

Biodiversity Enhancement Plan for:

Proposed Dwelling at 19 The Uplands, Rogerstone.

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1 INTRODUCTION

1.1 Background

This Biodiversity Enhancement Plan has been prepared in relation to an approved development at 19 The Uplands, Rogerstone, NP10 9AF.

Planning approval for the proposed development (erection of detached dwelling to the rear of existing property) was granted by Newport City Council on 11th February 2019 (planning reference 18/0534). Condition 5 of the planning application requires submission of a method statement for biodiversity enhancement, as follows:

“Prior to the commencement of development, a biodiversity enhancement scheme shall be submitted to and approved in writing by the Local Planning Authority. The biodiversity enhancement scheme shall be implemented in accordance with the approved plans prior to the first beneficial use of the development hereby approved. The location and details of these must be shown on relevant plans.

Reason: in the interest of protected species, in accordance with Policy GP5 of the Newport Local Development Plan 2011-2026 (adopted January 2015).”

This biodiversity enhancement plan provides details of the ecological enhancements that will be delivered through the development and facilitate discharge of Condition 5.

1.2 Ecological Context

The site known as 19 The Uplands measures approximately 0.03 hectares and lies is located in Rogerstone, Newport. It is surrounded by other residential dwellings and their associated gardens to the east and south. Directly to the north lies the main road B4591, known as Cefn Road. The location of the site is shown below in Figure 1.1.



Figure 1.1: Landscape context of the site at 19 The Uplands, (bordered in red).

1.3 Purpose of Report

The purpose of this report is to detail proposed ecological enhancement measures for the development.

2 DEVELOPMENT DESIGN

The proposed development comprises the erection of a detached dwelling to the rear of the existing property. The consented site layout is provided in Figure 2.1 below.

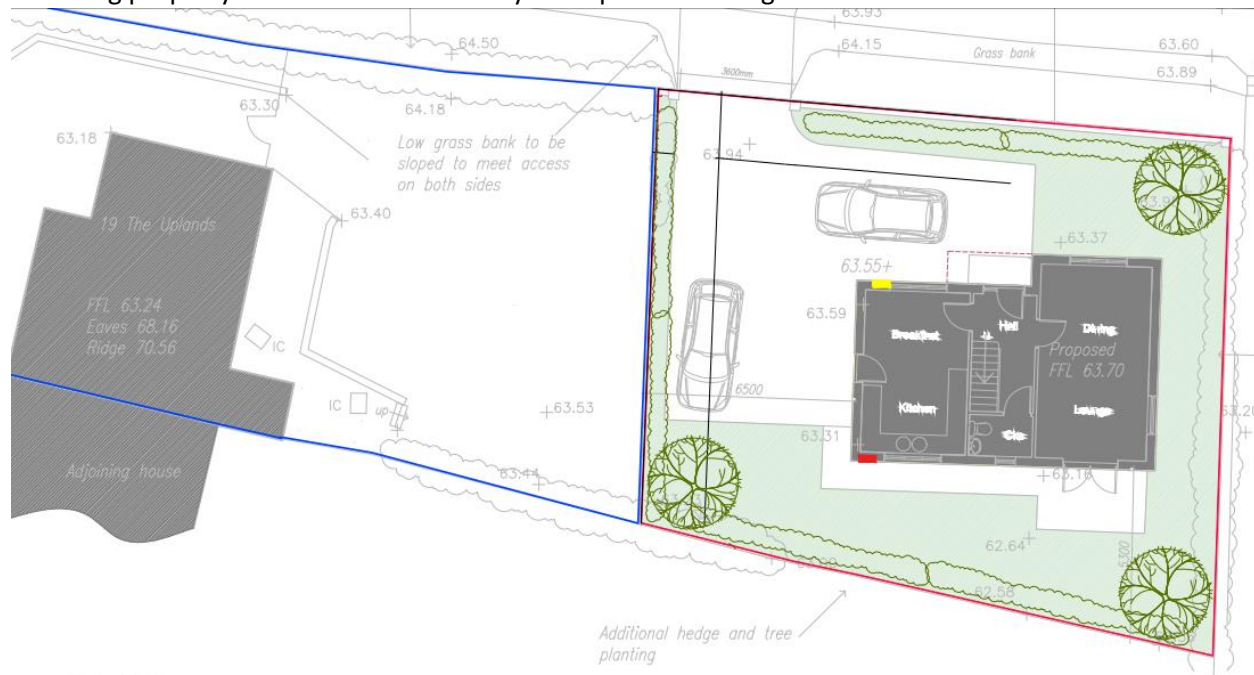


Figure 2.1 Extract from proposed development site layout plan

2.1 Ecological Constraints

Opportunities for ecological enhancement are limited by the small scale of the site, the fixed layout and the future use as two separate dwellings in private ownership, each with parking and garden areas. Figure 2.1 shows the proposed site, outlined in red, and the existing in blue.

