

Biodiversity Net Gain Assessment

Survey Site:

Land to the North of Moseley Road, Fallowfield, Manchester, M14 6PD

Client:

NHS Property Services

Assessment date:

17/09/2025. Updated 29/09/2025 (V2).

Project:

This report has been produced in support of an upcoming planning application which details the development of a healthcare centre within use class e with parking, landscaping, and associated works.

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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. This approach is enshrined in Government planning guidance, for example, Section 15 of the National Planning Policy Framework for England. 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 Ltd. was instructed by NHS Property Services to undertake a Biodiversity Net Gain (BNG) Assessment for a development at land to the north of Moseley Road, Fallowfield, Manchester, M14 6PD (hereafter referred to as “the site”). The assessment was required to inform a planning application which details the development of a healthcare centre within use class e with parking, landscaping, and associated works (hereafter referred to as “the proposed development”).

The development as currently proposed is anticipated to result in a **70.55% net loss** in area-based habitat units and fail the habitat trading rules. As such, the anticipated net gain is <10% and is not compliant with legislation or planning policy. It is noted that hedgerow and watercourse units are not applicable to this assessment.

In order to achieve the required 10% net gain for area-based habitat units and to satisfy the habitat trading rules, the proposed development needs to provide an additional **1.08 area-based habitat units**, where at least 1.06 units are delivered through the provision of other neutral grassland or a habitat type of higher distinctiveness.

Recommendations for enhancement and off-setting are provided in **Section 4**.

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1.0 Introduction and Context

1.1 Introduction

Arbtech Consulting Ltd. was instructed by NHS Property Services to undertake a Biodiversity Net Gain (BNG) Assessment for a development at land to the north of Moseley Road, Fallowfield, Manchester, M14 6PD (hereafter referred to as “the site”). The assessment was required to inform a planning application which details the development of a healthcare centre within use class e with parking, landscaping, and associated works (hereafter referred to as “the proposed development”). A proposed development plan is provided in **Appendix 1**.

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

- Defra Statutory Biodiversity Metric (Arbtech Consulting Ltd. 2025); and
- The Preliminary Ecological Appraisal (PEA) (Arbtech Consulting Ltd. 2025).

1.2 Site Context

The site is located at National Grid Reference SJ8635593958 and has an area of 0.27ha. The site is characterised by an area of grassland within the wider grounds of a sports facility. Habitats recorded on site include other neutral grassland, individual trees, and developed land sealed surface. The site is located within an urban context in Fallowfield, Manchester and is enclosed by sports fields to the north and west and dense residential development to the east and south. 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. Biodiversity Net Gain became mandatory for new developments (non-exempt) on 12th February 2024.

The DEFRA Statutory Biodiversity Metric is the latest version of the metric 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 area-based 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 off-site 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 PEA pertaining to the site (Arbtech Consulting Ltd. 2025). The baseline habitat plan is provided in **Appendix 3**.

Habitat Classification

The PEA PRA classified the habitats on site according to UK Habitat Classification User Manual version 2.0 (UK Habitat Classification Working Group 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 13 of the Draft Statutory Biodiversity Metric User Guide (Natural England, 2023).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the Draft 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 (based on the PEA PRA);
- Function within the landscape (based on a review of Google and OS imagery); and
- Any site or habitat allocations under the relevant Local Planning Policy and Biodiversity Action Plan.

2.2 Post Development Biodiversity Value

The post development BNG Calculation was informed by the Proposed Landscape Plan (Iteriad Landscape Studio 2025), which is provided in **Appendix 4**. The habitat types present post-development have been illustrated on the plan in **Appendix 5**.

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, 2023).

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 13 of the Draft 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 Draft 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 (based on the development plans and professional judgement);
- Function within the landscape (based on the location of the proposed habitats and a review of Google and OS imagery); and
- Any site or habitat allocations under the relevant Local Planning Policy and Biodiversity Action Plan.

2.3 Limitations

There are no site-specific limitations.

