

SOFT LANDSCAPE SPECIFICATION

26 – 28 BROWNLOW ROAD
HARINGEY
LONDON
N11 2DE

29th MARCH 2022



PJC ref: 1105-005 – Rev A

Specification prepared by
PJC Consultancy Ltd
on behalf of
Abbeytown Limited

Table of Amendments:				
SECTION / PARAGRAPH		REVISION	DESCRIPTION	DATE
2.1	PLANTING SCHEDULE	Rev A	Planting quantities	31.03.2022

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LANDSCAPE SPECIFICATION

INTRODUCTION.

A. Contract Documents: the following specification is to be read in conjunction with the wider contract and tender documents supplied during the tender process.

B. Drawings: this specification is to be read in conjunction with the following drawings and documents.

1. PJC/1105-001 – LANDSCAPE GENERAL ARRANGEMENT PLAN
2. PJC/1105-002 – HARD LANDSCAPE & BOUNDARY TREATMENT PLAN
3. PJC/1105-003 – LANDSCAPE DETAIL – LIVING ROOFS
4. PJC/1105-004 – SOFT LANDSCAPE DETAILED PLANTING PLAN
5. PJC/1105-006 – LANDSCAPE MAINTENANCE & MANAGEMENT PLAN

Landscape plans (as above) showing location, orientation of 3 house units and apartment block showing proposed arrangement of access road, private driveway / parking areas, pathways and communal open green space along with proposed soft landscape planting for private plot frontage.

C. Setting Out: Landscape features are to be set out on site as arrangements shown on current (Tender Issue) Landscape General Arrangement Plans.

1. PJC/1105-001 – LANDSCAPE GENERAL ARRANGEMENT PLAN
2. PJC/1105-002 – HARD LANDSCAPE & BOUNDARY TREATMENT PLAN
3. PJC/1105-003 – LANDSCAPE DETAIL – LIVING ROOFS
4. PJC/1105-004 – SOFT LANDSCAPE DETAILED PLANTING PLAN

The project landscape designer should verify any variations in the positions of trees or large shrubs at soft landscaping mobilisation if any unforeseen ground conditions or services are discovered during installation.

D. Contract Administrator (CA): Abbeytown Limited

Creation & Implementation.

1. SITE PREPARATION WORKS

1.1 Site preparation includes the following works;

1.2 Removal of all debris from the site that may be left over from earlier ground works, land forming and the construction phases. Ensure that all temporarily hard standing ground surface material has been removed following the construction phases prior to landscape mobilisation with appropriate depth of BS topsoil applied at planting bed locations as referenced within landscape plans.

1. PJC/1105-001 – LANDSCAPE GENERAL ARRANGEMENT PLAN
2. PJC/1105-002 – HARD LANDSCAPE & BOUNDARY TREATMENT PLAN
3. PJC/1105-004 – SOFT LANDSCAPE DETAILED PLANTING PLAN

1.3 All waste material is to be removed from site during these preparation works prior to soft landscape installation phases.

1.4 Works Order: The programme for the landscaping works is to be set by the progress of the construction phases. Upon completion of each major construction phase, areas of Hard Landscaping associated with the private garden areas should be completed. Areas stated as to required BS Topsoil should be applied to correct depths at each location.

Once suitably prepared, each area of planting can be installed with its soft landscaping elements. *Seasonal timing dependant due to bareroot hedge stock specified. (Seasonal window between end of November through to end March typically)*

Final surface finishes to pathways and patios should be completed once all 'heavy' soft works are completed where possible. [Tree planting / planting delivery / installation to prevent damage to any newly laid finished surfaces.

Mulch application and final soft works dressing should complete the site works.

2. PLANTING SPECIFICATION

To be read alongside drawings

1. PJC/1105-001 – LANDSCAPE GENERAL ARRANGEMENT PLAN
2. PJC/1105-003 – LANDSCAPE DETAIL – LIVING ROOFS
3. PJC/1105-004 – SOFT LANDSCAPE DETAILED PLANTING PLAN

