

Proposed Extension at The Foxlowe, Market Place, Leek, Staffordshire, ST13 6AD

Biodiversity Net Gain Assessment

June 2025

A report to:

Conor Vale
Lathams

Report produced by:

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Table of Contents

Executive Summary	3
1. Survey Area and Proposals.....	4
2. Methodology.....	5
3. Biodiversity Net Gain Calculations	7
4. Evaluation	12
References	13
Appendix 1: Figures	14
Appendix 2: Botanical Species List.....	19
Appendix 3: Legislation.....	20

EXECUTIVE SUMMARY

Feature	Results
Habitat Units	The site prior to development has a baseline of 0.16 Habitat Units. Post works there will be 0.17 Habitat Units, resulting in a gain of 0.02 Units (10.90%). The trading rules are satisfied within the metric.
Hedgerow Units	There are no hedgerows present within the survey area.
Watercourse Units	There are no watercourses within 10m of the proposed works.
Recommendations to achieve mandatory net gain	The proposals currently achieve BNG on site following the Biodiversity Gain Hierarchy. The planting of three small native trees onsite deliver mandatory BNG.

1. SURVEY AREA AND PROPOSALS

1.1 Site Location

The site consists of Foxlowe Arts Centre and its associated parking and amenity gardens, located at Market Place, Leek, Staffordshire, ST13 6AD (grid reference SJ 98410 56629). The location of the site is shown on Figure 1 in Appendix 1.

1.2 Proposals

The proposals include an extension to the building and car park.

1.3 Survey Brief

This report has been prepared by Morph Ecological Consultants for Lathams. It is understood that a planning application will be made to Staffordshire Moorlands District Council, and as the application is not considered to be exempt from mandatory BNG, a BNG assessment is required.

Morph Ecological Consultants brief was to undertake BNG calculations for the site and provide recommendations as to how mandatory BNG can be achieved.

2. METHODOLOGY

2.1 Habitat Survey

The survey involved a site walkover and a preliminary assessment of the habitats using the standard UK Habitat Classification System methodology (UKHab 2023) which involves visiting each parcel of land and on the basis of vegetation the habitats were classified to Level 5 where appropriate. Secondary codes were also used. Notes were made on species present, defining the UKHab types. Target notes were used to record any habitats or features of particular interest.

A UKHab map was produced, and target notes were labelled on the map (Figure 2 in Appendix 1).

2.2 Biodiversity Net Gain Assessment

The Statutory Biodiversity Metric was used for the Biodiversity Net Gain Assessment.

In order to use the Biodiversity Metric Calculator, habitat information from the walk-over survey was used to form the baseline value in biodiversity units. To determine the quality of the habitats' present four assessments of the habitat types are made:

- **Distinctiveness:** Distinctiveness is a pre-assigned category for each habitat type. The habitat type is assigned through botanical species recorded during the walk-over survey.
- **Condition:** Habitat condition is calculated using the Statutory Biodiversity Metric Technical Supplement Condition Assessment Sheets are provided whereby positive indicators for each habitat types are listed and the number of these positive indicators met in a particular habitat type determine the condition.
- **Strategic Significance:** The appropriate description is selected from the drop-down list in the calculator. This category is based on the Local Nature Recovery Strategy, but in the absence of this document for the area, Biodiversity Action Plans were searched for.

The calculations are repeated for post-intervention, but risk components are also included:

- **Difficulty of creating or enhancing a habitat:** Automatically assigned within the calculator.
- **Temporal risk:** can select habitat created in advance or delay in starting habitat creation. Time to final target condition is then automatically assigned within the calculator.
- **Spatial risk (if proposing off-site habitats):** The appropriate description is selected from the drop-down list in the calculator depending on the distance away from the site.

The Biodiversity Net Gain Assessment was carried out in accordance with the Statutory Biodiversity Metric User Guide (DEFRA, 2024).

It should be noted that the Biodiversity Metric Calculator does not take into account the presence of protected species and is only used as a tool in addition to best ecological practices. Professional judgement is used throughout and justified within this report, and the exact biodiversity units gained or lost should not be used independently.

2.3 Survey Details

The survey was carried out by Helen Chambers MSc by Res ACIEEM on the 30th May 2025.

