



**PROPOSED BUILDING CHANGE OF USE AND NEW ACCESS, FENN LANE FARM, NUNEATON,
LEICESTERSHIRE**

BIODIVERSITY NET GAIN ASSESSMENT

JULY 2024

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BIODIVERSITY NET GAIN ASSESSMENT

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1 INTRODUCTION

1.1.1 Evergreen Ecology Ltd was commissioned by Harrison and Pick Ltd to undertake a Biodiversity Net Gain Assessment (BNGA) for a proposed building change of use and new access at Fenn Lane Farm, Upton, Nuneaton, Leicestershire, CV13 6BL; hereafter referred to as “the Site”.

1.1.2 This report details the results of the BNGA using biodiversity metric calculations which have been completed based on our current understanding of the development.

1.2 Site Description

1.2.1 The Site covers approximately 1.65 ha and is located to the north of Nuneaton within Leicestershire (central Ordnance Survey Reference SP3804 9787. Baseline area habitats at the Site include Grassland – modified grassland (g4), Urban – developed land, sealed surface (u1b), Hedgerow – other native hedgerow (h2a6) and Sparsely vegetated land – ruderal/ephemeral (s~81) as shown in Appendix 1. The development involves the removal of a section of hedgerow and ephemeral vegetated embankment to access an existing building which will be used for aircraft maintenance. At present the building is used for vehicle storage and maintenance; the southern gable end will have a roller shutter door installed. The existing airstrip which comprises modified grassland is to be retained.

1.3 Biodiversity Net Gain Assessment

1.3.1 Under the Environment Act 2021, developments are required to achieve 10% Biodiversity Net Gain (BNG) to ensure that biodiversity post-development is greater than that present pre-development.

1.3.2 BNG calculations are conducted through assessing the condition of habitats on a site and then comparing the anticipated changes in biodiversity value based on the development proposals. A BNGA follows the mitigation hierarchy, which sets out that everything possible must be done to firstly avoid, secondly minimise and thirdly restore/rehabilitate losses of biodiversity on-site. Only as a last resort are residual losses compensated for through biodiversity offsetting, whereby the loss of biodiversity is compensated for via new habitat creation off-site or by paying a financial sum to an offset provider. BNGA reports should adhere to the BNG good practice principles¹ (Baker et al, 2019)

¹ [Biodiversity net gain. Good practice principles for development. A practical guide \(cieem.net\)](https://www.cieem.net/guidance/biodiversity-net-gain-good-practice-principles-for-development)

1.3.3 BNGAs account for biodiversity losses, which previously could not be fully assessed nor mitigated for, via legal and planning systems. Whilst some species are extensively protected, many and most habitat types are not; with the consequence that development can be 'legally compliant' but still result in biodiversity loss. BNGA guards against this, enabling development to contribute towards the national and global target of halting biodiversity loss (DEFRA, 2011) and towards local and national strategies for conserving and enhancing wildlife. BNGAs allow stakeholders to demonstrate adherence to national legislation and local policy concerning biodiversity.

1.4 Relevant Legislation and Policy

1.4.1 This BNGA has been compiled with reference to the following relevant nature conservation legislation, planning policy and the UK Biodiversity Framework from which the protection of sites, habitats and species is derived in England including:

- UK Government's 25 Year Environment Plan (Defra, 2018);
- Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services (Defra, 2011);
- National Planning Policy Framework (NPPF) (DLUHC, 2023);
- The Natural Environment and Rural Communities (NERC) Act (HMSO, 2006);
- The Environment Act (Defra, 2021); and,
- Nuneaton and Bedworth Borough Plan 2011 – 2031 (Nuneaton and Bedworth Borough Council, 2019).

2 METHODOLOGY

2.1 Surveyor Information

- 2.1.1 This BNGA has been produced by Richard Laws, principal ecologist of Evergreen Ecology Ltd, who has over 10 years' experience and is a full member of CIEEM. Richard has undertaken formal training on UK Habs Classification and its use within BNG assessment with experience of implementing on numerous projects.

