

Elm Grove, Drynham Lane, Trowbridge, Wiltshire:
Written Scheme of Investigation for a Programme of
Archaeological Recording

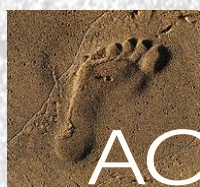
NGR: ST 86100 56319

Prepared by:
R Clark MCIfA

On behalf of:
Redrow Homes
South West

Document No: ACW1435/1/0

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AC archaeology

ELM GROVE, DRYNHAM LANE, TROWBRIDGE, WILTSHIRE:

Written Scheme of Investigation for a programme of archaeological recording

Museum Accession Code: DZSWS 10-2022

NGR ST 86100 56319

1. INTRODUCTION

- 1.1** This Written Scheme of Investigation has been prepared by AC archaeology Ltd on behalf of Redrow Homes South West and relates to a new housing development in Trowbridge, Wiltshire.
- 1.2** The document sets out the methodology for undertaking a programme of archaeological recording, in advance of the house building commencing. The fieldwork will take the form of open area excavation, as well as some additional trial trenching which is required to confirm the size of one of the areas that will also require excavation. The proposed site layout is included in Appendix 1 and the archaeological areas that require investigation are shown in Figs. 1 to 4.
- 1.3** The planned development comprises the erection of up to 261 dwellings following the demolition of Elm Grove Farmhouse. The development will also include a multi-use community facility, strategic landscaping, access and drainage works and demolition of former agricultural outbuildings (see Wiltshire Council planning application 19/11459/OUT).
- 1.4** A programme of archaeological mitigation has been requested in order to meet the requirements of a condition on the planning consent. This states:

No development shall commence within the area indicated (proposed development site) until a written programme of archaeological investigation, which should include on-site work and off-site work such as the analysis, publishing and archiving of the results, has been submitted to and approved by the Local Planning Authority; and the approved programme of archaeological work will be carried out in accordance with the approved details.

REASON: To enable the recording of any matters of archaeological interest.

Further Recommendations: The work should be conducted by a professional archaeological contractor and there will be a financial implication for the applicant.

- 1.5** The overall scope of the work has been agreed in consultation with the Wiltshire Council Assistant County Archaeologist (WCACA) and will involve open area excavation over two general areas, together with a further stage of trial trenching which is required to determine the full scope of open area excavation in an additional area where the initial phase of trenching was inconclusive.
- 1.6** The bedrock geology is recorded as part of the Oxford Clay Formation, a mudstone formed in the Jurassic Period.

2. ARCHAEOLOGICAL BACKGROUND

- 2.1** In order to provide archaeological information to support the planning application, a desk-based assessment and a programme of field evaluation in the form of geophysical survey and targeted trial trenching was undertaken across the entire site area.

Desk Based Assessment

- 2.2** The desk-based assessment identified little evidence for the likelihood of any archaeological remains within the application area, other than the vestiges of ridge and furrow cultivation and structural elements associated with a former post-medieval homestead situated in the northern extent of the site (summarised in Robinson 2019). This homestead was recorded on the 1837 tithe map.

Geophysical Survey

- 2.3** The geophysical survey identified very few anomalies of archaeological potential (Archaeological Survey 2016). The area with most archaeological potential was located in the northern part of the site where buildings recorded on the 1837 tithe map were identified. Elsewhere across the site there were isolated 'pit-like' features and probable field boundaries. A possible area of orchard trees was also identified as a regular pattern of 'pit-like' anomalies (see Fig.2 around Trenches 42 and 43).

Trial trenching

- 2.4** A total of 93 trenches measuring 20m by 1.9m wide were excavated across the overall site area. These were positioned partly to determine the nature of anomalies detected in the geophysical survey and to test 'blank' areas. Only ten trenches revealed archaeological deposits (see Figs. 2 to 4 for location of features in relation to the geophysical survey data). These were found in three areas (Areas A, B and C). The full details of the archaeological deposits are given in Robinson (2019).

Area A (see Figs. 1 and 2)

- 2.5** Trench 54 produced a single feature representing a possible former charcoal pit.
- 2.6** The trenches that surrounded Trench 54 did not contain any further features of archaeological interest. No evidence for the possible orchard area was found.

Area B (see Figs. 1 and 3)

- 2.7** Three trenches in Area B produced archaeological evidence in the form of further possible charcoal production pits (See Fig. 3 Trenches 62, 63 and 68). One pit, in Trench 63, contained ceramic material in the form of a cooking vessel dating to the 11th or 12th century. This was associated with a charcoal deposit that was identified as ash.

