

Preliminary Ecological Appraisal & Biodiversity Metric Assessment

Land at Chicklade Service Station
Chicklade
Wiltshire
SP3 5SS



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1.1 Site Description and Proposal

It is proposed to develop a solar farm to facilitate an EV Charging hub at Land at Chicklade Service Station, Chicklade, Wiltshire, SP3 5SS, with associated landscaping.

1.2 Survey Results

The site habitats have the potential to support common amphibians, foraging & commuting bats, badgers, birds, dormouse, hedgehog, invertebrates and other mammals.

1.3 Impacts

It is proposed to develop a solar farm to facilitate an EV charging hub, with associated landscaping and localised ground disturbance to provide access and infrastructure. This will remove a limited extent of hedgerow for an access gate, extents of non-cereal crop land, arable field margins and bare ground. No introduction of lighting is proposed for the development.

The works could initially negatively impact common amphibians, foraging & commuting bats, badgers, birds, dormouse, hedgehog, invertebrates and other mammals, which may be present on site. However, given the low ecological value of the baseline habitat, the retention of the majority of the hedgerows, and its replacement with higher-quality habitats, any impacts are expected to be minor.

1.4 Recommendations

Mitigation, compensation and enhancement measures are detailed in Section 6.

1.5 Biodiversity Net Gain Assessment

The Biodiversity Metric Assessment demonstrates that the proposal will result in a net gain of 38.87 area habitat units (150.18% gain), delivered through the creation of other neutral grassland, traditional orchards, lowland mixed deciduous woodland and modified grassland. In addition, a net gain of 5.40 hedgerow units (91.11% gain) will be achieved through the creation of hedgerows and enhancement of hedgerows on site.

With the proposed habitat creation, the development currently achieves the minimum legal requirement of +10% for area and hedgerow habitat biodiversity units.

1.6 Conclusion

The Biodiversity Metric Assessment (BMA) results in an 150.18% gain for area habitats and a 91.11% gain for hedgerow habitats, with mitigation, compensation and enhancement measures provided for protected species. Consequently, the development is considered to demonstrate a positive biodiversity impact at the site level.

2.1 Site Location & Description

The site is located within a rural agricultural landscape near Chicklade, Wiltshire. The site consisted of large arable fields bound by hedgerows. The A303 forms the southern site boundary, and land use in the surrounding area is predominantly agricultural, with occasional farmsteads and small, dispersed residential properties (see Figure 2.1). An EV charging station is already under construction at the southeastern extent of the site.

2.2 Proposal

It is proposed to develop a solar farm to facilitate an EV Charging hub at Land at Chicklade Service Station, Chicklade, Wiltshire, SP3 5SS, with associated landscaping.

2.3 Survey Objectives

The Preliminary Ecological Appraisal (PEA) was undertaken to consider and assess the perceived ecological impacts associated with the proposal, including any perceived impacts to:

- Legally protected species or species of conservation concern;
- Legally protected habitats or habitats of conservation concern;
- Any statutory or non-statutory sites of conservation interest; and,
- Opportunities to provide biodiversity enhancement(s).



Figure 2.1. Proposed area for works (outlined in red) at Chicklade Service station

3.1 Preliminary Ecological Appraisal

3.1.1 Scope of the Assessment

The zone of influence covers the extent of the site, the site boundaries, and areas directly adjacent to the site. The assessment considers designated sites, habitats and species of importance for biodiversity conservation and protected species.

3.1.2 Desk Study

A desk study was undertaken for the site and its surroundings including:

- Review of the Government's (DEFRA) mapping website MAGIC (www.magic.gov.uk);
- Review of the Government's Natural England Open Data Geoportal website (<https://naturalengland-defra.opendata.arcgis.com/>); and,
- Data purchased from Wiltshire Biodiversity Records Centre (WBRC).

Review of the ecological data included a search of:

- International & European designated sites (Natura 2000 sites¹) –within a 10 km radius of the site;
- Statutory designated sites (e.g. Sites of Special Scientific Interest (SSSIs)) within a 1 km radius of the site;
- Non-statutory designated sites (e.g. Local Wildlife Sites (LWS)) designated for wildlife conservation within a 1 km radius of the site;
- Priority habitats – within a 1 km of the site;
- Protected species licence records issued by Natural England since 2009 – within 4 km of the site;
- Great crested newt pond survey records within 1 km of the site; and,
- Location of the site within any consultation zones designated for protected species.

¹ Natura 2000 is a European Union-wide network of nature conservation sites established under the EC Habitats and Birds Directives comprising Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

WBRC

Data purchased from WBRC included statutory and non-statutory sites, priority habitats and records of protected and designated species within the survey area and within 1 km of the survey area boundaries. Species records are also largely obtained as incidental recordings and subsequently an absence of any specific species does not consequently indicate an absence of a species.

3.1.3 Field Survey

The field survey consisted of a walkover assessment of all areas of the site using the UK Habitat Classification System methodology (UKHab, 2023). This is a standard technique designed for classifying and mapping British habitats.

Each habitat was assigned the appropriate alphanumeric code followed by any relevant secondary codes in accordance with UKHab Category Definitions V2.0 (UKHab Ltd., 2023). These codes are shown on the UK Habitat Classification Map (Appendix 1). Apart from buildings, habitat areas below the minimum mappable unit of 25 m² will be denoted by target notes and secondary codes. Target notes are used to indicate specific features, important habitats and/or field signs. An indicative list of observed plant species was compiled with the common name used in the main body of the report, and both the common and scientific names provided within Appendix 2.

The site survey was undertaken on the 3rd December 2025 by William Clovis-Corbett. All areas within the site were surveyed and assessed for indicators of ecological value, including the presence or signs of any protected or rare habitats and species.

3.2 Biodiversity Metric Assessment

For each site habitat feature identified within the Defra Statutory Biodiversity Metric (2024), the metric records:

- Habitat type;
- Area or length;
- Distinctiveness;
- Strategic significance; and,
- Connectivity.

From the recorded parameters, the metric calculates:

- 'Habitat units' for area habitats (e.g. grassland, woodland etc.);
- 'Hedgerow units' for hedges and lines of trees; and,

- 'River units' for rivers and streams.

The habitat values assigned to created and enhanced habitats include factors associated with 'risk' relating to the difficulty and/or time required to establish the new habitat type.

The following were used for the calculation of the parameters, pre and post, development (Statutory Metric, version 1.0.4 03/07/2025):

- The site visit undertaken on 3rd December 2025;
- Proposed plans; and,
- Desk study results.

4.1 Desk Study

4.1.1 Statutory Designated Sites

Statutory Sites of Nature Conservation Interest (International Importance)

The desk study identified two sites of international importance within 10 km of the site as described in Table 4.1.

Table 4.1. Statutory sites with international designation within 10 km of the site boundaries

Ecological Feature	Site Type	Importance	Summary	Distance
Chilmark Quarries	Special Areas of Conservation (SAC)	International	Significant due to providing suitable hibernation conditions for numbers of greater horseshoe, lesser horseshoe, barbastelle and Bechstein's bats.	~4 km southeast
River Avon	SAC	International	Significant due to water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation. As well as species such as Desmoulin's whorl snail, sea lamprey, brook lamprey, Atlantic salmon and bullhead.	~7 km east

Statutory Sites of Nature Conservation Interest (National Importance)

There were no statutory sites designated for nature conservation of national importance within 1 km of the site.

4.1.2 Non-statutory Designated Sites

The desk study identified one non-statutory designated site within 1 km of the site as described in Table 4.2.

Table 4.2. Statutory sites with local designation within 1 km of the site boundaries

Ecological Feature	Site Type	Importance	Summary	Distance
Cratt Hill Down	Local Wildlife Sites (LWS)	Local	A gently undulating chalk site with unimproved calcareous grassland, improved grassland and mature scrub.	~230 m northeast

4.1.3 Priority Habitats

The desk study identified areas of deciduous woodland and lowland calcareous grassland within 1 km of the site. The closest priority habitat was an area of deciduous woodland, which was located 5 m west of the survey site.

