ELLENDALE
ENVIRONMENTAL

Longnewton Farm, Longnewton, Haddington
Extended Phase 1 Habitat Survey & Physical Bat Survey

For Mr and Mrs Whiteford

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The report, and the information contained in it, is intended to be valid for a maximum of 12 months from the date of the survey, providing no significant alterations to the site have occurred.

Contents

1. Executive Summary 4

2. Introduction....5
2.1 Commission....5
2.2 Site Details 5
2.3 Survey Objectives 6

3. Methodology 7
3.1 Data Search....7
3.2 Phase 1 Habitat Survey....7
3.3 Physical Bat Survey 7
3.4 Preliminary Protected Species Survey....8
3.5 Survey Area....8
3.6 Survey Limitations 8

4. Results 10
4.1 Ellendale Environmental....10
4.2 Desk Study....10
4.3 Extended Phase 1 Survey 10
4.4 Physical bat survey....17
4.5 Preliminary Protected Species Survey....18

5. Conclusions 19
5.1 Conclusion....19
5.2 Main Recommendations....19

6. Target Notes 20
6.1 Botanical Target Notes (TN) 20
6.2 Animal Target Notes (AN)....20

7. Extended Phase 1 Map....21

1. Executive Summary

Ellendale Environmental was commissioned by Mr and Mrs Whiteford via their planner, Tim Fergusson of Fergusson Planning to undertake an Extended Phase 1 Habitat Survey and Preliminary Protected Species survey for a number of buildings and surrounding area at Longnewton Farm, Longnewton, Haddington. It is proposed to provide 8 new residential properties on the site through conversion of 4 existing building and the development of a further 4 buildings.

To fulfil the brief, an Extended Phase 1 Habitat Survey was conducted for the site following the Phase 1 survey methodology (JNCC, 2010) to list the plant species associated with each habitat. A preliminary protected species walkover for the site was also conducted for the application site and immediate surrounding area.

The survey site is approximately 0.8 ha in size and comprises traditional farm steading in a rural setting, and is bordered by agricultural land.

The hard standing around the buildings within the site is not suitable to support protected species and no evidence was found during the survey. The buildings present on the site are in declining condition with missing sections of the roof, walls and windows. The buildings are assessed as being negligible for bat roost potential. A barn owl and swallow nests were observed during the survey.

Some recommendations are made within this report for modest post-construction ecological enhancements at the survey site that are proportionate with the low level of environmental impact from the development. These measures aim to increase the diversity of species present on the site after the completion of any future development works.

2. Introduction

2.1 Commission

Ellendale Environmental was commissioned by Mr and Mrs Whiteford via their planner, Tim Fergusson of Fergusson Planning to undertake an Extended Phase 1 Habitat Survey and Preliminary Protected Species survey for a number of buildings and surrounding area at Longnewton Farm, Longnewton, Haddington. It is proposed to provide 8 new residential properties on the site through conversion of 4 existing building and the development of a further 4 buildings.

2.2 Site Details

The survey site is located at Longnewton Farm in Longnewton situated 23 miles East of Edinburgh at OS grid reference NT 51536 64787.

Figure 1: Location Plan

2.3 Survey Objectives

On the basis of the brief provided by the client, Ellendale Environmental conducted an ecological survey to fulfil the following needs:

- Obtain baseline information on the current habitats and ecological features in and around the site;
- Identify any further specialist surveys that may be required;
- Identify the presence or potential presence of any protected species whose disturbance may require consent under the Wildlife and Countryside Act, 1981 (as amended); and
- Identify any species or habitats which may require special mitigation during the development of the site.

3. Methodology

3.1 Data Search

Publically available databases including MAGIC and the NBN Atlas were consulted for historical evidence of;

- Statutory Land-Based Designations
- Non Statutory Land-Based Designations; and
- Protected Species.

The data search was conducted within a 2km radius of the site boundaries.

3.2 Phase 1 Habitat Survey

An Extended Phase 1 habitat survey of the survey area was undertaken and the habitats present on the site were mapped following the Phase 1 survey methodology (JNCC, 2010), listing the plant species associated with each habitat. This methodology was an extended Phase 1 habitat survey, whereby all habitats were surveyed and recorded onto a base plan and any habitats that were considered to be of potential interest to nature conservation, were recorded through the use of target notes to annotate a Phase 1 habitat map.

