PRELIMINARY ECOLOGICAL APPRAISAL

Store Building
The Manor
Winterbourne Bassett
Wiltshire
SN4 9PU





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1 SUMMARY

1.1 Report purpose

1.1.1 It is proposed to submit a planning application to alter the building surveyed to construct additional secure storage space in an area which is currently open fronted.

1.1.2 A preliminary ecological appraisal has therefore been requested to assess the ecological impact of the proposed work.

1.2 Work carried out for the purpose of the report

1.2.1 A preliminary ecological appraisal was carried out on 20 May 2022 to assess the potential ecological impact of the work.

1.3 Survey findings

1.3.1 No evidence of bats was found on survey.

1.3.2 Breeding birds may be present in climbing vegetation on the building walls and in adjacent shrubby vegetation.

1.3.3 No habitat of ecological significance will be lost as a result of the proposed work.

1.4 Conclusions

1.4.1 The risk of negative impact on bats is assessed as nil.

1.4.2 There is a negligible risk of individual bats being present from time to time.

1.4.3 There is a low risk of negative impact on breeding birds.

1.5 Recommendations

1.5.1 Precautionary guidance should be followed to avoid the negligible risk of harm to individual bats which may be present from time to time.

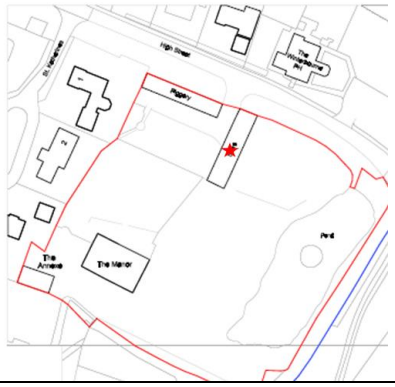
1.5.2 Precautionary guidance should be followed to avoid the low risk of disturbance to breeding birds.

1.5.3 There will be biodiversity net gain if opportunities are made in the southern elevation for bats to roost behind the planned weather boarding and a sparrow terrace is also fitted in this location. This elevation overlooks the formal gardens.

2 Introduction

Figure 1

Site plan showing location of building surveyed marked with red star



2.1 Chalkhill was commissioned to carry out a preliminary ecological appraisal in advance of a planning application to Wiltshire Council to alter the building surveyed in order to create additional secure storage space. A larger enclosed area will be provided, encompassing the two southern bays to create secure vehicle storage with the two remaining bays left fully open. The building will be re-roofed and existing blockwork will be covered with timber cladding externally. The building is within the curtilage of a Grade 2 listed building.

2.2 The purpose of the survey was to assess the ecological impact of the proposed work.

2.3 The building surveyed was a modern open fronted storage building constructed against a traditional brick and stone formal garden wall with existing secure storage compartments at the northern and southern ends.

2.4 The site was situated in a rural location within the village of Winterbourne Bassett.

2.5 The GB OS Centroid Grid reference is SU10227498.

2.6 The site in local context is illustrated in Figure 4.

3 Methodology

3.1 Desk study

3.1.1 Desk study data relating to designated sites and habitats within a 2 km radius of the site surveyed was obtained from https://magic.defra.gov.uk/magicmap.aspx (refer Appendix 2 Designated sites within a 2 km radius).

3.1.2 An aerial view of the site in local context was reviewed to assess the degree of connectivity with the immediate and surrounding countryside.

3.2 Field survey

3.2.1 The preliminary ecological appraisal was carried out on 20 May 2022 by an experienced ecologist licensed by Natural England to survey for bats (Class licence levels 3 and 4) and trained, licensed and experienced in survey for other protected species including barn owls and trained in Phase 1 habitat and National Vegetation survey techniques.

3.2.2 Bat survey was carried out in accordance with Bat Conservation Trust Bat Surveys for Professional Ecologists Good Practice Guidelines Third Edition.

3.2.3 An assessment was made of the potential ecological impact of the proposed work and for the potential presence of protected species.

