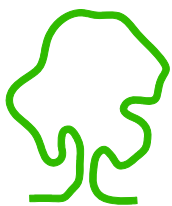


SIGMA HOMES

SUMNER PONDS, BARNS GREEN, WEST SUSSEX RH13 0PR

Ecological Mitigation and Enhancement Plan

September 2021
Updated October 2025



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Environmental Assessment Services Ltd

REPORT DATA SHEET

Requirement	Data
Report Reference	409D/LG/ECE/SummersPonds/EMP
Date	September 2021
Client	Sigma Homes
Report type	Ecological Mitigation and Enhancement Plan
Purpose	Submission to Planning
Revisions	Updated 22/10/2025 – revised scheme
Prepared and updated by	Lucy Monday BSc (Hons), ACIEEM  Signed
Approved by	Eur Ing Malcolm McKemey BSc (Hons), CEng, CEnv, MICE, MIEAust, MCIWEM, MIEnvSc  Signed

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SUMNER PONDS, BARNS GREEN, WEST SUSSEX RH13 0PR

Ecological Mitigation and Enhancement Plan

September 2021 – Updated October 2025

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(Updated 10/10/2025)

SIGMA HOMES

SUMNER PONDS, BARNS GREEN, WEST SUSSEX RH13 0PR

Ecological Mitigation and Enhancement Plan

September 2021 – Updated October 2025

1. BACKGROUND

- 1.1 This Ecological Mitigation Strategy and Habitat Enhancement Plan has been prepared in relation to the proposed development of land at Sumners Ponds in Barns Green, West Sussex.
 - 1.2 This report follows guidance as set out in the CIRIA publication - Biodiversity Net Gain Good Practice Principles for Development: A Practical Guide, and has been based on the findings of the following ecological survey reports:
 - Preliminary Ecological Appraisal (PEA) - EAS September 2020
 - Tree Survey and Arboricultural Impact Assessment - EAS February 2021
 - Bat Survey - Batscan, June 2021
 - Great Crested Newt and Reptile Survey - GPM Ecology July 2021
 - Dormouse Survey Results – September 2021
 - 1.3 The aim of this report is to provide the developer with guidance relating to the implementation of avoidance, protection and compensation measures required for ecological impacts associated with the proposed development (based on the findings of the above listed survey and assessment work) and how to deliver ecological enhancement of the site (biodiversity net gain), and to demonstrate to the Local Planning Authority (LPA) how this may be achieved through development.
- #### **2. THE SITE & PROPOSAL**
- 2.1 The site comprises an area of land developed for mixed farming and commercial use, together with an earth bund to the south and a small field to the north. The Ordnance Survey map reference for the centre of the site is TQ 1248 2680. See Appendix A for the Site Location and Existing Site Plans and Appendix B for the (Existing) Habitat Plan.
 - 2.2 It is proposed to redevelop the field to the north of the site for residential use and the area to the south for mixed residential and commercial use, all with associated hard landscaping (access and parking etc) and soft landscaping (including private gardens and communal space and planting beds). See Appendix C for the Proposed Site Plans – Updated 10 October 2025.

3. HABITATS

The Preliminary Ecological Appraisal identified three key habitats within the site:

- A grassed field (used for parking and storage) with boundary hedgerows and a ditch.
- A farmyard comprising various buildings and hard standing.
- A landscape bund with evergreen hedge and access road.