2.4 Surveyor Experience

Helen Chambers has over three years' experience of ecological surveying, including numerous Preliminary Ecological Appraisals, using both UKHab and JNCC classification systems. Helen has undertaken numerous Biodiversity Net Gain training courses and is an accredited River Condition Assessment surveyor.

2.5 Survey Area

The area surveyed is shown on the UKHab map (Figure 2, Appendix 1).

2.6 Survey Limitations

There were no survey limitations and appropriate habitat assessments could be made.

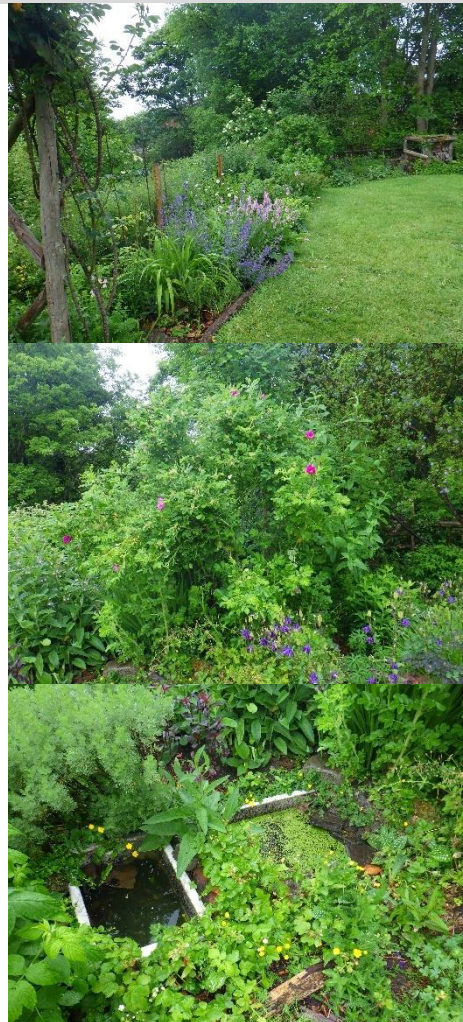
3. BIODIVERSITY NET GAIN CALCULATIONS

3.1 UKHab Survey and Condition Assessments

3.1.1 *Baseline Habitats*

The UKHab habitat types and their descriptions, which were recorded within the survey area are shown in the table below. A map showing the locations of these habitats is shown in Figure 2, Appendix 1. Plant species listed within the text are referred to using their English names. A full list of plant species with their scientific names is provided in Appendix 2. Photographs of the survey area are provided within the table below. A summary of the habitat condition assessment is also detailed in the table below.

Parcel Ref	UKHab Habitat	Description and Value	Condition Assessment	Photographs
1	Modified grassland (g4)	A parcel of modified grassland was present to the north of the site (amenity space associated with the Arts Centre). The grassland has a relaxed mowing regime. The grassland was comprised predominately of perennial rye grass with frequent red fescue. Yorkshire fog and cock's-foot were occasionally recorded. Other species included ribwort plantain, ragwort, cat's-ear, common daisy, common nettle, white clover, yarrow and broadleaved dock. Crested dog's-tail was rare.	<u>Condition Sheet: Grassland Low</u> A – Fails, <6-8 species per m² B – Passes, sward height is varied C – Passes, <20% scrub D – Passes, <5% physical damage E – Passes, <10% bare ground cover F – Passes, <20% bracken cover G – Passes, no invasive non-native species present As such this area passes 6 of the 7 criteria, but fails essential criterion A, and is therefore assessed as Poor condition.	

Parcel Ref	UKHab Habitat	Description and Value	Condition Assessment	Photographs
2	Introduced shrub (u1, 847)	An introduced shrub border surrounded the modified grassland lawn (Parcel Ref 1). Species present included pgn sp., green alkanet, lavender, lady's mantle, bluebells, foxglove, tutsan, holly, garden privet, hawthorn and ash. The shrub border to the south of Parcel Ref 1 also contained very small sized fruit trees (these are not mapped as a separate habitat type due to having a DBH of less than 7.5cm). Within the shrub border to the northeast of the site, Japanese rose (Target Note A) and a small pond (Target Note B) were present (the pond was smaller than the Minimum Mappable Unit used for the project, therefore is not included as a separate habitat type).	This habitat is automatically assigned as 'Condition assessment - N/A'.	

