

The Avenue – One Bedford Avenue
Tottenham Court Road, London
Mace Ltd

BIG Biodiversity Challenge Award category: Temporary Award

Project overview

Air quality in Fitzrovia is amongst the worst in London and has a significant impact on the health of those working, visiting and living in the area. In Fitzrovia the majority of air pollution arises from business activities. Mace is actively seeking interventions to tackle this.

In conjunction with The Fitzrovia Partnership Business Improvement District (BID), Mace installed Air Purification Units (APUs) into the construction site hoarding along Tottenham Court Road.

They are leased by Treebox and cost £4,500 each. They are re-locatable units based on the concept of a living wall to reduce air pollution. This is achieved by capitalising on the natural air purification benefits of plants and microbes enhanced with ‘active living wall technology’ to purify (up to 99%) hazardous air pollutants such as NO₂ and PM_{2.5} & 10.

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

The site was previously commercial and retail space with no green space. Prior to the installation, regular site hoarding was in place.

Were there any specific conditions that led to you carrying out this work?

There were no project conditions that required Mace to undertake these works. Academic researchers and the wider press have all identified air quality to be a primary concern facing London today. As an extension to Mace’s ongoing collaboration with Kings College London in researching this field, we partnered with the Fitzrovia Partnership to combat air pollution problems using this forward-thinking solution.



Photo Description: APU installed as part of the hoarding design

What were the biodiversity measures taken?

The APUs can be deployed almost anywhere, in both short-term temporary situations (such as site hoarding or within construction sites) or as part of longer term improvement schemes (eg on bus shelters or ground level building façades).

The innovation of the units includes their versatility and relevance within urban environments, such as central London, where challenges arising from air pollution, the urban heat island effect and noise control are at the forefront of current concerns. The APUs assist in combating all of these in addition to providing aesthetic improvements to the local environment and biodiversity benefits (including providing invertebrate habitat).

Their prominent location on Tottenham Court Road also allows for an opportunity to engage with members of the public via adjacent information panels. The panels publicise this innovative approach to utilising site hoarding and combating the issues mentioned above.

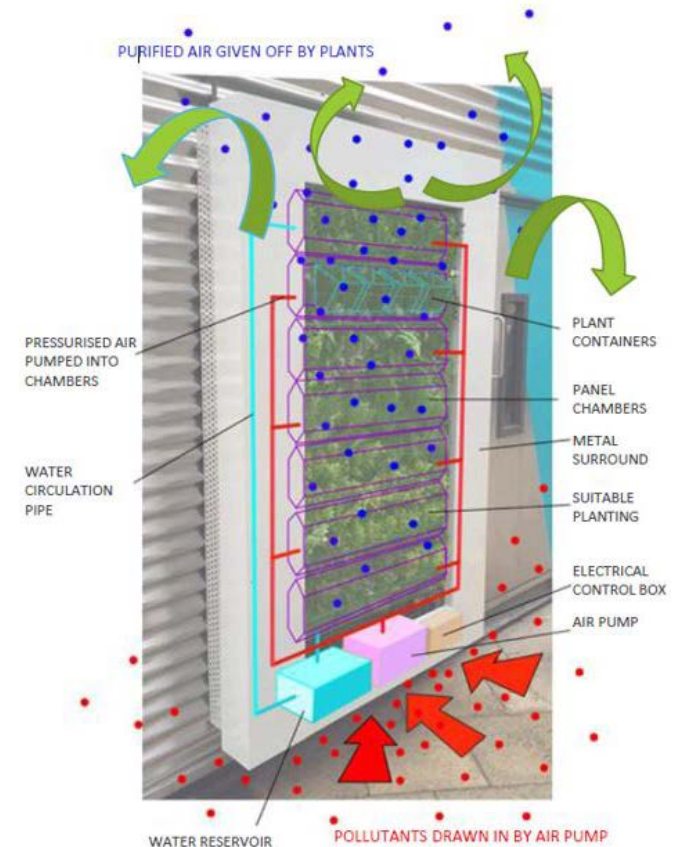


Photo Description: How an APU unit functions

How would you best describe the project?

A temporary enhancement (with longer term potential).

Further information

The wider applicability of APUs is considerable and we believe that a wide variety of temporary and long-term locations are available for their use, especially on structures (such as site hoarding, temporary fencing and public amenities) whose aesthetics can be improved whilst proven benefits to human health and wider biodiversity achieved.



Photo Description: Potential future utilisation of APUs

What was your personal motivation for carrying out the enhancement?

Mace is committed to improving the biodiversity and wider environmental impact of the work we deliver through our projects. A collaboration with a like-minded organisation such as the Fitzrovia BID allows us to continue to work towards this goal.