3.1 Field with Hedgerows and Ditch

Existing Status

- 3.1.1 The field to the north of the site comprises improved grassland (crossed, below ground level, by a gas line which is to be diverted under the proposed scheme). The southeast corner of the field is used for the storage of farm vehicles, hay bales and waste from the adjacent cattle sheds. At busy times, the field is used as an overflow carpark associated with public use of the wider site.
- 3.1.2 A blackthorn hedgerow, interspersed with mature ash and other woody species, lies along the eastern boundary of the field with Chapel Road, to the east of which is residential land use. The remnants of an unmaintained hedgerow comprising a number of native woody shrub and tree species lies along the northern boundary of the field, shared with the garden of an adjacent residential property. An access track lies along the western boundary of the grassland beyond which is a hedgerow, similar to that along the eastern boundary of the field, and a drainage ditch. Land to the west of the hedgerow is used for camping. The south of the grassland is open to a tarmac access road and parking area used by staff and visitors, beyond which lies the farmyard.
- 3.1.3 The grass within the southwest half of the field has been cut to maintain a short sward, but the grass within the northeast corner of the field has been left un-cut and blackthorn suckers have extended from the northern hedgerow into the field. The hedgerows, drainage ditch and longer grass/scrub within the northern corner of the field are considered likely to support connectivity for wildlife through the area and provide foraging opportunities for local wildlife, including protected species. Further surveying has been completed for amphibians and reptiles, bats and hazel dormice. The existing status of these species together with mitigation and enhancement measures are given in section 4 below.

Mitigation

- 3.1.4 It is proposed to retain and protect the existing site boundary hedgerows along the north, east and west field boundaries, and the drainage ditch and associated vegetation along the western field boundary under the proposed scheme. Please refer to the Tree Survey and Arboricultural Impact Assessment for details of protection measures. The retention of the existing site boundary hedgerows and drainage ditch will maintain connectivity, foraging and nesting habitat as well as the plant diversity and maturity that these linear habitat features offer.

- 3.1.5 The existing improved grassland, which is generally of low ecological value, will be lost as a result of the development. There will be some garden lawns together with communal grassland (within the central green) under the proposed scheme, however, there will be a significant overall reduction in green space within the northern field as a result of the proposed development.
- 3.1.6 Measures to compensate for this overall reduction in green space are to include new tree and shrub planting within planting beds between the housing, parking and access, together with a wetlands meadow mix (EM8) seeded within a swale (formed depression linked to the storm water system) within the central green located immediately north of the site access road. Refer to the Hard and Soft Landscape Proposals (dated 10 October 2025) in Appendix C for further detail.

Enhancement

- 3.1.7 The development of a new swale within the central green, within the northern section of the site will provide a new habitat, not already present within this area. The swale is to be planted with EM8 Meadow Mixture for Wetlands.

3.2 Farmyard

Existing Status

- 3.2.1 The Farmyard, located towards the centre of the site, comprises a number of typical agricultural type storage buildings of mixed construction, used for farming, including hay and general storage, the overwintering of cattle, and for commercial lettings. The existing buildings have potential for use by nesting birds and bats. The existing status of these species together with mitigation and enhancement measures are considered in section 4.1 and 4.2 below.
- 3.2.2 There is limited planting / green space within the existing farmyard area. Within the northwest corner of the farmyard, is a short section of agricultural type hedging comprising native woody species and two oak trees. This section of hedging and the trees are considered fairly isolated within the site (located between the farmyard and a dividing access track, which extends north, south and west providing access to the wider site). This significantly reduces the ecological value of the hedging and trees. This is the only vegetated area within the farmyard. It is proposed to remove this vegetation under the current scheme, for which mitigation has been included for within the site's design and layout.
- 3.2.3 In addition to the above-mentioned trees and hedging within the site development area, there are also mature trees within the garden of Sumner Cottage located along the southwest boundary of the development area. These trees are to be retained and protected under the current scheme.

Mitigation

- 3.2.4 The existing buildings are to be removed under the proposed scheme and the area redeveloped with both residential and commercial buildings. Mitigation for the loss of these buildings, relevant to the species which use them, is given in sections 4.1 and 4.2 below.

- 3.2.5 New tree and shrub planting has been included within this section of the site, to compensate for the loss of two oak trees and a short section of isolated hedging, and for the ecological enhancement of this section of the site. See Landscape Masterplan in Appendix C.

Enhancement

Additional ecological enhancement of this area of the site will include:

- An overall increase in green space / soft landscaping (which also goes towards offsetting the increase in hard cover within the northern section of the site).
- The provision of a new mixed native species hedgerow along the southern and western boundary of the site.
- An area of grassland seeded with WFG18 Butterfly and Honeybee mix adjacent to new hedge and tree planting.

Hard and Soft Landscape Proposals (dated 10 October 2025) in Appendix C for further detail.

