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Construction Ecological Management Plan

JNA-ARB-XX-XX-RP-X-0002-CEMP-V1

Survey site: **Formerly the Deighton Centre, Deighton Road, Huddersfield, HD2 1JP**

Client: Wates Group

Date: 08/01/2025

Project: This report is prepared to inform a planning application with **Kirklees Metropolitan Council.**

The proposal is described as: Development of former Deighton Centre (previously Deighton High School) for a Social Emotional and Mental Health School (use class F1) comprising single and two storey educational buildings; roof mounted photo-voltaic panels; sensory garden spaces; multi-use games areas; landscaping; hardstanding areas; carparking; access with secure fencing and ancillary development.

Planning Application Number: 2023/48/93350/W

Introduction

This Construction Ecological Management Plan (CEMP) has been prepared for the above-named client to outline measures to be implemented during construction works at the above-named site.

The purpose of this plan is to ensure the protection and mitigation of ecological receptors, adhere to best practices and industry standards, and provide adequate supervision by licensed professionals. The CEMP also outlines the management frameworks required for the planning and implementation of construction activities that comply with legislation and the environmental commitments. It is intended to compliment the Habitats Management and Monitoring Plan (HMMP) for the proposed development (Arbtech, 2025).

Site Context and Landscape History
A detailed description and history are provided in the Preliminary Ecological Appraisal (PEA) (Arbtech, 2022), Ecological Impact Assessment (Arbtech, 2023) and Biodiversity Net Gain Note (Arbtech, 2024).

The ecological baseline conditions on site are described in **Table 1** below.

Table 1. The ecological baseline conditions at the site known as Formerly the Deighton Centre.

Ecological Background Information **Detailed using desk study and site survey.**
The site had a Preliminary Ecological Assessment undertaken by Arbtech on the 1st November 2022, a subsequent EcIA in August 2023 and Biodiversity Net Gain Assessment on the 26th February 2024 and an updated file note on the 17th December 2024. Habitats identified within the site boundary include- • Modified grassland (g4)

- Other woodland; mixed; mainly broadleaved (w1h5)
- Mixed scrub (h3h)
- Developed land; sealed surface (u1b)

Value for protected species on the site includes the following-

- **Birds**- There is a high volume of nesting opportunities due to the woodland and mixed scrub on the site however, no nests were noted during the walkover.
- **Badgers**- No badger setts were identified inside of or within 30m of the site boundary. There is plenty of foraging opportunities within the wooded areas which are connected to the wider landscape.
- **Bats**- The boundary trees/woodland areas could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site.
- **Reptiles**- No evidence of reptiles was noted during the site visit. Areas of unmanaged grassland and scrub provide suitable habitat for basking and foraging reptiles. However, the areas of suitable habitat are fairly isolated due to the presence of barriers such as buildings, hardstanding and managed grassland. Further the suitable habitats parcels are not considered large enough to support a significant population of reptiles.
- **Amphibians**- No ponds were noted on or within 500m of the site. The majority of the habitats on site are sub-optimal for terrestrial amphibians (e.g. managed grassland, hard standing). The areas of unmanaged grassland, scrub and the boundary woodland areas provide suitable terrestrial habitat for common amphibians.
- **Hazel dormouse** - No suitable habitat for dormouse was identified on the site.
- **Terrestrial mammals-** The habitats on the site and wider site are likely to support a variety of terrestrial mammals, such as hedgehogs, foxes, rabbits and rodents.

The following tables detail the proposed mitigation, habitat creation and biodiversity enhancement measures for the development as well as management requirements to ensure the longevity of these measures. as detailed in the PEA and BNG. These include further details of the habitats on site and the impacts of the development upon them and will be read in conjunction with this document.

Scope

This CEMP relates to the planning application pertaining to the site (Kirklees Council Reference: 2023/48/93350/W) which is described as: '*Development of former Deighton Centre (previously Deighton High School) for a Social Emotional and Mental Health School (use class F1) comprising single and two story educational buildings; roof mounted photo-voltaic panels; sensory garden spaces; multi-use games areas; landscaping; hardstanding areas; carparking; access with secure fencing and ancillary development*' (hereafter referred to as the proposed development).

Following the submission of the planning application, the proposals were conditionally approved. The planning decision included a condition pertaining to ecology; of relevance to this report, planning condition 11 states:

"11. No development shall take place (including demolition, ground works, vegetation clearance) until a construction environmental management plan (CEMP: Biodiversity) has been submitted to and approved in writing by the local planning authority. The CEMP (Biodiversity) shall include the following:

a. Risk assessment of potentially damaging construction activities that refers to the most up-to-date site-specific survey information.

b. Identification of "biodiversity protection zones", where appropriate.

c. 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).

d. The location and timing of sensitive works to avoid harm to biodiversity features.

e. The times during construction when specialist ecologists need to be present on site to oversee works, where appropriate.

f. Responsible persons and lines of communication.

g. Use of protective fences, exclusion barriers and warning signs, where appropriate.

The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority.

