

Owner's Roundtable #2:

How Owners' Do it. Making Passive House
Good Business

Insights from the virtual conference

Passive House 2020: Choose Your Future

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Introduction

A climate emergency, global pandemic and social crises ask: How will you change? What will you choose to do? #PH2020, embraced these tough fundamental questions and provided participants with actionable answers. A goal of the conference was for attendees to achieve clarity about the role of Passive House, in conversation with building developers who've done it, through a series of owner roundtable discussions. Industry leaders shared the inside story and discussed important themes such as opportunities to leverage changing public policies, consumer awareness, and industry competence, to make built environments that support the business and life goals most meaningful to all of us. Owners shared how they think about Passive House, what's involved in the process of taking on something like Passive House, and then what choices and decisions they made along the way.

This is the second of a series of three eBooks which will provide you with highlights of the Owners Roundtable Sessions.

The formula is simple: put together a group of experts and ask them to share their insights and experiences bringing their projects from concept to implementation. Panels are moderated by Beth Eckenrode, Co-founder of Auros Group, and consist of guests with diverse backgrounds, perspectives and experiences in Passive House.

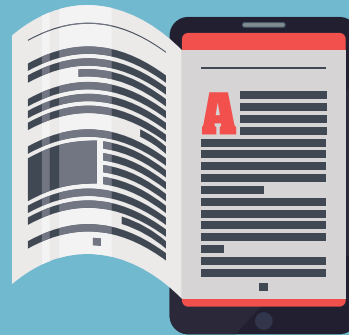
During this second session, *Owner's Roundtable #2: How Owners' Do it. Making Passive House Good Business*, five panelists explored how owners go from concept to implementation and talk about the process of going through design, construction, and commissioning on a Passive House project. In this conversation, building developers shared their successes and challenges while the audience chimed in to share their own experiences and perspectives.

In the first session *Owner's Roundtable #1: Deciding To Do It - How Owners Choose Passive House*, the roundtable tackles explored how owners decide to pursue the Passive House Standard and the role that certification plays in team clarity and decision making. Then following, in the third eBook, in *Owner's Roundtable #3: Owners' Feedback Loop: Occupancy, Measurement, and Management*, panelists explore what owners and developers should consider when it comes to operations.

Together the three roundtables and eBooks provide a full picture of the challenges, opportunities and decisions made by owners, in their own words.

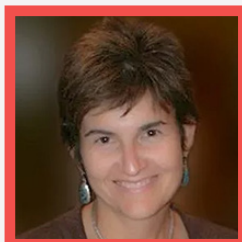
How the eBook was made

During the multiple-day live event, crucial thoughts and ideas bubbled up through the speakers' conversation, the attendee chat and the popup questions. Through carefully curating and reflecting on the subsequent transcripts and popup data, the information was organized to render the essential intellectual output of the sessions accessible to anyone who browses this eBook!



Owners Roundtable #2 Speakers

The attendees' conversations were set in motion by the following speakers who generously gave us their time, thoughts, and themes of discussion. Thank you!