3.2.4 The site was surveyed in the daytime in warm and dry weather conditions.

3.2.5 Survey was aided by close focus binoculars and a camera.

3.2.6 The exterior of the building was surveyed for potential bat roost features and evidence of use by bats such as:

- displaced or damaged roof, hip and ridge tiles
- deteriorating fascia and soffit boards
- lifted lead flashing filling the junction between chimney and roofs, different roof levels and the junction between building structures such as extensions
- gaps in walls or between bricks or stones caused by missing pointing
- external weatherboarding which might be warped or with sections missing, particularly if this was double skinned
- gaps at eaves or at the apex of gable ends or beneath the roof verge of gable end slopes
- deteriorating or warped weather boarding
- gaps at the edge of flat roofs and beneath felt roof covering
- evidence of bat access such as accumulations of bat droppings associated with potential bat roost features or scratch marks and areas worn smooth as a result of bat access and stain marks from oil on fur deposited when bats enter or leave roost access points
- windows with broken or missing panes, door and window openings and other gaps or openings which might be used by bats species such as Greater and Lesser Horseshoe bats which require such openings in order to fly into their roosts

3.2.7 The interior of the building was searched for evidence of use by bats such as:

- accumulations of droppings
- feeding remains in the form of insect wings
- urine splashes on floors and walls and on the surfaces of stored items
- droppings adhering to external walls and window panes and sills
- bat droppings caught up in cobwebs
- the presence of staining, scratch marks and areas worn smooth around points of potential bat access created as a result of bat use

- openings in walls or broken window panes which would permit flying access for bats to the building interior
- the physical presence of live and dead bats
- cracks and crevices in walls and in complex junctions of the roof frame which might be used by bats as potential roost features

3.2.8 The survey results contained in this report are considered accurate for 1 year.

4 Results of desk study

Figure 2 Map view of site marked with red circle

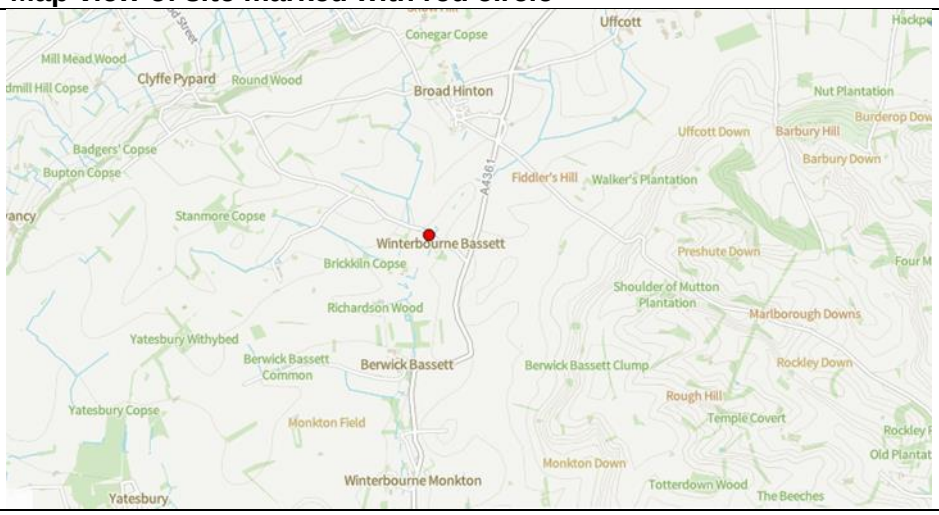


Figure 3 Aerial view of site marked with red circle



Scale 1:25,000
GB OS Centroid Grid reference is SU10227498

Figure 4 Aerial view of site in local context marked with red circle



4.1 Review of an aerial image showed that the building was located in a rural setting within the village of Winterbourne Bassett and within the formal gardens of the Grade 2 listed building. The surrounding area was in agricultural use as arable and pasture.

4.2 The formally landscaped surrounding garden with a mix of non-native and native small specimen trees did create some connectivity with the surrounding area, together with a line of mature trees alongside the main road through the village.

4.3 The corridor of the River Kennett was located approximately 130 metres to the east of the building surveyed.

4.4 The site was located within the North Wessex Downs AONB.

4.5 Desk study data relating to designated sites and habitats within a 2 km radius of the site surveyed was obtained from MAGIC (refer Appendix 2 Designated sites within a 2 km radius). https://magic.defra.gov.uk/magicmap.aspx

4.6 Within a 2 km radius were the following sites/habitats with statutory designations:

- Ancient Woodland (England)
  - Richardsons Wood Ancient & Semi-Natural Woodland
- Priority Habitat Inventory - Deciduous Woodland (England)
- National Forest Inventory (GB)
- Priority Habitat Inventory - Traditional Orchards (England)

4.7 Within a 2 km radius was the following Granted European Protected Species Application (England)

- 2015-6844-EPS-MIT relating to Brown Long-eared bats and Common pipistrelles allowing destruction of a resting place.