3.3 Landscape Bund

Existing Status

- 3.3.1 Land to the south of the site, between the southern extent of the farmyard and the northern bank of Sumner Lake (a fishing lake), comprises an area of soft landscaping (thought to have been created using the spoil from the adjacent lake) to create an earth screening bund that has been planted with evergreen hedging. It is proposed to redevelop this area to provide additional parking.
- 3.3.2 The cafe, 'The Cafe by the Lake', together with the adjacent lawn and outdoor seating area to the south of the bund, adjacent to the northern bank of the lake, lies outside the site boundary, and will be retained as existing.
- 3.3.3 To the east of this area is a residential dwelling and garden. A number of mature trees including oak and willow, considered likely to be of ecological value to the site, are located along the boundaries of the garden with the site, including a large standing dead tree (oak) located to the northeast of the dwelling. These trees are to be retained and protected under the proposed development scheme.

Mitigation and Enhancement

- 3.3.4 The proposed development will include landscaping works, comprising the removal of excess soil to level the area and the removal of the evergreen hedge. Soil treatment measures are as set out in section 6.2 below. Compensation for the loss of the evergreen hedge is to comprise new shrub and tree planting in the area surrounding and dividing the new parking bays. This is to include a mixed native species hedgerow along the southern boundary of the site. See Hard and Soft Landscape Proposals (dated 10 October 2025) in Appendix C for further detail.

4. PROTECTED SPECIES

The Preliminary Ecological Appraisal identified habitat within and adjacent to the site with the potential to support nesting birds, bats, amphibians, reptiles and hazel dormice. Further protected species surveying was carried out in relation to these species and outline mitigation measures were put forward within the respective reports (please refer).

4.1 Nesting Birds

Existing Status

- 4.1.1 Species of birds noted nesting within the buildings on site during the nesting season of 2021 included house sparrows, pied wagtails, doves and pigeons. It is also considered possible that other bird species may also use the buildings and the mature trees along the boundaries of the yard for nesting.
- 4.1.2 Other habitat, including the hedgerows along the northern field boundary, which may be used by nesting birds are to be retained and protected.

Mitigation

- 4.1.3 Demolition of the existing barns, tree and shrub clearance should, ideally, be undertaken outside of the bird nesting season (February to August) in order to minimise the potential risk to nesting birds. However, the timing of clearance works will be subject to a number of factors which may prevent the achievement of this timing. Where it is not possible to commence site clearance outside of the nesting season the buildings and vegetation will be checked, immediately prior to clearance, for signs of nesting birds. If nesting birds are identified at any time during site clearance and or development, works likely to affect the birds, their eggs/young and their nest will be delayed until all chicks have fledged.
- 4.1.4 Compensation for the loss of nesting opportunities within the farming barns is to be provided on site. This is to include the provision of nesting boxes suited to house sparrows and pied wagtails (as noted nesting within the site) and other species, to be secured at high level, below the eaves, of the new commercial units to the south of the site.

Enhancement

- 4.1.5 Bird nesting boxes, designed for woodland and garden birds, are to be secured to the retained mature trees within the site. These are to include:
 - 3 boxes with a 28 mm diameter hole
 - 3 boxes with a 32 mm diameter hole
 - 3 open fronted bird boxes

4.2 Bats

Existing Status

- 4.2.1 There are records of the presence of (up to) six bat species within 1 km of the site (as held by SxBRC). A total of four bat species, including Nathusius' pipistrelle, soprano pipistrelle, common pipistrelle and noctule were recorded within and near to the site during the survey season in 2021.
- 4.2.2 Bat surveying completed at the site during the active season in 2021 found that small numbers of bats, of two common species, regularly forage and commute around the buildings, but none of the buildings within the site were found to be used for roosting.
- 4.2.3 The mature oak trees adjacent to the southeast corner of the site are considered to have some roosting potential for bats. These trees are to be retained and protected under the current proposal. The hedgerows along the north, east and west boundaries of the field to the north of the site are also considered to offer commuting potential for bats through the area. These hedgerows are also to be retained, but proposed development adjacent to these habitat features has the potential to reduce their use (for which mitigation is set out below).