Beth Eckenrode, RESET AP

Co-Founder
Auros Group
Pittsburgh, PA



Alex Bernstein, MBA

Executive Vice President
Bernstein Real Estate
New York, NY



Ed Kolic, Entrepreneur

Director, President
Eighth Avenue Development Group
Vancouver, British Columbia



Emma Osmundsen, BSc (Hons) Pg Dip (Arch Conserv) MA

MRICS
Managing Director
Exeter City Living Ltd (Exeter City Council)
Exeter, UK



Garrett Scott

Dealer Operator
Scott Subaru
Red Deer, Alberta



Grant Ervin, MPIA, FRSA

Chief Resilience Officer
City of Pittsburgh
Pittsburgh, PA

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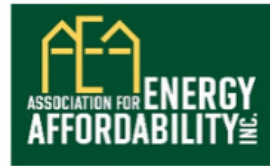
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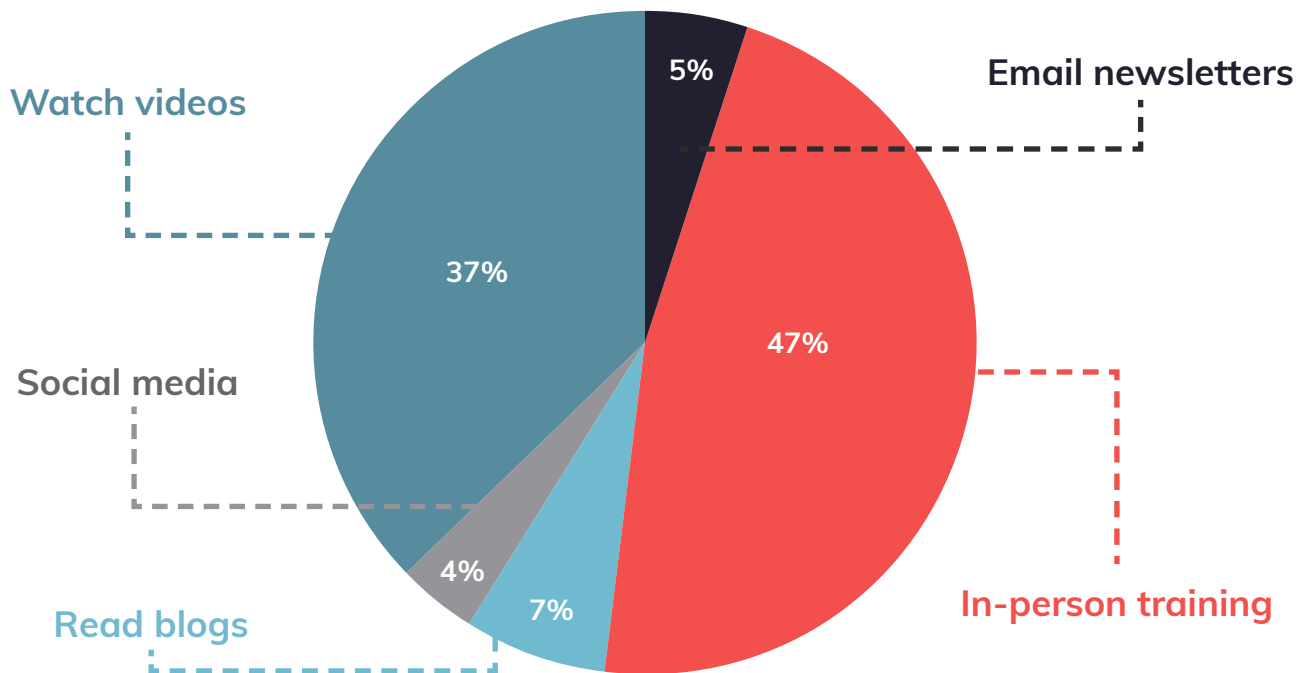
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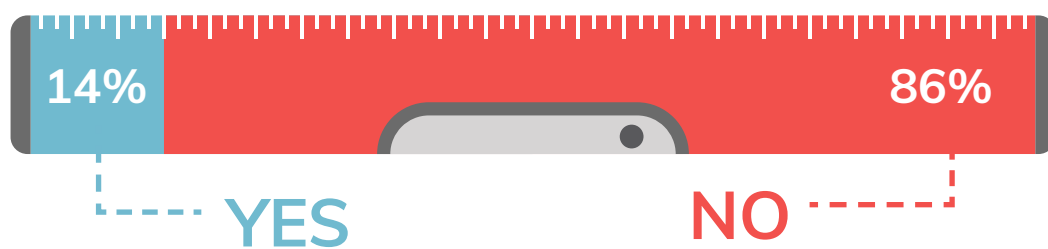
Data Visuals

The following visual representations provide an overview of Passive House 2020 highlights!

What's your favorite way to learn new skills/get industry info?



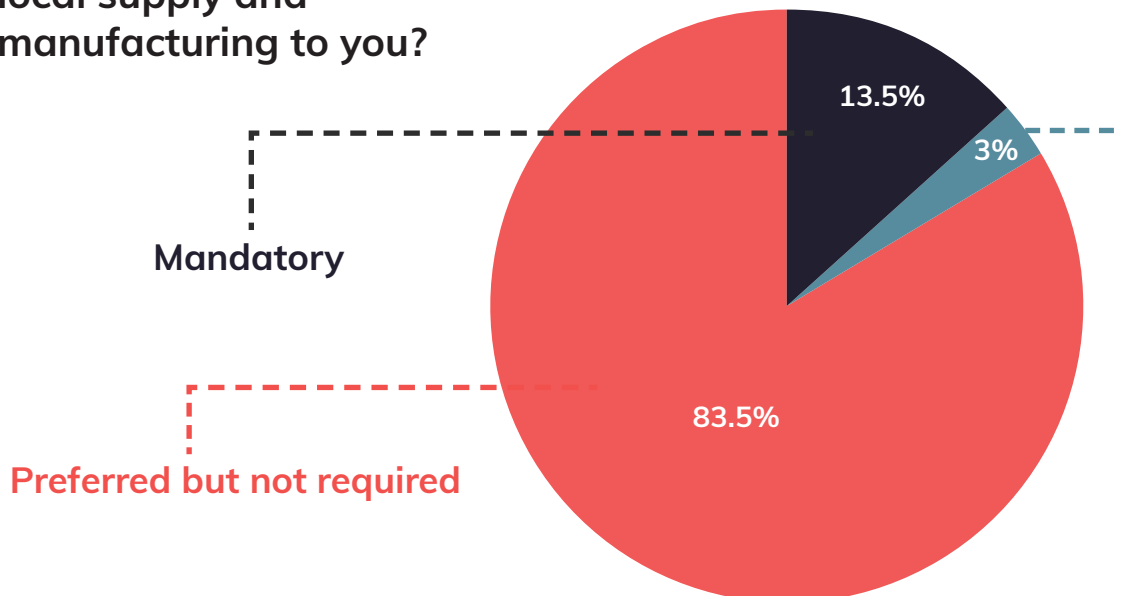
Are you trying to make your buildings all electric with heat pump technology?



