

Report



Archaeological, Architectural and Cultural Heritage Baseline Impact Assessment: Greenhills Renewable Energy Project

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Contents

<i>EXECUTIVE SUMMARY</i>	1
1 INTRODUCTION	4
General	4
2 METHODOLOGY.....	5
Study Area	5
Assessment of Likely Significant Effects	6
Description of Types of Effects	6
Methodology used for assessing baseline value of archaeological and cultural heritage sites	7
Magnitude of Change.....	8
Significance of Effects.....	10
Setting Assessment	13
Methodology used for assessing Significance of Effects	14
Desktop Study	15
Key Sources.....	15
Terminology	16
3 LEGISLATION AND PLANNING POLICY REVIEW.....	18
Legislation Review	18
National Planning Framework.....	18
County Development Plan.....	19
Waterford Development Plan	19
Consultation Responses	20
4 RESULTS OF DESKTOP STUDY	21
Archaeological, Architectural and Cultural Heritage Background	21
Prehistoric Period.....	22
Early Medieval Period (AD 500-1100).....	24
Medieval Period (AD 1100-1600).....	25
Post-medieval to Modern (AD 1600-Present)	26
Summary of Previous Archaeological Fieldwork.....	29
Cartographic Analysis	30
Aerial Photographic Analysis	32
Place-name and Folklore Analysis	33
5 RESULTS OF FIELD INSPECTION	35
Field Inspection	35
6 IMPACT ASSESSMENT AND MITIGATION STRATEGY	35
Impact Assessment	35

Further Surveys and Outline Mitigation Strategy	41
7 REFERENCES	43
Bibliography	43
Cartographic Sources	45
APPENDIX A: PROTECTED STRUCTURES WITHIN 1 KM OF THE SITE BOUNDARY	I
APPENDIX B: NIAH WITHIN 1 KM OF THE SITE BOUNDARY	II
APPENDIX C: SMR/RMP SITES WITHIN 1 KM OF THE SITE BOUNDARY	III
APPENDIX D: 19 TH CENTURY AND EXTANT HISTORICAL STRUCTURES	V
APPENDIX F: LEGISLATION PROTECTING THE ARCHAEOLOGICAL RESOURCE	VII
Protection of Cultural Heritage	vii
The Archaeological Resource	vii
The Planning and Development Act 2000	viii
Cork County Development Plan 2022-2028	viii
Built Heritage	viii
Archaeological Heritage	xii
Waterford County Development Plan 2022-2028	xvi
Heritage Policy Objectives	xvi
Built Heritage Policy Objectives	xvi
Archaeological Heritage Policy Objectives	xxii
APPENDIX G: IMPACT ASSESSMENT AND THE CULTURAL HERITAGE RESOURCE	XXV
Potential Impacts on Archaeological and Historical Remains	xxv
Predicted Impacts	xxvi
APPENDIX H: MITIGATION MEASURES AND THE CULTURAL HERITAGE RESOURCE	XXVII
Potential Mitigation Strategies for Cultural Heritage Remains	xxvii
Definition of Mitigation Strategies	xxvii
Archaeological Resource	xxvii
APPENDIX I: GEOPHYSICAL SURVEY REPORT	XXIX
APPENDIX J: PHOTOS	XXX

List of Photos

Photo 1: View of extant 19th century farm buildings (60) within the site boundary in the southern half of Ballydaniel townland, west of Park Hill Road, looking south-east.

Photo 2: View of extant 19th century farm buildings (62) within the site boundary in the northern half of Ballydaniel townland, west of the R634, looking north-west.

Photo 3 : View of extant 19th century farm buildings (76) immediately adjacent to the site boundary in the Knocknagappagh townland, looking north-west.

Photo 4 : View of extant 19th century farm buildings (86) on land adjacent to the site boundary in the Cornaveigh townland, looking south-west.

Photo 5: View of Roisin Protected Structure (47) and NIAH Building (39), looking north.

Photo 6: View of surviving vernacular house (13) and approximate location of Barnaviddane 19th century settlement cluster, looking north-east.

Photo 7: View of NIAH vernacular house (12), looking south-east along the Ballyneague road.

Photo 8 : View of NIAH vernacular house (37), looking north.

Photo 9 : View of recorded monument Ardagh church and cemetery (7 and 8), looking north-east.

Photo 10 : View of southerrain (23), looking north-west.

Photo 11 : View of locations of Fulachtaí Fias (10) and (17), looking south.

Photo 12 : View of approximate location of ringfort (22), looking east.

Photo 13 : View of nearest field with the site boundary to approximate location of lime kiln (11), looking south.

Photo 14 : View of NIAH pump (40), looking north.

Photo 15 : General view of the central part of the Site in Ballydaniel townland, looking north-west along the existing central farm trackway.

Photo 16 : Representative view of existing field boundary hedgerows restricting views of the Site westwards from the high ground along the R634.

Photo 17: View of landform and mature tree screening blocking all views of the Site from the vicinity of Ballinteosig thatched house (1/35/49).

