

# Green Roof Systems



[www.stormwaterassociation.com](http://www.stormwaterassociation.com)

Green roof is a general term for the growing movement to promote sustainability and energy savings for building owners and tenants. Additionally, they improve the quality of stormwater runoff. Green roofs may serve as the first step in a stormwater treatment train. Green roofs provide filtering of suspended solids and pollutants that may be attached to those solids. These roofs consist of a series of layers that are designed to create a system that promotes plant growth without damaging the underlying roof membrane system.

## Maintenance

There are two components to green roof maintenance; one is the vegetation, and the second is the roof membrane maintenance requirements.

Once the contractor has built the system and the plant stand established then, regular maintenance will be necessary. The amount of upkeep needed is determined by many factors such as project goals, irrigation, rainfall, project location and growing medium depth. Designers of green roofs need to identify and budget for maintenance inspection and repairs. Those companies who regularly service green roofs should be hired to do maintenance as most landscape service contracts may not be familiar with the unique conditions of a green roof.

## Weeding

It is important to weed out undesirable plants on a regular basis. Green roofs are exposed to weed seeds via wind and birds. Weeding is necessary during vegetation establishment as there isn't a full vegetative cover. Tree roots can prove to be especially damaging to the roof membrane. Control invasive species to the required maintenance specification.

## Irrigation Systems

Almost all green roofs require irrigation. Inspectors need to check the irrigation for leaks and seepage on a regular basis.

## Soil tests

Annual soil tests are essential and necessary to maximize the health of the plant. Based on the results of the tests the green roof may need fertilizer or other soil amendments added to the growing medium.

## Maintenance inspections

Inspections must be conducted once per year at a minimum and more frequently during the initial growth period. The inspector should take photographs to document the condition of the roof membrane, irrigation system and vegetation establishment over time.

