

Great Crested Newt eDNA Sampling

Survey site:

Wickenden Manor, Chilling Street, East Grinstead, RH19 4JB

Client:

Netherhall Educational Association

Survey date:

30th June 2025

Project:

This report is prepared to inform a planning application with the Mid Sussex District Council. The proposal is described as: *The renovation and extension of the Manor house, the Lodge and the Stables.*

Survey methodology can be found on page 4 and legislation can be found in Appendix 5.

Ecological Survey Factor Conclusion, Impact or Recommendations	Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.
See pond plan map in appendix 1, location plan in appendix 2, proposal plans in appendix 3, eDNA results in appendix 4 and legislation in appendix 5.	
<i>Scope of report</i>	This report describes the suitability of the habitats on the site and any surveyed ponds for GCN and identifies the presence or absence of GCN in these ponds. It identifies possible constraints in relation to GCN as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation. To achieve this, the following steps have been taken: • A field survey has been undertaken, including an assessment of the suitability of the site and the ponds within 250m of the site for GCN. • An outline of potential impacts on GCN has been provided, based on the proposed development. • Recommendations for mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) for GCN if appropriate.
<i>Site location and context</i>	The survey site is centred on National Grid Reference TQ 38695 31853 and has an area of approximately 5.9ha. The survey site lies to the south of East Grinstead town centre, and to the east of Sharphorne village. The site comprises the grounds of Wickenden Manor, the lodge, and associated outbuildings. To the east of the site, Chilling Street borders the grounds. The west and south of the site is bordered by grazing pasture fields and woodland. The wider landscape comprises woodland and grassland, with arable fields occasionally. The south of the site is dominated by woodland, which comprises Ancient Woodland. This extends outside of the site ownership and forms a part of Hang Wood Ancient Woodland. There is an extensive network of mature hedgerows in the vicinity.

<i>Field survey results</i>	Great crested newts exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton <i>et al.</i> 2001). A review of aerial imagery (MAGIC and OS Maps) indicates the presence of seven ponds within 500m of the site. Of these ponds, two are located within the site. These two ponds were surveyed by Chantae Bleakman-Wells, Consultant Ecologist (Great Crested Newt Licence: 2025-13005-CL08-GCN) and Amber Church, Assistant Ecologist. The five ponds off-site are separated from the site by significant barriers to dispersal, including large, curbed roads. Therefore, these ponds were not subject to eDNA surveys. Pond description The location and photographs of ponds survey is provided in Table 1 below.
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Table 1: Surveyed Ponds			
	Pond Ref	Description	Photographs
	1	Pond located at TQ 38649 31827 and has an approximate area of 0.004Ha. The pond is one main pond and two smaller ponds immediately to the west, which were dry at the time of the survey.	 

2

The pond is located at TQ 38642 31681 and has an area of approximately 0.026Ha

Over half of the pond area was dry at the time of survey.



Habitat Suitability Index (HSI) Assessment

The ponds were assessed for their suitability to support GCN using the Habitat Suitability Index (HSI) Assessment Methodology (Oldham et al, 2000). HSI is a standard measure of calculating the suitability of a pond to support breeding great crested newts, based on an assessment of 10 characteristics (indices), including size, shading, depth and vegetation profile. The assessment generates a number between 0 and 1 for each of the indices which are combined to provide an overall assessment of a pond's suitability to support GCN on a categorical scale (Table 2). The assessment has not been designed for or tested on other waterbodies such as ditches. HSI assessment results are provided in Table 3 below.

Table 2: HSI Suitability Scores

HSI Score	Suitability	Predicted GCN Occupancy of Ponds in each Category
<0.5	Poor	3%
0.5 to 0.59	Below Average	20%
0.6 to 0.69	Average	55%
0.7 to 0.79	Good	79%
>0.8	Excellent	93%

Table 3: HSI Assessment Results

SI Description	SI Value P1	SI Value P1
Geographic location	1	1
Pond Area	0.03	0.1
Pond Permanence	0.9	0.9
Water Quality	0.5	0.67
Shade	0.8	1
Waterfowl Effect	1	1
Fish Presence	0.7	0.7
Pond Density	1	1
Terrestrial Habitat	1	1
Macrophyte Cover	0.9	0.9
HSI Score	0.61	0.72
HSI Category	Average	Good

eDNA Sampling

Sample kits and analysis was provided by SureScreen. Sampling followed the relevant sections of the method set out in the DEFRA funded study endorsed by Natural England (Biggs et al 2014). In summary the sampling protocol is as follows:

- 20 samples were taken from around the entire perimeter of the waterbody.
- The surveyor stayed out of the water while taking the samples (extension poles were used in situations where open/sufficiently deep water was at a distance from the dry banks.
- Survey locations were distributed around the pond perimeter, but micro-siting was used to select locations most likely to be used by GCN.

