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integrating nature conservation

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Biodiversity Net Gain Assessment

Hutts Farm Cottage
Blagrove lane
Wokingham
RG41 4AX

**March 2025
R2**

Darwin Ecology Ltd
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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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Amended by	Consultant Ecologist Libby Pinches BSc (Hons)	July 2025
This report remains valid for 2 years from date of issue. Survey data are valid for 12 months from the date the survey was undertaken.		

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1. EXECUTIVE SUMMARY

- 1.1. This report has been produced to provide the results of the Biodiversity Net Gain calculation at Hutts Farm Cottage, Blagrove Lane, Wokingham, Berkshire RG41 4AX, in order to ensure compliance with the *National Planning Policy Framework (2024)* regarding no net-loss of biodiversity.
- 1.2. The site proposals are for the construction of three detached residential dwellings with associated amenity gardens, hardstanding and landscaping.
- 1.3. This report should be read in conjunction with the Ecological Impact Assessment produced by Darwin Ecology in February 2025.
- 1.4. Biodiversity Net Gain Assessments calculate the change in ecological value at a site by comparing the number of 'biodiversity units' within the site pre- and post-construction, for both linear habitats and areas of habitat, and demonstrating measurable loss or gain. The ecological value of the site is expressed as a percentage change in total Biodiversity Units following implementation of the proposals. The *DEFRA: The Statutory Biodiversity Metric* has been used to complete this assessment.
- 1.5. This assessment has been informed by a habitat walkover survey and habitat condition assessment. Baseline habitats include modified grassland, a single individual tree, and a non-native ornamental hedgerow. The proposals include the loss of the entirety of the modified grassland. The individual tree will be retained as part of the proposals, and the non-native and ornamental hedgerow will be partially retained. An access track will be created on the northeastern boundary of the site, dividing the hedgerow into two sections.
- 1.6. Habitats to be created include vegetated garden and developed land; sealed surface.
- 1.7. The results of the metric can be summarised as follows:

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-0.17
	Hedgerow units	-0.02
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-17.41%
	Hedgerow units	-15.46%
	Watercourse units	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

- 1.8. The Statutory Biodiversity Metric demonstrates a -17.41% change in habitats (-0.17 habitat units) and -15.46% change in linear features (-0.02 hedgerow units).
- 1.9. The habitat unit deficit identified on site will need to be compensated for through alternative means such as financial contribution into a suitable offsite Biodiversity Offsetting Scheme.

2. INTRODUCTION AND BACKGROUND

- 2.1. This report has been produced to provide the results of the Biodiversity Net Gain calculation at Hutts Farm Cottage, Blagrove Lane, Wokingham, Berkshire RG41 4AX in order to ensure compliance with the *National Planning Policy Framework (2024)* regarding no net-loss of biodiversity.
- 2.2. The site proposals are for the construction of three detached residential dwellings with associated hardstanding and landscaping.
- 2.3. This assessment is based on the landscape proposals as shown in the **Appendix**.

Site Overview

- 2.4. The site is located within a low-density residential area on the southwestern outskirts of Wokingham town, approximately 1.95km from the town centre. The site comprises a large area of grassland (approximately 0.28ha) bordered by hedgerows and a wooden post and rail fence. The wider boundary of the site includes a detached two-storey residential building and a detached two-storey outbuilding set within an area of amenity garden comprising amenity grassland, ornamental planting, and areas of hardstanding. The site is immediately bounded by pastoral fields to the north and east, a well-grazed horse field to the west, and further residential properties with associated amenity gardens to the south (see **Figure 1**).
- 2.5. The wider landscape to the south and west comprises a mosaic of pastoral and arable fields interspersed by low-density residential developments. The landscape to the east of the site rapidly transitions to the dense urban development of Wokingham town approximately 200m southeast, 280m northeast, and 570m east of the site.



Figure 1: Site location within the local landscape. Copyright Google Earth Pro (March 2025)

3. LEGISLATIVE AND POLICY BACKGROUND

National Planning Policy Framework (NPPF) 2024

- 3.1. The NPPF aims to minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity. Chapter 15 'Conserving and enhancing the natural environment' details what local planning policies should seek to consider with regard to planning applications:
- 3.2. Planning policies and decisions should contribute to and enhance the natural and local environment by:
- 187 a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - 187 d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs.

