IN:SPIRE NATURE

Nature School - Ecology

LAND ADJACENT TO 52 TOWER STREET

WORSBROUGH COMMON, BARNSLEY, SOUTH YORKSHIRE

BIODIVERSITY NET GAIN ASSESSMENT

FEBRUARY 2024

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EXECUTIVE SUMMARY

This Biodiversity Net Gain (BNG) Assessment has been undertaken on behalf of Chris Barton with respect to land adjacent to 52 Tower Street, Barnsley, South Yorkshire (Central Ordnance Survey National Grid Reference (OS NGR): SE3435805295).

HABITAT UNITS RESULTS

Total On-Site Baseline Units: 0.55

Total On-Site Post-Intervention Units: 0.07

On-Site Net Change Units: -0.48

On-Site Net Gain: -86.94%

HEDGEROW UNITS RESULTS

Total On-Site Baseline Units: 0.01

Total On-Site Post-Intervention Units: 0.14

On-Site Net Change Units: 0.13

On-Site Net Gain: 1918.41%

NET GAIN RESULTS

10% Net Gain has been achieved for Hedgerow Units on-Site.

10% Net Gain has not been achieved for Habitat Units on-Site.

In order to achieve 10% Net Gain for Habitat Units on-Site Post-Intervention Units must be 0.49.

TRADING RULES

Trading rules have been met for hedgerow units on-Site.

Trading rules have not been met for the habitat units on-Site.

CONCLUSION

Recommended that Net Gains be made through either off-Site units or statutory biodiversity credits due to the size of available greenspace proposed on-Site post-development.

If this cannot be achieved, statutory biodiversity credits from the government must be purchased. This must be a last resort. The government will use the revenue to invest in habitat creation in England.

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1. INTRODUCTION

INSTRUCTION

1.1 This Biodiversity Net Gain (BNG) Assessment has been undertaken on behalf of Chris Barton with respect to land adjacent to 52 Tower Street, Barnsley, South Yorkshire, S70 1QS (Central OS NGR SE3435805295).

1.2 A Preliminary Ecological Appraisal was undertaken by In:spire Nature in January 2024 of land within the Survey Area. The details of this were used to produce an Ecological Impact Assessment report which has informed this BNG Assessment for areas on-Site (In:Spire Nature, 2023).

SITE DESCRIPTION

1.3 The Site (0.084 ha) was situated towards the south of Tower Street, adjacent to residential housing on all aspects.

1.4 The Site comprised an area of disused land with scrub, sparsely vegetated and unvegetated urban land, with a tree and non-native hedgerow.

1.5 The wider landscape included urban and rural pockets, with more rural areas to the west and south and includes an amenity park, arable and pasture land. Residential and roads dominate the landscape to the north and east.

1.6 All habitats present at the time of the survey are described in Section 3 and illustrated on the BNG Baseline Map (Appendix 1).

1.7 The location of the Site is shown below in **Figure 1** .

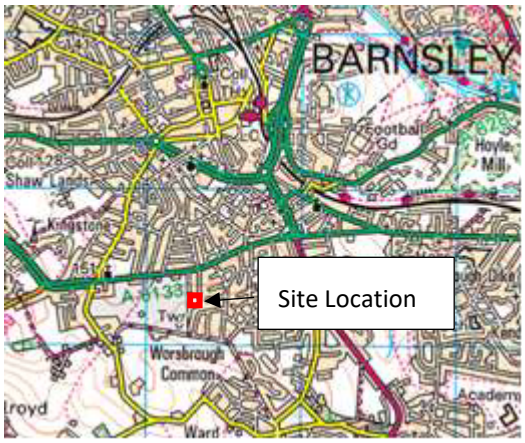

Figure 1: Site Location Plan

THE PROJECT

1.8 The proposed residential development will include a single dwelling, with associated hard and soft landscaping and car parking.

OBJECTIVES

1.9 The primary purpose of the BNG Assessment is to provide an overview of the existing and post-development habitats on-Site and the value and condition assigned to these habitats, using The Statutory Biodiversity Metric - Calculation Tool (Natural England Joint Publication, 2023).

1.10 The Statutory Biodiversity Metric is the latest tool developed by Natural England as a way of measuring and assigning numerical value to the habitats present within a site and the changes which will occur as a result of development or land management. This version of the Statutory Biodiversity Metric provides the value of habitats as a 'baseline' score, and then calculates the post-development habitat scores which are derived from the habitats retained, enhanced or created on-Site post-development, as shown in landscaping plans. The two scores are then compared to provide an overall change in biodiversity units for the Site.