Mitigation

- 4.2.4 The existing hedgerows along the north, east and west boundaries of the northern field are to be retained and appropriately maintained in the long-term, and new hedging is to be provided within the southern section of the site, in order to provide continued connectivity and foraging potential for bats across the site.
- 4.2.5 Lighting of bat migratory/commuting routes and foraging habitat can have significant impacts on bat populations. A lighting plan which avoids / minimises light spill from the development onto site boundary vegetation is to be designed and installed as part of the site's redevelopment.

Enhancement

- 4.2.6 The southern section of the site is likely to support a low abundance of invertebrates (bats food source) at the current time due to a lack of vegetation within this section of the site. The site is to be enhanced for bats (and other species), through the provision of new, ecologically valuable, planting including new mixed, native species, hedging and the provision of new planting beds between the buildings and parking areas, together with an area of new Butterfly and Honeybee grassland.
- 4.2.7 Purpose-made bat roosting units, designed for crevice dwelling bats (including pipistrelle species recorded using the site) are to be installed into the walls of the new buildings within the site. This will provide long-term roosting opportunities for bats within the site, which are currently limited.
- 4.2.8 Good quality bat boxes (3 minimum) are also to be provided within the site, installed on the mature trees and/or buildings within the site.

4.3 Great Crested Newts

Existing Status

- 4.3.1 There are six ponds within 500 m of the site, most of these are relatively new and large fishing lakes considered unsuitable for Great Crested Newt (GCN) breeding. Three ponds were identified for more detailed assessment and eDNA sampling. The water bodies were found to provide 'poor suitability' for GCN and eDNA test results were negative for the presence of GCN. For full details please refer to the Great Crested Newt and Reptile Survey report (July 2021).

Mitigation

- 4.3.2 In this case, no mitigation measures are recommended in relation to GCN. However, the site has been confirmed to support other amphibian species (common toad) for which mitigation and enhancement measure are given in section 5.2 below.

Enhancement

- 4.3.3 A swale (low lying vegetated depression likely to hold water at some times of the year and during storm events) is to be created within the northern section of the site, and new areas of grassland including an area of Butterfly and Honeybee Mix to be maintained at a longer sward length supporting invertebrates (amphibian food source).

4.4 Reptiles

Existing Status

- 4.4.1 A small-sized breeding population of slow-worm has been recorded around the northern site boundary (with a peak count of three adult slow-worms) together with a single adult and two juvenile grass snake sightings (suggesting breeding within the vicinity of the site). For full details please refer to the Great Crested Newt and Reptile Survey report (July 2021).
- 4.4.2 Mitigation is to be implemented, as detailed below, to prevent harm to reptiles (and amphibians) and to retain and enhance the site for slow-worm and grass snakes as part of the site's redevelopment.

Mitigation

- 4.4.3 Mitigation and enhancement of the site for reptiles is to include the retention of the existing hedgerows and the drainage ditch along the western boundary of the northern field, and creation of new sections of hedgerows within the site to provide cover, foraging potential and connectivity (dispersal routes) across the site.
- 4.4.4 The existing hedgerow and drainage ditch are to be protected with the use of Heras exclusion fencing, parallel to which, reptile (and amphibian) exclusion fencing is to be installed for the duration of the development, to prevent reptiles (and amphibians) entering the construction zone.

- ### Enhancement

- ## 4.5 Hazel Dormice

- 4.6.3 During the redevelopment of the site, excavations will be covered over night or, where they are too large to be safely covered, provision for escape will be provided (for example in the form of a sloping edge or ramp).

4.7 Hedgehogs

Existing Status

- 4.7.1 Hedgehogs (a BAP Priority Species) are considered likely to use the site. The existing site boundary hedgerows are considered likely to provide foraging habitat and connectivity across the site for this species.

Mitigation

- 4.7.2 The hedgerows along the boundaries of the northern field are to be retained and maintained in a condition suitable to support hedgehogs (and other species) in the long-term.
- 4.7.3 Gaps (measuring 100 mm x 100 mm) are to be provided within all new fencing gravel boards to permit access across and around the site for hedgehogs.

