

## This Old House: Standing-seam roof covers historic home

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A third corrugated metal roof was installed over the second years later during building renovations. Other roofing materials were considered as replacements, but later discarded since the original roof was welded to the Quonset hut beams.

Ultimately the Whitakers found Goddard & Carter Fabrication, Louisville, Ky., to install 6,000 square feet (557 m<sup>2</sup>) of Perth Amboy, N.J.-based Englert Inc.'s Series 2500 standing-seam metal roof in Dark Bronze to cover the old corrugated material. "It took us a while to find [Goddard & Carter Fabrication], but once we did, they understood and appreciated exactly what had to be done on this historic house," Alexis said. "Even when they realized that the installation would take three weeks instead of several days, they took their time and did a wonderful job."

A historic home located in **Knoxville, Tenn.**, the **Robert Daniel House** was designed in 1948- 1949 by James W. Fitzgibbon and constructed by George W. Qualls. The Daniels sold the house in 1961, however after the second owner died in 1970, his family let the site deteriorate. In 1982, architect Peter Calandruccio bought the home and began renovations. In July 2008, current owners Justin and Alexis Whitaker purchased the home.

Designed in Moderne architectural style, the house is on the National Register of Historic Places. The Moderne style that became popular in 1925 and was described in the 1960s as "Art Deco," uses indigenous East Tennessee material and has a streamline moderne style.

Ahead of its time, the home features a radiant floor heating system. A contemporary HVAC system was installed during Calandruccio's renovations and later added to by the Whitakers. Fitzgibbon originally designed the house with a carport at one end with a live tree growing through the roof, which was watered when water would channel down the hillside. The tree was removed and the carport converted to a small family room, but water continued to channel down the hill under the parquet floor, requiring it to be removed and replaced with a stained polished concrete floor.

The house was originally designed with a corrugated metal roof that was welded to the Quonset hut beams, but ran lengthwise, creating water problems. Within months, a second corrugated metal roof was installed over the first, so water would shed to the sides of the roof.



While the houses, the Daniel house has a curved metal roof that accommodates a second story loft, stone patio at one end and a balcony at the other. The arched, outrigger steel supports were salvaged from Quonset huts in the post-WWII era when the house was built. Most of the interior and exterior trim had been done in the now-extinct Wormy Chestnut. "We considered replacing it but decided to strip it and re-stain it in ebony to relieve some of the busyness of the interior caused by the interior stacked marble walls and marble flooring," Alexis noted.

The house also incorporates several hundred tons of local Tennessee pink, black and white marble in its floors, walls, a massive 12- by 25-foot (4- by 8-m) fireplace and exterior landscaping. Additionally, the septic tank is lined with local marble. The building features a double-barreled arch that embraces the entire structure including the first and second floors built into the hillside.