

Carbon Wise with LEED Fellow Martha Norbeck | Transcript

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Charlie: Welcome to Green Building Matters, the original and most popular podcast focused on the green building movement. Your host is Charlie Cichetti, one of the most credentialed experts in the green building industry and one of the few to be honored as a LEED Fellow. Each week Charlie welcomes a green building professional from around the globe to share their war stories, career advice and unique insight into how sustainability is shaping the built environment. Settle and grab a fresh cup of coffee and get ready to find out why green building matters.

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Charlie: Everybody. Welcome to the next episode, the Green Building Matter Podcasts. I've been on this for over four years now. I love getting to interview a green building professional, someone in the world. Today from Iowa City we've got Martha Norbeck. She's a LEED Fellow and I can't wait to learn more about her story. Martha, how are you doing today?

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Martha: It's a beautiful sunny day here, so that's a big plus.

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Charlie: It's amazing. I can't wait to learn more about your firm, design and consulting, but take us back first. Where did you grow up and where did you go to school?

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Martha: Actually grew up in Iowa City and I went to Smith College for undergrad, which is in Massachusetts. I got a Fulbright to study ecovillages in Sweden, which inspired me to go to grad school for architecture. I got my master in architecture at University of Oklahoma. I worked for a pretty conventional firm for a few years and decided I needed to go out of my own

to start a-league consulting business. I saw a need in Iowa for that skill set. My business is 13 years old now 2008. This is the 13th year.

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Charlie: I love this and we've got to get into that more. Fullbright is amazing. In Sweden, what were the options? Take us back there. Did you have a choice? How did that line up?

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Martha: I was very practical. I went to Sweden as a junior in high school, so I already knew Swedish. I was fluent in two languages at that point: Swedish and English. You can look at the numbers of people who are accepted for fullbrights to each country. In England five percent of the people who apply actually get a physician, whereas in Sweden you have one and ten chances of getting a position. I started figuring out what was an interesting research topic and I came across ecovillages. You still had to send actual physical letters of introduction and I set up an itinerary and that was it. I designed my own research project and they gave me money to do it. It was awesome.

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Charlie: Product of nice chess moves there and it worked out. I had the honor before the pandemic the Sweden Green Building Council called me in to do a two-day workshop to train the WELL consultant. We fell in love with Stockholm and had a nice time there. A lot of fun. I was going to ask: did you have an ah ha moment to get into green buildings?

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Martha: I blame my parents. My house growing up was right next to a city park that had all sorts of wild areas. My sisters and I would go there and play every opportunity, and became very committed to stewardship as a result of that. I got off track and did other things but after graduating undergrad I started taking naturalist courses in Washington, DC and learning how to identify different butterflies, dragonflies and birds. I found

that fascinating and thought what can I do to make myself an appealing school candidate, not knowing yet what I was going to go to grad school for? But it had to be something interesting, and that's what led me to the fullbright.

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Charlie: We're connecting those dots. That's exciting, you come back from Sweden, you get your masters in architecture from University of Oklahoma, and you're practicing architect. Obviously, you started your own firm. Tell us a little bit about the architecture days and how you knew entrepreneurship or LEED consul. You hinted there was a need in Iowa for that expertise. Did you start coming across LEED when you were doing some architecture work?

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Martha: The firm I was working with was doing several LEED projects and I would speak every year at the Iowa convention. People would come up to me after I spoke and say, "Tell me about LEED , help me with LEED." I worked for this firm. I can't really do that and I felt bad I couldn't help them. I pitched it to my company and was like: "hey, I want to provide this service" and they're like. That's a little awkward because these are our competitors. You can't go off and provide them with servants. I was like somebody has to do it and nobody's doing it. So I'll do it and I did.

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Charlie: I know you're involved working with the US Green Building Council and worked up an expertise. Let's keep going with your career trajectory. C-wise, Carbon wise? That's awesome. It's tough to name a company. How did you come with the name? Tell us about some of those early LEED projects?

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Martha: My mother actually helped me come up with the name. She is a scientist by training, developmental neurobiologist. We started talking

about molecules and how they're graphically appealing and maybe we could do something with that. She's like carbons in everything and it's kind of what you're doing for a living. She helped brainstorming and came up with the name. My original logo was actually a molecule and now it's just a circle, so it's just carbon. It's a single molecule at this point.

