STONE & BRICK
SOLUTIONS
REPORTS AND ASSESSMENTS

23 Pine Gardens Ruislip, Hillingdon HA4 9TN

Biodiversity Net Gain Calculation

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1 Introduction

This report was done by MM Environmental on behalf of Stone & Brick Solutions LTD

Stone & Brick Solutions Ltd received a request to perform a Biodiversity Net Gain (BNG) Assessment for the location at 23, Pine Gardens, Ruislip, Hillingdon, HA4 9TN referred to as "the site." This assessment was necessary to provide information for a planning application for the development of refurbishment of the property and associated new landscape scheme. You can find a visual representation of the proposed development in Appendix 3.

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1.2 Site Context

The site is located at 23, Pine Gardens, Ruislip, Hillingdon, HA4 9TN, The site comprises Residential property with front and rear garden (Figure 1 site location).

Figure 1 Site in situ, boundary highlighted red (source Google)

1.3.1 Report Background

1.3.2 Biodiversity Net Gain (BNG) represents a specific, quantifiable result of project activities that yield clear and measurable advantages to biodiversity compared to the initial situation. A project must demonstrate adherence to all 10 Principles of Biodiversity Net Gain.

1.3.3 The Environment Act (2021), which has recently become law, mandates that developments in England must prove a measurable net gain in biodiversity, with a minimum target of 10% BNG for all projects. It also specifies adopting a management plan with a minimum 30-year duration to ensure the delivery of biodiversity net gain. While the Environment Act (2021) is presently in a transitional phase and not yet obligatory (expected in 2024), the National Planning Policy Framework (NPPF) has the requirement for biodiversity net gain.

1.3.4 The DEFRA Biodiversity Metric is the widely accepted tool for calculating BNG. It facilitates the assessment of habitat value both before and after development to determine the overall change in biodiversity value resulting from the proposed development. The Biodiversity Metric offers separate BNG evaluations for habitat areas, hedgerows, and watercourses.

1.3.5 QGIS software provided calculations of the area or length of each habitat. The habitats, which consisted of two or more separate parcels across the site with similar composition and condition, were combined. The calculation defined categorizing habitats for retention (unaltered from the baseline), enhancement (improved condition), or loss (destroyed by the proposed development). Additionally, scattered trees calculation helper tool was utilized to provide area calculation metric. The Tree Helper tool within the Biodiversity Statutory Metric. The tree tree calculation explanation is in Table 8-2 of the Biodiversity Statutory small site Metric User Guide.

1.3.6 Determining the Initial Biodiversity Value to establish the baseline for Biodiversity Net Gain (BNG) calculations was done using small site metric Small Site Metric as the size of the plot is below 0.5ha; it is not located within 500m from statutory or non-statutory site and there is no evidence of protected species on the site. The details of the assessment of individual habitats can be found in Appendix 4 (if applicable).

1.3.7 Each habitat received a strategic significance rating based on a thorough review, considering factors such as ecological value, the role of the habitat within the landscape, and any site or habitat allocations outlined in the Local Biodiversity Action Plan.

1.4 Limitation

1.4.1 Every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, however this report does not provide a complete characterization of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

1.4.2 The site was visited over the period of one day, as such seasonal variations cannot be observed and only a selection of all species that potentially occur within the site have been noted. Therefore, the survey provides a general assessment of potential nature conservation value.

1.4.3 The site was visited in **13th February 2025** such all species of flora might have been missed as a part of the assessment. Thus, revisiting during the vegetative season is advisable.

1.4.4 All existing and removed small trees (<30cm in trunk diameter) were omitted from the calculation as per Biodiversity net gain guidance.

1.4.5 If any trees existed in location of the piles of brushes is speculative such any trees were omitted from the calculation.

2. Results and Evaluation

2.1 Existing habitat value

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

2.1.2 Total biodiversity value of the site has been established at 0.0502 habitat units.

Broad Habitat	Habitat type	Targeted condition	Strategic significance	E. Total Area (m^2)
Urban	Developed land; sealed surface	N/A - Other	Area/compensation not in local strategy/ no local strategy	45.00
Urban	Vegetated garden	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	251.00
Urban	Vegetated garden	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	1096.00

Table 1 identified Baseline Habitats

2.2 Proposed habitat value

2.2.1 The proposal seeks development of extension of existing building and separating the property to 2 residential units with separated gardens.

2.2.2 Total biodiversity value after facilitation displays 0.0396 or negative 21.12% of habitat units.

2.2.3 Table 2 details preliminary outline habitats within the site based on the proposal and provided landscape scheme.

Broad Habitat	Habitat type	Targeted condition	Strategic significance	E. Total Area (m^2)
Urban	Developed land; sealed surface	N/A - Other	Area/compensation not in local strategy/ no local strategy	98.00
Urban	Vegetated garden	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	198.00

Table 2 Post development proposed habitats.

