
PRELIMINARY ECOLOGICAL APPRAISAL
(INCLUDING 1KM THIRD-PARTY DATA SEARCH)

LAND AT LONGFORD PARK, CANAL LANE, BODICOTE.
BANBURY, OXFORDSHIRE, OX15 4GD

ON BEHALF OF

MERCIAN GROUP LTD.

REFERENCE: ZEL_175
DATE: SEPTEMBER 2022

30 St Georges square | Worcester |
WR1 1HX
01905 947558

Report Data	
Report Title	Ecological Appraisal (including 1km third-party data search)
Report Reference	ZEL_175
Client	Mercian Group Ltd.
Site	Land at Longford Park, Canal Lane, Bodicote, Oxfordshire, OX15 4GD
Surveyor	A. Woodman BSc (Hons)
Author	A. Woodman BSc (Hons)

Rev	Report	Author	Date Issued
V1	Preliminary Ecological Appraisal	A. Woodman BSc (Hons)	01 September 2022

Disclosure:

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The evidence gathered, and the opinions provided, have been prepared in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Code of Professional Conduct.

Where any appraisal is based upon information provided by third parties, it is assumed that this information is relevant, correct and complete; there has been no independent verification of information obtained from third parties unless otherwise stated. Where field investigations have been carried out these have been appropriate to the agreed scope of works and carried out to a level of detail required to achieve the stated objectives.

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EXECUTIVE SUMMARY

- A Preliminary Ecological Appraisal (including 1km data search) was undertaken of the Land at Longford Park on 12 August 2022. The survey was completed by A. Woodman in accordance with the Preliminary Ecological Appraisal Guidelines (CIEEM, 2017 2nd Edition) and the UK Habitat Classification system (UK Habitat Classification Working Group (2018a, 2018b & 2018c)
 - The site is approximately 0.97ha in area and comprises sheep-grazed pasture surrounded by lines of trees and native hedgerow.
 - Planning consent is being sought from Cherwell District Council for a 128 bed care home.
 - No further survey work for protected species has been recommended to support this application.

Ecological Mitigation and Enhancement

An Ecological Mitigation & Enhancement Strategy should be written and agreed with the Local Planning Authority (LPA). The strategy will focus on retaining existing habitats of ecological value and minimising impacts upon protected / notable species (e.g., bats, nesting birds). The report will also detail how the scheme will identify and pursue measurable net gains for biodiversity¹ and ensure compliance with local and national Government policies (e.g., National Planning Policy Framework). The below will form key components of the strategy:

- A Risk Avoidance Method Statement (RAMS) for vulnerable fauna that may utilise the site.
- If any semi-mature or mature tree requires felling or significant arboricultural works, this must be carried out in a precautionary manner. Arboriculturists must avoid cutting into any potential roost features, removing them whole (including a buffer either side) and then carefully lowering the section to the ground and leaving overnight to allow any bats that are present but have not been discovered to disperse. If any bats or evidence of roosting bats are discovered at any point work must cease immediately, and a suitably qualified ecologist contacted.
- Removal of potential bird nesting habitat (where required to facilitate permitted development), is to be undertaken outside the bird nesting season (March – August inclusive) or otherwise under the direct supervision of a suitably qualified ecologist.
- Pre-commencement check for badger setts to ensure full compliance with The Protection of Badgers Act, 1992.

¹ The Environment Bill received Royal Assent in November 2021, Part 6 of which includes a provision to mandate net gain in biodiversity through the planning system and to require a 10% increase in biodiversity after development. Therefore, consideration should be given to the emerging requirement for biodiversity net gain within planning consents in England. This may need to be demonstrated through a Biodiversity Net Gain Assessment (currently DEFRA Biodiversity Metric 3.0).

- Implementation of a sensitive lighting strategy to prevent illumination of wildlife habitats (hedgerows, trees). Any lighting must be low level and of the minimum wattage, as recommended by the Bat Conservation Trust (BCT) & Institute of Lighting Professionals (2018).
- Implementation of a hedgehog friendly habitat connectivity strategy, connecting urban garden habitats to each other and the wider environment.
- Retention of mature hedgerows and trees. All retained trees and hedgerows should be afforded adequate protection in line with '*BS5837: 2012 Trees in relation to design, demolition and construction*'.
- Provision of a range wildlife boxes and hibernacula (e.g., bat, bird, reptile) to provide further enhancement for these species.
- New planting and landscaping design to provide foraging and nesting opportunities for a range of wildlife. Use of native species of local origin with a known benefit to wildlife to be incorporated into the planting scheme.

1.0 INTRODUCTION

Background to the Development

- 1.1 Zebra Ecology Ltd was commissioned by Mercian Group to undertake a Preliminary Ecological Appraisal at the Land at Longford Park, Canal Lane, Bodicote, Banbury, Oxfordshire (centred on Ordnance Survey grid reference SP 467 381).
- 1.2 The site is approximately 0.97ha in area and comprises a sheep-grazed pasture surrounded by lines of trees and native hedgerows.
- 1.3 The application site boundary is shown in Figure 1.



Figure 1: Application Site Boundary

- 1.4 Planning consent is being sought from Cherwell District Council for a 128 bed care home, with associated landscaping.

Survey Objectives

- 1.5 The objectives of the survey were to:
 1. Undertake a Preliminary Ecological Appraisal (PEA) of the site to identify any suitably for protected / notable species and identify habitats or features of nature conservation significance;
 2. Identify the need for any additional Phase 2 surveys that may be required to inform an Ecological Impact Assessment (EiA);
 3. Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy'.
 4. Identify opportunities to deliver ecological enhancement.

