

SF3335 | TOP STREET, ASKHAM

PRELIMINARY ECOLOGICAL APPRAISAL

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EXECUTIVE SUMMARY

Smeeden Foreman Limited has been commissioned by Mr Jonathan Allbones to undertake an ecological appraisal of their site at Top Street, Askham (grid reference SK 73827481). This report has been commissioned to inform a planning application for the demolition and replacement of the existing dwelling, and the demolition of a single storey garage, a two-storey garage, and detached coach house to the south.

A desk study of relevant information has been undertaken including designated nature conservation sites and existing records of protected species; and initial site survey mapping habitats to the UK Habitats Classification System.

Designated sites

One statutorily designated site and nine non-statutorily designated sites are located within 2km of the proposals site (Gamston and Eaton Woods and Roadside Verges SSSI, located 1.8km to the northwest). The relevant Natural England (NE) Geographic Information System (GIS) dataset indicates that the nature and scale of the proposed works are unlikely to impact upon the designated site.

As the development is within the extents of an existing residential plot, it is considered that there will be no adverse impact upon these designated sites due to a combination of distance from the proposals site, intervening land uses (roads and built-up areas) and the nature and scale of the proposals.

Habitats

The habitats within the proposals site are generally considered to be of low conservation value, predominantly comprising gardens, modified grassland and hardstanding. Hedgerows, trees and ornamental planting are considered to be of some conservation value, as these provide suitable habitat for breeding and roosting bird species, amphibians and small mammals such as hedgehogs.

In order to protect habitats of ecological value present and ensure that the proposed development provides enhancement to wildlife, the following is recommended:

- The retention of trees and hedgerows at the site where feasible, or replacement planting using native species;
- Consideration of seeding of areas associated with hedgerows/tree planting with a suitable wildflower mix;
- Retention and enhancement of on-site waterbody, with variations in water depths and native aquatic planting to benefit wildlife;
- Potential impacts on the water quality of on-site waterbody to be minimised/avoided by undertaking works with appropriate pollution prevention measures and accident procedures in place to prevent encroachment by machinery or storage of building materials etc. (e.g. sediment/Heras-type fencing, bunding of fuel tanks/designated machinery location);

- Use of temporary protective demarcation fencing to protect retained areas/features. The fencing must be in accordance with BS5837:2012 'Trees in Relation to Design, Demolition and Construction', extend outside the canopy of the retained trees, and remain in position until construction is complete;
- Use of directional lighting during construction, which will not shine upon the site boundaries, hedgerows or trees within the site;
- Careful consideration will be required within the design scheme to ensure impacts upon sensitive ecological receptors (standing water, trees, hedgerows) such as the use of artificial lighting (including locations, specifications and timing of operations).

Species

The potential for the following protected and notable species to be affected by the development has been assessed with potential mitigation and further survey work as follows:

- **Bats** – Buildings B1, B2, B3 and B4 were subjected to external and internal building inspection during June 2022. [REDACTED] were identified during the external/internal inspection, however, due to the number of access points and [REDACTED] noted during the survey and the suitability of habitat within proximity of the site for [REDACTED], the buildings are assessed as having a [REDACTED]. [REDACTED] emergence/re-entry surveys are recommended to further assess the use of the buildings; with three surveys to be carried out at [REDACTED] two surveys to be carried out at [REDACTED] and a single survey each of [REDACTED] and [REDACTED]. General mitigation to include a sympathetic lighting scheme, appropriate management of hedgerows, incorporation of native planting and installation of [REDACTED] on new builds and/or mature trees.
- **Breeding birds** – The buildings and vegetation on site may provide habitat for breeding birds. It is advised building demolition and vegetation clearance takes place outside the core bird nesting period (March – August inclusive) unless checks by an appropriately qualified ecologist find active nests to be absent immediately prior to clearance works. General mitigation to include native planting and installation of nest boxes on retained trees/new builds;
- [REDACTED]
- [REDACTED]
- **Water vole and otter** – No impact upon this species is anticipated as a result of the proposed development.
- **Non-native invasive species** – Control and precautionary working methods are recommended in respect of the non-native invasive species Cotoneaster and Montbretia present on site.

Subject to the completion of further survey, it is anticipated that the development of the site is feasible with minimal impact to biodiversity and potential for biodiversity gains, provided that the recommended mitigation and enhancement measures are incorporated within the scheme.

1.0 INTRODUCTION

- 1.1.1 Smeeden Foreman Limited has been commissioned by Mr Jonathan Allbones to undertake an ecological appraisal of a site at Top Street, Askham (grid reference SK738748), hereafter referred to as the 'site'.
- 1.1.2 This report will include the following information gathered by desk study, habitat survey and building assessment with respect to [REDACTED]
- Proximity to statutory and non-statutory designated sites;
 - Proximity to existing records of protected species; and,
 - Site habitat appraisal and potential to support protected species.
- 1.1.3 A review of the above information will be made to identify any features or sites of ecological interest which may be affected by the development proposals. Where potential impacts or protected species are identified the need for mitigation measures and requirements for further surveys will be discussed.
- 1.1.4 The report has been commissioned to inform a planning application for the demolition and replacement of the existing dwelling, and the demolition of a single storey garage, a two-storey garage, and detached coach house to the south.
- 1.1.5 The methodologies used to survey and assess the ecological value and potential impacts on the site are based upon guidelines produced by the Chartered Institute of Ecology and Environmental Management (CIEEM) (Guidelines for Preliminary Ecological Appraisal, 2017).

2.0 SITE DESCRIPTION

- 2.1.1 The proposed development site is located off Top Street, Askham; located to the south-east of the village of Askham, and approximately 22km northwest of Newark, Nottinghamshire, refer to *Figure 01* below. The site itself is predominantly comprised of buildings and hardstanding, with a vegetated garden to the north, individual trees, ornamental planting, a pond, and hedgerows.



Figure 01: Aerial view of site location

- 2.1.2 Residential dwellings are adjacent to the west and east, with a pasture field bounding the site to the north. Top Street is a minor road located immediately adjacent to the southern site boundary.
- 2.1.3 Pasture and arable farmland is the dominant habitat within the surrounding landscape, with residential dwellings to the north and east, and occasional areas of woodland and tree belts. Farmland drainage systems are also present to the south and east.

3.0 PRINCIPLE LEGISLATION AND POLICIES

3.1.1 The national nature conservation legislation and policies that may be relevant to the proposed development are listed below. A brief explanation of the principle legislation and policies relating to nature conservation, biodiversity and ecology is provided in **Appendix 01**.

Principle Legislation and Policies

- Wildlife and Countryside Act 1981 (*as amended*)
- EC Habitats Directive (92/43/EEC)
- EC Birds Directive (79/409/EEC)
- Conservation of Habitats and Species Regulations 2017
- Countryside and Rights of Way Act 2000
- [REDACTED]
- United Kingdom Biodiversity Action Plan (UKBAP)
- Natural Environment and Rural Communities Act (NERC), 2006 – Biodiversity Duty
- Hedgerow Regulations 1997
- National Planning Policy Framework (NPPF)

4.0 BASELINE INFORMATION

4.1 METHODOLOGY

4.1.1 The ecological interest of the site and its surroundings has been investigated by a combination of the following:

- Field survey of the site and immediate surroundings including a habitat survey, a building and tree inspection with respect to their potential [REDACTED] and habitat suitability index (HSI) assessment of [REDACTED] with respect to [REDACTED]
- Consultation with relevant bodies to obtain existing protected species records and statutory / non-statutory designated sites information within 2km of the development site: Nottinghamshire Biological and Geological Record Centre (NBGRC);
- The UK Biodiversity Action Plan (UKBAP);
- The Nottinghamshire Biodiversity Action plan (LBAP);
- Magic map, a government website for nature conservation information; and,
- Aerial photographs.

4.2 NATURE CONSERVATION DESIGNATED SITES

4.2.1 One statutorily designated nature conservation site lies within 2km of the proposals site boundary; Gamston and Eaton Woods and Roadside Verges Site of Special Scientific

Interest (SSSI) which lies 1.8km northwest of the proposals site boundary (central grid reference SK727767). This is one of the best examples of an ash-oak-maple wood in Nottinghamshire and is representative of semi-natural woodland developed on clay soils in Central and Eastern England. It is complemented by species-rich roadside verges.

Sites of Special Scientific Interest (SSSI) provide statutory protection for sites considered to be of national importance for their wildlife and natural heritage value, following evaluation against published guidelines. They were originally designated by English Nature under the National Park and Access to the Countryside Act 1949 and re-notified under the Wildlife and Countryside Act 1981. Improved provisions for their protection and management were introduced in the Countryside and Rights of Way Act 2000.

- 4.2.2 The proposals site lies within the Impact Risk Zone (IRZ) of Gamston and Eaton Woods and Roadside Verges SSSI which lies 1.8km to the northwest of site, however, the relevant Natural England (NE) Geographic Information System (GIS) dataset indicates that the nature and scale of the proposed works are unlikely to impact upon this site.
- 4.2.3 No other European or national statutory designated sites are present within 2km of the proposed development site such as Ramsar Sites, Special Protection Areas (SPA), Special Areas of Conservation (SAC), Local Nature Reserves (LNR), National Nature Reserves (NNR), Areas of Outstanding Natural Beauty (AONB) and National Parks.

Non-statutory Designations

- 4.2.4 Nottinghamshire Biological and Geological Record Centre (NBGRC) provided information on nine non-statutorily designated sites within 2km of the proposals site. These sites are detailed in Table 01 below with additional descriptions of their corresponding designations.

Table 01: Non-statutorily designated sites within 2km

Site Name	Site Ref.	Designation	Grid reference	Location from site	Notes
Askham Churchyard*	5/2192	LWS	SK739750	0.2km northeast of site	Site of botanical interest – a churchyard with a neutral grassland
Askham Grassland*	2/439	LWS	SK743751	0.4km northeast of site	Site of botanical interest – a notable community in a little-improved grassland.
Holme Lane Grassland	5/3367	LWS	SK731748	0.7km west of site	Site of botanical interest – notable base-rich grassland
Beacon Hill Grassland	5/2314	LWS	SK726735	1.6km southwest of site	Site of botanical interest – a notable base rich grassland
Gamston Wood	1/80	LWS	SK728768	1.7km northwest of site	An excellent ancient woodland site. Site of botanical interest and for white admiral and

Site Name	Site Ref.	Designation	Grid reference	Location from site	Notes
					white-letter hairstreak butterflies.
Cliff Gate Grassland	2/433	LWS	SK723737	1.8km southwest of site	Site of botanical interest – a herb-rich paddock with a calcareous bias.
Upton Notified Roadside Verge	5/674	LWS	SK741766	1.8km northeast of site	Site of botanical interest – a dry grassland
Beacon Hill	5/1102	LWS	SK725734	1.8km southwest of site	Site of botanical interest – a notable calcicole grassland community on a bank
<p>Local Wildlife Site (LWS): LWS's are areas identified and selected locally for their wildlife value. The designation is non-statutory but is recognition of a site's significance with many LWS being of county and often regional importance for wildlife. Examples range from field ponds, streams and reed beds, to ancient woodlands, flower-rich meadows and hedgerows. This designation is equivalent to a SIN (Site of Importance for Nature Conservation). This designation is used by local authorities to allow the ecological value of a site to be considered within the planning system.</p> <p>*located within 500m of the proposals site boundary.</p>					

4.2.5 Refer to *Appendix 02* which shows the locations of the designated sites in relation to the application site.

4.3 EXISTING SPECIES RECORDS

4.3.1 Existing biological records were provided following consultation with Nottinghamshire Biological and Geological Record Centre (NBGRC). The records detailed in the following tables are those in closest proximity to the proposed development site within the 2km search area. The raw data provided by the records centre was extensive and is therefore not appended to the report but a copy can be provided on request.