4.1.4 European Protected Species Licences (EPSLs)

Bats

The desk study identified three EPSLs for common pipistrelle, soprano pipistrelle, brown long-eared bat, serotine, lesser horseshoe and greater horseshoe granted within 4 km of the site. The nearest of which was located approximately 1.9 km south of the site, consisting of a licence for brown long-eared bat, serotine, lesser horseshoe and greater horseshoe allowing the destruction of a resting place.

Dormouse

The desk study identified no EPSLs granted for dormouse within 4 km of the site.

Great Crested Newt

The desk-based review identified no EPSLs or survey licence returns for great crested newt within 4 km of the site.

4.1.5 Consultation Zones

GCN Impact zones

The desk study identified that the site is situated within a 'Green Zone' for great crested newts. The designation of this zone indicates that the area is less likely to contain important pathways of connecting habitat for this species.

Chilmark Bat SAC consultation zone

The desk study identified that the site lies outside the Chilmark Quarries Special Area of Conservation (SAC) but within the associated bat consultation zone. This SAC is designated for its importance to greater horseshoe, lesser horseshoe, barbastelle and Bechstein's bat populations.

4.1.6 Area of Outstanding Natural Beauty

Cranborne Chase & West Wiltshire Downs

The desk-based review identified that the site is located within the Cranborne Chase & West Wiltshire Downs Area of Outstanding Natural Beauty (AONB).

4.2 Field Survey

The survey was undertaken in dry, cold weather as shown below in Table 4.3.

Table 4.3. Environmental conditions

Date	Temperature (°C)	Wind Speed (Beaufort Scale)	Cloud cover (%)	Precipitation
3 rd Dec 2025	0	1	10	None

Constraints:

The PEA records the plant species present at the time of the survey; therefore, plants that appear during various times of the year may not be recorded. Botanical diversity was considered sufficient to classify and assess the habitats present.

4.2.1 Habitats

The survey site consisted of areas of non-cereal crops (c1d), tussocky arable field margins (c1a5), bare ground (u1c) and native hedgerows (h2a). An annotated habitat map is provided in Appendix 1.

Non-cereal crops (c1d) – A1

Parcel A1 consisted of a non-cereal crop under regular agricultural management (Figures 4.1 & 4.2), dominated by cultivated crop cover (Brassica species) with limited non-crop species present. Vegetation structure was uniform and low, reflecting the active management regime and limited botanical diversity.



Figure 4.1. Northeastern extent of A1 (facing south)



Figure 4.2. Close-up view of non-cereal crop vegetation within Parcel A1

Arable field margins tussocky (c1a5) – A2

Parcel A2 comprised a linear arable field margin located along the eastern extent of the site, adjacent to an access path (Figures 4.3 & 4.4). The margin supported a tussocky and structurally diverse sward. Species identified included spear thistle, teasel, broad-leaved dock, curled dock, chicory, cock's-foot, false oat-grass, cleavers, common nettle, ribwort plantain, brassica species, creeping bent, common dandelion, wild carrot, dove's-foot crane's-bill and fennel.



Figure 4.3. Field margin on east extent of site (facing south)



Figure 4.4. Field margin on east extent of site (facing northeast)

Parcels A3 non-cereal crops (c1d) & A4 bare ground (u1)

Parcels A3 non-cereal crops (c1d) & A4 bare ground (u1) formed the southern access route to the site. Parcel A4 was currently under construction as part of a development for an EV charging station to the south of the site.

Native hedgerow with trees (h2a) – H1

H1 consisted of a native hedgerow and formed the southern site boundary (Figure 4.5). H1 measured 2-4 m in width and 2-6 m in height. Wooded species present included hawthorn, blackthorn, dog rose, elder, spindle, snowberry and privet. Ground flora species present included ivy, common nettle, cock's-foot, Yorkshire fog, bramble, cow parsley, black mustard, spear thistle, hedge bedstraw, ribwort plantain and hedge bindweed. H1 was classified as in moderate condition due to the presence of canopy gaps and limited undisturbed ground along its length, despite being of desirable width and height.



Figure 4.5. H1 on southern site boundary (facing west)

Newly planted native hedgerow (h2a) – H2

H2 comprised a newly planted native hedgerow forming the southern, western and northern site boundaries, with individual plants protected by tree guards (Figures 4.6 & 4.7). The hedgerow was in the early establishment phase, with plants measuring approximately 30–40 cm in height at the time of survey. Species present included hawthorn, blackthorn, dog rose, elder, field maple and bramble. The hedgerow was classified as in moderate condition due to continuous cover and the lack of with and depth in development.



Figure 4.6. H2 on the southwestern site boundaries (facing northwest)



Figure 4.7. Close-up view of newly planted H2 with protective guards

Native Hedgerow (h2a) – H3

H3 consisted of a native hedgerow and formed the eastern site boundary with some newly planted sections (Figure 4.8). H3 measured 2-4 m in width and 2-6 m in height. Wooded species present included hawthorn, blackthorn, field maple, holly, elder and spindle. Ground flora species present included old man's beard, hedge bedstraw, cow parsley, common nettle and fescue sp. H3 was classified as in moderate condition due

to the presence of canopy gaps, and areas of disturbance with limited undisturbed ground.



Figure 4.8. H3 on eastern site boundary (facing southeast)

4.3 Habitat Suitability & Protected Species Surveys

4.3.1 Amphibians

The arable field margins within the site provide limited suitability for amphibians, offering only general dispersal habitat due to the actively managed, open nature of the site and limited availability of suitable terrestrial refuge. The hedgerows represented suitable habitat for the terrestrial phases of amphibians.

4.3.2 Badger

WBRC held records for badger within 1 km of the site.

There were no signs of badger noted during the surveys. However, it is considered possible that badger/s may frequent the site when dispersing and/or foraging on occasion.

4.3.3 Bats

WBRC held records for common pipistrelle, soprano pipistrelle, brown long-eared, greater horseshoe, lesser horseshoe, noctule, serotine, barbastelle, Daubenton's, whiskered, Natterer's and Leisler's within 2 km of the site.

Foraging & Commuting Bats

The non-cereal crop land provides limited suitability for bat foraging due to it being a monoculture with limited invertebrate suitability. The arable field margin and the hedgerows present across the site provide potential commuting and foraging habitat, with the hedgerows forming linear features within the wider agricultural landscape.

Roosting Bats

No potential bat roosting features were identified on site.

4.3.4 Birds

WRBC held records for red listed species such as house martin, corn bunting, yellowhammer, linnet, spotted flycatcher, wheatear, house sparrow, marsh tit, whinchat, starling, fieldfare and mistle thrush.

The hedgerows and arable field margins provide suitable nesting and foraging habitat for common farmland and hedgerow bird species. The non-cereal crop land may also provide seasonal foraging opportunities.

4.3.5 Dormouse

The hedgerows present on site represent suitable habitat for dormouse, although fragmented within the wider landscape.

4.3.6 Hedgehog

There were no signs of hedgehog noted during the surveys. However, it is considered possible that hedgehog/s may frequent the site when dispersing and/or foraging.

4.3.7 Invertebrates

The arable field margins and hedgerows provide suitable habitat for a range of common invertebrate species. The non-cereal crop land and areas of bare ground provide limited ecological value for invertebrates.

4.3.8 Reptiles

The arable field margins may provide a limited extent of habitat for reptiles, offering only general dispersal habitat due to the actively managed, open nature of the site and limited availability of suitable terrestrial refuge. The hedgerows represent suitable habitat for reptiles.

