



How to choose a high-performance Builder

You don't have to be a building professional or building scientist to ask questions to better gauge if a builder, architect, or professional is the right fit for your build. Take a look at these questions and why you might ask them.

- **Do you have a building philosophy?**
 - This question gets at if something guides their process and if there are things that they do in the building process that are not negotiable. If they mention building science, control layers, bulk and vapor water management, air sealing or air tightness, building envelope, systems thinking, you should pay attention.
- **Have you built to a building certification program or standard?**
 - EnergyStar, DOE Zero Energy Ready, LEED for Homes, Indoor AirPLUS. PHI Passive House, PHIUS Passive house. These are building programs that offer a road map, checklists, and mandatory requirements that are verified by a third party to better ensure a successful build.
- **Do you work with third party energy modeling/inspection companies?**
 - Energy Rater, Certified Passive house Consultant, PHIUS Rater. These are verifiers for the programs above. They often also do energy modeling for compliance with codes and programs and to help determine cost-effective ways to meet your building goal.
- **How do you measure performance in your homes?**
 - Are you a building performance professional or do you work with a building performance professional (Energy Rater, Certified Passive house Consultant, PHIUS Rater)? The building programs and codes often have performance targets that must be measured and achieved. These include, whole house and duct leakage, ventilation, Energy Rating Index score, heating and cooling demand and peak loads, source energy, etc.
- **What is an Energy Rating Index? Have you had a home energy rated?**
 - Will you share the report?
 - A HERS or Home Energy Rating Index is one of the most popular ERI's out there.
 - <https://www.hersindex.com/hers-index/what-is-the-hers-index/> understanding what this is and if your building professional understands it could be important as most programs and code use or can use ERI scores to demonstrate compliance.
- **What is Building science and why should I care about it?**
 - What is building performance and why should I care about it?
 - What is a high-performance home and why should I care about it?
 - Why should I care about house tightness?
 - Why do you ventilate a house?



- All these questions focus on how your new home will perform to meet your expectations. Your expectations may be defined by a building program or code, or it may be as simple as defined comfort from floor to floor and room to room. It is important to clearly define your expectation for living in the home to determine measurable ways to achieving your goal. Understand clearly that you get what you inspect and define not what you expect.
- **Tell me about the 4 control layers that I have heard of and what is your general strategy for addressing them?**
 - Which control layer is most important?
 - What are your water management strategies?
 - What are your air leakage strategies?
 - What are your thermal envelope strategies?
 - These questions continue the building science questions to better understand how the home will actually be built. In general, we are seeking control and predictability of air flow, moisture flow, and thermal flow. We get that be clearly defining and executing these control layers in the building.
- **Have you attended a builder certification program like PHIUS certified builder or EEBA's houses that work?**
 - What Type of building science trainings have you completed?
 - What type of continue educational do you do. Conference, programs etc.
 - What builder educational conferences and opportunities are there in our area and do you regularly attend them?
 - Do you offer continuing education opportunities to your employees and trade parents?
 - There is not a “builder credential” per say that require continuing education and professional development. However, there are groups that help to educate the industry and offer certificates and it would be good to know if your building professional avails themselves of these resources to stay up to speed with a rapidly changing industry.
- **Many builders and general contractors don't actually build the house, they manage the house building process.**
 - How do you manage the process?
 - How do you choose the trade partners you work with?
 - How did you come up in the industry?
- **How do you balance aesthetics and performance?**
 - Windows, Vaulted Ceilings. Complicated house design impacts the overall high performance house goal. There is a balance that can be reached so it would be good to know how those decisions can be made.
- **What building informational resources do you use in your work?**
 - Building America Resource Center, Green Building Advisor, etc.



- These types of resources focus on high performance home building and can help influence design and assembly choice and implementation.
- **What types of building performance tools do you use in your work?**
 - Blower door, Duct leakage tester, Infra-Red Camera, Flow hood, Pressure gauge
 - The builder and Architect might not own these tools but it would be good to understand if they are familiar with these tools and what they do as the performance target are measure with these tools but 3rd party verifiers. Some builders and architects have bought these tools to measure performance during construction and before verification parties are called.
- **Can you give me names and contact information of a couple homeowners you built houses for?**
 - Yes, they are likely to give you names of people that they are sure will give them a good reference. Even so, you can gage how the relationship was and what the experience was like for the homeowner you speak with.