Reason: *To protect biodiversity during construction by avoiding direct impacts to protected species and preventing the spread of non-native plants, and to accord with Kirklees Local Plan Policy LP30. This pre-commencement condition is necessary to protect ecological receptors during construction.".*

Aims and Objectives

This report aims to identify key stakeholder requirements, ensure compliance by all stakeholders with all relevant legislation, minimise potential adverse effects on the environment and protected/notable species during construction, and provide site specific methods to avoid, minimise and mitigate construction effects on the environment and protected/notable species.

Work Schedules and Ecological Presence

Work schedules will be developed to ensure activities with specific timing requirements are carried out in a manner that minimises harm to ecological receptors. These schedules will be provided to all relevant personnel and contractors involved in the project.

Ecological Clerk of Works

A qualified and suitably experienced ecologist will be present on-site during critical phases of construction activities, namely turf stripping. Their role will be to oversee and monitor compliance with the CEMP, provide guidance, and take immediate action to prevent any harm to ecological receptors. Should protected species be identified during vegetation clearance, works will be halted whilst a suitably licensed ecologist and/or Natural England is contacted. The times during construction when specialist ecologists need to be present on site to oversee works are detailed below in the relevant protected species sections.

Persons Responsible and Lines of Communication

To ensure ecological mitigation prescriptions are effectively applied during development works, it is required to ensure persons responsible, and lines of communication are clearly set out and maintained throughout the proposed development.

A Development Biodiversity Champion is selected for the construction phase of the development. The Biodiversity Champion will be someone with significant influence during construction, such as the contract, site or project manager. They are responsible for ensuring all actions outlined in the approved CEMP are implemented including the provision of a toolbox talk prior to works commencing (**Table 2**). Any queries with regards to the mitigation prescriptions will be addressed to the project ecologist and communication will be retained between the Development Biodiversity Champion and project ecologist and/or a suitably qualified Ecological Clerk of Works (ECoW) throughout the construction phase of the development where necessary to ensure the mitigation is applied and impacts to adjacent ecological receptors are effectively minimised. The project ecologist's contact details are located on the title page of this report. It is recommended that the Biodiversity Champion informs the project ecologist and designated ECoW of the commencement of construction works and provides updates where necessary. The ECoW will provide ecological expertise and guidance throughout.

The following key personnel are responsible for the management and implementation of works in accordance with the CEMP:

- Site manager – Matthew Armstrong, Wates Construction Ltd
- Main contractor – Wates Construction Ltd
- Site owners – Kirklees City Council

Table 2- Construction and Ecological mitigation measures

Ecological Mitigation Measures	This table includes any measure required to obtain or comply with planning permission or other consent and to comply with legislation.
Ecological Protection Areas and Buffer Zones	
Ecological protection areas and buffer zones will be established within the project site, particularly around the retained woodland to the north of the site. These areas will be demarcated using physical means of protection, such as exclusion fencing, to prevent unauthorised access and minimise disturbance to sensitive habitats, particularly the woodland on site.	
Tree Protection	
Tree root protection areas will be identified and a buffer from retained trees and woodland will be established and protected throughout the duration of construction activity. No trenches or groundworks will be completed within the specified buffer of any retained trees or woodland on site. Trees will be appropriately protected in accordance with BS 5837:2012 - "Trees in relation to design, demolition and construction – Recommendations". As such, it is recommended that the trees are separated from construction works by protective fencing throughout the duration of the construction phase of the development. A fencing specification is included within **Figure 1** below. Appropriate signage is to be included on the fencing in order to ensure that fences are not moved after establishing. As shown in **Figure 2.**	

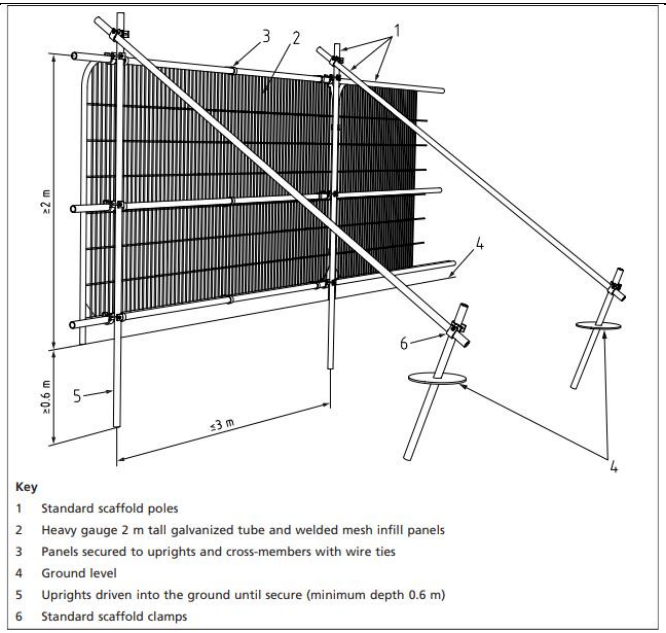


Figure 1: Default protective barrier specification (British Standards Institute 2012).

