Green Roof

Biodiverse, re:centre, Bradford University, UK

creative geosynthetic engineering

Case Study

Project Description

The new build £5.2m re:centre, Bradford University, comprises a four-storey, 2,000m2 building, containing workshops, business units, an open-plan office and a multi-function space, all of which will provide learning facilities and teaching resources aimed at promoting sustainable living. The re:centre has been designed to the University's target driven sustainability specification, delivering the world's highest ever pre-construction BREEAM rating of 94.95% at award. The buildings design showcases several highly sustainable low energy features including a full height sun space providing natural ventilation in the summer and heating in the winter, PV panels, hempcrete walls, rainwater harvesting and a biodiverse roof system.

The Challenge

Given the nature of the project it was important from the outset that the building and it's construction embraced sustainability from the beginning. It was decided that all usable space, including at roof level, would be used to its maximum potential. It was critical that the Biodiverse system provided the necessary contribution towards achieving this and the associated BREEAM credits. The biodiverse system was required to replace lost habitat (LE04: 2 credits), enhance ecology and increase the number of native or beneficial plant species present on site (LE05: 3 credits). This is relevant to BREEAM primarily within the Land Use and Ecology section, although it does also directly impact other considerations including flood risk mitigation and indirectly in thermal comfort, acoustic performance, responsible sourcing of materials & waste management.

Project Information

Client	Bradford University
Contractor	GB Building Solutions/Geogreen
Architect Landscape Architect	Farrell and Clark Margaret Twigg Landscape Design
Products	Roofdrain 20, ABG Biodiverse Growing Media, ABG Plug Plants
Quantity	150m^2
Benefits	• Significant contributor towards BREEAM rating • Replace lost habitat & enhance biodiversity • Complete ABG service from design support to installation.

ABG Biodiverse Roof System

abg ltd. E7 Meltham Mills Rd, Meltham, West Yorkshire, HD9 4DS
UK t 01484 852096 **e** geo@abgltd.com **Export t** +44(0)1484 852250 **e** export@abgltd.com
www.abgltd.com

Green Roof

Biodiverse, re:centre, Bradford University, UK

creative geosynthetic engineering

Case Study

The Solution

ABG worked closely with the landscape architect to create a system to meet the stringent criteria. The roof installation comprised a wildlife pond planted with native marginal plants, a native wildflower area, matrixes of sedums, grasses and herbs, insect hibernacula's including bird feeder tables, insect houses, pebble areas and coiled hemp rope, specially designed features to encourage the development of flora and fauna on the roofing area. A lightweight **ABG Biodiverse growing media** was used to minimise the roof loadings whilst providing a nutritionally rich base for the specially selected vegetation. Beneath this surface finish **ABG Roofdrain** drainage geocomposite was used to create a free-draining void that also allows for the storage of collected rainwater to irrigate the vegetation during dry periods.

Cobbles, logs and a hibernacula's to encourage insect life as part of ecology enhancement as well as brining aesthetic benefits

The ABG Service

ABG's in-house technical expertise & on-site installation experience provided the client with a solution that maximised the roofs contribution to the development.

Matrixes of sedums, grasses & herb plug plants

Wildlife pond planted with native marginal plants

Contact ABG today to discuss your project specific requirements and discover how ABG past experience and innovative products can help on your project.

abg ltd. E7 Meltham Mills Rd, Meltham, West Yorkshire, HD9 4DS
UK t 01484 852096 **e** geo@abgltd.com **Export t** +44(0)1484 852250 **e** export@abgltd.com
www.abgltd.com