2.1 PLANTING SCHEDULE

TREES						
Planted at marked position each with two post and timber crossbar installed with arb strapping and clear spiral rabbit guard. Smaller trees with a stem girth of less than 12cm should be single post system.						
QUANTITY	SPECIES			HEIGHT (cm)	GIRTH	FORM / TYPE
2	Betula utilis var. jacquemontii			200-250	-	Multi CG
1	Magnolia 'Heaven Scent'			250-350	8-10	Std / CG
3	Prunus cerasifera 'Nigra'			180-250	-	Multi CG
UK NATIVE MIXED SPECIES HEDGE – 70 linear metres						
Double staggered row - 5 per metre. Planting in species groups of 3. All whip planting to be installed with Bio-Earth Biodegradable Plastic-Free Tree Shelter Guard and cane. Mulch application to base of hedge.						
%	QUANTITY	SPECIES		HEIGHT (cm)	POT SIZE (lt)	ROOT
70 %	45	Carpinus betulus		60-80	-	BR
30 %	45	Malus sylvestris		40-60	-	BR
SHRUB & HERBACEOUS PERENNIALS						
QUANTITY	SPECIES			HEIGHT (cm)	POT SIZE (lt)	SPACING
3	Anemone x hybrida 'Honorine Jobert'			15-20	1	600
3	Aquilegia vulgaris var. stellata 'Ruby Port'			15-30	2	800
7	Bergenia cordifolia 'Silberlicht'			10-20	2	400
2	Choisya x dewitteana 'Aztec Pearl'			30-40	3	800
3	Choisya ternata			40-60	3	800
14	Cornus sanguinea 'Midwinter Fire'			40-60	5	800
5	Crocsmia x crocosmiiflora 'Emily McKenzie'			30-40	2	800
30	Hebe 'Mrs Winder'			20-30	2	600
5	Heuchera 'Plum Pudding'			15-20	2	400
3	Pittosporum tenuifolium 'Golf Ball'			40-60	5	800
3	Rosa Kent			30-40	3	800
17	Tiarella 'Spring Symphony'			20-30	2	400
23	Verbena bonariensis			30-40	2	800
5	Vinca major 'Variegata'			15-20	2	400

GRASSES				
QUANTITY	SPECIES	HEIGHT (cm)	POT SIZE (lt)	SPACING
5	Anemanthele lessoniana	40-60	3	600
18	Carex divulsa	20-30	2	600
FERNS				
QUANTITY	SPECIES	HEIGHT (cm)	POT SIZE (lt)	SPACING
10	Dryopteris erythrosora	20-30	2	600
CLIMBER				
QUANTITY	SPECIES	HEIGHT (cm)	POT SIZE (lt)	SPACING
3	Hydrangea integrifolia	20-30	2	600

Fth: Feathered

Std: Standard

CG: Container Grown

LIVING ROOFS - BROWN ROOF - FLAT

[Bauder Biodiverse green roof system]

Flat Roof - Substrate (range of depths) / Native plug planting / 11 x Log piles

Area: 360 m²

Substrate to a depth range of 120mm min to 150mm in some places. (Saturated weight of 120kg/m² for 100mm & saturated weight of 180kg/m² for 150mm)

BROWN ROOF SUBSTRATE:

Bauder Biodiverse Substrate to a depth range of 120mm min to 150mm.

Manufacture: Bauder Ltd. (or similar approved)
70 Landseer Road,
Ipswich,
Suffolk
IP3 0DH

(0)1473 257671 info@bauder.co.uk bauder.co.uk

BROWN ROOF PLUG PLANTING SCHEDULE

UK Native plug planting Area: 72 m² (Approx.)

10 plugs per m². A total of 720 plug / BR items.

UK NATIVE SPECIES PLUG PLANTS				
PERCENTAGE	QUANTITY	SPECIES	FULL HEIGHT (mm)	TYPE FORM
8%	58	Briza media	30	BR
12	82	Festuca ovina	300	BR
8%	58	Festuca rubra ssp ruba	300	JUMBO
8%	58	Lotus corniculatus	50	JUMBO
8%	58	Plantago coronopus	80	JUMBO
8%	58	Prunella vulgaris	50	JUMBO
8%	58	Ranunculus bulbosus	200	JUMBO
8%	58	Scabiosa columbaria	250	JUMBO
8%	58	Sedum acre	60	JUMBO
8%	58	Sedum album	100	JUMBO
8%	58	Silene maritima	120	JUMBO
8%	58	Thymus polytrichus	40	JUMBO

BR: Bareroot

JUMBO: Jumbo Plug Plant

Plugs planted randomly across Approx. areas shown with mixture of plug species randomized between units. Planted at a minimum distance apart of 250mm centres.

LIVING ROOFS - GREEN ROOF – FLAT & PITCHED

[Bauder Pitched biodiverse wildflower green roof system]

[Bauder Biodiverse wildflower green roof system]

Bauder Wildflower Blanket (UK Native wildflower & herbs)

Substrate Depth: 100mm (saturated weight of 120kg/m²)

BROWN ROOF SUBSTRATE:

Bauder Biodiverse Substrate to a depth of 100mm.