Photo 18 : View of the hedgerows along the high ground to the north-west of the Site which block all views of the Site from Protected Structures on the high ground in Ballinteosig townland.

Photo 19: Representative view of the Site from Inch in the vicinity of Assets (5, 6, 38 and 48), showing views blocked by trees and topography.

Photo 20 : Representative view from public road of Kilnatoora towerhouse (25) looking north-west towards the part of the Site in Cornaveigh townland.

Photo 21: Representative view from the highest part of the site in Youghal Park townland, looking north-west towards recorded hillfort (18/19/20).

List of Figures

Figure 1: Location of the Proposed Development

Figure 2: RPS and NIAH Structures within the Study Area

Figure 3: Sites and Monuments Record Assets within the Study Area with proposed buffer zones.

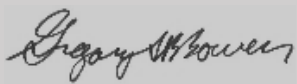
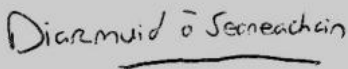
Figure 4: 19th Century Structures on the OSi 6 Inch Map 1842 within the Site Boundary

Figure 5: 19th Century Structures on the OSi 6 Inch Map 1897 within the Site Boundary

Figure 6: Recommended Buffer Zones

Figure 7: Additional Mitigation Areas Around Geophysical Survey Anomalies

Quality Assurance

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK ADAS Ltd.

Revision History

Revision	Date	Amendment
00	17.09.2025	First Issue
01	09.0.09.2025	Update following Client review
02	31/07/2026	Update following Local Authority Comments

03	06/08/2026	Update to include updated geophysical survey report
04	11/08/2026	Additional update following Client review

Executive Summary

RSK ADAS Ltd was commissioned by RSK Ireland on behalf of the Applicant to undertake an Archaeological, Architectural and Cultural Heritage Impact Assessment for the proposed Greenhills Renewable Energy Project. The assessment considered the potential effects of the Proposed Development on known and potential archaeological remains, architectural heritage assets, historic buildings, and the wider cultural heritage landscape.

The assessment comprised a detailed desk-based review of archaeological, historical and cartographic sources, consultation responses, a field inspection and setting assessment, and consideration of the results of a programme of geophysical survey undertaken across the Site (Appendix I).

Overall Conclusions

The assessment concludes that the Proposed Development has been designed to avoid direct impacts on all known designated archaeological and architectural heritage assets. No World Heritage Sites, National Monuments, Recorded Monuments, Protected Structures or National Inventory of Architectural Heritage (NIAH) structures are located within the development footprint and no direct physical impacts are predicted on any such assets.

The Site is situated within a predominantly agricultural landscape containing a relatively limited number of recorded archaeological monuments and heritage assets in the surrounding area. While archaeological activity is known within the wider landscape, no recorded archaeological monuments occur within the Site boundary.

As a result, significant effects on the archaeological, architectural and cultural heritage resource are not predicted.

Recorded Archaeological and Architectural Heritage Assets

No direct physical effects will arise on any Recorded Monument, National Monument, Protected Structure, NIAH structure, Architectural Conservation Area or World Heritage Site during the construction, operational or decommissioning phases of the Proposed Development.

Accordingly, the predicted direct effect on these heritage assets is assessed as **Neutral (No Change)**.

Indirect Effects on Heritage Settings

The assessment identified no significant effects on the setting of any World Heritage Site, National Monument or Architectural Conservation Area.

The nearest Protected Structure is Roisin House (RPS 01157/NIAH 20905602), a nineteenth-century vernacular dwelling located immediately adjacent to part of the Site boundary. While there is potential

for localised changes in views from this property during the operational phase, the contribution of the wider Site lands to its heritage significance is limited. The resulting effect on its setting is assessed as **Slight Adverse** at worst and can be further reduced through appropriate boundary planting and retention of existing vegetation.

Similarly, changes to the setting of a small number of nearby NIAH structures are predicted to range from **Imperceptible to Not Significant**, reflecting the restricted nature of available views, intervening topography, mature vegetation screening and the reversible nature of the development.

Potential Buried Archaeology

A programme of geophysical survey undertaken during the assessment identified four discrete anomalies (Appendix I Geophysical Report Ref: M1-M4; Map Number 88-91) that may represent archaeological features, including possible enclosure and ring-ditch type remains.

The archaeological potential of these anomalies is considered sufficiently important to warrant a precautionary avoidance strategy. Embedded mitigation has therefore been incorporated into the design through the use of non-intrusive above-ground gabion basket/ballasted foundation systems and associated stand-off buffers. This approach avoids excavation and preserves any surviving archaeological remains in situ.

Elsewhere across the Site, the geophysical survey identified a limited number of linear anomalies that are interpreted as former field boundaries or historic land divisions together with isolated anomalies of uncertain origin. These features are largely capable of being preserved beneath the proposed solar infrastructure and are assessed as experiencing effects that are **Imperceptible to Not Significant**.

Outside the identified anomaly areas, the potential for previously unknown archaeology is considered relatively low due to the results of the geophysical survey and evidence for long-term agricultural disturbance across much of the Site.