Management prescriptions are also limited, as it is difficult to secure effective management when the future occupiers/owners of the properties are not known. Therefore, measures for biodiversity enhancement are restricted to provisions requiring no, or minimal management and ideally which are integrated into the development from the outset.

The need to ensure the new dwellings meet modern building and energy efficiency standards can also limit the way in which features for biodiversity can be integrated into new developments. For example, the use of non-bitumen coated roofing membranes makes the creation of opportunities for roosting bats within roof areas inappropriate given the issues relating to bats and such products¹.

¹ <https://www.bats.org.uk/our-work/buildings-planning-and-development/non-bitumen-coated-roofing-membranes>

The presence of the B4591 main road to the north of the site, may also provide a significant barrier to the movement of wildlife across the local landscape.

2.2 *Ecological Opportunities*

The habitats within the site comprise the existing dwelling, and its associated garden. Opportunities for ecological enhancement are restricted to areas within the site boundary; areas where such opportunities can be introduced include the dwellings and gardens (including boundary treatments).

This biodiversity enhancement scheme includes elements of landscape and ecological design to ensure that the proposed measures are achievable.

Integrated bird nesting and bat roosting boxes will be appropriately sited to minimise disturbance from the future residents of the new dwellings. In addition, bat boxes will be located away from any artificial lighting.

3 BIODIVERSITY ENHANCEMENT MEASURES

3.1 Aims and Objectives

The proposals are designed to provide a range of opportunities for local wildlife with the following main objectives:

- Create new roosting and nesting opportunities for a range of fauna.
- Trees are planted within new gardens.
- Create and manage new species-rich lawn areas.
- Maintain habitat connectivity for small mammals.

3.2 Bat and bird boxes

1 no. bat box (Habibat 3S with bespoke facing) will be integrated into the wall of the new dwelling. The box will be installed in a permanent and undisturbed location at a height of at least 3 m (ideally under the eaves) and away from artificial lighting and facing south. These boxes are suitable for a variety of crevice dwelling bats, including common and soprano pipistrelle which are likely to be present in the local area.

1 no. integrated bird box (Habibat terraced sparrow box² or similar) will be installed within the wall of the new dwelling at a minimum height of 3 m above ground (under the eaves) and facing north.

All integrated boxes will be installed during construction of the new dwelling and prior to occupation of the site. Indicative locations for boxes are provided in Figures 3.1 and 3.2, with final locations to be agreed with a suitably qualified ecologist prior to their installation.

Habibat boxes will be faced to match the proposed brick type.

3.3 Landscaping

At least three new trees will be planted in the garden: trees will be selected from whitebeam *Sorbus aria* 'Majestica', cherry *Prunus* 'pink shell', Amelanchier x *grandiflora* 'Robin Hill' and *Betula albosinensis* 'Fascination'.

New native low level planting will be introduced along the west boundary of the site (to separate the existing and proposed dwellings), as well as the north and south boundaries. This section of hedgerow will be established from whips planted in a double staggered row (45 cm apart), comprising 40% hawthorn *Crataegus monogyna*, 20% field maple *Acer campestre* and hazel *Corylus avellana*, 10% beech *Fagus sylvatica*, 5% elder *Sambucus nigra* and 5% Guelder rose *Viburnum opulus*. This habitat will (as it matures) provide additional foraging and refuge resources for a range of fauna.

Areas of garden are to be laid as hard-wearing general purpose lawn mix

² [h <http://www.habibat.co.uk/category/bird-boxes/habibat-terraced-sparrow-box>](http://www.habibat.co.uk/category/bird-boxes/habibat-terraced-sparrow-box)

Soft landscaping will be implemented at the end of the construction phase, prior to the occupation of the dwellings. Once under the ownership of the new residents, there is no mechanism for ensuring continued management of these features.

