A CAF GROUP COMPANY

ENVIRONMENT

Avant Homes (England) Ltd
Hay Green Lane, Birdwell
Barnsley
Construction Environmental Management Plan (Biodiversity)

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Barnsley
Leeds
Construction Environmental Management Plan (Biodiversity)

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1. INTRODUCTION

Background

1.1 This Construction Environmental Management Plan (Biodiversity) (CEMP(B)) has been produced on behalf of Avant Homes (England) Ltd (the 'Client') in respect of a proposed residential development for 113 dwellings at Land off Hay Green Lane, Birdwell, Barnsley.

1.2 This CEMP has been produced to address planning condition 7 associated with planning application reference 2022/0680 which was approved on the 15th of February 2023 by Barnsley Metropolitan Borough Council, which states:

"Notwithstanding the submitted details, no development shall take place (including demolition, ground works and vegetation clearance) until a Construction Environmental Management Plan - Biodiversity (CEMP-B) has been submitted to and approved in writing by the local planning authority. The CEMP-B shall include, but not necessarily be limited to, the following:

- *Risk assessment of potentially damaging construction activities;*
- *Identification of 'biodiversity protection zones';*
- *Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements);*
- *The location and timing of sensitive works to avoid harm to biodiversity features (e.g. daylight working hours only starting one hour after sunrise and ceasing one hour before sunset);*
- *Use of protective fences, exclusion barriers and warning signs, including advanced installation and maintenance during the construction period;*
- *The times during construction when specialists ecologists may need to be present on site to oversee works;*
- *Responsible persons and lines of communication;*
- *The role and responsibilities on site of an Ecological Clerk of Works (ECoW) or similarly competent person(s).*

Reason: In the interests of the visual amenities of the locality and in accordance with Local Plan Policy BIO1".

The Project

1.3 The proposed development is for a "*Residential development of 113no dwellings, associated infrastructure and public open space (Reserved matters of outline planning permission 2020/0577 seeking approval of the details of scale, appearance, landscaping and layout*".

Location

1.4 The Site is located on land to the south of Hay Green Lane in Birdwell Barnsley, south Yorkshire. The Site comprised arable fields with hedgerow boundaries.