Historic Structures and Historic Landscape Features

Two nineteenth-century farmstead complexes survive within the Site boundary. These structures form part of the local historic landscape character and will be retained and protected in situ as part of the Proposed Development. Consequently, no direct effects are predicted.

Limited impacts may occur where short sections of existing field boundaries require removal in connection with the grid connection route. However, the historic significance of the affected sections is considered low and the resulting effect is assessed as **Not Significant**.

Mitigation Strategy

The Proposed Development incorporates a precautionary, design-led approach to heritage protection through:

- Avoidance of all known designated heritage assets;
- Establishment of exclusion zones around nearby archaeological and historic features;
- Retention and protection of extant historic farmsteads and landscape features;
- Preservation in situ of areas containing geophysical anomalies through the use of non-intrusive foundation systems;
- Archaeological monitoring of significant ground disturbing works during construction; and
- Consultation with Cork County Council and the National Monuments Service should previously unrecorded archaeological material be encountered.

Should archaeological remains be identified during construction, preservation in situ will remain the preferred mitigation option. Where this is not feasible, appropriate archaeological excavation and preservation by record would be undertaken in accordance with statutory requirements.

Residual Effects

Taking account of the embedded design measures and proposed mitigation strategy, the residual effects of the Proposed Development on archaeological, architectural and cultural heritage are assessed as predominantly **Neutral, Imperceptible or Not Significant**.

The assessment therefore concludes that the Proposed Development can be accommodated within the receiving landscape without giving rise to significant adverse effects on the archaeological, architectural or cultural heritage resource.

1 Introduction

General

- 1.1 In January 2025, RSK ADAS Ltd were commissioned by RSK Ireland on behalf of the Applicant to assess the potential effects that the proposed construction of a solar array and associated infrastructure hereafter ‘the Site’ or ‘the Proposed Development’) would have on the archaeological, architectural and cultural heritage resource.
- 1.2 The Proposed Development comprises a solar array on an area of *circa* 328 hectares on a site located on agricultural lands. It also comprises a battery energy storage system (BESS), a proposed substation to be connected to the national grid and all ancillary works.
- 1.3 The key components that are described throughout the PER are listed below:
- The solar array which consists of four distinct areas on agricultural lands;
 - The battery energy storage system comprising a linear array of battery container units with inverters and transformers
 - Proposed 220kV air insulated substation (AIS) substation looping into the existing Knockraha-Cullenagh 220 kV overhead line which runs through the southern side of the Site
- 1.4 The assessment involved a detailed study of the archaeological, architectural and cultural heritage background of the proposed development site and the surrounding area. This included information from the Record of Monuments and Places of County Cork and County Waterford, the topographical files within the National Museum and all available cartographic and documentary sources for the area.

2 Methodology

- 2.1 The research for this report was completed in two phases. The first phase comprised a desk-based review of all available archaeological, historical and cartographic sources. The second phase comprised a site visit and setting impact assessment of the proposed development on the archaeological and architectural heritage of the surrounding landscape. This section presents the methodology used in assessing the baseline cultural heritage environment.

Study Area

- 2.2 The Study Area for the assessment effects were defined based on professional opinion and are in accordance with EPA guidelines for assessment. The size of the Study Area used in this assessment were development based on all the likely direct and indirect effects that the various elements of the Proposed Development may have on the historic environment. The size of the Study Area was also determined based on the type of heritage asset and its level of legal protection combined with their determined significance (sensitivity).
- 2.3 It is considered that any potential for significant adverse direct effects will be confined to historic environment assets recorded within the site boundary and within 1km of the site boundary.

Table 1: Study Area for direct effects on Archaeological, Architectural, and Cultural Heritage Assets Considered according to sensitivity

Cultural Heritage Asset	Area/Distance Considered
UNESCO World Heritage Sites (including tentative sites, if relevant), National Monuments, Recorded Monuments, RPS, Architectural Conservation Areas, NIAH and previously unregistered archaeological sites, upstanding historic structures, and earthworks	Within the site boundary and within 1km of the site boundary

- 2.4 The Study Area for the assessment of indirect effects were defined based on professional opinion and are in accordance with EPA guidelines for assessment.

Table 2: Study Areas for the assessment of indirect effects on the setting of Archaeological, Architectural, and Cultural Heritage Assets Considered according to sensitivity

Cultural Heritage Asset	Sensitivity	Study Area/Distance Considered based on professional expertise
UNESCO World Heritage Sites (including tentative sites, if relevant)	Very High	1km from the site boundary
National Monuments	High	1km from the site boundary
Record of Protected Structures, Architectural Conservation Areas	High	1km from the site boundary
Recorded Monuments and NIAH buildings, parks, and gardens	Medium	1km from the site boundary
Unregistered cultural heritage sites (built heritage and buried archaeology)	Low	Within 100m of the site boundary.
Unregistered cultural heritage sites for which there are no extant remains and where there is little or no potential for associated subsurface evidence	Negligible	Within 100m of the site boundary

Assessment of Likely Significant Effects

- 2.5 The likely effects on the existing archaeological and cultural heritage environment are assessed using the criteria as set out in the EPA guidelines (2022).

