



Biodiversity Net Gain Assessment

Gilridge, Brighton Road, Handcross, Haywards Heath, West Sussex RH17 6BZ

Barry Davis & Sophie Moon

Status	Issue	Name	Date
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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.

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 Limited was instructed by Barry Davis & Sophie Moon to undertake a Biodiversity Net Gain (BNG) Assessment at Gilridge, Brighton Road, Handcross, Haywards Heath, West Sussex RH17 6BZ (hereafter referred to as “the site”). The assessment was required to inform a planning application for “Minor alterations to existing dwelling, erection of new 3 bed bungalow and associated access road, parking and amenity space” (hereafter referred to as “the proposed development”).

	Area units
% Change	-26.27%
Units required for a 10% net gain	0.04 habitat units, low distinctiveness

Areas of Habitat

The baseline habitat value of the site is 0.12 units, comprising 0.12 units of vegetated garden, as well as developed land and buildings which have no value.

The post development habitat value of the site is 0.08 units, comprising the creation of vegetated garden areas (0.08 units) and the creation of hardstanding and buildings which have no value.

This results in a net change in biodiversity of **-26.27%, a net loss.**

Hedgerow

Hedgerows have been omitted from the BNG assessment due to the private garden setting of both the baseline and proposed development site. However, all existing hedgerow is to be retained, and additional hedgerow added. Reaching net gain for linear habitats is highly likely, if applicable.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Barry Davis & Sophie Moon to undertake a Biodiversity Net Gain (BNG) Assessment at Gilridge, Brighton Road, Handcross, Haywards Heath, West Sussex RH17 6BZ (hereafter referred to as “the site”). The assessment was required to inform a planning application for “Minor alterations to existing dwelling, erection of new 3 bed bungalow and associated access road, parking and amenity space” (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

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

- Statutory Biodiversity Metric Calculation Tool for Gilridge, Brighton Road, RH17 6BZ – Version 1
- Preliminary Ecological Appraisal Report for Gilridge, Brighton Road, RH17 6BZ – Version 1

1.2 Site Location, Geology and Landscape Context

The survey site is centred on National Grid Reference TQ 26183 29649 and has an area of approximately 0.1 ha. The site comprises one dwelling (B1), two outbuildings (B2 & B3), associated areas of hardstanding, and area of vegetated garden with a few scattered trees. The site is located within the village of Handcross, directly adjacent to the A23 at the site's western border. The immediate landscape is formed of a small collection of numerous residential buildings, the A23, multiple fields, and several large parcels of woodland. Beyond this, woodland, grassland and agricultural land are the dominating features of the landscape. The site and its surrounding habitats are found within High Weald National Landscape. 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. The requirement for biodiversity net gain is also enshrined within the National Planning Policy Framework (NPPF, 2023).

The DEFRA Statutory Biodiversity Metric is the widely accepted 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 offsite 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.

2.0 Methodology

2.1 Baseline Biodiversity Value

The baseline BNG Calculation was informed by Preliminary Ecological Appraisal at Gilridge, Brighton Road, RH17 6BZ (Arbtech, 2025). A baseline habitat plan is provided in Appendix 3.

Habitat Classification

The Preliminary Ecological Appraisal Report for Gilridge, Brighton Road, RH17 6BZ classified the habitats on site according to The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 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 14 of the Statutory Biodiversity Metric User Guide (Natural England, 2024).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the Statutory Biodiversity Metric User Guide (Natural England, 2024).

Strategic Significance

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

- Ecological value
- Function within the landscape
- Any site or habitat allocations under the Adopted Mid Sussex District Plan 2014-2031

2.2 Post Development Biodiversity Value

The post development BNG Calculation was informed by Proposed Landscaping Plan which is included in Appendix 1. A post development habitat plan is provided 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, July 2023) and the information provided within the Proposed Landscaping Plan.

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 14 of the Statutory Biodiversity Metric User Guide (Natural England, 2024).

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 Statutory Biodiversity Metric User Guide (Natural England, 2024). 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
- Function within the landscape
- Any site or habitat allocations under the Adopted Mid Sussex District Plan 2014-2031

2.3 Limitations

The PEA survey was undertaken outside of the optimal season for surveying vegetation and as such the accuracy of botanical assessment and condition assessment data may be limited in terms of species visible and ground conditions at the time of survey. However, this is not considered a significant limitation given the mild conditions and the presence of sufficient indicator species to determine the habitats on site.

3.0 Results

3.1 Baseline Habitats

Table 1 details the baseline habitats present within the site along with their area/length, condition and strategic significance. A full condition assessment for each habitat (where relevant) is provided in Appendix 5a. Hedgerow is omitted due to the private garden setting.

