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Bailey Eco-Roof

GREEN ROOF SYSTEM FOR ROOFTOP PLANTING
USING A SUSTAINABLE WATERPROOFING LAYER



THE BAILEY ECO-ROOF SYSTEMS OFFER THE FOLLOWING BENEFITS:

- Suitable for most rooftop planting projects
- Utilises a sustainable waterproofing membrane
- Offers the specifier many creative design possibilities

Bailey Eco-Roof Green Roof System for Rooftop Planting

BAILEY ECO-ROOF IS ONE OF THE ONLY ENTIRELY 'GREEN' SYSTEMS IN THE MARKET PLACE. INTENSIVE AND EXTENSIVE PLANTING COUPLED WITH A SUSTAINABLE WATERPROOFING LAYER, CREATES A ROOF WHICH IS BOTH ENVIRONMENTALLY RESPONSIBLE AND BENEFICIAL. BAILEY ECO-ROOF GREEN ROOF SYSTEMS OFFER THE SPECIFIER A RANGE OF VEGETATION, PLANTS AND APPLICATION METHODS TO MEET THE INTENDED USE AND AESTHETIC DEMANDS OF THE PROJECT.



BAILEY ROOFING SYSTEMS HAS BEEN INVOLVED WITH FLAT ROOFING FOR OVER 30 YEARS. FROM THE BEGINNING, THEIR COMMITMENT HAS BEEN TO SUPPLY ONLY THE BEST QUALITY MATERIALS OFFERING THE LONGEST LIFE EXPECTANCY AND PERFORMANCE AVAILABLE. BAILEY'S RANGE OF PRODUCTS AND DEPTH OF KNOWLEDGE IN THE INDUSTRY ALLOW THE SPECIFIER TO SELECT THE SYSTEM BEST SUITED TO THE FLAT ROOF PROJECT.

Eco-Roof



Green Roofs – the advantages

Bailey Eco-Roof green roof systems offer many advantages to both the specifier and the client. Apart from introducing a creative dimension to the flat roof project, Bailey Eco-Roof provides financial and environmental benefits.



Extended life expectancy – a green roof protects the waterproofing layer from mechanical damage and the elements thus increasing the life expectancy and reducing whole life costs.

- Reduces heating and cooling costs as green roofs improve the thermal properties of the building.
- Supported by local authorities – designing a green roof into your project can help obtain planning permission.
- Increases property value – by making the roof a recreational space, you increase the amount of usable and accessible area without enlarging the footprint of the building, thus adding value to the property.
- Green roofs absorb a lot of moisture thus reducing the amount of run off water, eliminating the need for such a complex and capacious drainage system.



With an expanding population and an intense construction programme, urban sprawl can hardly be prevented. The consequences of urbanisation, however, are far from attractive. As more building land is required, green space is swallowed up and replaced with concrete and hardstanding. This increases run-off water which is often directed into an already over-taxed drainage system and the water wasted. In addition to this, it can lead to adverse effects on wildlife habitats, the loss of areas of natural beauty and pollution to the surrounding environment. Bailey recognises the importance of addressing these issues and by introducing a Bailey Eco-Roof to a project, many of these effects can be lessened. Bailey Eco-Roof systems offer many environmental and ecological benefits, some of which are as follows:

- In environmentally sensitive areas, a green roof helps the building blend in with the surroundings, camouflaging it from above and making it appear attractive rather than unsightly in 'green' areas.
- Increased heat in urban areas due to reflection by buildings and hard surfacing is reduced as green roofs absorb heat and allow evaporation of water which cools and humidifies the air in the immediate area.
- In areas where there is a lack of trees, green roofs provide alternative planting on an otherwise wasted space, without using valuable building land.



- Green roofs can retain 40-90% of rainwater they receive thus reducing flood risk.
- Reduce CO₂ pollution – in built up areas, during the day when CO₂ emissions are at their peak, plants convert CO₂ to oxygen by the natural process of photosynthesis, therefore eliminating the further knock-on effects, eg, global warming. It also improves the air quality, helping to overcome pollution from petrol fumes, etc.
- Reduce noise pollution – green roofs greatly reduce sound from both external and internal sources to the building.
- Green roofs provide a natural habitat for displaced flora and fauna in what may be a virtually uninhabited region – resulting in a wide variety of species – encouraging biodiversity. In some areas of London, such as the Greenwich Peninsular, all projects will have to consider green roofs to provide a habitat for and support the rare Black Redstart bird.



Bailey Eco-Roof – entirely 'green'

Bailey Eco-Roof Systems are first in their class being 'entirely green'. The main reason for this is that beneath Bailey Eco-Roof green roofs is a Bailey Atlantic sustainable waterproofing system.

