

Low Impact EcIA:

Bushes, Magdalen Laver, Essex

On behalf of:

Mr. Ellice

Prepared by:

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Report version control:

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Summary

Bushes, Magdalen Laver (the site) was visited on 9th June 2021 in response to a proposal for a small-scale development.

Designated sites and priority habitats

- The site is not within the Zone of Influence for any designated site and no mitigation is required.
- The proposal will not impact Priority Habitats and no mitigation is required.

Legally protected species

- The outbuildings were subject to Preliminary Roost Assessment (PRA) for bats which included an internal
 and external inspection. No evidence of roosting bats was found and there were no observable gaps on
 the exterior that could reasonably allow bat access. The outbuildings have "negligible" bat roost
 suitability and require no further survey.
- The outbuildings, trees and hedgerows are likely to attract nesting birds. Nesting birds are legally protected from direct harm, therefore any work that could impact an active nest will take place between September-February inclusive, or following a negative active nest check by a qualified ecologist.

Enhancement opportunities

There is scope to provide new planting on the site and habitat boxes. These measures would contribute to Government aims under Paragraph 170(d) of the National Planning Policy Framework 2019 and Local Plan policies which encourage all development to incorporate enhancements, where possible.

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1.0 Introduction

Personnel

1.1 This report has been prepared by Gemma Holmes; Consultant Ecologist at Hybrid Ecology Ltd. Gemma is a qualified ecologist with 13 years' experience in professional survey work and is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Gemma holds licences to survey for great crested newt and bats in the UK (Licence numbers 2015-19096-CLS-CLS and 2016-27305-CLS-CLS respectively).

Brief

1.2 Mr. Ellice instructed Hybrid Ecology to produce a Low Impact EcIA for Bushes, Wind Hill, Magdalen Laver (grid reference: TL5257007894) in relation to a proposed development. A Location Plan is in Figure 1 and Survey Boundary is in Figure 2. The plans involve part demolition of outbuildings, a new tennis court and construction of a menage to the east. A proposed site plan is included as Appendix 1.

Aims

1.3 This Low Impact EcIA has been produced to advise the client/developer and relevant members of the project team as to the key ecological constraints and opportunities associated with this project and any necessary mitigation requirements to ensure legal obligations in respect of protected species, designated sites and habitats are met.

Limitations

- 1.4 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. Wildlife is transient and mobile, and results of a survey can reasonably vary from one day to the next or across the seasons.
- 1.5 The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat. However, it should not be taken as providing a full and definitive survey of any protected species/group.
- 1.6 Biological records can be patchy, and some areas/species are under recorded, therefore absence of records for a species or group does not necessarily mean that there is a lack of ecological interest. Equally, the presence of records does not necessarily mean the habitat is still suitable for the species/group in question.
- 1.7 In accordance with CIEEM Guidelines, this report is valid for 18 months, after which point habitats are reasonably expected to have changed to warrant a re-survey.

Figure 1. Location plan



Figure 2. Survey boundary



2.0 Planning Policy and Legislation

National Planning Policy Framework (2019): Conserving and Enhancing the Natural Environment

Please note the below policies have been taken directly from the National Planning Policy Framework, which can be found here: National Planning Policy Framework - GOV.UK (www.gov.uk)

Paragraph 170

- 2.1 Planning policies and decisions should contribute to and enhance the natural and local environment by:
 - Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - Preventing new and existing development from contributing to, being put at unacceptable risk
 from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or
 land instability. Development should, wherever possible, help to improve local environmental
 conditions such as air and water quality, taking into account relevant information such as river
 basin management plans;

Paragraph 175 (d)

2.2 Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Legislation: Protection of Designated Sites, Habitats and Species

Please note this section is a summary of legislation only and should not be taken as a definitive interpretation of any law. UK wildlife legislation can be found here: Legislation.gov.uk

Designated sites

RAMSAR

2.3 Ramsar sites are designated under the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Wetlands are designated, protected and promoted in order to stem the progressive encroachment on and loss of wetlands, which are broadly defined to include marsh, fen, peatland and water.

Special Areas of Conservation (SAC)

2.4 Special Areas of Conservation are sites designated by Member States under the EC Habitats Directive. The aim is to establish a network of important high quality conservation sites that will make a significant contribution to conserving habitats and species considered to be most in need of conservation at an international level.

Special Protection Areas (SPA)

2.5 Special Protection Areas are designated under the EC Birds Directive, to conserve the habitat of certain rare or vulnerable birds and regularly occurring migratory birds. Any significant pollution or disturbance to or deterioration of these sites has to be avoided.