4.3.9 Other Mammals

WRBC held records for brown hare, rabbit and harvest mouse within 1 km of the site. Hedgerows and arable field margins may provide limited habitat and connectivity for these species within the wider agricultural landscape.

4.4 Biodiversity Metric Assessment

The site does not lie within Wiltshire and Swindon's Local Nature Recovery Strategy, therefore the site is considered to be of low strategic significance within the Biodiversity Metric.

The Biodiversity Metric Assessment demonstrates that the proposal will result in a net gain of 38.87 area habitat units (150.18% gain), delivered through the creation of other neutral grassland, traditional orchards, lowland mixed deciduous woodland and modified grassland. In addition, a net gain of 5.40 hedgerow units (91.11% gain) will be achieved through the creation of hedgerows and enhancement of hedgerows on site.

The baseline and proposed habitats, including habitat distinctiveness, condition, strategic significance and biodiversity units are presented in Table 4.4. Habitat area biodiversity unit change is summarised in Table 4.5. Hedgerow biodiversity unit change is summarised in Table 4.6. The baseline and proposed maps are presented in Appendix 4.

Table 4.4. Number of biodiversity units onsite at baseline. Area parcels are labelled with map reference number on the Biodiversity Metric Assessment Plans (Appendix 4).

Map ref	Habitat type	Area (ha) / length (km)	Habitat Distinctiveness	Habitat Condition	Strategic significance	Baseline biodiversity units
Area Habitats						
A1, A3	Non-cereal crops	11.7481	Low	N/A	Low	23.50
A2	Arable field margins tussocky	0.5661	Medium	N/A	Low	2.26
A4	Bare ground	0.0612	Low	Poor	Low	0.12
Total area of habitat biodiversity units						25.88
Hedges						
H1	Native hedgerow with trees	0.2595	Medium	Moderate	Low	2.08
H2	Native Hedgerow	0.8761	Low	Moderate	Low	3.50
H3	Native Hedgerow	0.0859	Low	Moderate	Low	0.34
Total area of hedgerow biodiversity units						5.92

Table 4.5. Biodiversity Metric area habitat biodiversity unit change summary

Biodiversity Unit Type	Description		Biodiversity Units
Area Habitat	On-site baseline area habitat biodiversity units		25.88
	On-site area habitat retention, creation, and enhancement of biodiversity units:		
	Retained	0.0454 ha non-cereal crops	0.09
	Created	7.7564 ha other neutral grassland 3.3487 ha modified grassland 1.0395 ha traditional orchards 0.0612 ha developed land; sealed surface 0.1242 ha lowland mixed deciduous woodland	64.66
	Enhanced	n/a	
Overall net unit change			+38.87
Overall on-site net % change			150.18%
Trading rules satisfied			Yes

Table 4.6. Hedgerows Biodiversity Unit Change Summary

Biodiversity Unit Type	Description		Biodiversity Units
Hedgerows	On-site baseline hedgerow biodiversity units		5.92
	On-site area habitat retention, creation and enhancement units:		
	Retained	0.2541 km native hedgerow with trees in moderate condition 0.8761 km native hedgerow in moderate condition	5.54
	Created	0.4109 km species-rich native hedgerow with trees 0.225 km species-rich native hedgerow	4.96
	Enhanced	0.0859 km native hedgerow in moderate condition to species-rich native hedgerow with trees	0.82
Overall net unit change			+5.40
Overall on-site net % change			91.11 %
Trading rules satisfied			Yes

5.1 Proposed Development

It is proposed to develop a solar farm to facilitate an EV Charging hub at Land at Chicklade Service Station, Chicklade, Wiltshire, SP3 5SS, with associated landscaping.

5.2 Designated Sites

5.2.1 Statutory Designated Sites

Statutory Sites of Nature Conservation Interest (International Importance)

The data search identified two sites within 10 km of the site.

Statutory Sites of Nature Conservation Interest (National Importance)

The data search identified no sites within 1 km of the site.

There are no perceived impacts to the statutory designated sites identified within the desk study area, due to the intervening distances and character of the designated sites. Please see the related Section 5.5 regarding bats and the bat consultation zone relating to the Chilmark Quarries SAC.

5.2.2 Non-statutory Designated Sites

Cratt Hill Down LWS

Cratt Hill Down is located 230 m to the northeast of the surveyed field. This site is designated through providing a gently undulating chalk site with unimproved calcareous grassland, improved grassland and mature scrub.

There are no perceived impacts to the habitats of this site identified within the desk study, due to the intervening distance and character of the designated site.

5.2.2 Priority Habitats

The desk study identified areas of deciduous woodland and lowland calcareous grassland within 1 km of the site. The closest priority habitat was deciduous woodland, which was located 5 m west of the survey site.

It is understood that lighting will not be introduced as part of the development, so no impacts on the adjacent priority habitat woodland are perceived.

5.3 Amphibians

The arable field margins within the site provide limited suitability for amphibians, offering only general dispersal habitat due to the actively managed, open nature of the site and limited availability of suitable terrestrial refuge. The hedgerows represent suitable habitat for the terrestrial phases of amphibians.

5.3.1 Common Amphibians

Common amphibians, such as common frog, common toad and smooth newt are less dependent on established ponds and have a widespread distribution.

The arable field margins within the site provide limited suitability for amphibians, offering only general dispersal habitat due to the actively managed, open nature of the site and limited availability of suitable terrestrial refuge.

Common toad is listed within Section 41 of the Natural Environment and Rural Communities Act (NERC, 2006) and must be considered through the planning process. Public bodies, including LPAs, are minded to ensure due regard to the conservation of biodiversity of such species. Such considerations may seek to protect, re-establish or create habitat suitable for amphibian's post development.

The proposed development will result in localised ground disturbance associated with the installation of a solar farm and EV charging infrastructure and a limited extent of hedgerow to be removed for an access gate. While the site provides limited suitability for amphibians, precautionary and mitigation measures will be implemented during construction and the landscaping of the site to avoid harm or injury and increase opportunities post-development, these are detailed in Section 6.

5.3.2 Great Crested Newt

The desk-based review identified no EPSLs or survey licence returns for great crested newt within 4 km of the site. The desk study also identified that the site is situated within a 'Green Zone' for great crested newts. The designation of this zone indicates that the area is less likely to contain important pathways of connecting habitat for this species. No ponds were also identified within 1 km of the site.

Due to the lack of records and aquatic breeding habitat for great crested newts nearby, it is considered that they are absent from the site.

5.4 Badger

WBRC held records for badger within 1 km of the site.

There were no signs of badger noted during the surveys. However, it is considered possible that badger/s may frequent the site when dispersing and/or foraging on occasion.

Precautionary measures should be employed to ensure no badgers are harmed or injured during the construction period of the development. These measures are detailed within Section 6.

5.5 Bats

WBRC held records for common pipistrelle, soprano pipistrelle, brown long-eared, greater horseshoe, lesser horseshoe, noctule, serotine, barbastelle, Daubenton's, whiskered, Natterer's and Leisler's within 2 km of the site.

The site is within the bat consultation zone relating to the Chilmark Quarries SAC.

5.5.1 Roosting Bats

No potential bat roosting features were identified on site.

5.5.2 Foraging & Commuting Bats

The non-cereal crop land provides limited suitability for bat foraging due to it being a monoculture with limited invertebrate suitability. The arable field margin and the hedgerows present across the site provide potential commuting and foraging habitat, with the hedgerows forming linear features within the wider agricultural landscape.

As a signatory to the Bonn Convention (Agreement on the Conservation of Bats in Europe) the UK has committed to protecting bat habitats, which necessitates the identification and protection from damage or disturbance of feeding areas and commuting routes.

There will be no lighting introduced and there will be an increase in opportunities for foraging & commuting bats associated with the habitat creation of woodland,

hedgerows, other neutral grassland and a traditional orchard as part of the development, these enhancement measures are detailed within Section 6.

