



## Document Control Sheet

---

Issued by:	HLM Architects Fifth Floor 10 Alie Street London, E1 8DE  T: +44 (0)20 7921 4800 E: london@hlmarchitects.com
Client:	
Project title:	Bedford Passage Development
Project code:	BPD
Publication title:	Greenroof Specification Q37
Publication number:	BPD-HLM-NB-XX-SP-L-00602
Publication status:	ISSUE FOR CONSTRUCTION
Publication revision:	C01

---

# Specification-Systems

Q37 Green roofs.....	1
----------------------	---

## Q37 Green roofs

### General

#### 130 Extensive green roof

1. Description: To New Build Roof
2. Roof type: Blackdown Sedum NatureMat Plant Roof
  - 2.1. Manufacturer: Blackdown Greenroofs, 3 Waggon Shed, Flax Drayton Farm, South Petherton, Somerset, TA13 5LR Tel: 01460 234582. Web: [www.blackdown.co.uk](http://www.blackdown.co.uk)
  - 2.2. Slope: Roof falls are to be designed to achieve a minimum finished fall of 1:80.
3. Waterproofing: Derbigum High Performance waterproofing system, refer to Architect Specification J41 NBS specification
  - 3.1. Manufacturer: Alumasc Building Products Ltd  
White House Works, Bold Road  
Sutton, St Helens, WA9 4JG  
Telephone: 01744 648400  
Email: [technical@alumascroofing.com](mailto:technical@alumascroofing.com)
  - 3.2. Root barrier: Derbigum Anti-root cap sheet, refer to Architect's specification J41 NBS specification
4. Moisture control layers: Blackdown 20+FS Drainage Layer (composite drainage layer + filter sheet).
5. Growing medium: Blackdown Extensive Substrate.
  - 5.1. Depth: 65mm
  - 5.2. Settlement factor: +20%
6. Vegetation: Blackdown NatureMat, 15mm thick pre-grown sedum blanket.
  - 6.1. Vegetation coverage:: 90-95% minimum on installation.
7. Irrigation: Mats are to be thoroughly watered in and the substrate kept moist for a minimum of 6 to 8 weeks following installation, or longer if necessary, to allow the plants to become established.
8. Accessories: Blackdown Nutrient, as clause 390.  
Blackdown Aluminium Containment Angle (Optional), as clause 420.  
Blackdown Inspection Chamber, as clause 430.  
Blackdown Washed Pebble Ballast 20/40, as clause 440.

### Performance

#### 210 Contractor's design of green roofs

1. Design responsibility: Complete the detailed design.
2. Structural and fire requirements
  - 2.1. Generally: As section B50 and B05.
  - 2.2. Design: Complete the design in accordance with the designated code of practice to satisfy specified performance criteria.
3. Functional requirements
  - 3.1. Performance: Instant green coverage.
4. Additional requirements: The design must ensure that the continuity of the waterproof covering is maintained for a vertical height of at least 150mm above the finished roof level at all abutments, parapets etc.

The building owner or their appointed design professional must have satisfied themselves that

the roof structure and deck are suitable to receive the dead load of the proposed specification.

It is strictly the responsibility of the client and/or their design professional to ensure compliance of the proposed specification with all relevant Building Regulations by consultation with Building Control. In the event of any doubt about the interpretation or application of the Building Regulations in relation to any particular new build or refurbishment works, clarification must be sought directly from Building Control.

5. Design and production information: Submit drawings, technical information, calculations, and manufacturer's literature.

## Products

### 320 Root barrier

1. Description: Derbigum Anti-root cap sheet, refer to Architect's specification J41 NBS specification

### 340 Moisture retention mat

1. Description: Blackdown 20+FS Drainage Layer (composite drainage layer + filter sheet).

### 350 Drainage layer

1. Manufacturer: Blackdown Horticultural Consultants Ltd.
  - 1.1. Product reference: Blackdown 20+FS Drainage Layer with geotextiles thermally bonded.
2. Material: Perforated cusped HPDE (High Density Polyethylene) core.
  - 2.1. Upper face: Non-woven needle punched and heat treated long staple fibre polypropylene.
  - 2.2. Depth: 27mm
  - 2.3. Retention volume: 5.5 l/m<sup>2</sup>
  - 2.4. Mass/unit area (saturated):: 6.87 kg/m<sup>2</sup>
  - 2.5. Compressive strength: 240 kN/m<sup>2</sup>
3. Size: 0.92 x 50m

### 390 Extensive Growing Medium

1. Manufacturer: Blackdown Horticultural Consultants Ltd.
  - 1.1. Product reference: Blackdown Extensive Substrate
2. Material: Mineral & organic substrate consisting of clean virgin crushed brick, expanded clay, organic matter bark compost & greenwaste.
  - 2.1. Depth:: 65mm  
Settlement factor: +20% post installation.
  - 2.2. Ameliorant/conditioner: Blackdown 12 months fertiliser.  
Coverage: 25 gm/m<sup>2</sup>  
Supply: 20kg sack.

