Biodiversity Net Gain Assessment

Land at 84 Barnham Road, Barnham, West Sussex, PO22 0ES

December 2025

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Contents

Report conditions

The methods and recommendations set out in this report are based on the following guidance:

- Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing 2017 (CIEEM, 2017)
- UK Habitat Classification (UKHab) Version 2 (Butcher et al, 2023)
- Biodiversity Net Gain Report & Audit Templates Version 1 (CIEEM, July 2021)
- The report is supported by the Statutory Biodiversity Metric (DEFRA, November 2023) and supporting documentation found on the following link: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides

Site	Land at 84 Barnham Road, Barnham, West Sussex, PO22 0ES
Client	Elberry Estates Ltd.
Report	Biodiversity Net Gain Assessment
Survey date	UKHab Survey: 12th August 2025
Author	[redacted] Chris Brown BSc (Hons) ACIEEM Independent Ecologist
Technical reviewer	[redacted] Frances King-Smith BSc (Hons) CEcol MCIEEM Principal Ecologist and Company Director
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Executive summary

Ecology Works Limited was commissioned by Elberry Estates Ltd to undertake a Biodiversity Net Gain (BNG) Assessment at land at 84 Barnham Road, Barnham, West Sussex, PO22 0ES. The assessment is required in support of a planning application for the construction of two detached two-storey houses. This report details the findings of the UKHab survey and BNG assessment conducted by Ecology Works Limited in August 2025. Landscape plans are designed to ensure a minimum of 10% BNG.

The site comprises the former front lawn of a disused care home located off Barnham Road, near the village centre of Barnham, West Sussex.

The site currently provides 0.62BU area-based habitats. Post-development, the proposed development would deliver 0.69BU area-based habitats, representing an increase of 0.07BU for area-based habitats, delivering a 10.69% net gain.

The site currently provides 0.03BU hedgerow habitats. Post-development, the proposed development would deliver 0.05BU hedgerow habitats, representing an increase of 0.02BU for area-based habitats, delivering an 86.78% net gain.

The trading rules are satisfied.

Proposed development of the site and associated landscaping will deliver an overall 10.69% gain for area-based habitats and an overall 86.78% net gain for hedgerow habitats. The habitat creation and management measures proposed include on-site measures which will benefit a wide range of local wildlife. With these measures in place, the proposed development at Land at 84 Barnham Road will deliver Biodiversity Net Gain in accordance with the current legal requirements of the Environment Act 2021, the NPPF and Policies ENV DM1 to ENV DM5 of the Arun Local Plan 2011 – 2031 (adopted July 2018).

The local planning authority can therefore be reassured that a suitable Biodiversity Net Gain will be delivered in line with the Environment Act 2021.

1 Introduction

1.1 Background

Ecology Works Limited was commissioned by Elberry Estates Ltd to undertake a Biodiversity Net Gain (BNG) Assessment at land at 84 Barnham Road, Barnham, West Sussex, PO22 0ES. The assessment is required in support of a planning application for the construction of two detached two-storey houses.

This report details the findings of the UKHab survey and BNG assessment conducted by Ecology Works Limited in August 2025. Landscape plans are designed to ensure a minimum of 10% BNG.

1.2 Site description

The parcel of land located at 84 Barnham Road, hereafter referred to as 'the site', comprises the former front lawn of a disused care home off Barnham Road, located at National Grid Reference SU 95751 04550. The site is bound in all directions by residential properties.

The site is situated close to the centre of Barnham in West Sussex. Barnham railway station is located 190 metres (m) south of the site. The local landscape comprises large areas of suburban housing interspersed with villages, road and rail infrastructure, and areas of green space.

A site location plan is provided in Appendix 1.

1.3 Site proposals

The development proposal entails the construction of two detached two-storey houses with associated parking and landscaping. There will be loss of modified grassland and introduced shrub.

The proposed site plan is provided in Appendix 3.

2 Policy and legislation

2.1 Planning policy

2.1.1 National planning policy

Requirements of planning decisions in respect of biodiversity in England are laid out in the National Planning Policy Framework, (NPPF) 2024[1], Paragraph 187 states that the planning system should both contribute to and enhance the natural environment by "*minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs*".

2.1.2 Local planning policy

Local planning policy is provided by the Arun Local Plan 2011 – 2031 (adopted July 2018). Policies ENV DM1 to ENV DM5 relate to the Natural Environment:

Policy ENV DM1 Designated sites of biodiversity or geological importance: States that developments which would have an adverse effect on European, national or local status designated sites would not normally be permitted, and sets out criteria, rationale and other details for this.