2.0 METHODOLOGY

Desk Study

- 2.1 Existing ecological and nature conservation data relevant to the site was collated from various sources including the Multi Agency Geographic Information for the Countryside (MAGIC) online database (<http://magic.defra.gov.uk>).
- 2.2 A 1km third-party data search was instructed by the client as part of this commission. This was undertaken by Thames Valley Environmental Records Centre.
- 2.3 A search of European statutory designated sites such as Special Areas of Conservation (SAC) or Special Protection Areas (SPA) within 5km of the site boundary was also undertaken.

Field Survey

- 2.4 A field survey was undertaken on 12 August 2022. The survey was completed by A. Woodman, in accordance with the Preliminary Ecological Appraisal Guidelines (CIEEM, 2017 2nd Edition) and the UK Habitat Classification system (UK Habitat Classification Working Group (2018a, 2018b & 2018c). This involved walking over the site, mapping the main habitat types and compiling target notes to identify particular areas of interest or concern. Plant species lists were also compiled.

Extended Phase 1 Habitat Survey

- 2.5 Observations on the presence, or potential presence, of other protected species (e.g., badgers, nesting birds, great crested newts) were recorded in addition to the Phase 1 Habitat Survey. This information should not be relied on as a comprehensive assessment of the presence or otherwise of all protected species on the site. There are a wide range of protected species, many of them can occur on one site and most require specialist expertise to locate them and / or seasonal-critical survey techniques to confirm their presence, and this is outside of the scope of the present report. Where suitability has been identified, further Phase 2 surveys have been recommended.
- 2.6 The approach to ecological appraisal was based on the guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM) in the document Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017).

Preliminary Roost Assessment

- 2.7 A ground-based inspection of the trees within the application site was undertaken by A. Woodman (Natural England bat CL18 licence ref: 2021-50870-CLS-CLS) on 12 August 2022 following best practice guidelines (Collins, 2016; Mitchell-Jones, 2004).
- 2.8 The following were identified and considered:
 - Evidence that bats have or are using the tree (e.g. bat droppings, feeding remains, oil staining)
 - Potential roosting features (e.g. gaps under lifted bark, rot holes etc.)
 - The surrounding area's suitability for commuting and foraging bat species.

2.9 Based on the above, a level of suitability was assigned determining the requirement for further nocturnal survey work. The guidance for assessing suitability of trees for roosting bats is shown in Table 1 and the habitat for commuting and foraging bats in Table 2²:

Table 1: Guidelines for Assessing the Potential Suitability for Roosting Bats of Trees within a Development Site

Suitability	Trees
Negligible	Negligible features within the tree that are likely to be used by roosting bats.
Low	A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A tree with one or more potential roost sites that could be used by bats due to their appropriate condition (i.e. size, shelter, protection) and surrounding habitat. However, it is unlikely to support a roost of high conservation value (with respect to roost type only).
High	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their conditions (i.e. size, protection, shelter) and surrounding habitat.
Confirmed Roost	Tree with confirmed bat roost.

Table 2: Guidelines for Assessing the Potential Suitability for Commuting and Foraging Bats of a Development Site

Suitability	Structures
Negligible	Negligible habitat features on the site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape or other habitat. Suitable but isolated habitat that could be used by small number of foraging bats such as a lone tree (not in parkland situation) or patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Limitations

2.10 The Preliminary Ecological Appraisal was undertaken in August 2022. This is within the optimal survey period for most habitats and species in England (JNCC, 2010).

² Taken and adapted from: **Collins, J. (ed.) (2016)**. *Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition*. The Bat Conservation Trust, London, UK.

- 2.11 The region is currently suffering a drought, and the grassland on the day of the survey was dry and withered in places, though some green patches could still be found.
- 2.12 It should be noted that any survey based on a single site visit will miss a significant proportion of the species present on or using the site. As such this report includes an assessment of only the likely presence of notable species.

Planning Policies

- 2.13 The National Planning Policy Framework (NPPF) (Department for Communities and Local Government, 2021) provides guidance for Local Planning Authorities (LPAs) in creating development plans and determining applications.
- 2.14 Section 174(d) states that planning policies and decisions should contribute to and enhance the natural end local environment by minimising impacts on and providing netgains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressure.
- 2.15 Section 179(b) states that in order to protect biodiversity, plans should promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.
- 2.16 Section 1 states if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts) adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused. Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.
- 2.17 The NPPF states that local plans must be prepared by LPAs with the objective of contributing to the achievement of sustainable development and also that significant adverse impacts should be avoided, mitigated or compensated for.

Local Planning Policies - Cherwell Local Plan 2011-2031

- 2.18 The NPPF states that local plans must be prepared by LPAs with the objective of contributing to the achievement of sustainable development and also that significant adverse impacts should be avoided, mitigated or compensated for.
- 2.19 Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment states that
- a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources, and by creating new resources
 - The protection of trees will be encouraged, with an aim to increase the number of trees in the District
 - The reuse of soils will be sought

- If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or as a last resort, compensated for, then development will not be permitted.
- Development which would result in damage to or loss of a site of international value will be subject to the Habitats Regulations Assessment process and will not be permitted unless it can be demonstrated that there will be no likely significant effects on the international site or that effects can be mitigated
- Development which would result in damage to or loss of a site of biodiversity or geological value of national importance will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site and the wider national network of SSSIs, and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity.
- Development which would result in damage to or loss of a site of biodiversity or geological value of regional or local importance including habitats of species of principal importance for biodiversity will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site, and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity.
- Development proposals will be expected to incorporate features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value within the site. Existing ecological networks should be identified and maintained to avoid habitat fragmentation, and ecological corridors should form an essential component of green infrastructure provision in association with new development to ensure habitat connectivity.
- Relevant habitat and species surveys and associated reports will be required to accompany planning applications which may affect a site, habitat or species of known or potential ecological value.
- Planning conditions/obligations will be used to secure net gains in biodiversity by helping to deliver Biodiversity Action Plan targets and/or meeting the aims of Conservation Target Areas. Developments for which these are the principal aims will be viewed favourably.
- A monitoring and management plan will be required for biodiversity features on site to ensure their long-term suitable management.

