habitat CONFERENCES

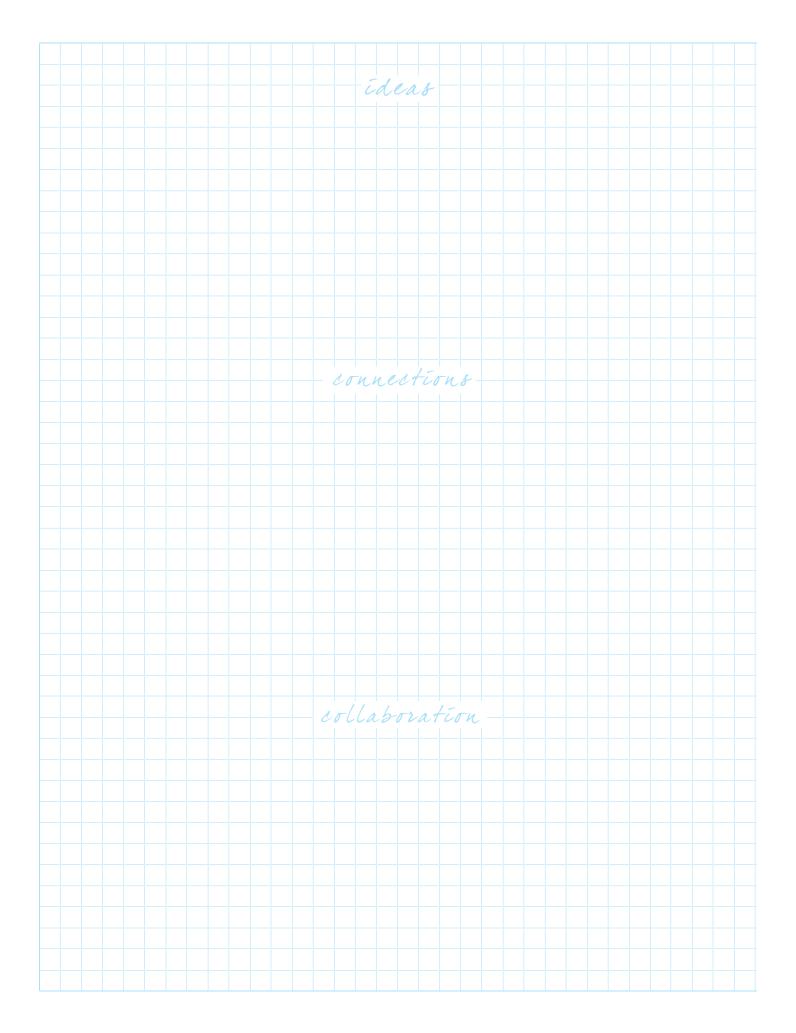
Ideas. Connections. Collaboration.



2013 Heartland Regional Conference Kansas City, Missouri | October 7 - 9, 2013

Hosted by the Metropolitan Energy Center





WELCOME

To the 2013 Heartland Regional Conference



"We'll work together to polish our skills of leadership and communication. We'll learn how to take advantage of emerging tools and techniques so we can be more successful in transforming our careers, our businesses, and our markets."

The Event

This conference is the culmination of focused discussions, ongoing research, and constant inspiration that we've shared with housing practitioners across North America. The topics have evolved over the years as we've heard the requests, and seen the needs, of our colleagues in the housing industry. We're honored that you've chosen to join us for these three days, and we look forward to adding your voice to the dialogue during this conference and beyond.

The Process

We have an industrious schedule planned this event. We'll meet each morning in plenary session to fine tune our plans for the day, study topics of broad interest, and engage in group discussion and debate. We'll move to small groups during the day for specialized work, rotating

through topics that are of interest to each of us. And we'll meet again as a group each afternoon to compare notes and engage in interviews and panel discussions.

The Social Events

We're hosting an optional social event Monday night, and organizing a no-host dinner on Tuesday. We hope you can get out, relax, and see some of the town with us. Look inside at the detailed schedule to learn more.

The Network

The Habitat X Network extends beyond the conferences. We connect forward-looking housing professionals from across North America all year, both on the web and at regional events. We show you how to join this group of extraordinary individuals, and we hope you take advantage of all the resources they have to offer.

Monday Agenda October 7, 2013

7:45 - 8:30	Registration	Beverages and light snacks. Business card exchange. Informal networking.
8:30 - 9:30	Opening Session	Introductions and flash interviews of participants. Establish guidelines for the Forum.
9:00 –10:00.	Panel Discussion: The New Future of the Housing Industry	We convene a panel discussion that includes leaders from the Clinton Climate Initiative, the City of Kansas City MO, the Metropolitan Energy Center, the Building Performance Institute, and other entities. The focus of discussion will be to identify upcoming trends and opportunities in sustainable housing and renewable energy that are relevant and bankable for local organizations. Includes Q&A. Simulcast to those who are not in attendance.
10:00 – 10:20	Break	Snacks and beverages.
10:20 – 11:20	Panel Discussion: The Capabilities of the Local Efficiency Industry	This discussion will include leaders from Efficiency First, Diggs Construction, Decent Energy, and other contractors, suppliers, and subcontractors from the home performance and renewable energy fields. We'll have a lot of experienced people on this panel, as well as some new and innovative players in the housing industry. We'll use this time to identify business models that are most responsive to green market demand at present while recognizing the realities of the construction industry. Includes with Q&A. Simulcast.
11:20 – 12:00	Summary Session: Creating Home Performance 3.0	We meld the findings of the two panels in this summary session. We'll feed this local industry knowledge into a white paper that identifies market opportunities, provides suggestions for lowering barriers to implementation, and makes recommendations for strengthening the local market for home performance and renewable energy services.
12:00 – 12:45	Catered Lunch	At the Kauffman Center, for attendees of the Industry Summit.