National Nature Reserves (NNR)

2.6 National Nature Reserves are statutory reserves established for the nation under the Wildlife and Countryside Act, 1981 (as amended). NNRs may be owned by relevant national body (e.g. Natural England in England) or established by agreement; a few are owned and managed by non-statutory bodies. NNRs cover a selection of the most important sites for nature conservation in the UK.

Sites of Special Scientific Interest (SSSI)

2.7 Sites of Special Scientific Interest are areas notified under the Wildlife and Countryside Act, 1981 (as amended), as being of 'special interest for nature conservation'. They represent the finest sites for wildlife and natural features in Great Britain supporting many characteristic, rare and endangered species, habitats and natural features. Notification as a SSSI is primarily a legal mechanism organised by Natural England and selected according to specific criteria.

Local Nature Reserves (LNR)

2.8 Land owned, leased or managed by Local Authorities and designated under the National Parks and Access to the Countryside Act. A site of some nature conservation value managed for educational objectives - no need for SSSI status. Some reserves are managed by a non-statutory body. Local authorities have the power to pass bylaws controlling (e.g.) access, special protection measures.

Local Wildlife Site / Wildlife Sites

2.9 Local Wildlife Sites (LoWS) are non-statutory sites designated at a county level as being of conservation importance and often recognised in Local authority development plans. The aim of this identification is to protect such sites from land management changes, which may lessen their nature conservation interest, and to encourage sensitive management to maintain and enhance their importance. Although LoWSs have no statutory protection they need to be considered in the planning process and impacts should be avoided wherever possible.

Regionally Important Geological / Geomorphological Site (RIGS)

2.10 Regionally Important Geological/Geomorphological Sites are non-statutory earth science sites. The RIGS networks are locally based voluntary groups drawing on both professional and interest groups identifying sites using a methodical and rational approach. RIGS are analogous to non-statutory biological sites - they are not a second tier but sites of regional or local importance in their own right.

Legally protected species

- 2.11 The Conservation of Habitats and Species Regulations (2019, EU Exit) affords protection to various species/species groups including bats (all species), great crested newt, otter and dormouse.
- 2.12 The Wildlife and Countryside Act 1981 (as amended) is the main source of legal protection for wildlife in England and was strengthened by the Countryside and Rights of Way Act 2000. Species protection is provided under Schedules 1, 5, 6 and 8 to species including bat, great crested newt, water vole, otter and nesting birds. Badgers are protected separately under the Protection of Badgers Act (1992).

Species and Habitats of Principal Importance in England (or Priority habitats/species)

2.13 The Natural Environment and Rural Communities Act (2006) places a duty on Local Planning Authorities to conserve and enhance certain habitats and species. The species that have been designated to be of "principal importance for the purpose of conserving biodiversity" are those that are most threatened, in greatest decline, or where the UK holds a significant proportion of the world's total population. They mainly derive from lists originally drawn up for the UK Biodiversity Action Plan (UK BAP). Similarly, the list of habitats of principal importance in England also derive from the UK Biodiversity Action Plan.

3.0 Methodology: Desktop Study

Mapping exercise

- 3.1 Aerial imagery (Google Earth Pro, 2021) was used to examine the landscape context of the site in relation to significant ecological assets such as woodland, established hedgerows, grassland and any naturalised features that would allow wildlife use and dispersal.
- 3.2 Multi-Agency Geographical Information for the Countryside (MAGIC) was used to:
 - Determine the proximity to international, national and locally designated sites.
 - Determine whether the site falls within the Zone of Influence of Essex coastal designated sites, specifically to establish whether any financial contribution is needed in compliance with the Essex Coast Recreational Avoidance and Mitigation Strategy (Essex Coast RAMS).
 - Identify any areas of land mapped by Natural England as Priority Habitat within 250 metres of the site.

Biological Records Search

3.3 Records for protected and notable species within 2km were ordered from the Essex Field Club (EFC) to inform this assessment.

4.0 Methodology: Habitats and Species

Phase 1 Habitat Survey

4.1 An Extended Phase 1 Habitat Survey was carried out on 9th June 2021 by ecologist Gemma Holmes (BSc Hons ACIEEM). The weather conditions were conducive to surveying, with good visibility, no wind and no rain. The survey was undertaken in accordance with the Handbook for Phase 1 Habitat Survey (JNCC 2010).