	- At each sample location the water column was stirred prior to taking the sample but care was taken to avoid disturbing the sediment on the base of the pond. - Once all 20 samples were taken, 15ml of the total sample were pipetted into each of the 6 sampling tubes, whilst ensuring that the water in the sample bag was mixed before taking each 15ml sample and that only one sample tube was opened at any one time. - At all times the surveyor ensured that the risk of contaminating the sampling equipment was minimised by avoiding the placement of the ladle or pipette on the ground or on any otherwise potentially contaminated surfaces and by changing gloves between the initial sampling stage and the pipetting stages of the method. - Samples were sent to SureScreen for analysis. Full eDNA results are provided in Table 4. The SureScreen lab results are included in Appendix 4. <i>Table 4: eDNA Survey Results</i> <table border="1"> <thead> <tr> <th>Pond Ref</th><th>eDNA Result</th></tr> </thead> <tbody> <tr> <td>1</td><td>Negative</td></tr> <tr> <td>2</td><td>Positive</td></tr> </tbody> </table>	Pond Ref	eDNA Result	1	Negative	2	Positive
Pond Ref	eDNA Result						
1	Negative						
2	Positive						
<i>Foreseen Impacts</i>	No ponds will be directly impacted by the proposed plans. However, impacts to suitable terrestrial habitats will occur as a result of the works, predominantly comprising the loss and damage of large areas of grassland and introduced shrubs. One pond within the site has confirmed great crested newt DNA and therefore, is a confirmed great crested newt breeding pond.						

	When completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces a Red risk score, which states: Offence Highly Likely. <table><tr><th>Component</th><th>Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)</th><th>Notional offence probability score</th></tr><tr><td>Great crested newt breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Land within 100m of any breeding pond(s)</td><td>>1 ha lost or damaged</td><td>0.9</td></tr><tr><td>Land 100-250m from any breeding pond(s)</td><td>1 - 5 ha lost or damaged</td><td>0.4</td></tr><tr><td>Land >250m from any breeding pond(s)</td><td>1 - 5 ha lost or damaged</td><td>0</td></tr><tr><td>Individual great crested newts</td><td>No effect</td><td>0</td></tr><tr><td colspan="2">Maximum:</td><td>0.9</td></tr><tr><td>Rapid risk assessment result:</td><td colspan="2">RED: OFFENCE HIGHLY LIKELY</td></tr></table>	Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score	Great crested newt breeding pond(s)	No effect	0	Land within 100m of any breeding pond(s)	>1 ha lost or damaged	0.9	Land 100-250m from any breeding pond(s)	1 - 5 ha lost or damaged	0.4	Land >250m from any breeding pond(s)	1 - 5 ha lost or damaged	0	Individual great crested newts	No effect	0	Maximum:		0.9	Rapid risk assessment result:	RED: OFFENCE HIGHLY LIKELY	
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Recommendations	A licence will be required to proceed with the proposed development. There are two licence options in West Sussex, comprising an European Protected Species Licence (EPSL) or entering the District Level Licence (DLL) scheme. In order to obtain an EPSL, population class size surveys of pond 2 (located within the site) will be required, which must comprise 6 visits between mid-March and mid-June, where 3 must be completed during the optimal period between mid-April and mid-May. Each visit must comprise at least 3 survey types, typically consisting of bottle trapping, torching, and egg searching. These will be required to inform the planning application. Once planning is granted, an EPSL application can then be made to Natural England,																								

