Bretton Mill Farm, West Bretton

Preliminary Ecological Appraisal and Biodiversity Net Gain Assessment

19th February 2024

Prepared by:

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Document ref : MBE/ECO/2024/003/01				
Purpose and Description	Originated	Checked	Reviewed	Date
For Planning	G Slack MCIEEM	P Middleton MCIEEM	R Bell MCIEEM	19/02/2024

Disclaimer

Site Name Bretton Mill Farm	Location Huddersfield Road, West Bretton, West Yorkshire, S75 4BY
Local Authority Wakefield Metropolitan District Council	Grid Reference SE 29529 12232
Surveyor Greg Slack MCIEEM	Date of Survey 01/02/2024
National Character Area (NCA) NCA 38 Nottinghamshire, Derbyshire, and Yorkshire Coalfield.	Designation of Site None

UK Habitat Classification habitats on Site
Habitats: g4 –modified grassland; u1b5 –buildings; u1b6 –other developed land; u1c –artificial unvegetated, unsealed surface; u1f –sparsely vegetated urban land. Secondary codes: 32 – scattered trees; 114 – dry stone wall.
Protected/Notable Species, Constraints on Site Birds, foraging and commuting bats, and invertebrates.
HPIs and SPIs under NERC Act 2006 Potentially the following bat species: brown long-eared bat, soprano pipistrelle and noctule, and bird species such as house sparrow.
Wakefield BAP Bat species.

Contents

1. Summary

1.1.1 The Preliminary Ecological Appraisal of the site at Bretton Mill Farm was commissioned by the client Trevor Brook on 19th January 2024. The development of the site includes the demolition of two modern agricultural buildings and a former World War 2 era Nissen hut followed by the construction of four new dwellings.

1.1.2 The survey was undertaken on 1st February 2024. A previous survey of the site was undertaken in May 2023 to assess the suitability of the buildings to support roosting bats, with a follow up survey (undertaken in June 2023) to identify the presence or absence of roosting bats within the buildings.

1.1.3 The lawn (modified grassland) and sparsely vegetated land represented the only semi-natural habitat within the red line boundary and was of site value. All other habitats were considered to be of negligible intrinsic ecological importance.

1.1.4 Nesting birds were considered likely, as well as foraging and commuting bat species and common invertebrates. No other populations of protected or notable species were considered likely to be present.

1.1.5 The potential impacts of the development are considered to comprise:

- The net gain of 0.1 ha of modified grassland;
- The net gain of a small area of mixed scrub (0.007ha);
- The loss of a mature Leyland cypress tree and the planting of six small trees;
- The planting of approximately 150 m of new hedgerow comprising 19 m of species rich native hedgerow in communal areas and 131 m bounding gardens;
- Biosecurity risks as a result of bringing in plants, seeds and soil for landscaping.
- Temporary increase in noise, dust and vibration caused by construction work.
- Increase in lighting within the site, resulting in the disturbance of nocturnal species such as bats.
- Potential destruction of bird nests. Active birds' nests are legally protected.

1.1.6 The development is projected to result in a net gain of 0.08 Habitat Units (an 18 % gain), and a net gain of 0.15 Hedgerow Units. The following further survey and mitigation requirements are considered necessary:

- Vegetation clearance will take place outside the main bird nesting period (March to August inclusive), or the clearance preceded by a nesting bird check.
- It is recommended a suitable lighting strategy is implemented.
- The area of modified grassland, and the garden lawns will be sown with a low flowering lawn seed mix.
- The native species-rich hedgerow will comprise a minimum of five native species with UK provenance stock used in plantings.
- Six new fruit trees will be planted in communal areas.
- Each new building will incorporate one integrated swift brick.

1.1.7 The results of this survey and report are considered to be valid for a period of 18 months. After this time Middleton Bell Ecology should be contacted to determine the need for update survey.

2. Introduction

2.1.1 The Preliminary Ecological Appraisal of the site at Bretton Mill Farm was commissioned by the client Trevor Brook on 19th January 2024.

2.1.2 The development of the site includes the demolition of two modern agricultural buildings and a former World War 2 era Nissen hut followed by the construction of four new dwellings. The proposed site plan is included as Appendix 1.

2.1.3 The survey was undertaken on 1st February 2024. A previous survey of the site was undertaken in May 2023 to assess the suitability of the buildings to support roosting bats with a follow up survey (undertaken in June 2023) to identify the presence or absence of roosting bats within the buildings. The previous survey work is summarised in Bretton Mill Farm, Haigh –Bat Survey Report (MBE, 2023). The two reports should be read in conjunction.

2.1.4 The purpose of this report is to present the findings of a UK Habitat Classification survey, an assessment of the site's suitability to support protected or notable species, and a biodiversity net gain assessment. The report includes consideration of the value and likely impacts and effects of the proposed development to protected and notable species and habitats. Detail on suitable mitigation and compensation measures necessary to avoid or reduce these impacts is included within the report.

2.1.5 Key legislation relating to designated sites, protected species, and habitats is detailed in Appendix 2. The implications of legislation are detailed in the body of the report, where applicable.

3. Site Description

3.1.1 The site consisted of two modern agricultural buildings and a former World War 2 era Nissen hut, with three grain silos. Hard standing, providing vehicle access to the buildings was present in the east of the site and a gravel area providing a parking area for heavy goods vehicles was present in the west. Small patches of lawn and colonising ephemeral vegetation were present within the site.