Parcel Ref	UKHab Habitat	Description and Value	Condition Assessment	Photographs
3	Modified grassland (g4)	A second parcel of modified grassland was present to the west of the site. This had a similar composition to Parcel 1, but also included red clover, creeping buttercup, dandelion and black medick.	<u>Condition Sheet: Grassland Low</u> A – Fails, <6-8 species per m² B – Fails, sward height is not varied C – Passes, <20% scrub D – Passes, <5% physical damage E – Passes, <10% bare ground cover F – Passes, <20% bracken cover G – Passes, no invasive non-native species present As such this area passes 5 of the 7 criteria, but fails essential criterion A, and is therefore assessed as Poor condition.	
4	Buildings (u1b5)	A three storey, brick-built building (Foxlowe Arts Centre) was present to the south of the site. The front of the building faces Market Place.	This habitat is automatically assigned as 'N/A - Other'.	
5	Other developed land (u1b6)	Hardstanding was present in the form of a car park and access path to the rear of the building.	This habitat is automatically assigned as 'N/A - Other'.	

3.2 Proposed Habitat Recommendations

3.2.1 Retained Habitats

Within the red line boundary, only habitats of low value - including modified grassland and introduced shrub to the north of the site - will be impacted by the development. However, these will largely be retained. Adjacent to the red line boundary, the remaining gardens to the west of the site will be entirely retained. The habitats within this section include higher value habitats such as large individual trees and a wildflower area. These habitats will not be impacted by the development, however care should be taken to protect these habitats during the works.

3.2.2 Individual Tree Planting

It is recommended that three small fruit trees are planted within the grassland parcel north of the new parking bays. In order to achieve the 10% net gain, the trees need to reach a Moderate condition within 30 years. As such, it is essential that the trees have no oversail vegetation beneath the trees with no regular pruning regime. Monitoring should be carried out of the trees as in the event the trees fail or become damaged, they should be replaced by a native species as soon as possible.

Provided these recommendations are followed, the following condition assessment criteria are likely to be achieved:

Condition Sheet: Individual Trees

A – Fails, will likely be of non-native origin.

B – Passes, individual trees automatically pass this criterion.

C – Fails, the tree will not be mature within 30 years.

D – Passes, there will be little adverse impact on tree health by human activities.

E – Fails, natural ecological niches will not have formed within the tree within 30 years.

F – Passes, more than 20% of the tree canopy area will oversail vegetation beneath.

This area passes 4 of the 6 criteria and is therefore assessed as Moderate condition.

The following species may be suitable options for planting which will not grow too large and create too much shade on the grassland beneath:

Trees

Wild cherry (*Prunus avium*)

Wild pear (*Pyrus communis*)

Crab apple (*Malus sylvestris*)

Plum (*Prunus domestica*)

3.3 Assumptions

3.3.1 Baseline Survey

Only 'area' habitats were present within the site, therefore only the 'habitat' calculation was used. The 'site' is defined as the area within the red line boundary.

3.3.2 Proposed Development

The proposed plans involve extending the car park which will result in the loss of some areas of modified grassland and introduced shrub (see Figure 3 in Appendix 1).

The following calculations are based off the recommendations being followed in Section 3.2 and the desired habitat condition assessment being achieved through appropriate management. A Habitat and Monitoring Management Plan may need to be produced and followed as part of a planning condition.

3.3.3 Habitat Degradation

From looking at historical aerial imagery, there does not appear to have been any habitat degradation since 30th January 2020.

3.3.4 *Irreplaceable Habitat*

There are no irreplaceable habitats within the area of works.

3.3.5 *Strategic Significance*

The Local Nature Recovery Strategy for Staffordshire is still in development, therefore alternative documents had to be searched to determine the strategic significance. Developed land, low distinctiveness grassland and introduced shrub are not recognised within the local plan (Staffordshire Moorlands District, 2023) and are the strategic significance of these habitats is therefore categorised as 'Area/compensation not in local strategy/ no local strategy' within the metric. However, trees are referenced in the same document which also mentions the Staffordshire Moorlands Climate Change Action Plan July 2021, which states: "The plan includes actions to: Increase tree cover, and improve wildlife habitats and biodiversity". As such, planting trees within the site is considered to fall within the category 'Location ecologically desirable but not in local strategy'.