5 Field survey (refer Appendix 1 Site photographs)

Figure 5 Site plan with building surveyed indicated by red star



5.1 Field survey (refer Appendix 1 Site photographs

5.1.1 The building surveyed was located in the formal landscaped gardens of a Grade 2 listed building and appeared to have been constructed against a traditional brick and stone formal garden wall.

5.1.2 To the west was an area of grass and gravel which appeared to have formerly been a farmyard with associated buildings now converted to residential use and parking. There was direct access by vehicles to this area through a gate to the north opening onto the main road through the village.

5.1.3 The building was otherwise surrounded by the formal landscaped grounds of the Grade 2 listed building.

5.1.4 Access to the building surveyed from the east was through a door in the formal garden wall against which the building was constructed which gave alternative access to the building interior.

5.1.5 On survey of the eastern exterior elevation, this was constructed of red brick in good condition with no gaps created by missing mortar or shifted bricks. This elevation overlooked the formal gardens. Some climbing vegetation and ornamental shrubs planted close to the wall were present. A substantial timber wall plate was in place at the wall top, deteriorated in places. This deterioration had created gaps and crevices. No evidence of bats was found associated with any of these features.

5.1.6 The access door was set in a timber frame in good condition but with a large deteriorating timber lintel above.

5.1.7 These deteriorating timber lintels were surveyed for evidence of the presence of bats but none was found. No ultrasonic calls or audible vocalisations or sounds of bats present and active within a roost on a warm day were picked up on a hand held bat detector ultrasonically or heard.

5.1.9 The exterior of the southern elevation was covered with a dense growth of bushy climbing vegetation. This elevation overlooked the formal gardens.

5.1.9 The northern elevation which was adjacent to the main road through the village was covered with a dense growth of bushy climbing vegetation.

5.1.10 The western elevation was open fronted and supported on metal "H" beams. This overlooked the area of grass and gravel converted for residential usage and parking. The unlined monopitch roof was supported on a metal frame and was constructed of corrugated sheeting of unknown composition. Light levels within the building were high. Two enclosed secure storage compartments were present at the northern and southern ends.

5.1.11 On survey of the internal walls no bat droppings were found adhering to their surfaces or accumulated at their bases. No bat droppings were found on items within the building or on the concrete floor. No bats were seen clinging to the roof frame or flying within the building as a result of disturbance of survey.

5.1.12 On survey of the building interior the eastern wall appeared to have been lined against the external brick wall with breeze blocks, topped with mortar in places. This wall was in good condition with no gaps or cracks. This lining had created a solid wall but with a ledge along the wall top. On survey of the surface of this ledge no deposits of bat droppings were found.

5.1.13 Access to the enclosed southern compartment was through a door normally kept locked shut. Interior light levels were very low although light could be seen interior the dark interior through gaps caused by the corrugations of the roof covering at the roof verges. The compartment had been subdivided into a second smaller secure storage area by the construction of a timber dividing wall with flat timber roof. This had created a void below the sloping roof in the western area of the compartment.

5.1.14 No evidence of bats was found on survey of the interior of the main compartment or of the second compartment and no bats were physically present.

5.1.15 No bat droppings were found on survey of the upper surface of the second compartment ceiling in the void beneath the roof which had direct access to the remainder of the main compartment interior. The void floor was covered with a fine layer of dust and debris and no recent cleaning which might have removed evidence of bats appeared to have been carried out.

5.1.16 On survey of the enclosed northern compartment interior light levels were very low although light could be seen entering the dark interior through gaps caused by the corrugations of the roof covering at the roof verges. No evidence of bats was found.

5.1.17 No evidence of breeding birds and in particular barn owls was found on survey of the open fronted interior of the building although climbing vegetation on the building exterior may provide shelter for breeding birds.

6 Discussion and analysis of results

6.1 The proposed work will result in closure of a section of the building which is currently open fronted and therefore may potentially obstruct access by bats to a roost.

