

Biodiversity Net Gain Assessment

Survey site:

Stand Cricket Club Hamilton Road, Whitefield Manchester M45 7WE

Client:

FLH Architectural Design

Report date:

31st October 2024

Project:

This report is prepared to inform a planning application with the Bury Council. The proposal is described as the construction of four paddle courts with single story unit (WC, changing room and storage).

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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 FLH Architectural Design to undertake a Biodiversity Net Gain (BNG) Assessment at the Stand Cricket Club Hamilton Road, Whitefield Manchester M45 7WE (hereafter referred to as “the site”). The assessment was required the construction of four paddle courts with single story unit (WC, changing room and storage) (hereafter referred to as “the proposed development”).

The baseline habitat value of the site is 0.29 area-based habitat units (comprising 0.29 units of modified grassland) with the proposed development resulting in a 100% area-based net loss. The proposed development is therefore anticipated to fail the minimum target of 10% biodiversity net gain and thus not compliant with legislation (Environment Act 2021).

The post development habitat value of the site is -0.29 units, comprising the creation of hardstanding (no value). This results in a net change in biodiversity of -100% (i.e. a net loss).

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.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by FLH Architectural Design to undertake a Biodiversity Net Gain (BNG) Assessment at the Stand Cricket Club Hamilton Road, Whitefield Manchester M45 7WE (hereafter referred to as “the site”). The assessment was required to inform a planning application for the construction of four paddle courts with single story unit (WC, changing room and storage) (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
- PEA/Survey Report for the site.

1.2 Site Location, Geology and Landscape Context

The survey site is centred on National Grid Reference SD 8005 4385 and has an area of approximately 0.2ha.

The site comprises of an open plot of grass which is within the grounds of the Stand Cricket Club. It is situated within the town of Whitefield, in the Metropolitan Borough of Bury, Greater Manchester. Aerial imagery shows the local landscape to have an urban character, with several residential housing estates in close proximity to the site with scattered trees and woodland patches. Water bodies can be found nearby, such as the River Irwell located 1.1km to the North. Such features likely enhance the area for a variety of species, including bats, amphibians and small mammals. 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 Environment Act (2021) states biodiversity net gain is mandatory for sites over 0.5ha as of February 2024. 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 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 (Arbtech Consulting Ltd, 2024). A baseline habitat plan is provided in Appendix 3.

Habitat Classification

The Preliminary Ecological Appraisal 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 8-1 of the Statutory Biodiversity Metric User Guide (Natural England, 2023).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the 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
- Function within the landscape
- Any site or habitat allocations under the Bury Biodiversity Strategy

2.2 Post Development Biodiversity Value

The post development BNG Calculation was informed by the Planning Application Drawing 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 Planning Application Drawing.

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 8-1 of the 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 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
- Function within the landscape
- Any site or habitat allocations under the Bury Biodiversity Strategy

2.3 Limitations

There were no limitations to the assessment.

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.

Table 1: Baseline Biodiversity Value

Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
Modified grassland	0.1473ha	The lawn areas appears to be actively managed via regular mowing, exhibiting a short sward of 30mm. The lawn is species poor, with less than 8 vascular plant species present per m ² . This patch of modified grass was particularly damp with a layer of clay underneath which may explain the dominant species being lesser clubmoss <i>Selaginella selaginoides</i> . The assemblage includes lesser clubmoss <i>Selaginella selaginoides</i> (D), perennial rye grass <i>Lolium perenne</i> (A), creeping buttercup (R), ribwort plantain <i>Plantago lanceolata</i> (R), ragwort <i>Jacobaea vulgaris</i> (R)	Modified grassland condition assessment: poor a) There are only 5 vascular plant species per m². b) Sward height not varied. It is mown to a low level (30mm). c) Scattered scrub not present. d) No physical damage is evident within grassland. e) No bare ground is present. f) No bracken <i>Pteridium aquilinum</i> present within the grassland. g) Invasive, non-native plant species are present within the grassland.	Area/compensation not in local strategy/ no 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. 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 areas of modified grassland.

Table 2: Post Development Biodiversity Value

Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
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Urban: Developed land; sealed surface	0.1473ha	Construction of four paddle courts with single story unit (WC, changing room and storage)	N/A - Other	Area/compensation not in local strategy/ no local strategy
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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 0.29 units, comprising 0.29 units of modified grassland.

The post development habitat value of the site is -0.29 units, comprising the creation of hardstanding (no value)

This results in a net change in biodiversity of -100% (i.e. a net loss).

