



Biodiversity Net Gain Assessment

Wickenden Manor, Chilling Street, East Grinstead, RH19 4JB

Netherhall Educational Association

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Industry Guidelines and Standards

This report has been written with due consideration to:

- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management, Construction Industry Research and Information Association & Institute of Environmental Management and Assessment (2019). Biodiversity Net Gain – Good Practice Principles for Development.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 185 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Ltd. was instructed by Netherhall Educational Association to undertake a Biodiversity Net Gain (BNG) Assessment for a development at Wickenden Manor, Chilling Street, East Grinstead, RH19 4JB (hereafter referred to as “the site”). The assessment was required to inform a planning application for: The renovation and extension of the Manor house, the Lodge and the Stables (hereafter referred to as “the proposed development”).

The proposed development is anticipated to result in the following:

- A 10.40% net gain in habitat units.
- A 13.98% net gain in hedgerow units.

It is noted that watercourse units are not applicable to this assessment.

As such, the anticipated net gain is >10% for both area-based habitat units and hedgerow units; the proposed development is therefore currently compliant with legislation (Environment Act 2021) or planning policy (National: NPPF 2023). Furthermore, the habitat trading rules are satisfied as baseline medium distinctiveness habitats are sufficiently compensated for post-development.

Recommendations to achieve a compliant net gain are provided in Section 4.

Contents

1.0 Introduction and Context..... 6

 1.1 Introduction 6

 1.2 Site Context 6

 1.3 BNG Informative 6

2.0 Methodology..... 8

 2.1 Baseline Biodiversity Value 8

 2.2 Post Development Biodiversity Value 8

 2.3 Limitations 9

3.0 Results and Evaluation..... 10

 3.1 Baseline Habitats..... 10

 3.2 Post Development Habitats..... 10

 3.3 Change in Biodiversity Value of the Site 11

4.0 Conclusions and Recommendations..... 13

 4.1 Discussion..... 13

 4.2 Post Development 13

5.0 Bibliography..... 14

 Appendix 1: Proposed Development Plan 15

 Appendix 2: Site Location Plan 16

 Appendix 3: Baseline Habitat Survey Plan 17

 Appendix 4: Post-Development Habitat Plan 18

 Appendix 5: Headline Results..... 19

1.0 Introduction and Context

1.1 Introduction

Arbtech Consulting Ltd. was instructed by Netherhall Educational Association to undertake a Biodiversity Net Gain (BNG) Assessment for a development at Wickenden Manor, Chilling Street, East Grinstead, RH19 4JB (hereafter referred to as “the site”). The assessment was required to inform a planning application for: The renovation and extension of the Manor house, the Lodge and the Stables (hereafter referred to as “the proposed development”).

The landscape plan which shows the extent of the proposed development is provided in **Appendix 1**.

This report should be read in conjunction with the following documents:

- Defra Statutory Biodiversity Metric V3 (Arbtech Consulting Ltd. 2025).
- The Preliminary Ecological Appraisal (PEA) (Arbtech Consulting Ltd. 2025).

1.2 Site Context

The survey site is centred on National Grid Reference TQ 38695 31853 and has an area of approximately 5.9ha. The survey site lies to the south of East Grinstead town centre, and to the east of Sharpthorne village. The site comprises the grounds of Wickenden Manor, the lodge, and associated outbuildings. To the east of the site, Chilling Street borders the grounds. The west and south of the site is bordered by grazing pasture fields and woodland. The wider landscape comprises woodland and grassland, with arable fields occasionally. A site location plan is provided in **Appendix 2**.

1.3 BNG Informative

BNG is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation. In order to achieve BNG, a project must be able to demonstrate that it has followed all 10 of the Principles of Biodiversity Net Gain (as outlined in the *British Standard 8683:2021 Process for Designing and Implementing Biodiversity Net Gain*).