Figure 2 Appropriate signed to attached to root protection zone fencing- Source- www.Safetysignsandnotices.co.uk

Construction measures	
Pollution Prevention	
Risk	Pollution resulting from increased levels of water run-off, noise, and dust creation during construction works has the potential to pollute retained habitats which is likely to enact adverse impacts upon the woodland on site and subsequently deter protected and/ or notable species from using the site and/ or damage the ecological value of existing landscape features. The site is in a highly vulnerable groundwater risk zone linked to a secondary A aquifer. Pollution resulting from groundwater percolation could enact adverse impacts on any groundwater dependant habitats connected to the site as identified on Magic.
Statutory Compliance	To limit impacts of pollution resulting from the construction phase of the development, construction works must be completed in accordance with current statutory guidelines relating to pollution prevention (Environmental Agency 2016). Furthermore, although withdrawn in 2015, pollution prevention guidelines detailed within guidance document: *PPG6: Working at Construction and Demolition Sites* (Environment Agency 2010) remain applicable to the site. Considering both the relevant statutory requirements and best practice measures detailed within guidance document PPG6, the below mitigation prescriptions are considered suitable to mitigate impacts of pollution during the construction phase of the development. The allocated Biodiversity Champion will be responsible for ensuring the below mitigation recommendations are undertaken successfully during the works.
Materials Storage and Surface Water Runoff	It is recommended that the Biodiversity Champion ensures that: • Heras fencing is installed along the areas of retained woodland to protect these areas of the site during construction. • No stockpiles are created on exposed ground areas and ensure that all materials and chemicals are stored securely and safely on site in accordance with current Control of Substances Hazardous to Health (COSHH) regulations (HSE 2002).

	• Stockpiles are located as far away as possible from the retained woodland and on level ground to prevent any accidental run-off. • Contaminated materials, chemicals, and other hazardous substances must be stored on an impermeable surface, in a bunded area, within any area of the site. • All refuelling of equipment to be undertaken a minimum of 10m from the woodland to the north. A refuelling area will be designated onsite, with appropriate signage. • All chemicals and hazardous substances are stored away from areas where there is heightened risk of damage from impact or collision such as site traffic. • All chemicals and hazardous substances are labelled, containers are sealed when not in use and inspected regularly and fit for purpose. • Any damaged or old containers are replaced in line with the duty of care requirements. Note such containers may be considered hazardous waste. • Staff are trained in use of spill kits and emergency procedures. • Ensure there is a designated 'responsible person' on site at all times. • Lock storage facilities when not in use.
Site Drainage	It is recommended that the Biodiversity Champion ensures that: • Pollution risks are identified pre-construction. • Pollutants are prevented from entering drains where possible. • If any pollutant enters a drain, immediately stop the pollution with a physical block, stop the activity causing the pollution, then notify the Environment Agency for surface water drains or the local sewerage provider for foul water drains. If there's a spill, accident, or emergency, try and prevent pollutants entering the drains. • Report all pollution incidents to site management and the Environment Agency.

	• Inspect drains and protection measures frequently and maintain them during the construction activity. Well maintained drains will also reduce risks of flooding and subsequent surface water run-off. • As a last resort, should any pollutants be required to enter the drainage system on site, permission from Environment Agency or the local sewerage provider must be sought before discharging anything other than clean uncontaminated surface water to a drain and other surface waters or groundwater. Apply for permission early, as authorisation can take up to four months.
Airborne particle suppression	It is recommended that the Biodiversity Champion ensures that: • Effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground. • Avoid explosive blasting, using appropriate manual or mechanical alternatives. • Bag and remove any biological debris or damp down such material before demolition. • Carry out regular site inspections to monitor compliance. • Ensure all vehicles switch off engines when stationary. • Avoid the use of petrol- or diesel-powered generators and use mains electricity or battery power where possible. • Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction. • Ensure an adequate water supply on the site for effective dust/ particulate matter suppression/ mitigation, using non-potable water where possible and appropriate. • Use enclosed shuts and conveyors and covered skips.
Noise	The Biodiversity Champion must ensure that noise levels are kept to a minimum in accordance with best practice as defined in the Control of Pollution Act 1974 to avoid unacceptable levels of noise and vibrations. Further guidance can be found in

British Standard 5228-1:2009. Such measures applicable to the proposed development primarily include agreed working hours limiting night work, using the quietest equipment and plant available, shutting down equipment when not in use, and completing deliveries during working hours only. Most notably, prescriptions as to limit noise of plant machinery as detailed within **Table B.1** within the code of practice for noise control (British Standards Institution, 2014) is likely to have the most significant impact during construction activity.