3.0 Results and Evaluation

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 (refer to Appendix 6)	Strategic Significance	Area Retained or Enhanced	Unit Value
Area-based Habitats						
Grassland: Modified grassland	0.265ha	Area covered by other neutral grassland as identified through the PEA.	Poor.	Habitat classification is not included within any local strategic strategy.	0ha.	1.06
Individual trees: Urban trees	0.0285ha	Area covered by individual trees as identified through the PEA (8no. small).	Moderate.	Location is ecologically desirable but not included in any local strategy.	0ha.	0.29
Urban; Developed Land; Sealed Surface	0.005ha	Area covered by hardstanding as identified through the PEA.	Habitat condition is predetermined as N/A.	Habitat classification is not included within any local strategic strategy.	0ha	0

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.

Table 2: Post Development Biodiversity Value

Habitat (UK Habs)	Area	Description	Target Condition Condition Assessment (refer to Appendix 7)	Strategic Significance	Unit Value
Area-based habitats					
Urban; Developed Land; Sealed Surface	0.228ha	Area covered by the new building and hardstanding as shown on the proposed landscape plan.	Habitat condition is predetermined as N/A.	Habitat classification is not included within any local strategic strategy.	0

Urban: Introduced shrubs	0.0424ha	Area covered by ornamental planting (planting mixes 1 & 2) as shown on the proposed landscape plan.	Habitat condition is predetermined as N/A.	Habitat classification is not included within any local strategic strategy.	0.08
Individual trees: Urban trees	0.0936ha	Area covered by proposed trees as shown on the proposed landscape plan (23no small).	Moderate.	Location is ecologically desirable but not included in any local strategy.	0.31

3.3 Change in Biodiversity Value of the Site

Full details are provided in the Defra Statutory Metric. The headline results as described below.

- The baseline biodiversity unit score: **Area-Based Habitat Units:** 1.35; **Hedgerow Units:** N/A; **Watercourse units:** N/A.
- The post-development biodiversity unit score: **Area-Based Habitat Units:** 0.40; **Hedgerow Units:** N/A; **Watercourse units:** N/A.

This results in the following change in biodiversity value of the site:

- Area Based Habitat Units:** **-70.55%**
- Hedgerow Units:** N/A
- Watercourse units:** N/A
- Trading rules:** **Not satisfied**

4.0 Conclusions and Recommendations

4.1 Discussion

The development as currently proposed is anticipated to result in a **70.55% net loss** in area-based habitat units and fail the habitat trading rules. As such, the anticipated net gain is <10% and is not compliant with legislation or planning policy. It is noted that hedgerow and watercourse units are not applicable to this assessment.

In order to achieve the required 10% net gain for area-based habitat units and to satisfy the habitat trading rules, the proposed development needs to provide an additional **1.08 area-based habitat units**, where at least 1.06 units are delivered through the provision of other neutral grassland or a habitat type of higher distinctiveness.

4.2 Scope for Enhancement

It is assessed that there is limited scope to provide the required landscape enhancements necessary to achieve a 10% net gain within the site without sacrificing developed areas for habitat creation. However, there is scope to enhance the proposals in accordance with the existing layout through the provision of habitats of higher distinctiveness. Such as:

- All areas of introduced shrubs could be replaced with other neutral grassland managed to maintain a moderate condition. This would reduce the unit deficit to 0.81 units and contribute towards satisfying the trading rules.
- Additional native trees could also be provided within landscape areas where trees are not yet proposed. For example an additional 5 trees managed to maintain moderate condition would provide an additional 0.09 units.

It is recommended that these enhancements are considered, applied to the scheme, and this BNG Assessment subsequently updated prior to planning submission. This would maximise the post-development unit value, subsequently demonstrate application of the mitigation hierarchy, and reduce off-site off-setting requirements.