The presence of any invasive weeds, such as Japanese Knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandulifera* or giant hogweed *Heracleum mantegazzianum* was also recorded through the use of target notes.

3.3 Physical Bat Survey

A physical internal / external site inspection of the building was undertaken. All suitable features were assessed externally and internally. A telescopic surveyor's ladder was used to gain access to various points and a CLU-10 searchlight was used to search dark

areas. A Visual Optics VO36-10ww Endoscope was utilised to assist inspection of internal spaces.

The physical search included a search for live animals and a search for other signs that give an indication of past or present occupancy.

3.4 Preliminary Protected Species Survey

The site and immediate vicinity was examined for signs of protected species, particularly bat and nesting birds, as it was considered that the site had the greatest potential to support these species or groups of animals.

The presence/potential presence of protected or notable species of conservation concern was recorded using target notes, following the Institute of Ecological and Environmental Management guidance (IEEM, 2012).

3.5 Survey Area

The survey covered the entire site and areas within 30m (where accessible).

3.6 Survey Limitations

The aim of this survey was not to record every species present on the site, as one survey acts as a snap-shot, recording only those species which are present at the time or whose presence can be indicated through the occurrence of field signs, such as feeding remains, droppings or places used for shelter or foraging.

Evidence collected has been used to draw conclusions about the flora and fauna within the boundary of the site and to provide an assessment of their ecological and nature conservation value. Where it is suspected that species of nature conservation importance have the potential to be present, further more detailed surveys have been advised.

Weather was not a limiting factor to the surveys. The prevailing conditions at the time of the survey are summarised in Table 1 below.

Table 1: Survey Weather Conditions

SURVEY DATE	TEMPERATURE (°C)	WIND SPEED (MPH)	CLOUD COVER / PRECIPITATION
14/02/18	1.7	Ave 8.7 Max 15.9	100% cloud cover, strong winds and light snow.

4. Results

4.1 Ellendale Environmental

The survey was undertaken by Stewart Parsons and John McTague.

Stewart is the Director and Principal Ecologist of Ellendale Environmental, who is a full member of CIEEM and Chartered Environmentalist (CEnv). Stewart has over 15 years' professional experience of ecological surveys across the UK.

John McTague is an Ecologist with Ellendale Environmental. John has experience in Ecological Consultancy, including Extended Phase 1 Habitat Surveys, with a particular focus on botanical surveying.

4.2 Desk Study

A 2km data search for existing biological records was undertaken from publically available databases.

There are no statutory or non-statutory designated sites within 2km of the site.

There are no protected species identified within 2km of the site boundaries by the data search.

Approximately 97 bird species have been recorded within 2km of the site and are shown on the NBN Atlas. None of these records are for birds within the site.

