



## **Houses That Work: A Full Day Building Science Course for New Construction**

In this full day session, learn how complex changes in home design, building materials, mechanical systems, appliances, code compliance and consumer lifestyles and expectations make every builder, supplier, and trade contractor's job more demanding. This design workshop will cover the fundamentals of building science and how it is applied to create many different types of high-performance walls and assemblies. The session will address critical home performance elements that exist as a system and are part of energy efficient homes. The fundamentals of building science - air, heat, and moisture flow – will be outlined and applied to help participants make better choices with respect to construction materials and methods. Participants will also learn important information about indoor air quality and cost-effective strategies to be able to offer healthier indoor environments.

At the end of the session, attendees will have a thorough understanding of how to build better attics, walls, and foundations and how to choose HVAC systems that integrate properly into their homes. This session will also cover how building science principles improve the marketing position for building professionals, providing case studies of builders who have changed their building processes and gained return through communicating the value of high-performance homes.

### **Learning Highlights:**

- Learn the elements of high-performance homes and how they help respond to code compliance and the many changes in the residential construction industry, as well as consumer expectations.
- Understand the fundamentals of air, heat and moisture flow and see how they can be applied to make better material and methods decisions.
- Apply the building science to attics, walls, windows, foundations, and HVAC decisions to create high performance homes.
- Identify the building process changes needed to cost-effectively implement high performance homes.