Description of Types of Effects

- 2.6 The following table lists the type of effects that a proposed development may have on the cultural heritage resource, based on the latest EPA guidelines (2022).

Table 3: Types of Effects

Types of Effect	Definition
Direct Effects (physical effects)	Direct effects or impacts arise where an archaeological, architectural, and/or cultural heritage feature or site is physically located within the footprint of the proposed development, or its associated physical impact zone, whereby the removal of part, or all of the feature or site is required.
Indirect Effects (off -site effects)	Effects on the historic environment, which are not a direct result of the project. These arise when an archaeological, architectural, or cultural heritage feature is not located within the footprint of the proposed development or its associated impact zone and is therefore not impacted directly. Such an effect could include effects on setting or effects on the zone of archaeological potential of a site.
Cumulative Effects	In addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.
‘Do-nothing Effects’	The historic environment as it would be in the future should the subject project not be carried out
‘Worst-case’ Effects	The effects arising from a project in the case where mitigation measures substantially fail
Indeterminable Effects	When the full consequences of a change in the environment cannot be described
Irreversible Effects	When the character, distinctiveness, diversity, or reproductive capacity of an environment is permanently lost.
Residual Effects	The degree of environmental change that will occur after the proposed mitigation measures have taken effect
Synergistic Effects	Where the resultant effect is of greater significance than the sum of its constituents

Methodology used for assessing baseline value of archaeological and cultural heritage sites

- 2.7 In order to categorise the baseline environment in a systemized manner ‘baseline values’ have been assigned to each identified site of cultural heritage significance and/or potential within the study

areas. The baseline value of a site is determined with reference to the ‘significance’ and ‘sensitivity’ of the site (as set out in Table 2).

- 2.8 In accordance with NRA (now Transport Infrastructure Ireland (TII)) Guidelines, the significance of a site is determined based on the following criteria: legal status, condition, historical associations, amenity value, ritual value, specimen value, group value and rarity. The sensitivity of a site is determined based on its susceptibility to direct (physical) impact (effect), as well as susceptibility to indirect impact (effect) on setting.
- 2.9 The Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 does not differentiate between recorded archaeological sites on the basis of relative importance or sensitivity. In addition, the Planning and Development Act 2000 (as amended) does not differentiate between Protected Structures or Areas of Architectural Conservation on the basis of relative importance or sensitivity either as there is no national portal for ACAs in Ireland. Consequently, professional judgement has been exercised to rate these heritage assets based on their perceived significance and sensitivity in relation to both direct effects and indirect effects on setting.

Magnitude of Change

- 2.10 The magnitude of change is a product of the scale, extent or degree of change that is likely to be experienced as a result of the proposed development. Table 4 outlines criteria used to inform this judgement.

Table 4: Criteria used for Rating Magnitude of Change

Magnitude of Change	Criteria
Very High	Applies where mitigation would be unlikely to remove adverse effects. Reserved for adverse effects only. These effects arise where an archaeology site is completely and irreversibly destroyed. A magnitude of change that obliterates the architectural heritage of a structure or feature of national or international importance. These effects arise where an architectural structure or feature is completely and irreversibly destroyed by the proposed development. Mitigation is unlikely to remove adverse effects.
High	A change which, by its magnitude, duration or intensity, alters an important aspect of the environment. A magnitude of change like this would be where part of a site would be permanently impacted upon, leading to a loss of character, integrity, and data about an archaeological feature/site. A change that by its magnitude, duration or intensity alters the character and/or the setting of the architectural heritage. These effects arise where an aspect or aspects of the architectural heritage is/are permanently impacted upon leading to a loss of character and integrity in the architectural structure or feature. Appropriate mitigation is likely to reduce the impact. A beneficial or positive effect that permanently enhances or restores the character and/or setting of a feature of archaeological or cultural heritage significance in a clearly noticeable manner.

Medium	A medium magnitude of change arises where a change to a site/monument is proposed which though noticeable, is not such that the archaeological integrity of the site is compromised and which is reversible. This arises where an archaeological feature can be incorporated into a modern-day development without damage and that all procedures used to facilitate this are reversible. A medium magnitude of change to a site/monument may also arise when a site is fully or partly excavated under license and all recovered data is preserved by record. A magnitude of change to the architectural heritage which, although noticeable is not such that alters the integrity of the heritage asset. The change is likely to be consistent with existing and emerging trends. Effects are probably reversible and may be of relatively short duration. Appropriate mitigation is very likely to reduce the effect. A beneficial or positive change that results in partial or temporary enhancement of the character and/or setting of a feature of archaeological or cultural heritage significance in a clearly noticeable manner.
Low	A magnitude of change in the character of the environment, such as visual impact, which are not high and do not directly affect an archaeological feature or monument. A magnitude of change that causes some minor change in the character of architectural heritage of local or regional importance without affecting its integrity or sensitivities. Although noticeable, the effects do not directly impact on the architectural structure or feature. Impacts are reversible and of relatively short duration. Appropriate mitigation will reduce the impact. A beneficial or positive effect that causes some minor or temporary enhancement of the character of an architectural heritage significance which, although positive, is unlikely to be readily noticeable.

