



Biodiversity Net Gain Assessment

62 London Road, Reading, RG1 5AS

Trinity College Cambridge

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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 Trinity College Cambridge to undertake a Biodiversity Net Gain (BNG) Assessment at 62 London Road, Reading, RG1 5AS (hereafter referred to as “the site”). The assessment was required to inform a planning application for the conversion of the ground floor into a school. (hereafter referred to as “the proposed development”).

To achieve a 10% net gain, 0.044 additional units will be required. There are currently no proposed plans showing onsite habitats affected by the proposed development.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Trinity College Cambridge to undertake a Biodiversity Net Gain (BNG) Assessment at 62 London Road, Reading, RG1 5AS (hereafter referred to as “the site”). The assessment was required to inform a planning application for the conversion of the ground floor into a school. (hereafter referred to as “the proposed development”).

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

- Defra Statutory Biodiversity Metric.
- Preliminary Ecological Appraisal and Preliminary Roost Assessment (PEA & PRA) (Arbtech Consulting Ltd, 2024).

1.2 Site Location, Geology and Landscape Context

The site is located at National Grid Reference SU 72679 73046 and has an area of approximately 0.16ha comprising one building, hard standing, vegetated garden and scattered trees. It is surrounded by residential dwellings within the town of Reading and tree lined boundaries along the roads. The river Thames is located to the north of the site, the river Kennet and A33 dual carriageway to the west, pockets of woodland interspersed between buildings to the south and the town of Woodley to the east. A site location plan is provided in Appendix 1.

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 Environment Act (2021) is still in a transitional phase and is not expected to become mandatory until November 2023. However, the requirement for biodiversity net gain is also enshrined within the National Planning Policy Framework (NPPF, 2021).

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 DEFRA 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 PEA & PRA (Arbtech Consulting Ltd, 2024). A baseline habitat plan is provided in Appendix 2.

Habitat Classification

The PEA & PRA (Arbtech Consulting Ltd, 2024) 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 DEFRA Statutory Biodiversity Metric. Class sizes for urban trees are set out in Table 8-1 of the DEFRA Statutory Biodiversity Metric User Guide (Natural England, 2024).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the DEFRA 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

2.3 Limitations

None.

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 3.

Table 1: Baseline Biodiversity Value

Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
Developed Land; Sealed Surface	0.1116ha	The majority of the site is comprised of developed land. The hard standing is comprised of tarmac and is of negligible habitat value. There is one building onsite, a two-storey dwelling with a pitched and flat roof. The building will not be affected by the proposed plans.	N/A - Other	Area/compensation not in local strategy/ no local strategy
Vegetated Garden	0.0325ha	To the south of the site and extending north along the western boundary is an area of vegetated garden which is subject to mowing, resulting in a sward of approximately 3-5cm in length. Species composition is comprised of perennial ryegrass (D), green alkenet (F), common mallow (O), small-flowered cranesbill (O), daisy (O), dandelion (O), creeping buttercup (R) and cleavers (R). There are also areas of bare ground which makes up approximately 20% of the vegetated garden	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy
Individual Trees	0.0448ha	Present onsite are four individual scattered trees which are comprised of horse chestnut, sycamore, beech and cypress.	Moderate	Area/compensation not in local strategy/ no local strategy
Individual Trees	0.0041ha		Poor	Area/compensation not in local strategy/ no local strategy

Areas of Habitat

The baseline habitat value of the site is 0.44 units, comprising 0.07 units of vegetated garden, 0.36 units of moderate urban trees and 0.02 units of poor urban trees. Developed land; sealed surface provides no habitat units.