3.1.2 Additional lawn, trees and buildings were present to the north of the site, Huddersfield Road (the A637) was present to the east of the site, with the M1 motorway approximately 150 m east of the site. Additional parking for HGVs was present to the northwest, a woodland belt was present to the southwest with a pasture field to the south and the River Dearne beyond. The farmhouse and other buildings were present to the southeast.

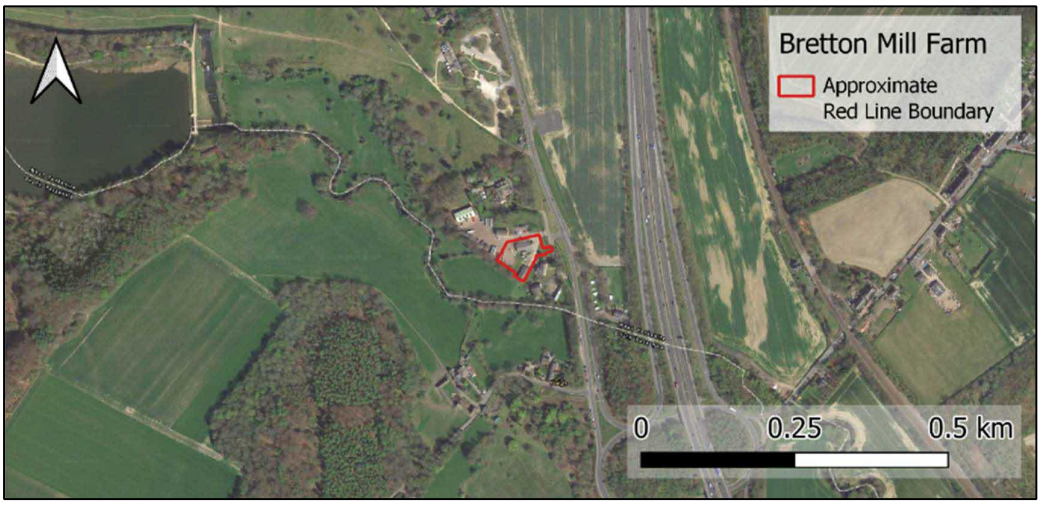
3.1.3 The site was 0.31 ha in extent. Land adjacent to the site consisted of the farmhouse, other commercial buildings and gardens (see Figure 1).

3.1.4 The site falls within National Character Area (NCA) 38: The Nottinghamshire, Derbyshire and Yorkshire Coalfield. This NCA comprises a generally low-lying area, with hills and escarpments above wide valleys, the landscape embraces major industrial towns and cities as well as villages and countryside. Over half of the NCA is currently designated as greenbelt land; this maintains some distinction between settlements and represents areas that are often under pressure for development and changes in land use. The landscape is dotted with many pockets and patches of habitat

where species find refuge. This is often on land that was once worked for minerals or occupied by major industry.

3.1.5 The Soilscapes resource[1] shows the site lies at the convergence of three different soil types: freely draining slightly acid loamy soils, loamy and clayey floodplain soils with naturally high groundwater; and slowly permeable seasonally wet acid loamy and clayey soils.

Figure 1. The site location



4. Methodology

4.1 Data Consultation

4.1.1 West Yorkshire Ecology and South Yorkshire Bat Group were contacted to request bat records during the previous bat survey work undertaken (MBE, 2023). Given the habitats likely to be affected, the updated desk study for this report analysed only freely available information available from the Multi-Agency Geographical Information for the Countryside (MAGIC) website.

4.2 Field Survey

4.2.1 The site was surveyed on 1st February 2024 by Greg Slack MCIEEM using UK Habitat Classification survey methodology (UKHab Ltd, 2023). Greg is a competent ecologist with more than 15 years' experience and holds a Natural England bat survey licence (WML-A34-Level 4, 2017-28068-CLS-CLS) and Natural England great crested newt survey licence (CL08-Level 1, 2015-18073-CLS-CLS).

4.2.2 The surveyor methodically covered the site, searching for notable, rare or scarce plant species and evidence of protected species including bats and species of nature conservation importance (including a search of suitable features for signs of bats). Features of interest are presented on the UK Habitat Classification plan, using Secondary Codes and Target Notes.

[1] http://www.landis.org.uk/soilscapes/ [accessed 1st February 2024]

4.2.3 Aerial photographs (Google Earth, Bing Mapping, and ESRI imagery) and Ordnance Survey mapping were studied to consider the wider context and to look for ecological features that would not be evident on the ground during the walkover survey. This is particularly useful for identifying wildlife corridors and ponds.

4.2.4 Habitats of Principal Importance (HPIs) and Species of Principal Importance (SPIs) included on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 were recorded. Any priority species and habitats included on the Local Biodiversity Action Plan (LBAP) were also noted if present.

4.3 Methods of Assessment

4.3.1 In line with CIEEM guidelines (CIEEM, 2017) the survey results were used to identify any ecological constraints, any further surveys, and any mitigation measures likely to be required. Opportunities for ecological enhancement measures were also included where possible.

4.4 Biodiversity Calculation

4.4.1 The Statutory Biodiversity Metric (Defra, 2023) was used to calculate the ecological impact of this scheme within the context of the blue line boundary site. This metric uses habitat as a proxy for wider biodiversity with different habitat types scored according to their relative biodiversity value. This value is then adjusted depending on the condition and location of the habitat, to calculate 'biodiversity units'. The Statutory Biodiversity Metric incorporates similar but separate calculations for habitats that require a different method of measurement such as hedgerows, lines of trees, rivers, streams and street trees. Calculations are undertaken in a purpose designed spreadsheet, which provides the main output of the process.