Protected/priority species scoping

- 4.2 The survey also included an assessment of the site's potential to support any legally protected species; or Species and Habitats of Principal Importance, as identified by Section 41 of the Natural Environment and Rural Communities Act (2006).
- 4.3 Where best practice guidelines exist, these have been used to assess the likelihood that individual species will be present, for example Bat Surveys: Good Practice Guidelines (BCT 2016) and Habitat Suitability Index for Great Crested Newt (Oldham et al, 2000).
- 4.4 The outbuildings were subject to Preliminary Roost Assessment which involved an internal and external inspection looking for potential access points (e.g. gaps under roof tiles) and any field signs (e.g. droppings) that may indicate a roost. The buildings were assigned a "potential roost suitability" in accordance with Table 4.1 of the BCT (2016) Guidelines, shown below in Figure 3.

Figure 3. Guidelines for assessing potential suitability of development sites for bats (BCT, 2016)

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure 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 larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernations). 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.	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 by other habitat.
		Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ² and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commutin 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	A structure 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 ^a and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to b 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 be foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland.
		Site is close to and connected to known roosts.

Evaluation criteria

4.5 Ecological features (designated sites, habitats and species) were evaluated where possible in relation to a geographical context (i.e. International, National, Regional, Metropolitan, County, District, Borough, Local and Site), in accordance with CIEEM Ecological Impact Assessment Guidelines (2016). Criteria include designations, quality of habitat in relation to the site context, ability to support notable assemblages of species, contribution to habitat connectivity, dispersal opportunities or providing intrinsic ecological value.

5.0 Results: Desktop Study

Landscape context

The site is in a rural position to the south-east of Magdalen Laver, a small village in the Epping District of Essex. The immediate landscape is arable, with small farms and low density residential development. There is a series of ponds and grazing to the west of Moreton, approximately 700 metres to the southeast of the site.

Designated sites and Priority Habitats

- 5.2 The site is not the subject of a conservation designation see Appendix 2. There are no designated sites within 2km. The site is not within the scope of the Essex Coast RAMS.
- 5.3 There is no Priority Habitat within 250 metres.

<u>Sites evaluation</u>: No predicted impacts to designated sites or priority habitats. No mitigation required.

6.0 Results: Phase 1 Habitat Survey

Photographs from the site visit are provided in Appendix 3. For full details on legally protected species, please refer to Section 7. A plan showing target notes is provided in Figure 4. Latin names appear in the text once.

6.1 The site includes a stable block, annexe, potting shed, conservatory and courtyard. Surrounding habitats include amenity lawn, a moat, small orchard, hedgerows and grazing.

Buildings/hard standing

- 6.2 The stable block is constructed from brick/breeze block with a pitched slate tiled roof. The stables are used for storage and a gym. Weatherboards clad the northern gable end. All roof/ridge tiles and external cladding is intact and well-sealed. All timber window frames and brick sills are intact/sealed. The stables are centred around a hard standing courtyard.
- 6.3 There is a small annexe to the north-west of the stables which has brick/rendered walls and a pitched slate roof, no loft void. Windows and door frames are PVC. The building is intact and well-sealed.
- 6.4 The potting shed and conservatory are to the north of the stable block. Both buildings are proposed for demolition. They comprise brick walls, an asymmetric felt roof and timber fascias which are well-sealed to external brickwork.
- 6.5 To the east of the potting shed is a small weatherboarded outbuilding with an asymmetric felt roof.

Orchard

To the north-east of the buildings is a small orchard with several apple and pear trees. Trees are 80-90 years old and several are in decline indicating limited useful life expectancy.

Standing water

6.7 There is a moat surrounding the main farm house. The moat contains a large fish population and consequently contains negligible aquatic vegetation. Several fish were visible during the survey. Mature hawthorn trees overhang from the west. Self-seeded ash and willowherb are present on the banks.

Individual trees

6.8 To the south of the moat are several hawthorn and a walnut tree. To the south of the site there is an individual ash tree.

Amenity grassland

6.9 Mown amenity grassland exists to the east of the stable block and extends around to the east of the site onto a small paddock.

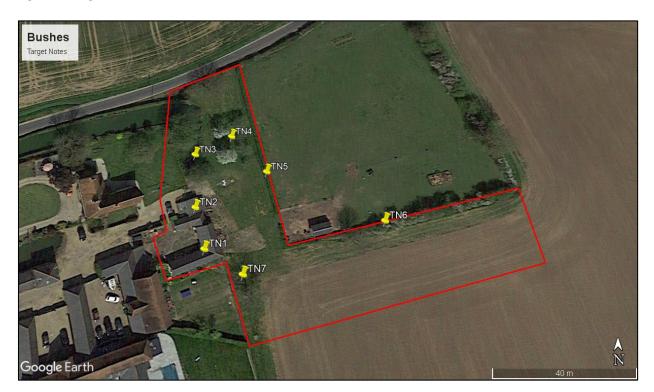
Hedgerows

6.10 There is a managed native hedgerow (Hedgerow 1) to the east of the orchard which comprises hawthorn, privet, field maple, dogrose and dogwood.

