# 58 LAMB'S CONDUIT STREET, WC1N 3LW
# ANCILLARY OFFICE BUILDING
# DISCHARGE OF CONDITION 5 OF PLANNING PERMISSION REF: 2015/6008/P

**Details of materials, species, planting density, and substrate**

The roof covering will consist of a pre-grown mat of mixed plants, mainly from the sedum family.

**Seed mix to include:**

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|---|---|
| Alum | Ellacombianum |
| Floriferum | Hybr czar's gold |
| Montanum | Kamtchaticum |
| Pulchellum | Reflexum |
| Sexangulare | Spurium 'coccineum' purple carpet |
| Spurium summer glory | Stenopetalum |
| Saxifrage Granulate | Sedum Hispanicum |

In a substrate growing medium of recycled crushed brick and expanded clay shale with 20% composted green waste pH value 6.5 -7.

There are an estimated 100mixed sedums and saxifrage plants per square metre. (There is no guarantee that each of the species listed above will appear in every individual square metre of the plant matting, but over the whole roof area of 28 Square metres we would expect all or most to be present)

The vegetation blanket is attached to water retention matting composed of 80% recycled fibres man-made, 20% organic. This mat will be positioned above a light weight drainage mat, geotextile carrier filter layer with bonded UV resistant nylon loops.

The root barrier consists of the existing EPDM rubber roof covering which is a 100% recyclable. The EPDM is an inert material with limited environmental impact both during manufacture and installation the EPDM manufacturing facilities have received ISO 14001 certification for their environmental management system.

**A statement of the design objectives, including justification of roof type/species selection**

To dramatically improve the visual impact when viewed from above, creating a natural living landscape of ever varying colours that will be both attractive on the eye and provide all year round interest as the seasons change.

To assist rainwater management; the living roof will absorb much of the rain that falls on it, Particularly helpful in a typical inner city area where up to 75% of rain water becomes run-off. Additional benefits include greater insulation of the building against heat and cold in addition a sedum roof can potentially halve the amount of noise entering a building.

Sedum plants are used as they are low growing and require little in the way of a growing medium. The species have been specially selected for their ability to thrive in the sometimes hostile environment found on top of a roof. They are drought tolerant, frost hardy and remarkably independent.

There are also very few pests and diseases that affect the sedums, the thick waxy coatings on the leaves deterring most fungal diseases.

**A management plan including an initial scheme of maintenance**

As already mentioned sedum plants require very little maintenance and can go for up to one month without watering, although the plants will be watered upon installation.

In the event of a lengthy summer dry spell the plants will be lightly watered from below using a hose pipe, otherwise watering is not required (Sedum plants will actually revel in hot dry conditions). Maintenance visits will take place twice a year to apply slow release fertilizer (Enviromat Natural green roof feed) in early spring and summer and to remove any wind-blown debris, weeds and any dead plants, with a further late autumn visit, in this case, to remove any fallen leaves from the adjacent tree/s. There is no need for mowing or pruning the plants.

**A section at scale 1:20 showing that adequate depth is available in terms of the construction and long term viability**

We do not have a section in the format that you have requested, but please see the attached image showing the sedum blanket build up as detailed below.

- Sedum matting
- Water retention fleece
- Drainage mat
- Root barrier

The total depth of the above excluding vegetation 48mm, with sedums an estimated maximum depth of 120mm seasonally variable. The sedums are long lived perennials and with the correct care and maintenance will last for many years. Occasionally small areas of the growing medium may become visible. Over time the sedum plants will spread and fill in these patches, however the process (If necessary) will be speeded up by breaking off little pieces of plant material from more dense areas and pressing them on to the bare patches, or adding new-patches of pre-grown sedums.