Significance of Effects

2.11 Sensitivity, in relation to the historic environment, is a subjective term, which describes the potential for a heritage asset to absorb change. It reflects the current setting of an asset and the

extent to which changes to that setting would affect the significance of the asset. The criteria to describe the Quality of Effects and the Significance of Effects is presented in Table 5.

Table 2: Criteria used for describing Significance of Effects

Types of Effects	Definition
Quality of Effects It is important to inform the non-specialist reader whether an effect is positive, adverse, or neutral	Positive Effects: A change which improves the quality of the historic environment. Neutral Effects: No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error. Adverse Effects: A change which reduces the quality of the heritage asset or historic environment.
Describing the Significance of Effects	‘Significance’ is a concept that can have different meanings for different topics. For this assessment, the following terminology is applied based on a combination of EPA and Transport Infrastructure Ireland (NRA) guidance. The Effects described below can be positive, neutral, or adverse.
Neutral	No change to elements, parcels or components of the historic environment; no visual or audible changes, no changes arising from amenity or community factors
Imperceptible	An effect on an archaeological feature, monument or architectural heritage site which is capable of measurement but without significant consequences.
Not significant	An effect which causes noticeable changes in the character of the historic environment, on archaeological features or monuments or on architectural heritage but without significant consequences.
Slight Effects	An effect which causes noticeable changes in the character of the historic environment without affecting its sensitivities.
Moderate Effects	An effect that alters the character of the historic environment in a manner that is consistent with existing and emerging baseline trends.

Significant Effects	An effect which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the historic environment.
Very Significant	An effect which, by its character, magnitude, duration, or intensity significantly alters most of a sensitive aspect of the historic environment.
Profound Effects	An effect which obliterates sensitive characteristics. Changes to most or all key archaeological materials, such as the resource is totally altered. Comprehensive changes to setting.

Setting Assessment

- 2.12 There is no standardized industry-wide approach for the assessment of setting impacts (indirect effects) in Ireland. While direct physical effects to a site or monument can be assessed in quantitative terms, the assessment of indirect effects on setting can be subjective and as such is a matter of qualitative, professional judgement and experience. The criteria used in the assessment of effects on setting are based on professional judgement and on the methodology for comparing the character of the predicted effect to the sensitivity of the receiving environment in order to determine the significance of the effect shown in EPA Guidelines (2022, Figure 3.4). The assessment criteria also takes into consideration approaches used in major road schemes contained in the National Roads Authority (now Transport Infrastructure Ireland) Guidelines for the Assessment of Archaeological Heritage Impacts of National Road Schemes and Guidelines for the Assessment of Architectural Heritage Impacts of National Road Schemes.
- 2.13 Setting Assessment is not simply the visual envelope of the heritage asset in question. It is instead those parts of the asset's surroundings that are relevant to the significance of the asset and the public's appreciation of an asset.
- 2.14 In most instances setting will relate to the historical value of the asset, where an appreciable relationship between the asset and an element of its surroundings helps the visitor understand and appreciate the asset. This may be in terms of a physical relationship, such as between a castle and the natural rise that it occupies, or a more distant visual relationship, such as a designed vista or the view from, for example, one ringfort to another. The former is referred to as immediate setting and the latter as landscape setting. Many assets will only have an immediate setting. Some assets will have aesthetic value that relates to the surrounding landscape, such as in the case of a designed view incorporating a distant hill, or that relates to the contribution the asset makes to the local landscape, for example a church spire providing a focal point in a view down a valley. These are

broad factors which have been taken into consideration when assessing the significance of effect on the setting of heritage assets.

- 2.15 The setting assessment carried out for this report does not include visits to each and every site outside the site boundary as some monuments/buildings are located in private lands and have no public access. However, the site visits for the purpose of assessing indirect setting effects were undertaken of the key receptors (National Monuments, Protected Structures and NIAH structures) identified from desk-based analysis of likely setting effects.
- 2.16 The assessment of effects on visual setting was undertaken with the aid of the Zone of Theoretical Visibility (ZTV) map in the Landscape and Visual Impact Assessment (LVIA). Analysis on effects was also informed by the assessment of viewpoints produced for the Landscape and Visual Impact Assessment.

Methodology used for assessing Significance of Effects

- 2.17 The significance of effect on a heritage asset is assessed by combining the magnitude of change and the baseline value of the heritage asset. The matrix provides a guide to decision-making, but it is not a substitute for professional judgement and interpretation, particularly where the baseline value or magnitude of change levels are not clear or are borderline between categories. The permanence of the effects are also taken into account, with irreversible effects being more significant while temporary or reversible changes are likely to be less significant.