5.6 Birds

WRBC held records for red listed species such as house martin, corn bunting, yellowhammer, linnet, spotted flycatcher, wheatear, house sparrow, marsh tit, whinchat, starling, fieldfare and mistle thrush.

The hedgerows and arable field margins provide suitable nesting and foraging habitat for common farmland and hedgerow bird species. The non-cereal crop land may also provide seasonal foraging opportunities.

All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981 (as amended).

It is understood that a limited extent of hedgerow for an access gate and extents of arable field margin and non-cereal crop land will be removed as part of the development. As such mitigation and compensation measures for birds will be required and are detailed in Section 6.

5.7 Dormouse

The hedgerows present on site represent suitable habitat for dormouse, although fragmented within the wider landscape.

There will be no lighting introduced and there will be an increase in opportunities for dormice associated with the habitat creation of woodland and hedgerows, detailed within Section 6. For the limited removal of an extent of hedgerow for an access gate, mitigation measures are also included within Section 6.

5.8 Hedgehog

There were no signs of hedgehog noted during the surveys. However, it is considered possible that hedgehog/s may frequent the site when dispersing and/or foraging.

Hedgehog are listed as rare and most threatened species under Section 41 of the Natural Environment and Rural Communities Act (2006) with public bodies, including LPAs, minded to ensure due regard to the conservation of biodiversity of such species.

Such considerations may seek to protect, re-establish or create habitat suitable for hedgehog post development.

Precautionary measures should be employed to ensure no hedgehogs are harmed or injured during the construction period of the development. These measures are detailed within Section 6.

5.9 Invertebrates

The arable field margins and hedgerows provide suitable habitat for a range of common invertebrate species. The non-cereal crop land and areas of bare ground provide limited ecological value for invertebrates.

The proposals consists of the development of a solar farm to facilitate an EV charging hub. The works will result in localised ground disturbance during construction, primarily within areas of non-cereal crop. The associated habitat creation as part of the landscaping will create habitat for invertebrates.

5.10 Reptiles

The arable field margins may provide a limited extent of habitat for reptiles, offering only general dispersal habitat due to the actively managed, open nature of the site and limited availability of suitable terrestrial refuge. The hedgerows represent suitable habitat for reptiles.

The proposed development will result in localised ground disturbance associated with the installation of a solar farm and EV charging infrastructure and a limited extent of hedgerow to be removed for an access gate. While the site provides limited suitability for reptiles, precautionary and mitigation measures will be implemented during construction and the landscaping of the site to avoid harm or injury and increase opportunities post-development, these are detailed in Section 6.

5.11 Other Mammals

WRBC held records for brown hare, rabbit and harvest mouse within 1 km of the site.

The hedgerows and arable field margins within the site provide limited habitat and connectivity for these species within the wider agricultural landscape. The proposed development will result in localised habitat loss and disturbance; however, given the

small scale of works and the nature of habitats affected and habitats created, impacts on these species are anticipated to be negligible.

5.12 Biodiversity Metric Assessment

The Biodiversity Metric Assessment demonstrates that the proposal will result in a net gain of 38.87 area habitat units (150.18% gain), delivered through the creation of other neutral grassland, traditional orchards, lowland mixed deciduous woodland and modified grassland. In addition, a net gain of 5.40 hedgerow units (91.11% gain) will be achieved through the creation of hedgerows and enhancement of hedgerows on site.

With the proposed habitat creation, the development currently achieves the minimum legal requirement of +10% for area and hedgerow habitat biodiversity units.

6.1 Ecological Impacts

It is proposed to develop a solar farm to facilitate an EV charging hub, with associated landscaping and localised ground disturbance to provide access and infrastructure. This will remove a limited extent of hedgerow for an access gate, extents of non-cereal crop land, arable field margins and bare ground. No introduction of lighting is proposed for the development.

The works could initially negatively impact common amphibians, foraging & commuting bats, badgers, birds, dormouse, hedgehog, invertebrates and other mammals, which may be present on site.

6.2 Avoidance/Mitigation Measures

To ensure the identified protected species are not harmed or injured during development the following measures should be undertaken for protected species (Appendix 2):

- **Retained Habitats:** Root protection areas (RPAs) of the retained hedgerows must be taken into account and buffered accordingly. This is to avoid direct damage through the compaction and disturbance of root protection areas which could cause the deterioration of the trees. Any retained trees within the hedgerows adjacent to the development will be protected with additional tree protection fencing for the duration of the proposed works and will be removed upon completion.
- **Vegetation Management:** The arable crop land and arable field margins should be maintained with a short sward height prior to and during the works to discourage amphibian and reptile colonisation.
- **Hedgerow Removal:** The limited extent of hedgerow removal for an access gate will need to be phased, sensitively timed and undertaken with ecological supervision to consider the potential presence of any amphibians, active bird nests, dormice and reptiles. Two approaches can be undertaken:
 - The removal can be undertaken in October avoiding the bird and dormouse nesting season, and the dormouse hibernation season, which extends from March – September and November – February respectively, under

supervision by an ecologist, searching for the presence of any protected species by a fingertip search.

- Alternatively, a two-stage approach can be undertaken, with vegetation above 20 cm removed first between November & February, and the remaining hedgerow below 20 cm removed between April & October under supervision by an ecologist, searching for the presence of any protected species by a fingertip search.
- **Timing of Construction Works:** All works are to be undertaken within daylight hours to ensure there is no disturbance to protected species from lighting or machinery.
- **Excavations:** Any excavations, which are to remain open overnight, should be fenced or covered to prevent any potential entrapment and/or injury of species such as badger or hedgehog.

6.3 Compensation and Enhancement Measures

Enhancement measures will be required to compensate for habitats lost and provide additional opportunities for the protected species on-site (Appendix 6). These will include:

- **Wildlife Provisions:** Three bat and three bird provisions are to be positioned upon on-site trees within the hedgerows at a minimum height of 3 m & 4 m, respectively (Appendices 7 & 8).
- **Orchard Planting:** Traditional orchard habitat will be created within the southwestern portion of the site through the planting of native fruit trees within a managed grassland sward. The orchard will comprise open-grown trees that support invertebrates, birds, amphibians, reptiles and foraging bats, with planting and long-term management undertaken in accordance with Sections 6.3.1 & 6.3.2.
- **Woodland Planting:** Lowland mixed deciduous woodland will be established along the eastern boundary of the site through the planting of native broadleaved trees. This woodland will enhance habitat connectivity and provide nesting, shelter and foraging opportunities for birds, dormice, invertebrates and bats, trees will be planted in accordance with Section 6.3.3.

- **Other Neutral Grassland:** Areas of other neutral grassland will be created across the northern and western extents of the site through the establishment of a species-rich grassland sward. The meadow will be managed to provide nectar and pollen resources for invertebrates and foraging opportunities for bats and birds, in accordance with Section 6.3.2.
- **Hedgerow Creation & Enhancement:** Native hedgerows and native hedgerows with trees will be created within the site, alongside the enhancement of existing boundary hedgerows through traditional laying and re-stocking. These works will strengthen habitat connectivity and provide valuable habitat for birds, bats and other wildlife, in accordance with Section 6.3.4.

6.3.1 Orchard Planting

Tree species to consist of native species that will provide foraging/nesting resources for birds and invertebrates.

Size: Standards, Height: 250 – 300 cm, Girth: 8 – 10 cm, Pot size: 20 L (or similar). All tree planting works and tree husbandry is to be carried out in accordance with BS 8545 2014: Trees from nursery to independence in the landscape.

All trees to be planted in pits 1 m² with depth dependent on planting stock root ball depth. The rootstock/ball to rest directly on underlying soil. Pits are to be backfilled with 80% clean topsoil and 20% approved compost to PAS100 and 100 gms granular fertiliser. Water in heavily after planting.

