

Ecological Enhancement Strategy

Project	Campus West
Document Reference	191026-ED-03
Client	Bourne Parking
Date	10/02/2022
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Summary:

To maximise the biodiversity value of the proposed development, the following features are to be included within the design. This document includes further details.

Bird, bat and invertebrate boxes

Sensitive lighting

'Wildlife-friendly' planting

Purpose of this document

This Ecological Enhancement Strategy outlines the ways in which the redevelopment works at Campus West can enhance the biodiversity value of the site and the surrounding area.

Opportunities for Ecological Enhancement

Due to the nature of the site (car park) and the proposed development (new multi-storey car park with soft landscaping), the following opportunities for ecological enhancement have been identified:

- Bird, bat and invertebrate boxes (various locations)
- Sensitive lighting
- 'Wildlife-friendly' planting

The ecological enhancements detailed in this document are intended to maximise the ecology of the site itself and surrounding landscape.

The following considerations and references have driven the design process:

- Hertfordshire Biodiversity Partnership (2006) Hertfordshire Biodiversity Action Plan
- Bourne Parking (2021) Grade Level Plan, 6409-BPL-004-GRD,
- Lighting Design Studio (2021) Park West Car Park Lighting Recommendations
- Royal Horticultural Society (2019) 'Plants for Pollinators' Garden Planting Guidance and Wildflower List




Bat, Bird and Invertebrate Boxes

The wildlife boxes below have been chosen specifically to benefit species that are found in the local area and have been identified as conservation priority species for the Borough. The locations of boxes have been chosen to meet the requirements of the species concerned and maximise the chances of successful occupation. The indicative locations of the boxes are shown on the landscape drawings (Appendix 1). All boxes are available at www.nhbs.com or direct from manufacturers. Alternative similar models may be agreed with the ecologist.

Bat Boxes

According to Hertfordshire's Biodiversity Action Plan, Natterer's *Myotis nattereri* have been identified as species which are locally rare, declining, threatened and are either high profile and/or locally distinctive. Pipistrelles *Pipistrellus sp.* are listed in the action plan as a UK priority species and are characteristic of Hertfordshire. Therefore, insertion of boxes suitable for pipistrelles can contribute to the achievement of national targets.

Four boxes chosen from the following three models of bat box (or a suitable equivalents) will be incorporated into the new site. The proposed location for these boxes includes on trees within woodland north of the site, on a mature tree within the proposed soft landscaping in the south, and on a tree or structure along the western aspect. The boxes should be located as far away from artificial lighting as possible and be close to foraging/commuting routes (linear lines of connected vegetation). They should be placed 4-6m above ground-level and face south, south-west or south-east. The boxes chosen are designed specifically to accommodate pipistrelle, which are the most common species in urban locations, and Natterer's.

Bat box:		
2F Schwegler Bat Box (General Purpose)	Improved Cavity Bat Box	Large Multi Chamber WoodStone Bat Box
		

House Sparrow Boxes

House Sparrows are classified in the UK as Red under the Birds of Conservation Concern 4: the Red List for Birds (2015), and as a Priority Species under the UK Post-2010 Biodiversity Framework. Their numbers in rural England have nearly halved while numbers in towns and cities have declined by 60 per cent. House sparrows are sociable birds and prefer to nest in colonies. They nest in in holes and crevices within buildings, and can build free-standing nests in creepers against walls and in thick hedges or conifers.

Three of the 1SP Schwegler Sparrow Terraces (or a suitable equivalent) will be incorporated into the site. The location for these boxes will be on the panelled areas of the new structures in the site; on the south-east aspect facing the proposed soft landscaping, on the south-west corner facing the existing corridor of mature trees, and on the western aspect facing the existing hedgerow. These boxes must be placed between 1.5 and 5.5m above ground, preferably avoiding areas that are exposed to strong sunlight or prevailing winds. Siting boxes near to vegetation is helpful for young birds taking their first flights.

House Sparrow box:
3 x 1SP Schwegler Sparrow Terraces


Bird Boxes

Three boxes of the following model (or a suitable equivalent) will be installed on trees within the site; one within the woodland north of the site, one within the proposed soft landscaping to the south of the site, and one within the western-running hedgerow. These boxes will attract a wide range of species including great tit (*Parus major*) and blue tit (*Cyanistes caeruleus*). These boxes should all be installed a minimum of 2 m above ground level.

Bird nest box:
X3 1B Schwegler Nest Box


Invertebrate Boxes

In order to provide additional habitat for invertebrates to shelter, over-winter or nest in, **six** of the following invertebrate boxes will be installed:

- Insect tower: 650 mm high x 210 mm wide
- Woodstone insect block: 180 mm high x 90 mm wide

X2 Insect towers and x1 Woodstone insect block will be installed in the woodland north of the site, and X2 insect towers and X1 woodstone insect block will be installed within the proposed soft landscaping in the south of the site. All invertebrate boxes will be installed on poles or trees at approximately 1 metre above ground level, facing south.

Invertebrate boxes:	
1 x Insect Tower (CJ Wildlife)	1 x Woodstone Insect Block
	

Sensitive Lighting

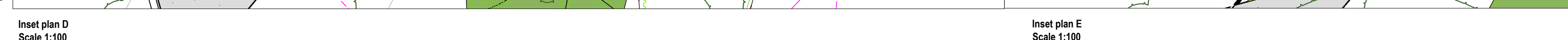
Sensitive lighting will be implemented within the site which will help avoid disturbance to bats. LED lighting with a 3000k warm white light will be used across the site, which will reduce the blue light component that contributes to light pollution. Back shields will also be fitted to luminaries around the perimeter of the site to reduce light spill. All lights are proposed to be auto dimmed to 50% output between 23:00 – 07:00 which will further reduce impacts during prime bat foraging periods.

Wildlife-friendly Planting

‘Wildlife-friendly’ planting will support a wide variety of plant species including native species or species with a known attraction or benefit to local ecology. These areas will provide an improved foraging opportunity for many species such as invertebrates, birds and bats. The eastern and south-eastern portions of the site (proposed soft landscaping) will include areas of native bulb planting. Plant species across the site will include herbaceous, shrub and native hedge species listed within the RHS ‘Perfect for Pollinators Wildflower List’ such as Stinking hellebore (*Helleborus foetidus*), Elephant’s ears (*Bergenia ‘Silberlicht’*), Kent (*Rosa ‘Kent’*) and Guelder-rose (*Viburnum opulus*). The northern portion of the site will include native woodland planting within the native shrub understory mix. Species will include native daffodil (*Narcissus pseudonarcissus*) and bluebell (*Hyacinthoides non-scripta*) The proposed locations for planting are shown in Appendix 1.

Appendix 1 – Landscape Proposal Plans (Including Ecological Enhancements)



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