



DARWIN ECOLOGY
integrating nature conservation

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Construction Environmental Management Plan

Land at Bramble Cottage,
Hyde End Road,
Wokingham,
Berkshire

RG7 1BU

March 2024

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QUALITY CONTROL		
The information which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.		
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This report remains valid for 12 months from date of issue. Survey data are valid for 12-18 months from the date the survey was undertaken.		

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

The views and opinions contained within the 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 works.

1. INTRODUCTION

- 1.1. This Construction Environment Management Plan (CEMP) has been prepared to support proposals for the construction of a new residential property with associated landscaping , amenity garden, and hardstanding driveway, at Land at Bramble Cottage, Hyde End Road, Wokingham, RG7 1BU¹ (planning reference 231885).
- 1.2. The CEMP will support the discharge of Condition 8 of the Planning Consent with reference 231885 which states;
- 1.3. *No development shall take place (including demolition, ground works, vegetation clearance) until a construction environmental management plan (CEMP: Biodiversity) has been submitted to and approved in writing by the local planning authority. The CEMP (Biodiversity) shall include the following:*

- a) Risk assessment of potentially damaging construction activities.*
- b) Identification of biodiversity protection zones.*
- c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements).*
- d) The location and timing of sensitive works to avoid harm to biodiversity features.*
- e) The times during construction when specialist ecologists need to be present on site to oversee works.*
- f) Responsible persons and lines of communication.*
- g) The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.*
- h) Use of protective fences, exclusion barriers and warning signs.*

The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details and in consultation on site with the Council's Ecology Officer and the applicant's Ecology specialist/ consultant.

Reason: To secure appropriate mitigation measures for protected species and species of principal importance during construction, as appropriate under section 15 of the NPPF and local plan policies CP7 and TB23.

- 1.4. This CEMP has been developed to avoid, minimise or mitigate any construction effects on sensitive ecological receptors within or near to the proposed development site and to provide the management frameworks required for the planning and implementation of construction activities that comply with legislation and the environmental commitments decided through planning.

¹ OS Grid Reference SU 72713 66619

- 1.5. The CEMP should be read in conjunction with the Ecological Impact Assessment (2022), Biodiversity Net Gain Assessment (2023), and Biodiversity Enhancement Management Plan (2024) produced by Darwin Ecology Ltd. The landscape design for the site was produced in 2024 by Bradford-Smith Architects.
- 1.6. The CEMP is a 'living document' and regular reviews will be undertaken. This document will be shared with all relevant stakeholders (including sub-contractors) to ensure that the environmental requirements are communicated effectively The details of this document should be considered compulsory unless otherwise stated. All stakeholders should combine this document with their existing site policies and procedures.

2. AIMS AND OBJECTIVES

2.1. This report aims to:

- Identify key stakeholder requirements;
- Ensure compliance by all stakeholders (landowners, developers, contractors, etc.) with all relevant legislation;
- Identify responsible persons and lines of communication.
- Effectively minimise any potential adverse effects on the environment, designated sites and protected species during construction; and
- Provide site-specific method statements to avoid, minimise and mitigate construction effects on the environment, designated sites and protected species.

2.2. Environmental objectives for the construction phase of the works will include, but may not be restricted to:

- No light, noise, airborne or waterborne pollution incidents;
- Minimisation of disruption to neighbouring residential curtilages;
- Protection of all protected species and habitats on-site; and
- Enhancement of the site for protected species and habitats.

2.3. This report has been informed by previous reporting, including an Ecological Impact Assessment (2022), Biodiversity Net Gain Assessment (2023), and Biodiversity Enhancement Management Plan (2024), all produced by Darwin Ecology Ltd. The landscape design for the site was produced in 2024 by Bradford-Smith Architects.

3. SITE OVERVIEW

3.1. The site is located on the southeastern outskirts of Spencers Wood village, approximately 2.21km southeast of M4 J11 and 2.07km east of the A33 (running north to south).

3.2. The site comprises a small area (approximately <0.05ha) of residential garden containing scrub habitat and mature trees as identified using aerial imagery. The site at the time of the survey comprised predominantly bare earth with scattered mature trees. The extent of each habitat is shown in the **Appendix**.

3.3. The site is immediately bordered to the north and west by moderate density residential developments comprising detached and semi-detached properties with associated amenity gardens. The site is immediately bordered to the south by pastoral fields bounded by lines of trees and hedgerows, with the east of the site being bordered by a large detached residential property with a large associated amenity garden. The wider landscape to the north and west of the site comprises moderate density residential areas, with the landscape to the south and east of the site comprising agricultural land with connecting hedgerows and lines of trees.

4. SUMMARY OF POTENTIAL ECOLOGICAL IMPACTS OF CONSTRUCTION PHASE

- 4.1. During the initial site visit in October 2022, conducted by Darwin Ecology Ltd., habitats on site comprised bare earth (with small amounts of ephemeral and ruderal grassland vegetation), tree stumps and deadwood, remnants of scrub habitat, and hardstanding. As the site had appeared to have been cleared within the year prior to the site visit, the habitats on site and the site's potential to support protected and notable species were assessed based on the 2021 aerial imagery.

Pre-clearance Habitats

- 4.2. The 2021 aerial imagery confirmed the site to comprise scrub habitat, scattered grassland, and mature trees.
- 4.3. The EclA identified that the scrub habitat on site and the mature trees provided suitable opportunities to support foraging bats, nesting birds, reptiles, common amphibians, and foraging hedgehogs *Erinaceus europaeus* and [REDACTED]. Therefore, the site had good potential to support these species. However, due to its small size, the opportunities provided by the site are limited. Overall, the loss of the habitats on site would have a permanent low-moderate negative impact on local populations of protected and notable species.
- 4.4. It was determined that the site had negligible potential to support dormice *Muscardinus avellanarius*, white-clawed crayfish *Austropotamobius pallipes*, and amphibious mammals (otters *Lutra lutra* and water voles *Arvicola amphibius*), due to not containing any habitat suitable to support these species.

