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New patrol shack at Buttermilk a model of efficient energy use

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ASPEN — The Aspen Skiing Co.'s installation of the \$7 million Tieshack chairlift at Buttermilk and the \$6 million renovation of the Merry-Go-Round restaurant at Aspen Highlands got all the offseason attention, but a more obscure project thrilled Auden Schendler, the Skico's vice president of sustainability.

A new ski patrol shack was added at the top of Buttermilk and features the latest and greatest practices in energy-efficient design and construction. The Skico hired two patrolmen who are partners in a construction company, John Beezer and Bud Norris, to build the shack.

The project demonstrates how the construction industry — or at least a segment of it — is embracing “green building” because it makes sense, it results in a better product and it can be done within budget, according to Schendler.

“At Aspen Skiing Co., for example, my department had nothing to do with this project,” Schendler said. “The planning department, and Beezer and Bud did it all on their own. That’s how we always hoped things would work — green building becoming institutionalized.”

The Buttermilk patrol shack was built within its \$400,000 budget, Schendler said.

Beezer said he and Norris established their niche in residential construction by helping people who want to be involved in building their homes. And part of their philosophy is using materials that are leftovers from new construction of mansions in the Aspen area or perfectly good materials salvaged from houses being torn down.

“There are so many [projects] out there that are throwing stuff away. It just ends up in the landfill,” Beezer said.

The patrol shack received a lot of hand-me-downs from other Skico projects. Rubber floor tiles were salvaged from the base building at Two Creeks at Snowmass when it was remodeled recently. Oak shelving that will be used by patrollers for storage also was brought over from Two Creeks. A gas stove was saved from the Ullrhof restaurant after a recent renovation.

Beetle-killed lodgepole pine salvaged from Colorado forests produced the paneling used in parts of the ceiling. All told, 10 to 15 percent of the materials used in the patrol shack were recycled from other jobs or buildings, Beezer said.

Architect Kim Raymond's design utilizes passive solar orientation, with sunshine flooding the bank of windows on the south and helping heat the structure. The double-pane windows have an insulation value of R-3.

The insulation in the walls have an R-value of 37, and the ceiling insulation is at least R-63.

“It way exceeds code,” Schendler said, referring to Pitkin County's building code. The U.S. Environmental Protection Agency says best-practice building for Colorado's climate would require ceiling insulation of at least R-49, he noted.

The energy efficiency is so high because building materials were sprayed with a foam that creates a super-tight seal, and then layers of insulation are added.

Insulation was added to the exterior and interior of the concrete foundation. The exterior paneling was made from two wood and concrete products that will require little maintenance over the years. Cold-roof construction lets air circulate in a small gap between the insulated sub-roofing and the top roof, so heat tape isn't required.

"It better be damned efficient. I'm going to be disappointed if it's not," Beezer said. "My partner and I have been building for a long time. We try to make it as green as we can."

The shack has programmable thermostats and – something that makes Schendler extremely happy – mostly T5 linear fluorescent lights. They are the hallmark for efficiency in lighting, he said. They are 51 percent more efficient than the common T12 lights, which feature fatter bulbs.

The shack also will have natural-gas service since a line already served the nearby Cliffhouse restaurant. It doesn't have solar panels yet but will potentially be retrofitted. The building will exceed the Aspen Highlands patrol shack in efficiency, in large part because that building relies on electric heat to supplement its solar photovoltaic system.

"This is going to crush it," Schendler said.

Beezer credited the Skico with hiring patrollers for the construction project and keeping area residents employed at a tough time. Beezer is the assistant patrol director at Buttermilk. Norris is the patrol director at Aspen Mountain. They were assisted by Mike Geiser, a patroller at Aspen Highlands, and Ed Pfab, a patrolman at Aspen Mountain. Combined, they have roughly 100 combined years of experience on the patrol and make their livings in summers through construction.

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