



## Biodiversity Enhancement Strategy

### Land at Hook Meadow, Westergate

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### LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snapshot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited, or the site supports habitats which are densely vegetated only dominant species may be recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

## 1.0 Introduction

### Background

- 1.1 The Ecology Partnership was commissioned by Redrow Homes to produce a report to support the discharge section 8 of Condition 4 from the appeal decision. The red line boundary of the site is shown below in figure 1.



- 1.2 The site was granted outline planning permission at appeal APP/C3810/W/23/3323858 in December 2023. The appeal was regarding planning application AL/178/22/OUT for 89 new dwellings, open space and associated works. As part of the appeal decision Condition 4 was issued which contained several parts with regards to landscape and ecology. This document has been put together to discharge section 6 (vi) of condition 4 with regards to a reserved matters application. Section 8 of Condition 4 is detailed below:

*(viii) A Biodiversity Enhancement Strategy for protected and Priority species prepared by a suitably qualified*

*ecologist. The content of the Biodiversity Enhancement Strategy shall include:*

- (a) Purpose and conservation objectives for the proposed enhancement measures;*
- (b) detailed designs or product descriptions to achieve stated objectives;*
- (c) locations, orientations, and heights of proposed enhancement measures by appropriate plans;*
- (d) details of persons responsible for implementing the enhancement measures; and*
- (e) details of initial aftercare and long-term maintenance.*

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*The Biodiversity Enhancement Strategy shall be carried out in accordance with the approved details and all features shall be retained as approved thereafter.*

### **Purpose and Objectives**

- 1.4 This document is designed to discharge the biodiversity enhancement strategy requirement to ensure that enhancement measures for protected species and habitats is incorporated into the construction methodology.
- 1.5 Therefore, the documents main objectives are:
- Review previous reports to identify key considerations of the site;
  - Identify species for which enhancements would be appropriate within the design of the site;
  - Recommend locations for enhancements within the design.
  - Provide meaningful low maintenance enhancements for targeted species.
  - Establish responsibilities, maintenance, and aftercare.

### **Responsible Persons**

- 1.7 Redrow Homes and any appointed management company are responsible for the implementation of the enhancements. If there is uncertainty with regards to this document, then Redrow Homes or its appointed management company can contact The Ecology Partnership / or another ecological consultant, to ensure this document is interpreted correctly.

## **2.0 Baseline Ecological Review**

- 2.1 The site was found to be an arable field under cultivation at the time of previous baseline survey work, including the 2024 update walkover. The site supported thin grassland margins and hedgerows around the site boundaries which were the most important features on site. These are largely to be retained as part of proposals. The arable land and existing residential property were considered to provide very limited ecological value. As such the site presented a good opportunity to achieve biodiversity net gain as part of the proposed development. This has been addressed within the separate biodiversity net gain report which deals with habitat enhancement and management in detail.