Table 6: Matrix used for assessing magnitude of change and resulting significance of effects in relation to significance/sensitivity

Significance/Sensitivity	Very High	Neutral	Imperceptible to Slight	Moderate to Very Significant	Very Significant to Profound	Profound
	High	Neutral	Imperceptible to Slight	Slight to Moderate	Moderate to Very Significant	Very Significant to Profound
	Medium	Neutral	Imperceptible to Not Significant	Not Significant	Moderate to Significant	Significant to Profound

	Low	Neutral	Imperceptible to Not Significant	Imperceptible-Not significant	Slight to Moderate	Moderate to Profound
	Negligible	Neutral	Imperceptible	Imperceptible-Not Significant	Imperceptible -Not Significant	Slight to Profound
		No change	Negligible	Low	Medium	High- Very High
		Magnitude of Change				

Desktop Study

2.18 The assessment of the archaeological, architectural and cultural heritage potential of the Study Area around the Proposed Development is based on a number of documentary and cartographic sources as described below.

Key Sources

- Record of Monuments and Places for County Cork and County Waterford;
- Sites and Monuments Record for County Cork and County Waterford;
- National Inventory of Architectural Heritage;
- National Monuments in State Care Database;
- Preservation Orders List;
- Topographical files of the National Museum of Ireland;
- Cartographic and written sources relating to the Study Area;
- Cork County Development Plan 2022-2028;
- Waterford County Development Plan 2022-2028;
- Aerial photographs;
- Excavations Bulletin (1970-2025);
- Logainm.ie;

- Online sources for Folklore and Traditions relating to the Study Area; and
- Heritagemaps.ie

Terminology

- 2.19 **Record of Monuments and Places (RMP):** A list of archaeological sites known to the National Monuments Sections, which are afforded legal protection under the Archaeological Heritage and Miscellaneous Provisions Act 2023 and are published as record.
- 2.20 **Sites and Monuments Record (SMR):** Holds documentary evidence and field inspections of all known archaeological sites and monuments. Some information is also held about archaeological sites and monuments whose precise location is not known e.g., only a site type and townland are recorded. These are known to the National Monuments Section as ‘un-located sites’ and cannot be afforded legal protection due to lack of locational information. As a result, these are omitted from the Record of Monuments and Places. SMR sites are also listed on a website maintained by the Department of Housing, Local Government and Heritage – www.archaeology.ie
- 2.21 **National Monuments:** A database of all the National Monuments in State guardianship or ownership. Each is assigned a National Monument number whether in guardianship or ownership and has a brief description of the remains of each monument. The Minister for the Department of Housing, Local Government and Heritage may acquire national monuments by agreement or by compulsory order. The state or local authority may assume guardianship of any national monument (other than dwellings). The owners of the national monuments (other than dwellings) may also appoint the Minister or the local authority as guardian of that monument if the state or local authority agrees. Once the site is in ownership or guardianship of the state, it may not be interfered with without the written consent of the Minister.
- 2.22 **Preservation Orders List:** Contains information on Preservation Orders and/or Temporary Preservation Orders, which have been assigned to a site or sites. Sites deemed to be in danger of injury or destruction can be allocated Preservation Orders under the 1930 Act. Preservation Orders make any interference with the site illegal. Temporary Preservation Orders can be attached under the 1954 Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders with the written consent, and at the discretion, of the Minister.
- 2.23 **The topographical files of the National Museum of Ireland:** National Archives of all known finds recorded by the National Museum. This archive relates primarily to artefacts but also includes

references to monuments and unique records of previous excavations. The find spots of artefacts are important sources of information on the discovery of sites of archaeological significance.

2.24 **Cartographic Sources:** Cartographic sources are important in tracing land use development within the development area as well as providing important topographical information on areas of archaeological potential and the development of buildings. Cartographic analysis of all relevant maps has been made to identify any topographical anomalies or structures that no longer remain within the landscape.

- John Rocque's Map of Ireland Southern Section, 1790
- Ordnance Survey Maps of Ireland

2.25 **Documentary sources:** Consulted to gain background information on the archaeological, architectural and cultural heritage landscape of the proposed development area.

2.26 **Development Plans:** Contain a catalogue of all the Protected Structures and archaeological sites within the county. The County Cork Development Plan (2022-2028) was consulted to obtain information on cultural heritage sites in and within the immediate vicinity of the proposed development area.

2.27 **Aerial photographic coverage:** An important source of information regarding the precise location of sites and their extent. It also provides initial information on the terrain and its likely potential for archaeology. A number of sources were consulted including aerial photographs held by the Ordnance Survey and Google Earth.

2.28 **Excavations Bulletin:** A summary publication that has been produced every year since 1970. This summarises every archaeological excavation that has taken place in Ireland during that year up until 2010 and since 1987 has been edited by Isabel Bennet. This information is vital when examining the archaeological content of any area, which may not have been recorded under the SMR and RMP files.

