

## **Colin Rohlfing, LEED Fellow Discusses Regenerative Design & Sustainable Leadership | Transcript**

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 lead 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. So settle in, grab a fresh cup of coffee, and get ready to find out why. Green building. Green Matters. Hey, everybody. Welcome to the next episode of the Green Building Matters podcast. Once a week, I interview a green building professional. Somewhere in the world, we've got Colin with us coming in from St. Louis. We've known each other a while from the green building education side of things.

**00:46**

Charlie

Can't wait to see what's going on at Colin, how are you doing today, man?

**00:50**

Colin

Good, Charlie. How are you? Thanks for having me.

**00:52**

Charlie

Doing great. Kicking off this new year, sustainability's still hot and heavy. LEED version 5 coming soon. But it's kind of like taking us back, if you would like. What's your origin story? Where'd you grow up? Where'd you go to school?

**01:04**

Colin

My origin story, it's like a good comic book. I'm a Midwestern kid. I grew up in St. Louis. Always had a keen interest in both art and science, and so my guidance counselor in high school convinced me to go into architectural engineering. So it was a dual degree, both architecture and engineering. There's only a few schools that have it. The University of Kansas is one of them. It's a pretty decent program, and it was kind of close to home and would not put me into crazy debt. And so I ended up going to the University of Kansas for engineering. And it was. I think every professional in the design and construction world should have a dual degree in both architecture and engineering. I think architects should have an engineering degree. I think engineers should have a design degree.

**01:55**

Colin

I think it would solve a lot of problems and help us sync up a little bit easier. But that's where I started. That's my background for education.

**02:04**

Charlie

I've come across some colleagues with that degree, and you're right, they just think differently. The problem solving and the dreamer and the visual. That's great. And we graduated about the same time. I got out of Georgia Tech 2004, so we're about right there together. Tell us about that early career, then. What was happening early in your career?

**02:23**

Colin

Yeah, I think that I realized I wanted to go into not just design, but sustainability during my last few years of school. It was that point in time where I was having classes with both architects and engineers. I loved the engineer's work, however, it wasn't very pretty. And I loved the architecture work, however, some of it wasn't very realistic. And I was always trying to have those two worlds collide where you could have practical buildings that

also look beautiful. And because of that, the idea of hyper efficient, hyper sustainable buildings, which actually I only had one class on in college, kind of popped into my head. I'm from St. Louis, and so HOK, which is a global design firm, is headquartered in St. Louis. So of course any architecture student from St. Louis is trying to get a job at HOK.

**03:18**

Colin

And they had this really great internship program every summer where they pulled in kids from all over the world for their internships. I will say I wasn't good enough to be one of their quote unquote design interns, but I did pitch myself as a highly sustainable potential intern. And that caught the ear of a few people, Bill O'Dell, Marianne Lazarus, who were kind of the gurus of sustainability at HOK that time. And they made a dedicated position for me. And I was HOK's very first ever sustainability intern, which was a very cool experience. And it was great because I was not going to beat out all the amazing design architects who got internships that summer.

**03:59**

Charlie

I know HOK well and we've had a couple on the podcast too, so it's great you were in there early. I know later on they even brought a stadium architect there in St. Louis too, and just have really grown? Of course, that team. I was going to ask about sustainability. Was it an aha moment where you really knew you'd start making your career in that direction and you kind of unpacked some of that for us. You were seeing a college sustainability intern at HOK. But how did sustainability stack from there? Because when you and I were getting out of college Lee was pretty young, he was just coming on the scene.

**04:33**

Colin

I had that aha moment in my fifth year as a five year program in college

when I realized that engineers were making things pretty and architects were making things efficient. Come on, we can do better, guys. But that was just a little bit, a little piece of it, I guess. Additional aha moments started at hok. It was a dedicated internship for sustainability, but there were no dedicated careers for sustainability at that time. And so I continued at HOK for five years as just a regular design hire. And at some point I think I had a very cool aha moment five years into my career at HOK when they were willing to hire full time positions for sustainability. And I was very hesitant to let go of design because I wanted to really dive into technical facade details and you know, technical architecture and be a technical pa. But I kind of ended up working on the same project for years and years. And I realized that in the sustainability world you get a new problem thrown at you every day. A new project, a new thing to solve, a new technology, a new strategy, a new client, a new person within the design firm who you have to convince and work with to try to get them to go in a certain direction. I had this aha moment about sustainability. Yes, a little bit of technical architecture. A bit of technical architecture, but it's really a people and behavioral psychology job.