2.2 In terms of protected species, the site has been subject to a suite of survey work this is summarise below.

*Table 1: Species surveys undertaken between 2021, 2022 and 2023*

Faunal Group	Survey Methodology	Date of Surveys	Guidance
<b>Badgers</b>	During the PEA survey, all habitats potentially suitable for badgers were systematically examined for evidence of badger activity. Particular attention was paid to areas where the vegetation and/or the topography offered suitable sett sites such as the boundary features.	7 <sup>th</sup> May 2021 11 <sup>th</sup> November 2022	The evaluation of badger activity was based on methodology developed for the National Survey of Badgers (Creswell <i>et al.</i> 1990)
<b>Bats – tree inspection</b>	As part of the PEA, any trees supporting features likely to be of value to bats, such as splits, cracks, rot holes, coverings of ivy, peeling bark or similar, were recorded.  The potential for the trees to support roosting bats were assessed in accordance with the criteria set out in the Bat Conservation Trust guidelines (BCT, 2012; BCT, 2016)	7 <sup>th</sup> May 2021 11 <sup>th</sup> November 2022	Bat Surveys – Good Practice Guidelines 2 <sup>nd</sup> Edition (Hundt 2012)  Bat Surveys – Good Practice Guidelines 3 <sup>rd</sup> edition (Collins 2016)
<b>Bats – activity surveys</b>	Three dusk surveys were carried out across the site using transect methods to record activity, along with two remote recording devices (Anabat surveys) as per Bat Conservation Trust guidelines (BCT, 2012; BCT 2016).	Transect survey: 18 <sup>th</sup> May 2022 13 <sup>th</sup> July 2022 22 <sup>nd</sup> September 2022  Anabat Express devices were deployed on site and recorded data on: 18 <sup>th</sup> - 23 <sup>rd</sup> May 2022 14 <sup>th</sup> -19 <sup>th</sup> July 2022 15 <sup>th</sup> – 20 <sup>th</sup> September 2022	Bat Surveys – Good Practice Guidelines 3 <sup>rd</sup> edition (Collins 2016)
<b>Bat- emergence survey</b>	Single emergence survey undertaken on the house at 24 Meadow Way	4 <sup>th</sup> May 2023	Bat Surveys – Good Practice Guidelines 3 <sup>rd</sup> edition (Collins 2016)
<b>Dormice</b>	A total of 50 dormouse tubes were established along the boundary features on 25 <sup>th</sup> April 2022.  Checks were undertaken once a month in May, July, August, September and October 2022.  A survey effort score of 21 was achieved after the October check, which exceeded the recommended score of 20.	Tubes set up on 25 <sup>th</sup> April 2022.  Checks May – November 2022	Dormouse Conservation Handbook – English Nature

<b>Great Crested Newts</b>	<p>An eDNA survey was carried out on the off-site Pond 1.</p> <p>The water samples were taken by licensed ecologist Alexia Tamblyn's accredited agent. All water samples were analysed by SureScreen Scientifics.</p>	5 <sup>th</sup> May 2022	eDNA surveys and analysis follow the protocol outlined by Biggs <i>et al.</i> (2014)
<b>Reptiles</b>	<p>The refugia were placed around the edges of the site within the grassland and next to hedgerows.</p> <p>Mats were set up prior to the commencement of the reptile survey. A total of seven survey visits were made to the site to check the refugia for the presence of reptiles. Visits were only carried out if the weather conditions were suitable for locating reptiles. On each visit to the site, a minimum of one circuit to check all refugia was carried out.</p>	<p>Refugia set up date 31<sup>st</sup> March 2022</p> <p>Seven checks April – September 2022</p>	The timing and number of surveys completed were based on guidelines produced by Froglife (1999) and Gent and Gibson (1998)

2.3 The Ecological Impact Assessment (EcIA) is attached within the appendix of the update walkover technical note. This details the results of the further survey work undertaken for the outline planning submission, which has informed the principal to develop the site. A summary of the protected species survey work results undertaken 2021 – 2023 are detailed in Table 2 below

*Table 2: Summary table of faunal groups surveyed and present on the site and levels of importance*

<b>Faunal Group/Species</b>	<b>Results</b>
Bats (roosting)	<p>A single tree along the northern site boundary had 'moderate' potential for roosting bats however now further survey work was undertaken as this was to be retained as part of proposals. This was not recorded during the 2024 update walkover.</p> <p>No evidence of bat use was recorded at the residential property at 24 Meadow Way. However, the house was considered to have 'low' potential due to the presence of external features. The detached garage was considered to have negligible potential. A single emergence survey undertaken in May 2023 found no evidence of bat roosting use at the house at 24 Meadow Way. No further survey work was required.</p>
Bats (foraging and commuting)	The boundary features on site support potential for foraging and commuting bats. The central arable field is limited value for foraging and commuting bats.

Faunal Group/Species	Results
	At least eight bat species were identified during the activity and static record surveys, including a low number of passes (9 across 15 nights) from the Annexe II species barbastelle. A subsequent HRA assessment found that the site was not functionally linked to the Sussex Bat SACs, including Singleton and Cocking Tunnels SAC.
Great Crested Newt	<p>A single pond referenced 'Pond 1' was eDNA surveyed for GCN. This result was positive. Access to 'Pond 2' was denied but it was established that the pond was infact a swimming pool and not suitable for the species.</p> <p>Further analysis found that due to barriers of dispersal and the poor quality of habitat present the species would not be a constraint to proposals.</p>
Hazel Dormice	No evidence of dormice was found during checks, as such the likely absence of the species established, and dormice are not considered a constraint to development.
Badgers	There was no evidence of badger activity on site, but the site does provide suitable foraging and commuting opportunities.
Reptiles	A 'good' population of slow worms, with a single juvenile grass snake identified on site during the 2022 surveys. The site does not meet the criteria for a Key Reptile Site.
Birds	Only robin, magpie and <i>corvus sp.</i> were recorded using the sites boundary features. A gull species was recording flying over site but not using site. As such, no birds of priority concern were considered utilising site.