6.2 However, despite the free flying access to the building interior no evidence of bats was found on internal survey, particularly in the area above the enclosed southern compartment where

light levels were very low and to which flying and crawling access by bats from the building interior and potentially from the exterior would be possible.

6.3 Otherwise the high internal light levels and high degree of interior daytime disturbance are unlikely to be attractive to roosting bats, particularly void roosting species.

6.4 The roof is unlined and supported on a simple metal frame which is not likely to provide roosting opportunities for crevice seeking bats which require dark and sheltered conditions within summer daytime roosts.

6.5 No evidence of bats was found on the surface of the wall top shelf which runs along the interior of the eastern elevation despite potential access by bats to this area from within the building interior. This feature does create a dark crevice beneath the roof and is adjacent to the deteriorating timber beam set within the eastern elevation wall which can be seen from the exterior but which is covered by the blockwork wall in the building interior and there appeared to be no direct access to this ledge via the timber beam.

6.6 Again the high light levels and degree of internal daytime disturbance are likely to reduce the suitability of this ledge as a potential bat roost feature.

6.7 No evidence of bats was found on survey of the deteriorating timber beam visible on the exterior of the eastern elevation and no evidence of bats was found on survey of the ledge along the eastern elevation wall top to which access via the timber beam might be possible, although such access was not visible on survey.

6.8 The climbing vegetation on the southern and northern elevations had not developed a woody structure and no potential bat roost features were seen.

6.9 Survey was carried out a time when any summer roost was likely to have been present and evidence of this apparent during survey.

6.10 The results of the survey indicate that the building is not being used by roosting bats despite the features found and it seems likely that the suitability of these features for roosting bats is reduced by the high internal light levels and degree of interior daytime disturbance.

6.11 However, given the location with nearby woodland and watercourse, the building likely to be well known to local bat populations. This does create a low risk of individual bats being opportunistically present from time to time, particularly in the spring and autumn when bats are moving from hibernation sites to summer roosts and when summer roosts begin to disperse in autumn.

6.12 Although no evidence of this was found, it is possible that individual bats may enter the building at night to fly and feed, particularly in adverse weather conditions and to use the building as a temporary night roost or feeding perch. This again increases the risk of individual bats being opportunistically present from time to time.

6.13 The solid structure of the eastern elevation with good thermal capacity may provide the low unfluctuating temperature gradients which hibernating bats require and individual bats may therefore be present during the hibernation period if only temporarily.

6.14 Given the location of the building with elevations overlooking the formal garden, it is possible that breeding birds may be present in the climbing vegetation on the exterior walls and in shrubby vegetation adjacent to the building.

7 Conclusions

7.1 The risk of roosting bats being present is assessed as nil.

7.2 There is a negligible risk of individual bats being opportunistically present from time to time during the active season and also during the hibernation period.

7.3 No habitat of ecological significance will be lost as a result of the proposed work.

7.4 Climbing vegetation on the building exterior and shrubby vegetation in close proximity to this may be providing shelter for breeding birds.

8 Recommendations

8.1 The proposed work should be carried out in accordance with the precautionary guidance aimed at avoiding the negligible risk of harm and disturbance to individual bats which may be present from time to time:

- Work to remove the embedded timber beam in the eastern elevation and deteriorating timber door lintel should be carried out with care to avoid injury to any concealed individual bats which may be present in surrounding crevices from time to time, particularly in hibernation. Ideally work which disturbs the timber beam and lintel should not be carried out in December and January or during extended

periods of heavy rain or low temperatures in November and February. These are times when individual hibernating bats may be present, even if temporarily.

- Hibernating bats are vulnerable to disturbance which may adversely affect their ability to survive the winter or may result in early emergence when insufficient insects are flying as a source of post hibernation source of food leading to starvation and failure to survive.
- Any cavities created by removal of these features should ideally be temporarily blocked and not left open overnight to avoid the risk of individual bats entering these.
- Any cavities surrounding replacements for these features should be filled immediately or temporarily blocked and not left open overnight to avoid individual bats entering these undetected and becoming trapped when gaps are filled.
- Site personnel should be made aware that because of the free flying access to the building interior there is a low risk of individual bats being present from time to time, particularly in the southern close compartment to which there is flying access from the interior and exterior and to a lesser extent to the northern closed compartment.
- A named member of site personnel who should be present on site must be made responsible for ensuring adherence to this precautionary guidance.
- A printed copy of this guidance should be available in a named location on site at all times.
- If bats or bat droppings are found at any time during the proposed work, this should stop immediately and further advice sought from Chalkhill Environmental Consultants.