6.11 There is a further unmanaged hedgerow (Hedgerow 2) to the north-east of the site bordering amenity grassland, which contains hawthorn and blackthorn with standard ash trees.

<u>Habitats evaluation</u>: Habitats are limited in scale and diversity and are considered to be significant at Site Level only. Orchards are Priority Habitat but the orchard on site is limited in scale with several declining trees.

Figure 4. Target Notes



Target note (TN)	Description
1	Stable block
2	Conservatory, annexe and potting shed
3	Moat
4	Orchard containing pear and apple trees
5	Managed hedgerow (Hedgerow 1)
6	Unmanaged hedgerow (Hedgerow 2)
7	Individual ash tree

7.0 Results: Protected/Priority Species Scoping

This section includes data records obtained from Essex Field Club, a summary of habitat requirements and site assessment, along with recommendations for further survey/mitigation/enhancements as appropriate.

Bats

Data records:

7.1 The closest bat records are for serotine and brown long-eared bat, 0.5km from the site.

Habitat requirements:

7.2 Bats roost in buildings, trees and underground sites. Buildings with large, uncluttered loft voids, external crevices (e.g. hanging tiles, fascias, weatherboarding) and missing roof tiles are often suitable, particularly when a building is close to a foraging resource – e.g. woodland or water. Trees with cavities, woodpecker holes, hazard beams and flaking bark are also suitable for roosting.

Assessment:

- 7.3 The outbuildings are generally in good condition with few signs of disrepair. All roof and ridge tiles are intact and well-sealed. External cladding including weatherboards and fascias are also well sealed. No loft spaces exist in any building. No bat droppings were found on external surfaces including brick work and window sills. The outbuildings are assigned negligible roost suitability and require no further survey.
- 7.4 It is possible that the site will attract small numbers of foraging/commuting bats over the moat and through the orchard/along hedgerows. Since there are no plans to remove significant foraging resources (e.g. water, hedgerow, grassland), this behaviour will continue on completion of the development and foraging/commuting behaviour will be unaffected.

Outcome: Impacts on bats are not expected. Enhancement measures are provided later in this report.

Great crested newt

Data records:

7.5 EFC returned records for great crested newt 0.9km from the site.

Habitat requirements:

- 7.6 Great crested newt (GCN) require both terrestrial and aquatic habitats, returning to aquatic habitat to breed March-June, using small to medium ponds with no fish and suitable marginal vegetation including watercress and float grass (Froglife 2001).
- 7.7 Terrestrial habitat includes refuges and foraging and dispersal opportunities as well as hibernation sites such as rubble piles or mammal burrows. It is rare to find GCN over 250 metres from a breeding pond (Cresswell & Whitworth 2004).

Assessment:

7.8 The closest pond is the large moat approximately 15 metres to the north of the site (see Appendix 4).

The site includes buildings, a well-maintained concrete courtyard and managed lawn areas surrounding.

The moat is unsuitable for breeding activity since it supports a large fish population and no aquatic

vegetation (egg -laying substrate).

Outcome: No ponds will be affected by the proposal. There is no suitable terrestrial habitat on the

site, and the closest pond (moat) is unsuitable for breeding activity. Taking all factors into

consideration, this species is unlikely to be present.

Dormouse

Data records:

7.9 No dormouse records were returned within 2km of the site.

Habitat requirements:

7.10 The hazel dormouse requires wooded habitats, usually semi-natural woodland containing hazel coppice

and oak, and a rich understorey cover through which to disperse safely between trees (English Nature

2006).

Assessment:

7.11 The habitat on site is unsuitable for this species, comprising of managed habitats and lacks woodland,

continuous dense scrub and species-rich hedgerows.

Outcome: No impacts predicted. Further survey is not required.

Otter and water vole

Data records:

7.12 Water vole has been recorded 0.8km from the site. No otter records were returned.

Habitat requirements:

7.13 Both species require flowing water, deep enough to support foraging behaviour and with connectivity

into the wider landscape.

Assessment:

7.14 There is no suitable habitat on/adjacent to the site for either species.

Outcome: No impacts predicted. Further survey is not required.

17

Reptiles

Data records:

7.15 No reptile records were returned from EFC.

Habitat requirements:

7.16 Reptiles (common lizard, slow worm, grass snake and adder) require mosaic habitats with features in which to bask, forage and shelter. These habitats need to have onward connectivity for dispersal. Suitable habitats include grassland with scrub edges or small woodland coppices (Edgar et al. 2010).

