A Roof That'll Grow on You

Why My Husband and I Decided to Go Green When We Added a Front Porch

called it our little Arlington brick box when we moved in four years ago. After living in North Carolina in a new passive-solar house - with more windows on the south side; fewer on the east, west and north; wide roof overhangs; and masonry floors - it was frustrating to live in a regular, not-so-thoughtfully designed

Our heating and cooling bills were higher, and uncaptured sunlight on our south side felt like a terrible waste. Our Arlington neighborhood. Westover, is walkable and friendly, but it was obvious right away that to really feel connected to the life on our street, we needed a porch. A porch on our south-facing house would shade the house in summer, and when we eventually add windows, the concrete floor will capture the winter sun and help heat our home.

I was a graduate student in landscape design when my husband and I were planning our porch addition. When I came across the concept of green roofs in a class at George Washington University, I fell in love with the idea. Among the benefits:

- Plants on the roof help to slow, clean and cool the rainwater that eventually makes its way to the Chesapeake Bay.
- Living roofs reduce the ambient summer temperature and insulate the space below.
- A green roof initially costs more than a conventional roof, but, because the waterproof membrane is covered and protected from UV rays, it should last at least twice as long as a conventional roof.

I must admit, though, I mostly wanted it because I thought a garden on the roof would be soft and beautiful and very fun.

Our roof, which was installed last December, is called an extensive green roof, which means the specialized growing medium in our case, a mix of expanded shale and mushroom compost - is only three inches deep. The soil and plants weigh about 15 pounds per square foot - not difficult to accommodate on an existing roof (but check with an engineer) and certainly possible to include in a renovation.

Because of the shallow soil and harsh conditions on the roof, only especially tough plants, often those naturally adapted to



Clockwise from above: Alyssum blooming this month on the green roof covering the front porch of the author's house in Arlington; before- and after-the-porch views.

rocky outcroppings, can thrive.

It's been fun experimenting with different plants — on the first day of spring I glanced out the dormer window and noticed a crocus blooming on the roof. Bulbs work — and so. quite surprisingly, did the sweet potato vine I planted near the edge. The dianthus was lovely for a few months, but it succumbed to the August drought. Portulaca, alyssum, sempervivum (hens and chickens), delosperma (ice plants) and many varieties of sedum have survived, and some have even thrived through the first year of our living roof.

The hardest part has been watering the roof — impossible early in the construction when the plants were up before the hose bib was connected, and awkward even when water was available. Unfortunately, we lost a quite a few plants over the summer. Once established, they won't need to be nurtured as they have during this first year.

My husband and our children, 16 and 10, went to see "An Inconvenient Truth" this past summer, and as we were leaving the theater the kids discussed how proud they were that we have a green roof. In the face of daunting



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information about climate change, our children were informed and empowered.

Our little 300-square-foot patch of green won't stop global warming or even save the bay. But if many of us in the Washington area and across the nation plant green roofs, we will make a difference.

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