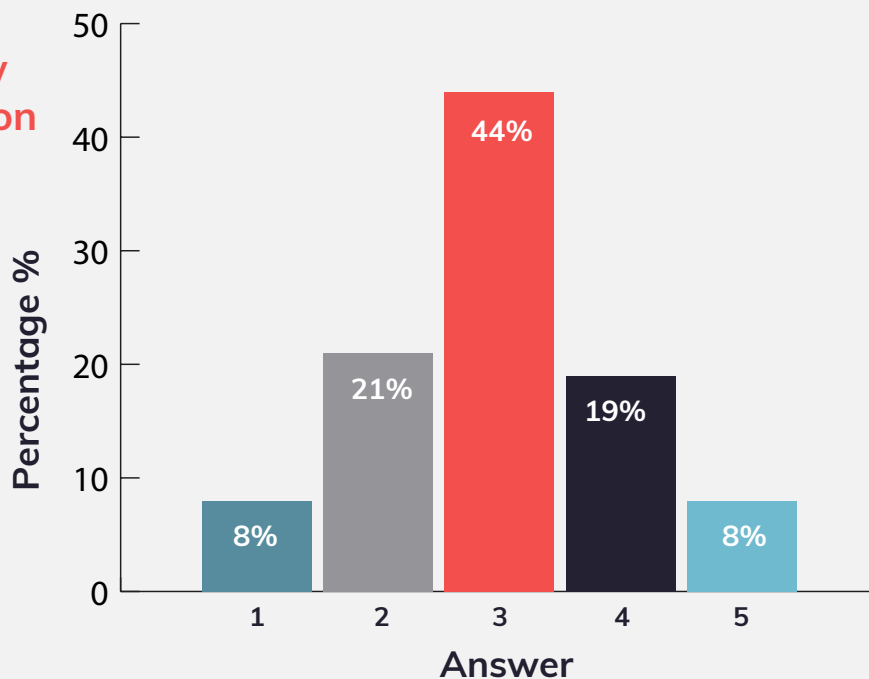
When asked to rate how important estimated product service life was on a scale of 1 to 5 (1 unimportant; 5 extremely important), **90%** chose 4 or 5

How important is local supply and manufacturing to you?

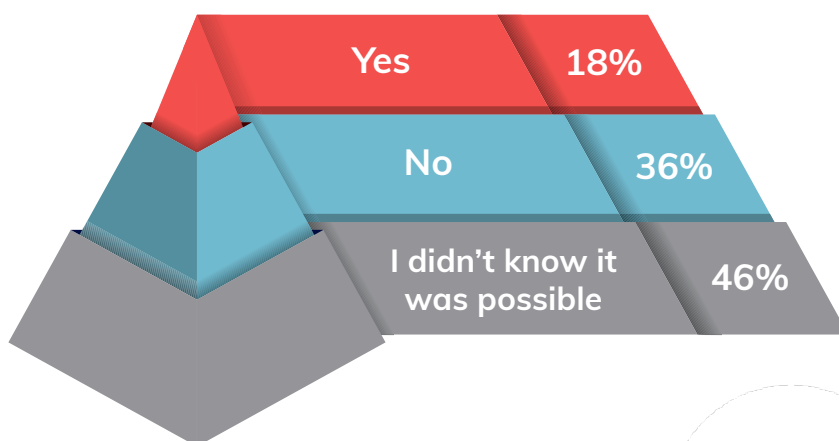
Not at all important



On a scale of 1-5, how proficient do you feel on the subject of healthy materials?
(1 low - 5 high)



If you've gotten Passive House multifamily financing, have you tried to underwrite to a portion of the predicted energy savings?



Conversation Highlights

During the second roundtable, Beth Eckenrode was joined by Alex Bernstein, Executive Vice President at Bernstein real Estate; Ed Kolic, President at Eighth Avenue Development Group; Emma Osmundsen, Managing Director, Exeter City Living Ltd; Garret Scott, Dealer Operator, Scott Subaru, and Grant Ervin, Chief Resilience Officer, City of Pittsburgh, to explore how owners go from concept to implementation and talk about the process of going through design, construction, and commissioning on a Passive House project.

EXPERIENCE IS KEY WHEN ASSEMBLING A TEAM. SO IS ATTITUDE.

“Flow Chelsea was our first Passive House, and we knew that we wanted to do an energy efficient type building. And our first hire was our architect. Stas at ZH Architects had built several passive houses previously. He was able to really target the GCs and the other players, the MEP, our structural engineer, our oversight guys, they all had passive house experience, which I think was the most important aspect of the project, was really getting people that had that experience. They’ve gone through problems and issues and knew how to solve them. And so really, that was the greatest thing in building the team, was to get people with experience,” explained Alex Bernstein, Executive Vice President of Bernstein Real Estate. “I’ve actually spoken to two or three other New York City developers that had started passive house projects and stopped them because they used their traditional architects and their general contractors (GCs) that had no experience, and it just started with cost overruns and issues,” pointing out a common challenge inexperienced developers may face.

