Proposed Development at 13 St Cross St EC1

Biodiversity Policy and Green Roof

Prepared by A Alexandrou RIBA Architect 07/2011

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Biodiversity Policy and Green Roof

Prepared by A Alexandrou Architect.10/03/2011. Revised 28/07/ 2011

Our aim is to examine and protect any evidence of wildlife on the site and to provide as far as possible a suitable environment to assist with the enhancement of the borough of Camden's biodiversity measures.

The site is a small infill plot in between existing buildings, the old building demolished in 1974. The basement level is mostly concreted over from where previous building works took place was but at the rear of the premises and through the concrete at the front there is growth of wild bushes grass and flowering herbs such as Alium which provides a small suitable habitat for wildlife.

It is proposed to retain and protect the rear area as a garden for the basement / lower ground flat and to examine the possibility of extending this environment further.

A suitable area for a green roof as contained in Camden's RUDP policy guidelines is the main roof. In this proposal there will be no overlooking of adjacent properties. A green Roof in preference to a Sedum matt, due to its increased depth will allow for more Hardy and varied planting and has a greater biodiversity value as well as increasing insulation, reducing carbon emissions, absorbing Carbon dioxide from the atmosphere and reducing surface water runoff into the sewage system.

A soils examination from a previous project in 1992 prepared by N G Lambert B.SC of Soils Ltd. Shows that the site rests on made up soil, the area being on a previous river bed below. This type of soil by its nature contains crushed aggregates and this is confirmed in the report, which should be suitable for a Green roof construction. Where there is a shortfall of soil we can use imported (locally sourced) crushed aggregate.

We are therefore proposing a Green roof garden on the main roof. To reflect and enhance that existing at basement level. This to be a depth of 150 - 200mm and to be set back from the boundary edges to allow for a natural soak way to filter off excess water. Also this will help reduce visibility. The principles of construction and planting will follow those of the manual: 'Planting Green Roofs and Living Walls' by Nigel Dunnett and Noel Kingsbury. This will be suitable for semi extensive mixtures of low to medium dry habitat perennials, grasses annuals and hardy sub shrubs.

This is to be planted with varied plants such as areas of Grasses (Stipa Tennuissima, Melica Siliata),Flowering (Dianthus Deltoides, Dianthus Carthusianorum, Sedum Acre) and Scented (Allium Schoenoprasum). Using some of the existing soil will also contain seeds and therefore provide a continuation of the current environment without altering the existing balance too much.

This type of environment will be suitable for insects, bees, butterflies and birds to feed albeit a relatively small area will positively contribute to biodiversity, as well as providing a good aesthetic mixture of colour and enjoyable garden area.

The proposal has a large terrace to the rear at first floor level and balconies, at the front to the building at each level. It is proposed to save and provide soil form excavations for planting to these locations to further enhance the biodiversity measures.

