



INNOVATIVE
GREEN ROOF
TECHNOLOGY



Columbia Green Technologies endeavors to provide the most appropriate green roof for your project, rather than a one-size-fits-all approach. Each comprehensive green roof solution has been engineered to meet the unique challenges of the rooftop growing environment.



Green roofs, also known as eco-roofs or vegetative roofs, are increasingly common. There are many environmental and economic benefits to the implementation of green roofs that contribute to the rapid industry growth. The plantings provide elements of design to an otherwise un-used space and the plant material improves air quality by sequestering air-borne particulates and pollutants. The green roof can reduce the temperature of the surrounding ambient air, thereby reducing the heat island effect. The green roof protects the roof membrane, increasing its useful life. Perhaps most importantly, green roofs can reduce both the amount and rate of stormwater run-off, making them a real asset to cities struggling with aging storm and sewer infrastructure.

Summary of the benefits of a green roof

- Reduce the amount of stormwater runoff and also delay the time at which runoff occurs. In summer, depending on the plants and depth of growing medium, green roofs retain up to 70% of the precipitation that falls on them; in winter they retain between 25-40%. Green roofs can sustain a variety of plants and invertebrates, and provide a habitat for various bird species.
- 2x-3x Prolonged life of roof membrane
- Provide year-round energy savings; the thermal blanket saves energy and costs for both heating and cooling – as many as fourteen Leadership in Energy & Environmental Design (LEED) credits
- Aesthetics; Attractive Amenity Spaces and Increased Property Values, Occupancy Rates

WHY COLUMBIA GREEN?

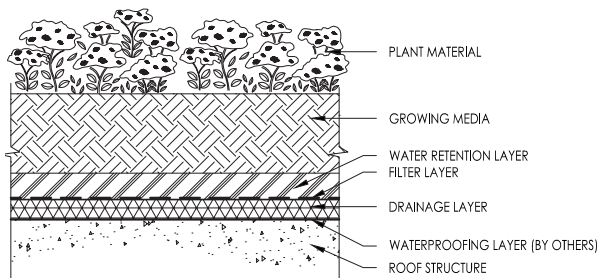


Columbia Green Technologies has a long history of innovation in the industry; our products are engineered specifically for the unique requirements of a roof environment, taking everything from wind uplift to irrigation into consideration. We offer comprehensive green roof solutions for a variety of situations: extensive, semi-intensive and intensive roof gardens. Designers appreciate the flexibility to use trays or layered assemblies, as the project requirements dictate. Building owners love the single source 'Roof to Green Roof' warranty options provided through our roofing partners.



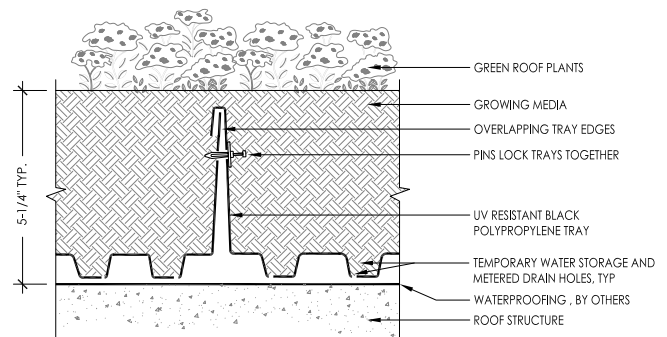
LAYERED ASSEMBLY

- Layered systems are built-in-place systems that consist of following components
 - » Growing Media
 - » Retention Layer, which provides supplemental moisture retention for plant available water, high porosity for root aeration, and anchorage for plant root. Available in .5-inch or 1-inch thicknesses.
 - » Filter Layer, which prevents gravitational erosion of the growing media.
 - » Drainage Layer for preventing ponding and moving excess water across the roof surface to the nearest drain. Available in .40-inch, .75-inch, or 1.5-inch increments.
 - » Edger for perimeter stability
- Layered systems are most compatible with curvilinear or organically shaped roof layouts.
- Layered systems offer maximum soil depth flexibility. We recommend anywhere from 3-inches to 24-inches+ of media depth.



TRAY SYSTEMS: PRE-GROWN AND PLANTED-IN-PLACE

- Our patented interlocking and overlapping tray system was designed by landscape architects, stormwater engineers, horticulturists and roofing experts specifically for the unique challenges of the rooftop environment—just fill it with growing media and plants. Each of the individual functions found in the layered assembly is inherent to the tray, thus eliminating the need for separate drainage mats, root barriers, filter fabric, etc.
- Can be pre-grown as well as planted at the job site.
- Maximum stormwater retention capability.
- Easily installed.
- Integrated drip irrigation available.
- Optimal growing environment for plants.



PLANTING OPTIONS



Custom matched and most often regionally-sourced to meet each project's design and installation parameters. Plants are available in un-rooting sedum cuttings, plugs, pre-grown sedum tiles (15"x20") and pre-grown sedum mats (4'x 6'). Media depth permitting, we can also source regionally appropriate accent plants such as bulbs, grasses, perennials and shrubs.

ROOFING PARTNERS

Our roofing membrane partnerships allow us to offer single-source warranties on our assemblies. We partner with leading manufacturers of roofing materials to offer a complete solution for every type of roof construction. Regardless of your region, roof type or price point, we can find a solution for you. Our roofing partners are listed to the right.

ABOUT COLUMBIA GREEN TECHNOLOGIES

Columbia Green is a green roof development company whose core technologies are based in vegetative roofs and sustainable functions that help manage the quality/quantity of storm water, energy use, and air/water pollution. Cities across the world are using vegetative roofs to manage these environmental issues. Columbia Green is a USA manufacturer — delivering product through both domestic and international channels to meet these needs.

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Partner	Available Membranes
	PVC
	Hot Rubber
	Mod Bit, SBS
	Mod Bit, SBS
	Mod Bit, SBS
	Cold Applied

Single Source Warranty
for the Roof to the Roots

