# The Mill Academy, Lobwood, Worsbrough Bridge, Worsbrough, Barnsley, S70 5EP

## Biodiversity Net Gain Assessment

Prepared on behalf of

HCAT Academy

Final Report

06 January 2026

# The Mill Academy, Lobwood, Worsbrough Bridge, Worsbrough, Barnsley, S70 5EP

Biodiversity Net Gain Assessment

## Document Control

| | |
|---|---|
| **Client:** | HCAT Academy |
| **Date:** | 6 January 2026 |
| **Status:** | Final report |
| **Report Prepared for Issue by:** | Elizabeth Davies BSc (Hons) MCIEEM |

**Disclaimer**

*This report has been prepared, and is only valid for the named client, for the project described. The information which we have prepared and provided is in accordance with CIEEM's Code of Professional Conduct. Liz Ecology confirms that the opinions expressed are our true and professional bona fide opinions. The report is in accordance with the agreement under which our services were performed.*

*Liz Ecology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purpose which it was commissioned. This report does not constitute legal advice. If a legal opinion is required, the advice of a qualified legal professional should be sought.*

*The content of the report may, in part, be based upon information provided by others and on the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from any third party has not been independently verified by Liz Ecology unless otherwise stated in the report.*

*Provided no significant changes are made to the proposals or on the site subsequent to the report's issue; this report can be considered valid for 18 months from the date of issue, in line with CIEEM's Advice Note on The Lifespan of Ecological Reports and Surveys (2019).*

*As part of membership to our professional body (CIEEM) we are required to provide our biological results to applicable biological record centres. As such, it is our intention to supply biological data collected as part of this assessment to the relevant centre unless directly instructed in writing not to do so by the client.*

# The Mill Academy, Lobwood, Worsbrough Bridge, Worsbrough, Barnsley, S70 5EP

## Biodiversity Net Gain Assessment

### NON-TECHNICAL SUMMARY

- Liz Ecology was commissioned by HCAT Academy to conduct a Biodiversity Net Gain Assessment of the land at The Mill Academy, Lobwood, Worsbrough Bridge, Worsbrough, Barnsley, S70 5EP. The survey was conducted to support a planning application for the change of use to the caretaker's bungalow with minor amendments to the external landscaping which include creating new perimeter fencing, minor extensions to the carparks and a new level playing adjacent to the main school.
- The purpose of this report is to identify the net percentage change in biodiversity on-site post-development and to aim for a minimum of a 10% Biodiversity Net Gain (BNG)
- Mandatory biodiversity net gain set out in the Environment Act 2021 came into force on 12th February 2024 for major developments and 2nd April 2024 for small sites. This requires a minimum of 10% Biodiversity Net Gain using the Statutory Biodiversity Metric.
- The development site is approximately 1792m$^2$ and consists of developed land, sealed surface, modified grassland, bare ground and, scattered trees.
- The baseline habitat units are 0.23 and hedgerow units are 0.00.
- It is predicted that the proposal will have 0.26 habitat units created, with a net increase of 0.03 units, showing a 11.82% net gain. The new habitat creation will be incorporated into the general management of the site, as the site is small and the proposed habitats are minimal.
- Due to the proposed development site size and habitats present a preliminary ecological appraisal is not considered necessary. In its current state the site has no potential to support protected species.

# The Mill Academy, Lobwood, Worsbrough Bridge, Worsbrough, Barnsley, S70 5EP

## Biodiversity Net Gain Assessment

## Contents



**APPENDICES**

# 1. INTRODUCTION

1.1 Liz Ecology was commissioned by HCAT Academy to conduct Biodiversity Net Gain assessment of the land at The Mill Academy, Lobwood, Worsbrough Bridge, Worsbrough, Barnsley, S70 5EP (Grid reference: SE 35524 04172).

1.2 The survey was conducted to support a planning application for the change of use to the caretaker's bungalow with minor amendments to the external landscaping which include creating new perimeter fencing, minor extensions to the carparks and a new level playing adjacent to the main school.

1.3 The aim of this report is to identify the net percentage change in biodiversity on site post-development and where possible to seek a minimum of 10% Biodiversity Net Gain (BNG) in accordance with the statutory requirements and National Planning Policy. Where 10% is not achievable by the proposals we will seek to make recommendations for amendments to the proposals or third party compensation to meet the 10% target.

