

Confidential Project
Watford, Hertfordshire
ISG for a Confidential Client

BIG Biodiversity Challenge Award Category: *Habitat Creation: Project of the year Award (<5ha)*

Project overview

ISG were commissioned to construct the 12 storey Building for a Confidential Client to have a Forever Home Campus. The intent was to provide building users, passers-by and local occupiers a positive experience and high-quality setting.

What were the biodiversity conditions on site, prior to the enhancement?

Prior to the green wall installation, an ecological assessment was conducted by Ecology Solutions. The results determined the site was low ecological value with no evidence of bats, hedgehogs or badgers. Two bird species were observed feral pigeon and robins. 19 low value flora species were found including Elder, Butterfly bush, Common nettle, Dandelion. The Watford local plan detailed “any development should seek to protect, conserve and enhance the biodiversity and habitats whilst also improving access to important biodiversity areas”. This formed part of the decision to enhance the biodiversity of the building and bring green to the Watford skyline.

What were the reasons behind this project ?

The green wall came to fruition following a review of the Ecology report, Watford local plan and BREEAM ecology requirements. As Clarendon Road is densely populated with commercial buildings, the green wall was an opportunity to improve the local biodiversity. A key theme for the project was enhancement of the buildings biodiversity. By working with the designers, the green wall has been created to be a good habitat and acts to increase the local green habitat.

The design was also key to both office users and visitors with its biophilic design increasing the occupants connectivity to nature.



Previous ecology present on the project site, photo taken 2016.



**the BIG
Biodiversity
Challenge**
do one thing

What were the biodiversity measures taken?

The installation of the green wall can be replicated across many projects. Through collaboration with the architects, Biotecture and ISG we were able to install 624m² of green wall. The species selection needed to consider the growing conditions of each wall location. Blending of the plant species selection, provided smooth transition across the elevations. The statement/ spot plants offer seasonal interest across all elevations the attempt to significantly improve the ecological value of the site. The Watford city centre skyline posed significant technological uncertainty for the competent professionals, particularly (and based on architectural intent), the green wall had to be integrated within the structure, rather than a freestanding standalone structure.

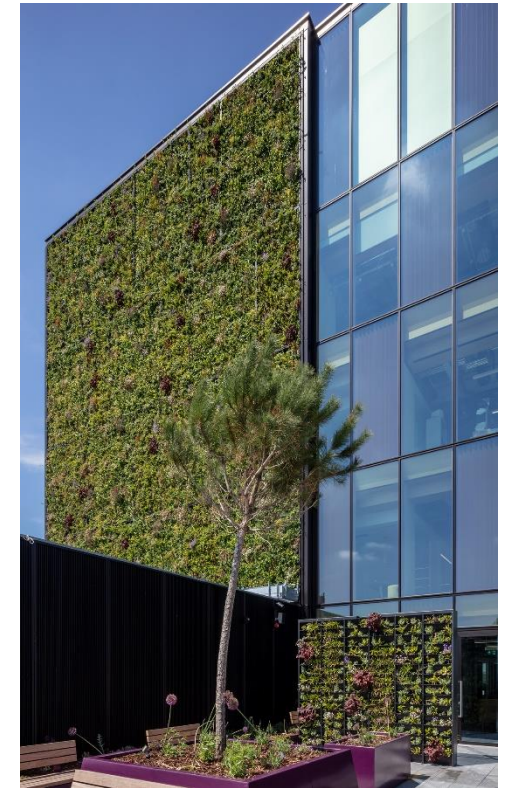
The boxes used to house the plants for the wall have been constructed using 100% recyclable materials. Due to extensive research, this project has proven the recycle content will comply with building regulations. It was agreed the building would be managed by the Client, therefore their building management team received the training required to maintain the green walls. A Building user guide was also provided so correct measures could be taken at the right time of year.

Further information

The living walls are an integral feature in the overall building design. The installation challenged the project team through the management of fire regulations but once completed provided a great sense of achievement and boosted the morale of the team. Due to fast changing and stringent UK building regulations, it was a requirement that no components within the wall were combustible, which included the seasonal plant varieties, support structures or ancillary plant maintenance systems. The team also needed to research activities to develop a higher degree of redundancy into the automated irrigation system, wall design and plant selection to remove the fire risk to the building.

The plants have been selected to be local regional species that specifically remove air pollutants. The plants selected capture toxins, gases and particulate matter in the process of biogenic regulation. The added benefits also include reduce urban temperatures through evapotranspiration. This prevents building surface from absorbing solar radiation, re-radiating it back to surrounding environment and reducing building's energy consumption

Through the installation of the green wall, this project has helped support the Watford mission to "increase nature and biodiversity across the town". Watford council tweeted "Living green walls purify the air, reduce the ambient temperature and creates a sense of well-being. It's therefore great to see Confidential Client installing the living green wall onto their headquarters.



Green wall and staff outdoor space



Project Team

- ISG Senior Project Director: Robin Norman (ISG)
- Client / funders: Confidential
- Other design team members: Biotecture, Client architects and Client Project Management team

What was the motivation for carrying out the enhancement?

Understanding the lack of biodiversity in the area all parties involved in this project made a conscious effort that this building was going to create enhancements for the air quality, pollinators and wellbeing of associates and the local area.



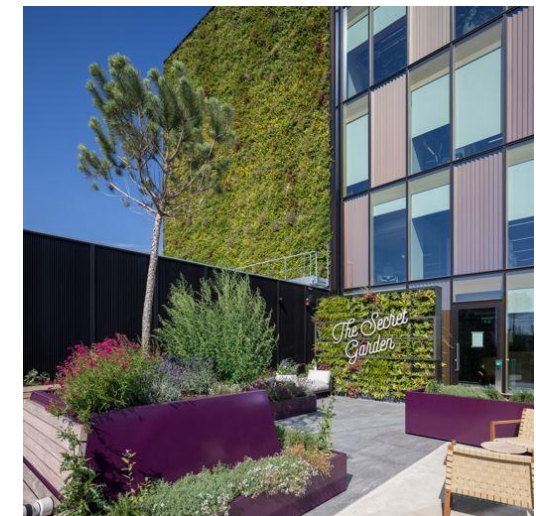
Internal Green Wall (image taken from Watford Observer)



Internal Green Wall (image taken from Watford Observer)



*External Green Wall and garden
(image taken from Watford Observer)*



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