For Ed Kolic, President of Eight Avenue Development Group, hiring an experienced team wasn’t an option but finding an architect who was passionate and knowledgeable about Passive House was crucial. “There was no experience in Vancouver. There were a lot of single-family homes, but nobody had done a multifamily project,” Kolic said. “The key in our case was to find an architect, Scott Kennedy from Cornerstone, who actually started the Passive House Association in Canada, after the fact. Both our builder and the architect were key to creating those teams. Yet neither had done a project of this scale, or even a passive house before. It is about applying logic and solving your problems as you go through. The team is absolutely critical,” he added reassuringly.

TAP INTO THE PASSIVE HOUSE COMMUNITY FOR RESOURCES

When there are not that many experienced professionals in the area, reaching out and leaning into the Passive House community makes all the difference.



Garrett Scott, Dealer Operator at Scott Subaru, in Alberta, spoke about his challenges getting this project off the ground. “Putting our team together was definitely challenging. We didn’t have the expertise necessary in Red Deer. Fortunately, Passive Canada was able to provide us with certain courses that our trades people could go take and a few other helpful guides that would ensure that we could execute the building to the requirements needed. But we really reached far and wide, Red Deer is in Alberta, which is right between Calgary and Edmonton, our two major cities. Our lead architect came from the Vancouver area, our passive certifiers came from the Toronto area, our general contractor came locally. But we sourced from all over the place, so it was a little more challenging. In the end, we still reached the same goal everybody else did. If I were to do this again now, we’d be able to capitalize on a lot of these learnings and bring the cost structures down so that it makes even more sense,” he concludes.

BIGGEST FEARS. GREATEST LEARNINGS.

"I always have fears for every one of our projects, I think that's healthy really. Our first passive house project, I was so fearful that I didn't tell anybody that it was going to be a certified passive house building. I was fearful that the concept wouldn't work. But believe me, once we finished our first development, and our first development was very modest, it was three flats, it became certified and the last 12 years we haven't looked back. I cannot imagine building anything that isn't a certified passive house building, it would just be balmy," confessed Emma Osmundsen, of Managing Director Exeter City Living. "So, yes, you have your fear on your first project. I think now with a fantastic passive house community, a lot of that fear can be de-risked. And once you've got your first one under your belt, then it's almost upwards," she concluded confidently.

For Grant Ervin, Chief Resilience Officer for the City of Pittsburgh, it all goes back to training and education. "Trying to create comfort is one of the things that we've tried to do through our office to effectively demystify a lot of the different tools and technologies that are available. From a local government standpoint, we have tried to work closely with folks in civil society or nonprofit organizations to help provide that extra education," he said, adding highlighting the need for community involvement. "One of the things that's been really important is having those first couple of projects in the ground and working in operation because they become the demonstration that we can build on top of. One of the first major projects in Pittsburgh to deploy Passive House technologies was a development that Action Housing, a local social service housing agency, constructed. It was for a population that was moving from foster care or foster homes into their first transitional house. I always say that if we can build that for our most vulnerable populations, we can extend this across the marketplace. It's really become a good demonstration story for us to really build upon."

Efficiency was the focus for Scott and his team. "The fear was how much more do I have to keep putting in to get this done? And what is it costing me over the time having to wait for this type of building to materialize and become useful to me? It was a bit frustrating, but I think the big thing now is just those fears are gone for the most part. I wouldn't have those doing this again. If I had to do a project twice this size now too how that change would work. But I guess that would be my only fear is how scalable I can make this for my application.

Bernstein had three major fears going into his first Passive House project. "Our first fear was the final air blower test. We could go and spend all the money and all the time, and we could screw something up and you fail the test, and then what do you do? We hired

an owner's rep to assist us and they had Passive House experience. One of the things that they suggested was doing several unofficial blower tests every two or three floors. After the first one, we worked out certain kinks and then it just was smoothly as we continued up the building. And the final test we killed it, we almost doubled what the requirement was for passive house. There was really no fear there after we gained a comfort level." Bernstein's second fear was the marginal cost increase. "There are some small marginal increases with a Passive House, but all in all, there were no crazy game changing costs that would have affected our final financing. And then the third, would the people recognize the benefits of passive house and would they rent it from us? We tailored our marketing with our marketing and our leasing team focused on the health and the quiet benefits rather than 'nerding out' with all the science. People rent in New York City through emotion, so our marketing really helped us, and we leased insanely fast," he added with a mixture of pride and relief.

WHAT ABOUT THE INCENTIVES AND FINANCING?

"For us in the city of Pittsburgh, our work is really rooted in the Pittsburgh Climate Action Plan. And one of our targets, within our climate action plan, was the reduction of energy consumption by 50% by the year 2030, so we've had to work on different strategies in order to help achieve that. Specifically, for municipal operations, one of the things that we recently passed was a net-zero performance guideline for all of our municipal facilities. And part of the reasoning for that was to improve the quality of the built environment experience for residents and employees of the city. But also we're looking at reducing the long-term operations and maintenance costs of our facilities. The passive house delivery system is one of the best tools that we have as an owner operator of over 300 facilities to basically put that forward as part of our renovation and new construction cycle. Local governments have a conventional way of financing projects, whether it's through bond financing or tax revenue. But we're trying to institute a more performance-based contracting approach into our procurement practices and it's a bit of an uphill battle. So just like getting architects and designers to adopt Passive House, it's also getting the finance and legal community to adopt new financial practices as well that glue well together with energy efficiency technologies," explained Ervin.