3 Legislation and Planning Policy Review

Legislation Review

- 3.1 The cultural heritage of Ireland is safeguarded through national and international policy designed to secure the protection of the cultural heritage resource to the fullest possible extent (Department of Arts, Heritage, Gaeltacht and the Islands 1999, 35). This is undertaken in accordance with the provisions of the *European Convention on the Protection of the Archaeological Heritage* (Valletta Convention), ratified by Ireland in 1997. The *Archaeological Heritage and Miscellaneous Provisions Act 2023* and relevant provisions of the *National Cultural Institutions Act 1997* are the primary means of ensuring the satisfactory protection of archaeological remains, which includes all man-made structures of whatever form or date except buildings habitually used for ecclesiastical purposes. The Planning and Development Act 2024 recognises that proper planning and sustainable development includes the protection of archaeological heritage. Conditions relating to archaeology may be attached to individual planning permissions (Details of the Legislation relating to the protection of heritage in Ireland is set out in Appendix C).

National Planning Framework

- 3.2 The Project Ireland 2040 National Planning Framework (April 2025) is a planning framework to guide development and investment over the coming years. It does not provide detail for every part of the country, but it empowers each region to lead in the planning and development of their communities, containing a set of national objectives and key principles from which more detailed and refined plans will follow. The national policy objectives in this framework which are most relevant to archaeology, architectural and cultural heritage for this Scheme are as follows:
- 3.3 National Policy Objective 30: Facilitate the development of the rural economy, in a manner consistent with the national climate objective, through supporting a sustainable and economically efficient agricultural and food sector, together with forestry, fishing and aquaculture, energy and extractive industries, the bio-economy and diversification into alternative on-farm and off-farm activities, while at the same time noting the importance of maintaining and protecting biodiversity and the natural landscape and built heritage which are vital to rural tourism.
- 3.4 National Policy Objective 67: Support the circular and bio economy including in particular through greater efficiency in land and materials management, promoting the sustainable re-use and refurbishment of existing buildings and structures, while conserving cultural and natural heritage, the greater use of renewable resources and by reducing the rate of land use change from urban sprawl and new development.

- 3.5 National Policy Objective 73: Support the co-location of renewable technologies with other supporting technologies and complementary land uses, including agriculture, amenity, forestry and opportunities to enhance biodiversity and promote heritage assets, at appropriate locations which are determined based upon the best available scientific evidence in line with EU and national legislative frameworks.
- 3.6 National Policy Objective 89: Protect, conserve and enhance the rich qualities of natural, cultural and built heritage of Ireland in a manner appropriate to their cultural and environmental significance.
- 3.7 National Policy Objective 90: Enhance, integrate and protect the special physical, environmental, economic and cultural value of built heritage assets, including streetscapes, vernacular dwellings and other historic buildings and monuments, through appropriate and sensitive investment and conservation.

County Development Plan

- 3.8 The Cork County Development Plan 2022-2028 (Cork County Council, 2022) recognises the statutory protection afforded to archaeological sites included within the Record of Monuments and Places and seeks to protect those monuments, to including their setting, access, views, and prospects. The sites are described in detail in Appendix A and shown on Figure 2.
- 3.9 Cork County Council recognises the value and significance of the county's archaeological heritage, and the importance of fostering a greater public appreciation of this heritage. Through policies contained in this Development Plan, they seek to ensure the effective protection, conservation, and enhancement of archaeological sites, monuments, and their settings (Full details of the Cork Development Plan's Objectives in relation to archaeology, architectural and cultural heritage are provided in Appendix D).

Waterford Development Plan

- 3.10 The Waterford County Development Plan 2022-2028 (Waterford County Council, 2022) recognises the statutory protection afforded to archaeological sites included within the Record of Monuments and Places and seeks to protect those monuments, to including their setting, access, views, and prospects. All relevant sites in Waterford are described in detail in Appendix A and shown on Figure 2.
- 3.11 Waterford County Council recognises the value and significance of the county's archaeological heritage, and the importance of fostering a greater public appreciation of this heritage. Through policies contained in this Development Plan, they seek to ensure the effective protection, conservation, and enhancement of archaeological sites, monuments, and their settings (Full details

of the Waterford Development Plan's Objectives in relation to archaeology, architectural and cultural heritage are provided in Appendix D).

Consultation Responses

- 3.12 Cork County Council were consulted as part of the pre-application process for this application and a pre-application meeting was held on the 02/07/2025. The main predicted impacts of the Proposed Development on Archaeology, Architecture and Cultural Heritage were presented to the Local Authority in this meeting.
- 3.13 In their consultation response, Cork County Council flagged that detailed assessment for archaeology would be required and that mitigation measures would be very important.
- 3.14 The Planning Authority's comments on an earlier version of this report submitted were received on 10/02/2026. The planning application was deemed incomplete, and the Authority required additional archaeological assessment.

The application is not considered complete because of the inadequacy of the archaeological assessment. In order to facilitate the Planning Authority's examination of the application, and to determine compliance with the County Development Plan, an assessment of sub-surface archaeology is re-quired and at a minimum, a Geophysical Survey should be carried out as a first step to guide further assessments/investigations.