Table 02: Protected species records within 2km (NBGRC)

Species	Grid reference	Notes
Fieldfare <i>Turdus pilaris</i>	SK739748	Six records all dated 2015 and all located at Askham 0.06km east of site.
Redwing <i>T. iliacus</i>	SK739748	One record dated 2015 located at Askham 0.06km east of site.
Water vole <i>Arvicola amphibius</i>	SK719750	One record dated 2000 located at West Drayton 1.9km northwest of site.
White-clawed crayfish <i>Austropotamobius pallipes</i>	SK739750	One record dated 2011 of 8 individuals found during stone turning located at Askham 0.2km northeast of site.

Table 03: Bat species records within 2km (NBGRC)

Species	Grid reference	Notes
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
*Record accurate to [REDACTED]		

4.3.2 [REDACTED] were identified within the [REDACTED] search area. The location of the nearest [REDACTED] is approximately [REDACTED] northeast of the proposals site [REDACTED]

4.3.3 [REDACTED] have also been recorded within [REDACTED] of the proposals site, with NBGRC providing [REDACTED] within their dataset.

4.3.4 One non-native invasive species included on Schedule 9 of the Wildlife and Countryside Act 1981 has been recorded within 2km of the proposals site, Japanese knotweed *Reynoutria japonica*.

4.3.5 Records of priority UK Biodiversity Action Plan species within 2km of the study area were provided for the following species:

Amphibians: common toad *Bufo bufo*;

Birds: skylark *Alauda arvensis*, grey partridge *Perdix perdix*, herring gull *Larus argentatus*, song thrush *Turdus philomelos*, starling *Sturnus vulgaris*, house sparrow *Passer domesticus*, tree sparrow *P. montanus*, linnet *Carduelis cannabina*, bullfinch *Pyrrhula pyrrhula*, yellowhammer *Emberiza citronella*;

Fish: European eel *Anguilla anguilla*;

Mammals: brown hare *Lepus europaeus*, hedgehog *Erinaceus europaeus* and polecat *Mustela putorius*.

4.4 BIODIVERSITY ACTION PLANS

National Biodiversity Action Plan

4.4.1 The UK Biodiversity Action Plan (UK BAP) identifies priority species and habitats which are those considered to be the most threatened and therefore most in need of conservation action. The lists were updated in 2007 to include 1150 species and 65 habitats.

4.4.2 The UK Post-2010 Biodiversity Framework (July 2012) has succeeded the UKBAP, however priority species and habitats listed under the UKBAP remain a valuable reference source and have been used to inform statutory lists at a national level including Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (England).

4.4.3 Priority habitats known to occur within 2km of the site include:

- Ancient and semi-natural woodland
- Deciduous woodland
- Good quality semi-improved grassland
- Traditional orchards

Local Biodiversity Action Plan

4.4.4 Habitat types for which action plans have been prepared for Nottinghamshire Biodiversity Action Plan include:

- Canals
- Ditches
- Eutrophic and mesotrophic standing waters
- Farmland: arable farmland, arable field margins and improved grassland
- Fens, marshes and swamps
- Hedgerows: including ancient and/or species-rich hedgerows
- Lowland calcareous grassland
- Lowland dry acid grassland
- Lowland heathland
- Lowland neutral grassland
- Lowland wet grassland
- Mixed ash dominated woodland
- Oak-birch woodland
- Parkland and wood pasture
- Planted coniferous woodland
- Reedbed
- Rivers and streams
- Urban and post-industrial habitats
- Wet broadleaved woodland

4.4.5 Of the above habitats, hedgerows are present within gardens on site.

4.4.6 Species for which action plans have been prepared for Nottinghamshire Biodiversity Action Plan include:

- Atlantic salmon
- ██████████

- 
- Black poplar
- Depford pink
- Dingy skipper
- Dormouse (In production)
- Green hairstreak
- Grizzled skipper
- Harvest mouse
- Hazel pot beetle (In production)
- Hedgehog (In production)
- Nightjar
- Nottingham autumn crocus
- Nottingham spring crocus
- Otter
- Slow-worm (In production)
- Water vole
- White-clawed crayfish
- Willow tit (In production)

4.4.7 Hedgerows and associated ornamental planting on site are considered suitable for supporting foraging and commuting bats, with vegetated garden areas likely to be used by hedgehog.

4.5 SITE SURVEY – HABITAT SURVEY

Methodology

4.5.1 A walk over survey was undertaken by Jarred Johnson BSc (Hons) MSc on 1st June 2022 during suitable weather conditions, and during the optimal period in terms of habitat survey.

4.5.2 Habitat types and key species were noted and are presented in accordance with the UK Habitats Classification System (*Version 1.1 UKHabs*, September 2020).


Results

4.5.3 Habitats are referenced by number to correspond with locations shown in *Figure 02*. Habitat photographs are provided within *Appendix 03*.

4.5.4 Habitats on site have been assessed using the UKHabs Classification System. This system includes the use of secondary (2°) codes to provide further information on the habitat parcels present, where relevant, as listed below and described in more detail to follow:

Habitats

- Reference 1: g4 66 – Modified grassland (2° code: 66 frequently mown)

- Ref 2: u1 17 231 – Vegetated garden (2° code: 17 ruderal/ephemeral, 231 vegetated garden)
- Ref 3: u 1160 – Introduced shrub (2° code: 1160 introduced shrub)
- Ref 4: u1b 230 – Developed land; sealed surface (2° code: 230 garden pathways/drives)
- 
- Ref B1, B2, B3, B4, B5, B6, B7, B8: u1b5 109 – Developed land; sealed surface – Buildings (2° code: 109 residential).

Individually mapped

- Ref T1, T2, T3, T4: w 1170 – Individual trees

Linear Features

- H1: h2b – Hedgerows (other hedgerows)
- H2: h2b – Hedgerows (other hedgerows)
- H3: h2b – Hedgerows (other hedgerows)
- H4: h2a – Hedgerows (priority habitat)
- u1e 67: Built linear features (2° code: 67 stone wall)
- u1e 68: Built linear features (2° code: 68 mortared wall)
- u1e 69: Built linear features (2° code: 69 fence)

Habitat 1: g4 66 – Modified grassland

(2° code: 66 frequently mown)

4.5.5 **Habitat description:** Areas of modified grassland comprise a road verge to the south of H1, and a mown area of amenity grassland situated to the west of B2. The walkover survey was undertaken during the optimal survey season for recording flowering plants, with grasses and forbs found to be limited in these areas.

4.5.6 **Species composition:** Grass and forb species diversity is limited within grassland areas, with the sward to the south dominated by red clover *Trifolium pratense*. Additional species occurring rarely to occasionally include white clover *Trifolium repens*, dandelion *Taraxacum agg.*, ragwort *Senecio jacobaea*, common mallow *Malva sylvestris*, garlic mustard *Alliaria petiolata*, ivy *Hedera helix*, broadleaved dock *Rumex obtusifolius*, hairy bittercress *Cardamine hirsuta*, and a sowthistle species *Sonchus spp.* The sward to the west of B2 had recently been strimmed, with remnant cuttings of nettle *Urtica dioica*, bluebell *Hyacinthoides non-scripta*, garlic mustard, wood avens *Geum urbanum*, cleavers *Galium aparine*, and an oat grass species *Arrhenatherum spp.* left in situ.

Habitat 2: u1 17 231 – Vegetated Garden

(2° code: 17 ruderal/ephemeral, 231 vegetated garden)

4.5.7 **Habitat description:** A vegetated garden, comprised of ornamental/native shrub planting, herbaceous planting, mown grassland, an orchard with small fruit trees, and a vegetable plot is present to the north of the residential dwelling.

- 4.5.8 **Species composition:** Ornamental shrub species consist of lavender *Lavandula spp.*, an ornamental spindle *Euonymus spp.*, a *Mahonia* species, Japanese laurel *Aucuba japonica*, barberry *Berberis spp.*, an ornamental dogwood *Cornus spp.*, a rose species *Rosa spp.*, and paperplant *Fatsia japonica*. Herbaceous plant/forb species comprise of a columbine species *Aquilegia spp.*, wood avens, creeping thistle *Cirsium arvense*, nettle and lungwort *Pulmonaria officinalis*. Young tree specimens present within the orchard consist of an apple *Malus spp.* and plum *Prunus domestica*. Recently trimmed cuttings of nettle were also present to the north of the orchard. The invasive non-native species montbretia *Crococsmia x crocosmiiflora* was also recorded.

Habitat 3: u 1160 – Introduced shrub

(2° code: 1160 introduced shrub)

- 4.5.9 **Habitat description:** Ornamental and native herbaceous/shrub planting within flower beds to the east and south of building B1.
- 4.5.10 **Species composition:** Shrub/plant species present include an ornamental bluebell, barberry, a spindle species, Japanese laurel, lungwort, a columbine, an ornamental dogwood, creeping thistle, red valerian *Centranthus ruber*, rosebay willowherb *Chamaenerion angustifolium*, a speedwell *Veronica spp.*, a *Cotoneaster* species, a spurge species *Euphorbia spp.*, heather *Calluna vulgaris*, snowberry *Symphoricarpos agg.*, blackthorn *Prunus spinosa*, holly *Ilex aquifolium*, with white bryony *Bryonia dioica* and Russian vine *Fallopia baldshuanica* present as climbers.

Habitat 4: u1b 230 – Developed land; sealed surface

(2° code: 230 garden pathways/drives)

- 4.5.11 **Habitat description:** Concrete garden pathways/drives present in association with residential areas.

Habitat reference P1: u 39 – Ponds (non-priority habitat)

(2° code: 39 freshwater – man-made)

- 4.5.12 **Habitat description:** An ornamental pond with associated planting is present within the garden to the north of the residential dwellings. This pond is discussed in more detail in section 4.6.

Habitat reference B1, B2, B3, B4, B5, B6, B7, B8: u1b5 109 – Developed land; sealed surface – Buildings

(2° code: 109 residential)

- 4.5.13 **Habitat description:** Residential buildings and ornamental garden features. Buildings are discussed in more detail with respect to their potential to [REDACTED]

Individually mapped: T1, T2, T3, T4: w 1170 – Individual trees

(2° code: 1170 – individual tree)

- 4.5.14 **Habitat description:** Individual trees present on site which are not associated with hedgerows/orchard planting.
- 4.5.15 **Species composition:** Trees/shrubs on site are generally associated with boundaries. Species present include false acacia *Robinia pseudoacacia*, a cherry species *Prunus spp.*, and hazel *Corylus avellana*.
- 4.5.16 The trees potential to [REDACTED] has been categorised to relate to the value of identified features. These categories are provided by the [REDACTED] and are summarised in [REDACTED]
- 4.5.17 During the walkover survey, no trees were considered to [REDACTED] with those present on-site primarily of a young age with no potential features.

Linear Feature H1: h2b – Hedgerows (other hedgerows)

- 4.5.18 **Habitat description:** A garden privet *Ligustrum ovalifolium* hedgerow is present along the southern site boundary in association with B3. The hedgerow is managed to a height of approximately 1m and measures approx. 1m in width and 10m in length. Limited ground flora is present to the base of the hedgerow which mainly comprises bare ground/leaf litter.