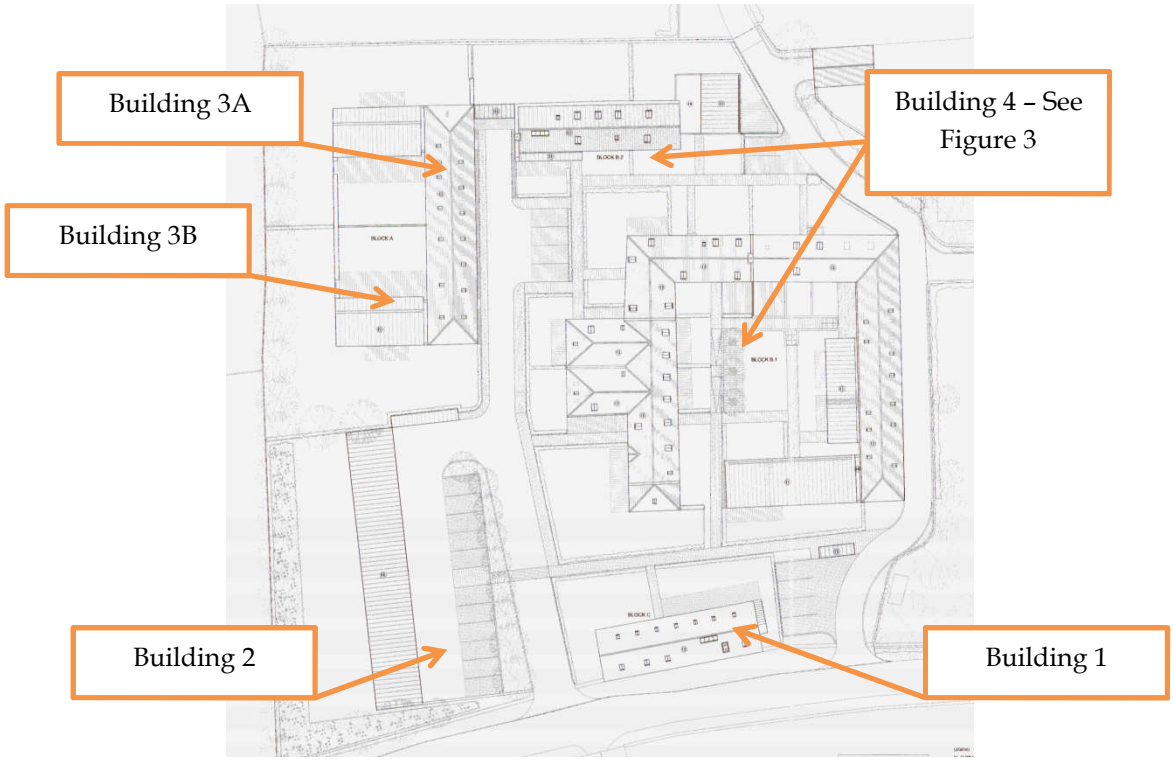
4.3 Extended Phase 1 Survey

The survey site is approximately 0.8 ha in size and is located approximately 23 miles east of Edinburgh. The site comprises traditional Farm steading in a rural setting, and is bordered to the north south and west by agricultural land. To the east are residential properties beyond which is further agricultural land.

Picture 1: showing an aerial view of the site

A number of buildings are present on site and have been described separately. Figure 2 shows the building numbers.

Figure 2: Building plan



Building 1 is located to the south of the site and comprises a sandstone block walls with a lean-to attached, open at the eastern end. The lean-to consists of a metal frame covered by corrugated metal sheeting and a flat corrugated metal roof. The sandstone building has a single layer corrugated metal roof. It has open archways in its northern wall, opening to the lean-to.

Picture 2: showing a view of building 1

Four large silos, the full height of the building, are present on the south of the building. Unglazed window openings are present on the south of the building. The building is of two storeys, with wooden struts and beams and a wooden floor. The ground floor is used for storage of scrap timber, roofing and farm equipment. At the east end of the building is an external stone staircase leading to a doorway which would have served the upper storey. A partially destroyed door is present, allowing ingress of draughts and rainwater.

Numerous swallow *Hirundo rustica* nests and roosting feral pigeons were noted in the building.

The building was very draughty due to large areas fully open to the weather. The stonework was noted to be wet in areas, with patches of algae.

Building 2 is a large metal-framed agricultural barn with a concrete floor. It consists of an approximately 2 metre breeze block wall topped by corrugated metal walls and a corrugated metal roof with Perspex windows. The barn has a large open doorway to allow vehicular access. It is being used to store agricultural vehicles, equipment and baled straw.

Picture 3: showing a view of building 2

Building 3 comprises two separate parts. The eastern section (3A) is a horse stable, currently used to keep horses during the winter. The building has sandstone walls and a slate roof supported by a wooden

