Whitcher Wildlife Ltd.
Ecological Consultants.

10 GATEHOUSE, BYSTABLE LANE.

OS REF: TA 1146 1749.

BAT SURVEY REPORT AND MITIGATION STRATEGY.

Ref No: 230574/MIT.

Date: 25th August 2024.

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1. INTRODUCTION.

1.1. Network Rail have plans to demolish the 10 Gatehouse property adjacent to the Bystable Lane crossing on the BAR line.

1.2. Whitcher Wildlife Ltd was therefore commissioned to carry out a Preliminary Roost Assessment (PRA) of the site to establish whether there are any issues that may affect the proposed works.

1.3. That survey was carried out on 2nd June 2023 and made recommendations for further dusk emergence surveys.

1.4. The dusk emergence surveys have now been carried out and this report outlines the findings of both the PRA, and the subsequent surveys. It also includes a mitigation strategy which outlines how the bat roosts identified during the further surveys will be mitigated for.

1.5. Appendices I and II of this report provides additional information on bats, nesting birds and the protection afforded to them and is designed to assist the reader in understanding the contents of this report.

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2. SURVEY METHODOLOGY.

2.1. The buildings were thoroughly checked internally and externally for potential bat roosting sites by looking for the following signs: -

* Holes, cracks or crevices.
* Bat droppings.
* Prey remains.
* Staining on external walls.

2.2. Unless otherwise stated, all lofts were accessed and inspected using a high-powered torch and where necessary an endoscope.

2.3. A thorough external inspection was carried out from ground level for any gaps or openings in the roof and ridge tiles, behind soffits and fascia's and in the walls of the structure for suitable roost access points and field signs to indicate possible use by bats.

2.4. All window sills, walls and the ground around the structure were checked for signs of bat droppings or staining to indicate possible use by bats. Where necessary, ladders were utilised to gain access within the limits of health and safety.
Any access constraints encountered are outlined within the following report.

2.5. All survey work carried out during 2023 was carried out in line with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)*, with an assessment for roosting bats made in accordance with these guidelines.

2.6. All survey work carried out during 2024 was carried out in line with Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*.

2.7. The PRA, and final dusk emergence survey were carried out by Jess Mason MSc ACIEEM FRGS. Since 2018 Jess has had experience in a professional capacity as an Ecologist carrying out ecology surveys and phase I habitat surveys. Jess holds a Natural England survey licence in respect of bats, barn owls, and great crested newts, and a Scottish Natural Heritage survey licence in respect of barn owls. She has also successfully completed a number of courses run by FSC and CIEEM in the relative protected species and carrying out phase I habitat surveys and has a MSc in Biological Recording. Jess is an Associate member of the Chartered Institute of Ecological and Environmental Management (CIEEM).

2.8. The first and second dusk emergence surveys were carried out by Mitchel Greenhalgh, Managing Director of Whitcher Wildlife and an Ecological Consultant with an array of experience in conducting surveys on a variety of flora and fauna in a professional capacity. Mitchel holds a level two Natural England survey licence in respect of both bats and great crested newts and a NatureScot licence in respect of bats. He has attended courses run by CIEEM, the Species Recovery Trust, the Field Studies Council and others. He holds a BSc in environmental science attained from the University of Leeds and is an Associate member of CIEEM and therefore committed to continuous professional development.

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3. SURVEY RESULTS.

3.1. Data Search Results.

3.1.1. A data search request was sent to the Greater Lincolnshire Nature Partnership for records of bats and bat roosts within 2km of the survey area.

3.1.2. The data search returned records various bat species, including common pipistrelle, soprano pipistrelle, brown long-eared, and Natterer's bat.

3.1.3. Some records are vague with 1km accuracy, and all records are at least 500m from the survey area. The closest records are between 500m and 1.5km from the survey area, and describe small roosts of common pipistrelle and brown long-eared bat.

3.1.4. The aerial imagery below shows the location of the closest records to the surveyed property. The property is shown by the red star and records are shown by the blue grid squares.

3.1.5. The full data search is available to the client upon request, but the results cannot be made public.

3.2. Site Description.

3.2.1. The surveyed building is the Bystable Lane Gatehouse near Ulceby, East Yorkshire. The property is adjacent to the Bystable Lane level crossing on the BAR line.

3.2.2. The immediate surrounding environment is predominantly rural, comprising arable fields with hedgerows and pockets of woodland. There are railway lines and watercourses with associated linear vegetation within the wider area which are likely to provide suitable foraging/commuting habitat.

3.2.3. The survey area is a detached two-storey house built with cavity brick walls. The property has a pitched roof with slate tiles and it is shown in the photographs below from both the front and the rear. A single-storey, pitched roof porch is also

present to the front of the property, and a two-storey extension is present on the rear of the property.

