



tonopalo case study

## EcoStar Product Meets Lake Tahoe's Strict Guidelines



About 6,200 feet above sea level among the serene pine trees and snow capped Sierras nestles contemporary, yet nonetheless extravagant, private residences in the cabin-filled community of Tahoe Vista, California. Although a small community, it offers world-class ski resorts and boasts some of the most picturesque panoramic views in the nation. Tonopalo, a high-end private residence club perched on the north rim of Lake Tahoe's brisk waters, is one of Tahoe Vista's newest and finest architectural marvels.

Where once existed old, cabin-style hotels has spawned a residence of distinctive beauty that combines nature and refined style. Demonstrated through its multiple architectural lines, alternating patterns of redwood and cedar siding and elegant emulated slate roofs, the vision of Tonopalo is now a reality.

"It's difficult to build in Tahoe," said Don Clark, principal of Cathexes, the architectural firm that designed Tonopalo. The Tahoe Regional Planning Agency (TRPA), a governing board that has implemented building restrictions for the area, must approve all building plans in the Lake Tahoe area. "The approval process for Tonopalo persisted two years prior to groundbreaking. Everything from visual impact to site coverage and color must be reviewed by the TRPA. It is in one of the most difficult regions to build in the country."

## Tonopalo

### Location:

Tahoe Vista, California

### Application:

EcoStar Majestic Slate™ Traditional Tiles

The building products that were used to build Tonopalo were evaluated and approved prior to the construction. Among the products to be evaluated for design elements and aesthetics was the roof, which now boasts EcoStar® Majestic Slate™ tiles. Made of 80 percent post-industrial recycled rubber and plastic, EcoStar tiles were approved for its durable properties, composition and aesthetics. "People in the West Coast appreciate environmentally-friendly products," said James Molder, project manager of Cathexes. "We always look for green-friendly products that do not compromise durability."

Three hundred and fifty (10 x 10) squares of EcoStar's Majestic Slate tiles were installed on a total of six buildings, one lobby and five private residence buildings, which house 19 three- and four-bedroom homes. "The natural look of it is great. You cannot tell the difference between EcoStar tiles and natural slate tiles," said Ron Cobb, project manager for SMC Contracting in Reno, Nevada. "Originally, I thought the roof tiles on Tonopalo were slate," said Klay Kazala, project manager for Intrawest, a company that specializes in upper scale private residences, including Tonopalo.

Manufactured to replicate the smaller size of eastern United States slate, offers the beautiful look of slate at a quarter the weight and cost of traditional slate. With a six inch exposure, it combines American tradition and technology to create an outstanding roofing product.

This steep-slope roofing tile worked well even on Tonopalo's conservative 4:12 roof. With height restriction as a concern, EcoStar's versatile roofing tiles were applied to the roof, contributing to the building's camouflage characteristics. Cleverly blending with Tonopalo's surroundings, the roof is comprised of 80 percent federal gray and 20 percent stone red Majestic Slate tiles. The square shape of the tile is a classic finishing touch to Tonopalo's distinctive architecture.

"EcoStar offers an array of styles and color options, but they also offer integrity, which is always important,"

said Molder. EcoStar's full line of roofing tiles includes Majestic Slate, Seneca Cedar Shake, and the Majestic Slate Designer Series, which includes Beaver Tail, Chisel Point and Beveled tiles.

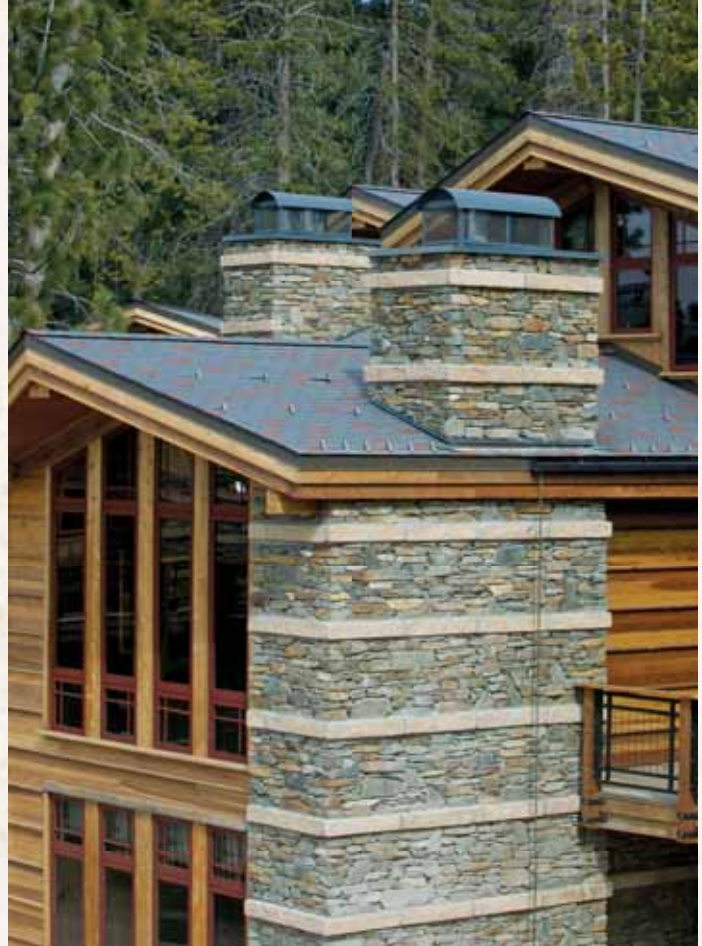
In addition to aesthetics, the durability and warranty were major concerns for Tonopalo's location. Located in a region that experiences the extremes of high snow loads and warm summer temperatures, freeze-thaw is an issue. Diverse temperatures can pose a threat to some roof systems, but the adaptability and durability of EcoStar tiles allows it to command a 50-year warranty, not only in this weather challenged region, but also in any region in the United States.