Table B.1 **Methods of reducing noise levels from construction plant**

Plant	Noise reduction of plant			Alternative plant
	Source of noise	**Possible remedies** (to be discussed with machine manufacturers)	**A-weighted sound reduction** dB	
Hammer drive piling equipment	Pneumatic/diesel hammer or steam winch vibrator driver	Enclose hammer head and top of pile in acoustic screen	5 to 10	Bored piling Vibratory system Drop hammer completely enclosed in box with opening at top for crane access Steel jacket completely enclosing drop hammer with dolly and polystyrene chips fed to impact surface to dissipate energy Pressed-in piling which generates its driving force from the frictional restraint of other piles
	Sheet pile	Acoustically dampen sheet steel piles to reduce levels of resonant vibration		
	Impact on pile	Use resilient pad (dolly) between pile and hammer head. Packing needs to be kept in good condition		
	Cranes cables, pile guides and attachments	Careful alignment of pile and rig		
	Power units or base machine	Fix more efficient sound reduction equipment or exhaust. Acoustically dampen panels and covers. When intended by the manufacturer, engine panels need to be kept closed. Use acoustic screens when possible		
Earth-moving plant: • bulldozer • compactor • crane • dump truck • dumper • excavator • grader • loader • scraper	Engine	Fit more efficient exhaust sound reduction equipment Manufacturers' enclosure panels need to be kept closed	5 to 10	Alternative super silenced plant might be available. Consult manufacturers for details

Table B.1 **Methods of reducing noise levels from construction plant** *(continued)*

Plant	Noise reduction of plant			Alternative plant
	Source of noise	**Possible remedies** (to be discussed with machine manufacturers)	**A-weighted sound reduction** dB	
Compressors and generators	Engine Compressor or generator body shell	Fit more efficient sound reduction equipment Acoustically dampen metal casing Manufacturers' enclosure panels need to be kept closed	Up to 10	Super silenced plant is available. Consult manufacturers for details Electric-powered compressors are available as opposed to diesel or petrol Sound-reduced compressor or generator can be used to supply several pieces of plant. Use centralized generator system
	Total machine	Erect acoustic screen between compressor or generator and noise-sensitive area. When possible, line of sight between top of machine and reception point needs to be obscured	Up to 10	
		Enclose compressor or generator in ventilated acoustic enclosure	Up to 20	
Pneumatic concrete breaker, rock drills and tools	Tool	Fit suitably designed muffler or sound reduction equipment to reduce noise without impairing machine efficiency	Up to 15	Hydraulic and electric tools are available For large areas of concrete, machine designed to break concrete in bending can be used Thermic lance
		Ensure all leaks in air line are sealed		
	Bit	Use dampened bit to eliminate ringing		
	Total machine	Erect acoustic screen between compressor or generator and noise-sensitive area. When possible, line of sight between top of machine and reception point needs to be obscured	Up to 10	
		Enclose breaker or rock drill in portable or fixed acoustic enclosure with suitable ventilation	Up to 20	
Rotary drills, diamond drilling and boring	Drive motor and bit	Use machine inside acoustic shed with adequate ventilation	Up to 15	Thermic lance

Table B.1 **Methods of reducing noise levels from construction plant**

Plant	Noise reduction of plant			Alternative plant
	Source of noise	**Possible remedies** (to be discussed with machine manufacturers)	**A-weighted sound reduction** dB	
Hammer drive piling equipment	Pneumatic/diesel hammer or steam winch vibrator driver	Enclose hammer head and top of pile in acoustic screen	5 to 10	Bored piling Vibratory system Drop hammer completely enclosed in box with opening at top for crane access Steel jacket completely enclosing drop hammer with dolly and polystyrene chips fed to impact surface to dissipate energy Pressed-in piling which generates its driving force from the frictional restraint of other piles
	Sheet pile	Acoustically dampen sheet steel piles to reduce levels of resonant vibration		
	Impact on pile	Use resilient pad (dolly) between pile and hammer head. Packing needs to be kept in good condition		
	Cranes cables, pile guides and attachments	Careful alignment of pile and rig		
	Power units or base machine	Fix more efficient sound reduction equipment or exhaust. Acoustically dampen panels and covers. When intended by the manufacturer, engine panels need to be kept closed. Use acoustic screens when possible		
Earth-moving plant: • bulldozer • compactor • crane • dump truck • dumper • excavator • grader • loader • scraper	Engine	Fit more efficient exhaust sound reduction equipment Manufacturers' enclosure panels need to be kept closed	5 to 10	Alternative super silenced plant might be available. Consult manufacturers for details

Implementation of the Waste Hierarchy	The Biodiversity Champion must ensure that all construction activity is completed in accordance with the Waste Hierarchy (Defra 2011) in an attempt to reduce the amount of waste produced during the construction phase of the development. As such, the construction phase must be completed in accordance with the below core principles: *In the first instance:* • Re-use products and materials where possible.