Policy ENV DM2 Pagham Harbour: Sets out Zones A (within 400m of Pagham Harbour SPA) and B (0-5km), within which there are restrictions to any development which may impact the SPA.

Policy ENV DM3 Biodiversity Opportunity Areas: States that development shall retain and incorporate locally valued and important habitats, including wildlife corridors and stepping stones, and be designed to minimise habitat disturbance.

Policy ENV DM4 Protection of Trees: States that development shall not affect Tree Preservation Order (TPO) trees, that these and other trees will be appropriately protected during development and that developers shall provide tree surveys, tree constraints plans and arboricultural impact assessments where appropriate.

Policy ENV DM5 Development and Biodiversity: Requires developments to seek net gains for biodiversity and protect existing habitats, incorporate bat and bird boxes and other enhancement measures. The policy states that where there is evidence of a protected species, planning applications shall include a detailed survey of the subject species, providing detailed measures for the preservation of the species at the site. It goes on to state that all surveys shall consider direct and indirect impacts and shall be carried out at an appropriate time of year, being undertaken by a qualified and, where appropriate, suitably licensed person.

[1] HM Government (2024) National Planning Policy Framework. Department for Communities and Local Government. HMSO

2.2 Legislation

2.2.1 Environment Act 2021

The Environment Act 2021[2] states that there is a duty on local authorities to publish biodiversity reports and secure mandatory biodiversity net gain. Part 6 (Nature and Biodiversity) sets out the following key elements relating to Biodiversity Net Gain (BNG):

- The Act amends the Town & Country Planning Act
- A minimum 10% BNG is required, calculated with the Biodiversity Metric, supported by a BNG assessment
- BNG habitat must be secured for at least 30 years via planning obligations or conservation covenants
- This can be delivered on- or off-site, or via the statutory biodiversity credits scheme
- Off-site BNG land will be recorded on a national register

The Act does not affect existing legal protection for habitats and species. It maintains the mitigation hierarchy of: avoid impacts first, then mitigate and only compensate as a last resort. The 10% BNG requirement became mandatory on 12th February 2024, and applies to a range of proposal types, including those that will see the loss of more than 5 x 5m (i.e. 25m^2) of vegetated habitat, such as this one.

[2] https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted

3 Methods

3.1 Desk study

3.1.1 MAGIC data search

The Multi-Agency Geographic Information for the Countryside[3] (MAGIC) online resource was accessed on 11th November 2025 to search for Habitats of Principal Importance (HPIs) listed under the NERC Act within 1km.

3.2 UKHab habitat survey

A UKHab habitat survey was undertaken on 12th August 2025, comprising an initial habitat survey and completion of condition assessments. The survey was carried out by Principal Ecologist Frances King-Smith BSc (Hons) CEcol MCIEEM. Frances is a Chartered Ecologist and full member of the Chartered Institute of Ecology and Environmental Management, and has 18 years' experience in bat surveys, licensing and mitigation, and has completed extensive botanical and technical training, including a range of formal UK Habitat Classification (UKHab) and specific BNG training.

The habitat survey was undertaken following the user manual, habitat key and definitions for UKHab Version 2.0[4], and entailed a detailed survey of on-site vegetation to identify key plant species present and to categorise the primary habitats and define them further using the UKHab secondary codes, where appropriate. Printed condition assessments were completed on-site for each habitat parcel. Guidelines for Preliminary Ecological Appraisal were also followed[5]. Where relevant, dominance was noted based on the DAFOR scale[6]. Target notes were made to identify particular features/species within the site.

Weather conditions were dry and sunny, 21°C with no cloud cover and a light north-easterly breeze (BF2).

3.3 Biodiversity Metric

The Department for Environment, Food & Rural Affairs (DEFRA) Statutory Biodiversity Metric[7] is a tool used for comparing the existing extents and conditions of baseline habitats against those of proposed habitats. Areas were accurately measured in QGIS to inform this assessment.

The Metric takes in a range of factors to generate a value in Biodiversity Units (BU) for each habitat present and proposed.

[3] MAGIC Map Application. https://magic.defra.gov.uk/MagicMap.aspx.
[4] UK Habitat Classification User Manual V2.0 (July 2023) UKHab; UKHab Field Key V2.1 (September 2020) UKHab
[5] CIEEM Guidelines for Preliminary Ecological Appraisal, Second Edition (CIEEM, 2017)
[6] The DAFOR scale was used to note levels of dominance within habitats present for each plant species, from Dominant, Abundant, Frequent, Occasional or Rare.
[7] https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides

The Statutory Biodiversity Metric is designed to accommodate newly-created habitats via its risk multipliers, which are: difficulty of creation or enhancement, time to target condition and spatial risk. These factors are an integral part of the formulae used by the Metric to ensure created habitats reflect those lost.