Area C (see Figs. 1 and 4)

- 2.8** Trench 72 in Area C produced a further pit that was probably used for charcoal production.
- 2.9** Trenches 77 and 87 produced archaeological evidence for the buildings shown on the 1837 tithe maps and detected during the geophysical survey. Apart from evidence for the buildings, gullies and other linear features, as well as pits were also recorded. Peripheral features, possibly associated with the buildings were recorded in Trenches 79, 80 and 82.
- 2.10** Trench 86 in the northern corner of the site area contained evidence for a former water course as well as a linear feature that contained a small quantity of 11th to 12th century pottery.

3. MITIGATION

Introduction

- 3.1** As outlined above, the overall mitigation strategy will involve open area excavation in three areas. With regard to Area A, an initial stage of investigation will involve the excavation of a series of additional trial trenches around Trench 54.

Aims

- 3.2** The principal aims of the programme of archaeological investigations are:
- to meet the requirements of the condition attached to the planning consent;
 - to establish the presence/absence, extent, date, nature, function and phasing of the archaeological remains present within the targeted areas and to make a full and detailed archaeological record;
 - to recover ecofactual and environmental information in accordance with a palaeo-environmental sampling strategy;
 - to contribute to archaeological research framework questions, and to;
 - to produce a durable archive of results and a report for dissemination that provides a synthesis of the results.
- 3.3** With regard to research aims, the *South West Archaeological Research Framework Action Plan 2012-2017* (Somerset County Council 2012) contains the following theme / research aim that may be relevant to the investigations:

Theme E: Economics and Subsistence – trade, subsistence, agriculture, transport and communication – Research Aim 47: Assess the archaeological potential for studying Medieval economy, trade, technology and production.

- 3.4** Research questions relating to post-medieval farm buildings, possibly in relation of rural crafts such as charcoal production may also be addressed.

Trial Trenching

- 3.5** It is proposed to excavate four 10m by 1.6m wide trenches around Trench 54 with the aim of confirming whether there are further archaeological features in this area, in addition to the charcoal production pit (see Fig.2 for trench locations). The results will then determine the extent of open area excavation that will be required in this area.

Open area excavation

- 3.6** In addition to opening up an area around Trench 54 in Area A, there are four areas that require excavation (see Figs. 3 and 4). In Area B, an area around Trenches 62 and 63 and a second area around Trench 68 will also require investigation. In Area C, two areas, around Trench 72 and around Trenches 77 and 78 will require excavation.

Area A

- 3.7** As noted above, the results of the additional trial trenching will determine the area to be stripped of topsoil.

Area B

- 3.8** A trapezoidal area approximately 65m by 25 m will be opened up around Trenches 62 and 63 (Area B1) in order to determine whether further charcoal pits or associated features are present. A further area of approximately 10m around Trench 68 (Area B2) will also be stripped of overburden (see Fig.3).

Area C

- 3.9** An area of 10m around Trench 72 (Area C1) will be investigated to determine whether further charcoal pits or associated features are present in this area. An area measuring c. 30m by 15m will be excavated in the area of Trenches 77 and 78 (Area C2) in order to record the remains of a farmhouse and possible barn (see Fig.4).
- 3.10** For all areas, there will be a contingency to extend these areas, should significant archaeological deposits be found (see Section 3.17 below).

Excavation method

- 3.11** Overburden that can be shown to be of modern date will be removed in level spits of no more than 200mm using a mechanical excavator fitted with a toothless bucket. Mechanical excavation will cease either at the top of archaeological deposits or at the surface of the natural geology if no archaeological deposits are encountered.
- 3.12** Topsoil will be stored on site outside of the excavation areas at a safe distance from the limit of the excavations, in positions to be confirmed, separated from any subsoil removed.
- 3.13** All excavated areas and spoil heaps will be scanned with a metal detector by a suitably qualified operative.
- 3.14** Following completion of the soil strips, or as soon as safe working allows, the areas will be cleaned by hand, where necessary, in sufficient detail and extent to identify the presence or absence of subsoil archaeological features. The WCACA will be invited to attend site meetings to discuss the excavation strategy based on these initial exposures.

Sampling of archaeological features

- 3.15** All archaeological features and deposits will be excavated by hand, using appropriate tools. Sampling levels will be as follows:
- Charcoal pits will be half sectioned, unless dateable material is recovered, in which case they will be 100% sampled;
 - Full (100%) excavation of any deposits related to funerary/ritual activity; e.g. burials, cremations;
 - Full (100%) excavation of any deposits related to industrial/domestic activity; e.g. furnaces, hearths, ovens;
 - A minimum of 50% of any structural features; e.g. beam slots or ring ditches, although surviving structural elements, such as walls, collapsed rubble and debris fields, may require more limited investigation;
 - A minimum of 50% excavation of pits and post-holes (c. 50% of features present);
 - A minimum of 20% excavation of linear features, as well as all intersections and terminals.
- 3.16** Subsequent site meetings will be held with the WCACA, as required, during the excavation programme, where sufficient interventions have been completed to allow an understanding of the nature of any archaeological features and the relationships between them. The meetings will establish and confirm the suitability of the proposed methodology and the scope of any further work required to discharge the planning conditions.

