

Leconfield Road, Nanpantan

Construction and Ecological  
Management Plan



Client:

Nineteen47

Report Reference:

RSE\_4942\_02\_V2

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## Project Details



Client:	Nineteen 47
Project:	Leconfield Road, Nanpantan
Reference	RSE_4942_02_V2
Report Title	Construction and Ecological Management Plan

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## 1 INTRODUCTION AND BACKGROUND

### 1.1 Purpose and Scope of this Report

RammSanderson Ecology Ltd was instructed by Nineteen47 to produce a Construction and Ecological Management Plan (CEMP) for a housing development comprising approximately 30 dwellings, associated footpaths and access roads to be constructed on land off Leconfield Road, Nanpantan, in Leicestershire.

- ii This management plan was produced with reference to existing ecological data (see phase 1 report RSE\_4942\_01\_V2) for the site and the client's site proposal plan (see appendices). This CEMP has been produced to protect biodiversity and fauna at site during construction and will detail and implement best practice methods. The preparation and submission of a CEMP is a requirement within the Environmental Statement as mitigation measures.

### 1.2 Background Information

A Phase 1 Habitat Survey and Ecological Appraisal of the site was undertaken in 2021 by RammSanderson Ecology. The habitat on site was considered of limited botanical importance and with minimal scope for supporting protected or priority species, as such no further surveys were recommended. There remains the residual risk for transient individuals to be present on site during construction, as such measures will be discussed within this CEMP that will aim to minimise the risk of injury or death to them as well as limiting the impact of the construction on the local protected species populations.

### 1.3 Responsibilities

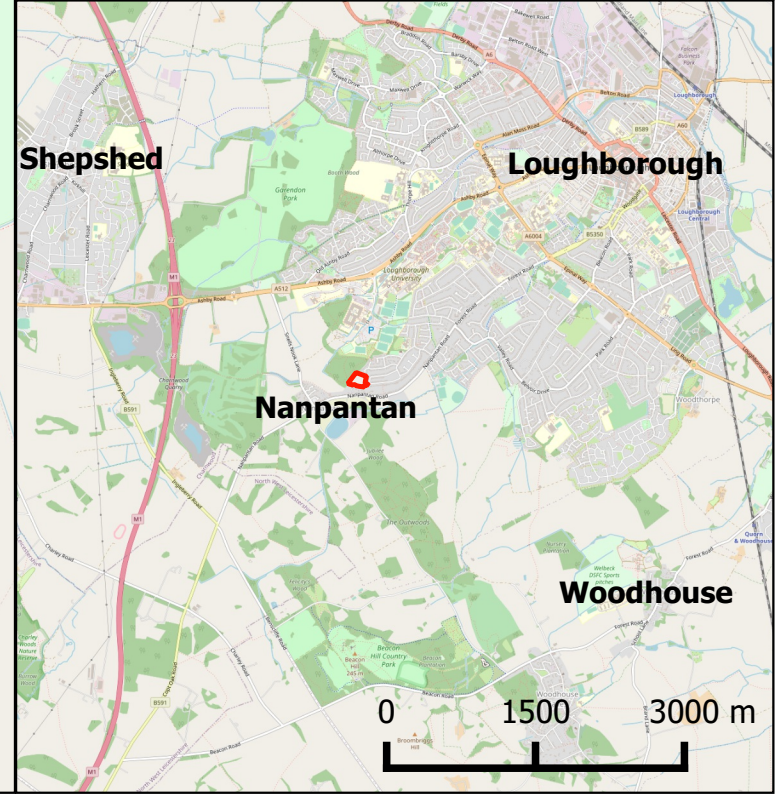
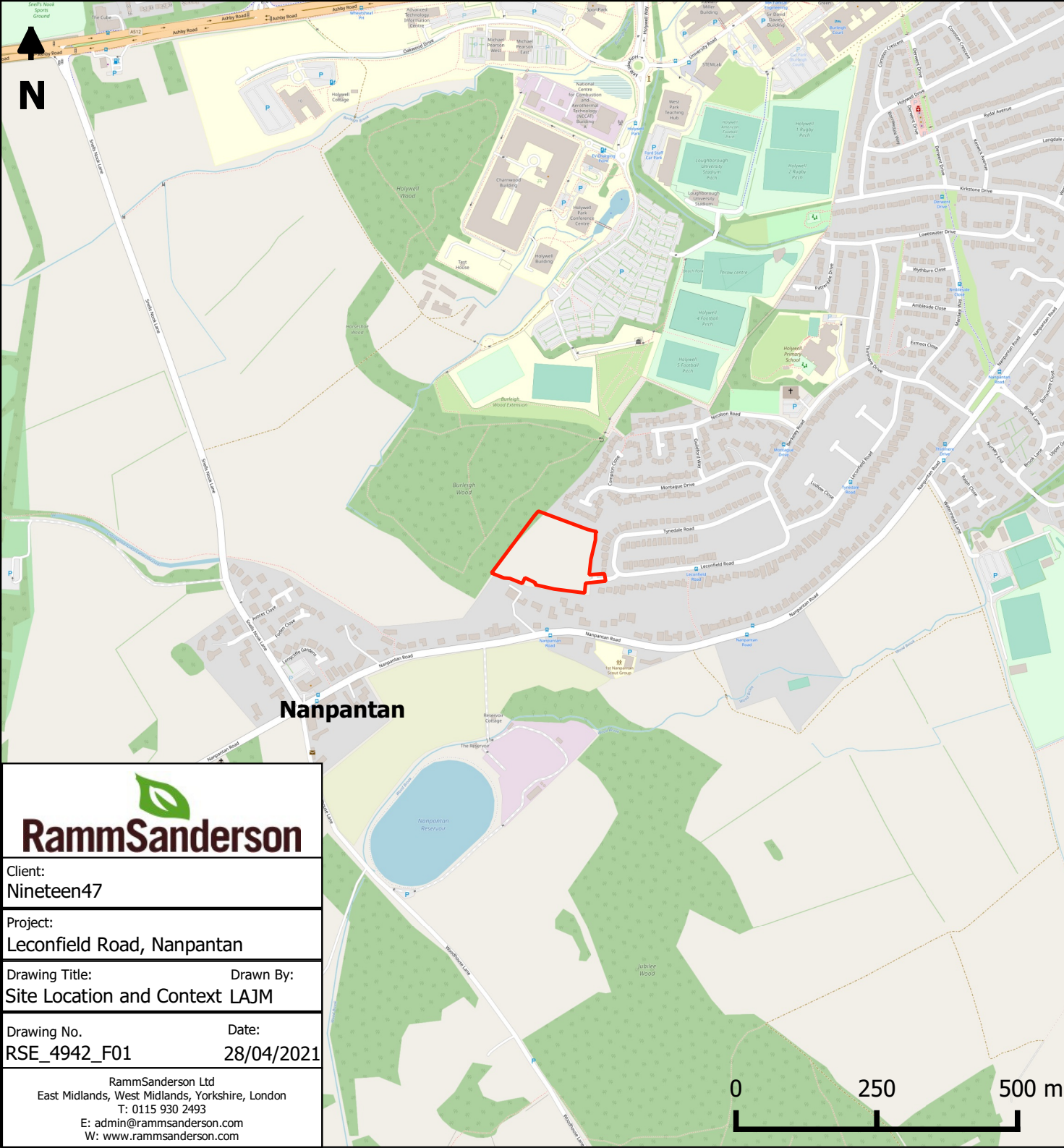
The responsibility for implementing this management plan will be the principal contractor's, Bowbridge Homes and any associated sub-contractors. A copy of this document should be kept on site and referred to where necessary.