- 2.4 As such enhancement measures have been designed to cater for the protected species found to be using the site, focusing on reptiles, bats and bird species as well as solitary bees. The proposed habitats and log piles will also be used by a wide range of other wildlife species including invertebrates, amphibians and small mammals.

### 3.0 Ecological Enhancements

3.1 Due to the nature and extent of the development, ecological enhancements are restricted to the use of log piles around the edges of the site to support common reptile species which are known to be present in around existing site boundaries and within the landscape and hedgehogs, which are known to be present within the residential adjacent to the site and potentially utilising the habitat edges. In addition, bird and bat boxes as well as bee bricks are also proposed. Locations of ecological features are shown in Appendix 1. These will total:

- 20 x Integrated Bat Boxes within Buildings;
- 45 x Integrated Bird Boxes within Buildings;
- 12 x Integrated Bee Bricks within Buildings;
- 2 x Bat Boxes on Trees; and
- 3 x Log Piles
- 3x Rubble Hibernacula

3.2 Log piles are created using any woody material removed during works or bring in locally sourced wood / brash for use as refugia by reptiles, amphibians, small mammals and invertebrates such as stag beetles.

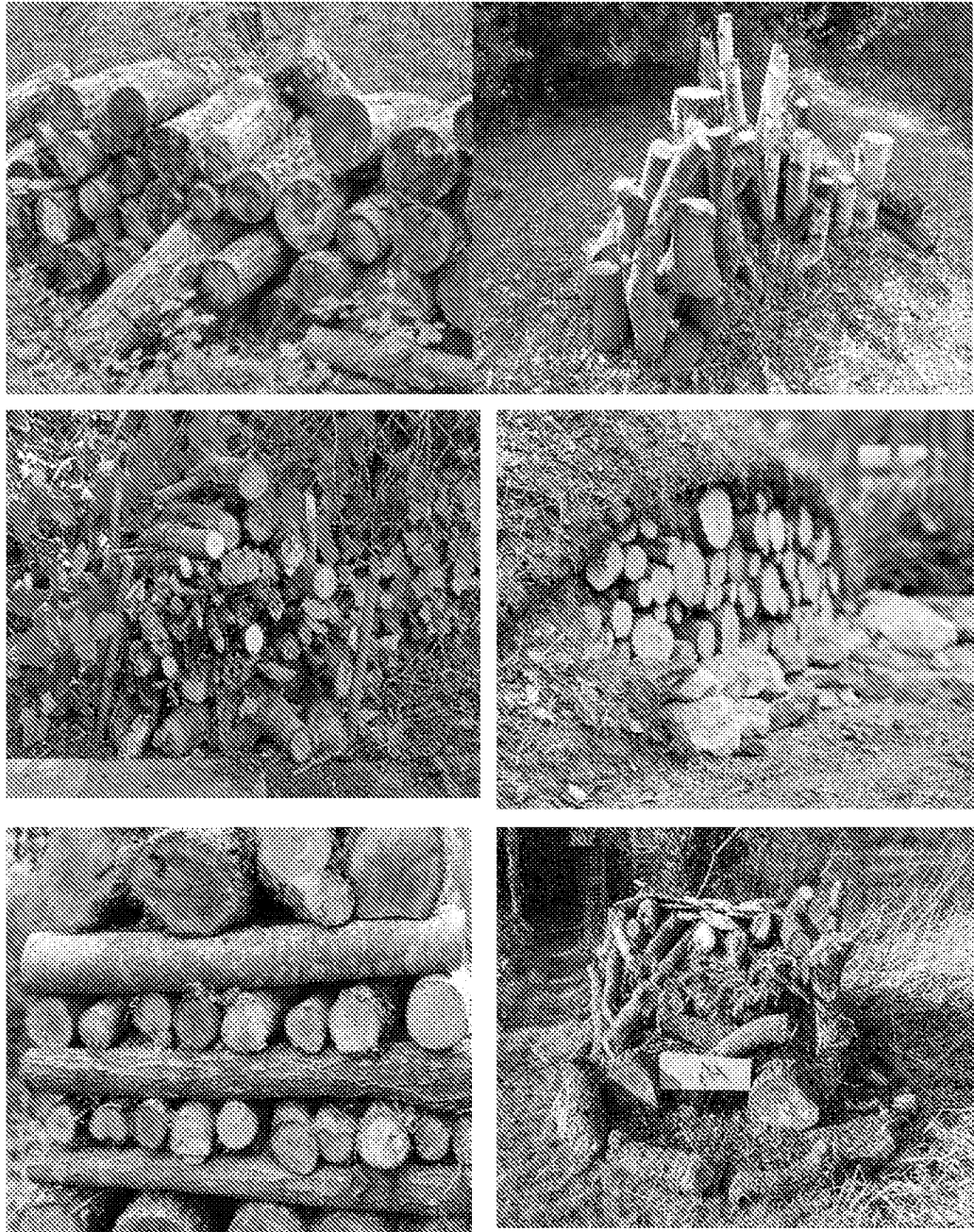
3.3 These can be located within the retained grassland site boundaries and scrub / grassland creation areas. These should be stacked, and leaf litter added. Examples of log piles are shown in Figure 2 below. It is recommended that two formalised log piles (which logs dug in) are utilised, with the remaining 4 piles a mixture of larger stacked logs and smaller brash. Leaf litter and the use of turf can also add value. The locations of the log piles are shown in Appendix 1.