Contingency

- 3.17** If more extensive archaeological remains are identified which clearly extend beyond the limits of the proposed excavation areas, the need for further extensions of the archaeological works will be authorised by the WCACA. The areas to be extended will be formally agreed and confirmed through email. If significant deposits, other than those expected to be found (charcoal pits, associated features and evidence for the farm buildings), it may be necessary to produce an addendum WSI to outline further excavation strategies.

Archaeological recording

- 3.18** All artefacts and/or deposits revealed will be recorded using the standard AC archaeology Ltd *pro forma* recording system (based on the Museum of London Archaeological Recording Manual), comprising written, graphic and photographic records. A series of overall area location plans, along with detailed plans of individual archaeological features and deposits, will be prepared at appropriate scales. Representative sections and site matrices showing the full layer sequences across the excavation areas will also be produced.
- 3.19** All site levels will be related to Ordnance Datum and the excavation area locations will be geo-referenced to the Ordnance Survey grid, via the use of a survey-grade GNSS instrument with horizontal precision of c. 20mm or better.
- 3.20** An adequate photographic record of all archaeological deposits will be made in both plan and section. This will comprise digital photographs only (minimum of 10 megapixels), illustrating in both detail and generally the principal features and finds discovered. The photographic record will also include working shots to illustrate more generally the nature of the archaeological operations mounted; this may include, where appropriate, high level overview photographs.

Project management

- 3.21** The archaeological project will be managed by Dr Royston Clark on behalf of AC archaeology Ltd. All work will be undertaken by suitably experienced staff members of AC archaeology Ltd. The site archaeologist(s) will familiarise his or herself with the content of this WSI prior to commencement of fieldwork.

4. FINDS AND PALAEOENVIRONMENTAL SAMPLING

- 4.1** All pre-20th century finds will be retained at least for initial inspection. The presence of later material will be noted, but examples will not be retained, except where they are items of intrinsic interest, or their further examination is considered necessary for the interpretation of the site areas.
- 4.2** Each archaeological feature and deposit recorded will be assessed for its ability to yield palaeo-environmental or geo-archaeological information. Of particular interest is the potential to identify tree species used in the production of charcoal, as well as further evidence for this and other rural industries. Those deposits considered appropriate will be bulk sampled (e.g. 40 litres), and samples processed and assessed in their entirety. This work will be undertaken in consultation with the AC archaeology's palaeo-environmental advisor, Dr Mike Allen and, if necessary, the advice of Historic England's Science Advisor (South West), in accordance with Historic England (formerly English Heritage) guidelines (2011).

- 4.3** The aims will be to define, via specific descriptions and sampling soils and sediments for snails and pollen (for paleo-environmental proxies), and for charred plant and charcoal remains (principally for palaeo-ecological and site function proxies) to examine:
- i) The nature of the local land-use, environmental resources and what trees were utilised for charcoal;
 - ii) Exploitation of those resources and accompanying land-use and any consequent wider changes in the landscape (soil depletion, colluviation, alluviation, erosion);
 - iii) Human impact on the landscapes and resources;
- 4.4** Environmental samples, geoarchaeological records and sediment archives will focus on:
- i) datable local archaeological features (ditches, buried soil etc, pits);
 - ii) long and stratified sedimentary sequences especially where there is any physical or inception/causational relationship with known archaeological events.
- 4.5** In the event that wet, waterlogged or peaty deposits are encountered, and considered to have palaeo-environmental potential, monoliths will be taken along cleaned vertical surfaces for the retrieval of pollen, diatoms, ostracods and foraminifera. The numbers to be taken will be as advised AC archaeology's palaeo-environmental advisor. For wet, waterlogged or peaty deposits, bulk samples of 20 litres will be taken from visible layers or spits for the retrieval of plant macro-remains and insects.
- 4.6** Environmental samples from dry deposits will be processed by flotation following the fieldwork and the residues will be sorted to retrieve small bones, small finds and charcoal that has not floated. Environmental samples from wet deposits will normally be sent to specialists for processing in laboratory conditions.
- 4.7** Suitable carbonised (or other) material will be identified and sampled for radiocarbon dating, where appropriate. Other deposits will be identified that may provide suitable material for thermo-remnant archaeomagnetic dating or Optically Stimulated Luminescence (OSL) dating.
- 4.8** Where appropriate the guidance in the following Historic England and associated papers will be followed:
- Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood (Historic England 2010) <https://historicengland.org.uk/images-books/publications/waterlogged-wood/>
 - Archaeometallurgy: Guidelines for best practice (Historic England 2015) <https://historicengland.org.uk/images-books/publications/archaeometallurgy-guidelines-best-practice/>
 - "Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation (second edition) Historic England 2011: <https://historicengland.org.uk/advice/technical-advice/archaeological-science/environmental-archaeology/>
 - Human Remains Advice (Historic England 2018: <https://historicengland.org.uk/advice/technical-advice/archaeological-science/human-remains-advice/> and also the 2017 guidance on standards for recording human remains <https://babao.org.uk/publications/ethics-and-standards/>

