

Client: Mace Group

Installed: 2021



Biotecture worked with Main Contractor, Mace to create a living hoarding for the construction site of a new 200,000 square foot office development in Farringdon. The project, stretching 43 metres along the Farringdon Cycle Superhighway is made up of over 95 square metres of PlantBox hoarding and almost 3,000 plants. The hoarding, located on a busy main road has been designed to help mitigate the effects of airborne pollutants from both the site and local traffic. The project has helped enhance the local area and communicate the green credentials of both Mace and joint developers Helical and Ashby Capital.

Project Brief

Biotecture worked closely with Mace Group to ensure their clients' needs were addressed, and was able overcome a number of challenges on this large living hoarding project.

The site boundary runs along Cycle Superhighway 6 (CS6) which goes from Elephant & Castle to King's Cross. At its busiest point (Blackfriars Bridge), over 10,000 cyclists have used CS6 in one day. A key requirement was that Biotecture had to avoid disruption to cycle users during deployment of the living hoarding and that vegetation didn't encroach into the lane.

In a further nod to sustainability, the client was looking for ways of reducing mains water use for irrigation. The PlantBox living hoarding system only requires occasional watering to flourish thanks to its integrated water reservoir, and Biotecture looked to incorporate a rainwater collection system in the design.

A third challenge at Farringdon was a requirement to integrate signage into the living hoarding. This was important because it conveyed important messages about the sustainability of the living hoarding as well as information about project partners.

Air quality in central London is an ongoing challenge and the client was looking for ways of using natural vegetation to mitigate these effects, specifically from construction activity on site.

Highlights

- 43 metre living hoarding
- 2,926 plants and 15 different varieties
- Integrated green messaging and corporate branding
- New urban feature on a busy London Cycle Superhighway
- Helps reduce air pollution for the 10,000 daily cyclists







Our Approach

Biotecture supplied its innovative PlantBox living hoarding to the Charterhouse scheme because it is a highly adaptable system that met all the challenges set out by the project team. Unlike more complex living wall systems it is quicker to deploy with simpler maintenance, and it only requires restraint fixings to the hoarding.

Biotecture met the principal challenge by deploying the living hoarding over two weekends when cycle traffic on CS6 was minimal. It was a significant benefit that weight loadings on PlantBox living hoardings are transferred to the ground, meaning they only require restraint fixings. This allowed the modules to be easily attached to the existing hoardings without the need for secondary structures or lifting equipment that may have disrupted the Cycle Superhighway.

Plants were specifically chosen so as not to encroach on to the adjacent cycle path, which is in constant, daily use by thousands of cyclists.

An ingenious solution for rainwater collection involved keeping the top troughs of PlantBox empty, to act as a rain catcher and allowing attachment of signage. It was calculated that this method saves around 1,145 litres of mains water, with the added benefit of reducing deluge of nearby storm drains during a downpour, similar to a Sustainable Urban Drainage System (SUDS).

The signage displays key benefits of the living hoarding including 'Greening up construction', 'Bringing nature to the heart of London' and 'This living hoarding contains 2,926 plants'.

The living hoarding is now improving air quality, too, thanks to Biotecture's recommended plant varieties which are known to be better at removing dust, particulates and harmful pollutants from the air. This is contributing to a healthier environment for those on site as well as those living and working in the surrounding area.

A total of 2,926 plants were chosen in 15 different species, planted in a loose pattern to add visual appeal. They were chosen to offer a visually pleasing method of screening off the building work, maintaining privacy for the site and reducing site noise, while simultaneously providing a greener frontage for those passing by. The foliage creates a three-dimensional aesthetic and sense of natural movement as the leaves stir in the wind.

"Mace Group, Helical plc and Ashby Capital have set the benchmark for what it means to operate a responsible development in the heart of a city. Our living hoarding has helped them harness the power of plants to visually transform the sites appearance and improve air quality. It's wonderful to see so much biodiversity introduced to a construction site in the City of London.

We were delighted to work with Mace on this innovative project and the end result exceeded expectations. The living hoarding helps detract attention away from the works, creating an attractive natural feature that also helps improve air quality for the thousands of cyclists that pass by the site daily.

- Richard Sabin | Managing Director, Biotecture Ltd

