



Project overview:

The Dalton Home is a fully custom, architecturally designed modular home located in Black Mountain. The home was designed to take advantage of the ridgetop views, while minimizing the footprint, and blending into the environment of the rolling hillside. The home construction focused on integrating green construction and modular manufacturing, while making further improvements to the energy and water efficiency.

Site Development:

Development in the High Rock Acres area emphasizes minimizing the environmental impacts of construction, and maintaining the natural beauty of the surroundings. The home was sited to reduce its road exposure, minimize tree removal, and maintain the view of a natural granite outcropping in the viewshed behind the home.

Energy Efficiency/ Renewable Energy:

R-21 fiberglass wall insulation, Superior wall foundation with R-29 insulation, Marvin Integrity windows, multi-zone heating/cooling, high efficiency Lennox direct vent wood stove with heated air distribution, thermostatically controlled vents in partial crawlspace beneath basement.

Water Efficiency:

Low flow aerators, air oxidation sulfur removal system

Indoor Environmental Quality:

Multiple oversized air returns with SafeHome organic removal filters, zero formaldehyde insulation, prefinished oak flooring,

Resource and Material Use:

Modular construction minimizes material usage through the use of detailed cut plans, extensive recycling programs, segmented folding truss designs, and other methods that can best be applied in a factory setting. On-site recycling was used for plastic, glass, and metals. Siding consisted of a combination of cement board siding and trim, and traditional pebbledash with multilayer rain screen behind the pebbledash. Trex composite decking.