Core Conference Begins - Monday Afternoon			
12:00 – 1:00		Registration and informal networking	
1:00 – 2:30		Opening Session: Laying the Groundwork	This is a planning and brainstorming forum in which we lay the groundwork for the conference. The faculty will deliver seven-minute previews of the upcoming sessions. We'll identify what types of expertise we have among the attendees. And we'll conduct a fast-moving brainstorm, capturing the needs and interests of everyone in attendance, and allowing us to fine-tune the learning objectives for the conference.
2:30 - 2:50		Break	Snacks and beverages.
2:50 - 4:00		Group Workshop: We Have an Industry. Where's the Market?	A brainstorm facilitated by Chris Dorsi and Eileen O'Hara. The home performance industry includes many highly capable people who are committed to building long term success for themselves and their companies. Yet the current market presents some big challenges: consumer interest remains soft, and the home improvement industry is fragmented among many players. Given this situation, how can you succeed? This workshop is intended to help answer that question in ways that are relevant to each participant.
4:00 - 4:10		Break	Snacks and beverages.
4:10 - 5:00		Interview: A New Innovation in Financing for Kansas City	We'll seat Keith Canfield (Clinton Climate Initiative) and Oz Qureshi (Metropolitan Energy Center) for this talk-show style interview. They have good news to deliver as they unroll an innovative financing tool in Kansas City. PLUS a rant-and-riff on housewrap. With ample Q&A to help you get all the answers you need. Daily Wrap Up.
5:30 – 7:30		Reception Hosted by the Metropolitan Energy Center	The venue is the Project Living Proof, located less than one mile from the Kauffman Conference Center. Light snacks and beverages will served. Plus — there'll be an appearance by the award-winning creators of Mind Drive. Your families or guests are invited. Casual attire. Dinner on your own afterwards.

Tuesday Agenda October 8, 2013

Core Conference - Tuesday Morning			
7:45 - 8:30		Registration and Informal Networking	Beverages and light snacks.
8:30 – 10:00	3	Group Workshop: Telling the Story of Home Performance, with Chris Dorsi and J West	We study the successes and failures of the home performance industry. We delve into marketing and public outreach, how it varies among industries, and how we can adapt the message used by each of our organizations. Bring a recent marketing example, from your company or others, and we'll give it a critique. This session will take cues from Chris' recent article in Home Energy Magazine .
10:00 - 10:20		Break	Snacks and beverages.
10:20 – 12:00 Market & Business Track		Workshop: Build a Business Roadmap, led by Mark D. Allen of the Missouri Small Business and Technology Development Center.	Mark will guide business owners and managers through the process of building a realistic blueprint for your organization. You won't go away with a complete business plan after this 100-minute session, but you will have a good start on the process, and you'll be connected with resources to help you to finish the job on your own. PLUS — Mark has agreed to provide limited complimentary follow-up for attendees to help you complete your Roadmap.
10:20 – 12:00 Tools & Technology Track	000	Workshop: Join the Wireless Revolution, led by Joe Medosch, with Bill Spohn and J West.	This session will focus on the revolution in testing brought on by the advent of wireless tools. We'll look over all the current equipment, pass it around, and show you how it's used. And we'll focus our expertise on the question, "How do we take advantage of these tools to improve our work, save time, and make more money?". You may be surprised to learn how this equipment can be used in training, program design, and quality control. You'll get to handle lots of the new equipment.
12:00 - 1:00		Catered Lunch	In the Kauffman Center.

Tuesday Agenda October 8, 2013

Core Conference - Tuesday Afternoon			
1:00 – 2:30 Market & Business Track	1	Build In-House Training Capacity with Chris Dorsi and Kevin Beck	We'll show you how a combination of on-the-job training and structured mentorship is improving performance and lowering training costs in many organizations. We'll show you how to set up in-housing training sessions, we'll show you how to find and support mentorship.
1:00 – 2:30 Tools & Technology Track	R	Excel at Advanced Diagnostics led by J West, with Joe Medosch.	We focus here on using your experience and skills of observation before you get out the tools. Learn what we're really evaluating when we do diagnostic tests, and see how to streamline the process by choosing the right test procedures. You will get lots of hands-on experience in this session.
2:30 - 2:45		Break	Snacks and beverages
2:45 - 4:00	a a	Group Workshop: Leverage Collaborative Tools, with J West and Chris Dorsi.	We'll review the current crop of collaborative tools, and help you decide which ones can help your organization by simplifying and standardizing communications, daily workflow, and technical procedures. You'll go home with recommendations and advice that are customized your organization.
4:00 - 4:10		Break	
4:10 - 5:00		Interviews: How Do We Sell This Stuff?	The topic is home performance, and how we describe it and sell it to the public at large. We'll pose questions to experts from around the country in this talk-show style discussion. With ample Q & A. The subjects discussed here, and the solutions proposed, will become threads we follow throughout the conference. Wrap Up.
6:30 - 8:30		No-host dinner	At a location to be announced. Your family or guests are invited. Casual attire.

Wednesday Agenda October 9, 2013

Core Conference - Wednesday Morning			
7:45 – 8:30		Registration and Informal Networking	Beverages and light snacks.
8:30 – 10:00		Open Space Session	We save this last morning for what is often the most-requested session: fast-moving presentations and hands-on projects on customized topics that are requested by attendees. We use this time to provide focused and relevant content that is fine-tuned for everyone's needs and interests. Presented by the Habitat X faculty and guest experts from Mind Drive, Retrotec, TruTech Tools, Building Performance Center, and others.
10:00 - 10:20		Break	Snacks and beverages.
10:20 – 12:00 Market & Business Track		Focus on Real Estate Appraisal Led by Mark Maschger, with an interview of Debra Little.	A workshop in which we draw upon the experience of experts who can speak to the market value of efficiency. We'll develop talking points for attendees who sell energy efficiency, and learn how to move the local residential market towards higher valuation of efficient properties.
10:20 – 12:00 Tools & Technology Track		Making Compass Fly A Dialogue with Ethan MacCormick of Performance Systems Development.	Moderated by Chris Dorsi, with the support of Tim Kemper at the Metro Energy Center. If you already work with Compass, or its sister product Surveyor, you'll already have questions about how to make it work better for your company. This is the time to get those questions answered in real time by an expert who works with these products on the ground level. PLUS– Ethan will show some surprising behind-the-curtain details of modeling software in general.
12:00 - 1:00		Catered Lunch	In the Kauffman Center.

Wednesday Agenda October 9, 2013

Core Conference - Wednesday Afternoon			
1:00 - 2:30		No-Holds Barred Panel Discussion	In this potent closing session, we'll delve into the some of the deepest knowledge in the U.S. housing industry, gathering those in the room who've been beating the drums of efficient and sustainable housing for 30 years or more. Expect to hear stories here that have never been told. Moderated by Chris Dorsi. We'll take Q&A from the Kansas City audience for this event, and simulcast this event to those who couldn't make it.
2:30 - 2:45		Break	Snacks and beverages.
2:45 – 3:30		Closing Keynote: Coach, Get Me in the Game! delivered by Mark D. Allen	Mark has made a specialty of mentoring forward-looking professionals and spurring their organizations to higher achievement. His keynote will include specific and relevant guidance for everyone in the room.
3:30 - 4:00		Conference Follow-On Facilitated by Chris Dorsi, J West, and Amy Sheppard.	In this last brief session, we help everyone in the room identify and record the parts of the conference that are most relevant and useful. We'll capture these for follow-on consultation, so we can continue to provide the peer-network advice that is the hallmark of the Habitat X Conferences. Adjourn.
4:15 – 5:15		Networking Event Optional	For those who can stay on later, we'll facilitate one-on-one meetings to discuss whatever you'd like. Think of this as speed-dating for professionals, and use it to build connections with others in the Habitat X network.

We Have an Industry. Where's the Market?

A Workshop with Chris Dorsi and Eileen O'Hara

We'll engage in a group discussion geared to create an accurate overview of the local home performance ecosystem. We'll identify the factors that help or hinder our various industries. We'll examine and ground-truth our assumptions about market segments, mixes of product and service, and company messaging. And we'll evaluate our findings, as a group, to help each participant identify their most likely opportunities.

Some of the questions we'll seek to answer:

- What is your experience in the home performance market?
- What types of success have you had?
- What are your frustrations?
- What has changed over time?
- What is unchangeable?
- What do you need to be successful?

The answer may be different for each of you, so we'll provide a framework and method to help you capture the ideas that are most relevant to your career or business. Plus, if you'd like additional feedback, we'll gladly provide additional assistance after the conference.

Who are you trying to reach?

If you say you are trying to reach everyone, we'll know you're likely to reach no one. How specifically can you identify the psychographics, worldview and needs of the people we seek to change?

Why do they decide to support you?

In order to earn the donation, make the sale, generate the buzz, we need to change people somehow. When we change them, what happens? What story do they tell themselves?

What do you need in order to make this happen more often?

What resources, tools or facts need to be present for this to work for you? What do we have to change about our products, our services or our people? How do you know?

From a blog post by Seth Godin. www.sethgodin.com

A Ground-Breaking New Pilot Program Launched in Kansas City

An interview with Keith Canfield of the Clinton Climate Initiative, and Oz Qureshi of the Metropolitan Energy Center, about the HEAL Program.

Consider these facts about employee benefits.

In the early 1940s, when war-induced wage freezes pushed industries to find new means of attracting employees, only 5 million people in the United States had health insurance. By 1960, that number was 140 million. Today, nine out of ten large employers offer a major medical policy to employees.

According to a recent survey conducted by Aflac, 58% of large-business employees said they were "more likely to accept a job with slightly lower compensation and better benefits" than a job in which the inverse was true. In the same survey, only 25% of CEOs disagreed with the statement that "trying or considering new benefits [would be] a wise response to the recession."

Take these facts and add them to the ones that we, as energy professionals, know all too well—that since 1970, recorded temperatures in the United States have risen, and that from 1999 to 2010, average household energy costs rose, even in the wake of the recent recession—and we have four seemingly disconnected facts. First, energy costs are rising. Second, wages are still recovering after the recent recession. Third, the employer is a proven vehicle for driving employee benefit programs to scale. And fourth, the value of employee benefits has never been greater than it is today.

The Home Energy Assistance Loan seeks to offer a solution.

HEAL is a project of the Clinton Foundation's Climate Initiative. It's an employer-assisted energy efficiency program designed to improve quality of life, for both employee and industry, by facilitating home audits and retrofits. Launched in 2009, the Home Energy Assistance Loan, or HEAL, has an objective to catalyze energy efficiency by offering it exclusively at the workplace, where now-institutional concepts like healthcare and retirement benefits have historically gained the most traction. The program's five-step delivery model is tailored to meet the needs of both industry and employee, eliminating the places in the energy efficiency process where each camp typically self-ejects.

The concept of HEAL was first tested in 2008, when Martha Jane Murray, current Program Director for CCI HEAL, introduced it to employees of her family's shoe factory in east Arkansas. After this successful pilot, the program was adopted by the Arkansas Energy Office (AEO), which secured ARRA funds to finance a two-year demonstration of the project statewide. Martha Jane, who had worked as a consultant with CCI since 2006, presented AEO's proposal to the Clinton Foundation in 2009, and CCI HEAL was born.

94%	of employee-respondents "view (their) employer more favorably for offering HEAL."	This article by Rob Guthrie.
82%	of employee-respondents agreed that "offering HEAL makes for a better workplace."	Rob serves as the commercial program
90%	% of employee-respondents are "likely, or very likely, to make energy-efficient improvements to their homes in the future."	manager for the Home Energy Assistance Loan
64%	% of employee-respondents "would not have made improvements to their homes without HEAL participation."	(HEAL).

As with the inaugural shoe factory project, the blueprint for each of HEAL's pilot ARRA engagements began with a commercial audit and retrofit, from which the resultant savings were dedicated, by the industry, to an internal loan fund. Employees who enrolled in the HEAL program would then tap this fund to finance upgrades to their own homes, retiring the debt through payroll deduction. From 2010 to 2011, this particular model was tested with a diverse group of pilot employers, from L'Oreal USA to Hendrix College, yielding strong results in every case.

Today, nearly
1,500 Arkansas
employees have
participated in the
HEAL benefit;
those proceeding
to retrofit have
seen an average
return-oninvestment of 23%.

In 2011, CCI HEAL and the City of Little Rock were jointly awarded a Climate Communities Showcase Grant through the EPA, calling for the introduction of HEAL at the City of Little Rock, as well as at the University of Arkansas for Medical Sciences (UAMS). Because both entities were state-funded, to varying extents, and were therefore prohibited by Arkansas statute from loaning to employees, CCI HEAL had to develop a companion

model (known today, in HEAL lingo, as the Third Party Model) to meet the terms of its EPA grant. By replacing the employer-capitalized loan fund with a third-party lender—in this case, a credit union—CCI proved the flexibility of its design, and went on to serve over 300 City of Little Rock and UAMS employees from 2011-2012.

