

# 1 Fitzroy Road

## **Architectural Specification** *For Construction*

02<sup>nd</sup> May 2017  
Rev B 080917

Jamie Fobert Architect Ltd.  
Rochelle School  
Arnold Circus  
London

## **Q37 GREEN ROOFS**

To be read with Preliminaries/ General conditions.

### **GENERAL**

#### **110 INTENSIVE GREEN ROOF TO REAR EXTENSION**

- Drawing Reference: 312\_SF\_600.
- Manufacturer: Eco Green Roofs Ltd.
- Roof type: As section J42.
  - Substrate: As section J42.
  - Slope: Refer to drawings.
- Waterproofing: As section J31.
- Thermal insulation: As section P10.
- Protection: Bitumen-compatible geotextile fleece-backed polypropylene mat.
- Moisture control layers: Protection mat.
- Growing medium: Lightweight crushed brick and expanded clay substrate.
  - Depth: 180mm.
- Vegetation: To manufacturer's planting scheme (5% minimum coverage).
- Accessories:
  - Edge retaining profile.
  - Inspection/access chambers.

### **PERFORMANCE**

#### **210 GENERAL DESIGN**

- Green roof and associated features: Complete the detailed design.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.
- Performance criteria: As per design requirements.

### **PRODUCTS**

#### **330 PROTECTION LAYER**

- Manufacturer: Eco Green Roofs Ltd.
  - Product reference: Moisture Retention/Protection mat.
- Material: Bitumen-compatible geotextile fleece-backed polypropylene mat.
  - Thickness: 6mm.

#### **350 DRAINAGE LAYER TO INTENSIVE ROOF**

- Manufacturer: Eco Green Roofs Ltd.
  - Product reference: Drainage layer.
- Material: Thermoformed recycled polypropylene.
  - Depth: 20mm.
- Infill: Not required.

#### **355 COMBINED LAYERS**

- Manufacturer: Newton Waterproofing Ltd.
  - Product reference: Newton 409 (M32).
- Type: Root Barrier.
- Material: HDPE membrane.
  - Depth: 1mm.

#### **360 FILTER MEMBRANE**

- Manufacturer: Eco Green Roofs Ltd.
  - Product reference: Filter membrane.
- Material: Thermally strengthened non-woven polypropylene.
  - Mass: 0.120 kg/m<sup>2</sup>.

#### **370 INTENSIVE GROWING SUBSTRATE**

- Manufacturer: Eco Green Roofs Ltd.
  - Product reference: Intensive substrate.
- Material: Lightweight crushed brick and expanded clay substrate.
- Ameliorant/ conditioner: To manufacturer's recommendations.
  - Coverage: To manufacturer's recommendations.

- Fertilizer: To manufacturer's recommendations.
  - Coverage: To manufacturer's recommendations.
- Declaration of analysis: Submit.
  - Parameters: To BS 3882, annex E.

#### 420 EDGE RETAINING PROFILE

- Manufacturer: Eco Green Roofs Ltd.
  - Product reference: Edge profile.
- Material: Aluminum.
- Height: 75mm.

#### 430 INSPECTION CHAMBERS

- Manufacturer: Eco Green Roofs Ltd.
  - Product reference: Access chambers.
- Material: Plastic coated steel.
- Size: 250x250mm.
  - Depth: 80mm.
- Access covers: Black plastic coated steel.
- Features: 300x300mm flange attached for stability and to lap filter sheet.

#### 440 VEGETATION BARRIER

- Material: Rounded washed pebbles (20-40mm).
- Depth: 50mm.
- Width: To manufacturer's recommendations.

### EXECUTION

#### 710 INSTALLATION GENERALLY

- Preparation: Clear all surfaces of debris.
  - Timing: After certification of waterproof membrane integrity.
  - Surface condition: Visually inspect waterproof membrane, report any damage.
- Faults in waterproof membrane: Report.
- Contamination: Do not use materials detrimental to healthy plant growth.
- Storage: Do not overload.
  - Point loads: Avoid.
- Outlets: Do not block.
  - Outlet grilles: Installed.