2022 Habitat Walkover

- 4.5. The habitats on site at the time of the habitat walkover comprised bare earth, ruderal vegetation, and hardstanding. Tree stumps and some small areas of retained scrub were also present.
- 4.6. It was assessed that the site at the time of the 2022 habitat walkover offered suitable opportunities (within the retained scrub, deadwood piles, garden waste pile, and scattered ruderal vegetation) to support common amphibians, reptiles, and hedgehogs. [REDACTED]
[REDACTED]
- 4.7. It was determined that the site had negligible potential to support foraging bats, roosting bats, nesting birds, dormice, white-clawed crayfish, otters, and water voles.
- 4.8. Although the site itself no longer supports foraging bats, the site is surrounded by lines of trees, pastoral fields, and hedgerows, and it is likely that bats use these features to commute and forage. Light spill from the construction process on these features may impact the flight paths of foraging and commuting bats, and deter bats from using these flight bats, resulting in habitat fragmentation. The recently felled mature trees may have had the potential to provide potential roosting features for bats due to being of the correct age

and character. The loss of these trees would result in a loss of roosting features within the local area, having a low-moderate impact on the local bat populations.

- 4.9. The loss of opportunities to support the protected and notable species identified through the aerial imagery should be compensated for post-development.
- 4.10. The clearance of areas of taller vegetation, such as ruderal vegetation or remaining scrub, have the potential to cause killing or injury to reptiles, amphibians and hedgehogs. The removal of these habitats on site, particularly the scrub and scattered trees will result in a loss of foraging, commuting, and resting habitat and resources for protected and notable species.
- 4.11. The deadwood and the pile of garden waste may be used by amphibians and reptiles as hibernating or resting features. The removal of these piles have the potential to injure/kill individual reptiles and amphibians if present.
- 4.12. Excavations and storage and moving of materials on the site may also have potential to cause harm to species present on site.
- 4.13. The site does not lay within any statutorily designated site or priority habitat and it is not anticipated that the proposed works will impact any statutory designated sites, priority habitats or ancient woodlands through land take.
- 4.14. There is considered to be a low risk of impacts to retained habitats on site and surrounding area. However, impacts to be considered include the potential for dust pollution, littering, contamination by spillage of liquids and run-off and introduction of non-native or invasive species. Noise, lighting and vibration may also cause disturbance to the fauna of the site.

5. OPERATIONAL CONTROL PROCEDURES

Introduction

- 5.1. To ensure the works are undertaken in accordance with the details of the CEMP, a series of control measures will be utilised. These measures include:
- The appointment of an environmental/ecological management team; and
 - Regular site checks, monitoring and review.
 - Overseeing of works where required as Ecological Clerk of Works (ECoW)

Responsibilities

- 5.2. The following persons will be responsible for ensuring the CEMP is adhered to throughout the construction phase and ensuring works comply with legal and contractual agreements:
- Landowner;
 - Primary Contractors - Construction Site Managers;
 - Ecological Clerk of Works (EcoW) - Suitably qualified ecologist; and
 - Appointed primary and sub-contractors team leaders.
- 5.3. All personnel will be made aware of their contractual agreements in fulfilling the project's environmental obligations. Any amendments must be communicated with all relevant stakeholders and documents updated where applicable. Hard copies of documentation should be stored on site and accessible to all those who may require it.

Training & Awareness

- 5.4. All personnel whose work may cause a significant impact on the environment will receive a site induction by the **Site Manager**, covering the main environmental points of the CEMP. This may include but is not restricted to:
- Site safety;
 - Waste management;
 - Pollution prevention and emergency spill response;
 - Requirement for specific Toolbox Talks on spillage, noise prevention or mitigation if necessary; and
 - Protected species and habitats legislation.

Ecological Legislation

- 5.5. With the current understanding of the presence / likely absence or usage of the site by protected species, a number of precautionary working methods must be employed, including:

- Protection of retained mature trees and woodland;
- An environmental incident / pollution reporting and response plan;
- Removal of vegetation outside of the breeding bird season or only after a breeding bird survey has been conducted by a suitably qualified ecologist;
- Precautionary methods for reptiles and hedgehog, including phased vegetation cuts of suitable vegetation and the dismantlement of rubble and brash piles by hand;

- Measures to mitigate the adverse effects of an environmental incident; and
- 24 hour emergency contact details and method of notifying emergency services, Local Authorities, Environment Agency and other statutory authorities and key personnel.

Ecological Clerk of Works

- 5.6. The **Landowner / Site Manager** will be responsible for the overall implementation of the CEMP. A suitably qualified ecologist will be appointed as an **ECoW** to supervise aspects of the CEMP if required.
- 5.7. Pending instruction, the **ECoW** will be responsible for the following:
- Ensuring all works on site comply with relevant legislation in relation to protected habitats and species;
 - Ensuring that the CEMP is adhered to throughout the construction phase of the project;
 - Providing Toolbox Talks to all contractors and developers on protected species, sensitive habitats, their respective locations and what to do if protected species are found during works when required;
 - Providing advice to developers, the Site Manager, and contractors on how best to minimise impacts on wildlife throughout the construction phase of the development;
 - Providing the main point of contact should any issues relating to ecology arise during construction;
 - Ensuring the supervision of any construction activities that have the potential to impact protected species and/or sensitive habitats;
 - Ensuring fence lines and buffer zones are monitored and respected throughout the construction phase of the development; and
 - Undertaking site visits for CEMP monitoring during appropriate stages of the works, to be determined by the phasing of the works.

- 5.8. It is the responsibility of the **Developer or Landowner** and the **Site Manager** to ensure that the **ECoW** is kept informed regarding work schedules and construction activities so that they are able to carry out their responsibilities efficiently and reliably.
- 5.9. If the **ECoW** identifies any issues relating to the CEMP during the construction phase, the **Developer** and **Site Manager** will be contacted and measures will be taken to resolve any issues. Likewise, if the **Developer** or **Site Manager** (or their contractors) notice any ecological or environmental issues during the construction phase, the **ECoW** must be contacted for advice immediately.

Access to Ecological Reports During the Construction Phase

- 5.10. Hard copies of this CEMP, prepared by Darwin Ecology Ltd, and the Preliminary Ecological Appraisal Report and Bat Survey Report, prepared by SLR Consulting Ltd., will be kept in the site office during the construction phase. The **Site Manager** will ensure the report is available for contractors to refer to when necessary.

