



Biodiversity Net Gain Assessment

2-4 Ennerdale Road, Richmond, Richmond upon Thames, London, TW9 3PG

The Park Property Group (Kew) Ltd

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 The Park Property Group (Kew) Ltd to undertake a Biodiversity Net Gain (BNG) Assessment at 2-4 Ennerdale Road, Richmond, Richmond upon Thames, London, TW9 3PG (hereafter referred to as “the site”). The assessment was required to inform a planning application for the conversion and division of two Victorian buildings into semis including demolition of extension and erection of new housing (hereafter referred to as “the proposed development”).

The baseline habitat value of the site is 0.06 area-based habitat units with the proposed development resulting in a 60.83% area-based net gain and a 100% net gain for hedgerows (from a baseline of 0). The proposed development is therefore anticipated to surpass the minimum target of 10% biodiversity net gain and thus is compliant with legislation (Environment Act 2021).

Additional landscaping has been recommended to further improve the overall biodiversity of the site. This includes;

- Planting of individual native trees such as fruit bearing trees, elder, lime or hawthorn.

The habitats proposed on site include private garden, buildings and hardstanding all of which are low value urban habitats which do not require long-term management, therefore post-development maintenance and management is not required, and a Biodiversity Net Gain Management Plan will not be needed for the site.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by The Park Property Group (Kew) Ltd to undertake a Biodiversity Net Gain (BNG) Assessment at 2-4 Ennerdale Road, Richmond, Richmond upon Thames, London, TW9 3PG (hereafter referred to as “the site”). The assessment was required to inform a planning application for the conversion and division of two Victorian buildings into semis including demolition of extension and erection of new housing (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:

- Defra Statutory Biodiversity Metric
- Preliminary Ecological Appraisal and Roost Assessment (Arbtech, May 2024)

1.2 Site Location, Geology and Landscape Context

The site is located at National Grid Reference TQ 18953 76667 and has an area of approximately 0.14ha comprising buildings, hardstanding and vegetated garden. It is surrounded by residential dwellings and gardens in all directions and is bound by Ennerdale Road to the south with Kew Gardens located ~0.2km west of the site boundary. The site is situated in a highly urbanised setting in the centre of Hammersmith Borough of London City, thus the wider landscape is highly urbanised interspersed with good quality woodland, grassland and pasture. The underlying soil type is a freely draining, slightly acid, loamy soil. 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 the Preliminary Ecological Appraisal and Roost Assessment (Arbtech, May 2024). A baseline habitat plan is provided in Appendix 3.

Habitat Classification

The Preliminary Ecological Appraisal and Roost Assessment 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).

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 London Borough of Richmond upon Thames Local Plan (Adopted 2018)

2.2 Post Development Biodiversity Value

The post development BNG Calculation was informed by the Development 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 Development 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.

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 London Borough of Richmond upon Thames Local Plan (Adopted 2018)

2.3 Limitations

No specific limitation identified.

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.

Table 1: Baseline Biodiversity Value

Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
Developed land; sealed surface – u1b6 (buildings)	0.08ha	There are a total of 5 buildings on site.	N/A – Other	Low strategic significance. Area/compensation not in local strategy.
Developed land; sealed surface – u1b (hardstanding)	0.028ha	Hardstanding is present between buildings and is used as a driveway and pathways.	N/A – Other	Low strategic significance. Area/compensation not in local strategy.
Vegetated garden - 828	0.03ha	Small patches of vegetated garden are present throughout the site.	Condition assessment N/A	Low strategic significance. Area/compensation not in local strategy.

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. The proposed development will result in the additional of vegetated garden.

Table 2: Post Development Biodiversity Value

Habitat	Area / Length	Description	Target Condition	Strategic Significance
Developed land; sealed surface – u1b6 (buildings)	0.064ha	Retained and created buildings.	N/A – Other	Low strategic significance. Area/compensation not in local strategy.

Developed land; sealed surface – u1b (hardstanding)	0.03ha	Hardstanding pathways and driveways throughout the site.	N/A – Other	Low strategic significance. Area/compensation not in local strategy.
Vegetated garden - 828	0.05ha	Vegetated garden to the front and rear of each of the properties on site.	Condition assessment N/A	Low strategic significance. Area/compensation not in local strategy.
Non-native and Ornamental Hedgerow	0.17km	Ornamental hedgerows lining each of the harden spaces.	Poor – automatically poor in the statutory biodiversity metric.	

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 5.

Areas of Habitat

The baseline habitat value of the site is 0.06 units, comprising buildings and hardstanding (no value) and 0.06 units of vegetated garden.

The post development habitat value of the site is 0.1 units, comprising the retention and creation of buildings and hardstanding (no value), creation of additional vegetated garden (0.1 units).

This results in a net change in biodiversity of 60.83% (i.e. a net gain).

Hedgerows

There are no hedgerows currently present on the site, therefore the baseline hedgerow value of the site is 0 units.

The post development hedgerow value of the site is 0.16 units, comprising the creation of ornamental hedgerows throughout the garden spaces.

As there is no baseline hedgerow value, the statutory biodiversity metric cannot calculate the percentage net gain on the site, therefore this is displayed as N/A, however, the addition of any hedgerows on the site will result in a 100% net gain.

4.0 Discussion

The current proposed plan results in a 60.83% net gain and 100% net gain in hedgerows units. This is more than the 10% target of biodiversity net gain. The proposed development is therefore anticipated to surpass the minimum target of 10% biodiversity net gain and thus is compliant with legislation (Environment Act 2021).