2.2.4 Detailed results of the calculation are submitted separately of this document. Headline results can be found in appendix 4.

3 Conclusions and Recommendations

3.1.1 A baseline assessment of the biodiversity value has been completed, and the proposal currently does not meet the required biodiversity baseline without the purchase of additional biodiversity units.

3.1.2 The proposal by nature cannot achieve biodiversity net gain and such biodiversity units will have to be purchased. As present the proposal requires additional 0.0156 habitat units, which can be purchased either from local biodiversity bank or by applying biodiversity credits from government (https://www.gov.uk/guidance/buying-statutory-biodiversity-credits), in order to satisfy LPA 10% increase in biodiversity.

3.1.3 By acquiring biodiversity units from the local biodiversity bank, the proposal will successfully meet the required ecological standards, making it a positive contribution to local environmental goals

Appendix 1 – References

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.

Google Earth (2021) accessed on 27/01/2023.

Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey a technique for environmental audit.

http://jncc.defra.gov.uk/PDF/pub10_handbookforphase1habitatsurvey.pdf

Magic database (2022) http://www.magic.gov.uk/MagicMap.aspx accessed on

27/01/2023.

PANKS, S.A., WHITE, N., NEWSOME, A., NASH, M., POTTER, J., HEYDON, M., ALVAREZ, M., RUSSELL, T., CASHON, C., GODDARD, F., SCOTT, S.J., HEAVER, M., SCOTT, S.H., TREWEEK,

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J., Butcher, B. & Stone, D. 2022). Biodiversity metric 3.1: Auditing and accounting for biodiversity – Technical Supplement. Natural England.

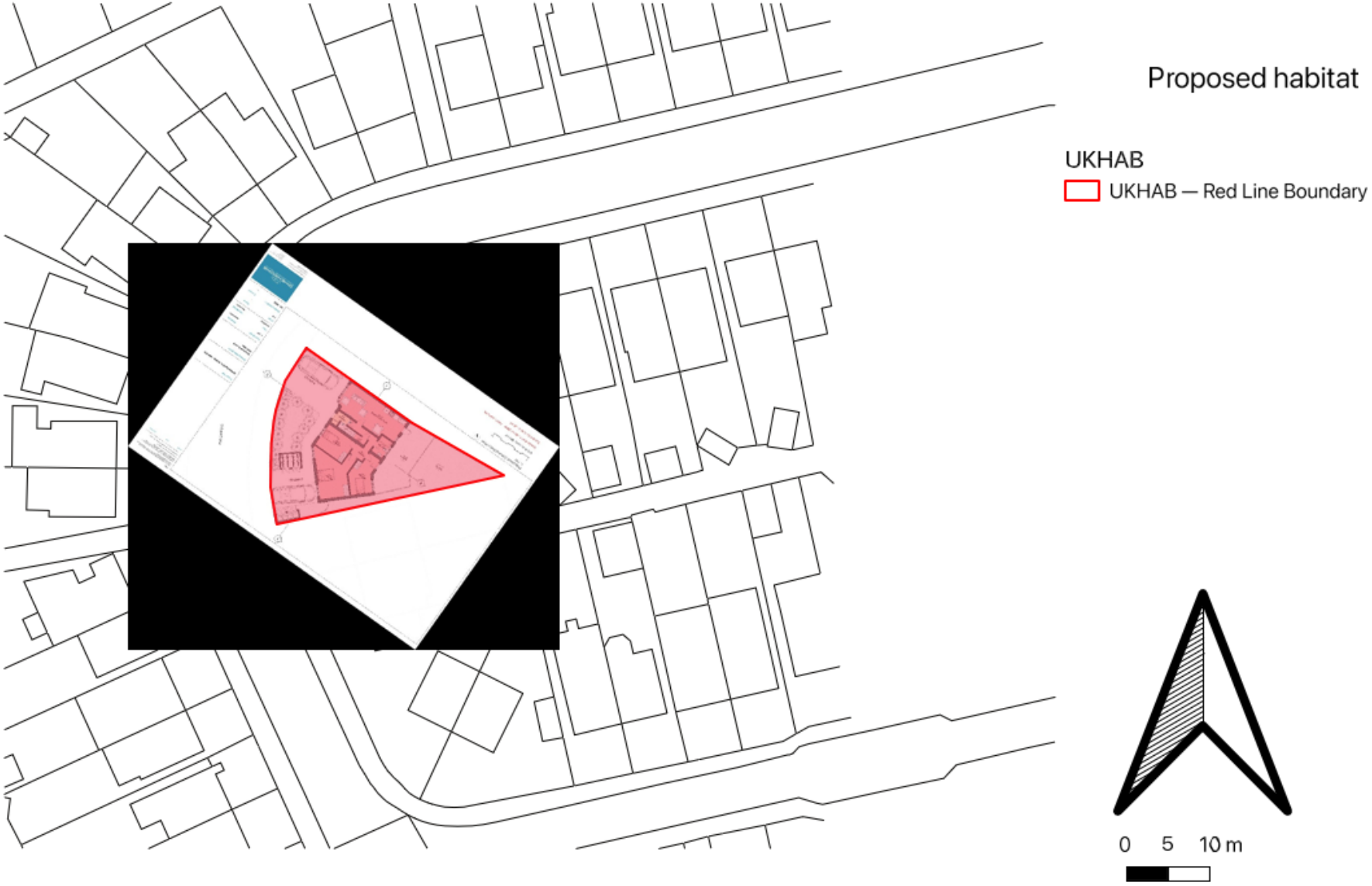
The Biodiversity Metric 4.0 (June 2023).