3.3. Daytime Survey Results.

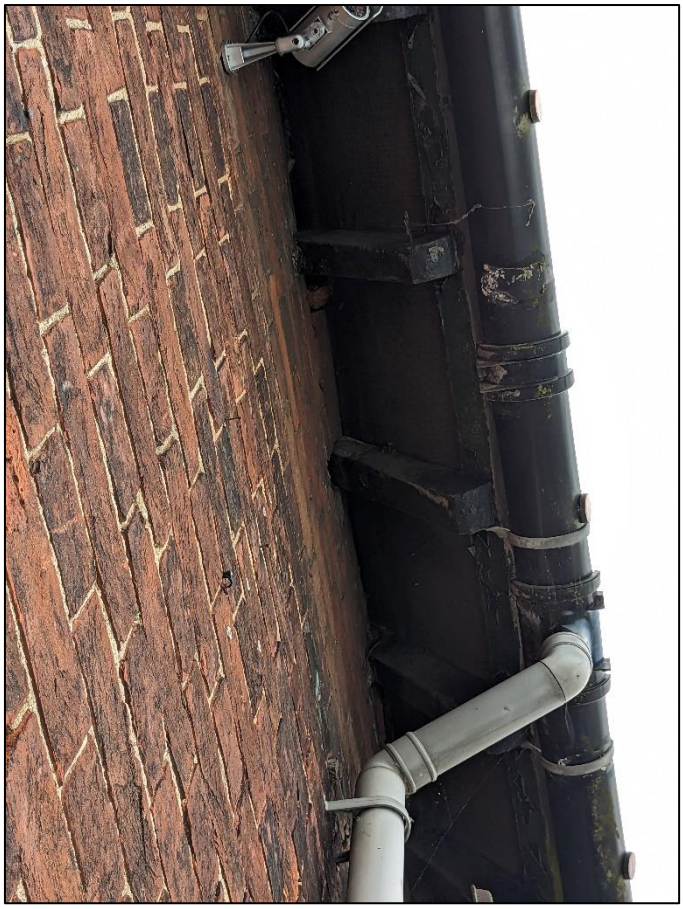
3.3.1. Externally, the walls of the building are in excellent condition with no sections of missing mortar or other defects. They are well pointed with no gaps to allow access for bats within. Ivy was present on all sides of the building, but this was not mature enough or did not have thick enough stems to create potential roosting opportunities for bats. The ivy was also firmly attached to the building, leaving no voids.

3.3.2. The roof of the building is also in a very good condition with no defects. All roof tiles and ridge tiles are firmly in place and none appear to offer suitable opportunities for bats to access beneath.

3.3.3 The flashing around the chimneys is also flush to the roof offering no access for bats. Both the roof tiles and chimneys can be seen in the photograph below.

3.3.4. The mortar along the gables is in excellent condition, with none seen to be missing from ground level, to allow bats access into the building or below the tiles.

3.3.5. No soffits or facias are present. There are occasional gaps where the overhanging eaves are not well sealed to the building, as shown in the photograph below, offering potential access opportunities for bats.



3.3.7. The interior of the building could not be accessed during this survey, and therefore the presence and condition of any loft spaces are unknown. The building could also not be internally inspected for bats or their field signs.

3.3.8. Overall, potential roost features in the eaves were identified which could be impacted by the demolition. The loft space cannot be accessed to determine whether the gaps in the eaves provide access to suitable roost spaces within the loft. Therefore, in line with the Bat Conservation Trust Good Practice Guidelines, the property is assessed as having low potential for roosting bats.

3.3.9. The ivy on the external walls has the potential to be used by nesting birds during the nesting bird season, as does the vegetation in the surrounding garden.

3.4. Dusk Emergence Survey – 24th August 2023.

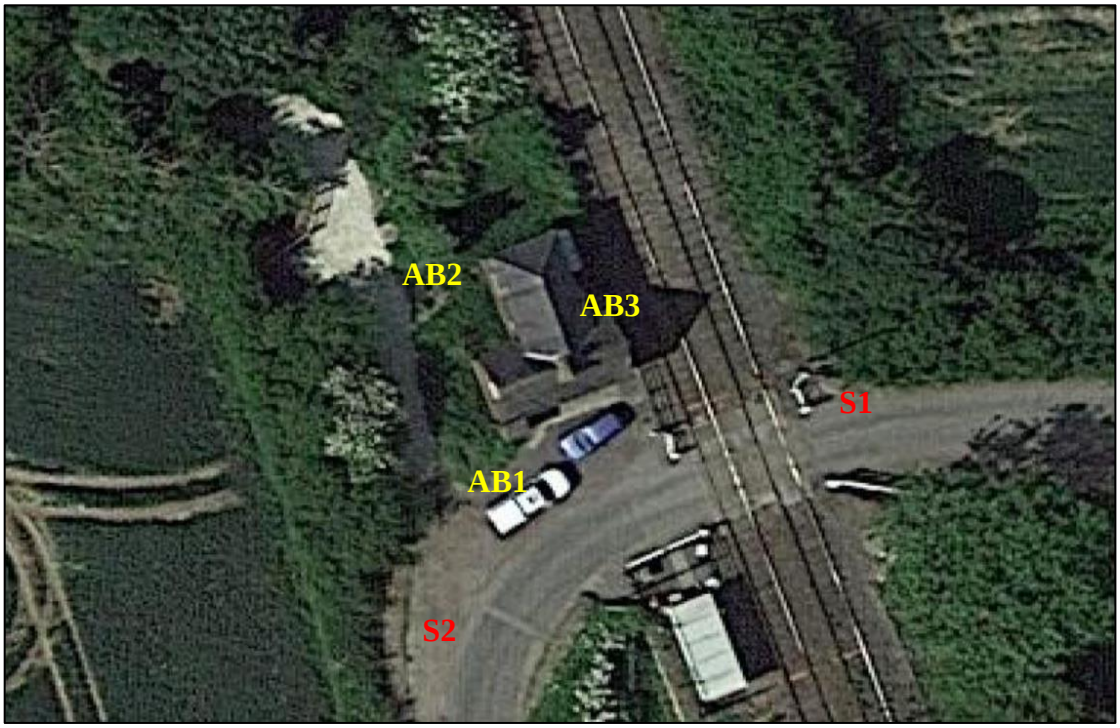
3.4.1. As the property was initially assessed as having low potential for roosting bats, a dusk emergence survey was recommended and subsequently carried out.

