

Ecology Enhancement Plan

At:

Former St Johns Ambulance Site,
Armoury Drive,
Gravesend,
Kent DA12 1CT

For:

Longley Group LLP,
Unit 4 Brook Court,
Blakeney Road,
Beckenham,
Kent BR3 1HG

Private and Confidential

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1. Introduction

JW Biodiversity Management have been commissioned to compile an ecology enhancement scheme of a former Ambulance HQ in Gravesend, Kent. This report is based on the information contained in the Preliminary Ecological Appraisal¹ and Bat Survey² reports conducted by Greengage.

This report has been prepared to assist in the discharging of the following pre-commencement planning condition.

Condition 23

No dwelling hereby permitted shall be occupied until details of ecological enhancement measures including bat and bird boxes have been submitted to and approved in writing by the Local Planning Authority. The approved measures shall be provided before the building is occupied and shall thereafter be retained.

1.1 Development outline

Demolition of vacant brick buildings and erection of 2 no. one bedroom bungalows and a two-storey block containing 4 no. two bedroom flats with associated access from Albert Murray Close and Armoury Drive, car parking, landscaped amenity and ancillary enclosures.

1.2 Current Site Description

The site itself comprises two derelict buildings with associated access driveway and surrounding overgrown scrub and ruderal vegetation. The larger of the two buildings is a brick-built structures with pitched and tiled roof. This was formerly used as an ambulance station. The second building is a single storey brick block with flat roof upon which sits a large metal water tank. This building has a small open breeze block lean to structure on its eastern elevation with a corrugated roof.

There are three mature limes (*Tilia sp.*) along the western boundary with a single semi mature plane tree (*Platanaceae sp.*) located to the east of the water tank block.

The site is located in a residential district of Gravesend, surrounded on all sides by housing with associated road networks, many of which are lined by street trees, and private gardens. Greenspace in the area comprises residential gardens, parks such as Windmill Gardens 0.3km north east and playing fields. The River Thames runs 0.8km north of the site.

The survey area extends to approximately 0.1 hectares and is centred on National Grid Reference TQ650735.

¹ Albert Murray Close – Preliminary Ecological Appraisal. August 2019. Greengage.

² Albert Murray Close – Bat Emergence Survey Report. August 2020. Greengage.

1.3 Relevant Legislation and Planning Policies

Relevant legislation implications for this site include;

- The Conservation of Habitats and Species Regulations 2010 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way Act 2000;
- The Natural Environment and Rural Communities Act (NERC Act) 2006;
- Environment Act (2021)

Planning policies, both local and national, may affect any proposed development. Relevant planning policies to this development include;

- National Planning Policy Framework (NPPF)
- Policy CS12 of the Gravesham Local Plan Core Strategy.

2. Ecology Enhancement Measures

The following section will set out the proposed enhancement measures. These will be carried out in accordance with the NPPF and local policies. These enhancements will ensure a benefit to local wildlife and will provide a benefit for protected and notable species likely to be in the area.

The location of these enhancements are shown in appendix 2.

2.1 Habitat Enhancements

As part of the proposed development there is an opportunity to provide some habitat enhancements. The area around the proposed block of flats offers a suitable chance for habitat enhancements.

2.1.1 Wildflower Grassland

It is proposed to create an area of wildflower rich grassland to the west of the proposed block of flats. These grasslands will be enhanced/ created with additional seeding using a mixture such as Wildflower Turf Landscape 34³ (or suitable wildflower turf).

Follow method for establishing meadow.

- Endeavour to select ground/ use topsoil that is not highly fertile and does not have a problem with perennial weeds. Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing.
- To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow, or rake to produce a medium tilth, and roll, or tread, to produce a firm surface.
- Sow in early autumn
- The seed must be surface sown and can be applied by machine or broadcast by hand.
- To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact.

³ <https://wildflowerturf.co.uk/products/wildflower-turf/landscape-34/>

2.1.2 Tree Planting

Several trees will be added to the site. Native tree species are recommended. These trees will provide future nesting bird habitats as well as benefiting invertebrates and commuting/ foraging bats.

Dig the planting pit to the correct depth – recommend a planting pit no deeper than the container unless you have specific issues with drainage throughout your site.

The width of the planting pit should be a minimum of one and a half times as large as the root-ball/container and up to a maximum of two times as wide, if the soil is very compacted. This means that a root-ball of 40cm wide should be planted in a hole at least 60cm wide.

Use rabbit guards supported by small canes to protect from rabbits and deer browsing. After planting mulch with suitable material that is available, leaf mould or wood chips, but not too deep – up to 50mm.

Topsoil specification for the tree planting shall follow BS 3882: 2015. A depth of 300mm topsoil shall be provided, with suitable (loosened) subsoil.

2.1.3 Garden Habitats

Several areas of the proposed development will include garden habitats, particularly around the bungalows. It will be difficult to provide long term wildlife habitats in these areas as they will likely be subjected to management by the owner/ occupier.

However, there is an opportunity to ensure these areas provide a wildlife benefit as well as an amenity value. It is recommended that species with a known benefit to wildlife, such as those on the RHS pollinator friendly list⁴, be included in the planting mix.