### 1.4 Site Context and Location

The site formed a parcel of poor semi-improved grassland that was c1.5ha in area, with continuous scrub located on the south western and north eastern boundaries. There were three small sections of tall ruderal vegetation and three hedgerows located on site. The site was located south west of Loughborough, north east of Nanpantan, Leicestershire and north of Nanpantan Road. (central grid reference SK50951 17549). On three sides it was bordered by residential housing and on the western boundary was a large section of ancient woodland.

- ii Site land use has remained the same since 1999 (this was identified utilising Google Earth Pro 2021).





Client:  
Nineteen47

Project:  
Leconfield Road, Nanpantan

Drawing Title:                      Drawn By:  
Site Location and Context LAJM

Drawing No.                              Date:  
RSE\_4942\_F01                              28/04/2021

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## 2 LEGISLATION AND PLANNING POLICY

### 2.1 General & Regionally Specific Policies

Articles of British legislation, policy guidance and both Local Biodiversity Action Plans (BAPs) and the NERC Act 2006 are referred to throughout this report. Their context and application is explained in the relevant sections of this report. The relevant articles of legislation are:

- The National Planning Policy Framework (2021);
- ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2021);
- Local planning policy PD3 (Charnwood borough council);
- The Conservation of Habitats & Species Amendments (EU Exit) Regulations 2019 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- EC Council Directive on the Conservation of Wild Birds 79/409/EEC;
- National Parks and Access to the Countryside Act 1949;
- The Protection of Badgers Act 1992;
- The Countryside and Rights of Way Act 2000;
- The Hedgerow Regulations 1997;
- The Natural Environment and Rural Communities (NERC) Act 2006; and
- Local Biodiversity Action Plan for Leicestershire and Rutland.

### 2.2 Bats and Great Crested Newts

Great Crested Newt (GCN) and species of British bats are fully protected within UK Law under *Wildlife and Countryside Act 1981* (as amended) through their inclusion in Schedule 5. Under the Act, they are protected from:

- Intentional or reckless killing, injury, taking
  - Damage to or destruction of or, obstruction of access to any place of shelter, breeding or rest
  - Disturbance of an animal occupying a structure or place
  - Possession or control (live or dead animals)
  - Selling, bartering or exchange of these species, or parts of
- ii This law is reinforced by the UK's transposition of the EU Habitats Regulations under *The Conservation of Habitats and Species Regulations 2017*. These Regulations also prohibit:
- The deliberate killing, injuring or taking of great crested newt or bats
  - The deliberate disturbance of any great crested newt or bat species in such a way as to be significantly likely to affect
  - Their ability to survive, hibernate, migrate, breed, or rear or nurture their young
  - The local distribution or abundance of that species
  - Damage or destruction of a breeding site or resting place
  - The possession or transport of great crested newt or bats or any other part of
- iii Under certain circumstances a licence may be granted by Natural England to permit activities that would otherwise constitute an offence. In relation to development, a scheme must have full planning permission before a licence application can be made.
- iv In addition, seven British bat species are listed as Species of Principal Importance (SPI) under the NERC Act (2006). These are barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), greater horseshoe (*Rhinolophus ferrumequinum*) and lesser horseshoe (*Rhinolophus hipposideros*).
- v Under the National Planning Policy Framework 2021, the presence of any protected species is a material planning consideration. The Framework states that impacts arising from development proposals must be avoided where possible or adequately mitigated/compensated for and that opportunities for ecological enhancement should be sought.

## 2.3 Birds

The Wildlife and Countryside Act 1981 (as amended) is the principal legislation affording protection to UK wild birds. Under this legislation all birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to recklessly or intentionally:

- Kill, injure or take any wild bird
  - Take, damage or destroy the nest of any wild bird while it is in use or being built
  - Take or destroy the egg of any wild bird
- ii For the birds listed on Schedule 1 of the Act, it is an offence to disturb any bird while it is building a nest, is at or near a nest with young; or disturb the dependant young of such a bird.
- iii Species listed in Annex 1 of the EU Birds Directive 1994 (e.g. barn owl) are required to have special conservation measures taken to preserve their habitats and site to be classified as Special Protection Areas where appropriate.

## 2.4 Reptiles

All Reptile species are partially protected under Schedule 5 (Sections 9(1) and 9(5)) of the Wildlife and Countryside Act 1981 (as amended).

- Reckless or intentional killing and injury
- Selling, offering for sale, possessing or transporting for the purpose of the sale or publishing advertisements to buy or sell a protected species

## 2.5 Badgers

Badgers are protected under the Protection of Badgers Act 1992. This act makes it an offence to:

- Wilfully kill, injure, take possess or cruelly ill-treat a badger, or attempt to do so
  - To intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes
- ii A sett is defined as:
- “Any structure or place which displays signs indicating current use by a badger”.*
- iii Works that disturb badgers whilst occupying a sett is illegal without a licence, badgers may be disturbed by work near the sett even if there is no direct interference or damage to the sett.
- iv Licences only allow works to be carried out between July and November inclusive.

## 2.6 Hedgehog and Brown Hare

West European hedgehogs (*Erinaceous europaeus*) and brown hare (*Lepus europaeus*) are protected under Section 41 of the NERC Act (2006). This act recognises species of principle biodiversity importance. All public bodies must have regard to the conservation of biodiversity, in in relation to this species.

- ii Common toads are protected under schedule 5 and schedule 9 sub-section (5) of the WCA (wildlife and countryside act 1981 (as amended)). These prohibit the sale, offering for sale, transporting for sale and advertising for sale or to buy these species.

## 2.7 Hedgerows

All native hedgerows (including species-poor ones) are listed under Section 41 of the NERC Act (2006) and are a Local Biodiversity Action Plan (LBAP) habitat. All native hedgerows are considered to be of high conservation value.

- ii The Hedgerow Regulations (1997) classifies a hedgerow as ‘important’ if it:



- Satisfies at least 1 of the criteria listed in Part II of Schedule 1
  - Has existed for 30 years or more
- iii Any person wishing to remove a hedgerow is required to submit a hedgerow removal notice to the LPA
- iv Items of Legislation that are pertinent regarding hedgerows include:
- Hedgerow Regulations 1997
  - The Countryside Rights of Way Act 2000
  - NERC Act (2006)
  - The UK Biodiversity Action Plan (UK BAP)
  - The Conservation of Habitats and Species (EU Exit) Regulations 2019
  - The Wildlife & Countryside Act (1981)

### 3 RISK ASSESSMENT AND MANAGEMENT OBJECTIVES

In order to inform this section of the plan, a desktop review of background data including reports and local policies has been undertaken.