3.4.2. The survey was led by Mitchel Greenhalgh, who holds a level two Natural England survey licence in respect of bats (2022-10386-CL18-BAT). He was accompanied by one other surveyor who is an experienced assistant.

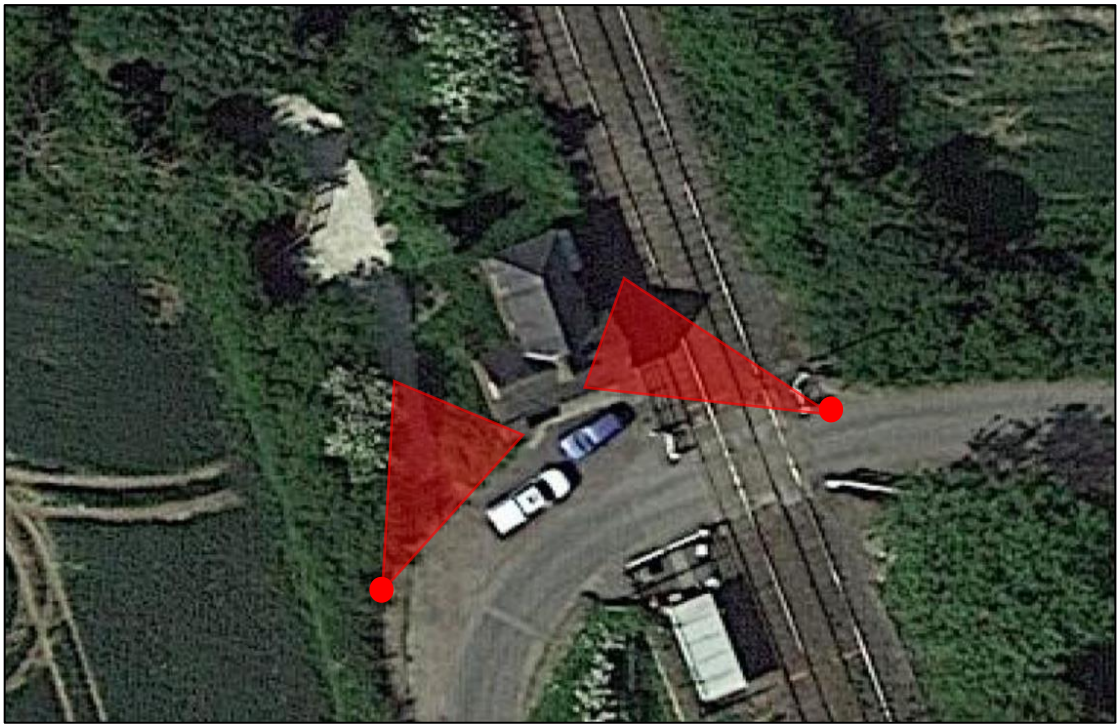
3.4.3. Both surveyors were equipped with Batbox Duet detectors and two-way radios. Three Anabat Express static recorders were deployed around the site to record bat activity for subsequent computer analysis using Analook Software.

3.4.4. Two infra-red cameras and infra-red torches were also set up around the property, ensuring that all suitable features were covered where possible. However, the rear of the property is severely overgrown within the garden with a conifer blocking the view, and access within the railway corridor is not possible, so the view of the rear of the building is restricted.

3.4.5. The aerial photograph below shows where the Surveyors (S) and Anabats (AB) were located throughout the survey.



3.4.6. The aerial photograph below shows where the cameras were positioned along with their approximate field of view.



3.4.7. The survey was carried out on the 24th August 2023. The evening was mild, with a temperature of 18°C at the start of the survey with a very slight breeze measuring 1 on the Beaufort scale. Sunset was at 20:09 and the survey lasted from 19:54 until 21:39.

3.4.8. Activity during the survey was moderate with both common pipistrelle and *Myotis* sp. sporadically being recorded foraging up and down the footpath to the west of the building, along with within the hedgerows and tree lines at the opposite side of the level crossing. One common pipistrelle was seen to emerge from the apex of the western gable at 20:43, and a second common pipistrelle was seen to emerge from behind the plywood window boarding on the upper window on the western face.

3.4.9. The roost locations are shown in the images below, identified by the red arrows.

3.4.9. Subsequent analysis of the Anabat recorders agreed with the findings of the surveyors, with recordings of common pipistrelles also corresponding with the emergence times. Footage of the emergences can be shown upon request.