3.4 The created log piles must be covered with a wire mesh nailed into the logs to provide a deterrent to vandalism and residents removing the logs for personal use.

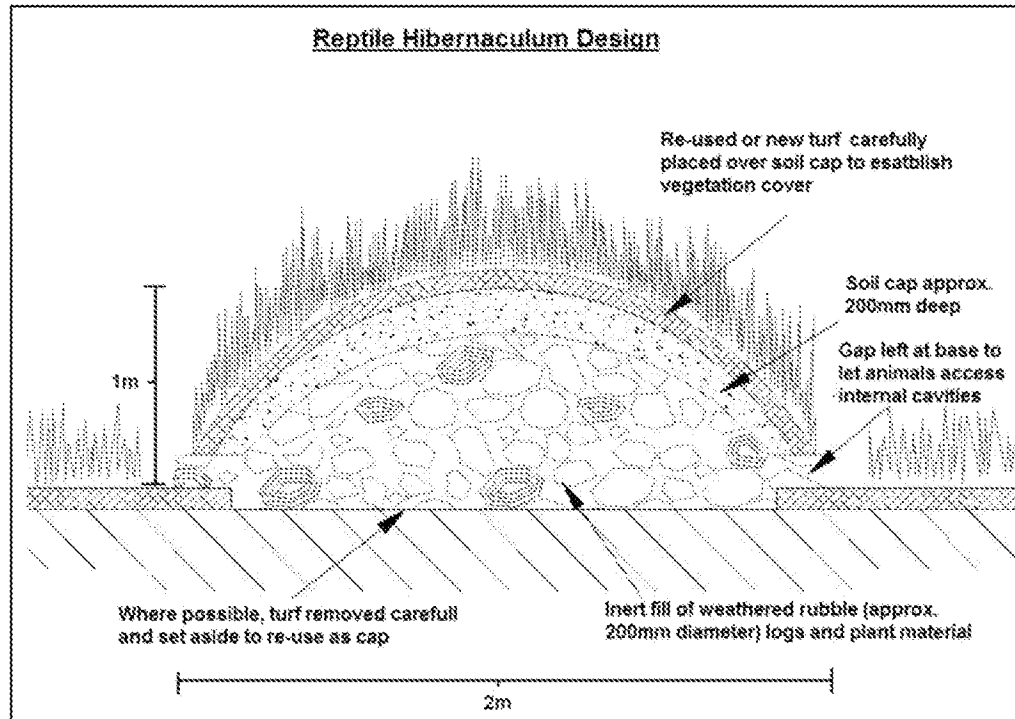
3.5 Reptile rubble hibernacula will be created on site. These will be formed by taking the turf up from the ground where the feature is to be situated. Then a pile of rubble will be formed with cracks and cavities for reptiles to access. Finally, the feature will be covered over with



earth and the turf that was removed at the beginning of the process. (See Figure 3, Locations are shown in Appendix 1).



