

Mr Derek Davies

Land Adjacent to 33 Abenbury Way,
Wrexham Industrial Estate
SY14 7LH

**Ecological Appraisal and
Precautionary Method Statement with regards to GCN**

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Produced by



www.wildbanksconservation.com

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1 INTRODUCTION

- 1.1 This report has been prepared on behalf of Mr Derek Davies and provides the results of a Preliminary Protected Species survey undertaken at land adjacent to 33 Abenbury Way, Wrexham Industrial Estate. The area to be developed is a grassed lawn.
- 1.2 The proposed development site (hereafter referred to as the Site) is located on the western edge of the Wrexham Industrial Estate, approximately 4km due East of Wrexham town centre. The central OS grid reference is SJ 37323 50471. Habitat within the Site is entirely amenity grassland. Adjacent to the Site to the north is an existing Ecological Mitigation Area (EMA) put in place as part of a previous planning permission on the adjacent plot owned by Mr Davies and where Alpha Windows Ltd operates from. The EMA consists of a strip of grassland containing fruit trees, and then leads into a thin scrub/wooded strip with a shallow brook running through. Bird boxes and bat boxes are also present and a 5 year Management Plan is in place (2018-2022). The eastern boundary of the Site is a metal palisade fence onto the neighbouring industrial unit. The southern boundary is a large area of tarmac and industrial units beyond and the western boundary is a metal palisade fence leading into another industrial unit.
- 1.3 The wider habitat beyond the site to the north, east and south are the industrial units within the Wrexham Industrial Estate. Immediately to the west is another industrial unit (Alpha Windows) and beyond that is farmland and hedges
- 1.4 Development proposals for the Site are for the building of a detached steel industrial unit and parking to be constructed on some of the amenity grassland. The existing ecological mitigation area will not be effected or impacted during the development.
- 1.5 This report details the findings of a site survey conducted on the 20th December 2021 by Wildbanks Conservation. The aim of the survey is to identify potential ecological constraints to the proposed development, in particularly to assess the likelihood of legally protected species or other ecological features occurring that might present a material consideration in terms of planning constraints.

2.0 SURVEY METHODOLOGY

Desktop Study

- 2.1 A review of the Multi-Agency Governmental Information for the Countryside (MAGIC) website for existing designated sites, within 1km of the development site boundary was undertaken to identify any existing sites with nature conservation designations.

Walkover Habitat Assessment

- 2.2 The site was surveyed on 20th December 2021 using the standard Phase 1 Habitat Survey methodology (Joint Nature Conservation Committee, 2010). This involved a systematic walk over of the site to classify the habitat types present, marking them on a base map. If required target notes were used to record features or habitats of particular interest, as well as any sightings or evidence of protected or notable species. The Walkover Habitat Assessment was undertaken by Joseph Taylor MSc, ecologist, Wildbanks Conservation.

Preliminary Protected Species Survey

- 2.3 Consideration was also given to the potential presence of species protected under the Wildlife and Countryside Act 1981 (as amended), the Protection of Badgers Act 1992 and The Conservation of Habitats and Species Regulations 2010 (as amended). Such species included, but was not limited to badger, bats, reptile, amphibians and bird species. Evidence of any invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) was also recorded where present.

Buildings – Bats - Visual Assessment

- 2.4 The exterior of any buildings was visually assessed for potential access points and evidence of bat activity. Features such as small gaps under barge/soffit/fascia boards, raised or missing roof/ridge tiles or gaps at gable ends, which have the potential for use as access points, were sought. Evidence that bats actively used these potential access points would include staining within the gaps, or bat droppings or urine staining under gaps; a note being made wherever these were present. The presence of cobwebs and / or general detritus within and around potential access points was used as an indicator that bats had not recently used the area to access the building.

Trees - Bats

2.5 An assessment of the potential of trees within the proposed development area of the site to support bat roosts was undertaken to enable recommendations with respect to the proposed works. Trees were examined for potential roost features such as cracks, fissures and rot holes that could provide suitable roost sites. Evidence of bat roosting activity in potential roost sites was sought and included staining and/the presence of bat droppings. An initial survey was undertaken from ground level, with the aid of binoculars.