The legalised Environment Act (2021) requires developments in England to demonstrate a measurable net gain in biodiversity and sets a target of a minimum of +10% BNG for all developments. It also stipulates that a management plan with a minimum 30-year term should be adopted to ensure biodiversity net gain can be delivered. Biodiversity Net Gain became mandatory for new developments (non-exempt) on 12th February 2024.

The DEFRA Statutory Biodiversity Metric is the latest version of the metric tool used to calculate BNG. It enables the calculation of habitat value pre- and post-development in order to determine the overall change in biodiversity value as a result of the proposed development. The Biodiversity Metric has separate BNG assessments for areas of habitat, hedgerows and watercourses.

The biodiversity value of a site should be maximised. However, it may not always be possible to achieve a +10% biodiversity net gain within a site and therefore the Statutory Biodiversity Metric can also account for off-site habitat creation, where land is available. Alternatively, developers can seek to provide an agreed financial contribution to an appropriate third party (such as the Local Authority, the UK Government or another landowner) to deliver the required biodiversity net gain elsewhere on their behalf.

In accordance with the principles of the mitigation hierarchy, efforts have been made to avoid, minimize, and compensate for potential biodiversity impacts arising from the proposed development.

2.0 Methodology

2.1 Baseline Biodiversity Value

The baseline BNG calculation was informed by the PEA pertaining to the site (Arbtech Consulting Ltd. 2025); the baseline habitat plan is provided in **Appendix 3**.

Habitat Classification

The PEA classified the habitats on site according to the outdated JNCC Phase 1 survey technique. Habitats were translated to their equivalents in the UK Habitat Classification using The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, 2023).

Habitat Area/Length

The area or length of each habitat was calculated using qGIS software. In calculating the area or length of each habitat, habitats which occur as two or more isolated parcels across the site were combined, where they were deemed to be of a similar composition and condition. Distinctions were made between habitats to be retained (i.e. left as found in baseline), enhanced (i.e. improved condition) or lost (i.e. destroyed by proposed development). Areas of scattered trees were calculated using the Tree Helper tool within the Statutory Biodiversity Metric. Class sizes for urban trees are set out in Table 13 of the Draft Statutory Biodiversity Metric User Guide (Natural England, 2023).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the Draft Statutory Biodiversity Metric User Guide (Natural England, 2023).

Strategic Significance

Strategic significance was assigned for each habitat based upon a review of the following:

- Ecological value (based on the PEA);
- Function within the landscape (based on a review of Google and OS imagery); and
- Any site or habitat allocations under the relevant Local Planning Policy and Biodiversity Action Plan.

2.2 Post Development Biodiversity Value

The post development BNG Calculation was informed by the Proposed Plan, which is provided in **Appendix 1**. The habitat types present post-development have been illustrated on the plan in **Appendix 4**.

Habitat Classification

Proposed habitats were translated to their equivalents in the UK Habitat Classification using The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, 2023).

Habitat Area/Length

The area or length of each proposed habitat was calculated using qGIS software. In calculating the area or length of each habitat, habitats which occur as two or more isolated parcels across the site were combined, where they were deemed to be of similar composition and condition. Distinctions were made between habitats to be retained (i.e. left as found in baseline), enhanced (i.e. improved condition) or newly created. Areas of scattered trees were calculated using the Tree Helper tool within the Statutory Biodiversity Metric. Class sizes for urban trees are set out in Table 13 of the Draft Statutory Biodiversity Metric User Guide (Natural England, 2023).

Habitat Condition

Target habitat condition for each proposed habitat was determined assessed using the Temporal Multipliers Tool and the Enhancement Temporal Multipliers Tool included in the Statutory Biodiversity Metric spreadsheet as well as the relevant condition assessment sheets found in the Draft Statutory Biodiversity Metric User Guide (Natural England, 2023). This is based on the assumption that a 30-year management plan will be adopted for the site.

Strategic Significance

Strategic significance was assigned for each proposed habitat based upon a review of the following:

- Likely ecological value (based on the development plans and professional judgement);
- Function within the landscape (based on the location of the proposed habitats and a review of Google and OS imagery); and
- Any site or habitat allocations under the relevant Local Planning Policy and Biodiversity Action Plan.