3.5. Dusk Emergence Survey – 21st May 2024.

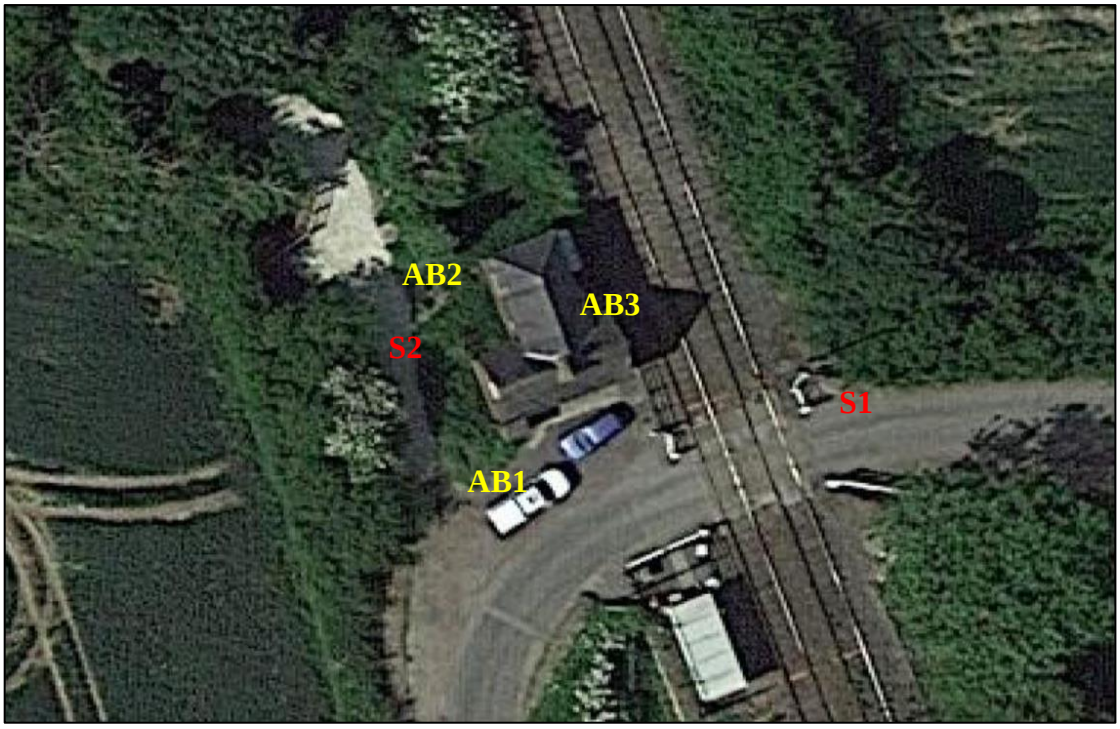
3.5.1. As the property was confirmed as hosting roosting bats, two further surveys were required to accurately classify the roost, prior to the creation of a mitigation strategy and application for a Natural England European Protected Species (EPS) licence.

3.5.2. The survey was led by Mitchel Greenhalgh, who holds a level two Natural England survey licence in respect of bats (2022-10386-CL18-BAT). He was accompanied by one other surveyor who is an experienced assistant.

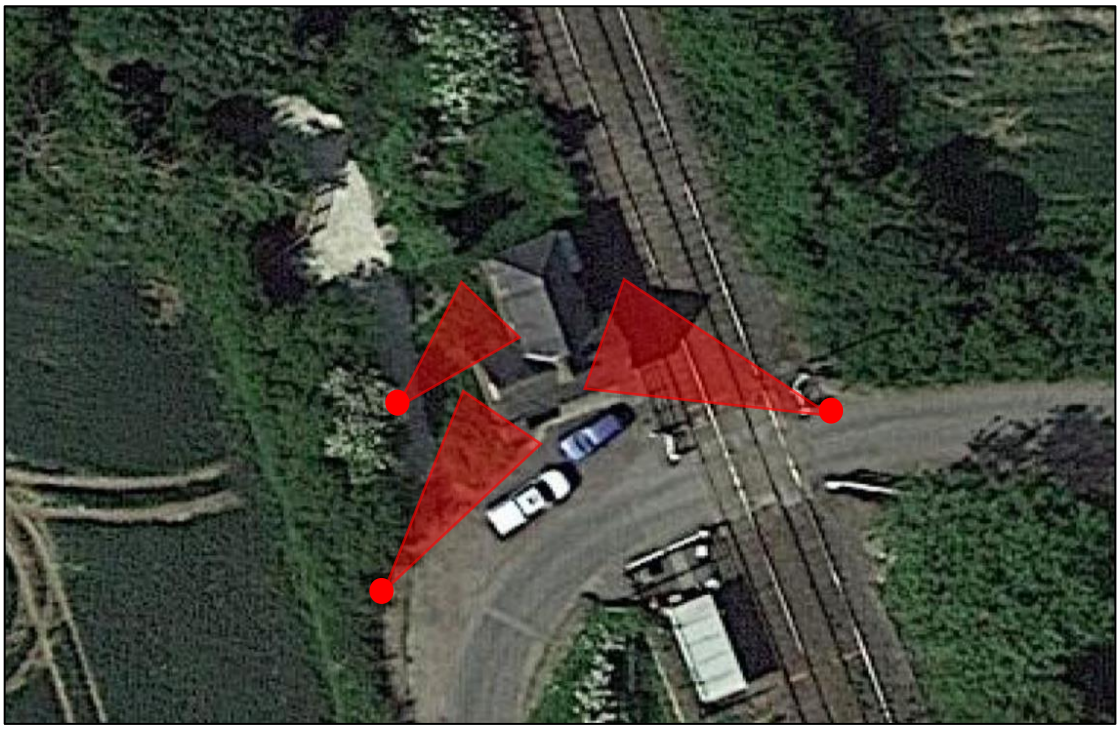
3.5.3. Both surveyors were equipped with Batbox Duet detectors and two-way radios. Three Anabat Ranger static recorders were deployed around the site to record bat activity for subsequent computer analysis using Anabat Insight Software.