1.5 The location of the Site can be found in **Figure 1.1**.

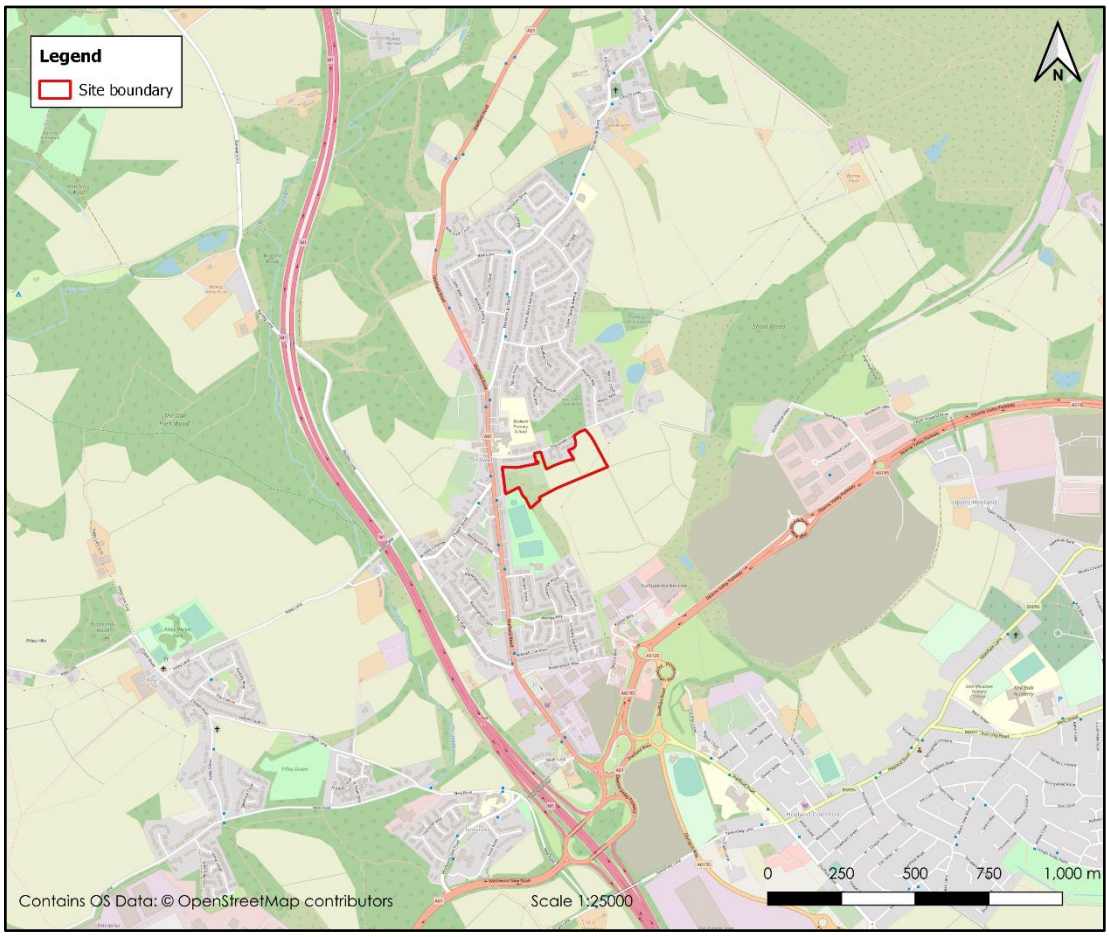


Figure 1.1: Site Location Plan

Existing Site - Habitats

1.6 The latest habitat survey of the Site was completed by BWB in November 2022 (BWB, 2023). This survey identified the following habitats to be present on Site.

1.7 The majority of Site comprised grassland which was managed for livestock grazing, and although at the time of the survey no livestock were present, evidence of use was noted. Bramble scrub was present at the boundaries of fields, adjacent to hedgerows, and in a large area towards the south-west of the Site as well as an area of mixed scrub which included scrubby trees. In addition, a large area of Site was used previously as allotments and the boundaries of the Site and field boundaries within the Site comprised eight hedgerows and a line of trees.

Existing Site - Species

1.8 The previous ecology reports for the Site concluded the Site to be unlikely to support great crested newts however other amphibians, including smooth newt, toads and common frog were recorded at other ponds within 500m of the Site during the great crested surveys undertaken by FPCR in 2020. The Site was considered suitable to offer some opportunities for GCN and other amphibians, reptiles as well as roosting bats. Surveys undertaken by FPCR identified five different species of bats at the Site in 2020.

1.9 In addition, an important assemblage of birds was considered unlikely at the Site but opportunities for nesting birds are present across the Site within the hedgerows, trees and buildings. During one of the bat surveys a hedgehog was identified at the Site indicating their presence at the Site and within the wider area. It was also considered likely that badgers may enter the Site due to the suitability of the habitats for this species for foraging.

1.10 It is therefore considered likely that Site clearance, including vegetation clearance works and construction works at the Site, could impact the following species:

- Common amphibians;
- Foraging and commuting bats;
- Nesting birds;
- Reptiles;
- Hedgehogs; and,
- Badgers and other mammals.

1.11 No other species are predicted to be impacted by the construction works due to the absence of suitable habitats.

2. RISK ASSESSMENT

2.1 **Table 2.1** shows the potential risks during the construction phase and the proposed control measures. Control measures will be discussed in greater detail further into the report.

