

# The Rhodo Renovation

A case study in 'Right Size' Design

□ BY SEAN SULLIVAN □

**M**y wife Laura and I decided to buy a 1960's rancher in downtown Black Mountain to renovate for ourselves. We liked the feel of downtown and wanted to be close in to the lake, park, pool and center of town. We had our work cut out for us though since the home hadn't been touched in nearly 40 years!

The 900-square-foot shack sat on a crawl space situated nicely on a corner lot near the golf course. Believers in making all things beautiful, and the desire to give every home we touch "curb appeal," we first nailed down the floor plan.

We wanted to keep as much of the original structure as possible, leaving the two exterior door locations, existing room layouts (virtually the same), as well as the original location of the hallway and common bath. Because we had to combine the two end bedrooms into a master suite, we needed to design a small addition on the back to replace the lost bedroom and give the home a proper kitchen.

We enlisted the help of an architect partner to create the new style, passive solar design, and get the exterior elevations just right. After that was nailed down, we set out to make this the most efficient use of space we could create. Since most of our clients end up building homes larger than they had originally



A 1960s Black Mountain home after it was remodeled. Sean Sullivan photos

intended (due to having lower levels on sloping lots), we wanted to show what it meant to "right size" a home.

"Right sizing" a home means that you prioritize "quality over quantity," rather than the premise that "bigger is better." As green designers and builders, we also wanted to show that saving a home in an existing neighborhood is priceless when you want to be able

to walk to what's important to you. We designed this home so the 1,450-heated-square-foot main level would be all we would need on a daily basis. We utilized the lower level of the new addition by designing it to be a separate art studio for my wife who is not only an interior designer, but also an artist.

The crawl space that adjoined the existing one-car garage was

dug out by hand in order to create space for the mechanicals, storage, extra bathroom, and TV room/bedroom for the occasional visit from the college student. We intentionally did not include an interior staircase so these overflow spaces could be used when there was want, but not out of need.

Now that the spaces were identified, Laura went about designing



Before the remodel.

each space for maximum use and aesthetic value, while I worked with our Energy Rater to make this the most energy-efficient and green project we possibly could. We began with saving the existing (sinking) foundation by having helical piers rammed into the earth beneath the south corner. We also discovered the previous tenant had been an earnest gardener so we gave away most of the plants in the yard that we couldn't use to interested neighbors and the adult children of the now-deceased previous tenant.

Saving as much of the structure as possible while still being able to get the home certified, we left the exterior 8-foot walls, but raised them to 9-foot, 6-inches by running beams around all the top plates.

The exterior walls were then wrapped with foam board insulation to seal off any air infiltration and add maximum insulation values. Wanting a new contemporary look to the home, we opted for a glass garage door as an entrance to the art studio. The only calculated energy loss to the project, we felt it was important to get light and ventilation into the space.

Most visitors get caught up in the details of the architecture, interiors and furnishings while others can't believe the home is only 1,450 heated square feet on the main level.

The "outdoor living" spaces are connected to the home by the use of glass, slider doors, and wrap-around porches and patios.

True energy connoisseurs like myself are all about the "performance" of the home though. The mechanical room contains the air handler for the geothermal HVAC system, Energy Recovery Ventilator (ERV), dehumidifier, built-in floor drain and electrical panel that pipes in the solar from the roof. You wouldn't know that the home had solar though because the panels are cleverly hidden behind the butterfly roof facing due south.

One of the biggest surprises has been the "wine room." It started out as just a wine closet in the corner of the basement next to the mechanical room. However, when we decided to use the "jail house" door that was given to us by Laura's aunt, it became an all-out cellar clad with stone all the way up to the 7-foot ceiling. We took a slab of oak from a recently timbered tree (to create a table top) and created wine bottle holders by building a plywood box beneath it and a shallower one above it with 1-inch holes in it to hold the "necks." Lastly, we ducted in the cool exhaust air from the heat pump water heater in the room next door to "chill" the bottles.

As construction drew to a close, we finalized trim and furnishing details. The leftover trim materials were recycled to create a "puzzle trim" detail for the base of the island and as an accent wall in the master bedroom. Saved slabs of walnut were used to make the dining room table that we designed, as well as miscellaneous shelving. Our middle son's bed was built from shiplap siding that was left over and Laura's art-hanging wall was finished with the recycled stained tongue and groove soffit material.

A lot of thought, planning and ingenuity went into getting the Platinum certification we received from Green Built NC as well as the low HERS index of 30. It is very satisfying to see how well the design worked on the lot, how effective the spaces have become, and how comfortable the house is. However, the greatest satisfaction that we have achieved through this exercise in "right size" design is that we get to call this place ... home.

Sean Sullivan is president of Living Stone Construction, a local Design+Build firm located in Black Mountain. As past president of the AHBA, the NCHBA, and Vice Chair of NAHB's Design Committee, Sean's passion for leadership in design has propelled his business to become the trendsetter in his local market.



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