Manufacture: Bauder Ltd. (or similar approved)
70 Landseer Road,
Ipswich,
Suffolk
IP3 0DH

(0)1473 257671 info@bauder.co.uk bauder.co.uk

GREEN ROOF SCHEDULE – WILDFLOWER BLANKET

Total area: 253 m²

UK WILDFLOWER BLANKET.

Bauder wildflower blanket includes approx. 40 species of native wildflowers and herbs with less than 10% grass species. RHS Certified perfect for pollinator.

Manufacture: Bauder Ltd. (or similar approved)
70 Landseer Road,
Ipswich,
Suffolk
IP3 0DH

(0)1473 257671 info@bauder.co.uk bauder.co.uk

UK NATIVE SPECIES WILDFLOWER BLANKET PLANTS			
SPECIES		FULL HEIGHT (cm)	
Achillea millefolium		8-40	
Armeria maritima		5-20	
Bellis perennis		3-12	
Campanula glomerata		3-30	
Campanula rotundifolia		15	
Centaurea cyanus		20-50	
Centaureum erythraea		10-40	
Dianthus deltoides		15-30	
Echium vulgare		30-60	
Galium verum		15-60	
Geum rivale		20-40	
Linaria vulgaris		20-40	
Lotus corniculatus		10-20	
Lychnis flos-cu-culi		50-60	
Papaver rhoeas		20-60	
Pilosella aurantiaca		20-60	
Prunella vulgaris		5-20	
Rhianthus minor		30-50	
Saponaria officinalis		20-40	
Scabiosa columbaria		15-50	
Sedum acre		5-10	
Silene uniflora		8-25	
Silene vulgaris		50-50	
Thymus polytricus		4-10	

GENERAL INFORMATION / REQUIREMENTS

2.2 SITE CLEARANCE GENERALLY

Remove all rubbish, concrete, metal, dead grass, decayed vegetation and any contaminated topsoil from planting areas.

Stone picking: Remove stones from planting areas, which exceed 75mm

Contamination: Remove any material containing toxins, pathogens, controlled species or other extraneous substances harmful to plant, animal or human life.

Vegetation: Clear all / any scrub within planting areas to ground level by flail mowing with all arisings removed from the area prior to planting.

Remove any remnants of old fence posts, wire and mesh disturbed by scrub clearance.

2.3 SOIL CONDITIONS

Topsoil within planting beds should be cultivated prior to planting to ensure Moist, friable and not waterlogged conditions for planting.

Frozen or snow covered ground. Ensure planting pit sides and backfill materials are NOT frozen at time of planting. See planting plans for required subsoil and topsoil removal depths and replacement clean subsoil and topsoil depths as stated within contamination report.

2.4 CLIMATIC CONDITIONS

General: Only carry out planting works while weather and soil conditions are favourable for healthy establishment of planted stock.

Waterlogged soils: Do not plant within waterlogged ground conditions to prevent soil structure damage.

2.5 TIMES OF YEAR FOR PLANTING

Deciduous trees and shrubs: Late October to late march. (Root stock dependant)

Conifers and evergreens: September / October to April.

Herbaceous plants September / October or March / April.

Container grown plants: Year round, providing ground and weather conditions are favourable.

Note: Additional watering and weed control may be required. Provide as necessary,

2.6 MECHANICAL TOOLS

Proximity restrictions around existing and newly planted trees, shrubs, herbaceous plants.

Exclusion zone of 150mm.

2.7 WATERING

Water application to full-saturated depth of topsoil.

Method: Apply evenly and without damage to soils around plants root.

Frequency: Weather dependant.

2.8 WATERING RESTRICTIONS

If emergency legislation restricts water supply, seek instruction from contract administrator prior to likely watering requirements.

2.9 NOTICE

Give notification to contract administrators prior to the following actions.

Herbicide application

Setting out

Delivery of plant / machinery and planting stock to site

Planting operations

Watering

Maintenance visits.

Period of notice: One full working week at a minimum.

2.10 PLANTS / TREES – GENERAL

Condition: Sturdy, Healthy – free of pests and diseases, signs of vigorous growth and undamaged.

Appearance: Good uniform shape with no elongated ‘leggy’ shoots showing signs of stressful growth.

Hardiness: Grown in a suitable environment and hardened off prior to supply.

Health: No sign of discolouration, growing medium free from weed growth and free from pests.

Root system: Signs of balanced root system with good form branch structure.

Species: Label true match to species.

Origin / Provenance:

- **Region 405** where reasonably possible.
- **British provenance** where reasonably possible.

2.11 PLANTS / TREES – SPECIFIC.

Name, form, dimensions and root type to match specified schedules within Landscape Planting Plan.