#### 3.2 Biodiversity Targets

In compiling this document, consideration is given to the local and national targets of;

- NERC Act (2006)
- Leicestershire and Rutland Local Biodiversity Action Plan (LBAP)

#### 3.3 Bats

The site contained no buildings and therefore bat roosts within buildings are not a constraint for the site and will not be discussed further within this document.

- ii Ground-level tree assessments were undertaken by RammSanderson during the update ecological appraisal visit and one tree was assessed as having low bat roosting potential, this tree is due to be removed in order to facilitate the works. The removal of this tree has the low possibility of disrupting bat species, which would contravene section 2 above, the objective is to avoid the disturbance or injury/killing of any bat species. See soft felling methodology in section 4.2 below.
- iii The site was considered to offer low-moderate quality foraging and commuting habitat for bats due to presence of scattered trees, broadleaved woodland and hedgerows as well as being connected to the surrounding environment via woodland extending westwards from the site boundary.
- iv Despite the retention of much of this suitable habitat, lighting of the development has the potential to disrupt bat foraging and commuting routes, which could in turn affect the favourable conservation status of local bat populations. As a result, this could contravene legislation described in Section 2 and therefore the objective is to mitigate for the effects of lighting on the higher value habitats of the site: the hedgerows and retained broad-leaved woodland.

#### 3.4 Nesting Birds

The potential risk from vegetation clearance and construction activities on site in relation to nesting birds is the destruction of any active nests and the eggs therein. Vegetation to be removed pose a potential risk to nesting birds and therefore contravention of legislation provided in Section 2. Vegetation clearance should therefore avoid the main bird nesting period (taken to be from March to September, inclusive). Where this is not possible, the management objective is for nesting bird checks to be undertaken by a suitably qualified ecologist to enable suitable protection of any active nests until the young have fledged.

#### 3.5 Reptiles

Although the majority of the site is considered sub-optimal for reptiles (semi-improved grassland), areas of the site, including the offsite woodland and boundary scrub and hedgerows, are considered to be suitable for widespread species of reptile, although these habitats are due to be retained. Surveys for this species group were conducted on site between May-July 2021, with no reptiles observed on site during these surveys.

- ii Given the limited size of suitable habitat, it is not considered likely that the site would constitute core habitat for reptile populations. There remains a residual risk that individual reptiles may pass through the site and therefore construction activities could contravene legislation described in Section 2. As such, the objective is to reduce the risk of killing/injuring any reptiles via the implementation of a Precautionary Method of

Works (PMW). Should the works not take place within a year of issue of this document, then the suitability of the site for reptiles should be reassessed, as it is apparent that the site could become more vegetated and therefore more suitable for foraging or refuge-seeking reptiles.

### **3.6 Badgers**

The initial phase 1 survey carried out by RammSanderson Ecology identified two disused mammal holes on site. No further evidence was identified such as latrines, hairs or snuffle holes.

- ii Habitats onsite, such as the scrub and grassland provided foraging potential for badgers. Furthermore, the offsite woodland habitat has some suitability to support badger sett building. As badger setts can be excavated relatively quickly and badgers may pass through the site during construction, there is therefore a risk of construction activities resulting in contravention of the legislation provided in Section 2.
- iii Management objectives to reduce the risk to badgers on site will therefore focus on the avoidance of badgers becoming harmed within the construction site, for example by becoming trapped in open excavations and by remaining vigilant of any newly created setts that may be dug on or near site.

### **3.7 Hedgehogs and Brown Hare**

The habitats on site have the potential to support hedgehog and brown hare. There is therefore a risk that harm could be caused to these species, both passing through the site during the construction phase, and during any vegetation clearance. As such, consideration will be given to these species to prevent any risk to the conservation status of hedgehogs.

## 4 PRE AND MID CONSTRUCTION MITIGATION

On review of the ecological constraints, it is clear the higher value habitats are limited to the hedgerow and the adjacent broad-leaved woodland. As these are proposed for retention and form effective ecological corridors between the site and its wider surroundings, vegetation clearance should take place working towards these corridors. This would align with strategies associated with species being considered within this document such as reptiles.

- ii Each area requiring ecological mitigation is addressed below with suggested timings of works and where necessary, identification of any supplementary pre-commencement surveys, pre-construction and mid-construction mitigation requirements and also sets out where ecological clerk of works will be required. Section 6 provides a summary table of the species-specific recommendations provided below.
- iii Section 5 and 6 of this document should be used within any site briefing document and be controlled by the site foreman and a nominated site 'biodiversity champion'. It is recommended that this document is briefed to all managers on site and any operatives working within the east of the site. This should also form part of the site diary and the biodiversity champion should record all actions taken on site that are within the remit of this CEMP.

### 4.2 Bats

#### 4.2.1 Roosting habitats

A single tree on site offers low bat roosting potential, bats and their roosts are highly mobile and as such it is recommended that soft felling techniques are utilised for the removal of this tree:

- Removal of this tree should be supervised by an ecologist
- The tree should be felled in sections, working from the top and first removing larger limbs and then the trunk, each section should be lowered to the ground with care
- Features should first be inspected by the arborist removing the tree, or immediately prior to removal by a bat licenced ecologist.
- Features will be cut from the tree (1m on either side of the feature where possible) and placed on the ground.
- Materials from the tree should be left (not in piles) on site for a minimum of 48 hours prior to removal from site or chipping. If chipped

#### 4.2.2 Foraging and Commuting Habitats

The scrub, woodland and the boundary hedgerows offer potential opportunities for local foraging and commuting bats, the majority of which are to be retained within the proposals. The grassland that dominates the centre of the site is proposed for removal and whilst these habitats do offer a potential foraging resource for bats, the quality of this habitat is limited by both its extent and its limited biodiversity. To mitigate for this potential loss of bat foraging habitat, sensitive lighting measures pre-construction, during the construction phase and at the operational phase should be adhered to, to reduce disturbance to bat using retained habitat and the new planting should be maximised for foraging bats,

- ii Current proposals indicate the retention of the majority of hedgerow and boundary habitat, any gaps created in hedgerows or other linear vegetation should not extend more than 20m.
- iii Artificial lighting can affect the way that bats use habitats in a number of ways, depending on the species and proximity to a roost. Direct bright lighting of a roost can cause bats to delay emergence from a roost and could even cause them to desert the roost or become entombed within it (BCT and ILP, 2018). The



prey items for British bats are flying insects, and many flying insects are attracted to certain types of artificial light sources, especially those that emit light with an ultraviolet component or have a high blue spectral component (BCT and ILP, 2018). Some species of bat recorded are known to be attracted to insects gathered around light sources (such as pipistrelle, noctule, Leisler's and serotine), whereas other species actively avoid lit areas (such as long-eared bats, *Myotis* species, barbastelle and greater and lesser horseshoe bats). Lighting within the site could therefore be expected to affect the ways that the bats in the area are able to use the site. As a result, it is recommended that construction works are to be undertaken in daylight hours only with no night hours work permitted. Dark corridors are recommended along the boundary hedgerow and southern woodland parcel, including along the footpath to reduce disturbance to bat flight paths and this should be aided by the orientation of the proposed units, with gardens as opposed to houses mostly facing these features.