2.3 Limitations

There are no limitations to this assessment.

3.0 Results and Evaluation

3.1 Baseline Habitats

Table 1 details the baseline habitats present within the site along with their area/length, condition, and strategic significance.

Table 1: Baseline Biodiversity Value

Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
Developed land; sealed surface	0.138 ha	Existing buildings	N/A	Low strategic significance
Developed land; sealed surface	0.4465 ha	Hardstanding	N/A	Low strategic significance
Woodland and forest	2.1618 ha	Other broadleaved woodland	Poor – see PEA	Medium strategic significance
Heathland and shrub	0.017 ha	Bramble scrub	N/A	Low strategic significance
Urban	0.5376 ha	Introduced shrub	N/A	Low strategic significance
Grassland	0.5563 ha	Other lowland acid grassland	Moderate – see PEA	Medium strategic significance
Grassland	0.104 ha	Other neutral grassland	Good – see PEA	Medium strategic significance
Grassland	1.635 ha	Modified grassland	Moderate – see PEA	Medium strategic significance
Sparsely vegetated land	0.0165 ha	Ruderal/ephemeral	Good – see PEA	Low strategic significance
Lakes	0.0057 ha	Pond 1	Moderate – see PEA	Medium strategic significance
Lakes	0.0281 ha	Pond 2	Poor – see PEA	Medium strategic significance
Urban	0.1076 ha	Artificial unvegetated, unsealed surface	N/A	Low strategic significance
Scattered trees	0.0651 ha	16 small trees	Good – see PEA	Medium strategic significance
Scattered trees	0.2443 ha	15 medium trees	Good – see PEA	Medium strategic significance
Scattered trees	0.2565 ha	7 large trees	Good – see PEA	Medium strategic significance
Scattered trees	0.2294 ha	3 very large trees	Good – see PEA	Medium strategic significance
Hedgerow	0.383km	Non-native and ornamental hedgerow	N/A	Low strategic significance

3.2 Post Development Habitats

Table 2 details the post development habitats present within the site along with their area/length, condition, and strategic significance.

Table 2: Post Development Biodiversity Value

Retained				
Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
Developed land; sealed surface	0.114 ha	Retained buildings	N/A	Low strategic significance
Developed land; sealed surface	0.3793 ha	Retained hardstanding	N/A	Low strategic significance

Woodland and forest	1.5 ha	Other broadleaved woodland – retained	Poor – see PEA	Medium strategic significance
Heathland and shrub	0.017 ha	Bramble scrub – retained	N/A	Low strategic significance
Urban	0.5344 ha	Introduced shrub – retained	N/A	Low strategic significance
Grassland	1.2 ha	Modified grassland – retained	Moderate – see PEA	Medium strategic significance
Sparsely vegetated land	0.0165 ha	Ruderal/ephemeral – retained	Good – see PEA	Low strategic significance
Scattered trees	0.0651 ha	15 small trees – retained	Good – see PEA	Medium strategic significance
Scattered trees	0.2443 ha	15 medium trees – retained	Good – see PEA	Medium strategic significance
Scattered trees	0.2565 ha	7 large trees – retained	Good – see PEA	Medium strategic significance
Scattered trees	0.2294 ha	3 very large trees – retained	Good – see PEA	Medium strategic significance
Hedgerow	0.383km	Non-native and ornamental hedgerow – retained	N/A	Low strategic significance
Created				
Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
Developed land; sealed surface	0.0804 ha	New building	N/A	Low strategic significance
Developed land; sealed surface	0.3551 ha	New hardstanding	N/A	Low strategic significance
Heathland and shrub	0.008 ha	Mixed scrub	Good (HMMP required)	Low strategic significance
Scattered trees	0.1221 ha	Proposed planting of 30 new small trees	Moderate (HMMP required)	Low strategic significance
Hedgerow	0.016km	Native hedgerow	Moderate (HMMP required)	Low strategic significance
Enhanced				
Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
Woodland and forest	0.5406 ha	Other broadleaved woodland – enhanced	Poor – Good (HMMP required)	Medium strategic significance
Grassland	0.104 ha	Other neutral grassland – enhanced	Good – see PEA	Medium strategic significance
Grassland	0.5563 ha	Other lowland acid grassland – enhanced	Moderate – Good (HMMP required)	Medium strategic significance
Grassland	0.2898 ha	Modified grassland – enhanced	Moderate – Good (HMMP required)	Medium strategic significance
Lakes	0.0057 ha	Pond 1 – enhanced	Moderate – Good (HMMP required)	Medium strategic significance
Lakes	0.0281 ha	Pond 2 – enhanced	Poor – Good (HMMP required)	Medium strategic significance