Table 2.1: Risk Assessment and Mitigation

Significant Hazard	Pre-control Likelihood	Pre-control Severity	Control Measures	Post-control Likelihood	Post-control Severity	Risk
Common Amphibians						
Risk of harm or killing of amphibians during vegetation and site clearance works	3	4	Clearing of habitats by hand. Checks of vegetation bases prior to removal.	1	2	4
Risk of amphibians becoming trapped in open excavations	3	2	Follow best practice guidelines.	1	2	3
Bats						
Risk of foraging and commuting bats disturbed during night works	2	4	Avoidance of any lightworks on the Biodiversity Protection Zones	1	4	4
Nesting Birds						
Risk to breeding birds during any vegetation clearance including ground clearance	3	4	Conduct clearance and building demolition works outside of main breeding season (March to August)	1	4	4
Reptiles						

Significant Hazard	Pre-control Likelihood	Pre-control Severity	Control Measures	Post-control Likelihood	Post-control Severity	Risk
Risk of harm or killing of reptiles during vegetation and site clearance works	3	4	Clearing of habitats by hand. Checks of vegetation bases prior to removal. Directional strimming and timings of works.	1	2	4
Risk of reptiles becoming trapped in open excavations	3	2	Follow best practice guidelines.	1	2	3
Hedgehogs						
Risk of harm or killing of hedgehogs during vegetation and site clearance works	3	4	Clearing of habitats by hand. Checks of vegetation bases prior to removal. Directional strimming and timings of works.	1	2	4
Risk of hedgehogs becoming trapped in open excavations	3	2	Follow best practice guidelines.	1	2	3
Badgers and Other Mammals						
Badgers may have colonised the Site due to its suitability for sett buildings	3	4	Update site walkover to check for badger setts.	1	2	4
Risk of mammals including badgers becoming trapped in open excavations/harmed during site clearance	3	2	Follow best practice guidelines.	1	2	3
Retained Habitats						

Significant Hazard	Pre-control Likelihood	Pre-control Severity	Control Measures	Post-control Likelihood	Post-control Severity	Risk
Damage to retained habitats from, e.g., movement of plant, storage of materials, pollution entering water course	2	3	Installation of exclusion fencing to ensure root protection zones observed. No storage of materials, equipment, or plant within this zone. Best practice guidelines to be followed to ensure pollution prevention measures are adhered to.	1	3	3

Key:		
Low Risk	Moderate Risk	High Risk

3. MEASURES TO AVOID OR REDUCE IMPACTS DURING SITE CLEARANCE WORKS

3.1 The following impacts and associated mitigation measures are relevant to the habitats and protected or notable species identified to be present at the Site or potentially present at the Site which could be impacted by the Site clearance and vegetation clearance works.

Habitats

3.2 The habitats to be retained within the Site include the boundary hedgerows and two hedgerows within the central area of the Site. these habitats will be protected during the Site clearance works though the installation of Heras fencing or similar.

3.3 The habitats to be retained and protected are provided as Biodiversity Protection Zones and are provided on **Figure 3.1**, below. An example of the fencing to be installed is shown in **Figure 4.1**, within **Section 4** of this report.