2.2 Biodiversity Net Gain (BNG) Assessment

- 2.2.1 The Site was surveyed on the 25th July 2024 using UK Habitats Classification to be in line with DEFRA metric calculator 4.0 to ascertain biodiversity baseline; following the industry recognised best practice methodology within the Biodiversity Metric 4.0 User Guide (Natural England, 2023) (BM4.0).

Biodiversity Metric Inputs for Baseline

Habitat Type and Area

- 2.2.2 The BM4.0 uses habitat features as a proxy measure for the value and importance of nature. The following information on each habitat are the required metric inputs:

- Type;
- Area;
- Condition; and,
- Strategic significance.

- 2.2.3 The BM4.0 uses a classification system based mainly on the UKHab System (UKHab Ltd., 2023), with input from other systems including the Water Framework Directive (WFD) Lakes Typology (UKTAG, 2003), the European Nature Information System (EUNIS) habitat definitions (European Environment Agency, 2022), Habitats Directive Annex 1 definitions (JNCC, 2019) and habitats specific to the BM4.0 defined in the 'User Guide' (Natural England, 2023) and/or 'Technical Annex 2' (Natural England, 2023).

- 2.2.4 Habitat measurements have been calculated using digital mapping software AutoCAD.

Habitat Condition

- 2.2.5 The condition of a habitat is a measure of the biological 'working-order' of a habitat type judged against the perceived ecological optimum state for that particular habitat.

2.2.6 Following the UKHab ecological walkover survey, the condition of each habitat type was assessed and categorised as either Good, Moderate or Poor. The assessment was made using the UKHab survey descriptions and criteria within the BM4.0 ‘Technical Supplement’ (Natural England, 2023), with specific assessment criteria for each broad habitat type.

Habitat Strategic Significance

2.2.7 The BM4.0 accounts for whether habitat is situated in an area identified as locally significant for nature. Data on areas and habitats identified as locally significant for nature were obtained from the following:

- Multi-Agency Geographical Information for the Countryside (MAGIC) website for statutory designated sites for nature conservation; and,
- Habitats listed within the Biodiversity Action Plan for Leicestershire.

Biodiversity Metric Calculations

2.2.8 Biodiversity metric calculations provide a numerical score for the current value in Habitat Units (HU), Hedgerow Units (HeU) and Watercourse Units (WU), of the habitats at the Site (where applicable) in order for the baseline to be quantitatively valued for biodiversity. This will allow for post enhancement or habitat creation works to be effectively measured for gains in biodiversity.

2.2.9 Using the BM4.0 tool, habitat values are calculated based on their abundance, area (ha) or length (km) for linear features such as hedgerows, condition, and importance within the local area, usually identified from local relevant planning policies or documents. This gives individual baseline HU, HeU and WU for area habitats, linear habitats and aquatic habitats respectively. Units for each type are treated separately.

Trading Rules

2.2.10 The BM4.0 considers distinctiveness as described earlier and using this data, BM4.0 applies trading rules that require that any habitat loss is replaced on a ‘like for like’ or ‘like for better’ basis. The trading rules are detailed below in Table 1.

Table 1. Trading Rules within BM4.0

Distinctiveness Group	Trading Rules
Very High	Bespoke compensation likely to be required

High	Same habitat required
Medium	Same broad habitat or a higher distinctiveness habitat required
Low	Same distinctiveness or better habitat required
Very Low	Compensation not required

2.3 Assumptions and Limitations

- 2.3.1 Ecological surveys are limited by factors that affect the presence of plants and animals such as time of year, weather, migration patterns and behaviour. The survey was undertaken by Evergreen Ecology in July 2024 and therefore represents a valid sample of ecological evidence present on that date/season. The report is not designed, nor is it required to present a complete inventory of flora/fauna.
- 2.3.2 The condition of post-development habitats has been estimated based on the criteria within the BM4.0 'Technical Annex 1 - Condition Assessment Sheets and Methodology' (Natural England, 2023) and based on reasonable assumptions for the habitat types taking into account feasibility, the locality and their extent within the Site.