Enhancement

- 4.7.4 New sections of mixed, native species hedgerows have been included within the site layout to improve connectivity along the western and southern boundaries of the southern section of the site. New shrub beds have been included across the site, increasing shelter and foraging potential for this species.

5. OTHER PROTECTION & ENHANCEMENT MEASURES

5.1 Invertebrates

Existing Status

- 5.1.1 The southern section of the site presently includes very little vegetation likely to attract invertebrates to this section of the site.

Enhancement

- 5.1.2 Enhancement of the site for invertebrates is to include the provision of an area of Butterfly and Honeybee grassland (WFG18 seed mix), together with planting beds around the buildings and parking areas within the southern section of the site. The planting beds are to include a variety of flowering shrubs and trees likely to attract invertebrates. Other new planting is to include new hedgerows along the western and southern site boundaries of the southern section of the site, comprising a mix of native species.
- 5.1.3 These measures are considered likely to improve habitat within the site to encourage a greater diversity, and to support a great number, of invertebrates within the site. This, in turn, will improve the site for other species aiding net gain.

5.2 Amphibians

Existing Status

- 5.2.1 Common toad (a UK BAP Priority Species) are known to use the site. The proposed redevelopment of the site will impact terrestrial habitat used by this species.

Mitigation and Enhancement

- 5.2.2 Mitigation and enhancement of the site for amphibians is to include the retention of the existing hedgerows and the drainage ditch along the western boundary of the northern field, and creation of new sections of hedgerows within the site to provide cover, foraging potential and connectivity (dispersal routes) across the site.
- 5.2.3 The existing hedgerow and ditch are to be protected with the use of Heras exclusion fencing. Parallel to which, reptile and amphibian exclusion fencing is to be installed for the duration of the development, to prevent reptiles and amphibians entering the construction zone.
- 5.2.4 Enhancement is to be provided through the addition of a new vegetated swale and Butterfly and Honeybee grassland (to be managed with a longer sward length) designed to improve habitat diversity within the site.

5.3 Non-native Invasive Species

Existing Status

- 5.3.1 No non-native invasive species have been identified within the site.

Mitigation and Enhancement

- 5.3.2 No non-native invasive species are to be included within the planting schedule and all reasonable measures to prevent the introduction of such species will be undertaken during the site's redevelopment. This includes ensuring machinery is clean (free of soil and plant material) before it is brought onto site, and cleaned before leaving the site (to prevent accidental spread of plant material). In addition to this, all imported soils are to be free from invasive plant material and from a reputable source.

6. SUSTAINABILITY MEASURES

6.1 Private Gardens

Water butts are to be provided within each of the private gardens, connected to the roofing down pipes, to collect rainwater for watering garden plants and lawns.

6.2 Soil Management

Topsoil is to be stripped and retained on site for reuse on site where possible as part of the site's redevelopment.

7. CONCLUSIONS

- 7.1 The site presently comprises three distinct habitats: an undeveloped field to the north with varying sward length, some encroaching scrub and boundary hedgerows; an area developed with barns of mixed construction (steel/concrete frame buildings with concrete block walls, fibre and corrugated metal cladding) used for mixed commercial and agricultural use; and a landscaped bund with access track, short amenity grassland and a short section of conifer hedge.
- 7.2 Under the current development proposal, the northern field will be developed for residential use. This will decrease the area of green space within this section of the site, but the key features of this habitat (i.e. the site boundary hedgerows and the drainage ditch) will be retained and protected. Mitigation is offered through new planting in and around the buildings and hard standing, including planting beds, a communal green and tree planting. Enhancement within this section of the site will be provided with the addition of a new habitat to include a swale planted with meadow mixture for wetlands within the central green.
- 7.3 The southern section of the site will be redeveloped to include both residential and commercial buildings with associated gardens, access and parking. The redevelopment of this section of the site will result in the loss of some bird nesting potential, two oak trees and a short section of hedging. However, the redevelopment of this section of the site will allow for an overall increase in green space and plant diversity, with improved connectivity delivered through new mixed, native species hedgerows along the western and southern boundaries, and an area of Butterfly and Honeybee grassland (to be managed with a taller sward).
- 7.4 Overall, the redevelopment of the site is not considered likely to have a negative impact on rare and/or protected species and may deliver biodiversity net gains through improved connectivity (new hedgerows), new habitats (swales and grassland) and the provision of features designed for notable and protected species.

