



Green Roof and Wall Policy

1. Introduction and Purpose

- 1.1. The University of Manchester recognises the vital role of green roofs and green walls in helping to mitigate the loss of greenspace on campus due to development, whilst delivering a climate-adapted estate that is resilient to extreme weather events, enhances biodiversity and improves health and wellbeing.
- 1.2. The purpose of this document is to provide a coordinated approach to the installation and maintenance of green roofs and green walls across the campus in order to meet Living Campus Plan targets and support wider Greater Manchester green infrastructure plans. This approach intends to maximise benefits including reduction of surface water runoff; energy conservation and carbon reduction; enhanced biodiversity; noise attenuation; extension of roof life; and improvements to air quality, health, wellbeing and productivity.

2. Scope

- 2.1. This policy is applicable across The University of Manchester Campus Masterplan Projects and on buildings undergoing redevelopment or refurbishment outside the Masterplan, where feasible.
- 2.2. This policy also applies to existing green roofs and green walls on the University estate.

3. Definitions

- 3.1. **Green Roof** – a green roof is created when a planting scheme is established on a roof structure. It can include the following types:
 - 3.1.1. **Intensive** – these roofs are designed to allow access for people. They have deep substrates (usually above 200mm) that can support trees and shrubs as well as providing accessible areas. These roofs require higher levels of maintenance, including regular irrigation.
 - 3.1.2. **Semi intensive** – can include characteristics of both extensive and intensive roofs. Typically requiring a substrate depth of 100-200mm, a wider range of plants can be included compared to extensive green roofs, including shrubs and woody plants. Irrigation and maintenance requirements dependent on plant species installed.
 - 3.1.3. **Extensive** – generally provide a visual or biodiversity interest and support plants with lower maintenance requirements e.g. sedums, grasses, mosses and wildflowers. These planting types

are able to survive on shallower substrate depths (usually 100mm or lower), require lower nutrient levels and little or no irrigation requirement.

- 3.1.4. **Brown roof** – a brown roof is not purposefully planted. The growing medium is selected and installed to allow indigenous plant species to inhabit the roof over time. Natural features may be introduced to replicate habitats for various insects, birds, animals and plants.
- 3.2. **Green Wall** – also known as a living wall, is a wall featuring plants grown in vertical systems that can be freestanding but are generally attached to internal or external walls. In green walls the plants, growing substrate, irrigation and drainage are incorporated into the one system.
- 3.3. **Green facade** – a green facade is created by growing plants up and across the face of a building. Plants are either rooted in the ground or grown from containers installed at different levels on the face of the building. Climbing plants can attach directly to the surface of a building or be supported on a structure independent of the building.

4. Roles and Responsibilities

- 4.1. It is the responsibility of the **Project Manager** to ensure a feasibility study is completed taking into consideration the driver/purpose for installation, planning requirements, maintenance and funding. The Project Manager is responsible for overseeing construction, installation, and managing the first year defects period.
- 4.2. It is the responsibility of the **Client Services Unit (CSU)** to review documents, provide expertise and sign off.
- 4.3. It is the responsibility of the **Environmental Services Unit (ESU)** to provide guidance on maintenance requirements and ensure appropriate management and maintenance of installations.
- 4.4. It is the responsibility of the **Maintenance Services Unit (MSU)** to provide guidance on relevant maintenance requirements and oversee maintenance where applicable.
- 4.5. It is the responsibility of the **Environmental Sustainability Team** to provide strategic oversight ensuring the targets and objectives of the Living Campus Plan are met.
- 4.6. It is the responsibility of **Green Wall/Roof Contractors** to provide first year maintenance to ensure successful establishment and defect resolution.

5. General Principles

- 5.1. Green roof and green wall installations should be considered across all The University of Manchester Masterplan Projects and on buildings undergoing redevelopment or refurbishment outside the Masterplan where feasible, to deliver as many as the following objectives as possible:
 - 5.1.1. Adaptation to and mitigation of climate change
 - 5.1.2. Sustainable urban drainage
 - 5.1.3. Enhancement of biodiversity

- 5.1.4. Improvements to appearance and resilience of the building
- 5.2. Green roofs and walls should be designed, specified, installed and maintained to conform to minimum design requirements set out in The GRO Green Roof Code of best practice.
- 5.3. Maintenance responsibility and development of a standard maintenance schedule must be agreed to ensure the function and performance of the green roof and wall continues over time.
- 5.4. Where maintenance works are required to existing green roofs and walls they should be protected and enhanced with no net loss of green space or habitat.
- 5.5. A process for monitoring the benefits of the installation should be established to assess impact
- 5.6. Consult EPMPM7 for further guidance on including green walls and roofs across campus.

6. Monitoring Compliance

- 6.1. The Environmental Sustainability Team will monitor compliance with the policy.
- 6.2. If any proposed green roof or green wall installation is submitted without due regard to this document, proposals will not be supported.
- 6.3. If any existing green roof or green wall installation is removed without adherence to this policy, sign off will not be provided.

6. Policy Content

Version amendment history		
Version	Date	Reason for change
1	Dec 2014	Original document
2	Jan 2019	Updated to reflect lessons learned and to follow University policy framework guidance

Document control box	
Policy / Procedure title:	Green Roof and Wall Policy
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Related policies/procedures/guidance etc	<ul style="list-style-type: none"> • EPM PM7 – Code of Practice for Design Teams • Environmental Sustainability Tracker
Policy owner:	Emma Gardner, Head of Environmental Sustainability
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