2.12 CONTAINER GROWN PLANTS / TREES

Growing Medium: Supplied with nutrients to allow plant to thrive until permanently planted into the landscape.

Plants: Centred centrally within containers, firmed and well watered.

Root growth: Good substantial pot filling and in a condition allowing successful removing from pot and planting. Not Root Bound.

Hardiness: Grown in the open at nursery for a minimum of 2 months prior to supply.

Containers: Grown and supplied in containers with adequate drainage holes.

2.13 PLANT / TREE SUBSTITUTIONS

Approval to be sought from contract administrator prior to any substitutions.

Alternatives to be proposed with any cost difference highlighted.

2.14 PLANT HANDLING, STORAGE, TRANSPORT AND PLANTING

Frost: Suitable protection from frost to be in place during storage and transport.

Handling: Plant stock to be handled with care to reduce shock and damage. Protect from mechanical damage during transport – loading / unloading.

Packaging of bulk quantities: Box pallets sealed with polyethylene and shrink wrapped for short time frames only. Maximum wrapped duration of 48 hours if possible.

Planting: Plant stock to be positioned with best side to front to an upright angle.

2.15 SURPLUS MATERIAL

Subsoil, stones, debris, wrapping material, canes, ties, labelling, rubbish, prunings and any other arisings to be removed from the area upon planting completion.

PREPARATION OF PLANTING BEDS / PLANTING MATERIALS

2.16 CULTIVATION

Compacted topsoil: Break up and cultivate all soil to full depth prior to planting.

Cultivation: Aerate soils with particles broken to approx. 2-8mm where possible.

Timing: within 48 hours of planned planting.

Weather: Suitably dry.

Undesirable material brought to the surface: Roots, large stones, weeds to be removed as waste. Soil with root spread. Do not dig or cultivate existing roots.

PLANTING SHRUBS & HERBACEOUS PERENNIALS

2.17 SHRUB & HERBACEOUS PLANTING PITS

Timing: excavate a maximum of 48 hours prior to planting.

Pit sizes: 150mm wider than root ball and a minimum of 300mm in depth.

Pit bottom: Improved with 25g of slow release fertilizer per planting pit and soil broken up.

2.18 HEDGES

Timing: excavate trench a maximum of 48 hours prior to planting.

Trench sizes: 150mm wider than proposed hedge width and a minimum of 300mm in depth. No trench excavations within tree RPAs. (See Arboriculture report for details as required)

Trench bottom: Improved with 100g of slow release fertilizer per linear metre with soil broken up.

2.19 AFTER PLANTING

Watering: Immediately following planting.

Firming: Firm soil around plants with a gentle camber. Ensure no Air hollows are present.

2.20 MULCHING HEDGEROWS

Material: Medium grade organic ornamental bark mulch.

Free from debris and foreign materials.

Preparation: Clear all weeds prior to mulch application.

Water ground thoroughly.

Depth: 75mm

2.21 HEDGEROW PLANTING PROTECTION RABBIT GUARDS –

HEDGE STOCK ONLY

All whip planting to be installed with Bio-Earth Biodegradable Plastic-Free Tree Shelter Guard and cane. Mulch application to base of hedge.

Rabbit Guard: **YES**

Cane: Dimensions: Min height 900mm for whip stability at planting using horticultural tie or string to secure each whip to cane.

PLANTING TREES

BS8545:2014

Trees: from nursery to independence in the landscape – Recommendations.

2.22 See

1. PJC/1105-001 – LANDSCAPE GENERAL ARRANGEMENT PLAN
2. PJC/1105-004 – SOFT LANDSCAPE DETAILED PLANTING PLAN

TREE PIT POSITIONS

Approx. positioning of tree pit system below ground dependant on local ground conditions and services.

M&E engineer & site contractor to have final positioning.

2.23 TREE SUPPORT

As specified within

1. PJC/1105-001 – LANDSCAPE GENERAL ARRANGEMENT PLAN
2. PJC/1105-004 – SOFT LANDSCAPE DETAILED PLANTING PLAN

Staking System:

6 x kits required in total:

6 x Double round stake kits with half round cross bar, rubber Arb block and strapping.

2.24 TREE PIT ACCESSORIES

As specified within

1. PJC/1105-001 – LANDSCAPE GENERAL ARRANGEMENT PLAN
2. PJC/1105-004 – SOFT LANDSCAPE DETAILED PLANTING PLAN

Tree Pit Irrigation System:

6 x RootRain Urban: The RootRain Urban is a large capacity irrigation system with a fixed grid inlet, particularly suited to open space and roadside verge tree planting in softscape.