8.2 Climbing vegetation on the building exterior and nearby shrubby vegetation should not be cut back/removed during the breeding season for birds. If this is not possible affected vegetation should be checked by a competent person to ensure that no breeding birds are present. If an active nest is found no work should take place within 5 metres of this nest to avoid disturbance and this restriction should remain until the nest is no longer active. An exclusion zone should be marked around any active nest found using hazard tape or similar and care should be taken that exclusion structure prevents free access by breeding birds to their nest.

8.3 It should be noted that the breeding season for birds is normally regarded as being between and including the months of February to August although some species will breed outside of this period of time. A nest is regarded as being active when being constructed, contains incubating eggs or unfledged young or fledged nest dependent young.

9 Biodiversity net gain (National Planning Policy Framework) (refer Appendix 3 Suggested bat access behind weather boarding and sparrow colony terrace)

9.1 Bat access should be created behind external timber weatherboarding planned to be fixed to the blockwork of the southern elevation. This directly overlooks the formal garden.

9.2 A sparrow terrace should be fixed beneath the eaves of the southern elevation. An alternative would be 3 sparrow boxes fixed side by side. Sparrows prefer to nest communally and a single box is unlikely to be used.

9.3 If not used by sparrows, these boxes are likely to be used by other bird species frequently associated with gardens.

9.4 This single storey building is unsuitable for the location of swift boxes since these should be fixed at a height of not less than 5 metres which is the minimum required by swifts to drop and gain speed to fly off when leaving their nest sites.

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10 Appendices

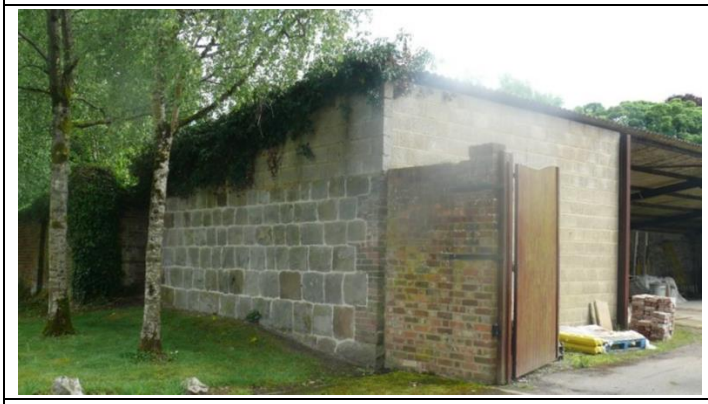
Appendix 1 Site photographs



Western elevation viewed towards the north



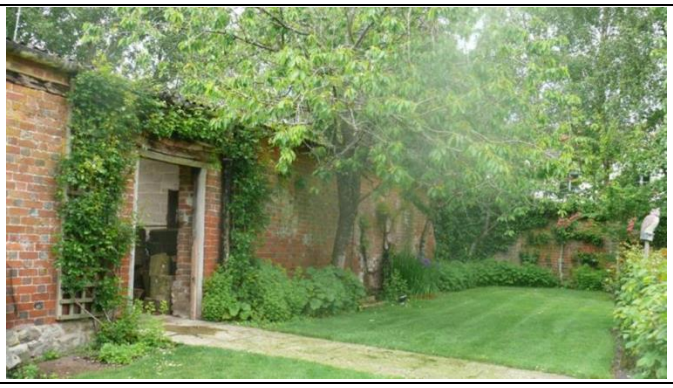
Western elevation viewed towards the south



Northern elevation



Southern elevation



Eastern elevation looking north



Eastern elevation looking south



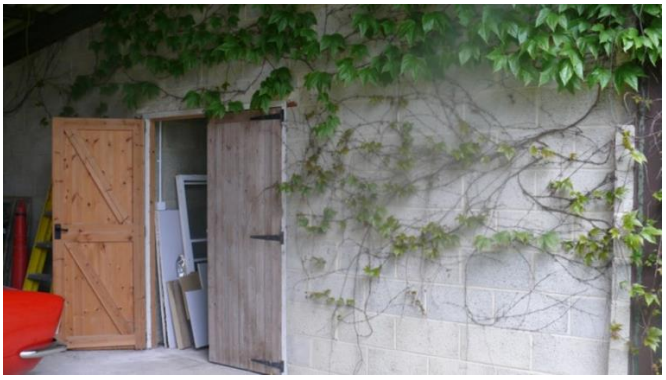
Deteriorating timber wall plate of eastern elevation wall