4.5 Survey Limitations

4.5.1 The field survey was undertaken outside the main growing season, when many plant species do not display visible above ground growth. The habitats present on site could however be confidently identified. Where restrictions owing to the time of survey have impacted the ability to assess habitat condition (notably site grassland) these have been discussed in relation to that habitat.

4.5.2 Due to the presence of dense lower branches on the mature tree present within the site the diameter of the trees largest stem was estimated rather than measured. This was done by parting the branches on multiple aspects and considering the size of the stem that could be seen relative to the tape measure. The margin for error when assigning the class size of the tree is discussed in the results section below.

5. Ecological Baseline

5.1 Data Consultation

5.1.1 One Local Nature Reserve (LNR) was present within 2 km of the proposed development. The site details are presented in Table 1.

Table 1. Designated sites

Designation	Name	Interest	Distance and direction to site
LNR	Bretton Country Park	Mixture of wetland, mixed and deciduous woodland. Section of River Dearne flows through the park with kingfisher, grey wagtail. The lakes are used by overwintering wildfowl.	130 m north

5.1.2 Records of protected and notable species obtained are discussed in the species sections of the results.

5.2 Field Survey

5.2.1 The arrangement of site habitats is shown on the figure included in Appendix 3, whilst a field survey botanical species list is provided in Appendix 4.

5.2.2 The lawn (modified grassland) and sparsely vegetated land represented the only semi-natural habitat within the red line boundary and these habitats were of site value. All other habitats were considered to be of negligible intrinsic ecological importance.

5.2.3 Nesting birds were considered likely, as well as foraging and commuting bat species and common invertebrates. No other populations of protected or notable species were considered likely to be present.

5.2.4 A description of the site habitats and the site's potential to support protected and notable species is provided below.

Habitats

g4 – modified grassland

5.2.5 The modified grassland comprised a small section of road verge, and two areas of amenity grassland (one in the centre of the site and one on the eastern edge) (Plate 1). Aerial imagery on Google Earth shows that short grass has been present within these lawns since at least 2016 (Figure 2).

Plate 1. Modified grassland lawn with New Zealand flax and Leyland cypress present. View looking south from just beyond the northwest corner of the site

Figure 2. Google Earth image of the site in 2016

5.2.6 Grass species present in the modified grassland comprised abundant red fescue *Festuca rubra*, frequently recorded perennial ryegrass *Lolium perenne*, occasionally recorded cocksfoot *Dactylis glomerata* and a *Poa* species, and rarely recorded false oat grass *Arrhenatherum elatius* and Yorkshire fog *Holcus lanatus*. Herbs comprised locally abundant creeping buttercup *Ranunculus repens*, occasionally recorded daisy *Bellis perennis*, a clover species *Trifolium* spp., and rarely recorded sticky mouse-ear *Cerastium glomeratum*, spear thistle *Cirsium vulgare*, cleavers *Galium aparine*, dovesfoot cranesbill *Geranium molle*, herb Robert *Geranium robertianum*, ivy *Hedera helix*, black medic *Medicago lupulina*, ribwort plantain *Plantago lanceolata*, selfheal *Prunella vulgaris*, ragwort *Senecio jacobaea*, smooth sowthistle *Sonchus oleraceus*, dandelion

Taraxacum spp., and common nettle *Urtica dioica*. Springy turf moss *Rhytidiadelphus squarrosus*, was also frequently recorded. A plant thought to be a New Zealand flax Phormium sp. and a single Leyland cypress *Cupressocyparis leylandii*, had also been planted within the lawn. The Leyland cypress was mature and had a diameter of 35 cm at 1.5 m height.

5.2.7 The modified grassland was considered to be in good condition according to the UK Habitat Condition Criteria (Defra, 2023). On average the number of vascular plant species was 3.5 per square meter (Plate 2). Given the time of year it is considered likely that some grass species, and some herbs were likely to have been missed and it is likely that some additional species would have been recorded if the grassland was re-surveyed in summer. Therefore, Condition Criterion A was considered to be passed (on a precautionary basis) and the only condition criterion failed was Condition Criterion B –varied sward height.

Plate 2. The sward in the area of lawn in the centre of the site

32 – scattered trees (secondary code)

5.2.8 A mature Leyland cypress had been planted in the modified grassland. The tree was considered to be a small sized tree based on the diameter of the largest of its multiple stems (this is the methodology stated for defining the size of a tree in the Statutory Biodiversity Metric (Defra, 2023). As discussed in the limitations section, it was not possible to measure the diameter of the largest stem, rather it was estimated at 26 cm diameter, comfortably lower than the 30 cm diameter required to count the tree as a medium sized tree. The condition of the tree was deemed to be moderate, failing only Condition Criterion A (tree is a native species) and E (presence of ecological niches).

u1f – sparsely vegetated urban land

5.2.9 An area of sparsely vegetated land was present near the southern end of the site (Plate 3). The area had been colonised by moss and low growing vascular plants. The plant species comprised: an abundant moss species considered to be a *Byrum* spp., locally abundant creeping buttercup *Ranunculus repens*, occasionally recorded cocksfoot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, perennial ryegrass *Lolium perenne*, creeping thistle *Cirsium arvense*, and rarely occurring ribwort plantain *Plantago lanceolata*, sticky mouse-ear *Cerastium glomeratum*, dove's-foot cranesbill *Geranium molle*, shepherd's purse *Capsella bursa-pastoris*, a clover species *Trifolium*

spp., smooth sow thistle *Sonchus oleraceus*, a dock species *Rumex* spp., and a willowherb species *Epilobium* spp..