Table 1: Baseline Biodiversity Value

Type	Habitat	Area (ha) / Length (km)	Description	Condition Assessment	Strategic Significance
Area Based	u1b5 - Buildings	0.019 ha	There are three buildings on site, including the main dwelling B1, an outdoor gym B2, and a small garden shed B3.	Habitat condition pre-determined as ' N/A ' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
	u1b – Developed land; sealed surfaces	0.029 ha	Areas of tarmac forming the driveway at the front (eastern) end of the property, and a concrete patio in the rear garden.		
	u1 – Vegetated garden (g4 – Modified grassland)	0.062 ha	Existing areas of vegetation within both the rear garden and the front garden of the residential property. Two small individual trees are noted in the southeastern corner of the property and are included within the vegetated garden habitat due to the small size. The habitat was assessed to fall under the habitat code g4 – Modified grassland but is found within a private garden area.		

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. Hedgerow is omitted due to the private garden setting. An assessment of the anticipated condition for each habitat (where relevant) is provided in Appendix 5b, which is based on the assumption that a 30-year management plan will be implemented for the site. The proposed development will result in the loss of vegetated garden, hardstanding and some buildings.

Table 2: Post Development Biodiversity Value

Type	Habitat	Area (ha) / Length (km)	Description	Condition Assessment	Strategic Significance
Area Based	u1b5 - Buildings	0.023 ha	Partially retained B1 (0.011 ha) and the new residential dwelling, as well as two small bike stores.	Habitat condition pre-determined as ' N/A ' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance Area/compensation not in local strategy/no local strategy and no evidence to suggest the habitat is of medium strategic significance (not part of a habitat corridor or steppingstone).
	u1b – Developed land; sealed surfaces	0.039 ha	New areas of permeable tarmac forming the driveway to both properties as well as turning and parking areas. Additionally, there are other small areas of hardstanding such as the garden patios and surface for the bike stores.		
		0.0025 ha	New hardstanding forming 50% of the proposed Grasscrete areas (the total area of Grasscrete within the site is 0.005 ha).		
	u1 – Vegetated garden	0.002 ha	Retained front garden area of garden containing the small trees and other shrubs.		
		0.0428 ha	Proposed new areas of garden, formed of two front gardens and two rear gardens, as well as grass lining the driveway.		
		0.0025 ha	New grass planted to form 50% of the proposed Grasscrete areas (the total area of Grasscrete within the site is 0.005 ha).		

3.3 Change in Biodiversity Value of the Site

Full details are provided in the Defra Statutory Biodiversity Metric. The headline results are presented in Appendix 6.

Areas of Habitat

The baseline habitat value of the site is 0.12 units, comprising 0.12 units of vegetated garden, as well as developed land and buildings which have no value.

The post development habitat value of the site is 0.08 units, comprising the creation of vegetated garden areas (0.08 units) and the creation of hardstanding and buildings which have no value.

This results in a net change in biodiversity of **-26.27%, a net loss.**

4.0 Recommendations to Deliver BNG

4.1 Discussion

The current proposed plan results in a -26.27% net loss in habitat units. **This is less 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 provision of additional or alternative landscaping should be explored and the proposed plans amended accordingly to either achieve a 10% net gain on site or to reduce off-site compensation requirements that may be required to achieve a 10% net gain.

4.2 Landscaping

To maximise the biodiversity value of the site itself, the following alterations to the current landscaping proposals could be considered:

- Adapting the current design to minimise the total footprint of the new development and maximise the area of vegetated garden.
- The allocation of a designated 'wildlife area' to be fenced off or suitably separated from the private gardens of the proposed development. Access to the habitat parcel must be achieved from the road or similar, without encroaching on any private gardens, for external management to take place.

Should these alterations be incorporated this BNG Assessment will need to be updated to accurately reflect the change in biodiversity value of the site pre- and post-development.

4.3 Biodiversity Offsetting

If the landscaping plans are not altered or if the above alterations still do not deliver a 10% net gain, the deficit will need to be delivered in a suitable offsite location i.e. biodiversity offsetting.

According to the Defra Statutory Biodiversity Metric there is a **unit deficit of 0.04 habitat units**, and this will need to be provided to offset the loss in biodiversity and achieve a 10% biodiversity net gain.