Times have changed, but early on Osmundsen confessed her group wasn't ready to wave the flag in terms of the cost premium of Passive House on their first project. "Twelve 12 years ago, that was 20%. Now we are certainly delivering higher density blocks of apartments, our bill costs are more or less comparable with conventional UK building standard costs for construction. We have been able to drive down the costs of

construction because of our experience and the fact that we have got six generations of passive house projects that we've done a lot of learning on. But some of the upfront costs are slightly higher, you often have perhaps a larger team. If you haven't got a passive house designer, you might have a passive house consultant."

Osmundsen acknowledged that upfront costs might be slightly higher but urged the audience to think long-term. "The great thing about Passive House is the payback is relatively quick. Now, it can either be a financial payback or if it's a retained asset, there are other benefits which are beyond financial. So for example, we have a lot of social housing that is certified passive house, and we have found that over the last 12 years, our levels of rent arrears are negligible for our passive house homes compared to our non-passive house homes. We find that our residents don't move out, so there's far less churn, so we're not dealing with the cost associated with vacancies. And interestingly as well, we've had far less antisocial behavior and we think that's probably linked into the fact that with the quality that comes with passive house and particularly the acoustic benefits, we're certainly probably having less antisocial behavior because people, being antagonized by sound leakages from communal facilities really. Lastly, what we found, the more we developed to the passive house standard, the more it becomes a financial no-brainer, and particularly when you upscale," she concluded.

When it comes to financing, Bernstein called attention to two key issues, one specific to New York. "Our project is 55 units and of that 55, 17 were affordable in two different types of affordable categories. And the more long-term category is called inclusionary housing and it is governed by a separate department in New York City called HPD. HPD had no idea what a Passive House was and only care about affordable and free market. When we had to explain to them what it was, they demanded that we get a bank to fund our project. If we were going to self-finance this, we were going to fund it ourselves out of cash. Because of their lack of education, we had to go out and get a bank to finance it. And that cost us over a million dollars in fees and associated costs with the financing. We were rather upset about that because they should be bending over backwards to do a project like this, it should be a poster child for affordability, and instead it's costing us more, so that was our first issue," added Bernstein, sharing his frustration. The second issue also had to do with lack of knowledge. "Our bankers knew enough about Passive House where they were intrigued by it, they weren't turned off by it, but their internal development managers, who would check our progress, knew nothing about it, so that was also a problem. On our takeout loan, our permanent, we are going to the agencies, Fannie Mae or Freddie Mac. But they offer incentives both on pricing and on fast-tracking and a few other intangibles, for both affordable and energy efficiency," Bernstein added.

Scott didn't find any support from his municipality, provincial or federal governments either. "We did something like Alex [Bernstein] and funded this out of cash flow during most of our build. The goal was always to put some mortgage in place obviously to recoup some of our money," he explained. "Finally, we sat down with a few banks, showed them what we were up to and just said, 'This is four walls and a roof, you finance luxury buildings all the time, but what's the difference here?' We ended up getting typical mortgage terms. My case is a little bit different; I am a single-use facility. I already have a couple of hurdles that a multifamily facility would not have to deal with, so our project was met with a lot of skepticism," he mentioned, adding that now the results speak for themselves. "Where we have this building right now, I also operate the GM store, which is next door and the Cadillac facility, which is one store over. The energy savings alone, the GM store is twice the square footage, but they pay five times in terms of the amount of energy consumed."

FROM CONSTRUCTION INTO COMMISSIONING – GETTING WHAT YOU PAID FOR

While many developers shared their experiences and insights into Passive House, as a commercial facility, Scott's perspective is unique. "In the 15 years that I've been a part of the automotive world, I've been a part of four different constructions of buildings. Nobody really considers our energy consumption in an automotive retail standpoint. Most of the dealerships you drive by, massively huge front windows, not a lot of insulation anywhere, built to display product and not really a lot else. We set aside the goal to do something different, build ourselves a marketable advantage of most of our competitors. Subaru in our country [Canada] has only about a 4% market share, so when we go to market, we want to be screaming something different, we want to be talking in a different language than all of the other competitors. We're not getting the budgets that the big market share guys have, we're not being able to capitalize on that kind of money. So, having a unique proposition was huge for us," he explained, emphasizing the alignment between Passive House and Subaru as sustainable and environmentally-conscious brands.

When it comes to delivering on goals and mitigating risks association with the construction process, Scott points out the importance of adding details in the plans. "Stas, the architect, really provided details for the GC and the subs that would then be used to create the milestones and the tests, whether it was plumbing and sprinkler or HVAC. I've never seen details like that. Our MEP Steven Winter and Associates, would also highlight those details and markups and take pictures of the way it was supposed to come out so that at each point, someone had something visual to look at that they could go back and check and test," he said.

