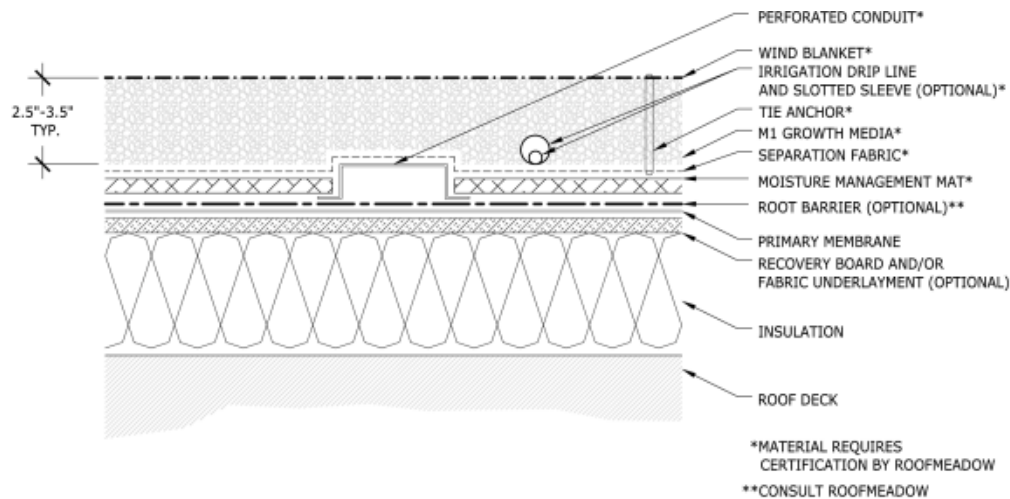


Roofmeadow® Type I Data Sheet

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 (Type I, II, III, IV, V). Roofmeadow® has developed assemblies for each of these types.

The selected assembly depends in part on project conditions including climate, desired plant community, performance requirements, and load bearing capacity of the building. All assemblies will include the following elements: 1) protection of the waterproofing membrane from root and biological attack, 2) protection of the waterproofing membrane from physical abuse and accident, 3) a base drainage layer, 4) a separation layer to prevent fine-grained engineered soils from fouling or clogging the drainage layer system, and 5) an engineered soil to support the vegetation.



Type I: Single Media Over Mat

This simplest of all green roof assemblies, is also one of the most effective. The Type I assembly includes only two components: 1) a homogenous media layer, and 2) a cushioning layer to protect the waterproofing/membrane system. The media layer performs multiple roles of absorbing moisture, supporting plant growth, and providing efficient drainage. Consequently, media selected for these assemblies is generally coarser, with a higher permeability and porosity than media used in other green roofs assemblies. Careful attention to supplying media with the proper physical properties is essential. The attraction of single media assemblies is that they offer a low cost and lightweight method of establishing a foliage cover on a green roof, making them ideal for retrofit applications. Inch for inch, single media assemblies are more effective in reducing energy costs and controlling storm water runoff than thicker and more complex assemblies. Plant selection is more critical and restricted with single media assemblies than with other types of green roofs. Irrigation is not recommended for these systems in temperate climates; however, base capillary irrigation is occasionally used. Typical assembly thicknesses range from 2.5 to 3-inches (6 to 8 cm), and Type I assemblies up to 5-inches thick are ideal for pitched roofs.

The profile of a Type I assembly is as follows:

- Wind Erosion Stabilization System
- Growth Medium
- Slope Stabilization Systems (for roof pitches exceeding 2:12)
- Protection Layer (mat)
- Root Barrier Membrane (when required)
- Waterproofing System