3 RESULTS AND EVALUATION

3.1 Baseline Biodiversity

3.1.1 The Site has been assessed for its biodiversity using the DEFRA metric calculator 4.0, as provided in Appendix 5. The baseline results of the assessment identified the site habitats had a total HU of 2.73 and HeU of 0.15, the results have been summarised in Table 2 and 3 below.

Area Habitats

3.1.2 Baseline habitats on the Site comprised Grassland – modified grassland (g4), Urban – developed land sealed surface (u1b) and Urban – buildings (u1b5) and Sparsely Vegetated Land – Ruderal/ephemeral.

3.1.3 The habitats are described using the UKHab methodology, which do not always match completely with BM4.0 terminology. Therefore, where applicable, the conversions to the habitat types described within BM4.0 are listed below:

- Urban – buildings (u1b5) is redefined as Urban – developed land, sealed surface in BM4.0.

3.1.4 A summary of the habitat condition assessment criteria passed or failed for habitats where a condition assessment is applicable in BM4.0 is provided in Appendix 4.

Table 2. The Site Baseline Habitat Areas and Biodiversity

Habitat Type	Distinctiveness	Condition	Area (ha)	Habitat Units
Grassland – modified grassland	Low	Poor	1.28	2.56
Urban – developed land, sealed surface	V.Low	N/A - Other	0.3067	0.00
Sparsely vegetated land – rural/ephemeral	Low	Good	0.0277	0.17
Total Habitat Area			1.6144	

Habitat Type	Distinctiveness	Condition	Area (ha)	Habitat Units
Total Habitat Units (HU)				2.73

Hedgerow Habitats

- 3.1.5 Baseline hedgerow habitats featured on the Site comprise of Hedgerow – other native hedgerow (h2a6). These habitats are described using the UKHab methodology which match the descriptions within BM4.0.
- 3.1.6 The hedgerow habitats are described using the UKHab methodology, which do not always match completely with BM4.0 terminology. Therefore, where applicable, the conversions to the habitat types described within BM4.0 are listed below:
- Hedgerow – other native hedgerow (h2a6) is redefined as Hedgerow – native in BM4.0;
- 3.1.7 A summary of the habitat condition assessment criteria passed or failed for hedgerows where a condition assessment is applicable in BM4.0 is provided in Appendix 4.

Table 3. The Site Baseline Hedgerows and Biodiversity

Hedgerow Type	Distinctiveness	Condition	Length (km)	Hedgerow Units
Native hedgerow	Low	Good	0.025	0.15
Total Hedgerow Units (HeU)				0.15

3.2 Post-Development Biodiversity

- 3.2.1 The following details the completed biodiversity metric calculations based on the baseline values against the proposed site plan (See Appendix 2).

Current Landscaping Proposals

- 3.2.2 Post-development habitat through retention and creation include ‘Urban – Developed land; sealed surface’ and ‘Grassland – modified’ as described within BM4.0. Post-development habitats are shown in Appendix 2.

- 3.2.3 The habitat type, distinctiveness, condition, area and HU of the post-development area habitats are provided within Table 4. Post-development, through habitat creation of the area-based habitats will deliver 0.52 HU based on the current proposals as shown in Appendix 2.

Table 4. The Site Post-development Area Habitats, Condition and Habitat Units

Habitat Type	Distinctiveness	Condition	Area (ha)	Habitat Units
Retained				
Urban – developed land, sealed surface	V.Low	N/A - Other	0.26795	0.00
Grassland – Modified	Low	Poor	1.28	2.56
Created				
Grassland – Modified	Low	Poor	0.06645	0.13
Total Habitat Area (ha)			1.6144	
Total Habitat Units (HU)				2.69

- 3.2.4 There will be no retention of hedgerow within the Site therefore the post development accounts for a loss of 0.025km of hedgerow and 0.15HeU.
- 3.2.5 A summary of the biodiversity calculations detailed above are provided in Table 4 below.