4.3 Off-Setting

Following the recommended enhancements, off-site off-setting is likely to be required to achieve a compliant 10% net gain. This can be achieved through the creation of habitat units on alternative land available to the developer (subject to the correct baseline surveys), through the purchase of units from a BNG broker, or through the purchase of government statutory BNG credits.

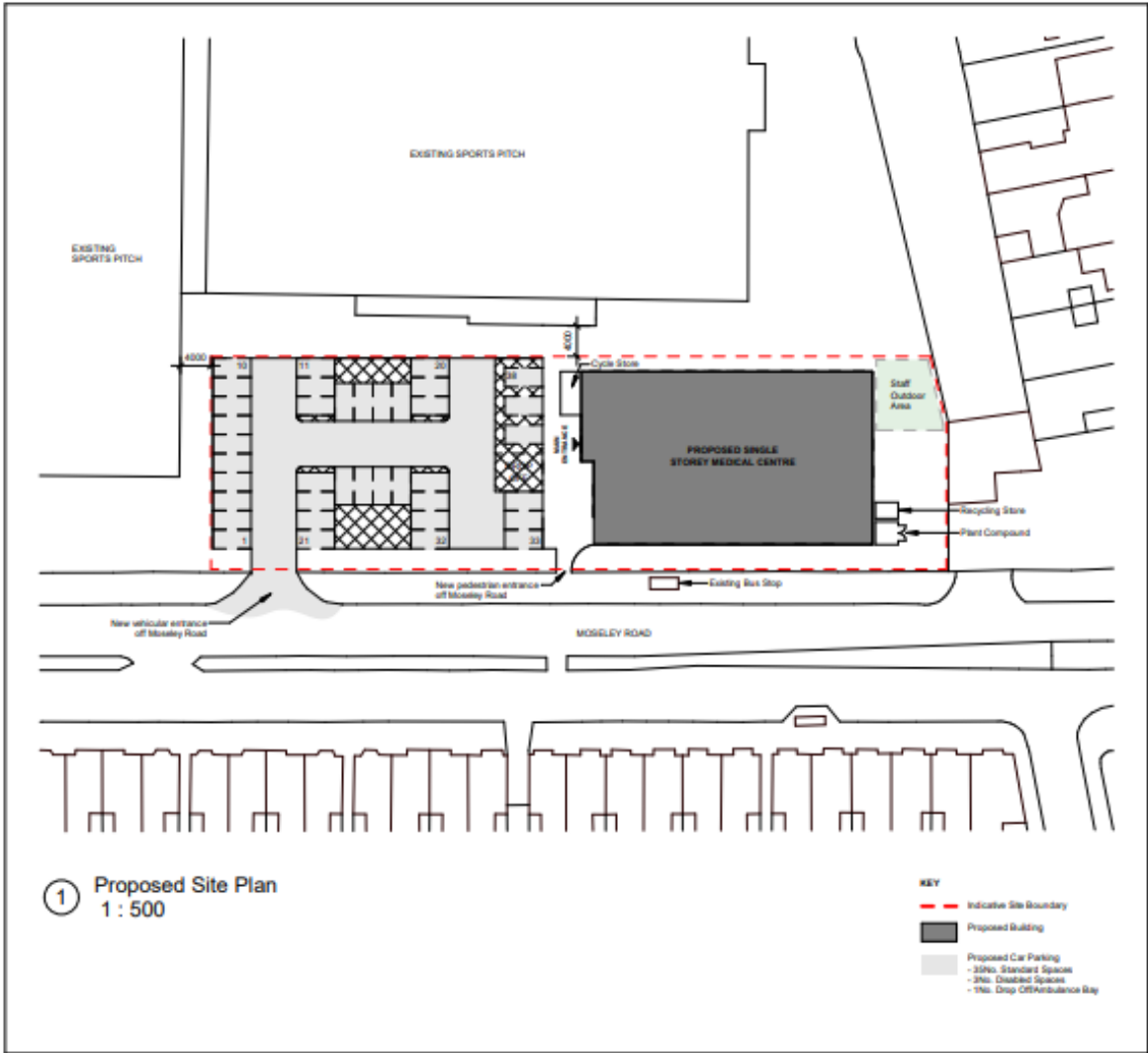
4.4 Habitat Management and Monitoring Plan

A Habitat Management and Monitoring Plan (HMMP) will need to be produced. The HMMP will provide best practice prescriptions for the implementation, management, and monitoring of on-site post-development habitats for a minimum term of 30 years to ensure the site is developed in accordance with the BNG Assessment. It is expected that a HMMP will be secured by way of pre-commencement condition.

