

Current Costs of Healthy Living

Andy Pace:

Today's episode of Non Toxic Environments is brought to you by the Green Design Center. Right now, the mainstream residential construction world, the subject of building a healthy home is dealt with mainly as an energy saving and global environmental issue. Of course, new methods to reduce outdoor air pollution and to cut down on our energy costs, are definitely friendlier to our environment and our wallets. Yet these methods do not make a home healthy. To us, building a healthy home means that it's actually healthier and safer for the human occupants, yet as attractive, durable, and affordable as one that is not pollutant free.

There are multiple components required to build a truly healthy home and no single component will do it by itself. A systems approach is needed that integrates all the different aspects that comprise a healthy home using HVAC equipment that controls moisture to minimize mold mildew and provide continuous fresh ventilation is very important. The increase of natural light in as many areas of the house as possible creates a sense of wellbeing for its occupants. The use of less synthetic carpeting and more hard surfaces to reduce dust and allergen collection areas.

Andy:

The most critical component involved, however, is the avoidance of the host of hazardous chemicals and noxious materials that are used throughout the building material industry. Now we spend about 80 to 90% of our lives indoors. The first step in making our life healthier and more productive is to avoid the human health hazards by eliminating their sources and using safer high quality products, removal of the unnecessary chemicals and toxic fumes from your

homes reduces off-gassing that causes headaches, nausea, allergies, asthma, and worse. Just imagine a healthy home where occupants prevent a lifetime of medical problems and save thousands of dollars in prescription and healthcare costs.

Andy:

Currently, most builders aren't unfamiliar with the array of healthy building products that are available to them. And most big box retailers find it difficult to answer questions from customers about chemical content and toxicity. That's where we fit in. The Green Design Center has a 30 year history of providing those necessary high quality, safer building materials, as well as expert consulting services to assist the designer and build teams with their set to systems approach to healthy building. We are GDC, Building For Health, and you can find us at www.thegreendesigncenter.com. Now onto the show.

Andy:

Hello folks. Welcome back to Non Toxic Environments. It's an exciting day here in the Non Toxic Environments' studio, because Jay's back with me. Jay, how are you?

Jay Watts:

Andy I'm doing great. What's the weather like in Wisconsin?

Andy:

It's typical Wisconsin spring. One day it's 65 degrees the next day I'm shoveling snow.

Jay:

I love when you say that, that's why I set you up for that, because you always tell me that. It's very dynamic there in Wisconsin.

Andy:

Very dynamic.

Jay:

I think we've got a dynamic show today.

Andy:

We have a fantastic show. So this is really interesting. We've had a lot of listener requests over the years and lately these listener requests have been to get us to talk about shows that we've talked about in the past or talk about topics we've talked about in the past. And so back in October of 2019, this is before PD, before pandemic, we did a two part show called, The Cost of Healthy Building October 5th and October 11th of 2019.

We laid out our plan and our reasoning why healthy homes can sometimes appear to cost more. Well, I don't think we need to redo that show, or those shows Jay, what I mean is I believe listeners should go back to those episodes because they were fantastic episodes, but I think it'd be really good for you and I to talk about now two and a half years later, what has changed. And specifically, in the building industry, what has changed that may affect now the bottom line when it comes to the cost of healthy building? What do you think?

Jay:

I think that's absolutely timely as can be. Here we are two years later, the world has changed dramatically in two years. It's had a definite impact on our businesses and on everyone's business. And we can certainly talk about ... And this won't be news to most people. If they've been doing business in any way, shape or form, the fact that the pandemic created a supply chain challenge has certainly had a huge impact on how things get done, how much things cost. The impact it's had on the labor market. We alluded to that in our shows back then about that, about the labor market and how there's been a lack of quality labor. And I don't know that's changed too much in two years. Would you say there's been a big change in the labor situation, Andy?

