



Questions from Home Performance Counts: Virtual Green Home Tour

April 22, 2021 'Robinwood' – Asheville, NC

Brandon Bryant, [Red Tree Builders](#) and Kelly Erin-Spinney, [Modern Asheville Real Estate](#)

Q: How important is it for older homes that are being remodeled to use high-performance materials?

BB: We are looking to extend the useful life of an older home hopefully another 50-100 years and the use of high-performance materials is important to meeting that goal. If we can bring that existing home up to, or beyond today's standards in terms of indoor air quality and energy efficiency, we should. Long-lived, well-built, efficient and healthy homes are sustainable homes.

Q: I'm located in South Florida. Would most of the efficiency features mentioned in the tour apply?

BB: Many of the strategies in this home are translatable to South Florida, as the principles of building science remain constant, but their application is determined by a project's location so it is critically important to build for your climate zone and to vet strategies for your location. Asheville, NC is located in climate zone 4; we have a mixed climate with four seasons and are north of the [IECC climate zone map](#) 'warm-humid' line. South Florida is well south of the 'warm-humid' line and depending where you are located in South Florida, you are located in climate zone 1 or 2.

Q: Do you have Green designation(s)?

BB: I am a [Master Certified Green Professional](#) (MCGP).

KES: I do not hold the [NAR REALTOR® GREEN](#) designation at this time.

The following questions were answered during the live Q&A and are summarized here.

Please see the video replay for the full discussion.

Q: How many bedrooms and bathrooms? What is the garage size? Price of the house?

BB: It's a little over 4,400 square feet – 4 bath, 5 bedrooms, the 5th is set up as an office situation, but it does have a closet. It went up for sale at 1.9 million, was under contract in under a week and had a backup offer.

We had to cut the garage out the tour footage for time, which is unfortunate. It's a 24'*28' with a staircase the goes to an unfinished bonus room above the garage. In all of our garages, we put in a Panasonic Whisper Green vent fan on a motion detector. Our entry door into the house from the garage has an automatic close on it that connects to the motion detector on the fan, so the fan runs for about 20 minutes after the car has been turned off. The garage ductwork is separate from the house and the gases from the car are pulled out of the garage and ducted directly outside. It's a feature we started incorporating about two years ago; it's a small, easy thing to do but I find it to be beneficial and well-received.



Q: Do you foresee the certifications being part of the documents recorded (e.g. with deed, mortgage, etc.) for public access in the event that the builder/homeowner is not able to communicate all the “healthy” home features?

KES: Let me put out a disclaimer first, that I do not work for the Real Estate Commission or the Board of Realtors. I can only give you my opinion and tell you what Troy, my business partner and I do when we list our homes. We list every feature that we can list. And if some kind of performance test was not done for some reason, we will bring someone in and perform that test. If we are transferring or stewarding a house forward as the listing agent or if we are the buying broker, we are going to go through due diligence and have all that information. In my opinion, yes, that should be a standard and it should transfer with the deed – information about the land, such as riparian rights, transfers so why shouldn't information about the home. That said, I have never met a builder who wouldn't take my call and answer my questions.

On our RMLS, we do have certifications as data fields. We can check off ENERGY STAR, we can check off any of the green certification programs. For all the brokers watching, look for the Green MLS fields. It's becoming more regular, but it's not a standard at this time. If you don't have them available, you can put your certifications and high-performance features that you want to stand out in the public remarks, which will then go with the listing to all of the sites.

Q: What advice to you have for selling high-performance homes to realize the added value when there aren't any high-performance comps nearby?

KES: You have the same question with high-performance or regular, standard homes – sometimes your house just doesn't compare to the area that you're in. Understanding the features and cost perspectives and how that pertains to the house stewarding forward is one approach. Pulling comps from somewhere close, but not necessarily the same neighborhood. Having the appraisal done by someone, who if not a certified green appraiser, at least understands green standards. Being able to provide all the documentation for the house, which will help populate the MLS fields with the high-performance features and can be used to complete the Residential Green and Energy Efficient Addendum for the appraiser. And I always say, speak to your builder, understand the property – what's inside the walls, on top of the house, in the ground, as well as what you can see.

Q: Since the onset of COVID, are you finding that the must-have lists have changed for your clients?

BB: What I am hearing is that buyers need some flex space and they really want a strong connection to the outdoors. The outdoor space is another segment we had to cut for time, and this home has a beautiful connection to the outdoors. It has a screened-in deck with a fireplace that is integrated into the house design. We've done a fire pit in the backyard that you come out onto when you exit from the basement.

KES: I agree that most of our clients are looking for flex space, that is the keyword. Families are looking for a room they can convert into an office, but still flex into a bedroom when people come to visit (when we're allowed to visit). The indoor-outdoor connection is also critical. I call it the outdoor living room in this house. It's equally as beautiful as the main living room but then you're outside and sitting in a lovely screened-in porch in which you can have high quality outdoor furniture.



Q: When Brandon stated this house has 2.0 air exchanges per hour... did he state that it was so efficient it didn't need Solar (as in panels or Solar passive heating)? (Going to reword to this, but wanted you to be able to recognize it) "You talked about the importance of energy efficiency and a tight envelope, what are in the walls of this home – what types of barriers and insulation are you using in your builds in this climate?"