3.0 PHASE 1 HABITAT SURVEY

3.1 The results of the Phase 1 Habitat Survey are presented below. A Phase 1 Habitat Map can be seen in Appendix A with target notes. Photographs that display some of the habitats can be seen in Appendix B.

Modified Grassland (g4)

3.2 The majority of the site is dominated by grassland that has been heavily grazed (sward height < 10cm) by a small herd of goat and sheep. The sward is dominated by perennial rye-grass *Lolium perenne* and other grasses, including creeping bent *Agrostis stolonifera*, crested dog's-tail *Cynosurus cristatus*, cock's-foot *Dactylis glomerata*, red fescue *Festuca rubra*, Yorkshire fog *Holcus lanatus*. Very few herbs were noted in the sward. Rough hawkbit *Leontodon hispidus* and creeping buttercup *Ranunculus repens* were recorded.

3.3 At TN1 is an area of dumped tyres and a mammal gap under the fence.

Hedgerows (h2a) with scattered trees (11), Line of Trees (w1g6) & Field Margins

3.4 The boundaries of the site are formed by a native hedgerow and line of trees, with a non-native line of trees in the southern section of the field. A description of the hedgerows including associated margins (if present) is provided in Table 3. Grazing by goats has stripped the lower leaves of some sections of the boundary features, with elder being most impacted. Please refer to the Arboricultural Survey (Zebra Trees, 2022) for further details on the condition of the trees.

Table 3: Hedgerow Description and Species Composition

Reference	Description and Species Composition
Hedgerow 1 (H1) (H1, T3-4 & G7 Arboricultural Survey)	<p>A native hedgerow that forms the northern and eastern boundary of the site. It is regularly managed to 2m. Species noted included field maple <i>Acer campestre</i>, hawthorn <i>Crataegus monogyna</i>, immature ash <i>Fraxinus excelsior</i>, wild privet <i>Ligustrum vulgare</i>, blackthorn <i>Prunus spinosa</i>, elder <i>Sambucus nigra</i>, hedge bindweed <i>Calystegia sepium</i>, ivy <i>Hedera helix</i> and bramble <i>Rubus fruticosus</i>. There is one semi-mature ash tree (T4) and a group of three trees consisting of semi-mature field maple, ash and damson <i>Prunus domestica</i> (G7) scattered along the southern section of the eastern boundary, with a young ash (T3) at the northern corner.</p> <p>The grazed grassland runs right to the edge of the hedgerow, but on the roadside there is a small verge between 0.5-1m wide. Species noted included false oat-grass <i>Arrhenatherum elatius</i>, cock's-foot <i>Dactylis glomerata</i>, Yorkshire fog <i>Holcus lanatus</i>, garlic mustard <i>Alliaria petiolata</i>, cow parsley <i>Anthriscus sylvestris</i>, mugwort <i>Artemisia vulgaris</i>, creeping thistle <i>Cirsium arvense</i>, bristly oxtongue <i>Helminthotheca echioides</i>, weld <i>Reseda luteola</i>, broad-leaved dock <i>Rumex obtusifolius</i>, and common nettle <i>Urtica dioica</i>.</p>
Line of Trees Group 1 (G1) (G1, T1-2 Arboricultural Survey)	<p>A line of 15 early mature and 2 standing dead Italian alder <i>Alnus cordata</i> trees in the southern section of the site. The base of these trees was largely bare ground, with some cow parsley and common nettle also noted.</p>

Reference	Description and Species Composition
Line of Trees Group 2 (G2) (G2-6 Arboricultural Survey)	An outgrown former hedgerow that is now a line of trees runs along the southern and western boundary. It is currently unmanaged and over 4m in height. Species noted included field maple, hawthorn, ash, crab apple <i>Malus sylvestris</i> , damson, blackthorn and elder. There is a small line of Italian alder (G4) in the southern corner. Ground layer vegetation was limited, with only cow parsley, ivy and bramble noted.

Other Developed Land (u1b6)

- 3.5 Adjacent to G1 is a small area of hardstanding with a water trough and a pile of old fence posts. The grass surrounding it was slightly longer (< 0.5m), with false oat-grass *Arrhenatherum elatius* and common nettle *Urtica dioica* noted in addition to the grassland species above.

Built Linear Features (u1e 69)

- 3.6 There is a post and wire stock fence the runs along the entire length of the boundary just inside the boundary vegetation, with a metal access gate in the centre of the northern boundary.

4.0 RESULTS

STATUTORY / NON-STATUTORY SITES

Statutory Designated Sites

4.1 Two statutory sites are present within 5km of the application site. These sites are listed below:

- Adderbury Lakes LNR, located 2.6km to the south of the site.
- Neithrop Fields Cutting SSSI, located 4.4km to the north-west.

Non-statutory Designated Sites

4.2 Three non-statutory sites were returned by the third-party data search within 1km. These sites are listed below:

- The Saltway, Banbury Cherwell District Wildlife Site, located 612m to the north-west of the site.
- North Cherwell Conservation Target Area, located 769m to the north-east.
- Northern Valleys Conservation Target Area, located 980m to the south-west.

PROTECTED AND NOTABLE SPECIES

Bats

4.3 There are no buildings within the application site, but there are a number of semi-mature to mature trees. All of these trees had a level of ivy covering, but no other features were observed. Therefore, the mature trees have been assessed as having low suitability for roosting bats, whilst all other trees have negligible potential (with reference to Collins, 2016).