☆☆☆☆☆☆☆☆

APPENDIX A

Site Location and Existing Site Plans



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Scale 1:25000

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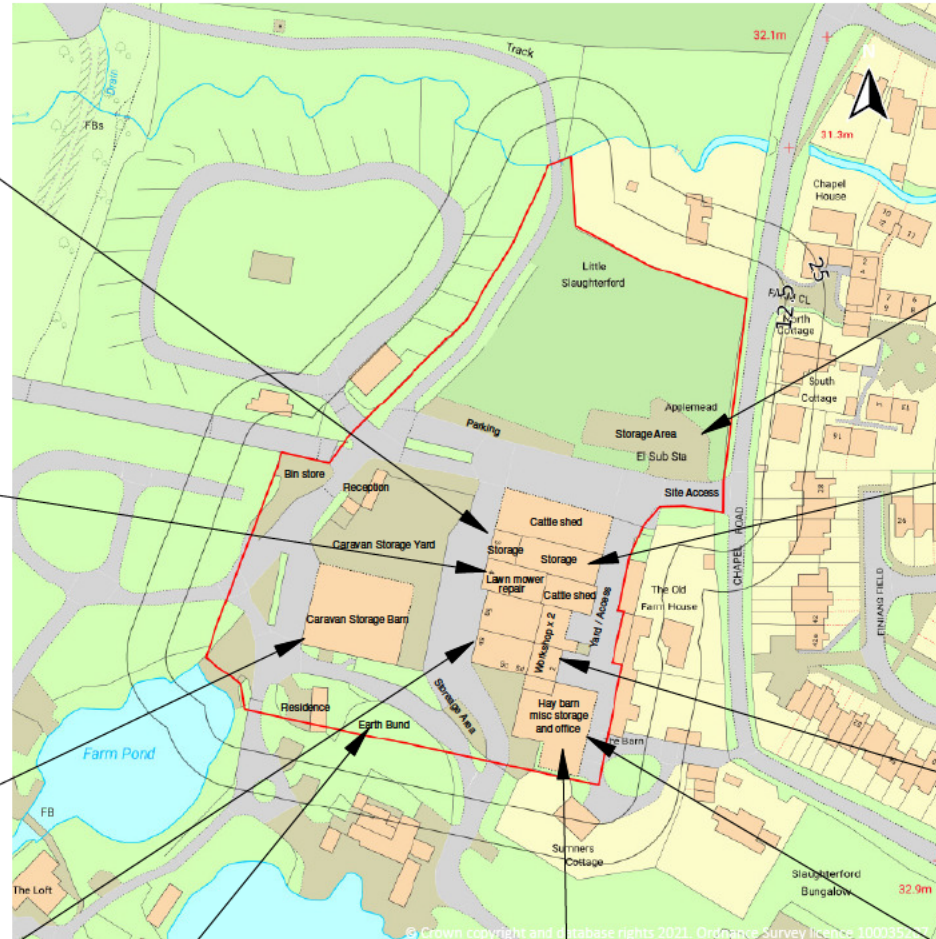


