

Preliminary Ecological Appraisal

SITE LOCATION
The Oaks, Weeley Heath

PREPARED FOR
LNT Care Developments

ISSUE DATE
28 July 2023

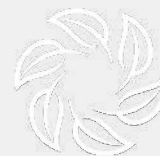
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Preliminary Ecological Appraisal

VERSION: V1 DATE: July 2023
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Summary	
Site surveyed	Land off The Oaks, Weeley Heath National Grid reference TM 15710 20327
Purpose and brief	Preliminary Ecological Appraisal Commissioned by LNT Care Developments
Development proposals	The Proposed Development is the construction of a care home.
Methods	Desk study UK Habitat Classification (UKHab) survey of the Site Assessment of likely significant effects as far as can be reasonably known.
Confirmed ecological constraints	Bats Great Crested Newts (GCN)
Potential ecological constraints	Nesting Birds Hedgehogs
Recommendations/ Further survey works required	Further surveys for bats Further surveys or a district level licence for GCN Precautionary working methods for bats, nesting birds and hedgehogs Production of a wildlife-sensitive lighting scheme Production of a method statement for common reptile species
Opportunities for ecological enhancement	Hedgehog shelters Bat boxes Bird boxes Native species planting



1. Introduction/ Background

1.1 Author

- 1.1.1 The Principal Author of this report is Byron Humphries BSc (Hons) ACIEEM (Ecologist). The Principal Author has over five years of experience in ecological consultancy and has worked on projects ranging from large scale national infrastructure developments to residential sites across the country. The Principal Author holds a Class 2 survey licence from Natural England for great crested newt (*Triturus cristatus*) (GCN). He is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM), he is therefore subject to CIEEM's Code of Professional Conduct.
- 1.1.2 The detail provided within this report is a true and accurate reflection of both the Site conditions at the time the survey was completed, as well as the professional opinion of the Principal Author.
- 1.1.3 The Reviewer of this report is Morgan Hughes PhD CEcol (Principal Ecologist). The Reviewer has over 20 years of professional experience in the ecological sector, and seven years in ecological consultancy, having worked on projects ranging in scale from small commercial and residential sites to large scale (road and rail) infrastructure. The Reviewer currently holds Class 3 and 4 survey licences from Natural England for bats (*Chiroptera* spp.), a Class 1 survey licence for GCN and a survey licence for barn owl (*Tyto alba*). She holds a Level 4 FISC from the BSBI, has been a full member of CIEEM since 2008 and a Chartered Ecologist since 2017 and is therefore subject to CIEEM's Code of Professional Conduct.

1.2 Purpose and Brief

- 1.2.1 LNT Care Developments (the Client) commissioned Wharton Natural Infrastructure Consultants Ltd (Wharton) to undertake a Preliminary Ecological Appraisal (PEA) of an area of land known as The Oaks, Weeley Heath (see land within the red line boundary in Appendices 1 and 2), known herein as 'the Site'.
- 1.2.2 The purpose of the PEA (as per CIEEM guidance (CIEEM, 2018) is to inform the design of the Proposed Development. The key objectives of a PEA are to:
- Identify the likely ecological constraints associated with the Proposed Development;
 - Identify any mitigation measures likely to be required, following the '*Mitigation Hierarchy*';
 - Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EclA); and,
 - Identify the opportunities offered by the Proposed Development to deliver ecological enhancement.

1.3 Description of Site and Local Area

- 1.3.1 The Site is located to the southwest of Clacton Road in the village of Weeley Heath, Clacton-on-Sea, Essex. It is centred approximately at National Grid reference TM 15710 20327.
- 1.3.2 The Site comprised two residential dwellings: a larger, two-storey building to the east, and a smaller, single-storey building with a loft conversion to the west, and associated garden, with an area of grassland with tall herb to the south.
- 1.3.3 Land use in the immediate and wider area is a mix of residential and agricultural. The Site has some limited levels of ecological connectivity with the surrounding landscape. This is through hedgerows and lines of trees that border the Site and extend across the agricultural fields to the south and north. These features are, however, gappy and fragmented by the pockets of developed land and trunk and access roads. The Site has low levels of connectivity with areas to the east and



west which are limited to garden trees and hedgerows associated with residential properties in the village.

1.4 The Proposed Development

- 1.4.1 The Proposed Development is the construction of a care home with associated access, driveways and landscaping.
- 1.4.2 The proposals detailed above will be referred to throughout this report as the 'Proposed Development' and can be seen in Appendix 3.



2. Relevant Planning Policy & Legislation

2.1 Relevant Legislation

2.1.1 National and international legislation relevant to the Proposed Development is summarised in Table 1.

Table 1. Legislation Relevant to the Proposed Development

Legislation*	Relevance to the Proposed Development
<p>The Conservation of Habitats and Species Regulations 2017 (HMSO, 2017) <i>Amended by</i>¹</p> <p>The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (HMSO, 2019)</p>	<p>Affords protection to species listed under Schedules 2 and 5 and gives provision for the allocation and protection of European protected sites.</p>
<p>The Wildlife and Countryside Act 1981 (as amended) (HMSO, 1981)</p>	<p>Affords protection to species listed under Schedule 5 of the Act and gives provision for the allocation of statutory wildlife sites.</p>
<p>The Natural Environment and Rural Communities (NERC) Act 2006 (HMSO, 2006)</p>	<p>Places a duty on planning authorities to consider habitats and species of principal importance in planning applications.</p>
<p>The Protection of Badgers Act 1992 (HMSO, 1992)</p>	<p>Offences under the Act include damaging, destroying or obstructing access to a badger sett, disturbing a badger when it is occupying a badger sett, and killing or injuring a badger.</p>

*Full legislative text should be referred to as table text is a summary only.

1 - The Conservation of Habitats and Species Regulations 2017 provides safeguards for European Protected Sites and Species (as listed in the Habitats Directive). This has recently been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 which continue the same provision for European protected species, licensing requirements, and protected areas now the UK has left the European Union.



2.2 Relevant Planning Policy

2.2.1 Planning policies which are relevant to the Proposed Development are summarised in Table 2.

Table 2. Planning Policy Relevant to the Proposed Development

Planning Policy	Relevance to the Proposed Development
<p>National Planning Policy Framework (Department for Communities and Local Government, 2021)</p>	<p>Section 180a and 180c (respectively) of the NPPF state: <i>“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”.</i></p>

*Full policy text should be referred to as table text is a summary only.

2.2.2 The Tendring District Local Plan (Tendring District Council, 2022) has been reviewed, and an excerpt of the relevant ecological policies is provided in Appendix 4.



3. Methods & Methodology

3.1 Desk Study & Consultation

3.1.1 A desk study was carried out to gather background ecological data, and the following resources were used for the data search:

Multi Agency Geographic Information for the Countryside (MAGIC) Interactive (DEFRA, 2023) map was used to determine the presence of granted European Protected Species Mitigation licences at and within 1km of the Site.

Google Earth Pro (Google Earth Pro, 2023) aerial and historic imagery were used to assess the ecological connectivity at the Site as well as its historic use to assess suitability of habitats locally for foraging and commuting wildlife.

Biological records have been obtained from Essex Field Club (EFC, 2023) from within a 1km radius of the central grid reference provided in paragraph 1.3.1, for statutory wildlife sites, non-statutory wildlife sites and legally protected and notable species.