Habitats and Biodiversity

- 3.3. Specific policies regarding habitats and biodiversity comprise:
192. To protect and enhance biodiversity and geodiversity, plans should:
- a) identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation and
 - b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species and identify and pursue opportunities for securing measurable net gains for biodiversity.
193. When determining planning applications, local planning authorities should apply the following principles:
- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - b) development on land within or outside of Sites of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually

or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the feature of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around development should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

4. METHODOLOGY

Biodiversity Net Gain Assessment

4.1. Biodiversity Net Gain Assessments calculate the change in ecological value at a site by comparing the number of 'Biodiversity Units' within the site pre and post-construction for both linear habitats and areas of other habitats. The ecological value of the site is expressed as a percentage change in total Biodiversity Units following the completion of the proposed development. This is an indicator of what the proposed development's impact would be on the site's existing ecological value and will establish if a net loss of biodiversity has been avoided.

4.2. The biodiversity calculations were undertaken using The Statutory Biodiversity Metric, the User Guide, Technical Supplement and Condition Assessment Sheets.

Calculation Components

4.3. The Statutory Biodiversity Metric takes account of all the habitats on site prior to development and post-development using UK Habitat Classification System (UKHabs). Using this metric, area habitats are measured in hectares and inputted to three decimal places. Linear habitats are measured in kilometres to the nearest three decimal places.

4.4. The Biodiversity Metric further assesses all habitats using the following:

4.5. *Distinctiveness*- Habitats are automatically given a distinctiveness score based on habitat type. This ranges from 'High' to 'low'. 'High' distinctiveness habitats include those listed as Habitats of Principal Importance under the NERC Act. Habitats of low wildlife value (such as ornamental planting) are given a 'low' distinctiveness score.

4.6. *Condition*- Habitat conditions are assessed for each individual habitat type using the technical supplement. Habitat condition uses criteria such as botanical diversity and invasive species cover.

4.7. *Strategic Significance*- This relates to the spatial location of a habitat type and if the location is 'ecologically desirable'. Habitats located in areas considered desirable are given larger weighting within the metric.

4.8. Once the post-development Biodiversity Units have been calculated, the mitigation hierarchy is applied. Application of the mitigation hierarchy is one of the guiding principles for biodiversity no net loss / net gain proposals. Through its application, the hierarchy highlights actions to avoid, minimise or restore biodiversity losses on site, and account for unavoidable losses off-site.

4.9. The difference between the baseline Biodiversity Units and those calculated on the proposed development design indicates the number of units that would be needed to deliver no net loss or a net gain for biodiversity. Using this information the habitat types and

the size of the area that would be needed off-site to deliver no net loss or net gain can be identified if required.

- 4.10. The area calculations of existing and proposed habitat areas are made using QGIS.
- 4.11. The proposed habitats were calculated from the site landscaping proposals.

Good Practice Principles

- 4.12. Good practice principles for biodiversity net gain are set out in Table 1.1 of the Biodiversity Net Gain: Good Practice Principles for Development (Baker *et al*, 2019). The key principles include:
 - Apply the Mitigation Hierarchy (CIEEM, 2018) and be additional by achieving outcomes that exceed existing obligations.
 - Avoid losing biodiversity which cannot be off-set elsewhere for example irreplaceable habitats such as ancient woodland.
 - Address any risk (e.g. difficulty of achieving habitat creation or enhancement for net gain.
 - Make a measurable net gain contribution for the site and ensure it is achievable.