3.3 Change in Biodiversity Value of the Site

Full details are provided in the Defra Statutory Metric. The headline results are presented in **Appendix 5**.

Areas of Habitat

The baseline habitat value of the site is 34.87 units, comprising 9.51 woodland units, 0.07 bramble scrub units, 1.08 introduced shrub units, 4.90 other lowland acid grassland units, 1.37 other neutral grassland units, 7.18 modified grassland units, 0.1 ruderal units, 0.05 moderate ponds units, 0.12 poor ponds units, 10.50 scattered tree units, and developed land: sealed surface (no value).

The post development habitat value of the site is 38.50 units.

This results in a net change in biodiversity of 10.40% (i.e. a net gain).

Hedgerows

The baseline hedgerow value of the site is 0.38 units, comprising 0.38 non-native and ornamental hedgerow units.

The post development habitat value of the site is 0.44 units.

This results in a net change in biodiversity of 13.98% (i.e. a net gain).

4.0 Conclusions and Recommendations

4.1 Discussion

The current proposed plan results in a 10.40% net gain in habitat units, and a 13.98% net gain in hedgerow units. This is more than the 10% target of biodiversity net gain.

In order to achieve the required minimum 10% net gain in biodiversity as a result of the proposed development, the following habitat enhancements and creation have been included:

- Planting of mixed scrub
- Planting of scattered trees
- Planting of additional hedgerow
- Enhancement of the condition of the following retained habitats:
 - Broadleaved woodland
 - Dry acid grassland
 - Ponds
 - Modified grassland

A separate Habitat Management and Monitoring Plan (HMMP) or Biodiversity Net Gain Management Plan (BNG MP) will be developed for this site to ensure the correct installation and management of the above created and enhanced habitats.