- Geoarchaeology: Using earth sciences to understand the archaeological record (Historic England 2015): <https://historicengland.org.uk/images-books/publications/geoarchaeology-earth-sciences-to-understand-archaeological-record/>
- Waterlogged Organic Artefacts: Guidelines on their recovery, analysis and conservation (Historic England 2018): <https://historicengland.org.uk/images-books/publications/waterlogged-organic-artefacts/>

5. SITE ARCHIVE

- 5.1** The site archive will contain all the data collected during the excavations including records, finds and environmental residues. It will be quantified, ordered, indexed and internally consistent.
- 5.2** The archive will be prepared to the standards outlined in Appendix 3 of *Management of Archaeological Projects* (English Heritage 1991), and in accordance with the guidelines published in *Guidelines for the preparation of Excavation Archives for long-term storage* (United Kingdom Institute for Conservation, 1990) and *Standards in the Museum care of archaeological collections* (Museum and Galleries Commission, 1994). Deposition shall take place as soon as practicable after the site works and any subsequent mitigation activities and in any case within 12 months of the completion of the project.
- 5.3** Subject to the formal agreement of the landowners, it is intended that the finds together with the site archive will be deposited with Devizes Museum (DZSWS 10-2022). All materials will be marked, packaged and presented in accordance with their standard requirement. Security copies of paper records in digital format will be maintained and stored at the AC archaeology offices prior to deposition. As part of the overall post-excavation programme AC archaeology will cover the costs of all storage boxes and associated fees.

6. REPORTING

- 6.1** It is anticipated that a post-excavation assessment report will be prepared following completion of site work, in accordance with the ClfA *Standard and guidance for archaeological excavation* (ClfA 2020), and will be sent to the WCACA for approval. This document will review the stratigraphic, artefactual and palaeo-environmental archive and identify the need, where applicable, for any further analysis, for example processing palaeo-environmental or C14 samples, and will include methodologies for the analysis and publication of the archive. The assessment will be undertaken by AC archaeology's nominated specialists. The report will form part of the project archive. It will include a statement of the quantity and perceived quality of the data in the site archive, and recommendations for data storage and curation requirements, as well as for publication.
- 6.2** Following the initial assessment by AC archaeology's Finds Officer the following specialists (as required) will undertake various components of the report:
- an initial report on any medieval or later pottery will be carried out by Dan Carter AC archaeology;
 - a report on prehistoric pottery will be carried out by Imogen Wood, freelance specialist;
 - a report on any Romano-British pottery will be carried out by Mark Corney, freelance specialist;

- a report on the animal bone will be undertaken by Charlotte Coles AC archaeology;
- identification of worked flint will be carried out by Peter Bellamy, freelance specialist or Royston Clark AC archaeology;
- a report on metal objects and metalworking residue will be undertaken by in-house staff of AC archaeology;
- coins will be identified by Mark Corney, freelance specialist;
- assessment of palaeo-environmental samples will be undertaken by Mike Allen, freelance specialist;
- Scientific dating (Carbon-14) will be undertaken by Scottish Universities Environmental Research Centre (SUERC).

6.3 As a minimum, a short note on the circumstances and nature of the project will be provided for publication in the county journal within one year following completion of the site work.

6.4 Copies of the full report will be supplied to the client, WCACA and WHER. A digital copy of the site data will also be provided in an approved format. A hard copy of the final report will be sent to the Wiltshire HER.

6.5 An OASIS record will be completed.

7. MONITORING

7.1 During the archaeological investigations the WCACA will be invited to inspect and advise on the work as required. A minimum of two weeks' notice of proposed commencement on site, or shorter period as may be mutually agreed, will be given to the WCACA.

8. HEALTH AND SAFETY AND COVID-19 PRECAUTIONS

8.1 Archaeological staff will operate under AC archaeology's Health and Safety Policy and in accordance with current Health and Safety legislation, to include (but not exclusively rely on upon) the *Health and Safety at Work etc. Act 1974*, the *Management of Health and Safety at Work Regulations 1992* and the *Construction (Design and Management) Regulations 2015*.

8.2 Archaeological staff will acquaint themselves with 'AC archaeology Ltd: Risk Assessment for Coronavirus – COVID-19 for archaeological fieldwork projects: July 2020' and will follow all the procedures and guidelines outlined in this document, including those that relate to travelling to and from site. Any further site contractor health and safety requirements in relation to COVID-19 will also be followed.

8.3 Archaeological staff will not work within the reach of the excavator arm on mechanical plant and would be at a safe distance should the quick hitch device fail. The machine operator will ensure that all necessary parts of the plant are fully functional and properly maintained.