4.0 Recommendations to Deliver BNG***4.1 Discussion***

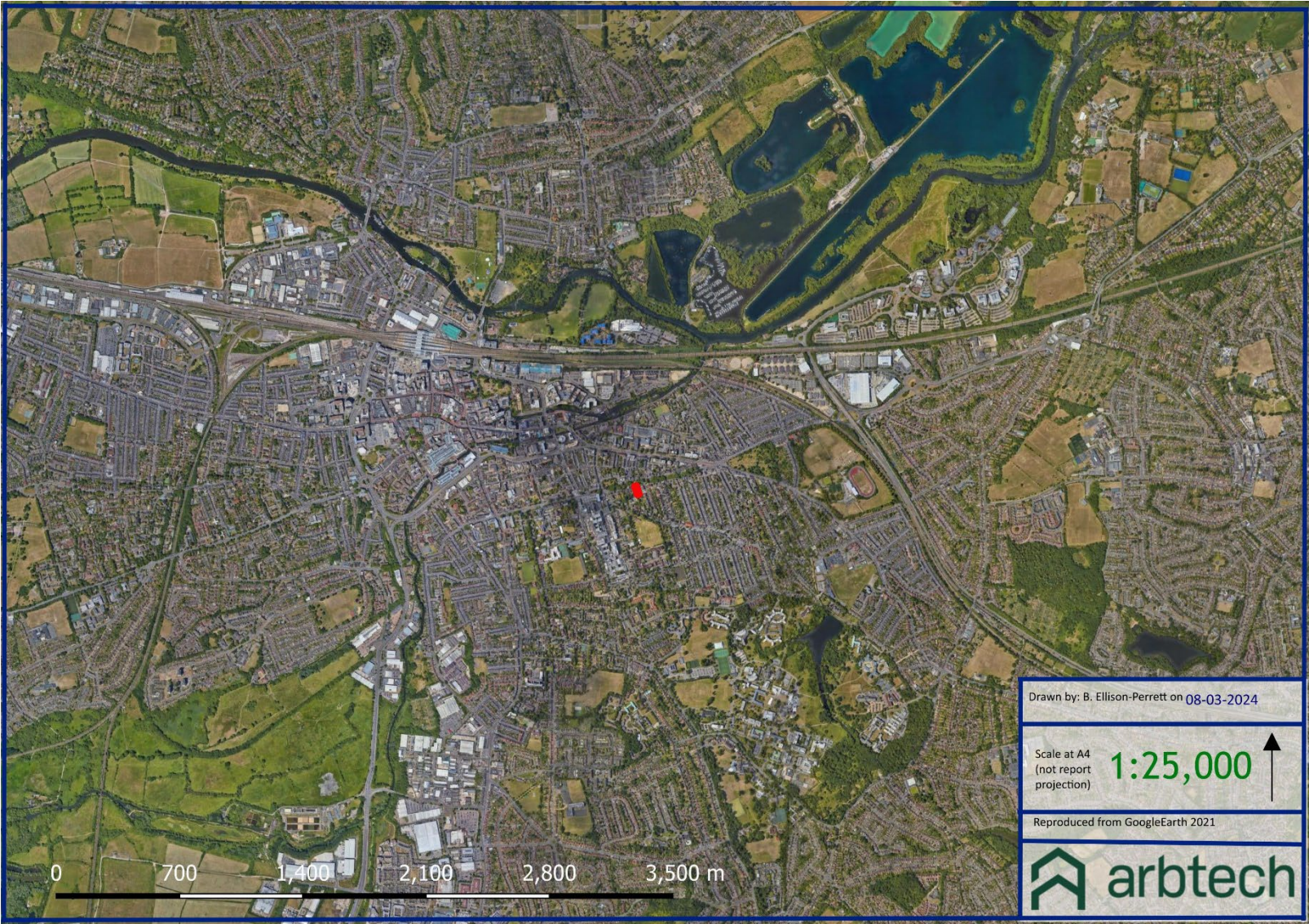
To achieve a 10% net gain, 0.044 additional units will be required. There are currently no proposed plans showing onsite habitats affected by the proposed development. An uplift in habitat units on site can be achieved through the planting of individual trees. An uplift in hedgerow units can be achieved through planting of native hedgerow along site boundaries.

The post development metric will be required to determine the post-development units on-site and therefore calculate the total biodiversity net change on-site.