Timber doorframe with substantial timber lintel above in eastern elevation wall



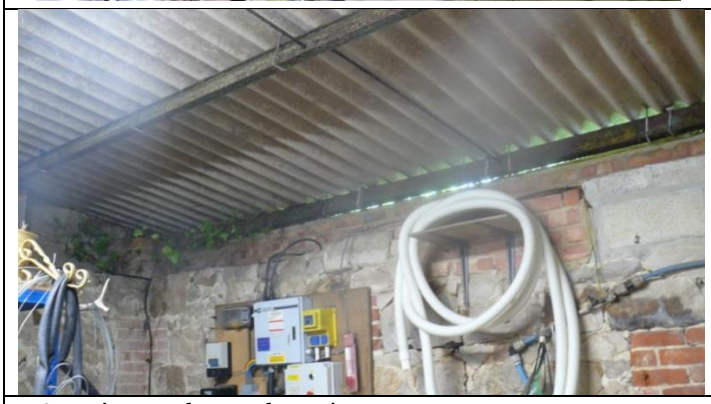
Interior of buildng showing secure storage compartment at northern end



Interior of building showing secure storage compartment at southern end







Interior surface of northern storage compartment showng gaps at wall top and unlined roof



Unlined roof and timber wall place within northern storage compartment



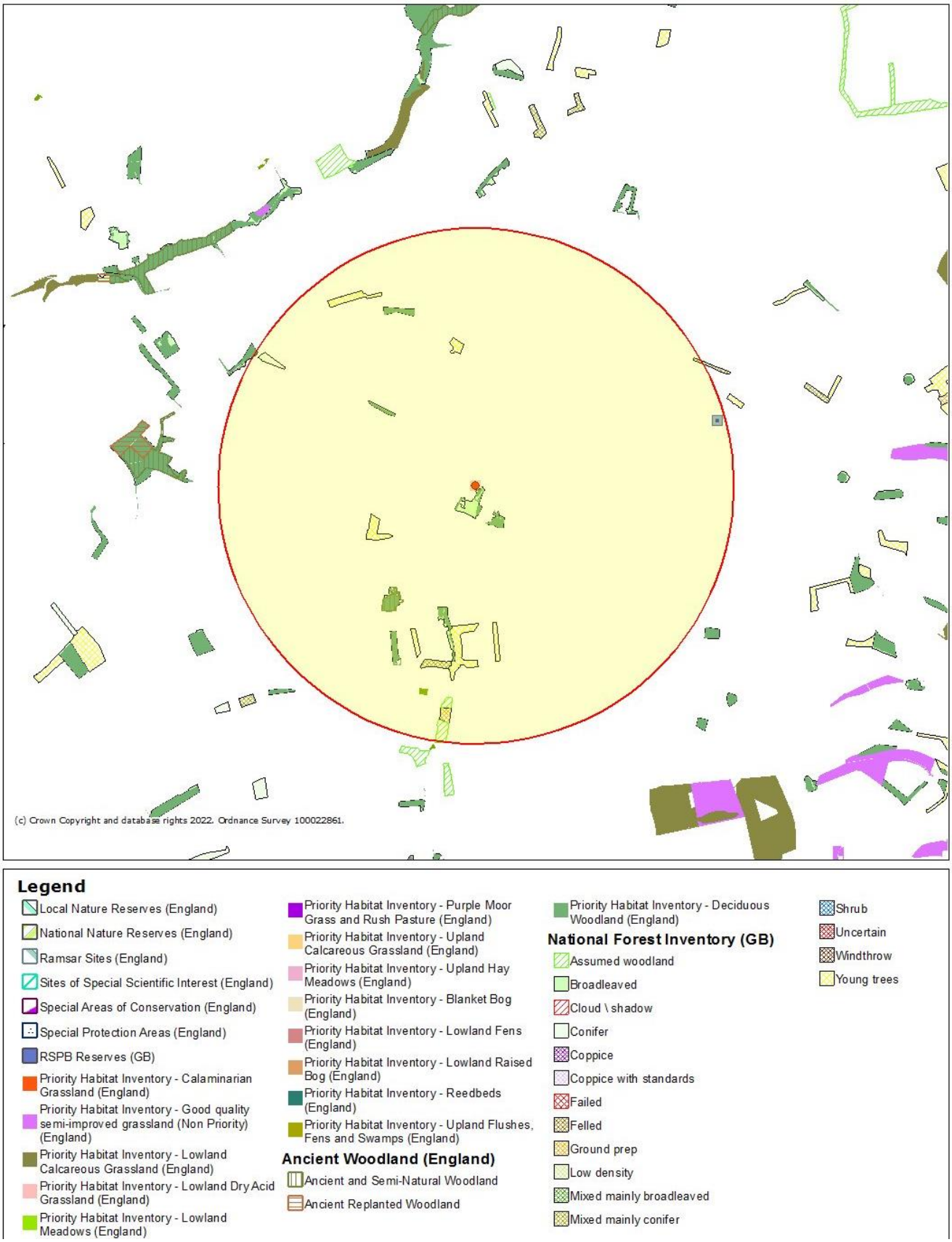
Interior of southern compartment



Interior of inner compartment within southern compartment showing flat timber inner roof

	
Void above flat ceiling of inner compartment	Upper surface of ceiling of inner compartment within roof void showing daylight entering dark interior

Appendix 2 Designated sites within a 2 km radius of the site surveyed



Appendix 3 Suggested bat access behind weather boarding and sparrow colony terrace

Creating bat access behind weatherboarding





Access points can be created by peggingout small sections of wooden cladding or by cutting out small sections at the bottom edge of the boards.

Sparrow colony terrace



Sparrows prefer to nest communally and so a terrace is preferable to a single box, athough three single boxes could be placed side by side

Appendix 4 Summary of legislation relating to bats

All species of British bat are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the European Conservation (Natural Habitats etc.) Regulations 1994. As well as giving full protection from intentional and deliberate killing, injuring, disturbing and taking of bats, the cited legislation protects bat breeding and resting places (roosts) from damage, destruction and preventing access to such places. The legislation regarding roosts applies irrespective of whether the bats are present or not. The Countryside and Rights of Way Act 2000 added the word “reckless” to existing protection against “intentional and deliberate” actions. The law requires that reasonable effort be made to ensure that any actions, plans or projects do not detrimentally affect bats or their roosts. Proposed developments that affect bats or bat roosts may require a licence from Natural England. The threshold above which a person will commit the offence of deliberately disturbing bats has been raised. Now, a person will commit an offence only if he deliberately disturbs such animals in a way as