1.11 This assessment is for baseline and post-development Biodiversity Units for the on-Site area only.

1.12 The three outputs of the Statutory Biodiversity Metric for terrestrial and riparian habitats are:

- Area Habitat Biodiversity Units (AHBU) - Habitat parcels such as grassland, woodland or other areas of habitats which are measured in hectares (ha);
- Hedgerow Biodiversity Units (HBU) - Linear features such as hedgerows or lines of trees which are measured in kilometres (km); and
- Watercourse Units (WCU) – Linear features such as rivers, streams, canals, ditches and culverted watercourses, which are measured in kilometres (km).

SCOPE OF WORKS

1.13 The Statutory Biodiversity Metric and Assessment were informed by a Preliminary Ecological Assessment and subsequent Ecological Impact Assessment report of the survey area, undertaken in January 2024 (In:Spire Nature, 2024).

1.14 The approach to the BNG Assessment follows the Biodiversity Net Gain: Good practice Principles for Development published by CIEEM, IEMA, CIRIA, UK (2019); more details have been provided later in this report.

LEGISLATION AND PLANNING POLICY

THE ENVIRONMENT ACT (2021)

1.15 This legislation will come into force for sites, other than small sites, from 12th February 2024. BNG for small sites will be required from 2nd April 2024. This period affords local authorities the time to adapt policy and establish nature recovery networks. The Act, however, mandates the requirement of a minimum 10% net gain for biodiversity for new developments and as such, should be the aim of all new developments.

1.16 It is worth noting that during the transition period, local authorities are expected to manage the Statutory requirement for net gain independently and relative to their progress in setting up the necessary infrastructure to support and deliver of net gain.

1.17 Therefore, local policy will be of great importance in determining sufficient net gain requirements in support of any given planning application.

NATIONAL PLANNING POLICY FRAMEWORK

1.18 The National Planning Policy Framework (NPPF) (2021) guides Local Planning Authorities (LPAs) when developing their planning policies and considering planning applications affecting protected habitats, sites and species.

1.19 Planning Policy Statement 15: Conserving and enhancing the natural environment of the NPPF recognises that, planning policies and decisions should contribute to and enhance the natural and local environment. Section D of Paragraph 174 states:

"Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; In respect of the natural environment."

1.20 Section B of Paragraph 179 states:

"Promote the conservation, restoration and enhancement 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".

1.21 Section D of Paragraph 180 also states:

"Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate".

2. METHODS

HABITATS & CONDITION ASSESSMENT

2.1 Katie Hadwin BSc (Hons) MSc ACIEEM surveyed the Site in January 2024. Katie has been an ecologist for over 11 years and has extensive experience in Phase 1, and Extended surveys and in the past two years, UK Habitat Classification (UKHab) and terrestrial condition assessment. Katie is appropriately qualified for the surveys based on the CIEEM competencies for species surveys (CIEEM, 2017). Katie is registered to use a Class Licence (GCN: 2016-19812-CLS-CLS & DOR: 2017-27666-CLS-CLS) to survey for great crested newts and hazel dormice, respectively.

2.2 The results of the UKHab survey undertaken for the Site were used to inform a baseline BNG assessment, detailed below.

2.3 During the survey, data was collected on the habitats' conditions using the Statutory Biodiversity Metric Condition Assessment (2023). Each habitat present within the survey area requires a condition assessment to be carried out, following the guidance contained within the spreadsheet. Criteria include elements such as species composition, presence of undesirable species and percentage cover of certain species or habitat types.

2.4 The fine-scale Minimum Mapping Unit (MMU) was used throughout the survey area to allow the capture of small features and present any finer grain or mosaic of habitats. Minimum mapping units used were:

- 25m² for areas of habitat; and
- 1m wide and 5m length for linear habitat.

2.5 Features smaller than the MMU are denoted as point features.

BIODIVERSITY NET GAIN GOOD PRACTICE PRINCIPLES

2.6 CIRIA, CIEEM and IEMA developed The Biodiversity Net Gain Good Practice Principles in 2016 which form the basis of a more in-depth document (Baker, Hoskin & Butterworth, 2019) detailing the ten main good practice principles for achieving biodiversity net gain. For net gain to be achieved, these principles must be met.