Bernstein concurred, adding that tradesman classes are paramount. “Tradesmen classes aren’t required for Passive House and going to the buy-in by the contractors and the team, if they didn’t buy in from the initial conversation about quality and about the energy efficiency, they just never got on the job. For us, buy-in was important top down. And everyone along those lines took the tradesman classes.”

Kolic echoed Bernstein’s comments, focusing on getting everyone on the same page. “Everybody that comes onto the job site gets a briefing and we try and educate them of what they’re doing here, in a totality. Because once somebody understands how they fit into that whole picture, they’re just more inclined to be aware and do a better job. In British Columbia, we have what is called British Columbia Institute of Technology, where there is a training program for workers. You can get a certificate for Passive House building. But it all comes back to that attitude of whoever is designing your building, once they understand they’re working on a bigger goal, it’s a premium way of looking at we’re building a better building. It is our job to make sure everybody understands that from the top down,” he added emphatically.



Words of Wisdom & Parting Thoughts

The session closed with Eckenrode asking panelists to offer advice to their former selves and to those who are just starting out on their Passive House journey.

Just Jump In

“Because you’re creating premium buildings, exemplar buildings that transform people’s lives. And not just the residents or those people that are working or occupying those Passive House spaces, but you’re transforming whole teams that deliver those projects. When you’re building a quality building – actually all our professionals, all our contractors, subcontractors – that’s all they ever yearn for: to produce buildings that they’re proud of. What starts as a performance standard, turns into something that transforms people’s lives and start these ripples. And these ripples are rippling outwards, and the more that we can encourage other people just to, just to try it, just do it. They will not go back to a different way of building.”

Emma Osmundsen

They Bought Passive House Even Without Knowing It

We’re long-term generational holders. We like to build that have quality. And for us, and being in New York City, especially in lower Manhattan, there are a lot of high end and quality projects and so it’s very competitive. We decided that we wanted to use-high end fixtures, condo-like fixtures in our apartment buildouts. And when we did the marketing of these things, we wanted to emphasize Passive House, but in an emotional way as I mentioned earlier. We rented extremely fast. In about four or five weeks, we rented all our apartments and only four using an outside broker. When they saw it, they knew that they wanted it. “When we debriefed a lot of those tenants after they had moved in and spent a few days there, we learned some interesting information. No one, not one of the residents moved in because it was a Passive House. They rented it because of the high-end fixtures and finishes, condo-like ambience. And secondly because it was so quiet. In New York City, you hear the noise, you hear your neighbors, you smell things, and you have none of that at Flow Chelsea. With what has been going on recently [COVID-19 and shelter-in-place orders], there is a benefit for passive house users that have to work from home and that have health concerns. They did [buy Passive House], they just didn’t know it. Emphasizing passive house today may not make sense. In a few years when it catches on it will, but you really want to emphasize is the health and the quiet.

Alex Bernstein



Focus on People And Standards

“You have to set the standard and then you have to build the capacity to deliver that standard. And that’s the approach that we’re taking from a local government standpoint, both with our footprint. But we are also hoping to have that emanate out from just our facilities to all facilities across the city of Pittsburgh. But it also requires us to build the human capacity to deliver on those types of projects. The technical skills on up and down of the human development chain that’s required to bring a building to fruition.”

Grant Ervin

Know Your Audience – Different Strokes for Different Folks

We have two different types of buildings. One is a rental that we own as well, it has been up for two years. We have seen a change and we do market it as Passive house. We market the health comfort, quiet, that’s the primary issue. It turned out people are aware of energy efficiency, but that is not why they come or why they want to buy. It is that health and comfort and quietness. We have seen people now coming, as we have turnovers of tenants, we’re seeing more and more. And again, not a great number, but I’m going to say it’s maybe 20% now are coming because they want to come and look at it because it’s Passive House.

We are also in the market right now marketing townhomes, they are Passive House. Despite the pandemic, closures, and everything else we’re experiencing, we’re still selling presale units, million-dollar townhomes. In that case, that’s a key differentiator, nobody else is doing that in this particular area of the city. That’s drawing people and people are interested in Passive House. And again, part partly because of Greta Thunberg, the whole issue of greenhouse gas emissions, we designed this one as it is greenhouse gas free, there’s no gas coming into that project.”

Ed Kolic

Built to Last

I focus on trying to improve our efficiencies in every aspect of our business whether that be our processes, whether that be the accessibility to our stores, whether that be our bricks and mortar. After I built this, my appraisals with comparative type analysis for other dealers out there, I'm not spending more, I'm really building something that did take a little bit longer, yes but I think I could dramatically improve next time. And now I'm just the guy here who has one, marketable advantage; two, cost savings; and three, I've got, from an employer standpoint, a quiet, well ventilated, ease of livability building that my competitors don't have. So I'm sitting here thinking, okay, it felt like I was spending a whole ton of a lot money more, but my other question is what are these other guys wasting their money on if they spent the same amount I did? It's a no brainer for me now. Even if you don't get the stamp, or the plaque, you're going to be making a building that should be long-term viable, but also that livability and that comfort level is just through the roof.