Linear Feature H2: h2b – Hedgerows (other hedgerows)

- 4.5.19 **Habitat description:** A defunct garden privet hedgerow approximately 5m in length present to the south of building B2. The hedgerow is managed to <1m in height and <1m in width. Limited ground flora is present to the base of this hedgerow, mainly comprising bare ground/leaf litter.

Linear Feature H3: h2b – Hedgerows (other hedgerows)

- 4.5.20 **Habitat description:** An overgrown Leyland cypress *Cupressus x leylandii* hedgerow is present along the eastern site boundary. The hedgerow is managed to approximately 3m in height, 1m in width, and 30m in length. Limited ground flora is present within hedgerow understorey, mainly comprised of bare ground/leaf litter, and occasional species indicative of nutrient enrichment (nettle, docks etc).

Linear Feature H4: h2a – Hedgerows (priority habitat)

- 4.5.21 **Habitat description:** An overgrown hawthorn *Crataegus monogyna* hedgerow is situated along the northern site boundary. The hedgerow is managed to approximately 3m in height, 2m in width, and 30m in length. Limited ground flora is present within hedgerow understorey due to recent strimming, though species within cuttings are indicative of nutrient enrichment (nettle, docks etc).

Fauna

- 4.5.22 During the survey the following bird species were identified: blackbird *Turdus merula*, chaffinch *Fringilla coelebs*, dunnock *Prunella modularis*, greenfinch *Chloris chloris*,

house sparrow *Passer domesticus* and robin *Erithacus rubecula*.

Conclusion

- 4.5.23 Habitats on site with some ecological value include ornamental/native species hedgerows, pond areas, and ornamental shrub planting. None of the habitats within the site are of significant interest (in terms of the plant species composition) The plant communities at the site are of widespread occurrence and are characteristic of the habitats present in the wider area and common nationally. No rare or locally uncommon plant species were detected at the site.
- 4.5.24 Cotoneaster and montbretia recorded on site are listed under the Wildlife and Countryside Act 1981 (as amended) as non-native invasive plant species in England. Refer to section 5.5 for more detail.

4.6 SITE SURVEY – HABITAT SUITABILITY INDEX SURVEY

Methodology – Habitat Suitability Index

- 4.6.1 A single pond is present on site. From consulting OS and MAGIC maps of the local area, no ponds were identified within a 250m radius of site, with one pond located within a 500m radius of the site, refer to *Figure 03* below for pond locations and Table 04 for brief pond descriptions.

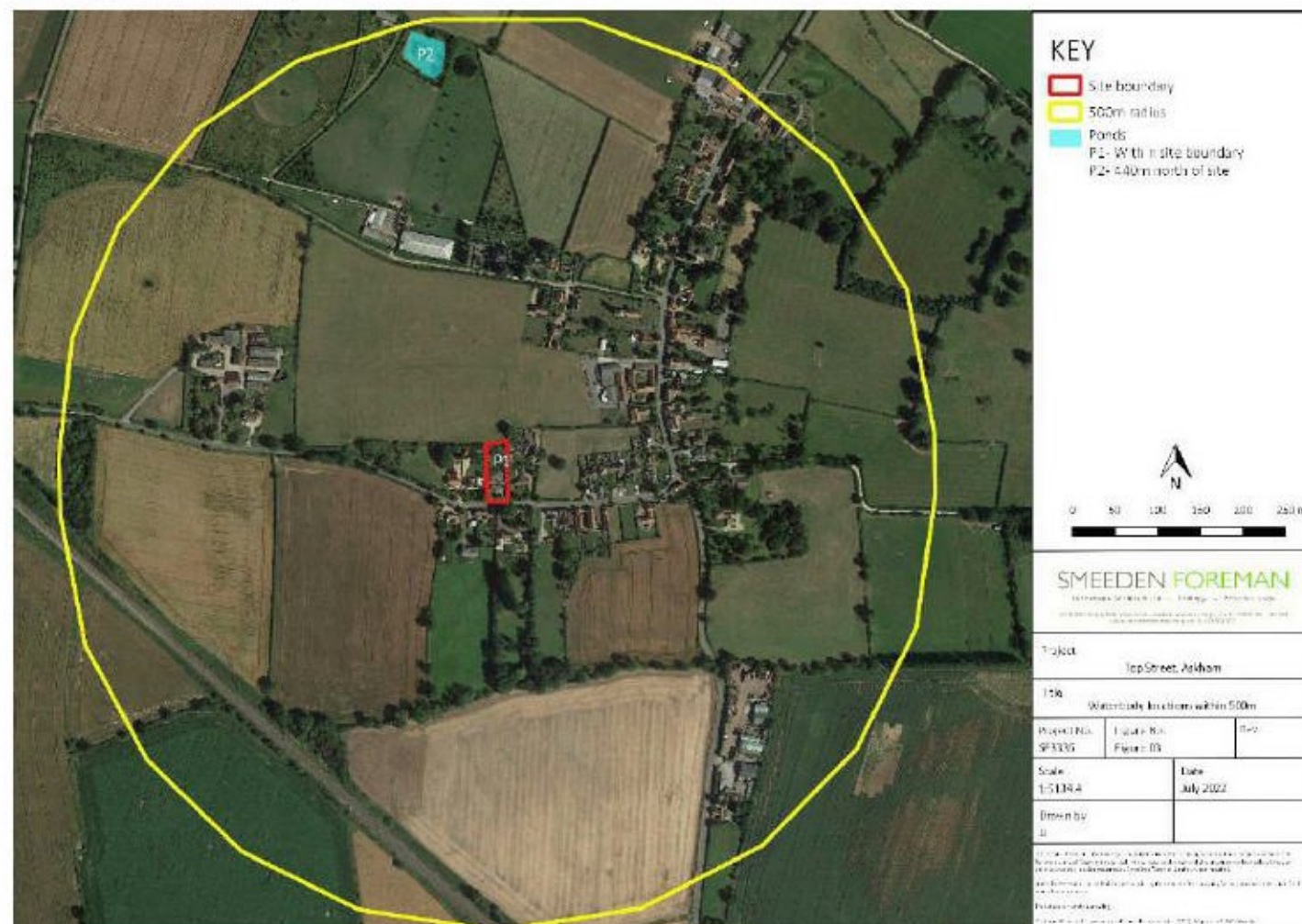



Figure 03: Watercourse/body locations within 500m

Table 04: Watercourse/body descriptions on site and within 500m

<p>Pond 1 (P1)</p> <p>Located on-site within garden area. Pond measuring approximately 3m², located in close proximity to H3. Pond area choked by duckweed <i>Lemna spp.</i>, with marginal vegetation comprised of marestail <i>Hippuris vulgaris</i>, flag iris <i>Iris pseudacorus</i>, rosebay willowherb, and water lily <i>Nymphaea spp.</i></p>	
<p>Pond 2 (P2)</p> <p>Pond located 440m north of the proposals site. Access to survey the pond was not possible at time of survey.</p>	

- 4.6.2 Waterbodies were assessed using the Habitat Suitability Index (HSI) survey methodology to consider their suitability for [REDACTED] and the requirement for further assessment and appropriate mitigation in regards to the proposed development.
- 4.6.3 The HSI survey is a method produced by Oldham *et al.* (2000) to assess the suitability [REDACTED] by quantifying ten factors (suitability indices) which can affect [REDACTED] occurrence, such as the presence of fish and wildfowl, shading, coverage of aquatic vegetation, etc. and provides a score which can indicate the suitability of a pond to support [REDACTED]. The HSI is calculated as a geometric mean of the ten suitability indices using the formula below:
- 4.6.4 $HSI = (SI_1 \times SI_2 \times SI_3 \times SI_4 \times SI_5 \times SI_6 \times SI_7 \times SI_8 \times SI_9 \times SI_{10})^{1/10}$
- 4.6.5 The score can range from 0 to 1, 0 indicating low suitability and 1 indicating a high suitability. The HSI has been adapted by the [REDACTED] who have categorised the suitability of a pond to support [REDACTED] by the HSI obtained, which is as follows:

Table 05: HSI scoring system

<i>HSI Score</i>	<i>Pond Suitability</i>
<0.5	Poor
0.5-0.59	Below average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

Results

- 4.6.6 Pond P1 has been assessed using the Habitat Suitability Index (HSI) survey methodology as described above.
- 4.6.7 Pond P2 is located approx. 440m north of the proposals site, within private farmland property. Access to survey the pond was not possible at the time of survey. Due to the

distance of the pond from site, it is considered that there is a low risk of [REDACTED] from pond [REDACTED] utilising the site for foraging or hibernation purposes if present in the local area.

4.6.8 The results of the HSI survey are detailed in the table below:

Table 06: Habitat Suitability Index Survey

	Pond P1	
Sl ₁ Location	A	1
Sl ₂ Pond area [#]	27m ²	0.01
Sl ₃ Pond drying	3 years in 10	0.5
Sl ₄ Water quality	Moderate	0.67
Sl ₅ Perimeter Shade	10%	1
Sl ₆ Fowl	Absent	1
Sl ₇ Fish	Possible	0.67
Sl ₈ Ponds within 1km	4	0.72
Sl ₉ Terrestrial habitat (within 250m)	Moderate	0.67
Sl ₁₀ Macrophytes	50%	0.8
HSI Score	0.49 'Poor'	

[#] Estimate

Conclusions

4.6.9 [REDACTED] obtained a HSI score of **0.49**, indicating that it holds 'poor' suitability for [REDACTED]

4.7 SITE SURVEY – BUILDING ASSESSMENT

Methodology

- 4.7.1 Buildings on site comprise a residential dwelling, a two-storey garage, a single storey garage and a detached brick coach house to the south. These buildings are due to be demolished under the proposed development scheme. Refer to *Figure 04* (appended) for locations of buildings and features identified.
- 4.7.2 The site contains eight buildings, four of which are relevant to this application being proposed for demolition. They are referenced as follows:
- B1: residential dwelling;
 - B2: two-storey brick coach house;
 - B3: single storey garage;
 - B4: two-storey garage;
- 4.7.3 Garden structures B5-B7 (greenhouses) and B8 (wooden pagoda) are not included or discussed further within this assessment and are to remain unaffected by the proposals.
- 4.7.4 A detailed building inspection to the [REDACTED] Trust publication [REDACTED] Good Practice Guidelines (2016) was carried out on the 1st June 2022 to identify potential access [REDACTED] such as missing mortar,

lifted tiles, cracks, gaps and missing window panes as well as actual evidence [REDACTED] in the form of droppings, fur/urine staining, scratch marks, feeding remains, distinctive [REDACTED]. The buildings were examined using close focussing binoculars and a high powered torch.

- 4.7.5 The potential of buildings to [REDACTED] has been categorised to relate to the value of identified features. These categories are provided by the [REDACTED] and are summarised in the [REDACTED] below.

Table 07: Summary of [REDACTED] structure (building/tree) categories

Category	Description
High	One or more highly suitable features capable of supporting larger [REDACTED] and for long periods of time.
Moderate	One or more suitable features but [REDACTED] of [REDACTED] status.
Low	One or more suitable features suitable for low numbers [REDACTED] e.g. [REDACTED] opportunistically.
Negligible	Negligible features likely to be used [REDACTED]

- 4.7.6 The survey was undertaken by senior ecologist Maria Gill [REDACTED] and ecologist Jarred Johnson in suitable weather conditions. Refer to *Figure 04* (appended) for locations of buildings and features identified.