2.7 The ten Good Practice Principals are summarised in in **Table 1**.

Table 1: The Good Practice Principles

Principle	In Practice
1. Apply the mitigation hierarchy	Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision makers where possible, compensate for losses that cannot be avoided. If compensating for losses within the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere, based on Biodiversity Gain Hierarchy.
2. Avoid losing biodiversity that cannot be offset elsewhere	Avoid impacts on irreplaceable biodiversity i.e. statutory designated sites such as SSSI's – these impacts cannot be offset to achieve net gain.
3. Be inclusive and equitable	Engage stakeholders early and involve them in designing, implementing, monitoring and evaluating the approach to net gain. Achieve net gain in partnership with stakeholders where possible.
4. Address risk	Mitigate difficulty, uncertainty and other risk to achieving net gain. Apply well accepted ways to add contingency when calculating biodiversity losses and gain in order to account for any remaining risk, as well as to compensate for the time between the losses occurring and the gains being fully realised.
5. Make a measurable net gain contribution	Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.
6. Achieve the best outcomes for biodiversity	Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make clearly justified choices when: • Delivering compensation that is ecologically equivalent in type, amount, and condition and that accounts for the location and timing of biodiversity losses. • Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation. • Achieving net gain locally to the development while also contributing towards nature conversation priorities at local, regional and national levels. • Enhancing existing or creating new habitat. • Enhancing ecological connectivity by creating more bigger, better and joined areas for biodiversity.
7. Be additional	Achieve nature conservation outcomes that demonstrably exceed existing obligations, i.e. do not deliver something that would occur anyway.

Principle	In Practice
8. Create a net gain legacy	Ensure net gain generates long term benefits by: • Engaging stakeholders and jointly agreeing practical solutions that secure net gain in perpetuity. • Planning for adaptive management and securing dedicated funding for long term management. • Designing net gain for biodiversity to be resilient to external factors, especially climate change. • Mitigating risks for other land uses. • Avoiding displacing harmful activities from one location to another. • Supporting local level management of net gain activities.
9. Optimise sustainability	Prioritise BNG and where possible optimise the wider environmental benefits for a sustainable society and economy
10. Be transparent	Communicate all net gain activities in a transparent and timely manner, sharing the learning with all stakeholders.

BIODIVERSITY METRIC

2.8 Initially, the Site was assessed under The Small Sites Metric Calculation Tool (Natural England Joint Publication JP040, 2023) for a residential development; where the number of dwellings is between 1 and 9 and the site area is less than 0.5 hectares. However, Priority Habitats were noted within 500 m of Site and so the Site was assessed using the Statutory Biodiversity Metric. Priority Habitats within 2 km of the Site fall within the following categories:

- Priority Habitat: Wood-pasture and Parkland
- Priority Habitat: Lowland Meadows
- Priority Habitat Inventory: Deciduous Woodland
- National Forestry Inventory: Broadleaved Woodland

2.9 These are all recorded in Locke Park, 85 m west of the Site, except for lowland meadows, which is 1.6 km south of the Site.

2.10 The habitat types, conditions and strategic significance were input into the Metric to form the onsite baseline and post-development units. Each habitat parcel was also assessed against the criteria for Irreplaceable Habitats . Habitat types are largely derived from the UK Habitat Classification System (UKHab V2.1).

2.11 Habitats are automatically assigned distinctiveness bands within the Metric. These are based on an assessment of the distinguishing features of a habitat or linear feature, including consideration of species richness, rarity (at local, regional, national and international scales), and the degree to which a habitat supports species rarely found in other habitats. The distinctiveness band of each habitat is preassigned in the Statutory Biodiversity Metric.

STRATEGIC SIGNIFICANCE

2.12 The Statutory Biodiversity Metric takes into consideration Strategic Significance. Strategic Significance can be defined as the spatial location of a habitat in relation to preferred locations for biodiversity. This is broken down into three categories for input into the Statutory Biodiversity Metric as described below:

- Within area formally identified in local strategy – the Site or habitat type is within the local planning documents or frameworks,
- Location ecologically desirable but not in local strategy
- Area/compensation not in local strategy/no local strategy

2.13 The following data sources and resources were searched in January 2024 to gather information on the strategic Significance of the Site and its habitats:

- Multi-Agency Geographic Information for the Countryside (MAGIC); and,
- Local Plans and Policy.

SURVEY COMMENTS

2.14 In line with standard guidance, the baseline data within this report is valid for up to two years from the date of survey, assuming there are no significant changes to the survey Site or its immediate surroundings. Updated survey work may be required to support any future biodiversity metrics and planning applications outside of this time period.

2.15 The condition assessment survey was undertaken by Katie Hadwin in January 2024. Although the survey was carried out in January, which is outside of the main plant growing season (April to September, inclusive), the surveyor was experienced enough to determine the types of habitats present and their condition.

3. RESULTS

BASELINE ECOLOGICAL ASSESSMENT

3.1 The survey area was subject to survey using the UK Habitat Classification system V2.1 (UK Hab). The habitats recorded on-Site are described below and include the results of the habitat condition assessment.