3.5.4. Three infra-red cameras and infra-red torches were also set up around the property, ensuring that all suitable features were covered where possible, along with clear views of the known roosts. However, the rear of the property is severely overgrown within the garden with a conifer blocking the view, and access within the railway corridor is not possible, so the view of the rear of the building is restricted.

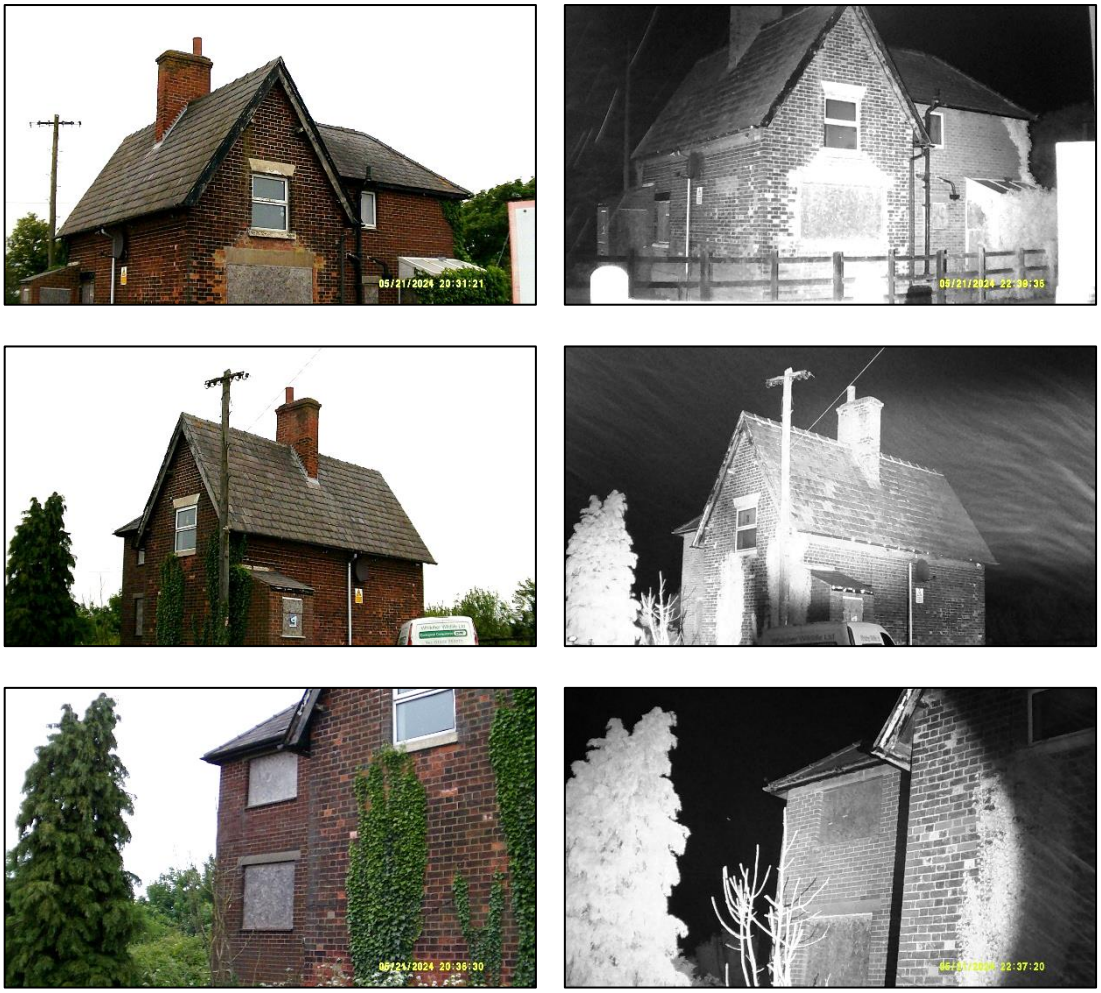
3.5.5. The aerial photograph below shows where the Surveyors (S) and Anabats (AB) were located throughout the survey.