The mechanism for securing this off-setting will need to be proposed to, and confirmed by the LPA e.g., purchasing conservation credits through a registered provider, habitat creation directly through the client owned or LPA offered land or a financial contribution towards another provider such as a local nature reserve or park. As well as

the creation of new habitats, this should also secure the management of the proposed habitats to help achieve the desired condition for at least 30 years. This would be linked to the application through a planning obligation Section 106 (S106) agreement. The proposed habitat compensation should be of an appropriate distinctiveness to meet the trading rules of BNG. An ecology survey of the baseline habitat of any off-site land will be required to inform the baseline conditions of any land subject to off-site compensation measures.

4.4 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.

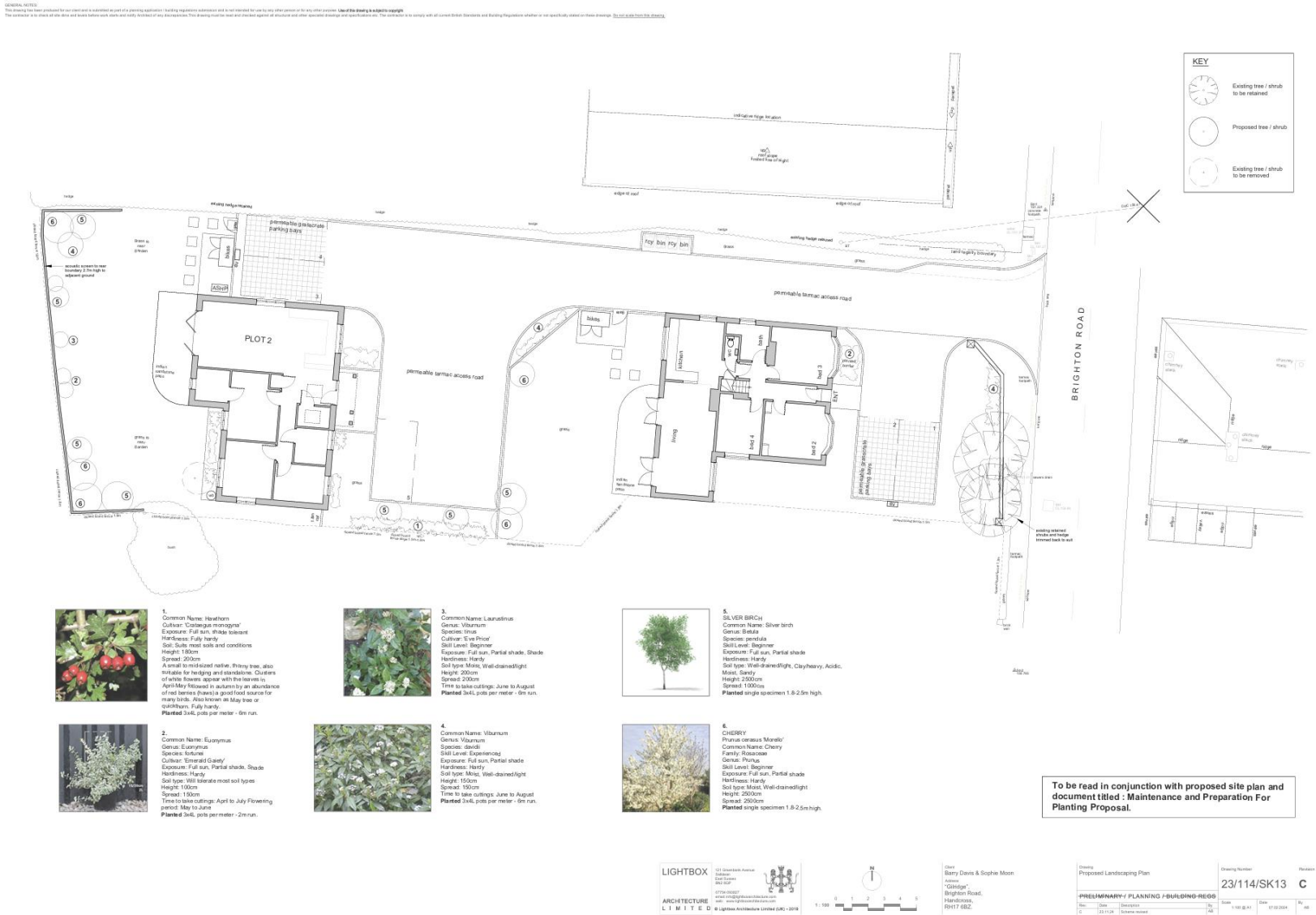
4.5 Design Statement

This report contains recommendations on measures for achieving BNG. These recommendations do not constitute a design for BNG. In submitting these recommendations, Arbtech Consulting has no Design Liability associated with these recommendations for BNG. The strategy sets out the criteria which the landscape team can use to design the creation and management of the site.