3.2 Habitat condition assessment sheets are included as a separate spreadsheet, alongside a copy of the Statutory Biodiversity Metric Assessment.

SPARSELY VEGETATED URBAN LAND WITH RUDERAL/EPHEMERAL

Primary code: u1f Secondary code: 81

Habitat reference number: BL6 Condition: Good Total area: 0.05255 ha

3.3 The survey area largely comprised unmanaged sparsely vegetated urban land over earth and tipped rubble. Species included ruderal and ephemeral species.

3.4 Species were dominated by sparsely scattered perennial rye grass *Lolium perenne* and cock's foot grass *Dactylis glomerata* with dominant creeping thistle *Cirsium arvense*, abundant common ragwort *Senecio jacobaea*, willowherb species, frequent creeping cinquefoil *Potentilla reptans*, dandelion species *Taraxacum* sp., common nettle *Urtica dioica* occasional ribwort plantain *Plantago lanceolata*, dock species *Rumex* sp., and rarely occurring oil seed rape *Brassica napus*, hard rush *Juncus inflexus* and moss species.

BRAMBLE SCRUB

Primary code: h3d

Habitat reference number: BL1; BL2 Condition: N/A Total area: 0.01771 ha

3.5 Dense and scattered areas of bramble *Rubus fruticosus* scrub were noted throughout the Site, mainly along the north-western and eastern boundaries.

3.6 Scrub, did not appear to be subject to regular management (being the result of encroachment). Structure, age class and height varied across the Site.

3.7 The ground flora beneath scrub was sparse where stands were dense included occasional common nettle and cleavers *Galium aparine*.

URBAN TREE

Secondary code: 200

Habitat reference number: BLT1 Condition: Moderate Total area: 0.0163 ha

3.8 A single semi-mature ash *Fraxinus excelsior* tree was noted at the eastern boundary of Site. The tree showed evidence of being pollarded in the past, with an average diameter at breast height of 40cm.

ARTIFICIAL UNVEGETATED - UNSEALED SURFACE WITH RUDERAL/EPHEMERAL

Primary code: u1c Secondary code: 81

Habitat reference number: BL4; BL5 Condition: N/A Total area: 0.0056 ha

3.9 Along the western and southern boundaries banks were present, approximately 2m in height, and comprised earth, stone and rubble. The Site banks appeared to have formed from mounding earth, stone and rubble on to Site to make a level surface for Site, which was over 2m higher than the road.

3.10 These areas were sparsely vegetated with less than 10% vegetation which included frequent creeping thistle, willow-herb species, ragwort and rarely occurring spurge *Euphorbia* sp.,

NON-NATIVE AND ORNAMENTAL HEDGEROW

Primary code: h2b

Habitat reference number: BLH1 Condition: Poor Total length: 0.007 km

3.11 A cherry laurel *Prunus laurocerasus* unmanaged hedgerow was noted along part of the eastern boundary of Site.

3.12 The hedgerow was 2.5 m in height by 2 m in width.

3.13 The base of the hedgerow was dominated by scrub

DEVELOPED LAND; SEALED SURFACE

Primary code: u1b (Inc. u1b6)

Habitat reference number: BL3 Condition: N/A Total area: 0.00793 ha

3.14 A section of tarmacked road was included within the Site boundary.

STRATEGIC SIGNIFICANCE

3.15 The survey area did not fall within statutory designations, nor was it adjacent to such designations.

3.16 No Section 41 Habitats of Principal Importance (formerly Priority Habitats) under NERC Act 2006 were noted on Site. The hedgerow on Site did not fall into the category of Priority Habitat or an Important Hedgerow (Hedgerow Regulations, 1997) due to its length (less than 20m) and composition of non-native species cherry laurel.

3.17 Scrub has been included in the Barnsley Biodiversity Plan as a local Priority Habitat because of its importance locally for wildlife and therefore is categorised as "Within area formally identified in local strategy".

3.18 The retention of trees is noted within the Barnsley Local Plan (adopted 2019), therefore trees are categorised as "Within area formally identified in local strategy".

3.19 All other vegetated habitats on Site are not included within local strategy and so, along with hardstanding, were categorised as "Area/compensation not in local strategy/ no local strategy".

POST-DEVELOPMENT ECOLOGICAL ASSESSMENT

3.20 Using the Proposed Landscape Plan [Drwg. No 23-122-111] in **Appendix 3**, habitats proposed to be created were categorised using the UK Habitat Classification system V2.1 (UK Hab). The habitats proposed are described below and include the results of the habitat condition assessment. A map of BNG Post-Development areas can be found in Appendix 2.