Environmental Risk Assessments of Construction Activities

- 5.11. The **Site Manager** will undertake risk assessments for the proposed activities to be undertaken on site. These will be shared with all relevant stakeholders and hard copies kept on site in the site office. Risks assessments will be made of each activity and measures for reducing impacts implemented, examples could include dust control and control of hazardous substances.

Environmental Incident Reporting

- 5.12. The **Site Manager** and other key stakeholders will establish and implement an environmental incident procedure as part of their Emergency Plan combined with their management systems on-site. This procedure will be designed to respond to anticipated environmental hazards and risks on site and will include emergency control measures taking into account the Environment Agency's Pollution Prevention guideline, General Guide to the Prevention of Pollution and Pollution Incident Response Planning.
- 5.13. The environmental procedure will include:
- An environmental incident/pollution reporting and response plan;
 - Measures to mitigate the adverse effects of an environmental incident;
 - 24-hour emergency contact details and method of notifying emergency services, Local Authorities, Environment Agency and other statutory authorities and key personnel; and
 - Measures to be adopted to investigate and prevent the recurrence of an environmental incident.

- 5.14. Minor occurrences relating to ECoW activities will be reported to the **Landowner** and **Site Manager** by the **ECoW**. A hard copy will be kept on site in a carbon copy book and an electronic record stored on the suitably qualified ecologist's systems. Any incidents will be followed up by email to all relevant stakeholders and control measures will be reviewed as necessary.

6. ECOLOGICAL CONTROL PROCEDURES

Biodiversity Protection Zones

- 6.1. The site is small (roughly <0.05 ha) and comprises solely habitats of low intrinsic ecological value.
- 6.2. The habitats on site include bare earth and hardstanding (habitats of negligible ecological and biodiversity value), tree stumps, deadwood, and a pile of garden waste (habitats of low ecological and biodiversity value), and small areas of remaining scrub and tall ruderal vegetation (habitats of low-moderate ecological and biodiversity value, but limited to a low value due to their small size and lack of connectivity to habitats of ecological value).
- 6.3. The scrub and ruderal habitats, alongside the deadwood piles and garden waste pile offer good opportunities to support common amphibians, reptiles, and hedgehogs.
- 6.4. No habitats on site were considered to be of sufficient ecological and biodiversity value to require being designated as a biodiversity protection zone. However, care must be taken during the removal scrub, and tall ruderal habitats, and the deadwood and garden waste piles, on site to ensure that there is no harm to amphibians, reptiles, or hedgehogs.
- 6.5. Additionally the loss of opportunities for protected and notable species resulting from the loss of these habitats, and the habitats present pre-clearance should be compensated for appropriately through the inclusion of native tree, shrub and hedgerow planting post-works. It is considered that this planting would result in a net gain of biodiversity on the site, sufficiently compensating for the loss of biodiversity and opportunities for protected and notable species as a result of the works.
- 6.6. Care should be taken to ensure that the woodland bordering the site to the northeast and southeast isn't damaged or polluted throughout the works period as this is a habitat of high ecological and biodiversity value and should be protected throughout the works period.
- 6.7. The root protection zones of all trees bordering the site, even where these trees lay off-site, should be adhered to as outlined by a suitably qualified arboriculturalist. Mature trees are features of high ecological and biodiversity value and should be protected throughout the works.
- 6.8. No biodiversity protection zone has been outlined on, or around, the site (except any mature trees bordering the site, with their root protection zones extending onto site) due to the low ecological and biodiversity of the habitats present on site.
- 6.9. The existing TPO oak tree just outside the northeast corner of the site is being retained throughout the works, with the root protection of the zone being adhered to throughout the works period.

Protection of Trees

- 6.10. There are semi-mature and mature broadleaved trees bordering the site to the east and south, situated off-site.
- 6.11. Several mature and semi-mature trees were removed as part of the pre-works clearance. All other trees on site and bordering the site are being retained as part of the proposals.
- 6.12. Care will be taken to ensure that the removal of vegetation on site and that the construction works do not damage or impact retained boundary trees.
- 6.13. Any trees or hedges that are marked for retention during the proposed works will require protection. Barrier fencing will be installed around the root protection areas (RPAs) of retained trees which will protect these trees in line with BS 5837:2012. The contractors, site managers and all labourers and other contractors will be made aware of any trees that are to be protected and these will also be clearly marked. Trees located off site but with their roots on site will also be protected.
- 6.14. To reduce pressure on the trees and habitats within adjacent properties, a 1.5m buffer along the boundary line will be instigated where vegetation removal will be limited to manual methods such as clearance by hand or by chainsaw. Storage of machinery will also not be permitted within this buffer area, but tracked machinery weighing up to approximately 1.5 tons will be permitted to travel through the area infrequently in conditions that do not result in significant ground damage (soil churning etc.).
- 6.15. The contractors, site managers and all labourers and other contractors will be made aware of this buffer area and the root protection zones around retained trees.
- 6.16. The driveway, which encroaches slightly into the root protection zone of the retained TPO Oak tree outside the northeast corner of the site, will be constructed using a Green Grid System comprising a suspended deck to prevent any excavations occurring within the root protection zone of the retained trees.
- 6.17. All ground work within the root protection area of any existing and retained trees will be undertaken using hand held tools to minimise any root damage.

Invasive Species and Biosecurity Measures

- 6.18. No Schedule 9 invasive non-native species have been reported on the site. If any such species are recognised to have colonised the site during or following the works, appropriate steps will be taken to control them as soon as possible.
- 6.19. Small shrubs can be controlled by pulling the plant by the roots by hand. The plant is able to re-generate from the roots so care should be taken to ensure all roots are removed. Small shrubs can also be treated using herbicide, being done by spray application or through injection into the trunk.. More than one dose may be needed to completely kill the

plant. It is recommended that the application of herbicide treatments is conducted by a qualified professional.