## Site description

1.4 The site is located within the grounds of The Mill Academy School within the area of Worsbrough Bridge in Worsbrough. The site is south of Kendray, southeast of Barnsley, west of Swaith and northwest of Blacker Hill.

1.5 The site, is well connected to the wider landscape through the trees and grassland on and around the site.

1.6 The site is approximately 1792m$^2$ and consists of other developed land; sealed, modified grassland, bare ground and scattered trees.

## Brief

1.7 To conduct a Biodiversity Net Gain (BNG) assessment using DEFRA metric version 4.0 to demonstrate, where possible, a minimum of 10% net gain.

## Relevant Planning Policy and Legislation

1.8 In England, Biodiversity Net Gain (BNG) is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). All planning permissions granted in England will have to deliver at least 10% Biodiversity Net Gain (BNG) to be maintained for a period of at least 30 years. The concept seeks measurable improvements for biodiversity by creating or enhancing habitats in association with development.

1.9 Mandatory BNG came into force on 12th February 2024 for all developments except exemptions and small sites, and small sites came into force 2nd April 2024 (residential 1-9 units on a site less than one hectare, or number of dwellings is unknown and the site is less than 0.5 hectare; or for non-residential for floor space less than 1000m$^2$ or site less than one hectare). Exceptions include developments of less than 25m$^2$ habitat or 5m for linear habitats (hedgerows and watercourses), householder applications and small scale self build.

1.10 The planning authority for the site is Barnsley Metropolitan Borough Council.

## 2. METHODOLOGY

### Assessing Strategic Significance

2.1 A desk study was conducted to collate baseline data about ecological sites within the zone of influence of the proposed development site, following guidelines set out by the Charted Institute of Environmental and Ecological Management (CIEEM, 2017). This data-gathering exercise was undertaken to obtain any available information relating to statutory nature conservation sites, ecological networks, local plans and priority habitats to help establish the strategic significance of the site. Sources of information used are shown in Table 1.

**Table 1: Summary of information sources used for the desk study**

| Organisation/source | Information sought |
|---|---|
| MAGIC | Locations of and citations for all national statutory wildlife sites, including SSSI, and all international sites including SAC, SPA or Ramsar sites within a 5 kilometre radius of the site. Priority Habitats within 300m radius of the site. |
| Barnsley Metropolitan Borough Council | Adopted Local Plan, Emerging Local Plan 2019, evidence base, and polices map |

2.2 This evidence was reviewed and used to assess the strategic significance of the site, and/or individual habitats and whether it lies within an ecological network for the area.

### Baseline Assessment

2.3 A baseline botanical assessment was undertaken by Elizabeth Davies, qualified ecologist, on 3017th October 2025 before works commenced on site in mostly clear, still and dry weather conditions. The survey employed techniques based on the UK Habitat Classification System. Botanical information was collected, focussing on the dominant and/or key indicator species for each habitat, to enable allocation of habitats to hierarchy levels 3 and/or 4. Where relevant priority habitats were also identified. The conditions of the habitats on the site were assessed in line with the technical sheets supplied alongside DEFRA Metric 4.0.

2.4 The UK habitats map was digitised using QGIS. The mapped habitats were measured using the derived areas, and habitat areas are provided in hectares. Linear features were measured using the derived length and the measurements provided in kilometres.

### Biodiversity Net Gain

2.5 Biodiversity Net Gain complements and works with the biodiversity mitigation hierarchy set out in the National Planning Policy Framework paragraph 180a. To achieve a net gain in a way that is consistent with the mitigation hierarchy and reflects the 'spatial-hierarchy' preference for local enhancements, the following steps should be followed:

(1) Aim to avoid or reduce biodiversity impacts through site selection and layout;

(2) Enhance and restore biodiversity on-site;

(3) Create or enhance off-site habitats, either on their own land or by purchasing biodiversity units on the market; and

(4) As a last resort, to prevent undue delays, purchase statutory biodiversity credits from the UK Government where they can demonstrate that they are unable to achieve biodiversity net gain through the available on-site and off-site options.