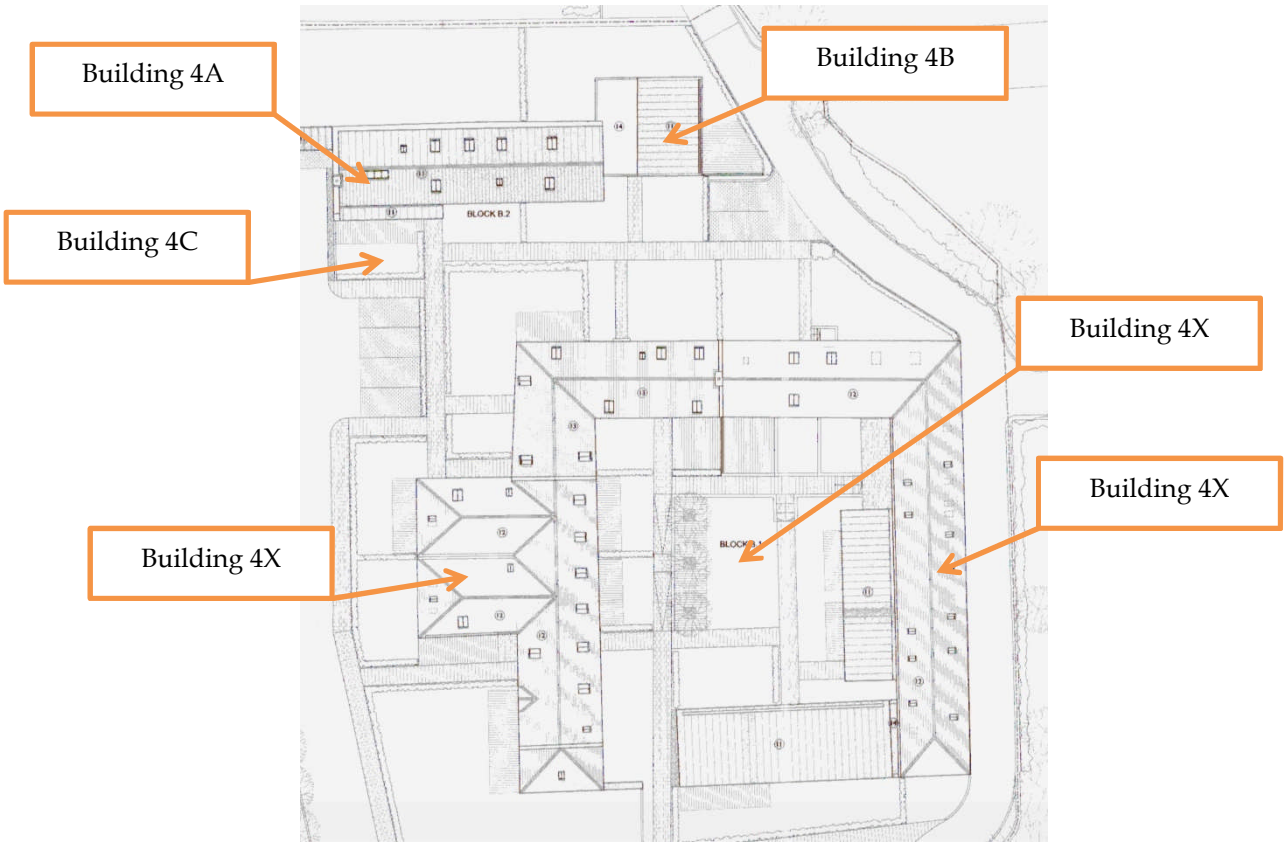
A-frame and wooden roof slats. The roof was noted to be in poor condition with some holes. The building was draughty, with damaged doors allowing wind and rain to enter. The beams were covered in large quantities of dense cobwebs.

The western section (3B) is a largely collapsed agricultural barn. It is disused, and completely open to the weather. There is a metal frame and the remains of a stone wall base and some areas of corrugated metal roof, although the this is largely missing.

Picture 4: showing a view of building 3B

Building 4 is a complex of barns which has been split into seven areas for the purposes of this report.

Figure 3: Building 4 plan



Section 4A is a barn with a sandstone wall of approximately 2 metres in height, then a pitched corrugated metal roof supported by a metal frame. On one side, the stone wall is topped with approximately 0.5 metres of brick wall. Much of the roof structure is missing and it was noted to be moving in the wind during the survey. The barn is fully open at its east and west ends, allowing the wind to blow through it.

Section 4B is a small barn attached to 4A at its west end. It is comprised of sandstone walls and a timber and slate roof both in poor condition. It is completely open at its east end, and the west end opens into section 4A.

Picture 5: showing a view of building 4A and 4B

Section 4C is a barn constructed with sandstone walls and a corrugated metal roof, supported by wooden beams. Numerous holes were noted in the roof and between the roof and the walls. This building is completely open at its west end.

Section 4D is a barn with sandstone walls with some brick additions / repairs in places. The roof is comprised partially of slate on the eastern side and clay tile, with wooden beams and slats beneath. Internally, the condition of this section varies. Most of the building was in very poor condition, with numerous holes in the roof and most tiles missing, but some sections were in better condition with the roof tiles appearing to be in good condition. The building was draughty, with numerous open holes and windows.