- 6.20. Larger shrubs should be felled back to ground level, leaving only a stump. Herbicide plugs should then be pushed into holes drilled in this stump. A qualified professional is required to conduct these works. The plants must be cut below the lowest node to stop regeneration. Pulled plants should then be burned off site or disposed in a permitted landfill.
- 6.21. The removed plants should be disposed of in a bio-secure way through a licensed waste carrier company, licensed garden waste company, or permitted landfill.
- 6.22. Good site hygiene should be maintained during the works which will include;
 - The installation of fencing with clear signs indicating the presence of non-native species.
 - Personnel working on or between sites should ensure their clothing and footwear are cleaned before leaving the contaminated area.
 - Tracked vehicles should not be used within the area of infestation.
 - All vehicles leaving the infested area must be thoroughly pressure-washed in a designated area and material or water left after vehicles have been pressure-washed must be contained, collected and disposed of appropriately.
 - All wash facilities including wastewater from washing vehicles, equipment or personnel should be managed in a responsible way so as not to cause harm to the environment.
 - All machinery and tools brought onto site must be cleaned prior to use on the site so that earth and plant material from other locations is not introduced to the site or spread to adjacent habitats.
 - Contractors working on or between sites must ensure that they are aware of the potential for invasive species at other sites and that the clothing and protective equipment worn on site is clean and free from contamination.
 - Any soil or aggregate or other loose materials brought onto the site must be from a reputable source, and free from contaminants or pollutants.

Protection of Surrounding Habitats and Designated Sites

- 6.23. Care must be taken throughout the development process to ensure that there are no negative incidental impacts to the habitats, properties, hedgerows, and trees surrounding the site.
- 6.24. Best practice will be applied to prevent polluting materials from impacting the habitats, properties, hedgerows, and trees surrounding the site. All materials and potentially hazardous substances should be stored away from the site boundary and in accordance with the appropriate legislation.

- 6.25. *Protective fencing:* Heras fencing will be installed along the development boundary of the site. This fencing will leave a buffer of 0.5m between the property edge and the development area, extending where required to additionally follow the root protection zones of the retained boundary trees on the southern and eastern boundaries of the site.
- 6.26. *Dust pollution:* In order to reduce air pollution and nuisance to nearby residences there should be adequate screening and damping down measurements implemented during all excavation works, clearance works and other site preparations (including storage of construction materials). Additionally, these screening barriers will protect the neighbouring habitats and properties from dust, and general construction litter and debris.
- 6.27. Screening barriers will be implemented on the installed habitat protection fencing during the construction phase of the development, to prevent dust and waste from the construction site from contaminating retained habitats within the site. Screening barriers will comprise a hessian strip or scaffold sheeting, fixed to the base of heras fencing, with 50cm draped on the ground to catch any dust and site waste that may otherwise escape under the fencing, and will be installed along all boundaries of the site to protect the adjacent designated sites. Monthly checks will be made by the **ECoW** to ensure airborne litter and dust do not have a negative impact on the adjacent habitats and designated site. Should any issues arise, appropriate remedial actions will be implemented.
- 6.28. *Liquid storage:* All oils and fuels must be stored in compliance with the Control of Pollution (Oil Storage) Regulations 2001. Fuel must therefore be stored in dedicated impervious storage areas away from drains and watercourses. Drums over 200L must be stored on drip trays capable of holding 25% of the drum's maximum capacity. The storage of bowzers and fuel tanks must also comply with the regulations ensuring they are stored in areas capable of holding 110% of the volume. If oil or fuel is stored on site, spill kits must be available.
- 6.29. All liquids should be stored within the northern aspect of the site to maintain as much distance between these potentially harmful materials and the neighbouring habitats and properties.
- 6.30. *Solid storage:* Best housekeeping practice will ensure that spillages of dry and dusty materials will be avoided. These items should be covered when not immediately in use to reduce the risk of materials becoming airborne. All stored materials will be raised off the ground on pallets or skids to remove any refuge potential for protected species such as hedgehogs, reptiles or amphibians. Aggregates such as gravel and sand must be delivered in bulk bags and stored on pallets.
- 6.31. All solid materials should be stored within the northern aspect of the site to maintain as much distance between these potentially harmful materials and the neighbouring habitats and properties.

- 6.32. *Run-off and site drainage:* Rainwater or waste water carrying construction debris or oils must not be allowed to flow towards adjacent habitats. This is considered to be unlikely given the nature of the works on site, however the risk should be fully assessed by the site manager before and during the works. If a risk is identified, suitable drainage or an earth bund for the construction site must be established to prevent pollution of surrounding habitats. An earth bund should be installed along the heras fencing barrier on the northeastern and southeastern aspects of the site to protect the neighbouring designated site from any potentially polluting run-off material.
- 6.33. *Litter:* Waste and litter produced during the construction phase must be disposed of appropriately and must not be allowed to leave the site. Good site management and waste management procedures will prevent litter or debris from the construction site impacting any adjacent or nearby habitats. If any construction waste is found outside the site boundary it will be retrieved and disposed of appropriately and the measures taken to avoid this occurrence will be reviewed.
- 6.34. *Noise and vibration:* The impacts of noise and vibration generated by the proposed construction works are expected to be low, however, noise and vibration will be managed in order to reduce impacts wherever practicable. Wherever available quiet equipment will be selected in order to control noise at source. Machinery will be shut down when not in use and throttling will be kept at a minimum. It will be maintained in good working condition to minimise mechanical vibration.
- 6.35. *Sensitive Lighting:* Sensitive lighting will be used throughout the construction period to mitigate any impacts of lighting on surrounding habitats and protected species. It is a formal recommendation that works are limited to daylight hours and no additional lighting is left turned on overnight.

Bats

- 6.36. No bat roosts were identified on site. However, the surrounding tree lines and hedgerows provide good commuting and foraging opportunities for bat species. Additionally, the mature trees removed as part of the pre-works clearance may have contained suitable features to support roosting bats.
- 6.37. Any construction lighting required during the active season for bats (March to October inclusive) will be required to comply with *Guidance Note 08/18 Bats and artificial lighting in the UK Bats and the Built Environment* series (Institute of Lighting Professionals and the Bat Conservation Trust, 2018). Lights should be angled downwards and directed to avoid light spillage on vegetation, trees, and hedgerows.
- 6.38. Specifically, the use of “warm” LED lighting will be used with a wavelength above 540 nm and a colour temperature below 2,700 K. Lights will be shielded to prevent spill above a 70° angle. The intensity of lighting will be kept to the minimum level required to ensure security

and safety at the site and the amount of time lighting is employed will be limited and turned off overnight when not required.