### 400 Vegetation blanket

1. Manufacturer: Blackdown Horticultural Consultants Ltd.
  - 1.1. Product reference: Blackdown NatureMat.
2. Planting mix: 6 core & up to 13 random sedum species, up to 5 species are native or naturalised to the UK.
  - 2.1. Thickness: 15mm
3. Vegetation coverage (minimum): 90-95% minimum on installation.
4. Supply: 1.5m<sup>2</sup> roll.

---

#### 420 Edge-retaining profile

---

1. Manufacturer: Blackdown Horticultural Consultants Ltd.
  - 1.1. Product reference: Blackdown Aluminium Containment Angle.
2. Material: Aluminium.
3. Height: 100mm

#### 430 Inspection chambers

---

1. Manufacturer: Alumasc Building Products Ltd.
  - 1.1. Product reference: Blackdown Inspection Chamber.
2. Material: High-grade powder coated aluminium.
3. Size: 300 x 300mm
  - 3.1. Depth: 50mm (Additional interlocking sections available in 50mm, 75mm, 100mm and 200mm).
4. Access covers: Locking Cover 300x300mm  
Height 55mm

#### 440 Fire breaks

---

1. Material: Blackdown Horticultural Consultants Ltd.
  - 1.1. Product reference:: Blackdown Washed Pebble Ballast 20/40.
2. Depth: 70mm
3. Width: 300mm to external perimeter edge / 500mm to internal junctions and penetrations etc.

### Execution

---

#### 710 Installation generally

---

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

#### 720 Adverse weather

---

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

---

#### 770 Drainage layer installation

---

1. Extent: Continuous over entire roof area.
2. Fitting: Loose lay, closely butt-joint boards.
3. Upstands: Fit closely around penetrations and outlets, using a heavy-duty knife or small toothed saw.

---

#### 790 Growing medium installation

---

1. Handling: Minimize handling. Deliver to roof in small sacks, bulk bag or pump.

- 1.1. Conditions: Handle in the driest condition possible. Do not handle or install when wet or frozen.
2. Layers
  - 2.1. Depth (maximum): 65mm  
Settlement factor: +20% post installation.
  - 2.2. Sequence: Gently firm each layer before spreading the next. Grading bars are recommended to achieve the correct depth. Gently firm each layer before spreading the next. Apply pre-formulated nutrient regime according to planting plan and rake in.

## 800 Vegetation blanket installation

1. Handling blankets
  - 1.1. Timing: Lay within 36 hours of lifting from growing position.
  - 1.2. Excessive stacking: Not permitted.
  - 1.3. Material loss (maximum): 3% of total surface area.
  - 1.4. Storage: Pallets containing the NatureMat must be stored in a cool and shaded area.
2. Growing medium condition: Thoroughly watered.
3. Laying blankets
  - 3.1. Dry, damaged, frosty or waterlogged blankets: Do not lay.
  - 3.2. Orientation: Diagonal or perpendicular to slope of roof.
  - 3.3. Joints: Stagger. Butt together or slightly overlap to prevent gaps. Do not stretch blankets. Secure with biodegradable pegs.
  - 3.4. Edges: Finish with whole blankets.
  - 3.5. Consolidation: Firm as laying proceeds to ensure full contact with the growing medium. Do not use rollers.
4. Dressing: Sedum vegetative material
  - 4.1. Application: Brush in to fill joints.
5. Watering: – Gently water following installation.
  - Keep growing medium moist until plants are established (typically a minimum of 6 to 8 weeks following installation)
  - Account for climatic variation and seasonality

## 820 Edge-retaining profile installation

1. Cutting: Neat, accurate and without spalling.
  - 1.1. Junctions: vertical, secured using proprietary connectors.
2. Position: True to line and level. Smooth continuous lines.
3. Fixing: Integrated to roofing system in accordance with manufacturer's recommendations

## 830 Inspection chamber installation

1. Location: Install centrally over drain outlet.
  - 1.1. Orientation: Align parallel with adjacent features.
2. Surround: 300mm diameter circle / square of 20–40mm pebble ballast.

## Completion

## 910 Inspection

1. Timing: Before handover.
  - 1.1. Give notice (minimum): Three days.

---

**920 Completion**

---

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

---

**930 Documentation**

---

1. Timing: Submit at handover.
2. Contents
  - 2.1. Growing medium declaration of analysis.
  - 2.2. Manufacturers' guarantees and warranties.
  - 2.3. Procedures for maintenance of the green roof.
  - 2.4. Record drawings showing the location of planting and associated features.
3. Number of copies: 2

Ω End of Section