3.4 **Calculations**

Full habitat condition assessments and justifications for categorisation are provided within the Statutory Biodiversity Metric (user comments) and are detailed in Section 3.1 and 3.2.

3.4.1 *Habitat Units*

The site prior to development has a baseline of 0.16 Habitat Units. Post works there will be 0.17 Habitat Units, resulting in a gain of 0.02 Habitat Units (+10.90%).

3.4.2 *Trading Rules*

The trading rules are satisfied within the metric.

4. EVALUATION

Prior to including any habitat creation recommendations, the proposals would have a loss of 0.09 Habitat Units. Recommendations have therefore been provided to incorporate tree planting into the scheme.

Following these recommendations would deliver a net gain of 0.02 Habitat Units (10.90% net gain).

The approach recommended is considered a cost-effective and practical solution as the habitat measures proposed are straightforward to create, establish and manage, thus ensuring the success of the delivery. A precautionary approach has been applied to account for unexpected issues that may arise from management (for example no Good condition habitats have been proposed).

This is considered most proportionate approach given the scheme is very small scale and the applicant can easily deliver the proposed conditions for the trees without requiring specialist management which would be costly.

The site therefore meets the requirements for mandatory Biodiversity Net Gain, following the Biodiversity Gain Hierarchy.

REFERENCES

Department for Environment, Food & Rural Affairs (DEFRA) 2024 *The Statutory Biodiversity Metric: User Guide*. Available Online:

https://assets.publishing.service.gov.uk/media/669e45fba3c2a28abb50d426/The_Statutory_Biodiversity_Metric_-_User_Guide__23.07.24_.pdf

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Staffordshire Moorlands District Council https://www.staffsmoorlands.gov.uk/media/9297/Plan-for-Nature-Summary/pdf/a1SM_Plan_for_Nature_summary_24.pdf?m=1721402426107

Staffordshire Moorlands District https://www.staffsmoorlands.gov.uk/media/9299/Staffordshire-Moorlands-Plan-for-Nature-Sept-2023/pdf/rmStaffordshire_Moorlands_Plan_for_Nature_Sept_2023.pdf?m=1718117668490

UKHab 2023 *The UK Habitat Classification User Manual Version 2.0* at www.ukhab.org