Spec. Length: 3m Diameter: 60mm Inlet (Stainless Steel) 80mm Weight: 1kg.

Root Control System:

6 X Root Director. RD640A - Green Blue Urban

Approx. positioning of root barrier dependant on local ground conditions and services.

M&E engineer & site contractor to have final positioning & requirements following service route confirmations.

RootDirector RD640A: Rigid, one-piece construction for directing tree roots into intended rooting zones and away from buildings, pavement and utilities.

ReRoot1000. A ribbed root barriers designed for the protection of paved surfaces, shallow service ducts and utilities.

Manufacturer: Green Blue Urban. www.greenblue.com 0800 018 7797 (or similar)

2.25 TREE PIT BACKFILL MATERIAL

Backfill material: Incorporated organic composting materials and slow release feed.

Fertilizer: Organic

Application: to manufactures / suppliers recommendations.

2.26 MULCHING TREES

Material: Medium grade organic ornamental bark mulch.

Free from debris and foreign materials.

Preparation: Clear all weeds prior to mulch application.

Water ground thoroughly. / Depth: 75mm

PROTECTING / MAINTAINING / MAKING GOOD DEFECTS

2.27 MAINTENANCE

Duration of maintenance: From the completion of planting until the end of the rectification period. 12 months.

2.28 FAILURES OF PLANTING

Defects due to materials or workmanship not in accordance with Contract:

Trees, shrub and *herbaceous perennial* plantings that have failed to thrive within first 12 months following planting.

Exclusions: Theft or malicious damage after completion.

Rectification: Replace with equivalent tree / shrub / whip.

Replacements: To match size of adjacent plants of same species.

Timing: Make good failures during the next suitable planting season.

2.29 CLEANLINESS

Soil and arisings: Remove from surrounding grass areas.

General: Leave the works area in a clean tidy condition at completion and after any maintenance operations.

2.30 PLANTING MAINTENANCE GENERALLY

Weed Inc. Grass control: Maintain a weed free area around each planted tree / shrub.

Diameter: a min of 1 metre from each stock item.

Precautions: Ensure that no damage is caused to planted stock by the use of mowers, nylon cord or similar powered tools.

Staking / Guying: Check condition of canes, rabbit guards / guying at each maintenance visit. Broken or missing items should be replaced at time of discovery.

Rubbing: prevent any rubbing or restrictions caused by guards. Adjust or prune where required. Frequency: at each scheduled maintenance visit.

Firming: Gently firm any loosened soil around the base of planted stock.

Straighten any leaning stock.

Watering: as required allowing plants to thrive.

2.31 PLANTING MAINTENANCE – PRUNING

General: prune to promote healthy growth and natural shape.

Dead, dying, diseased wood and suckers should be removed.

Timing: In accordance with best practice guidelines and maintenance schedules.

Arisings: to be removed from site.

3. GRASSWORKS

GENERAL INFORMATION / REQUIREMENTS

3.1 GRASS AREAS

Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, diseases and weeds.

3.2 CLIMATIC CONDITIONS

General: Carry out the works while weather conditions are suitable and soil temperatures are within manufactures / suppliers guidelines.

3.3 WATERING

Water application to full-saturated depth of topsoil.

Method: Apply evenly and without damage to soils level.

Frequency: As necessary to ensure healthy establishment and continued development of all seeding.

3.4 WATERING RESTRICTIONS

If emergency legislation restricting water supplies are applied, seek instruction from contract administrator prior to likely watering requirements.

3.5 NOTICE

Give notification to contract administrators prior to the following actions.

Herbicide application

Setting out

Delivery of plant / machinery and planting stock to site

Watering / Maintenance visits.

Period of notice: One full working week at a minimum.

3.6 SETTING OUT

Boundaries: Clearly defined and marked prior to turfing area cultivation / preparation / application.

Delineations: Smoothly flowing curves as shown on Landscape General Arrangement Plan and Soft Landscape Detailed Planting Plan.

1. PJC/1105-001 – LANDSCAPE GENERAL ARRANGEMENT PLAN
2. PJC/1105-004 – SOFT LANDSCAPE DETAILED PLANTING PLAN

PREPARATION OF GRASS AREAS – TURF

3.7 CLEARANCE BEFORE GRASS / TURF APPLICATION

Operations: Clear all ground debris and evenly level across all directions.

3.8 FINAL CULTIVATION

Timing: After grading of surface material.

Turf Areas: Reduce to fine, firm tilth with good crumb structure suitable for direct turf application. Depth: 25mm

Surface preparation: Rake to a true, even surface, with no compaction.

Removal: Clear surface stones over 50mm in diameter.

