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Updated Bat Preliminary Roost Assessment and associated nocturnal surveys for Hinckley and District Hospital, Mount Road, Hinckley, Leicestershire, LE10 1AG

CGO Ecology Ltd

Christchurch

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Issued to: WT Partnership (the Client). Anticipated circulation to include National Health Service departments, Hinckley and Bosworth Borough Council, Natural England, other appointed contractors and consultancies, and relevant stakeholders.

Version control:

Version	Date	Summary of changes
1	06/09/2023	n/a
2	10/10/2023	Internal PRA results added, and recommendations updated accordingly.

Non-technical summary

Introduction

CGO Ecology Ltd (CGO) was instructed by WT Partnership (the Client) to conduct nocturnal surveys and an updated Preliminary Roost Assessment (PRA) at Hinckley and District Hospital Mount Rd, Hinckley, Leics, LE10 1AG (centred on grid ref SP 42941 93759) (the Site). The property is in use as a daytime NHS medical facility. Proposals are currently being developed. The Local Planning Authority is Hinckley and Bosworth Borough Council. Survey scope was based on the findings of a previous PRA, requiring three nocturnal surveys by six surveyors principally in the May-August maternity period. An internal PRA was undertaken in October and added to this report in version 2.

Methodology

An external, and later separate internal, PRA by CGO confirmed the previous classification of the property as having 'high' bat roost potential. CGO conducted two dusk emergence surveys and one dawn re-entry survey in July and August 2023, with six surveyor positions as guided by the PRA. The building was surveyed at dusk on 11th July 2023 and 10th August 2023, the dawn was abandoned due to adverse weather conditions. All significant features and elevations were viewed on each aspect with one surveyor positioned roadside at the at the southern side and Night Vision aids were also use. Two surveyors were located on the eastern side, one surveyor on the northern side, and two on the western side in a 'garden' area. The surveyors were all suitably-experienced, followed standard guidelines on recommended survey methods, conditions, and timings and used Echo Meter Touch 2 / 2PRO bat detectors paired with tablets. Sound analysis was completed by an experienced and licensed bat ecologist.

Results

Bat activity was low with significant light spill present at all aspects and in particularly on the east and west. No bats were seen to emerge or re-enter these areas nor the southern aspects of the building, but one possible emergence of a non-echolocating common pipistrelle was observed on the northern aspect. Species recorded on the surveys comprised common pipistrelle and noctule, the latter at some distance using the surrounding trees as a way marker. At least two common pipistrelles were recorded on each survey, foraging beyond the light spill around vegetation at the western side, but little other activity was recorded beyond this.

The internal PRA found no evidence of bat use or bats themselves. The classification of having High potential for bats is nevertheless upheld following these findings.

Impact Assessment

Plans are still being developed but works to the building, save for demolition, are unlikely to significantly impact bats, with the exception of a single bat in a likely day roost on the northern elevation. If no net increase in external lighting occurs and light-spill is not increased beyond current limits, with simple mitigation measures, works could avoid having a significant impact in the operational phase. Construction phase impacts could be mitigated through limiting night-time work and lighting, and managing noise and dust through precautionary methods of works.

Conclusions, mitigation and enhancement recommendations

Novel structures or new lighting must be bat-sensitive and designed in accordance with standard industry guidance to ensure there is no disruption to flight lines and no net increase in light-spill. This will ensure no operational impacts on foraging and commuting bats occurs. Works should be undertaken during daylight hours, to limit the requirement for temporary lighting.

As an enhancement, at least two new batboxes must be installed in suitable retained trees or preferably, on building eaves/elevations in the northwestern area of the site.

Bats can roost at any time and novel roosts can occur each season, therefore this report and its conclusions remain valid for 12 months from issue, unless proposals require resurvey prior to this.

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1. Introduction

CGO Ecology Ltd (CGO) was instructed by WT Partnership (the Client) to conduct nocturnal surveys and an updated Preliminary Roost Assessment (PRA) at Hinckley and District Hospital Mount Rd, Hinckley, Leicestershire, LE10 1AG (the Site). It is centred on Ordnance Survey grid reference SP 42941 93759. An external PRA was undertaken by CGO immediately prior to the first nocturnal survey, to ascertain the locations of notable features and to confirm the classification of the building as having 'high' potential (see Hood 2019). A later internal PRA was completed in October, and concurred with this classification, with results included in this report as an addendum.