	• Recycle and compost material resources where possible. • Attempt to recover energy from waste. *Where none of the above options offer an appropriate solution, waste disposal is the final option:* • Only transfer controlled waste to an "authorised person" (Waste Collection Authority, the holder of an Environmental Permit, Registered Water Carrier or Waste Disposal Authority). • Ensure that non-hazardous waste is transferred under a Waste Transfer Note which must be retained for two years. • Hazardous waste is moved under a waste consignment note that provides a clear description of the waste material. The consignment note must be retained for three years. • The waste is the responsibility of the company until it has been fully recovered or finally disposed of.
Retained Turf and Soil Protection/Post construction Restoration	
Retained Soil and Turf Conservation.	Any areas of retained vegetation or bare soil accessed by vehicles and pedestrians is likely to become compacted by heavy machinery and repetitive footfall, which will negatively impact ecological functioning. • Clearance of turf and topsoil will be limited to the minimum required to facilitate the development. • Retained turf will be protected during construction to maintain its ecological function. • Post construction the entire soil profile must remain in a condition that promotes aeration, drainage and root growth.
Compaction, Erosion and Retained Turf Damage Mitigation	Retained soil and any retained turf will be protected from the impacts of compaction, erosion and other soil and turf damage by the following; • Protective boards lain around the construction zone will spread the weight and erosive impacts of plant, vehicles and feet. Plywood is a traditional option but rubber lawn mats may be a more practical and effective solution. These can also be used to create temporary "roads". Clear protection mats are available to permit UV penetration and thus continued grass growth.

	• The work zone will be restricted to the minimum required for operatives to work safely and will be clearly signposted/fenced with access prohibited to contractors. • Contractors will be audited by the biodiversity champion on a weekly basis and on a daily basis by the team leader for compliance with environmental protection strategies and will be provided with toolbox talks at induction. Repeated compliance failures will lead to termination of contracts. Ensure any compensation or reparative measures for turf damage are included within contractors' contracts. • When stripping, stockpiling or placing soil, do so in the driest condition possible and use tracked equipment where possible to reduce compaction. • Confine traffic movement to designated routes. • Keep soil storage periods as short as possible. • Clearly define stockpiles of different soil materials. • Heavy plant/skips etc will be stored on hard standing, e.g. part of the new road. Whilst this is under construction, protective boards will be used. • Works will not take place during or after prolonged periods of rain and will use dry periods. • Plan work to avoid unnecessary journeys on either foot or vehicle across the grassed areas. • Some residual compaction may occur despite protective efforts. As such, aerating the retained grassed areas in the work zone post development would be beneficial.

Biosecurity and Invasive Species Management[1]	
Invasive/non-native Species Management	No invasive non-native species as listed under the Wildlife and Countryside Act (1981) or known otherwise to be problematic are present on site. However, there is a risk that invasive and non-native species could be introduced onto the site during construction via boots, vehicle wheels and imported materials. This risk will be managed via the implementation of appropriate biosecurity measures as listed below.
Biosecurity	A Biosecurity Declaration Form will be distributed via email to all contractors intending to send plant machinery to the development site. This instructs that power washing of all plant prior to entry on site to remove all traces of mud, debris etc. The completed form must be returned to the site Biodiversity Champion prior to deliver/access. This form and a copy of the CEMP will be sent to all subcontractors that intend to bring machinery onto the site. Upon arrival to site the plant item is inspected at a designated quarantine area. This inspection ensures the delivered plant item has been thoroughly cleaned. Should the item of plant be deemed to be inadequately cleaned it will be refused entry.
Wildlife Protection – Precautionary Methods of Working	
Herpetofauna	The habitats on site are considered sub-optimal for Great Crested Newts and no waterbodies were identified on site or within 500m. However, the site is considered suitable for reptiles, with its provision of interspersed cover and basking areas provided by the sites mosaic elements; with suitable habitats located within the unmanaged grassland areas, mixed scrub and woodland.

[1] https://ccsbestpractice.org.uk/entries/biosecurity-preventing-the-introduction-of-invasive-species-to-site/

https://www.nonnativespecies.org/biosecurity/biosecurity-in-the-field/#:~:text=Basic%20biosecurity%20advice%20for%20site%20visits&text=If%20practical%20do%20not%20take,debris)%20before%20leaving%20the%20site.

	The proposed works are not anticipated to lead to any levels of habitat loss or fragmentation likely to affect local population status for either amphibians or reptiles, but individuals may be injured or killed during clearance and construction. It is up to LPA discretion as to whether the methodology outlined below will suffice to protect GCN and reptiles on site or if a separate, conditioned non-licenced mitigation plan is required. **Ecological Clerk of Works** A qualified ecologist will be present on site to act as an ecological clerk of works (EcOW) during the clearance of vegetation of value to reptiles and amphibians. The EcOW will complete a toolbox talk to contractors immediately prior to vegetation clearance works to highlight the potential presence of reptiles and amphibians and to outline indicators of their presence. **Pre Development Vegetation Clearance** Vegetation clearance works must take place outside of the typical hibernation period for reptiles and amphibians, which is typically between November and February. Reptiles and amphibians are mostly torpid during this timeframe and are thus most vulnerable to injury or death. Undertaking vegetation clearance works during their active period, typically between March and September, will allow individuals to disperse unperturbed to adjacent retained habitats. A suitable cutting technique is as follows: a) Before any development, the ground flora on the affected parts of the site will be strimmed down to 500mm, directed towards off site suitable habitat. Any reptiles that are found will be encouraged to move away of their own volition, or if in immediate danger or likely to find itself in danger, deposited in a bucket and placed by gloved hand outside of the development area in retained suitable habitat by a suitably experienced ecologist. b) Any spoil/log or rubble piles will be destructively searched for reptiles at the same time.