4.0 Recommendations to Deliver BNG

4.1 Discussion

The current proposed plan results in a 100% 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:

- To offset the loss of modified grassland, the introduction of woody shrubs and climbing plants will enhance the site for nesting birds, invertebrates and provide shelter for species as they commute. Some good examples are; Elder *Sambucus nigra*, Box - *Buxus sempervirens*, Honeysuckle - *Lonicera periclymenum*, Guelder Rose - *Viburnum opulus*, English Lavender - *Lavandula angustifolia*. These can be added to the northern borders of the plot.
- Planting of British native trees e.g. (oak, ash, beech, field maple, wild cherry, hornbeam, holly) will improve local biodiversity and provide long term benefits to onsite habitats in the form of habitat, shelter and food sources for a variety of species within the wider locality of the site.

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.

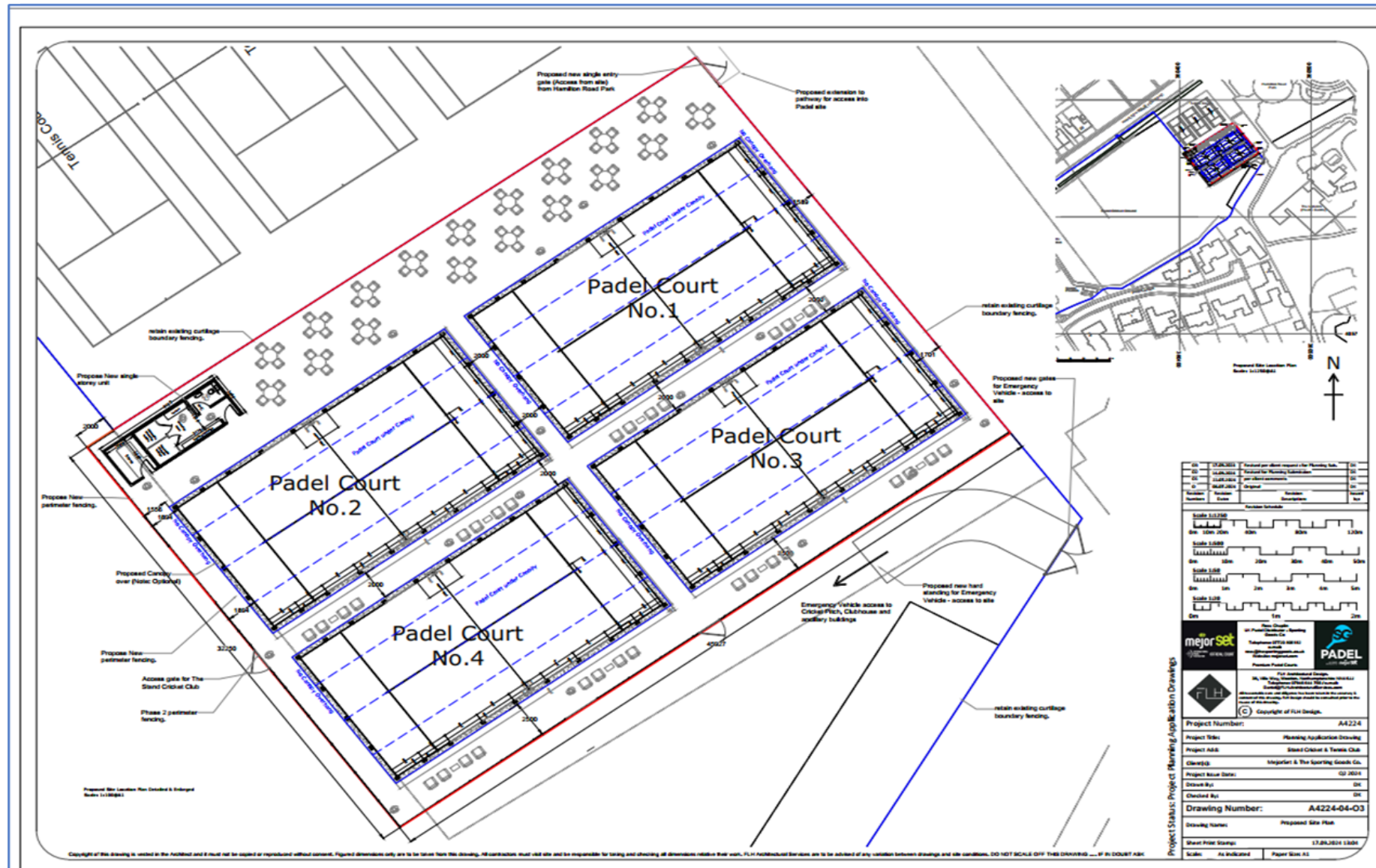
According to the Defra Statutory Biodiversity Metric there is a unit deficit of 0.32 habitat units and this will need to be provided to offset the loss in biodiversity and achieve a 10% biodiversity net gain.