	which will include a detailed method statement. The method statement will detail all necessary mitigation measures and compensatory habitat creation to be completed prior to development works on your site. Alternatively, a district level licence (DLL) could be obtained. A DLL can be sought without any further survey work and will require no compensatory habitat creation and less stringent on-site mitigation during construction. Entering the DLL scheme requires the applicant to make a conservation payment to the DLL provider to provide the compensatory habitat creation off-site on their behalf, the cost of which is relative to the scale of the impacts.
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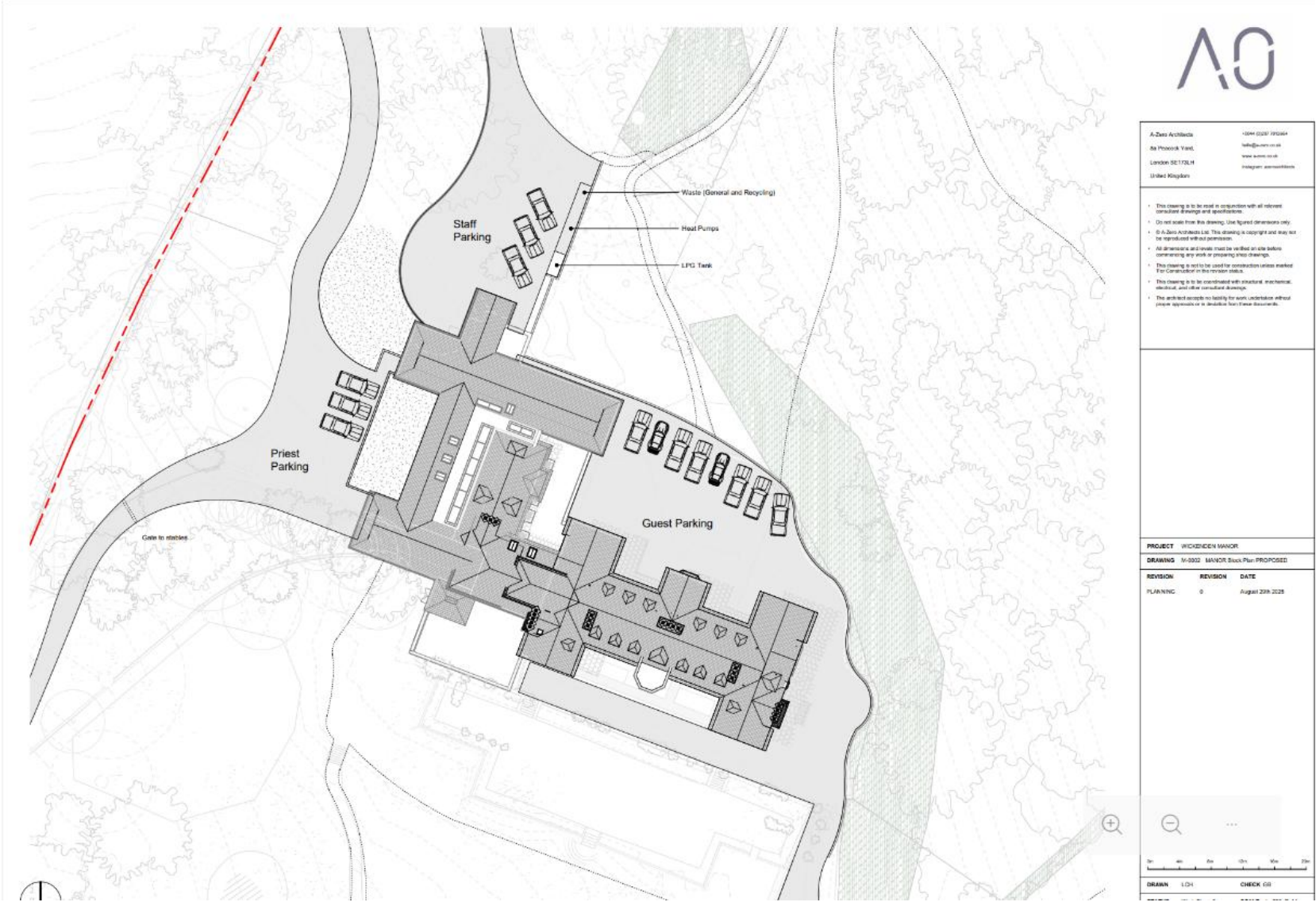
Appendix 1: Surveyed Ponds