APPENDIX 1: FIGURES

Figure 1: Site Location Plan



Figure 2: UKHab Baseline Map

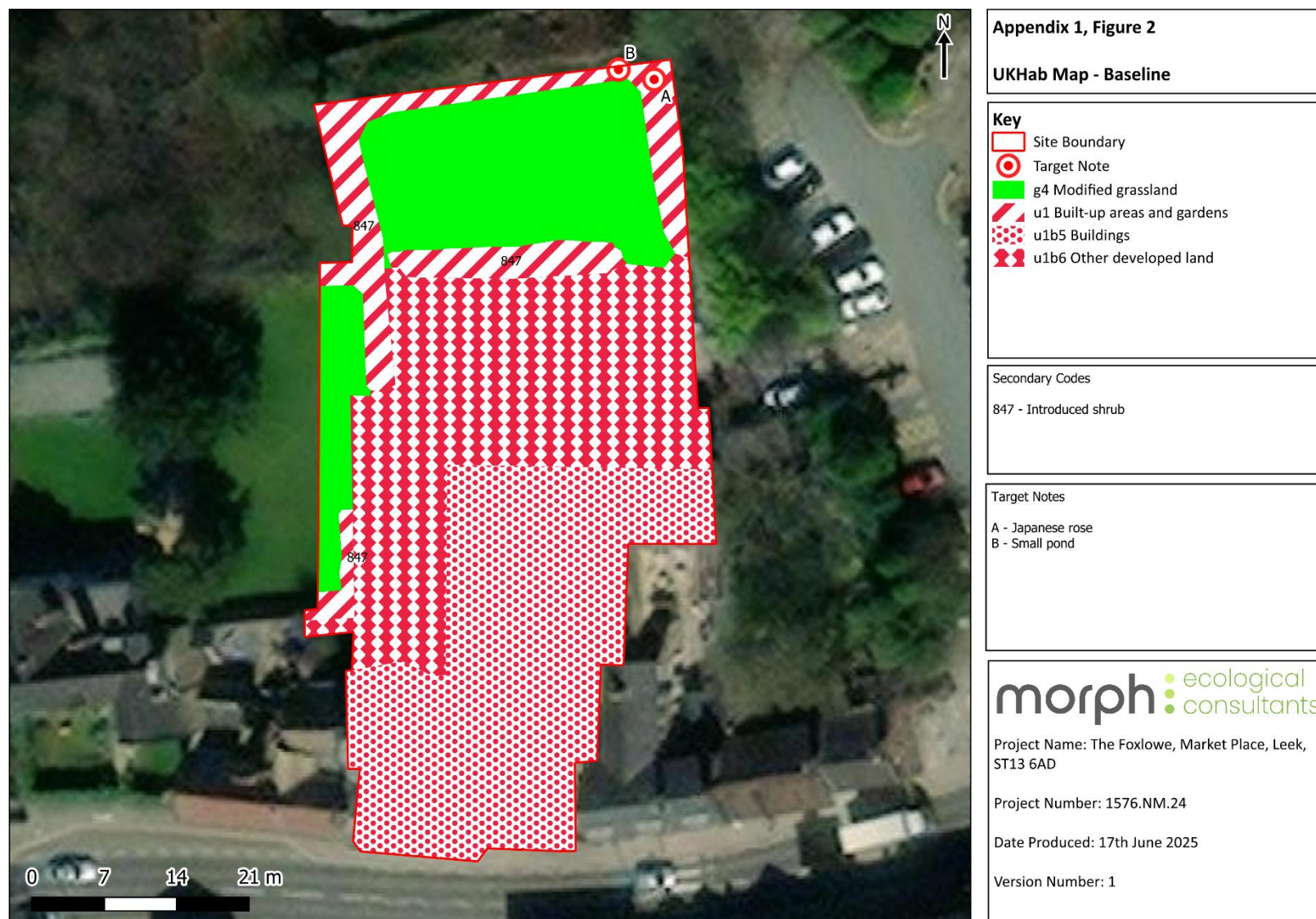