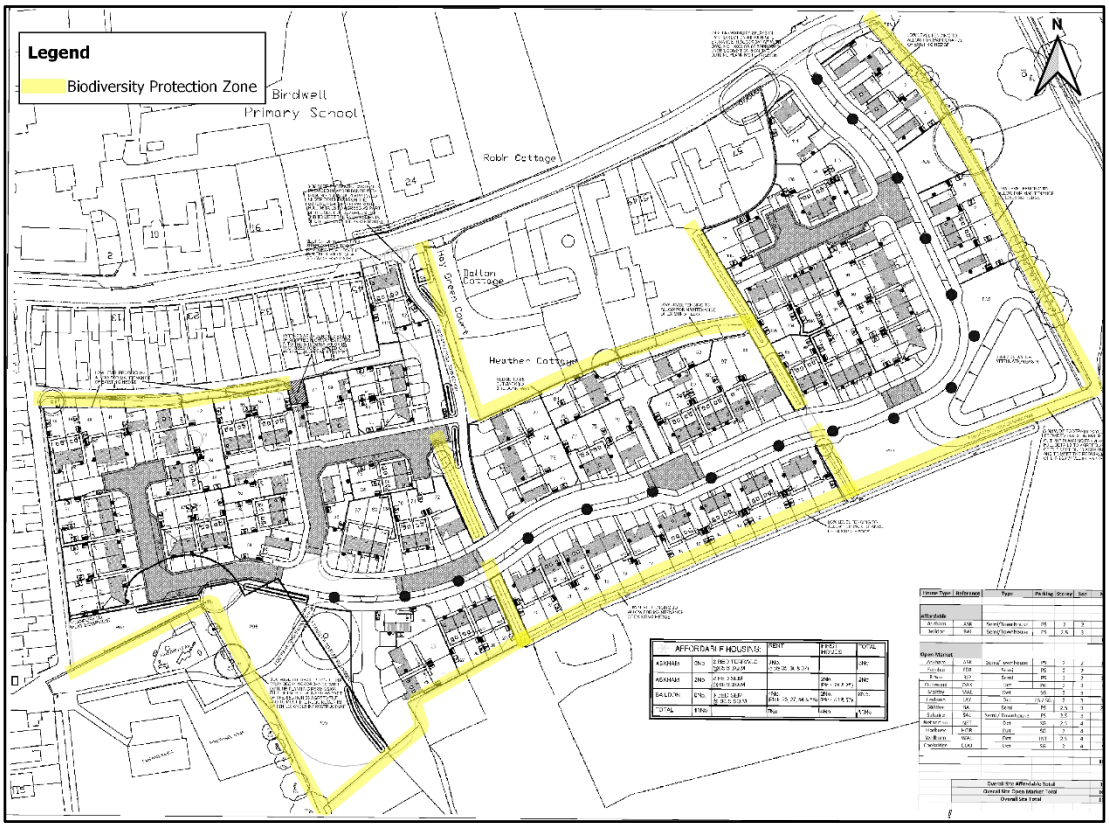


Figure 3.1: Biodiversity Protection Zones

Bats

3.4 Any lighting utilised during the Site clearance phase of the development should follow best practice guidelines outlined in Bats and Artificial Lighting in the UK (2018) to maintain suitable foraging and commuting routes along the Biodiversity Protection Zones. These zones should remain as dark corridors at all times and if any works are

required within close proximity, then floodlights should be directed away from these areas and no nightworks should take place within close proximity.

3.5 Any lighting within close proximity to the Biodiversity Protection Zone or within this zone should not measure any more than 0.5lux.

Nesting birds

3.6 To avoid disturbance to nesting birds, vegetation removal, including ground clearance and building demolition will be undertaken outside the nesting bird season (March to August inclusive), unless preceded by a nesting bird check by a suitably qualified ecologist. Works outside of this period should still be preceded by a nesting birds check conducted by the contractors, as some species can nest year-round.

Reptiles and Common Amphibians

3.7 A working methodology including measures to protect reptiles and amphibians during the vegetation and Site clearance phase of the development has been provided below:

- All vegetation clearance and Site clearance works must be undertaken during the reptile active period (March to October inclusive), in suitable weather conditions (temperatures between 9°C and 18°C, with no rain or strong winds).
- Prior to removal, vegetation will be hand searched for the presence of reptiles and amphibians by a Suitably Qualified Ecologist (SQE). Where reptiles or amphibians are encountered, they will be removed from the working area and placed in a suitable location outside of the works area.
- Following the inspection by the SQE, the vegetation will be cut to approximately 20cm in height. This will then be left for a period of 24 hours to allow any reptiles and amphibians present to disperse.
- Once a period of 24 hours has elapsed, the area will be checked again by the SQE then the vegetation will be removed.
- Where works are delayed, vegetation should be maintained at a height of less than 15cm to retain unsuitability for amphibians and reptiles.
- The vegetation should be cleared in a directional manner, from north to south in order to allow reptiles and amphibians into the suitable habitats adjacent to the Site to the south.
- During the Site clearance works, all cuttings should be removed from Site in order to prevent the creation of suitable refugia for reptiles and amphibians. Where accumulation of vegetation does occur, the vegetation should be hand searched by an suitability qualified ecologist prior to removal from Site.
- Under no circumstances should reptiles be chased or handled by inexperienced persons unless the reptile is in immediate danger. Any instances of emergency handling or injury/fatalities should be reported to BWB immediately.
- Where a reptile is encountered or becomes entrapped, BWB should be contacted in the first instance to provide advice.