Another concern with building in the Lake Tahoe area is the threat of fire. Although the high water line is only 30 feet away, Tonopalo is surrounded by forests, which pose the high risk of fire. Majestic Slate tiles, as well as the entire line of EcoStar products, offer a Class A fire rating.

Another essential safety feature of the EcoStar tiles is their protection against hail, driven rain and high winds. It offers a Class 4 hail rating along with the availability of a 110 mph wind warranty; unlike conventional roofing tiles, Majestic Slate utilizes the combination of rubber (EPDM) and plastic (TPO), guarantee that the tiles will not curl, crack, break or rot. "We did not want to offer a roofing system that would require continual maintenance," said Steve Fish, division manager of D and D Roofing and Sheet Metal, Inc., a roofing contractor in Sparks, Nevada.

In addition to the maintenance-free benefits, the installers enjoyed the ease of application. Injection molded using a special formula that protects the integrity of the rubber; Majestic Slate tiles offer a lightweight alternative to slate. The tiles weigh a total of 1.26 pounds each, alleviating stress to buildings and injury problems for applicators.

"It's a clean product" said Fish. "It's simpler than slate, no question, and the Gold Star Warranty protects the



system for fifty years." With a roofing crew of four, the construction was completed in phases beginning in August 2003 and finishing in December 2003. "Our crew has experience with blending the tiles before installation and working with various roof planes," said Fish. "The installation was quick and made the project go smoother than anticipated."

Although a quick construction, Tonopalo's originality and one-of-a-kind style puts a twist on traditional alpine-style facilities. "Tonopalo has a contemporary edge," said Clark. "It's familiar, but different," said Molder.

Avoiding logs and antlers, a classic hallmark of alpine architecture, Cathexes took advantage of this challenging design opportunity and created a more interesting structure. "We tried to soften the mass of buildings," said Clark. "We designed the buildings so each one would have a view of the lake. The living rooms are not face-to-face; they are separated for privacy. This is extremely difficult to do because there are six buildings and not that much space to work with."

Utilizing nature at its best, Cathexes also designed the buildings to feature alternating materials. The siding mixes redwood and cedar through horizontal banding; three bands of red wood merge with two inch strips of cedar to create an eye-pleasing environment. Joining the neutral color palette of the exterior walls, are the stone chimneys that feature tan bands of stone strategically placed to create horizontal lines.



Not only have the building components set the stage for Tonopalo's unique experience, but also its surrounding environment has contributed to many of its perks. Located on four acres, Tonopalo sits on the only shifting sand dunes in the area. Its vulnerability to the elements was addressed during the initial plans in order to refrain from future complications. "Walls of steel were driven into the ground, so we didn't ruin the property," said Molder. "They had to stabilize the ground to protect the supports of surrounding homes. The sand was moved around to prepare a stable foundation."

"We are constantly improving our private residences. "We care about the residents," said Kazala. "We are planting native saw grass around the pool, installing acoustic ceilings in the lower residences to eliminate sound and installing heat tape on walkways and around the pool to reduce the threat of ice."

The caliber of Tonopalo's high-end residences and amenities are accompanied by high-end services. "When residents arrive, we facilitate daily routines upon their request," said Brad Kohler, owner experienced agent of Intrawest. "We make their stay seamless; a Teflon experience."

Adding to Tonopalo's unique amenities and refined residences sized between 2,000 and 3,000 square feet, its structure is also unusual. Although residences pay annual HOA dues, Tonopalo is not a time share nor is it a condominium. Its residents are provided with a deeded real estate ownership and have the exclusivity of a private membership club. Seven residents purchase the same unit for an alternating six-week period of a year, one in the fall, one in the spring and two in the summer and winter months. With 10 space-available weeks remaining each the year, residents have the option of residing at Tonopalo nearly for free if no other residents who share that, or like units have already made accommodations.

Building in regions such as the Lake Tahoe area challenge architects to design an effective plan that utilizes building components that will coincide with restrictions. These stipulations expose architectural design at its best. Roof systems that offer fire protection, durability and sophisticated style, contribute to Tonopalo's architectural eloquence and define the importance of exterior building products.



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