3.4 *Habitat Connectivity*

The planting of new low level hedgerows along the western, northern and southern boundaries will assist in maintaining and enhancing habitat connectivity along this narrow linear corridor. To prevent habitat severance, the inclusion of impermeable walls/fencing will be avoided within the proposals.

Boundaries and barriers within the development, (i.e. fencing), will be made permeable to hedgehogs through the provision of 'Hedgehog Highways'. Hedgehog holes will be created by 13 x 13 cm holes at ground level within fences. Alternatively, hedgehog friendly gravel boards could be installed (as shown below sourced by Kebur Garden Materials and Jacksons Fencing).

To ensure holes are kept open 'Hedgehog Highway' signage should be provided (as shown below sourced by People's Trust for Endangered Species and/or the British Hedgehog Preservation Society) and secured above the holes.



⁴ <https://wildseed.co.uk/mixtures/view/56>

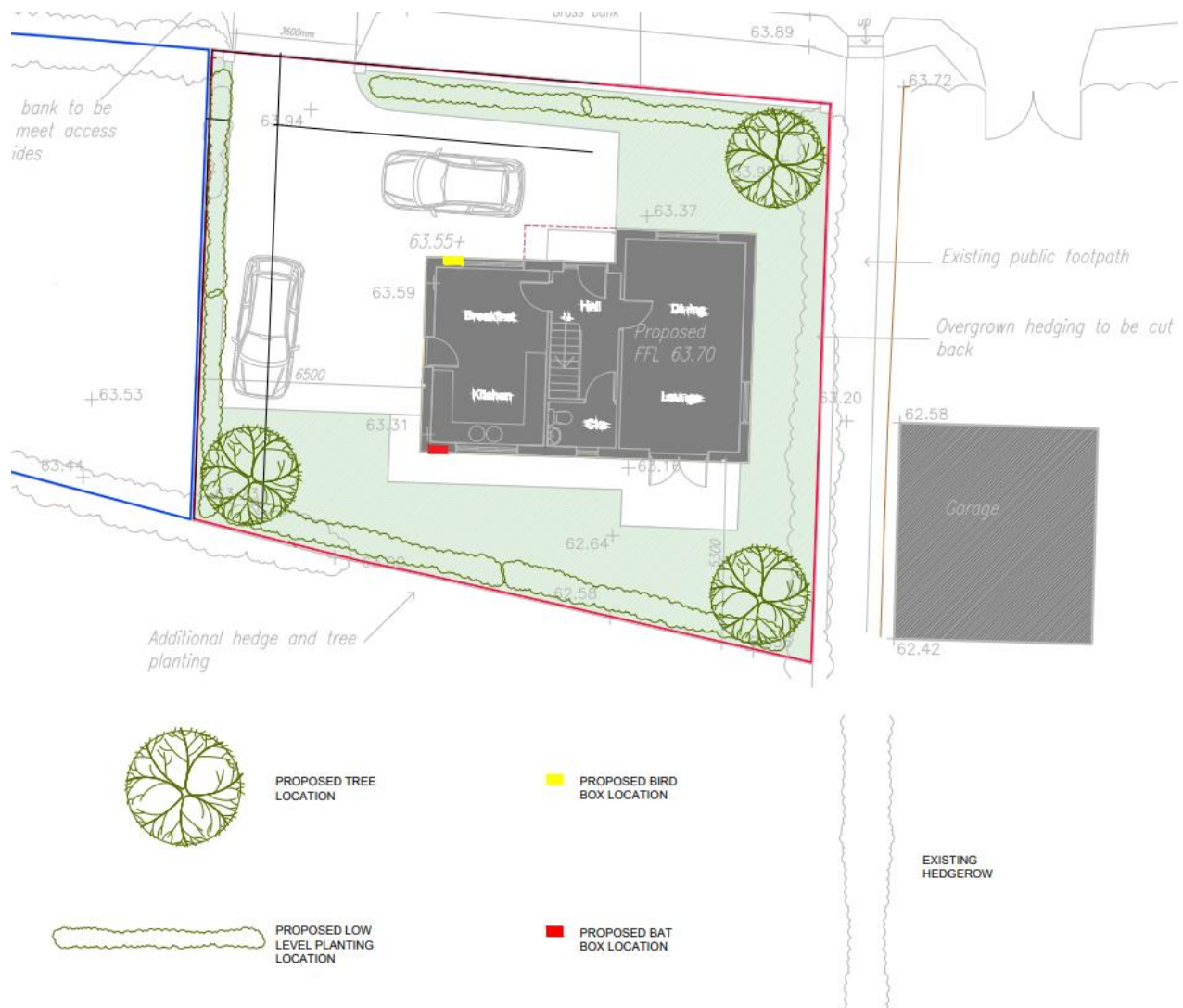


Figure 3.1 Extract from proposed development site layout plan with key showing biodiversity enhancement features.