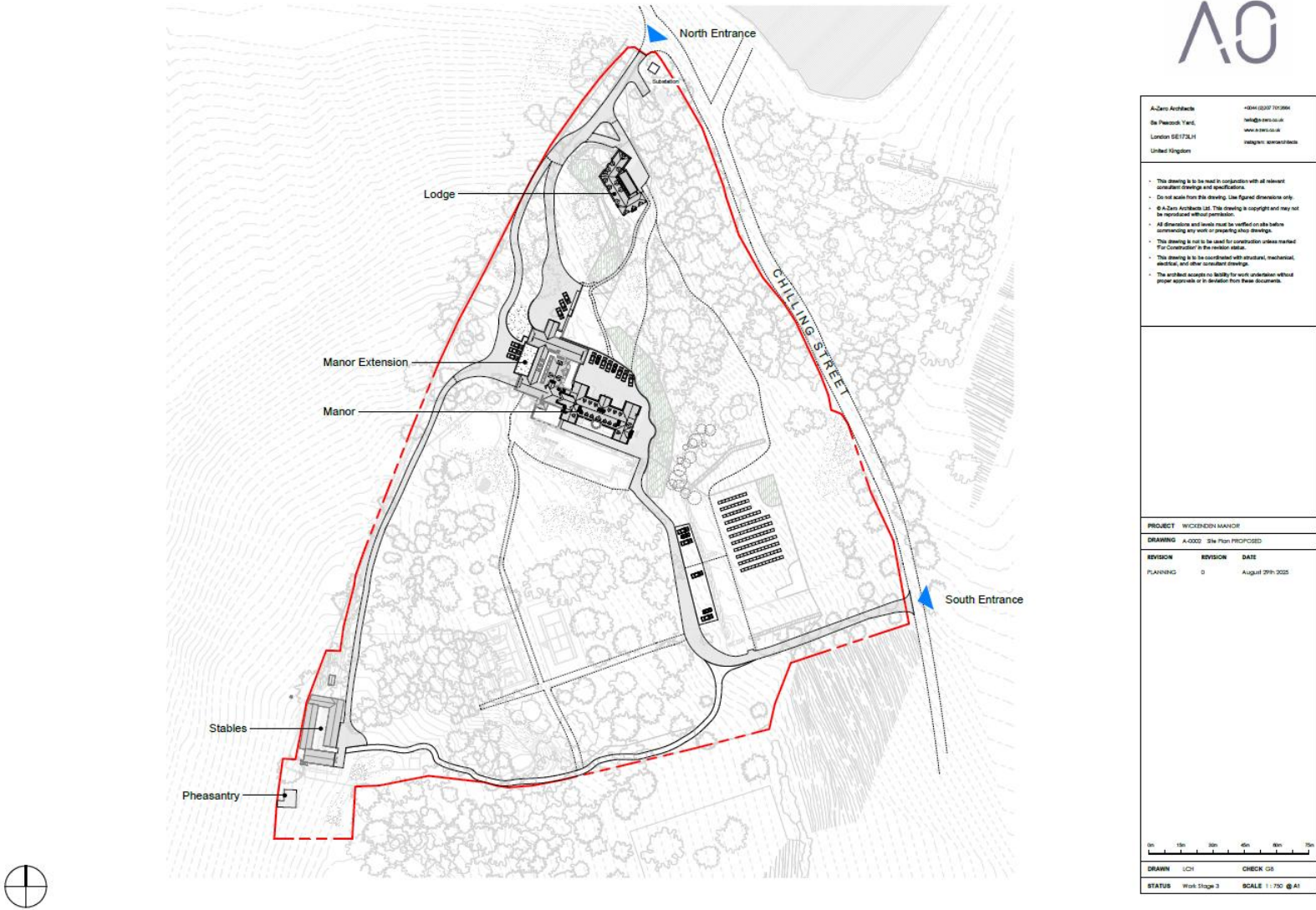
4.2 Post Development

A Biodiversity Net Gain (BNG) Management Plan must be produced for the site. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years. The habitats created and enhanced to achieve a net gain are illustrated on the post-development plan (Appendix 4), this is purely demonstrative. The BNG MP will show the exact location of the habitats to be created and enhanced.

5.0 Bibliography

- Arbtech Consulting Ltd. (2024). Statutory Biodiversity Metric. Wickenden Manor.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- CIEEM-CIRIA-IEMA (2019) Biodiversity Net Gain – Good Practice Principles for Development.
- Natural England (2023). The Draft Statutory Biodiversity Metric User Guide (November 2023). <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>
- Natural England (2023). The Statutory Biodiversity Metric (November 2023). <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>
- UK Habitat Classification Working Group (2023). UK Habitat Classification – Habitat Definitions V2.0.