2.6 From this survey an assessment can be made on the likelihood of trees to support roosting bats. In line with the Bat Conservation Trust (BCT) Good Practice Guidelines (2012), trees can be classified into one of five categories which range between a known roost, Category 1*, Category 1, Category 2 and Category 3 (where Category 3 has no potential for roosting bats). The basis of this criterion is subjective and based upon the surveyor's experience and judgement.

2.7 *Habitat Suitability Assessment*

Any ponds or watercourses present were assessed utilising the modified Great Crested Newt Habitat Suitability Index (Oldham *et al*, 2000). The habitat suitability index provides a means of evaluating habitat quality of any given pond. The Habitat Suitability Index (HSI) is a numerical index between 0 and 1, where 0 indicates unsuitable habitat and 1 represents optimal habitat. The HSI score is then used to score the suitability of the pond on a categorical scale (Table 1). The system is not precise enough to allow the conclusion that a pond with a high score will support Great Crested Newts whilst those with a low score will not. See Appendix 2 for the HSI calculations for each pond.

2.8 Table 1: Habitat Suitability Index scoring

HSI Score	Pond Suitability
< 0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
> 0.8	Excellent

Survey Limitations

2.9 The recommended survey period to undertake Phase 1 Habitat Survey is between late April and mid-October, therefore this survey was undertaken outside of the optimal

survey period. However due to the habitats present on site and the size of the site it is considered that it is unlikely that anything of ecological importance has been overlooked.

3.0 RESULTS

Desktop Study

- 3.1 There are no statutory designated sites within 2km of the site boundary. Two Local Wildlife Sites exist within 2km of the site. Local Wildlife Site W316 - Cefn Park is located 700m to the South west of the site. It is a series of broadleaved woodlands within Cefn Park Estate. Big Wood is the largest (8.9ha) and is dominated by ash with oak, sycamore and an occasional mature wych elm. An area of fen also exists with Big Wood. Local Wildlife Site W337 – Wrexham Industrial Estate is a series of sites within the industrial area including unmanaged derelict grassland and ancient broadleaved woodland. The closest site being some 600m to the south west of the development site.

Walk-over Habitat Assessment - See Figure 1 – Site Plan (Plates 1-4)

- 3.2 In summary the proposed development site comprised a small parcel of amenity grassland mown short to beneath 6cm in height. The Site provides negligible ecological interest or opportunities for wildlife.
- 3.3 Immediately beyond the Site to the north is an existing Ecological Mitigation Area consisting of wildflower grassland with young fruit trees interspersed and a small brook flows west to east with scrub (hazel *Corylus avellana* and hawthorn *Crataegus monogyna*) and mature trees above (Ash *Fraxinus excelsior*, pendunculate oak *Quercus robur*). The east and west boundaries of the Site are fenced then lead into established industrial units. Beyond the southern boundary of the Site is hard standing in the form of the Abenbury Way and associated parking and pavement.

3.4 Habitats present on site

J1.2 Amenity Grassland (Plate 4)

The only habitat type on Site comprised amenity grassland. Dominant grass species comprised perennial rye grass *Lolium perenne*, with the most abundant herb species present including, common dandelion *Taraxacum officinale*, creeping buttercup *Ranunculus repens*, daisy *Bellis perennis* and ribwort plantain *Plantago lanceolata*.

3.5 *Boundaries*

There are no physical boundary on the northern or southern boundaries. The western and eastern boundaries are palisade fence to the adjacent industrial units.

3.6 *Trees*

There are no trees within the site boundary.

Hedgerows

3.7 There are no hedgerows within the site boundary.

3.8 *Invasive Species*

No invasive plants as listed under Schedule 9 of the Wildlife and Countryside Act 1981 were observed at the time of survey within the Site. However, 3 individual garden escapee plants were noted within the EMA.

Protected Species

3.9 *Buildings – Bats*

No buildings exist on site. Those buildings adjacent to the development site are metal industrial units of steel construction with steel roof sheets. No internal inspection of these buildings were possible. However, these buildings offer negligible opportunities for roosting bats due their construction type. They are prone to severe fluctuations in temperature due to their poor insulative value and offer few roosting gaps or crevices.