Adjacent levels: Extend cultivation into existing adjacent grassed areas to sufficient grade to ensure full marriage of levels. (where appropriate)

3.9 GENERAL LANDSCAPE TURF

Total Area: Approx. 618 m²

Supplier: [DLF Trifolium – 01386 791102 – www.dlf.co.uk](http://www.dlf.co.uk)

PRO TURF 3 (WITH RYE ECONOMY) - DLF TRIFOLIUM - or approved similar

- | | | |
|-----|------------|------------------------------|
| 30% | Stravinsky | - perennial ryegrass |
| 45% | Rossinante | - strong creeping red fescue |
| 25% | Wagner | - chewings fescue |

3.10 QUALITY OF TURF FOR ALL GRASSWORK AREAS

Certification: Seed /Turf supplied with certificate of quality from suppliers.

3.11 CLEANLINESS

General: Leave the works area in a clean tidy condition at completion and after any maintenance operations.

3.12 FAILURES OF GRASSWORKS – TURF

Duration: Carry out the following operations from completion of turfing until: The end of 12 months defects / maintenance period.

Defective materials or workmanship: Areas that have failed to thrive.

Exclusions: Theft or malicious damage.

Method of making good: Recultivation and seed patching as required.

Timing of making good: Next suitable planting season.

BRITISH STANDARDS OF NOTE.

- BS 4428:1989 Guide of practice for general landscape operations (excluding hard surfaces)
- BS 3936-1:1992 Nursery stock specification for trees and shrubs
- BS8545: 2014 Trees: From nursery to independence in the landscape.
- BS 5837:2012 Trees in relation to design, demolition and construction. Plus conforming to arboricultural method statements.
- Standard Specification for Topsoil Used for Landscaping Purposes

Contact details

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Date: 31th March 2022

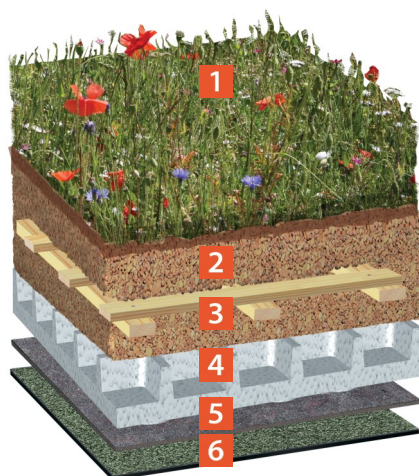
APENDIX: DATA SHEETS

SYSTEM SUMMARY

Bauder Pitched WB Wildflower Blanket System

Pitched biodiverse wildflower green roof system

Suitable for pitched roofs up to 25°. The pre-grown native wildflower blanket, roots into the pitched substrate to stabilise it and aid the quick establishment of the green roof. The blanket has 40 varieties of British native species, designed to give a long flowering season. The square section cell and edge profiles mean the reservoir board holds more water than other drainage boards. The system is fully GRO and FLL compliant. This system is suitable for both new build construction and retrofit. The Bauder green roof promise is available for this system.



Product	Description	Thickness	Saturated weight
1 Wildflower Blanket *	Includes 40 of native wildflowers and herbs with less than 10% grass species. RHS Certified perfect for pollinators	30mm (blanket only)	30Kg/m ²
2 Biodiverse Substrate	Lightweight growing medium for biodiverse green roof planting schemes manufactured to GRO and FLL guide lines and tested to BS8616	100mm	120Kg/m ²
3 Wooden Trellis	The trellis stabilises the substrate and helps prevent slipping until the vegetation has fully rooted into the substrate	N/A	C 3Kg/m ²
4 Bauder Reservoir Board	Lightweight polystyrene multi-functional water storage and drainage layer. 50-75mm deep	50mm or 75mm	11Kg/m ² or 22.5Kg/m ² (water filled)
5 Bauder FSM 600 Protection Layer	Is 100% recycled Polyester and polypropylene fibre mix protection layer to prevent mechanical damage to the underlying waterproofing.	4mm	3.6Kg/m ²
6 Bauder's Underlying Waterproofing System	Various options for Bituminous Membrane, Hot Melt, Single-ply or Cold applied liquid systems.	Not included	Not included
Green Roof System Build up (fully saturated, excludes waterproofing)		184-209mm	168-179Kg/m ²

Please note: All green roofs require water during times of drought. Bauder recommend that the watering and maintenance of this roof is considered and addressed during its design.