3.4 Trading

The Metric and supporting guidance set out the trading rules, require avoidance of trading-down, ensuring that habitats are either replaced like-for like or like-for-better. The rules also stipulate that there cannot be a loss of the area of high distinctiveness habitats, if present. The necessary loss of medium distinctiveness habitats must be compensated with new habitat creation within the same broad habitat, or one of higher distinctiveness. It is possible to make provisions for allowing high distinctiveness habitats to be increased to offset losses of habitats of medium distinctiveness.

3.5 Limitations

There were no significant limitations to the BNG Assessment.

4 Baseline and proposed habitats

4.1 Baseline habitats

4.1.1 Desk Study

The desk study made the following relevant findings:

- There are no statutory nature conservation sites located within a 1km radius of the site.
- There are three Priority Habitats within 1km of the site, including traditional orchard, deciduous woodland, and ancient and semi-natural woodland. None of these habitats are present within the site and therefore the site does not comprise an area formally identified in a local strategy. The nearest Priority Habitat is an area of ancient & semi-natural and deciduous woodland located 370m north-east of the site. This parcel is not functionally linked to the site.

4.1.2 Habitat Survey

The baseline habitats according to UKHab are shown in Appendix 2 and are listed with condition assessments and depicted below. Full details of these habitats can be found in the accompanying Preliminary Ecological Appraisal report[8].

Modified grassland/scattered trees/frequently mown g4/32/108

The grassland has less than six vascular species per m^2 based on five quadrats surveyed and was therefore assessed as being in 'poor' condition. The trees were all assessed as being in 'moderate' condition.

Photograph 1. Modified grassland dominates the site

Photograph 2. View of the modified grassland looking west

[8] Brown, C. (2025) *Land at 84 Barnham Road, Barnham – Preliminary Ecological Appraisal*. Ecology Works Limited, Petersfield, Hampshire.

Photograph 3. Scattered trees present within the grassland

Urban/Introduced shrub u1/847

This habitat does not require a condition assessment, however there is a large standard copper beech *Fagus sylvatica purpurea* within this habitat assessed as being in 'moderate' condition.

Photograph 4. Introduced shrub in the centre of the site

Photograph 5. Introduced shrub in the centre of the site

Photograph 6. Beech tree within the introduced shrub, protected by a TPO

Photograph 7. Introduced shrub on the western boundary

Developed land; sealed surface – Building u1b5

A welfare unit (Photograph 8) is present within the site. This habitat does not require a condition assessment.

Photograph 8. Welfare unit

Developed land; sealed surface – Other developed land u1b6

This habitat does not require a condition assessment.

Photograph 9. Tarmac hardstanding driveway

Photograph 10. Tarmac hardstanding site entrance

Non-native and ornamental hedgerow h2b

This habitat does not require a condition assessment.

Photograph 11. Hedgerow H1, view looking north

Photograph 12. Hedgerow H1, view looking south

4.2 Proposed habitats

There will be a loss of modified grassland and introduced shrub resulting from the proposed development.

The developed site will see an uplift in biodiversity via the creation of modified grassland and mixed native scrub, tree planting and hedgerow planting, to be undertaken within the site.

Proposed habitats are shown in the Proposed Site Plan in Appendix 3.

4.3 BNG summary

The BNG Metric is provided under separate cover, showing the data input and calculations upon which this assessment is based.

The site currently provides 0.62BU area-based habitats. Post-development, the proposed development would deliver 0.69BU area-based habitats, representing an increase of 0.07BU for area-based habitats, delivering a 10.69% net gain.

The site currently provides 0.03BU hedgerow habitats. Post-development, the proposed development would deliver 0.05BU hedgerow habitats, representing an increase of 0.02BU for area-based habitats, delivering a 86.78% net gain.

The trading rules are satisfied.

5 Ecological Management Plan

5.1 Introduction

It is not anticipated that a Habitat Management and Monitoring Plan (HMMP) would be required for this development, as the created habitats would not be considered 'significant' under the description set out by Central Government. An Ecological Management Plan for the site would be secured via condition once planning permission has been obtained. The proposed measures are summarised in the sections below.

