

# Supplementary Information for Living Walls at 17 East Heath Road, London NW3 1AL

5<sup>th</sup>November 2018.

## Introduction

We specialise in the supply and installation of living walls. Our proprietary system uses predominantly recycled materials and allows us to create flexible and visually stunning installations. We create our living walls at our nurseries to enable the planting to establish and mature before installation at the client's site. Each living wall is constructed as a series of panels to allow for easy transportation and installation, with the panels then 'stitched' together on site. Typically this means we can complete the on-site installation in a day or two, minimising interruption to other contractors and the client.

## Species and planting density

Planting density ranges from 40-70 plants per m2 dependent on the species used and the size of the plants. All of our living walls are planted off-site at our nurseries in Bedford and Devon, allowing us to ensure that the plants successfully establish themselves prior to installation at client site. Details of he planting plan and species selection are shown in the following drawings.



#### East Heath Road - living wall plan/plant list



Plants:

Acous gramineus Vorigstus Ajuga noptano Catinis Giant Asarun cauditum Asaptorium soolopandium Euorymus fortunei Harkaguir Epimedium stellulatum Wudang Sar Euphotia anggdaloidis var. Robbie Batsia japorikaa Halikbores Direntatis (or simlar) Muchienbackia aultaris Pachysandra tominalis Parsicaria campanutat Madame Jigard Parsicaria campanutat Madame Jigard Parsicaria campanutat Madame Jigard Parsicaria campanutat Madame Jigard Parsicaria campanutat Madame Jigard

#### Notes:

The plan shown above may charge slightly whilst the wall is in production.

A small number of plants may be added or substituted due to factors such as plant availability.

> Drawn by Adam Shepherd - 09.08.2018 © The Landscape Architect

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East Heath Road - living wall plant selection





Ajuga reptans Catin's Giant

loimadum n.bn.m













Sciencia sciencii (MYCB)

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Parsicarla microcephala 'Purple Fantasy'

Satcococca confusa







Persicaria campanulata Madame Jigatti



#### Structural outline

The backing board for our living walls consists of a 19mm thick sheet manufactured from recycled plastic. This is a tough durable alternative to timber; it is resistant to whatever the weather throws at it from rain to frost to snow without the need for treatment. The composite board will not fade, is not affected by UV light and will not rot as well as having obvious environmental benefits.

A sandwich of specialist fabrics is then fixed to this backing board using 14mm long type 80 stainless steel staples. This sandwich consists of two layers of capillary matting either side of a layer of root migration fabric and irrigation pipework. Making incisions into the top layer of capillary matting and stapling them to three sides forms the planting pockets. The capillary matting employed has 14 finely separated layers, has a weight of 380–400g/m<sup>2</sup>, a field capacity: 3.2 litres/m<sup>2</sup>, and a capillary rise: 7cm or more depending on water softness.

The combination of a rigid and waterproof backing board with a flexible cloth based planting system offers a myriad of benefits. For us the most important of these is that it gives us full flexibility to tailor pocket sizes and planting densities to the plants being used for a specific scheme, giving us total flexibility and giving the plants the best chance to thrive and survive. In addition, the cloth pocket system is very easy to maintain and repair as the cloth layers and pockets can easily be adjusted and augmented over time.

#### **Cross section**





## Irrigation

The irrigation pipework within the living wall panels consists of 15mm LDPE pipe (outer diameter) with 4litre/hour pressure compensating emitters installed at 100mm centres. There is a horizontal run of such pipework every 1200mm, starting at the very top of the living wall and working down. Each run of pipework is treated as a separate zone on the irrigation system. This allows us to adjust watering levels to the different sections of living wall, which may be exposed to different levels of light and wind.

These zones are then operated by a mains powered irrigation controller, which in turn drives a series of solenoid valves. In addition we include a water-powered proportional dosing system that mixes plant food into the water being supplied to the living wall. Our standard watering regime is to water the living wall four times per day at 8:00, 12:00, 16:00 and 20:00hours. In the summer each of these cycles is likely to be 2-3 minutes whilst in the winter they will typically be 1 minute or less. Obviously the exact length of the irrigation cycles will be dependent on the location of the wall and its exposure to sun and wind, along with the planting palette and prevalent weather conditions.

It is also possible to hand water all of our living walls using a standard garden hose with spray attachment should there be any problems with the automated irrigation system.

#### Maintenance

To keep a wall thriving into the future we advise clients to put an appropriate maintenance plan in place. Like any garden, the growth habit of the plants, size of the garden and the client's expectations dictate the exact maintenance requirement. As a minimum we recommend a quarterly maintenance regime though some clients opt for monthly maintenance package. In addition to the minimum quarterly maintenance visits, we also undertake three visual inspections in the first two months following installation.

In each maintenance visit we undertake a number of activities, including:

- Testing the feed system and replenishing the plant food;
- Testing and adjusting the irrigation system to reflect seasonal weather patterns;
- Inspecting all planting, selective pruning and replacement of dead plants if required;
- Inspecting for diseases and pests and treating accordingly;



In addition, on each maintenance visit we also endeavor to help educate our clients so that they are in a position to care for their own living walls should they choose,

#### References

Examples of our work can be seen on our website <u>http://thelandscapearchitect.net/living-walls-portfolio/</u>. References can be provided upon request and we are always happy to come and present our work and discuss your project face-to-face.

Kind regards,

Adam Shepherd, Director