Assumptions and Limitations

- 4.13. The habitat walkover survey was undertaken in January, which is a sub-optimal period for identifying many native plant species as many plant species have not grown into recognisable growth forms. Considering the context of the site, the urban nature of the site (residential garden), and the habitats to be impacted by the proposals, it is considered unlikely that this would have a significant impact on the reliability of the survey results or conclusions.
- 4.14. The accuracy of the habitat area measurements is limited by the form of the baseline data collection and resolution of development proposals plans. In this instance, the baseline habitats for the site have been calculated by cross-referencing illustrative habitat plans and aerial imagery. Post-development habitats have been measured using QGIS by geo-referencing the proposed layout to the baseline dataset.
- 4.15. The proposed habitat baseline is calculated using both the landscaping plans and professional opinion on the target conditions that can be attained for each habitat type with proficient management. Therefore, all proposed habitat types rely on implementation of a long-term management plan and planting in line with the provided landscape proposals. Further information on this is provided in the conclusion.

5. BIODIVERSITY NET GAIN ASSESSMENT

Pre-development Habitats/Baseline

- 5.1. Below is a summary of the habitats and condition assessments recorded on site during the habitat walkover survey and condition assessment undertaken by Assistant Ecologist Maya Crate BSc (Hons) MSc on 6th February 2025. The habitat walkover survey broadly classified the habitats present following guidance from the UKHabs.
- 5.2. The location and extent of the pre-development habitats is outlined in the **Appendix**.

Area Habitats

Modified Grassland

- 5.3. Modified grassland is the dominant habitat within the site, totalling 0.2814ha in size. This area of grassland primarily consists of common grass species, including annual meadow grass *Poa annua*, Yorkshire fog *Holcus lanatus*, and fescue *Festuca sp.* This grassland is regularly mown and kept to a uniform short sward height, with an average height of less than 5cm. It is a species-poor grassland with fewer than six species being recorded per square metre. Recorded species include small amounts of ground ivy *Glechoma hederacea*, creeping buttercup *Ranunculus repens*, a very small amount of cleavers *Galium aparine* and nipplewort *Lapsana communis*. Small areas of bare earth are present throughout the grassland, and there is evidence of molehills.
- 5.4. The southeastern corner of the field has around 10% coverage of moss *Bryophyta*, creating a slightly different composition to the rest of the grassland. This area also has a very small amount of encroachment by ivy *Hedera helix* and bramble *Rubus fruticosus* from the bordering road verge.
- 5.5. This habitat passes 3 of 7 criteria, and fails essential criteria A. This habitat is therefore assessed as having a **poor condition**. This grassland provides 0.56 baseline habitat units.

Table 1: Modified Grassland Habitat Condition Score

Condition Assessment Criteria		Criteria Met	Condition Score
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition.	No	Poor
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No - The habitat was well mown throughout the entire site	
C	Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub accounts for less than 20% of total grassland area.	Yes - No scrub was present	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	No - excessive mowing evident	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	No - bare ground accounted for 0% of the habitat area	

Table 1: Modified Grassland Habitat Condition Score

Condition Assessment Criteria		Criteria Met	Condition Score
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Yes - No bracken present	
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Yes - No invasive species were recorded	

Individual Trees

- 5.6. A single large oak *Quercus robur* tree is present on the eastern boundary. This tree was mature in age and had moderate levels of ivy cover. This tree passed 6 of 6 assessment criteria and was assessed as being in **good condition**, see **Table 2**.
- 5.7. This tree provided 0.44 baseline habitat units.

Table 2: Individual Trees Habitat Condition Score

Condition Assessment Criteria		T1
		Criteria Met
A	The tree is a native species (or at least 70% within the block are native species).	Y
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y
C	The tree is mature (or more than 50% within the block are mature).	Y
D	There is little or no evidence of an adverse impact on tree health by human activities. And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Y
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y
Condition Score G = Good M = Moderate P = Poor		G

Linear Habitats

Non-Native and Ornamental Hedgerow

- 5.8. A non-native and ornamental hedgerow borders the site on the eastern aspect. This hedgerow is comprised of 90% cherry laurel *Prunus laurocerasus*. The hedgerow is dense throughout its length, except for within the northeastern hedgerow within which the cherry laurel becomes sparse and interspersed with small standards of hazel *Corylus avellana* and oak saplings.
- 5.9. The southeastern corner also contains ornamental bamboo *Bambusa vulgaris* interspersed with the cherry laurel.
- 5.10. Non-native and ornamental hedgerows are automatically assigned a **poor condition** by the metric.
- 5.11. This hedgerow measures 0.097km in length and provides 0.10 baseline hedgerow units.