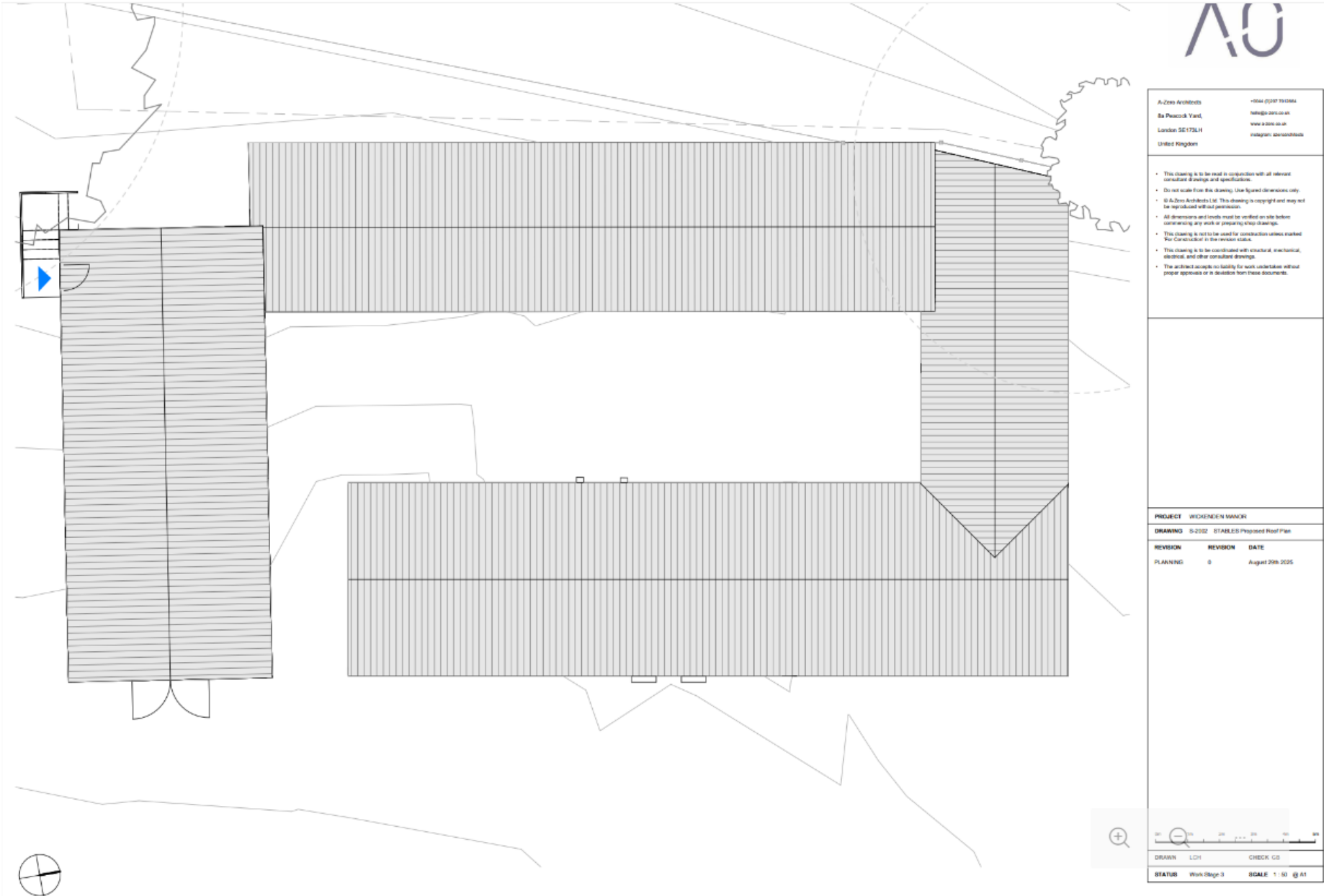


Appendix 2: Location map



Appendix 3: Proposed plan







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PROJECT: WICKENDEN MANOR

DRAWING: S-2500 - STABLES Proposed Ground Floor Plan

REVISION	REVISION	DATE
PLANNING	0	August 20th 2025

0m

10m

20m

30m

40m

50m

DRAWN

LCH

CHECK

GB





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PROJECT: WICKENDEN MANOR		
DRAWING: L-0002 - LODGE Proposed Roof Plan		
REVISION	REVISION	DATE
PLANNING	8	August 29th 2025