Results

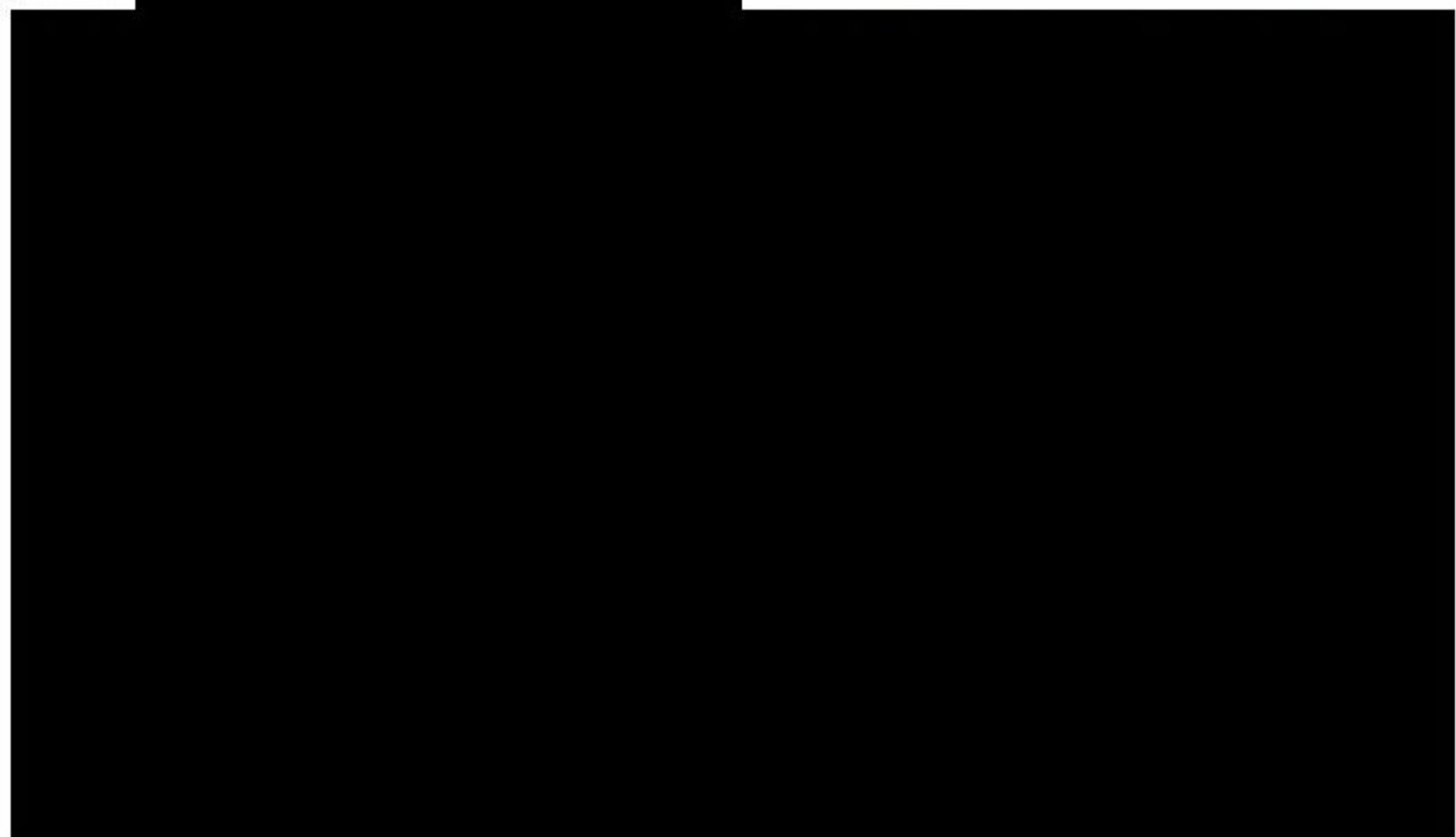
- 4.7.7 [REDACTED] with a [REDACTED] to the east, set within well maintained gardens. Solid brick walls to all elevations are generally in good condition, with pointing mainly intact though areas of missing mortar were identified, notably beneath ridge tiles. A number of gaps are present beneath lifted roof tiles, and associated guttering and flashing to all elevations, providing potential access points for [REDACTED]. A cavity within the soffit box, and beneath patio windows where they do not sit flush with associated soffit box, was also present at the eastern elevation. All windows and doors are uPVC, in good condition and well-sealed throughout the building.
- 4.7.8 An internal inspection of all accessible loft spaces was undertaken during the building assessment. The main loft space is supported on a modern timber frame, and is largely lined with intact bitumen Type 1F felt. Floor insulation is present throughout the main loft space, and the loft was generally found to be clean and free of debris across the floor area.
- 4.7.9 Low roof space within the loft restricted free movement but most of the space could be viewed and inspected using torchlight. Tears within roofing membrane were present at the southern elevation, with tiles and daylight to the exterior visible. A gap was also identified along the eastern elevation behind a thin layer of insulation foil, providing a cavity between roofing membrane and tiles.
- 4.7.10 No evidence of [REDACTED] was recorded within the accessible loft space. These spaces were generally well sealed, with a low number of small gaps where daylight was visible providing potential [REDACTED] and with areas heavily cobwebbed throughout.

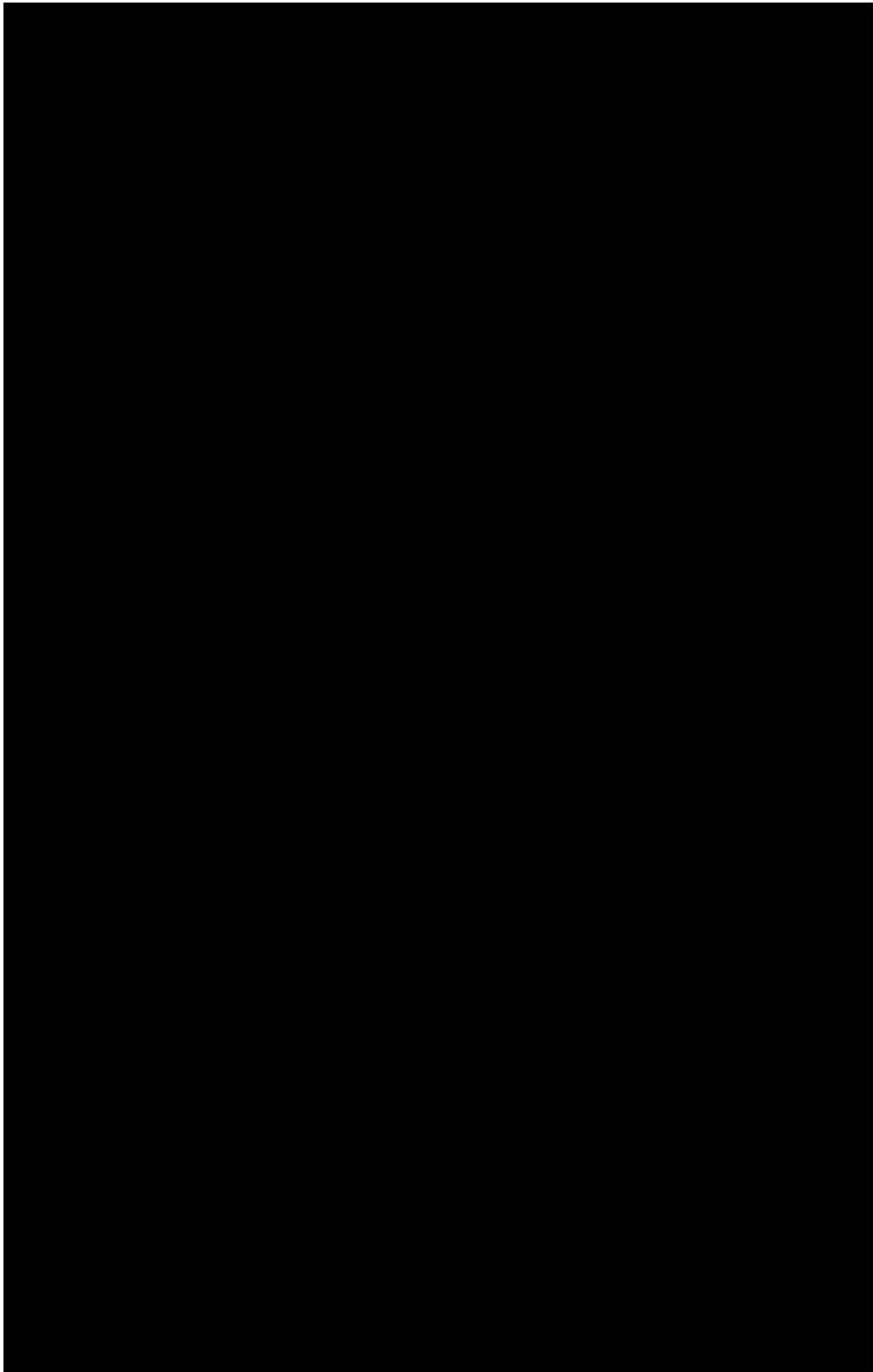
4.7.11 Refer to *Figure 04* (appended) for locations of target notes and those detailing internal and external [REDACTED] within the following table:

Table 08: External and internal building features with [REDACTED]

<i>Target note</i>	<i>Feature description</i>
1	Lifted roof tiles (PRF)
2	Missing mortar beneath ridge tiles (PRF)
3	Cavity within soffit box (PRF)
4	Cavity beneath patio window (PRF)
5	Lifted flashing (PRF)
6	Gaps between guttering and tiles (PRF)
7	Gaps within roof felt (internal feature)
8	Cavity between roofing membrane and tiles (internal feature)

4.7.12 Due to the number of features identified within [REDACTED] this building is considered to provide [REDACTED]





4.7.13 [REDACTED] is located to the south of site, with a single, steeply pitched roof and loft space. Brick walls to all elevations are generally in good condition, with pointing mainly intact though areas of missing mortar are present at the northern aspect, and within areas at the eastern gable end. Lifted flashing and tiles