3.2 Field Survey

3.2.1 A UK Habitat Classification (UKHab) survey and Preliminary Roost Assessment (PRA) comprising the methods detailed below were carried out on 04 July 2023 by the Principal Author.

3.2.2 Weather conditions at the time of survey were intermittent, light rain, 100% cloud cover, wind of 2 on the Beaufort scale and a temperature of 16°C.

UKHab Survey

3.2.3 A UKHab Survey (Butcher, 2020) was carried out at the Site. UKHab provides a comprehensive habitat classification system for the UK and enables details in relation to the presence of notable (such as Habitats of Principal Importance) or protected habitats (such as Annex I habitats) to be obtained.

3.2.4 The UK Habitat Classification Version 1.1 was used for assessment of the Site, using the *Professional Edition Hierarchy*. Habitats were classified to Level 5 unless otherwise stated.

3.2.5 Based on the characteristics of the Site, the habitats it supports (as assessed from remote aerial imagery during the desk study), and other information from the desk study such as biological records, an assessment was made of the suitability of the Site to support protected or notable species. Those species for which the Site was deemed to be unsuitable or where impacts are unlikely to occur due to the Site location, a lack of nearby suitable habitat and/or a lack of biological records were scoped out. These species are listed in section 4.5.

3.2.6 Habitats at the Site were identified and mapped; they are illustrated on the UK Habitat Classification Plan in Appendix 2. Where appropriate, target notes have been used to identify areas on the plan that require further detail, and this has been included in the report.

3.2.7 Plant names (common and scientific) within this report follow 'New Flora of the British Isles' (Stace, 2010).

Preliminary Roost Assessment

3.2.8 The PRA of the buildings and trees at the Site for roosting bats followed current best practice guidance (Collins, 2016).

3.2.9 The buildings were inspected by the Principal Author for field evidence of bats including: droppings, individual bats (live or dead), feeding remains, scratch marks, urine staining, grease marks and clean cobweb-free gaps around potential entrance points and crevice roost sites.



- 3.2.10 The trees were assessed based on the presence, number and type of Potential Roost Features (PRFs) including woodpecker holes, lifting bark, cracks, crevices, knot holes and wounds. Trees were assessed from ground level only.
- 3.2.11 The buildings and trees were classified according to the criteria set out in Table 3 in accordance with standard guidance (Collins, 2016). With respect to roost type, the assessments in this report are made irrespective of species conservation status, which is established after presence is confirmed.

Table 3. Bat Roost Suitability Descriptions (based on Collins, 2016)

Suitability	Description of Roosting Habitats
Confirmed Presence	Presence of roosting bats within the building or tree confirmed by the survey
High	A building or 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 size, shelter, protection, conditions and surrounding habitat.
Moderate	A building or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
Low	A building or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by a larger number of bats (i.e., unlikely to be suitable for maternity or hibernation).
Negligible	Trees or buildings that appear unsuitable for roosting bats due to a clear lack of roosting spaces and/or absence of suitable access points, such as voids, small crevices etc, cracked limbs, rot holes, woodpecker holes, limb tear outs etc.

3.3 Limitations and Caveats

- 3.3.1 This report is based solely on the Site conditions on the 04 July 2023 and provides a ‘snapshot’ of Site conditions at this time only.

3.4 Evaluation of Ecological Features

- 3.4.1 The likelihood of the occurrence of any protected and/or invasive species at the Site relies on assessment of habitat suitability for the species at the Site as well as an evaluation, in parallel, of desk study data and published guidance/literature which is referenced accordingly:
- 3.4.2 The CIEEM EclA guidelines (CIEEM, 2018) state that “*the importance of an ecological feature should be considered within a defined geographical context*”. The suggested frames of reference within the CIEEM EclA guidelines have been adapted appropriate to the location of the Site and the nature of the Proposed Development. These frames of reference in this case are:

International and European

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National (England)
Regional (East of England)
County (Essex)
Local (Clacton-on-Sea)



4. Ecological Baseline and Assessment of Impacts and Effects

4.1 Zone of Influence

- 4.1.1 The Zone of Influence (Zol) for the Proposed Development is the area within which significant ecological impacts could occur to ecological features.
- 4.1.2 The Zol differs for each ecological feature, and the Zol has been clearly stated in the baseline assessment of each ecological feature below.
- 4.1.3 The Zol has been stated for every ecological feature except those where there is clearly a lack of suitable habitat at or adjacent to the Site, and therefore no pathways by which impacts could occur to the feature.
- 4.1.4 Where a Zol has been provided for a species that has subsequently been scoped out of further assessment, the Zol relates to the area considered as part of the initial scoping assessment for that ecological feature (i.e., the area within which potential impacts to the feature have been considered).

4.2 Statutory Wildlife Sites

Zol

- 4.2.1 The Zol for statutory wildlife sites is considered to be 1km from the Site boundary. This is due to some level of ecological connectivity between the Site and the wider area and with limited impacts from the occupational phase of the Site to the local area (such as for recreational purposes).

Baseline and Assessment of Impacts and Effects

- 4.2.2 One statutory wildlife site lies within 1km of the Site. This is the Weeleyhall Wood Site of Special Scientific Interest (SSSI) located c,355m north of the Site.
- 4.2.3 The Site falls within the impact risk zone for the SSSI. However, the Proposed Development does not fall within one of the categories which qualify for further assessment/consultation with Natural England.
- 4.2.4 Given the small-scale nature of the Proposed Development and the distance between the Sites, alongside a lack of connectivity thanks to the presence of many residential dwellings and access roads, no direct or indirect impacts to statutory wildlife sites are considered likely to arise because of the Proposed Development.
- 4.2.5 No further survey or assessment regarding statutory wildlife sites is required and no significant effects to statutory wildlife sites are likely to arise as a result of the Proposed Development.

4.3 Non-statutory Wildlife Sites

Zol

- 4.3.1 The Zol for non-statutory wildlife sites is considered to be 1km from the Site boundary. This is due to some level of ecological connectivity between the Site and the wider area and with limited impacts from the occupational phase of the Site to the local area (such as for recreational purposes).

Baseline and Assessment of Impacts and Effects

- 4.3.1 No non-statutory wildlife sites lie within 1km of the Site.
- 4.3.2 No direct or indirect impacts to non-statutory wildlife sites are considered likely to arise because of the Proposed Development.



4.3.3 No further survey or assessment regarding non-statutory wildlife sites is required and no significant effects to non-statutory wildlife sites are likely to arise as a result of the Proposed Development.

4.4 Habitats

4.4.1 A plan of the habitats detailed below is provided in Appendix 2.

4.4.2 The assessment of importance within section 4.4 relates solely to the botanical importance of habitats at the Site. It does not take use or possible use by protected species into account as this is addressed within section 4.5

Zol

4.4.3 The Zol for habitats in relation to the Proposed Development is the habitats within the Site boundary only. This is because adjacent habitats are of limited ecological importance and impacts to adjacent habitats as a result of the Proposed Development are unlikely to occur.

Buildings – u1b5

Baseline and Assessment of Impacts and Effects

4.4.4 Two buildings were present on site. Consisting of Building 1 (B1) –a currently disused two storey residential property and Building 2 (B2) –a converted garage building that is in current use as a residential dwelling.