Summary of Baseline Units

- 5.12. The total area of pre-development habitat is 0.28ha, excluding tree area, with a total of **1.00 baseline Habitat Units**. All areas of modified grassland will be lost as part of the works, resulting in the loss of -0.56 habitat units. The single tree will be retained.
- 5.13. A total of 0.097km of hedgerows are present which provide **0.10 baseline Hedgerow Units** for the site. 0.082km of the hedgerow will be retained, with 0.015km being lost to create an access track. This will result in the loss of -0.02 hedgerow units.

Post Development Habitats

- 5.14. The post-development proposals for the site include the construction of three detached residential properties alongside associated amenity gardens, hardstanding, and landscaping.
- 5.15. The post-development habitats comprise developed land; sealed surface and vegetated garden.
- 5.16. The location and extent of the post-development habitats is outlined in the **Appendix**.

Habitat Creation

Developed Land; Sealed Surface

- 5.17. The proposals include the creation of 0.0801ha of developed land; sealed surface on site in the form of building footprint, an access track, and parking areas.
- 5.18. This will **not provide any additional habitat units**.

Vegetated Gardens

- 5.19. Residential gardens will be created as part of the development, equalling roughly 0.2012ha in total.
- 5.20. New tree and hedgerow planting will be included within these garden areas. Due to their location within residential gardens, these newly planted trees and hedgerows have not been included within the metric.
- 5.21. Gardens are allocated a pre-determined fixed condition score within the Metric. Therefore, gardens have been set a **poor target condition**.
- 5.22. The proposed creation of habitats as part of this development will provide **+0.36 habitat units**.

6. RESULTS AND EVALUATION

- 6.1. Overall, the site will achieve a -17.41%% **(-0.17 units) net loss** for habitats and **-15.46% (-0.02 units)** for linear features within the site based on the current proposals as set out in the **Appendix**. A summary of these results within the metric can be found below:

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-0.17		
	Hedgerow units	-0.02		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-17.41%		
	Hedgerow units	-15.46%		
	Watercourse units	0.00%		
Trading rules satisfied?	No - Check Trading Summaries ▲			
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	1.00	1.10	0.27
Hedgerow units	10.00%	0.10	0.11	0.02
Watercourse units	10.00%	0.00	0.00	0.00

- 6.2. The Statutory Metric in an Excel spreadsheet will also be provided along with comments where deemed necessary.
- 6.3. The proposals for the site will not achieve a 10% net gain in habitat units or hedgerow units, and as such the development at Hutts Farm will not be in line with the NPPF. With sufficient and recommended management, it is anticipated that the unit deficit for the site is 0.27 habitat units and 0.02 hedgerow units. The site is required to compensate for the deficit of 0.27 habitat units of A1 habitat (comprising any medium distinctiveness habitat) and for the deficit of 0.02 hedgerow units. This will need to be achieved through payment into a suitable off-site biodiversity net gain offsetting scheme.
- 6.4. As per the unit shortfall calculation within the Statutory Biodiversity metric, 0.55 credits of off-site A1 habitat (comprising any medium distinctiveness A1 habitat) and 0.05 hedgerow credits will be required to compensate for the loss of habitat on site and satisfy the trading summaries. The spatial risk multiplier of 2x has been added to this value. The number of credits required to be purchased may vary depending on the location of the off-site BNG provider. The number of credits stated is the maximum number of credits required based on the spatial risk multiplier of 2x - where off-site compensation is provided in a location outside of, and not adjacent to, the local planning authority or national character area in which the site is located.
- 6.5. Recommendations for enhancement have also been provided in the Ecological Impact Assessment by Darwin Ecology (2025) and include the provision of bird and bat boxes along with wildlife beneficial landscaping.

7. REFERENCES

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland*.

CIRIA, CIEEM, IEMA (2016) *Biodiversity Net Gain: Good Practice Principles for Development* [online] <https://cieem.net/wpcontent/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf> [March 2025].

