Roofscapes inc.sm

Green Technology for The Urban Environment

Type III Roofmeadow® *Savannah* 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***

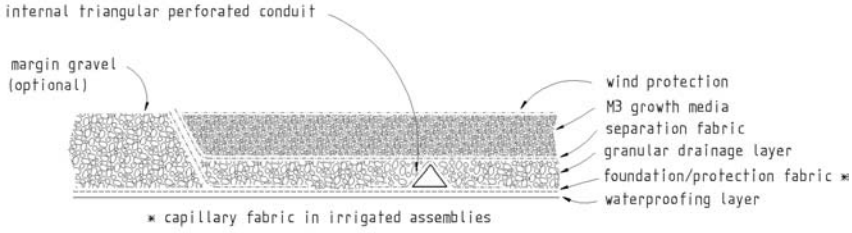
Heinz 57 Corporate Headquarters, Pittsburgh, PA

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® *Savannah*

Savannah two-layer assemblies employ a lightweight growing medium over a granular drainage layer, with a root-permeable separation fabric maintaining the layer integrity. The highly permeable coarse granular material creates the drainage zone. 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 4 to 8 inches (10 to 20 cm). Compared to a Type II assembly of comparable thickness, a Type III assembly will be significantly more drought tolerant and will accommodate a broader plant selection. If sufficiently thick, an irrigated *Savannah* is ideal for turf roofs in many climates. *Savannah* green roofs promote strong plant growth by draining and distributing water efficiently and concentrating root mass in a stable temperature and moisture zone. If irrigation is required, highly efficient base capillary irrigation 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.

The profile of a Roofmeadow® *Savannah* 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 ♦ Protection/Water Distribution Fabric *(for unirrigated systems)* ♦ Capillary Fabric *(for irrigated systems)* ♦ Root Barrier Membrane *(when required)* ♦ Waterproofing.



Type III 'Savannah' Roofmeadow Assembly Profile

Kansas City Public Library, Kansas City, MO

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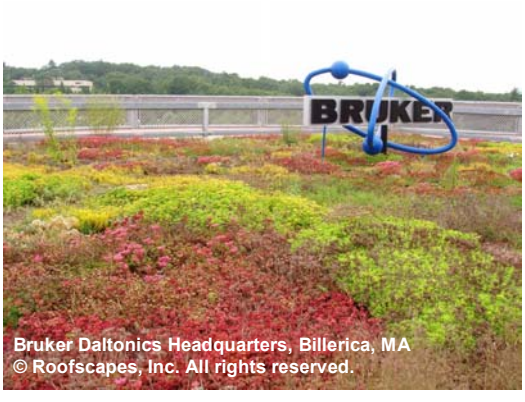

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