Plate 3. Area of sparsely vegetated land in the foreground with an area of modified grassland on the slope to the left and buildings in the background

5.2.10 The condition of the sparsely vegetated urban land was poor as it only passed condition criteria C –lack of non-native invasive species.

u1b5 – buildings

5.2.11 The three buildings on site comprised two modern agricultural buildings (B1 and B3) and a former World War 2 era Nissen hut (B2). The buildings are shown in Plate 4 and are described in the bat survey report (MBE, 2023).

Plate 4. The buildings from left to right B3, B1 and B2

5.2.12 Three silos were also present on site, located to the south of B1 (Plate 5). The silos were constructed from corrugated galvanised steel.

Plate 5. The three silos in the centre of the site with B1 behind (viewed from the south)

5.2.13 No condition assessment is applicable for this habitat type (Defra, 2023).

ub6 – other developed land

5.2.14 The other developed land within the site comprised the concrete access to B1 –3, the silos and land to the rear of the farmhouse, which was located to the south of the red line boundary (Plate 4 and 5).

u1c – artificial unvegetated, unsealed surface

5.2.15 Areas of artificial unvegetated unsealed surface were present in the form of a gravel parking area for heavy goods vehicles at the western edge of the site (Plate 6).

Plate 6. Heavy goods vehicle parking area at the western edge of the site

5.2.16 No condition assessment is applicable for this habitat type (Defra, 2023).

Species and species groups

Badger

5.2.17 No badgers *Meles meles*, or signs of badger activity were present within the site or surrounding 30 m. The limited grassland within the site was within the bounds of a working farm, and adjacent to a well used HGV parking area and farmhouse. The grassland was short, and well maintained. The disturbance within the site was considered to be sufficient to deter badgers from using the habitats present, given the limited and sub-optimal condition of the habitat relative to the substantial areas of alternative grassland and woodland habitat in the wider local area.

5.2.18 As a result it was considered unlikely that badgers would use the area.

Hedgehog

5.2.19 No signs of hedgehog *Erinaceus europaeus* use of the site were recorded and no hedgehogs were recorded (including during the nocturnal bat surveys). As with the badgers, the small amount of suitable habitat present within the site, and the substantial disturbance that the farm and HGV operations would generate are considered likely to negate the likelihood that this site was used by hedgehogs.

Bats

5.2.20 During the initial inspection of Building 1 (Plate 4) in May 2023 a bat dropping was found on a wall inside the building. The building was considered to have low suitability to support roosting bats and the other two buildings were considered to have negligible suitability. The subsequent bat emergence survey undertaken on the evening of June 2023 didn't record any bats roosting in the building and it was concluded that the bat dropping on the wall of the building was most likely deposited by a bat in flight. No signs of bats were recorded during the UK Habitat Classification survey in February 2024.

5.2.21 No other buildings or structures were present within the site and the Leyland cypress tree was not considered to be suitable for use by roosting bats.

5.2.22 It was considered that a belt of woodland adjacent to the southwest boundary of the site would be likely to be well used by commuting and foraging bats.

Birds

5.2.23 The Leyland cypress tree within the modified grassland was considered suitable to support nesting birds and the grassland and sparsely vegetated land was broadly suitable for foraging by a range of common garden birds.

Reptiles

5.2.24 None of the habitats present within the site offered suitable resting places or cover for reptile species. Domestic cats *Felis catus* were recorded within the site during the nocturnal bat survey and it is considered that together with the disturbance associated with the farming and HGV operations, that this would make it extremely unlikely that reptiles would use the site.

Amphibians

5.2.25 No ponds were present within the surrounding 500 m. The closest waterbody was the Lower Lake at Bretton Country Park approximately 550 m to the west of the site.

5.2.26 Together with the same 'disturbance' and the 'lack of cover' or 'presence of resting places' considerations given to reptiles this was considered sufficient to discount the use of the site by amphibian species including great crested newts *Triturus cristatus*.

Invertebrates

5.2.27 the grassland and sparsely vegetated land was broadly suitable for foraging by a range of common invertebrate species.

5.2.28 No other protected or notable species were considered likely to use the site.

5.3 Biodiversity Calculation

5.3.1 It was assessed that the baseline value of the site as calculated using the Statutory Biodiversity Metric was 0.42 Habitat Units with no Hedgerow Units (Appendix 5).

6. Assessment

6.1 Proposals

6.1.1 The development of the site includes the demolition of the three buildings (B1, B2, and B3) and the three silos, and construction of four new dwellings and garages.

6.1.2 The assessment of impacts was based upon the site layout plan 2316-SI-02A, dated November 2023 (included as Appendix 1). During the iterative process required to identify how the development could achieve a biodiversity net gain, the proposed layout was tweaked with a strip of grassland retained outside the gardens at the northern edge of the site, and a strip of mixed scrub included along the southern end of the southwest boundary to continue the structure provided by the woodland strip beyond the rest of that boundary. The proposed arrangement of habitats is shown in the UK habitats plan included in Appendix 6.

6.2 Biodiversity Calculations

6.2.1 The Headline Results output of the Statutory Biodiversity Metric is presented in Appendix 5, based on the proposed site habitats shown in the proposed UK Habitats Map included as Appendix 6. The development is projected to result in a net gain of 0.08 Habitat Units (an 18 % gain), and a net gain of 0.15 Hedgerow Units.

6.3 Assessment of Impacts

6.3.1 The potential impacts of the development are considered to comprise:

- The net gain of 0.1 ha of modified grassland;
- The net gain of a small area of mixed scrub (0.007 ha);
- The loss of a mature Leyland cypress tree and the planting of six small trees;
- The planting of approximately 150 m of new hedgerow comprising 19 m of species rich native hedgerow in communal areas and 131 m bounding gardens;
- Biosecurity risks as a result of bringing in plants, seeds and soil for landscaping.
- Temporary increase in noise, dust and vibration caused by construction work.
- Increase in lighting within the site resulting in the disturbance of nocturnal species such as bats.
- Potential destruction of bird nests. Active birds' nests are legally protected as detailed in Appendix 2.

6.3.2 No impacts were anticipated on the designated sites because of the nature of the development, and the distance of designated sites from the application area. No significant impacts were anticipated in relation to any invertebrate species which may be present.

6.4 Further Survey and Mitigation

6.4.1 No further survey is considered necessary provided the additional mitigation requirements below are implemented.

Protected species

6.4.2 The felling of the Leyland cypress and demolition of buildings will take place at a time when it is unlikely to affect nesting birds (outside March to August). If such works cannot avoid the nesting bird season they will be preceded by a nesting bird check, to

be undertaken by an ecologist.

6.4.3 It is anticipated that the lighting levels across the site area are already relatively high with floodlights and/or security lighting present on most buildings. New outside lighting near the woodland (i.e. on the rear of the southernmost dwelling and the side of the westernmost dwelling) will only be activated by PIR sensors with lighting units on relatively short timers (e.g. < five minutes) so that for the majority of the time the site remains unlit.

6.4.4 Lighting will be set at a relatively low level (ideally 4 m height or less) and will be downwards facing. Lights will be a warm white colour (<2700 Kelvin) in line with good practice guidance (ILP, 2018).

Habitat creation

6.4.5 The length of hedgerow along the northern edge of the driveway leading onto the development will comprise a native species rich hedgerow (containing a minimum of five native species). Additional lengths of hedgerow will be planted bordering gardens.

6.4.6 The proposed area of mixed scrub at the southern end of the site will provide additional connectivity at the southeastern end of the woodland block which is located adjacent to the site. The area of mixed scrub should be planted with a mix of native species. These should mirror those present in the area including elder *Sambucus nigra*, holly *Ilex aquifolium*, hawthorn *Crataegus monogyna*, and alder *Alnus glutinosa*.

6.4.7 The gardens along the southwestern boundary should be separated from the woodland and the area of mixed scrub with a fence to clearly define the boundary.

6.4.8 The area of mixed scrub will aim to achieve moderate condition. However, due to its small size it is anticipated that it will only be able to achieve Condition Criteria A (number of native woody species present), and C (absence of non-native invasive species) within the planting block (and the red line boundary) (Defra, 2023). It is anticipated that it may be possible to also achieve Condition Criterion D (the presence of a well developed edge) within the woodland area to the northwest and pasture to the southwest. Given that these areas would both be areas outside the red line boundary, the condition has been scored as poor on a precautionary basis in the metric.

6.4.9 The hedgerow is likely to be able to achieve achieve good condition as defined by the Statutory Biodiversity Metric (Defra, 2023). It is anticipated that the only condition criterion it's likely to fail are A1 (height of more than 1.5 m) and C1 (the requirement for an undisturbed strip of vegetation at least 1 m wide at the base of the hedge).

6.4.10 The hedgerow and scrub plants will be of UK provenance and sourced from a UK supplier such as Myers Beck Nursery[2]. The plants will be planted in the autumn, winter or early spring and well-watered at the time of planting and in periods of dry weather.

6.4.11 The area of modified grassland outside of the gardens, and the lawns within the gardens will be sown with a low flowering lawn seed mix with a high proportion of native

[2] https://www.miresbeck.co.uk/

fine grasses and herbs[3]. In communal areas the seed mix should be sown onto low nutrient subsoil to prevent any one species dominating the sward. The communal areas of lawn should be cut to a height of no less than approximately two inches.

6.4.12 In the long term the grassland in the areas outside of the gardens would be managed to achieve good condition as defined by the Statutory Biodiversity Metric (Defra, 2023).

6.4.13 Six small trees will be planted within the communal areas within the site (as shown on the figure in Appendix 6). Native species or fruit trees will be used to generate additional habitat for birds, and insects. The trees are expected to obtain moderate condition as per the Stautory Metric (Defra, 2023). The trees would be likely to pass condition criteria B (continuous canopy), D (no evidence of adverse impact on tree health by human activities), and F (more than 20 % of the canopy oversailing vegetation below).

6.4.14 The new buildings will each incorporate at least one integrated swift *Apus apus* brick, such as the Manthorpe Swift Brick (see Plates 7 & 8). The boxes will be installed at wall top height on the north, west, or eastern elevations. Studies have shown that swift boxes are used by a wide range of nesting birds that utilise buildings; consequently, these boxes will also provide potential nesting space for house sparrow *Passer domesticus* and starlings *Sturnus vulgaris*.

Plates 7 & 8. Manthorpe Swift Brick

6.5 Conclusion and Residual Effects

6.5.1 In order to minimise the negative scheme impacts and to ensure the scheme maximises potential benefits to nature conservation, the mitigation measures detailed in Sections 6.4 will be adopted.

6.5.2 The proposals are expected to result in a net gain of 18 % Habitat Units and a net gain of 0.15 hedgerow biodiversity units. Although the metric shows a net loss for habitat units, the hedgerows bounding the gardens aren't scored and neither are the swift bricks. Overall, the mitigation measures on this site are considered likely to result in a slight positive outcome for nature conservation within the site.