Assessment:

7.17 The site contains managed habitats that are unlikely to be attractive to this species group. The odd boundary habitat including hedgerows may attract a transient individual, although this is likely to be occasional at best.

Outcome: No impacts expected. Further survey not required.

Birds

Habitat requirements:

7.18 Nesting birds use a wide range of habitats including buildings, scrub and woodland between March and August inclusive (note some species including pigeon will nest all year round).

Assessment:

7.19 The outbuildings and boundary trees/hedgerows are likely to attract generalist nesting birds.

Outcome: Any work that is likely to impact an active nest will be carried out between September and February when nesting birds are likely to be absent.

Badger

Data records:

7.20 No badger records were returned from EFC.

Habitat requirements:

7.21 Badger is a widespread, common mammal and is legally protected due to persecution rather than rarity or conservation significance. Badger requires habitats in which to build their setts and in which to forage. Badgers preferentially choose sloping banks (road verges, railway embankments, woodlands) with easy-dig substrate for sett building where foraging habitat is available.

Assessment:

7.22 There are no setts, latrines or mammal tracks on the site and no signs that mammals disperse across it.

Outcome: No impacts predicted. Further survey is not required.

Legally protected plants/invertebrates

Data Records:

7.23 No records for notable plants or insects were returned for the site. The site does not contain any significant invertebrate habitat, and there are no habitats on the site that could reasonably support rare or notable plant species.

Outcome: No impacts expected, mitigation not required.

<u>Species evaluation</u>: Species presence is important at Site Level only. Mitigation is required to ensure nesting birds are protected.

8.0 Ecological Constraints and Opportunities

Site constraints

8.1 The site is of limited ecological value and the scope of the planned development is restricted to the current built footprint. The only legally protected species constraint is in relation to nesting birds. Any work that could impact an active nest (e.g. demolition of open buildings, tree work, hedgerow management) will be carried out between September and February.

Opportunities

- 8.2 Biodiversity net-gain is now encouraged under Paragraph 175(d) of the National Planning Policy Framework (2019) and recommended in Local Plan policies.
- 8.3 The owner plans to remove the declining orchard trees and replant the orchard elsewhere with more productive specimens. Traditional orchards are a priority habitat therefore planting a larger more productive orchard would represent a substantial net-gain.
- 8.4 There is scope to install habitat boxes around the site to improve opportunities for other wildlife, specifically Priority Species. It is recommended that two house sparrow boxes (or integrated sparrow nesting features) are installed as an enhancement measure. Boxes should face north or east and be positioned above 2 metres, preferably underneath the eaves of new houses. External boxes should be woodcrete or woodstone for longevity. Where space/design allows, bat boxes could be included on buildings or retained trees. See Appendix 5 for recommended features.

9.0 Conclusions

- 9.1 The survey has established ecological constraints to developing the site and identified opportunities that new development could bring.
- 9.2 The site is of limited ecological value. Further surveys are not required. Mitigation measures are required in respect of nesting birds.
- 9.3 The development presents an opportunity to implement enhancement measures such as a replacement orchard and habitat boxes/features, which will improve the wildlife value of the site post-development. These measures will also ensure compliance with the requirement for measurable "biodiversity net-gain" and provide new habitat opportunities in accordance with Paragraph 175(d) of the NPPF and Local Plan policies.