3.5.6. The aerial photograph below shows where the cameras were positioned along with their approximate field of view.



3.5.7. The below shows start and end still photographs which show the views of the cameras both at the beginning of the surveys as well as at the end of the surveys.



3.5.8. The survey was carried out on the 21st May 2024. The evening was mild, with a temperature of 14℃ at the start of the survey with a breeze measuring 2 on the Beaufort scale. Sunset was at 21:06 and the survey lasted from 20:51 until 22:36.

3.5.9. Activity during the survey was moderate, similar to the previous year, with both common pipistrelle and *Myotis* sp. foraging around the building and across the level crossing. A small amount of noctule activity was also observed early in the survey, with several passing north to south. One common pipistrelle was seen to emerge from the apex of the eastern gable gable at 21:35, and a second common pipistrelle was seen to emerge from apex of the western gable at 21:36. Subsequent analysis of the camera recordings also identified one bat touching up the plywood window sheeting in the same roost location as the previous year, at 22:26, and then entering the roost at 22:34.

3.5.10. The roost locations are the same as in the previous survey, in addition to the below location.

3.5.11. Subsequent analysis of the Anabat recorders agreed with the findings of the surveyors, with recordings of common pipistrelles also corresponding with the emergence times. Footage of the emergences can be shown upon request.

3.6. Dusk Emergence Survey – 11th June 2024.

3.6.1. As the property was confirmed as hosting roosting bats, two further surveys were required to accurately classify the roost, prior to the creation of a mitigation strategy and application for a Natural England European Protected Species (EPS) licence. This is the third survey undertaken.

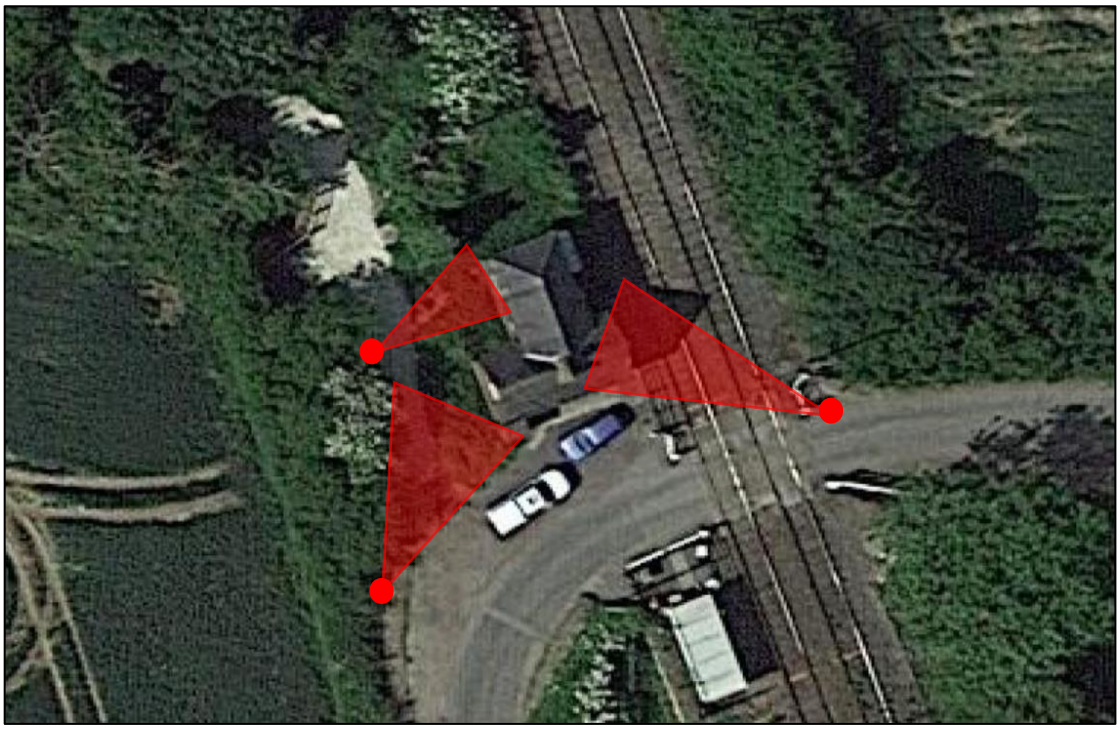
3.6.2. The survey was led by Jess Mason, who holds a level two Natural England survey licence in respect of bats (2023-11208-CL18-BAT). She was accompanied by one other surveyor who is an experienced assistant.

3.6.3. Both surveyors were equipped with Batbox Duet detectors and two-way radios. Three Anabat Express static recorders were deployed around the site to record bat activity for subsequent computer analysis using Analook Software.

3.6.4. Three infra-red cameras and infra-red torches were also set up around the property, ensuring that all suitable features were covered where possible. However, the rear of the property is severely overgrown within the garden with a conifer blocking the view, and access within the railway corridor is not possible, so the view of the rear of the building is restricted.

3.6.5. The aerial photograph below shows where the Surveyors (S) and Anabats (AB) were located throughout the survey.

3.6.6. The aerial photograph below shows where the cameras were positioned along with their approximate field of view.



3.6.7. The below shows start and end still photographs which show the views of the cameras both at the beginning of the surveys as well as at the end of the surveys.