Table 4. Summary of Biodiversity Net Gain Calculations

Habitat Type	Baseline Units	Post-development Units	Change in Units	Total Net % Change	Trading Rules Satisfied
Habitat Units (HU)	2.73	2.69	-0.04	-1.39	No
Hedgerow Units (HeU)	0.15	0	-0.15	-100%	No

4 DISCUSSION AND RECOMMENDATIONS

4.1 Legislation and Local Policy

4.1.1 Nuneaton and Bedworth Plan (Nuneaton and Bedworth Borough Council, 2019) states:

'Policy NE 3 Biodiversity and Geodiversity

Development proposals will ensure ecological networks and services, and biodiversity and geological features are conserved, enhanced, restored and, where appropriate, created.

Ecological network

Sites on international, national and local levels considered significant to the ecological network, irreplaceable or providing a substantive contribution to nature conservation, will be protected from development. The level of protection sought for the site will be at an appropriate scale to the site's designation status, and the contribution it makes to the ecological network.

Fragmentation of habitats

Development proposals will ensure species are able to positively respond to the impacts of climate change by preventing the fragmentation of existing habitats. Links and habitats should be created where there are gaps to the ecological network of wildlife sites, stepping stones, wildlife and canal corridors, and green spaces, regardless of whether they are of international, national or local importance. The joining up of watercourses of all sizes can also contribute to providing natural linkages for ecological networks, and proposals should utilise opportunities to do this where possible.

Biodiversity offsetting

Biodiversity offsetting will be required as a last resort, once all available options in the mitigation hierarchy have been explored. Developers must use Warwickshire County Council's biodiversity offsetting metrics to quantify the impact, and to calculate an appropriate level of compensation to replace the lost habitat. If the habitat loss cannot be replaced on site, the replacement habitat should be provided in the borough in the following order:

- *A biodiversity strategic location.*

- A location adjoining and/or linking a biodiversity strategic location.
- A location that does not contribute to the offsetting strategy.

Geological diversity

Development proposals will avoid adversely impacting sites of geological interest and, where appropriate, conserve and enhance such features for the enjoyment of residents, and for reasons of advancing local geological education.

Ecological assessment

Development proposals affecting the ecological network and/or important geological features will be accompanied by a preliminary ecological assessment and/or, where relevant, a geological assessment.

Where the assessment indicates an adverse impact, the assessment must set out a mitigation strategy to halt and reverse the loss of biodiversity, and how it will create biodiversity net gains or, where relevant, how it will reduce its geological impact.

Any proposal that directly or indirectly impacts on a highly distinctive ecological site must show that less distinctive ecological sites have been considered first, and explain why those sites were not suitable. The assessment must demonstrate that the benefits of the development proposal will outweigh the immediate loss of biodiversity and/or geodiversity before development is permitted. The assessment must also demonstrate that the combination of proposed habitat retention, enhancement and any biodiversity offsetting, results in a net gain in biodiversity.

Special Areas of Conservation and Sites of Special Scientific Interest

Development that would adversely affect Special Areas of Conservation or cause significant harm to Sites of Special Scientific Interest will not normally be granted planning permission.'

BNG Principles

- 4.1.2 The BNG good practice principles (CIEEM, CIRIA, IEMA, 2016) are taken into account during the BNG assessment and throughout the progression of the design of the proposed development at this Site.

4.2 Net Unit and Percentage Change with Recommendations

Area Habitats

- 4.2.1 The landscape proposals includes the planting of modified grassland where currently developed land, sealed surface and ephemeral vegetation is present. The calculated net unit change of +0.04 HU and net percentage change of -1.39% for area habitats means that the current proposals, taking into account the predicted post-development habitats, will not achieve a quantitative measurable net gain in HU. This is due to the lack of low distinctiveness habitat creation within the Site.
- 4.2.2 The BM4.0 trading rules have not been satisfied for area habitats. This is based on losses of low distinctiveness habitats and the proposed post-development habitats do not provide sufficient HU to compensate for these losses. To satisfy the trading rules, delivery of HU through creation of habitat types of the same distinctiveness or better would be required.