6.5.3 The results of this survey and report are considered to be valid for a period of 18 months. After this time Middleton Bell Ecology should be contacted to determine the

[3] The proposed mix is available from https://wildflowerlawnsandmeadows.com/product/wild-flower-lawn-seed-mix/ The grasses are all native UK species and the herbs are also native with the exception of lawn chamomile *Anthemis noblis*.

need for update survey.

7. References

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

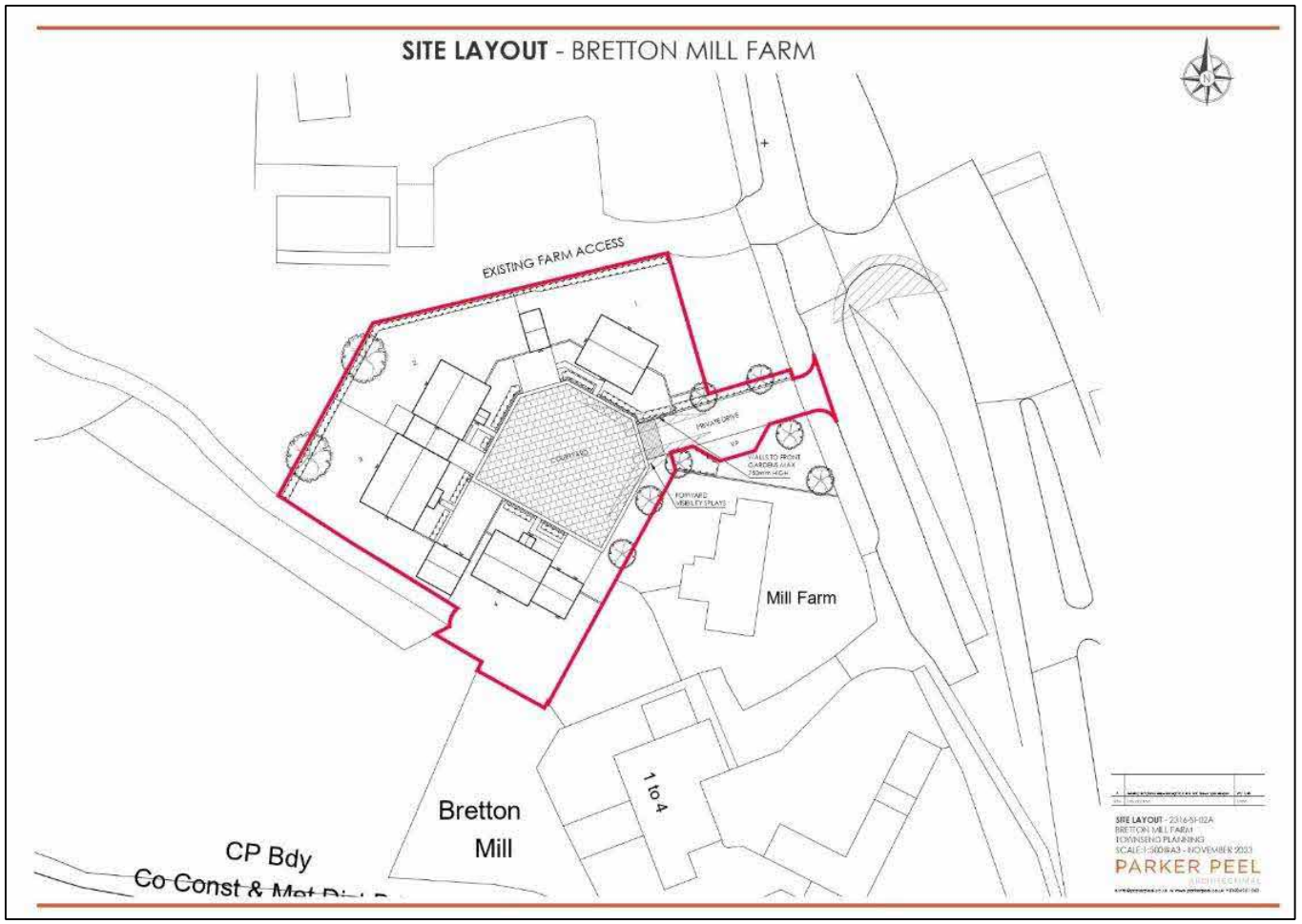
DEFRA (2023) The Statutory Biodiversity Metric User Guide (draft). DEFRA.

ILP (2018) Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the Built Environment Series. Bat Conservation Trust and Institute of Lighting Professionals.

MBE (2023) Bretton Mill Farm, Haigh –Bat Survey Report Including Nocturnal

UKHab Ltd (2023) UK Habitat Classification Version 2.0 (at https://www.ukhab.org)

Appendix 1. Proposed Site Layout



Appendix 2. Relevant Legislation and Planning Policy

Wildlife legislation relating to statutory designated sites and species is summarised in Table A2.1 and A2.2 below. This legal information is intended for summary only, and the original legal documents should be consulted if a detailed understanding is required.

Table A2.1. Legislation relating to designated sites and habitats

Designated Site	Legal Status
Local Nature Reserves (LNR)	LNRs are of local, but not necessarily national, importance. An LNR can also be an SSSI (Site of Special Scientific Interest), but often is not, or may have other designations. Except where the site is an SSSI, there is no legal necessity to manage an LNR to any set standard and there is no national legal protection specifically for LNRs. An LWS has certain protection against development on and around it. This protection is usually given via the local plan, (produced by the Local Planning Authority (LPA), and often supplemented by local by-laws.