5.2 Implementation

On-site habitat creation will entail the creation of modified grassland through sowing with an amenity grassland mix. A suitable seed mix will be selected based upon the advice of experienced seed producers, such as Emorsgate Seeds or another suitable provider providing wild, native, UK-grown seed. A mix will be sought based on the most suitable balance of being species-diverse and easily managed. Interrogation of the LandIS® Soilscapes database suggests the soil type at the site comprises '*freely draining slightly acid sandy soils*', suggesting broad suitability of the soil to support this habitat. Seeds will be suitably irrigated and monitored following guidance from the seed provider. The grassland will be mown on a rotational basis, ensuring the sward height across the grassland is varied.

On-site habitat creation will also entail the creation of an area of mixed native scrub. Mixed scrub planting will be implemented as set out in The Scrub Management Handbook[9]. There will be use of diverse planting mixes throughout landscaped areas, using native species as far as possible. Locally-sourced whips will be planted between November and March, utilising tree guards to protect them from browsing. The whips will be planted in a non-linear pattern (i.e. in clumps).

Two small trees will be planted as part of the proposed development. The trees will be native fruit or nut-bearing species, sourced from a suitable provider. The trees will be planted in Spring or Autumn and irrigated to ensure survival. Sufficient space will be allowed between trees to ensure they do not overcrowd one another. Tree guards will be used to prevent mammal browsing.

A native hedgerow measuring 7m in length will be planted in the south-west corner of the site. The hedge will be planted in Spring or Autumn and irrigated sufficiently to ensure survival. Hedge species selection will avoid horticultural varieties, which can have a compromised nectar yield, providing less of a benefit to nectaring insects and the wider food chain. The new hedge will be planted in a staggered double row of 2m whips. Tree guards will be used to prevent mammal browsing.

[9] Natural England (2006) *The Scrub Management Handbook: Guidance on the management of scrub on nature conservation sites* (IN124)

5.3 Long-term management

The modified grassland will be monitored to ensure it establishes successfully and will be re-sown, if necessary, under the advice of an ecologist. Grassland management will follow a rotational mowing regime. Once established, the grassland will be subject to regular mowing.

New trees and scrub whips will be monitored for poor health and will be replaced, if necessary, under the advice of an arboriculturist. Tree and scrub management will occur from September to February (inclusive), avoiding the core bird nesting season which runs from March to August (inclusive).

Management of scrub will occur every other year, once this becomes necessary. Chainsaws and brushcutters will be used to prune the scrub. Management will occur from September to February, inclusive, avoiding the core bird nesting season.

The hedgerow will be monitored for poor health and will be replaced, if necessary, under the advice of an arboriculturist. Hedge management will occur from September to February (inclusive), avoiding the core bird nesting season which runs from March to August (inclusive). The hedgerow will undergo the minimum management required to keep it in 'moderate' condition, with an autumn/winter cut every year or every two years, once this becomes necessary. Chainsaws and brushcutters will be used to prune the hedgerows.

Gardens will be individually managed by residents and therefore their management cannot be secured. Consequently, the Biodiversity Metric assumes low condition for garden habitats. However, these gardens will vary in their actual condition based upon future planting by residents. Their value is therefore likely to be higher than the Metric assumes.

5.4 Monitoring

Monitoring will form an integral part of the site's management, in which the responsible party will periodically assess and report the successes and failures of implementation and management, recommending amendments where required. Growth will be monitored at years three and five post-completion via a walkover survey undertaken by an ecologist. Any failed plants will be replaced. The full monitoring regime will be detailed in a 30-year management plan, which can be secured via condition.

As their management and condition cannot be secured, the private gardens will not need to be monitored.

6 Conclusion

Proposed development of the site and associated landscaping will deliver an overall 10.69% gain for area-based habitats and an overall 86.78% net gain for hedgerow habitats. The habitat creation and management measures proposed include on-site measures which will benefit a wide range of local wildlife. With these measures in place, the proposed development at Land at 84 Barnham Road will deliver Biodiversity Net Gain in accordance with the current legal requirements of the Environment Act 2021, the NPPF and Policies ENV DM1 to ENV DM5 of the Arun Local Plan 2011 – 2031 (adopted July 2018).

The local planning authority can therefore be reassured that a suitable Biodiversity Net Gain will be delivered in line with the Environment Act 2021.