Garrett Scott

Q&A from Popups

For the entire duration of the virtual event, an attendee chat function allows all stakeholders to interact and develop the conversation in whatever organic direction it takes. For the specific, designed questions that we want to ask all virtual attendees, we have pop-ups! The following question appeared to the entire audience and we collected our favourite responses.

What is your biggest critique with sub-consultants in our industry?

- falling back onto old wisdom and the way they have always done business
- they are not informed enough of the changes in the industry - technology
- Integration into projects - seeing the overall design picture
- They are resistant to change
- Business as usual mind set.

What HVAC-specific product is currently missing or not sufficiently affordable in your market?

- Compact units, also Ventilators with HP for dehumidification beyond what can be achieved passively w/ ERV and ground tempering- in most of USA humidity is excessive & biggest comfort issue
- Combined H/ERV with core exchanger and integrated heat pump. Only Zehnder has one. Need more choices.
- There's only one truly PH quality system on the market. We need some competition!
- Heat pumps for large scale multi-unit such as dorms
- multifamily heat pump systems

Q&A Within the Chat

As the event sessions played, the attendee chat came to life with questions and comments about topics being touched upon. Here are a few exchanges between event participants:

Were you already sold on the PH concept before going to Cornerstone?

Cornerstone helped us get to the Passive House decision

Are you finding that architects and engineers are more aggressively seeking you out now that they know you are serious about Passive House?

Brokers aren't either. I don't think that there is enough of an understanding yet for it to have that traction.

Do you require your consultants share knowledge directly or do you simply do it as an intermediary?

Passive house associations and networks are an excellent shop window for potential team members or recommendations

Did you have a key advisor to help guide you and have your back, as it were, or was it more a network of advisors?

Yes we had two really, Lukas Armstrong from Cover Architecture, and Peel Passivehouse.

Follow-up and re-alignment of team members seems important. Is this something you do frequently?

Yes, alignment of the team is very much key to having all onside with end objectives, and yes we try to do that with all buildings whether PH or not.

Are the rental rates or rental demographics at the Heights affected by the fact that it's a PH building?

Rents are not really affected but it does attract a more socially conscious and educated tenant

Would real-time building performance data help with appraisers? (especially on resale?)

It's all about comps!

There aren't a lot of comps, hence creating your own data points

NYC comps are near impossible, even for regular buildings - areas, building type, etc are so specific

What have you found are acceptable ways to reduce risk and skepticism of bankers?

Not much LOL. But I'm watching NYC closely because if carbon trading is allowed, it's a game changer for the business case and lenders will be all over that.

Have you had a chance to bring your finance team to the building to show them the result of their loan?

Yes, bankers once they saw it completed, and then saw the results, they were impressed. Who knows if they are actively asking for more

Were you able to leverage the comps from your other buildings or did they give you push back on that?

We ended up using luxury brands as comps. Banks had no problem financing the excessive luxury and that seemed to get them on board

Was there a requirement that was laid down for PH training of trades at the Heights?

No hard requirement, but our builder, Peak Construction, ensured the site supervisors took the BCIT course

Community Takeaways

As the pre-recorded session played, an attendee chat allowed all stakeholders to interact and develop the conversation in whatever organic direction it took. We invite you to enjoy the selected questions, comments, stories, ideas and resources shared below.

Totally agree that attitude is the most important ingredient. You can take a green team and deliver a cost effective project with the right attitude.

Love the comment about the PH community already being committed to QUALITY and detail. It does seem to lend itself to great outcomes... (or at least a higher chance of success?)

Passive House mentoring helps but having a Client with a clear and concise brief who can articulate what they want helps the team deliver with relative ease!

We develop 'super models' to help constructors understand the details in 3 D

Always more difficult if the project is already ongoing!

Yes more difficult but most teams all want to work to a common goal and PH is an interesting goal to most trades as well

Mock ups are important at construction but also in marketing at the sales centre level..... to show an end consumer a wall assembly is an eye opener

The fear of passive house is dwarfed by the fear of not addressing climate change.

What's being shared about City experiences - reluctance and fear - has been experienced by Frankfurt and Brussels too. Frankfurt schools were also a trojan horse implementation strategy and are now required to be PH once the first was completed.

Not addressing climate change.....true, we use this in marketing our latest project as GHG emissions free.....consumer is responding to this

Simplifying the design (e.g. reducing the # O/H doors) is key.



The problem is that it is so specific to the houses and your market, and it's very tricky from a financial perspective. It's almost like a small construction company needs to make that their focus and improve on the details each and every time so that they can bring down the cost.

Repeat passive house projects builds resilience, experience and confidence in in-house teams.

They then become more adventurous!

Good to be so open and clear about addressing 'the fear' of PH. It's real.