Trees - Bats

3.10 There are no trees within the site boundary.

Badger

3.11 No setts were recorded within the development site or evidence of badgers using the Site. Evidence of badgers crossing the EMA was present in the form of a badger track adjacent to the brook.

Great Crested Newt

3.12 No ponds are present within the development site, the Site provides poor terrestrial habitat and no hibernation opportunities for GCN. The brook and areas of scrub within the adjacent EMA provide good foraging and refuge habitat for GCN. The habitat suitability index score for the brook running along the northern boundary is 0.47 which categorizes the waterbody as 'poor' for GCN. It provides limited opportunities as a breeding waterbody as there is minimal suitable egg laying media.

- 3.13 Within a 500m radius of the development site 4 ponds exist. All of which are known to support small populations of GCN. Each of these ponds is outside of the Site's ownership and access for surveys is not possible. The closest pond lies 169m due North of the development site with reasonable connective habitat. However, directly in between this pond and the development site is a new large development. It is known GCN are present within the Wrexham Industrial Estate.

Birds

- 3.14 During the survey a number of bird species were recorded which included robin *Erithacus rubecula* and black bird *Turdus merula*. No features within the Site provide opportunities for nesting birds. The scrub and trees within the EMA do offer breeding and foraging opportunities for a range of species.

- 3.15 The development site offers no potential for barn owls (*Tyto alba*), in the form of nesting and limited hunting opportunities due to the small area of land being developed and the nature of the vegetation present on site and that no buildings are present.

Reptiles

- 3.16 The habitat on site consisted of short amenity grass and offered little potentially suitable habitat for reptile species.

4.0 DISCUSSION AND RECOMMENDATIONS

- 4.1 The only habitat on site is amenity grassland and of low species diversity and is determined to be of negligible nature conservation value. The proposed development will cover the majority of the Site, this will include a steel industrial unit and hard standing access.
- 4.2 No species receiving special protection under the Wildlife and Countryside Act 1981, The Conservation of Habitats and Species Regulation 2010 or the Protection of Badgers Act 1992 was recorded during the survey.
- 4.3 No habitats within the development site that had the potential to support protected species were identified.
- 4.4 To the north of the Site is an existing small Ecological Mitigation Area with species rich grassland, scrub, mature trees and forms a linear route in between industrial units and is of moderate conservation value.

Bats

- 4.5 No buildings exist within the development site and those industrial units adjacent to the site offer negligible roosting opportunities for bats as they are prone to severe fluctuations in temperature due to their poor insulative value and offer few utilizable roosting gaps or crevices.
- 4.6 No trees exist on site, however trees within the mitigation site on the northern boundary could provide roosting opportunities for a number of species and the EMA as part of a linear feature could provide commuting and foraging opportunities.

Recommendation

No further survey effort is required with regards to bats.

Protection of the EMA from impacts during the development is recommended (see below)

Great crested newts

- 4.7 Great crested newts are known to be present within the wider Wrexham Industrial Estate and have been recorded in ponds around the development site, the closest being some 169m to the North. Connective habitat between the pond and the site is

reasonable, comprising agricultural land with hedgerows along Erilas Lane, however the industrial unit between the hedgerow and the site could provide a barrier to movement. It is considered unlikely that GCN would use the main area of the development site (amenity grassland) as it offers no opportunities for refuge and very limited foraging opportunities. The grass is shorter than 6cm and GCN would be highly exposed to predators if they were to use this habitat. The EMA could offer good foraging and refuge habitat for GCN and could be used as respite habitat as GCN commute between ponds.

- 4.8 The brook running along the northern boundary has scored a HSI score of 0.47, which categorizes it as 'poor' for GCN.
- 4.9 The development proposals are to build a new industrial unit, solely within the amenity grassland. No works or disturbance to the existing EMA to the north of the site will take place. In fact, the building works will be confined to a section of the amenity grassland to the front of the site some 8m from the scrub area and 14m from the brook. See Figure 2 – Mitigation Plan
- 4.10 Although the land that is to be developed is currently unsuitable for GCN (amenity grassland), the process of constructing the new unit may provide new habitats that could be utilized by GCN in the form of excavations, rubble piles, storage of materials etc. As such suitable mitigation is required to ensure the local GCN population is not effected through the development of this site.