UNITED KINGDOM

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SYSTEM SUMMARY

Bauder WB Wildflower Blanket System

Biodiverse wildflower green roof system

The pre-grown native wildflower blanket, allows the quick establishment of a green roof. The blanket has 40 varieties of British native wildflowers with less than 10% grass species, designed to give a long flowering season. It is fully GRO and FLL compliant. This system is suitable for both new build construction and retrofit refurbishment applications. The Bauder "Green Roof Promise" is available for this system.



Product	Description	thickness	Saturated weight
1 Bauder Wildflower Blanket*	Includes 40 of native wildflowers and herbs with less than 10% grass species. RHS Certified perfect for pollinators.	30mm blanket only	30Kg/m ²
2 Bauder Biodiverse Substrate	Lightweight growing medium for biodiverse green roof planting schemes manufactured to GRO and FLL guide lines and tested to BS8616.	100mm	120Kg/m ²
3 Bauder Filter Fleece	Filtration layer that prevents substrate fines from washing into the drainage and water storage layer.	1mm	0.13Kg/m ²
4 Bauder DSE 40 Drainage Layer	DSE 40 is a light weight water storage and drainage layer made of 100% recycled HDPE.	40mm	15.3Kg/m ² (water filled)
5 Bauder FSM 600 Protection Layer	Is 100% recycled Polyester and polypropylene fibre mix protection layer to prevent mechanical damage to the underlying waterproofing.	4mm	3.6Kg/m ²
6 Bauder's Underlying Waterproofing System	Various options for Bituminous Membrane, Hot Melt, Single-ply or Cold applied liquid systems.	Not included	Not included
Green Roof System Build up (fully saturated, excludes waterproofing)		175mm	169Kg/m ²

*Bauder also produce sedum blanket solutions

Where to specify:

Ideally suited to native green roofs which are clearly visible and need a high aesthetic or where the quick establishment of vegetation is important.

Please note: All green roofs require water during times of drought. Bauder recommend that the watering and maintenance of this roof is considered and addressed during its design.

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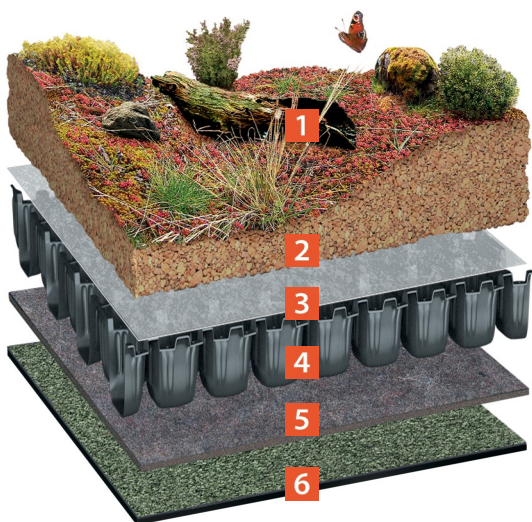
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SYSTEM SUMMARY

Bauder Extensive Biodiverse Green Roof Solution

Biodiverse green roof system

This specific type of biodiverse (or brown roof) is designed to incorporate as many types of habitat as possible giving a home and food source to invertebrates and pollinators which in turn are food for many birds and bat species. The roof is typically sown or plug planted with a very broad range of plant species. Additional habitat features such as dead wood, stone/sand piles and dew ponds can also be incorporated into the design. The Bauder "Green Roof Promise" is available for this system.



Product	Description	thickness	Saturated weight
1 Vegetation *	Typically Bauder's range of native seed and plug mixes are used in combination with other habitat features.	Thickness and weight varies with season	
2 Bauder Biodiverse Substrate	Bauder's Biodiverse substrate is a lightweight growing medium tested to BS 8616 and designed to meet GRO and FLL guidelines, these are often contoured to give differing habitats	Varies typically 100-150mm	120-180 Kg/m ²
3 Bauder Filter Fleece	Filtration layer that prevents substrate fines from washing into the drainage and water storage layer.	1mm	0.13Kg/m ²
4 Bauder DSE 40 Drainage Layer	DSE40 is a 40mm drainage board, holding 13.5 ltr/m ² . The light weight board is made from 100% Recycled	40mm	15.3Kg/m ² (water filled)
5 Bauder FSM 600 Protection Layer	Is 100% recycled Polyester and polypropylene fibre mix protection layer to prevent mechanical damage to the underlying waterproofing.	4mm	3.6Kg/m ²
6 Bauder's Underlying Waterproofing System	Options for Bituminous Membrane, Hot Melt, Single-ply or Cold applied liquid systems.	Not Included	Not Included
Green Roof System Build up (fully saturated, excludes waterproofing & vegetation)		145-195 mm	139-189 Kg/m²

Please note: All green roofs require water during times of drought. Bauder recommend that the watering and maintenance of this roof is considered and addressed during its design.