Fear of Passive House? try explaining to lenders.....they do not like the unknown

60% of our residents have not needed to switch their heating on since moving in - for some that is over 12 years ago!!!! Fuel poverty eradication for sure!

As for the blower door test: You could look at it as something that improves the overall building quality - not just checks the airtightness.

It's not about the bankers, it's about the appraisers. They tell the bankers what the value is!

That's the way to go IMO And sticking to your guns. If the variables are constantly changed on each project, you'll keep scrambling each time again

Yes both appraisers and lenders.....educating them is work.....recently hired a commercial appraiser and did a case study to help provide info for consumers to understand why out TH's have better value

Funders are increasingly seeing Passive House as a de-risked investment - investors are impressing on investment companies that they want they money used for ethical aims - more funders are seeking out low carbon funding opportunities

Evaluation methods are shifting due to a need for more climate resilient developments, low carbon solutions and investments that have longevity.

I still see the same old blinders. It's all about the comps. The appraisers are doing it as a box-ticking job, not as something that engages the brain. Photovoltaic arrays don't have a box to tick for their presence, so they don't exist. High performance doesn't have a box either.

Just want to comment on not chasing commissioning - but building and system commissioning is also a crucial performance confirmation process. Was that more referring to certification costs?

We're correlating climate and energy use; really interesting data on solar panel performance.

This spring is starting to get comparable data from 3 local traditional buildings; this is a Things Network NY project so we have research data available to people who are interested. (We are seeing that two identical PH buildings perform differently because of apparent PV system problems in one compared to the other.)

Some metrics don't interest the banks. Appraisers CAN be sympathetic, but they can only go so far afield to find comps. The basic lesson is that YOU develop your market. I'm speaking to a single family, which I know. Multi family can be more metric driven but I haven't seen all that much of it as an aside, it seems to me that long term comps will be market-driven rather than technology driven. if the brand is established, the appraiser will recognize that.
well, if bankers do not understand... they call it risk...

Outside of urban areas (that are cold) it needs a more utilitarian/resilient make over, such diversity!

The passive house family needs to escape their echo chamber and engage with funders, potential purchasers, real estate agents, valuers and market consultants to spread the understanding!

I think the housing crisis has also forced the City to really push costs down as the available funding has to cover such a huge need.

Fuel poverty (heating / cooling) and affordability should be factored in at the design stage - this can be a huge risk for an investor. In the foreseeable future residents may be paying more for energy than rent / mortgage repayments

LOVE that quote! "What are these other guys wasting their money on, who aren't building to the same standard?"

Resources

During the live chat, speakers and attendees alike chipped in with their suggestions for further reading, resources and recommendations.

Some curious events: <https://zebx.org/>

In the EU project EuroPHit (www.europhit.eu) we started to engage bankers, which was a great start!

NAPHN will be sharing a new resource guide as part of this conference: the “Owners Manual.” It includes great articles about financing options for PH and how to ensure you get a good appraisal: <https://bit.ly/2G7KReC>

The Passive House Accelerator Happy Hour recorded a GREAT presentation about The Subaru building development. It can be watched here: <https://bit.ly/3mOSvLQ>

Check out <https://www.flowchelsea.com/>

We have a video tour of our dealership coming available in a month. www.scottsubaru.com

One more marketing site for TH’s that we’re currently marketing in Vancouver: <https://bit.ly/307CFSR>

Here’s the video link to a PH Happy Hour recording: <https://youtu.be/QVcgrx9844s>

Here’s the course mentioned by the The ZEB Learning Centre: <https://bit.ly/2RWmljs>

Passive House Building Database: <https://bit.ly/3d8BojD>

Passive House Institute: <https://bit.ly/2FeaZok>

Information on Certified Passive House Designer Training: <https://bit.ly/2GxLM8W>

There is also training for tradespeople available at: <https://bit.ly/3hZN89b>

Conclusion

Given our ongoing environmental, health and social crises, Passive House 2020 embraced tough questions about how we can change business-as-usual. The owners participating in the Owner Roundtables are leading by example and providing answers. They've chosen Passive House because it can make a positive impact, and lower future risks as a result.

[Watch the video of the roundtable discussion.](#)

Complementary to the roundtable discussions, NAPHN produced an Owner's Manual for the PH2020 conference. It is full of useful articles to help building developers take action today.

[Read the Owner's Manual.](#)



This event is brought to you by

The North American Passive House Network (NAPHN) is an independent national non-profit educational organization, and affiliated with the International Passive House Association (iPHA) and the Passive House Institute (PHI), located in Darmstadt, Germany.

NAPHN has chapters based in New Jersey (www.njpassivehouse.com), Washington DC (www.naphnetwork.org), the Rocky Mountain Region (www.phrockymountains.com), Minnesota (www.passivehouseminnesota.org), Western Pennsylvania (www.passivehousewpa.com), and a chapter for at-large members, Passive House America.

NAPHN supports the widespread adoption of the international Passive House design and construction standards, building science principles and protocols, as a critical response to our climate crisis - providing unparalleled effectiveness in mitigating climate disruptions and adapting to rapidly changing environmental conditions.

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