

Sustainability report

Urban greening, biodiversity and how to minimise surface water into the sewer system

The site is not within an area at risk from flooding as defined by the Environmental Agency.

The site is situated within a Critical Drainage Area (CDA) and the proposed plan has taken the following steps:

- Having a larger garden with more room for flowers, plants and shrubs
- Retain some of the existing trees on site (good for absorbing water as well as habitats for birds, squirrels etc).
- A large part of the light well is planters lined with permeable geotextile and small trickle vents in order for the water to slowly work its way through various layers of plants before reaching the drainage, acting as a water reservoir, reducing surface water flows and flood risk.
- Rainwater harvesting (350L water butt on the Northwest side of the house)
- Permeable paving for offstreet parking.

We have transported plants from the plot, many of them which seem to be native to the site, to protect them from destruction when we start to dig. These plants have given our current rented garden much needed plant life and once our garden is ready for planting we will transport some of these plants back to their native habitat. Plants we have transported so far include:

- Wild primroses (very good at absorbing water)
- Bluebells
- Monk Aster
- Cyclamen
- Columbine
- Jasmine
- Wild Honeysuckle

Transport:

We have an EV and a charging point which will be installed under the soffit at the front of the house by the offstreet parking. Our cycling shed is designed to take two bicycles.

Demolition:

There has not been a lot of demolition required on site as the site was a garden plot with only a dilapidated greenhouse (approximately 6sqm) and the aviary (approx 30 cubic meters), and we have removed both.

Various discarded items and refuse found on site have been donated for reuse or if unsuccessful recycled, which has prevented a lot of it ending up in landfill. We are not completely finished clearing the site but so far, we have given away:

- About 50 plastic plant pots in various sizes
- Plastic gutters for seedlings
- Mesh and wood batons from the aviary (whatever are not given away will be recycled)

- 90% of the greenhouse structure (corrugated plastic sheets and metal and glass frames)
- Bamboo (various people have either dug up bamboo cluster roots or cut bamboo sticks for their beans, tomato plants and other climbers)

Sustainable Building materials:

We are waiting for planning before we move on to the detail phase of the build, and are currently researching

building materials. This is what we are currently looking at in terms of materials:

Wood framework and flooring: Wood is renewable and recyclable and therefore a sustainable material

Wood fibre insulation: Excellent performance both for sound and heat, renewable and recyclable.

It can be used continuously around the walls and roof to easier avoid thermal bridging.

Brick: a natural product made of clay which is long lasting and reduces environmental impact.

Alu-clad windows: Aluminum can be recycled repeatedly without losing its properties, making it a highly sustainable material.

The plan is to use *VELFAC windows:* 2/3 of the aluminum used in VELFAC profiles is manufactured using renewable energy sources, and approx. 40% comes from recycled sources. Each VELFAC unit is designed to be disassembled and reused at the end of its life cycle.