3.6.8. The survey was carried out on the 11th June 2024. The evening was mild, with a temperature of 16°C at the start of the survey with a very slight breeze measuring 1 on the Beaufort scale. Sunset was at 21:30 and the survey lasted from 21:15 until 23:00.

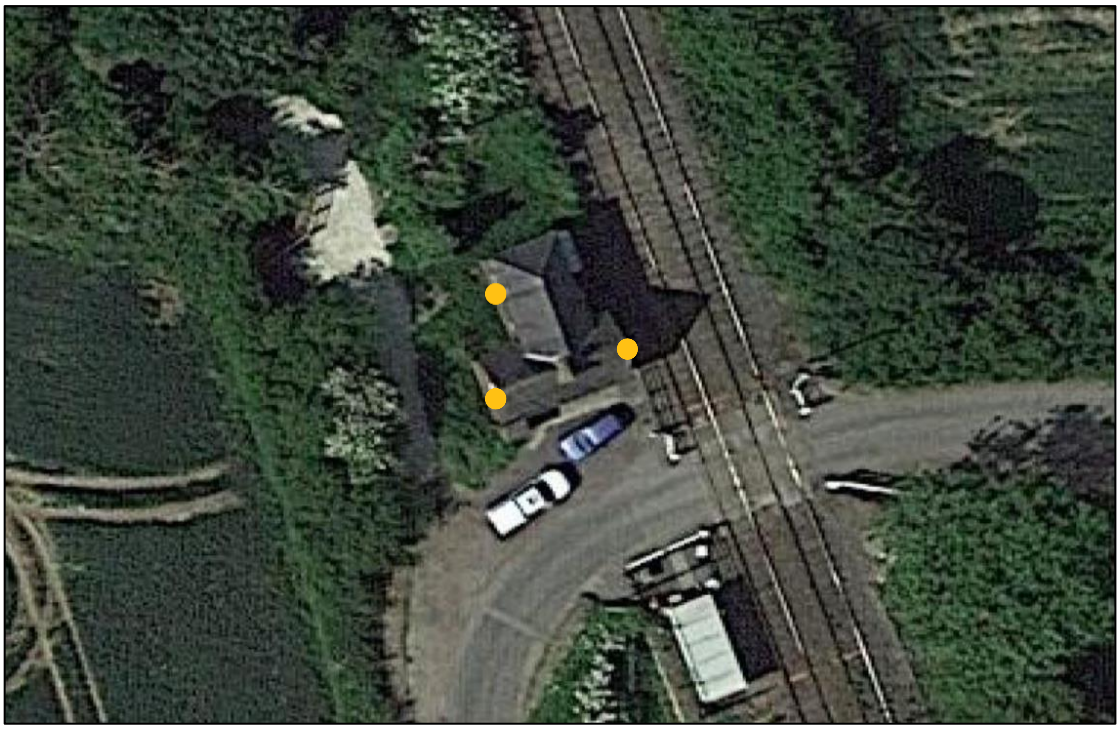
3.6.9. Activity during the survey was low with only common pipistrelle sporadically being recorded foraging up and down the footpath to the west of the building. No emergences were recorded during this survey.

3.6.10. Subsequent analysis of the Anabat recorders agreed with the findings of the surveyors.

3.7. Summary of bat survey results

3.7.1. Three roost locations were identified during the dusk emergence surveys, with one common pipistrelle emerging from each location.

3.7.2. The locations of all roosts are shown on the aerial image below.



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4. EVALUATION OF FINDINGS.

4.1. The building was initially assessed as providing low potential for roosting bats in line with the Bat Conservation Trust Good Practice Guidelines due to the presence of features suitable for a small number of bats. Further surveys of the building found it to be in use by a small number of common pipistrelle, with up to three bats emerging from the building. Therefore, the demolition of the building will have a negative impact on roosting bats.

4.2. The surrounding habitat offers moderate suitability for foraging and commuting bats due to the vegetated gardens within the residential estates. However, this habitat will not be impacted by the works and therefore, there will be no negative impact on foraging and commuting bats.

4.3. The ivy-covered walls provide suitable nesting habitats for birds within the breeding season (March to September each year). Therefore, the demolition of the building could have a high impact on breeding birds if carried out within the bird breeding season. Furthermore, the demolition is likely to destroy or disturb the surrounding vegetation within the garden, which could also have a high impact on nesting birds if carried out within the bird breeding season.

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5. RECOMMENDATIONS.

5.1. Three common pipistrelle day roosts have been identified in the building and therefore, there will be a requirement for a licence to be applied for from Natural England before this is demolished. Mitigation will need to be put in place for the loss of these roosts. Section 6 of this report includes a mitigation strategy that will be used as the basis for the Natural England licence application.

5.2. Natural England will expect surveys to have been carried out during the most recent bat survey season, therefore if the application is not submitted prior to May 2025, it is recommended that additional surveys are carried out between May and August (inclusive) to supplement the licence application. The number of surveys required will be dependant on the timeframes of the surveys since the 2023/2024 surveys and the findings during those surveys.