- iv During both the construction and operational phases of all areas of the site, efforts should be made to prevent impacts to foraging and commuting bats by the implementation of a bat friendly lighting scheme. This should follow the guidelines set out in *Bats and Artificial Lighting in the UK* (BCT, 2018). Therefore, associated site lighting proposals must consider the following:
- Lighting of or light spill onto hedgerows, and boundary vegetation, be avoided and lighting in general should only be used where necessary.
  - Luminaires should lack UV elements and metal halide; fluorescent sources should not be used.
  - LED luminaires should be used where possible, owing to their sharp cut-off, lower intensity, good colour rendition and dimming capability. A warm white spectrum (<2700Kelvin) to reduce the blue light component should also be utilised and luminaires should feature peak wavelengths higher than 550nm.
  - Any external security lighting of the site during construction and lighting on or around residential units post-construction should be set on motion-sensors and short (1 minute) timers.
  - Lamps should be fitted with light spill accessories directing light downwards and avoiding upward spill and spill onto site boundaries and buildings.
- v All new lighting will meet the current environmental standards of good practice in order to reduce potential light pollution and will use the lowest intensity for its purpose. This will minimise light spill onto dark corridors.

### 4.3 Nesting Birds

Vegetation clearance works should be programmed to avoid the main nesting bird season (March to September inclusive) as the site is likely to support nesting birds. However, if works fall within the nesting period, in order to protect any nesting birds present within the site, the following method will therefore be adopted;

- A detailed site walkover recording nesting activity will be required within 24 hours of the area of vegetation being removed by the nominated onsite ecologist. It is proposed that the nesting bird survey is completed over c. 2 hours to accurately record the location of any active nests. Any active nests or suspected active nests will be marked with barrier tape providing a 10m exclusion (more if considered appropriate), GPS recorded and highlighted on a plan and discussed during toolbox talks with operatives before works commence.
- Should contractors subsequently observe or suspect nests during their works then work should immediately stop in that area and the site ecologist should be notified. The nest area will then be marked with barrier tape and GPS recorded as above. Clearance works will only be permitted to recommence within excluded nesting zones once an ecologist has reassessed the area and confirmed all birds and dependant young have fledged.
- Prior to works starting, telephone numbers will be exchanged between the nominated site ecologist and site manager to provide a clear line of communication.

- ii Soil scrapes should not be left over winter as this will increase the risk of these areas becoming attractive to ground nesting species such as lapwing. Should this prove unavoidable, then the above method will also be required in relation to ground nesting birds.

#### 4.4 Reptiles

Given the mobile nature of reptile species and suitability of the site such as hedgerows, a precautionary method of works for the site should be adhered to, which shall include:

- A suitably experienced ecologist will provide a toolbox talk to all site operatives involved with vegetation clearance works and provide fact sheets on what to do in the unlikely event that a reptile is found.
- The site will be checked thoroughly by the ecologist before any works commence.
- Vegetation removal should only be conducted in temperatures above 11°C, ideally in the late morning to afternoon, when reptiles are most active.
- The habitats should first be cut to a height of 15-20cm by hand tools only. The area should be left for 24-48hrs and then cut to 5cm using the same method, working in the same direction as the previous cut. This will allow any reptiles present to disperse into the wider environment unharmed.
- In the extremely unlikely event a reptile is seen during these works, they should be allowed to escape unharmed at their own pace. Only a trained ecologist should attempt to move reptiles by hand. If multiple reptiles are encountered, works should cease and the methodology be re-evaluated.

#### 4.5 Badgers

Given the length of time since the preliminary ecological appraisal an update survey should be undertaken prior to commencement for any newly created setts. In the event that a sett is discovered, an ecologist should be contacted and a 30m buffer put in place to prevent any tracking over or digging / drilling within the area within 30m of the new sett. This shall remain in place until an ecologist has been to site to advise further.

- ii The following additional practical precautionary measures relating to badgers will also be put in place;
  - Ramps will be created (mammal ladders) by edge-profiling excavations or by using planks to allow mammal escape.
  - Open pipework greater than 200mm external diameters are to be capped off at the end of each working day.
  - Security lighting used during the development phase should be faced away from the boundary of the site.
  - Any chemicals should be stored in secure compounds away from access for any animals.

#### 4.6 Hedgehog and Brown Hare

During the construction phase of the development, any excavations should not be left open overnight, these will require covering or a mammal ladder (planks) or a sloped edge to allow fauna to escape should they fall in. Any pipework should also be capped at the end of each day, night working should be avoided, and any security lighting should be placed away from hedgerows and the residential garden areas. Any chemicals on site should be stored in secure compounds and away from any access from animals.

- ii A precautionary method of working should be followed as detailed below:
  - Any log or brush piles should be removed by hand and the area to be cleared should be checked by a suitably qualified ecologist prior to works commencing.
  - Any tall grassland/arable vegetation should be checked prior to cutting by an ecologist to allow brown hares to disperse
  - Vegetation should be cleared in a systematic manner, using hand tools only.
  - Any hedgehogs sighted should be left to disperse of their own accord. If the animal does not disperse it should be moved by an ecologist to an area of scrub/vegetation which is to be retained.

## 5 SUMMARY OF PRE AND MID CONSTRUCTION MITIGATION

### 5.1 Critical Pathway Elements

The below is a brief bullet point list of critical items to consolidate the primary risk mitigation measures associated with the site. These are detailed further by species within Table 1 below.