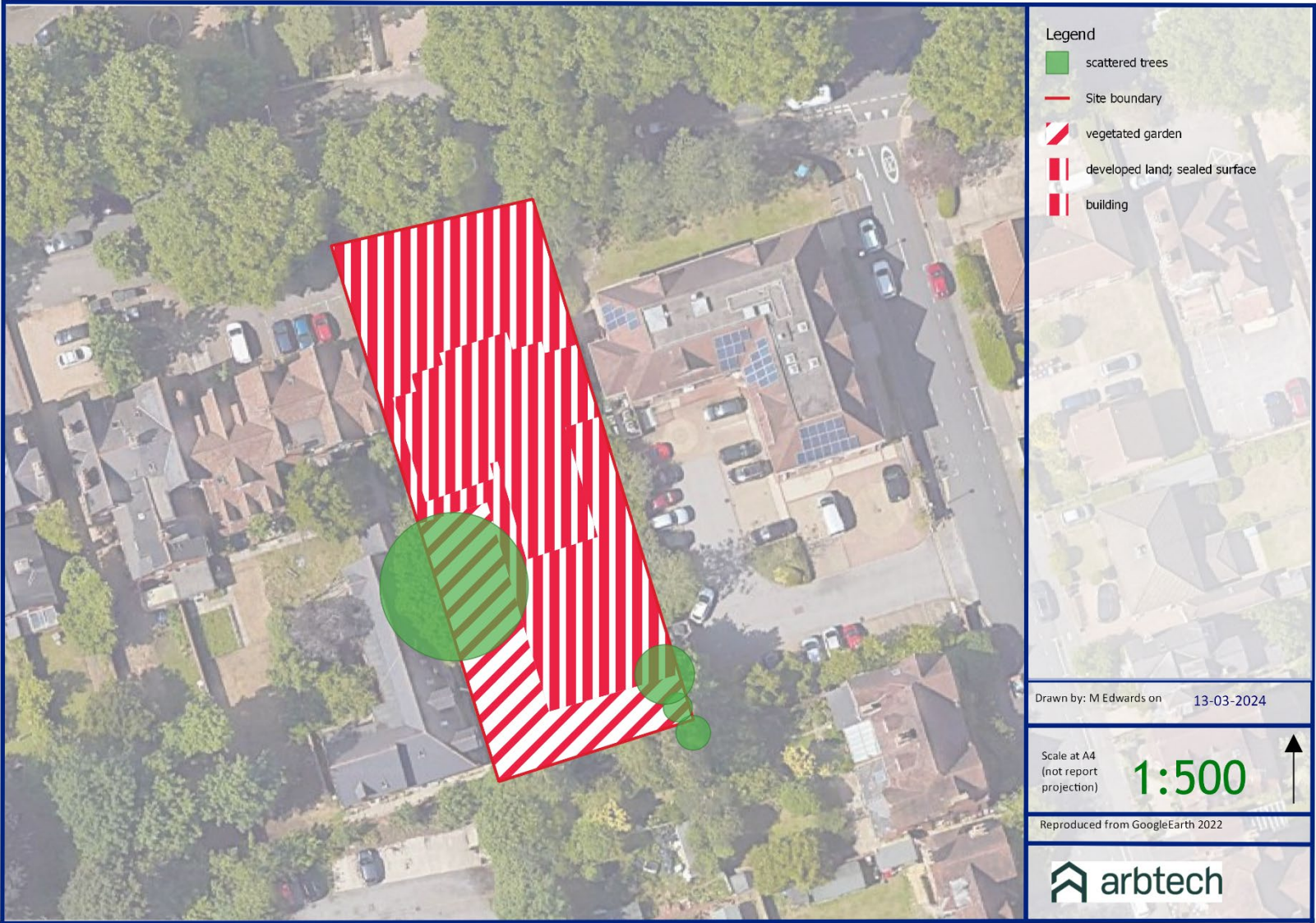
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Appendix 1: Site Location Plan



Appendix 2: Baseline Habitat Plan



Appendix 3: Habitat Condition Assessment Sheets - Baseline

Tree Ref	Species	Tree DBH	BNG Size	A	B	C	D	E	F	Condition
T1	Horse Chestnut	1350	Large	No	Yes	Yes	No	Yes	Yes	M
T2	Sycamore	150	Small	Yes	Yes	No	No	No	Yes	M
T3	Beech	200	Small	Yes	Yes	No	No	No	Yes	M
T4	Cypress	250	Small	No	Yes	No	No	No	Yes	P