Proposals are currently in development. The Local Planning Authority (LPA) is Hinckley and Bosworth Borough Council.

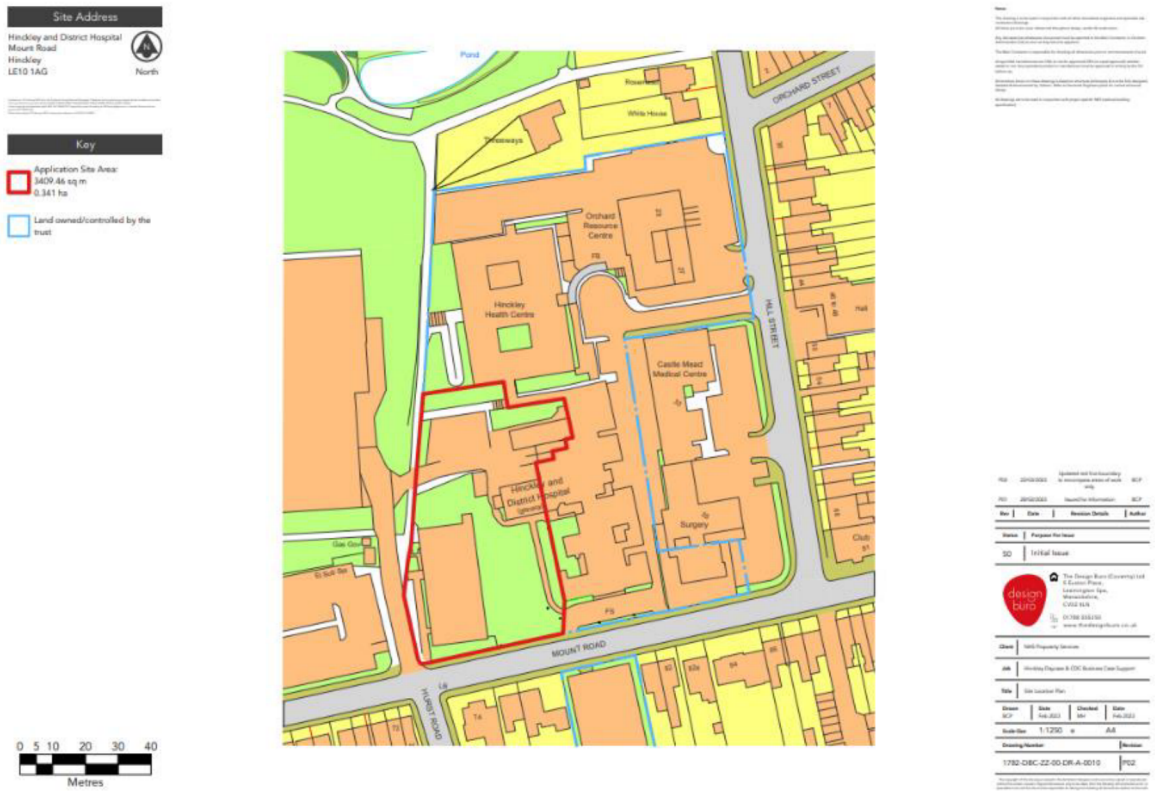


Figure 1 – Site plan and boundaries (provided by Client).

Bats are the only true flying mammals. UK species are exclusively insectivorous and have complex social behaviours, ethology, and ecology, governed largely by seasonal changes. All species of UK bat and their roosts are protected by the Wildlife and Countryside Act 1981 (WCA) (as amended) and the Habitats Regulations 2017 (as amended). Bats roost in a variety of features, both natural and anthropogenic. Commuting to/from these roosts to favourable feeding grounds is governed by habitat characteristics, and interwoven life-stage factors (particularly for females nursing young). Bats use ultrasonic calls to detect insect prey in the air and on surfaces.