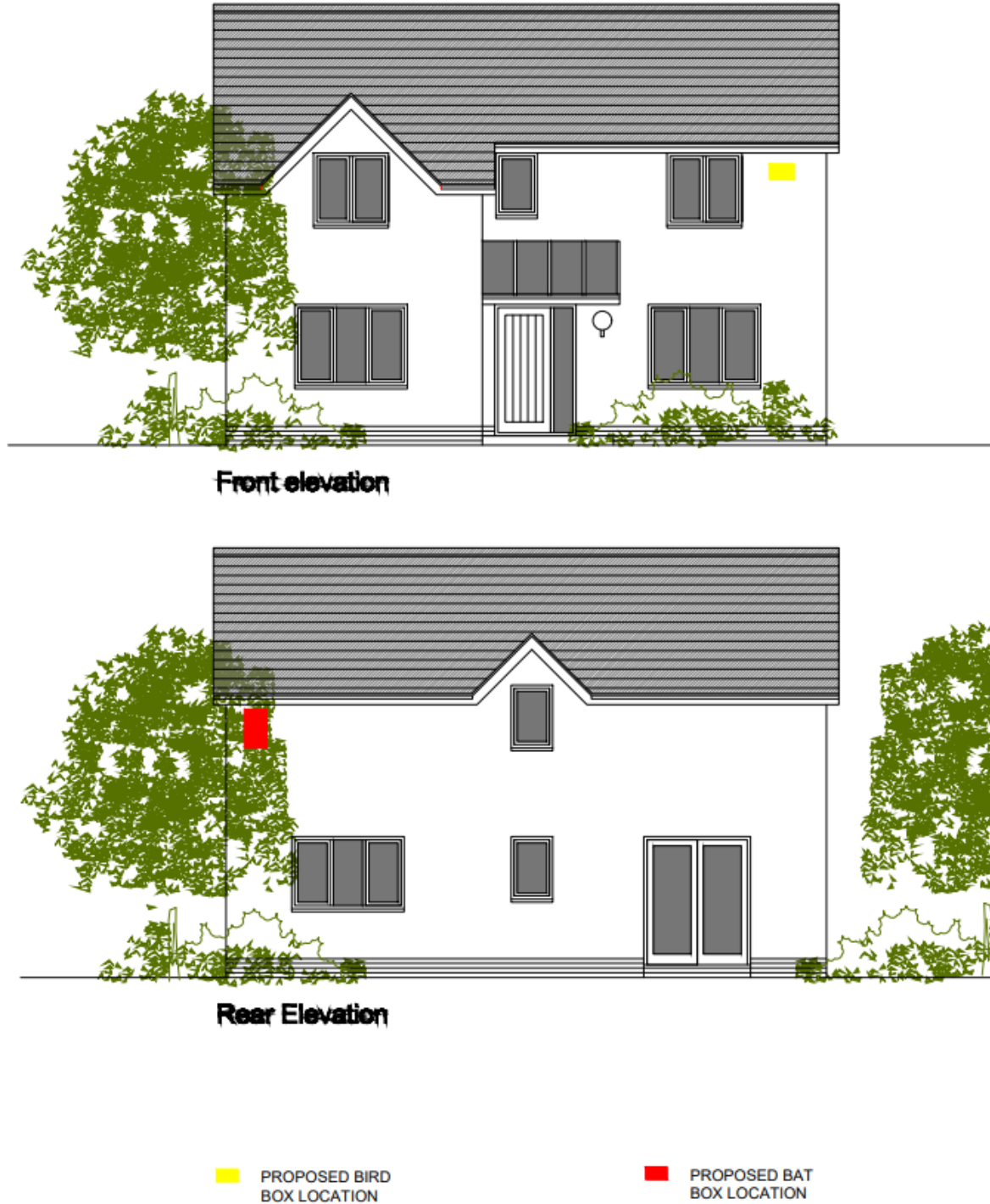


Figure 3.2 Elevations showing the proposed locations of bat and bird boxes.