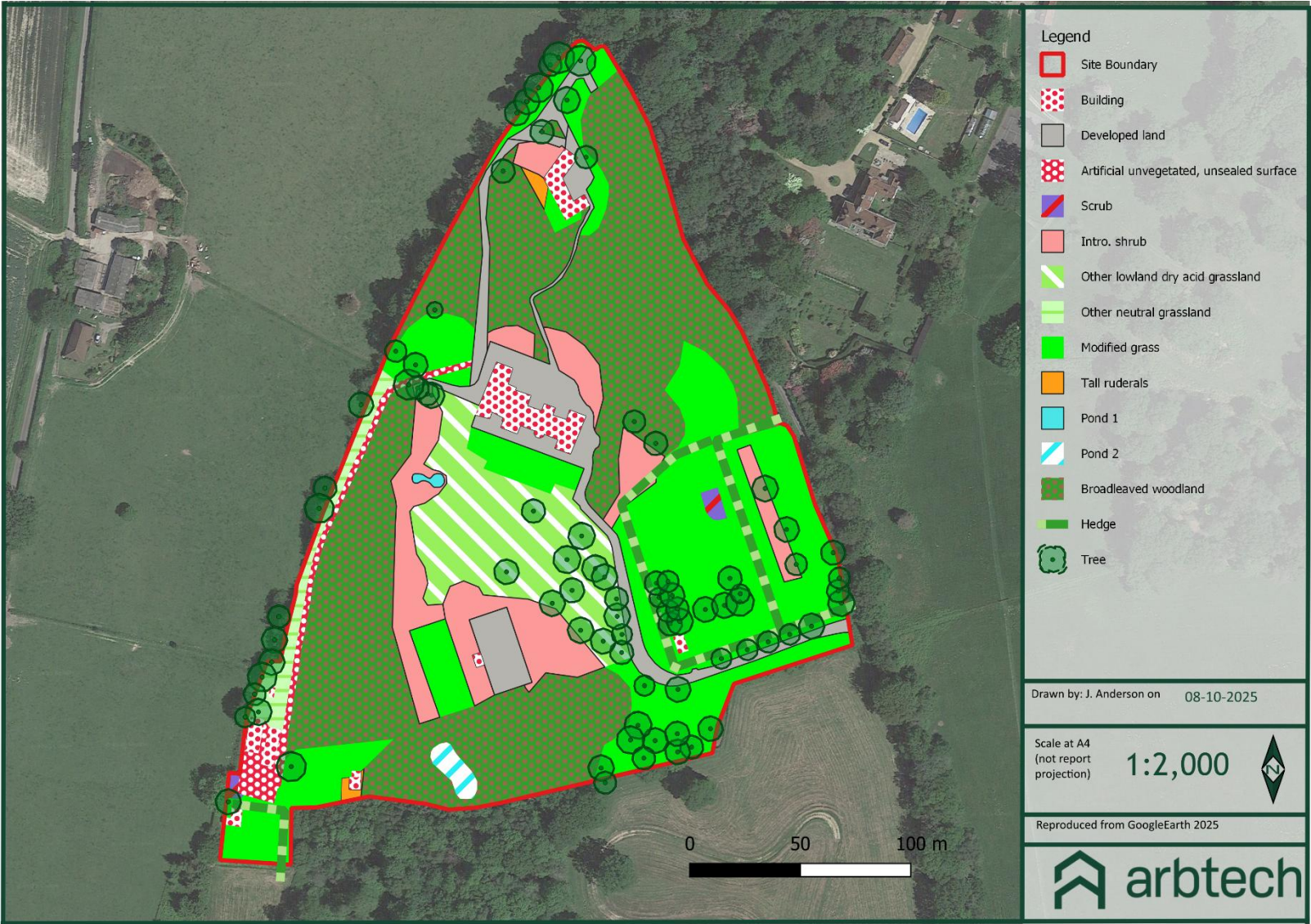
Appendix 1: Proposed Development Plan



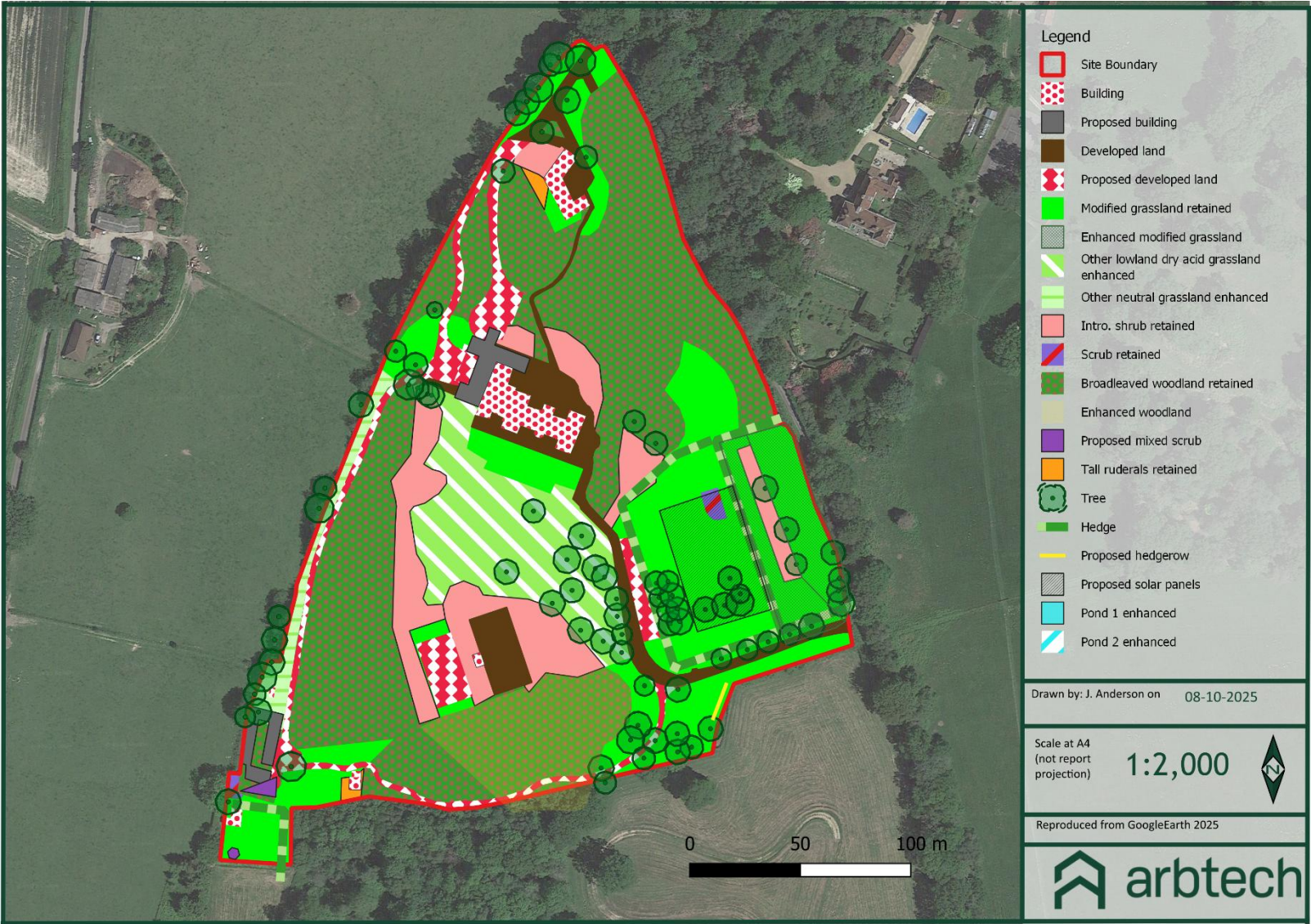
Appendix 2: Site Location Plan



Appendix 3: Baseline Habitat Survey Plan



Appendix 4: Post-Development Habitat Plan



Appendix 5: Headline Results

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	3.63
	<i>Hedgerow units</i>	0.05
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	10.40%
	<i>Hedgerow units</i>	13.98%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Habitat units</i>	10.00%	34.87	38.36	0.00
<i>Hedgerow units</i>	10.00%	0.38	0.42	0.00
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00

No additional area habitat units required to meet target ✓

No additional hedgerow units required to meet target ✓

No additional watercourse units required to meet target ✓