to be likely significantly to affect (a) the ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or (b) the local distribution of abundance of that species. However, the recent amendments to the Habitat Regulations have also removed many of the defences. This includes the commonly relied upon 'incidental result defence', which previously covered acts that were the incidental result of an otherwise lawful activity and which could not reasonably have been avoided. If the work cannot be done in a manner that does not affect the bats and their roosts, and a licence is needed, the licence application must include a Method Statement detailing measures to be taken to avoid, mitigate or compensate for any potential impacts upon bats. Note that Natural England requires 30 working days to process licence applications. These are usually applied for upon granting of planning permission – although, due to a recent change in licensing arrangements, licences can now be applied for in advance of planning permission but the Method Statement in the licence (which is a legally binding document) must concur with the detail of the planning permission.

Appendix 5 Summary of legislation relating to breeding birds

Breeding birds are legally protected from disturbance and their nests from destruction. The breeding season for birds is normally regarding as being between and including the months of February to August although some species may breed outside of this period of time. Nests are regarded as active when being constructed or contain incubating eggs or unfledged or nest dependent fledged young.

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All reasonable effort was taken to ensure an accurate assessment of the situation at the time of the survey. However, the absence of recorded presence or sign should not be taken as an absolute guarantee that the site was not being used by a particular species. There is also no guarantee that any particular species will not use the site at any time in the future. Survey results may be weather or seasonally dependent. Any interpretation of legislation is based on our understanding and experience of the law. The relevant statutory authority can provide a more definitive interpretation.

This report is the responsibility of Chalkhill Environmental Consultants. It should be noted, that whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.