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Charlie: As in the future, because those of us that are really in this industry right, we know it's carbon, it's embodied company. Did a good job, naming good credit to your mother. Martha, anyone you might also call a mentor along the way?

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Martha: I was thinking about that and there's two women in particular who come to mind. One is Carol Ross Barney. She came to the University of Oklahoma for two weeks. They have an endowment to bring specialists for two full weeks to work with students. It was amazing and I got to spend hours upon hours learning from her. Watching her with students and hearing her talk about all of her work. If you've seen her McDonald's project. It's mind-blowing. Who ever thought you could have McDonald completely mind blowing? They are doing great work. She was great to work with and then nine. Venus is an ongoing source of inspiration and I got to spend two weeks with her in Costarica learning about biomimicry, and it was mind-blowing.

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Charlie: Sounds like two great tours and you have access to Thank you for sharing those. What else are you really proud of? Anything stand out?

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Martha: Somebody asked me yesterday, I was at a career fair trying to meld young minds into caring about sustainability. Somebody asked me: Well, that's a cool thing you did on a project that you didn't expect? I was, like I convinced a warehouse facility to put in five acres of prairie and maintain it,

put in walking trails with signage because they wanted a wellness program. I was like: you could pay a lot of money for that or you could do prairie and not have to promote habitat and promote health and wellness. Mugs your employees and they were.

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Charlie: That's a great accomplishment. Sometimes there's projects that don't have to be the most advanced projects. It's there any other standouts?

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Martha: After I studied ecovillages in Sweden, I talked about them a lot. The local cohousing group brought me in very early and said "We want to learn from you. What do you know? Help us develop our cohousing community." That was 12 years ago and they broke ground on their final building. They're going to have 35 units in total. Many of the units are operating at zero and they're operating before. They're operating at 75% better than the baseline. Rating, if you were to do inside rating, would be like ten and 15. It's amazing, and then they meet the rest with, and their water use was so crazy low. In one of the four plus, no one ever met the minimum water charge, which is like 500 gallons per month. And they're like well, why are we doing four separate water meters? Because no one's using hardly any water. So now they do one water meter for building, because there's no point in paying all that money like these are. That is just so gratifying to see them develop and they're happy and then see the architecture and the storm water and the prairie and the habitat all come together and work as envisioned. It is such an amazing project.

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Charlie: I can tell you love your work. You're a LEED Fellow. I believe you and I were initiated the same year, 2020. What has that meant for you?

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Martha: It feels good to say it but it was already in my mind, this is what I do. I've been working with LEED since 2000, the really earthy version.

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Charlie: Literally, the first version.

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Martha: I went to the third Green Build, which only had a few 100 people, and it's what I do. It's my north star, it's what helps me shape my thoughts, it's what helps me formulate how to talk about green building. It provides the armature on which I can have conversations about sustainability and educate people. The paperwork was a lot of work and I had an internal and to help me so I finally got around to it. It's nice and it's pretty logo. It feels like you're an exclusive zone of recognition. It's nice.

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Charlie: Let's talk about the present day. Tell us what's keeping you busy today, projects or any kind of passion projects, too.

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Martha: One project I'm having so much fun with is a Strawville house in north-northeast Iowa. He built a 600 square foot structure last year and we worked out all the kinks. We're going to do the house structure this summer. I can't wait to go up there and haul some bales in. We made an adjustment and some of the details. When I go this summer it will be way easier than the last. Very exciting and he's doing a 100% rainwater service. We ran super complicated calculations with ten years of rainfall data to see how big the tanks needed to be, only bringing water. It's going great. He's really invested in it and that's a very exciting project. The other one I'm doing is a net zero office building. They may not actually wind up. It's going to be netzero source plus site. It's not going to be a net zero, but to even start having those conversations about an all-electric 80000 square foot building like that's awesome. I'm having conversations more and more,

"Can we ditch the gas", because in Iowa or midAmerican utilities 85% of their electricity last year was powered from wind.

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Charlie: That's a huge number. I'm in Georgia and I assumed it was high. I didn't know it was that high.

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Martha: Yeah, it's crazy, It's mid-American territory. The state averages 60% but we are one of the nation's leaders in wind power.

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Charlie: You got to receive it as electricity. We've got to go all electric.

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Martha: There's land as that.

