Barn A, Coach Road, Westbury

Bat Surveys

May/June 2023

Client: Mr & Mrs Osbourne
Report Ref: SEB2694_01
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Non-Technical Summary

Site Name and Location	Barn A, Coach Road Farm, Coach Road, Westbury (grid reference: ST 87945 52199).
Scope of Works and Survey Methods	Web-based Desk Study, Preliminary Bat Roost Assessment and Bat Surveys, consisting of three dusk emergence surveys, undertaken during May and June 2023. Methods refer to BCT (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* Bat Conservation Trust. Collins. Third Edition.
Lead Personnel	Kate Hayward MCIEEM.
Purpose of Works	To determine any use of the barn by bats, to inform a planning application for the conversion of the barn to one residential dwelling. The surveys will inform the approach to works and any licensing requirements.
Summary of Survey Results	Desk Study – The site lies within the Impact Risk Zone for Bratton Downs SSSI, and consultation may be required. Picket and Clanger Wood SSSI is located approximately 1.6km to the north. The site lies within a Medium Risk Bat Sensitivity Zone for recreational pressures on this SSSI. Preliminary Bat Roost Assessment – The barn is assessed as *Low* suitability to roosting bats, as a night roost, with an absence of crevices and well-lit conditions internally. Bat Surveys – No bats were recorded roosting in the barn and low general activity was recorded mainly by common pipistrelle and noctule, with occasional passes by Natterer's bat, whiskered bat and serotine, and one pass each by greater and lesser horseshoe. The adjacent barns to the north appear to be used as a night roost by common pipistrelle, with bats recorded flying in and out of these barns.
Impacts	Based on the surveys, Barn A does not currently support roosting bats, and the works are not likely to injure or kill bats, or damage or destroy a resting place or its accesses. An increase in recreational pressures on nearby Picket and Clanger Wood SSSI is considered to be negligible as a result of a net increase of one residential dwelling.
Recommendations	A precautionary approach to works, including a toolbox talk and pre-works checks for roosting bats and nesting birds. A sensitive lighting scheme and biodiversity enhancements have also been recommended.

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1. Introduction

1.1.1 In February 2023, Seasons Ecology was instructed by Mr & Mrs Osbourne, to undertake bat surveys of Barn A, Coach Road Farm, Coach Road, Westbury (grid reference: ST 87945 52199).

1.1.2 The purpose of the surveys is to determine any use of the barn by bats, to inform a planning application for the conversion of the barn to one residential dwelling. The surveys will inform the approach to works and any licensing requirements.

1.1.3 The scope of works includes a web-based desk study, Preliminary Bat Roost Assessment and bat emergence surveys.

1.1.4 The surveys were led by Principal Ecologist, Kate Hayward, who has produced this report. Kate is a licensed bat ecologist registered to use Class Licence CL18 (Bat Survey Level 2) (class licence registration number 2015-15106-CLS-CLS) and is a full member of the Chartered Institute for Ecology and Environmental Management (CIEEM).

2. Desk Study

2.1 Method

2.1.1 A web-based desk study was undertaken in May 2023 prior to the surveys to provide local information that may be relevant to the proposal. The following online resources were consulted:

- The MAGIC website[1], to obtain information on statutory designations with bats as a primary feature within 4km of the site, whether the site lies within Sites of Special Scientific Interest (SSSI) Impact Risk Zones and Bat Consultation Zones and details of any European Protected Species licences for bats issued within 2km; and
- Google Maps[2], to view aerial photographs, maps and mapnik data, to assess the ecological context of the site.

2.2 Results

Statutory Designations

2.2.1 There is one statutory designation for bats within 4km of the site. This is Picket and Clanger Wood SSSI located approximately 1.6km to the north. This site is designated for its floristically-rich ancient woodland and supports a diversity of butterfly species. Picket and Clanger Wood SSSI also supports a core bat roost, linked with Bath & Bradford on Avon bats Species Area of Conservation (SAC).

SSSI Impact Risk Zones and Bat Consultation Zones

2.2.2 The site itself is not covered by any statutory designations, but it does lie within the Impact Risk Zone for nearby Bratton Downs SSSI. This requires consultation with Natural England on all planning applications (except householder applications) outside or extending outside existing settlements/urban areas affecting greenspaces, farmland, semi-natural habitats or

[1] http://www.magic.gov.uk/MagicMap.aspx

[2] http://acme.com/planimeter/

landscape features such as trees, hedges, streams or rural outbuildings/structures. Therefore, consultation on the application may be required.