2.6 On completion of the fieldwork the habitat information was mapped and areas were imported into the DEFRA Biometric version 4.0 calculation tool. The metric calculates the baseline biodiversity units for the site based on the following factors:

- Area
- Habitat distinctiveness
- Habitat condition
- Strategic significance

2.7 Once inputted the metric provides biodiversity units for the proposed habitats based on the following factors:

- Area
- Habitat distinctiveness
- Habitat target condition
- Strategic significance
- Time habitat is created
- Time to target condition
- Difficulty of creation

2.8 The difference between the baseline units and proposed units is then used as a measure of change and is used to assess the number of biodiversity units achieved. Habitats, hedgerows and rivers are inputted as separate factors, with each requiring net gains.

## 2.9 Limitations

2.10 Whilst every effort has been made to accurately map the habitats on site there may be discrepancies associated with the projected coordinate reference system. The National Grid transformation, however, is considered to be the most accurate with an accuracy level of less than one metre.

2.11 The site visit was conducted after building works had been started, however, the habitat baseline used was from the aerial imagery and the habitats were relatively uniform in the wider site. As such it is considered a full habitat assessment could be undertaken. At least part of each habitat which was removed was retained in close proximity to ensure this.

2.12 The survey was undertaken in the winter, outside the peak survey season for flora and fauna. Some flowering plants may not have been recorded; however, it is considered that despite this a robust assessment of the habitat could be made given the types of habitats present on site. Adjustments to the condition assessment to increase the habitat quality have been made accordingly.

# 3. BASELINE CONDITIONS

3.1 The results of the Baseline Assessment are presented below. A UK Habitat survey map is shown in Appendix I. The map illustrates the location and extent of the sites surveyed, along with additional notable features.

### Strategic Significance

3.2 The site is well connected to the wider landscape through the trees and grassland on and around the site.

3.3 There are priority habitats within 2km of the site, these include Woodpasture and Parkland BAP Priority Habitat (England). Priority Habitat Inventory - Traditional Orchards (England). Priority Habitat Inventory - Deciduous Woodland (England). Priority Habitat Inventory - Lowland Meadows (England). Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England). Ancient Woodland – (England) - Ancient & Semi-Natural Woodland, Short Wood Dyke, Swaithe Wood, Wombwell Wood, Shaw Bank Wood, Darley Cliff Plantation, Highstead Plantation. National Forest Inventory (GB) – woodland; broadleaved, woodland; conifer, woodland; young trees and the Forestry Commission Legal Boundary (England

3.4 There are five designated sites within 5km of the site shown on MAGIC. Due to the distance from the designated sites the site is considered to be within the zone of influence for Dearne Valley Wetlands SSSI and Worsborough Country Park LNR.

*Nationally important sites*

3.5 There are two Sites of Special Scientific Interest including:

- Stairfoot Brickworks, SSSI, 2632m east.
- Dearne Valley Wetlands, SSSI, 805m southeast

*Locally important sites*

3.6 There are three Local Nature Reserves within 5km of the site, these include:

- Dearne Valley Park, LNR, 2340m northeast.
- Potters Holes Plantation, LNR, 4.3km southwest.
- Worsborough Country Park, LNR, 569m south.

*Non-statutory Designated Sites*

3.7 There is one non-designated sites 2km of the site, these include:

- Community Forests (England) – South Yorkshire Forest.

3.8 The site is not part of a designated green belt site on the local plan, neighborhood plan or other policy document. It is considered to have low strategic significance.

## 3.9 On-Site Habitats

3.10 The following were recorded on site, and are described below:

- Developed land, sealed surface;
- Modified grassland;
- Bare ground; and
- Scattered trees

*Developed land, sealed surface*

3.11 There are buildings, paths, car parks and roads through the site which are developed land, sealed surface.

3.12 This has a distinctiveness of very low, and condition assessment is not required.

*Modified grassland*

3.13 The entire site is comprised of short sward modified grassland, in an area currently used for play areas for children. Species recorded include perennial rye grass, white clover, dandelion, hawkbit species, shepherd's purse, creeping thistle, bramble, fox and cubs, cut-leaved crane's-bill, creeping buttercup, ragwort and red dead nettle.

3.14 The grassland is a short sward length across the whole area, with physical damage more than 5%, bare ground approximately 10%, scrub and bracken less than 20%, and an absence of invasive, non-native species. There were between 3-4 species per square meter.