Hedgehogs

3.8 To protect hedgehogs during the vegetation and site clearance works the following will be undertaken:

- Any brash piles will be hand searched prior to removal to search for hedgehogs by a suitably qualified ecologist.
- The bases of hedgerows and other areas of dense vegetation such as scrub should be hand searched by the suitably qualified ecologist immediately prior to removal.
- Temporary brash piles should not be allowed to accumulate on-Site so as to avoid creating potential refugia for hedgehogs. If any temporary piles of brash do accumulate these should be dismantled and searched by hand.

3.9 If a hedgehog is found during works then it should be left in situ and the British Hedgehog Preservation Society should be contacted for advice on what to do with the hedgehog, as depending on the time of year when the hedgehog is found, care advice may differ. This is due to the risks associated with disturbance of hedgehogs during hibernation or when they have young as disturbance during these periods can lead to mortality.

3.10 The British Hedgehog Preservation Society can be contacted on Tel: 01584 890 801.

Badgers and Other Mammals

3.11 Prior to the works commencing at the Site an updated badger survey will be conducted to ensure no setts have been created since the initial survey work was conducted in 2020.

3.12 Should a suspected badger sett be encountered at any point in the works (any holes measuring at least 30cm in diameter), all works within 30m of the suspected sett should cease and a Suitably Qualified Ecologist (SQE) contacted for further advice.

3.13 To protect badgers and other mammals during the vegetation and site clearance works the above measures outlined for reptiles, amphibians and hedgehogs are considered sufficient to protect badgers and other mammals during the clearance works.