CCI has fee-based arrangements to offer HEAL at UAMS, the City of Little Rock, and Arkansas Children's Hospital, where it conducts weekly enrollment sessions for eligible employees. The program has also expanded beyond its home state, with

projects now underway in Michigan, Vermont, Wisconsin, California, Missouri, and North Carolina. The ultimate goal, of course, is the paradigm shift—the point where enough national data exists "to make workplace retrofits the norm," as former President Clinton writes in his 2011 book, Back to Work—and already the movement is happening, with help from partners across the country.

Learn more: clintonfoundation.org



Meet the Students and Mentors of MINDDRIVE

Monday Night Reception at Project Living Proof



Project Living Proof

A Project of the Metropolitan Energy Center, and the location of our Monday evening reception: 917 Emanuel Cleaver Blvd.

The 3,000 square-foot house at Project Living Proof (PLP) is outfitted with a variety of green options for insulation and air-sealing; air- and ground-source heat pumps; a high-efficiency gas furnace; an instant water heater; solar panels that generate electricity, heat air or heat water; AC- and DC-powered lighting; hyper-efficient appliances; interior finishes and paints that don't pollute the air; salvaged wood; vintage furniture; and displays that show real-time utility costs.

The 7,000 square foot site features a water-pervious driveway with provisions for electric vehicle charging and natural gas fueling; raised vegetable beds; a native shade garden; a truly low-maintenance lawn; a boardwalk and deck made from recycled plastics; a variety of rainwater harvesting and infiltration strategies; and plans for more to come.

- Restore a modest, historic home and garden in a manner that is healthy and energy-efficient, in a setting that is accessible to the public.
- Demonstrate green-building products and services ranging from the experimental to the readily available.
- Showcase options, test assumptions and articulate lessons of sustainable and regenerative design.



Since October 2010, Project Living Proof has hosted more than 1,000 local, national and international visitors. The house is estimated to be 67 percent more energy efficient post improvement. The early installation of the solar photovoltaic (PV) array made the project a net generator during construction, producing nearly 5,500 kilowatt hours (kWh) in its first year, and the array is among components being piloted by KCP&L for consideration with a smart grid.

By infiltrating or collecting more than 95 percent of the rain that falls on the site, PLP reduces irrigation and prevents rainwater runofflinto the combined sewer — requiring less energy for pumping and treating water. The landscape design is a pilot for the SITES Initiative — a landscape-based rating system. The Rockhill Homes Association and Kansas City Landmarks Commission credit the house for its sensitivity to historic restoration. The live-in caretaker regularly hosts social events, educational sessions and meetings.

PLP is supported by the Metropolitan Energy Center. KCP&L is the lead sponsor and Missouri Gas Energy provides anchor funding. Major contributors include: Albert Tamm Lumber Co.; American Fire Sprinkler; Anthony Plumbing, Heating, and Cooling; BNIM; Black & Veatch; Brookside Building Performance; Central Fiber; cfm Distributors; Construction and Abatement Services; Cromwell Environmental; Cultivate Kansas City; Decent Energy; Demilic USA; ECS Geothermal; E&K of Kansas City; EPA Region 7; Elmwood Reclaimed Timber; Environmental Works, Inc.; Ewing Marion Kauffman Foundation; Green Light, Green Works of KC; Ground Source Systems; The Hayes Company; Heartland Utilities for Energy Efficiency; Henderson Engineers, Inc.; Hendrickson Tree Service; Hermes Nursery; Illuminations Sales; James van Eman Architects; JE Dunn Construction; KC Habitat for Humanity ReStore; Kaw River Restoration Nurseries; Kohler; Loma Vista

Nursery; Mark One Electric Company; MARC Solid Waste Management District; Missouri Organic; Patti Banks Associates; PPG Industries; Rothers Design-Build; SFE Enterprises; Solar Solutions of Kansas City; Trex; Water Furnace; United Heating, Cooling, and Plumbing; Urban Mining Homewares; University of Kansas School of Architecture; University of Missouri – Kansas City; and York.

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Telling the Story of Home Performance

A Workshop with Chris Dorsi and J West—from an article originally published in Home Energy Magazine

TRAINING



Telling the Story of HOME PERFORMANCE

e're all engaged in the business of education, whether we recognize it or not. Every time we speak or write, after all, we're hoping to educate others about our knowledge and beliefs. As home performance professionals, we have a great story to tell—an education to deliver—and that's the intent of this column: to discuss language and communication as it relates to the business of home performance. I think it'll be relevant to your work, whether you're a trainer, salesperson, technician, manager, or anyone else who works in the world of high-performance housing.



CHRIS DORSI has spent several decades immersed in the business of building better homes, capturing those best practices as wellrespected printed books and technical standards.

Today he leads Habitat X, a private organization that hosts professional development events for the home performance industry.

We use language to express ideas, sell products, give instructions, get opinions, or ask for help. If you don't understand the effect your language has on others, you may not get the responses you expect. For lack of clear language, things can go very wrong in the workplace, whether you're communicating with a customer, an employee, a coworker, or a building inspector. It's worth your time to pay attention to language so you can be more effective in whatever you do.

Home Energy | July/August 2013

We face a unique challenge in communicating with the public about the world of home performance. We have in our grasp a set of tools and techniques that can improve homes, save a lot of money, protect the planet, and help us build a bridge to a sustainable future in which homes are less of a burden on their owners and on the planet. Yet we're still waiting in most markets for the groundswell of interest and sales that'll indicate when home performance has finally gone mainstream. We've made some good progress here and there, but some days it seems that no one is paying attention to our message. We're all very good at talking shop to other home performance practitioners, but it appears that we haven't yet compiled a truly compelling story to tell the rest of the world. We all need some practice educating others about our products and services, whether we're making sales calls, speaking to community organizations, or just trying to tell our friends what we do for a living. I think we could each tune up our talking points by considering these questions.

What Do People Want Out of Life?

The truth is that most people want, at a basic level, only a few things in this life: comfort, security, and social status among them. The good news is that home performance can deliver all three.

Comfort is easy for us to sell because highperforming homes are indeed more comfortable, due to consistent temperatures, low air leakage, and good indoor air quality. On my retrofit jobs, I've had many customers tell me that the improvement in comfort was apparent the day we began work. The security benefits of home performance are equally compelling. If you take time to calculate the possible future utility costs for their homes, most customers will recognize the financial security they gain by controlling their home's consumption. If you tell the story properly, most people will also derive some security from knowing that their high-performing home will be more disaster proof because they spent their money on shell improvements rather than oversized HVAC systems.

The third piece of the puzzle, social status, may still be the hardest sell. A few homeowners will want to own a home that performs better than the neighbors' house. Or they may care about the social stigma of owning a wasteful low-performing house. But the real shift toward social enthusiasm for home performance will take place when average folks recognize the inherent smartness of being thrifty, and of taking control of their shelter. This simple shift in attitude will have a profound impact on our industry, and it'll happen when intelligent public policy, favorable economics, and environmental concerns are finally aligned.

Communication Tip: When discussing the value of owning and living in a high-performance home, you'll get greater acceptance if you bundle personal values into the proposition.

How Do You Tell the Story?

You'll get a better reception for your message if you consider who you're talking to and what they're ready to hear at a particular time. This is not to say that you should change your message for every situation, but rather that you should consider how to express your



When your job is to deliver education in the field, whether to professionals or the public, you'll have the opportunity to craft an extremely relevant story that addresses the interface of people and their homes.



It's in the controlled environment of the classroom, with professional learners who are focused on education, that you can best discuss the advanced technologies of home performance.

message in different ways. Every technical trainer knows, for example, that you cannot effectively teach until you learn about your students' prior knowledge and about their attitude toward learning. The same goes for telling the story of home performance.

We all process new information using a variety of approaches. In the home performance sales cycle, for example, homeowners make decisions in different ways during each stage of the process. If presented with an itemized audit of their home, most people will engage the scientific part of their brain, at least for a moment, asking themselves, "Does this make sense? And do these people know what they're talking about?" Once they have a proposal in hand, they'll surely make some purely financial decisions, asking, "Can I afford this work? And will it add value to my home?" But in the end, most people will make largely emotional decisions about home performance, asking questions like "How will this help my family? And do I even want this contractor's crews in my house?'

You'll be most successful in communicating the benefits of home performance to homeowners, or anyone else, if you understand and have compassion for the situation the listener is in at the time you're delivering your message.

Communication Tip: Learn to tell the story of your profession from a variety of

approaches. Refine your message to address the needs and interests of your listeners

How Much Detail Do We Provide?

We are all guilty of talking shop to the wrong people. The truth is, few people outside the home performance industry really care about the technologies that we housing specialists have invented and love. You can be assured that when newly minted electricians swept across North America selling the benefits of home electrical wiring during the 1920s and '30s, they didn't lecture homeowners on the beauty of Ohm's law and other principles of home electrical wiring! Yet that is what many salespeople in the home performance industry do when they elaborate to homeowners on the value of things like pressure diagnostics and worst-case combustion testing.

We professionals definitely need our equipment and procedures to do our jobs, and there may be times when you can show off your technical prowess by describing them to a particularly astute listener. But in general, the technology is not the story. It's just a methodology that we use to accomplish a job. And that job is to create comfort, security, and status for the public.

Communication Tip: Refine your message to showcase the benefits of what you can do for people, not how you do it. Drop the

techno-talk unless you know for certain that the listener cares about your toys.

When you speak to the public about home performance, you'll have the best success if you translate the language of technology into human terms. The home performance industry has done a lot of great work in the last generation, but we still have not touched the vast majority of the 100 million-plus homes in North America. If we really want to promote the idea of high-performance housing across society, we'll need to hone our ability to speak of home performance in ways that are compelling, believable, and actionable. And that'll require a shift in approach among housing professionals toward a style of effective communication that supports rather than hinders our efforts. It'll be a process of education for all of us, and practice will help. We just need to adjust our thinking, work on the script, and get out there and tell the story.

>> learn more

Learn more about language and communication, and join the public dialogue, at the Habitat X website: www.HabitatX.com.

www.homeenergy.org 🗆

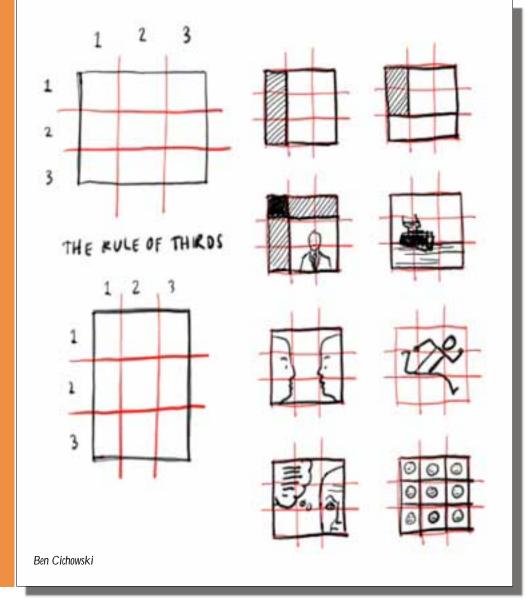
Tools & Techniques

Visual Design

Good visual communication can convey ideas that are difficult to put into words. But poorly crafted visuals are confusing to the viewer, forcing them into incorrect conclusions about the data, or discouraging them from further inquiry. Like crafting a good sentence, assembling visual elements that tell an accurate story is harder than it looks. Studying basic design, as shown here, is a good place to start.

Practice always helps: try assembling slide shows, sketching out a drawing, or using Excel to make a graph. Put your creation in front of an 8-year-old, and see if they get it. Then put it front of an expert, and see if they care. Somewhere in that continuum, between those two reviewers, is where most of us need to create content.

If you want to learn more, study the books of Edward Tufte, available at www.edwardtufte.com



Mentoring—The Importance and Necessity of Passing On Skills and Knowledge

A workshop with Chris Dorsi and Kevin Beck. Article from Home Energy Magazine, by Kevin Beck of the Building Performance Center in Folsom, California.

When I was a 12-year-old-boy growing up in southern California I spent most of my free time working at the family-owned lumber and hardware store that my grandmother had started in 1920. While my friends were out riding their bikes or heading to the beach to flirt with girls under the warm So-Cal sun, I was driving a forklift unloading trucks and placing the units of lumber in neat stacks one atop the other in our lumber yard, which was about two football fields long. If I wasn't on a forklift, I was loading the backs of pickup trucks with huge scoops of sand or gravel with a skip loader while contractors stood, elbows on their hoods with their jaws hanging wide open wondering if a 12-year-old boy knew what he was doing. I never dented a truck or dropped a load of lumber and I owe all that to my Dad and the great guys he had working for him. I never felt like a slave to the business. On the contrary, I couldn't wait to get to the store after school to see what they were willing to let me try next.

Our Other Teachers

To me, these men were the "other" teachers I had growing up. I assumed every kid I knew had two schools; one that taught us reading, writing, and arithmetic, and the other

that taught us skills that we could use when we grew up to make a living. Today, I realize that Dad and these other men were my first mentors. They never got agitated when I insistently asked them to teach me something new. Instead, they would actually stop what they were doing, show me once how to do something safely and efficiently, and then watch as I fumbled and made my own mistakes. After a few cuts and bruises they would ask me, "So Kevin, you still want to work in the business?" "Hell yeah!" I would answer enthusiastically; looking quickly around to make sure Mom wasn't around to hear my foul mouth. "Okay then, let's try again," they would say, helping me up or wrapping my cuts with good old electrical tape... bandages smandages.

I was extremely lucky to have these men in my life. Some don't enjoy that luxury. Perhaps that is why I am so adamant these days that all of us, whether you're a carpenter, a shoemaker, a baker, or a seamstress needs to take the time to teach, coach, and inspire others with fewer or lesser known skills than ourselves. Just think if the caveman never passed on what they knew to younger generations? The human species might have died off with the rest of the dinosaurs. (continued on page 18)

"I assumed every kid I knew had two schools; one that taught us reading, writing, and arithmetic, and the other that taught us skills that we could use when we grew up to make a living."



Mentoring (continued from previous page)

Mentoring With Stories

Storytelling, a form of mentorship, is embedded in every culture on the planet. It doesn't matter what religion you are or what country you are from, we have all learned that to continue to thrive as a species, we need to make sure younger, or less informed individuals, hear what we know so that they can take those tidbits of knowledge and use them, build upon them, improve them, tweak them, realign them so that future generations may prosper and grow without causing harm to themselves or our planet.

The problem I see in today's society is compartmentalization. "I own it and you can't have any" reflects what seems to be a pervasive problem that leads to all sorts of inequity and inequality. This creates deeper and wider chasms between economic and social classes. A few may prosper by this methodology but, as a species, or, if you prefer, as an industry, we will all suffer.

Without the written word, cavemen taught cave boys to hunt and provide shelters for the tribe. This hands-on learning and sharing methodology has lost its luster in our modern, high-tech society. A two-minute YouTube video does not an expert make yet we assume so. At least that's what the younger generation is being led to believe.

Habitat X and Building Performance Centers

A fellow Habitat Xer of mine, Alex Glenn from Advanced Energy, shared with me at this year's Habitat X national conference in Helena, Montana, that there are studies out there showing that our attention spans are getting shorter and shorter. According to what Alex shared, Babyboomers—my generation—have an attention span of about 12-15 minutes before they get a little antsy and want to change course or do something different in a classroom setting. Gen-Xers' last about 7-10 minutes before they're starting to fade out, and the up and coming Millennials have the attention span of about three minutes. Think about that if you're a trainer or a training entity. If I need three days to fill someone's head with new information and my student population starts tuning out every three to ten minutes, I have to be very creative in how I insert that knowledge into their heads.

Call me old fashioned but I still believe, especially for diagnostics and remediation skill sets that hands-on training and mentoring is the only way to go.

Organizations that deliver 3–5 days of PowerPoint slides and call that a "certification" are always suspect to me,



"The benefit for me to attend and sponsor the Habitat X Conferences is that these participants are all my mentors, young and old." especially if they're boasting about their high test-score results. They're just scratching the surface and delivering only what the student needs to pass the test in my opinion. We all know there's way too much to know in this industry to bless someone as an "expert" after only a few days of watching slides on a wall.

At the Building Performance Centers, we're hoping to change all of that. With specific certifications we will provide a bundle of mentoring opportunities so that when a student leaves our facilities they know that they don't need to weather the storm alone. To do this economically, we are utilizing modern technology to provide a face-toface experience. I personally know of only a few people in my state (California) that I would trust to answer questions of newly trained HERS Raters and Building Performance professionals. Because that list is so short, we'll be depending upon modern resources such as Google Hang Outs where we can create "communities" for each class delivery so that students can see and interact with their fellow classmates and the instructors well after they have obtained their certifications. This adds value to our service and provides what we feel is one of the missing links in our industry, how to make it sustainable and cost effective both for the students and the training organization.

At the recent Habitat X Summer National conference put on by the esteemed expert and personal mentor to me, Chris Dorsi, has created an environment where industry aficionados can gather for a few days and learn and feed off of each other. The benefit for me to attend and sponsor Habitat X is that these participants are all my mentors, young and old. I learned as much from the young kid who just got into home performance as I did from experts like Chris Dorsi, Jay West, Ben Cichowski, Ann Edminster, Gary Klein, Colin Genge, Charisse Bartholomew, and Bill Spohn—to name a few who spoke at this year's event. It is always a unique and fabulous experience at Habitat X and I know that this collaborative learning and sharing atmosphere will add the glue to this shaky business we all love so much.

I shared with my fellow Xers in Helena that the older I get the more I want to turn around and make sure nobody's fallen off the cart. By that I mean we all, if we're really serious about creating a sustainable and valuable industry for ourselves, must lean on and trust and learn from one another. Don't close the door and not share. Swing it open wide, kick the frickin' thing down. Teach others, take time out of your week and reach back to make sure all your students are doing okay and ask them if they need any support or additional resources to help them grow their businesses.

Oh, and don't forget a roll of electrical tape. There's bound to be some cuts and bruises along the way and there may not be any Band-Aids nearby.

—by Kevin Beck

Excel at Advanced Diagnostics

The tests you perform may not return the results you expect. In this session we'll address common pitfalls in analysis and planning that can happen even when you're working with good data.

This session will help you achieve reliable and repeatable results in your measurement and analysis. It will help you improve your diagnostic audits by balancing the use of tools with an informed process that you adapt to each situation.

Why We Test

Every diagnostic test requires a different approach depending on what you'll do with the information.

- **Perform a Diagnosis.** Identify components, confirm condition, and make broad recommendations to improve building performance and occupant safety. Analyze known problems.
- Develop a Scope. Test and analyze the home with sufficient detail to create a scope of work. Identify relationships among the home's components, and anticipate the effect of proposed work. Create line of communication with crews.
- **Perform Quality Control.** Perform test-in procedure to set a baseline for the home or system. Determine if

work performed is complete and effective. Perform testout procedure or end-of-job analysis. Perform programmatic oversight.

An Intelligent Approach

We've observed a mindset that's common to experienced practitioners. It's a combination of education, experience, and situational awareness.

- Use Both Basic Science and Applied Science. Learn about the principles of science, but don't ever forget about the limitations of your tools or the variability of the work environment.
- Remember That the House is a System. Analyze each separate part of the home as needed, but keep a broad view of the home, considering how the home's components are linked to one another.
- Synthesize the Information. Keep all your observations in play until the very end of the process. Don't discard data just because you cannot find an immediate need for it.

We take a fresh look at the classic struggle of man versus machine, or "auditor versus diagnostic tool".



The Common Pitfalls

We've seen that when the process of analysis goes wrong, it can often be attributed to a few categories of problems.

Errors of Planning

- Perceiving the House Incorrectly. Example: You did not fully understand the impact of intermediate zones such as porches.
- Not Accounting for Interference. Example: You did not expect that kids would play with windows, or that pets would come and go through pet doors.
- Making Assumptions about Hidden Components. Example: You tested airflow at a grille that's not connected to the duct. Or you checked the draft of a chimney that vents into the plumbing system.
- Performing Tests under Different Conditions.

 Example: You included a porch in the test-in process, but not in the test out.

Errors of Testing

- Choosing the Wrong Test. Example: You spend time testing ducts which are completely indoors, and which you could never get access to for sealing.
- Choosing the Wrong Setting or Set-Up. Example: You don't configure the manometer correctly to reflect the blower door set-up. Or you zero your CO monitor in a garage that's full of CO.
- Doing Tests Out of Order, or at the Wrong Time. Example: You do a winter blower door test that causes

- causing it to fail a subsequent draft test. Or you IR-scan a wall in the morning shade, then re-scan it in the afternoon sun.
- Doing Things the Hard Way. Example: You make a time-consuming plywood blower-door adapter for an arched door, when you could have installed the blower door in a window.

Errors of Analysis

- Taking Too Much Data. Example: You waste time or get confused by doing a complete audit on each and every unit in a row house. Or you perform extensive combustion analysis on a water heater you plan to replace.
- Taking Too Little Data. Example: You go back to the office to discuss a moisture problem in the crawl space before you look carefully to see if there are any plumbing leaks. Or you report a combustion appliance that fails under worst-case depressurization, without testing it under natural conditions.
- Relying Only on Data. Example: You install a large exhaust fan in an apartment with shared walls. But you don't consider whether the negative pressure sucks smoke and odors through the common wall. Or you call for attic insulation without inspecting the ceiling for structural integrity.

Recognizing these pitfalls will improve your situational awareness on the job.

Technicians love to get out all their tools and start testing. But we've found blind belief in testing should never take the place of using your senses and exercising your intelligence.



Unlocking the Value of an Energy Efficient Home

A Blueprint to Make Energy Efficiency Improvements Visible in the Real Estate Market

Consumer demand for energy efficient homes that feature lower energy costs, greater comfort, and other benefits, has been growing steadily during the past decade. The success of energy efficiency programs in markets across the country has contributed to a growing inventory of improved existing homes.

Yet, a disconnect currently exists between the energy efficiency program implementers, the real estate community, and the homebuyer and seller. Energy efficiency programs have not found ways to transmit consistent, standardized data about energy efficiency features in existing homes to the real estate industry so that these features can be taken into account by buyers, appraisers, lenders, and others during the home sales transaction.

The goal for both the energy efficiency and real estate industries is a standardized approach to sharing the data that energy efficiency programs collect on successfully implemented energy efficiency improvements. With a standardized approach, the parties involved in real estate transactions can use this data when energy efficient existing homes are bought and sold. Standardizing the data incorporated into the transaction process also helps establish what premium (if any) markets place on energy efficient existing homes. Knowledge of such a premium, backed by research, would help set in motion a virtuous cycle in which homeowners become more likely to invest in energy efficiency improvements because there is a clearer indication as to how much of the investment might be recaptured at the time of sale.

The blueprint that energy efficiency programs can implement right now includes the following steps:

Step1

Document energy efficiency features and improvements using consistent, standardized methods. Energy efficiency improvements are already being documented by efficiency programs as part of programmatic work. Upon completion of improvements to an existing home, program

implementers should provide homeowners with documentation consistent with a Building Performance Institute certificate of completion standard that lists the improvements made to the home.

Step 2

Ensure that the data about home energy efficiency improvements is incorporated into the appraisal process. As standard practice, energy efficiency program sponsors should provide homeowners with a report of program data in a format that can be readily passed along to an appraiser during home purchase or refinance.

Step 3

Work with the MLS community to ensure that data about home energy efficiency improvements are incorporated into for-sale listings. This requires energy efficiency programs to identify local multiple listing service (MLS) providers and their vendors. The energy efficiency industry should understand the data fields associated with energy efficiency, or "green fields," already available in the MLS and introduce new fields as appropriate, drawing on data elements incorporated into the required MLS industry data standard.

Step 4

Capitalize on existing high-quality continuing education and designation training offered by local REALTOR® associations and other real estate industry chapters to educate all professionals involved in the sale of an energy efficient home about energy efficiency certifications and features.

Step 5

Disclose inventories of energy efficient homes to track supply. Efficiency programs have a key role to play in making sure the local real estate market understands how the inventory of existing energy efficient homes is growing, via consistent tracking of data and dissemination of efficiency trends in the local housing inventory.

Step 6

Develop standards and IT solutions that allow quicker and more automated transfer of data. The blueprint outlined in this paper is based on the transfer of data about energy efficiency upgrades from programs to the professionals involved in the real estate sales process. A number of currently available tools and approaches, including data standards, methods for auto-populating forms and databases, and transferring program data to multiple parties, could greatly facilitate the data transfer process necessary for energy efficiency improvements to be properly valued.

Step 7

Work with partner financial institutions to ensure selection of qualified appraisers. Sharing documentation about energy efficiency improvements in a standard way creates opportunities for financial partners to streamline some key processes. This may include opportunities to better match qualified appraisers to efficient home assignments, or to help underwriters work more effectively by generating a limited, consistent, and familiar set of supporting documents to be included in loan files. The key audience to implement this blueprint consists of energy efficiency programs sponsored by utilities, non-governmental

agencies, state energy offices and others, and the organizations that implement these programs.

Summary

This blueprint may also be of interest to energy advocates, high-performance building contractors, energy efficiency program sponsors and administrators, utilities, architects and designers, verifiers and raters, building scientists, state energy offices, nongovernmental agencies, and others.

Growing inventories of existing energy efficient homes create an opportunity for the energy efficiency and real estate industries to collaborate and help homebuyers and sellers understand the fair value of these improvements.

The focus of this paper is the existing housing stock. To date, there has been no consistent method for documenting improvements in a way that can be reflected in the existing home sale transaction. While this paper does highlight emerging trends for improving the sales transaction for newly-built "green" or energy efficient homes, the recommendations in this paper focus on existing homes with energy efficient characteristics.



This article summarizes a white paper developed by CNT Energy and the National Home Performance Council. Its intent is to provide methods for stakeholders in the home performance industry to document efficiency improvements, and to incorporate them into the real estate value chain. Making information about energy efficiency improvements visible to home buyers and others involved in a home sale transaction could play a crucial role in ensuring that improvements are fairly valued in the marketplace.

-- Chris Dorsi See the complete paper at www.cntenergy.org/

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Our national sponsors provide critical financial and technical support for the Habitat X Conferences. We offer thanks to the generous individuals in these organizations who share the Habitat X vision of fostering a highly evolved and collaborative professional conference for the housing industry.



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The Building Performance Center, Inc. envisions comfortable, safe, healthy, and energy-efficient homes and buildings for current and future generations. They spearhead revolutionary thinking in the building performance industry through broad advocacy, use of new technologies, training, and collaborative partnerships. In doing so, they enable their customers to transform the ways in which they improve the quality of life in the built environment.

Contact: Kevin Beck. www.thebpcinc.com



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Contact: David Brown. www.inspectortools.com



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Contact: Colin Genge. www.retrotec.com



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Contact: Tom White. www.homeenergy.org



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Contact: David Davis. www.famcomfg.com



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Contact: John Costello. www.everblue.edu



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TruTech Tools was founded in 2007 with the stated goal of "making measurement science work" for the professionals who use their equipment. They carry a handpicked selection of tools and instruments, and they provide technical support that helps technicians understand what, when, where, why, and how to measure and evaluate the built environment. TruTech offers ongoing training opportunities by webinar and by phone.

Contact: Bill Spohn. www.trutechtools.com

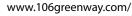
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Chris Dorsi Founder

Chris lives in Helena, Montana, where he's spent the last 40 years developing best practices for the housing industry. He's run a successful construction company, worked as a real estate developer, and delivered training for a variety of North American housing organizations. Chris is a co-author of *Residential Energy, the Homeowner's Handbook to Energy Efficiency*, and other respected titles on sustainable design and construction that are available from Saturn Resource Management.

Chris' upcoming book, *Human Habitat*, is due on the shelves in 2015, and reports from the intersection of housing, culture, and environment.

"I hope that as we gather as professionals for the Habitat X Conferences, we develop breakthrough models of collaborative learning that allow us each to be more effective in our work. We'll learn some about housing technology, a lot about educational tools, and even a little about human psychology. But I suspect that the path to this workplace effectiveness will be lined with personal growth and understanding, as we each identify and gravitate to the work that suits us best."



Ann Edminster Faculty

Ann works as faculty member and facilitator for the Habitat X Conferences. She lives in Pacifica, California where she works as a green building advocate, zero-net-energy consultant, skilled trainer, and respected facilitator.

Ann was recently selected as the 2013 ACI Woman of the Year. She's also one of the primary authors of LEED for Homes, and she serves as the chair of the Trilateral Green Building Construction Task Force of the Commission for Environmental Cooperation.

Ann is the author of Energy Free: Homes for a Small Planet.

"Our success as teachers and facilitators may be measured by the strength, depth, and resiliency of the community we create. This community will be made strong by empowering its members with personal and professional communication skills and understanding, and a powerful sense of acceptance, contribution, and belonging. My hope is to equip all members of the Habitat X community as leaders, able to serve and enhance the health and effectiveness of other communities to which they belong, with the greater goal of assisting humanity in its quest to become a sustainable and regenerative society."

J lives in Chicago, Illinois, where he trains technicians and teachers, writes curricula, performs research, and develops process-improvement strategies for home performance organizations. He's been a training supervisor for the Community and Economic Development Association (CEDA) in Chicago since 2009, and in recent years he has trained hundreds of instructors and crew members from around North America.

J is the creator, writer, director and producer of *Carlito's New Adventures in Weatherization*, the acclaimed bi-lingual weatherization training series.

"The people of the Habitat X network include a lot thought leaders of our time. My goal is to find and nurture conduits for exchange among this community of passionate people who believe in sustainability and community service. These conduits will include social institutions, both new and old, and some tools that are just now emerging. If we're lucky, these spirited individuals will form powerful working communities, and our work will help focus their energy and increase their effectiveness."



J West Faculty

Ben lives in Bozeman, Montana, where serves as the director of the Montana Weatherization Training Center. He's perhaps most well-known for bringing weatherization and home performance to the masses as the current host and one of the scriptwriters for WxTV. Ben expands on this success at the Habitat X conferences by leading tracks that focus on visual communication through photography and video production, as well as sessions on scriptwriting and effective field training.

Ben has been featured in Fine Homebuilding Magazine and <u>Home Energy Magazine</u> for his work with WxTV.

"I hope that, through Habitat X Conferences, we can all witness how effective communication is a key to success in the workplace, in the classroom, and in society at large. I believe that the principles and psychology of communication remain constant, but the mechanisms for delivery are dynamic. To this end, I'll work to assure that we're all at the leading edge of communication techniques and strategies."



Ben Cichowski Faculty

Amy lives in Helena, Montana, where she works as the operations manager for the Habitat X Conferences. In her spare time, she develops adult programs at the ExplorationWorks Science Center, and shows guests around the backcountry of the American West. When you attend a Habitat X Conference, it's Amy who'll assure that your registration is handled smoothly, the event runs on time, and the food is very, very good.

Amy is the co-author of acclaimed cookbook *New West Cuisine: Fresh Recipes from the Rocky Mountains*.

"We compress a lot of life into a few days during the Habitat X Conferences. I think we all recognize that we're creating an exceptional opportunity to share high-quality professional and personal time together. My goal is to manage the event so it looks like it runs itself, with the logistics being seamless and transparent, freeing you to focus on your hard-won work and play. I hope you go home having created strong professional connections and great friends."



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