Darwin Ecology, 2025. *Ecological Impact Assessment - Hutts Farm Cottage*, February 2025.

Statutory biodiversity metric: user guide https://assets.publishing.service.gov.uk/media/669e45fba3c2a28abb50d426/The_Statutory_Biodiversity_Metric_-_User_Guide__23.07.24_.pdf [March 2025].

Statutory biodiversity metric condition assessments [Available at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>] [March 2025].

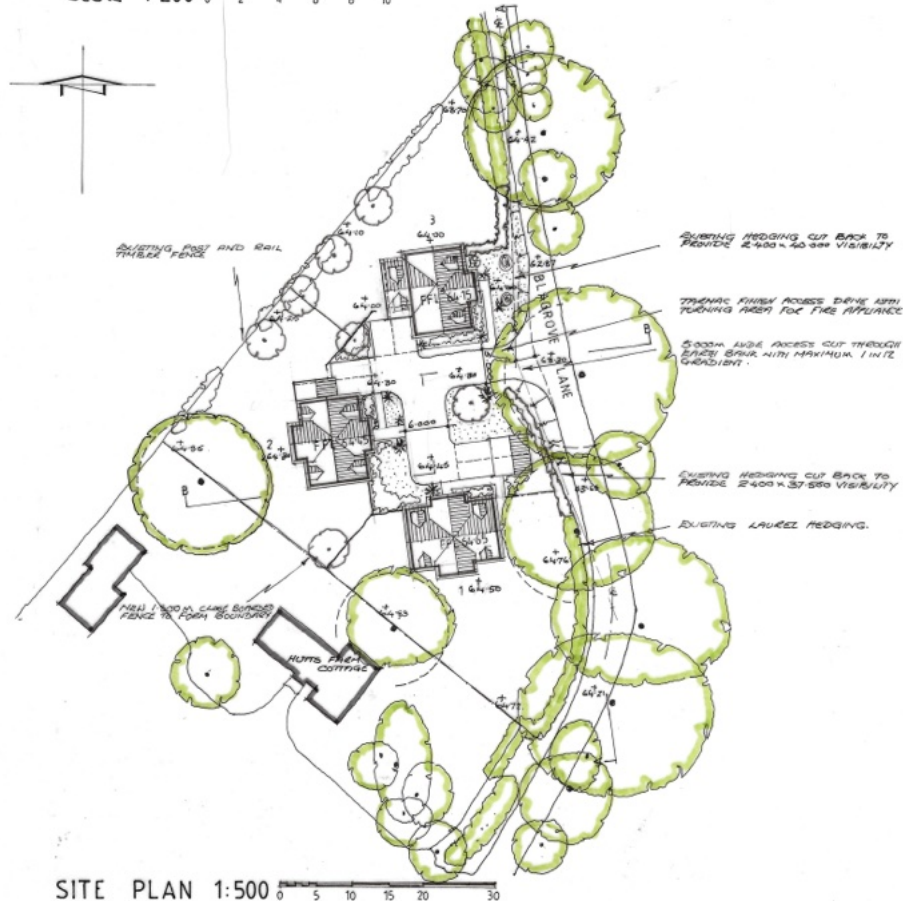
UKHab Ltd 2023. UK Habitat Classification V2.01 July 2023.

APPENDICES

Notes

All dimensions and levels on site are to be checked prior to commencement of work.

This drawing is the copyright of Paul Edwards Architecture



Site area = 0.309 ha = 0.764 acres
3 N° 4 bedroom detached cottages
with carports