Andy:

You know, I think it's gotten worse. But there are glimmers of hope out there. It's gotten worse for a couple of reasons. One is, there have been a number of small businesses or someone you're comfortable with. Meaning, you found a contractor whose willing to work with you on your challenges and what you want to do with your home, lock that person in. So many subcontractors and general contractors, they have so much work they don't need any more work so what they will do is, the next job that comes across their table they'll bid it and they'll add margin to that bid so that well if they get the job. Great. They'll deal with it, they'll figure it out and they'll get extra money. If they don't get the job because they price themselves out of the project. It's not a problem for them because you can't afford to keep busy right now and they can afford to pass on those jobs that they deem as being problematic.

Jay:

Sure.

Andy:

And so I think that there's a lot of that happening right now. I have a number of clients that are involved in projects where the contractor agreed to work with them and their issues and their specific requirement. But then they get into the job and they say, "I don't want to do this, or I don't want to do it your way, I want to do it my way." and they're now starting to sabotage the project.

Jay:

Oh boy.

Andy:

So it's a difficult situation for labor right now. So I would say the cost of building healthy, right now, you have to factor in the labor situation. Is it going to cost you more because it's different? It's not because it's healthy; it's because it's different. It's not what they normally do, you're going to price the projects higher.

Jay:

Right. Okay. So we've got the labor issue. Now let's talk about materials.

Andy:

Yeah.

Jay:

Material prices. What have you seen there? Have you seen a huge increase in prices or have they stayed relatively stable? What do you know?

Andy:

I'm going to take this in two parts. Let me take the exterior building shell, and then I'll take the interior finishes.

Jay:

Right on.

Andy:

The reason I'm doing it this way is, if you do listen to this show back in October 2019, one of the things I talk about is the fact that for years, I've been advocating for a method of construction called insulated concrete form.

Jay:

Correct. I remember.

Andy:

Insulated concrete form was always about 30% more for the cost of the exterior shell than was traditional stick framing, traditional lumber. During the pandemic, because the cost of lumber just skyrocketed because people were buying so much and the plants shut down, the cost of doing in insulated concrete form actually became right on par with doing stick framing.

Jay:

How about that?

Andy:

So if you were to enter into a contract to build a home during this pandemic phase, and I'm thinking more specifically, 2021, then this year. In 2021, you could actually contract to build a home out of ICF, and it would be less expensive to build than traditional lumber.

Jay:

Wow.

Andy:

Yeah. Now forward to this year. All materials have gone up in price, not just lumber, but keep in mind that insulated concrete form, most of them are made from a polystyrene insulation. Well, what's that made from? Oil. Right?.

Jay:

Yep.

Andy:

What else is used in there? Steel?

Jay:

Yep.

Andy:

The cost of petroleum and the cost of steel have both risen dramatically. It's now to the point where you can get the materials about the same price between lumber and inside of concrete form, but the cost of labor, because ICF requires, I'll call it a higher grade of labor. What I mean by that is you need skilled carpenters who also understand the dynamics of concrete and steel, and it's a very specialized type of carpenter. And it'll take an average carpenter longer to build an ICF frame than it will be to build a stick frame. So if you factor all that in, I think right now they're about the same.

And it makes me think of things like SIPs, structural insulated panels. We didn't talk about this back in 2019, Jay, but structural insulated panels are essentially two layers of OSB or a similar material with, four to eight inches of an insulation material in between. And these are of fabricated at a facility offsite to specific requirements and brought on site and placed as walls sometimes even placed as your roof. It's like a hybrid version of a prefab home. And of course, you and I have talked about that before.

Jay:

Yeah, we have.

Andy:

And so, yeah, I think SIP homes are becoming the deal out of the three because SIP homes do lower your material costs and are less expensive to install than either stick frame or ICF.

Jay:

But there's probably a whole lot of video on YouTube, on SIPs, on ICF. If people are really interested, folks listening, if you want to check into what Andy's talking about, you can just Google online and you'll probably see as much as you could possibly learn.

Andy:

For sure.

Jay:

Speaking of learning as you were talking, Andy, it dawned on me, this country needs a college of healthy building.