5.0 Bibliography

- Arbtech Consulting Ltd. (2024). Preliminary Ecological Appraisal (PEA) for Gilridge, Brighton Road, RH17 6BZ – Version 1.0
- 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.
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey a technique for environmental audit.
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- Natural England (2024). The Statutory Biodiversity Metric (JP039).
- Natural England (2024). The Statutory Biodiversity Metric User Guide (JP039).
- Natural England (2024). The Statutory Biodiversity Metric Technical Annex 1 - Condition Assessment Sheets and Methodology (JP039).
- Natural England (2024). The Statutory Biodiversity Metric Technical Annex 2 – Technical Information (JP039).
- The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023)

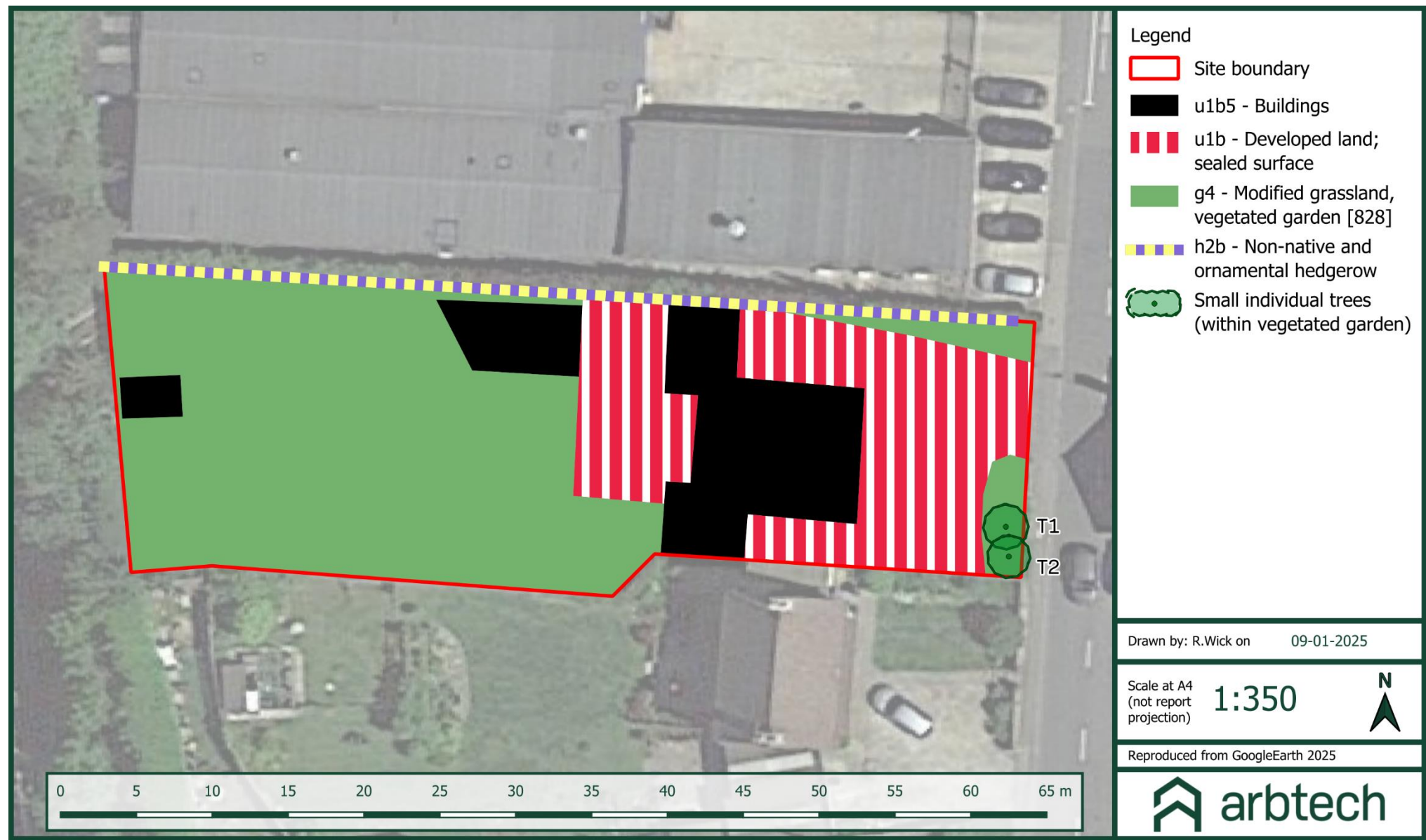
Appendix 1: Proposed Development Plan



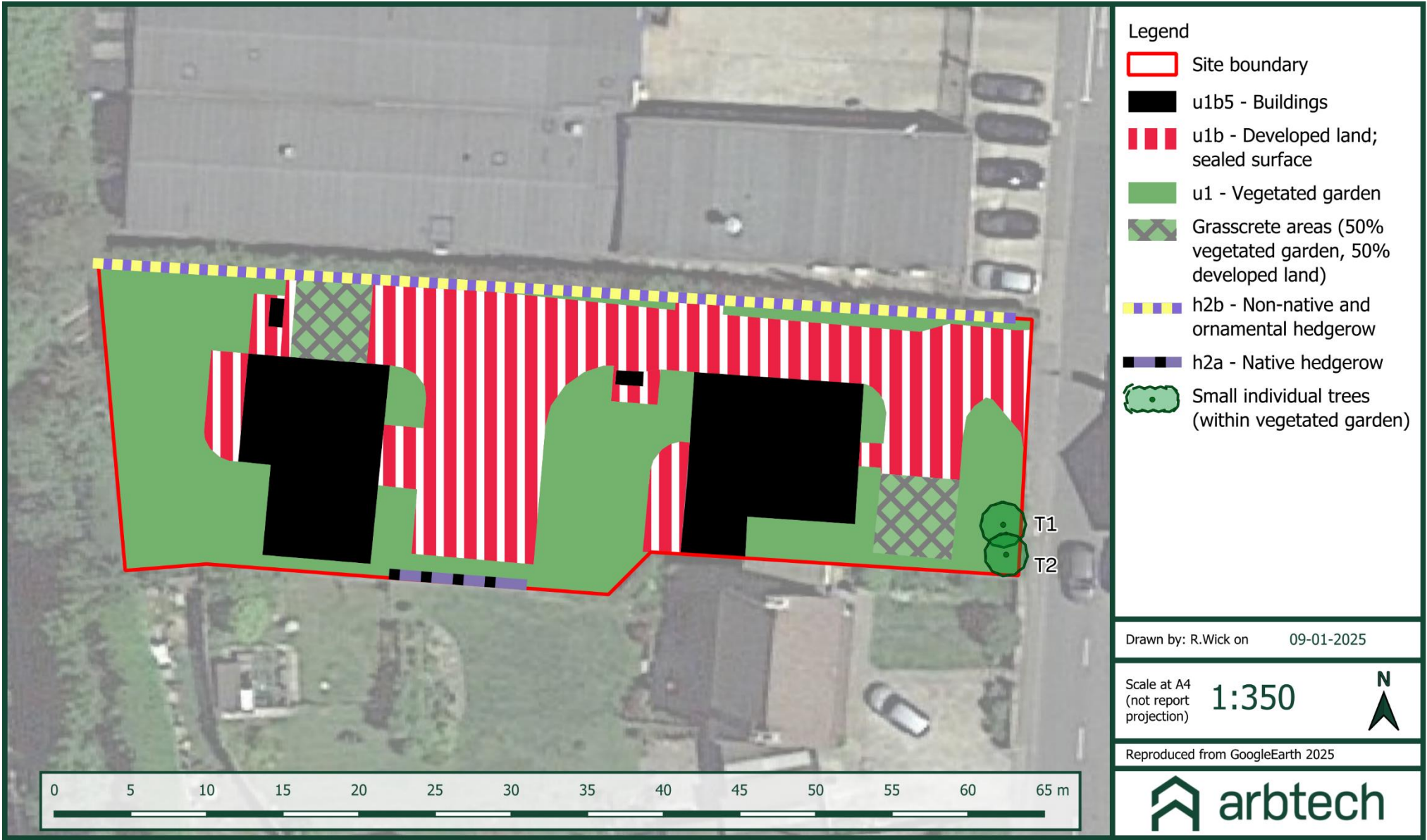
Appendix 2: Site Location Plan



Appendix 3: Baseline Habitat Plan



Appendix 4: Post Development Habitat Plan



Appendix 5a: Habitat Condition Assessment Sheets - Baseline

Not applicable.

Appendix 5b: Habitat Condition Assessment Sheets – Proposed

Not applicable.

Appendix 6: Headline BNG Results

The Defra Statutory Biodiversity Metric is provided as a separate excel spreadsheet.

FINAL RESULTS			
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-0.03	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-26.27%	Total net gain achieved is less than target set ▲
	Hedgerow units	0.00%	
	Watercourse units	0.00%	
Trading rules satisfied?	No - Check Trading Summaries ▲		