2.2.3 The site lies approximately 200m outside and to the south of a Bat Sensitivity Zone (Yellow Zone Medium Risk), which is a 1.5km buffer around a core bat roost located at Picket and Clanger Wood SSSI, located approximately 1.6km to the north. However, the site does lie within a Medium Risk Bat Sensitivity Zone (Grey Hatched Zone) for recreational pressures (Trowbridge Bat Mitigation Strategy, Johns Associates Limited, 2019).

European Protected Species Licences

2.2.4 There are three European Protected Species licence issued for locations within 2km of the site. These are 1km south-west, 1.1km north-east and 1.6km south-west for the species brown long-eared *Plecotus auritus,* common pipistrelle *Pipistrellus pipistrellus* and lesser horseshoe *Rhinolophus hipposideros.*

Ecological Context

2.2.5 The site lies on the north-eastern edge of the town of Westbury, Wiltshire. Coach Road lies immediately to the west, bordered by mature hedgerows, with a new residential housing development beyond. To the north, south and east are arable and pasture fields, divided by mature hedgerows and tree lines. Westbury Country Park lies approximately 400m to the east, supporting grassland, woodland and water bodies. The main Westbury to London railway line lies approximately 270m to the north. The Westbury White Horse escarpment lies approximately 1.5km to the south-east. There are very occasional, small, scattered woodlands in the wider landscape. The nearest larger woodland is Picket and Clanger Wood located approximately 1.6km to the north.

3. Preliminary Bat Roost Assessment

3.1 Method

3.1.1 A site visit was undertaken on 15th May 2023. Barn A was assessed for its suitability to offer roosting sites to bats. This assessment considered the style, construction, and condition of the barn (missing roof tiles, rotten beams, cracks in stonework and ivy cover, for example) and presence of any suitable access points. Based on these factors, the barn is assessed as having *Negligible, Low, Moderate* or *High* suitability to roosting bats.

3.1.2 A visual inspection was then undertaken of the internal areas of the barn to search for signs of bats, such as droppings, staining, scratch marks, feeding remains, and for actual bats. Any signs of nesting birds were also noted.

3.1.3 Assessment and survey methods refer to BCT (2016)[3].

3.2 Description and Results

3.2.1 A site location plan is provided at Annex 1 and elevations plans of the barn are provided at Annex 2. Site photographs are provided at Annex 3. Target Notes highlight features of interest and are marked on the plan at Annex 2.

Barn A

3.2.2 Barn A is a single-storey detached barn constructed of concrete blockwork walls, part-rendered, with corrugated asbestos and metal roofs. It has a footprint of approximately 155 square metres. There is a sliding metal door on both the south and west elevations, two doors on the north elevation and two large openings and two doors on the east elevation. The barn has two windows, both on the east elevation.

3.2.3 The building is in poor condition with missing roof panels (Target Note 1, Annex 2), broken windows, missing and broken doors (Target Note 2, Annex 2), missing blockwork (Target Note 3, Annex 2) and broken guttering. Ivy covers the north-west corner of the barn (Target Note 4, Annex 2).

3.2.4 Internally, the barn is split into six compartments. One compartment is used to store wooden pallets and building materials and the other five compartments appear to be disused and empty. There are open accesses into five compartments provided by open doorways, missing panes of glass in the two windows, missing roof panels and two of the compartments are entirely open on the east elevation (Target Note 5, Annex 2), partially covered by corrugated metal panels.

3.2.5 There are no suitable bat roosting features identified externally on the building. Internally, one compartment is entirely open and exposed to the elements with half of the roof panels missing. There are no internal features to offer suitable roosting to crevice-dwelling species of bat, and the internal areas are well-lit from the open elevations, doorways and windows. The compartments provide uncluttered spaces for flight with wooden beams for perching, and therefore, are suitable as a night roost for all species, including horseshoe bat species.

3.2.6 The barn is assessed as *Low* suitability to roosting bats, mainly as a night roost.

[3] Bat Conservation Trust (BCT) (2016) *Bat Surveys for Professional Ecologists. Good Practice Guidelines.* Bat Conservation Trust. Collins. Third Edition.