- Vegetation clearance to be preceded by a check by an ecologist due to potential to support nesting birds
- Strim vegetation carefully under PMW to mitigate for reptiles
- Check for badger setts within 30m of construction activity prior to commencement.
- Secure hedgerow and broad-leaved woodland from accidental damage by means of Heras fencing
- No night works
- Avoid leaving open trench /excavations over-night and cap off all exposed pipework

**Table 1: Summary of Mitigation Requirements**

Species	Further Survey	Mitigation		Timing Constraints
	Pre-construction	Pre-construction	Mid-construction	
Bats	Foraging – n/a	Retain hedgerow and broad-leaved woodland. Reduce lighting impacts	Protecting hedgerows and woodland, reduce lighting impacts, including absence of lighting of corridors	n/a
Bats	Roosting – n/a	Soft fell methodology to be utilised in order to remove this tree. Bat boxes to be incorporated within this development will provide roosting features on site.	n/a	n/a
Nesting birds	Check of vegetation to be cleared by a suitably experienced ecologist immediately prior to works (if within bird nesting season)	Should an active nest be identified, area to be left with appropriate buffer zone until all chicks have fledged.	Should an active nest be identified, works should cease immediately. An appropriate buffer zone should be established by the ecologist and works should not resume until all the chicks have fledged	Avoidance of main nesting season taken to be March – September (inclusive).
Badger	Pre-commencement check for newly excavated badger setts or signs	n/a	Maintain good working practices and avoid excavations left open overnight  Remain vigilant of new mammal burrows and inform the ecologist if any are identified	n/a
Reptiles	No reptiles identified on site during the suite of surveys that were undertaken. As such, it is considered unlikely that this area forms a core habitat for reptiles locally. Individuals may still pass	Clear vegetation from site in a systematic manner working towards retained corridors under PMW  Toolbox talk and ecological site check.	Sensitive vegetation management and ecological supervision where/when required for suitable areas	Works in areas suitable for reptiles should be undertaken when reptiles are active (taken to be when temperatures exceed 11 °C). Given the similarities in suitable habitat, this is likely to coincide with the avoidance of the GCN hibernation period.



Species	Further Survey		Mitigation		Timing Constraints
	Pre-construction	Pre-construction	Pre-construction	Mid-construction	
	through the site during construction and clearance.				
Hedgehog	n/a	n/a		Maintain good working practices and avoid excavations left open over night	n/a

## 6 HABITAT MANAGEMENT STRATEGY (MID-POST CONSTRUCTION)

The recommendations made below are based on the overarching design and provide habitat improvement measures for the retained and newly created habitats as well as details in respect of new bird nesting and bat roosting provision.

### 6.2 Tree Planting

New trees planted within the site will utilise a range of native species that provide a broad variety of microclimates suited to different invertebrate species. An urban orchard area is proposed within the buffer strip to the west of the site, this will contain plum, apple, cherry and pear trees.

- ii Tress should be planted and monitored for failure and will require regular watering within the first 4-6 weeks whilst establishing. Any failures should be replaced on a like for like basis, unless it is clear a certain species is not surviving on this site at which point the species will be substituted.
- iii Tree aftercare will comprise of formative pruning with woodchip/bark mulch applied where appropriate to a depth of 75mm. A maintenance plan comprising watering where necessary, weed control, mulching and checking of the support systems should be carried out until successful establishment.

### 6.3 Hedgerows Enhancement

Prior to works commencing, any retained hedgerows and trees/woodland will be fenced off with construction Heras fencing to avoid accidental destruction/removal.

- ii Trees, shrubs and climbers selected for new hedgerow planting, standard trees and boundary vegetation should incorporate species to benefit invertebrate prey and improve foraging opportunities for bats on site. These could include holly (*Ilex aquifolium*), blackthorn (*Prunus spinosa*), field maple (*Acer campestre*), hornbeam (*Carpinus betulus*), beech (*Fagus sylvatica*) and hazel (*Corylus avellane*).

### 6.4 Public Open Space and Marginal Flora

Newly created POS and green areas will be created to incorporate native species of local provenance.

- ii Marginal areas located outside of the POS should be sown with a species rich wildflower area. It is recommended that for the grassland areas are sown with EM4, Meadow mixture supplied by Emorsgate Seeds.
- iii Within both the POS and marginal areas, night-flowering flora should be incorporated to benefit invertebrate prey and improve foraging opportunities for bats on site. Exact species suitable for the site will be reliant on the condition/substrate of the area being planted, however examples of native night-flowering plants include corn flower (*Centaurea cyanus*), corn marigold (*Glebionis segetum*), field poppy (*Papaver rhoeas*), common mallow (*Malva sylvestris*), ox-eye daisy (*Leucanthemum vulgare*), red campion (*Silene dioica*), wood forget-me-not (*Myosotis sylvatica*) and angelica (*Angelica archangelica*).
- iv The areas within the buffer strip will be planted with shade tolerant grass and woodland windflower mixes such as the N10 and N10G and N10F mixes from nature scape<sup>1</sup>. These mixes contain a variety of native grasses and flowers typical of woodland ground flora.

<sup>1</sup> Naturescape website: [https://www.naturescape.co.uk/?s=woodland+&search\\_id=1&post\\_type=product](https://www.naturescape.co.uk/?s=woodland+&search_id=1&post_type=product)

- 
- v Management prescriptions include:
- For grassland, control of undesirable species will be required. Soil scrape and creation of openings will allow species such as nettles and bramble to thrive as a result of the high nutrient base conditions. Spot treatment with a broad-spectrum herbicide or mechanical/manual removal will be required, particularly on a high frequency (monthly within the plant growing season) within the first two years of the management plan whilst the grassland establishes.
  - The grasslands will require annual management to prevent scrub succession. It is recommended an annual cut is completed in September after seed heads have disbursed. It is recommended the area be cut only on a warm day (temperatures exceeding 11°C) and at walking pace working towards the central ditch or boundary hedgerows depending on location, to allow dispersal of any reptiles which may be present. Arisings from the cut must be taken off site to prevent nutrient enrichment after 48hrs to allow seeds to disperse from cuttings.

## 6.5 Reptile and Amphibian Enhancement

To enhance the site for reptiles and amphibians, It is recommended that a refuge pile and compost heap are established on site, using arisings from sectional hedge/vegetation clearance and from management practices such as mowing. For the refuge, arisings such as brash and logs should be piled in a sunny position within existing vegetation and within or adjacent to habitat linked to the proposed surface water attenuation in the north western corner of the site. The pile can be maintained by adding additional material as it decomposes, which can be provided from ongoing tree and scrub management.

- ii A reptile basking bank could also be provided, consisting of a simple south-facing bank, turfed or seeded to encourage a varied vegetation structure, ideally with patches of scrub.

## 6.6 Bat Roost Enhancement

Although no structures with bat potential will be lost as a result of the development, it is recommended that to enhance the site for bats, integrated bat boxes such as 2FR Schwegler bat tubes, Habibat bat bricks or similar could be installed into new dwellings adjacent to suitable habitat (primarily the central ditch and boundary hedgerows) and standard bat boxes such as the Improved Crevice box (Nestbox company) on retained trees. Bat boxes/bricks should be positioned at least 4m above ground sheltered from strong winds and exposed to the sun for part of the day (usually south or south-west), although a mixture of orientations is preferable to provide roosting opportunities with a range of conditions. Examples of standard and integrated bat boxes are shown in Figure 2 below.