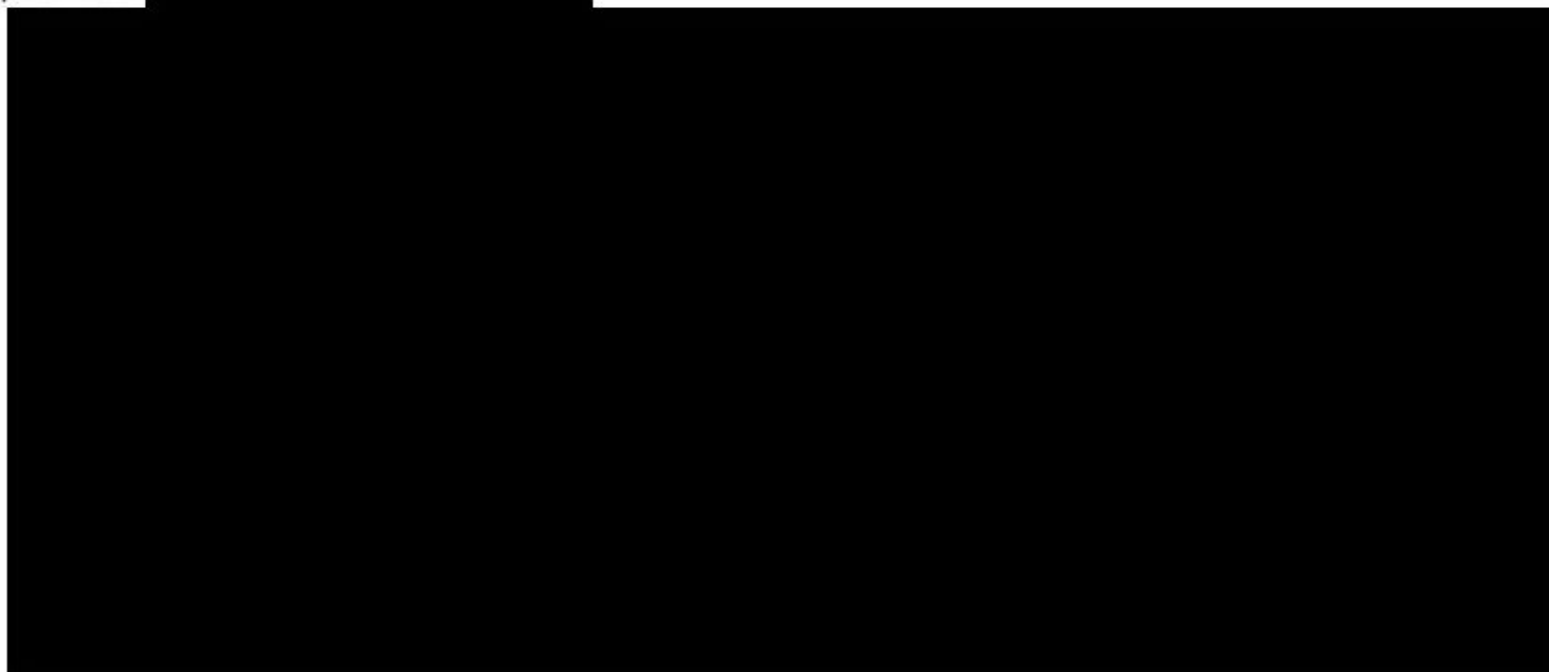
in association with Velux windows, lifted ridge tiles and lifted roof tiles provide potential opportunities for [REDACTED]. All windows and doors are uPVC, in good condition and well-sealed throughout the building.

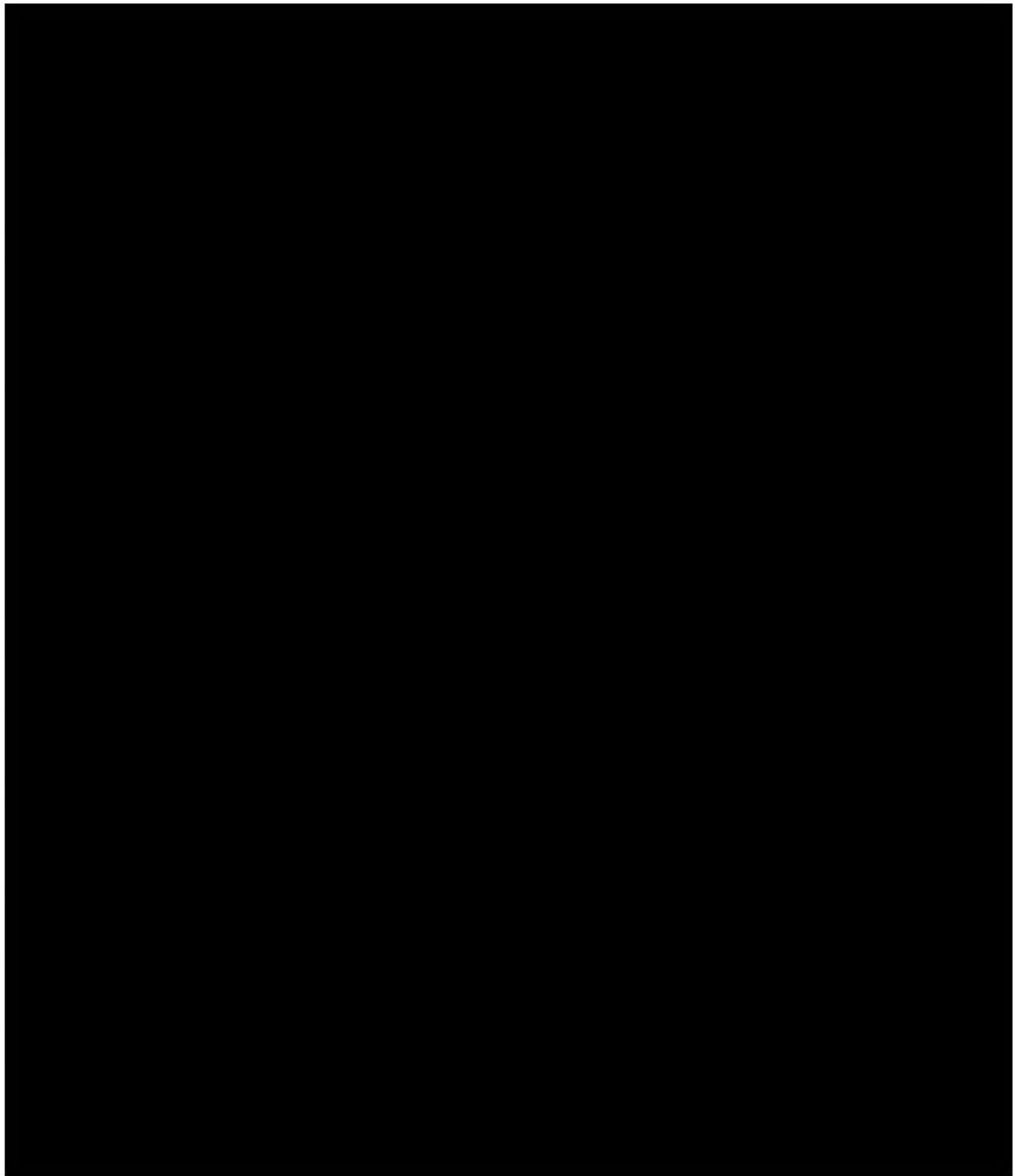
- 4.7.14 The loft space within [REDACTED] was largely inaccessible, with low roof space/lack of walkways restricting free movement, but most of the space allowed for thorough inspection. The loft space is supported on a modern timber frame and is well-sealed with intact bitumen Type 1F felt and building blocks. Gaps were visible within brickwork to the western gable end, with the potential to provide limited roosting opportunities for bats. Flooring insulation is present throughout the loft space.
- 4.7.15 [REDACTED] was recorded within the accessible loft space. This space was generally well sealed, with a low number of small gaps where daylight was visible providing potential [REDACTED] and with areas heavily cobwebbed throughout.
- 4.7.16 Refer to *Figure 04* (appended) for locations of target notes and those detailing internal and external [REDACTED] within the following table:

Table 09: External and internal building features with bat potential (B2)

<i>Target note</i>	<i>Feature description</i>
1	Missing mortar beneath brickwork (PRF)
2	Lifted flashing and tiles beneath Velux windows (PRF)
3	Lifted tiles (PRF)
4	Lifted ridge tiles (PRF)
5	Gaps in brickwork (internal feature)

- 4.7.17 Due to the number of features identified within [REDACTED] this building is considered to provide [REDACTED]





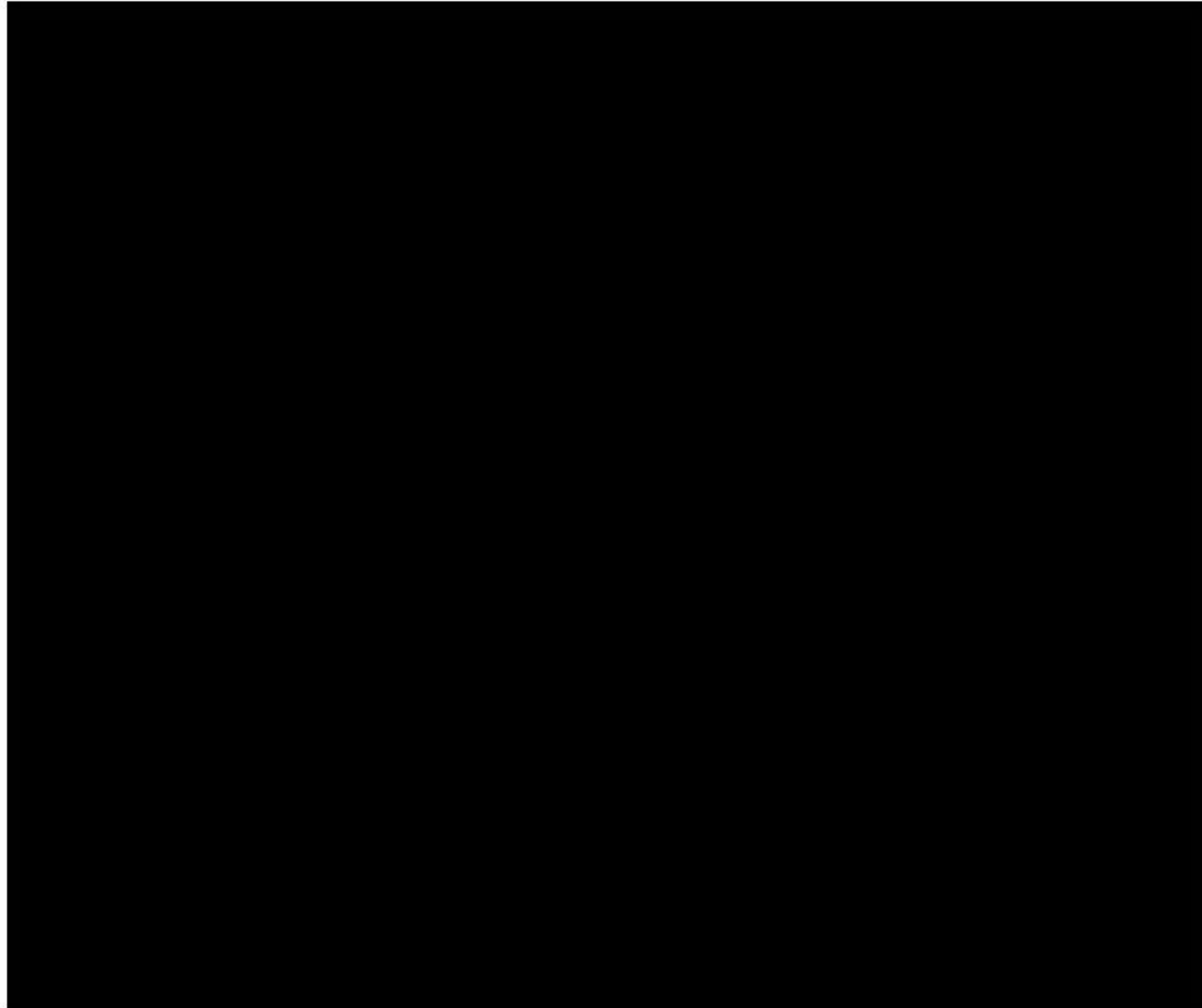
[Redacted]

- 4.7.18 A single [Redacted] situated to the west of site. Solid brick walls to all elevations are generally in good condition, with limited areas of missing mortar present beneath ridge tiles at northeastern and southeastern aspects, and within brickwork along the eastern elevation. Limited gaps are present beneath lifted roof tiles, with roof areas dominated by moss, particularly to the southern aspect which is heavily shaded by adjacent vegetation. Garage doors are timber framed and well-sealed.
- 4.7.19 The garage is supported on a modern timber frame, with pointing noted to be in good condition. The roof is lined with intact bitumen Type 1F felt. No potential roosting features were identified within the interior of [Redacted] with areas being well sealed and cleaned, and occasional areas of cobwebbing.
- 4.7.20 Refer to *Figure 04* (appended) for locations of target notes and those detailing internal and external [Redacted] within the following table:

Table 10: External and internal building features with bat potential (B3)

<i>Target note</i>	<i>Feature description</i>
1	Gaps beneath ridge tiles (PRF)
2	Missing mortar (PRF)
3	Lifted roof tiles (PRF)

4.7.21 Due to the number of features identified within [REDACTED] this building is considered to provide [REDACTED]



[REDACTED]
4.7.22 A recently converted [REDACTED] with a single pitched roof is located adjacent to the east of B1. Northern and southern gable ends show pointing within solid brick walls to be mainly intact. Lifted tiles, areas of missing mortar, gaps between tiles and flashing adjacent to Velux windows along the western pitch provide potential roosting features for bats.