3.21 Two proposed planted trees (mapped PDT1 & PDT2) will not be included as part of the post-development calculations as newly planted trees within private gardens are exempt.

URBAN – VEGETATED GARDEN

Primary code: u1 Secondary code: 828

Habitat reference number: PD5; PD6 Condition: N/A Total area: 0.03026 ha

3.22 Several areas of grassed garden will include cock's foot, Yorkshire fog and meadow grass *Poa* sp., with common bird's-foot-trefoil *Lotus corniculatus*, corn cockle *Agrostemma githago*, ribwort plantain, red clover *Trifolium pratense*, common vetch *Vicia sativa*, common poppy *Papaver rhoeas*, yarrow *Achillea millefolium*, cornflower *Centaurea cyanus*, black knapweed *Centaurea nigra*, wild carrot *Daucus carota*, hedge bedstraw *Galium mollugo*, corn marigold *Glebionis segetum* and chamomile *Chamaemelum nobile*.

URBAN - OTHER GREEN ROOF

Primary code: u1b5 Secondary code: 89

Habitat reference number: PD4 Condition: N/A Total area: 0.00285 ha

3.23 A sedum green roof with white stonecrop *Sedum album*, biting stonecrop *Sedum acre*, English stonecrop *Sedum anglicum* and rock stonecrop *Sedum forsterianum*.

URBAN - INTRODUCED SHRUB

Primary code: u1 Secondary code: 847

Habitat reference number: PD1; PD2; PD3 Condition: N/A Total area: 0.00347 ha

3.24 Three areas of introduced shrub planting are proposed and include 'Rubra' blood grass Imperta cylindrica, 'Pony Tails' *Stipa tenuissima*, feather reed grass *Calamagrostis x acutiflora* 'Karl Foerster', dogwood *Cornus sanguinea*, hart's tongue fern *Asplenium scolopendrium* and common polypody *Polypodium vulgare*.

DEVELOPED LAND; SEALED SURFACE

Primary code: u1b (inc. u1b6, u1b5)

Habitat reference number: PD7; PD8; PD9, PD10; PD11 Condition: N/A Total area: 0.04721 ha

3.1 A driveway, walk ways and hard landscaped areas are included in the proposal.

3.2 A single dwelling is proposed to be built on Site.

NATIVE HEDGEROW

Primary code: h2a

Habitat reference number: PDH1 Condition: Good Total length: 0.0314 km

3.3 A native hedgerow is proposed to be planted on Site and will include hornbeam *Carpinus betulus*, hawthorn *Crataegus monogyna*, hazel *Cordylus avellane* and spindle *Euonymus europaeus*.

STRATEGIC SIGNIFICANCE

3.4 The native hedgerow will be included as a Section 41 Habitat of Principal Importance (formerly Priority Habitats) and is recognised in the LBAP and Barnsley Local Plan; therefore, it is given the strategic significance categorisation of "Within area formally identified in local strategy".

3.5 Green roofs are noted within the Barnsley Local Plan (adopted 2019) and, therefore, are categorised as "Within area formally identified in local strategy".

3.6 All other vegetated habitats on Site are not included within the local strategy, and so, along with hardstanding, were categorised as "Area/compensation not in local strategy/ no local strategy".

4. BIODIVERSITY METRIC

4.1 A Biodiversity Net Gain Assessment has been undertaken using Natural England's Statutory Biodiversity Metric.

4.2 The headline results are summarised below. The accompanying metric should be referred to for full details.

4.3 No off-site assessments were made, and no watercourse habitats were recorded on Site pre- or post-development.

HABITAT UNIT RESULTS

- Total On-Site Baseline Units: 0.55
- Total On-Site Post-Intervention Units: 0.07
- On-Site Net Change Units: -0.48
- **On-Site Net Gain: -86.94%**

HEDGEROW UNIT RESULTS

- Total On-Site Baseline Units: 0.01
- Total On-Site Post-Intervention Units: 0.14
- On-Site Net Change Units: 0.13
- **On-Site Net Gain: 1918.41%**

NET GAIN RESULTS

4.4 10% Net Gain has been achieved for Hedgerow Units on-Site.

4.5 10% Net Gain has not been achieved for Habitat Units on-Site.

4.6 In order to achieve 10% Net Gain for Habitat Units on-Site Post-Intervention Units must be 0.49.

TRADING RULES

4.7 Trading rules have been met for hedgerow units on-Site.

4.8 Trading rules have not been met for the habitat units on-Site.

4.9 Habitats that have not been traded include bramble scrub, ruderal/ephemeral and an individual urban tree.

4.10 In order for these to be met, the removal of bramble and the individual urban tree must be replaced by the 'Same broad habitat or a higher distinctiveness habitat'. And for ruderal/ephemeral to be removed to be replaced by the 'Same distinctiveness or better habitat'.