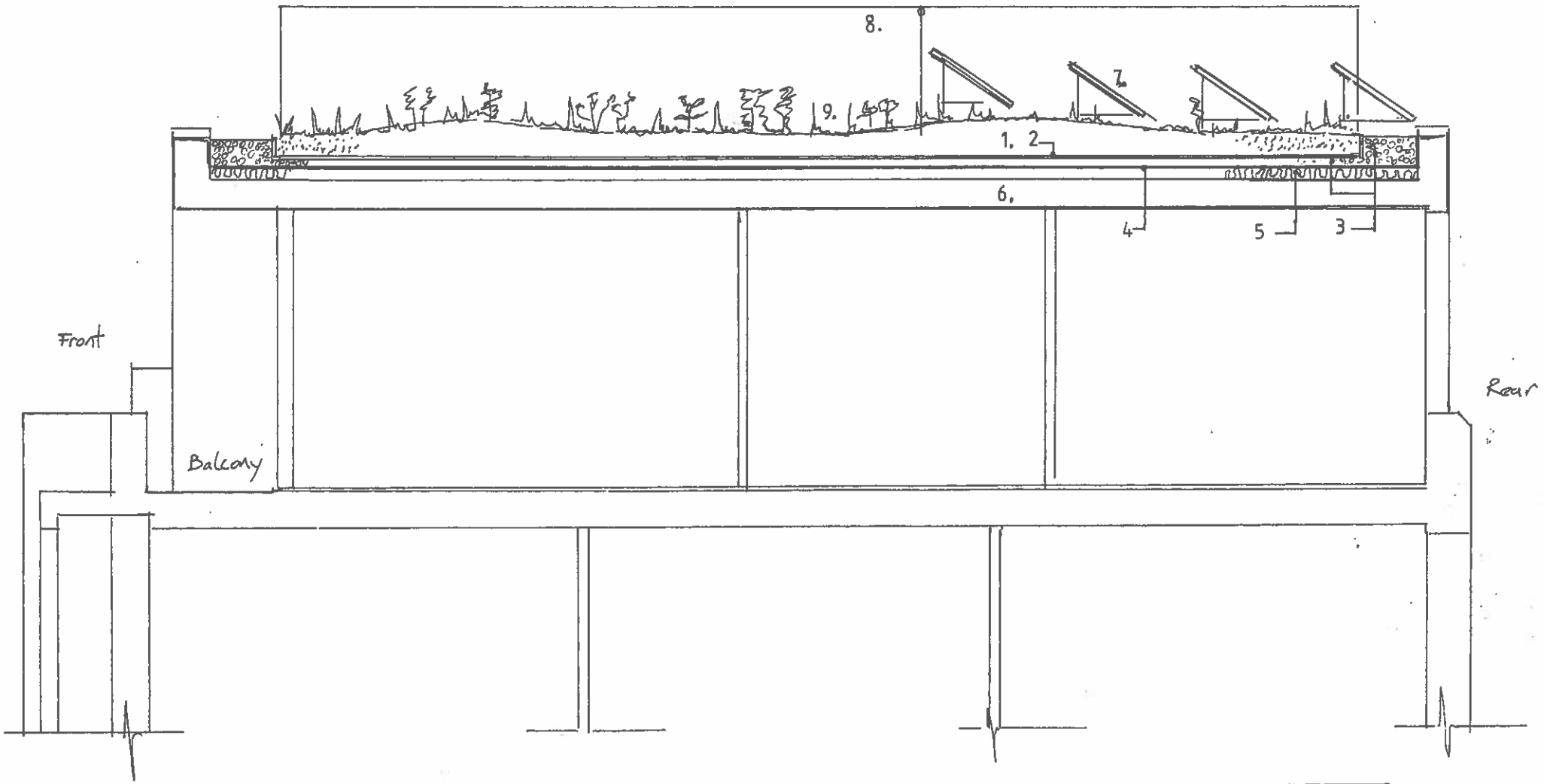
It is also intended to install four 'Ibstock' Swift bricks at high level on the flank wall to allow birds to nest.

To the rear of the roof area it is intended to install an array of photovoltaic panels to obtain a source of renewable energy. These will be laid directly on top of the green roof angle at 35 – 45 degrees. The manual states that this can increase their output by up to 6% due to the 'cooling' effect the green roof has. Grass and other hardy plants can grow in between.

