

Omey Ecoroof Final Report- Back roof

Summary

Over the course of three years we have planted two ecoroofs on our house located at 2105 N Webster St. This was made possible by The Bureau of Environmental Services, Dan Manning, Greg Haines and many great volunteers. We hope to plant a third ecoroof later this year and are working on “eco eaves” for our garage.

Background

The desire to have multiple ecoroofs on our house stemmed from our farming background, love of plants, and as a reflection of our values. We incorporated ecoroofs into the design of our major remodel as one of the many environmentally friendly and eco-conscious features. We chose to incorporate ecoroofs because they save energy, improve air quality, significantly decrease storm water runoff, provide habitat, and are great to look at.

The back roof was completed in multiple phases over the course of almost two years. Dan Manning and Greg Haines, owners of Dan Manning PC and Ecoroofs Everywhere, installed the roof membrane for the 349 sq ft back roof at the same time as the 259 sq ft front roof, in March of 2009. In May and June of 2009, a portion of the back roof was planted with soil and plants that were left over from the front porch project. Soil was then ordered in October of 2010 and stored until installed on the roof in March 2011. A few plants were purchased in March 2011 but a good portion of those planted at that time were clippings from our front roof, a neighbor’s roof and plants from another neighbor’s rock wall.

Design

The plant selection for the back roof was largely based on the types of plants that we liked most from the front roof, and what we could find in the neighborhood. We had a lot of fun clipping and sharing plants with our neighbors. Since our roof is a 3:12 pitch, part of the section design is intended to test slightly steeper roofs. Over the TPO roof membrane, which also serves as a root barrier, we put a layer of recycled felt carpet pad, on which we have 4”-6” of lightweight growing medium, with planting in and under a jute mat, which is used for temporary erosion control during plant establishment. The more mature sections of the roof have proven that this system works well on a 3:12 pitch, without any significant sloughing of growing medium or plants. The perimeter of the roof is a built-up curb made of three stacked 2x4s, all recycled of course. The TPO membrane goes over the curb, and is capped with a metal flashing that extends over the fascia. We have a through-roof drain inside the curb, but outside the wall, which drains to a rainwater collection system made of recycled wine barrels. The planting layout was by look and feel, with some guidance by a few volunteer landscape architect friends.

Maintenance

The roof has required minimal maintenance. Occasional watering is necessary in the hottest months, and is done with a garden hose. Occasional weeding will be required due to airborne seeds and wildlife in the neighborhood. We look forward to our visits to the roof, which also provide a time to hang out and enjoy the view. We have permanent safety tie-offs so that we don’t have to worry about being so high off the ground when working near the edge of the roof. The same tie-off / fall protection also serves the upper, solar roof for required cleaning and maintenance

Cost

We were able to keep our costs fairly low for the type of project that we did. A majority of the cost was in the roof membrane, which is a good place to invest. We relied heavily on volunteer labor, from friends, neighbors, and a few members of GRiT, the Green Roof Information Thinktank. We used as much recycled material as possible, and found good deals on Craigslist for things like metal trim. The

key to keeping costs low is keeping it simple, and knowing where to spend good money on quality components.

Observations

We have found that the ecoroof has been a great conversation starter and has helped us build a stronger community. Having people stop to take a look at the front ecoroof and ask questions has been very gratifying and fun. We love having the view of an eco roof out our bedroom window, and we can now see the plants peeking off the back roof!

Some photos of planting and the plants on our back roof:



Planting Day. Thanks Daniel, Susan, Brian, Jacob, Catherine, Rain, Sharon, Deb, Andrew, Dan, Greg, and all of the others who helped make our ecoroof happen!