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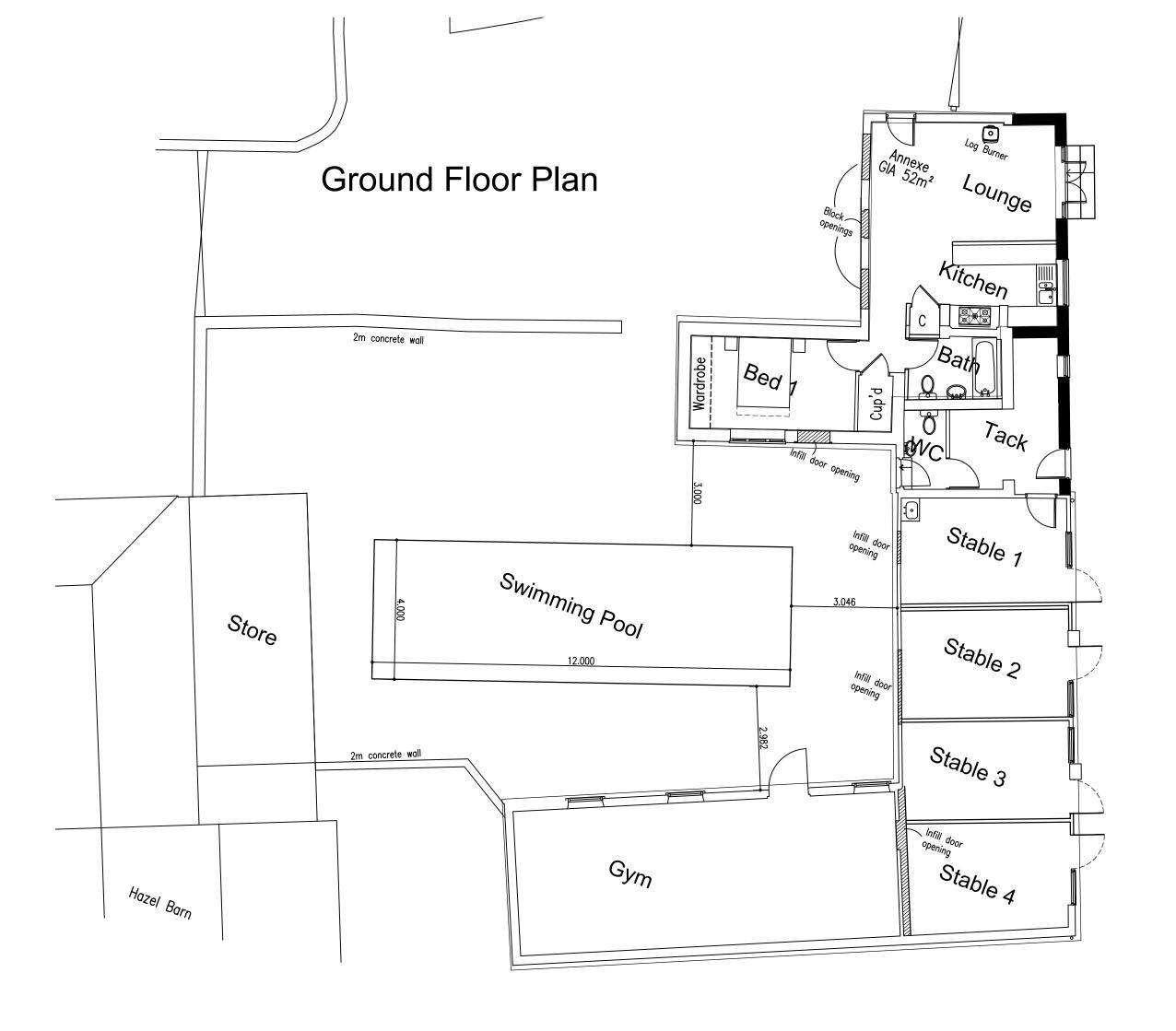
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Appendix 1. Proposed site plan