SUMNERS PONDS, BARNs GREEN, WEST SUSSEX, RH13 0PR

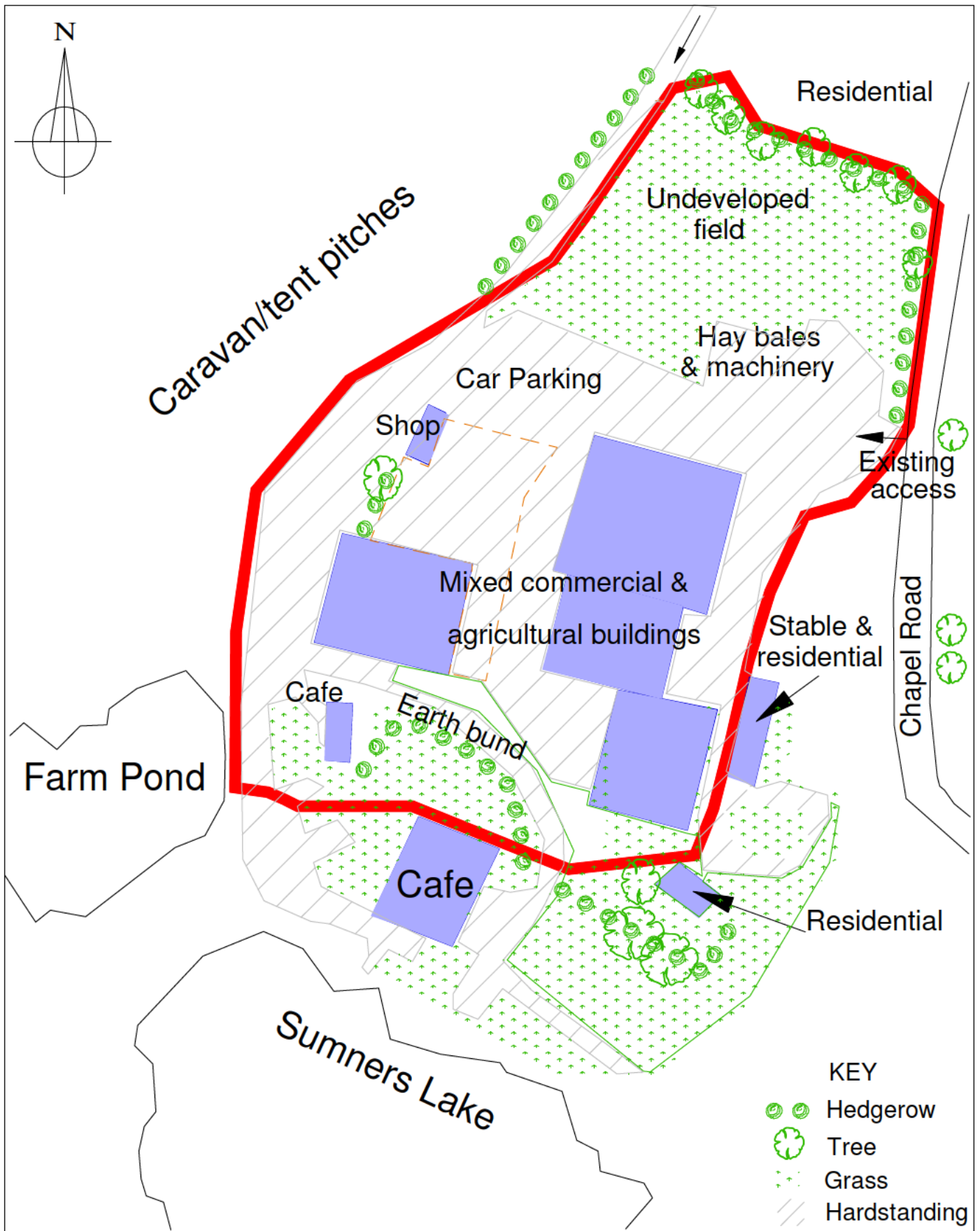
Figure 1: Site Location

February 2021

THE HUNTER GROUP
SUMNERS POND, CHAPEL ROAD, BARNS GREEN, RH13 0PR
Existing Site Layout



APPENDIX B **(Existing) Habitat Plan**



APPENDIX C
Hard and Soft Landscape Proposals (updated 10 October 2025)



Legend

Existing trees and vegetation to be retained and protected during construction

Proposed tree planting within soft landscape. See detail

Proposed decorative hedge planting to be planted as specified

Proposed mixed species hedgerow planted in percentages specified in species groups of 5-7 in double staggered rows. Where specified within existing vegetation, to be planted to infill and strengthen

Proposed mixed shrub planting area receive 75mm bark mulch after planting operations. Species to be planted in groups of 5-7.