Andy:

Yes.

Jay:

Where contractors can come and learn about all this great new construction methodology. Wouldn't that be fantastic?

Andy:

No, I agree. A hundred percent. And I think that there have been attempts around the country, to have ... I know Bob Laporte and Paula Baker-Laporte have had their onsite hands on, teaching clinics on how to build natural homes. I know that there are a couple others throughout the country that have done this, but from a mainstream side of things using more

easily obtainable, I will call them normal building materials and methods, you're right, there aren't.

Jay:

Right.

Andy:

I think that it's left up to the old fashioned apprenticeship programs. And so this is what I was going to get to before. One of the silver linings is that, while there aren't a lot of new contractors that are coming out right now, there are a lot of tech schools, trade schools that have seen enrollment just skyrocketed because-

Jay:

That's good to hear because the trades have suffered.

Andy:

Yes.

Jay:

So that's a really a wonderful news.

Andy:

It is. It's fantastic. And so I'm really excited about that. So we talked about the frame, right?

Jay:

Yeah.

Andy:

We talked about the inside. You can talk about finishes and what's happened in that industry in the last couple of years.

Jay:

Well, as much as anything it's been this raw ingredient supply. And be able to obtain the raw ingredients. And of course, everything was slowed down because people couldn't work. They couldn't be at their place to do what they had to do. So the chain got broken and then prices increased dramatically. Again, for reasons that we know it, you alluded to, and of course the other factor here that we should just touch on is the fact that freight and shipping has gone so skyrocketed.

Andy:

Yes it has.

Jay:

And of course, it's so interesting. As you know Andy there's this ripple effect, all these things are chained together. And as soon as one of those links in the chain weakens or breaks, chaos ensues, because contractors are trying to do work. They're busy, they've scheduled, wait a minute. We can't get the raw ingredients. Oh, wait a minute, the truck can't get there. Oh my God. Then the whole thing is like a domino effect.

Andy:

Right.

Jay:

And that always means, I hate to say it, but it always means it's going to cost more. I think things are stabilizing a little bit now. I remember coming out of this whole thing. And so I think it's getting a little bit better. I think probably if you looked at the industry at large, you see that there's probably been an increase cost across the board. I don't think our particular coating industry is any much different. And you can tell me I'm wrong about this, but I don't think it's much different than any of the other suppliers of Green Building Materials. I think all have felt the pressure. Am I right about that? Or do you see it differently?

Andy:

No, I see it the exact same way.

Jay:

Okay. That's right on.

Andy:

I think that right now there is, your word for it, chaos is perfect, Jay. Chaos in all aspects of material movement, manufacturing. I think we're all busy and I don't think a lot of companies right now are losing money. I think sales are good, but I think what's happening is that there's no easy way forward on things. I just think that every day is a struggle because we're always fighting fires.

Jay:

Yes.

Andy:

I had a contractor reach out yesterday or a couple days ago and asked for ... It was a large order of adhesive and I said, "well, we don't stock that much. It'll take about two to three weeks to get it from the manufacturer." And he gets all bent out of shape. Well, I need it next week or I can't do the project." I'm like, "Well, I'm sorry, I can't help you. It is what it is. Nobody has that type of material in stock anymore because we can only get so much to make the products with. So much harming raw ingredients." And everybody just has to chill out a little bit and understand that we're all doing the best we can, but it's a struggle every day.

Jay:

I just hope that our listeners are not feeling really depressed at this point because it's been a sour story so far, but it's true. So don't lose hope folks. Things are going to work out all right. It does sound a little dower right now, but we see that there's-

Andy:

So let's talk a little bit further about interior materials, Jay.

Jay:

Yeah.

Andy:

We think of, from a healthy home standpoint, 90% of the toxicity issues in a home come from the things you see and touch on a daily basis while you're living in the home. Flooring is typically the biggest offender, your paintings and coatings, which we've already talked about, are your second offender, your third would be your cabinetry, your millwork, your doors and trim and then finally your own personal furnishings, your furniture and window treatments and such.