BASELINE BIODIVERSITY NET GAIN SUMMARY

4.11 A Biodiversity Net Gain Assessment headline results are summarised as below. The accompanying metric should be referred to for full details. The on-site summaries are detailed below in Tables **2 – 3**.

Table 2. On-Site Habitat Baseline Summary

Map Code	Broad Habitat Type	Habitat Type	Area (ha)	Distinctiveness	Condition	Total Habitat Units	Suggested Action
BL4; BL5	Urban	Artificial unvegetated, unsealed	0.0056	V.Low	N/A - Other	0.00	Compensation Not Required
BL6	Urban	Vacant or derelict land	0.05255	Low	Good	0.32	Same distinctiveness or better habitat required ≥
BL1; BL2	Heathland and shrub	Bramble scrub	0.01771	Medium	Condition Assessment N/A	0.08	Same broad habitat or a higher distinctiveness habitat required (≥)
BL3	Urban	Developed land; sealed surface	0.00793	V.Low	N/A - Other	0.00	Compensation Not Required
BLT1	Individual trees	Urban tree	0.0163	Medium	Moderate	0.15	Same broad habitat or a higher distinctiveness habitat required (≥)

Table 3. On-Site Hedgerow Baseline Summary

Map Code	Hedge Type	Length (km)	Distinctiveness	Condition	Total Hedgerow Units	Suggested Action
BLH1	Non-native and ornamental hedgerow	0.007	V.Low	Poor	0.01	Same distinctiveness band or better

ECOLOGICAL FEATURES & SPECIES IMPACTS

4.12 Ecological features and species impacts are detailed in the EcIA Report for Land adjacent to 52 Tower St, Worsbrough Common, Barnsley, South Yorkshire (In:Spire Nature, 2024).

SUGGESTIONS FOR BIODIVERSITY NET GAIN

4.13 To achieve 10% Net Gain for the Site across all unit types the following additional units must be created through retention of habitat, enhancement of retained habitats, and creation of new habitats on Site, and/or through enhancement/creation of off-Site habitats.

Table 4. Unit Requirement for 10% Net Gain across Units

Unit Type	Target	Baseline Units	Units Required
Habitat units	**10.00%**	**0.44**	**0.49**
Hedgerow units	**10.00%**	**Achieved**	
Watercourse units	**10.00%**	**Not Applicable**	

4.14 Trading rules are based on the baseline habitat distinctiveness and what is accepted for losses for each habitat.

4.15 Rule 3 specifies the distinctiveness level and what type of habitat must be present to compensate for the loss of a specific habitat on-site to satisfy the trading rule. Table 5 details the compensation for losses at each level and unit type.

Table 5. Trading Rules (Rule 3) to Compensate for Losses

Baseline Habitat Distinctiveness	Area module (habitat units)	Hedgerow module (hedgerow units)	Watercourse module (watercourse units)
Very high	Losses are not permitted within this metric AND bespoke assessment and compensation are required	Losses must be replaced with hedgerow units of the same habitat type	Losses are not permitted within this metric AND bespoke assessment and compensation are required
High	Losses must be replaced with area units of the same habitat type	Losses must be replaced with hedgerow units of the same habitat type or of a higher distinctiveness band	Losses must be replaced with watercourse units of the same habitat type
Medium	Losses must be replaced by area units of either: medium distinctiveness habitats within the same broad habitat type OR any habitat from a higher distinctiveness band (from any broad habitat type)	Losses must be replaced with hedgerow units of the same or higher distinctiveness band	Losses must be replaced with watercourse units of the same habitat type
Low	Losses must be replaced with area units of the same or higher distinctiveness band	Losses must be replaced with hedgerow units of the same or higher distinctiveness band	Losses must be replaced with watercourse units of a higher distinctiveness band
Very Low	N/A	Losses must be replaced with hedgerow units of the same or higher distinctiveness band	N/A

5. CONCLUSIONS

5.1 The current proposed landscaping plan does not result in a 10% Net Gain in habitats on-Site. It does, however, meet 10% Net Gain in hedgerow units on-Site.

5.2 In order to increase on-Site gains, a revised landscaping plan may be considered; however, due to the trading rules on bramble scrub, ruderal/ephemeral and an individual urban tree habitat, it is unlikely the area required to off-set the losses will be large enough considering the available greenspace proposed in the non-built up areas of Site (areas outside of the new building/hardstanding). Furthermore, as the proposed development is a private residential house, management can not be guaranteed for 30 years so on-site enhancement/creation would not be viable.