HTTP://PUBLICATIONS.NATURALENGLAND.ORG.UK/PUBLICATION/6049804846366720

UK Habitat Classification Working Group (2018). UK Habitat Classification – Habitat Definitions V1.0 http://ecountability.co.uk/ukhabworkinggroup- ukhab/

Appendix 2 - Existing UKHab Plan

Appendix 3: Proposed UKHab Plan



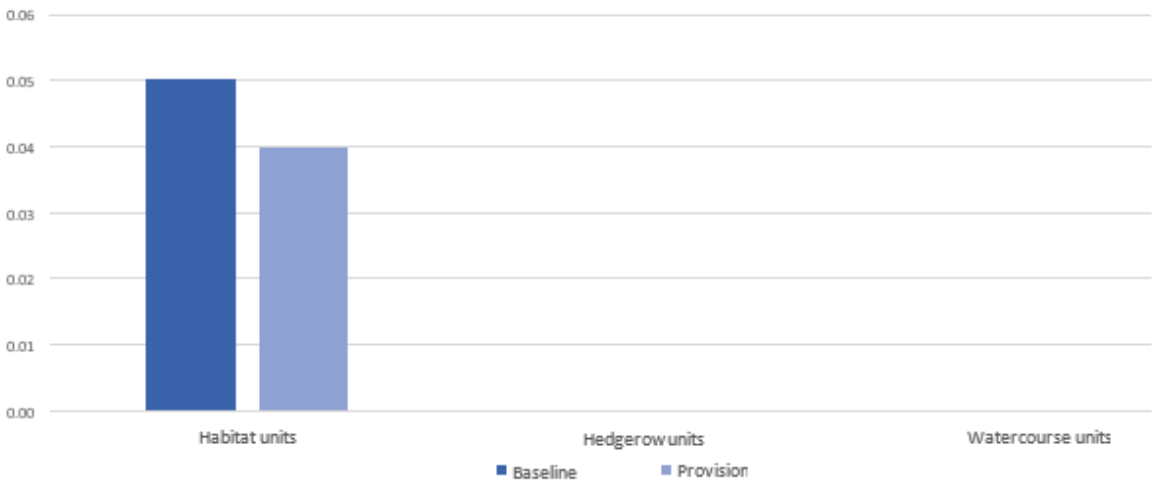
Appendix 4: BNG Calculation Headline Results Spreadsheets

Site Name		23, Pine Gardens, Ruislip, Hillingdon, HA4 9TN
Sheet Name		Headline Results

Headline Results

Headline		BNG Targets Not Met ▲
Trading Rules		Trading Rules Not Satisfied ▲
Next steps		Scheme alterations or offsite units required
Baseline Units	*Habitat units*	0.0502
	Hedgerow units	Zero Units Baseline
	Watercourse units	Zero Units Baseline
Post-development Units	*Habitat units*	0.0396
	Hedgerow units	0.0000
	Watercourse units	0.0000
Total net unit change	*Habitat units*	-0.0106
	Hedgerow units	0.0000
	Watercourse units	0.0000
Total net % change	*Habitat units*	-21.12%
	Hedgerow units	% target not appropriate
	Watercourse units	% target not appropriate
Habitats units required to meet target		0.0156
Hedgerow units required to meet target		0.0000
Watercourse units required to meet target		0.0000

Chart 1 - Unit change by habitat group



Photos from site visit February 2025