



GREEN ROOFS for EDUCATIONAL FACILITIES

Bowie State University Student Union, Bowie, MD

GREEN ROOF BASICS

Green roofs are becoming an increasingly common feature of new buildings. Green roofs, also known as vegetated roofs, offer many benefits; they help **clean the air and reduce the surrounding ambient air temperature**, turning underutilized areas into vibrant spaces that **increase the aesthetic appeal of the building**. Additionally green roofs **protect the roof membrane, increasing its life by two to three times**. Perhaps most importantly green roofs reduce both the volume and rate of stormwater run-off and are capable of **retaining up to 70% of the precipitation** that falls on them. In addition to being a smart investment that positively impacts the lifespan of the building as well as the health and well being of those who interact with the structure, a green roof is a statement showing a commitment to the environment and sustainable practices.

**COLUMBIA
GREEN**
TECHNOLOGIES

www.columbia-green.com
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EDUCATIONAL AND BUILDING BENEFITS

- **Hands-on-learning** Connect students to nature and conduct research and experiments
- **Prepare Students for the "Green Economy"** Expose students to the rising sustainability movement and familiarize them with new technologies.
- **Increased roofing membrane & waterproofing life cycle** Block UV exposure and greatly reduce surface temperature fluctuations. With a green roof, a membrane life can be extended by two to three times.
- **Cut heating & cooling costs** Green roofs improve energy efficiency, by reducing both heating and cooling needs.
- **LEED Credits** Green roofs can contribute up to 12 LEED Points.



North Chevy Chase Elementary, Chevy Chase, MD



Kent State University Taylor Hall, Kent, OH



Pine Richland School, Gibsonia, PA

Green Roof Products to meet the unique challenges of the rooftop environment.

- **Proven Technology** Over 300 installations across North America
- **Less Maintenance** Integrated Irrigation
- **Warranty Protection** "Roof to Green Roof" Single source warranty provided by our national membrane and water proofing partners
- **Technical Support** AutoCad details, stormwater retention calculations, wind uplift and plant selection consultation.

"Green roofs can have many environmental benefits; they reduce cooling costs for buildings and they slow the speed of storm water to release stress on drainage systems. In addition, they're visually appealing and provide an opportunity for our students to learn about sustainability."

— Beth Ruffing Assistant Director Office of the Architect, Kent State University

"Of the green roofs we've installed Columbia Green was the easiest company we've worked with. We were able to get an accurate quote, delivery was as scheduled, and product was available quickly. I would definitely recommend Columbia Green to others."

— David Jones of SCI Roofing about his experience installing the green roof on SW Virginia Higher Education Center.

FAQ's

How are green roofs constructed?

Tray systems use interlocking modular trays to cover the rooftop and are available pre-planted or can be planted-in-place. Layered systems are comprised of drainage, filtration, and water retention layers with growing medium and plants on top. Columbia Green offers both tray based and layered systems.

Can a building be retrofitted to include a green roof?

Yes! Depending on the structural conditions, existing buildings can add green roofs with little modification or no extra modification. However, new construction projects are great opportunities to add green roofs.

Am I limited to one kind of plant on my green roof?

Green roof systems are very varied flexible and adaptable to many different climates. They range from extensive roofs, with a 3"- 6" growing depth, perfect for sedums, succulents, and some grasses, all the way to intensive roof systems with deeper growing depths of over 8" that allow for the planting of shrubs, trees, even rooftop gardens!

What sort of warranties are available for green roof systems?

There are two types of warranties, dual system warranties that cover the roof membrane and green roof separately and single source warranties that provide protection for the entire system holistically.

How can I learn more about green roofs?

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