5.3 It is therefore recommended that either off-Site units or statutory biodiversity credits are considered.

5.4 Off-Site biodiversity gains can be made on land owned outside the development Site, or off-Site biodiversity units can be bought.

5.5 If this cannot be achieved, statutory biodiversity credits from the government must be purchased. This must be a last resort. The government will use the revenue to invest in habitat creation in England.

5.6 Developers can combine all on-Site, off-Site and statutory biodiversity credits for off-setting losses, but must follow the steps in order. This order of steps is called the Biodiversity Gain Hierarchy.

6. REFERENCES

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APPENDICES

Appendix 1: BNG Baseline Map

434320 434340 434360 434380

405320 405300 405280 405260

52

63

BL1 BL2 BL3 BL4 BL5 BL6

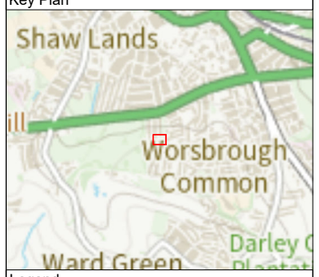
BLH1

1 2

Notes

1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Key Plan



Legend

- Site boundary (837.9m²)
- h3d - Bramble scrub (177.1m²)
- u1b - Developed land; sealed surface (79.3m²)
- u1c - Artificial unvegetated, unsealed surface (56.0m²)
- u1f - Sparsely vegetated urban land (525.5m²)
- h2b - Non-native and ornamental hedgerow (7.0m)
- 32 - Scattered tree

Target Notes

1 - Brash pile
2 - Earth /rubble mound

IN-SPIRE NATURE

Client
CHRIS BARTON

Project Title
LAND ADJACENT TO 52 TOWER ST, BARNSLEY

Drawing Title
PRELIMINARY ECOLOGICAL APPRAISAL

Drawn:	Mark Parnell		Reviewed:	K. Hadwin	
Ref:	WS01.1	Date:	02.02.24	Scale@A3:	1:250

Appendix 2: BNG Post-Development Map

434320 434340 434360 434380

405320 405300 405280 405260

52 63

PD6 PD10 PD4 PD3 PD8 PD2 PD7 PDH1 PD5 PD9 PD11 PD1

1 2

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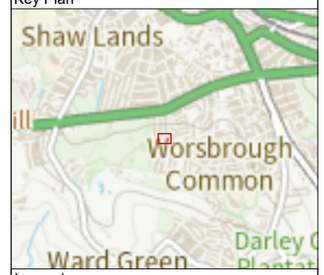
Notes

1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Key Plan



Legend

- Site boundary (837.9m²)
- u1 828 - Urban - vegetated garden (302.6m²)
- u1 847 - Urban - introduced shrub (34.7m²)
- u1b - Developed land; sealed surface (68.3m²)
- u1b5 - Buildings (153.9m²)
- u1b5 89 - Urban - other green roof (28.5m²)
- u1b6 - Other developed land (249.9m²)
- h2a - Native hedgerow (31.4m)
- 32 - Scattered tree

IN-SPIRE NATURE

Client
CHRIS BARTON

Project Title
LAND ADJACENT TO 52 TOWER ST, BARNSLEY

Drawing Title
PROPOSED SITE PLAN

Drawn:	Mark Parnell		Reviewed:	K. Hadwin	
Ref:	WS01.1	Date:	07.02.24	Scale@A3:	1:250