Recommendation

Because it is known that GCN are present in the wider landscape and that the majority of those ponds are a significant distance from the development site (some 169m, 375m, 418m and 484m away) and that other, better habitat than that within the development site exists around these ponds, as well as, the area of land being built upon is unsuitable for GCN and there will be no impact/disturbance within the small areas of good GCN habitat that exist within the site, it is considered that the development can proceed without the need to re-confirm the presence of GCN or a European Protected Species license and by following the Precautionary Method Statement detailed in section 6 of this document.

Protection of the EMA from impacts during the development is recommended (see below)

Badger

- 4.11 Evidence that badger utilise the adjacent EMA for commuting and foraging was found during the survey, however no setts were found to be present on the Site.

Recommendation

As badger are present in the area it is recommended that a pre-construction check is undertaken by a suitably qualified ecologist to ensure that badgers have not dug any setts within the site prior to construction work commencing.

Breeding birds

- 4.12 The proposed development site currently offers no suitable habitat for nesting birds, however the EMA to the north does, in the form of scrub and mature trees and six Schwegler 1B bird boxes (three with 26mm hole and three with 32mm hole). None of the hedges, trees or scrub will be removed during the development. The development is more than 8m from any feature suitable for nesting birds

- 4.13 All bird species are protected whilst on the nest under The Wildlife & Countryside Act 1981 (as amended). As such it is recommended that any site clearance/pruning be undertaken outside the bird breeding season (March – September inclusive). However, if this is not possible any works to the hedges, scrub or trees should be checked by a suitably qualified and experienced ecologist to confirm absence of any breeding birds prior to the works. Alternatively the areas to be cleared can be covered with appropriate mesh prior to the bird breeding season to deter birds from nesting within the area. This work to be carried out following NRW guidelines.

Recommendation

Protection of the EMA from impacts during the development is recommended (see below).

Invasive species

- 4.14 No evidence of invasive plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 were observed at the time of survey. However, 3 individual garden escapee plants were noted within the EMA.

Recommendation

Remove garden escape plants

4.15 *Adjacent Ecological Mitigation Area*

The adjacent EMA (outside of the development Site) provide grassland, scrub, mature trees and forms a linear route in between industrial units and is of moderate conservation value and as such should be protected from any impacts from the development. Bird and bat boxes are also present with it.

Recommendation

Protect the EMA throughout the development. Install a 8ft high solid fence to limit disturbance from noise, dust etc during the course of the development. For example 8' x 4' sheets of plywood attached to Harris fence panels. These timber sheets will be raised off the ground by 150mm to allow small mammals to pass beneath them. The fence to be installed prior to any works taking place and removed once the construction period is complete.

5.0 ECOLOGICAL ENHANCEMENT

- 5.1 The proposed development will consist of building a steel industrial unit and hard standing within the Site. The building will take up the majority of the footprint of the Site. Little space for meaningful ecological enhancement within the Site will be left (Fig 1 & 2). However, the existing mitigation area to the north is also owned by Mr Davies for which the management agreement (as part of previous planning permission) comes to an end in 2022. This site contains six Schwegler 1B bird boxes and six Schwegler bat boxes (Three 1FF boxes and three 2F boxes). There is no potential for further enhancement of this type within the EMA. As part of the enhancement provision for the new development, Wildbanks Conservation (or similar contractor) will continue to manage the ecological mitigation site for another 10 years as per the below mitigation calendar. After 5 years the management calendar will be reviewed.

This will ensure the ecological function and value of the EMA continues and is improved for a meaningful period of time.