#### 720 ADVERSE WEATHER

- Unfinished work: Secure from damage and wind uplift.
- Conditions: Do not install or work with frozen materials.

#### 730 INSTALLATION OF INVERTED ROOF INSULATION

- Preparation: Clear roof of other trades.
- Condition of substrate: Clean.
- Fitting: Loose lay.
- Joints: Butt together.
  - End joints: Stagger.
- Cutting: Minimize.
  - Perimeters and upstands: Fit full sized pieces.
  - Penetrations: Cut cleanly and fit closely.
- Stability: Springing and rocking not permitted.
- Protection: Cover to prevent wind uplift.

#### 740 ROOT BARRIER INSTALLATION

- Joints: Minimize.
  - Overlaps (minimum): 150mm.
- Upstands: Extend to top of growing medium.

- 750 PROTECTION LAYER INSTALLATION
- Joints: Minimize.
    - Overlaps (minimum): 150mm.
  - Upstands: Extend to top of growing medium.
- 755 SEPARATION LAYER INSTALLATION
- Joints: Minimize.
    - Overlaps (minimum): 150mm.
  - Upstands: Extend to top of growing medium.
- 770 DRAINAGE LAYER INSTALLATION
- Extent: Continuous over entire roof area.
  - Fitting: Close butt-joint board or rolls; staggering joints if applicable.
  - Upstands: Fit closely around penetrations and outlets.
- 780 FILTER MEMBRANE INSTALLATION
- Joints: Minimize.
    - Overlaps (minimum): 150mm.
  - Fitting: Loose laid (bonded to drainage board).
  - Upstands: Extend to top of growing medium.
- 790 GROWING MEDIUM INSTALLATION
- Handling: Minimize.
    - Conditions: Handle in the driest condition possible. Do not handle or install when wet or frozen.
  - Layers:
    - Depth (maximum): 150 mm.
    - Sequence: Gently firm each layer before spreading the next.
- 800 VEGETATION BLANKET INSTALLATION
- Handling blankets:
    - Timing: Lay within 36 hours of lifting from growing position.
    - Excessive stacking: Not permitted.
    - Material loss (maximum): 3% of total surface area.
  - Growing medium condition: Thoroughly watered.
  - Laying blankets:
    - Dry, damaged, frosty or waterlogged blankets: Do not lay.
    - Orientation: Diagonal or perpendicular to slope of roof.
    - Joints: Stagger. Butt together or slightly overlap to prevent gaps. Do not stretch blankets.
    - Edges: Finish with whole blankets.
    - Consolidation: Firm as laying proceeds to ensure full contact with the growing medium. Do not use rollers.
  - Dressing: To manufacturer's recommendations.
    - Application: Brush in to fill joints.
  - Watering: Thorough, immediately after laying and dressing.
- 820 EDGE RETAINING PROFILE INSTALLATION
- Cutting: Neat, accurate and without spalling.
    - Junctions: vertical, secured using proprietary connectors.
  - Position: True to line and level. Smooth continuous lines.
  - Fixing: Loose laid onto fleece, ballasted by weight on foot plate, or secured to waterproof membrane using proprietary fixing system.
- 830 INSPECTION CHAMBER INSTALLATION
- Location: Install centrally over drain outlet.
    - Orientation: Align parallel with adjacent features.
  - Surround: 300mm diameter circle/square of 20-40 rounded pebbles..

## **COMPLETION**

- 910 INSPECTION
- Timing: Before handover.

- Give notice (minimum): 3 days.

920 COMPLETION

- General: Leave the works in a clean, tidy condition.
- Surfaces: Clean immediately before handover.
- Outlets: Clean and clear of obstructions.
- Completed green roof: Protect from adjacent or high level working.

930 DOCUMENTATION

- Timing: Submit at handover.
- Contents:
  - Growing medium declaration of analysis.
  - Manufacturers' guarantees and warranties.
  - Procedures for maintenance of the green roof.
  - Record drawings showing the location of planting and associated features.
- Number of copies: 1.