Building 4E is the largest part of this complex and consists of a large, square, single storey building with sandstone walls and a corrugated

metal and corrugated cement roof panels. Internally the roof is supported by steel beams and girders as well as some wooden beams. The wooden beams were noted to be in poor condition, many of them broken in half. Numerous holes were noted in the roof and the building was draughty. The southern end of the building is completely open, and there are open doorways on the northern end.

Section 4F is a loft, used for the storage of agricultural equipment. It has a clay tiled roof in poor condition, with some large holes. Window openings were covered with animal feed sacks, but these had blown away in places. Internally, the roof was supported by wooden beams and slats, of varied condition. Some beams were snapped in half but others appeared sound. The building was fairly draughty. The beams were covered in large quantities of cobwebs.

4.4 Physical bat survey

The buildings present on site are in declining condition with missing sections of the roof, walls and windows. This makes the buildings draughty and cold reducing the suitability for bats to be present.

Throughout the survey the walls of the buildings were found to be wet with algal growth on many of the internal and external walls reducing the suitability for roosting bats to be present.

The traditional roof timber frames in some of the buildings were found to be densely covered in cobwebs which had accumulated with dust. This suggests bats are not present in the roof structure as the cobwebs would be cleared through animal movements.

Roosting feral pigeons were noted throughout the buildings and extensive guano was noted on the floors and walls of the buildings. This reduces the suitability of the buildings for bats.

Rat *Rattus norvegicus* and mouse *Mus musculus* droppings were noted throughout the buildings.

The site is elevated and exposed in the landscape with no connecting features to areas suitable for foraging bats. No evidence of bats activity was noted during the surveys and no further surveys are recommended.

4.5 Preliminary Protected Species Survey

The hard standing around the buildings within the site is not suitable to support protected species and no evidence was found during the survey.

A barn owl *Tyto alba* was noted to be roosting in building 4, with prey remains (feral and woodpigeon) and pellets present. A single owl was identified during the survey however no nest was found and the site is assessed as a perch.

Numerous swallow *Hirundo rustica* nests were observed in the buildings.

No other evidence of protected species was identified.

5. Conclusions

5.1 Conclusion

The hard standing around the buildings within the site is not suitable to support protected species and no evidence was found during the survey.

The loft buildings within the site are assessed as providing negligible habitat for roosting bats and no evidence of bat activity was found during the survey. No further surveys for bats are recommended.

A barn owl was observed during the survey with prey remains and pellets present in building 4.

Swallow nests were also noted during the survey.

5.2 Main Recommendations

The following recommendations are made based on the project timescales;

- As part of the design and layout barn owl boxes could be positioned to encourage roosting and nesting to continue. Two boxes should be placed out as the male and female birds roost separately.
- As part of the design and layout, considered as part of any future planning application bird nesting boxes, both small hole and open fronted, could be placed within the site if possible to create nesting opportunities for small bird species as part of the overall design.
- As part of the design and layout, considered as part of any future planning application bat boxes could be placed on around the site boundaries or on the new buildings if possible to create roosting opportunities for bat species as part of the overall design.

6. Target Notes

6.1 Botanical Target Notes (TN)

TN1 – A beech *Fagus sylvatica* hedgerow and dry stone wall along the site boundary

TN2 – Hard standing around the site is species poor with common nettle *Urtica dioica*, rank grasses and bramble *Rubus sp.* around the buildings.

TN3 – Building 4 is a complex of buildings in poor condition.

TN4 – Building 3 comprises two barns in poor condition.

TN5 – Hard standing around the site is species poor with common nettle, rank grasses and bramble around the buildings.

TN6 – Building 2 is a large metal framed building.

TN7 – Building 1 is a sandstone barn in poor condition.

TN8 – A beech hedgerow and dry stone wall along the site boundary

6.2 Animal Target Notes (AN)

AN1 – Open barns with pigeon noted throughout.

AN2 – Evidence of barn owl found during the survey. No nest was found and the bird is thought to be roosting only.