3.2.7 No evidence of roosting bats or nesting birds was found within the barn at the time of survey.

Surrounding Habitats

3.2.8 Coach Road lies immediately to the west of the barn, beyond which are new residential houses. Mature hedgerows line Coach Road. To the east is an area of concrete hard-standing with an open-sided metal barn and beyond is a modified grassland field. To the north are two large metal barns, which are open on their north elevations.

4. Emergence Surveys

4.1.1 Three dusk emergences surveys were conducted of the barn. The survey method is provided below and refers to survey guidelines in BCT (2016)[4].

4.2 Method

4.2.1 The surveys were carried out on 15th May, 5th June and 20th June 2023. The surveys commenced 15 minutes before sunset and continued for an hour-and-a-half after sunset.

4.2.2 Two surveyors attended each survey. Each surveyor was equipped with an Echo Meter Touch Pro bat detector supported by an Apple iPad Mini 4 interface, on which all bat activity was recorded.

4.2.3 Two passive acoustic recording devices (*Titley AnaBat Express*) were also deployed. These were positioned in the same locations as the surveyors and were set on 'continuous' recording mode for the duration of the surveys. Recordings were later analysed using AnalookW 4.2.24. software to aid the identification of species with reference to Russ (2012[5]).

4.3 Constraints to Surveys

4.3.1 There were no constraints to the surveys; all elevations of the barn were in full view, the weather conditions were suitable, and the surveys were undertaken during the recommended survey period.

4.4 Results

4.4.1 The results of the bat surveys are provided below. The building and surveyor locations are shown at Annex 1.

[4] Bat Conservation Trust (BCT) (2016) *Bat Surveys for Professional Ecologists. Good Practice Guidelines.* Bat Conservation Trust. Third Edition. Collins.

[5] Russ, J. (2012) *British Bat Calls. A Guide to Species Identification.* Pelagic Publishing.

15th May 2023

4.4.2 The survey commenced at 20:38 and finished at 22:23. Sunset was at 20:53. Weather conditions were suitable, with a start temperature of 14.5°C and end temperature of 9°C, wind was at Beaufort 1-2[6] (light air-light breeze), with 0% cloud cover and no rain.

4.4.3 No bats were observed emerging from the barn during the survey.

4.4.4 General bat activity was by at least four species: common pipistrelle *Pipistrellus pipistrellus*, noctule *Nyctalus noctula,* Natterer's bat *Myotis nattereri* and greater horseshoe *Rhinolophus ferrumequinum.*

4.4.5 Common pipistrelle was recorded seven times during the survey. The first two sightings were of two individual common pipistrelles foraging along Coach Road to the west of the barn, at 21:20 (33 minutes after sunset). One common pipistrelle was observed commuting over the barns to the north at 21:25 (38 minutes after sunset). There were three brief passes at 21:28, 21:38 and 21:44, east and west of the barn, and two bats were observed commuting along the hedgerow to the south-east of the barn, at 21:49.

4.4.6 Noctule was recorded five times during the survey, the first was heard briefly at 20:47 (54 minutes after sunset) with a second brief pass at 20:49. A further three brief and unseen passes were recorded at 20:54, 21:09 and 21:40, by both surveyors.

4.4.7 Natterer's bat was recorded twice during the survey, both were brief and unseen passes, at 21:11 (18 minutes after sunset), along Coach Road to the west of the barn, and at 21:26 to the south-east of the barn.

4.4.8 One greater horseshoe bat was heard, but not seen at 21:51 (58 minutes after sunset), along Coach Road to the west of the barn.

5th June 2023

4.4.9 The survey commenced at 21:03 and finished at 22:48. Sunset was at 21:18. Weather conditions were suitable, with a start temperature of 18°C and end temperature of 16°C, wind was at Beaufort 2[7] (light breeze), with 0% cloud cover and no rain.

4.4.10 No bats were observed emerging from the barn during the survey.

4.4.11 General bat activity was by at least two species: common pipistrelle and noctule.

4.4.12 Common pipistrelle was recorded multiple times during the survey. This bat was first heard commuting at 21:38 (20 minutes after sunset) as a brief pass along Coach Road. Individual bats were then observed periodically between 21:46 and 22:15 foraging along Coach Road and

[6] The Beaufort scale of wind velocity: 0 = Calm, 1 = Light Air, 2 = Light Breeze, 3 = Gentle Breeze, 4 = Moderate Breeze, 5 = Fresh Breeze, 6 = Strong Breeze, 7 = Near Gale, 8 = Gale, 9 = Strong Gale, 10 = Storm, 11 = Violent Storm, = 12 Hurricane (http://www.metoffice.gov.uk).