All trees are to be double-staked and tied (see Figure 2). Tree stakes and ties are to be removed at the end of years 3 to 5 following planting.

Trees planted in grass and shrub areas to be set within bare earth, 1 m diameter around the trunk, which is to be supplemented with approved bark mulch to depth of 75 mm after planting.

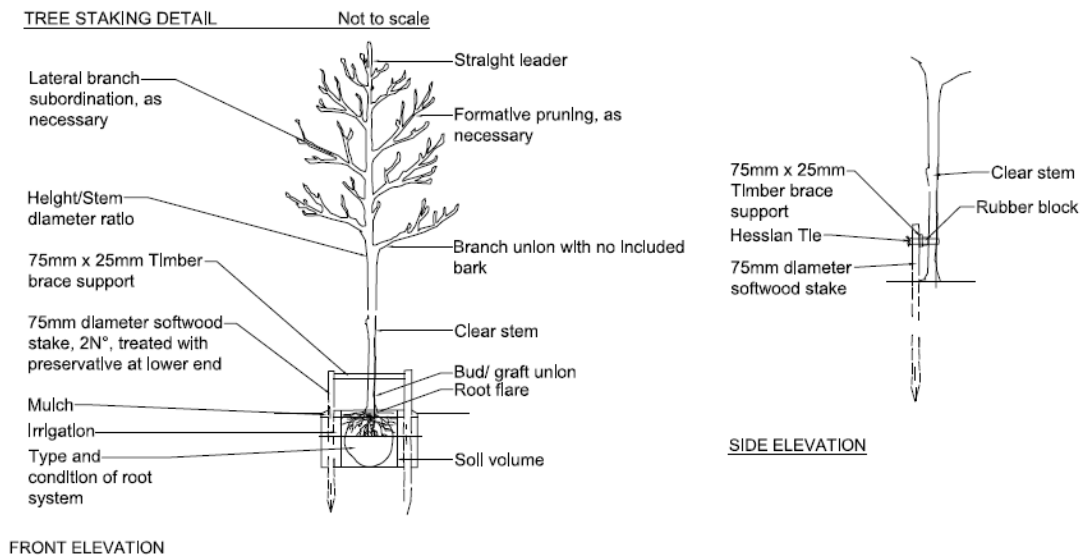


Figure 6.1. Tree Staking Detail

Management (Orchard)

Fruit trees (pip fruit e.g. apples and pears) to be shaped (formative pruning) when young (<1 year) to encourage a strong framework to bear the weight of fruit crops.

Pruning for stone fruit trees (plums and damsons) to be kept to a minimum as these trees do not respond well to pruning.

Trees to be inspected and where required maintained annually for the first 30 years, and biannually thereafter.

Pip Fruit Trees

Formative pruning – to be undertaken when <1 year old and results in a strong, evenly spaced network of branches

Structural pruning – to be undertaken when trees are dormant to remove weak, crowded and unhelpful growth. Maintains shape and increases growth.

Maintenance pruning – to be undertaken in summer to remove overcrowded and over-vigorous new growth. Increases quality of fruit through reducing the vigour of tree growth.

Restorative pruning – to be undertaken in winter and over a few years to reduce the stress on the tree. Involves reducing the height of the tree and removing heavily diseased or overcrowded growth to increase growth and/or rate of growth.

Stone Fruit Trees

Minimise pruning of stone fruit trees and only prune in summer between May and September. Remove excessive dead and damaged wood under the canopy to increase light penetration and when elderly trim the ends of horizontal branches to prevent them snapping off when brittle.

6.3.2 Seeding

Grassland to be seeded using EM6 – Meadow Mixture for Chalk and Limestone Soils from Emorsgate Seeds at a rate of 4 g per m².

Preparation and seeding are to be undertaken during spring or autumn and during suitable weather conditions (avoiding frost and/or waterlogged conditions).

The grassland areas are to be prepared as levelled soil at least 150 mm deep in accordance with BS 4428: 1989. Only machinery and tools suitable for the site conditions and work to be used. Hand tools only around trees, plants and in confined spaces. Soil to include a relatively fine tilth clear of weed species. Weed species may be removed by contact herbicide and/or physical removal.

Seed is to be surface sown and broadcast by hand, sow in overlapping sections. Seed not to be sown during persistent cold or dry winds or on waterlogged or excessively dry soils. Lightly rake immediately following scattering of seed. Seed to be firmed in with a roll, or by treading, to give good soil/seed contact

Growth/establishment to be monitored seasonally during first three years, with:

- Re-seeding of any failed areas; and,
- Hand removal of any excessive growth/spread of non-target species (such as nettles, thistle, docks etc.).

Ongoing grassland management to include:

- Bi-annual cutting in August and February/March (no shorter than approximately 75 mm) to allow the wildflowers to flower and set seed in the late spring and summer; and,

- All grass cuttings to be removed from the fields following each cut, to ensure fertility is kept to a minimum to encourage native wildflowers; and,
- Any extensive stands of vigorous undesirable plants such as nettles, thistle and docks are to be hand-pulled and removed from the fields through the spring and summer.

Monitoring/Remedial Action

During years 1 to 3, 5, 7 and 10, the grassland is to be annually inspected with any failed areas (< 80 % coverage) re-seeded with EM1 during the following autumn or spring.

Additionally, any areas with persistent non-target species, such as nettles, thistle, docks etc. (> 50 % coverage), are to be cut, scarified/re-scarified and re-seeded.

6.3.3 Tree Planting Specification

Species

Individual trees to consist of native species of local provenance that will provide habitat for a range of species.

Establishment

All tree planting works and tree husbandry is to be carried out in accordance with BS 8545 2014: Trees from nursery to independence in the landscape. All trees to be planted in pits 1 m² with depth dependent on the planting stock root ball depth. The rootstock/ball to rest directly on underlying soil. Pits to be backfilled with 80% clean topsoil and 20% approved compost to PAS100 and 100 g of granular fertiliser. Water in heavily after planting. Tree planting is to be carried out within the winter months (considered November to February inclusive).

All trees are to be double-staked and tied (see Figure 6.1). Tree stakes and ties are to be removed at the end of years 3 to 5 following planting. Trees planted in grass and shrub areas to be set within bare earth, 1 m diameter around trunk, which is to be supplemented with approved bark mulch to depth of 75 mm after planting.

Management

Trees to be inspected annually for the first 5 years, and biannually thereafter. Trees to include no or limited pruning, allowing growth in their naturally occurring shapes.

Any necessary tree works are to be carried out by an approved tree surgeon to BS 3998, with occasional intervention for:

- Crossing branches;
- Branches that grow back towards centre;
- Multiple leading stems, where single leader is desired; and,
- Closely spaced branches; and,
- Low branches or sucker/s.

Establishment maintenance for planting to be undertaken annually for the first 5 years, including watering, weed control, and replacement of any failures to original specification in the appropriate planting season following failure. During the first year after planting, it may be necessary to water during periods of prolonged periods of dry weather. In such circumstances, planting is to be watered to field saturation using clean fresh water on a weekly basis.

6.3.4 Hedgerow Creation

All hedgerow planting should be carried out in accordance with BS4428:1989, Code of practice for general landscape operations (excluding hard surfaces).

The planting area to consist of topsoil, free from undesirable plant species. All hedgerow shrubs will be bare rooted, or container grown in rigid pots, minimum size 2 L, and where planting shall be backfilled with clean topsoil and/or supplemented with woodchip mulch to depth of 75 mm. Hedgerow shrubs must not be pot-bound or waterlogged prior to planting out. Hedgerow shrubs will be planted in double line spacing 500 mm apart, with plants planted alternately, with 4 plants per metre. Hedgerow shrubs will be protected by 600 mm high tree guards supported by 900 mm high bamboo canes to prevent rabbit/deer damage.

