



THE
ENVIRONMENT
PARTNERSHIP



BRUNSWICK STREET HEYWOOD BIODIVERSITY ENHANCEMENT AND MANAGEMENT PLAN

TEP
401 Faraday Street
Birchwood Park
Warrington
WA3 6GA

Tel: 01925 844004
Email: tep@tep.uk.com
www.tep.uk.com

Offices in Warrington, Market Harborough, Gateshead, London and Cornwall

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Author	Gemma Hassall
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Checked	Cameron Campbell
Approved	John Crowder

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DRAWINGS

G10305.001 - Biodiversity Mitigation and Enhancement Scheme

1.0 Introduction

- 1.1 TEP have been commissioned by Westchurch Homes Ltd to prepare a biodiversity enhancement and management plan (BEMP) for bats, birds, invertebrates and hedgehogs for the development proposed at Brunswick Street, Heywood which involves the construction of 72 new residential homes and associated public open space and infrastructure.
- 1.2 TEP has previously undertaken an extended Phase 1 habitat survey at this site and produced an Ecological Assessment in 2021 to inform the planning application for the works on site (Rochdale Borough Council Planning Ref. 21/01796/FUL). The planning application was granted in December 2023, subject to conditions. This BEMP is required to discharge condition 19 of the granted planning application which states:

"No above ground works shall take place until a scheme of biodiversity enhancements for the site including, but not limited to, the provision of bird boxes, bird bricks, bat boxes and bat bricks to be integrated to the fabric of the buildings hereby approved, bug hotels, hibernaculum, wildflower seeding and hedgehog habitat (including provision of 'Hedgehog Highways') has been submitted to and approved in writing by the Local Planning Authority. The duty approved scheme shall be implemented in full prior to first occupation of the dwellings and retained thereafter."
- 1.3 The Ecological Assessment (TEP Report Ref.: 9072.002) noted that the proposed development will lead to the loss of potential nesting bird and roosting bat habitat. In addition, recommendations for biodiversity enhancement included measures for invertebrates and hedgehogs.
- 1.4 This BEMP is therefore focused on the provision of suitable bat, bird, invertebrate and hedgehog boxes and will provide details on the designs/specifications of the boxes, as well as suitable locations for the installation of the boxes.
- 1.5 Based on the size of the site and the loss of suitable habitats for these species, consisting primarily of existing buildings, scrub and grassland, it is considered that approximately six bat boxes, six bird boxes, one invertebrate hotel and one hedgehog refugia will be required to mitigate for these losses and enhance the site for these species.
- 1.6 The specification of bat boxes, bird boxes, invertebrate hotels, and hedgehog refugia for the site have been chosen with consideration given to the species assemblages likely to be present at the site following a review of the desk study and Phase 1 habitat survey completed in September 2021, as well as the proposed planning layout.

2.0 Bat Box Specifications

- 2.1 Bat boxes have been chosen to suit the assemblage of bats identified from local environmental record centre data (TEP Report Ref: 9072.001). These include pipistrelle *Pipistrellus* species, noctule *Nyctalus noctula*, myotis *sp.*, brown long-eared bat *Plecotus auritus* and Daubenton's bat *Myotis daubentonii*.
- 2.2 Bat boxes for the site have been chosen based on the habitats that will be present in this area following completion of the development, as shown in the Landscape Proposals (Trevor Bridge Associates Limited Drawing No. 6725.01_RevD).
- 2.3 Given that no trees will be retained within the proposed development area it is proposed that bat boxes are attached to buildings. Specifications of the bat roost boxes recommended for installation on buildings are provided below.

Improved Crevice Bat Box This Improved Crevice Bat Box is available with either a double or treble crevice. This box is designed to be suitable for the small British crevice-dwelling bats - the Pipistrelles, Soprano Pipistrelles and Barbastelle's - these species make up over three quarters of UK bats. The external panels are made from 12mm Exterior Grade FSC plywood and are stained with black water based wood stain, both improve the boxes heat insulation. The multiple crevices allow for different temperature characteristics, and the internal ceramic heat sink improves temperature stability. The overhanging apex roof also provides protection from the UK weather. There is a 'Bat Ladder' at the base of the box which facilitates bats landing and climbing into the box. This continues inside of the box making it easy for the bats to move around and grip the surface. The ladder acts as a 'convector heater' for the box - when the sun shines on the ladder, warm air rises into the box and does not come out when the outside cools. The box is relatively lightweight and can easily and safely be mounted to walls or trees. The roof of the box can be removed for ease of cleaning, and a rectangular back plate facilitates fitting several boxes side to side to increase colony size. Dimensions (Double Crevice): H 33.5 cm; W 16.6 cm; D 10.1 cm. Denoted on Drawing G10305.001 by a red triangle.	 Photo source: https://www.nhbs.com/improved-crevice-bat-box
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Ibstock Enclosed Bat Box 'C'	
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The Enclosed Bat Box 'C' from Ibstock is designed for the pipistrelle bat. It is ideal for new builds as it can be integrated directly into the brickwork to produce a discrete but attractive home for bats.

The box has an attractive bat motive on the front and is both durable and fully frost resistant. The inside of the box is designed to create several roosting zones which are ideal for crevice dwelling bats. The bottom entrance means that no maintenance is required as droppings will simply fall out the bottom.

Dimensions (Small Box): H 21.5cm; W 21.5cm; D 10.5cm.

Denoted on Drawing G10305.001 by a blue triangle.



Smooth Red Small
215 x 215 mm

Photo source:
https://mediacdn.nhbs.com/jackets/jackets_resizer/21/219886.png

- 2.4 Given the limited area of suitable foraging habitat within the development site, and level of lighting to be used across the site, the number of suitable locations for bat boxes is limited. It is proposed that approximately six bat boxes are installed within this area, in close proximity to any lines of trees and roads within the development.

Siting of Bat Boxes

- 2.5 The bat boxes should be sited in accordance with Drawing G10305.001. Failure to do so may result in boxes being sited in sub-optimal positions that could lead to a lower up-take by bats.
- 2.6 As a general rule, bat boxes should face between south and west. Proximity to suitable commuting and foraging habitat for bats has also been considered during the siting process. The proximity of boxes to artificial light has additionally been considered.
- 2.7 The siting of bat boxes must not conflict with door and/or window locations for health and safety reasons.
- 2.8 It is recommended that new bat boxes are installed during autumn and winter to ensure they are ready for use the following breeding season.

Installation of Bat Boxes

- 2.9 Bat boxes must be installed at heights of 3 metres or above.
- 2.10 It must be ensured that there is unobstructed access for bats entering and leaving the bat box.
- 2.11 Bat boxes (for summer roosting) should be sited on south and west facing walls where no direct artificial light will shine on the box.
- 2.12 All bat boxes must be installed prior to occupation of the development.
- 2.13 All bat boxes must be installed in line with the manufacturer's specifications to ensure no hazard is posed to occupants of the building or members of the public.

3.0 Bird Box Specifications

- 3.1 Bird boxes have been chosen to suit the assemblage of birds identified from local environmental record centre data (TEP Report Ref: 9072.001). These include house sparrow and tree sparrow.
- 3.2 Bird boxes for the site have been chosen based on the habitats that will be present in this area following completion of the development, as shown in the Landscape Proposals (Trevor Bridge Associates Limited Drawing No. 6725.01_RevD).
- 3.3 Given the limited number of retained trees within the proposed development area it is proposed that bird boxes are attached to buildings. Specifications of the bird boxes recommended for installation on buildings are provided below.

1SP Schwegler Sparrow Terrace The current UK sparrow population is declining and this is thought to be due to habitat destruction and lack of suitable nesting spaces. Sparrows are social birds and like to nest in company, this sparrow terrace is ideal for three sparrow families. Made of Schwegler's revolutionary wood-concrete mix, this terrace is durable, breathable and will last many decades. It may also occasionally attract tits, redstarts, and spotted flycatchers. The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of houses in built-up areas, and on industrial and agricultural buildings such as barns, sheds, and factories. Ideally place the terrace 2m or more above the ground. Either install on the surface of the wall using the plugs and screws provided or install directly into the wall. Cleaning is advisable but not necessary, and the front panel can be removed by turning the screw hook. Due to its weight, it is not suitable for fences or garden sheds. External Dimensions: H 24.5 cm; W 43.0 cm; D 20.0 cm. Denoted on Drawing G10305.001 by a blue circle.	 Photo source: https://mediacdnhbs.com/jackets/jackets_resizer_xlarge/18/185100.jpg?height=620
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WoodStone Build-in Open Nest Box WoodStone Build-in Open Nest Box is designed for use in new build or renovations. The nest box is intended to be built into walls to provide nesting cavities. This provides much needed nesting cavities for species such as robins, wagtails, and black redstarts. Constructed from FSC certified WoodStone this nest box will not deteriorate like a traditional wooden nest box. External Dimensions: H 18.0 cm; W 22.0 cm; D 18.0 cm. Denoted on Drawing G10305.001 by an orange circle.	 Photo source: https://mediacdnhbs.com/jackets/jackets_resizer_xlarge/21/217194.jpg?height=620
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- 3.4 It is proposed that approximately six bird boxes are installed within the development area, mainly in proximity to suitable foraging habitat such as vegetated gardens.

Siting of Bird Boxes

- 3.5 The bird boxes should be sited in accordance with Drawing G10305.001. Failure to do so may result in boxes being sited in sub-optimal positions that could lead to a lower up-take by birds.
- 3.6 As a general rule, bird boxes should be sited with the hole facing between north and east. Proximity to suitable commuting and foraging habitat for birds has also been considered during the siting process.
- 3.7 The siting of bird boxes must not conflict with door and/or window locations for health and safety reasons.
- 3.8 It is recommended that new bird boxes are installed during autumn and winter to ensure they are ready for use the following breeding season.

Installation of Bird Boxes

- 3.9 It is recommended that bird boxes should be installed 3 metres above ground level on site.
- 3.10 It must be ensured that there is unobstructed access for birds entering and leaving the bird box.
- 3.11 Bird boxes should ideally be placed on north and east facing walls. In order to avoid the prevailing wind, no bird boxes should be sited on the west of buildings.
- 3.12 All bird boxes must be installed prior to occupation of the development.
- 3.13 All bird boxes must be installed in line with the manufacturer's specifications to ensure no hazard is posed to occupants of the building or members of the public.

4.0 Invertebrate Hotel Specification

- 4.1 Condition 19 of the planning application states that a bug hotel is required to improve the biodiversity present on site.
- 4.2 The location of the invertebrate hotels has been chosen based on the habitats that will be present in this area following completion of the development, as shown in the Landscape Proposals (Trevor Bridge Associates Limited Drawing No. 6725.01_RevD).
- 4.3 It is proposed that the invertebrate hotel is installed close to a new area of wildflower planting within the completed development. The specification of the invertebrate hotel recommended for installation is provided below.

Minibeast HQ The Minibeast HQ provides a ready-made haven for all your local insects and bugs. This high quality wooden structure features different sized chambers, several of which come ready-filled with materials to attract solitary bees, ladybirds, lacewings, spiders and woodlice. The bottom chambers are left empty so that you can fill them with materials of your choice (e.g. twigs, straw, hay, leaf litter). At the very bottom of the Minibeast HQ is a mini mammal house which will provide a refuge for shrews, field mice and even frogs or toads. The pre-filled chambers contain the following items: * Drilled logs - ideal for solitary bees * Small drilled canes - also suitable for solitary bees * Large canes - for spiders and other invertebrates * Pine cones, latte balls and bark - for various minibeasts The HQ is made from sturdy FSC timber from sustainable sources with a second life re-cycled plastic roof and fixing bracket for stability. The lower five chambers are covered with a hinged mesh door which can be opened to inspect the contents. Dimensions: H 120 cm; W 96 cm; D 40 cm. Denoted on Drawing G10305.001 by a blue square.	 Photo source: https://mediacdn.nhbs.com/jackets/jackets_resizer_large/23/235145.jpg?height=620
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- 4.4 It is proposed that one invertebrate hotel is installed within the development area, in light of the habitats present on site prior to the development.

Siting of Invertebrate Hotel

- 4.5 The invertebrate hotel should be sited in accordance with Drawing G10305.001. Failure to do so may result in the box being sited in a sub-optimal position that could lead to a lower up-take by invertebrates.
- 4.6 As a general rule, invertebrate hotels should be south facing. Proximity to suitable foraging habitat for invertebrates has also been considered during the siting process.
- 4.7 The siting of invertebrate hotels must not conflict with door and/or window locations for health and safety reasons.

- 4.8 The new invertebrate hotel can be installed at any time of year.

Installation of Invertebrate Hotel

- 4.9 The invertebrate hotel must be installed 1.5 metres or higher above ground level.
- 4.10 Invertebrate hotels should ideally be placed on south facing walls.
- 4.11 The invertebrate hotel must be installed prior to occupation of the development.
- 4.12 The invertebrate hotel must be installed in line with the manufacturer's specifications to ensure no hazard is posed to occupants of the building or members of the public.

Wildflower seeding

- 4.13 Condition 19 of the planning application states that wildflower planting is required to improve the biodiversity present on site. This will also provide an enhancement for any invertebrates present on site.
- 4.14 As no provision for this planting has been made in the existing landscape proposals, recommendations have been made for areas which could be seeded with an appropriate native wildflower seed mix. These areas are denoted on drawing G10305.001 with dark green areas.

5.0 Hedgehog Refugia and Highways Specification

- 5.1 Refugia suitable for hedgehog has been chosen following the recommendations of the TEP Ecological Assessment (TEP Report Ref: 9072.002).
- 5.2 The location of the hedgehog refugia has been chosen based on the habitats that will be present in this area following completion of the development, as shown in the Landscape Proposals (Trevor Bridge Associates Limited Drawing No. 6725.01_RevD).
- 5.3 It is proposed that the hedgehog refugia is positioned within a landscaped area within the completed development, as close to the edge of the site as possible where disturbance will be minimal. The specification of the hedgehog refugia recommended for installation is provided below.