Hedgerow Habitats

- 4.2.3 The calculated net unit change of -0.15 HeU and net percentage change of -100% for hedgerow habitats means that the current proposals, taking into account the predicted post-development habitats, will not achieve a quantitative measurable net gain in biodiversity.
- 4.2.4 The BM4.0 metric trading rules have not been satisfied for hedgerow habitats. This is due to losses of low distinctiveness hedgerow which has not been compensated for through creation of new hedgerows. To satisfy the trading rules, delivery of HeU through creation of hedgerow types of the same distinctiveness or better would be required.
- 4.2.5 Due to the extent and use of the Site it is not practically possible to create any further areas of habitat or hedgerow. The current airstrip which will remain in use needs to remain open with clear visibility for aircraft use. It is therefore anticipated that the small loss of biodiversity will be compensated for off-site as described in section 4.4 below in order to meet the mandatory 10% BNG and trading rules.

4.3 Habitat Management and Monitoring

- 4.3.1 Appropriate management and maintenance will be required to ensure post-development habitats reach the predicted habitat type and condition. In particular, the condition assessment criteria within Natural England 'Technical Annex 1: Condition Assessment Sheets and Methodology' (2023) will be used to inform management prescriptions and the required actions to reach predicted habitat conditions, where relevant.

- 4.3.2 The management of the habitat features should be secured for the long-term and should be reviewed periodically to ensure the actions continue to be appropriate for the post-development habitats and to ensure success of the delivery of on-site habitat creation.