DRAWN	YA	CHECK	CO
STATUS	Work Stage 3	SCALE	1:10 @ A1



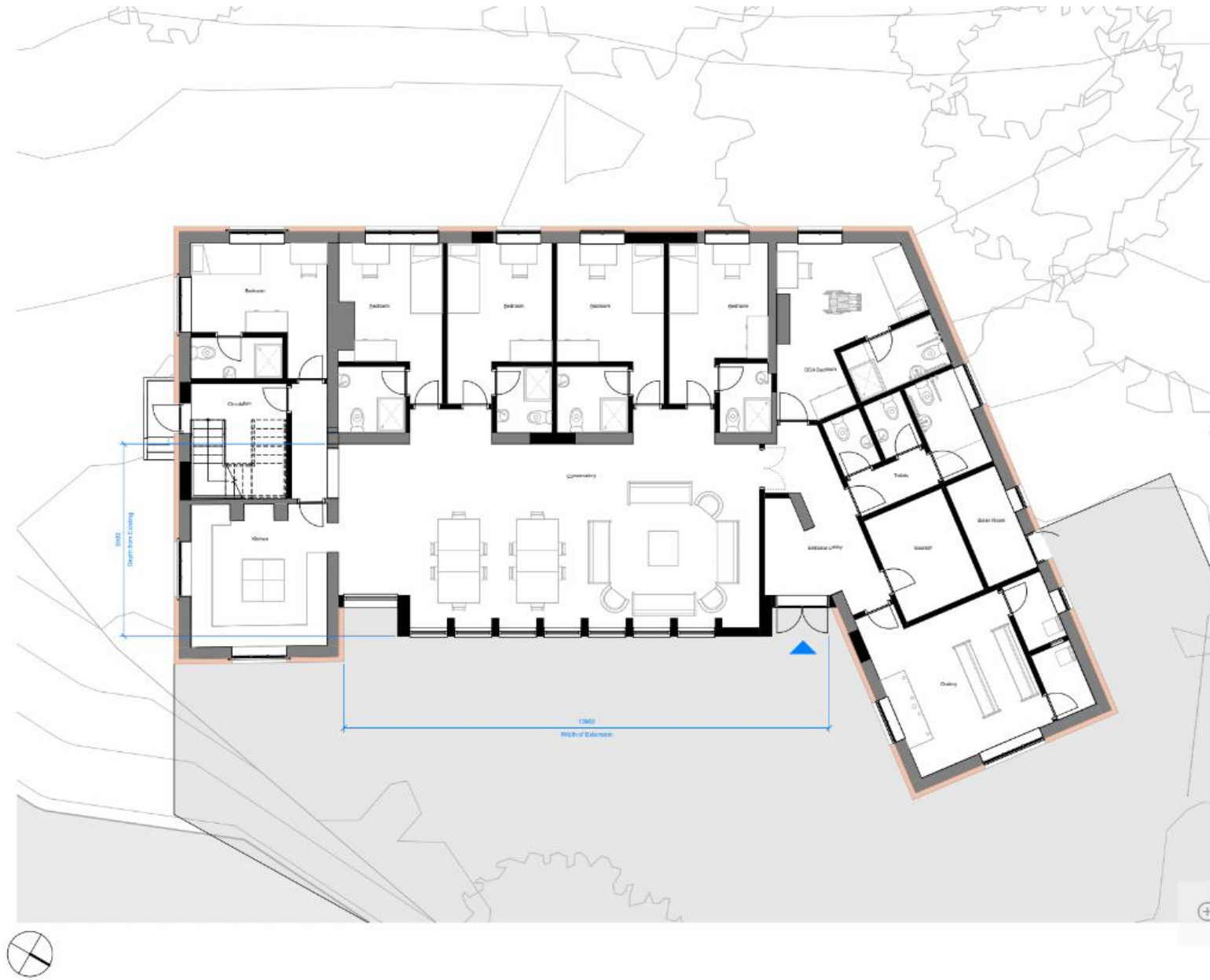
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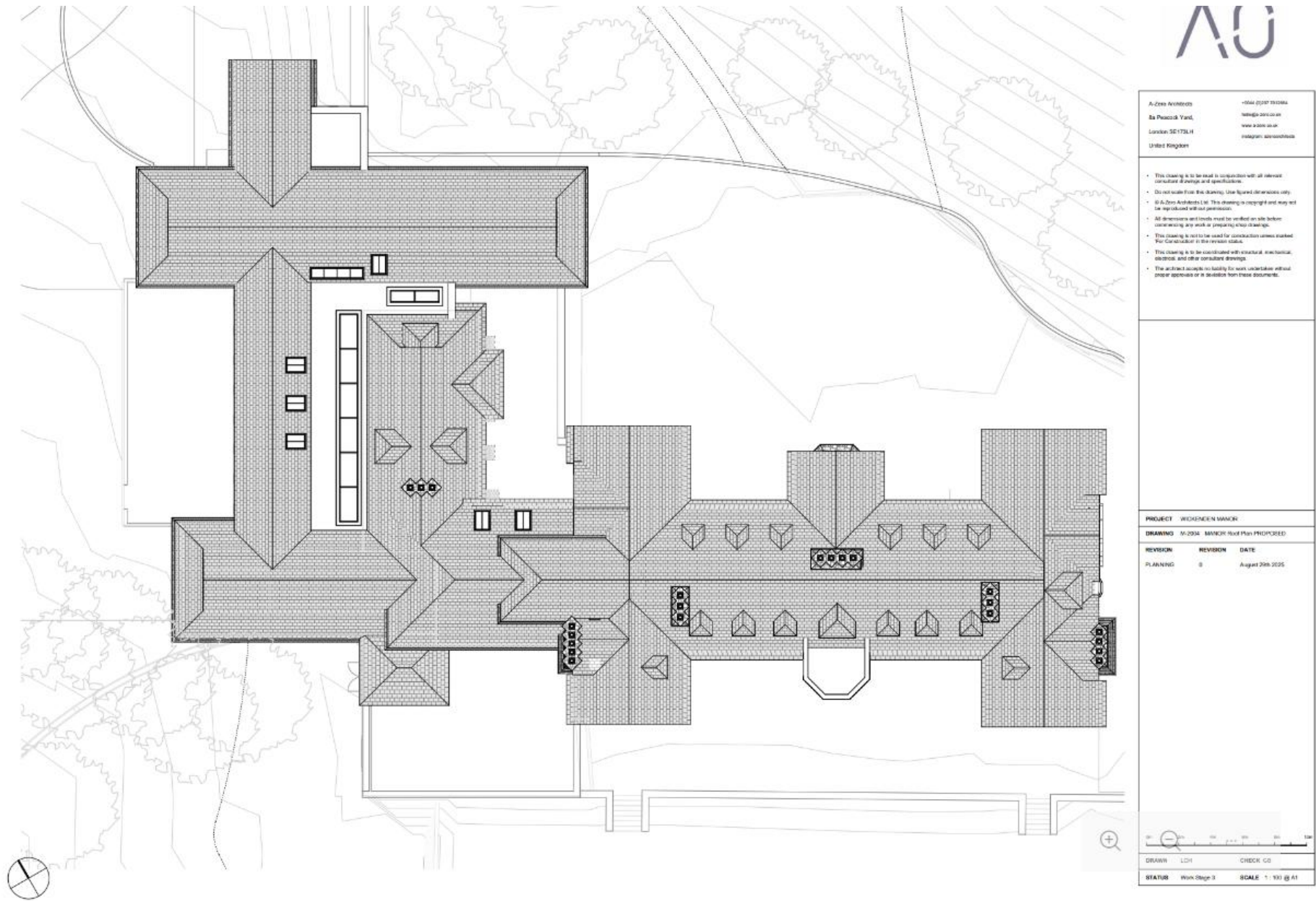
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PROJECT: WICKENDEN MANOR			
DRAWING: 1-0000: Proposed Ground Floor Plan			
REVISION	REVISION	DATE	
PLANNING	0	August 20th 2025	