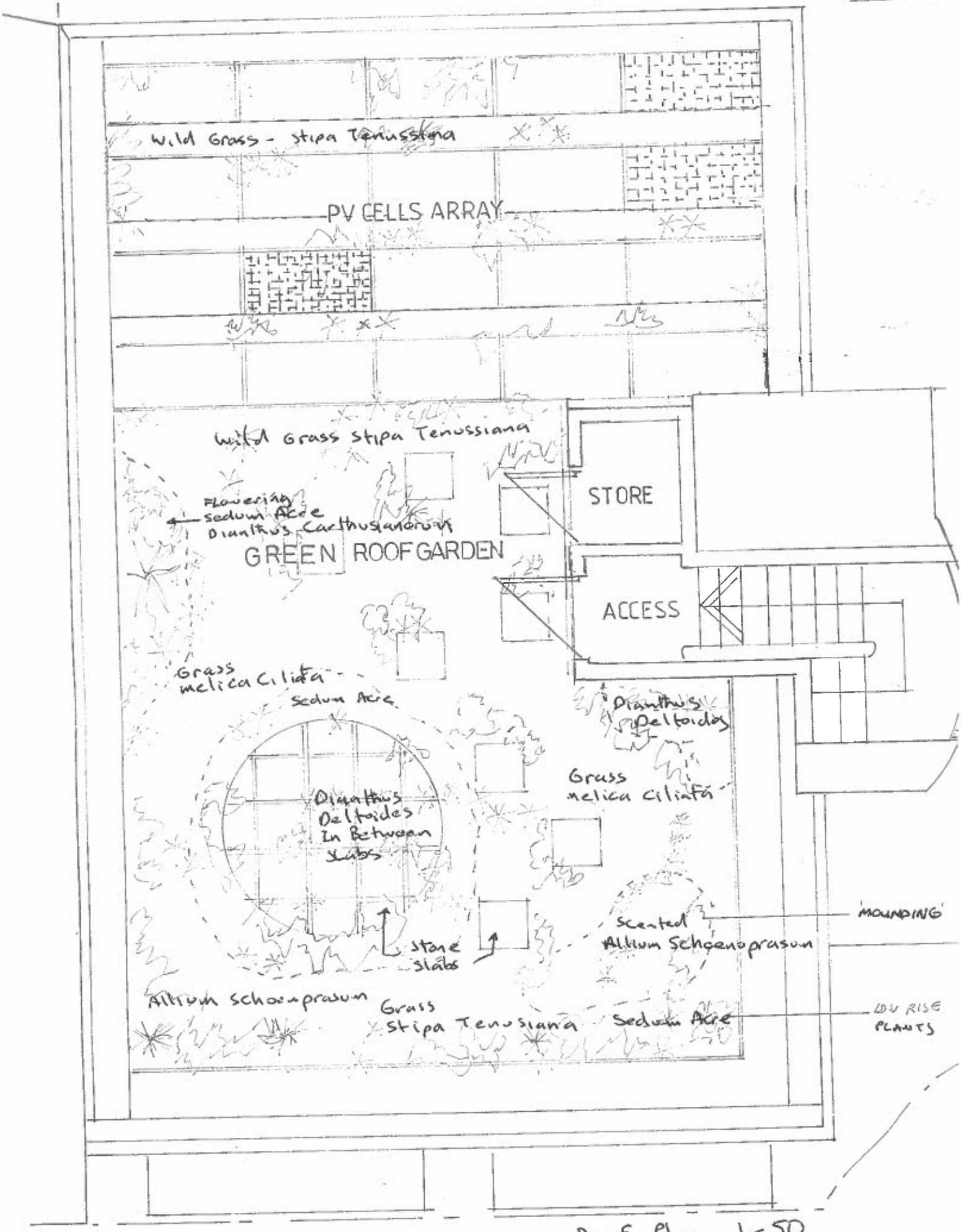
The details of the Green roof and proposals are as per the attached drawings.

PLANTING :
GRASSES - Stipa Tenuissima,
Melica Ciliata.
Flowering - Dianthus Deltoides,
Dianthus Carthusianorum, Sedum Acre.
Scented - Alium Schoenoprasum.

1 Crushed Aggregate 150mm – 200mm
2 FIBER MATT SEPERATING LAYER
3 Gravel / Stone Drainage Layer
4 SBS Modified Bituminous sheet Waterproof Layer
5 Insulation
6 Roof Deck (Structure)
7 PV Panels laid on Roof
8 Railings set Back
9 Low Level Planting



13 ST Cross Sreet. Green Roof Detail
Long Section 1:50 07/11



Roof Plan 1-50

Planting Examples From 'Planting Green Roofs and Living Walls'