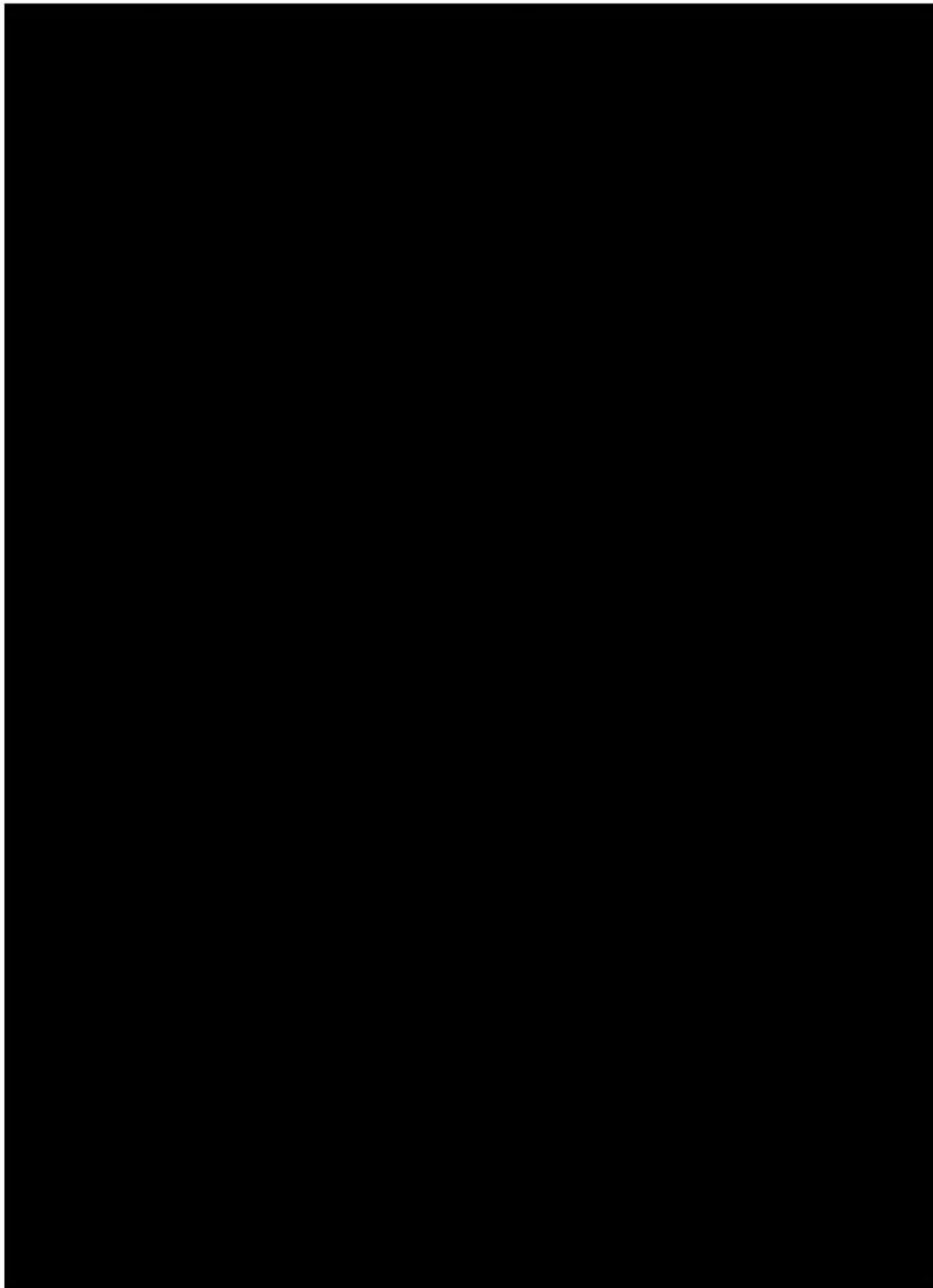
4.7.23 The ground floor of the garage is supported on a modern timber frame with insulation blocks lining the roof in good condition. The second floor has been recently renovated, with plastering intact and showing no gaps to within roof space. No evidence of roosting bats was recorded within internal areas of [REDACTED] with no access points identified and being predominantly clean and well-sealed, with occasional areas of cobwebbing.

4.7.24 Refer to *Figure 04* (appended) for locations of target notes and those detailing internal and external [REDACTED] within the following table:

Table 11: External and internal building features with bat potential (B4)

<i>Target note</i>	<i>Feature description</i>
1	Lifted roof/ridge tiles (PRF)
2	Missing mortar (PRF)
3	Gaps between flashing and tiles (PRF)

4.7.25 Due to the number of external features identified within B4, this building is considered to provide [REDACTED]



Conclusion

4.7.26 [REDACTED] were identified during the external/internal inspection, however, due to the number of access points and [REDACTED] features noted during the survey and the suitability of habitat within proximity of the [REDACTED] the buildings are assessed as having a [REDACTED] to support [REDACTED]

5.0 IMPLICATIONS/RECOMMENDATIONS

5.1 NATURE CONSERVATION DESIGNATED SITES

- 5.1.1 A single statutorily designated site lies within a 2km radius of the proposals site, this being Gamston and Eaton Woods and Roadside Verges SSSI, located 1.8km northwest of the proposals site boundary. Habitats within these sites do not complement those within the proposals site and no connective habitat links exist between the sites. The proposals site falls within the Impact Risk Zone (IRZ) of Gamston and Eaton Woods and Roadside Verges SSSI, however no connective habitat links exist between the site and the extent of the proposed development will not fall outside the footprint of the existing residential plot. The relevant Natural England (NE) Geographic Information System (GIS) dataset indicates that the nature and scale of the proposed works are unlikely to impact upon the designated site, with proposals for the demolition and replacement of residential units within an existing development plot.
- 5.1.2 No other European or national statutory designated sites are present within 2km of the proposed development site such as Ramsar sites, Local Nature Reserves (LNR) and National Nature Reserves (NNR).
- 5.1.3 Nine non-statutorily designated sites are located within 2km of the site, however it is considered that there will be no adverse impact upon these designated sites as a result of the development due to a combination of distance from the proposals site, intervening land uses (roads and built up areas) and the nature and scale of the proposals.

5.2 HABITATS

- 5.2.1 The habitats within the proposals site are generally considered to be of low conservation value, predominantly comprising gardens, modified grassland and hardstanding. Ornamental planting and hedgerows within the site are considered to be of some conservation value, as these provide suitable habitat for [REDACTED] bird species, foraging and [REDACTED], amphibians and small mammals such as hedgehogs. Buildings present may also provide suitable habitat [REDACTED]
- 5.2.2 In order to protect habitats of ecological value present and ensure that the proposed development provides enhancement to wildlife, the following is recommended:
- The retention of trees and hedgerows at the site where feasible, or replacement planting using native species;
 - Consideration of seeding of areas associated with hedgerows/tree planting with a suitable wildflower mix;
 - Retention and enhancement of on-site waterbody, with variations in water depths and native aquatic planting to benefit wildlife;
 - Potential impacts on the water quality of on-site waterbody should be minimised/avoided by undertaking works with appropriate pollution prevention measures and accident procedures in place to prevent encroachment by machinery or storage of building materials etc. (e.g. sediment/Heras-type fencing, bunding of fuel tanks/designated machinery location;

- Use of temporary protective demarcation fencing to protect retained areas/features. The fencing must be in accordance with BS5837:2012 'Trees in Relation to Design, Demolition and Construction', extend outside the canopy of the retained trees, and remain in position until construction is complete;
- Use of directional lighting during construction, which will not shine upon the site boundaries, hedgerows or trees within the site;
- Careful consideration will be required within the design scheme to ensure impacts upon sensitive ecological receptors (standing water, trees, hedgerows) such as the use of artificial lighting (including locations, specifications and timing of operations).

5.3 PROTECTED SPECIES

5.3.1 Existing records data and site survey have noted the potential for various protected species to occur within the search area or on site, upon which the potential effects of the proposed development are discussed in the following sections.

5.3.2 Refer to *Appendix 04* for relevant species legislation.

5.3.3 [REDACTED] were subject to external and internal building inspection during June 2022, with buildings B5-B8 not included within the assessment, remaining unaffected by the proposals. [REDACTED] were identified during the external/internal inspection, however, due to the number of access points and [REDACTED] noted during the survey and the suitability of habitat within proximity of the site for [REDACTED] the buildings are assessed as having a [REDACTED]

5.3.4 Following the initial building inspection, [REDACTED] are therefore recommended to further assess the use of the buildings within the site boundary, assessed as follows:

[REDACTED]

5.3.5 Emergence/re-entry surveys would be undertaken to the [REDACTED] publication [REDACTED] Good Practice Guidelines (2016) within the appropriate survey season (May – August) by an appropriate number of surveyors to cover all aspects of the buildings. These surveys should be undertaken at least 2 weeks apart, preferably more, in order to sample as much of the recommended survey period as possible.

5.3.6 If [REDACTED] identified within any buildings to be affected by works, a protected species licence obtained from Natural England will be required prior to works commencing. This would ensure that works are undertaken in such a way and time so

as not to harm/kill roosting bats and detail the provision of mitigation so as to maintain a favourable conservation status of the roosting bats identified on site.

5.3.7 [REDACTED] are afforded full legal protection under both UK and European legislation, and as such any proposed works taking place that would disturb [REDACTED] prevent access to a [REDACTED] features without a [REDACTED] [REDACTED] or the site not having been registered under a [REDACTED] would contravene this protection.

5.3.8 Consideration should be given to the installation of [REDACTED] features on new buildings/retained trees irrespective of whether [REDACTED] are found to enhance site biodiversity in line with the National Planning Policy Framework (NPPF).

5.3.9 Trees on site were assessed on their potential to support [REDACTED] and identified to be generally intact with no suitable roosting features present at the time of survey.

[REDACTED]
5.3.10 [REDACTED] of the proposals site include field and [REDACTED] records relating to [REDACTED] and [REDACTED] with the closest of these records being [REDACTED] records for [REDACTED]

5.3.11 Hedgerows and areas of ornamental planting on site provide suitable habitat for foraging and [REDACTED] acting as potential [REDACTED] and connecting the site to other suitable areas adjacent to site.

5.3.12 To enhance linear features, it is recommended that proposals include the planting of native hedgerow species to boundaries where none currently exist, and to strengthen existing hedgerows, as well as the planting of native wildflower grassland and shrubs in association with these areas. This will ameliorate opportunities for the [REDACTED] population.