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.

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
- Natural England (2023). The Statutory Biodiversity Metric (JP039).
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- 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)
- <https://www.bury.gov.uk/asset-library/appendix-a-biodiversity-strategy.pdf>

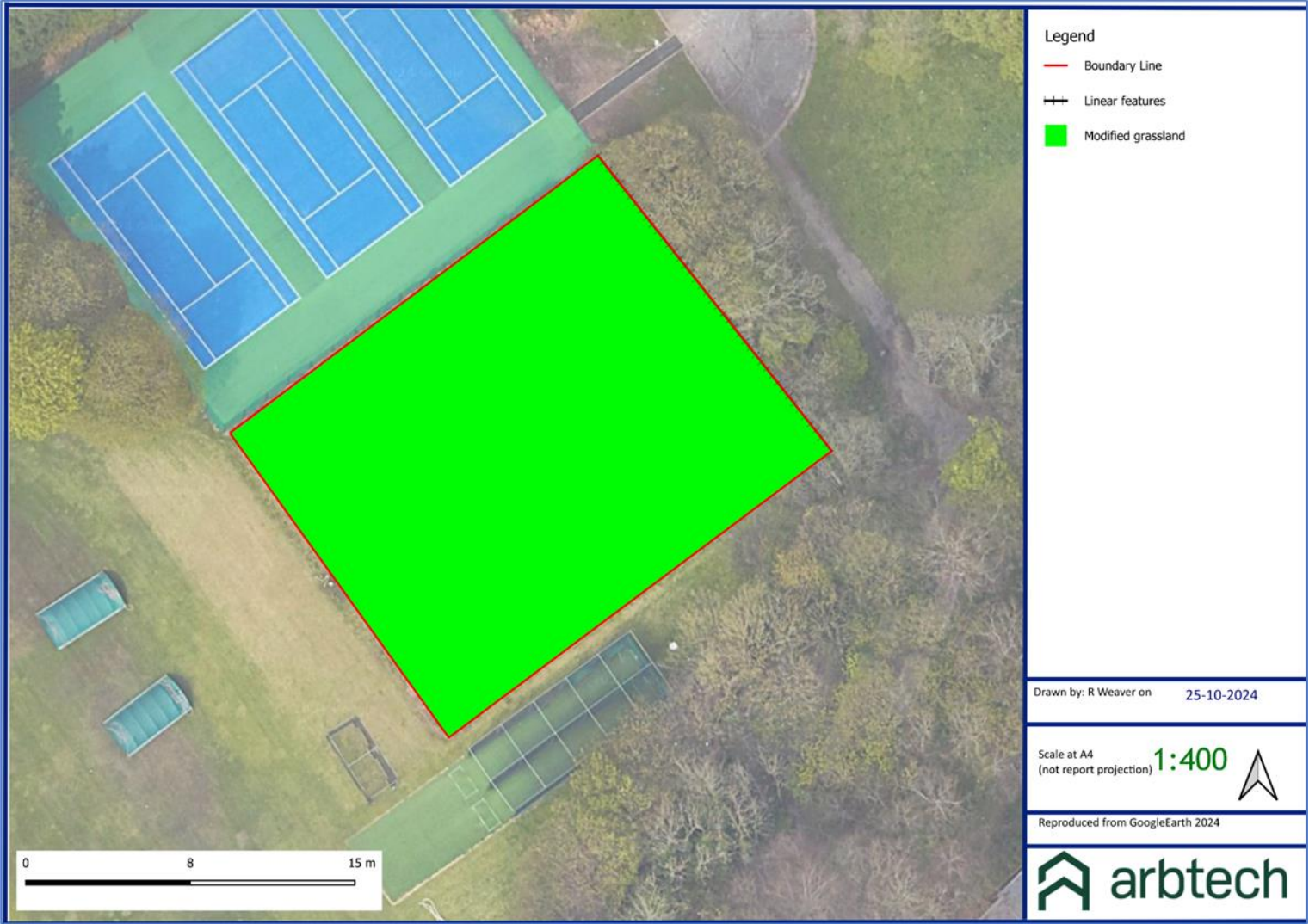
Appendix 1: Proposed Development Plan



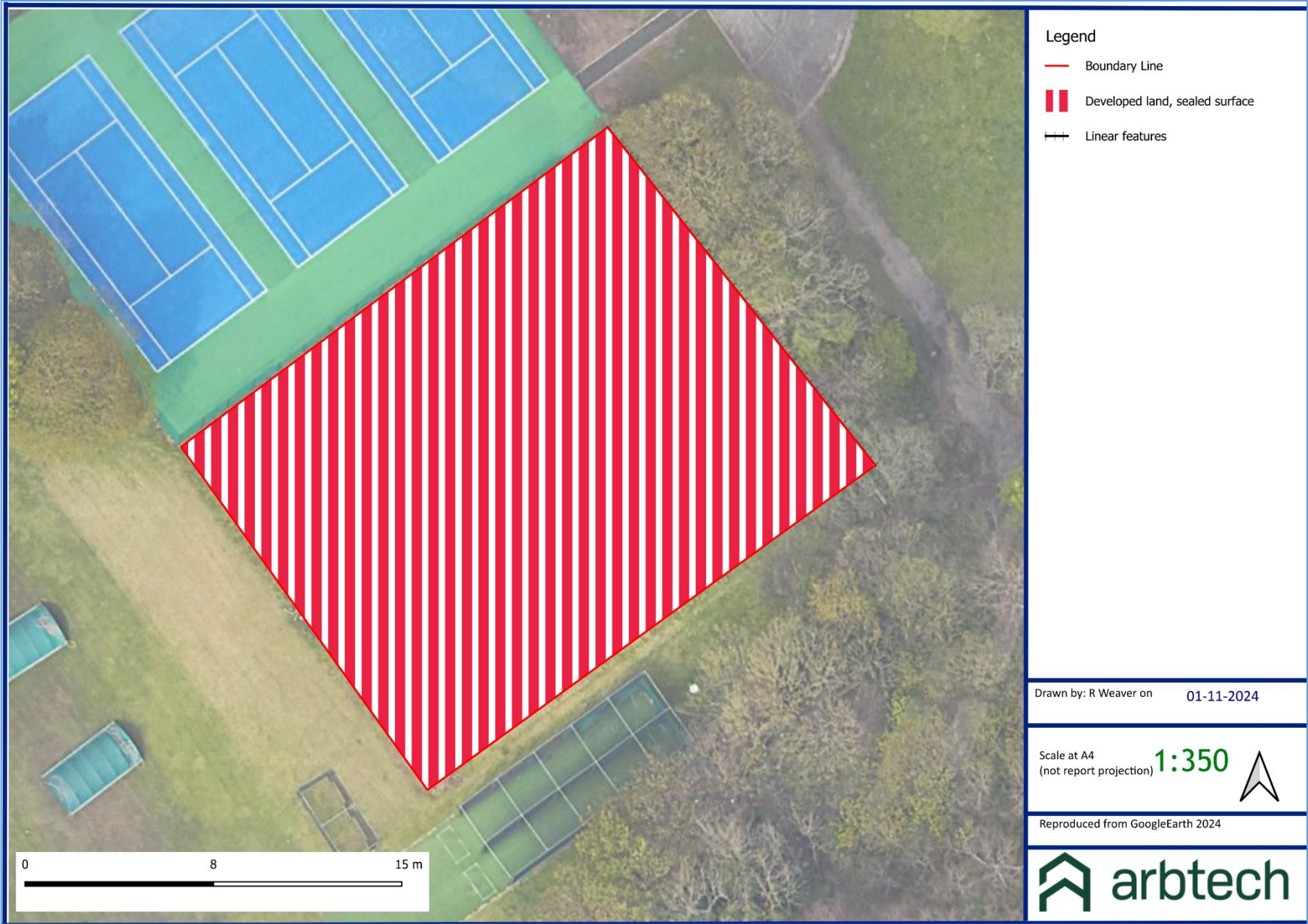
Appendix 2: Site Location Plan



Appendix 3: Baseline Habitat Plan



Appendix 4: Post Development Habitat Plan



Appendix 5a: Habitat Condition Assessment Sheets – Baseline

A	There are 6-8 vascular plant species per m² present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)².
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.
G	There is an absence of invasive non-native plant species³ (as listed on Schedule 9 of WCA⁴).

Appendix 5b: Habitat Condition Assessment Sheets - Proposed

Habitat created is excluded from habitat condition assessment.

Appendix 6: Headline BNG Results

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

Stand Cricket Club Hamilton Road, Whitefield N		Return to results menu	
Headline Results			
Scroll down for final results ⚠			
On-site baseline	Habitat units	0.29	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site net change (units & percentage)	Habitat units	-0.29	-100.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%