Scented Chives

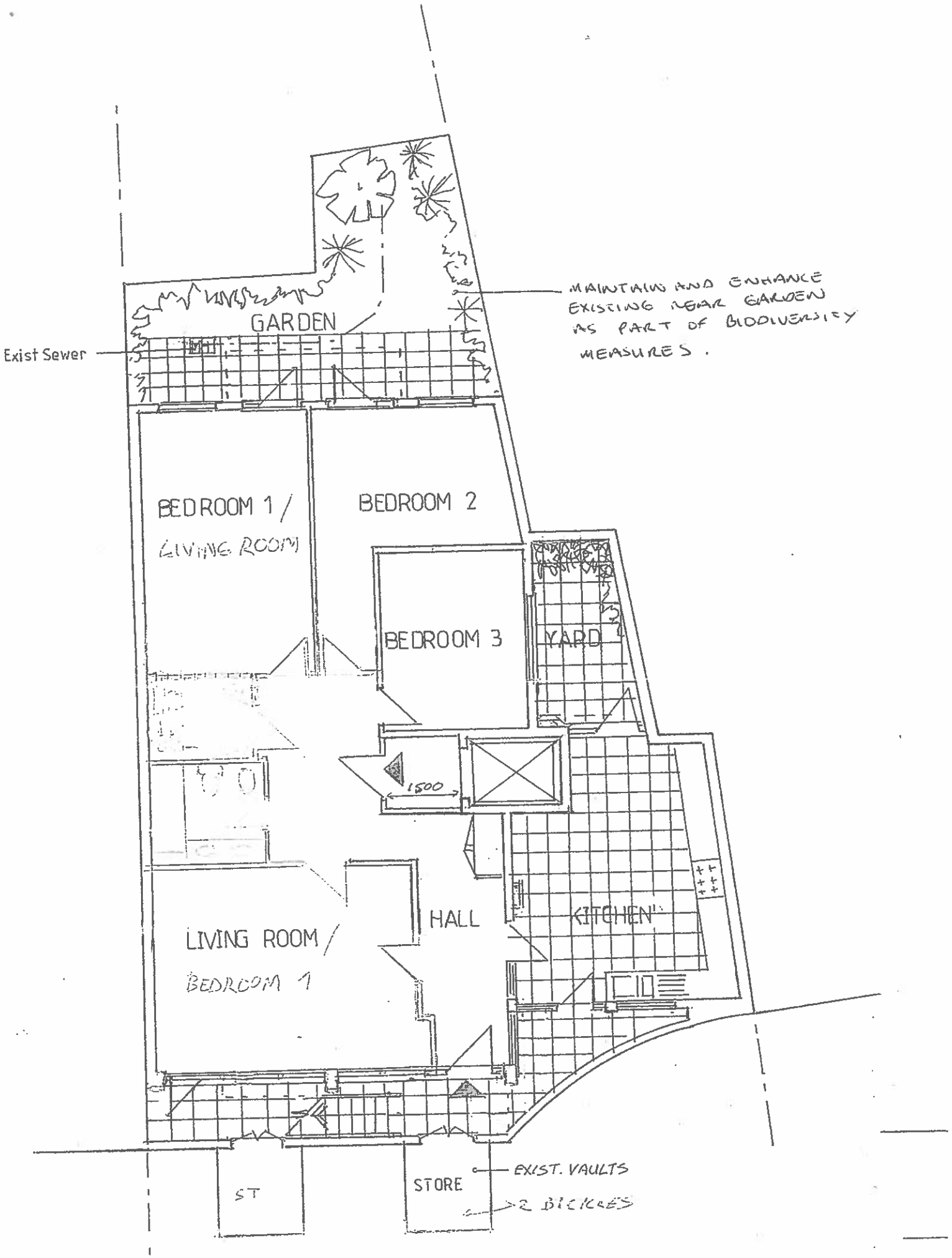
Allium schoenprasum

Mixed Annuals

Dianthus carthusianorum

Grasses grown in between Sedum

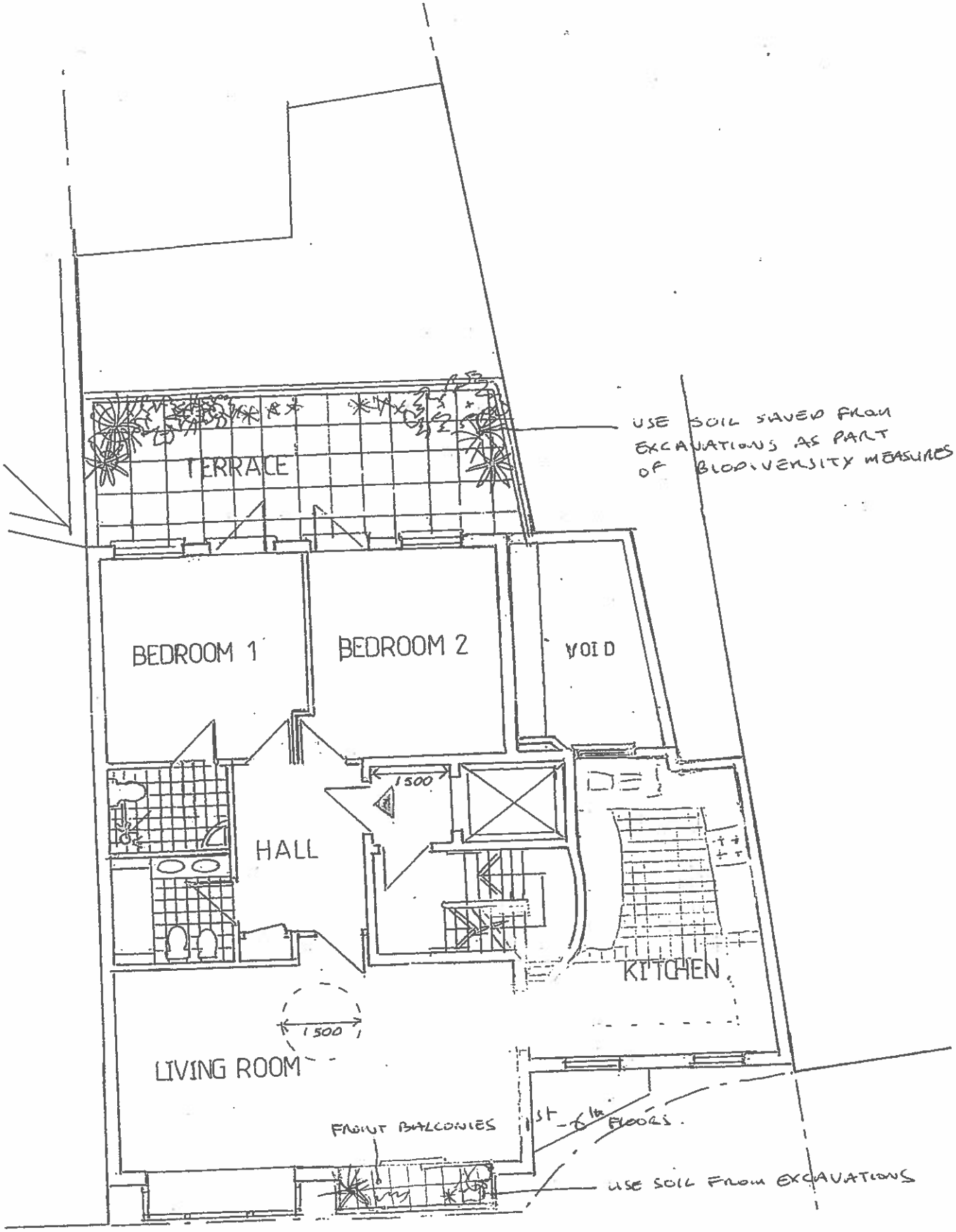
Sedum acre and Dianthus deltoides



BASEMENT / LOWER GROUND FLOOR PLAN

13 ST CROSS ST EC1

1 — 100



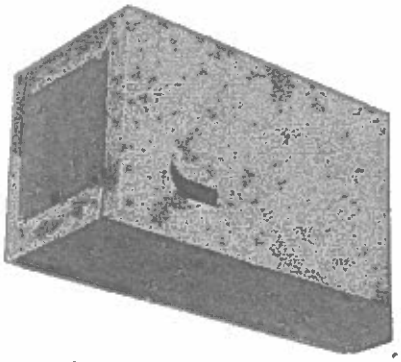
FIRST FLOOR PLAN 13 ST CROSS ST EC1

1-100

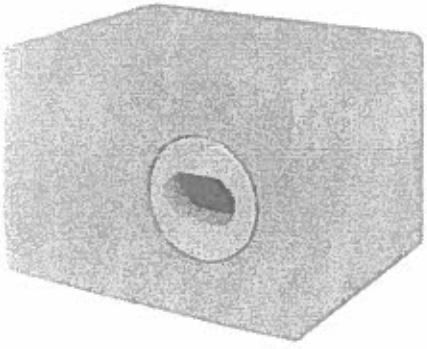
Swift Bricks - Cheap an Easy!

It's so easy to install these Swift nest places!

Looking for an easy way to put some biodiversity in your new project? Look further! For a very modest outlay you can create Swift nest places.



On the left is the Schwegler Swift Brick. Made of a type of concrete, it has a hollow interior for the Swifts to nest in. It measures 180mm high, 265mm wide, and is 220mm deep.