Bat surveys are often required for development control and must be undertaken by suitably experienced and/or licensed bat workers in accordance with recognised guidance. The standard industry guidance is published by the Bat Conservation Trust: *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)* (Collins, 2023). These updated guidelines were released in September 2023, and replaced the 3rd edition released in 2016.

Similarly, updated bat guidance has been issued recently by the lighting industry (ILP, 2023), superseding the 2018 version. This report aims to inform impact-assessment within the Zone of Influence (ZoI) of the proposals. It follows CIEEM (2017, 2018) reporting guidance.

2. Methodology

2.1. Preliminary Roost Assessment

An external PRA was undertaken on 11th July 2023 by CGO to confirm the classification of 'high' potential, and update any findings. An internal PRA was undertaken later (4th October 2023) due to access constraints. Combined, these involved a walkover of the property and surrounding site and an internal inspection of all available loft and basement areas.

These were undertaken by Dan Hawthorn (BSc. MSc, MRSB, Natural England CL18 licence 2020-48134-CLS-CLS) and conducted during daylight hours and in accordance with standard methodology (Collins, 2023) and in line with published Covid-19 advice (BCT, 2020; CIEEM, 2020; IUCN, 2020).

Inspections were undertaken with the aid of a flexible endoscope, a powerful torch, and close-focus binoculars (where appropriate). Cavities, cracks, and crevices which may offer potential emergence points or suitable roosting features for bats were identified and searched where accessible.

In addition, the inspection recorded any evidence of use by bats, including (but not limited to) feeding remains such as wing casings, claw marks, staining from urine and fur, droppings, or live or dead bats. Features with opportunity for roosting were recorded and categorised according to their level of suitability, from negligible to high (cf. Collins, 2023).

Suitability was determined by factors including type, size, and locations of features; site context, local environmental conditions, and proximity to suitable bat foraging habitat.

2.2. Emergence/re-entry surveys

Surveys were performed in accordance with then current survey guidance (Collins 2016) and published Covid-19 advice (BCT, 2020; CIEEM, 2020; IUCN, 2020) and were undertaken on 11th and 28th July, and 10th August 2023. Six surveyor positions, comprising of two surveyors positioned on the eastern aspect, two on the west, and one each on the northern and southern aspects, were consistent for each survey.

Personnel comprised suitably experienced ecologists with at least two seasons surveying experience under the direction of two bat licenced ecologists. For all surveys Dan Hawthorn (Natural England CL18 licence 2020-48134-CLS-CLS) was located at the south, Caroline Wright (Natural England licences CL18 2015-11562-CLS-CLS, and CL15 2015-10806-CLS-CLS) at the north, Harri Wishart (BSc, MSc) and Scott Armstrong (BSc) to the west, and Luke Taylor (BSc, MSc) and Steve Price (BSc, MSc) to the west. Surveyors used Echo Meter Touch 2 / 2PRO bat detectors paired with Android or Apple tablets. Call analysis was conducted by Caroline Wirght and flight paths were transposed to GIS by Jack Parker (BSc, MSc).

The July dusk survey conditions comprised air temperature of 16°C throughout, 100% cloud cover, slight westerly breeze (Beaufort 1-2), and light rain at the beginning of the survey but drying out. Sunset was at 21:25hrs with the survey starting at 21:10hrs and lasting for two and a quarter hours.

Conditions of the July Dawn were 10°C with heavy rain leading to this survey being abandoned.

Conditions of the August dusk comprised an air temperature of 19°C dropping to 16°C, 40% cloud cover, no breeze (Beaufort 0-1), and no recent rain. Sunset was at 20:41hrs with the survey starting at 20:26hrs and lasting for two and a quarter hours.

2.3. Interpretation and evaluation of results

Any identified roosts would be categorised according to the main bat roost types listed in Natural England's European Protected Species (EPS) mitigation licence application form, and in accordance with current guidelines. This information would then be used to assess potential impacts of the proposed development and to design suitable mitigation.

2.4. Incidental observations

Sightings of notable wildlife observed during the bat emergence/re-entry surveys were recorded.