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Charlie: Are there mandates? In California there's electrification in Washington, DC.. Some of my clients in those markets are already planning ahead to get off the gas and go electric. What about where you're saying you're receiving it when electricity, but are the mandates aligned or not? Do you have to be smarter, a developer and designer? Do it.

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Martha: Since it's utility driven, I would say it's good business and my understanding is they hit the sweet spot for financial incentives. They started doing it before people started freaking out and saying it before wind turbines were exploding and falling over and all those Bazar conspiracy theories about wind towers. Their timing was perfect. Economically it is so much better for them, it actually is saving them money. Their profit margin is going up as a result of the combination of incentives and the lower operational costs. We're lucky really we had a good business.

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Charlie: That's good sense and good to hear instead of having to get forced to do it. Any passion projects, even outside of work? I want to give you a compliment. You got so excited not about a netzero office building, but also the Straw Bill house. It seems like you treat all projects equally . I think that's pretty cool. Anything else, maybe even outside of normal work? What other things do you like to spend some time on? What else is going on in this market?

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Martha: One of the things that I would love, one of my pitches is, I'm trying to find an employee, because I've got too much work, and I'm looking for an architect. One of my conversation points is ADU, accessory dwelling units. My little passion project because they are legal in Iowa City and we have all these things: this aging population, single human beings living in 1500 square foot houses or 3000 square foot houses with 2-3-4 bedrooms. They don't want to move, but there's too much house to maintain. They're looking at retirement, their income is going down. You put a secondary unit in their existing home and suddenly you initially have an income source to pay for that upgrade cost, your increasing density, you're reducing your per capita EUI and you're creating the opportunity for someone to have in-house on-site assistance in their final days. Where things get really hard. To me, it's like the-dream designed scenario and I'm convinced that there's a big market for it and I really want to run with that. I have to hire some time to start doing it.

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Charlie: A lot of opportunity there and you've got this huge head start because we interview different people in different markets and I didn't know that, it's fascinating. Let's pretend you had a crystal ball, Martha, what's next? What are you reading up on or what are you excited about that's coming at us or around the corner in this green building movement?

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Martha: Well, now you're going to lose some optimism here.

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Charlie: I didn't go to Green Build, Toronto, or something because Thomas Friedman said it was too late. As long as you don't say that, whatever you want to say, is next is fair game.

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Martha: I feel like my profession, Charlie, are you an architect?

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Charlie: I went to Georgia Tech and got a business degree.

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Martha: I am very concerned about the architectural community and their ability to respond to this crisis. I think they have the capacity and potentially have the passion. They lack the courage, and the courage means speaking in your mind with a client and conveying how important it is to do all-electric buildings, take advantage of that wind power. We're seriously doing zero buildings that are source net zero. We can do it and I think in Iowa that is our best hope: electrification. I think that is within sight to achieve. One of the things I do as a LEED consultant all the time is try to give the architect, the whole design team enough knowledge to have the confidence to speak up for that important value. What happens a lot is I have that conversation with them on the side and they are like "yeah, yeah, yeah" and then they go to the client and they're like, "Oh wait I don't feel I can speak for that." I don't have the confidence to stick up for that myself. Part of my work is giving them courage and knowledge so they have the confidence to sell that. I think that is the next frontier in Iowa, at least for green building. I would love to talk about regenerative design and all those things, but the reality is we're so far from regenerative. We are still needing to focus on way less bad. Less bad would be nice, but we need way less bad

and then we can start talking about good. I would love to talk about good, but we're not even towards good. We want to be less bad.

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Charlie: You're right, I think sometimes in our profession we're going to LEED projects that's already so far ahead. Quote brown buildings, bad buildings that aren't doing anything green right. I hear you sometimes we're caught up in the moment, we're doing our part, but gosh, there's still a lot to do. So that's what I'm hearing. Not all doom and gloom, there's hope. How do we make it better for these professionals that have influenced their development, clients, over their design? Is credentials and education? Do you have ideas on what we can do to make it better?