4.1 Landscaping

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

- Planting of native individual trees on site will provide refuge and shelter for invertebrates, birds and bats. A series of small, medium and large trees can be planted throughout the site. Recommended species include; elder, holly, rowan or lime.

4.2 Post Development

The habitats proposed on site include private garden, buildings and hardstanding all of which are low value urban habitats which do not require long-term management, therefore post-development maintenance and management is not required, and a Biodiversity Net Gain Management Plan will not be needed for the site.

5.0 Bibliography

- 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.
http://jncc.defra.gov.uk/PDF/pub10_handbookforphase1habitatsurvey.pdf
- London Borough of Richmond upon Thames Local Plan (2018)
https://www.richmond.gov.uk/services/planning/planning_policy/local_plan/local_plan_review/local_plan_examination#adoption
- Natural England (2023). The Statutory Biodiversity Metric (JP039).
- Natural England (2023). The Statutory Biodiversity Metric User Guide (JP039).
- Natural England (2023). The Statutory Biodiversity Metric Technical Annex 1 - Condition Assessment Sheets and Methodology (JP039).
- Natural England (2023). 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



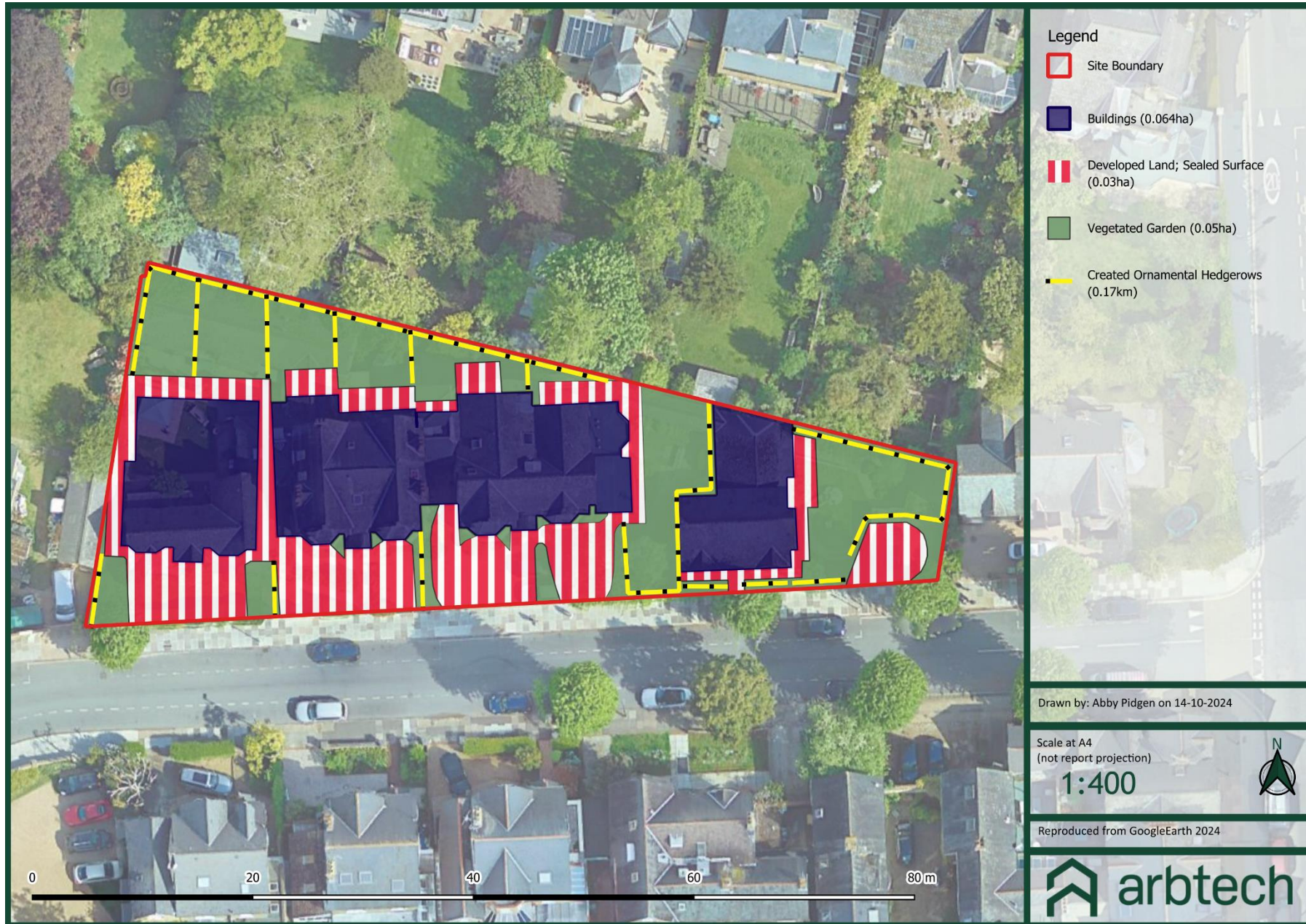
Appendix 2: Site Location Plan



Appendix 3: Baseline Habitat Plan



Appendix 4: Post Development Habitat Plan



Appendix 5: Headline BNG Results

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

Proposed:

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>			0.04
	<i>Hedgerow units</i>			0.16
	<i>Watercourse units</i>			0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>			60.83%
	<i>Hedgerow units</i>			N/A
	<i>Watercourse units</i>			0.00%
Trading rules satisfied?		Yes ✓		
		0 baseline units - % cannot be calculated		
		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 ✓		
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Habitat units</i>	10.00%	0.06	0.07	0.00
<i>Hedgerow units</i>	10.00%	0.00	0.00	0.00
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00