Water as necessary to secure healthy establishment and to avoid the need for replacement due to dry periods (less than 30 mm rainfall at the end of a four-week period).

Ground Flora Seeding

The ground vegetation of the hedgerows will be over-seeded with Emorsgate Seeds EH1F (wildflowers for hedgerows mixture) 270 g (1.5 g per m²) scattered evenly along the length of the hedgerow where the ground has been disturbed. Lightly harrow or rake immediately following the scattering of seed.

Management

During the first 3 years, during winter, the hedgerow will be trimmed lightly, in order to establish and encourage dense vegetation growth.

After three years, the boundary hedgerows will be:

- Managed through traditional hedge laying/steeping once every 10 to 15 years.

Note: Hedgerow laying/steeping to only be undertaken between 31st December and 28th February.

Target hedgerow growth to be dense and continuous to grow to a minimum height and width of 3 m. At least two trees per length of existing hedgerow to be allowed to mature as standard tree. Wooded hedgerow vegetation to be allowed to overhang into gardens/field; no removal of ivy; standing or fallen deadwood to be retained (where H&S allows).

6.4 Biodiversity Net Gain Assessment

To achieve the required +10% biodiversity net gain, the landscaping proposals include on-site habitat creation and enhancement measures. The Biodiversity Metric Assessment calculated that the percentage gain for area habitats will be +150.18% (38.87 units), delivered through the creation of other neutral grassland, traditional orchards, lowland mixed deciduous woodland and modified grassland. In addition, a +91.11% gain (5.40 units) will be achieved for hedgerow habitats through the creation and enhancement of native hedgerows.

6.5 Conclusion

The Biodiversity Metric Assessment (BMA) results in an 150.18% gain for area habitats and a 91.11% gain for hedgerow habitats, with mitigation, compensation and enhancement measures provided for protected species. Consequently, the development is considered to demonstrate a positive biodiversity impact at the site level.

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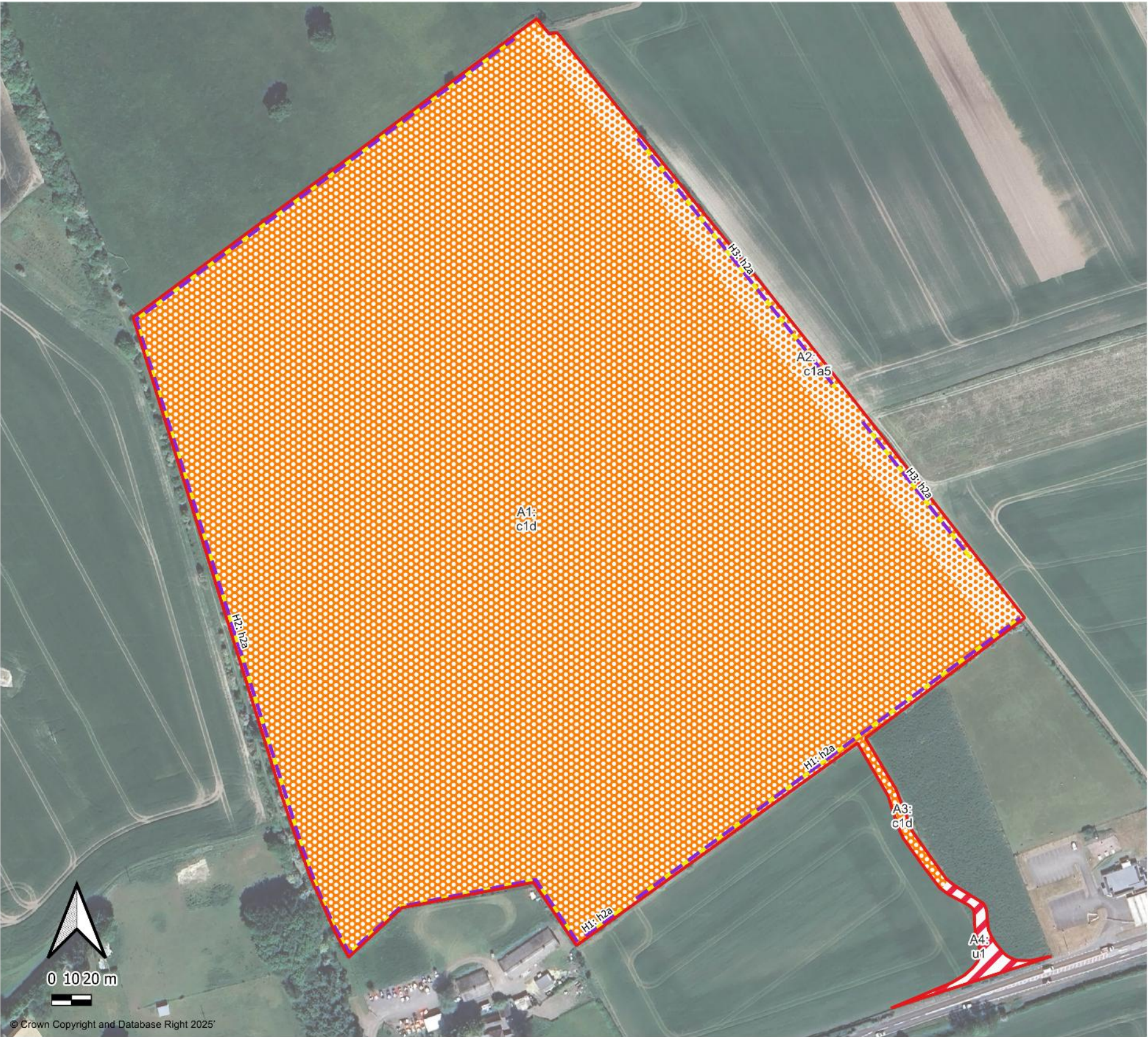
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APPENDICES