Figure 2: Bat box examples



Improved Crevice bat box

Schwegler 2FR bat tube

Habibat bat box example

## 6.7 Nesting Bird Enhancement

To mitigate for the loss of any potential bird nesting sites including the removal of trees, hedgerow and scrub habitat, a range of amenity trees and shrubs will be planted as new habitat within the development. Furthermore, ten bird nest boxes will be installed within the proposed development. Ten Schwegler 1B bird nest boxes or similar are recommended, with a mixture of entrance hole sizes (26/32mm) to suit a variety of bird species. The 1B nest boxes should be installed on trees within the development, between 2-4m up facing between north and east. These can be positioned on the same tree as bat boxes to persuade any resident birds to use the bird box and not the bat box which is a common occurrence.

- ii A further five Schwegler Robin Boxes or similar could be installed on trees within the retained hedgerows and along the central ditch. These boxes are suitable for a range of small hedgerow dwelling species including wrens and robins and should be hung on trees below 2m in dense vegetation.
- iii To enhance the site with regard to nesting birds that use buildings, an additional five Vivara Pro Cambridge Brick Faced Swift Nest Box (or similar) could be installed on buildings on the site. Ideally these should be situated on the northern or western faces, out of direct sunlight and under overhanging eaves if possible.



Figure 3: Bird box examples



Schwegler 1B nest box



Schwegler robin box

## 7 MANAGEMENT PLAN FOR NEWLY CREATED HABITATS

This management plan is designed as year 1 to 5 (per phase), year 1 being the year of construction of that phase.

Objective	Prescription	Year 1	Year 2	Year 3	Year 4	Year 5
New grassland and marginal planting	Scrape and sow with seed mix	•				
	Monitor and treat undesirable species	• Once every two months during summer	• Once every two months during summer	• As required	• As required	• As required
	Mow annually, removing arisings from site or using as refugia for herpetofauna	• Sept	• Sept	• Sept	• Sept	• Sept
New trees and hedgerows	Plant (water for the first 6 weeks)	•				
	Monitor and remove & replace dead specimens		•		•	
	Remove undesirable species / control weed encroachment		•	•	•	•
Refugia	Install / build	•				
	Monitor, add new material and replace any damage		•		•	
Bird and bat boxes	Install	•				
	Monitor and replace damage / lost			•		•

## 8 APPENDIX 1: REFERENCES

- Amphibian and Reptile Groups of the United Kingdom, 2010. ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. s.l.:s.n.
- ii Bat Conservation Trust, 2015. Encouraging Bats – A Guide for Bat-friendly Gardening and Living.
- iii BS 42020:2013 Biodiversity – Code of Practice for Planning and Development 2013: The British Standards Institution.
- iv BS 5837:2012 Trees in Relation to Design, Demolition and Construction 2012: The British Standards Institution.
- v CBE Consulting, 2018. Review of Ecological and Arboricultural Reports – Land off Larch Avenue, Nettleham, Lincolnshire.
- vi Clements, D. & Tofts, R., 1992. Hedgerow Evaluation and Grading Systems (HEGS). s.l.:s.n.
- vii Collins J eds. 2016. Bat Surveys: Good Practice Guidelines, 3<sup>rd</sup> Edition. London: Bat Conservation Trust.
- viii Department of Communities & Local Government, 2012. National Planning Policy Framework, London: DCLG.
- ix English Nature, 2001. Great Crested Newt Mitigation Guidelines. Peterborough: English Nature.
- x Institute of Ecology and Environmental Management, 2018. Guidelines for Ecological Impact Assessment in the UK. 2nd ed. Winchester: IEEM.
- xi Institute of Ecology and Environmental Management, 2017. Guidelines for Preliminary Ecological Appraisal. 2nd ed. Winchester: IEEM.
- xii Institute of Environmental Assessment, 1995. Guidelines for Baseline Ecological Assessment. London: E & FN Spon.
- xiii Institution of Lighting Professionals and Bat Conservation Trust, 2018. Bats and Artificial Lighting in the UK – Bats and the Built Environment Series Guidance Note.
- xiv Joint Nature Conservancy Council, 2010. Handbook for Phase 1 habitat survey. Peterborough: JNCC.
- xv Joint Nature Conservation Committee, 2004. Bat Workers Manual. 2nd ed. Peterborough: s.n.
- xvi Office of the Deputy Prime Minister, 06/2005. Government Circular: Biodiversity and Geological Conservation - Statutory Obligations and their impact within the planning system. London: ODPM
- xvii RammSanderson (2021). Leconfield Road, Nanpantan. Low Impact Ecological Impact Assessment (EclA), RSE\_4942\_01\_V2. August 2021



**PLANTING PROPOSALS**

Feature Tree Planting			
Liquidambar styraciflua	Stock	Height (cm)	Girth (cm)
Quercus robur	SM	600 +	20/25

Blossom/Fruit Tree Planting			
Malus trilobata	Stock	Height (cm)	Girth (cm)
Malus sylvestris	EHStd	425/650	14/16-18/20
Prunus avium	EHStd	425/650	14/16-18/20
Prunus avium 'plena'	EHStd	425/650	14/16-18/20
Prunus domestica	EHStd	425/650	14/16-18/20
Pyrus calleryana 'Chanticleer'	EHStd	425/650	14/16-18/20
Pyrus communis	EHStd	425/650	14/16-18/20

Native Tree Planting			
Acer campestre	Stock	Height (cm)	Girth (cm)
Betula pendula	Std-HStd	250/425	12/14-14/16
Crataegus prunifolia	Std-HStd	250/425	12/14-14/16
Prunus avium	Std-HStd	250/425	12/14-14/16
Tilia cordata	Std-HStd	250/425	12/14-14/16
Quercus robur	Std-HStd	250/425	12/14-14/16
Sorbus aucuparia	Std-HStd	250/425	12/14-14/16

All hedging to be planted in accordance with the implementation and maintenance guidelines. No shrub species, size or location should be altered without prior approval from the Landscape Architect.

Native Buffer Planting			
Corylus avellana	Stock	Height (cm)	Ctrs (m)
Cornus sanguinea	T 1+1	40/60	1.00
Crataegus monogyna	T 1+1	40/60	1.00
Ilex aquifolium	3L	20/30	1.00
Ligustrum vulgare	T 1+1	40/60	1.00
Prunus spinosa	T 1+1	40/60	1.00
Rosa canina	T 1+1	40/60	1.00
Viburnum opulus	T 1+1	40/60	1.00

All shrubs to be planted in accordance with the implementation and maintenance guidelines. More ornamental shrub species will be utilised within the POS at interfaces with play areas. Detail design drawing will provide information. No shrub species, size or location should be altered without prior approval from the Landscape Architect.