**06:09**

Colin

You have to be the facilitator, the inspire, the person who inspires. And I really kind of held onto that and realized that sustainability is more than just design and I can do a lot more with it in many different realms. Anyway, there's been a lot of aha moments like that throughout the career, but those are the two big ones. Going into sustainability as an intern and then doing it full time, realizing you're going to let go of some architecture full time.

**06:38**

Charlie

And then sustainability leader there compounded, it looks like 11 plus years at HOK, some killer projects. One I'm familiar with, the Kaust project too. Just a lot of early LEED platinum buildings in that region of Saudi Arabia.

But what are some of those other projects? Or maybe tell us about that one. I mean it looks like you're working on some incredible very high level, not just LEED projects, sustainability projects.

**07:01**

Colin

One of my very early sustainable projects was the King Abdullah University of Science and Technology in Saudi Arabia. It was a 23 building campus project. All had to be LEED Platinum. We designed a master plan in one year, designed it in a year and they built it in a couple years. So it was super fast, super difficult with a lot of moving parts and people involved in it. Over 800 people at HOK were involved in it. And so it was definitely baptism by fire. I think because of that project I was able to take on a lot of very large scale projects within my career. And so both HOK and HDR, my current firm, do a lot of very large healthcare projects. So did a lot of leap projects for places like Ohio State.

**07:54**

Colin

Worked at Northwestern Memorial Hospital in Chicago. Did a lot of lab projects as well too. These are very large, very energy intensive buildings and that's kind of where I was able to focus myself on and that's my area of expertise, I guess you could say. However, some of the best projects and the coolest projects, and maybe you feel this way too, are the small community civic projects that are a lot easier to get to net zero energy, have an equity story, a resiliency story, a community story that goes beyond just these large projects. Those are some key things I really like doing, are changing scales and changing typologies along the way.

**08:41**

Charlie

I agree. There can be impact with the big buildings, with those ones too. And just in those communities. I love that man. How about mentors? Some

people have mentors, they read their books, they see them from stage, some sit down, challenge them, open doors. I don't know. Have you had any mentors along the way?

**08:57**

Colin

Of course. The first two would be Marianne Lazarus and Bill Dell, who wrote the HOK guidebook for sustainable design. They were my mentors for the first five to seven years. And then I was kind of thrown into this firm wide leadership role, first at HOK and then at HDR where I became the mentor at eight, nine years into my career. And it was terrifying because I was still a young kid, I guess you could say. And I was in charge of helping people with their career decisions. And so from a sustainability standpoint, I felt comfortable being that mentor.

**09:34**

Colin

But now that I moved into a different phase in my career at hdr I really look up to our president Doug Wignal and my direct report, Chris Borman, because they have kind of business and people savvy skills where they're truly good people and they're setting the tone and the philosophy for the firm. And I believe in their philosophy, it's empathetic, it's endearing, it's highly sustainable. And they kind of teach me how to be a better business leader while still having a lot of empathy and a lot of understanding. You don't have to be a jerk or one of those typical black Cape architects when you get to be at the highest levels of a design firm. One thing that I've always despised about our industry is this putting the black cape designers up on a pedestal when they're really just jerks.

**10:26**

Colin

I feel like my current mentors are nice people and they look out for everyone they work with and so I really appreciate that aspect of it so I had

my early technical sustainable mentors and now I have my later career just leader kind of mentor individuals.

**10:46**

Charlie

Some fantastic people and it's great to give them a shout out too. One more look back, then we'll get to the present day. What are some of your proudest achievements as you look back? What's on the highlight reel?

**10:57**

Colin

At first it was the big projects like the Kausts and the hospitals and lab buildings. But you know, quite honestly, I think once you, in the past five, six years when you start to get more requirements for Net Zero projects and you achieve those targets we have about six or seven projects currently completed that are Net Zero energy ready and we have 20 currently on the books and a lot more coming. When you see those projects come to life and they come in on budget, they come in on schedule, they have the appropriate payback for a client and then they get built and everything goes well you can say to yourself, okay, that's great.

