

Biodiversity Net Gain Assessment

Survey site:

34 Cyprus Road, Burgess Hill, Burgess Hill, West Sussex, RH15 8DX

Client:

Sanj Rajput

Report date:

21th January 2025

Project:

This report is prepared to inform a planning application with Mid Sussex District Council. The proposal is described as “Demolition of existing building; erection of a part -4, part-5 storey building to provide 14 no. supported living accommodation (Use Class C2) and commercial space (Use Class E)”.

Survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2024.](#)

Limitations and Copyright

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

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 Sanj Rajput to undertake a Biodiversity Net Gain (BNG) Assessment at 34 Cyprus Road, Burgess Hill, Burgess Hill, West Sussex, RH15 8DX (hereafter referred to as “the site”). The assessment was required to inform a planning application for the demolition of existing building and the erection of a part -4, part-5 storey building.

The baseline area/habitat value of the site is 0.05 units, comprised of 0.01 units of modified grassland, 0.04 units of individual tree and 0 units of building and developed land, sealed surface (no biodiversity value). The baseline linear/hedgerow value of the site is 0 units, as there are no hedgerows or lines of trees present.

The post development habitat value of the site is 0.06 units comprised of 0.01 units of ground level planters, 0.05 units of new trees and 0 units of building and developed land, sealed surface (no biodiversity value). The post development habitat value of the site is 0.01 units, comprised of native hedgerow.

The proposed development results in **+35.71% biodiversity net gain** of habitat/area units and a 0.01 unit increase in hedgerow/linear units.

Mandatory 10% biodiversity net gain is achieved.

Contents

Biodiversity Net Gain Assessment 1

1.0 Introduction and Context..... 6

1.1 Background 6

1.2 Site Location, Geology and Landscape Context 6

1.3 BNG Informative 6

2.0 Methodology 7

2.1 Baseline Biodiversity Value 7

2.2 Post Development Biodiversity Value..... 8

2.3 Limitations 8

3.0 Results..... 9

3.1 Baseline Habitats 9

3.2 Post Development Habitats 9

4.0 Recommendations to Deliver BNG..... 11

4.1 Discussion 11

4.2 Landscaping 11

4.3 Post Development 11

5.0 Bibliography 12

Appendix 1: Proposed Development Plan 13

Appendix 2: Site Location Plan..... 16

Appendix 3: Baseline Habitat Plan 17

Appendix 4: Proposed Habitat Plan 18

Appendix 5: Metric Headline Results 19

Appendix 6: Condition Sheets..... 20

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Sanj Rajput to undertake a Biodiversity Net Gain (BNG) Assessment at 34 Cyprus Road, Burgess Hill, Burgess Hill, West Sussex, RH15 8DX (hereafter referred to as “the site”). The assessment was required to inform a planning application for the demolition of existing building and the erection of a part -4, part-5 storey building.

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 – RH15 8DX
- PEA Report for the site.

1.2 Site Location, Geology and Landscape Context

The site is located in Burgess Hill at National Grid Reference at TQ 31447 19108 with an approximate area of 300m², comprising one building, associated hard-standing and modified grassland with one small tree. The site is situated in a residential area, with scattered trees, hedgerows and green parks in the wider area. A site location plan can be found 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 the Preliminary Ecological Appraisal (Arbtech, 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 local plan

2.2 Post Development Biodiversity Value

The post development BNG Calculation was informed by the proposed 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 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 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 local plan

2.3 Limitations

No specific limitations

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 (ha)/ Length (km)	Description	Condition Assessment	Strategic Significance
Building	0.022	Existing building	N/A	Area/compensation not in local strategy/ no local strategy
Developed land, sealed surface	0.004	Existing hard-standing	N/A	Area/compensation not in local strategy/ no local strategy
Modified grassland	0.005	Existing lawn. The grass is dominated by perennial rye grass, with abundant bramble and frequent ribwort plantain and nettles.	Poor	Area/compensation not in local strategy/ no local strategy
Individual tree	0.0041	One small tree (species Rowan)	Moderate	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.

Table 2: Proposed Biodiversity Value

Habitat	Area (ha) / Length (km)	Description	Target Condition	Strategic Significance
Building	0.021	Proposed new building	N/A	Area/compensation not in local strategy/ no local strategy
Developed land, sealed surface	0.008	Areas of hard-standing	N/A	Area/compensation not in local strategy/ no local strategy
Ground level planter	0.004	Proposed planter, including ornamental shrubs	N/A	Area/compensation not in local strategy/ no local strategy
Individual tree	0.0163	Proposed four new, native, small trees	Moderate	Area/compensation not in local strategy/ no local strategy
Native hedgerow	0.007	Proposed hedgerow	Poor	Area/compensation not in local strategy/ no local strategy

Areas of Habitat

The baseline area/habitat value of the site is 0.06 units, comprised of 0.02 units of modified grassland, 0.04 units of individual tree and 0 units of building and developed land, sealed surface (no biodiversity value).

The post development habitat value of the site is 0.06 units comprised of 0.01 units of ground level planters, 0.05 units of new trees and 0 units of building and developed land, sealed surface (no biodiversity value)

This results in **+35.71% biodiversity net gain**.

Hedgerows

The baseline linear/hedgerow value of the site is 0 units, as there are no hedgerows or lines of trees present.

The post development habitat value of the site is 0.01 units, comprised of native hedgerow.

This is an increase of 0.01 linear units and as such, **mandatory biodiversity net gain is achieved**.

4.0 Recommendations to Deliver BNG

4.1 Discussion

The baseline area/habitat value of the site is 0.05 units, comprised of 0.01 units of modified grassland, 0.04 units of individual tree and 0 units of building and developed land, sealed surface (no biodiversity value). The baseline linear/hedgerow value of the site is 0 units, as there are no hedgerows or lines of trees present.

The post development habitat value of the site is 0.06 units comprised of 0.01 units of ground level planters, 0.05 units of new trees and 0 units of building and developed land, sealed surface (no biodiversity value). The post development habitat value of the site is 0.01 units, comprised of native hedgerow.

The proposed development results in **+35.71% biodiversity net gain** of habitat/area units and a 0.01 unit increase in hedgerow/linear units.

Mandatory 10% biodiversity net gain is achieved.

4.2 Landscaping

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

- The addition of bird boxes and bat boxes integrated into the proposed building (No impact to the biodiversity metric)

4.3 Post Development

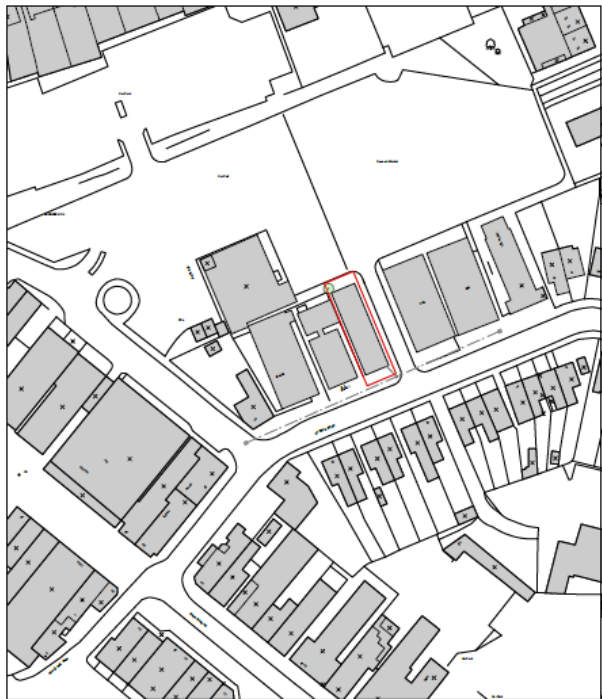
- A Biodiversity Net Gain (BNG) Management Plan must be produced for the site. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years.

5.0 Bibliography

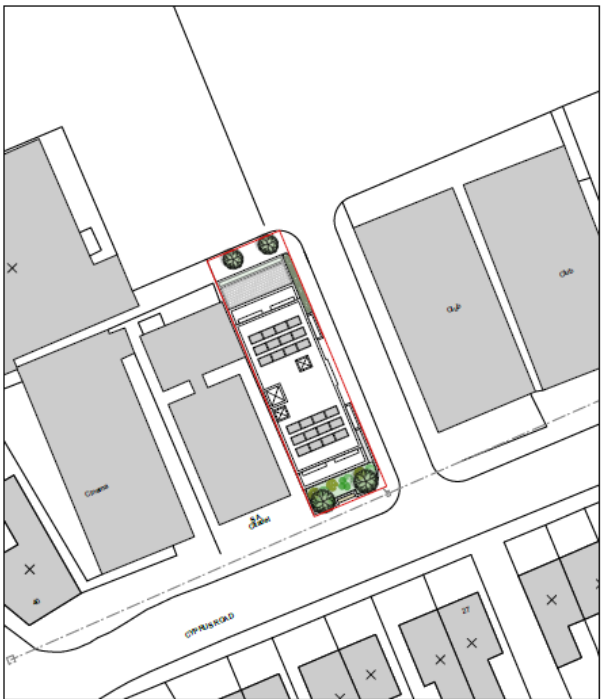
- Arbtech (2024) Preliminary Ecological Appraisal and Preliminary Roost Assessment
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- CIEEM-CIRIA-IEMA (2019) Biodiversity Net Gain – Good Practice Principles for Development.
- Joint Nature Conservation 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).
- 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

DRAFT

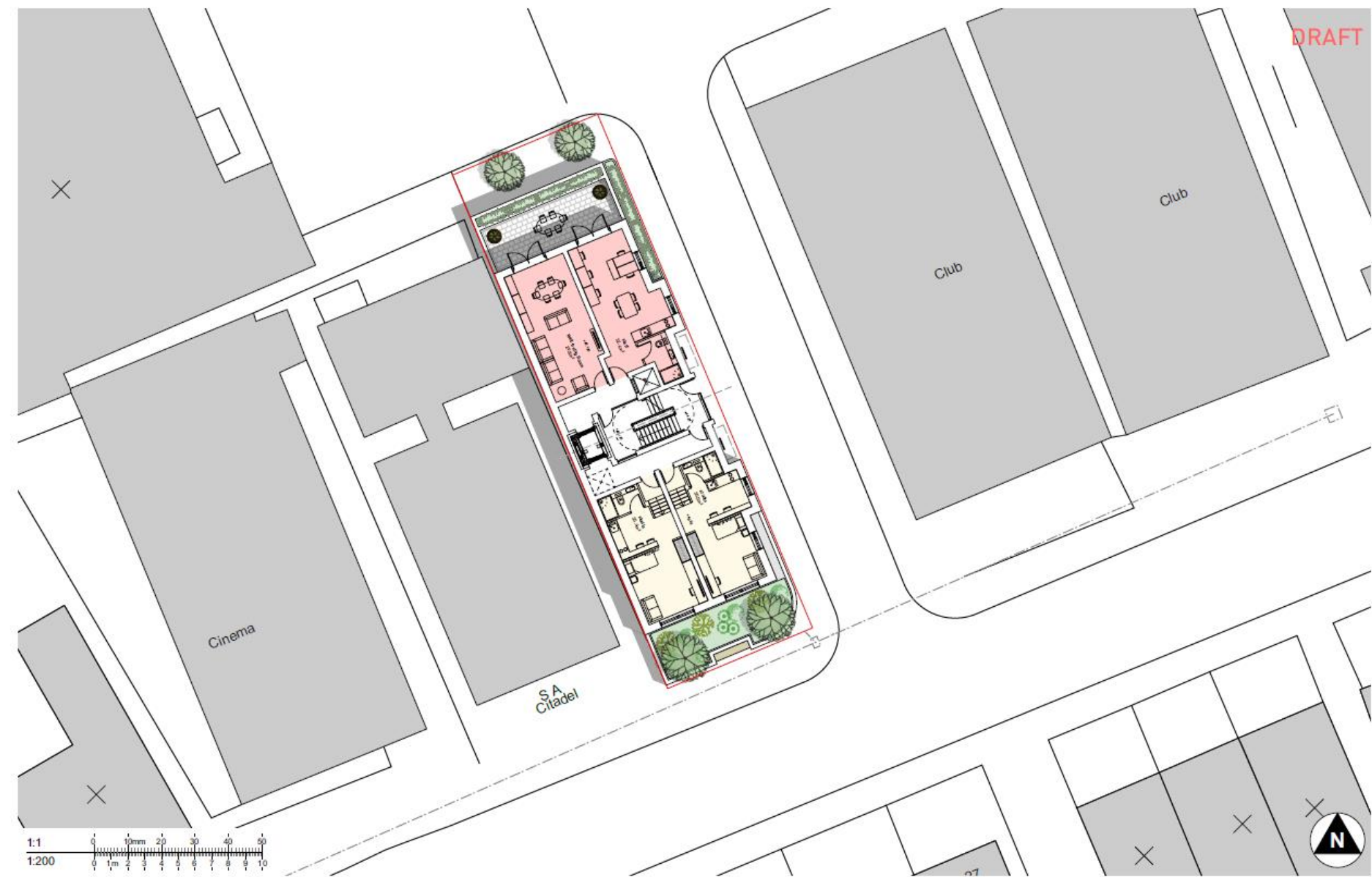


Existing Site Location Plan
1:1 0 10m 20m 30m 40m 50m
1:1250 0 10m 20m 30m 40m 50m



Proposed Block Plan
1:1 0 10m 20 30 40 50
1:500 0 10m 20 30 40 50

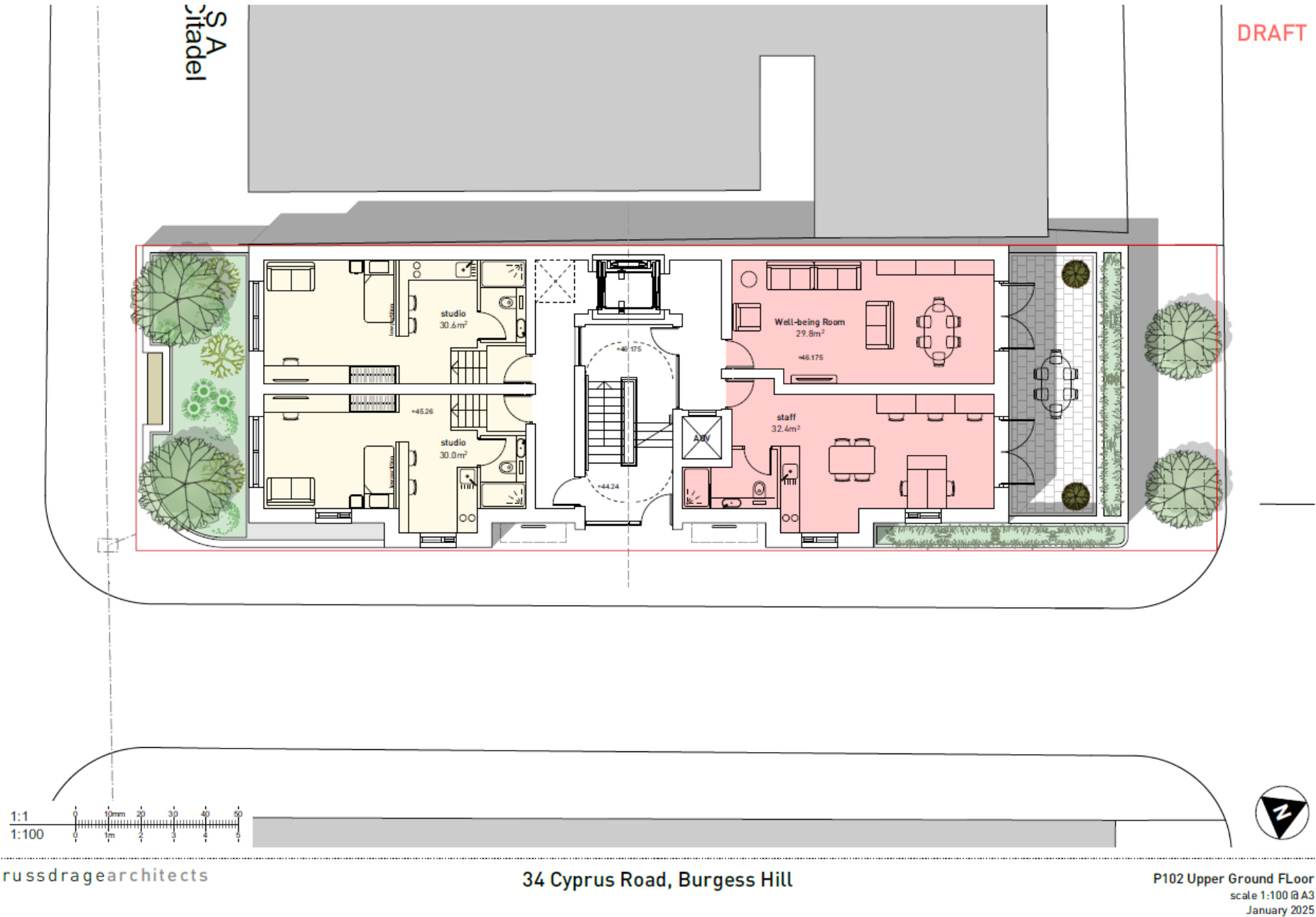




rusddragearchitects

34 Cyprus Road, Burgess Hill

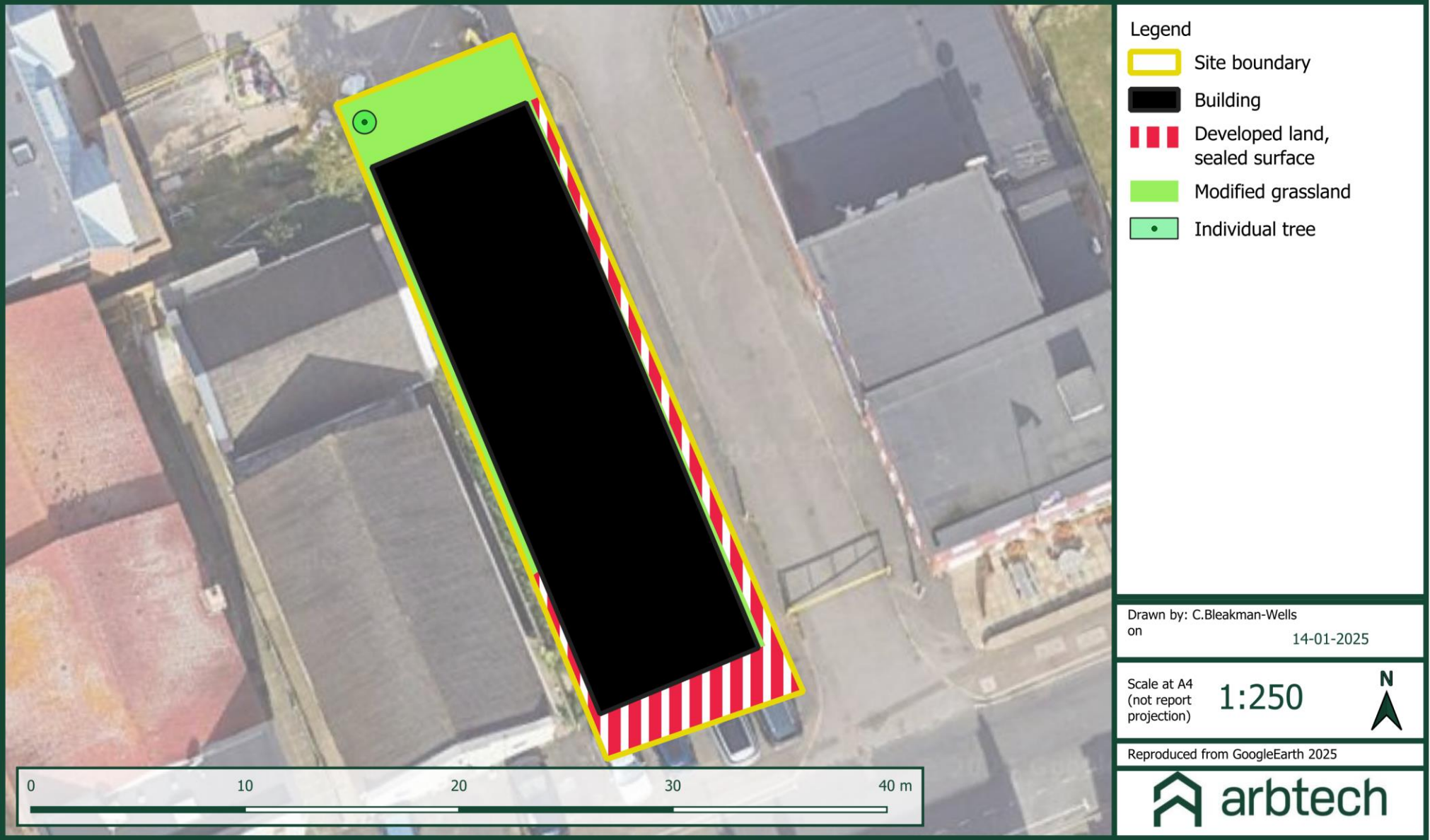
P100 Upper Ground Floor in Context
scale 1:200 @ A3
January 2025