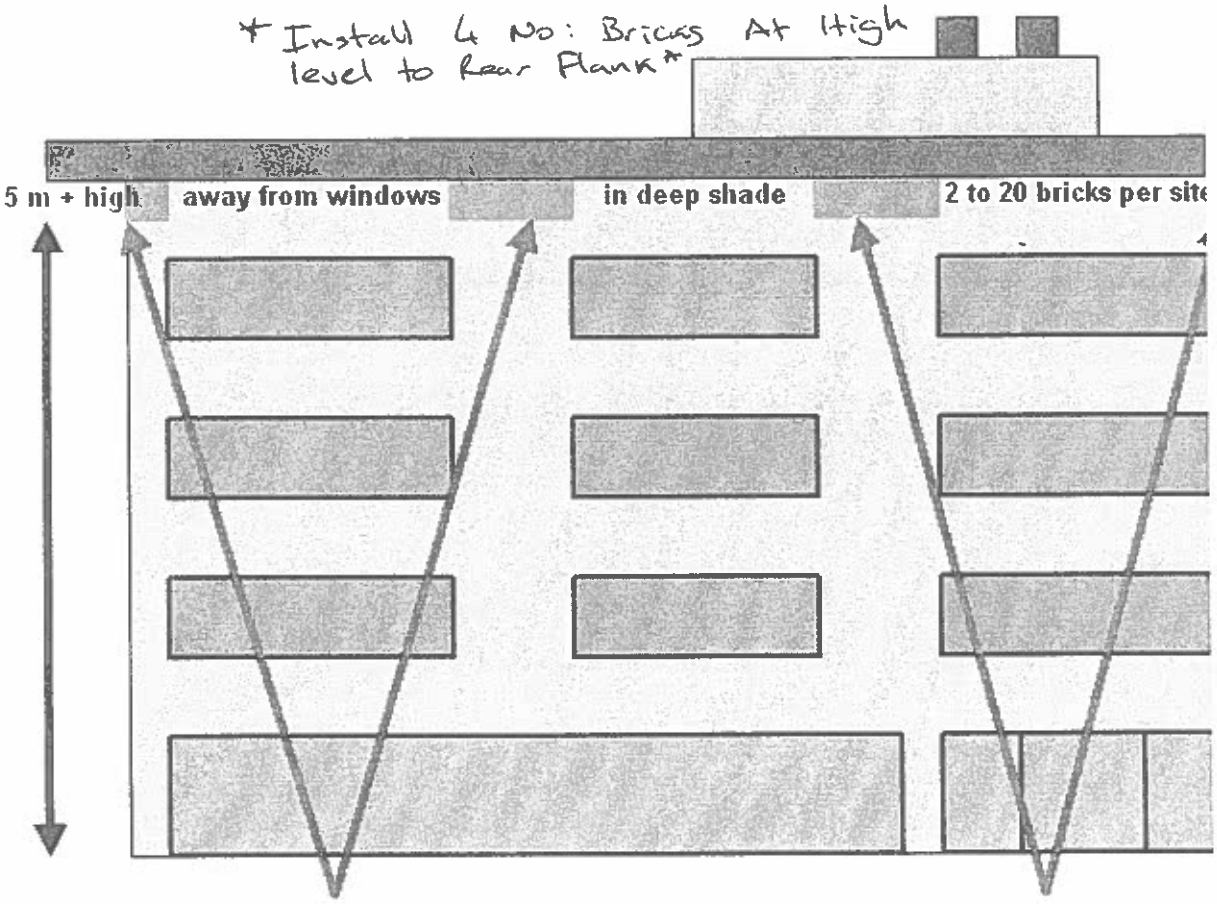


On the right is the Ibstock Swift "Eco Habitat". Made from terracotta and recycled plastic plank, it measures 326mm x 140mm x 140mm. It is available in three clay colours.

Use them in blockwork or brickwork walls, ideally as the top course, or placed high in gables, flank walls and ends of terraces.

+ use Ibstock swift Bricks 4.NO. *

Where to Install your Swift Bricks



Install the Swift bricks under the roof, in the top course of blockwork, in shade out of direct sunlight, (shown here as pink blocks) and away from windows. Sv installations do not usually generate any problems with droppings, but the Swi be disturbed by people staring at them!
Minimum height from the ground should be 5 metres, and the boxes should no obstructed by trees, ladders or aerials.

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