Appendix 1 Site Location Plan

KEY

Site boundary

Site	Land at 84 Barnham Road, Barnham
Report	BNG Assessment
Map	Site Location Plan
Date	November 2025

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Appendix 2 Baseline Habitats

Key

- Site boundary
- g4 Modified grassland
- u1/847 Introduced shrub
- u1b5 Building
- u1b6 Other developed land
- h2b Non-native and ornamental hedgerow
- Trees

Site	Land at 84 Barnham Road, Barnham
Report	BNG Assessment
Map	Baseline Habitats
Date	November 2025

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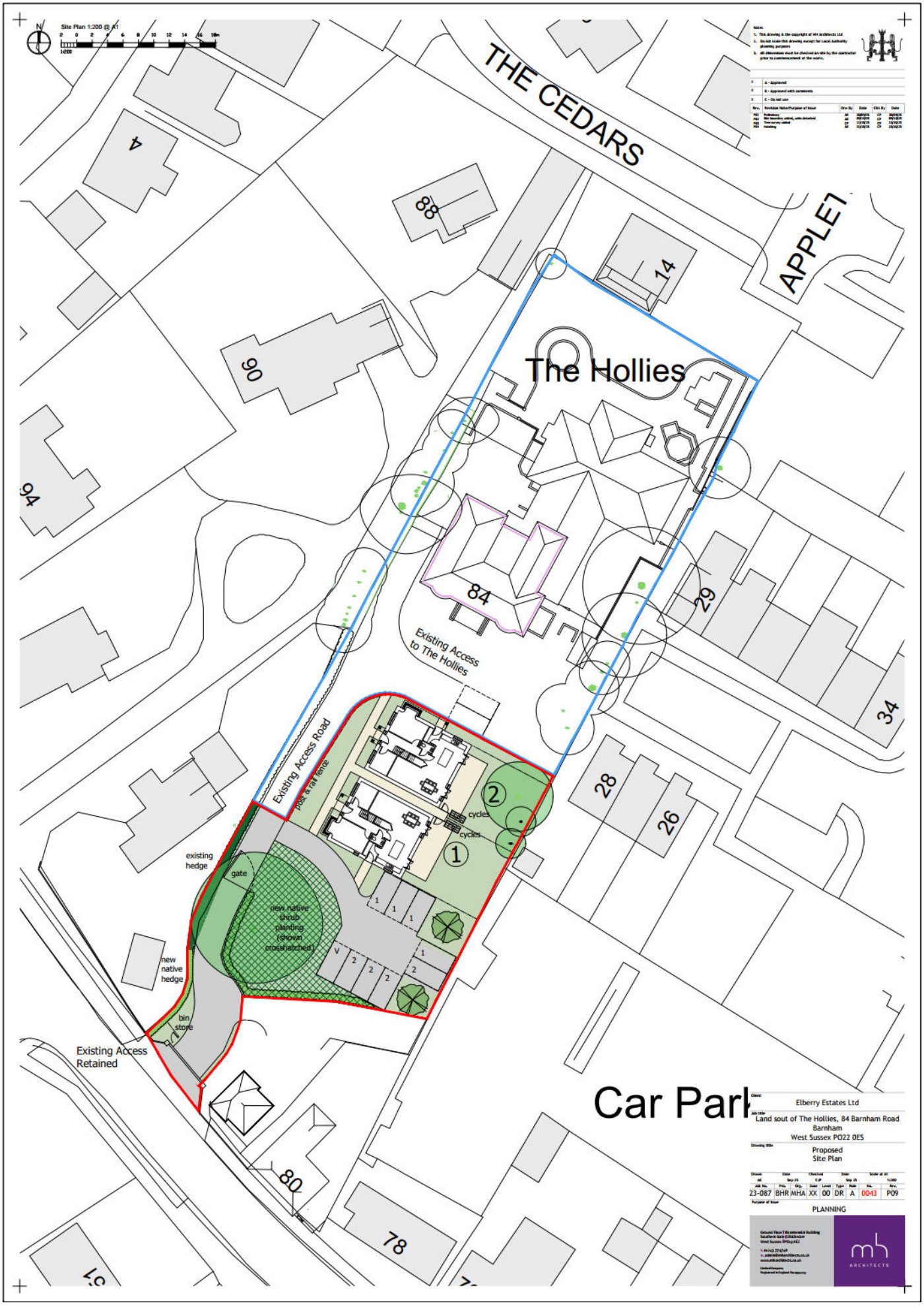
Appendix 3 Proposed Site Plan


Site Plan 1:200 @ A1
THE CEDARS
APPLET
The Hollies
4
88
14
90
94
84
29
34
28
26
80
78
Existing Access to The Hollies
Existing Access Road
post & rail fence
cycles
cycles
1
2
existing hedge
gate
new native shrub planting (shown crosshatched)
new native hedge
bin store
Existing Access Retained
Car Park
Elberry Estates Ltd
Land sout of The Hollies, 84 Barnham Road
Barnham
West Sussex PO22 0ES
Proposed
Site Plan
23-087 BHR MHA XX 00 DR A 0043 P09
PLANNING