That's what this whole journey was about, was showing people that Net Zero was possible, that we could do these things on schedule, on budget. I'm ready to retire now. Once you get a few of those, you're like, I've accomplished a lot. So those Net Zero projects are very important. But I also have really appreciated growing a team. I have a team of about 12 folks at HDR and a lot more beyond that, about 20 or so folks that have worked with our group from a sustainability standpoint, whether it's analytics or research, et cetera. And seeing those people grow into a leader and be able to convince others to think sustainably and focus on more regenerative design standards I think is also very appealing to me and feels like a sense of accomplishment. So projects and people, right? Seeing those grow.

**12:32**

Charlie

I've gotten to know you some and I know you are a great leader, a former colleague there working with you too. And just you didn't mention your 40 under 40 or those other projects are just but I guess that's on the come up and now it's about just a little bit of like you said, that mentorship people and that ripple effect, what are they capable of? Let's talk about the present day. Tell us some more about HDR and then I love your title here, Vice president and Director of Sustainable and Regenerative Development. We're going to have to talk about that too. But tell us more about HDR and kind of your day to day.

**13:04**

Colin

I'm the firm wide director of Sustainability and Resiliency for HDR Architecture. We have a lot of business groups, transportation, water resources and power. They each have sustainability leaders. My focus is architecture. My role is to go around to every office, every project, and ensure that we are implementing our kind of design philosophy, which is highly sustainable, highly resilient, and highly regenerative on those projects. And it's a hard task. There's 2,200 people in the architecture business group. And to get every single last person to follow all the initiatives and all the philosophies is tough because you have different personalities and different clients, different regions, different political kind of environments that you have to deal with.

**13:55**

Colin

And so I think the main thing we're trying to do with HDR is we're trying to move from strict, simply sustainable projects, which I think that word has kind of watered down over the past 20, 30 years, into more regenerative metrics. And by that I mean we have to hit net positive targets for energy,



carbon, human health, equity, et cetera, if we're truly going to regenerate the environment. We've already gone through certain tipping points in our world where we're going to have to design for adaptive capacity for climate change. And so to truly turn things around, we have to have net positive impacts and hit metrics that were achievable on site before the industrial revolution and before the agricultural revolution. We kind of go back in time 500, 600 years and figure out can we hit the same carbon cycle, water cycle, biodiversity targets for this project on this site that used to be there before we screwed everything up. And it's a hard task because we're using our regenerative framework and our regenerative tool to try to achieve those targets. But it's really I think we've achieved all the targets on different projects, but not one project has achieved every single target. Right. We've had some net positive operational carbon, net positive embodied carbon projects, had some net positive water, net positive human health, net positive projects, the way we define them, but we haven't done it for every single KPI. And so my job is go around and try to convince people this is the way we should benchmarking projects.

**15:36**

Colin

We should be doing an integrated design with energy modeling. On every project, we have a new initiative where based upon the size of the project, various levels of energy modeling with payback analysis are required. So that's been fun to implement. And really, at the end of the day. My job is to try to be someone who inspires. Try to make this about design, not a separate sustainability task, and try to kind of convince clients and convince design teams to go in the right direction. And it's a tough job. I'm sure you're aware of that too. It can take a toll on your mental capacity, your mental health.

**16:13**

Charlie

Then you left us with some healthy buildings, too. We'll have to talk about

it. Because of the pandemic, some things have changed. Where are those now? It sounds like you've got this SWAT team, so to speak, up to 20 people that are trying to do this on so many projects to pull off what we need to do. How does it come up with clients? Are you suggesting rating systems? Are you baking in some best practices for every HDR project? People always ask, what's the right approach? And every approach is different. If I have a client in maybe the Deep South who doesn't care about this as much or doesn't want to hear the word climate change, this is something that we do internally. We just say, this is good design. You want healthy occupants, you want a durable building, you want to save money on your utilities. We're going to do these things for you, and then just don't say the S word. Don't say the word sustainable. And you just do it as good designs, you have other clients that want to hear about it, and they don't just want to hear about sustainability. They want to hear about, well, what do you do? How do you define regenerative design? And how do you define circular economies?