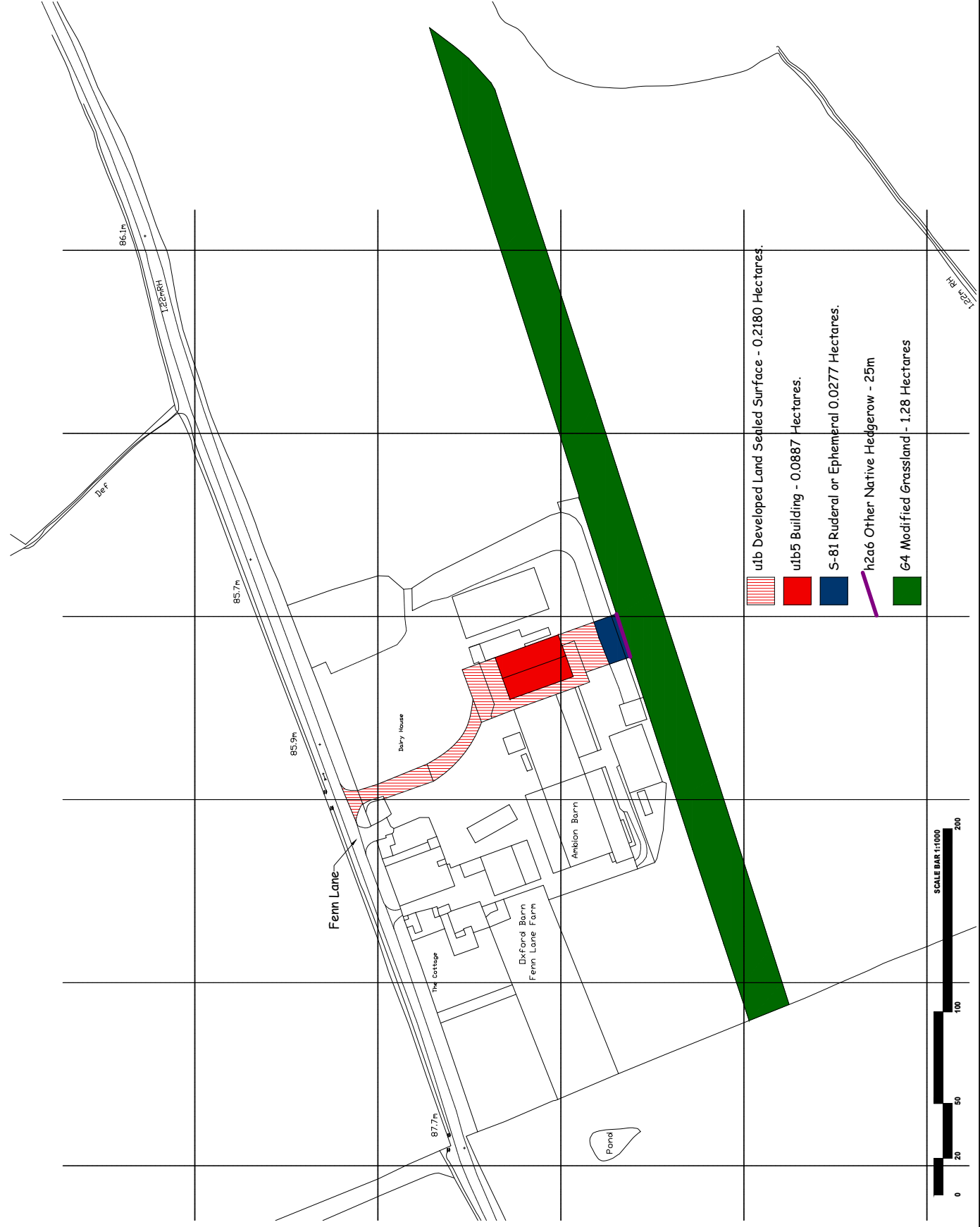
4.4 Off-Site Compensation

- 4.4.1 As the required measurable net gain, i.e. 10%, cannot be achieved on Site in its entirety, off-site compensation to deliver the residual HU and HeU will be secured.
- 4.4.2 The options to achieve a net gain in HU through off-site compensation are as follows (in order of preference in accordance with the mitigation hierarchy):
- Delivery of the required HU off-site but on land under the same ownership where long-term management can be secured. An ecological walkover survey of any identified areas would be required to record the baseline habitat types and conditions present at the off-site land. Metric calculations would then be run using BM4.0 taking into account predicted post-intervention habitat types to identify the number of HU delivered and determine a total net unit and percentage change for the proposed development.
 - Delivery of the required HU through a financial payment to a third party organisation such as the Environment Bank or the Local Planning Authority. Such organisations may have habitat banks in the local or wider area whereby a financial contribution would deliver the required HU taking into account the trading rules and support delivery of long-term local nature conservation actions in the local or wider area.
- 4.4.3 It is anticipated that the first option will be applied to compensate for biodiversity loss at the Site.

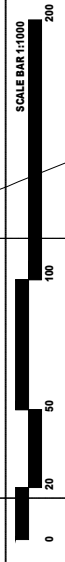
4.5 General Measures

- 4.5.1 The habitats onsite have the potential to support nesting birds. The hedgerow clearance should be undertaken in winter outside of the breeding bird season (April to September inclusive) . If this is not possible then a nesting bird check by a suitably qualified ecologist should be undertaken no longer than 48 hours prior to the works .

APPENDIX 1 – BNG Baseline Plan



- u1b Developed Land Sealed Surface - 0.2180 Hectares.
- u1b5 Building - 0.0887 Hectares.
- S-81 Ruderal or Ephemeral 0.0277 Hectares.
- h2a6 Other Native Hedgerow - 25m
- G4 Modified Grassland - 1.28 Hectares



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JOB TITLE
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DWG. TITLE
BNG Baseline Plan A1