HH7 Hogilo Hedgehog / Mammal House The HH7 "Hogilo" hedgehog habitat is a purpose-built nesting box and shelter for hedgehogs. Features include: - Manufactured from durable FSC timber - Wooden interior for 'breathability' and condensation prevention - Lid & sides made from recycled agricultural waste - Lid easily swivels over to expose large inspection and cleaning hatch - Lid incorporates wooden 'plug' to insulate hatch aperture - Overhanging roof and porch - Raised battened feet to prevent rot - Predator-resistant entrance - Can be used as a safe feeding lounge Dimensions: H 25 cm; W 45.5 cm; D 34.5 cm. Denoted on Drawing G10305.001 by a blue hexagon.	
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- 5.4 It is proposed that one hedgehog refugia is installed within the development area, in light of the habitats present on site prior to the development and following completion of the construction works.

Siting of Hedgehog Refugia

- 5.5 The hedgehog refugia should be sited in accordance with Drawing G10305.001. Failure to do so may result in the box being sited in a sub-optimal position that could lead to a lower up-take by hedgehog.
- 5.6 As a general rule, hedgehog refugia should be located within sheltered habitat away from the prevailing wind. Proximity to suitable commuting and foraging habitat for hedgehog has also been considered during the siting process. It is recommended that the refugia is placed near any areas of retained scrub present on site surrounded by a brash pile formed during clearance of vegetation from the site. This area should be clearly signposted to make people aware of its purpose.
- 5.7 The siting of hedgehog refugia must not conflict with door and/or window locations for health and safety reasons.

- 5.8 It is recommended that new hedgehog refugia are installed during summer to ensure they are ready for use the following hibernation season.

Installation of Hedgehog Refugia

- 5.9 The hedgehog refugia must be installed at ground level within an area of cover. Landscape planting around the hedgehog refugia should be designed to allow sufficient vegetative cover to develop and provide shelter for hedgehogs. Space should be left at the entrance of the refugia, and the inside of the refugia should be filled with dry grass.
- 5.10 It must be ensured that there is unobstructed access for hedgehogs entering and leaving the hedgehog refugia.
- 5.11 The hedgehog refugia must be installed in line with the manufacturer's specifications prior to occupation of the development.

Hedgehog Highways

- 5.12 In order to supplement the refugia and allow connectivity for hedgehogs through the development, approximately 13 cm diameter holes must be cut into the bottom of any fences within gardens between the hedgehog refugia location and the woodland habitat to the southeast of the site. This will enable hedgehogs and other small mammals to pass freely through the completed development.
- 5.13 The proposed hedgehog highway route is denoted on drawing G10305.001 by a blue line.

DRAWINGS

G10305.001 - Biodiversity Mitigation and Enhancement Scheme



- KEY**
- Site boundary
- Bird Boxes**
- 1SP Schwegler sparrow terrace (3)
 - WoodStone build-in open nest box (3)
- Bat Boxes**
- Ibstock enclosed bat box 'C' (3)
 - Improved crevice bat box (3)
- Invertebrates**
- Minibeast HQ (1)
- Hedgehog**
- HH7 Hoglio hedgehog / mammal house (1)
 - Hedgehog highway access hole (71)
 - Hedgehog highway
- Habitat Enhancement**
- Wildflower planting

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TEP | **THE ENVIRONMENT PARTNERSHIP**

401 Faraday Street, Birchwood Park, Warrington, WA3 6GA
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Brunswick Street, Haywood

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HEAD OFFICE

401 Faraday Street,
Birchwood Park,
Warrington
WA3 6GA

Tel: 01925 844004
E-mail: tep@tep.uk.com

**MARKET
HARBOROUGH**

No. 1 The Chambers,
Bowden Business Village,
Market Harborough,
Leicestershire,
LE16 7SA

Tel: 01858 383120
E-mail: mh@tep.uk.com

GATESHEAD

Office 26, Gateshead
International Business
Centre,
Mulgrave Terrace,
Gateshead
NE8 1AN

Tel: 0191 605 3340
E-mail: gateshead@tep.uk.com

LONDON

8 Trinity Street,
London,
SE1 1DB

Tel: 020 3096 6050
E-mail: london@tep.uk.com

CORNWALL

4 Park Noweth,
Churchtown,
Cury,
Helston
Cornwall
TR12 7BW

Tel: 01326 240081
E-mail: cornwall@tep.uk.com