JSP Chartered Town Planners and Design Consultants

1 Bansons Yard, High Street, Ongar, Essex CM5 9AA

T 01277 366886 F 01277 366864 BUILDING CONTROL Partner

Site Bushes, Wind Hill Magdalen Laver CM5 0DS

Conversion, extension and

Title partial demolition of

outbuildings to create Annexe,

stables and gym plus pool
Drawing Proposed ground floor plan

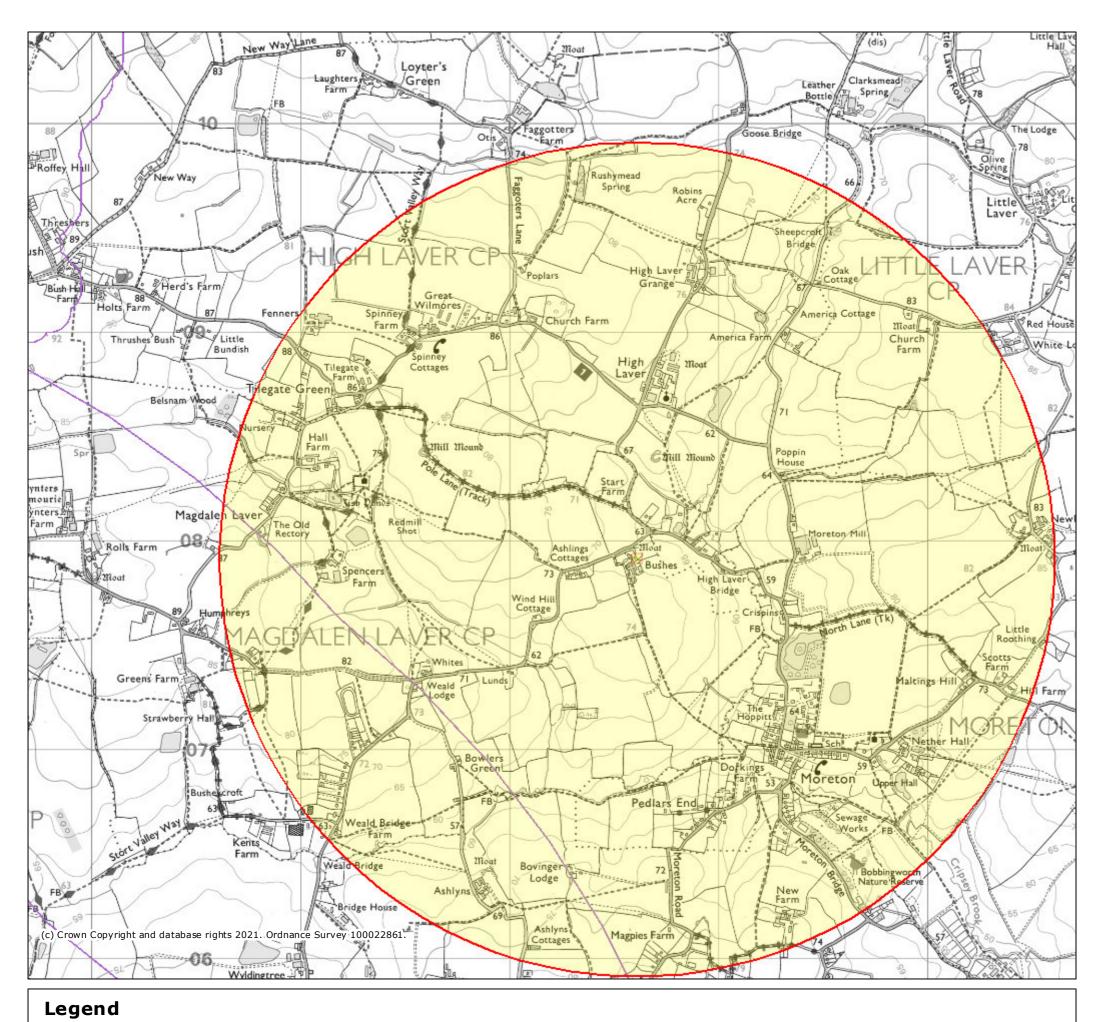
Scale 1:100 @ A3 Date Mar 2021

Date Mar 202 Number 2239.8

Appendix 2. MAGIC map



Magic Map



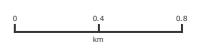


- SSSI Impact Risk Zones to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)
- Biosphere Reserves (England)

Sites of Special Scientific Interest (England)

Projection = OSGB36

Projection = OSGB36 xmin = 547700 ymin = 205900 xmax = 556800 ymax = 210400 Map produced by MAGIC on 22 June, 2021.
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Appendix 3. Photographs