Alpha Windows Ecological Mitigation Area - Five Year Management Calendar						
Management Task	Comments	2023	2024	2025	2026	2027
Review Management	Review management tasks and write Calendar for 2028-2032					August
Monitor fruit trees	Fruit trees will be checked for disease and health	Summer	Summer	Summer	Summer	Summer
Prune fruit tree	Prune out dead stems and maintain open branch structure	November		November		November
Monitor bat boxes	Only to be carried out by Wildbanks staff	January	February	February	February	February
Monitor and clean out bird boxes	Remove old nests and brush out detritus. It is illegal to disturb birds while they are on the nest. Boxes should only be checked between Oct -Feb	November	November	November	November	November
Meadow establishment						
Meadow cutting	In year 1 & 2 the meadow will be mowed bimonthly. Subsequent years once a month. All arising must be raked off and composted on site each time	September	September	September	September	September
Treat perennial weeds	Spot treat or pull out dominating perennial weeds: creeping thistle, dock, nettle and bramble	July		July		July
Pull out Ragwort	Maintain upto 50 ragwort plants within the meadow. Ragwort is the foodplant for the cinnebar moth and some plants will be tolerated on site. Pull additional plants and dispose appropriately	August	August		August	
Coppice large hazel stools	upto 2 large hazel stools to be coppiced per year		November			November

Summary

5.2 The following surveys mitigation and enhancement measures are recommended.

- Pre works check for badger and nesting birds
- Installation of 8ft solid fence along northern boundary of Site
- Removal of a small number of garden escapees identified within the northern mitigation area.
- The Precautionary Method Statement prepared to minimise any disturbance to GCN, detailed in section 6 of the Report.
- Extension of the existing management agreement for the northern Ecological Mitigation Area+ for a further 10 years with Wildbanks Conservation or similar qualified organisation taking responsibility and following the stated management calendar.

6 RATIONALE FOR PRECAUTIONARY METHOD STATEMENT

- 6.1 In cases where a European Protected Species licence is considered to not be required, Natural England urges that '...reasonable precautions be taken to avoid affecting European Protected Species during works' (Natural England, undated). The following activities should therefore be undertaken and the contents of this document made available to contractors carrying out the works.

Timing of Works

- 6.2 Due to the Site providing no hibernating potential and very limited foraging habitat and no ponds being present no restrictions in terms of timing of works is necessary.

Toolbox Talk

- 6.3 All site operatives should receive a briefing by a Natural Resources Wales licensed ecologist. The briefing would include details of the legal protection of Great Crested Newts, the precautionary methods of working (outlined in this document), tips on identification of Great Crested Newts and procedures to follow should the species be discovered during works.

- 6.4 The vegetation within the site will be maintained to a maximum of 70mm in height at all times prior to the development commencing, this height is considered unsuitable for GCN. If the vegetation grows beyond this height it becomes more suitable for GCN to forage upon and further mitigation measures will be required, potentially causing delays to the development.

Hand Searching and Supervision of Substrate Strip

- 6.5 Utilisation of the working area by contractors should not be permitted until the area has been thoroughly hand searched by an experienced surveyor holding a Natural Resources Wales survey licence (or an accredited agent working under licence). During the hand searching, any debris (e.g. wood and rubbish) would be lifted and removed from the working area and any areas of denser vegetation {i.e. tussocks) would be parted to search for newts. Hand searching would be timed for immediately prior (i.e. within 24 hours) to the onset of works. An ecologist holding a NRW licence will also be present during the initial substrate strip.

Storage of materials and vehicle movements

- 6.8 No storage of materials will be permitted within the EMA. All vehicle movements will be restricted to within the development site and the access tracks and areas of hardstanding.

Procedure if Great Crested Newts are found

- 6.9 If a Great Crested Newt is found at any time during construction, all works would cease immediately. If not present on site, a licenced ecologist would be contacted to make an assessment of the situation, remove the individual and to determine whether an EPS licence would be required before work proceeds. If considered necessary, further guidance would be sought from Natural Resources Wales.

Habitat re-instatement

- 6.10 On completion of works any grassland area beyond the footprint of the new building and car park should be reinstated to grass.

7.0 REFERENCES

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Oldham, R.S. & Nicholson, M. (1986). Status and ecology of the warty newt *Triturus cristatus*.

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A1 APPENDIX – SITE PHOTOGRAPHS

- A1.1 Plate 1: View North-east across the site, note amenity grassland where the works are to take place.



- A1.2 Plate 2: View of the amenity grassland facing south from the existing ecological mitigation area, note the short, mown grassland is the development area.



- A1.3 Plate 3: View of the western border fence between the site and the existing Alpha Windows industrial unit.