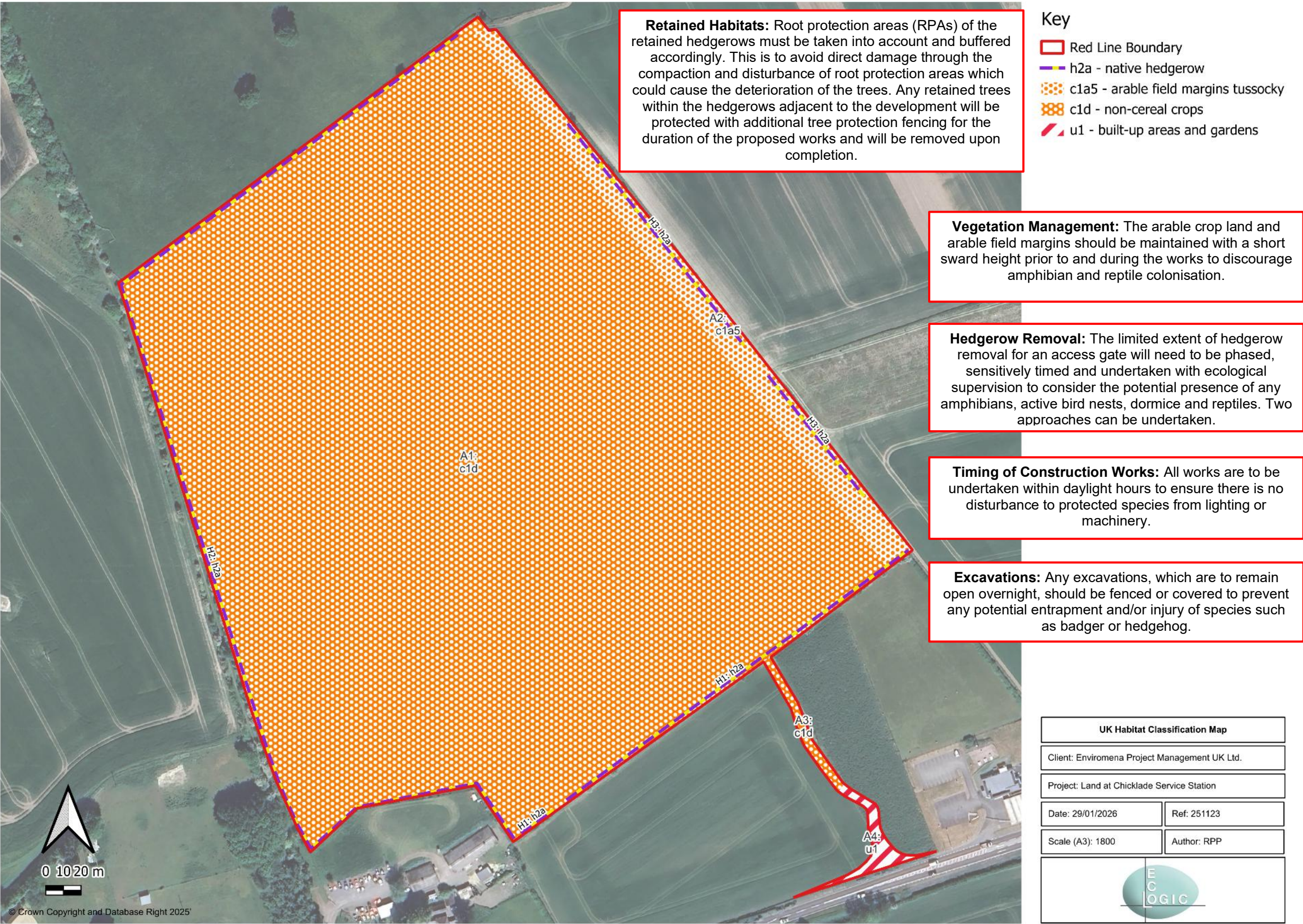
- Appendix 1: UK Habitat Classification Map
- Appendix 2: Constraints Plan
- Appendix 3: Proposed Plan
- Appendix 4: Biodiversity Net Gain Plan – Baseline & Post Development
- Appendix 5: Species List
- Appendix 6: Compensation & Enhancement Plan
- Appendix 7: Examples of Bat Roosting Provisions
- Appendix 8: Examples of Bird Nesting Provisions

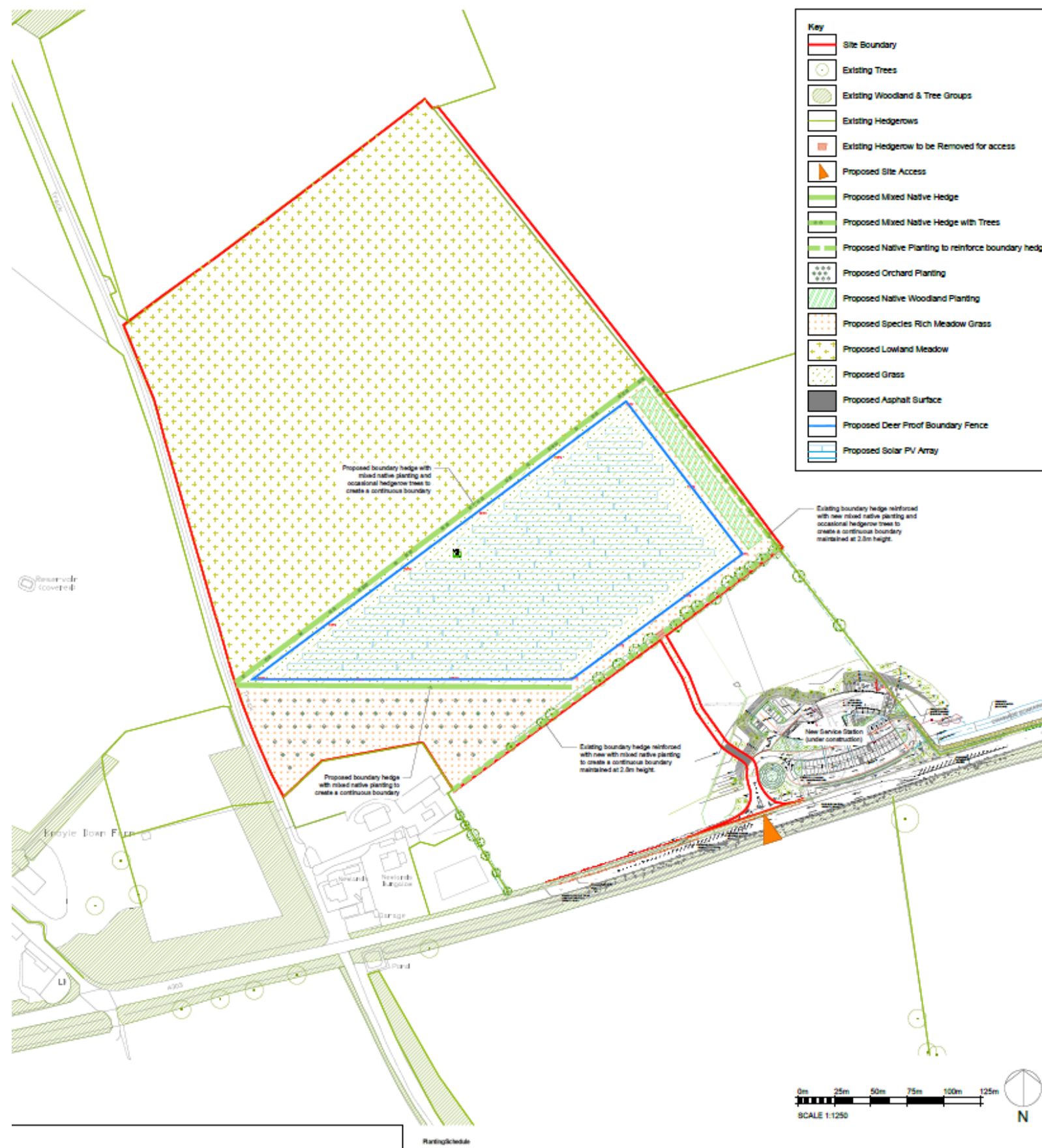


Key

- Red Line Boundary
- h2a - native hedgerow
- c1a5 - arable field margins tussocky
- c1d - non-cereal crops
- u1 - built-up areas and gardens

UK Habitat Classification Map	
Client: Enviromena Project Management UK Ltd.	
Project: Land at Chicklade Service Station	
Date: 29/01/2026	Ref: 251123
Scale (A3): 1800	Author: RPP
	







- Baseline Key**
- Red Line Boundary
 - Native hedgerow
 - Native hedgerow with trees
 - Arable field margins tussocky
 - Non-cereal crops
 - Bare ground