Embankment Planting			
Corylus avellana	Stock	Height (cm)	Ctrs (m)
Cornus sanguinea	T 1+1	40/60	1.00
Cytisus scoparius	T 1+1	40/60	1.00
Ilex aquifolium	2L	20/50	1.00
Ligustrum vulgare	T 1+1	40/60	1.00
Viburnum opulus	T 1+1	40/60	1.00

Ornamental Hedge Planting			
Elaeagnus x ebbingei	Stock	Height (cm)	Ctrs (m)
Hebe 'Marjorie'	5L	40/60	0.40
Prunus lusitanica	10L	80/100	0.50
Rosmarinus officinalis	5L	40/60	0.40
Viburnum tinus 'Eve Price'	5L-10L	40/60	0.50

Specimen Shrub Planting			
Mahonia x media 'Winter Sun'	Stock	Height (cm)	Habit
Phormium tenax 'Jester'	15L	125/150	Leaders
Phormium tenax 'Sundowner'	25L	80/100	Triple cm
Photinia fraseri 'Red Robin'	70L	200/225	1/2 Std

Ornamental Shrub Planting			
Bergenia cordifolia	Stock	Height (cm)	Ctrs (m)
Aucuba japonica	10L	40/60	0.50
Buddleia davidii	3L	40/60	0.75
Choisya 'Aztec Pearl'	10L	40/60	0.70
Choisya ternata	10L	40/60	0.75
Cornus alba	3L	60/80	0.75
Cornus sanguinea	3L	60/80	0.75
Euonymus 'Emerald Gaiety'	10L	30/40	0.60
Hebe 'Mrs Winder'	10L	40/60	0.70
Hebe pinguiifolia 'Sutherlandii'	10L	40/60	0.70
Heuchera 'Palace Purple'	3L	40/60	0.50
Hypericum 'Hidcote'	10L	40/60	0.75
Lavandula angustifolia 'Munstead'	10L	40/60	0.60
Lonicera 'Baggesen's Gold'	10L	40/60	0.70
Prunus laurocerasus 'Otto Luyken'	10L	60/80	0.70
Ribes sanguineum	5L	40/60	0.75
Rosmarinus officinalis	10L	40/60	0.70
Symphoricarpos 'Hancock'	5L	40/60	0.70
Viburnum tinus 'Eve Price'	10L	40/60	0.75

**KEY**

- Red line boundary
- Existing housing
- Existing tree cover
- Existing hedgerow cover
- Proposed housing
- Proposed feature tree planting
- Proposed blossom/fruit tree planting
- Proposed native tree planting
- Proposed native hedgerow planting/buffer
- Proposed on-plot shrub planting
- Proposed feature shrub planting
- Proposed permanent water with emergent planting
- Proposed species rich meadow (Emersgate EM1)
- Proposed species rich wet meadow (Emersgate EM8)
- Proposed natural play area



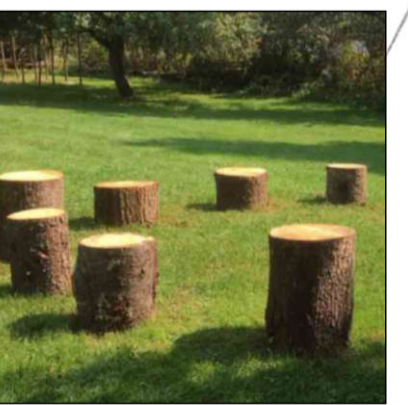
Forest learning/interpretation board



Educational rubbing posts combining learning and play



Simple low-impact timber features used for play



Sawn tree trunks arranged in seating area for children





## 10 APPENDIX 3: PRECAUTIONARY METHOD OF WORKS AND TOOLBOX TALK

## 10.1 Breeding Birds

Vegetation clearance works should be programmed to avoid the main nesting bird season (March to September inclusive) as the site is likely to support nesting birds. However, if works fall within the nesting period, in order to protect any nesting birds present within the site, the following method will be adopted;

- ii A detailed site walkover recording nesting activity will be required 24 hours prior to works starting on site by the nominated onsite ecologist. It is proposed that the nesting bird survey is completed over c. 2 hours to accurately record the location of any active nests. Any active nests or suspected active nests will be marked with barrier tape providing a 10m exclusion (more if considered appropriate), GPS recorded and highlighted on a plan and discussed during tool-box talks with operatives before works commence.
- iii Should contractors subsequently observe or suspect nests during their works then work should immediately stop in that area and the site ecologist should be notified. The nest area will then be marked with barrier tape and GPS recorded as above. Clearance works will only be permitted to recommence within excluded nesting zones once an ecologist has reassessed the area and confirmed all birds and dependant young have fledged.
- iv Prior to works starting, telephone numbers will be exchanged between the nominated site ecologist and site manager to provide a clear line of communication.

## 10.2 Reptiles

Areas of vegetation to be affected will be checked by an ecologist prior to localised removal under the agreement of the onsite ecologist. Strimming of long grassland and vegetation removal will be carried out working in the direction of the eastern site boundary and away from the road networks or any areas of construction on the site. It should first be cut to a length of 150mm in an northern direction and left in situ for a day to allow for potential reptile dispersal prior to further strimming using the same method, working in the same direction as the previous cut to ground level for access purposes. This should also be conducted over temperatures of 11°C when reptiles are active to enable them to disperse of their own accord. In the extremely unlikely event, a reptile is seen during these works, they should be allowed to escape unharmed at their own pace.

- ii Any piles of material that may be used by reptiles for refuge need to be removed by hand to allow any reptiles to disperse, and any spoil or equipment left overnight should be stored above ground or covered over or compacted to reduce the likelihood of spoil being used by reptiles.
- iii If a reptile is found, clearance work in that area should be stopped and the reptile allowed to move away from the area. Reptiles should only be handled by someone confident to do so. If an adder is identified or contractors are uncertain of the species present, the Ecologist should be contacted. If disturbed, snakes and common lizard tend to move quickly from the working area. However, if it is necessary to move slow worms from the working area, they should be held carefully around the middle of their body. They should never be held by their tail as slow worm tails can fall off if handled.
- iv If more than two reptiles are found, the works should cease until advice has been obtained from the Ecologist.

## 10.3 Badger

Due to the length of time that has passed since the initial surveys, and the highly mobile nature of badgers, a check for new badger setts will be undertaken prior to commencement of works.

- ii It is recommended that badger activity on site is monitored every 6 months during construction.



- iii As badgers are in general terrestrially transient overnight, no overnight working is permitted.
- iv A 30m buffer will be required around any active setts identified beyond 30m of works (and therefore not subject to closure), extended to 50m for any pile-driving activities. Depending on the location of the sett, hand tools may be used up to 10m from the sett.
- v **Setts identified within 30m of the proposed works will require permanent or temporary closure under a licence from Natural England.**
- vi Precautionary measures are also recommended to reduce the risk of impacting badgers and hedgehogs, or any other mammals during the works. These precautions are:
  - Mammal ladders (such as a plank) or earth ramps to be placed in any open excavations at the end of each day;
  - Cap off any open pipes at the end of each day;
  - Cover any open holes, or install mammal ladders or earth ramps in any open excavations at the end of each day to prevent animals from becoming trapped;
  - Keep all fuel and other harmful substances in a locked area;
  - Ensure any spillages are treated with spill kits;
  - Night work should be avoided where possible, and any flood lighting should face away from the Site boundaries