[7] The Beaufort scale of wind velocity: 0 = Calm, 1 = Light Air, 2 = Light Breeze, 3 = Gentle Breeze, 4 = Moderate Breeze, 5 = Fresh Breeze, 6 = Strong Breeze, 7 = Near Gale, 8 = Gale, 9 = Strong Gale, 10 = Storm, 11 = Violent Storm, = 12 Hurricane (http://www.metoffice.gov.uk).

foraging over the hard-standing to the east of the barn and over the adjacent barns to the north.

4.4.13 At 21:47, one common pipistrelle bat was seen entering the open barn to the north.

4.4.14 Noctule bat was recorded five times during the survey, all unseen and brief passes, at 21:25 (seven minutes after sunset), 21:43, 21:52 (two recordings) and 22:06.

20th June 2023

4.4.15 The survey commenced at 21:13 and finished at 22:58. Sunset was at 21:28. Weather conditions were suitable, with a start temperature of 16°C and end temperature of 15°C, wind was at Beaufort 1[8] (light air), with 30% cloud cover, increasing to 100% cloud cover at the end of the survey, with no rain.

4.4.16 No bats were observed emerging from the barn during the survey.

4.4.17 General bat activity was by at least five species: common pipistrelle, noctule, serotine *Eptesicus serotinus,* whiskered bat *Myotis mystacinus* and lesser horseshoe *Rhinolophus hipposideros.*

4.4.18 Common pipistrelle was recorded multiple times during the survey, the first being an unseen pass at 21:59 (31 minutes after sunset). Individual common pipistrelle bats were then recorded foraging along Coach Road and over the hard-standing to the east of the barn, and flying around the barns to the north and east, from 22:04 until the end of the survey.

4.4.19 Common pipistrelle was seen entering the barn to the north at 22:07, and then flying in an out of this barn, from 22:31 until the end of the survey.

4.4.20 Noctule was recorded 12 times during the survey, the first was at 21:47 (19 minutes after sunset) with one bat seen commuting over the barn high overhead. The other recordings were all were brief and unseen passes, from 21:57 (29 minutes after sunset).

4.4.21 Serotine was recorded once during the survey, at 22:11 (43 minutes after sunset), as a brief unseen pass.

4.4.22 Whiskered bat was recorded once during the survey, at 22:35 (67 minutes after sunset), as a brief unseen pass.

4.4.23 Lesser horseshoe was heard and seen once during the survey, at 22:32 (64 minutes after sunset) to the south-east of the barn, commuting from Coach Road to the west, past the surveyor towards the hedgerow forming the southern boundary of the adjacent grassland field.

[8] The Beaufort scale of wind velocity: 0 = Calm, 1 = Light Air, 2 = Light Breeze, 3 = Gentle Breeze, 4 = Moderate Breeze, 5 = Fresh Breeze, 6 = Strong Breeze, 7 = Near Gale, 8 = Gale, 9 = Strong Gale, 10 = Storm, 11 = Violent Storm, = 12 Hurricane (http://www.metoffice.gov.uk).

4.5 Surveys Summary

4.5.1 Table 1 below summarises the results of the survey.

Table 1: Survey Summary – Bat Emergence Survey, 15th May 2023

Survey	Summary
1	15th May 2023 **No bats were observed emerging from the barn during the survey.** General bat activity was by at least four species: common pipistrelle, noctule, Natterer's bat and greater horseshoe.
2	5th June 2023 **No bats were observed emerging from the barn during the survey.** General bat activity was by at least two species: common pipistrelle and noctule.
3	20th June 2023 **No bats were observed emerging from the barn during the survey.** General bat activity was by at least five species: common pipistrelle, noctule, serotine, whiskered bat and lesser horseshoe.

5. Interpretation and Evaluation

5.1.1 Barn A is assessed as *Low* suitability to roosting bats, mainly as a night roost, and the bat surveys did not record bats roosting in the barn. General bat activity was low across the site and mainly by common pipistrelle and noctule. Common pipistrelle was first recorded between 20 and 30 minutes after sunset, indicating roosts nearby, but not on site. The adjacent barns to the north appear to be used as a night roost by common pipistrelle, with bats recorded flying in and out of these barns. There is no suitable roosting habitat for noctule on site, but woodland within Westbury Country Park and wider rural habitats to the east, are likely to support mature trees suitable for roosting.