Bailey Atlantic TPO single ply membrane contains no chlorides, fluorides or plasticisers, resulting in a completely environmentally and chemically inert product, in manufacture, installation and after years of service. The absence of these means there is nothing in the product which can leach out into run-off water and thus contaminate water course and rivers. Atlantic does not give off any carcinogenic fumes during the welding operation, which would be harmful to the environment and the health of the operator. The composition of Bailey Atlantic means it is fully recyclable at any stage in its life and unaffected by UV light resulting in a life expectancy in excess of 40 years. Bailey Atlantic is particularly suitable for use with Bailey Eco-Roof systems as the membrane is in itself root resistant (to FLL regulations) thus omitting the need for an additional root barrier layer. For more information on Bailey Atlantic see the separate technical brochure.

Bailey Eco-Roof Systems coupled with a Bailey Atlantic waterproofing layer are the perfect solution to the specifier's environmental responsibilities. Bailey offers the specifier and client the choice of intensive, extensive or biodiversity (brown) roofs.

Experienced Installation

Bailey Eco-Roof green roofs are installed only by recommended contractors, whose operatives have been trained in the installation of Bailey Systems. Bailey encourages and gives technical assistance to contractors in the laying of extensive roofs. However, with more complex intensive systems, Bailey recommends that a landscape contractor, specialising in this field is included.

To ensure workmanship is up to Bailey's required standard of excellence in flat roofing, a series of site inspections are carried out during the course of the installation. Bailey's Technical Personnel assist and advise with detailing and laying of the system, resulting in a successful installation. On completion of the project, prior to issue of the guarantee, a final inspection is carried out, often accompanied by the client, to ensure a satisfactory result.



To draw on Bailey's expertise and for further assistance and advice, call the Technical Sales Department on:

01444 244330



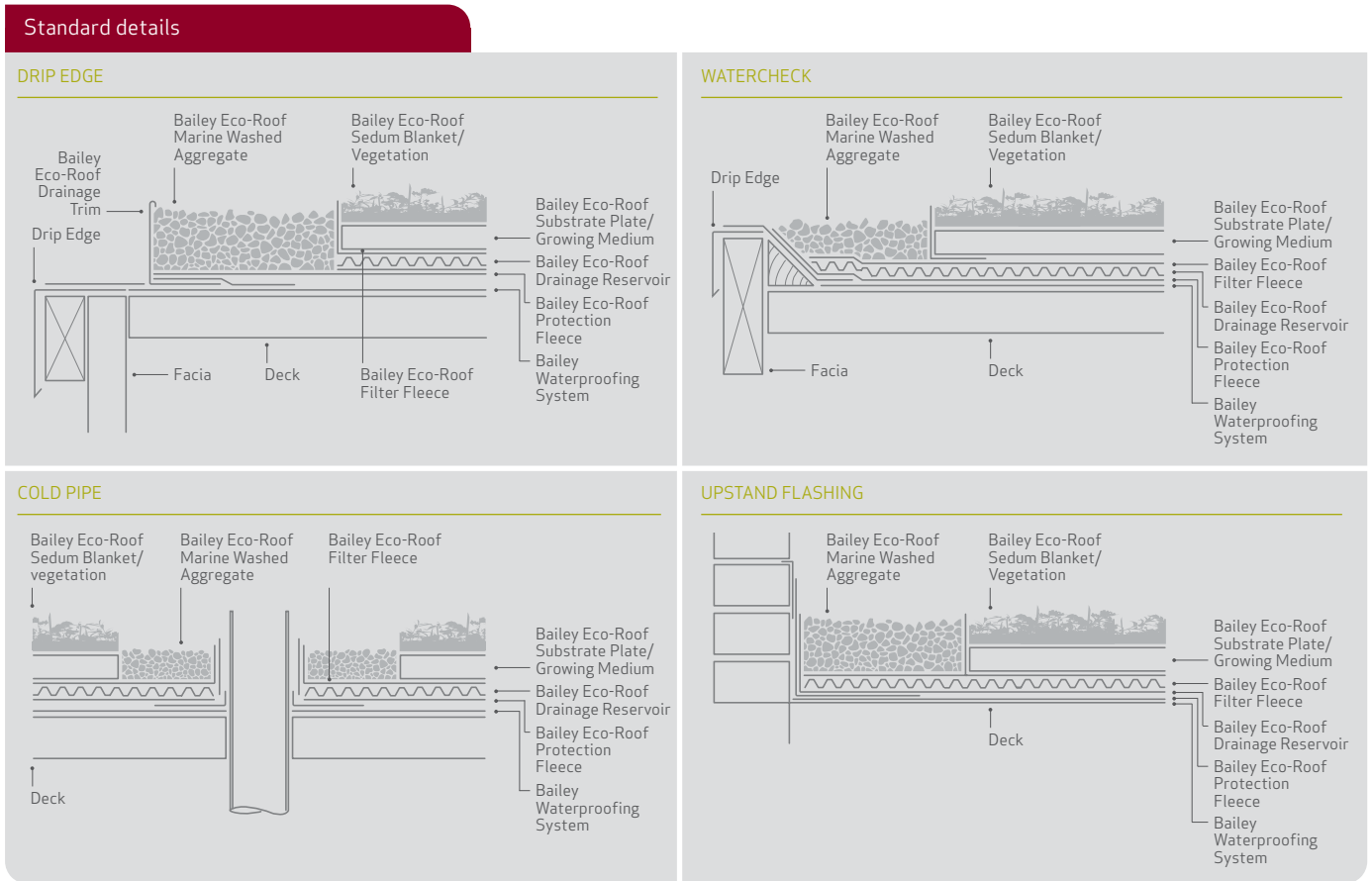
Flexible Specifying

Bailey Eco-Roof green roofs can be designed into many flat roof projects, due to the design flexibility of the system.

As every flat roof is different, it is essential that the right system is selected. At Bailey, as well as having a solution to every flat roof situation, their experience of over 30 years in the industry, is made available at every stage. Bailey advises involvement at the very earliest design stage of a project to ensure the best results. Bailey Technical Personnel are able to receive architect's plans of new build projects or carry out a detailed survey (including a core sample) with a comprehensive report, for repair or refurbishment.

Following this, a specification can be provided recommending the most suitable waterproofing and green roof system. Bailey's recommendation will offer the best solution within the budget without cutting corners or compromising on quality.

Once a system has been specified, Bailey will provide names of recommended contractors who will be willing to tender for the works. Projects are policed by Bailey and reports of inspections produced. On completion of the works, a final inspection is carried out, the job signed off and the guarantee issued.



Intensive Green Roofs

Bailey Eco-Roof Intensive Systems usually involve the creation of a garden at roof level, by the planting of shrubs, trees, coppices and grassed areas. Intensive green roofs provide the specifier or designer a vast scope as they are only really restricted by the overall weight of the system which will affect the construction of the main structure. As well as planting, intensive green roofs may incorporate hard landscaping, decking and paving.

This type of green roof is intensive due to the type of plants and vegetation used, which require a greater depth of substrate to support them. After installation, ongoing maintenance is required and the cost of this must be considered by the client at the outset. The plants will need regular watering and feeding to ensure full establishment.

An intensive system utilises the roof area as a recreational space within the building footprint, benefitting both the occupants of the building and the surrounding environment. Bailey Eco-Roof offers the specifier an intensive system with design flexibility, aided by the numerous options available.

Extensive Green Roofs

Bailey Eco-Roof Extensive Systems are simpler to design, install and maintain than Intensive systems. Extensive green roofs are not roof gardens for recreational use, but planted for environmental and aesthetic reasons. Extensive systems involve planting of vegetation such as sedum, mosses, succulents, herbs and grasses.

This type of green roof requires little maintenance making it the most economical system. In normal circumstances an annual or 6 monthly maintenance inspection is sufficient. The plants used are wind, frost and drought resistant, enabling them to survive in the tough, exposed conditions experienced at roof level. The plants provide a colourful and attractive green roof, which changes naturally through the seasons. Extensive roofs are lightweight and suitable for low pitched roofs, enabling them to be utilised on new build and refurbishment projects. Extensive Green Roofs can aid with planning consent due to the benefits green roofs bring to the environment.



There are various installation methods available for Extensive Green Roofs, among these are plug planting, hydroplanting and the laying of pre-grown sedum blanket. The introduction of a pre-cultivated and established sedum vegetation blanket, aids a rapid and efficient installation with instant roof greening. Other installation methods require more maintenance to ensure establishment, therefore Bailey recommend the use of Bailey Eco-Roof Sedum Blanket for the most economical and effective solution.

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Biodiversity (Brown) Roofs

Biodiversity roofs, sometimes known as Brown Roofs are designed to reproduce the environment lost to development and can involve creating natural habitats for various species of plants and birds. The specification of the Eco-Roof system is largely governed by the environment to be created and the substrate and vegetation must be suitable to support this. Other debris, soil and items of stone and timber may be incorporated to replicate the desired environment.

The Complete System

Whatever the specification, Bailey can supply the 'complete' system together with expert advice, assistance and recommendations. Bailey Eco-Roof Systems come complete with a whole range of components and accessories and a wide variety of plants.