**17:21**

Colin

And can you do passive house? So when you get clients like that you go all in. And so I think part of this job is to know your audience, know how to use different nomenclature. Don't always say the S word. Don't always say this word. There's a thousand words we can use to inspire people. And at the end of the day, it's just good design. Everything has to be good design. And so how you do that is unique. Whether the client is on board or the client's not on board.

**17:52**

Charlie

It still needs to make good business sense. That's part of our job, too. With rating systems, we have LEED version 5 officially. More rolling out this year. There's still programs like WELL and Fitwell Living Buildings. What do you see when it comes to rating systems? You're excited about some of the

changes. Is there a kind of rating system fatigue? What's the way of the land?

**18:11**

Colin

I think people verbalize that they have rating system fatigue and. But we don't really see it in the projects that come through the doors. There are still requirements for LEED. We do a lot of federal work, and so they have a bunch of these requirements already baked into their design criteria, and they do require documentation and calculations for these things. And so although I think the radian system efforts have plateaued, they have not decreased. I would like to see more projects that are going after some aspects of the well, building certification or even living future certification. Obviously, when I look to the bleeding edge, I think of living future certifications. But that's a small percentage of our entire portfolio. Like 2 or 3% of our projects. I wish there were more. What I do see more now is passive house standards in certain climate zones. You're talking like the Northeast, talking about all of our projects in Canada, talking about some of our projects internationally, in the UK as well as Australia. They're really keen on passive house design standards, and it's even becoming part of building codes in some of those regions where they have those performance metrics incorporated. Seeing more Passive House and seeing some people who say, you know what, give me LEED and well and living future give me just these key metrics from those rating systems. We're not going to certify, but I want to hit that target. I think a very good backup plan for a lot of clients is to give me those targets.

**19:47**

Colin

But we're not going to go through the documentation, which we're more than willing to do. We still do the calculations, still do the analytics and if they hit the targets. It's great.

**19:56**

Charlie

Thanks for showing us how it works from project to project. Let's talk about the future of green buildings. I love asking my guests, hey, what kind of reading up on what are you excited about? Like what's next in the green building movement?

**20:09**

Colin

Right now, kind of a shift away. Well, not a shift, but a sharing of the spotlight of embodied carbon along with operational carbon. We've shown that we can get our buildings to be fairly efficient. And as our buildings become more efficient and the grid decarbonizes, hopefully we don't see a massive slowdown with new administrations in the United States and other locations. And embodied carbon will be way more important. We currently have 75 mass timber projects either completed or in design. About 25 or 30 mass timber projects have already been completed. And so we can thank our Canadian colleagues for starting that movement a decade or more ago. And because of that, we have so many mass timber experts within HDR that we've really hit mass timber hard in all parts of the country.

**21:03**

Colin

We even have a mass timber project in Nebraska right now. We're pushing a few in the Southeast. And it's just nice to see that if you do it right, you can incorporate mass timber in all project typologies. Our first mass timber hospital just broke ground in Canada. And our last frontier is lab buildings. Trying to get mass timber and lab buildings meets all the noise criteria, meets vibration criteria. We just need NFPA to be a little bit more appealing from a cost standpoint for that to happen. Whyway, big shift into embodied carbon, doing full life cycle analysis of materials. And then electrification. We have a big MEP group called Billing Engineering Services at hdr. They

get a question two, three times a day about electrification. How do I do it? What are my concerns? I'm in the Northeast. Is there a problem with resiliency and the grid going down? What should I be concerned about? A lot of efforts to go fully electric on our projects, especially California, where it's required. 99% of the projects we do in California are all electric. I would say those two are kind of top of mind. And finally I would hate to just say too, there's, we have a resiliency group for doing resiliency assessments and we have an equity for design group where we're trying to be more kind of thoughtful about equity in the communities we design for and bringing equity into the design process. And so those are kind of the key trends we're seeing right now about how the design strategies and processes are changing for our projects.