4.4 The site is situated near the south-eastern edge of the village of Bodicote, which itself lies just off the southern edge of the large market town of Banbury. The immediate surroundings of these two settlements are largely rural in nature, with small, scattered settlements, farmland, with deciduous woodland, wood pasture and parkland and traditional orchards. Several watercourses, including the River Cherwell and Oxford Canal and associated floodplain grazing marsh, also run through this area.

4.5 According to Collins (2016), pasture is a habitat preference for noctule *Nyctalus noctula*, with whiskered/Brandt's *Myotis mystacinus/brandti* and Natterer's *Myotis nattereri* bats also noted as using grassland, whilst hedgerows and tree-lines are listed under the habitat preferences of eight of the seventeen species.

4.6 However, the immediate surroundings of the site are dominated by the urban infrastructure of Bodicote and Banbury, with the M40 within 1.2km of the site, which will reduce the surroundings suitability for commuting and foraging bats, particularly light-sensitive species (e.g. brown long-eared *Plecotus auritus*). Connections between the site and the wider rural

surroundings are also extremely limited, with the mature hedgerows interrupted by the urban infrastructure and all subject to some level of artificial night lighting. Therefore, the site is considered to have limited suitability for commuting and foraging bats.

- 4.7 The third-party data search returned twenty-two records for bats, including noctule, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat. The closest of these records (common pipistrelle aural record) came from c.0.280m to the west of the site, with the closest roost (brown long-eared bat) c.602m to the south-west.

Great crested Newts

- 4.8 There are no waterbodies on site or within 250m of the site’s boundaries. The only identified pond within 500m of the site is approximately 380m to the west, and separated from the site by a major road (A4260).
- 4.9 The grassland on site is considered too heavily grazed to offer a ‘place of shelter’ for amphibians, with suitable habitat entirely limited to the boundary vegetation.
- 4.10 No records for great crested newt were returned by the third-party data search. Six records for smooth newt *Lissotriton vulgaris*, three records for common frog *Rana temporaria* and one record for common toad *Bufo bufo* were returned, all of which came from over 500m away.

Reptiles

- 4.11 The short-grazed grassland lacks the structural heterogeneity required by these species, and the boundary vegetation only offers a limited amount of suitable habitat. Five records for grass snake *Natrix helvetica* were returned by the third-party data search, the closest of which came from c.450m to the west of the site.

Birds

- 4.12 Five species of birds were seen and / or heard incidentally during the survey including one bird (house sparrow *Passer domesticus*) of conservation concern (Stanbury *et al.*, 2021).

Table 4: Bird species recorded at the Land at Longford Park.

Bird Species	Conservation Concern (Stanbury <i>et al.</i> , 2021)
Woodpigeon <i>Columba palumbus</i>	Amber
Robin <i>Erithacus rubecula</i>	Green
Jay <i>Garrulus glandarius</i>	Green
House sparrow <i>Passer domesticus</i>	Red
Blackbird <i>Turdus merula</i>	Green

- 4.13 The boundary hedgerows and trees on site offer a suitable nesting and foraging resource for birds, and an old nest was observed within G2. The species-rich hedgerows with fruiting species such as hawthorn and blackthorn offer over-winter foraging opportunities for frugivorous birds, such as redwings and fieldfare (Henderson, Vickery and Carter, 2004). The grassland is considered too heavily grazed to offer suitability for ground-nesting or wintering birds.

4.14 The third-party data search returned seven hundred and twelve records for fifty-five species of rare and/or notable birds, including twenty-two species on the red list for Birds of Conservation Concern (Stanbury et al., 2021), listed below. None of these records are confirmed as coming from the site itself, though seven records (for corn bunting *Emberiza calandra*, hobby *Falco Subbuteo*, kestrel *Falco tinnunculus*, red kite *Milvus milvus* and tawny owl *Strix aluco*) had an imprecise grid reference of SP 46 38.

- Lesser redpoll *Acanthis cabaret*
- Skylark *Alauda arvensis*
- Pochard *Aythya ferina*
- Hen harrier *Circus cyaneus*
- Cuckoo *Cuculus canorus*
- Corn bunting *Emberiza calandra*
- Yellowhammer *Emberiza citrinella*
- Linnet *Linaria cannabina*
- Yellow wagtail *Motacilla flava*
- Spotted flycatcher *Muscicapa striata*
- House sparrow *Passer domesticus*
- Tree sparrow *Passer montanus*
- Grey partridge *Perdix perdix*
- Willow tit *Poecile montanus*
- Marsh tit *Poecile palustris*
- Whinchat *Saxicola rubetra*
- Woodcock *Scolopax rusticola*
- Turtle dove *Streptopelia turtur*
- Starling *Sturnus vulgaris*
- Fieldfare *Turdus pilaris*
- Mistle thrush *Turdus viscivorus*
- Lapwing *Vanellus vanellus*

Badgers

- 4.15 No evidence of badger *Meles meles* setts were observed during the survey, and the site is considered unsuitable for sett-building. The site does, however, offer some suitability for foraging badger, and a c.30cm gap under the fence was observed at TN1, though there was no evidence to indicate what type of mammal had made this gap.
- 4.16 Twelve records for badger were returned by the third-party data search, the closest of which came from c.190m to the south.

Hazel Dormice

- 4.17 Whilst the site's boundary vegetation contains some known food plants of hazel dormice *Muscardinus avellanarius* (e.g. hawthorn, bramble), there is not sufficient diversity of food sources required to support this species year-round, and the site lacks any connection to any other area of suitable habitat. In addition, no records were returned by the third-party data search.

