

MANCHESTER'S FIRST GREEN ROOF

Look up! Manchester's first "green roof" now sits on top of City Hall's Connector building.

THIS UNH COOPERATIVE EXTENSION INITIATIVE

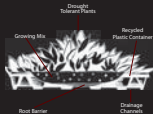
combines new technology with plants to deliver many benefits to the building below and to our overall urban environment.

Most rain that hits a conventional commercial roof flows off, carrying with it heat and particles. As the runoff hits the ground below, it picks up more pollutants:

gasoline, oil, antifreeze, sand, and heavy metals that end up in local streams and rivers.

As the amount and velocity of rain increase, stormwater runoff can cause flooding, and overload the wastewater treatment plant, which then dumps untreated sewage directly into the Merrimack River.

The green roof absorbs up to 95% of a 1-inch rainfall, allowing it to percolate slowly through the plants and soil. Much of the water evaporates and what runs off is delayed, giving sewer systems time to recover.



PLANTS ON THE GREEN ROOF

The planting bed behind this sign contains the same plants now growing on the roof, many of which can be found in the gardens around town.



Allium schoenoprasum

Sedum kamtschaticum var. *fastiduum* 'Weberastrophyllum Gold'

Sedum spurium 'Dragon's Blood'

BENEFITS OF A GREEN ROOF

The plants and soils in a green roof serve many functions, which include:

- Reducing the energy needed to heat and cool the building below.

- Saving money by extending the life of the original roof.
- Absorbing noise.
- Lessening the risk of flooding and overflowing sewers.

- Providing habitat for butterflies and other pollinators.
- Filtering air pollutants, improving air quality.

INSTALLING THE GREEN ROOF

The GreenGrid System uses 4-inch deep recycled plastic containers filled with a lightweight growing mix and planted with perennial plants that thrive in hot, dry, and windy rooftop conditions.



Sedum sieboldii



Sedum rubrotinctum



Sedum cauticola 'Ruby Glow'



Sedum pachycladus

Installation took 2 hours. After covering the original asphalt roof with a slip sheet, the installation team lifted the pre-planted containers into place.

Unlike some green-roof systems, the GreenGrid System doesn't require additional roof construction or design.

LEARN MORE

- For more information about Manchester's green roof, including updates on temperature monitoring and pollutants absorbed by plants, go to: www.ManchesterNH.gov/CityGov/dpw/EPD/greenroof.html
- For specific information on the GreenGrid System used here, go to: www.greengridroofs.com
- For more information on green roofs, go to: <http://extension.unh.edu/FHGEC/greenroof.htm>

PROJECT FUNDERS

No Manchester tax dollars were used for this green-roof project. All funding came from grants and private sponsors:

- UNH Cooperative Extension in partnership with the N.H. Division of Forests and Lands and USDA Forest Service
- TFMoran Inc.
- McLane Law Firm
- Manchester Development Corporation
- Lavallee Brensinger Architects Fund of the N.H. Charitable Foundation, Manchester Region

- Weston Solutions, Inc.
- N.H. Dept. of Environmental Services
- Anonymous Fund of the N.H. Charitable Foundation
- Breathe New Hampshire
- SEPP - Enterprise Fund, administered by the City of Manchester Environmental Protection Division

PROJECT SUPPORTERS

- City of Manchester
- Intown Manchester
- Greater Manchester Chamber of Commerce
- UNH Manchester



Sedum kamtschaticum



Sedum reflexum