4. MEASURES TO AVOID OR REDUCE IMPACTS DURING CONSTRUCTION

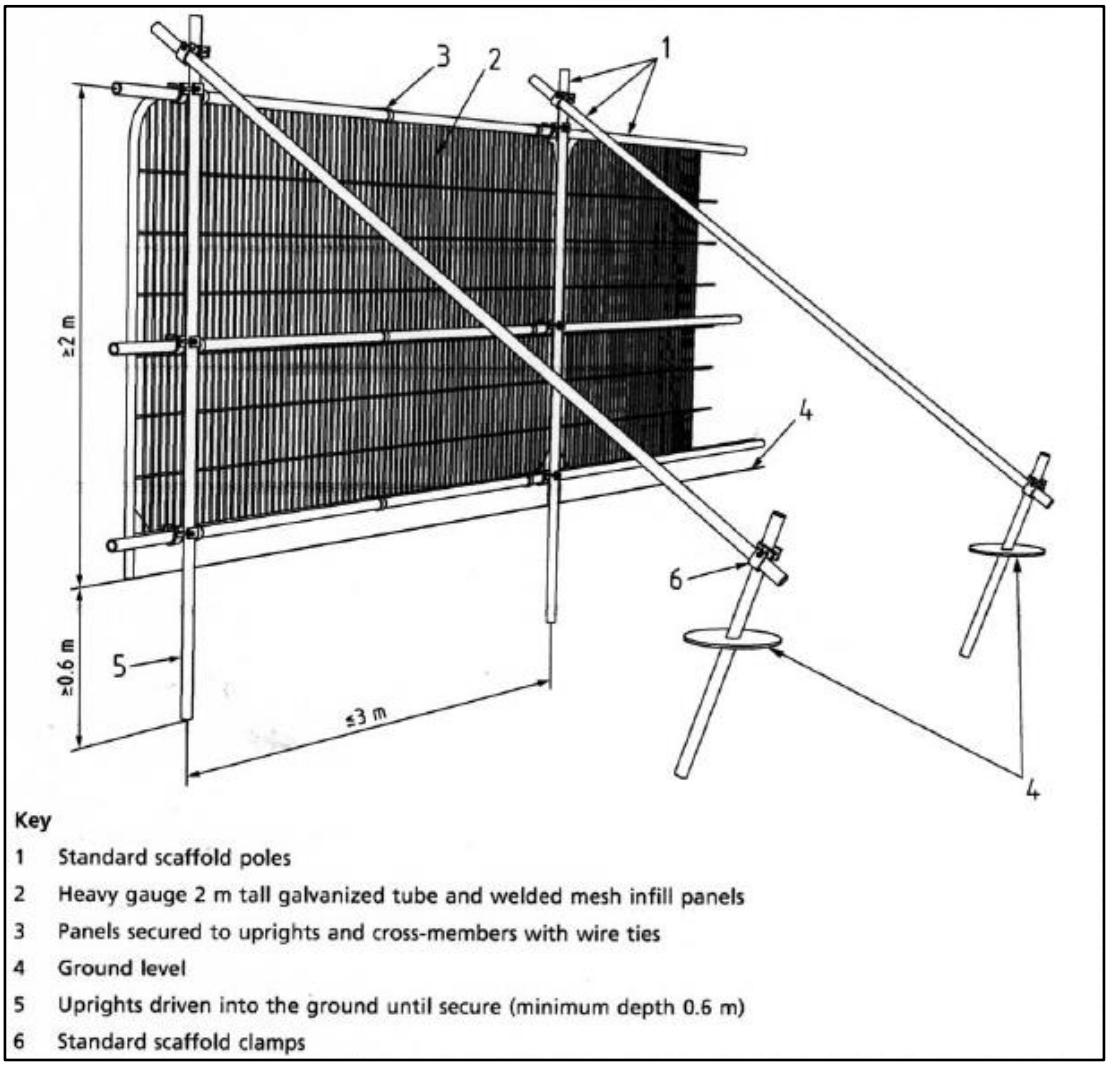
4.1 The following impacts and associated mitigation measures are relevant to the habitats and protected or notable species identified to be present at the Site or potentially present at the Site which may be impacted by the construction works.

Habitats

4.2 The retained habitats identified within the Biodiversity Protection Zone, as shown above in **Figure 3.1** will be fenced where reasonably practicable using Heras fencing or similar which will remain in place for the duration of the construction works at the Site. An example of the fencing to be installed is shown in **Figure 4.1** below.

4.3 No works will take place within these zones, and they will not be entered at any time by personnel, plant, or equipment. There will be no vegetation clearance within these zones without the supervision of an Ecologist and no storage of any materials.

4.4 Additionally, best practice guidelines will be followed to ensure pollution prevention measures are adhered to. This should include the provision of dedicated plant and equipment refuelling areas on hard standings and a dust management plan provided by the contractor.



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Figure 4.1: Example Protection Fencing

Bats

4.5 Any lighting utilised during the construction phase of the development should follow best practice guidelines outlined in Bats and Artificial Lighting in the UK (2018) to maintain suitable foraging and commuting routes along the Biodiversity Protection Zones. These zones should remain a dark corridor at all times and if any works are required within close proximity then floodlights should be directed away from this area and no nightworks should take place within close proximity.

4.6 Any lighting within close proximity to the Biodiversity Protection Zone or within this zone should not measure any more than 0.5lux.

