

Assignment 2. Vapor Pressure Profile (5 Points)

1. Use the same wall system (same materials, thickness, and R-value) that you used in Assignment 1.
2. Use the same summer/winter design temperatures and assumed indoor temperature and humidity conditions that you used in Assignment 1. [It is OK to change them if you want to, just include a note].
3. Calculate the vapor pressure profile for your wall under the winter and summer design conditions. You will need to add the exterior humidity conditions. [Remember: You may need to do two or more iterations – see ASHRAE 27.9.]
4. Repeat Step 3 for the framing portion of your wall.
5. Identify and discuss the condensation potential for your wall system for both cavity and framing at these design conditions. Does this calculation fairly represent the real world – why or why not?