2.5. Limitations

The internal aspects of the building were not accessible until a later date. Internal inspection can be undertaken at any time of the year, and this would not have changed the classification of the building as having 'high' bat potential is the maximum possible.

Asbestos presence limited the number of accessible loft areas.

The dawn survey was abandoned due to weather conditions. However, the use of night vision aids on the remaining surveys and the very low level of bat activity in or in the vicinity of the building still ensures an acceptable survey effort was completed.

3. Results

3.1. Preliminary Roost Appraisal

The building comprises a multi-level red brick (in stretcher bond formation) building roofed with pan tiles capped with bullnose or arrow ridge tiles. Pitched roofs are located on the north, south, and west aspects, and flat roofs on the east. Several external features with potential for roosting bats were recorded during the external PRA. These comprised lifted cladding, gaps in tiles and access and egress points such as disused vents. Little was found to have changed since the previous PRA (Hood, 2019).

The basement area was fully accessible and while conditions were acceptable for bats, only one potential access point was discovered near the main entrance (north).

Only one loft area was accessible due to the presence of Asbestos. Not all areas were fully accessible due to the lack of floorboards. The area is comprised of a main loft with three annexes. Dimensions of these were 20m x 4m x 3m (L, W, H) for the main loft chamber, 5m x 4m x 3m for the northern chamber, 5m x 4m x 3m for the northwestern chamber, and 10m x 4m x 3m for the eastern chamber. All were functionally linked with the loft access located centrally to all. Beams were exposed and internal lighting was limited.

No bats or evidence thereof, such as feeding remains or aggregations of guano, were discovered. The areas were dry and of consistent temperature and considered to have High potential for roosting or resting bats.

3.2. Emergence / re-entry surveys

Bat activity was comparable on all surveys, being mostly limited to distant passes of noctule (*Nyctalus noctula*) bats employing nearby tree lines as way markers, and small numbers (one or two) common pipistrelle (*Pipistrellus pipistrellus*) foraging above vegetation beyond the light spill to the west of the building (See Figure 2 below).

A possible emergence of a non-echolocating bat, most likely common pipistrelle, emerged from beneath a tile on the northern aspect of the building at the beginning of the August dusk (see above in Figure 2). A single bat emerged and foraged briefly in the area to the west of the

building before commuting beyond the site. It is likely that this represents an occasional day roost for a single bat.