Riparian Mammals

- 4.18 There is no suitable habitat for riparian mammals either on or within the vicinity of the site, and no records were returned by the third-party data search.

Other Mammals (Section 41 Species)

- 4.19 The site is considered suitable for mammals common to semi-urban habitats, such as small rodents. The third-party data search returned ten records for hedgehog *Erinaceus europaeus*, the closest of which came from c.553m to the south-west.

Invertebrates

- 4.20 The standing deadwood of G1 and the small amount of deadwood observed within G2 have potential to support saproxylic invertebrates. No other triggers were identified to suggest that the habitats on-site support interesting or notable assemblage of invertebrates (with reference to English Nature, 2005).
- 4.21 The third-party data search returned one record for small heath *Coenonympha pamphilus* butterfly and twelve records for scarce blue-tailed damselfly *Ischnura pumilio*. None of these records came from the site itself.

Invasive Species (Schedule 9, W&CA 1981)

- 4.22 No invasive species were recorded during the survey, and no records were returned by the third-party data search.

5.0 CONCLUSION AND RECOMMENDATIONS

- 5.1 The following have been identified which may represent constraints or opportunities within future development of the site. Recommended measures for the avoidance of impacts on identified features of nature conservation interest and opportunities by which development of the site can maintain and enhance the current value of the site have been outlined.

STATUTORY / NON-STATUTORY SITES

Designated Sites

- 5.2 The Natural England SSSI Impact Risk Zones used to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites was consulted via the government's multi-agency website MAGIC (www.magic.gov.uk).
- 5.3 Unless the development proposals are likely to result in '*any discharge of water or liquid waste of more than 20m³/day to ground (i.e. to seep away) or to surface water, such as a beck or stream*', it is not anticipated that Natural England will need to be consulted on this application.
- 5.4 Given this distance of the development site from all statutory and non-statutory designated sites and the urban isolation of the development site, it is not anticipated that the development proposals will have any negative impacts on these sites, providing standard procedures are followed.

PROTECTED AND NOTABLE SPECIES

Bats

- 5.5 The vast majority of the mature trees will be retained, with only G1 and G7 to be removed. As the trees in these tree groups have been assessed as having 'low' potential to support roosting bats, a precautionary approach will be required for the removal.
- 5.6 Given the urban isolation of the site, it is considered at most that only small numbers of bats of species more tolerant of artificial night-lighting (e.g., common pipistrelle) will be using the site for commuting/foraging, if any bats are utilising the site. The features of highest value for bats, the boundary vegetation, will be almost entirely retained, with new hedgerow and tree planting proposed. Providing a sensitive scheme of night-lighting is implemented on site and enhancements for bats are included (e.g., bat boxes, night-scented flowers to attract invertebrate prey), the proposals are considered unlikely to have any negative impacts on the local bat population. Therefore, no further survey work is required.

Birds

- 5.7 The majority of the suitable nesting and foraging habitat will be retained, with only a small section (c.10m) of H1 removed to facilitate access. Providing suitable mitigation (e.g., sensitive timing of works to avoid bird nesting season), compensation and enhancement features (e.g., nest boxes) are included within the development proposals, it is considered unlikely the proposals will have any negative impacts on the local bird population.

Other Fauna (Section 41)

- 5.8 Given the nature of the habitats on site and the urban location, it is considered highly unlikely that any other protected and/or notable species will be present on site and/or negatively impacts by the proposals, providing the works are carried out in a sensitive and precautionary manner. The post-development landscaping should seek to incorporate enhancements for a range of wildlife. For example, ‘hedgehog highways’ should be incorporated into any new fence or wall, and a variety of native species and ornamental species with a known value for value should be planted.

6.0 REFERENCES

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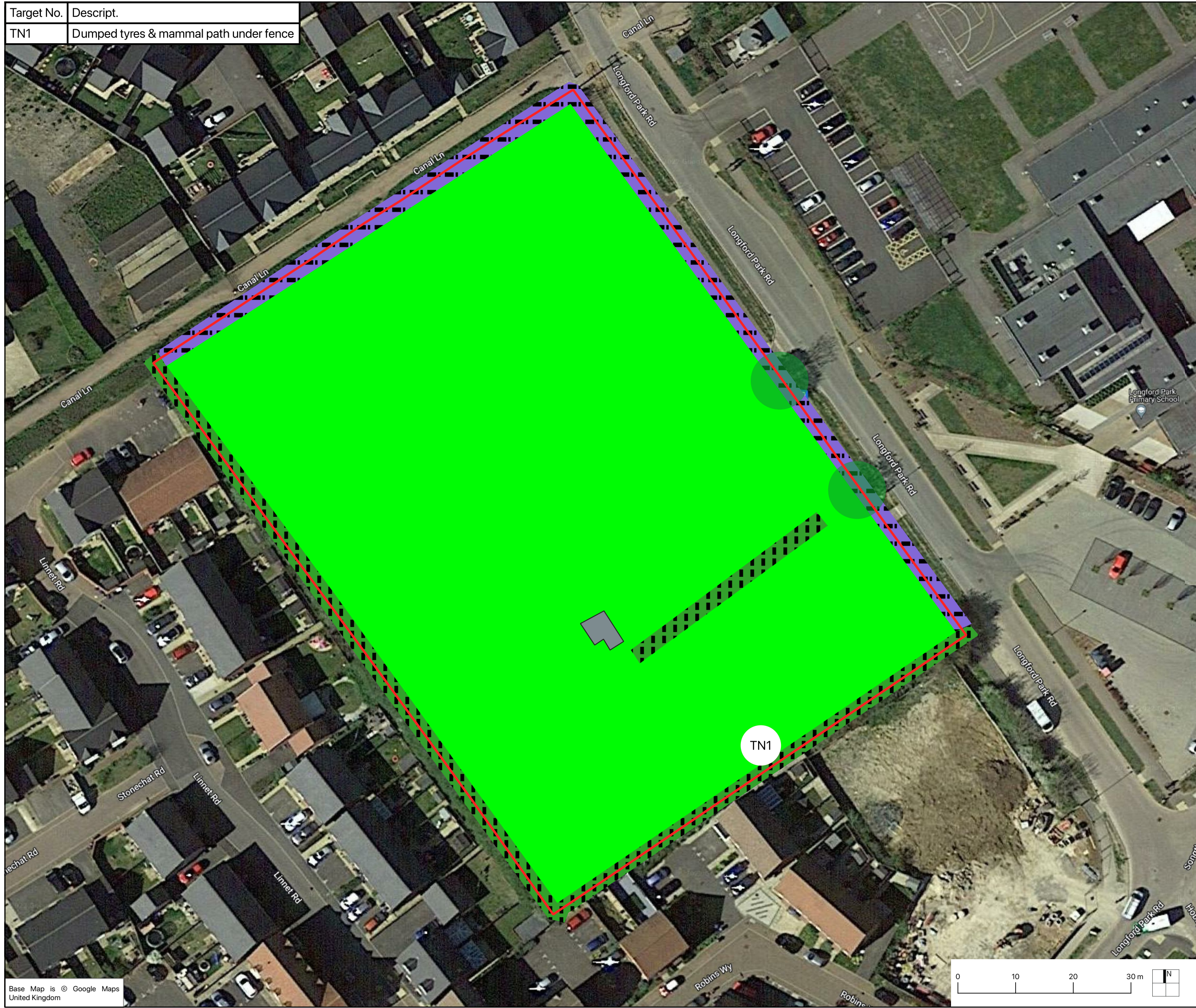
APPENDIX A