5.3. The surveys of the outbuilding found no roosts to be present within. However, individual bats can opportunistically roost almost anywhere and therefore it is recommended that the demolition of this building is carried out with due care and attention and in the unlikely event that a bat is found during those works, it should be kept safe and professional advice should be sought immediately.

5.4. The bat surveys of the outbuildings are valid for approximately eighteen months. Therefore if those buildings are not demolished prior to 2026, it is recommended that repeat surveys are carried out between May and August (inclusive) prior to demolition.

5.5. The building on site provides no suitable hibernation potential for bats and therefore, there is no recommendation for further hibernation surveys.

5.6. It is recommended that the demolition of the buildings is carried out outside of the nesting bird season or should be immediately preceded by a nesting bird survey. If any active nests are found, no works should be carried out that will disturb the nest or prevent the birds from accessing to and from the nest.

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6. MITIGATION STRATEGY.

6.1. As soon as demolition consent has been granted, but before any demolition works are carried out on the gatehouse, a Natural England EPS mitigation licence will be prepared and submitted to Natural England. The mitigation outlined below will form the basis of the mitigation proposed under the licence.

6.2. Prior to any demolition works, a double pole-mounted bat boxes such as the one shown below will be erected in a suitable area of the site where it will not be disturbed by demolition activities. A double bat box is required due to the loss of three roosts. This should be as close as possible to the site and within Network Rail land. It is possible that Natural England may request a third bat box due to the loss of three roosts. If this is the case, a third bat box will be included.

6.3. Once Natural England have issued the licence, demolition of the gatehouse will commence between the months of October and March, when bats are least likely to be present within the property.

6.4. Firstly, the bat roosts will be destroyed by soft demolition by hand carried out under direct supervision of the licenced ecologist or agent. The guttering, roof materials and wall will be slowly demolished until the ecologist is satisfied that no bats remain in the roosts.

6.5. In the event that a bat is found during the soft demolition of the roost, the ecologist will remove it by hand and place it into one of the pole-mounted bat boxes.

6.6. The works to the remainder of the gatehouse will then be allowed to carry on as normal. All personnel working on site will remain vigilant and in the unlikely event that a bat is found elsewhere, all works will stop and the licenced ecologist will be contacted immediately.

6.7. The location of the pole-mounted bat box will be added to the hazard directory and clear signage will be in place to ensure its longevity.

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Prepared by:	
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First revision by:	
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Final revision by:	
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Checked by:	
Ruth Georgiou. BSc, MCIEEM.	Date: 26th August 2024.

7. REFERENCES.

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Appendix I. BAT INFORMATION.

Ecology

There are currently 18 species of bat residing in Britain, 17 of which of which are known to breed here. They are extremely difficult to identify in the hand and even more so in flight.

All appear to be diminishing in numbers, probably due to habitat change and shortage of food, caused by pesticides, as insects are their sole diet.

As their diet consists solely of insects, bats hibernate during the winter when their food source is at its most scarce. They will spend the winter in hollow trees, caves, mines and the roofs of buildings.

Certain species, particularly the pipistrelle (the commonest and most widespread British bat) can quickly adapt to man-made structures and will readily use these to roost and to rear their young.

Surveys

During walkover surveys, bat roosts can be identified by looking for:

- Suitable holes, cracks and crevices within any building, tree or other structure.
- Bat droppings along walls, window cills, or on the ground.
- Prey remains, such as insect wings.

Further investigations can be made using endoscopes, by carrying out aerial inspections of trees or by conducting bat activity surveys during dusk and dawn over summer months.

Legislation

Bats are protected under Appendix II and III of the Bern Convention (1982), Schedule 5 and 6 of the Wildlife and Countryside Act (1981), Annex IV of the Habitats Directive (some species under Annex II), Annex II of the Conservation of Habitats and Species Regulations (2010) and EUROBATS agreement. Numerous species are

also listed under section 41 of the Natural Environment and Rural Communities Act (2006) making them species of principal importance.

All bats and their roosts are therefore protected in the UK. This makes it an offence to kill, injure or take any bat, to interfere with any place used for shelter or protection, or to intentionally disturb any animal occupying such a place.

The UK has designated maternity and hibernacula areas as Special Areas of Conservation (SAC's) under the Habitats Directive. Implementation of the UK Biodiversity Action Plan also includes action for a number bat species and the habitats which support them.

Where development proposals are likely to affect a bat roost site, a licence is required from Natural England.

Appendix II. NESTING BIRD INFORMATION.

Ecology

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September. It is also worth remembering that some birds nest in trees and scrub but others are ground nesting or prefer man- made structures or buildings.

Surveys

Nesting bird surveys search for potential nest sites in vegetation, buildings etc. Potential nesting sites are observed over a suitable period of time for bird movements or calling male birds that would indicate the presence of a nest. The presence of a nest can be identified from the field signs without the necessity to see the nest itself, thereby avoiding any disturbance of the nests. The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

Legislation

Nesting birds are protected under The Wildlife and Countryside Act 1981.

Part 1. -(1) Of the Act states that: - If any person intentionally: - kills, injures or takes any wild bird; takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Part 1. -(5) of the Act states that: - If any person intentionally: - disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or disturbs young of such a bird, he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after “intentionally” the words “or recklessly”