4.4.5 These features are not considered to be ecologically important.

4.4.6 The buildings will be lost to facilitate the Proposed Development. This will not have a significant ecological impact.

Other developed land, vegetated garden –u1b6 231

Baseline and Assessment of Impacts and Effects

4.4.7 Much of the northern part of the Site consisted of vegetated garden, including areas of lawn and ornamental planting with the occasional garden tree.

4.4.8 Species within this habitat included perennial ryegrass (*Lolium perenne*), white clover (*Trifolium repens*), creeping bent (*Agrostis stolonifera*), dandelion (*Taraxacum* sp.), red fescue (*Festuca rubra*), Yorkshire fog (*Holcus lanatus*), wall barley (*Hordeum murinum*), holly (*Ilex aquifolium*) and yew (*Taxus baccata*).

4.4.9 This habitat is not considered ecologically important.

4.4.10 The vegetated garden will be lost to facilitate the Proposed Development. This will not have a significant ecological impact.

Other developed land, vegetated garden, orchard –u1b6 231 920

Baseline and Assessment of Impacts and Effects

4.4.11 A small section of the north-eastern garden was planted with a number of fruit trees, and has therefore been categorised as a private, garden orchard. The habitat does not meet the definition of either intensive orchard or traditional orchard.

4.4.12 Ground flora species are the same as the grass species found within the vegetated garden habitat, alongside a number of semi-mature tree species including common apple (*Malus domestica*), wild cherry (*Prunus avium*), common plum (*Prunus domestica*), and common pear (*Pyrus communis*).

4.4.13 Due to its lack of species diversity and habitat structure, the orchard does not meet the definition of a traditional orchard. The habitat is therefore not considered ecologically important although



individual trees within the habitat may add structural diversity and maturity to the Site.

- 4.4.14 The orchard will be lost to facilitate the Proposed Development. This will not have a significant ecological impact.

Other developed land – u1b6

Baseline and Assessment of Impacts and Effects

- 4.4.15 Areas of the Site also consisting of developed land include an access track and areas of parking.

- 4.4.16 This habitat is not considered ecologically important.

- 4.4.17 The developed land will be lost to facilitate the Proposed Development. This will not have a significant ecological impact.

Modified Grassland, tall herb, neglected – g4 16 77

Baseline and Assessment of Impacts and Effects

- 4.4.18 Much of the southern end of the Site consisted of modified grassland that has been left unmanaged and so abundance of tall herb species is very high. The habitat is dominated by common nettle (*Urtica dioica*) and perennial rye grass, with other species including Yorkshire fog, timothy (*Phleum pratense*), broad-leaved dock (*Rumex obtusifolius*), creeping thistle (*Cirsium arvense*), cleavers (*Galium aparine*), ragwort (*Senecio jacobaea*), false oat-grass (*Arrhenatherum elatius*), cocksfoot (*Dactylis glomerata*), ribwort plantain (*Plantago lanceolata*) and elder (*Sambucus nigra*) saplings.

- 4.4.19 An area of the habitat was also dedicated to a small sheep pen, with a tarpaulin covering on a metal frame.

- 4.4.20 The modified grassland is not considered to be ecologically important due to the small extent of the habitat on Site, the limited botanical diversity and dominance by species associated with nutrient enrichment of the soil.

- 4.4.21 It is unknown at this stage if the modified grassland will be lost to facilitate the Proposed Development. The loss of the modified grassland would not result in a significant ecological impact.

Bramble Scrub – h3d

Baseline and Assessment of Impacts and Effects

- 4.4.22 A small area of bramble scrub (*Rubus fruticosus*) was present in the centre of the Site. The occasional hazel (*Corylus avellana*) and goat willow (*Salix caprea*) was also present within the scrub.

- 4.4.23 The bramble scrub is not considered ecologically important due to its small size and limited botanical diversity.

- 4.4.24 The bramble scrub will be lost to facilitate the Proposed Development. This will not have a significant ecological impact.

Line of trees – w1g6

Baseline and Assessment of Impacts and Effects

- 4.4.25 Lines of trees surrounded much of the borders of the Site. These consisted largely of semi mature and mature pedunculate oak (*Quercus robur*) with common ash (*Fraxinus excelsior*), wild cherry, and sycamore (*Acer pseudoplatanus*).

- 4.4.26 The lines of trees are not considered an ecologically important habitat, although individual trees may add structural diversity and maturity to the Site.



4.4.27 Most of the lines of trees will be retained, with small sections to be removed to facilitate the Proposed Development. The removal of sections of the lines of trees will not result in significant ecological impact.

Biodiversity Net Gain (BNG)

4.4.28 As per Policy SP 7 of the Tendring Local Plan (Tendring District Council, 2022) '*all new developments must incorporate biodiversity creation and enhancement measures.*' To achieve this, it is recommended that an area of the Site is set aside for habitat creation within any proposals. Habitat creation may involve tree planting, wildflower areas, bat and bird boxes, or a combination of these measures.

4.5 Species Baseline and Assessment of Impacts and Effects

4.5.1 Biological records have been provided by Essex Field Club (EFC, 2023). The data are licensed for use by Wharton and the Client for a 12-month period and are not owned by Wharton or the Client as ownership of the data remains with the data provider.

4.5.2 The Site was assessed for its suitability to support the following species during the Site survey:

- Badger (*Meles meles*);
- Bats;
- GCN and other amphibians;
- Hedgehog (*Erinaceus europaeus*);
- Invertebrates;
- Hazel dormouse (*Muscardinus avellanarius*);
- Reptiles;
- Wild birds; and,
- Protected plants.

4.5.3 The following species/species groups have been scoped out of further assessment. No significant effects (adverse or otherwise) to this species are anticipated as a result of the Proposed Development, and no legislative breach in respect of the species legal protection is anticipated.

- Otter (*Lutra lutra*);
- Water vole (*Arvicola amphibius*);
- White-clawed crayfish (*Austropotamobius pallipes*);
- Freshwater fish; and,
- Marine flora & fauna.

Badger

Zol

4.5.4 The Zol for badger is considered to be the Site and 30m outside of the Site boundary only. No important habitats for badger are considered to be affected outside of the Site boundary by the Proposed Development.

Baseline and Assessment of Impacts and Effects

4.5.5 The biological records search returned two records of badger from within 1km of the Site. The closest record was from 2009 c.800m southwest of the Site.



4.5.6 No evidence of badger was identified at the Site or within 30m of the Site. Due to a lack of suitable sett making habitat within the Site boundary, it is unlikely that badger will migrate into the Site.

4.5.7 The risk of a breach of legislation in respect of badger from the Proposed Development is considered to be negligible.

Bats

Zol

4.5.8 The Zol for bats is considered to be the Site only. No important habitats for bats are considered to be affected outside of the Site boundary by the Proposed Development.

Baseline and Assessment of Impacts and Effects - Roosting Habitat

4.5.9 The biological records search returned no historic records of roosting bats from within 1km of the Site.

4.5.10 No European Protected Species Licensing Applications with regards to roosting bats were provided on MAGIC map (DEFRA, 2023) within 2km of the Site.

4.5.11 Building 1 (B1) consisted of a semi-modern, two storey house of brick, concrete and wooden construction with a pitched, tiled roof. The building is currently not in use by humans. Overall, the building was in moderate condition, although with the window lintels were in poor condition with a number of crevices between the lintels and brickwork present.