From a standpoint of flooring cost wise, I think it's pretty much following the same path as everything else in the industry. Is that just about everything has gone up in price in the last two and a half years. I can't think of many materials we have, if any, actually that have gone up less than 10% in the last two years. I think 10% is going to be. If you find a flooring material that you liked a few years ago, you haven't done the job yet, you're going to find that 10% increase is going to be the lowest you'll find with most flooring materials, probably 15 to 20% more like it.

Andy:

On the other hand, what has changed in the last two and a half years? Well, there's been some improvements of what's available.

Jay:

Right.

Andy:

I think that from a healthy home standpoint, there have been some innovations that we're excited about. We're excited about the use of solid cork. That's waterproof. We're excited about the use of hardened wood that is incredibly durable and gives you a 10 year warranty in a commercial space without any added toxicity. So these products weren't around when we did the show a couple of years ago, Jay. And so I think that for the extra money that maybe some of these floors now cost, back then they weren't even available. So from a healthy home standpoint, yes, materials have improved in costs or have increased in cost, whether it's a healthy home or not actually, but the availability and the selection of materials that are now at your disposal, it's far better than it was two years ago.

Jay:

One of the things that we talked about just glancing in those segments was, how to finance a project. We didn't really follow up on that very much, unless I'm forgetting a show. Did we do a finance show? I don't think we did.

Andy:

No, we didn't.

Jay:

And I think that'd be interesting to get someone on to really talk about green lending and all of that. But I just did a little basic research. So on this and just a couple real quick thoughts about financing. One of the things I read about is, try to go through a local bank as opposed to a national bank. It might be a little bit easier for you to work with a local company who's in the community who understands that you're a member of the community and want to help you do

what you want to do. The other one I saw was, working with credit unions, credit unions are again, community based.

Jay:

They're probably going to be a little more open to this idea of healthy building eco building. They want to nurture their community, they want to grow their community. So if you can use the smaller entities, so a small local bank or a small regional bank, and go to them and talk about your plans or go to a credit union. If you're not a member of a credit union, you can join a credit union. So those are just two quick things on the financing front that I thought I'd just throw in right now.

Andy:

No, I like that. I think that's really a crucial part of this. This issue has been getting better since the recession we talked about between 2008, 2012, you have to remember that a lot of times with healthy homes, green homes, high performance homes, a lot of the technology that's introduced into these types of homes doesn't necessarily get reviewed properly right by the lending agencies.

Jay:

Right.

Andy:

So, and this is why you have to look at the cost of green building the cost of healthy building. And you wonder why sometimes it's a little more difficult and sometimes high. Well, look at your HVAC system. And this is always one of the best examples I can give. On a 2200 square

foot home, your heating ventilating air conditioning, furnished and installed is probably going to be \$15,000. If you wanted to do geothermal add \$35,000 to that price. When the bank looks at it, when their appraiser looks at it, and the one who determines how much money they're going to lend you to build this home, they're going to say, "Let's see, geothermal and regular HVAC. They both provide heat, they both do the same thing, just different methods. We're not going to give you the value of that geothermal system. So you're going to have to either not do it or come up with the difference yourself."

Jay:

Out of pocket. Yep.

Andy:

Right. And so that's always something to think about with new homes when you're buying not only healthier green materials, but better quality materials. If the appraiser doesn't understand why something costs more and they can't find comparable projects that have been done, where they can then use that to give extra value to what they're going to lend you, then they're going to ask you to pay that out of pocket.

Jay:

Yes. But so it tells me that what folks need to think about the very beginning of a project is to align themselves with someone who can help them walk this path.

Andy:

Yes.

Jay:

To say, listen, let's look this in a global way. And let's figure out where we can get the biggest bank for our dollar.

Andy:

Yes.