c) Vegetation removal will be phased in two stages: with an initial cutting of all vegetation to approximately 200-300mm from ground level.

d) This will be followed by a rest period of at least 24 hours.

e) The second cut will be to ground level/ bare ground. Reptiles and amphibians are most likely to be present at or just below ground level; the phased technique allows any individuals present at this vegetation level to disperse. e) In addition to phasing, any cutting will be conducted systematically, towards areas of retained habitat to encourage any individual reptiles and amphibians to retreat to retained habitat unharmed and thus preventing individuals from becoming trapped in a central habitat island.

f) The development zone will be managed thenceforth as bare ground or close mown vegetation.

A suitable systematic cutting technique is exemplified below in **Figure 3.**

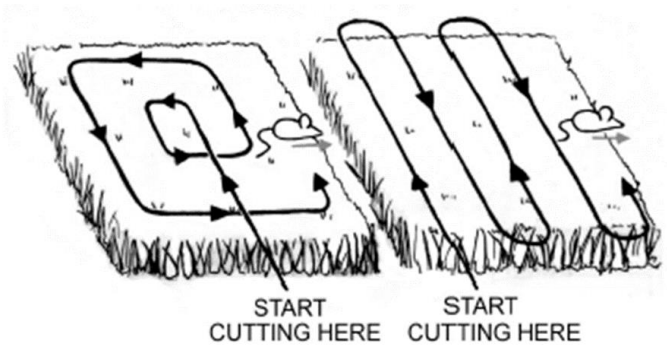


Figure 3: A schematic representation of vegetation cutting patterns as best to eliminate terrestrial opportunities for reptiles and amphibians within the construction zone.

	Site Management During Construction • During the course of construction works a site wide check for reptiles and amphibians must be carried out by contractors at the commencement of each working day, with any found relocated to safety within a suitable receptor site that has been fenced off from the wider construction area. • Any materials will be stored on pallets away from tall vegetation or boundaries. • Rubble created during the development will be safely disposed of in a skip. If no skip is available the rubble will be stored off the ground (e.g. on pallets) until it can be removed from site, to prevent common reptiles and amphibians from using the rubble piles for hibernation or refugia. • All trenches will (where possible) be backfilled before nightfall, or a ramp will be left to allow amphibians to easily exit. Any trench that could not be closed the previous day must be checked for reptiles and amphibians at the beginning of the next working day; particularly where this is scheduled for infilling. • Any chemicals or pollutants used or created by the development will be stored and disposed of correctly according to COSHH regulations. • Where for any reason contractors are a non-compliant and rubble and other piled items are left on the floor overnight or for any period of time beyond that working day, they must be dismantled by hand. • Any reptiles or amphibians found must be encouraged to move away of their own volition, or if in immediate danger and unable to perambulate themselves, will be captured in gloved hand or by any other means avoiding injury and safely relocated to suitable cover within retained habitat. No amphibian will be handled via bare hand due to the risk they may absorb toxic compounds through their permeable skin. • If at any point GCN or reptiles are found during development, all works must cease until further advice has been obtained from a qualified ecologist and the relevant regulators.

Birds	The woodland and mixed scrub on site provide foraging and nesting habitat for a wide range of species however, no nests were observed during the walkover. Most of the woodland is to be retained therefore, it is likely to be inconsequential to local bird populations owing to the retention and enhancement of this habitat as well as, the creation of new habitats such as mixed scrub which are expected to offset any habitat losses. However, southern areas of woodland will be lost and replaced with mixed scrub. The removal of scrub/trees will be undertaken outside the core breeding bird season period, which is typically between 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation will be undertaken by a suitably qualified ecologist no more than 24 hours prior to the commencement of work. All active nests will be retained until it has been confirmed by a suitably qualified ecologist that the young have fledged, and no construction works will be undertaken within 5m of any active nest. A watching brief will be undertaken during clearance in case any nests were not evident during the first check. The buffer will need to be increased in the event of the presence of any Schedule 1 species as reckless disturbance as well of destruction of the nests of such species is an offence. Buffer zones regarding schedule 1 species are on a case by case, species by species basis and must be reflected accordingly. If schedule 1 species are identified nesting, these areas must be retained, and suitable fencing and signage installed to prevent encroachment into these areas. It is an offence to recklessly disturbed adult and independent young in proximity to their nests as well as the nests themselves. Examples of appropriate installed work signs are shown in **Figure 4.** Signs can also be installed in regard to non-schedule 1 species, installed in full view in areas where nesting birds have been identified on the pre-work checks.