Table A2.2. Legislation relating to species

Species	Legal Status
European protection	
European Protected Species (EPS) (including bats	These animal species and their breeding sites or resting places are protected under Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which makes it illegal to: • Intentionally or deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs. • Deliberately disturb such an animal. • Damage or destroy a breeding site or resting place of such an animal. European Protected Species (EPS) licences can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed: • The development is for reasons of overriding public interest. • There is no satisfactory alternative; and • The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of The Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed.

Species	Legal Status
	Natural England also allow sites to be registered on the Bat Low Impact Class Licence to permit activities that would otherwise be unlawful under the Conservation Regulations where the 3 tests can be passed and the bat roosts to be impacted are of low conservation status.
National protection	
European Protected Species and other species including adder, grass snake, common lizard, and water vole	These animals receive full protection under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any such animal. • Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and • Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.
Schedule 1 birds	Special penalties relate to offences concerning birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In addition to the offences detailed above relating to all wild birds, it is illegal to intentionally or recklessly disturb any Schedule 1 bird or their dependent young while nesting.
All bird species	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any wild bird. • Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.
Invasive species	The Wildlife and Countryside Act 1981 (as amended) contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 of the Act. In relation to Schedule 9 plants, it is an offence to plant or otherwise cause these plant species to grow in the wild.

Species and Habitats of Principal Importance

Planning authorities have a duty under Section 40 of the NERC Act 2006 to have regard to priority species and habitats in exercising their functions including development control and planning. In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the list of Habitats and Species of Principal Importance (HPI/SPI). The HPI/SPI list is used to guide planning authorities in implementing their duty under the NERC Act.

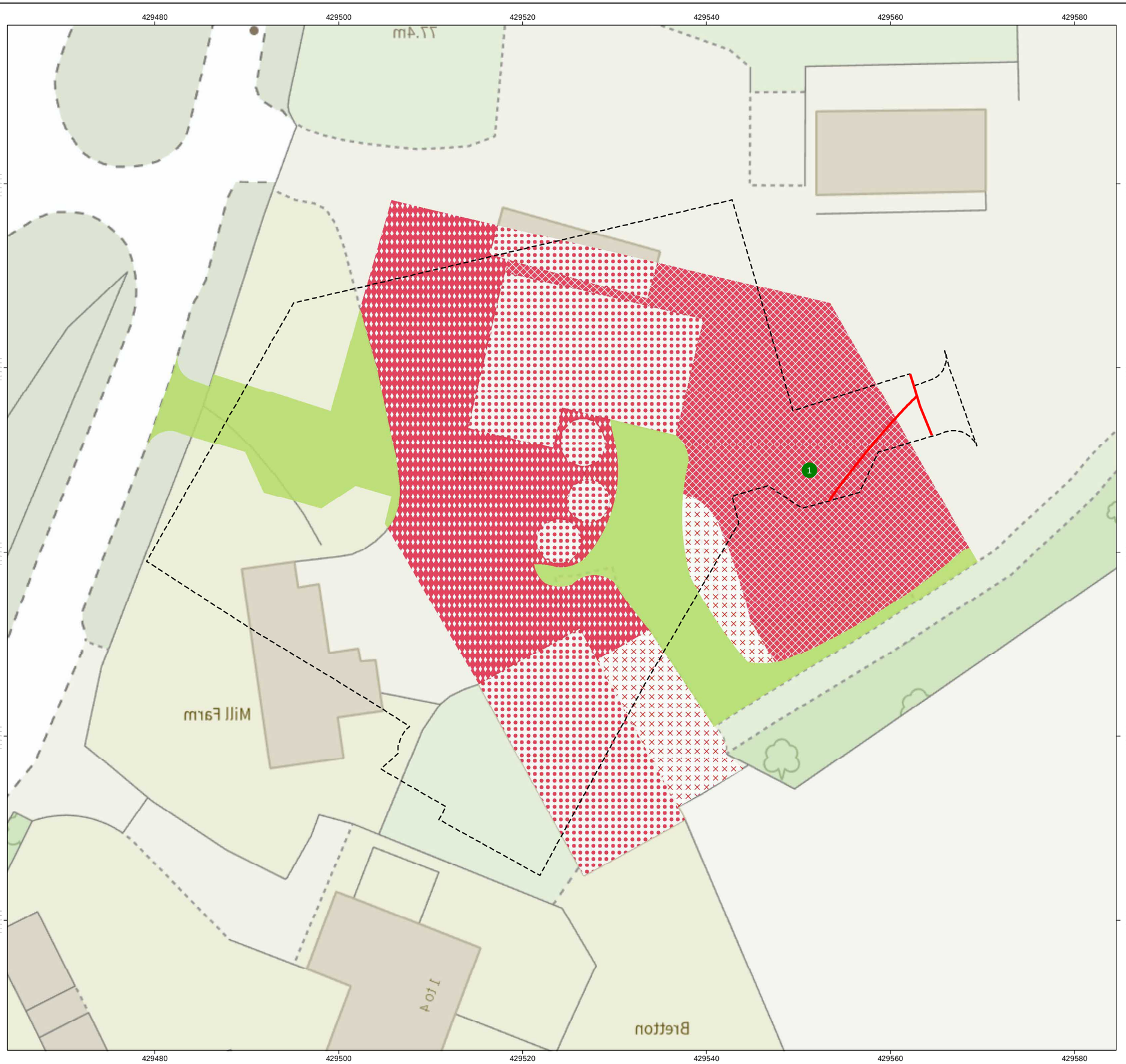
National Planning Policy Framework

The National Planning Policy Framework for England was revised in 2021. This document states that plans should 'promote the conservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity'. It also puts an emphasis on refusing development which would result in the 'loss or deterioration of irreplaceable habitats (such as ancient woodland)' unless there are 'wholly exceptional reasons and a suitable mitigation strategy exists'.