8.4 In accordance with the provisions of the AC archaeology Health and Safety Policy, the site archaeologist will be responsible for ensuring that operations under their control are carried out in accordance with the approved procedures.

8.5 Archaeological staff will not work in unsafe conditions; even where not to do so will result in the possible under-recording of the archaeological resource.

8.6 All site staff hold Construction Industry CSCS accreditation.

9. INSURANCE

9.1 AC *archaeology* carries Public Liability Insurance cover to £5,000,000, Employer's Liability to £10,000,000 and Professional Indemnity cover to £5,000,000.

10. COPYRIGHT

10.1 AC archaeology Ltd will provide Redrow Homes with unrestricted permission to use the report resulting from the archaeological investigations, but will retain, along with its specialist contributors, the copyright of the report and all associated archive material.

11. REFERENCES

Archaeological Surveys Ltd 2016 *Land at Elm Grove, North Bradley, Trowbridge: Magnetometer Survey Report*. Unpublished client report.

Robinson, S, 2019 *Elm Grove, Drynham Lane, Trowbridge: Results of an Archaeological Evaluation* (AC archaeology Ltd Report ACW1189/2/1)

APPENDIX 1: PROPOSED SITE LAYOUT

Existing Southview farmhouse retained with improved setting

Position units along the north eastern boundary to minimise noise penetration through the development

Access to lane as per outline masterplan

Retain existing landscape in line with paramter plans

Deflection in the street to prevent along straight road and to slow traffic adjacent the green corridor.

Green verge to open up the street & provide both high and low lying landscape features