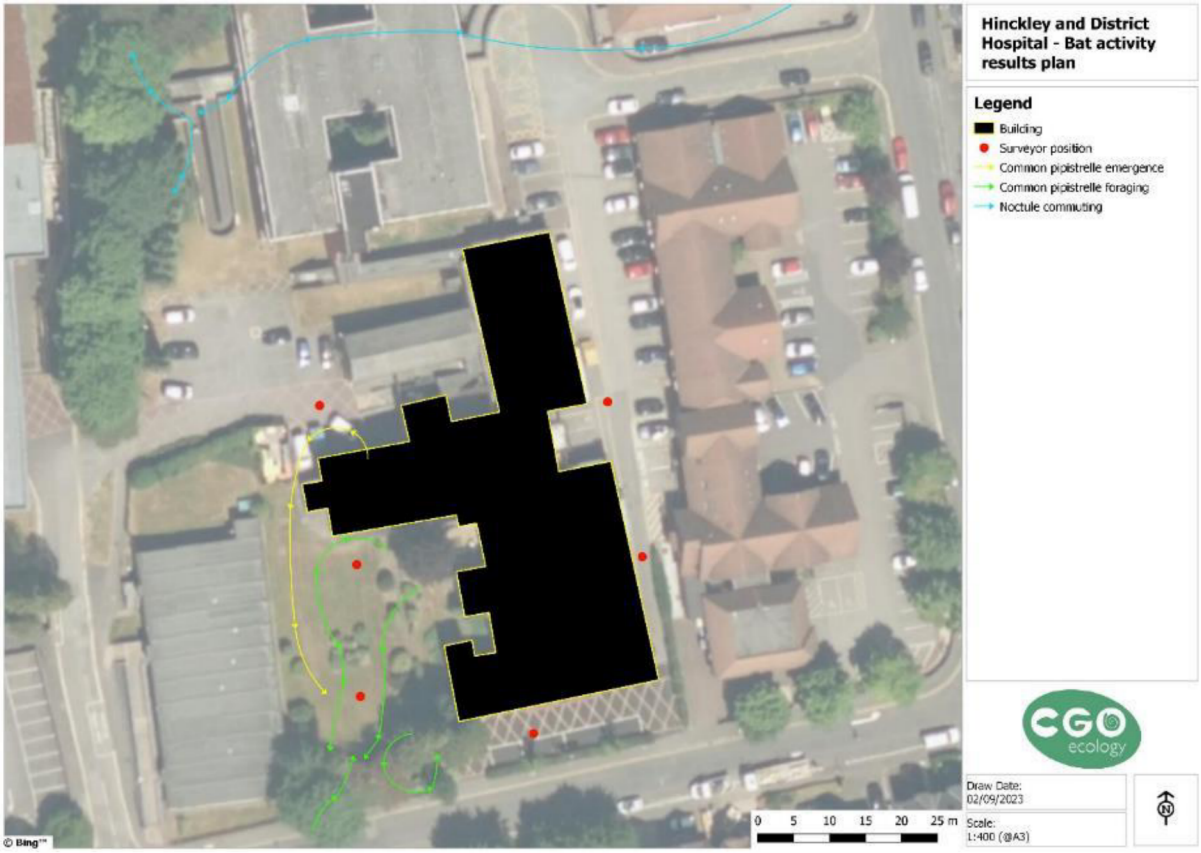


Figure 2 – Summary of survey results, including current buildings, areas of bat activity.

Bat activity was otherwise low with significant light spill from the building, in particular on eastern and southern aspects of the building. Maximum bat activity per survey can be seen in Table 1 below, where activity is summarised as number of bats per species recorded.

Bat species	Dusk 11th July 2023	Dawn 28th July 2023	Dusk 11th Aug 2023
Common pipistrelle	3	N/A	3
Noctule	1	N/A	1

Table 1 – Number of bats registered per species per survey. Taken from the position with the highest number of calls for the respective species.

4. Impact assessment

Plans are currently still in development but works to the building are unlikely to significantly impact bats, with the exception of a single bat occupying a likely day roost on the north elevation. If there is no net increase in external lighting and light-spill beyond current limits, simple mitigation measures could be used during works to avoid having a significant impact in both the construction and operational phases.

The western aspect of the site, beyond the light spill, provided the most activity for bats. While this was limited to low numbers of foraging common pipistrelle it nevertheless offers sustenance opportunities and should be considered in any future works as mitigation for the loss of foraging habitat and severance of bat commuting routes must be considered upon detailed design.

5. Mitigation and compensation

If any novel structures are proposed, they must be designed and positioned in consideration of the foraging activities of bats on site, and in accordance with current guidance. Operational phase activities are currently unknown, but would also require consideration of bat activity in the detailed design phase and designs should follow current lighting guidance (ILP, 2023).

Construction phase impacts could be mitigated through limiting night-time work and careful consideration of lighting (including security lighting) positions being in adherence with current guidance (ILP, 2023). Noise and dust could be managed through a precautionary method of works, with lay-down areas and the placement of fences decided in accordance with bat flight lines.

Construction phase activities to the existing structures should proceed under Reasonable Avoidance Measures (RAMs) and a Precautionary Method of Works (PMW) to avoid the need for licensed mitigation. This will require attendance of a licensed bat ecologist during certain demolition works, and soft stripping of roof and cladding materials. If a bat is discovered, an unplanned stoppage will be necessary while a Natural England licence is obtained, which may take several months. Further surveys may also be needed during the closest May-August period.

Works should also either be delayed avoiding the bird nesting season, or proceed subject to nest checks. If an active nest is discovered, works in that area must be halted, and a stand-off of at least 5m be taped off until any chicks have fledged. For high-impact activities, a wider stand-off of 10m may be needed.

As bats can start roosting at any time, this report and its conclusions remain valid for 12 months from issue unless proposals change and require resurvey prior to this.

