

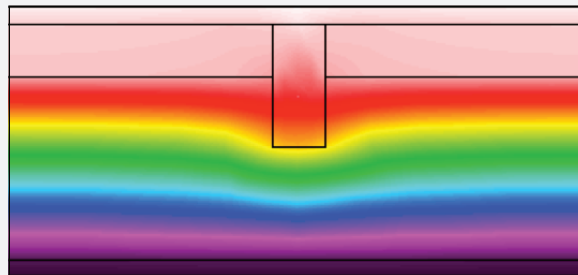


Wall Panel System Evaluation

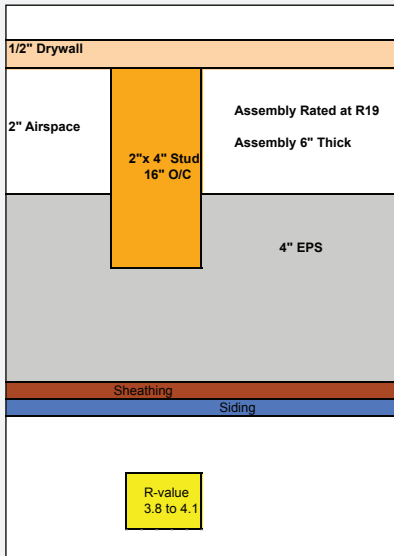
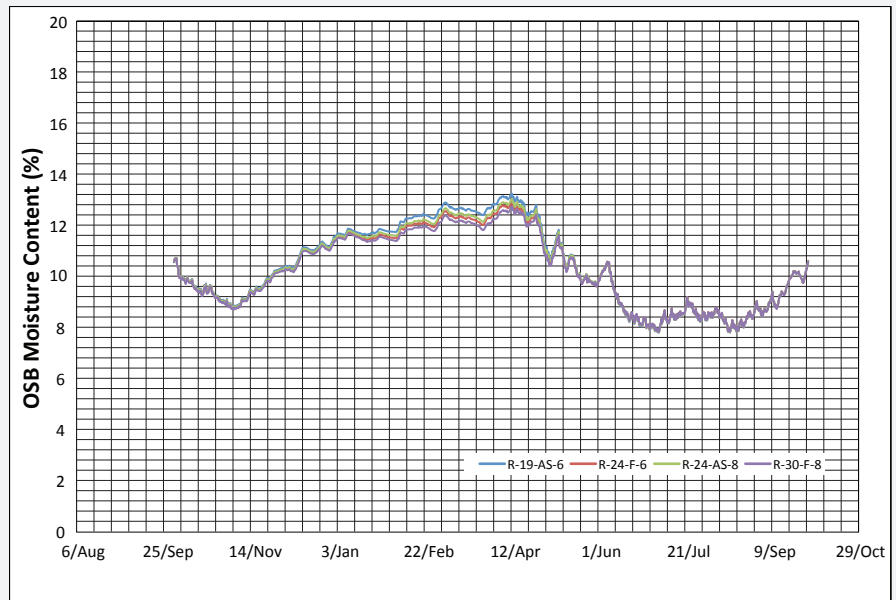
2009

BSC Services Provided:
Hygrothermal Analysis

Wall assembly heat flux output from THERM



Wall assembly equilibrium moisture content output from WUFI Pro



In 2009, the Green Building Alliance asked for BSC's assistance in evaluating a foam wall panel system for energy efficiency and moisture vapor management. BSC identified 4 different wall assemblies using the panel system which would demonstrate the range of potential performance of the system. Two-dimensional heat flow software simulation (THERM) was used to determine effective R-value of each assembly. One-dimensional heat and moisture flow analysis software (WUFI Pro) was used to analyze the moisture-related durability of the assemblies in a cold climate. In addition, the wall assemblies were evaluated for compliance with prescriptive requirements of IRC, IBC, and IECC codes. BSC's final report describes the analysis and simulation results and provides recommendations for use of the wall system.