Proposed shrub planting to receive 75mm bark mulch after planting operations

Proposed grass areas to receive good quality amenity grass turves laid in line with good horticultural practices

Proposed grassland areas, to be seeded with A4 Low Maintenance Areas grass seed mix as supplied by Germinal and sown at 35g/m2, or similar

Proposed area to be seeded with WFG18 Butterfly and Honeybee mix as supplied by Germinal and sown at 5g/m2, or similar

Proposed area to be seeded with WFG8 Hedgerows and Shaded Areas mix as supplied by Germinal and sown at 5g/m2, or similar

Proposed grassland areas, to be seeded with EM8 Meadow Mixture For Wetlands mix as supplied by Emorsgate and sown at 4 grams per msq, or similar and approved

Rear garden area

Marshalls Charcoal 80mm impermeable block paving or similar

Marshalls Pennant Grey 60mm impermeable block paving or similar

Bitmac laid in line with engineers specification

Marshalls Pendle paving 450mm x 450mm, charcoal or natural or similar

Approximate route of root protection barrier - ReRoot 2000 or similar and to be used as needed

Approximate route of tree protection fencing

Location of underground drainage to be read alongside drainage plans

N.B. To be read alongside engineering and ecology plans

Planting Schedule and Tree Pit Detail shown on Sheet 2

NOTES:

Do not scale from drawing

Not for construction, for planning purposes only

SPECIFICATION

All works are to comply with the written Soft Landscape Specification.

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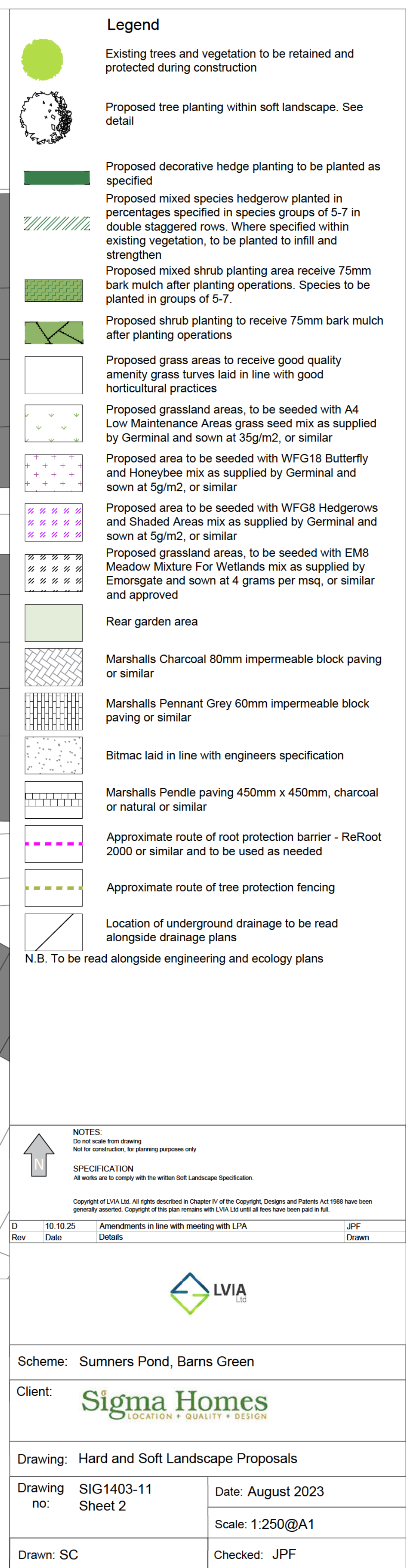
D	10.10.25	Amendments in line with meeting with LPA	JPF
Rev	Date	Details	Drawn

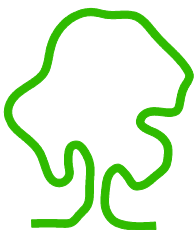
Scheme: Sumners Pond, Barns Green

Client: **Sigma Homes**
LOCATION • QUALITY • DESIGN

Drawing: Hard and Soft Landscape Proposals

Drawing no:	SIG1403-11 Sheet 1	Date: August 2023
		Scale: 1:250@A1
Drawn: SC		Checked: JPF





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