*Bauder also produce a biodiverse wildflower blanket solution

Where to specify:

Primarily used when Biodiversity and habitat creation are the primary goals, such as for BREEAM or to comply with a local planning requirement.

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PRODUCT DATA SHEET

Bauder (FLL Compliant) Extensive/Biodiverse/Intensive Substrate

Lightweight, free draining substrates designed as a growing medium for a range of different plant species.

Intended Use

This FLL/GRO compliant substrate provides a free draining, growing medium for green roof systems. It is a lightweight substrate designed for most vegetation (Sedum, Wildflower or Grass blankets, Specimen shrubs and trees, plug-plants or seed). Additionally, it provides aeration qualities with some inherent water retention.

**PRODUCT INFORMATION AND TECHNICAL PERFORMANCE**

Characteristic	Unit	Extensive Value	Biodiverse Value	Intensive Value
Maximum saturated weight	kg/m ³	≤1,200	≤1,200	≤1,250
Typical supply weight	kg/m ³	c. 900	c. 950	c. 1,000
Water storage	By vol	35%	35%	35%
pH value	pH	6 - 8.5	6 - 8.5	6 - 8.5
Bulk bag size	m ³	1.25	1.25	1.25
Small bag size	Litre	25	25	25
Material	Recycled crushed brick, expanded clay, shale, composted pine bark			

CERTIFICATION AND ENVIRONMENTAL INFORMATION

International Standards Organisation (ISO)	ISO 9001:2015 Quality Management Certificates EN1271 (UK) and 70499/03-15_e (Germany). ISO 14001:2015 Environmental Management Certificates A10552 (UK) and 70499/03-15_d (Germany). ISO 50001: 2011 Energy Management Certificate 70499/03-15_c (Germany)
Recycled content	≥ 95% recycled material

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PRODUCT DATA SHEET

INSTALLATION GUIDANCE

Normally installed above a filter fleece and drainage board product. Substrates are raked out to give an even coverage of the required depth after settlement. See Bauder's Green Roof Installation Guide for full details.

Bauder reserves the right to amend information and product specifications without prior notice. All reasonable care has been taken to ensure that all data is current at the time of print, however because Bauder pursues a policy of constant development we recommend ensuring that your copy of this information is current by contacting our Technical Department at technical@bauder.co.uk

Recommendations for use should be verified as to the suitability and compliance with actual requirements, specifications, installation techniques and any applicable laws and regulations.

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PRODUCT DATA SHEET

Bauder WB Native Wildflower Blanket

A British growth vegetation Blanket designed for use on green roofs. Containing a broad mix of UK native wildflower species. Suitable to be laid on Bauder (FLL Compliant) Biodiverse substrate.

Intended Use

Bauder WB Native Wildflower Blanket contains a broad mix of British Wildflowers grown in substrate on a coir carrier. The natural fibres of the coir carrier promote the rapid rooting of the blanket into the substrate. The product is installed over Bauder, FLL Compliant Biodiverse Substrate (see Product Data Sheet). The vegetation is a mix of hardy Wildflowers, annuals and herbs. The vegetation is cut back in the summer prior to delivery to reduce plant stress.



PRODUCT INFORMATION AND TECHNICAL PERFORMANCE		
Characteristic	Unit	Value
Maximum saturated weight	kg/m ²	≤ 30
Thickness	mm	30 to 40
Species	Nos	36 wildflower species + 4 grass species (≤10%)
pH Value	pH	6.5 to 7
Material		Substrate and wildflower plants, grown on a coir mat carrier (100% Natural product)
Typical roll size	m	0.5 x 2m
Rolls per pallet	Rolls	Typically 30-40 rolls-Dependant on weight (40m ²)
Pallets per articulated lorry	Pallets	26 pallets – Dependant on weight (1040m ²)

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PRODUCT DATA SHEET

CERTIFICATION AND ENVIRONMENTAL INFORMATION	
International Standards Organisation (ISO)	ISO 9001:2015 Quality Management Certificates EN1271 (UK) and 70499/03-15_e (Germany).
Flora Locale – Membership	
Perfect for Pollinators	
Endorsed by Buglife (the invertebrate charity)	
Recycled content	≥ 95% recycled material

INSTALLATION GUIDANCE
Normally installed directly onto levelled Biodiverse Substrate. WB Blanket should be installed as soon as possible on delivery. Care should be taken not to traffic the Blanket. WB Blanket should be laid by skilled operative. See Bauder's Green Roof Installation Guide for full details. The correct watering and aftercare is required for this product.

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