Opportunities to introduce wetland habitat via ponds

Integrate existing landscape features into informal green spaces

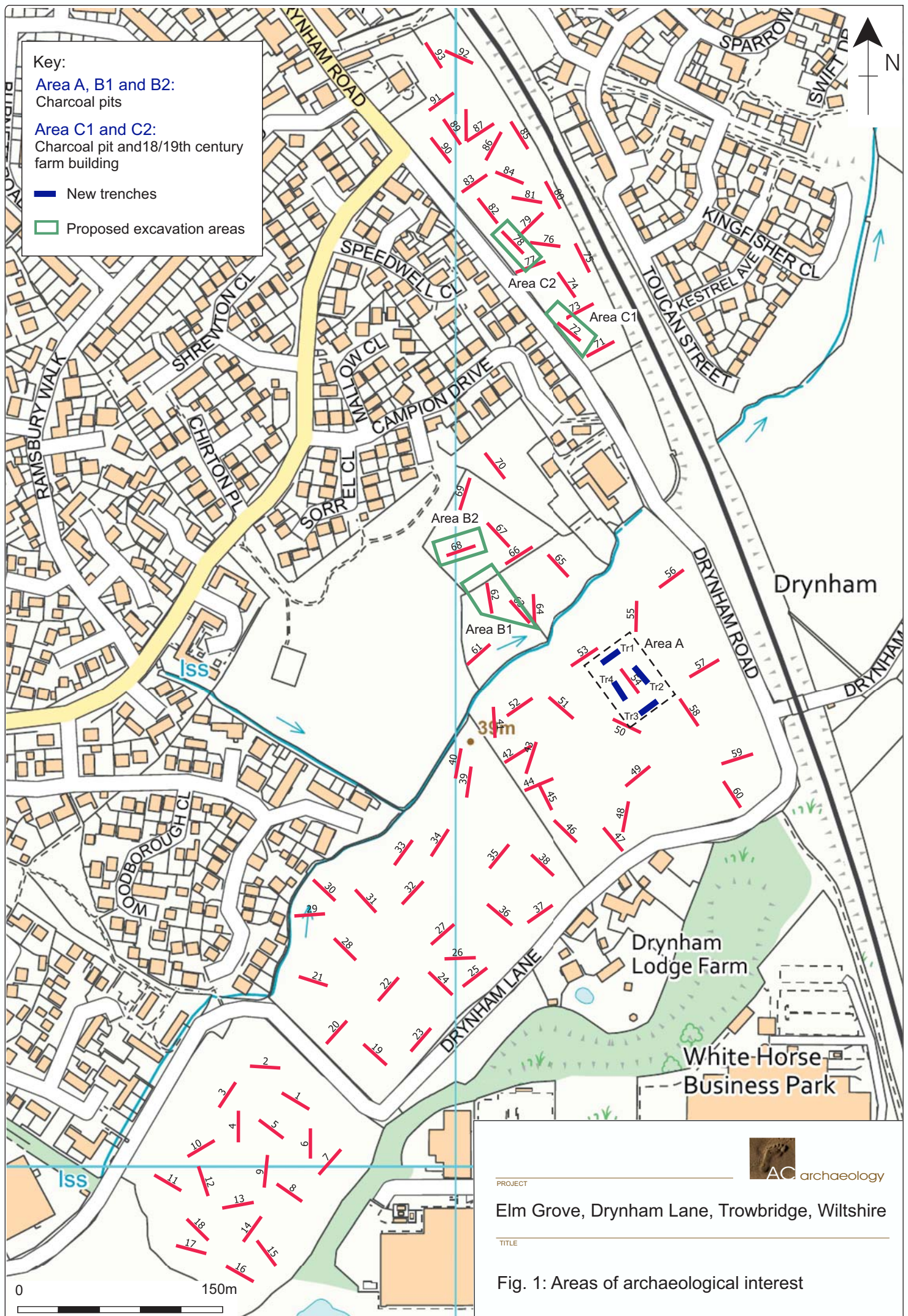
POTENTIAL FUTURE DEVELOPMENT PARCEL

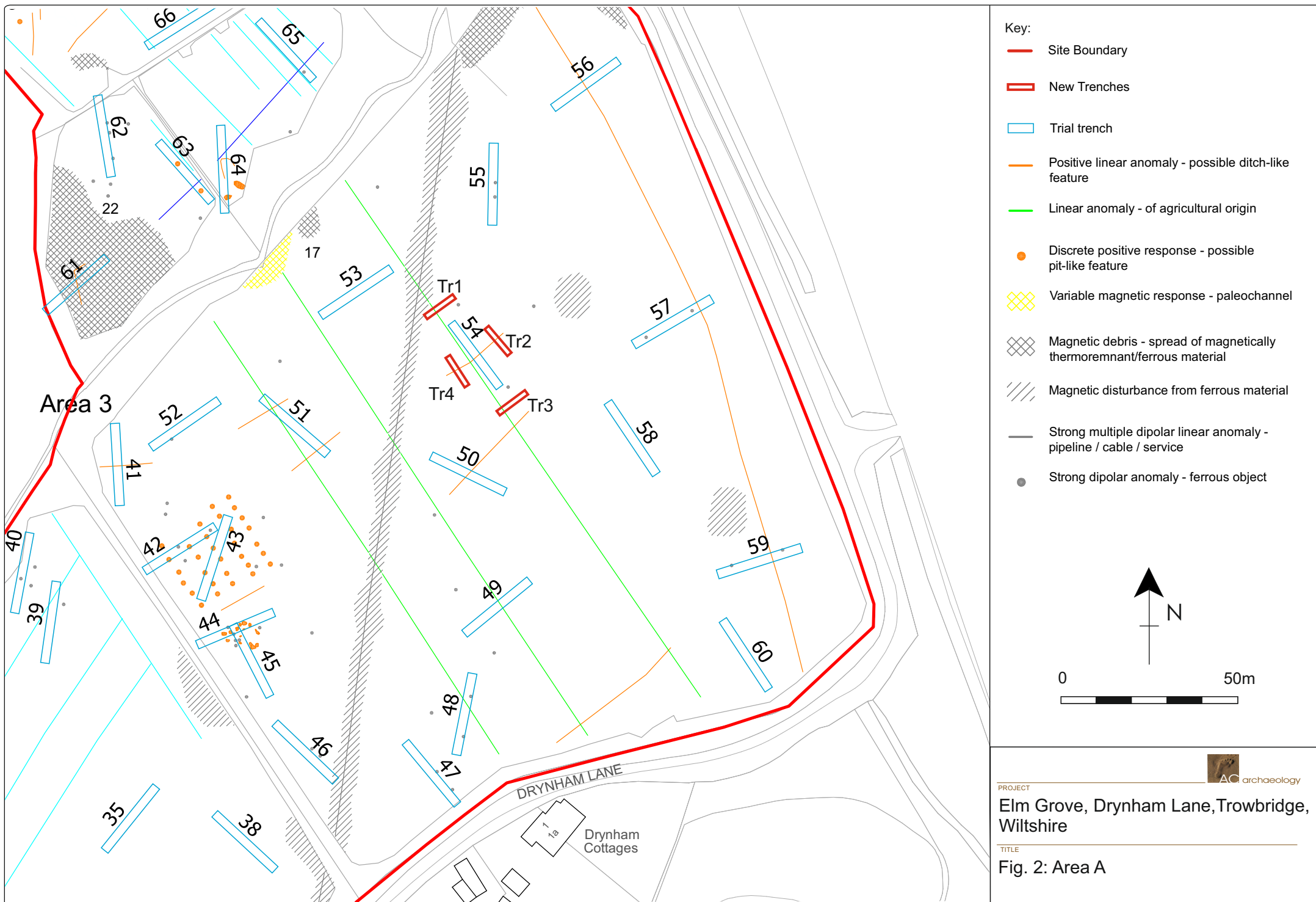
Townbridge - 244 Unit Mix					
Residential Homes Schedule					
Unit Type	Bed	Bath	Gar	Total GFA	No. Units
1-Bed	1	1	0	1,177	14
2-Bed	2	1	0	1,081	4
3-Bed	3	1	0	1,332	5
4-Bed	4	1	0	1,332	25
5-Bed	5	1	0	1,332	25
6-Bed	6	1	0	1,332	25
7-Bed	7	1	0	1,332	25
8-Bed	8	1	0	1,332	25
9-Bed	9	1	0	1,332	25
10-Bed	10	1	0	1,332	25
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45-Bed					