Jay:

And that requires someone who understands the industry well. I'm always folks, I'm pitching my buddy here because he's one of the best in the industry, but you need someone that can help guide you through, it's difficult, first, you have to understand what are your priorities? Are your priorities, human health? Are your priorities sustainability? Are you recyclers? What do you need? Sometimes most of the time health should be at the top of the pyramid, but those other things are important too. So you need someone that can help you figure out, "Okay, we prioritized it, then we can start budgeting it, and then we can look for the compromises where we need to make them because you will need to make them. You will. There's just no way around that. You go, "I don't want to compromise." Well, you'll find out sooner and later that you're going to have to make some, but you need someone to help you figure that out.

Andy:

Exactly.

Jay:

I know this because we talk to people. You do it Andy, because that's what you do, but it's like, "Oh my God, where do I go from here? How do I even start? There's so many things that I have to think about." And so having a counselor at your side, I can't overstate it.

Andy:

It's crucial. I think in any new home project, even a whole house remodeling project, you need a team of people.

Jay:

A team.

Andy:

It's almost like you need your support group around you and you got to have a couple of trusted people that you can go to. I'm happy to do it for people and it really does make the project go smoother.

Jay:

Sure. Yeah. And that makes perfect sense because a consumer awareness has grown so much and you alluded to it earlier, when people are at home and they're working at a home and they're on the internet, what you can understand about healthy building and healthy homes and how important it is for your family, for yourself, that right there is driving this. Everyone now is thinking, this healthy home idea really makes a lot of sense. And we know, you and I know that there are builders now who are focusing their practices on doing that, on building healthy homes.

Andy:

And there are more and more of these builders coming out. They're finally getting it. And I've always said that if you wanted to find a builder who will do a healthy home for you, you have to find yourself a quality custom home builder.

Jay:

Correct.

Andy:

Because they are used to having clients that come to them with all sorts of requests and recommendations. Most clients who are building a custom home, probably have a Pinterest folder full of 500 pictures just for what they want their kitchen to look like.

Jay:

Right.

Andy:

Custom home builders deal with that. They want that, they want to provide that finished product for their customer. So asking them to go healthy, provided that we can then pinpoint the materials that they will use. They're all about it. And I have countless examples of that over the years.

Jay:

Yeah.

Andy:

I also have countless examples of working with what are called green builders and how horrible it was because they're so stuck in their high performance, energy saving ways that they will not look at other things. It's always been in easier to go with the custom home builders.

Jay:

Yeah. Well, educated demand is going to drive it, educated demand. People are going to start saying, "You know what, it's got to be this way. Here's how we want to do it. And that'll be the end of that story." And I guess just when you were talking about a team, I had to joke and think to myself, and that makes that champagne party when you have the groundbreaking or the open house that makes it so much more fun when you got your whole team there, right?

Andy:

Oh yeah.

Jay:

And you're all cheering each other and saying, "You know what, we did it."

Andy:

Yep. I was involved in a project just last year with a good customer of ours. And we had that grand opening party, and t's just so fun. It's so fun to get together with a team who we've all struggled together as you do. When you're building a home, unless it's a cookie cutter home where they've done it a thousand times, and it's just another location, but when it's a home, especially a custom home for a family who really has some health issues, everybody is invested

and we all want the same thing. We want this job to be done, done right, done on time, done on budget, and we want the family to be living there happy and healthy.

Andy:

And that grand opening party is just like, it's a huge weight off of everybody's shoulders, and it's probably one of the most proud moments I have in this business is to just sit back and see the joy in the faces of the family members, and just know that you are involved in a process like that. Small part, large part doesn't matter, just being involved in helping is the key.

So that leads me to my last point on this of the cost of healthy home building since 2019, I can say that of all the downsides of the pandemic, we've all faced them, there's been upsides. The upside is, the unintended consequence. The silver lining is, and you said this before Jay, people's idea of what a healthy home has changed, people who are living in a space and they're working in the same space, they're there 24/7. We spend 90% of our life in doors to begin with. And now during the pandemic, that number increased. People understand that it's crucial to exist in a healthier space. So that's a silver lining.