- A1.4 Plate 4: Amenity grassland dominating the site



A1.5 Plate 5: Species rich meadow (in December) in the existing mitigation site.



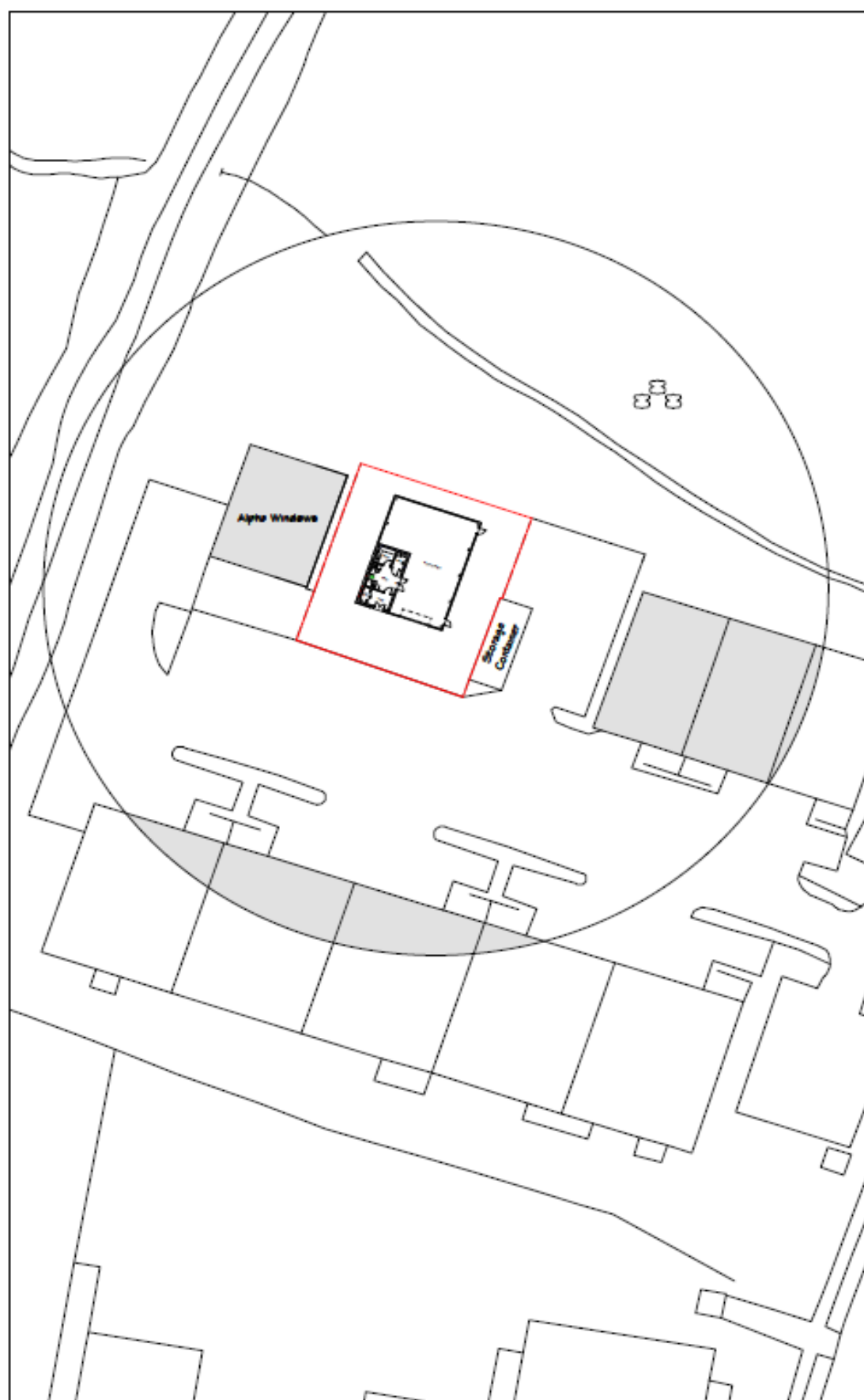
A1.6 Plate 6: Wildflower grassland within the Ecological Mitigation Area to the north of the Site. Scrub and mature trees can be seen to the right within the photo