Nesting Birds

4.7 Those features of potential value to nesting birds (hedgerows and trees) within the Site which are to be retained will be protected during the works phase by the Tree Protection Fencing which will be installed in accordance with BS5837:2012. If any works are required to vegetated habitats or buildings within the bird nesting season (March to August

inclusive), during the construction phase of the development then they must be preceded by a nesting bird check undertaken by a suitably qualified ecologist.

Reptiles and Common Amphibians

4.8 Good practice measures during construction should be implemented at the Site to prevent amphibians and reptiles becoming trapped within open excavations or injured as a result of the proposed works:

- Wildlife ladders (such as a wooden plank) or earth ramps to be placed in any open excavations at the end of each day.
- Any open pipework to be capped overnight to prevent mammals from accessing the pipe work and becoming stuck.
- Excavations should be checked each morning and evening for the presence of trapped animals.
- Materials should be stored off the ground on pallets to prevent reptiles and amphibians utilising any materials as refuge.
- Any chemicals or machinery are to be stored in a secure compound.

4.9 Where a reptile is encountered or becomes entrapped, BWB should be contacted in the first instance to provide advice.

Hedgehogs, Badgers and Other Mammals

4.10 Specific good working practices for hedgehogs, badgers and other mammals in line with BS 42020:2013 Biodiversity: Code of Practice for Planning and Development include:

- All construction staff will be made aware of the potential presence of hedgehogs, badgers and other mammals within the Site during the pre-start toolbox talk which should be provided on-Site as part of the Site induction;
- All chemicals and machinery should be stored securely to prevent accidental harm to mammals;
- As a matter of good practice, any trenches dug as part of construction work should be covered over at night, or left with a ramp or sloping end, to prevent mammals from falling in and becoming trapped. Similarly, any pipes over 200mm in diameter should be capped off at night;
- Should a suspected badger sett be encountered at any point in the works (any holes measuring at least 30cm in diameter), all works within 30m of the suspected sett should cease and a Suitably Qualified Ecologist (SQE) contacted for further advice.

5. ROLES AND RESPONSIBILITIES OF THE ECOLOGICAL CLERK OF WORKS

5.1 An Ecological Clerk of Works (EcoW) will comprise of a suitability qualified and experienced ecologist and only be required to attend site for the following activities;

- A nesting bird check within 48 hours of scheduled vegetation removal, if any vegetation works are to be undertaken within the bird nesting season (from March to end of August);
- To complete an update badger survey of the Site prior to the start of vegetation clearance and site clearance works;
- To search any brash piles or areas of dense vegetation prior to their removal for hedgehogs, reptiles, amphibians and small mammals; and,
- Be a nominated contact prior to any works required in the Biodiversity Protection Zone to advise on type of works and if any mitigation measures are required.

6. OTHER RESPONSIBLE PERSONS AND LINES OF COMMUNICATION

6.1 The principal contractor will nominate an environmental ambassador whose role it will be to oversee the implementation of environmental protection measures including ecological measures outlined within this document.

6.2 Prior to the commencement of works on-Site the Site manager should contact BWB to obtain an ECoW. BWB will provide a suitably qualified and experienced ecologist to attend site when required.

6.3 The Site manager and nominated environmental ambassador should obtain the direct contact details of a ECoW at BWB. This nominated BWB ecologist should also have the direct contact details of the Site manager and nominated environmental ambassador.

7. REFERENCES

- Bat Conservation Trust (2018) Bats and Artificial Lighting in the UK – Guidance Note 08/18.
- British Standards Institution (2013) BS42020:2013 Biodiversity – code of practice for planning and development. BSI Standards Ltd, London.
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- Chartered Institute of Ecology and Environmental Management (2017) Guidelines for Ecological Report Writing. CIEEM, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020) Guidelines for accessing, using and sharing biodiversity data in the UK. CIEEM, Winchester.
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- FPCR (2020a) Great Crested Newt Report: Land at Hay Green Lane, Birdwell, Barnsley. FPCR, Derby.