Andy:

The other thing is, from a consulting standpoint, I spend now, well over half of my day, every single day of the week on the phone or on Zoom meetings with clients all over the world, over half of my day, every single day, talking, five, six hours. I can say, without a doubt, that I have learned so much in the last two years from my clients. And so silver lining or the intended consequence is, as a consultant, I've improved my breadth of knowledge tremendously because of the clients that I have. And they've taught me so much about what's important, what is

required, what is necessary. And it's allowed me to really dig in deep to certain topics and really get to that expert level. And I can only thank my clients for that.

Jay:

Yeah. I think it's about being a good listener as much as anything. And as you just said, you're learning so much because you're listening to the client and you're learning from the client. And that is a great synergy, that is a great relationship.

Andy:

Well, and let that be a lesson to the contractors out there too.

Jay:

It's a two-way street. It should be two-way street.

Andy:

Listen to what your customers are asking for. Don't just nod your head and say "Aha." And then go ahead and do the thing that you normally do.

Jay:

Right.

Andy:

Actually listen to what they want. And you'll find maybe they don't have the grammar, correct. Because they're not in the industry.

Jay:

Correct.

Andy:

Semantics or their vocabulary may not be as large as it needs to be to describe the situation because they're not in the industry.

Jay:

Right.

Andy:

But if you actually listen to what they want, you'll learn so much from them how to be a better contractor and how to help them and the next client even better.

Jay:

All right. Well, I feel like we are ending on a positive note here.

Andy:

We are.

Jay:

I was a little bit worried, but I think we brought it back around and I hope everyone that's tuned in to this show will feel that way. Like Andy said earlier, if you want to go back to those two shows, there were some really interesting things to hear there. We've, I think done a good recap of that and-

Andy:

Yeah, I think the earlier shows Jay, we went into some detail of materials more.

Jay:

We did.

Andy:

And I don't feel like we need to do that again, go back and listen to those shows.

Jay:

Yeah, right.

Andy:

But to expand upon that, basically to give you a lay of the land right now. And to your point Jay, things will get better, things are getting better. And I think the price increases we have right now, I think will level out. Just at this moment, I'm looking at the price of lumber on the commodity market and it's dropped 30% in the last week.

Jay:

Wow.

Andy:

So, it's a volatile market, but volatile markets also mean that there are deals to be had.

Jay:

Correct.

Andy:

And so keep your head up folks. It's always a good time to live in a healthy home, and it's always a good time, at least starting to plan building your healthy home. And hopefully you'll find the right time to get the ball rolling and get yourself along that path.

Jay:

Well said my partner. So I guess it's time to say goodbye to our listeners, Andy, take us home.

Andy:

All right, folks, we appreciate beyond words, your listenership and having you with us every couple of weeks. And I know we always talk about trying to do shows more often. We'll get there. If you like the show, please go on to iTunes and give us a thumbs up or a five star rating, write us a review, we appreciate it. And be honest, what can we work on? What can we do to make the show better for you? More informative? This is time that Jay and I take out of our days because we feel it's very valuable for us to inform you all what's going on in our industry. And we know you share that and you appreciate that, but let us know. We'd like to see that and please let your family and friends know about this. It's interesting.

As I was telling Jay, before the show, before we started recording, I had a meeting this morning with a client and her contractor, and I'm meeting the contractor for the first time. And the first thing he says to me is, "I've been bingeing your podcast. You guys are awesome." And so we get

about 15 minutes into the conversation, he just starts laughing. He says, "Oh man, I can see why you have a podcast." This is awesome.

Andy:

As a contractor, who's been in the business for a long time, he was doing what we said. He was listening, learning and he recognizes that as much of an expert he is in what he does, there's a lot of things he still needs to learn. And we're all in the same boat. I'm certainly learning every day. So folks, thank you so much, Jay, thank you. We'll talk to you soon.

Jay:

Sounds good. Everyone take care of one another.

Andy:

All right? Happy Easter, folks. Take care.