### 10.3.2 Hedgehog

- Hedgehogs are in general more mobile overnight, no overnight working is permitted.
- ii Any excavations must be strictly covered over and sealed overnight or infilled each night to prevent entrapment of fauna.
  - iii Alternatively, a mammal ladder may be utilised, this may be in the form of sloping edges to excavations or including something within the excavation that fauna can use to climb out. However, as a precaution the site ecologist will check excavations such as this the following morning prior to works beginning.
  - iv Any piles of material that may be used for hedgehogs to take shelter need to be removed by hand to allow any hedgehogs to disperse, and any spoil or equipment left overnight should be stored above ground or covered over or compacted to reduce the likelihood of spoil being used for refuge purposes.
  - v Additional recommendations are as follows;
  - vi Cap off any open pipes at the end of each day
  - vii Keep all fuel and other harmful substances in a locked area;
  - viii Ensure any spillages are treated with spill kits;
  - ix Any netting should be kept off the ground to prevent entanglement and slack netting should be tied up;
  - x Rubbish should be contained to avoid animals becoming trapped in litter.
- Whilst hedgehogs are not legally protected, they are a material consideration for planning and every effort should be made to avoid injury or damage to habitat.

## 10.4 Frequently Asked Questions

### 10.4.1 What is the Legal Status of Badgers?

Badgers are protected under the Protection of Badgers Act 1992. This act makes it an offence to:

- Wilfully kill, injure, take possess or cruelly ill-treat a badger, or attempt to do so.
- To intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes.

ii A sett is defined as:

*“Any structure or place which displays signs indicating current use by a badger”.*

iii Works that disturb badgers whilst occupying a sett is illegal without a licence, badgers may be disturbed by work near the sett even if there is no direct interference or damage to the sett.

iv Licences only allow works to be carried out between July and November inclusive.

Figure 4: Example Badger Sett



### 10.4.2 Badger Sett Identification Guide

Badger setts are typically c. 25-30cm wide holes with a characteristic 'D' shape on its side with the flat

- ii side to the ground and are typically wider than they are high. The holes are typically found with
- iii large spoil heaps from sett digging.
- iv Other field signs include latrines, hairs and prints and bedding outside sett entrances.

### 10.4.3 Where am I likely to find a badger sett on this site?

Beneath hedgerows.

- ii Within woodlands, field edges and grassland fields mainly with sloping ground.

iii Within open excavations first thing in the morning.

**10.4.4 What should I do if I see/find a suspected badger sett?**

Should an excavation be found within 30m the works that could be potentially be disturbed or affected, ecological advice should be sought in order for the sett to be investigated for current use by badger. This may involve a period of monitoring by a suitably qualified ecologist and/or camera deployment to verify whether the sett is in current use by badger or not.

### 10.4.5 What is the Legislation Applicable to Nesting Birds?

The Wildlife and Countryside Act 1981 (as amended) is the principle legislation affording protection to UK wild birds. Under this legislation all birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to recklessly or intentionally:

- Kill, injure or take any wild bird
  - Take, damage or destroy the nest of any wild bird while it is in use or being built.
  - Take or destroy the egg of any wild bird.
- ii The For birds listed on Schedule 1 of the Act, it is an offence to disturb any bird while it is building a nest, is at or near a nest with young; or disturb the dependant young of such a bird.
- iii Species listed in Annex 1 of the EU Birds Directive 1994 (e.g. Barn Owl) are required to have special conservation measures taken to preserve their habitats and site to be classified as Special Protection Areas where appropriate.

### 10.4.6 Where am I likely to find Nesting Birds on this site?

Within Trees and scrub

- ii Within field edges and long tussocky grassland areas.

### 10.4.7 What should I do if I see/find a suspected active bird nest?

Should a nest be found an ecologist should be appointed to check whether the nest is active, in-use or in the presence of being built.

- ii If this is the case the nest should be demarcated with a 10m buffer established until the young have fledged.
- iii Where possible the nest should be avoided by re-routing access or drill locations to allow works to continue.

### 10.4.8 What is the Legislation Applicable to Hedgehogs?

The 'Wildlife and Countryside Act 1981' (as amended), Schedule 6 is the principle legislation affording protection to hedgehogs. Under this legislation, hedgehogs are protected by law and it is an offence, with certain exceptions, to recklessly or intentionally kill, injure or take them from the wild (using certain methods).

- ii The 'Wild Mamals Protection Act 1996' prohibits cruel treatment of hedgehogs.
- iii Hedgehogs are listed as a 'Species of Principle Importance' in England under the 'Natural Environment and Rural Communities (NERC) Act 2006'.

### 10.4.9 Where am I likely to find Hedgehogs on this site?

Along hedgerows and taller grassland.

- ii Potentially using the boundaries to commute to more suitable habitat either side of the site.

### 10.4.10 What should I do if I see/find a hedgehog?

Allow them to move off on their own accord.

### 10.4.11 What is the Legal Status of Reptiles?

- ii There are six different species of reptiles naturally occurring in the UK. This includes grass snake, adder, smooth snake, common lizard, sand lizard, and slow worm. All native species of reptiles are partially protected under Schedule 5 (Sections 9(1) and 9(5)) of the Wildlife and Countryside Act 1981 (as amended). This legislation protects these animals from:
- Reckless or intentional killing and injuring.
  - Selling, offering for sale, possessing or transporting for the purpose of the sale or publishing advertisements to buy or sell a protected species.

### 10.4.12 What should I do if I see a Reptile?

Where site works are underway, and reptiles are found or suspected by the workforce, works must stop in that area and an ecologist contacted before works continue.

- ii If works are being completed within the months of March to October, it is often recommended that hand tools are used, or vegetation is sensitively managed in order to enable the reptiles to move out of the way of danger by their own accord.
- iii Reptiles and suitable hibernacula should never be disturbed during the winter period when reptiles are hibernating as this can cause them to come out of their hibernation prematurely and cause them to die as a result.

#### Identification guide:

##### Grass Snake (*Natrix natrix*)

The grass snake is Britain's largest terrestrial reptile. Females tend to be larger than the males. The best way to distinguish them is by the shape of their heads:



##### Adder (*Vipera berus*)

The adder is the only venomous reptile in the UK. They are distinguished from the grass snake by the zigzag markings along their backs. Male adders tend to be much darker, whilst females tend to be browner in their colouring:



##### Common Lizard (*Zootoca vivipara*)

Similar differences between the sexes as that of the adder (above); male lizards tend to be darker in their colouring, whilst females tend to be slightly browner and broader around the waist. However, their underside is the easiest way to distinguish them:



### Slow Worm (*Anguis fragilis*)

Slow worms are often mistaken for snakes due to their appearance; however, slow worms are actually lizards. Unlike the differences between the sexes of the adder and common lizard, male slow worms tend to be of a lighter colouring than that of females. The females also have much darker sides than the males:



SIGNED ACCEPTANCE OF TOOLBOX TALK      BRIEFING GIVEN BY:

Name Date	Organisation / Company	Signed