5.1.2 Natterer's bat, whiskered bat and serotine were recorded in very low numbers and the immediate surroundings appear not to be used extensively by these species.

5.1.3 The surveys recorded one pass by greater horseshoe bat along Coach Road to the west and one pass by lesser horseshoe bat to the south-east of the barn, indicating very infrequent use of habitats surrounding the barn by these species.

5.1.4 The barn is surrounded by low-quality habitats to the north and east (hard-standing and modified grassland), but the adjacent Coach Road to the west, bordered by mature hedgerows, provides foraging and a commuting route for at least seven bat species recorded during the surveys, including the rarer serotine and rare horseshoe bats.

5.1.5 Referring to the desk study, the site lies approximately 200m outside and to the south of a Bat Sensitivity Zone (Yellow Zone Medium Risk), which is a 1.5km buffer around a core bat roost located at Picket and Clanger Wood SSSI, located approximately 1.6km to the north. The site does lie within the Medium Risk Bat Sensitivity Zone (Grey Hatched Zone) for recreational pressures.

6. Legislation

6.1.1 Bat species in England and Wales are protected under the Conservation of Habitats and Species Regulations 2019 (as amended) (EU Exit) and the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to:

- Deliberately capture, injure or kill bats;
- Intentionally or recklessly disturb bats;
- Intentionally or recklessly obstruct access to any structure or place which bats use for shelter or protection; and,
- Deliberately damage or destruction of a breeding site or resting place.

6.1.2 With the exception of disturbance, this legislation applies throughout the year whether bats are present or not at the time of works being carried out and irrespective of planning permission being obtained or being required.

7. Recommendations

7.1 The Proposal

7.1.1 Barn A is proposed for conversion to one residential dwelling. Based on the surveys, Barn A does not currently support roosting bats, and the works are not likely to injure or kill bats, or damage or destroy a resting place or its accesses.

7.1.2 An increase in recreational pressures on nearby Picket and Clanger Wood SSSI is considered to be negligible as a result of a net increase of one residential dwelling.

7.2 Protection Measures

7.2.1 A precautionary approach to works is recommended, as follows:

- A toolbox talk to site contractors and a pre-works check of the barn, undertaken by a Licensed Bat Ecologist.
- A pre-works nesting bird check of the barn and ivy growing up the north-west corner of the barn, by an Ecological Clerk of Works, if demolition commences during the bird nesting season, which is usually from 1st March to 31st August.
- Should any evidence of bats or nesting birds be found during the works, then works should stop immediately and advice sought from the Ecologist.

7.3 Lighting

7.3.1 The site lies on the edge of the urban area of Westbury with rural habitats to the east and south, and Coach Road to the west, a foraging and commuting route for at least seven bat species (identified during the surveys). Therefore, external lighting should be limited only to where it is needed, lighting should be low-level, directed downwards, and operated by motion sensor and timer to minimise times of illumination.