An areas of amenity grass should use a mixture that contains low growing floral species that are able to be mown on a regularly basis, such as WFT-Species-Rich-26⁵.

⁴ [RHS Plants for Pollinators - Garden plants](#)

⁵ [The Original Species Rich Lawn Turf - Wildflower Turf](#)

2.2 Bat Boxes

The PEA recommended that bat boxes be installed on the new buildings. The Beaumaris Woodstone Bat Box is an example of a bat box that can be erected on the exterior of a building (see below).

A bat box such as this will be erected on the exterior of the proposed block of flats and each of the new bungalows. The proposed locations of the bat box are shown in appendix 2. This are selected to be on edge of the building close to suitable habitat.



Figure 1: Example of bat box that can erected on building exterior.

See bat conservation trust guidelines around positioning bat boxes⁶. In summary, locate boxes:

- Where bats are known to feed and navigate (close to hedges and tree lines);
- Ideally at least 3m- 4m above the ground (where safe installation is possible);
- Away from artificial light sources (to protect them from predation); and
- Sheltered from strong winds and exposed to the sun for part of the day (usually south, south-east or south-west).

Proposed location are shown in appendix 2.

⁶ http://www.bats.org.uk/pages/bat_boxes.html

2.3 Bird Boxes

Vivara Pro WoodStone Open Nest Box (or similar) will be erected in retained areas. This nest box is suitable for a variety of species including; Wrens (*Troglodytes troglodytes*), Robins (*Erithacus rubecula*), spotted flycatchers (*Muscicapa striata*), wagtails (*Motacilla sp.*) and song thrushes (*Turdus philomelos*). The boxes are best placed between 1.5m to 3m amongst dense vegetation where possible.

2x nest boxes will be erected in the retained trees to west of the site. Proposed locations are shown in appendix 2.



Figure 2: Proposed bird boxes to be erected in retained vegetation.

2.4 Hedgehog Access

2.4.1 Hedgehog Access

Hedgehog access will be created by creating a 13cm x 13cm hole at the base⁷ of fencing or by using Hedgehog Gravel Board⁸. These simple features allow hedgehogs to travel between gardens and increase habitat connectivity. To ensure these are not blocked, small signs can be painted or erected above the hole.

Hedgehog access will be added to the perimeter fencing/ hedgerows of all new garden fencing.

⁷ <https://www.hedgehogstreet.org/help-hedgehogs/link-your-garden/>

⁸ [Ibstock-EcoHabitats-eBook-v13-.pdf \(ibstockbrick.co.uk\)](#)

3. Continued Management

3.1 Wildflower Grassland management

3.1.1 First Year Management

Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are great for bugs, and they will die before the year is out. So, resist cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals. Then cut, remove, and compost. Early August is a good time. This will reveal the young meadow, which can then be kept short by grazing or mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.

3.1.2 Annual Management Following Establishment

- Meadow grassland is not cut or grazed from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut' : cut back with a scythe, petrol trimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.
- Management should seek to create a varied sward (at least 20% of sward <7 cm and at least 20% > 20 cm).
 - This can be achieved by maintaining a network of mown paths through the sward.
- Scrub within the grassland should be maintained at <5%.
- Non-native species such as laurel and buddleia will be removed from the grassland.

3.2 Tree Management

In the years following planting trees should be monitored to ensure establishment. Watering/weeding may be required.

Once established the tree guards should be removed.

The trees when established will require little management. They should be allowed to develop a natural canopy. Management regime will encourage micro habitat sites for birds, mammals, and insects e.g., by ensuring presence of deadwood, cavities, or loose bark etc.

3.3 Bird and Bat box Maintenance

Bird boxes should have old nests removed in the autumn, from September onwards once the birds have stopped using the box. Use boiling water to kill any remaining parasites, and let the box dry out thoroughly before replacing the lid. Insecticides and flea powders must not be used⁹.

The bat boxes will require little maintenance and should only be opened if a licensed bat worker is present.

4. Enhancement Summary & timescales

The table below summarises the enhancement actions, proposed timescales and responsibilities.

Stage of Development	Timings	Required Action	Person/ group responsible
Pre-development	Pre-development above slab	Agree enhancement strategy.	Developer/ Local authority.
During construction	From ground clearance to completion.	Follow ecology protection measures set out in the PEA.	Developer.
Commissioning/ hand over	Towards end of development.	Erect bird/ bat boxes	Developer
		Ensure hedgehog access	
		Install landscaping	
Long-term	Post development	Follow habitat management	Occupiers/ management agent.

Table 1: Summary of Enhancement Plan.

4.1 Conclusion

In conclusion the aspects of planning condition 23 have been met with the detail within this report. This report sets out the recommended bird and bat box details as well as hedgehog and landscape enhancement actions. An overview of the landscape enhancements has been provided.

Overall the development provides an opportunity for ecological enhancement and will satisfy local planning regulations and policy.

⁹ <https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/nestboxes/nestboxes-for-small-birds/cleaning-nestboxes/>

5. Appendix

4.1 Appendix 1: Proposed Development Layout



5.2 Appendix 2: Enhancement Locations