**22:41**

Charlie

I think that's something to look forward to with Leap version 5. Our listeners take a look at these new prerequisites that come in the form of studies that you're going to have to do related to equity in the community and quality life and the true impact of our buildings there. One more question on regenerative: what's holding us back? Is it just upfront costs and roi? I mean what's it going to take to really unlock a big step from just incremental improvements to truly not just net zero, but net positive? I mean, what do you see out there?

**23:12**

Colin

First and foremost is defining what we truly mean by regenerative. For some things that are obvious, net positive carbon for the operational body is an obvious one. How do you design for regenerative human health? Is it achieving the bleeding edge metrics in, WELL and LEED with regards to daylight and noise and acoustics and air quality and water quality? If we benchmark our projects and the people who use them and the environment that they're in, the ecology, and we improve those metrics to a certain

extent, that is being regenerative for that given state of the project or the place. However, we need to do more than that. We can't just improve it slightly from what it was 30 years ago when we had ecological disasters and poor air quality. We do need to go back to pre industrial and agricultural revolution metrics if we're truly going to figure our way out of this mess that we're in. And so what's holding us back is first of all defining those metrics. Which I think needs to be more aggressive and then being able to justify them from a lifetime cost analysis standpoint. We've gotten pretty damn good at justifying carbon reductions through energy modeling. But we're not always great in our industry in justifying what are the human health impacts. If we design for this, are we truly going to see an improvement in health and reduction in healthcare costs for these building occupants? Is there a sustainable value assessment for the community? If we reduce stormwater and because we reduce storm water and filter it, are there less pollutants or medical waste in the community?

**25:01**

Colin

Does that reduce the frequencies of diseases and health issues and endocrine disruptors, et cetera? Can we quantify those targets and show a payback for them? We obviously have the social cost of carbon we can use, but it's not telling a specific story for our project. And so what do we need to do to get there? Hire economists and hire researchers to help us actually quantify the human health and community impacts of our projects. And we should be telling clients, especially some healthcare clients, your building is causing eight deaths in the community, 10 instances of asthma, eight heart attacks, 10 strokes. If you can quantify those things, I think we'll be able to justify a lot of strategies in the future. Those are hard things for clients to hear, but it's the reality. And we're scared to say those things because of legal issues or gray areas of calculations and research. But we need to get there. Otherwise we won't have these targets.

**26:06**

Charlie

You got a good handle on it. Thank you. Let's go to some rapid fire questions as we get to get the peek into what helps you day to day. What would you say is your specialty or gift?

**26:16**

Colin

I can talk. I guess maybe I talk too much. I think presenting, facilitating, knowing my audience. There's many people on my staff who are smarter than me, who are more technical than me, or better designers than me. But if you can facilitate, tell a story, tell the right story to the right audience, you can be successful. I guess that's maybe what I do well.

**26:40**

Charlie

I love it. Thanks. Do you have any good habits, routines that keep you on point?

**26:45**

Colin

I wish I got up early. I wish I ate healthier. Gosh, I'm going to think about that one, Charlie. That's a tough one.

**26:51**

Charlie

And then you kind of prepare for the week. Do you visualize your day, visualize your week.

**26:58**

Colin

I've gotten really good. I've got one for you. You can edit this appropriately. I got this bullet journal and a bullet chart journal is a very good way to organize your day, your week, your month, your year, and then kind of

prioritize different categories. I guess shout out to the bullet journal. Maybe they'll provide me with a free bullet journal in the future. But because you work on so many things, you're working on 50 or 60 projects throughout the year and working on multiple proposals with every person across the firm. You lose track of what is going on. You need to stay organized.

**27:35**

Charlie

There you go. Bullet journal. Welcome. I love it. Bullet journal. Next is a bucket list as we get to know each other more. I actually am a fan of the bucket list. Not everybody has one. Some of it's adventure travel, maybe writing a book. I don't know. What are a couple of things maybe on the bucket list?

**27:52**

Colin

I'm interested in a second career when this one is over. Where I can own a plot of land in a beautiful location and design my own completely off the grid regenerative retreat. And it can be either just for myself or it can be for others. I can share what I've learned throughout my career about design. Regenerative design stress relief. I think all of us need to get out in nature a little bit more and get away from the grind. I think my bucket list is to have a second career where I share this with people, but not in the sense of architecture, in the sense of living your life and living life the way we. Why we all probably should be living it.