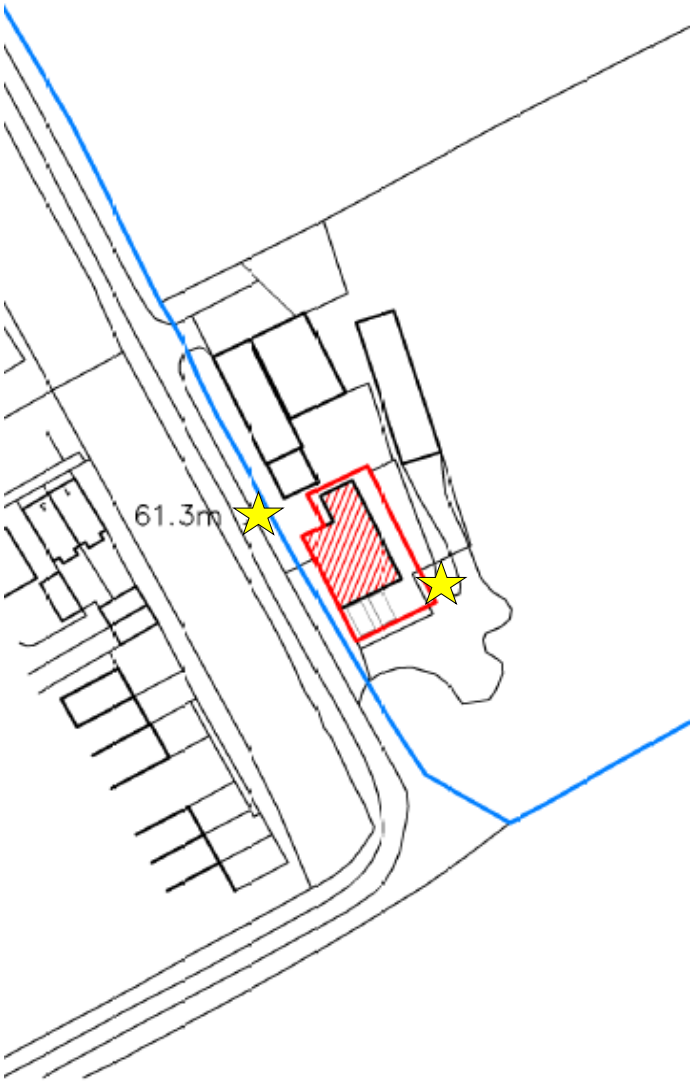
7.4 Biodiversity Enhancements

7.4.1 The proposal provides opportunity to enhance the site to roosting, foraging and commuting bats, as follows:

- One built-in or attached bat box could be installed onto the south-facing elevation of the converted barn, near the apex, to achieve at least 3m height above ground-level.
- Native planting along the boundaries of the new curtilage of the dwelling, will improve connectivity for bats, and provide a foraging resource, which is currently absent on site.

8. Annexes

Annex 1: Location Plan (May/June 2023)





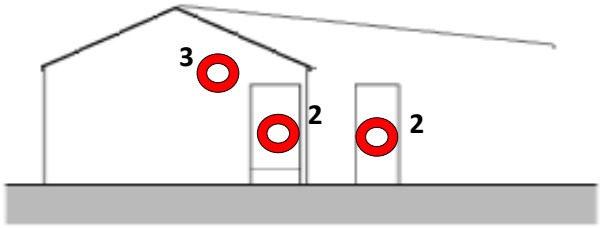
Key

Survey Area

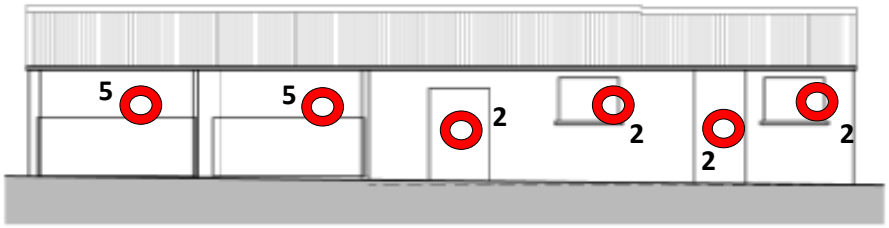
Barn A

Surveyor locations for emergence surveys

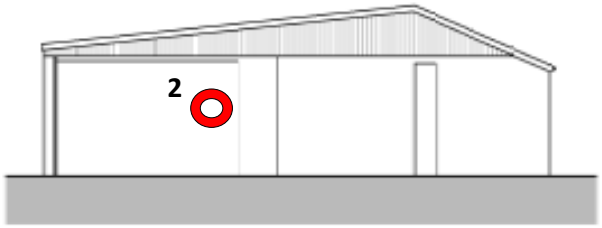
Annex 2: Elevations Plans with Target Notes (May/June 2023)



EX STING
NORTH ELEVATION
SCALE 1:100



EXISTING
EAST ELEVATION
SCALE 1:100



EX STING
SOUTH ELEVATION
SCALE 1:100



EXISTING
WEST ELEVATION
SCALE 1:100

Key

Target Notes 1-5

1 - Missing roof panels
2 - Broken windows and missing/broken doors
3 - Missing blockwork
4 - Ivy on north-west corner
5 – Open elevations

Annex 3: Site Photographs (May/June 2023)

1. East elevation of Barn A showing open compartments and open doorways.



2. West and north elevations showing ivy growing up the north-west corner of Barn A.



3. North elevation of Barn A.



4. Northern-most compartment.



5. Southern-most compartment.