- 6.39. The use of excessive noise or vibration disturbance should be avoided (or minimised where essential) when within close proximity to potential roosts or near newly created roosts/roost features
- 6.40. Following comments by Darwin Ecology Ltd., the provision of at least one integrated bat box and two raised roof or hanging tile features must be installed within the new residential building on site. The bat box should be placed facing south and east with a clear flight path to and from the entrance. The locations of the bat features should be agreed by an appropriately qualified ecologist. Bat box and bat feature locations are provided in the Site Enhancement Plan in the **Appendix**.
- 6.41. A wildlife friendly landscaping scheme is recommended to enhance the site for bat foraging. This may include the planting of native trees and native fruiting/flowering shrubs.

Breeding Birds

- 6.42. It was identified that at the time of the 2022 habitat walkover survey, the site provided no suitable habitat to support nesting birds. The scrub habitat previously on site would have provided suitable nesting and foraging habitat for a variety of common garden bird species.
- 6.43. There is potential that since the 2022 walkover, the bare earth may have been encroached by scrub species characteristic of damaged ground such as bramble *Rubus fruticosus*. If this has occurred, this expanded scrub habitat may be used by nesting birds, and as such appropriate mitigation is required (as outlined below).
- 6.44. Any vegetation clearance within the site will be undertaken outside of the breeding bird season (March to August inclusive) where possible.
- 6.45. If vegetation clearance is required within the breeding bird season, a pre-works inspection will be undertaken immediately prior to, or within 24hrs, of this vegetation clearance by the **ECoW**. Should breeding birds' nests be recorded, these will be left undisturbed until chicks have fledged. An appropriate buffer (dependent on species and age of chicks, but typically 5m) will be implemented around nests, within which no vegetation clearance can proceed until the **ECoW** has confirmed that the nest is no longer in use.
- 6.46. It is the responsibility of the **Developer** and the **Site Manager** to schedule vegetation clearance works at the correct time of year to avoid impacts on breeding birds where possible. It is the responsibility of the **Site Manager** to inform the **ECoW** if vegetation clearance is required during the breeding bird season to ensure that pre-works checks can be conducted correctly.

Reptiles

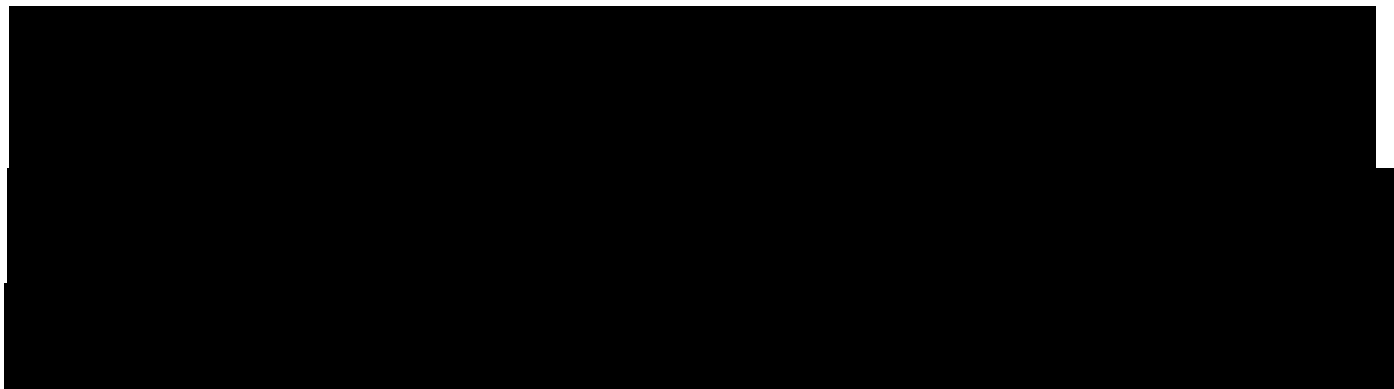
- 6.47. The PEA identified the both the pre-clearance habitats on site, and the habitats present during the 2022 walkover, provided suitable opportunities to support reptiles. To ensure that no reptiles are injured or killed in the event they are present during implementation of the consented proposals, Reasonable Avoidance Measures (RAMs) are required.
- 6.48. It is unlikely that reptiles would be regularly present or utilising the areas of bare earth.
- 6.49. Dense vegetation, such as the tall ruderal and the remaining scrub, will be checked immediately prior to removal by the **ECoW**, who will then supervise vegetation clearance. Vegetation will be removed under a two-stage cut methodology, with vegetation brought down to approximately 10cm in height and left overnight before full removal/felling. This will afford reptiles ample time to disperse naturally away from site.
- 6.50. Any deadwood, rubble, garden waste, or debris piles will be dismantled by hand, and all stored materials will be raised off the ground on pallets or skids to remove any refuge potential for protected species. Aggregates such as gravel and sand must be delivered in bulk bags and stored on pallets.
- 6.51. All vegetation clearance, habitat clearance, removal of deadwood, rubble, garden waste, or debris piles, and the removal of tree stumps and hedgerows will only occur during the key active season for reptiles (February to November - not inclusive). Weather should be 9 degrees or higher, and dry with no strong winds. This will allow active reptiles to move to more suitable habitat nearby, if they are present within the working area. An ecologist should be present during the clearance
- 6.52. Reptiles can use roots as refugia. Therefore, when removing the remaining tree stumps, the base of the trunk should be carefully lifted using a digger with an ecologist present to check under the roots to ensure no reptiles or amphibians are present. If they are, the ecologist will be able to move the individual(s) to a more suitable habitat away from the works.
- 6.53. All debris from the vegetation and tree removal should be bagged and placed on pallets off the ground shortly after the clearance to ensure that these piles are not used as refugia by reptiles.
- 6.54. Any excavations or trenches on site must be covered whilst works are paused (such as overnight), or a ramp should be provided in order to prevent animals from becoming trapped.
- 6.55. In order to prevent creating suitable refuges for reptiles during construction, all stored materials should be raised off the ground on pallets or skids. Aggregates, such as gravel or sand, must be delivered in bulk bags and stored on pallets.
- 6.56. If any common reptiles are found in the working area, these should be removed by hand to a vegetated area away areas of activity. If, in the unlikely event a sand lizard *Lacerta agilis*,

or a smooth snake *Coronella austriaca* is identified, works must cease and a suitably licensed ecologist should be contacted for advice.