Plans

- UK Habitat Classification Plan
- Tree Constraints Plan

Target No.	Descript.
TN1	Dumped tyres & mammal path under fence

APPENDIX A



Red Line Boundary

Hardstanding - u1b6
(condition N/A)

Native Hedgerow - h2a
(moderate condition)

Line of Trees - w1g6
(moderate condition)

Modified Grassland - g4
(poor condition)

Scattered Trees

Target Notes



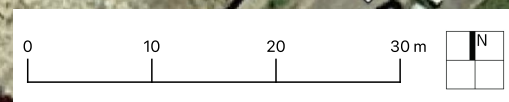
Mercian Group Ltd
ZEL 175

Land at Longford Park
Bodicote, Oxfordshire

E-101
August 2022
UK Habitat Classification Map

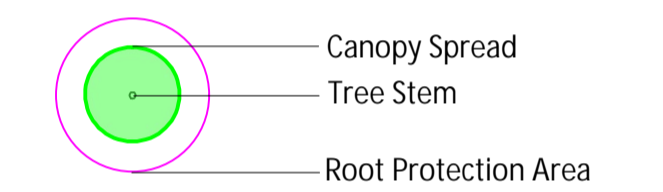
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zebra ecology ltd | 30 st georges square | worcester | w1 1hx
hello@zebraecology.co.uk | 01905 947 558

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KEY.

Trees / Groups



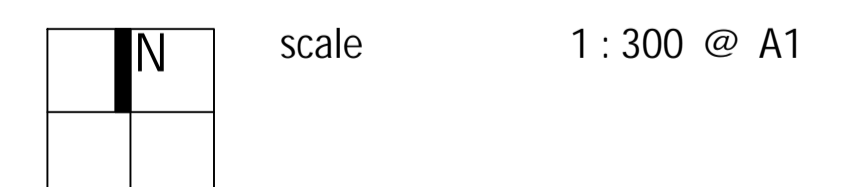
A Category Tree
(High quality / retention value)

B Category Tree
(Moderate quality / retention value)

C Category Tree
(Low quality / retention value)

U Category Tree
(No remaining retention value)