6. Enhancements

As an enhancement, at least two new batboxes should be installed in suitable mature trees, or in suitable positions on the northern building eaves/elevations and at least one bat brick or box (depending on building design) should be located in each aspect of novel buildings. Locations must be agreed with a suitably licenced ecologist.

7. References

BCT (2020) *BCT Response to IUCN COVID-19 Recommendations for Bat Field Workers.* Bat Conservation Trust, London. https://www.bats.org.uk/news/2020/04/bct-response-to-iucn-covid-19-recommendations-for-bat-field-workers (Published 16th April 2020).

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MHCLG (2021) *National Planning Policy Framework*. Ministry for Housing, Communities & Local Government, London.

6. Appendix



Plate 1 – General view of the northern aspect.



Plate 2 – Southern aspect of the site.



Plate 3 – Wester aspect – note increase in vegetation and therefore insect biomass.



Plate 4 – eastern aspect roof.



Plate 5 – Example of ridge tiles and multiple bat opportunities.



Plate 6 – Northern aspect roof with amber dot indicating potential emergence site.



Plate 7 – Rooftop of main building.



Plate 8 – Close up of eves and ridge tiles.



Plate 9 – Notable gaps in brickwork and disused vents.

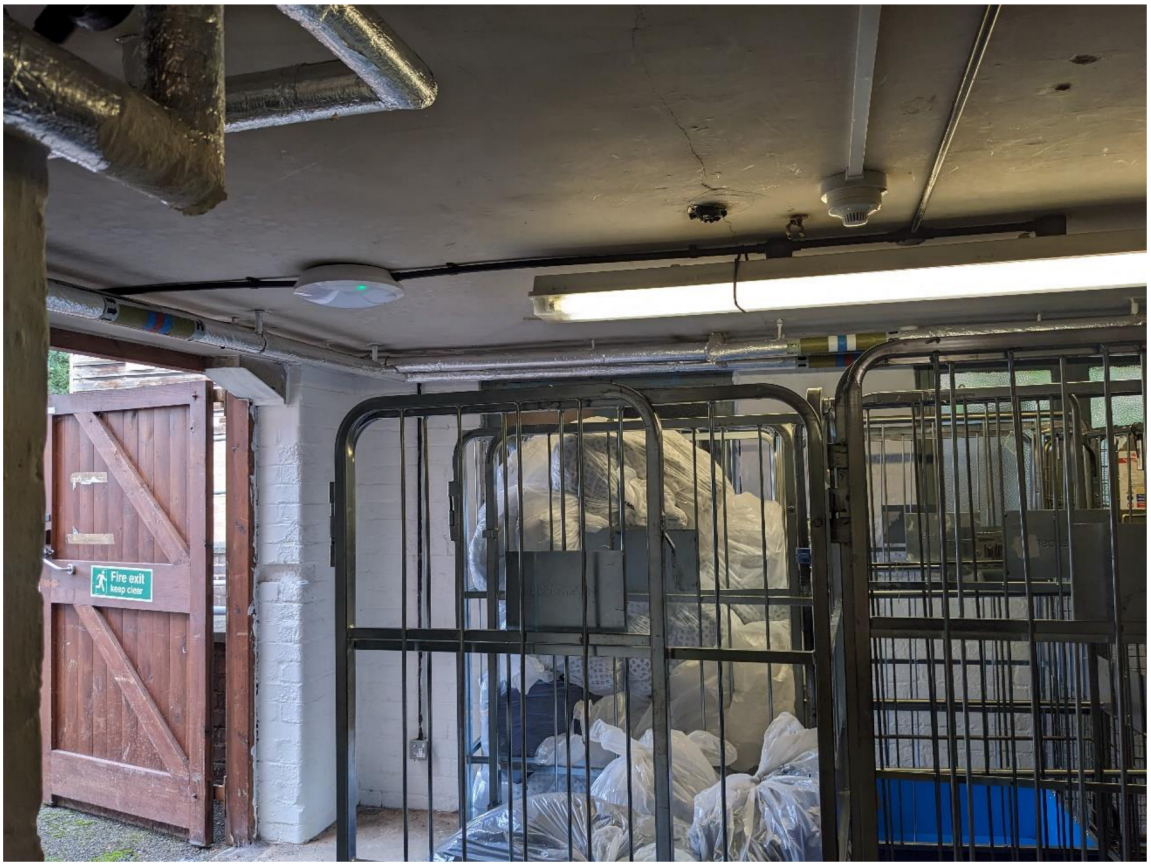


Plate 10 – Entrance to basement area.