Local Biodiversity Action Plans

The HPI/SPI list included on Section 41 of the NERC Act 2006 is supported by a series of Local Biodiversity Action Plans (LBAPs), usually set up on a local authority local authority administrative boundary basis. Each LBAP identifies those habitats and species considered to be most important in that area (usually referred to as priority habitats and species). Commonly, an LBAP will identify a number of habitats and species for which “action plans” have been prepared.

Appendix 3. UK Habitat Classification Plan



Survey Information	
	Site boundary (3,136.9m^2)
UK Habitat Survey (Primary Habitats)	
	g4 - Modified grassland (570.3m^2)
	u1b5 - Buildings (743.8m^2)
	u1b6 - Other developed land (772.3m^2)
	u1c - Artificial unvegetated, unsealed surface (844.3m^2)
	u1f - Sparsely vegetated urban land (206.2m^2)
	114 - Dry stone wall (22.0m)
	32 - Scattered trees

0 2.5 5 10
Metres

PROJECT TITLE

BRETTON MILL FARM

DRAWING TITLE

Figure 1. UK Habitat Survey Plan

VER	DATE	REMARKS	Drawn	Checked
1.0	06/02/24	UKHab	MP	GS

DRAWING NUMBER:

MIDDLETONBELLECOLOGY/BrettonMillFarm/UKHab

SCALE	1:400	PLOT SIZE	A3	DATUM	OSGB	PROJECTION	BNG

Middleton Bell Ecology
33 Wilthorpe Road, Barnsley, South Yorkshire, S75 1JA
www.middletonbellecology.co.uk
T: 01226 286282

Appendix 4. Plant Species Recorded on Site

The plant species and their relative abundance within the natural habitats present on site are shown in Table A4.1

D = Dominant, **A** = Abundant, **F** = Frequent, **O** = Occasional, **R** = Rare. **L** = Locally

Common name	Latin name	g4	u1f
false oat grass	*Arrhenatherum elatius*	R	
daisy	*Bellis perennis*	O	
shepherd's purse	*Capsella bursa-pastoris*		R
sticky mouse-ear	*Cerastium glomeratum*	R	R
creeping thistle	*Cirsium arvense*		O
spear thistle	*Cirsium vulgare*	R	
cocksfoot	*Dactylis glomerata*	O	O
willowherb species	*Epilobium spp.*		R
red fescue	*Festuca rubra*	A	
cleavers	*Galium aparine*	R	
dove's-foot cranesbill	*Geranium molle*	R	R
herb robert	*Geranium robertianum*	R	
ivy	*Hedera helix*	R	
Yorkshire fog	*Holcus lanatus*	R	O
perennial ryegrass	*Lolium perenne*	F	O
black medic	*Medicago lupulina*	R	
ribwort plantain	*Plantago lanceolata*	R	R
Poa species	*Poa spp.*	O	
selfheal	*Prunella vulgaris*	R	
creeping buttercup	*Ranunculus repens*	LA	LA
springy turf moss	*Rhytidiadelphus squarrosus*	F	
dock species	*Rumex spp.*		R
ragwort	*Senecio jacobaea*	R	
smooth sowthistle	*Sonchus oleraceus*	R	R
dandelion	*Taraxacum spp.*	R	
clover	*Trifolium spp.*	O	R
common nettle	*Urtica dioica*	R	
New Zealand flax	*Phormium spp.*	R	
Byrum species	*Byrum sp.*		A
Leyland cypress	*Cupressocyparis leylandii*	R	

Appendix 5. Biodiversity Net Gain Headline Results

The Biodiversity Net Gain Headline Results show a net loss of 0.08 Habitat Units (an 18.43 % net gain), and a gain of 0.15 Hedgerow Units.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	0.08
	Hedgerow units	0.15
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	18.43%
	Hedgerow units	N/A
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Appendix 6. Proposed Plan Shown Using The UK Habitat Classification System

Survey Information	
	Site boundary (3,136.9m^2)
UK Habitat Survey (Primary Habitats)	
	g4 - Modified grassland (1,316.9m^2)
	g4 - Modified grassland, mitigation (293.2m^2)
	h3h - Mixed scrub (70.2m^2)
	u1b5 - Buildings (535.7m^2)
	u1b6 - Other developed land (920.9m^2)
	h2a5 species-rich native hedgerow (150.0m)
	114 - Dry stone wall (85.2m)
	612 - Fence (9.6m)
	32 - Scattered trees (6)

Areas/Lengths Outside of Gardens:

h2b - Non-native and ornamental hedgerow outside of gardens = 98.6m

Source:
Ordnance Survey © Crown copyright 2024, All rights reserved. License Number 100049837.

0 2.5 5 10
Metres

PROJECT TITLE

BRETTON MILL FARM

DRAWING TITLE

Figure 2. Proposed Habitat Plan

VER	DATE	REMARKS	Drawn	Checked
1.5	19/02/24	Proposed	MP	GS

DRAWING NUMBER:

MIDDLETONBELLECOLOGY/BrettonMillFarm/Proposed

SCALE	PLOT SIZE	DATUM	PROJECTION
1:400	A3	OSGB	BNG

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