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Martha: I actually do have one idea at least. I was on a call with some people from USGBC this morning and one of the points I wrote down. It's called the LEED Advancement Working Group. The idea to figure out how to pitch LEED, and one of the challenges I have in trying to pitch LEED is we just aren't making the case. We aren't selling it or we're selling it at a level that's hard for people to be like. "Yeah, I can do that." All the ingredients are there and I think at least I'm talking well, because that's what I know right. If we can package that information in a way that makes it seem like a win-win for people in, in their language, in their culture. When I say culture, I mean whatever particular business or experience or world outlook not, global cultures but very intimate culture of that specific sphere that their daily lives are in. If we can package that so they can receive that information, I have some options we can help persuade people, and Carbon and Dividend would be really friends because that would also drive the market in quick order. I would love to see Carbine and Dividend and I do believe there's a barked five parts sport for it. That would actually be a big swoop across the board to really advance this conversation.

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Charlie: You did have some good ideas. I think those that have done LEED awhile you're right, let's not take it for granted. You've been doing it for 20 years. There's so many now that can use this program as that guidebook to still make some of their project, wherever they're a little bit better, sounds like maybe you're on that call with Templeton and USGBC. Its exciting times but I hear you also saying we still have some work to do. It's not let up. Sure the-dream is a regenerative design, but let's have less bad first. Let's talk a little more about you. What would you say is your specialty or gift?

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Martha: I was thinking about this and persistence sounds very illegible, warrant of me, but now I have north star. LEED is what I do. It is my armature, my structure on which I base my career and my personal life largely around that mission of sustainability. It keeps me very focused. I'm able to have a passion of purpose that helps me be persistent. When people are like Martha, we're not going to do that. No, we're not. You gave us that great vision of how to achieve net zero and instead we're going to do ten percent efficiency and I got to cry a little, but then I come back and I was like: let's talk about 25 and if you do this you could get 30 and we usually wind up somewhere in the middle . I refuse to accept the second offer and come back and be like, let's push that envelope a little bit more, let's push it a little bit more.

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Charlie: Persistence, yeah, it's good stuff. Thank you. That's a good skill to have. Do you have any good habits or routines, rituals you can share?

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Martha: Yeah, there's actually a few things that create balance in my life. One is that it's very dark here in Iowa, a good chunk of the year, and so I have breakfast by candlelight the whole winter, and it brings me a little bit of joy to have candlelight. I exercise every single day, every single day, and

commute by bike so that I can work out my frustrations in my two and a half-mile ride to work. Those practices help me mitigate the stress. I have lists, use so many little scraps of paper I keep and I do it all by hand, I can't do any of this stuff that you track online, like I write it out and I'd prioritized and check things off and I'd do something that wasn't on the list. I wrote it down so that I could cross it off. Good stars by things. I live by my list.

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Charlie: All these are great habits. Thank you for sharing. I love the candlelight, the finest commuting, but the list, I really like technology. I still like pen and paper and do you think it gets it out of your head? You trust your system, it restores your brain a little bit. Is that what it is for you?

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Martha: Yeah, I keep paper by my bedside stand and as soon as I write it down it's gone. I don't have to worry about it because I know I wrote it down and then my brain can stop churning because until I write it down it keeps doing a loop.

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Charlie: That's a great pot. I'm the same way as we get to know each other more, Martha. I'm a fan of the bucket list, curious, what are one or two things maybe on your bucket list and travel adventure? Write a book? What's on the bucket list?

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Martha: To involve lots of travel, but now I can't justify flying, not hardly ever. I'm focusing very much more local. One of my big bucket list items. The house I'm in right now was built-in 1904, and I did a major remodel and it's 500 and 70 square feet for two people and a do ut I want to try again So I want to buy an existing property and do a deep green retrofit, make it sit at zero and have a big enough garden that I can grow enough onions, garlic, beans to last me until the next year's harvest and I might add

more things to that list. Starting with onion, garlic and beans, I have enough food to last me to the next harvest and I'm about ten months now, nine or ten months, I always run out. I need to plant more garlic.

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Charlie: I'm Italian and like Garlic: wow, I love it, I mean it sounds like you've reduced your carbon footprint a lot. I want to do it again and I might even do it better. That's what I'm hearing here.

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Martha: I can do it a lot better the next time. I have much better ideas and I have a less invasive thought on how to do the remodel. I'm going to combine commercial and residential design and I'm going to use a curtain wall system. Those thermally broken clips, my hope is to manage to put the thermal clips for a curtain wall on existing siding. We're not even taking off the siding mineral wool, metal, and that way you're not doing the tear off and landfill. So that's my big vision.

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Charlie: I love it. Thank you for sharing. That's on the bucket list. I'm going to send you a link later. A good friend in Barcelona, Spain, actually about three hours north of Manuel Pole last year was awarded the greenest home in Europe. He took an existing 1000 year-old stone town house if you will, and he went to Living. Building status and LEED platinum will share with you some cool things he did. I had the honor of visiting there in August, I'll share that with you.

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Martha: That sounds great.

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Charlie: However, traveling, I understand, stands on flying, but if you find yourself in Spain, he loves to have green building professionals, come

through and stay awhile and have a conversation, so that's the bucket list.
Pack up!

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Charlie: Books you've read recently you'd recommend?

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Martha: I mentioned earlier, I was at this career fair yesterday and I have drawn down with me and I have actually created. I picked out some strategies, maybe like a dozen strategies. I put them on the board and I have people put a dot by the one they thought was number one and 30 or 40 people come and vote for the strategy they thought was the most effective and actually only one person got refrigeration over on strategy. It was surprising how many people got a plant, rich diet and food waste, their way up there in slot three and four. But that book was really transformational for me because I was so focused on building, because that's what I do for a living. When you zoom out to a global perspective and then you start saying okay, let's look at this list of 100 actions. What can we actually do? What can everyone do? It kind of helped me shift. My thinking is like, well you know suddenly that composting project they did, the city, is so much more meaningful and exciting to me than it was before. To think about all those opportunities. Yesterday I managed to inspire a young man who worked for food service that I asked you to go forth and conquer it, and that they change their ways. So that would be great. A book that I refer to all the time, and the other book I referred to, like five times yesterday, was biomimicry by Janine she's just such an inspiration, and shifting our thinker thinking to quiet the human spirit and listen to nature and learn from nature is just such an important touchstone for me to always remind myself, because I'm pretty clever sometimes too, and it's important to realize that I remind myself that perhaps I'm not as clever as I think.

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Charlie: Those are two foundations of books and to all our listeners I'll put a link to both of those books in our podcast show notes to make sure they have access to those books. These are great tips. Is there any queer advice, Martha? You wish you'd have known earlier in your career.

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Martha: I learned this by accident and I already spoke about it earlier, is having courage, and it didn't come to me naturally, when I had some friends who exemplified it and they had the courage to speak of again and again and again, even when they were told no, they were like. Look, I did my homework, I'm prepared. I know this is the correct decision, that I've evaluated all criteria and this is the path that will lead to a positive outcome and I'm going to stand-up for it. It's been hard to develop that willingness to stand-up for it. When I think about it, how many times I've been told, no, I mean I had to apply twice to get a full brain. I didn't get it the first time I didn't get into Smith college. The first time either had to play twice to get into Smith. If I hadn't done those two things, I don't know what I'd do in my life. I don't know who I'd be if those two things hadn't happened right. They were pivotal life shaping experiences, but if I had accepted no, the first time, I would have never had those experiences.

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Charlie: Well, I had courage and their confidence, resiliency, a lot of these great characteristics, but I like that courage. Last question, let's say, someone's listening right now. They're getting really inspired by your story and they're jumping into this Green building movement. Any words of encouragement for them as we come to a close.

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Martha: We've got a lot of work to do. Your career, your opportunities are unending because there's so much work to do and we're coming around. We have to have more leaders with courage and you could be that person.

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Charlie: Those are great words of encouragement. Everybody connects with Martha on LinkedIn. Let her know what you thought of this interview, Martha. Thank you for your time today and keep up the great work.

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Martha: Thank you.

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Charlie: I want to say thank you to our loyal listeners. We are celebrating over one year here on the Green Building Matters Podcast. Me and the entire team were stoked and just so glad you continue to listen every Wednesday morning to a new interview with a Green Building professional here in this industry, or some pro tips that we want to make sure that you are getting straight from us straight to you. Thank you for listening to this episode of the Green Building Manage gbes.com/podcast. Our mission is to advance the Green building movement through vesting class education and encouragement. Remember, you can go to gbes.com/podcast for any notes and links that we mention and today's episode and you can see the other episodes that have already been recorded with our amazing yes, please tell your friends about this podcast, tell your colleagues and, if you've really enjoyed it, leave a positive review on tickets. Thank you so much and we'll see you in next week's episode.