4.5.12 Internally, small sized roof voids were present within B1, divided into separate east and west sections. Roof was internally lined and with central beams and rafters present, creating a relatively cluttered flight space. Access for bat species into the loft void would be possible but limited to gaps leading into the roof void associated with the eaves.

4.5.13 A full description of B1 in relation to its suitability for roosting bats can be found in Appendix 8.

4.5.14 **B1 was assessed as having moderate suitability** for roosting bats owing to a number of potential roost features present, associated with lifted tiles, gaps around the lintels, and accessible loft voids.

4.5.15 Building 2 (B2) consisted of a converted garage of similar age and design to B1, but smaller in size and with a single storey (but with the loft converted into a bedroom). B2 was in use as a residential dwelling at the time of the survey. Much of the east aspect of the building is grown over by ivy, with the rest of the building appearing to be in moderate condition. A gap was present in the bargeboard of the western side of the building.

4.5.16 A small loft void was present above the area of loft converted into a living space. No light ingress or access points were observed.

4.5.17 A full description of B2 in relation to its suitability for roosting bats can be found in Appendix 8.

4.5.18 **B2 was assessed as having low suitability** for roosting bats owing to the potential roost features present likely only being utilised opportunistically by low numbers of bats.

4.5.19 A total of 7no. trees on Site have been assessed as having suitability for roosting bats. Details can be found in Table 6 below.



Table 4. Trees with bat potential

Tree No.	Suitability	Description of Roosting feature
T7 –Pedunculate oak	Low	Mature oak with very dense ivy on much of the main stem which could provide roosting feature for bats and may be concealing superficial features associated with the main stem
T8 –Pedunculate oak	Low	Mature oak with very dense ivy on much of the main stem which could provide roosting feature for bats and may be concealing superficial features associated with the main stem
T16 –Pedunculate oak	Low	Standing dead tree with lifted bark associated with a limb on the eastern side
G7 –Pedunculate oak	Moderate	Mature oak with a branch tear on an eastern facing branch providing a suitable roosting feature, alongside lifted bark
T19 –Pedunculate oak	Low	Mature oak with very limited live growth with lifted bark associated with limbs on the western and eastern sides
T20- Common ash	Moderate	Mature ash with major deadwood and numerous holes (some potentially created by woodpecker), potentially leading to a hollow stem on a northern branch
G10 –Pedunculate oak	Moderate	Mature oak with a branch tear on a northern facing branch providing a suitable roosting feature, alongside lifted bark

- 4.5.20 Further detail regarding the individual trees, including their locations, can be found in the Tree Schedule produced by Wharton (WNIC, 2023).
- 4.5.21 Under the Proposed Development T16 and T19 are to be felled, the remainder of the trees with suitability for roosting bats are to be retained.
- 4.5.22 There is risk of breach of section 9 of The Wildlife and Countryside Act 1981 (as amended) (HMSO, 1981) in relation to the killing or injury and/or destroying, obstructing access to or disturbing an animal while in, a structure used for shelter or protection. There is also risk of breach under section 3 of The Conservation of Habitats and Species Regulations 2019 (HMSO, 2019) in relation to killing, injury, disturbance and/or damaging or destroying a breeding or resting site of a protected species. This is in relation to the removal of B1, B2, T16 and T19 to facilitate the Proposed Development.
- 4.5.23 Further recommendations are included within Section 5 of this report.



Baseline and Assessment of Impacts and Effects - Commuting and Foraging Habitat

- 4.5.24 The biological records search returned 40 records of commuting and foraging bats from within 1km of the Site. Species comprise *Chiroptera* sp., =*Pipistrellus* sp., *Vespertilionidae* sp., common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), noctule (*Nyctalus noctula*), brown long-eared bat (*Plecotus auritus*) and Nathusius's pipistrelle (*Pipistrellus nathusii*). The closest record was of common pipistrelle recorded c.500m northwest of the Site at Willow Farm, Weeley Heath in 2016.
- 4.5.25 The Site is well connected to agricultural land to the south via hedgerows and lines of trees that extend along the eastern and western boundaries of the Site. However, the fragmented nature of these linear features within the local area, as well as the presence of the lit (via lampposts) Clacton Road immediately north of the Site, suggest that the Site is unlikely to be important for commuting bats. Botanical species diversity (which would suggest an abundance of invertebrate prey) is also relatively low throughout the Site.
- 4.5.26 Additionally, the majority of the lines of trees on the borders of the Site are to be retained under the Proposed Development, and so no significant effects (adverse or otherwise) to commuting or foraging bats are anticipated as a result of the Proposed Development.
- 4.5.27 There is the potential for low levels of impact to individual bats which may be utilising this habitat through an increase in temporary or permanent lighting levels. Precautionary measures have been recommended in Section 5 of this report to reduce the likelihood of potential impacts occurring to a negligible level.

GCN and Other Amphibians

Zol

- 4.5.28 The Zol for GCN is the Site and ponds within 250m of the Site.
- 4.5.29 The Zol for other amphibians is the Site only.

Baseline and Assessment of Impacts and Effects

- 4.5.30 The biological records search returned no records of amphibians from within 1km of the Site.
- 4.5.31 No European Protected Species Licensing Applications with regards to GCN were provided on MAGIC map (DEFRA, 2023) within 1km of the Site.
- 4.5.32 A garden pond (P1) was present within the Site boundary, and an additional six ponds were present within 250m of the Site (DEFRA, 2023).

Pond 1 (P1) falls within the Site boundary and consists of a reasonably sized, lined garden pond.

Pond 2 (P2) falls c.130m west of the Site and consists of what appears to be an attenuation pond adjacent to a housing estate.

Pond 3 (P3) falls c.160m south-east of the Site and consists of a large pond on an agricultural field margin.

Pond 4 (P4) falls c.70m north of the Site and consists of a small road-side pond.

Pond 5 (P5) falls c.90m north of the Site and consists of a large garden pond.

Pond 6 (P6) falls c.145m east of the Site and consists of a small pond within a small area of woodland.

Pond 7 (P7) falls c.205m east of the Site and consists of a large pond within a small area of



woodland.

4.5.33 A plan detailing pond locations can be seen at Appendix 5.

4.5.34 A Habitat Suitability Index (HSI) Assessment was undertaken of P1 during the Site visit. Ponds 2 –7 could not be accessed during the survey and so HSI assessments were not undertaken of these ponds.

P1 –Results of the Habitat Suitability Index for Great Crested Newts

Factor	Result	HSI Score
Location	A	1.00
Area	50m ²	0.20
Permanence	Never Dries	0.90
Water Quality	Poor	0.33
Shade	70%	0.80
Waterfowl	Absent	1.00
Fish	Absent	1.00
Pond Count	14	1.00
Terrestrial Habitat	Poor	0.33
Macrophytes	5%	0.35

4.5.35 The HSI for Pond 1 returned a score of 0.52 with **below average suitability** to support GCN.

4.5.36 The Site supports suitable habitat for GCN and other amphibians via areas of scrub, grassland with tall herb, and lines of trees. Given the presence of a pond on Site, and the presence of a number of ponds within 250m of the Site, there is potential for GCN and other amphibian species to be utilising these habitats on Site.