5.0 Bibliography

- Arbtech Consulting Ltd. (2025). Statutory Biodiversity Metric. Land to North of Moseley Road, M14 6PD.
- Arbtech Consulting Ltd. (2025). PEA PRA. Land to North of Moseley Road, M14 6PD.
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- Natural England (2023). The Draft Statutory Biodiversity Metric User Guide (November 2023).
<https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>
- Natural England (2023). The Statutory Biodiversity Metric (November 2023). <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>
- UK Habitat Classification Working Group (2023). UK Habitat Classification – Habitat Definitions V2.0.

Appendix 1: Proposed Development Plan



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Extents of site boundary shown are indicative and are to be confirmed.

P03	CR	5m buffer to University facilities reduced to 4m. Staff Outdoor Area, Plant Compound and Cycle Store added.	11/02/2025
P02	CR	Proposed building footprint and parking layout updated.	15/01/2025
P01	CLS	First Issue	09/12/2024
Rev	By	Description	Date

 **Gilling Dod**

The Cook Barn, Duddery Park, Cheshire, Lancashire, PR7 6AT
+44 1207 262070 | enquiries@gillingdod.com | gillingdod.com

Client Name:
NHS Property Services

Site Name:
Hawthorn Medical Centre

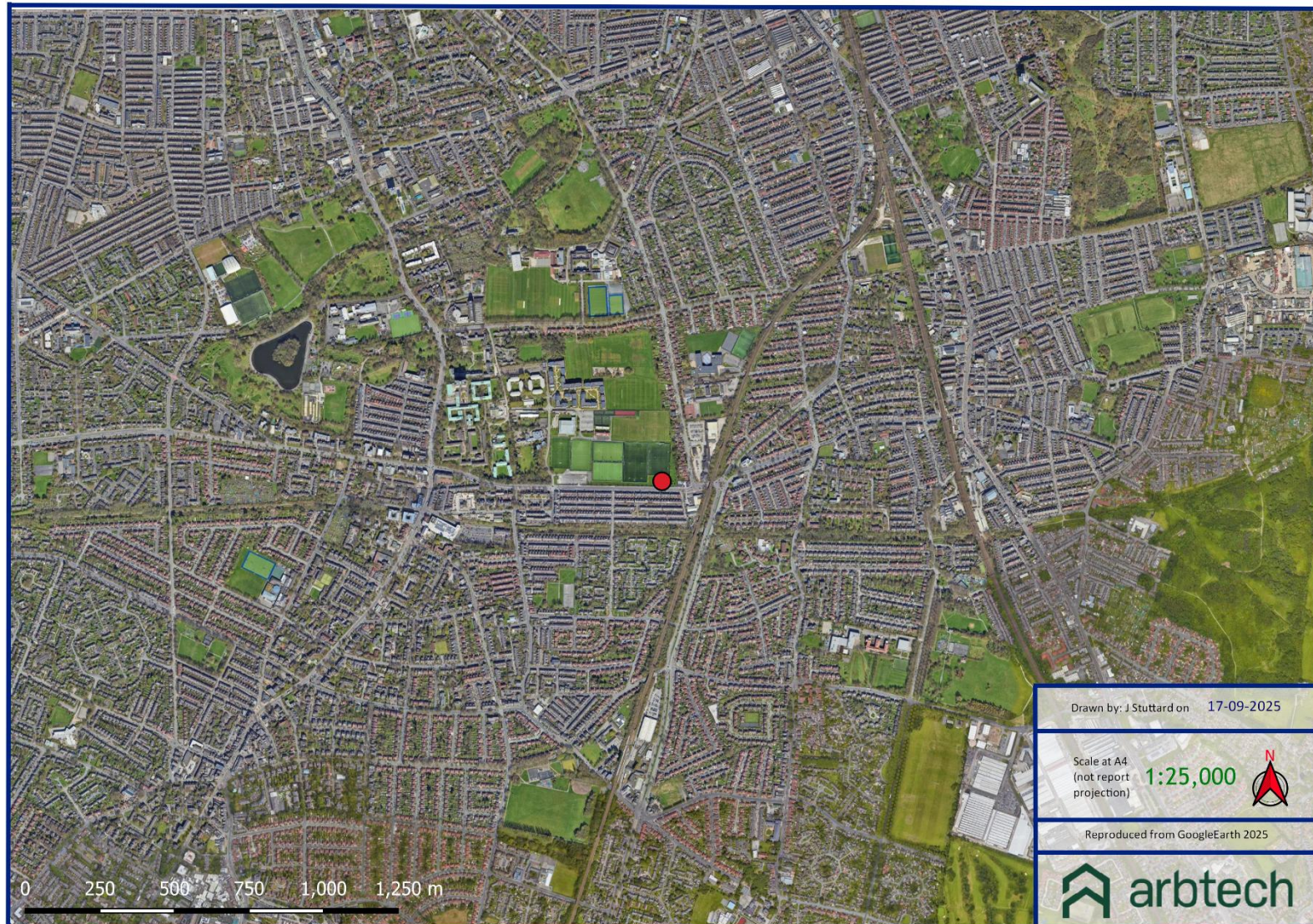
Project Name:
Hawthorn Medical Centre

Drawing Title:
Proposed Site Plan

Project No: 9114-001	Sheet Size: A3	Scale: As indicated
Drawn by: CR	Checked by: CLS	Approved by: TGR
		Revision: P03

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Project Code / Originator / Volume / Level / Type / Discipline / System Number
HMCNMC-GDA-V1-ZZ-DR-A-1002