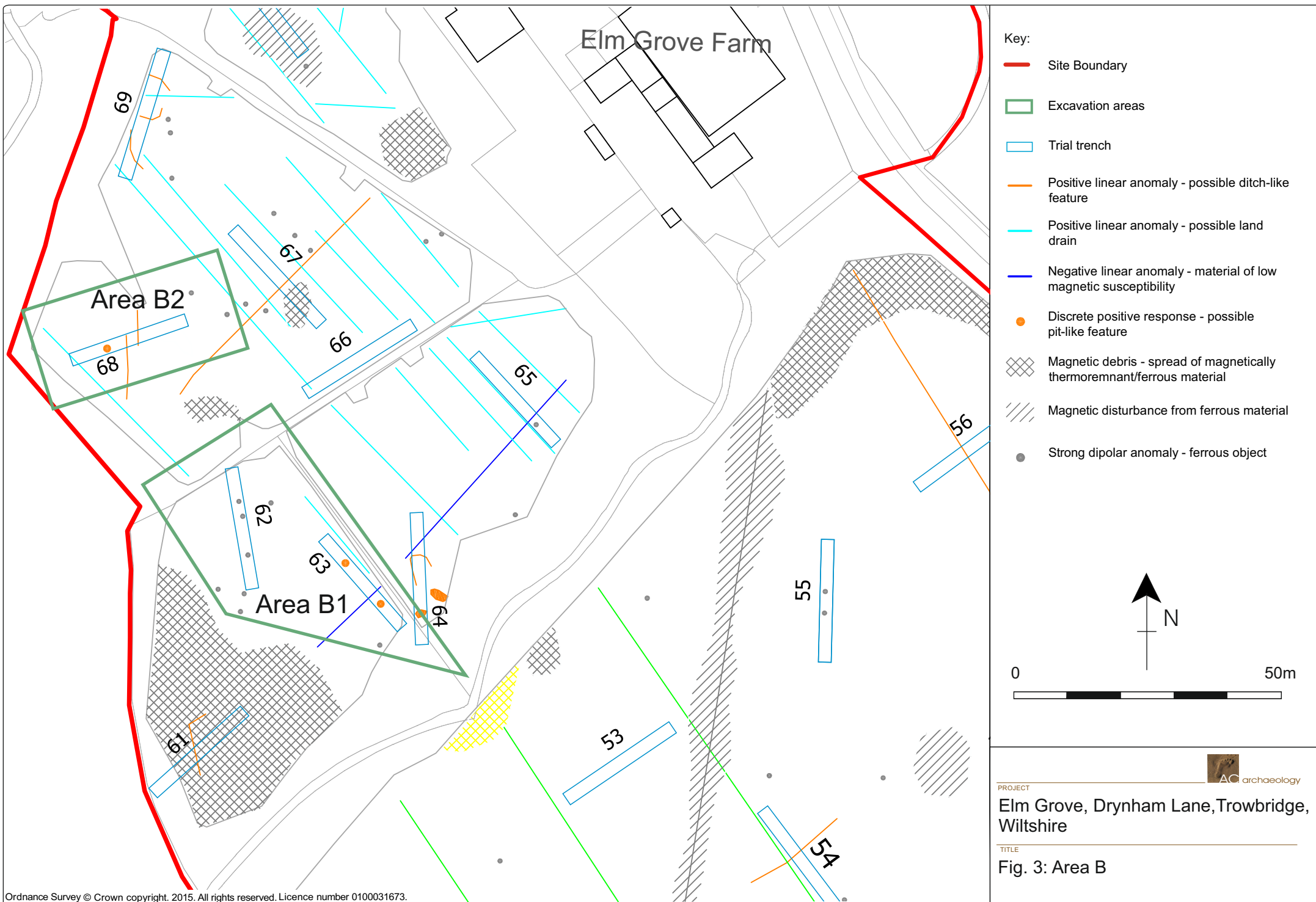
Landscaping Elements:

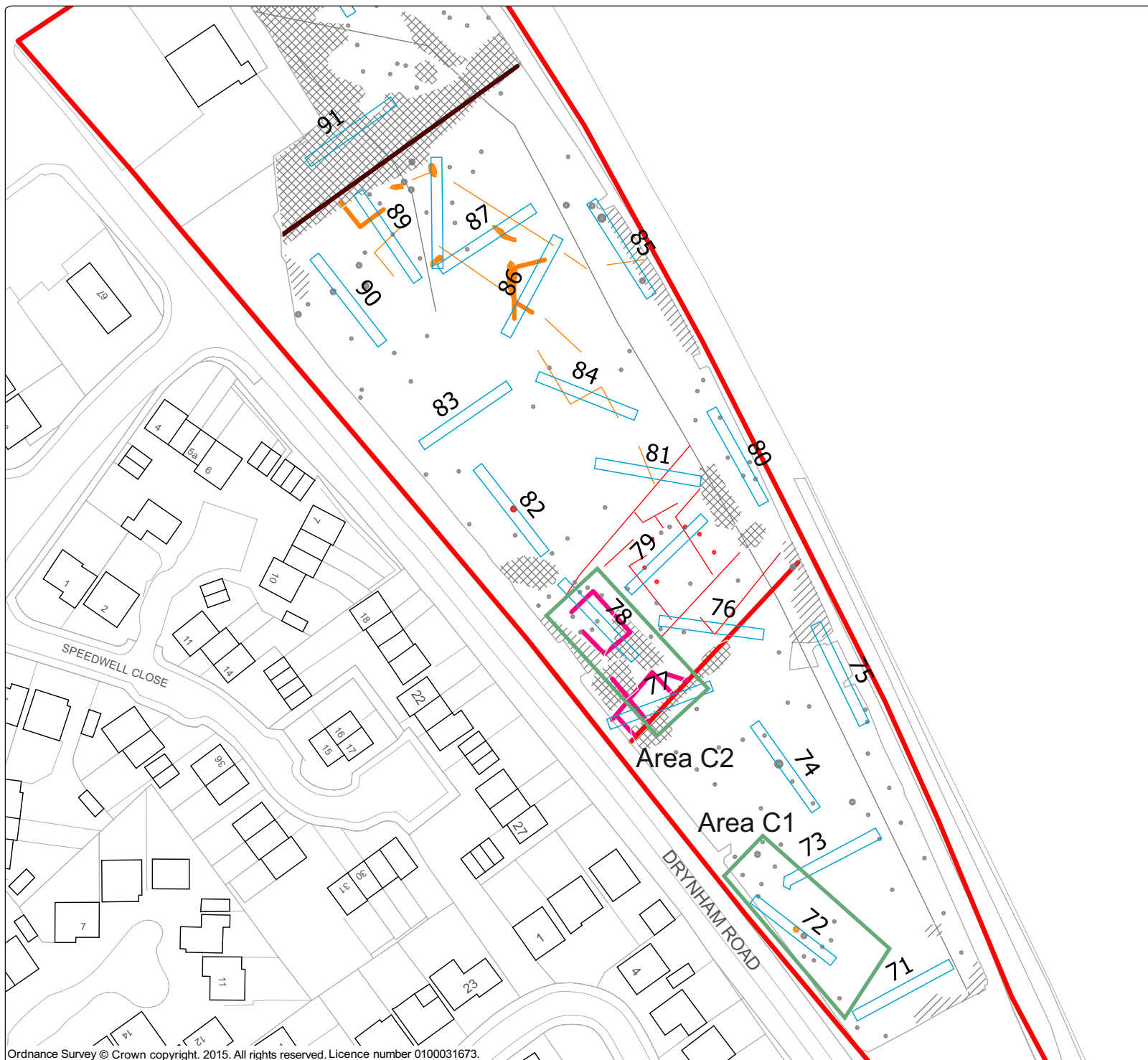
-  Existing trees
-  Existing woodland
-  Existing hedge
-  Proposed hedge / shrubs

Project No: 1955	Drawing Status: PRELIMINARY
Dwg No: 100	Date: 01.02.21
Rev: Scale: B 1:1000@A0 1:2000@A2	Drawn by: Checked by: SH CB



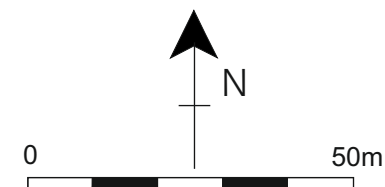






Key:

- Site Boundary
- Excavation areas
- Trial trench
- Positive linear anomaly - structural remains
- Positive linear anomaly - cut feature of archaeological potential
- Positive linear anomaly - possible ditch-like feature
- Positive linear anomaly - former field boundary
- Discrete positive response - pit-like feature of archaeological potential
- Discrete positive response - possible pit-like feature
- ▨ Magnetic debris - spread of magnetically thermoremanent/ferrous material
- ▨ Magnetic disturbance from ferrous material
- Strong multiple dipolar linear anomaly - pipeline / cable / service
- Strong dipolar anomaly - ferrous object



PROJECT

Elm Grove, Drynham Lane, Trowbridge, Wiltshire

TITLE

Fig. 4: Area C

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