5.3.13 In addition to this, any landscaping around the proposed development should aim to enhance the site for the local [REDACTED] and other local wildlife, to maintain linkages to adjacent habitats and increase biodiversity. Providing a variety of berry, nut-bearing and flowering trees, shrubs and plants would offer year-round interest for a range of invertebrates, and as such provide feeding opportunities for the [REDACTED]

5.3.14 Careful consideration will be required within the design scheme to ensure impacts upon sensitive ecological receptors (standing water, trees, hedgerows) such as the use of artificial lighting (including locations, specifications and timing of operations).

[REDACTED]
5.3.15 A single pond is present on site, and habitats present may be used by amphibian species during their terrestrial phase for refuge, cover and hibernation, such as hedgerows, ornamental shrub areas, and dry-stone walls. From consulting an OS base of the site, a single additional [REDACTED]

5.3.16 From consultation with the local records centre no records of [REDACTED] were provided within [REDACTED] of the proposals site. Due to the lack of existing records, and the unsuitability of ponds within [REDACTED] the potential for habitat on site to support [REDACTED] [REDACTED] is considered to be [REDACTED], and therefore no adverse impact

upon [REDACTED] is anticipated as a result of the proposed development. No further assessment for this species is considered necessary.

Breeding Birds

- 5.3.17 Bird species recorded during the walkover survey included blackbird, chaffinch, dunnock, greenfinch, house sparrow and robin. Hedgerows, trees, ornamental planting and buildings are likely to be used by all these species and local breeding and roosting bird populations in general.
- 5.3.18 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended) during breeding. It is therefore recommended that any vegetation clearance takes place outside the core bird nesting period (March – August inclusive) unless checks by an appropriately qualified ecologist find active nests to be absent immediately prior to clearance works. If nesting birds are identified advice will be sought. The advising ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. Measures such as applying a set boundary around the nest may be necessary until the young birds have fledged.
- 5.3.19 Fieldfare and redwing are afforded additional protection from disturbance while breeding. Records of these species were provided within 2km of the site, and although they will utilise on-site habitats for foraging and commuting purposes, such as hedgerows and ornamental planting, these are to remain unaffected by the proposals, and therefore no impact upon such species is anticipated as a result of the development.
- 5.3.20 Consideration for the enhancement of the site in relation to birds could include appropriate native species planting/wildflower seed mix. The installation of nest boxes on suitable trees/buildings including species-specific boxes would provide nesting opportunities for bird species known to be of conservation concern and local bird populations in general.
- 5.3.21 Sympathetic management of existing and newly planted hedgerows should be considered to avoid disturbance to breeding birds. This involves the avoidance of management during the core active season March – August and preferably only to be carried out during January and February when the berry crop is mostly finished to benefit species during winter.

- [REDACTED]
- 5.3.22 [REDACTED] were recorded within or adjacent to the site during the survey, however records have been provided within a [REDACTED] of the site. Owing to this and the suitability of habitat in the surrounding local area it is anticipated that these species may access the site for [REDACTED]. Precautionary working methods are therefore recommended to be adopted during construction works, which will include the covering, or providing a means of escape from, any trenches and capping any open pipework at the end of each working day, to prevent accidental harm to [REDACTED] which may access the site.

Other protected species

- 5.3.23 Due to the lack of / limited number of records for reptiles, otter, water vole and white-clawed crayfish within the surrounding area, the lack of suitable basking habitat for reptiles and suitable river/pond habitat for water vole/otter/white-clawed crayfish the presence of these species is considered unlikely. No adverse impact upon such species

is anticipated as a result of the proposed development, and no further assessment is therefore considered necessary.

5.4 NOTABLE SPECIES

Hedgehog

- 5.4.1 Records within 2km of the site included hedgehog and garden habitats on site, such as hedgerows and areas of ornamental shrub planting are considered to be suitable for this species. Precautionary working methods as recommended for badger (section 5.3.22) will therefore be adopted to ensure hedgehogs are not harmed/killed during works. In addition, any tree/shrub cuttings should be removed from site once vegetation is cut so as to avoid the creation of brash piles; these may be attractive to hedgehogs, which could subsequently be harmed if the brash pile is burnt or removed with machinery.
- 5.4.2 To allow passage of hedgehog and maintain connectivity across the site it is recommended that small gaps (0.15m) are left under any proposed sections of new fencing/walls within the development (where applicable).

UKBAP Priority Bird Species

- 5.4.3 Dunnock and house sparrow recorded during site survey have been afforded national priority within the UK Biodiversity Action Plan. Dunnock, greenfinch and house sparrow have also been assigned red or amber status on the UK Red List (BoCC, 2021) and are considered species of conservation concern. Species feature on this list as a result of historical declines in numbers, trends in population and range, rarity, localised distribution and international importance.
- 5.4.4 To enhance the site for colony nesters such as house sparrow and hedgerow/tree nesters such as song thrush, dunnock and tree sparrow, consideration should be given to the installation of species-specific bird boxes onto retained trees/hedgerows/new buildings within the site. The sowing of suitable wild bird seed mixtures under cover of existing hedgerows will aim to boost seed production, an important source of food for species of conservation concern such as tree sparrow/yellowhammer and wildlife in general.
- 5.4.5 The inclusion of native berry-bearing tree and shrub species within planting proposals will benefit thrush species and breeding/wintering bird populations in general. Particular consideration should be given to the incorporation of berry-bearing species such as rowan *Sorbus aucuparia*, guelder-rose *Viburnum opulus*, holly *Ilex aquifolium*, hawthorn, blackthorn and ivy as a climber.

5.5 INVASIVE NON-NATIVE SPECIES

Cotoneaster and Montbretia

- 5.5.1 Cotoneaster and Montbretia are present in association with ornamental borders on site. These are non-native invasive plant species in England and listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Although these were originally planted for ornamental purposes, it is an offence to plant or otherwise cause to grow in the wild. It is therefore recommended that precautionary measures are adopted to prevent the accidental spread of these species during construction such as no soil disturbance within proximity and appropriate biosecurity measures such as checking of footwear/machinery and cleaning where required during construction works.

6.0 CONCLUSIONS

- 6.1.1 The habitats within the proposals site are generally considered to be of low conservation value, predominantly comprising gardens, modified grassland and hardstanding. Ornamental planting, trees and hedgerows within the site are considered to be of some conservation value, as these provide suitable habitat for breeding and roosting bird species, amphibians and small mammals such as hedgehogs. Hedgerows and trees should be retained, where possible or replaced with appropriate native planting.
- 6.1.2 No adverse impacts on designated nature conservation sites are anticipated as a result of the proposed development due to the nature and scale of the proposals.
- 6.1.3 Further survey work of buildings on site is required to assess the potential impact of the proposals or to inform the mitigation requirements in [REDACTED]
- 6.1.4 Control and precautionary working methods are recommended in respect of the non-native invasive species Cotoneaster and Montbretia present on site.
- 6.1.5 Recommendations include the retention of tree, hedgerow and pond habitat and general site enhancements include appropriate native species planting, wildflower seeding, sympathetic lighting and incorporation of [REDACTED]
- 6.1.6 Precautionary working methods and/or mitigation have been recommended for species such as [REDACTED] hedgehog and breeding birds.
- 6.1.7 Subject to further survey with respect [REDACTED] it is anticipated that the development of the site is feasible with minimal impact to biodiversity and potential for biodiversity gains, provided that the recommended mitigation and enhancement measures are incorporated within the scheme.

7.0 REFERENCES

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FIGURES

Figure 01: Aerial view of site/location (included within body of report)

Figure 02: Existing habitats plan

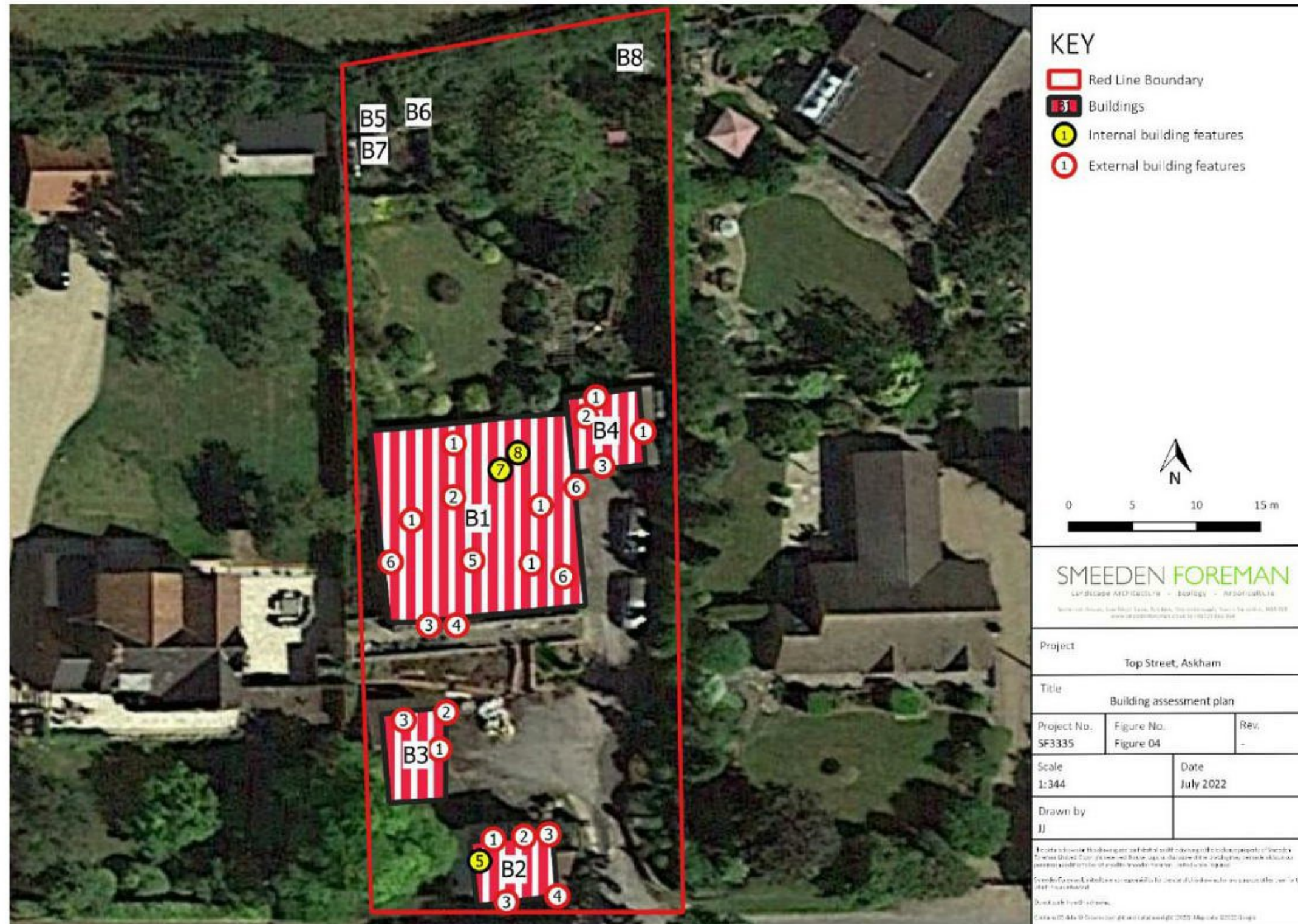
Figure 03: Waterbodies within 500m (included within body of report)

Figure 04: Building assessment plan

FIGURE 02: EXISTING HABITATS PLAN



FIGURE 04: BUILDING ASSESSMENT PLAN



APPENDICES

Appendix 01: Principle Legislation and Policies

Appendix 02: Designated sites map

Appendix 03: Site habitat photographs

Appendix 04: Protected Species Legislation

APPENDIX 01: PRINCIPLE LEGISLATION AND POLICIES

Principle Legislation

Wildlife and Countryside Act 1981 (as amended)

This is the primary legislation for nature conservation in England and Wales. It confers varying degrees of protection on selected species according to their conservation status, ranging from making it an offence to take a species from the wild for profit, to full protection of a species and its habitat. The Act also gives guidance and instruction on statutory sites, such as sites of Special Scientific Interest (SSSI). License exempting specific works can be granted by Natural England. Such licenses are only granted once a full assessment has been made and an appropriate, sustainable mitigation package devised.