Amphibians

- 6.57. The EclA identified that both the pre-clearance habitats on site, and the habitats present during the 2022 walkover, provided suitable opportunities to support amphibians, with these habitats providing good foraging, commuting, and resting opportunities for amphibian species.
- 6.58. To ensure that no amphibians are injured or killed if they are present during implementation of the consented proposals, Reasonable Avoidance Measures (RAMs) and mitigation measures are required.
- 6.59. The RAMs outlined in the above reptile section are assessed to be suitable to protect amphibian species should they be present on site during the works.
- 6.60. If any common amphibians are found in the working area, these should be removed by hand to a vegetated area away areas of activity. If, in the unlikely event a great crested newt *Triturus cristatus* is identified, works must cease and a suitably licensed ecologist should be contacted for advice.

Terrestrial Animals



- 6.64. If there is any evidence of active setts are identified on site/within 30m of site, then works should not commence and mitigation under a licence from Natural England may be required to permit the development
- 6.65. Dense vegetation will be checked immediately prior to removal by the ECoW, who will then supervise vegetation clearance. Vegetation will be removed under a two-stage cut methodology, with vegetation brought down to approximately 10cm in height and left overnight before full removal/felling. This will afford hedgehogs ample time to disperse naturally away from site.
- 6.66. The vegetation should be checked for mammals between these two cuts. Should any hedgehogs be found, they should be moved to a suitable area of habitat that is not subject to clearance.

- 6.67. Any pre-existing deadwood, garden waste, or debris piles will be dismantled by hand, and checked for the presence of sheltering small mammals including hedgehog, and other vulnerable wildlife;
- 6.68. All stored materials will be raised off the ground on pallets or skids to remove any refuge potential for protected species. Aggregates such as gravel and sand must be delivered in bulk bags and stored on pallets.
- 6.69. After site preparation works have been completed and ground works begin, all excavations or trenches/holes created will either be covered overnight or, if left open, provided with mammal ramps to ensure wildlife can escape if they fall in. Similarly, any open services will be capped overnight. It is the responsibility of the **Landowner / Site Manager** to ensure that these precautionary measures are undertaken.
- 6.70. If any mammal holes are found during site clearance then an ecologist will be contacted immediately to identify the species using it and will then provide advice on any constraints and the best way to proceed.
- 6.71. If any hedgehog is found within the working area this should be moved with a gloved hand to an undisturbed and sheltered area of the site or adjacent land.
- 6.72. The **site manager** and **contractors** are responsible for ensuring that all excavations are investigated immediately prior to infilling to ensure that no animals are trapped.

7. SEQUENCE OF WORKS

7.1. The site preparation phase will be carried out by the primary contractor or their sub-contractor. The process of works with relevance to environmental protection will be expected to take place in the following order:

- Prior to works commencing all site operatives to be inducted and made aware of the specific site hazards, or methodology, including the various ecological receptors;



- Prior to works commencing signage to be installed around the perimeter of the site, and fencing installed to protect any retained trees and roots in line with the root protection zones;
- Prior to works commencing a designated route to move materials and machinery onto site will be demarcated. Areas for safe machinery and material storage will also be demarcated as agreed by site operatives and ECoW;
- Prior to works commencing all site operatives to be inducted and made aware of the specific site hazards, or methodology, including the various ecological receptors;
- ECoW to supervise vegetation clearance, building demolition and any excavations throughout the construction period;
- Arisings and materials produced through vegetation clearance to be stockpiled and segregated where possible on-site in a designated area for use in habitat creation and enhancement.
- Installation of bat and bird boxes, and enhancements for reptiles, hedgehogs and other protected species as part of enhancement opportunities under NPPF and as outlined in the Biodiversity Enhancement and Mitigation Plan (BEMP). Some elements may require ecologists' supervision.
- Review of works conducted by an ecologist to ensure they are installed correctly.

8. REFERENCES

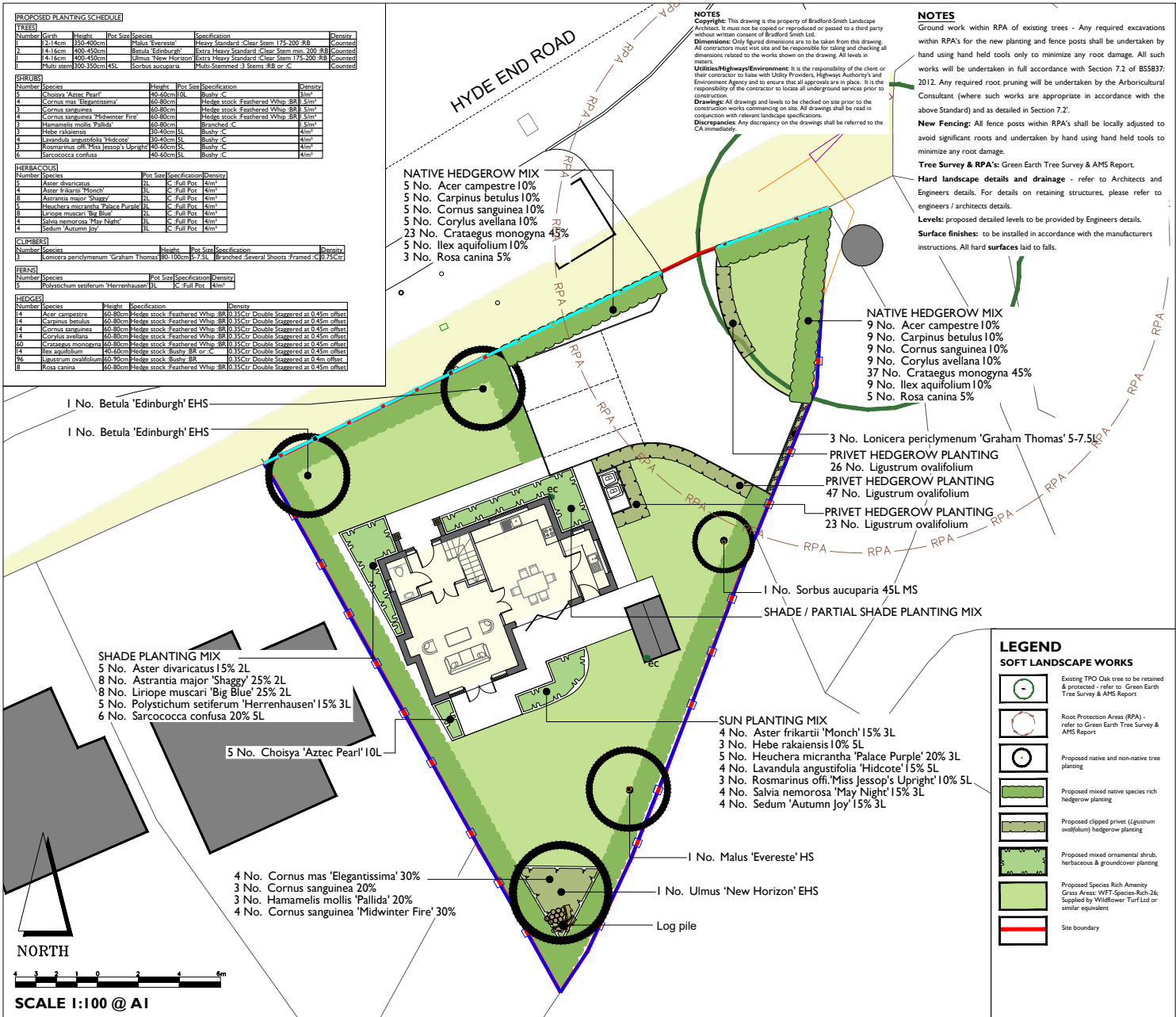
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APPENDICES