3.15 This has a distinctiveness of low, and condition is assessed to be poor.

*Bare ground*

3.16 There is a large area in the north of the site which was previously wood chip, and a bed area which primarily appeared to be bare ground. Within the bare ground area limited species were recorded, including bramble, holly and cotoneaster.

3.17 The vegetation structure is relatively uniform, with single structural component accounting for more than 80% of the total habitat area. The habitat parcel contains similar species, with limited nectar sources and invasives cover more than 5% of the vegetated area.

3.18 This has a distinctiveness of low, and condition is assessed to be poor.

*Scattered Trees*

3.19 There were a few scattered trees present on the site. Species present include silver birch, willow, maple species and hawthorn.

3.20 More than 70% of the scattered trees are native, the trees are not mature, the trees are subject to management due to their location in school grounds, there are no natural ecological niches and less than 20% of the canopy is oversailing vegetation underneath.

3.21 The scattered trees have medium distinctiveness, and are considered to be in poor condition.

*Summary*

3.22 Below in table 2 is a summary of the baseline habitats, areas, condition assessment and distinctiveness.

**Table 2: Summary of baseline habitats**

| Habitat | Biodiversity Units | Area (ha) | Condition | Distinctiveness | Suggested action |
|---|---|---|---|---|---|
| Developed land; sealed surface | 0.00 | 0.0854 | N/A - Other | V.Low | Compensation Not Required |
| Modified grassland | 0.16 | 0.0816 | Poor | Low | Same distinctiveness or better habitat required ≥ |
| Bare ground | 0.06 | 0.03 | Poor | Low | Same distinctiveness or better habitat required ≥ |
| Scattered trees | 0.05 | 0.0122 | Poor | Medium | Same broad habitat or a higher distinctiveness habitat required (≥) |

# 4. BIODIVERSITY NET GAIN METRIC

*Biodiversity Metric*

4.1 The calculation has been run with the following habitat proposals:

- Creation of 0.0125 ha modified grassland, in moderate condition.
- Planting of eight small trees, managed to be in moderate condition.
- Management to enhance the condition of the existing trees to moderate condition, by creation of ecological niches, and ensuring that more than 20% of the canopy is oversailing vegetation beneath.

4.2 The calculation has been based off the current landscaping plans. The biodiversity metric calculated a net change in habitat units of +12.17%. Table 3 below summarises the biodiversity metric results.

**Table 3: DEFRA Biodiversity metric results scenario 1**

| | | |
|---|---|---|
| On-site baseline | Habitat units | 0.23 |
| | Hedgerow units | 0.00 |
| On-site post intervention | Habitat units | 0.26 |
| | Hedgerow units | 0.00 |
| Total net change % | Habitat units | 11.82% |
| | Hedgerow units | 0 |
| Trading rules satisfied | Yes/No | Yes |

4.3 The measures to create and maintain the proposed habitats will be incorporated into the current management of the site.

4.4 A preliminary ecological appraisal is considered unnecessary for this site due to the small size of the site and the habitats present offering very limited potential habitat for protected species. The external fabric of the building and roof void are not being impacted by the proposed works.

# 5. REFERENCES


CIEEM, CIRIA, IEMA (2016) Biodiversity Net Gain. Good practice principles for development.

CIEEM, CIRIA, IEMA (2019) Biodiversity Net Gain. Good practice principles for development. A practical guide. CIRIA C776a. London, 2019.

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

CIEEM (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.

Department for Communities and Local Government (2005), *Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.*

DEFRA (2023) Biodiversity Metric Calculation tool (spreadsheet) (Biodiversity Metric 4.0)

DEFRA (2023) Biodiversity Metric 4.0 User guide

DEFRA (2023) Biodiversity Metric 4.0 and SSM: Technical Annex1 (habitat condition assessments)

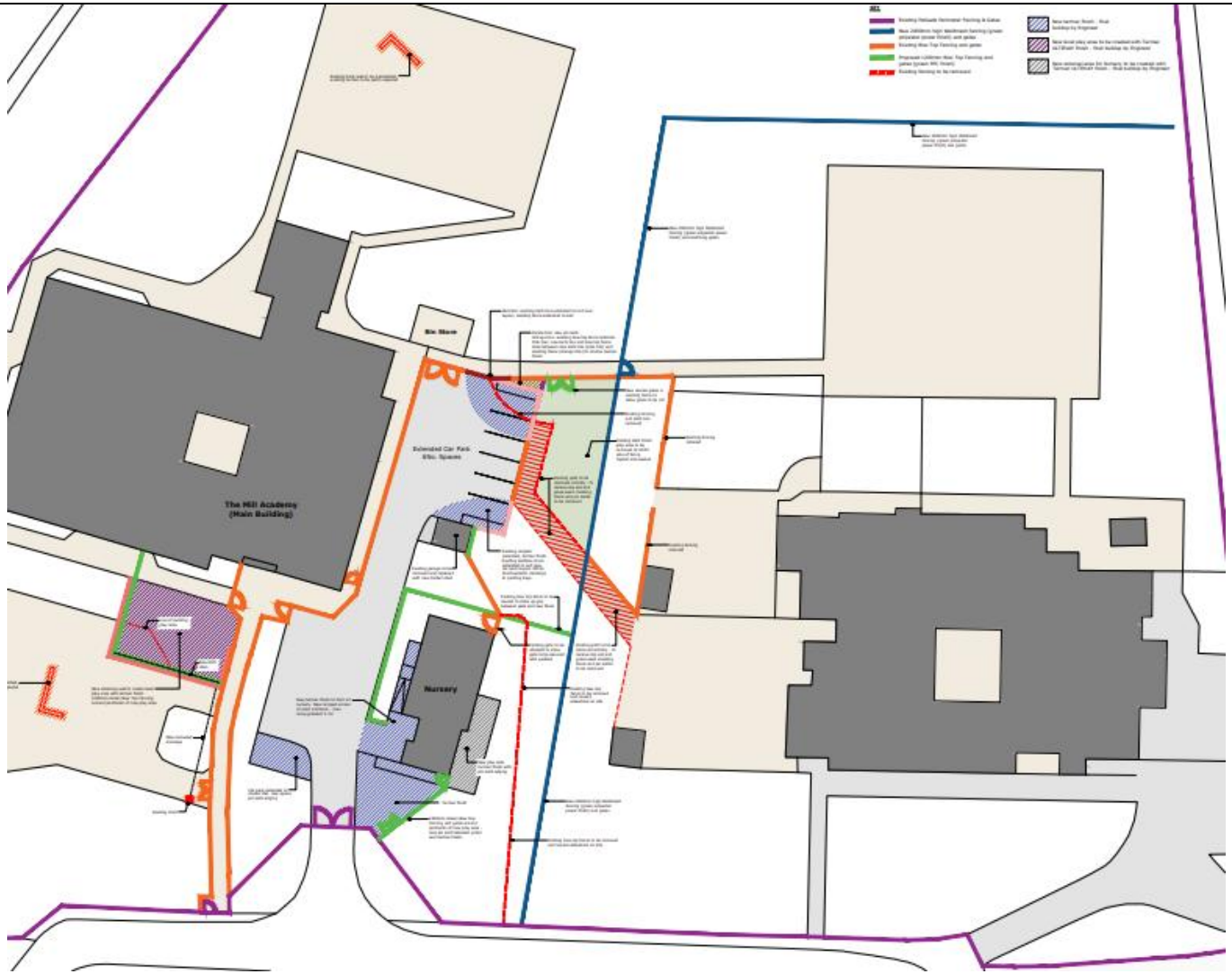
Ministry of Housing, Communities and Local Government (2021), *National Planning Policy Framework.*