Protection of Badgers Act 1992

Allied to the Wildlife and Countryside Act, 1981 are subsidiary Acts such as the Protection of Badgers Act, 1992 which consolidated and added to previous legislation. According to the PBA it is an offence to wilfully kill, injure or maim a badger. Badger setts are also protected from interference unless such activities are licensed through Natural England. Any mitigation packages devised for badgers found on development sites must be agreed by Natural England and all mitigation activities must be fully licensed.

Countryside and Rights of Way Act 2000

As well as providing measures to improve countryside access for walkers, ramblers and horse riders, this Act also strengthens the protection of species and designated sites made in the Wildlife and Countryside Act 1981. This Act also gives the importance of biodiversity conservation statutory basis requiring government departments to have regard for biodiversity in carrying out their functions, and to take positive steps to further the conservation of listed species and habitats.

Natural Environment and Rural Communities Act (NERC), 2006 – Biodiversity Duty

NERC received royal assent in March 2006. Section 40 of the Act replaces and extends a duty, from Section 74 of the Countryside and Rights Of Way Act 2000, on Ministers and Government which already requires them to have regard to the purpose of conserving biodiversity. Section 40(1) states that, "*Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.*"

EC Habitats Directive (92/43/EEC)

This Directive aims to give Europe-wide protection to certain rare and threatened habitats on land and at sea. It builds on legislation already established under the Birds Directive of 1979, and aims to establish a series of protected sites known as Natura 2000 series. These sites are intended to protect the unique and special wildlife of Europe and to preserve it for future generations. In Britain these Natura 2000 sites include those areas designated as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

The Habitats Directive is implemented in the UK through the Conservation of Habitats and Species Regulations 2017.

EC Birds Directive (79/409/EEC)

The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. It sets broad objectives for a wide range of activities, although the precise legal mechanisms for their achievements are at the discretion of each Member State (in the UK delivery is via several different statutes). The Directive applies to the UK and to its overseas territory of Gibraltar.

The main provisions of the Directive include:

The maintenance of the favourable conservation status of all wild bird species across their distributional range with the encouragement of various activities to that end;

The identification and classification of Special Protection Areas (SPAs) for the rare and vulnerable species listed in Annex I of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance;

The establishment of a general scheme of protection for all wild birds; Restrictions on the sale and keeping of wild birds.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 were made under Section 97 of the Environment Act 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

For species-specific legislation, please refer to *Appendix 04* for further information.

Policy

National Planning Policy Framework (2018)

The National Planning Policy Framework replaces Planning Policy Statement 9 (PPS 9) Biodiversity and Geological Conservation but the accompanying guidance document (ODPM 06/2005: Biodiversity and Geological Conservation-Statutory Obligations and their impact within the Planning System) has not been withdrawn.

The NPPF sets out the Government's policies on the protection of biodiversity and sites of geological interest through the planning system. It required local planning authorities, when taking decisions, to ensure that appropriate weight is attached to designated sites of international, national and local importance, protected species and to biodiversity and sites of recognised geological interest within the wider environment. It states:

'Planning policies and decisions should contribute to and enhance the natural and local environment by:

- protecting and enhancing values landscapes, geological conservation interests and soils;
- recognising the wider benefits of ecosystem services;
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and,
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

'When determining planning applications, local planning authorities should apply the following principles:

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁵⁸ and a suitable compensation strategy exists; and,
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity."

Biodiversity Action Plan (BAP)

In 1993, the UK government consulted over three hundred organisations throughout the UK and held a two day seminar to debate the key issues raised at the Convention of Biological Diversity. The product of this was the launch of Biodiversity: the UK Action Plan in 1994 which outlined the UK Biodiversity Action Plan for dealing with biodiversity conservation in response to the Rio Convention.

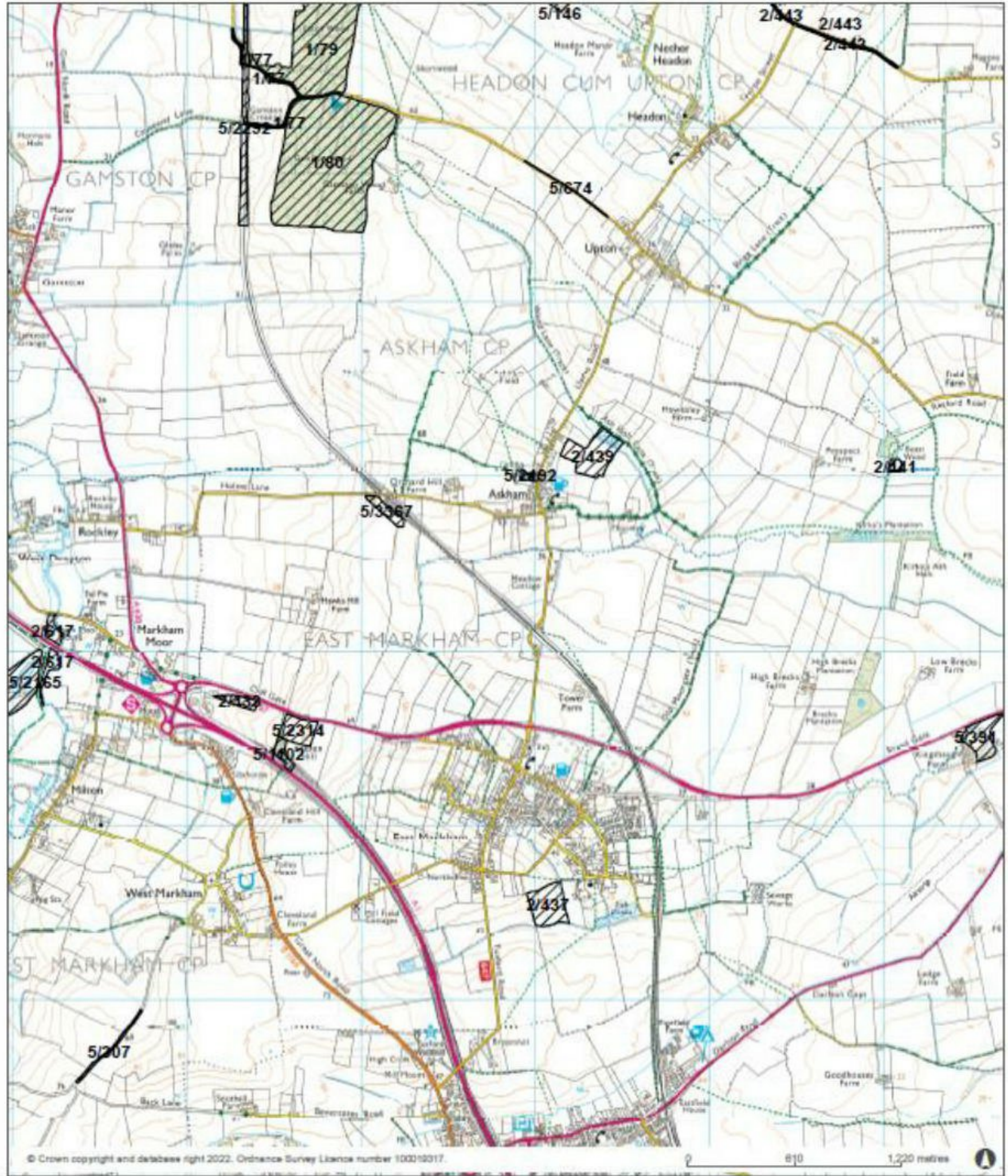
The UK Biodiversity Steering Group was created in 1994 and published Biodiversity: the UK Steering Group Report – meeting the Rio challenge. This established the framework and criteria for identifying species and habitat types of conservation concern.

From this list, action plans for 391 species and 45 broad habitat types were produced. As well as having national priorities and targets, action was also taken at a local level. The Steering Group drew up a set of guidelines that were discussed with the Local Authority Association and the Local Government Board.

Today there are 162 Local Biodiversity Action Plans in the UK. A review of the UK BAP was undertaken between 2003 and 2006.

APPENDIX 02: DESIGNATED SITES MAP

SK73827481



Key
 Local Wildlife Site



APPENDIX 03: SITE HABITAT PHOTOGRAPHS



Image 23: Ornamental planting within vegetated garden



Image 24: Ornamental shrub bed



Image 25: Vegetated garden area and H3



Image 26: Vegetated garden



Image 27: Vegetated garden as viewed from the north



Image 28: Site as viewed from the south

APPENDIX 04: PROTECTED SPECIES LEGISLATION

are afforded full legal protection under both UK and European legislation. Conservation of transposes the into UK law, making it an offence to:

- deliberately disturb
- deliberately kill, injure or capture
- damage, destroy or obstruct access to a breeding site or resting place (note this applies to both deliberate and reckless actions).

The Wildlife and Countryside Act 1981 (as amended) (Schedule 5) made it an offence to:

- intentionally kill, injure or take
- damage, destroy or obstruct
- disturb a
- possess or control a or any part thereof;
- sell, offer for sale, possess or transport for sale any or part thereof;
- set traps for catching, killing or injuring
- possess articles for the purposes of committing offences against

[*= intentional and reckless offences covered].

Legal protection under the Habitats Directive applies to the animals and their This means that are fully protected, whether they are in use at the time or not. Where roosts or resting/breeding sites are identified, any works which may contravene the protection afforded to them require derogation from the provisions of the legislation in the form of a licence from Natural England..

(as amended) transposes into UK law and the was amended by the Countryside and

The and is therefore subject to the provisions of which make it an offence to:

- Intentionally kill, injure or take a
- Possess or control any live or dead specimen or anything derived from a
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a
- Intentionally or recklessly disturb a while it is occupying a structure or place which it uses for that purpose

transpose into the on the conservation of Natural Habitats and of Wild Fauna and Flora (often referred to as the 'Habitats [and Species] Directive'). The is listed on The former Annex relates to the designation of for this species; even where outside SACs, the inclusion on Annex II serves to underline their conservation significance. Inclusion of the means that member states are required to put in place a system of strict protection as outlined in , and this is done through inclusion on of the makes it an offence to:

- Deliberately capture or kill a
- Deliberately disturb a
- Deliberately take or destroy the eggs of a
- Damage or destroy a breeding site or resting place of a

The legislation applies to all life stages of

Breeding birds

The Wildlife and Countryside Act 1981 (as amended) makes it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built or,
- take or destroy an egg of any wild bird.

This protection applies from the moment the nest is being built. Additional protection against disturbance on the nest or of dependent young is provided for birds included on Schedule 1.

██████████ and their ██████████ are protected by the ██████████. Under the Act it is illegal to:

- Wilfully kill, injure or take a badger or attempt to do so;
- Cruelly ill-treat a ██████████ and,
- Interfere with a ██████████ doing any of the following:
 - (i) damaging a ██████████ or any part of it;
 - (ii) destroying a ██████████
 - (iii) obstructing access to a ██████████
 - (iv) causing a dog to enter a ██████████ and,
 - (v) disturbing a ██████████ while it is occupying a sett.