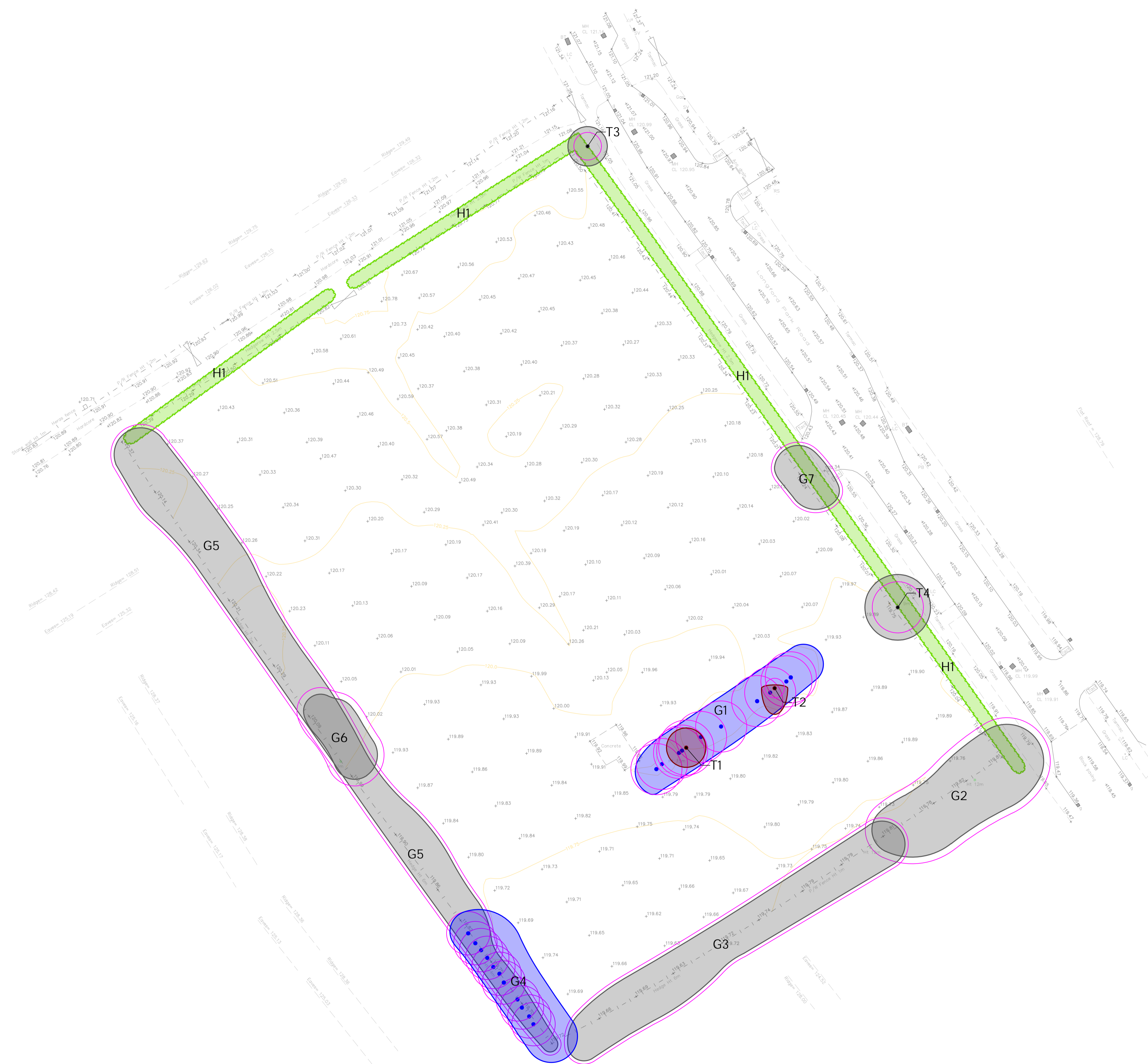
Hedgerows
(not assigned BS5837:2012 category)



zebra trees ltd is part of zebra group consulting ltd

30 st georges square | worcester | wr1 1hx
01905 947 558 | hello@zebratrees.co.uk

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APPENDIX B

Photographs



Photograph 1: a typical view of the site, including the current access gate. Photograph looking north-west.



Photograph 2: view of H1 from Canal Lane. Photograph looking south-west.



Photograph 3: view of H1 from Longford Park Road. Photograph looking north-west.



Photograph 4: G2. Photograph looking south-west.



Photograph 5: G1. Photograph looking north-west.



Photograph 6: the area of hardstanding



Photograph 7: the location of the proposed access, including G7



Photograph 8: the mammal gap under the fence at TN1.

APPENDIX C

Legislation and Planning Policy

Badgers

Badgers are protected in the UK under the Protection of Badgers Act (1992), making it an offence to:

- Kill, injure or take a badger;
- Intentionally or recklessly interfere with a badger sett. Sett interference includes damaging, destroying or obstructing access to a sett and disturbing badgers while they occupy a sett.

Bats

All species of bat in Britain are 'European Protected Species' and are protected under the Conservation of Habitats and Species Regulations 2017, and the Wildlife and Countryside Act 1981, as amended by the Countryside & Rights of Way Act 2000. These pieces of legislation combine to give substantial protection to bats and their habitats, making it an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat;
- Intentionally or recklessly obstruct access to a bat roost.

Common Reptiles

In Britain there are four relatively widespread native species of reptile: the adder; grass snake common lizard and slow worm. These species are protected via part of Section 9(1) of the Wildlife & Countryside Act 1981 (as amended) against:

- Intentional killing and injuring;
- Selling, offering or exposing for sale.

Two other species of reptile: the sand lizard and smooth snake are 'European Protected Species'. It is illegal to injure, kill, disturb, capture, keep or sell them, or to damage or destroy the habitats in which they live.

Hazel Dormice

The hazel dormouse is a 'European Protected Species' and is fully protected under national and European legislation. It is listed on Annex IVa of the Habitats Directive and the Directive is transposed into UK law through the Conservation of Habitats and Species Regulations 2017. They are also protected by the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000. Dormice are also listed as a Species of Principal Importance under the Natural Environment and Rural Communities (NERC) Act (2006). These pieces of legislation combine to give substantial protection to dormice and their habitat, making it an offence to:

- Intentionally kill, injure or take a dormouse;
- Possess or control any live or dead specimen or anything derived from a dormouse (unless it can be shown to have been legally acquired);
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a dormouse;
- Intentionally or recklessly disturb a dormouse while it is occupying a structure or place which it uses for that purpose.

Great Crested Newt

The great crested newt is a 'European Protected Species' and is listed on both Annex II and IV of the EC Habitats Directive. The Directive is transposed into UK law through the Conservation of Habitats and Species Regulations

2017. They are also protected by the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000. These pieces of legislation combine to give substantial protection to great crested newts and their breeding ponds and terrestrial habitat, making it an offence to:

- Deliberately capture, injure or kill a great crested newt;
- Intentionally or recklessly disturb a great crested newt in a structure or place that they use for shelter or protection or deliberately disturb a group of a great crested newts;
- Damage or destroy a great crested newt resting place/shelter (even if they are not occupying it at the time);
- Possess or advertise/sell/exchange a great crested newt (dead or alive) or any part of a great crested newt (including eggs and all life-stages);
- Intentionally or recklessly obstruct access to a great crested newt resting place/shelter.