BB: We landed at 2.0 air changes per hour and a HERS index score of 55, so it is 45% more efficient than a standard new home. That's without solar panels – we did a lot of planning to make the house efficient so the owner won't need as much solar to get to net zero as they would if we hadn't focused on energy efficiency. A big part of that is focusing on the building envelope – we air seal throughout the envelope and use AeroBarrier, which helps us get a tight envelope.

Q: What does it mean to have "active radon piping" versus passive?

BB: A passive radon system is basically just a pipe that allows the gas in the soil underneath the home to flow out on its own and be dispersed into the atmosphere. If you add a fan to the system to actively pull that gas out, it then becomes an active radon system. Before we pour the basement concrete floor we install a network of pipes that runs up through the walls, up into the attic and out the roof. Gas, like water, will find the easiest path to move through, so it goes up the pipe and out. We also install a junction box in the attic that a fan can be connected to – we install the fan if the initial test comes in over 4 picocuries; but with the junction box already in place, an owner could opt to install an active system at any time in the future if they so choose.

Q: It would be great to have more product information. Can you share the brand of the heat system?

BB: We have a really great system on this house, a Trane 18 SEER multi-speed system.

Q: All things equal, what is the upfront percentage of cost for a buyer as their investment and how many years on average will it take for them to realize the savings?

BB: This will vary depending on your market and the level of green your buyer wants to achieve in the home. The practices we do as our standard are only a few thousand dollars more, so it would be about 1% more on a million dollar home (talking percentages can resonate more favorably than dollars with some clients) and we are typically looking at 5-7 years on payback. Now, if we install the solar, or geothermal, and do a full electric house with charging station batteries, that's going to be higher initial costs and have a longer rate of return. But I also frame the conversation in terms of total cost of ownership between the mortgage payment and the monthly utility bills and how those savings balance. The initial investment that might make the mortgage payment a bit higher may be offset with the utility savings.

Q: How important is having an energy and/or water rating prepared for a home?

BB: I want our homeowners to feel confident that we are doing what we say we are doing. Also, if I'm raising the bar (above code), I need to show that to people and I need to show that I know what I am talking about. A certification proves that we did what we said we were going to do; everyone can see the checklist with all of the green practices we have done and the culmination of putting a lot of components together to act as a system. A certification also helps with appraisals, and with resale because you have documentation, not just word of mouth. And personally, it's an opportunity to distinguish myself in a competitive market.

This home is certified to DOE's [Zero Energy Ready Home](#) (ZERH), EPA's [IndoorAirPlus](#) and EPA's [WaterSense](#) programs.



Q: Can you talk about the outside of the home?

What are some cost-effective exterior materials/panels you put in your homes that are both low maintenance and manufactured from eco-friendly materials?

BB: On the exterior, I'm looking at resiliency, durability and then sustainability. On this particular home, we have a superior wall system – that's a precast offsite basement wall system. It has a stucco finish, which will be low maintenance. We've got brick, which has been used for hundreds of years. I have a drainage mat behind that to handle water, because that's the number one thing I'm looking at handling. We have fiber cement siding which has a high fly ash content as well as other recycled materials. Our decking is all composite decking with a high recycled materials content. We look to provide a low maintenance situation for our homeowners, and durable choices that can handle the four climates of Western North Carolina.

Q: What are the roofing products?

BB: Two roofing materials – a metal roof (copper) and asphalt shingles in the other section.

Q: Are there solar panels on the roof? How many kW solar is the home laid out for?

BB: This house is what we call 'zero energy ready'. We've done the panel in the electrical box and run the conduit. We have also done the structural analysis of the roof and the solar layout. All the homeowner has to do when they are ready to pull that trigger is to take that to the solar company. This home is laid out for 8kW which is designed to bring the house to net zero, if operated as designed.

The garage has also been pre-wired for an electric car charging station. We didn't put the charging station in, but it is set up as a 'plug and play'. We have built a home to carry into the future and that is ready for the future today.

Closing remarks

Q: Kelly - how did you learn to talk about the benefits of green?

KES: This is my second career and I love real estate. Being passionate about what you do is first and foremost - understanding how to sell a home, how to build a home, and how to steward a home forward. Then layering on – being mindful and always continuing your education. We as realtors have to do continuing education and I always try to do something fun that is applicable. I'm a geek and I love mechanicals, the architecture of a property and what's going on in the walls so it's a passion for me. Remember that for most people, a home is the largest purchase that they make in their life – it doesn't matter if it's \$200,000 or \$500,000 or \$2 million, it's all relative. For each client you should have that level of respect and knowledge about the home you are going to sell.

Q: Brandon - how did you figure out how you could successfully build green?

BB: When I started out, I didn't know I could build green, but I wanted to make a difference in peoples' lives. The green building community really is passionate and supportive; I've met great people along the way like John Barrows and Ray Tonjes. My wife and I are dedicated at our company to having a positive sustainable impact on our local community of Asheville. Building green, using the knowledge in my head and learning more from others in the high-performance arena is one way I can do that. And I just enjoy it – I love being challenged; I love pushing the envelope in an industry that really hasn't changed a lot in the last 200 years.