DRAWN	YA	CHECK	GO
STATUS	Work Stage 3	SCALE	1:50 @ A1







Appendix 4: eDNA results

GCN eDNA Analysis

Summary

When great crested newts (GCN), *Triturus cristatus*, inhabit a pond, they continuously release small amounts of their DNA into the environment. By collecting and analyzing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

Results

Lab ID	Site Name	OS Reference	Degradation Check	Inhibition Check	Result	Positive Replicates
GCN25 8370	RH19 4JB - P1		Pass	Pass	Negative	0/12
GCN25 8371	RH19 4JB - P2		Pass	Pass	Positive	9/12

Matters affecting result: none

Reported by: Amy Bermudez

Approved by: Consuela Sopronyi

Appendix 5: Legislation and planning policy**LEGAL PROTECTION**

The great crested newt receives full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

This species are also listed on Schedule 5 of the Wildlife and Countryside Act and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

NATIONAL PLANNING POLICY***National Planning Policy Framework 2021***

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect the breeding sites or resting places of great crested newts protected. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

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Version control			
Status	Issue	Name	Date
Draft	0.1	Chantae Bleakman-Wells BSc (Hons), MSc, MRSB – Consultant Ecologist	14/07/2025
Final	1.0	Chantae Bleakman-Wells BSc (Hons), MSc, MRSB – Consultant Ecologist	16/07/2025
Final (Updated with new plans)	2.0	Chantae Bleakman-Wells BSc (Hons), MSc, MRSB – Consultant Ecologist	23/09/2025