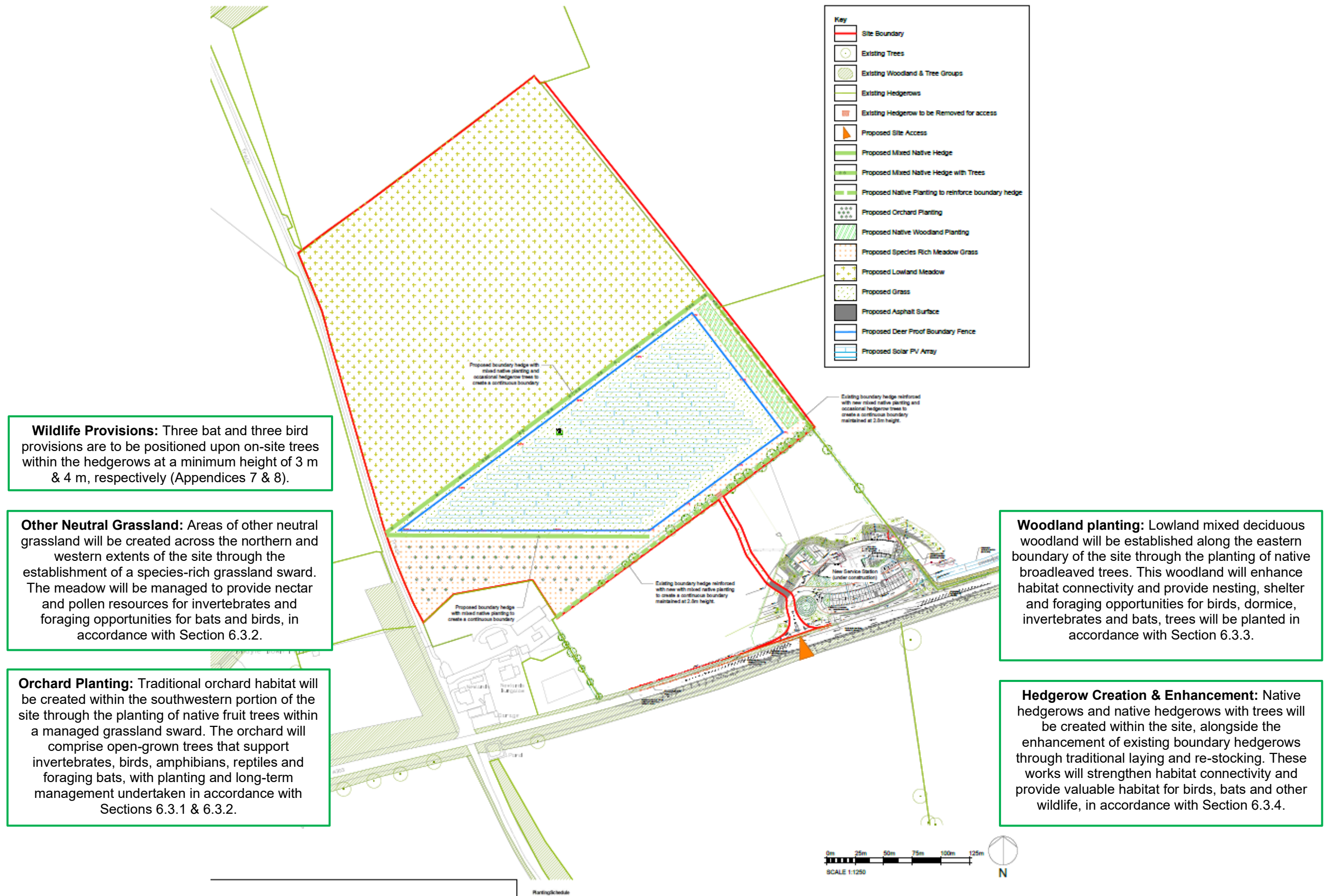


- Proposed Key**
- Red Line Boundary
 - Native hedgerow
 - Native hedgerow with trees
 - Species-rich native hedgerow
 - Species-rich native hedgerow with trees
 - Cereal crops
 - Developed land; sealed surface
 - Lowland mixed deciduous woodland
 - Modified grassland
 - Other neutral grassland
 - Traditional orchards

Biodiversity Metric Assessment	
Client: Enviromena Project Management UK Ltd.	
Project: Land at Chicklade Service Station	
Date: 29/01/2026	Ref: 251123
Scale (A3): 1:3500	Author: RPP

Common Name	Scientific Name
Plants	
Black mustard	<i>Brassica nigra</i>
Blackthorn	<i>Prunus spinosa</i>
Bramble	<i>Rubus fruticosus</i> agg.
Brassica species	<i>Brassicaceae</i> sp.
Broad-leaved dock	<i>Rumex obtusifolius</i>
Chicory	<i>Cichorium intybus</i>
Cleavers	<i>Galium aparine</i>
Cock's-foot	<i>Dactylis glomerata</i>
Common dandelion	<i>Taraxacum officinale</i> agg.
Common fescue	<i>Festuca rubra</i> agg.
Common nettle	<i>Urtica dioica</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Creeping bent	<i>Agrostis stolonifera</i>
Curled dock	<i>Rumex crispus</i>
Dog rose	<i>Rosa canina</i> agg.
Dove's-foot crane's-bill	<i>Geranium molle</i>
Elder	<i>Sambucus nigra</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Fennel	<i>Foeniculum vulgare</i>
Fescue species	<i>Festuca</i> sp.
Field maple	<i>Acer campestre</i>
Hawthorn	<i>Crataegus monogyna</i>
Hedge bedstraw	<i>Galium mollugo</i>
Hedge bindweed	<i>Calystegia sepium</i>
Holly	<i>Ilex aquifolium</i>
Old man's beard	<i>Clematis vitalba</i>
Privet	<i>Ligustrum vulgare</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Snowberry	<i>Symphoricarpos albus</i>
Spear thistle	<i>Cirsium vulgare</i>
Spindle	<i>Euonymus europaeus</i>
Teasel	<i>Dipsacus fullonum</i>
Wild carrot	<i>Daucus carota</i>
Yorkshire fog	<i>Holcus lanatus</i>
Mammals	
Badger	<i>Meles meles</i>
Barbastelle	<i>Barbastella barbastellus</i>
Brown hare	<i>Lepus europaeus</i>
Brown long-eared bat	<i>Plecotus auritus</i>
Common pipistrelle	<i>Pipistrellus pipistrellus</i>
Dormice	<i>Muscardinus avellanarius</i>
Fieldfare	<i>Turdus pilaris</i>
Great crested newt	<i>Triturus cristatus</i>
Greater horseshoe bat	<i>Rhinolophus ferrumequinum</i>
Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>
Harvest mouse	<i>Micromys minutus</i>

Common Name	Scientific Name
House sparrow	<i>Passer domesticus</i>
Hedgehog	<i>Erinaceus europaeus</i>
Linnet	<i>Linaria cannabina</i>
Marsh tit	<i>Poecile palustris</i>
Mistle thrush	<i>Turdus viscivorus</i>
Rabbit	<i>Oryctolagus cuniculus</i>
Serotine	<i>Eptesicus serotinus</i>
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>
Spotted flycatcher	<i>Muscicapa striata</i>
Starling	<i>Sturnus vulgaris</i>
Wheatear	<i>Oenanthe oenanthe</i>
Whinchat	<i>Saxicola rubetra</i>
Yellowhammer	<i>Emberiza citrinella</i>



Vincent Pro Bat Box

Material: Wood

Width: 180 mm
Height: 720 mm
Depth: 235 mm
Weight: 4.1 kg

Position: In a south facing location, minimum of 3 m above ground level.

**General Purpose Bat Box**

Material: Wood Concrete

Diameter: 180 mm
Height: 360 mm
Weight: 4.5 kg

Position: In a south facing location, minimum of 3 m above ground level.

**Bark Box – Standard Bat Box**

Material: Recycled polyamide combined with cement and recycled cellulose fibre mix.

Width: 130 mm
Height: 330 mm
Weight: 6 kg

Position: In a south facing location, minimum of 3 m above ground level.



Vivara Pro Barcelona Woodstone Open Nest Box

Suitable for wren, robin, pied wagtail and blackbird

Material: Woodstone

Height: 240 mm

Width: 190 mm

Depth: 175 mm

Position: Externally, at a minimum height of 3 m

**Vivara Pro Seville 32mm Woodstone Nest Box**

Suitable for: House sparrow, blue & great tit, nuthatch

Material: Woodstone

Height: 310 mm

Width: 200 mm

Depth: 200 mm

Weight: 6.9 kg

Position: Externally, at a minimum height of 3 m

**Eco Sparrow Tower**

Suitable for: House sparrow and individual blue & great tits

Material: Recycled LDPE plastic & FSC certified OSB

Height: 650 mm

Width: 170 mm

Depth: 170 mm

Weight: 2.8 kg

Position: Externally, at a minimum height of 2 m