Figure 3: Assessment Areas



Figure 4: UKHab Proposed Map

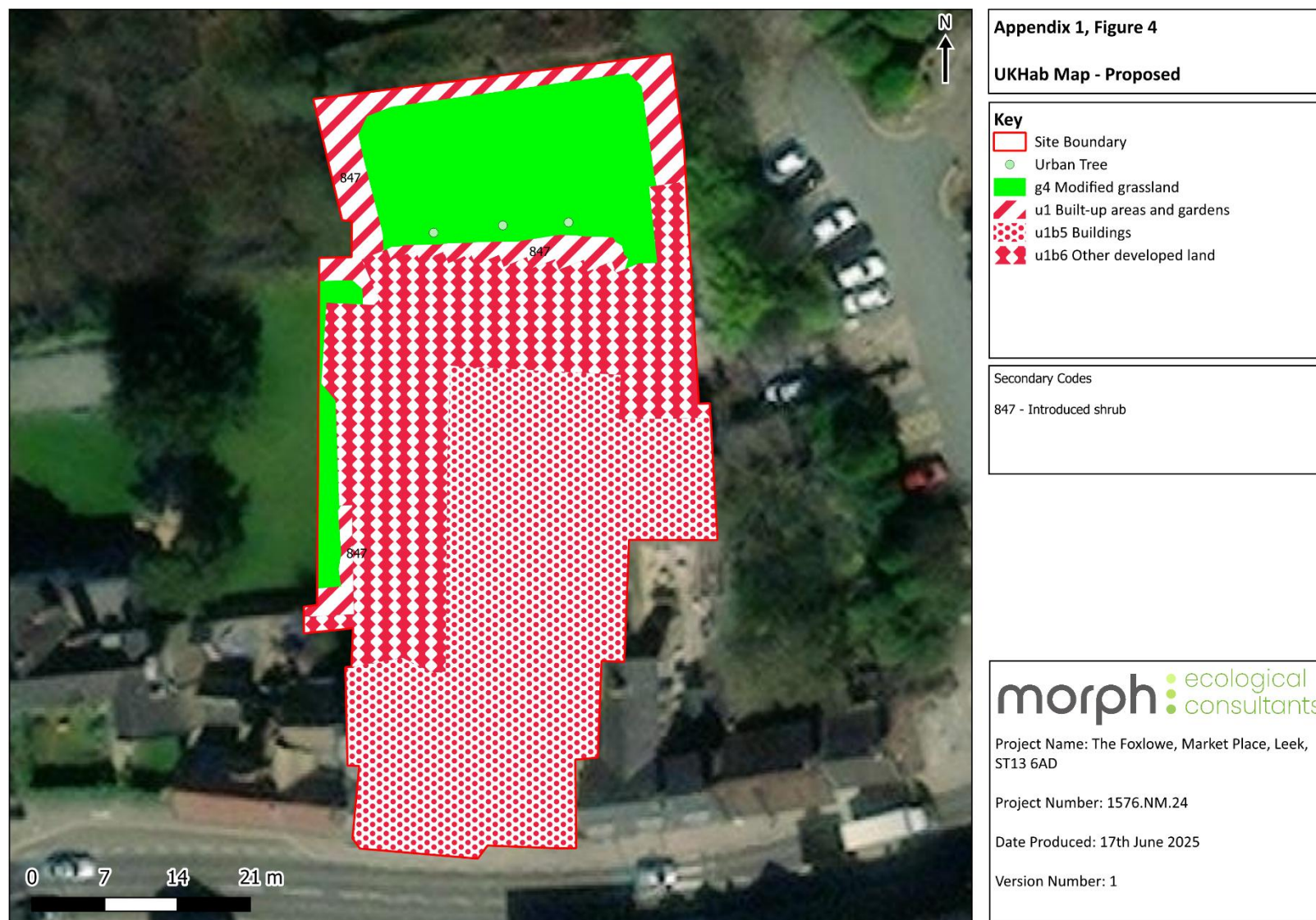
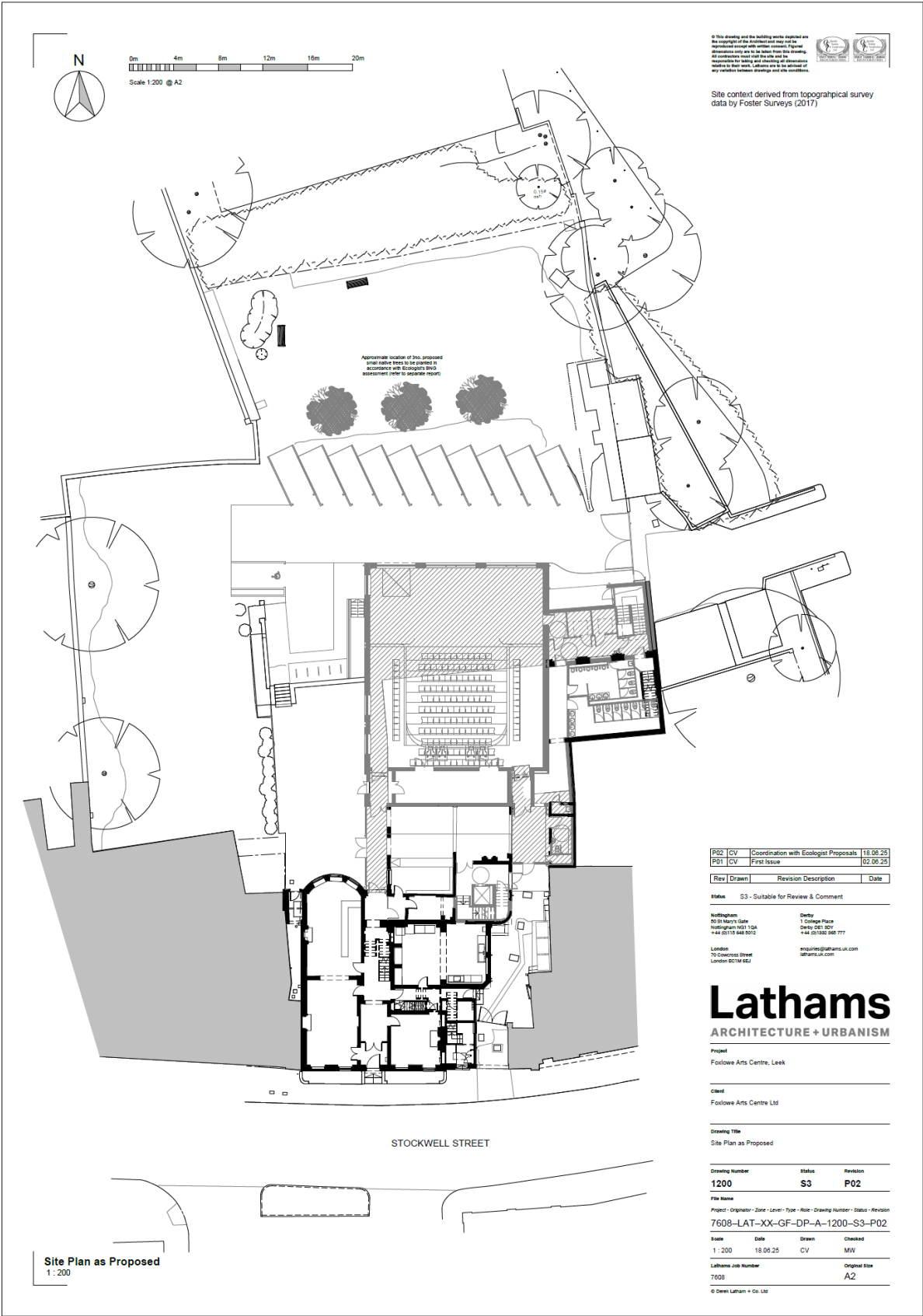