SCALE 1=1000

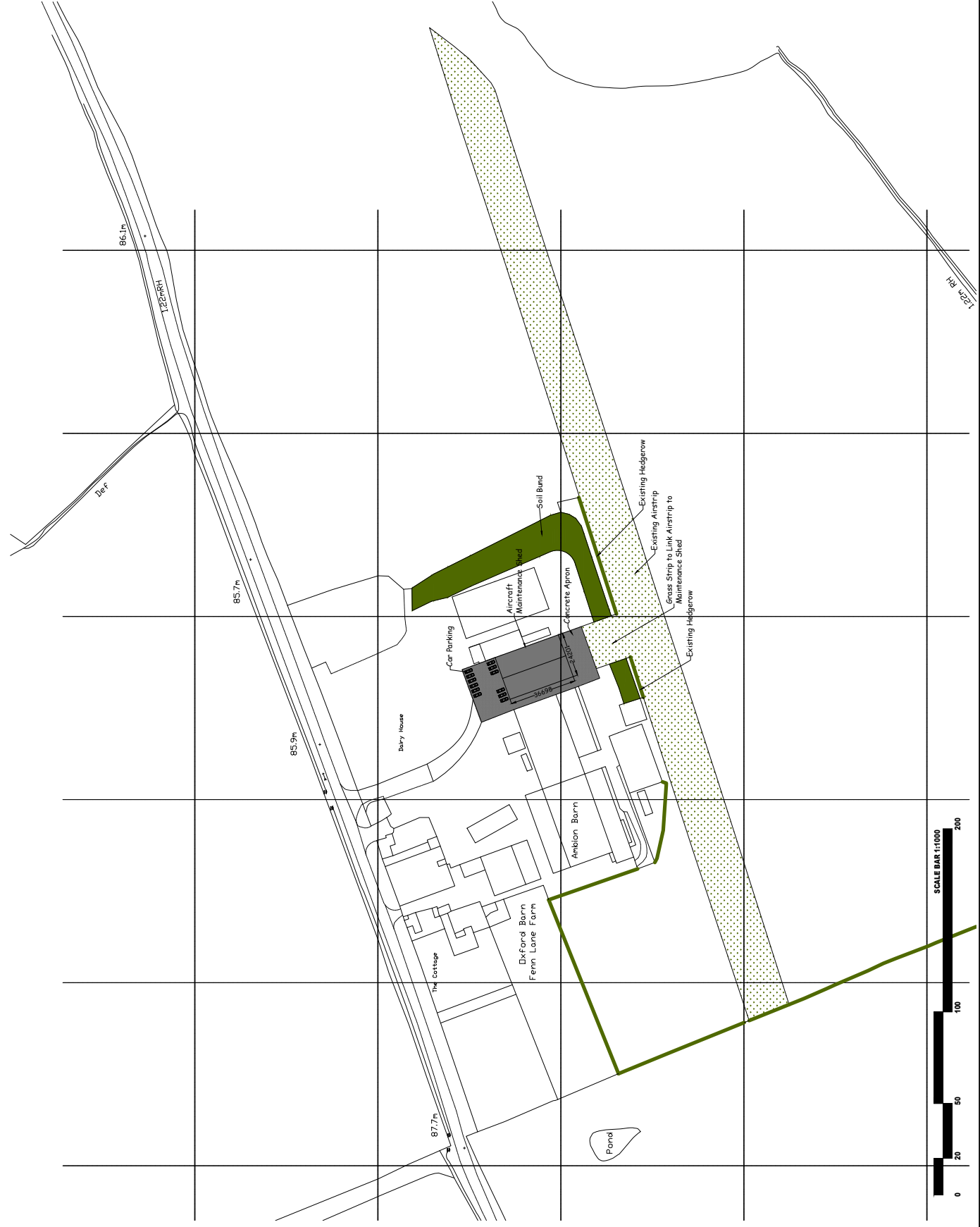
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IP

DWG. NUMBER
IPA705

DATE
July 24

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APPENDIX 2 – Proposed Site Plan



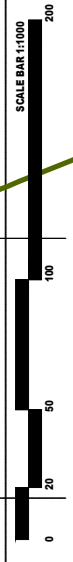
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Proposed Site Plan A1

SCALE 1=1000
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DATE June 24
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Appendix 3 – Site Photos









APPENDIX 4 AND APPENDIX 5 PROVIDED SEPARATELY