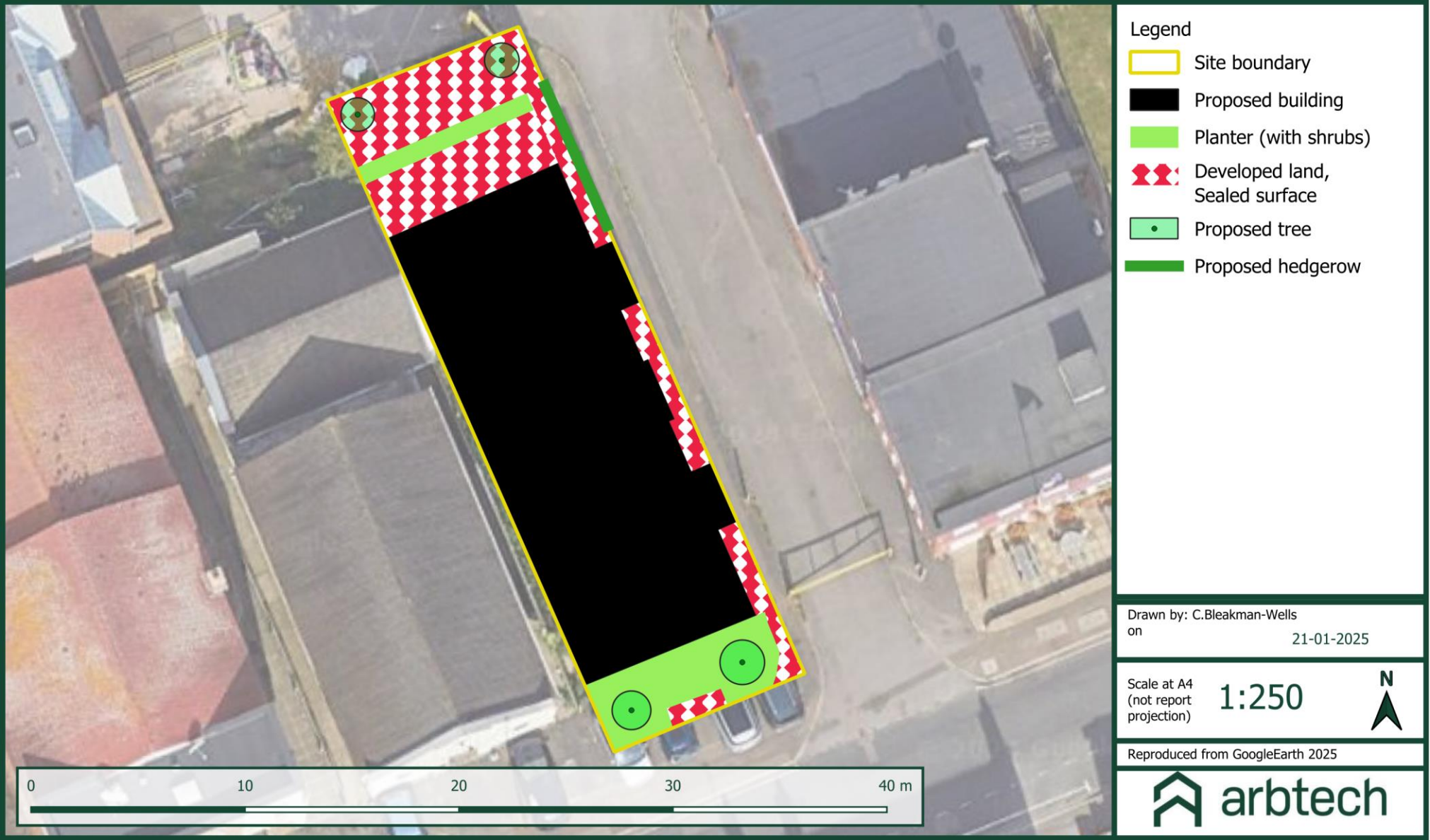
Appendix 2: Site Location Plan



Appendix 3: Baseline Habitat Plan



Appendix 4: Proposed Habitat Plan



Appendix 5: Metric Headline Results

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.02		
	Hedgerow units	0.01		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	35.71%		
	Hedgerow units	N/A		
	Watercourse units	0.00%		
Trading rules satisfied?		Yes ✓		
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	0.05	0.05	0.00
Hedgerow units	10.00%	0.00	0.00	0.00
Watercourse units	10.00%	0.00	0.00	0.00

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 ✓

Appendix 6: Condition Sheets

Individual Trees

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	Y	
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y	
C	The tree is mature (or more than 50% within the block are mature) ¹ .	N	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Y	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	N	
Number of criteria passed			
Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved x/√	
Passes 5 or 6 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)	√	
Passes 2 or fewer criteria	Poor (1)		

Modified Grassland

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m ² 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.		
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).	✓	
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 species ³ (as listed on Schedule 9 of WCA ⁴).	✓	
Essential criterion achieved (Yes or No)			
Number of criteria passed			
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/✓	
Passes 6 or 7 criteria including passing essential criterion A	Good (3)		
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)		
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	✓	