*Figure 2: Examples of log pile creation*

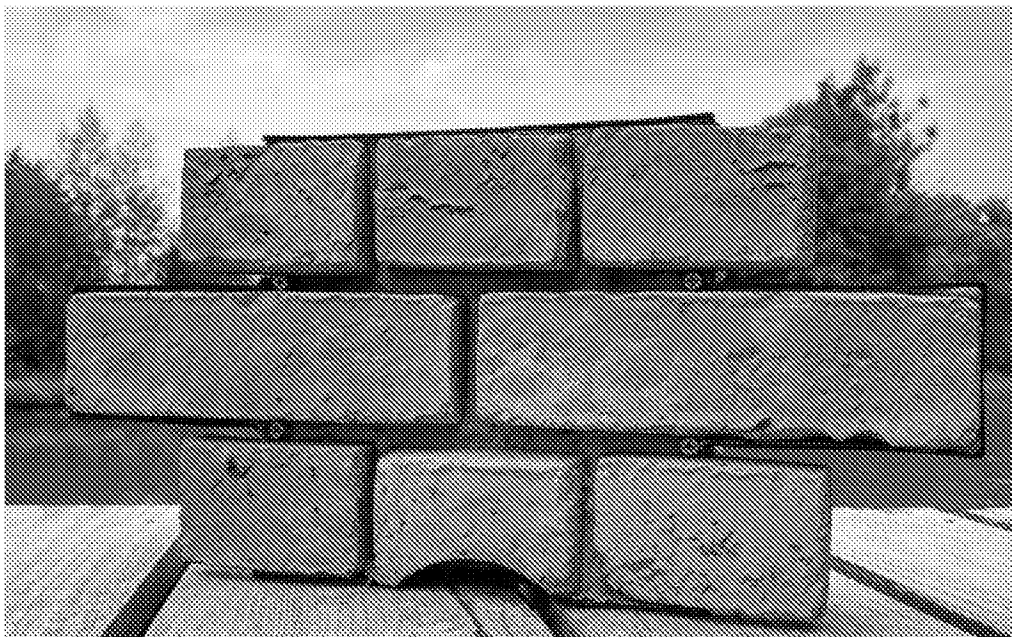


*Figure 3: Reptile Hibernacula (Taken from London Gatwick Northern Runway Project, 2024)*

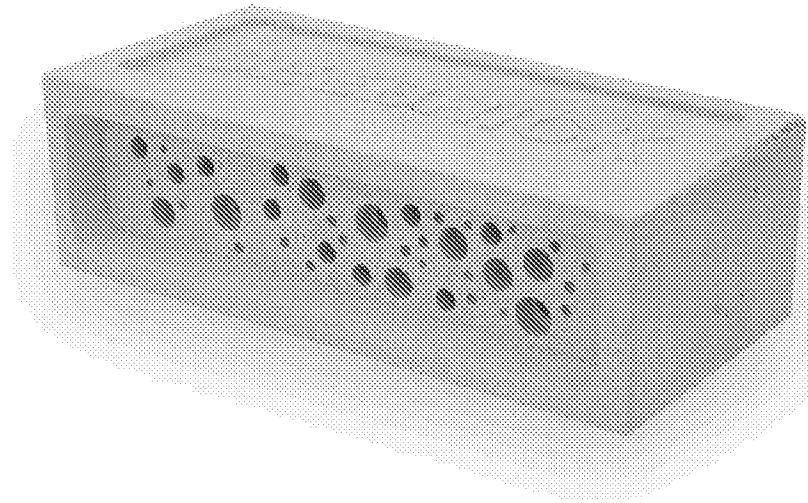
- 3.6 Integral bird and bat boxes will be built into new houses on site. The locations are shown in Appendix 1. These should be built high up on the external wall of new buildings, a minimum of 4m from the ground. The boxes can be built to match brick types or can be rendered over in keeping with the rest of the build. These features contain a sealed unit which wildlife can use within the wall and will not be able to access other areas of the building. These features require no maintenance. Models by Bird Brick Houses are recommended although alternative long-lasting models maybe used to best match the design of the new dwellings.