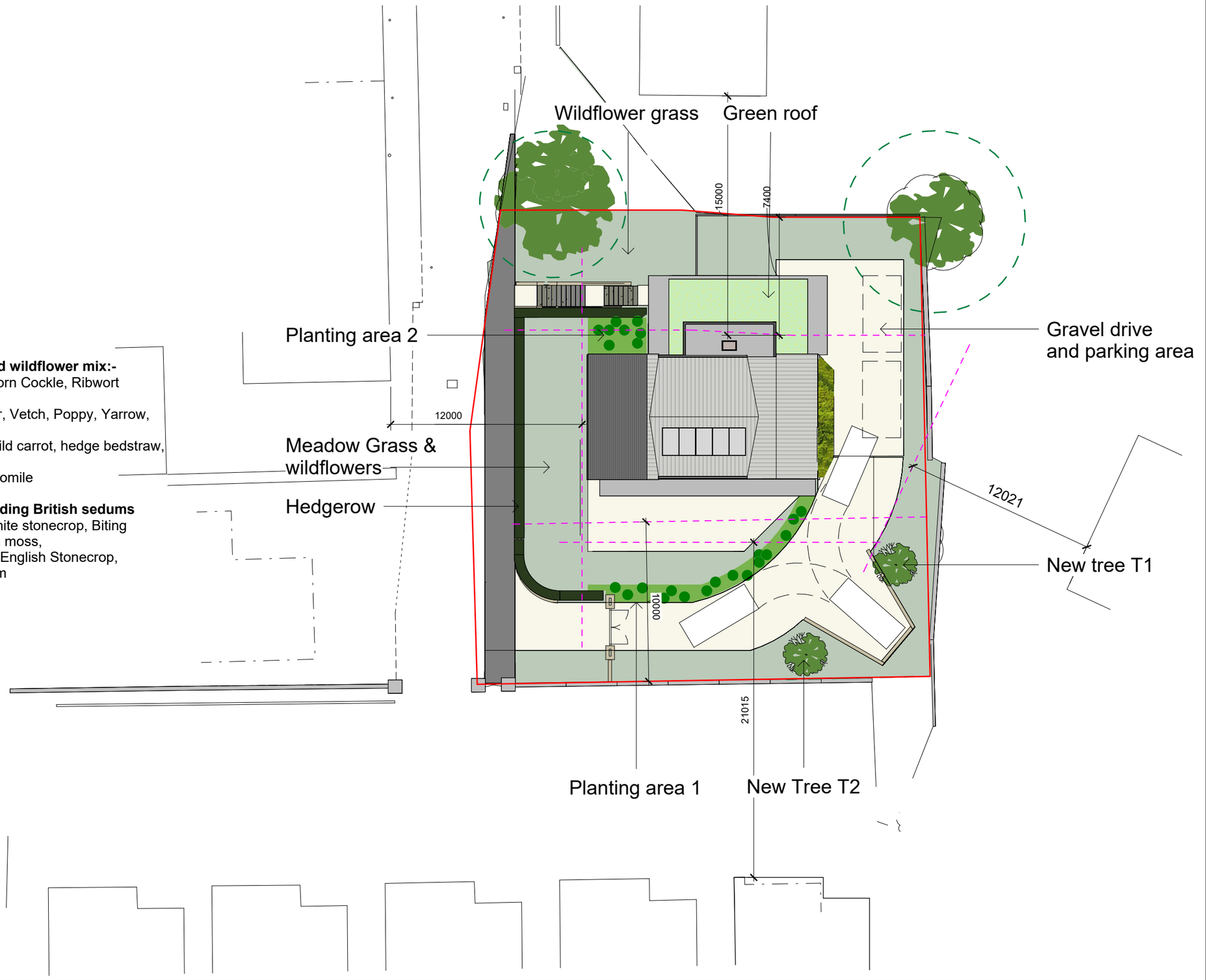
Appendix 3: Proposed Landscaping Plan

Proposed Site Plan

1 : 250

0 10 20m

N



Tree T1
Replacement Ash
Rowan (Mountain ash) Sorbus aucuparia

Tree T2
Weeping birch Betula pendula Youngii
3L pots

Hedgrow
Native hedgerow mix:-
Hornbeam Carpinus betulus
Hawthorn Crataegus monogyna
Hazel Corylus avellana
Spindle Euonymus europaeus

Planting area 1 - Grasses

Imperata cylindrica 'Rubra'
blood grass (syn. Red Baron)
Stipa tenuissima
pony tails or angel hair (syn. Stipa tenuifolia)
Calamagrostis × acutiflora 'Karl Foerster'
feather reed grass

Planting area 2
Dogwood (Cornus sanguinea)
Ferns
Asplenium scolopendrium
hart's tongue fern or horse tongue
Polypodium vulgare
common polypody

Meadow grass and wildflower mix:-
Birdsfoot Trefoil, Corn Cockle, Ribwort Plantain,
red flowering clover, Vetch, Poppy, Yarrow, cornflower,
black knapweed, wild carrot, hedge bedstraw, corn
marigold and chamomile

Sedum Roof including British sedums
Sedum Album – White stonecrop, Biting Stonecrop – golden moss,
Sedum Anglicum – English Stonecrop,
Sedum Fosterianum

NOTES
The contractor is responsible for checking dimensions, tolerances and references.
Verify any discrepancies with the architect before proceeding with the work.
Where an item is covered by drawings of different scales the larger scale drawing is to be worked to.
Construct to figured dimensions only.

Date	Rev	Revision / author/ checker

phi Low Carbon

Purpose of Issue	Preliminary	**Drwg. no**	23-122-111	**Rev**	
Project	Tower Street, Barnsley	**Drawn**	JNBP	**Checked**	SD
Drawing	Proposed Landscape Plan	**Scale**	1 : 250 @A3	**Date**	12/04/23

21/12/2023 12:35:05