	 **Figure 4**- Work signage regarding nesting birds on the site. Source- www.Britishsafetysigns.co.uk
Bats	Bat roosts are not expected to be directly impacted by the development but may be disturbed during commuting and foraging activities. A lighting strategy is provided later within the report.
Badgers and other terrestrial mammals	The following recommendations are given in order to mitigate against potential harm to hedgehogs, badgers and other mammalian fauna during the development works. • The work zone will be checked for wildlife prior to works commencing, with any fauna encouraged to move away via their own volition or transported by gloved hand to a receptor area if this is not possible. This will only apply to smaller mammal species. Larger mammals such as badgers and foxes will not be transported by hand. • Any inadvertently injured wildlife will be taken to an appropriate local wildlife carer or vet. • Any trenches dug will ideally be backfilled before contractors leave. If this is not possible, they will be covered at night or have a rough sawn plank placed in them to act as a ramp for any wildlife which may fall in. They must be checked for wildlife before backfilling. • Security lighting must be directed away from undergrowth and vegetated site boundaries. • Any chemicals or pollutants used or created by the development will be stored and disposed of correctly according to COSHH regulations.

Lighting Strategy

Overview

Habitats on site are likely to be utilised by light sensitive protected and/or notable species including bats, badgers, and hedgehogs. As such, the installation of external lighting could deter these species from the site. Mitigation is therefore required to minimise impacts of artificial light disturbance resulting from the proposed development.

External Lighting During the Construction Phase

Works will be completed during daylight hours only between May and September (inclusive). This will prevent indirect impacts occurring to nocturnal species on and adjacent to the site because of artificial lighting. Whilst it is acknowledged that some works may take place during periods of darkness between October and April (inclusive), this will be for very short periods shortly prior to dawn and after dusk when nocturnal species are entering hibernation/ periods of inactivity. As such, no significant impacts associated with artificial lighting are anticipated at this time of year.

External Lighting During the Operational Phase

All external lighting will be installed in accordance with current guidance issued by the Bat Conservation Trust and Institute of Lighting Professionals: *Guidance Note 08/23: Bats and Artificial lighting at Night* (BCT & ILP 2023). External lighting will be installed in a way as to limit artificial light spill over habitats of value to protected and/ or notable species potentially using the site. Specifically, artificial lighting should be installed to illuminate car parking and pedestrian access areas only, whereby light installation is avoided within large areas of natural and semi-natural habitats. External lighting will be installed as to avoid excessive light spill over:

- Retained woodland
- Adjacent woodland to the south

The following lighting design prescriptions are considered suitable for the type and scale of the proposed development to minimise the impacts of artificial lighting on site on bats and other protected/notable species. External lighting will be installed in accordance with the below design prescriptions:

- **Reducing the operating time of lighting and levels of illuminance provided via:**

  Preventing the use of motion sensors where possible to allow lights to be turned off permanently whilst not in use.

  Where the use of motion sensors is desirable, light sensors should be set to over-run times no longer that 1 minute to prevent unnecessary light spill.

- **Avoiding light spill via:**

  The use of directional lighting by using luminaires with rear shields and an upwards lighting ratio of zero, i.e. down lights.

- **Light type:**

  Use of warm white LED lamps only, whereby the Corrected Colour Temperature does not exceed 2700 Kelvin and a brightness of 500 lumens or less.

Internal Lighting

Impacts of artificial light spill through windows will be mitigated by fitting internal lighting fixtures in line with recommendations within Guidance Note 08/18 (BCT & ILP 2023). Specifically, in order to limit light spill through windows, internal lighting will be recessed into the ceiling and set back a minimum of 1m from all windows as to limit horizontal light spill. A schematic representation of the effect of these lighting prescriptions is provided on **Figure 5** below.

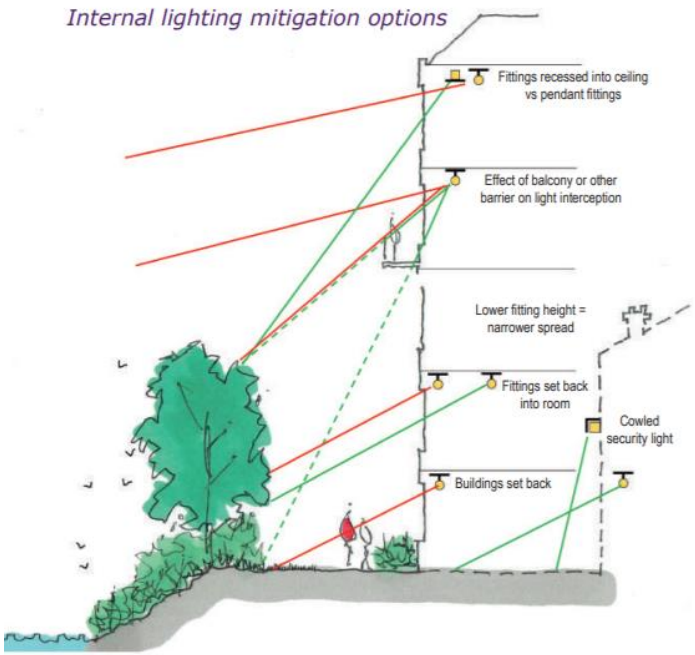


Figure 5. Internal Lighting mitigation options. Image taken from Guidance Note 08/23: Bats and Artificial lighting at Night (BCT & ILP 2023)