**28:42**

Charlie

Let me know if you open that one up. I'll come visit. That sounds absolutely.

**28:47**

Colin

But I'm not there yet. We're trying. We're grinding right now.



**28:51**

Charlie

Next career. But we'll stay in touch. I love that, man. Thanks for sharing. I like to ask a little bit about maybe is there a book you'd recommend? It doesn't have to be about buildings or podcasts or Ted Talk, I understand you. Or a TedX speaker. I have to link to that. Those kinds of things.

**29:09**

Colin

If you want to watch my TEDx talk, it's on Ted.com. It's about regenerative design, but it's only 15 minutes. It's very high level. For all the architecture and design nerds who may listen to this. It's probably not detailed enough for you, but again, if you want to go into this kind of career. Influence the Psychology of Persuasion is one of my favorite recent books by Robert Cialdini. And the reason I like this more so than any other technical architecture or sustainability book is that I feel like understanding human psychology makes you more successful at a sustainable leader role than being the best technical sustainable architect or engineer that you can be. Because if you can't tell a good story and influence people, all your knowledge is mute. I've kind of encouraged my team for the past few years to focus more on leadership and human psychology as well as the technical aspects of sustainability. Pick that one up if you can.

**30:20**

Charlie

All right. We'll put a link to that book in the show. Notes. Great recommendation. Thank you. As we start to wind down here, just a couple more things. As you look back on your career, on anything you wish you'd have known earlier.

**30:31**

Colin

This is maybe for all of them. The young kids who are starting out and they don't feel like they are experts yet or they don't know how they can get to a leadership role. There's just one line response to this, Just raise your hand. You'd be amazed at how many opportunities you get by volunteering to do something, even if you don't know how to do it, you volunteer, you raise your hand, and you put your nose to the grindstone and you figure it out, and lo and behold, a few months later, you're the expert on that topic, because nobody else at your firm or in your office has gotten as far as you have on that topic. When I first started out at HOK, I did an internship and then a few months of sustainability work, and all of a sudden I was the office expert, and then I was the regional expert, and I wasn't that good at those early stages, but I was still better than most. And so I wish I would have raised my hand a little earlier because I think I could have gone a little further. But it's okay. You don't need to. Don't kill yourself trying to go too far. But I guess the advice is, raise your hand and you can easily become an expert in something because expertise is all relative.

**31:49**

Charlie

Oh, that's good. Expertise is all relative. I like that. Thank you. All right, last question. We're wrapping up here. Learning more things about you. Thanks for sharing. Let's say there's someone listening. They're either making a career change, or maybe they're a young professional getting their lead grant associate for the first time, and they're jumping into this movement. It's been good to you. It's been good to me. Any words of encouragement for them as we come to a close?

**32:13**

Colin

I think everyone needs words of encouragement right now. A lot of people are reeling with the state of the planet right now, with the state of humanity, with the state of our politics. And I think that it's everything that we have seen in this industry from an economic standpoint, from an industry driving

standpoint, from a trend standpoint that it's not going to stop. There's no level of policy that is going to change. The economic benefit of designing to net positive and sustainable metrics is going to give us. And so this will continue. It will be required by the private sector. And so I think I want to tell everyone starting out, do not despair. These jobs are fruitful, they're plentiful, they are impactful. You will make a difference. It will be hard, but you will make a difference.

**33:05**

Colin

And so I encourage you to come into this industry and don't be timid, don't be cocky, but realize that you will go far and make a difference. Because this is a great field to be in.

**33:19**

Charlie

Yes, sir. Well, jump on in. We need you. And I just love the work you're doing with your team at HDR. I've been really inspired by just hearing your approach to what needs to be done. So thanks for sharing some of your time to all of our listeners. Connect with Colin on LinkedIn. Make sure you're checking out some of the case studies there that HDR is doing. Man, thanks for spending time with us. I really appreciate it.

**33:40**

Colin

Yeah, Charlie, thank you so much. And be careful of the snowstorm.

**33:44**

Charlie

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