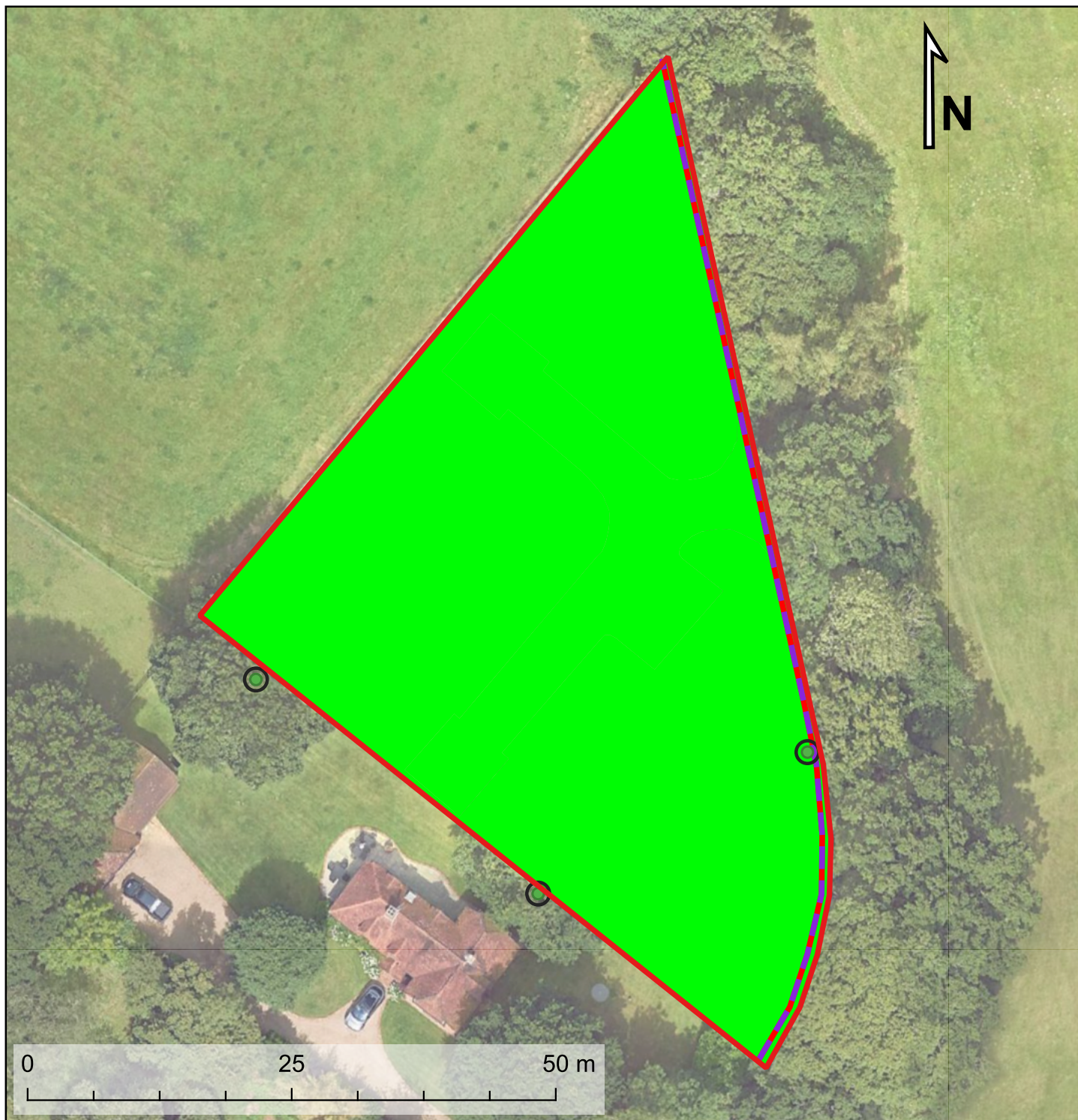
Project	Detached cottages Adj. Hutts Farm Cottages Blagrove Lane WOKINGHAM Berks
Client	Mr R Ryan
Drawing	

SITE PLANS-STREET SCENES

Scale	As shown at A2	Date	July 2025
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Job 2685	Dwg. 08
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Legend

-  Red Line Boundary
-  Existing tree
-  Non-native and ornamental hedgerow
-  Modified grassland