Compliance and Reporting

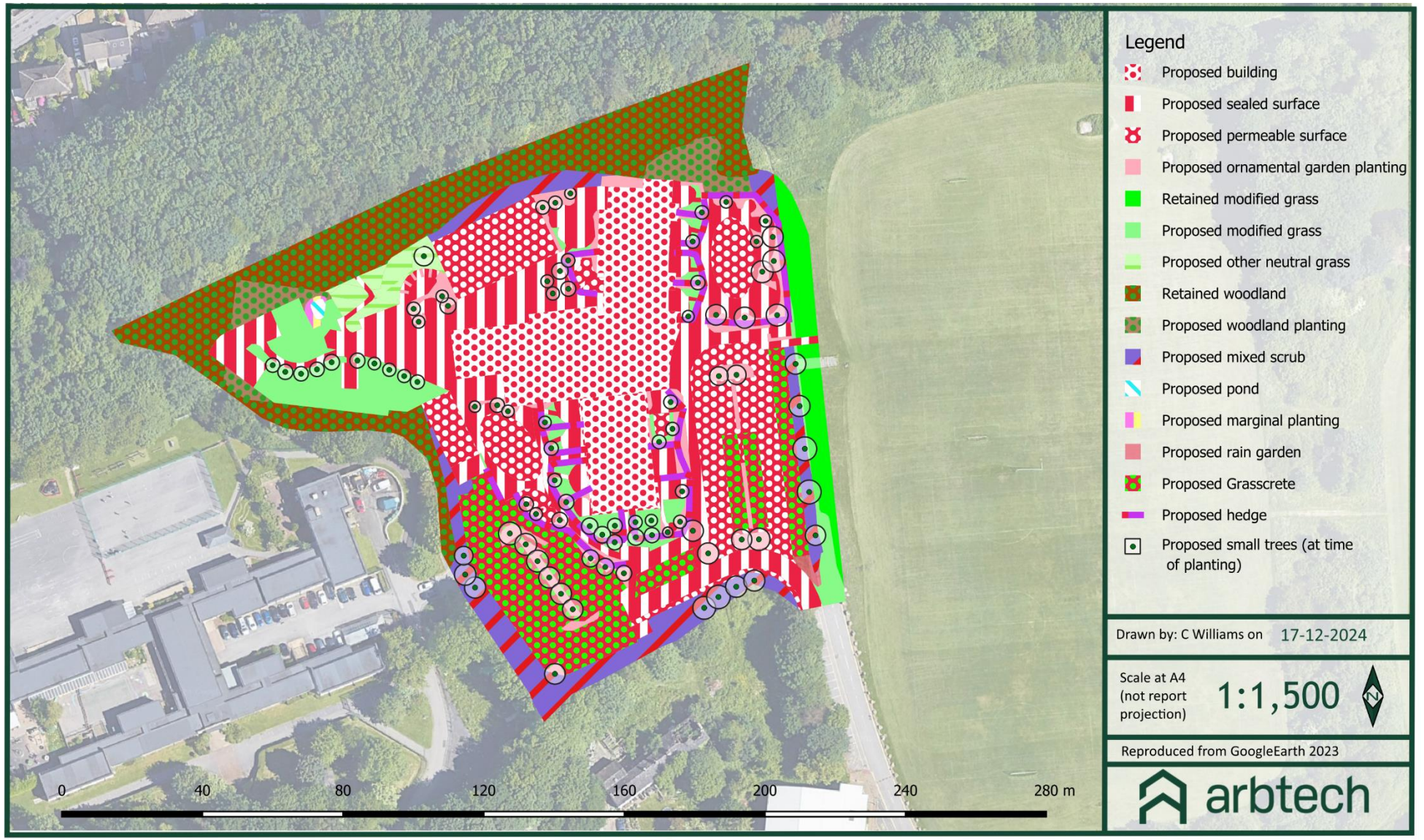
The CEMP requires stakeholders to comply fully with the pre-construction and construction-related elements of any mitigation strategies agreed with the Local Planning Authority and Natural England under any license requirements. Construction activities will therefore be conducted strictly in accordance with the approved CEMP. Regular inspections and monitoring will be undertaken to ensure compliance with the plan's requirements.

Any deviations or incidents that may affect ecological receptors will be immediately reported to the designated ecologist / Natural England. Updates to the CEMP will be relayed to the Local Planning Authority.

The CEMP will be periodically reviewed and updated as necessary throughout the construction phase to address changing site conditions and evolving ecological considerations.

Appendix 1: Site Landscape Masterplan

Appendix 2: Post Development Habitats Plan



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Draft	0.1	Kat Aburrow BSc, Consultant Ecologist	14/01/2025
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