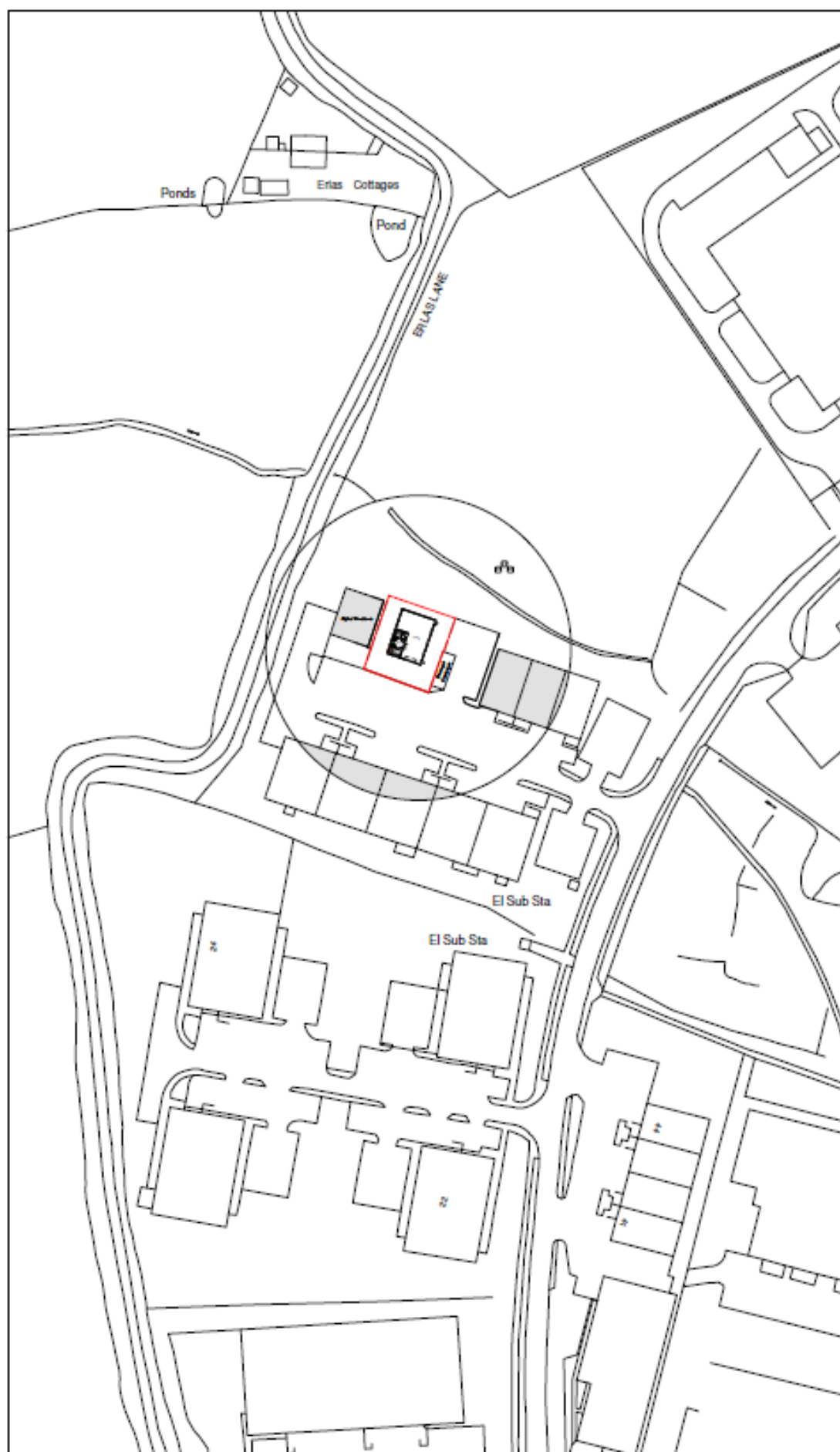
Figure 1: Aerial photo showing red line boundary of site.



Figure 2: Site plan and location plan.



Site Plan 1:500



Location Plan 1:1250

Figure 3: Site and Mitigation plan.