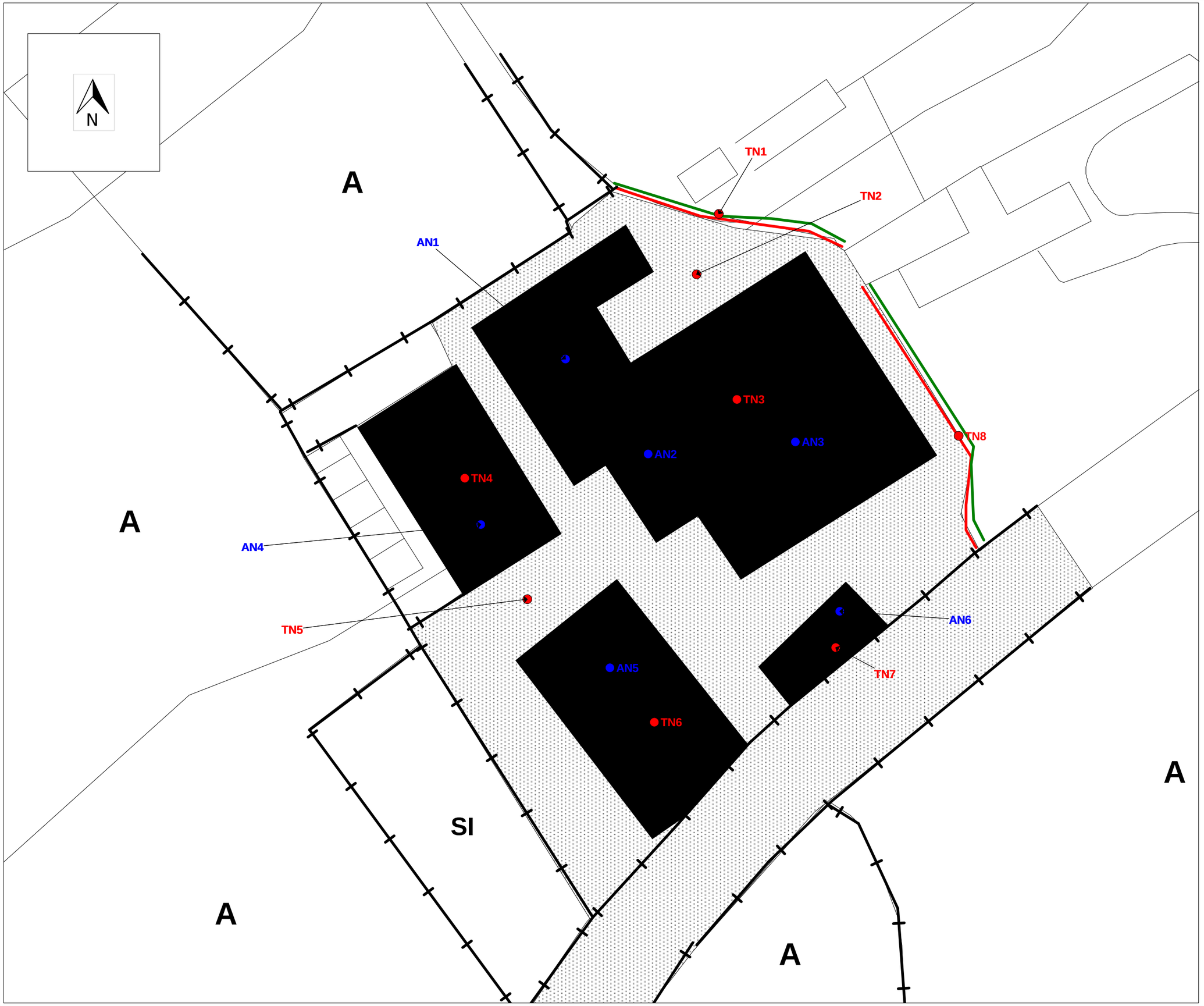
AN3 – Open barns with pigeon noted throughout.

AN4 – Barns in poor condition. No evidence of protected species.

AN5 – Barns in poor condition. No evidence of protected species.

AN6 – Barns in poor condition. No evidence of protected species.

7. Extended Phase 1 Map



ELLENDALE ENVIRONMENTAL

Drawing Title
Longnewton Farm
Extended Phase 1 Map

Client
Mr & Mrs Whiteford

Date	Drawn By
26/02/2018	SP

Project Number	Issue
EEL133	V 1.0

Target Note
TN

Animal Note
AN

Boundaries
Wall
Fence
Hedgerow

Built-up Areas
Buildings
Hard Standing