Bailey Eco-Roof Sedum Blanket

This is a 100% biodegradable, pre-cultivated sedum blanket with a plant mix consisting of 4-8 varieties of sedum. The plants are grown on a substrate mix which is produced on a cocomat, forming the blanket.

Bailey Eco-Roof Substrate Plates

A mineral wool substrate layer for the sedum to root into. The thickness of this layer will vary depending on the type of roof and circumstances.

Bailey Eco-Roof Growing Medium

A lightweight compost mix, installed as a growing medium for intensive systems. The depth of growing medium will vary according to the type of roof, situation and the species of vegetation and shrubs to be planted.

Bailey Eco-Roof Filter Fleece

A polypropylene fleece which acts as a filter layer and a separation between the substrate and drainage layer.

Bailey Eco-Roof Drainage Reservoir

A drainage plate, made with polystyrene burls, which form a water reservoir. The thickness and capacity of this layer will vary according to the type of roof and the green roof system to be installed above.

Bailey Eco-Roof Protection Fleece

A non-woven polypropylene geotextile layer to protect the waterproofing layer from the planting and green roof element.



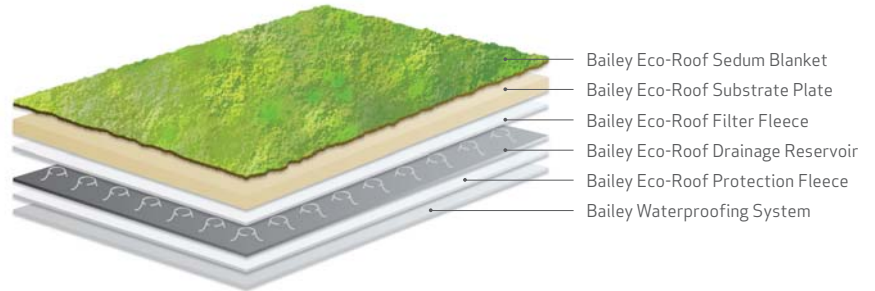
PLEASE ENQUIRE ABOUT OUR COMPREHENSIVE RANGE OF BAILEY ROOFING SYSTEMS:

- Bailey Atlantic Sustainable Single Ply
- Bailey System 5000 Flame-Free Felt System
- Bailey Classic (SBS) Commodity Range
- Bailey System 12000 (APP) Commodity Range
- Bailey Sure-Line Preformed Roof Edging System
- Bailey System 17000 High performance, torch-on roofing system

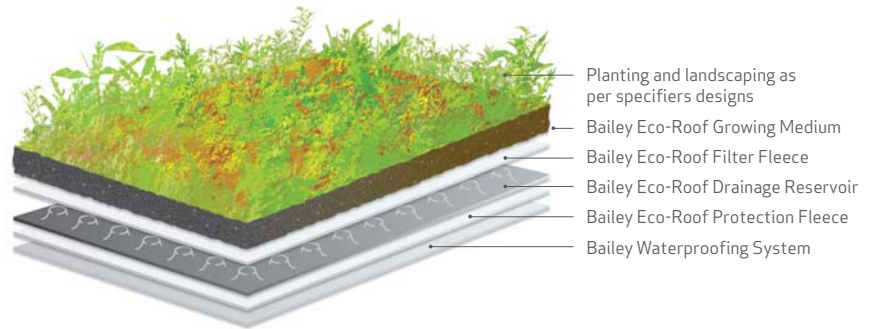
Eco-Roof

Bailey Eco-Roof Specifications

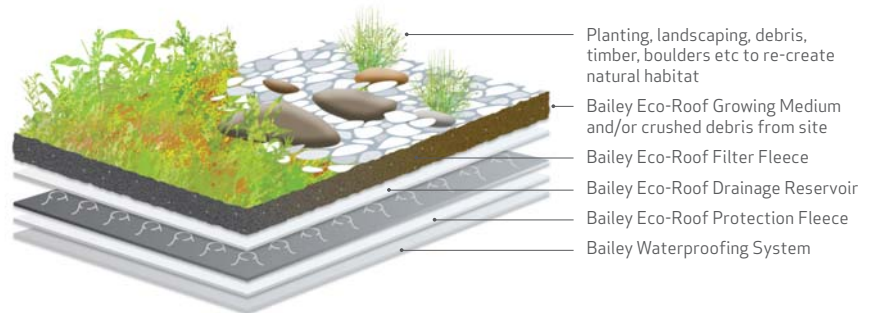
Extensive Green Roof



Intensive Green Roof



Biodiversity (Brown) Roof





Bailey Roofing Systems
Victoria Gardens
Victoria Industrial Estate
Burgess Hill
West Sussex
RH15 9NB

Tel: **+44(0)1444 244330**
Fax: +44(0)1444 244342