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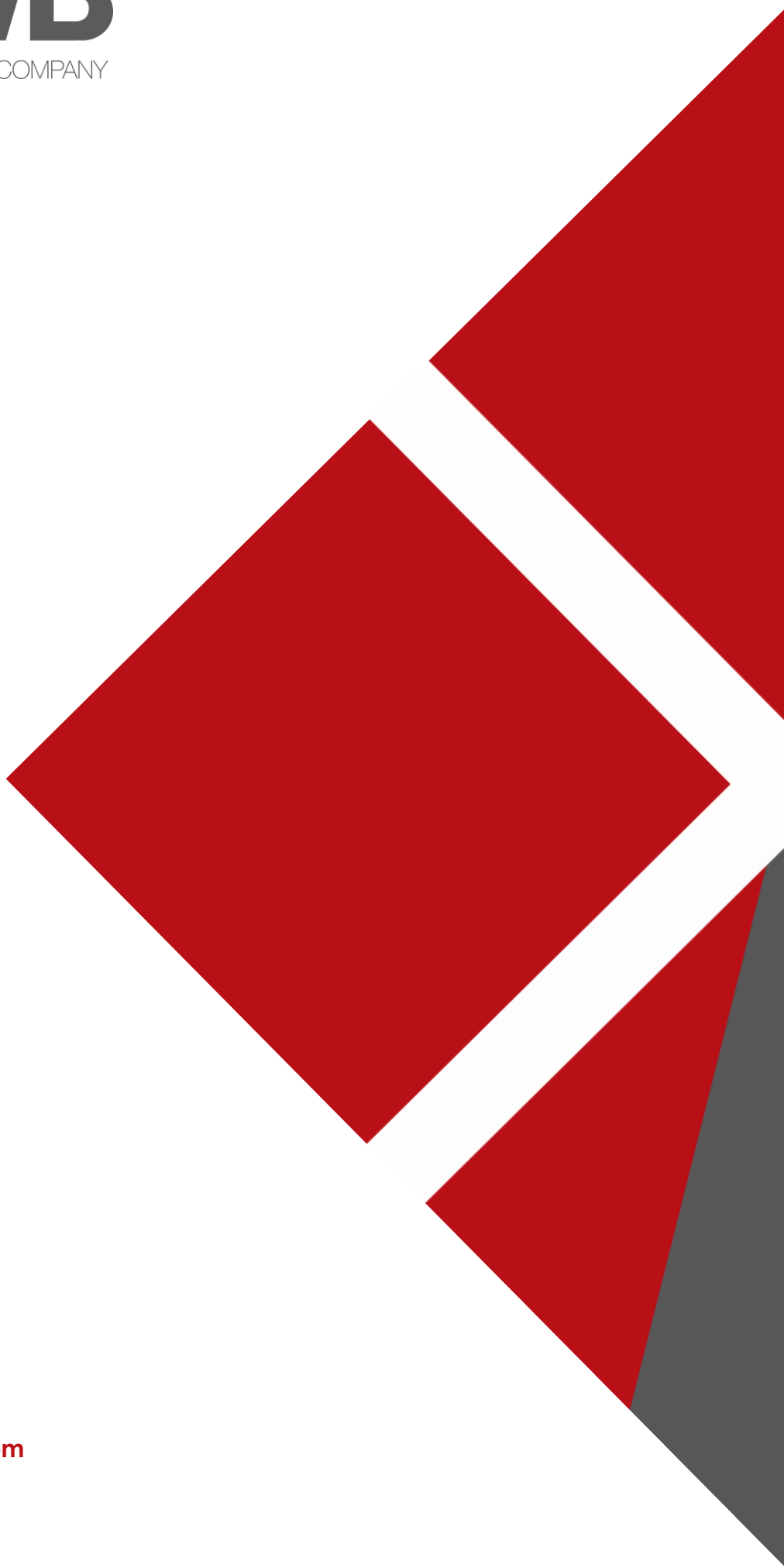

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