What is an Air Barrier?
Air Barriers control the unintended movement of air into and out of a building enclosure. Air barrier systems are comprised of a number of materials which are assembled together to provide a complete barrier to air leakage through the building enclosure. Air leakage can have detrimental effects on how a building functions and can even reduce the life span of a building.

A properly functioning air barrier system provides a barrier against both the air leakage and the diffusion of air caused by wind, stack and mechanical equipment pressures. Air barrier systems are used to make the building perform better. The primary purpose of an air barrier system is to stop the air from leaking into and out of the building enclosure.

What is a Vapor Barrier?
A vapor barrier is designed to restrict the flow of water vapor through a material, just the same as an air barrier restricts the flow of air through a material. Vapor barriers are intended to control the rate of diffusion into a building assembly and control the rate of moisture flow where they are placed.

Why Use an Air/Vapor Barrier?
The US Army Corp of Engineers (USACE) has taken the lead in mandating that all new and retrofitted conditioned buildings meet an air tightness metric verified by testing.

Building Diagnostics & Property Science (BD&PS) is currently one of only a few consultants that has experience applicable to the USACE air tightness testing and diagnostic requirements.

Goal: less than 0.25 cfm/ft² @ 75 Pa
Objective:
- Properly specified requirements
- Airtightness Levels achieved
- Accurate, repeatable measurements
- Rate Quality of construction
The BD&PS Difference:

BD&PS offers the following additional services to our clients.

- Pre-design consultation with the design-build team on air barrier assemblies and systems, detailing, and material specifications.

- Quality assurance field observations during construction identifying typical complaint and non-complaint construction methods.

- Follow-up testing, diagnostics and consultation in the event that the air barrier system fails to meet the required USACE Air Tightness Metric.

- Building Envelope Commissioning (BECx) to include commissioning the air, moisture, vapor, and thermal barriers which can qualify for a LEED credit.

For more information about this or any of the other services offered by BD&PS please contact us at 205.439.7780.