Nesting Birds

All wild bird nests are protected under The Wildlife and Countryside Act 1981 (as amended), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting.

The barn owl is included in the list of strictly protected fauna and appears in Appendix II of the Berne Convention (Convention on the Conservation of European Wildlife and Natural 37 Habitats). They are also afforded protection under Schedule One of the Wildlife and Countryside Act (1981). This act has been amended on several occasions, most recently by the Countryside and Rights of Way (CRoW) Act 2000, the Natural Environment and Rural Communities (NERC) Act 2006 and by the Conservation of Habitats and Species Regulations 2010 and 2017, making it an offence to:

- Intentionally and recklessly disturb barn owls whilst they are building a nest or are in, on or near a nest containing eggs or young, or to disturb their dependent young.

Otters

The European otter is the only native UK otter species. It IS a European protected species (EPS) and is also fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to:

- Capture, kill, disturb or injure otters (on purpose or by not taking enough care); -
- Damage or destroy a breeding or resting place (deliberately or by not taking enough care);
- Obstruct access to their resting or sheltering places (deliberately or by not taking enough care);
- Possess, sell, control or transport live or dead otters, or parts of otters.

Water voles

Water voles are protected in the UK under the Conservation of Habitats and Species Regulations, 2017 and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to:

- Intentionally kill, take or injure a water vole;
- Possess or control any live or dead water vole, or any part or derivative (not including water voles bred in captivity under licence);
- Intentionally or recklessly damage, destroy or block access to a water voles place of shelter or protection (on purpose or by not taking enough care);
- Intentionally or recklessly disturb a water vole whilst it is occupying a structure or place which it uses for shelter or protection (on purpose or by not taking enough care).

National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) states that the planning system should contribute to and enhance the natural and local environment by:

- Recognising the wider benefits of ecosystem services;
- Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Other key principles of the NPPF relating to biodiversity are:

- The conservation of International and National statutorily designated sites;
- Protection of ancient woodland and veteran trees;
- The creation, protection, enhancement and management of networks of biodiversity and green infrastructure;
- The preservation, restoration and recreation of priority habitats and ecological networks;
- The recovery of priority species populations.

Habitats and Species of Principal Importance

The NERC Act, 2006 requires the Secretary of State to publish lists of habitats and species which are of principal importance for the conservation of biodiversity in England, Wales and Scotland. The lists replace the UK Biodiversity Action Plans (UK BAP) and have been drawn up in consultation with Natural England, Natural Resources Wales and Scottish Natural Heritage as required by the Act. Section 7 of the Environment (Wales) Act, 2016 has now replaced the duty in section 41 of the NERC Act in relation to Wales, with a duty on public authorities to seek to maintain and enhance biodiversity. The lists are used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of NERC Act and section 7 of the Environment (Wales) Act, 2016, to have regard to the conservation of biodiversity when carrying out their normal functions.

Habitats of Principal Importance

Habitats of principal importance (HPI) are included on the lists. These are all the habitats in England, Wales and Scotland that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.

Species of Principal Importance

Species of principal importance (SPI) are included on the lists. These are the species found in England, Wales and Scotland which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.

Biodiversity Action Plan (BAP) Habitats and Species

The UK Biodiversity Action Plan (HMSO 1995, 1998; UKBAP 2007) lists species and habitats which have undergone significant declines in recent years and for which conservation is a priority in order to preserve biodiversity in the UK. The BAPs provide a list of actions to be implemented to halt or reverse these declines. These species and habitats are identified as Habitats and Species of Principal Importance for the conservation of biological diversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act, planning policy and underpinning guidance (ODPM, 2005)

APPENDIX D

Qualifications and Experience

Zebra Ecology Ltd is Registered Practice of the Chartered Institute of Ecology and Environmental Management (CIEEM). A comprehensive range of ecological services are offered including Preliminary Ecological Appraisal (PEA), Ecological Impact Assessment (EclA), Habitat Regulations Assessment (HRA), Biodiversity Impact Assessment (BIA) and European Protected Species (EPS) Surveys / Licensing.

The practice works closely with clients to achieve their aspirations alongside securing the best outcomes for the environment. With wildlife legislation and policy as its basis; commercial awareness, pragmatism and defensible advice is combined to form Zebra Ecology's approach.

As well as offering a wide range of ecological services, Zebra Ecology forms part of Zebra Group offering an in-house collaborative approach in conjunction with Zebra Architects, Zebra Landscape Architects, Zebra Trees and Zebra Land and Development.

Aimmie Woodman BSc (Hons)

Aimmie holds a BSc (Hons) degree in Conservation Biology and Ecology from the University of Exeter. Her ecological experience includes Preliminary Ecological Appraisals, Ecological Impact Assessments (EclA) and surveying for notable / European Protected Species, with particular experience with bats as a volunteer bat carer since 2016. She has held Natural England survey licences for bats (Class 2) and great crested newts since 2021. Aimmie is a Qualifying member of the Chartered Institute of Ecology and Environmental Management.

Emma Seaton BSc (Hons) MCIEEM

Emma holds a BSc (Hons) degree in Biology from the University of Sheffield and has since gained a postgraduate certificate in Ecological Consultancy. Her ecological experience includes Preliminary Ecological Appraisals, Ecological Impact Assessments (EclA), surveying for notable / European Protected Species, mitigation / licensing advice and providing Continued Professional Development (CPD) sessions for developers on Biodiversity Net Gain. She has held Natural England survey licences for bats (Class 2), great crested newts and white-clawed crayfish since 2015. She is also a Registered Consultant under the Bat Mitigation Class Licence (BMCL) licence. Emma is a Full member of the Chartered Institute of Ecology and Environmental Management.