*Figure 4: An example of a Bird Brick Houses bird box (Bird Brick Houses, 2024)*

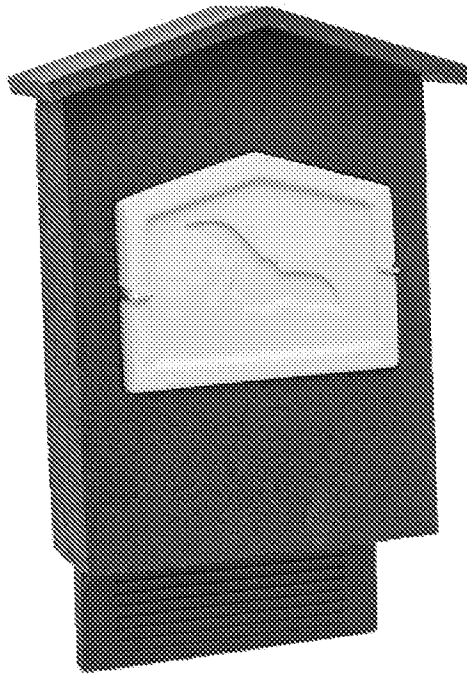


*Figure 5: An example of a Bird Brick Houses bat box (Bird Brick Houses, 2024)*



*Figure 6: Integrated Bee Brick*

Twelve Bee Bricks will be built into the south facing walls within the development. These provide breeding habitat for solitary bees.



*Figure 7: Vivara Pro Low Profile WoodStone Bat Box*

- 3.7 In addition two bat boxes will be installed on mature trees to the north and southwest of the site. It is recommended that a woodcrete box is used such as the Vivara Pro Low Profile WoodStone Bat Box, for a long-lasting maintenance free bat box. These should be cited a minimum of 4m from ground level with an orientation of southwest, south or southeast and should be exposed to the sun for at least a part of the day.
- 3.8 Hedgehogs have suffered substantial decline in recent decades for a variety of reasons, one of which is a decline in suitable habitat and connectivity around developments. As such hedgehog highways shall be designed into the wooden fencing on site. These gaps will also allow movement of other species across the site such as reptiles, amphibians, and small mammals. The hedgehog highway gaps will be 13 x 13 cm and will be marked with a small sign so residents know of their significance.



*Figure 8: Hedgehog Highway Hole*

**4.0 Ongoing Management/Maintenance**

- 4.1 It is for Redrow Homes or its appointed management company to ensure the long-term management of the features within communal areas of the development and replace any feature that is missing or become not fit for purpose as appropriate.