1. Proposed Plans

2. Habitat Walkover Map

3. Biodiversity Enhancement Map



SPECIFICATION NOTES

- These implementation and maintenance specification notes are for planning purposes only and do not constitute a detailed landscape specification.

SITE PREPARATION

Imported Topsoil

Imported topsoil shall be to BS 3882: 2015. Specification for topsoil and requirements for use, Multi-purpose grade - (Landscape 20) and be of medium texture with a high proportion of loamy material. It shall be free from subsoil, rubbish, roots of perennial weeds and other injurious to plant growth. Imported topsoil shall be from an approved source and a sample submitted and analyzed/tested at an independent approved laboratory. Soil Handling: The soils shall be handled in accordance to the Good Practice Guide for Handling Soils. Soil handling shall only take place during the driest parts of the year to prevent compaction of the in situ soils. All topsoil used for planting shall be tested by an approved Topsoil Analysts and any required amelioration or soil improver required shall be carried out in accordance with the topsoil Analyst Report.

The topsoil shall be free from harmful trace elements, including phytotoxic and zootoxic elements harmful both to plant growth and man. The topsoil should be tested by physical and chemical analysis and should state clearly the physical characteristics of the soil, levels of micro-nutrients and chemical content. All fertilizers and added nutrients shall be applied by a qualified staff or supervised so the correct application is undertaken.

Preparation for Topsoil Re-spread

Topsoil shall be spread following completion of all hard landscape building works, following a thorough clearance and removal of building debris. Bottom of tree pit broken up to a depth of 150-200mm and scarify sides. Tree pits within soft landscape areas: min. 1000 x 1000mm x 300mm deep (min). Depth of tree pit dependent of depth of rootball; check dimensions of rootballs prior to planting. Tree pits backfilled with 300mm imported topsoil over subsoil. Hedge and shrub planting areas: minimum 300mm deep.

Grass areas: minimum 150mm deep. No new topsoiling operations to take place within the RPA's.

Ameliorant's: Fertilizers & composts: Landscape contractor responsible to submitting imported topsoil analysis to inform requirements. All topsoil ameliorant's (compost & fertilizers), approved pre- free to PAS100 & incorporated during backfilling & cultivation at required rate to full depth of growing medium.

Root Protection Area beneath Existing Trees: No new topsoiling operations to take place within the RPA - all new native hedgerow and shrub planting within RPA's to be notched/planted into existing soil on site, using hand tools only to minimize root damage. If significant roots are encountered, these will be left undamaged and plants locally adjusted. **Existing trees:** All existing trees to be retained shall be protected in accordance with BS 5837:2012 - Trees in Relation to Construction. Existing levels shall be retained around existing trees to be retained. Any tree works pruning to existing trees within the site shall comply with the BS 3998: 2010, Tree Work Recommendations and undertaken by an Arboricultural Association approved Contractor.

Backfilling with Topsoil Tree pits and shrub beds shall be backfilled, in layers, with previously prepared topsoil excavated from the tree pit and imported topsoil as required. Topsoil thoroughly mixed with planting organic compost and slow release fertilizer shall be used to plant all trees, shrubs and hedges. All finished levels shall be 25mm above adjacent paving. The shrubs shall be shaken during backfilling to avoid air pockets and the soil must be firmed as the hole is filled. All backfilled material shall include an organic compost and slow release fertilizer. No new topsoiling operations to take place within the RPA.

Cultivation: Topsoil shall be cultivated to a minimum of 400-450mm deep on planting areas to a medium tilt, removing all rubbish, vegetation, perennial weeds, roots, stones over 50mm in any one dimension and raked to even levels. No cultivation operations to take place within the RPA's.

PLANTING

Plant Stock and Timing

Plant material shall conform to BS 3936 Part 1: 1992, Part 2: 1990, Part 9: 1998, Part 10: 1990 and BS4043: 1989 and shall

be protected at all times in transit to the site. The planting season shall be from 1st October to the 31st March. Planting shall not be carried out during periods of frost, drought, cold drying winds, or when the soil is waterlogged.

The planting shall be carried out in the first planting season following practical completion of the building and hard landscaping. Planting outside the planting season will require adequate watering to ensure establishment. All new native hedgerow and shrub planting within RPA's to be pit planted into existing soil on site, using hand tools only to minimize root damage. If significant roots are encountered, these will be left undamaged and plants locally adjusted.