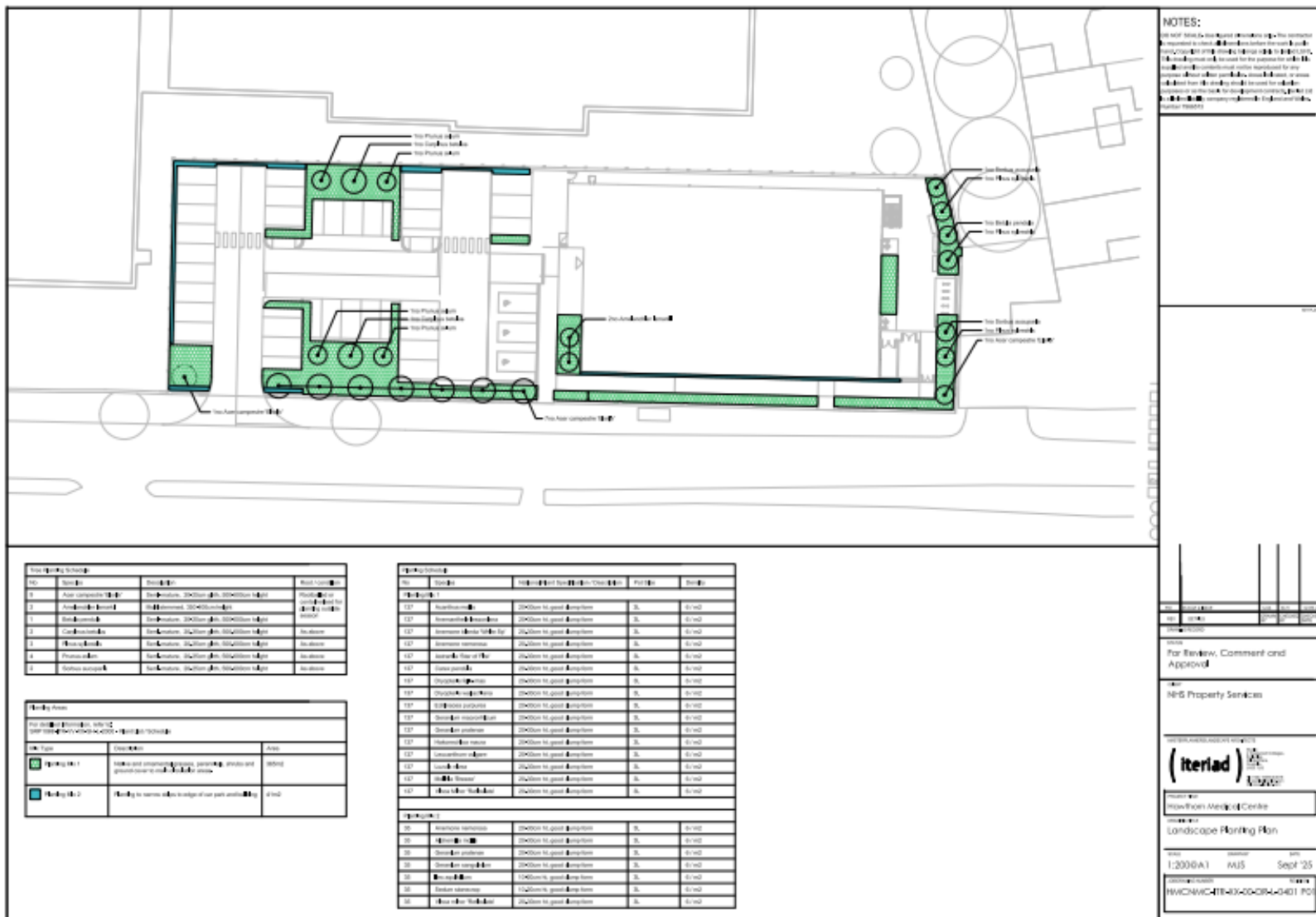
Appendix 2: Site Location Plan



Appendix 3: Baseline Habitat Survey Plan



Appendix 4: Proposed Landscape Plan



Appendix 5: Post-Development Habitat Plan



Appendix 6: Baseline Habitat Condition Assessments

Other Neutral Grassland

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description).¹ Note – this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	No.	Indicator species presence is not consistently high and there are suboptimal species present.
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 insects, birds and small mammals to live and breed.	Yes.	whilst most grass is managed, there are peripheral grassland sections subject to infrequent management.
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .	No.	Cover of bare ground is >5%
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Yes.	Bracken/ scrub cover <5%
E	Combined cover of species indicative of suboptimal condition³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species⁴ (as listed on Schedule 9 of WCA⁵) are present, this criterion is automatically failed.	No.	combined coverage of physical damage and suboptimal species is >5%.
Additional Criterion – must be assessed for all non-acid grassland types			
F	There are 10 or more vascular plant species per m² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). Note – this criterion is essential for achieving Good condition for non-acid grassland types only.	No.	Species diversity is <10 species per m ² .

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).	Yes.	All trees native.
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).	No.	Canopies are not continuous.
C	The tree is mature (or more than 50% within the block are mature) ¹ .	No.	Trees are semi - to early-mature.
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.	Yes.	No evidence of human impacts on health.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No.	No structural features of elevated ecological value.
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes.	All trees present over grassland.

Appendix 7: Post-Development Habitat Condition Assessments

Individual trees

Condition Sheet: INDIVIDUAL TREES Habitat Type		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	The tree is a native species (or at least 70% within the block are native species).	Yes.
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).	Yes.
C	The tree is mature (or more than 50% within the block are mature) ¹ .	No.
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.	Yes.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No.
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes.