

Halls Farm, Altar Stones Lane

CEMP: Biodiversity

(Planning Ref: 23/01000/FUL)



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1. Introduction

- 1.1.1 Rachel Hacking Ecology has been instructed by RG+P, on behalf of Hillmoren, to provide a Construction Environmental Management Plan: Biodiversity ('CEMP') pursuant to Condition 6 of planning permission reference 23/01000/FUL for the redevelopment of Halls Farm, Altar Stones Lane.
- 1.1.2 The planning permission is for the demolition of the existing buildings and erection of 2no. buildings and associated parking areas, landscaping, access, solar panels, EV charging stations and other works for the purposes of car sales.
- 1.1.3 This CEMP has been prepared by a Chartered Ecologist at Rachel Hacking Ecology and incorporates the findings and recommendations of the surveys, plans and appraisals submitted as part of the planning application.
- 1.1.4 Condition 6 of the permission states:
- "Prior to the commencement of development, including any demolition or vegetation clearance, there shall first be submitted to and approved in writing a Construction & Environmental Management Plan: Biodiversity (CEMP). The CEMP shall include the following details:*
- A) Identification of potentially damaging construction activities*
 - B) identification of biodiversity protection zones*
 - C) practical measures and sensitive working practices to avoid or reduce impacts during construction*
 - D) timing of works to avoid harm to protected species*
 - E) responsible persons for overseeing sensitive works*
 - F) use of protective fencing where required.*
- The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details."*
- 1.1.5 This Construction Environmental Management Plan: Biodiversity (CEMP) has been prepared to guide delivery of measures A) to F). In compliance with BS 42020:2013 Biodiversity Code of Practice for planning and development this document will provide details of the mitigation measures that will be carried out so that adverse impacts on biodiversity are avoided. The document will be informed by:
- Rachel Hacking Ecology (2023). Halls Farm, Altar Stones Lane, Markfield Ecological Appraisal. Unpublished report for Hillmoren.

2. Risk Assessment

2.1.1 Potentially damaging construction activities are generic throughout the construction phase of the development so the risk assessment will apply to the entire site. The Ecological Appraisal identified the following Ecological Features that are at risk:

- Habitats;
- Badger *Meles meles*;
- Foraging and commuting bats;
- Hedgehog *Erinaceus europaeus*;
- Amphibians, and
- Nesting Birds.

2.1.2 Potentially damaging construction activities and the features at risk from each activity are summarised in Table 1. Controls (mitigation and protection measures) will be described in detail in the relevant sections of this document.

Table 1. Potentially Damaging Construction Activities			
Construction Activity	Features at risks	Risk Rating (Before Controls)	Risk Rating (After Controls)
Site Compound Installation	Habitats, Badger, Bats, Hedgehog, Amphibians, Nesting Birds	Moderate	Negligible
Storage of materials and equipment	Habitats, Badger, Hedgehog, Amphibians, Nesting Birds,	Moderate	Low
Installation of fencing	Habitats, Badger, Hedgehog, Amphibians, Nesting Birds	Moderate	Negligible
Installation of artificial lighting	Badger, Foraging Bats, Nesting Birds	Moderate	Low
Noise	Badger, Hedgehog, Nesting Birds	Moderate	Low
Groundworks (vegetation removal)	Habitats, Badger, Hedgehog, Amphibians, Nesting Birds	High	Low
Groundworks (re- profiling)	Badger, Hedgehog, Amphibians Nesting Birds	High	Low
Excavations	Badger, Hedgehog	High	Low
Vehicle movements	Badger, Hedgehog, Amphibians	High	Low

Table 1. Potentially Damaging Construction Activities			
Construction Activity	Features at risks	Risk Rating (Before Controls)	Risk Rating (After Controls)
Surface water drainage	Habitats	Moderate	Low
Pollution spills	All Features	High	Low
Air pollution (vehicles / machinery)	Habitats	Moderate	Low
Dust	Habitats	Moderate	Negligible

3. Biodiversity Protection Zones

- 3.1.1 Appendix 1 shows the pre-development plan with reference numbers (Target Notes – TN1 etc.) referred to in this document. Appendix 2 shows the post-development layout with the location of retained, new and enhanced habitats. For further details refer to the Landscape and Ecology Management Plan (LEMP), Felstone Consulting 2024.
- 3.1.2 All of the land surrounding the development plot is considered to be the biodiversity protection zone, which includes retained habitats and sensitive features such as trees, shrubs, and ponds with potential to support Badger *Meles meles*, Hedgehog *Erinaceus europaeus*, foraging bats, nesting birds and amphibians.
- 3.1.3 Protection will also be needed when new habitats and landscape features are created, particularly during the aftercare period. The Landscape and Ecology Management Plan (LEMP) provides details of aftercare management beyond the completion of the construction phase.

4. Protection Measures: Rationale and Methods

- 4.1.1 The rationale and methods for avoiding adverse impacts on ecological features are set out below. As most of these measures apply to more than one phase of development, the particular phases will be specified. For the location of habitats refer to Appendix 1 Habitat Survey Plan.

4.2 Protection of Woodlands TN1 and TN5

Rationale

- 4.2.1 The woodland habitats (TN1, TN5, TN7) and individual shrubs and trees (TN6) are located around the perimeter of the development footprint.
- 4.2.2 The post development plan (see Appendix 2) confirms that most of woodland and individual trees and shrubs will be retained. Woodland TN7 will be clear-felled to reinstate a pond that was previously located within the depression. Some of the immature shrubs and trees that have encroached into garden areas will be felled and removed to restore grassland habitat to a more favourable condition.
- 4.2.3 Apart from isolation and protection there is no justification for any further intervention during the construction phase.

Methods

- 4.2.4 Isolate woodland habitats from construction activity by the installation of temporary fences and attach appropriate signage to stop unwanted access.
- 4.2.5 Fell shrubs and trees in winter in advance of habitat restoration or creation proposals such as the restoration of the pond now occupied by woodland TN7. Dispose of cut materials into adjacent areas of woodland (TN5) to increase the volume of fallen deadwood.
- 4.2.6 Implement dust suppression measures during periods of dry weather to avoid damage to tree and shrub leaf surfaces.
- 4.2.7 Turn off combustion engines when idle to reduce emissions, which can cause damage to the leaves of trees and shrubs.
- 4.2.8 Avoid stockpiling soils, rubble and any other construction materials within 20m of the edge woodland habitat.
- 4.2.9 Vehicles must not be re-fuelled within 20m of woodland habitat.

- 4.2.10 There will be no storage of fuels, chemicals, liquids (apart from water), or powders within 20m of woodland and scrub habitat. Enclose chemical and fuel stores (if located on site) within a bund and provide spill kits.

4.3 Protection of Hedgerows

Rationale

- 4.3.1 Hedgerow (TN2) is a short length of habitat on the woodland edge that is being suppressed by the presence of Cherry Laurel *Prunus laurocerasus*. Without mitigation the removal of the Cherry Laurel shrubs during the construction phase will increase the risk of damage to the retained hedgerow during the construction phase.
- 4.3.2 There is a risk to hedgerow TN2 during the construction phase because of direct damage from machinery, vehicles, compaction, storage of materials, pollution, and indirect impacts through artificial lighting.

Methods

- 4.3.3 Following clearance of the Cherry Laurel shrubs erect temporary fences on the south side of the retained hedgerow with a stand-off of sufficient distance to keep activities outside of the rooting zone of the hedgerow shrubs.
- 4.3.4 Store equipment, chemicals, fuels, and construction materials away from the hedgerows. Enclose chemical and fuel stores within a bund and provide spill kits.
- 4.3.5 Implement dust suppression measures during periods of dry weather.
- 4.3.6 Minimise the use of artificial lighting in close proximity to hedgerow habitats. Direct artificial lighting away from the hedgerows. Attach cowlings to non-directional lighting to minimise diffuse light spillage.

4.4 Protection of Grasslands

Rationale

- 4.4.1 There will be a loss of grassland TN3 and modification of lawns TN6 because of the development footprint. Protection of retained areas of grassland TN6 will be necessary during the construction to prevent deterioration and ensure that the condition is suitable for restoration and enhancement.

Methods

- 4.4.2 Erect a temporary fence to isolate and protect grassland TN6.
- 4.4.3 During winter, fell any unwanted shrubs and trees growing in the grassland. Cut materials (if possible) will be removed to adjacent areas of woodland to increase the extent of deadwood.

- 4.4.4 Store equipment, chemicals, fuels, and construction materials away from the grassland (bring materials to the site as and when required). Enclose chemical and fuel stores within a bund and provide spill kits.

4.5 Restoration of Ponds

Rationale

- 4.5.1 To ensure that the restored ponds rapidly achieve moderate to good ecological condition will require intervention during the construction phase.

Methods

- 4.5.2 Extract trees and fallen branches from pond TN4 using a small excavator. Cut felled trees into small sections, place on the boundary of woodlands TN1 and TN5 and leave to decay.
- 4.5.3 Coppice all trees and shrubs on the margin of pond TN4 and dispose of cut materials as above. Treat cut stumps with a suitable herbicide to prevent re-growth.
- 4.5.4 Excavate accumulated silts and fallen leaves from the pond TN4 basin and place in a suitable location selected by a Suitably Qualified Ecologist (SQE).
- 4.5.5 Assess the structural integrity of the pond TN4 basin and if required apply a layer of puddled clay to seal the substrate. Allow the pond to naturally fill with water.
- 4.5.6 Fell all trees to ground level within and on the margins of the basin that is woodland TN7. Dispose of cut materials by placing on the boundary of woodlands TN1 and TN5. The disposal location to be selected by a SQE.
- 4.5.7 Apply a suitable herbicide to the tree stumps. Partially in-fill the basin with substrate from the construction activity so the basin is no more than 1m deep at the centre and the margins are no more than a 1 in 6 gradient. Seal the basin substrate with puddled clay or line with a membrane over-topped with sub-soil. Allow the pond to naturally fill with water.
- 4.5.8 Isolate the new pond from construction activity by the installation of a temporary fence and excavate a temporary interceptor ditch to stop surface water run-off from the construction site entering the pond.
- 4.5.9 Store equipment, chemicals, fuels, and construction materials more than 25m away from the pond. Enclose chemical and fuel stores within a bund and provide spill kits.

4.6 Avoidance of Harm to Badger

Rationale

- 4.6.1 Badger is a mobile animal that can occupy suitable habitat at any time of year, particularly if they are present within the local area. Given the time lapse since the surveys in 2023 and the proposed

commencement of the construction phase there is potential for Badger to create new setts or to make use of woodland habitat for foraging and dispersal.

- 4.6.2 Badgers can be attracted to active construction sites because of soil mounds and excavations containing exposed substrates, which provide foraging opportunities. There is a risk of harm to Badger because of contact with machinery, building materials, chemical and fuels and there is a risk of entrapment in excavations.

Methods

- 4.6.3 If pits or trenches cannot be back-filled before the end of the working day the risk of harming mammals will be minimised by covering smaller excavations overnight and ensuring that larger excavations such as trenches and pits are ramped at one or both ends to allow animals to escape.
- 4.6.4 Any pipes that have a diameter of more than 200mm will be capped at both ends or stored off the ground (higher than 250mm) to avoid entrapment of Badger.

4.7 Avoidance of Harm to Bats

Rationale

- 4.7.1 None of the trees were assessed as having potential roosting features and further surveys have not been carried out because the larger trees are to be retained. In compliance with British Standard 5837 it will be necessary to protect retained trees during the construction phase, but this may not preclude the need for pruning if there are branches and limbs that are considered to be hazardous.
- 4.7.2 The use of artificial lighting during the construction phase may be necessary because of security concerns. Emergence surveys did not detect any roosting activity, but foraging and dispersal activities were confirmed and diffuse illumination may impact on bat behaviour and reduce the suitability of the site for foraging and dispersal.

Methods

- 4.7.3 Larger trees will be isolated from construction activity by the installation of temporary fencing.
- 4.7.4 If any of the larger trees require pruning they will be inspected by a SQE and if the pruning is likely to result in disturbance or loss of PRFs an aerial search will be carried out.
- 4.7.5 The method of pruning will depend on the results of the aerial climb. If a roosting bat is present then a licence may be needed to carry out the pruning works. If a PRF is confirmed but no bats are present, soft felling techniques will be employed under the supervision of a SQE with a Class 2 bat licence. After felling the cut materials will be left on the ground for a period of 24 hours before removal.
- 4.7.6 There will be no storage of equipment, materials, chemicals, fuels, or vehicles in close proximity of larger trees.

- 4.7.7 Unless there is no suitable alternative, artificial lighting will not be deployed in the vicinity of larger trees. If lighting of the woodland edge is necessary, it will be directional with cowling(s) attached to stop light spillage.

4.8 Avoidance of Harm to Mammals

Rationale

- 4.8.1 The proposed work will require excavation of pits and trenches. In addition to Badger, mammals such as Hedgehog *Erinaceus europaeus* can be attracted to fresh excavations and spoil heaps because of foraging opportunities so there is a risk of harm if excavations are left overnight without cover or an escape route.

Methods

- 4.8.2 If pits or trenches cannot be back-filled before the end of the working day the risk of harming mammals will be minimised by covering smaller excavations overnight and ensuring that larger excavations such as trenches and pits are ramped at one or both ends to allow animals to escape.
- 4.8.3 Any pipes that have a diameter of more than 60mm will be capped at both ends or stored off the ground (higher than 250mm) to avoid entrapment of Hedgehog.

4.9 Avoidance of Harm to Reptiles and Amphibians

Rationale

- 4.9.1 The presence of two ponds (TN4 and TN8) on the site suggest that the presence of common amphibians including Common Frog *Rana temporaria*, Smooth Newt *Lissotriton vulgaris* and Common Toad *Bufo bufo* cannot be discounted, particularly in terrestrial areas surrounding the ponds.
- 4.9.2 Construction activities that include vegetation clearance and groundworks risk harm to amphibians, if they are present.

Methods

- 4.9.3 A SQE will carry out a walkover with the Site Manager (or an appointed staff member) in advance of the groundworks to identify terrestrial locations suitable to support amphibians that will be disturbed, destroyed or modified during the construction phase.
- 4.9.4 Vegetation clearance in summer will require mowing of soft vegetation to a height of 150mm followed by a fingertip search by an SQE. The vegetation will then be cut to ground level followed by a further check before groundworks begin.
- 4.9.5 Rubble piles, debris and discarded materials may have to be removed by hand under the supervision of the SQE.

- 4.9.6 Captured amphibians will be placed in a suitable container and held for no longer than 1 hour. Brash piles created by tree and shrub clearance will provide suitable materials to create a hibernaculum into which captured amphibians will be released. An above ground hibernaculum will be created on the woodland edge (TN5) in close proximity to pond TN4.

4.10 Avoidance of Harm to Nesting Birds

Rationale

- 4.10.1 The protection afforded to nesting birds can cause delays to construction work if the clearance or disturbance of nesting habitats such as hedgerows, woodland and rough grassland is required between March and August (inclusive). Works to disturb potential bird nesting habitat can take place between March and August but only in the absence of nesting activity as verified by a SQE.

Methods

- 4.10.2 To avoid risk of committing an offence under the Wildlife and Countryside Act 1981 (as amended) it is usually necessary to programme all construction works that might directly impact upon breeding birds to the September-February period outside the bird breeding season.
- 4.10.3 If it is not feasible to carry out the clearance works during winter months, potential nesting habitats within or in close proximity to the construction zone will be checked by a SQE immediately in advance of the work. Only if no nesting activity is detected should works proceed. If nesting activity is detected, further work will be delayed until a SQE is satisfied that nesting activity has ceased.

4.11 Biosecurity Measures

Rationale

- 4.11.1 Without appropriate biosecurity measures there is potential for the spread of non-native invasive species and pathogens, which could affect wildlife, aquatic habitats, and hedgerows.

Methods

- 4.11.2 For this site it is considered that there is a low risk of harm, and the following measures will be adopted:
- Ensure footwear is clean prior to the visit (visually free from loose soil and plant debris). If necessary, brush or wash in soapy water before the visit.
 - If there is a requirement for personnel to enter the ponds when they contain water, footwear and waterproof clothing should be treated with an approved disinfectant before and after entry.
 - Ensure that vehicles are cleaned before and after work is completed (and before entering another site) to remove any accumulated mud and plant material, especially from tracks, wheels, and wheel arches.

- Keep vehicular access to a minimum.
- Clean vehicles and equipment at least 25m away from water courses and standing water.



5. Location and Timing of Sensitive Works

5.1 Introduction

- 5.1.1 At this stage it is not feasible to be specific with regards to construction dates. It is, however, feasible to identify those measures that need to be carried out at particular times of year to avoid adverse impacts to sensitive features. The tasks requiring the presence of an Ecologist (Ecological Clerk of Works - ECoW or SQE) are also identified.

5.2 Sensitive Works

- 5.2.1 Removal of woodland, hedgerow and individual shrubs and trees will need to be carried out in winter to avoid an impact on nesting birds.
- 5.2.2 Tree pruning will need to be carried out in winter when trees are dormant to minimise the risk to tree health and to avoid impacts on nesting birds.
- 5.2.3 The ECoW or SQE may be required to supervise tree pruning if PRFs are present in the tree.

6. Responsible Persons, Roles and Lines of Communications

6.1 Responsible Persons

- 6.1.1 The main contractor, subject to approval from Hillmoren, will be responsible for appointing an Ecological Clerk of Works (ECoW).
- 6.1.2 The ECoW will select Suitably Qualified Ecologists (SQEs) to carry out specific tasks as required. The ECoW will provide the Site Manager with a register of SQEs who will carry out or supervise specific tasks.
- 6.1.3 The ECoW and SQEs will attend site inductions before carrying out any works on the site.

6.2 Role of ECoW and SQEs

- 6.2.1 The ECoW will be responsible for ensuring that the works are carried out in accordance with the contents of the CEMP: Biodiversity and will provide written evidence to confirm that the required standard of work has been achieved. This will require routine visits and liaison with the site management team.
- 6.2.2 The ECoW will be responsible for managing SQEs.
- 6.2.3 The ECoW and SQEs will complete worksheets containing descriptions and photographic evidence of activities. Worksheets will be supplied to the Site Manager (or the Construction Management Team). The ECoW will be responsible for managing the paperwork.
- 6.2.4 Before the start of development the Construction Management Team will be provided with a Toolbox Talk covering the contents of the CEMP: Biodiversity.
- 6.2.5 Toolbox Talks will be provided to site personnel who are carrying out specific tasks associated with protected species or sensitive habitats.
- 6.2.6 The ECoW or SQE will supervise specific tasks and carry out quality control checks during and when tasks are completed.(as specified above)
- 6.2.7 The ECoW or SQE will carry out routine inspections to ensure that infrastructure such as protective fencing and signage are maintained in appropriate condition during the construction phase.
- 6.2.8 Modifications to the CEMP must be agreed in advance by the ECoW and must comply with relevant legislation, and national and local planning and biodiversity policies.

6.3 Communications

- 6.3.1 The Site Manager and Construction Management Team will liaise directly with the ECoW and all formal communications will be in writing.
- 6.3.2 Attendance on site and completion of ecological tasks will be supported by appropriate paperwork (worksheets) to verify that the work has been carried out as specified.
- 6.3.3 Worksheets will be signed and dated by the SQE or ECoW (or both) and the Site Manager or an appropriate member of the Construction Management Team following completion of a task.
- 6.3.4 Signed digital worksheets will be held by the Site Manager and the ECoW and upon request will be made available for examination to appropriate persons or organisations.

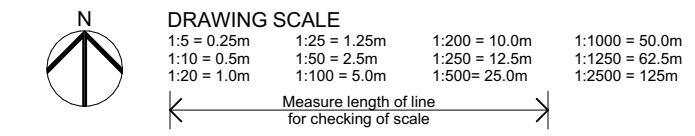
7. Fences and Signs

- 7.1.1 Wherever construction activity is located adjacent to retained habitats it will be necessary to make use of fencing that is sufficiently robust to stop pedestrian access and to deter vehicular access.
- 7.1.2 For the most part habitats can be separated from construction activity by Heras fencing. If there are concerns regarding the movement of mammals into active construction areas, Heras fence panels can be attached to wooden posts and partially buried (0.3-0.5m below ground level).
- 7.1.3 The installation of fences will be supplemented by appropriate signage identifying sensitive biodiversity areas.

Appendix 1: Pre-development Habitat Survey Plan



Appendix 2: Post-development Site Layout



GENERAL NOTES

All works to comply with the Building Regulations and completed to the satisfaction of Building Control. All works must be completed to the minimum standard required by Building Control & NHBC except where the standards required on these drawings are higher, in this case the specification on these drawings should be followed.

All works to comply with relevant British Standards and codes of practice including BS 8000. Works to be undertaken in accordance with relevant health and safety legislation, adopting safe methods of working and in accordance with manufacturers' product literature and H&S data sheets.

Drawing should be read in conjunction with relevant Structural and M&E design information, and Contractor to check all levels, dimensions and heights on site before commencing.

- A Site entrance
- B External vehicle storage
- C Staff parking, with EV charging
- D Detailing / Prep building, 10 cars. Small office and WC etc...
- E Customer parking - with EV charging
- F Refuse / bins
- G Covered secure cycle parking
- E EV Charging
- Easement to watercourse

TREE SURVEY KEY

- Root Protection Areas
- Category C Trees
- Category B Trees
- Category U Trees
- Tree Canopy
- T40 Tree Tag - refer to tree survey
- W40 Woodland Tag - refer to tree survey
- G40 Mixed Group - refer to tree survey
- H40 Hedgerow Tag - refer to tree survey

SURFACE MATERIALS KEY

- 1 Grass / Landscaping
- 2 Tarmac
- 3 Permeable Block Paving

BOUNDARY TREATMENTS

- B1 Stone wall
- B2 Mixed hedgerow

CHANGE MANAGER

Change	Description	By
Ch-029	Surface and Boundary key added	JM
Ch-030	Site labels amended for planning submission	JM
Ch-031	General key updated	JM

P08	For Comment	05/09/2023	JM	JH
P07	For Comment	14/08/2023	JM	JH
P06	For Comment	10/08/2023	JM	JH
P05	For Comment	08/08/2023	JM	JH
P04	For Comment	03/08/2023	JM	JH
P03	For Comment	24/07/2023	JM	JH
P02	Feasibility	14/07/2023	JM	JH
P01	Feasibility	04/07/2023	JM	JH
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Project Name:	Hillmoren
Site Address:	Halls Farm Altar Stones Lane Markfield
Drawing Name:	Proposed Site Plan
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