Plate 11 – Internals of basement areas.



Plate 12 – Example of cabinet tops in basement area with no guano present.

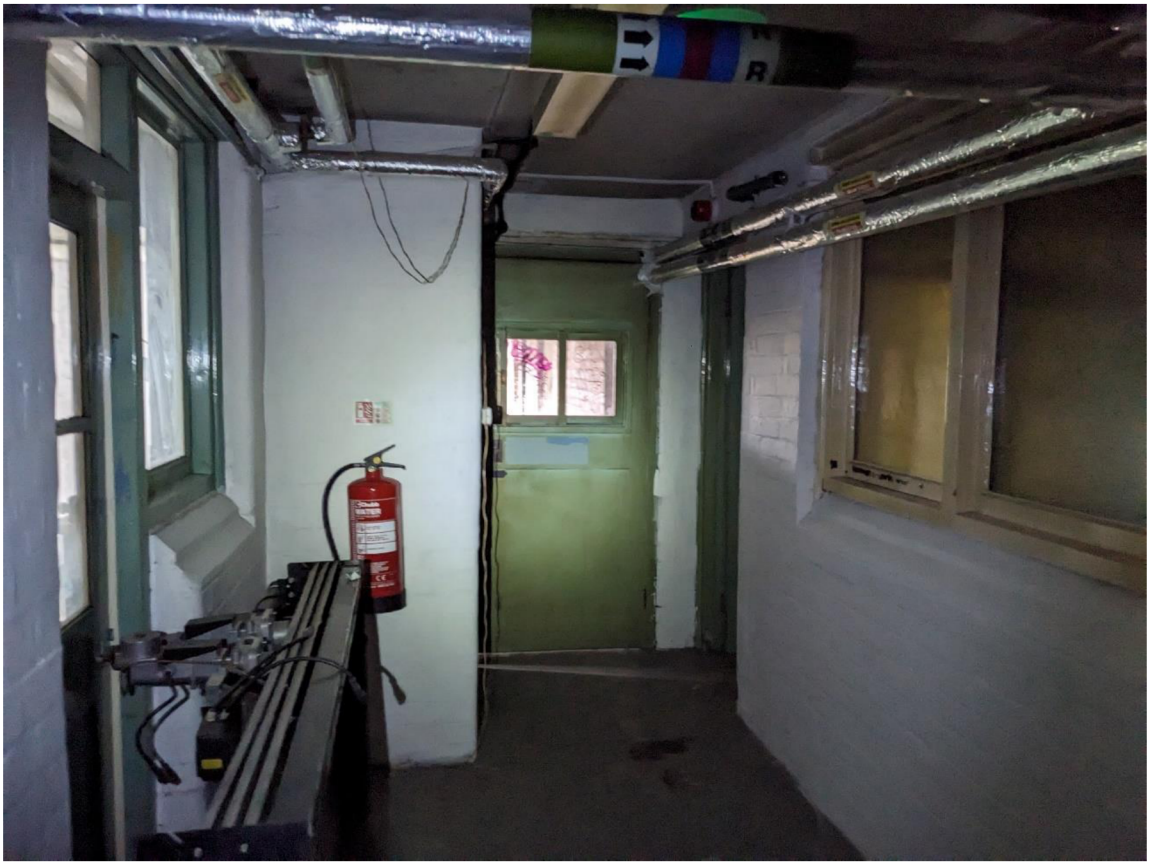


Plate 13 – Basement area leading to the western garden areas.



Plate 14 – Loft closed due to asbestos risk.



Plate 15 – Example of internal corridor showing lack of loft space for the majority of the building.



Plate 16 – Internal loft space, southern aspect of the main section.



Plate 17 – Eastern aspect of the main internal loft space.



Plate 18 – Ceiling of the main internal loft space.