GREEN ROOFERS

Green Roofers Ltd | 1st Floor | 2 Woodberry Grove | Finchley | London | N12 0DR

Q37 | GR BIOD - BIODIVERSE GREEN ROOF SYSTEM

NBS SPECIFICATION

OVERVIEW

Prepared By: **Connor Deal**

Project Name: Cambridge House

Contacts:

Green Roofers Office | info@greenroofers.co.uk | 020 7754 0365

GUARANTEE PERIOD:

10 years with approved **Maintenance Contract**

ROOF TYPE:

Roof Substrate: Unknown

Slope: Flat

Protection Layer: TBC

Drainage Layer: ***GRD8*** nominal **8mm** rigid compression cell multi-flow drainage/water retention layer with mechanically fixed 105g/m² filtration layer supplied by Green Roofers Ltd.

Growing Medium: ***GRBioD*** Green Roofers Ltd engineered lightweight biodiverse green roof substrate. The material will contain a mixture of pumice, expanded clay and crushed brick amongst other ingredients such as fillers of coarse sand. It contains organic peat free compost and has a bulk dry weight of 880kg/m³. Installed to a finally settled depth of **100mm** including an allowance for 20% settlement in accordance with the GRO Code of Best Practice.

Vegetation Layer: ***GR WildSeed***, containing an average of 30 sown species from certified native stock, hand sown at 4g/m² mixed with fine sand, hand sown or hydro seeding when agreed.

Vegetation Break: 300mm wide, Coastal 20, 20/40mm washed rounded pebble margin, free from sharp edges and contaminants

Perimeter Trim: 120mm high aluminum slotted trim, mechanically fixed to under layer to serves as a separation barrier to perimeters.

Inspection Chambers: 150mm high aluminum inspection chambers

Habitat Spaces: Not Required.

210. ROOF PERFORMANCE

- General: Firmly adhered, free draining and completely weather tight
- Will have limited access for annual maintenance, be low maintenance and/or self-sustaining
- All vegetation be suitable for the location and climate

May form part of the SUDs strategy within the scheme

355. MOISTURE RETENTION & DRAINAGE LAYER

- Green Roofers *GR300u* under layer with 300g/m²
- *GRD8* rigid compression cell multi-flow drainage layer, with mechanically bonded 105g/m² filtration fleece
- Manufactured containing recycled plastics
- 8mm nominal thickness
- Inflow system storage of circa 1.65l/m²

390. BIODIVERSE GROWING MEDIUM

- Green Roofers Ltd engineered lightweight **biodiverse** green roof substrate
- Minimum of a finally settled thickness of **100mm**
- Detailed nominal thickness as average to allow biodiversity and for the seed mix to thrive

- A declaration that it contains no hazardous materials and comes from a peat free source

400. VEGETATION

- ***GR/WildSeed*** Seed mix, containing an average of 30 sown species from certified native stock, hand sown at 4g/m2 mixed with fine sand, or hydro seeding when agreed.
- Supplied as a system by Green Roofers Ltd. Manufactured and grown from various sources

420. STONE BALLAST / WHERE REQUIRED AS A VEGETATION BARRIER.

- Green Roofers Ltd Coastal 20 Washed, rounded aggregate graded 20/40mm free from fines and sharp angles
- Ensure that aluminum gravel guards are fitted to all outlets
- Spread evenly to a minimum depth of 50 mm

430. INSPECTION CHAMBERS

- Manufacturer: Green Roofers Ltd
    - Product reference: IC 150 Inspection Chambers
- Material: Mill Finish Aluminum
- Size: 315mm x 315mm
- Access covers: Removable Lid
- Features: Perforated base to allow drainage via channels.

It is assumed that the building owner or his advisors have satisfied themselves that the roof structure and deck are suitable to receive the dead load of the above-described system and any associated loadings.

EXECUTION

710. INSTALLATION GENERALLY

- Once waterproofing is complete, clear all surfaces of debris
- Visually inspect waterproofing and report any apparent defects or damage
- Do not use material which is detrimental to healthy plant growth
- Protect drainage outlets
- Do not store materials which may be too heavy for the anticipated roof loadings

720. ADVERSE WEATHER

- Secure all unfinished work and protect from wind uplift
- Do not install frozen materials
- Take care during a period of dry weather to ensure that any planting structure is kept sufficiently moist to all it to be worked with

770. INSTALLATION OF THE COMBINED ATTENUATION AND DRAINAGE LAYER

- Loose lay drainage board in a stagger bond fashion over the entire roof
- Keep cuts to a minimum

790. INSTALLATION OF THE SUBSTRATE

- Lay in depths not exceeding 150mm
- Gently compact layers to achieve a level area
- Thoroughly water substrate and drainage board after completing this stage to ensure retained moisture within this system

800. VEGETATION INSTALLATION

- Hand seeded or Hydroseeded

COMPLETION

910. INSPECTION

- Give a minimum of 3 day's notice prior to handover

920. COMPLETION

- Leave area clean and tidy and free of obstacles and debris

930. DOCUMENTATION

- Growing medium declaration of analysis
- Maintenance procedures
- Roof map of planting and features

NOTES

(a) Thoroughly water the substrate for a period of 12 weeks' minimum to ensure seeds reach their maximum growth potential. Water and labour to be supplied by others unless agreed with Green Roofers as part of the agreed contract.

(b) Fertilise slow release nutrient fertilizer at a rate of 25 grams per square metre.

INSTALLATION NOTES

Autumn:

Trim the roof surface to remove all dead vegetation, rake off debris and cart away

Spring:

- Inspect substrate surface and vegetation barriers; remove all unwanted grasses, weeds, saplings etc
- Any bare areas of the substrate must be re-seeded and lightly raked over, or re-planted
- Ensure that perimeters and roof outlets are free from weeds and other blockages
- Fertilise with slow release nutrient fertilizer at a rate of 25 grams per square metre

GENERAL

Provision must be made to carry out a leak test before the Green Roof System is installed. The method and responsibility for carrying out the test must be decided on and written into the tender documents.

It is assumed that the building owners/management team have satisfied themselves that the roof structure and deck are suitable to receive the dead load of the proposed green roof system both during construction and upon completion of the works.

Provision should be made to estimate the number of site visits required of the green roof contractor to enable them to complete the contract. The number of visits estimated should be entered into the tender documents in order to facilitate accurate pricing.

Although the system is designed to withstand drought conditions and is not an irrigated system, it is advisable to allow for a water point to be installed in case of extreme conditions.

The waterproofing should be taken up all upstands, protrusions etc. a minimum of 150mm above substrate level.

Ideally, a maintenance contract should be taken out with the Green Roof to ensure that the roof flourishes and performs as expected at the outset of the project. Alternatively, all tendering contractors should allow for a 2-year period of on-going maintenance to allow the roof to fully establish itself. This should be priced accordingly and should not be less than at least two visits per year to remove unwanted material and to inspect the performance and growth of the roof.

An on-going minimum annual inspection after this 2-year period will be required to ensure the continued performance and any changes to the maintenance regime.