4 MANAGEMENT

4.1 *Responsible persons*

The appointed contractors will be responsible for implementation of the biodiversity enhancement features. The future homeowners will be responsible for management of the implemented biodiversity enhancement features.

4.2 *Bat and bird boxes*

Integrated bat and bird boxes are designed with no requirement for ongoing maintenance.

- Should any building maintenance need to be undertaken close to the bird boxes, it should be timed to avoid the bird nesting season (March-August, inclusive). If this is not possible, then works must be preceded by an inspection by a suitably qualified ecologist. If any nesting birds are present, any works that will disturb the nests must be delayed until the young have fledged and are no longer dependent on the nest.
- Should any building maintenance need to be undertaken close to the bat boxes, advice must be sought from an appropriately qualified ecologist prior to works commencing. It may be necessary for a bat licensed ecologist to inspect the boxes. If a bat roost is confirmed in a box, a Natural Resources Wales protected species license may be required before work can commence.

4.3 *Landscaping*

All new tree and shrub planting (including hedgerows) should be managed as follows:

- In the first year after planting, any damaged, dead or diseased branches should be pruned back to healthy wood to encourage healthy growth. Dead specimens should be replaced with the same species and size grade.
- Tree ties and stakes should be checked annually and adjusted if ties are too loose, too tight or if chafing is occurring. Any damaged stakes or ties will be replaced as soon as possible after the damage is noted.
- Tree stakes should be removed once a tree can stand unsupported without bending or shifting in the ground, usually after 18 months to three years.
- Any required pruning work should be timed to avoid the nesting bird season (March to August, inclusive).

The new areas of low level hedgerow should be managed as follows:

- In spring one year after planting, all lateral branches should be trimmed back by 50%. The hedge should then need a prune every second or third year to encourage dense bushy growth, allowing the hedge to increase in size each time.
- Different hedgerow management can be beneficial to different species, for example:
 - Birds benefit from shrubs being cut on biennial or triennial basis, late in the year (approx. February) so that they can eat the berries over winter.
 - Some invertebrates (like lepidoptera) benefit from an early cut (September) so their eggs/larvae can overwinter.
 - Other invertebrates that eat leaves benefit from an annual hedge cut, as it encourages the shrubs to grow more leaves.

- All hedge cutting should be timed to avoid the nesting bird season (March to August, inclusive).
- Shrub guards should be removed once plants are established (after 3-5 years).

A check of habitat creation and enhancement works detailed in Section 3 of this document will be made at the end of the construction phase to ensure that all measures have been implemented as per the specification.

Triggers for remedial measures

Bat and bird boxes: The proposed boxes are all designed to be integral to the buildings and therefore no maintenance or need for remedial measures are anticipated.

Landscape Planting: The need for any replacement planting will be subject to the standard requirements of landscaping contracts; it is recommended that this covers a replacement of all plants/turfs within the first five years, with an appropriate species/size grade. Plants may fail for a number of reasons, such as:

- Climate change – amend species if necessary to ensure the site incorporates appropriate low-maintenance species, e.g. plant drought-tolerant species if rainfall is insufficient to support species in the original scheme.
- New disease/pests – replant with ecologically similar species to ensure the ecological functionality of design is maintained, e.g. replace a shrub or tree that provides early-spring pollen for invertebrates with another such species that produces pollen at a similar time to ensure the site continues to provide foraging resources at that time of year.

Possible sources of advice for remedial measures:

- A qualified landscape architect should be consulted regarding soft landscaping.

4.4 Work Schedule

Objective	Action	Timing
Create new refuge, roosting and nesting opportunities for wildlife	Install 1no. integrated bat box in new dwelling.	During construction phase.
	Install 1no. integrated bird box in new dwelling.	During construction phase.
Plant and manage new trees and hedgerow	Plant trees and low level hedgerows.	October/November in first year
	Prune damaged/diseased or dead branches to encourage healthy growth.	Year 1.
	Replace failed specimens.	Within years 1-5.
	Trim new hedge while establishing to encourage growth.	Annually
	Remove tree/shrub guards.	Once established, years 18 months to 3 years.

5 RELEVANT LITERATURE

British Standard (2013). *BS 42020:2013: Biodiversity. Code of practice for planning and development.*

Chartered Institute of Ecology and Environmental Management (2017). *Guidelines for Ecological Report Writing.* CIEEM, Winchester.

Ministry of Housing, Communities & Local Government (2021). *National Planning Policy Framework.* Available from:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf [Accessed 27th July 2021].

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