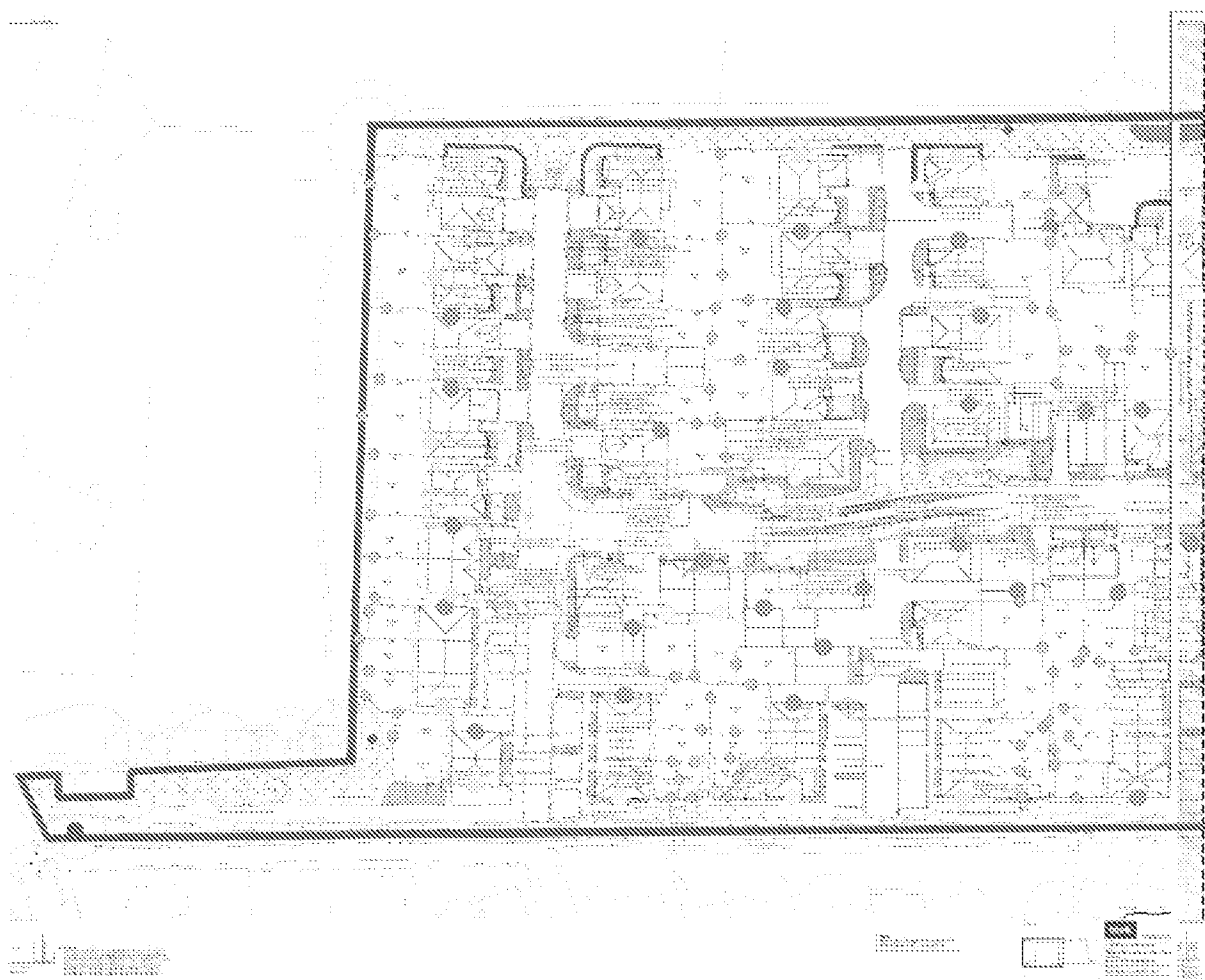
**5.0 Conclusions**

- 5.1 The site has been subject to various ecological surveys to ensure that protected species and local wildlife have been considered as part of the scheme.
- 5.2 Specifications have been provided for the recommended log piles / refuge piles, bird and bat boxes as well as bee bricks and hedgehog highways. However, if there is a requirement for changes to be made, consultation with an ecologist should be undertaken to ensure the locations of these remain appropriate.
- 5.3 It is considered that this report is sufficient to discharge condition 4 section viii.

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## 6.0 Appendix 1 Enhancement Locations





- Integrated Bat Box
- Integrated Bird Box
- Bat Box in Tree
- Integrated Bee Buck
- Log Pile
- Hedgehog Highway
- Reptile Rubble Hibernacula
- Red Line Boundary

Title: Ecological Enhancements 1 of 2  
 Client: Redrow Homes  
 Author: CJ  
 Date: 14/01/2025





Title: Ecological Enhancements 2 of 2  
 Client: Redrow Homes  
 Author: CJ  
 Date: 16/01/2025

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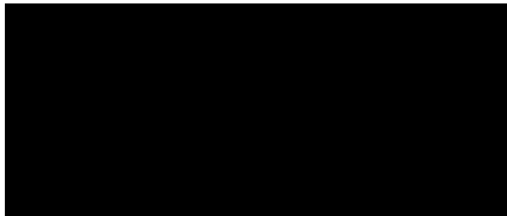
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