Planting

All trees, hedges & shrub planting shall be planted upright at the same depth as the nursery soil level and evenly spaced, leaving room for growth. Allow at least 300mm clearance between the rootball and the edge of the pit to facilitate staking and to allow adequate amount of backfill around the root ball. Trees shall be planted upright and at the same depth as the grown nursery soil level with the root collar being at finished soil level, and evenly spaced, leaving room for growth. Allow at least 150-300mm clearance between the rootball and the edge of the pit to facilitate staking and to allow adequate amount of backfill around the rootball.

Individual trees: All tree planting in accordance with BS845:2014 Trees: From Nursery to Independence in the Landscape - Recommendations. Trees shall be pit planted and supported by either double staking or for multi stem trees underground guying system to BS 4043:1989. Stakes shall be softwood, peeled chestnut or larch, free from projections and large knots, with one end pointed. Each stake secured to cross bar using galvanised nails. Tree secured to stake with rubber tree tie and tree cushion spacer/pad, fixed to support the tree. All fixing nails shall be galvanised annular ring. For underground guying system: the underground guying system shall be the designed to secure the root ball/ container grown trees/ multi-stem trees: supplied and installed in accordance with the manufacturers instructions/ specification. Green Bay Arborary system or equivalent approved shall be used. Use

of aluminum ratchet strainers or equivalent approved. Immediately following planting, all plants shall be watered-in to field capacity.

AMENITY GRASS AREAS: amenity garden grass areas shall be turfed with a hard wearing, multi purpose high quality turf - Species Rich Turf supplied by Wildflower Turf Ltd or similar equivalent. Turf shall be in accordance with BS 3969: 1990 and be good quality, uniform in size and thickness with a dense cover of good colour and free from weeds, pests and diseases. The turf shall be between 18-30mm thick. Pre-turfing fertiliser shall be applied to all seeded and turf areas and shall be laid in accordance with BS 4428: 1989.

MULCH: Prior to the application of mulch, the planting areas shall be completely weed free and watered sufficiently to achieve field capacity. The surface of the planting areas shall be mulched with a layer of fine composted bark mulch (0-8mm bark) to a depth of 50-75mm, ensuring that the low branches of shrubs plants are not smothered. Supplied by AHS Ltd or similar approved. The mulch shall be topped-up to maintain, after settlement, a depth of not less than 50mm.

IMPLEMENTATION

All trees, hedges and shrub planting areas shall be carried out in the first planting season after all the building works and the hard landscaping areas have been set out and completed.

AFTER CARE PERIOD

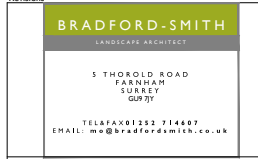
Maintenance: The Aftercare Period shall extend for a five year period. During the Aftercare Period maintenance visits shall be carried out, at least monthly from April to September and twice during the dormant season to carry out the following operations to establish healthy growing plants in weed free areas. Maintenance operations shall include: watering, firming-up all plants and adjust tree ties, stakes, pest and disease control, grass cutting, general pruning, hedge trimming, weed control, removal of litter, fork over beds, top up mulch and autumn tidying. Removal of defective plants and plant replacements in the following planting season.

Replacement plant stock if required or necessary shall be of similar species, size and form with the appropriate support and as the original specification. Minor pruning all woody plants to

remove deadwood and achieve an overall balanced canopy - where necessary. Need to consider and avoid breeding bird season (March- July/August). Hedge trimming - Trimmed annually outside the bird nesting season which is March- July/August. Check for invasive species and remove from site.

Health & Safety: Trees adjacent to public paths or adjacent to buildings to be inspected annually and remedial tree works carried out where necessary. All plants, which have died, are missing or have failed to thrive, shall be noted and replaced annually for a period of five years with the same size and species as originally planted, in the following planting season.

A 06.01.2024 Amendments to trees, species and added additional hedges/ fences



Project: The Haulage Yard Land Adjacent to Bramble Cottage, 183 Hyde End Road, Hyde End Road, RG7 1BU

Client:

Drawing Title: DETAILED PLANTING PLAN & SCHEDULE

Scale: 1:100 @ A1 Date: February 2024 Drawn: MS

Drawing No: 993-LA-P-03 Status: PLANNING CONDITION 5 Revision: A

☒ Used for Planning Approval	☐ Used for Design/Information
☒ Used for Construction	☐ Used for Tender
	☐ As Built



*NOTE Areas are indicative and are not shown to exact scale.

Site Boundary



Ruderal Vegetation



Hardstanding



Fence



Bare Ground



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Project: Land at Bramble
Cottage, Hyde End Road, RG7
1BU

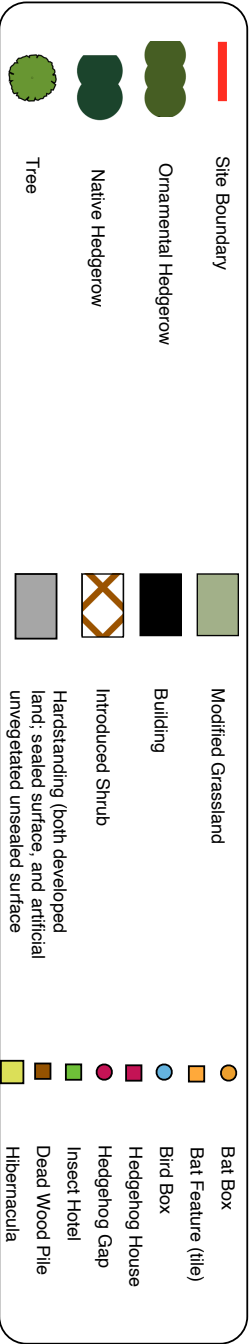
Figure: Pre-development Map

[Info@darwin-ecology.co.uk](mailto:info@darwin-ecology.co.uk)
www.darwin-ecology.co.uk

Date: March 2024



*NOTE Areas are indicative and are not shown to exact scale.



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integrating nature conservation

info@darwin-ecology.co.uk
www.darwin-ecology.co.uk

Project: Land at Bramble Cottage, Hyde End Road, RG7 1BU

Figure: Post-development Map and Enhancement Features

Date: March 2024