Multi-Agency Geographical Information for the Countryside (MAGIC) Website

# Appendix 1
## Existing site layout

# Appendix 2

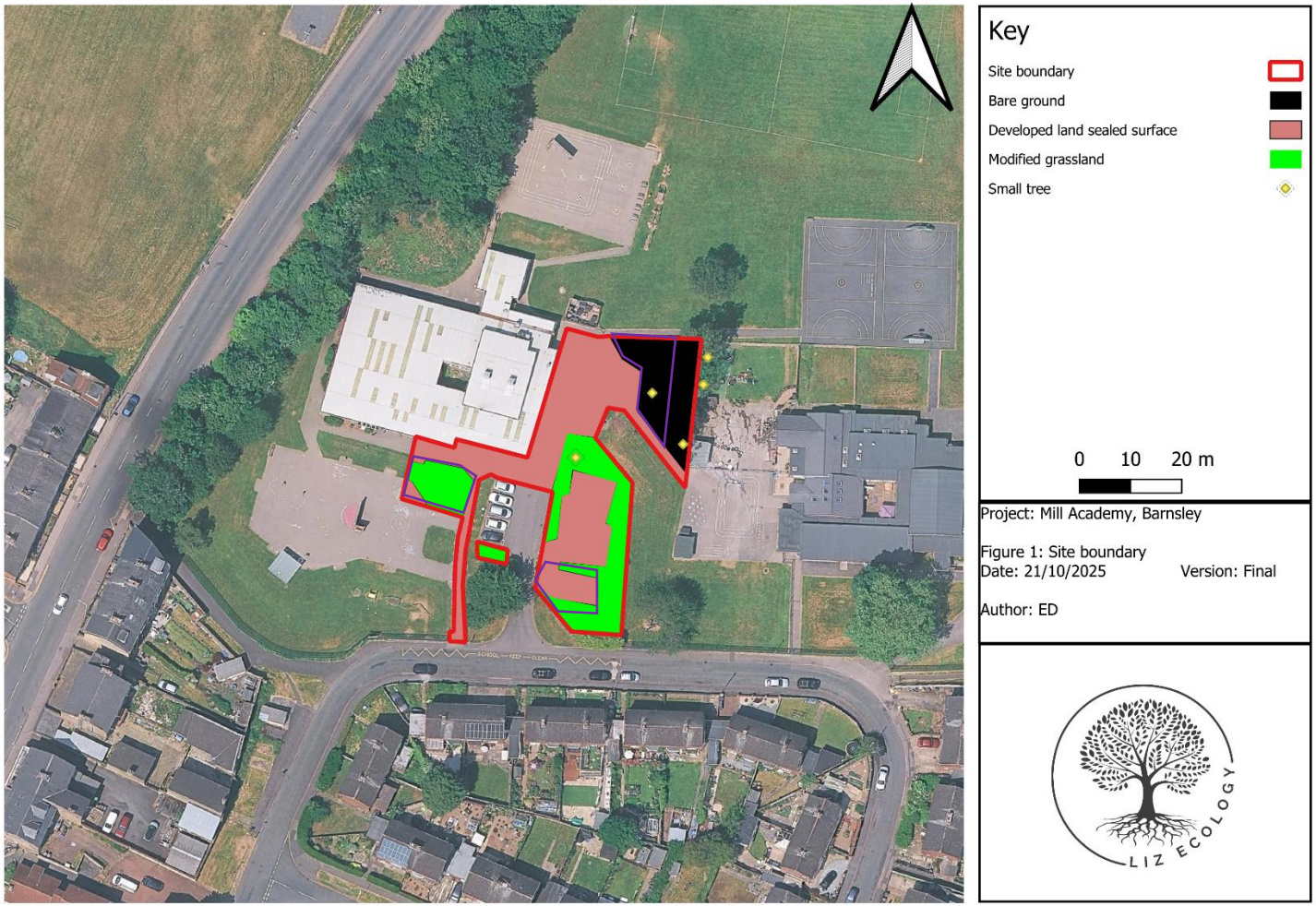
## Proposed site layout




KEY
Palisade Perimeter Fencing & Gates
2000mm high Weldmesh fencing (green polyester power finish) and gates
Bow Top Fencing and gates
8No. Small native trees (refer to BNG Assessment and Recommendations Report)
Sports Court
G4
G5
T7
T11
T12
T14
T15
T16
T3
T1
T2
T10
G18
T9
T8
Post
7m
The Mill Academy (Main Building)
Nursery
S5 Design
The Mill Academy
Lobwood, Barnsley
Proposed Site Plan
FOR PLANNING

# Appendix 3

## Onsite Habitats (areas in purple were cleared before site visit)



# Appendix 4
## Site photographs

Photograph 1: General view of site – previous wood chip area

Photograph 2: General view of site

Photograph 3: General view of site

Photograph 4: General view of site