4.5.37 There is risk of breach of section 9 of The Wildlife and Countryside Act 1981 (as amended) (HMSO, 1981) in relation to the killing or injury and/or destroying, obstructing access to or disturbing an animal while in, a structure used for shelter or protection. There is also risk of breach under section 3 of The Conservation of Habitats and Species Regulations 2019 (HMSO, 2019) in relation to killing, injury, disturbance and/or damaging or destroying a breeding or resting site of a protected species.

4.5.38 Further recommendations are included within Section 5 of this report.

Hedgehog

Zol

4.5.39 The Zol for hedgehog is considered to be the Site only as this is the only likely area where impacts to hedgehog may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

4.5.40 The biological records search returned one record of hedgehog from within 1km of the Site recorded in 2009 c.200m northwest of the Site.

4.5.41 The Site supports suitable foraging and shelter habitat for hedgehog. It is unlikely that important populations of hedgehog are present at the Site due to the small-scale of the Site and relative isolation of the Site from the wider area by residential gardens and access roads. The Site is



therefore unlikely to be ecologically important for hedgehog.

- 4.5.42 The Proposed Development has the potential to adversely affect individual hedgehog that may use the Site via direct impacts from machinery or becoming trapped in excavations. This effect is unlikely to be significant, however precautionary measures have been recommended to reduce the likelihood of potential impacts occurring to a negligible level.

Invertebrates

Zol

- 4.5.43 The Zol for invertebrates is considered to be the Site only as this is the only likely area where impacts to invertebrates may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

- 4.5.44 The biological records search returned 310 records of protected or notable invertebrates from within 1km from the Site. A full list of species can be found in Appendix 7. The closest record was of white admiral butterfly (*Limenitis arthemis*) recorded c.300m north of the Site at Weeleyhall Wood in 2010.
- 4.5.45 The Site supports low botanical species diversity, and whilst common invertebrate species likely use the plant species present at the Site as food, larval and egg-laying plants, the likelihood of red data book species or other notable species being present at the Site is negligible.
- 4.5.46 The Site is therefore unlikely to be important for invertebrates.

Hazel dormouse

Zol

- 4.5.47 The Zol for hazel dormouse is considered to be the Site only as this is the only likely area where impacts to hazel dormouse may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

- 4.5.48 The biological records search returned one historical record of hazel dormouse (*Muscardinus avellanarius*) from within 1km of the Site recorded in 2003 c.800m north of the Site.
- 4.5.49 No European Protected Species Licensing Applications with regards to hazel dormouse were provided on MAGIC map (DEFRA, 2023) within 1km of the Site.
- 4.5.50 While the Site does have small areas scrub and lines of trees within the garden and around the periphery of the Site, it is relatively isolated and has a lack of connectivity with suitable habitat for hazel dormice, including woodland habitat. Therefore, the species is highly unlikely to be present at the Site.

Reptiles

Zol

- 4.5.51 The Zol for reptiles is considered to be the Site only as this is the only likely area where impacts to reptiles may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

- 4.5.52 The biological records search returned two records of reptiles from within 1km of the Site. Both records were of common lizard (*Zootoca vivipara*) and the closest record was c.600m northwest of the Site in 2016.
- 4.5.53 Whilst the Site supports some suitable habitat for reptiles, this is limited to the grassland with tall ruderal and scrub habitat at the southern end of the Site. Due to the small extent of suitable reptile habitat (0.27ha) it is unlikely the Site is ecologically important for reptiles.



- 4.5.54 While it is unlikely to have a significant effect on populations, the construction phase of the Proposed Development may have an adverse effect on individual reptiles utilising the Site.
- 4.5.55 Production of a method statement for common reptile species is required in order to outline methods to avoid the killing and/or injury of individual reptiles during the construction phase of the Proposed Development.

Wild birds

Zol

- 4.5.56 The Zol for wild birds is the Site only, as this is the only area where impacts to wild birds may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

- 4.5.57 The biological records search returned over 340 records of protected and notable bird species from within 1km of the Site. A list of these species can be found in Appendix 7. The closest record was of hobby (*Falco Subbuteo*) recorded c.700m southwest of the Site in 2013.
- 4.5.58 The Site supports suitable nesting habitat for wild birds via buildings, scrub and trees. Old bird nests were observed in the boundary trees at the south of the Site during the field survey, as well as within the western loft void of B1.
- 4.5.59 The Site is unlikely to support important populations of wintering, breeding or migratory bird species due to the type of habitats present, and the relatively small size of the Site.
- 4.5.60 There is a risk of a breach of Section 1 of the Wildlife and Countryside Act 1981 (as amended) (HMSO, 1981) in relation to damage to/destruction of bird nests and their eggs if mixed scrub vegetation removal or demolition of B1 is undertaken during the nesting bird season. Mitigation measures have been proposed to reduce the risk of a breach of legislation to a negligible level.
- 4.5.61 It is unlikely that the Proposed Development will result in significant adverse ecological effects to wild birds, however the potential for a breach in legislation will require mitigation which is detailed within this report.

Protected plants

Zol

- 4.5.62 The Zol for protected plants is the Site only, as this is the only area where impacts to protected plants may occur as a result of the Proposed Development.

Baseline and Assessment of Impacts and Effects

- 4.5.63 The biological records search returned a total of 67 records of protected or notable plant species from within 1km of the Site. A full list of species is provided in Appendix 7.
- 4.5.64 Due to the habitat types present within the Site it is unlikely to support protected plant species. No protected or notable plant species were observed at the Site during the field survey.
- 4.5.65 Protected plant species are not considered to be a constraint to the Proposed Development.

Invasive Species

- 4.5.66 The biological records search returned 19 records of invasive species from within 1km of the Site. Species comprise Nuttall's waterweed (*Elodea nuttallii*), giant hogweed (*Heracleum mantegazzianum*), Spanish bluebell (*Hyacinthoides hispanica*), floating pennywort (*Hydrocotyle ranunculoides*), least duckweed (*Lemna minuta*), winter heliotrope (*Petasites fragrans*), evergreen oak (*Quercus ilex*), false-acacia (*Robinia pseudoacacia*) and lesser bulrush (*Typha angustifolia*).
- 4.5.67 No invasive species as appearing on Schedule 9 of the Wildlife and Countryside Act 1981 (HMSO,

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1981). Invasive species are not considered to be a constraint to the Proposed Development.



5. Ecological Constraints and Opportunities

5.1 Key Constraints to Design

- 5.1.1 B1 has moderate suitability to support roosting bats.
- 5.1.2 B2 has low suitability to support roosting bats.
- 5.1.3 The site contains suitable aquatic (in the form of P1) and terrestrial habitat to support GCN.

5.2 Further Surveys Required

Bats

- 5.2.1 B1 has moderate suitability to support roosting bats and as such must be subject to a minimum of two presence/likely absence bat surveys each, to comprise dusk emergence surveys required between May- September, spaced at least 2 weeks apart with one survey taking place between May and August.
- 5.2.2 B2 has low potential to support roosting bats and as such must be subject to a minimum of one presence/likely absence bat survey each, to comprise a dusk emergence survey.
- 5.2.3 As per the Bat Conservation Trust interim guidance (The Bat Conservation Trust, 2022), surveys should be supplemented by the use of night vision aids such as infrared cameras.

GCN

- 5.2.4 P1 has below average suitability to support GCN and as such must be subject to a presence/likely absence survey, to comprise an eDNA survey which can be undertaken between mid-April and July.
- 5.2.5 Where accessibility can be organised with the relevant landowners, HSI assessments of P2 –P7 should be undertaken to determine their suitability to support GCN.
- 5.2.6 Further surveys may be required if the eDNA survey shows presence of GCN within P1 comprising six surveys, between mid-March and June, of the pond to determine population size class.
- 5.2.7 Alternatively, the requirement for further surveys for GCN may be avoided by progressing with a District Level Licence. The scheme is run by Natural England within the county of Essex. Following an assessment by Natural England a compensation payment contribution will be calculated and must be paid in order to achieve the Licence.
- 5.2.8 The Site falls within an amber risk zone for GCN (Natural England, 2023), and so is suitable for district level licensing.
- 5.2.9 Appropriate measures for avoidance, mitigation and/or compensation should be provided, if necessary, once the surveys/district level licence assessment have been carried out.

5.3 Other Mitigation Requirements

Bats

- 5.3.1 Whilst the Site is unlikely to be important for foraging or commuting bats, any new lighting (permanent or temporary) as part of the Proposed Development must be kept to a minimum and directed away from the peripheries of the Site to preclude the likelihood of disturbance to bats that may utilise the Site occasionally. A wildlife sensitive lighting scheme should be designed in accordance with the Bat Conservation Trust and Institute of Lighting Professionals guidance (BCT, ILP &, 2018).
- 5.3.2 T16 and T19 have low suitability for roosting bats and should therefore be felled using a soft felling method.



- 5.3.3 When roofing felt is to be installed in a roof of a new building, only bituminous roofing felt that does not contain polypropylene/polyethylene filaments may be used. An example is bitumen felt type 1F, which is hessian reinforced.

Hedgehog

- 5.3.4 It is possible that individual hedgehog may be impacted by Site clearance and excavation works (injury/death and trapping respectively). As a precautionary measure, should mixed scrub be required to be cleared at the Site, this must be checked for hedgehogs immediately prior to removal to reduce the likelihood of adverse effects to this species.
- 5.3.5 Any open excavations which cannot feasibly be infilled overnight must also be covered with a solid sheet material (e.g., plywood) to prevent fauna from falling into excavations and becoming trapped. Should this not be possible, a shallow slope must be dug into the excavation prior to it being left overnight to allow an escape route for any fauna that may fall in. All excavations must be checked for fauna in the morning prior to works commencing.

Reptiles

- 5.3.6 Production of a method statement for common reptile species is required in order to outline methods to avoid the killing and/or injury of individual reptiles during the construction phase of the Proposed Development.

Wild Birds

- 5.3.7 Where the removal of the mixed scrub, trees, or B1 is required on Site to facilitate the Proposed Development, it should avoid the nesting bird season (March to September inclusive) or be checked by a suitably qualified ecologist immediately prior to clearance to check for nesting birds if undertaken during the nesting season.
- 5.3.8 The netting of any suitable bird nesting habitat should be prohibited (CIEEM & RSPB, 2019).

5.4 Opportunities for Enhancement

- 5.4.1 As per Policy SP 7 of the Tendring Local Plan (Tendring District Council, 2022) 'all new developments must incorporate biodiversity creation and enhancement measures.'
- 5.4.2 The Proposed Development should include integrated bat boxes and/or bat tiles into the brickwork of any new proposed buildings on Site. The bat boxes should be installed a minimum of 4m above ground level, preferably on south- to east-facing elevations.
- 5.4.3 The Proposed Development should also include bird boxes. All of which must be positioned on north-facing aspects, out of direct sunlight (to avoid overheating eggs and chicks) and at a height of c.4m (to avoid predation by domestic cats).
- 5.4.4 Hedgehog shelters should be provided at the Site as part of the Proposed Development, to enhance the Site for sheltering hedgehogs. These should be placed within vegetation and away from roads.
- 5.4.5 The landscaping design for the Proposed Development should include the planting of a wide-range of native species, including nectar and pollen-rich species, to attract invertebrate prey for a variety of animals in the local area, which will enhance the Site's biodiversity. These can be chosen from the RHS: Perfect for Pollinators List (RHS, 2019). Of note, the section of modified grassland on Site could be enhanced through the removal of undesirable, fast-growing species such as nettle and perennial ryegrass, and promoting the growth of species rich flowering plants, such as through the use of yellow rattle (*Rhinanthus minor*).
- 5.4.6 Specific details on the numbers of bat and bird boxes and hedgehog shelters will be provided once robust details of the Proposed Development are available, to ensure the enhancements

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suggested are appropriate.



6. Conclusion

- 6.1.1 Further surveys for protected species are considered to be necessary in respect of the Proposed Development and subsequent planning application. These include;
 - Presence/likely absence surveys for bats on B1 and B2
 - eDNA survey for GCN in P1.
- 6.1.2 Alternatively, the requirement for further surveys for GCN may be avoided by progressing with a District Level Licence.
- 6.1.3 Avoidance and good practice construction measures for bats, hedgehogs, reptiles and nesting birds are necessary to prevent harm to these species and potential breach of legislation.
- 6.1.4 Enhancement measures have been provided for bats, birds and hedgehogs, as well as planting recommendations however, specific recommendations will be detailed once robust details of the Proposed Development are available.



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Appendix 1 –Site Location Plan (Google Earth Pro, 2023)



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Appendix 2 – UK Habitat Classification Plan



Site Boundary

Habitats

g4 - modified grassland

w1g6 - line of trees

h3 - dense scrub

u1b5 - buildings

u1b6 - other developed land



Date: 26/07/2023

Client: LNT Care Developers

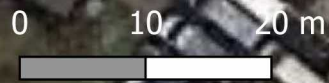
Project: 1719

Title: UK Habitat Plan

Map file reference	Plan No.
230726 1719 ECO V1	E001

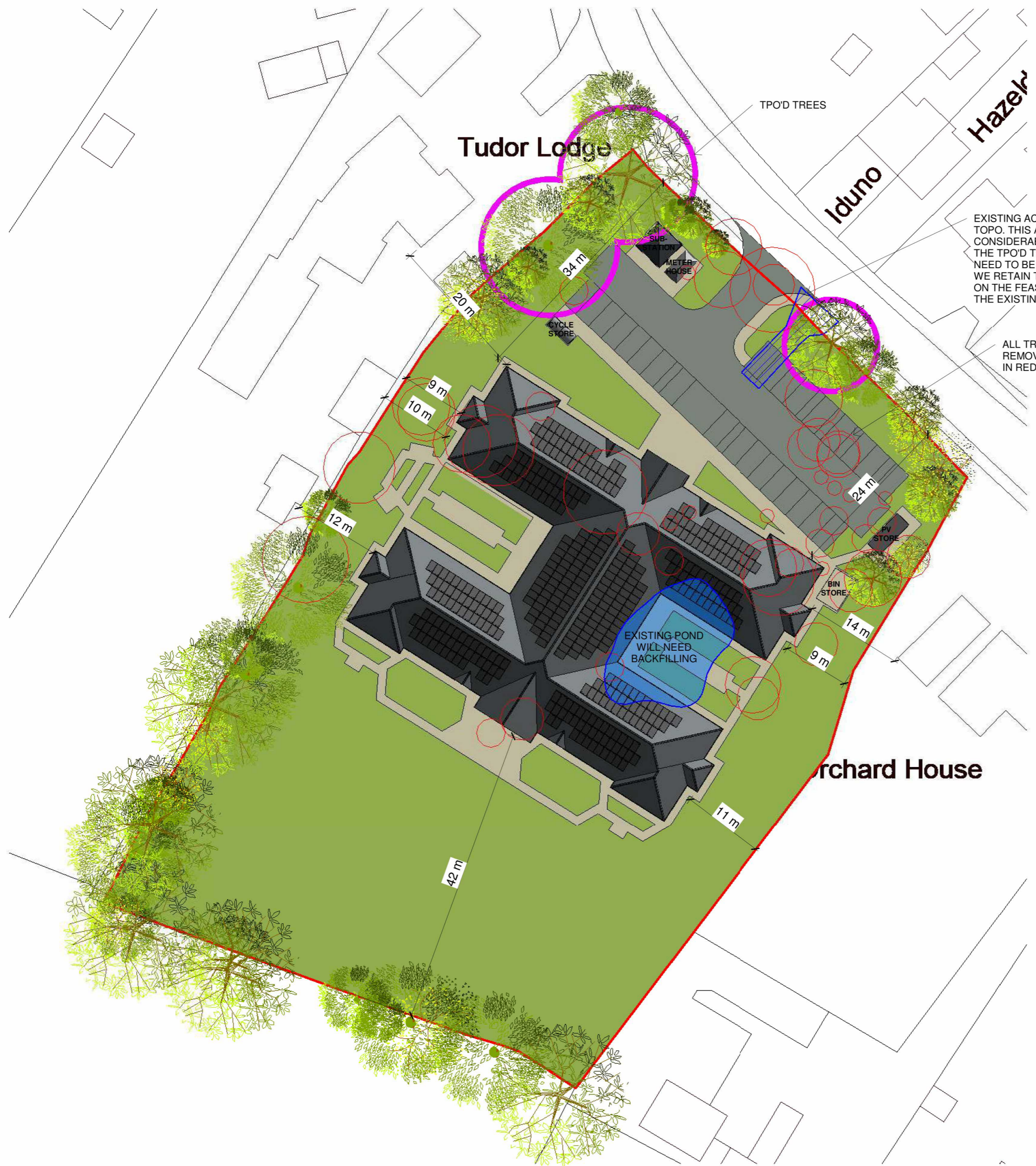
WHARTON
Natural Infrastructure Consultants

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Appendix 3 –The Proposed Development Layout



EXISTING ACCESS AS SHOWN ON TOPO. THIS ACCESS IS QUITE CONSIDERABLY WITHIN THE RPA OF THE TPOD TREE. A DISCUSSION WILL NEED TO BE HAD AS TO WHETHER WE RETAIN THE ACCESS AS SHOWN ON THE FEASIBILITY OR REVERT TO THE EXISTING ACCESS.

ALL TREES TO BE REMOVED SHOWN IN RED

FEAS 02
1 : 500

REV	DATE	DETAILS OF AMENDMENTS	DRAWN
A	26/07/2023	ACCESS POSITION UPDATED, CYCLE STORE & MOTORCYCLE PARKING SPACE ADDED.	L-JL
REVISIONS			



LNT CONSTRUCTION LTD
UNIT 2, HELIOS 47
ISABELLA ROAD
GARFORTH
LS25 2DY

CLIENT
LNT CARE DEVELOPMENTS

SITE
CLACTON ROAD
WEELEY HEATH
CO16 9EP

TITLE
FEASIBILITY 02

SCALE @A2	1 : 500	DATE	26/07/2023 12:29:00
DRAWN	L-JL	DWG NO.	CO16 9EP F-02-A
DRAWING STATUS			

FEASIBILITY

CHECKED BY	DATE
APPROVED BY	DATE



Appendix 4 - Local Planning Policy Excerpts (Tendring District Council, 2022)

7.4 Biodiversity and Geodiversity

7.4.1 Tendring District includes a wide range of habitats, including (in part) the Stour, Orwell and Colne Estuaries and Hamford Water which are recognised as wetlands of international importance for endangered and migrating birds. Hamford Water is a designated Special Area of Conservation for Fisher's Estuarine Moth. At the international level, the Ramsar Convention requires the conservation and wise use of wetlands, as a contribution towards achieving sustainable development. European legislation requires the establishment of Special Protection Areas (SPAs) for birds, under the Birds Directive, and Special Areas of Conservation (SACs) for other species and habitats, under the Habitats Directive. SPAs and SACs together form 'Natura 2000' sites, which themselves create a European-wide network. The Conservation of Habitats and Species Regulations 2010 (the 'Habitats Regulations') apply both in the terrestrial environment and territorial waters out to 12 nautical miles. Marine Protected Areas (MPA) exist offshore beyond 12 nautical miles. The Blackwater, Crouch, Roach and Colne Marine Conservation Zone includes the Clacton Cliffs and foreshore, a geological feature of international importance.

7.4.2 It is necessary to apply the 'precautionary principle' to new development, as a matter of law, and assess new projects or plans for any impacts upon any of the above sites – both alone and in combination. Proposals and plans with the potential to have a significant impact upon such sites will need to be supported by a Habitats Regulation Assessment (HRA) to provide the information necessary for the decision makers to establish the likelihood and nature of impacts before a decision is taken. If significant impacts are identified, an 'Appropriate Assessment' may be necessary to assess whether the proposals would adversely affect the integrity of a site, having



regard to its conservation objectives. The Council will only grant planning permission where there would be no adverse effects on biodiversity (including any mitigation), unless there is considered to be an overriding public interest (such as the port expansion at Bathside Bay, Harwich) – in which case a compensatory habitat must be provided. The Essex Coast Recreational disturbance Avoidance and Mitigation Strategy (RAMS) Strategy Document was adopted in 2019. The Essex Coast RAMS aims to deliver the mitigation necessary to avoid adverse effects on integrity from the in-combination impacts of residential development in Essex. The Essex Coast RAMS identifies a detailed programme of strategic avoidance and mitigation measures which are to be funded by developer contributions from all residential development within the Zones of Influence.

- 7.4.3** Sites of Special Scientific Interest (SSSI) are protected under the Wildlife and Countryside Act 1981, as amended, and the Countryside and Rights of Way Act 2000 and are shown on the Policies Map.
- 7.4.4** The Colne Estuary and Hamford Water are designated as National Nature Reserves (NNR). At the local level, the Council has worked with the Essex Wildlife Trust to identify over 100 'Local Wildlife Sites' (LoWS) within the District, along with 'Special Roadside Verges', managed by Essex County Council specifically to conserve rare plant species and support a wider variety of plants. This benefits local fauna, providing food and shelter and can help to create 'wildlife corridors', allowing species to move between different sites. LoWS are not protected by law but, being worthy of conservation, are protected by this Local Plan, along with irreplaceable habitats, including unimproved grasslands and veteran trees.
- 7.4.5** All areas designated for their value to biodiversity and/or geodiversity are shown on the Policies Maps. A site does not have to be designated, however, to have importance to nature conservation. All new development proposals should have regard to a 'mitigation hierarchy' approach, which requires consideration to be given: firstly, to avoiding environmental harm; then mitigating for any adverse impacts; and then, as a last resort; compensating for residual impacts alongside the need to seek environmental enhancement and a 'net gain' in biodiversity in line with latest Natural England advice. The need to consider alternative options, particularly options that are less damaging to the environment, is relevant to all these steps, as options can be either strategic or more detailed in nature. Where a proposed development might harm biodiversity on the site, an Ecological Appraisal will be required to be undertaken and the potential for harm should be considered and addressed in the application. Appraisals should be undertaken in accordance with nationally recognised guidance, by a suitably qualified ecologist.
- 7.4.6** Conservation work now considers whole landscapes as the way to conserve biodiversity, and the Council is working with Essex County Council, Essex Wildlife Trust and other partners on projects to benefit habitats and species across Essex. The Biodiversity Framework and Living Landscapes Project seek to improve the wider countryside for wildlife, rather than just concentrating on small nature reserves, and this will bring benefits for Priority Habitats and Priority Species.

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Appendix 5 - Pond Location Plan



- 250m Buffer
- Site Boundary
- Ponds



Date: 26/07/2023

Client: LNT Care Developers

Project: 1719

Title: UK Habitat Plan

Map file reference	Plan No.
230726 1719 POND V1	E001

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0 1020 m





Appendix 6 - Site Photographs



Figure 1. Vegetated Garden



Figure 2. Eastern Roof void of B1



Figure 3. Western roof void of B1 showing old pigeon nest



Figure 4. Roof void of B2



Figure 5. Gap in eaves of B1



Figure 6. North-western aspect of B1

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Figure 7. South-eastern aspect of B1



Figure 8. Northern aspect of B2



Figure 9. Gap in bargeboard on B2



Figure 10. T7



Figure 11. T8



Figure 12. T16

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Figure 13. Modified grassland with tall herb



Figure 14. G7



Figure 15. T19



Figure 16. T20



Figure 17. G10



Figure 18. P1

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Figure 19. Orchard



Appendix 7 – Biological Record Species List (EFC, 2023)

Invertebrates

Mycetophagus piceus,
Notiophilus quadripunctatus,
Ocypus nitens, green
hairstreak (*Callophrys rubi*),
small heath (*Coenonympha
pamphilus*),
white admiral (*Limenitis
camilla*),

white-letter hairstreak
(*Satyrium w-album*),
buff ermine (*Spilosoma lutea*),
cinnabar (*Tyria jacobaeae*),
dot moth (*Melanchra
persicariae*),
dusky thorn (*Ennomos
fuscantaria*),

ghost moth (*Hepialus humuli*),
knot grass (*Acronicta rumicis*),
rosy rustic (*Hydraecia
micacea*),
true fly (*Myopites
inulaedyssentericae*)

Birds

barn owl (*Tyto alba*),
cetti's warbler (*Cettia cetti*),
fieldfare (*Turdus pilaris*),
greylag goose (*Anser anser*),

hen harrier (*Circus cyaneus*),
marsh harrier (*Circus
aeruginosus*),
pintail (*Anas acuta*),
hobby (*Falco subbuteo*),

king fisher (*Alcedo atthis*),
peregrine (*Falco peregrinus*),
red kite (*Milvus milvus*),
redwing (*Turdus illacus*)

Plants

alder (*Alnus glutinosa*),
black spleenwort (*Asplenium
adiantum-nigrum*),
bluebell (*Hyacinthoides non-
scripta*),
butcher's-broom (*Ruscus
aculeatus*),
common vetch (*Vicia sativa
subsp. segetalis*),
corky-fruited water-dropwort
(*Oenanthe pimpinelloides*),
corn mint (*Mentha arvensis*),
corn spurrey (*Spergula
arvensis*),
downy birch (*Betula
pubescens* subsp.
pubescens),

garden angelia (*Angelica
archangelica*),
groundsel (*Senecio vulgaris*),
heath speedwell (*Veronica
officinalis*),
lady-fern (*Athyrium filix-
femina*),
lesser spearwort (*Ranunculus
flammula*),
mousetail (*Myosurus minimus*),
narrow buckler-fern
(*Dryopteris carthusiana*),
opposite-leaved golden-
saxifrage (*Chrysosplenium
oppositifolium*),

ragged-robin (*Silene flos-
cucull*),
round-leaved crane's-bill
(*Geranium rotundifolium*),
scots pine (*Pinus sylvestris*),
short-fruited willowherb
(*Epilobium obscurum*), slender
st john's-wort (*Hypericum
pulchrum*),
water avens (*Geum rivale*),
water-purslane (*Lythrum
portula*),
white ramping-fumitory
(*Fumaria capreolata*),
wood-sorrel (*Oxalis
acetosella*)
yew (*Taxus baccata*).



Appendix 8 –Description of Buildings in Relation to Suitability for Roosting Bats

Table 5. Description of B1 in relation to its suitability to support roosting bats

Feature	Present During Inspection?	Notes
7. Lifted/ warped/ missing tiles at roof level	Yes	Roof tiles generally in good condition but with some slightly lifted tiles providing crevices offering suitability for roosting bats
8. Missing mortar (in brickwork)	No	Mortar in good condition
9. Gaps around lintels (windows and doors)	Yes	Window lintels in poor condition with number of crevice type gaps offering suitability for roosting bats
10. Gaps at soffits/ eaves/ bargeboard	Yes	Gaps at eaves provide access into the loft void
Internal Assessment		
Feature	Present During Inspection?	Notes
11. Light ingress to roof void?	Yes	Light ingress into the loft void through gaps a eaves
12. Roof lining	Yes	Felt lining present
13. Roof timbers	Yes	Rafters and central beam present
14. Small/ medium/ large void	Small - medium	Both loft spaces at around 1.5 – 2m tall, around 2 –3m in width and around 4m in length
15. Cobwebbing	Yes	Extensive cobwebbing present
16. Temperature (°C)	Poorly insulated	Loft spaces likely fluctuate with external temperature. Loft spaces were very warm during the survey, much higher than the external temperature of 16°C
17. Flight space	Cluttered	Presence of rafters and beams within the voic create a cluttered flight space
Evidence of bats found?		None
Suitability of building		Moderate



Table 6. Description of B2 in relation to its suitability to support roosting bats

External Assessment		
Feature	Present During Inspection?	Notes
Lifted/ warped/ missing tiles at roof level	No	No lifted/warped/missing tiles were observed, although the cover of ivy over much of the tiles must be noted
Missing mortar (in brickwork)	No	Mortar in good condition
Gaps around lintels (windows and doors)	No	No gaps observed
Gaps at soffits/ eaves/ bargeboard	Yes	Gap observed between brick and bargeboard on western side of the building, providing crevices with suitability for roosting bats. It could not be determined if the gap provided internal access into the building, although no light ingress was noted within the loft void
Internal Assessment		
Feature	Present During Inspection?	Notes
Light ingress to roof void?	No	No light ingress observed
Roof lining	Yes	Felt lining present
Roof timbers	Yes	Rafters and central beam present
Small/ medium/ large void	Small	Loft void around 0.5m tall, 1m wide and 5m in length
Cobwebbing	Yes	Extensive cobwebbing present
Temperature (°C)	Poorly insulated	The loft space likely fluctuates with external temperature. The loft space was very warm during the survey, much higher than the external temperature of 16°C
Flight space	Relatively uncluttered	Flight space was relatively uncluttered, although the small size of the void must be noted
Evidence of bats found?		None
Suitability of building		Low

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