a) Stables



b) Conservatory and potting shed



c) Hedgerow 1



d) Small orchard



e) Fish in moat

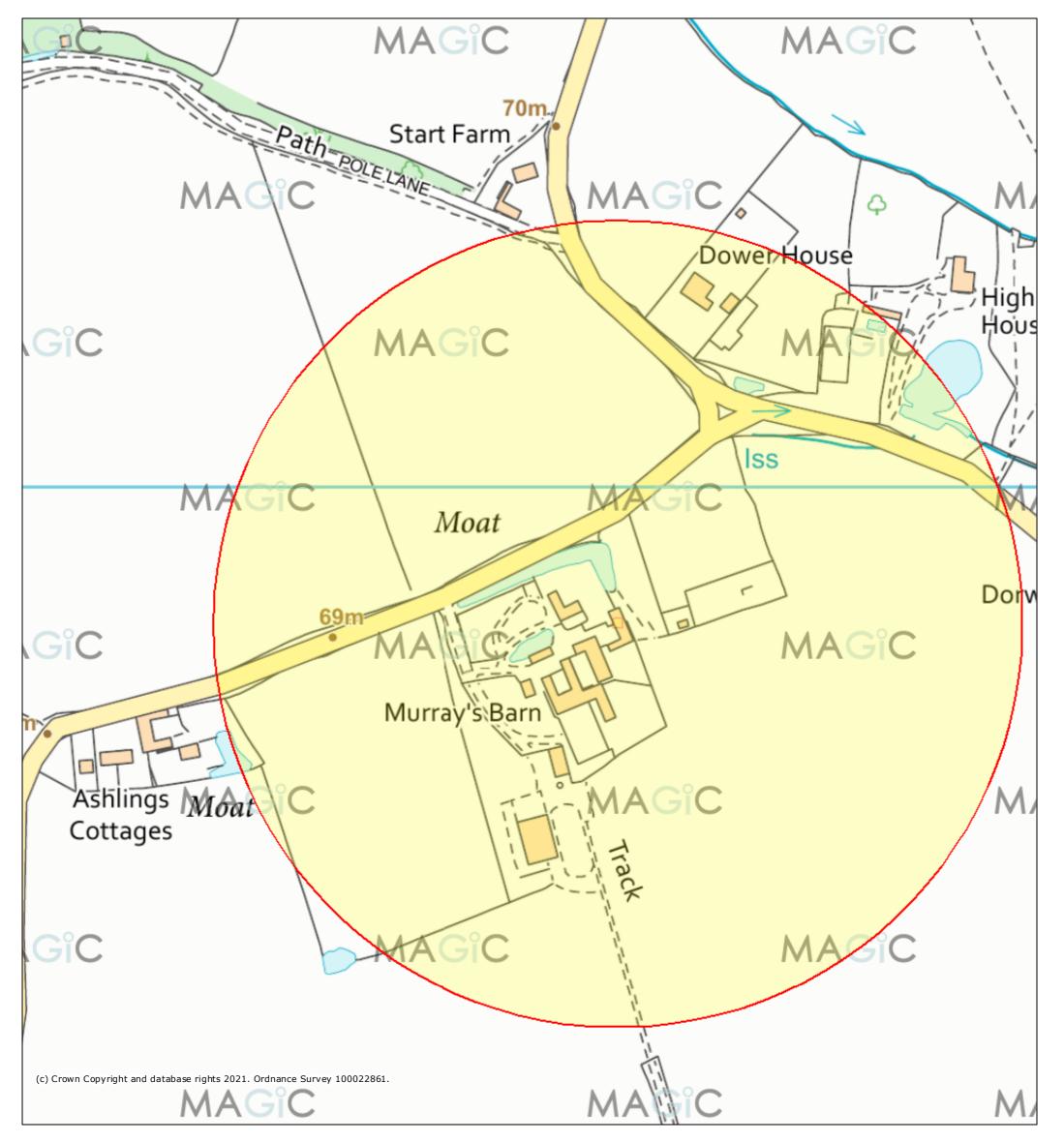


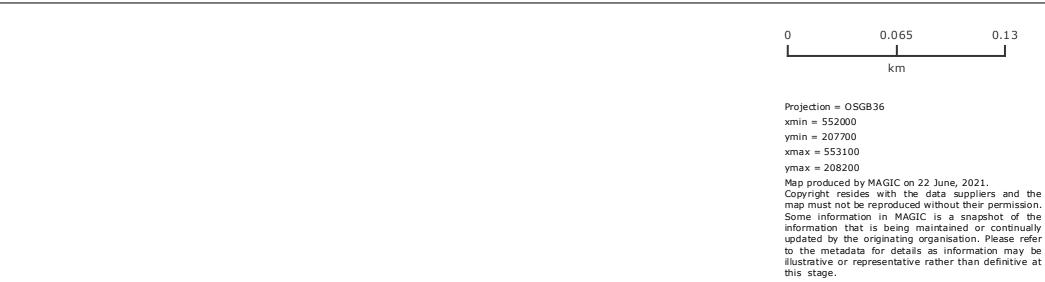
f) Hedgerow 2

Appendix 4. Ponds within 250 metres



Magic Map





Appendix 5. Habitat boxes/features

SINGLE CREVICE BAT BOX

TWO CREVICE BAT BOX





Individually Handmade - Specifications are in Individually Handmade - Specifications are in CM and approximate.

 $\begin{array}{ll} \text{External: 43 high x 21.5 wide x 6.8 deep.} & \text{External: 43 high x 21.5 wide x 6.8 deep.} \\ \text{Internal: 41 x 16.5 x 1.8 crevices @ 1.} & \text{Internal: 41 x 16.5 x 1.8 crevices @ 2.} \\ \end{array}$

4.75kg

CM and approximate.

Made with small groups of crevice dwelling bat Made with small groups of crevice dwelling bat species in mind, such as pipistrelles. Approx. species in mind, such as pipistrelles. Approx. 6.75kg

a) Bat boxes for trees – Greenwoods Eco Habitats



b) Sparrow terrace (http://www.wildlifeservices.co.uk/nestboxes/sparrowterrace.jpg)



c) Woodcrete open-fronted bird box