



**Green Technology for
The Urban Environment**

Type IV Roofmeadow® Meadow Assembly

Our experience demonstrates that the most efficient designs for the vast majority of American green roofs can be derived from five **basic green roof types**. Roofscapes, Inc. has developed a Roofmeadow® green roof assembly that satisfies each of these types.

- Type I:** Roofmeadow® Flower Carpet and Roofrug™
- Type II:** Roofmeadow® Aromatic Garden
- Type III:** Roofmeadow® Savannah
- Type IV:** Roofmeadow® Meadow
- Type V:** Roofmeadow® Heath

The selected assembly depends in part on project conditions, including climate, desired plant community, specific performance requirements, and load bearing capacity of the roof deck. All assemblies will include the following elements: 1) protection of the waterproofing membrane from root and biological attach, 2) protection of the waterproofing membrane from physical abuse and accident, 3) a base drainage layer, 3) a separation layer to prevent fine-grained engineered soils from fouling or clogging the drainage layer system, and 4) an engineered soil to support the vegetation.

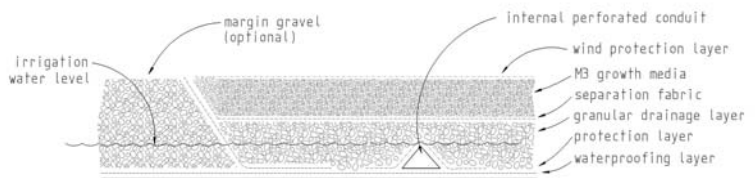
Type III: The Roofmeadow® Meadow

In the three-layer *Meadow* system, the growth medium and drainage layers are separated with a root-permeable separation fabric maintaining the layer integrity. The two layers are supported by additional granular media, forming a water storage layer. The captured rain or irrigation water performs just as a perched water table does in nature. A protection fabric provides the foundation for the Type IV system. Like the Type III assembly, this profile approximates the conditions associated with shallow soil over a shale bedrock, the natural environment that the green roof is intended to mimic. Typical overall assembly thicknesses range from 6 to 9 inches (15 to 23 cm). If sufficiently thick, an irrigated *Meadow* is ideal for turf roofs in many climates. *Meadow* green roofs promote strong plant growth by draining and distributing water efficiently and concentrating the root mass in a stable temperature and moisture zone. Irrigation is provided by a highly efficient base trickle (flood) system that introduces water at the root level, an approach that minimizes water loss due to evaporation. To reduce heat stress in semi-arid climates, Roofscapes, Inc. introduces a permeable thermal shield above the drainage media.



Oaklyn Branch Library, Evansville, IN
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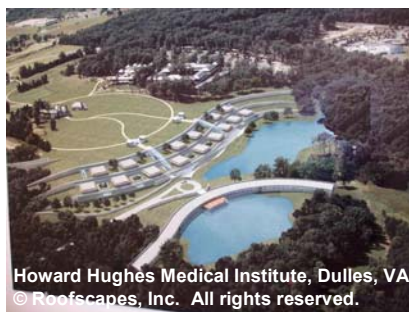
The profile of a Roofmeadow® *Meadow* assembly is as follows: Wind Erosion Stabilization System ♦ Lightweight Growth/Drainage Medium ♦ Root-permeable Separation Fabric ♦ Thermal Shield (for semi-arid climates) ♦ Light-weight Granular Drainage Media – 2 layers ♦ Protection Fabric ♦ Root Barrier Membrane (when required) ♦ Waterproofing.



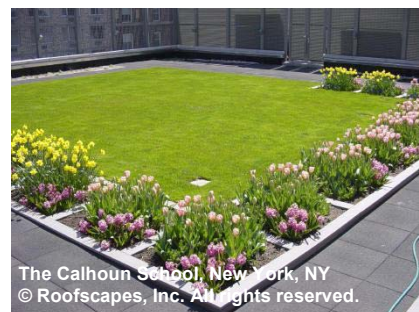
Type IV 'Meadow' Roofmeadow Assembly Profile



Peggy Notebaert Nature Museum, Chicago, IL
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Howard Hughes Medical Institute, Dulles, VA
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The Calhoun School, New York, NY
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