Ken, you are an incredible wealth of information, both on the functional program and all things, FGI and *Guidelines* for John and I, and to be able to share that with a greater audience and listeners is incredible. I just—we could spend—I easily could spend a solid, I was going to say afternoon, but week—with breaks.

Ken

Yeah.

Bridget

I could go make it solid week and pick your brain about the functional program. So, we thank you.

Ken

I appreciate those comments, but it didn’t just fall on my lap. It’s hard work. I’ve made a lot of mistakes guys. I mean, the reason I know what will and won’t work lots of times is because I did it and it didn’t work—you know . . . you just . . . just the experience gets you that. And hopefully, people with less experience will value those of us with experience and say, “If he or she is making that big a deal out of it, it’s probably got some merit. So maybe I ought to think about how to do it.”

John

Great advice, Ken. We can't thank you enough for joining us today.

Bridget

I agree. I've learned so much from this brief conversation. We appreciate you taking the time to chat with us.

Ken

Thank you both though for you and your team for putting in the time to do this, guys. This is big bang for the buck for FGI. And I appreciate you accelerating the schedule to make it happen really genuinely. It's a—this is a big win for us, and it didn't happen without much effort on your part. So, thank you.

Bridget

Oh, we're really excited about it. And we strategically picked our dream folks for the first few interviews. So, the fact that we are speaking to you says a lot about how we feel about your value and what you bring. So, thank you.

[Music fades in: "Skip to My Lou" by Neal Caine Trio]

Ken

I'm very honored and I do hope that it helps a lot of people. I'm really thrilled to be a part of it, and you guys are great. I just, I love it. I love the energy.

Outro

Bridget

Thanks for joining us for this episode of *Between the Lines with FGI*. Have an idea for an episode? Get in touch with us by writing to podcast@fgiguilines.org.

John

And if you're interested in becoming a sponsor for one of our episodes or a series of episodes, you can also reach out to podcast@fgiguilines.org.

Bridget

This episode is sponsored by Northstar Management Company: *Smart builds start with us*. Thanks to Neal Caine and the Neal Caine trio for use of his song "Skip to My Lou" from the album of the same name.

John

Join us next time as we go *Between the Lines with FGI*. Bye everybody.

Bridget

See you next time!

[Music fades out.]