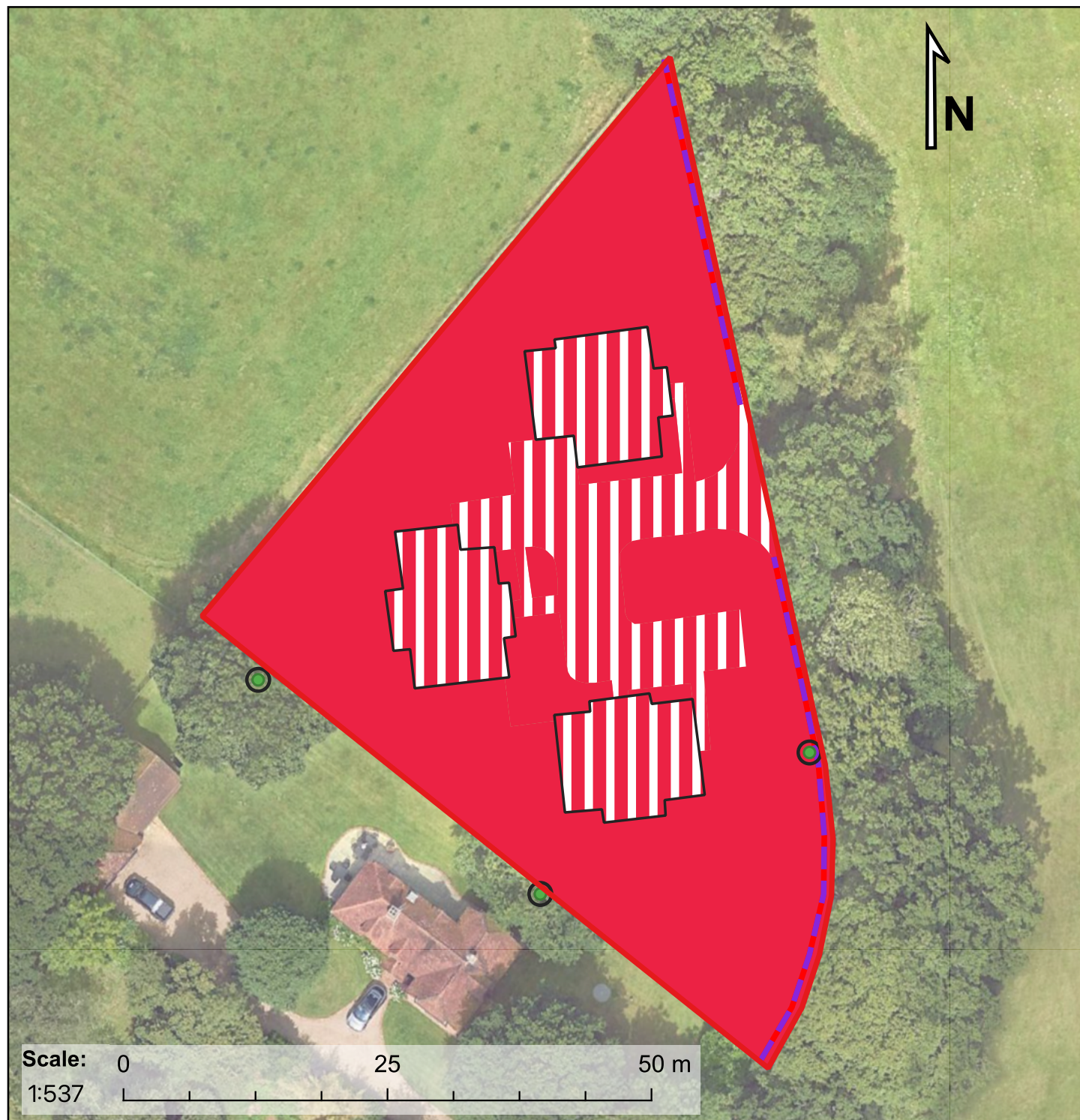


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Project: Hutts Farm

Appendix 2: Pre-development Habitats

Date: March 2025



Legend

-  Red Line Boundary
-  Retained Tree
-  Non-native and ornamental hedgerow
-  Developed land; sealed surface
-  Vegetated garden



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Project: Hutts Farm

Appendix 3: Post-development Habitats

Date: July 2025