Figure 5: Proposed Plans



APPENDIX 2: BOTANICAL SPECIES LIST

Common Name	Scientific Name (Kent/Stace)
Ash	<i>Fraxinus excelsior</i>
Black Medick	<i>Medicago lupulina</i>
Bluebell	<i>Hyacinthoides non-scripta</i>
Broad-leaved Dock	<i>Rumex obtusifolius</i>
Cock's-foot	<i>Dactylis glomerata</i>
Common Cat's-ear	<i>Hypochaeris radicata</i>
Common Nettle	<i>Urtica dioica</i>
Common Ragwort	<i>Senecio jacobaea</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Crested Dog's-tail	<i>Cynosurus cristatus</i>
Daisy	<i>Bellis perennis</i>
Dandelion	<i>Taraxacum officinale agg.</i>
Foxglove	<i>Digitalis purpurea</i>
Green Alkanet	<i>Pentaglottis sempervirens</i>
Hawthorn	<i>Crataegus monogyna</i>
Holly	<i>Ilex aquifolium</i>
Japanese rose	<i>Rosa rugosa</i>
Lady's-mantle	<i>Alchemilla vulgaris agg.</i>
Perennial Rye-grass	<i>Lolium perenne</i>
A privet	<i>Ligustrum sp.</i>
A rose	<i>Rosa sp.</i>
Red clover	<i>Trifolium pratense</i>
Red fescue	<i>Festuca rubra</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Tutsan	<i>Hypericum androsaemum</i>
White clover	<i>Trifolium repens</i>
Yarrow	<i>Achillea millefolium</i>
Yorkshire fog	<i>Holcus lanatus</i>

APPENDIX 3: LEGISLATION

Biodiversity Net Gain

In England, BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). Developers must deliver a BNG of a minimum of 10% unless exempt.

Quality Assurance

Quality Information

Project	Proposed Extension at The Foxlowe, Market Place, Leek, Staffordshire, ST13 6AD: Biodiversity Net Gain Assessment
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Description	Final Report
Prepared by	Audrey Bourdais Paull BSc ACIEEM
Checked by	Nikki Morton MSci MCIEEM
Date Sent	17 th June 2025

Revision History

Version	1		
Version Date	18/07/25		
Details	Plans Updated		
Prepared by	Helen Chambers MSc ACIEEM		

Disclosure

The information, data, evidence, advice and opinions which have been prepared and provided are true, and have been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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