Also, all cultural heritage assets should have a CH number – at present, only protected structures and buildings on the NIAH have been assigned a CH number; 19th-century buildings and 'historic' buildings are mapped (PER Appendix R – ACHHIA FIGURES LIST), but they do not have CH numbers, and some are well within the red line boundary. These will require full consideration in the Archaeological and Cultural Heritage Assessment Report.

- 3.15 Additional consultation was subsequently carried out with Cork County Archaeologist in March 2026. A meeting was held between the project team and representatives of Cork County Council (Annette Quinn – County Archaeologist, Thomas Watt – Senior Planner, Noel Sheridan – Senior Planner) to discuss the geophysical survey on 19/03/2026. A provisional programme of geophysical surveying was agreed across a significant portion of the site, with some areas omitted where known physical constraints created unsuitable conditions for geophysical surveying. A number of fields were also subsequently excluded in the south-western portion of the site due to rough ground and in the south-eastern portion of the site due to the presence of crops of sufficient height so as to prevent the sensors from reaching an acceptable proximity to the ground.
- 3.16 Cultural heritage numbers were also provided to all the mapped locations 19th century and 'historic' buildings identified in this report.

4 Results of Desktop Study

Archaeological, Architectural and Cultural Heritage Background

- 4.1 The proposed development is located on land in the Knocknagappagh area of County Cork located 31 km east of Cork.
- 4.2 There are no World Heritage Sites or National Monuments located within the Study Area.
- 4.3 There are five Protected Structures recorded on the County Cork Record of Protected Structures within 1 km of the Site (Figure 2). These are described in Appendix A and shown on Figure 2. There are no Protected Structures recorded within the site boundary.
- 4.4 The nearest Protected Structure to the Site is Roisin: a 19th century house (39/47), which is recorded on land within 5 m of the Site boundary (Figure 2).
- 4.5 There are no Protected Structures recorded on the County Waterford Record of Protected Structures within the Study Area (NIAH, 2025; Heritage Data, 2025).
- 4.6 There are ten buildings or structures recorded on the National Inventory of Architectural Heritage (NIAH) within a 1 km Study Area around the Site (NIAH, 2025). These are described in Appendix A and are shown on Figure 2. There are no structures recorded on the NIAH within the site boundary (Figure 2).
- 4.7 The nearest structures recorded on the NIAH to the site comprise an 18th century house (37) and a cast-iron water pump (40). The Protected Structure known (47) is also recorded on the NIAH (39).
- 4.8 There are no monuments recorded by the Sites and Monuments Record within the site boundary (Figure 3).
- 4.9 There are five monuments recorded by the Sites and Monuments Record in close proximity to the site boundary (10, 11, 16, 17, 22, 23). These comprise two Fulachtaí Fias (Burnt mound) (10 and 17), a ringfort (22), a souterrain (23), and a holy well (16) recorded in the fields around the south-eastern part of the Site. There is a house (13) recorded on land 4 m east of parcel CK62854F (NMS, 2025).
- 4.10 A lime kiln (11) is recorded on land outside of the development footprint along the north-eastern boundary of the Site (NMS, 2025). This lime kiln was not visible at this location during the site visit and appears to have been demolished. No below ground evidence of this lime kiln was detected by a recent geophysical survey carried out over the Site (Appendix I: Murphy, 2026).
- 4.11 There are twenty-eight other monuments recorded by the Sites and Monuments Record within a 1 km Study Area around the Site (NMS, 2025). These are described in Appendix B and shown on Figure 3.

Prehistoric Period

Mesolithic Period (6000-4000 BC)

- 4.6 Although recent discoveries may push back the date of human activity by a number of millennia (Dowd and Carden, 2016), the earliest widespread evidence suggests that Ireland was first occupied in the Mesolithic period by communities that subsisted on hunting, fishing, and foraging. The most common evidence indicative of Mesolithic activity at a site comprises of scatters of worked flint material; a by-product from the production of flint implements or rubbish middens consisting largely of shells. The latter are commonly discovered in coastal regions or at the edge of lakes (Anderson, 2019).

Neolithic Period (4000-2500 BC)

- 4.7 During the Neolithic period communities became less mobile and their economy became based on rearing of stock and cereal cultivation. This transition was accompanied by major social change. Agriculture demanded an altering of the physical landscape, forests were rapidly cleared, and field boundaries constructed. There was a greater concern for territory, which contributed to the construction of large communal ritual monuments called megalithic tombs, which are characteristic of the period. Evidence for settlement dating to this period is hard to identify as the land has been so intensively farmed that the majority of sites have no above surface expression (Anderson, 2019).

Bronze Age (2500-800 BC)

- 4.8 The Bronze Age was marked by the widespread use of metal for the first time in Ireland. As with the transition from Mesolithic to Neolithic, the transition into the early Bronze Age accompanied by changes in society. The megalithic tomb tradition declined and ended with the burial of the individual becoming typical. Cremated or inhumed bones were often placed in a cist, which is a small stone box set into the ground or a stone-lined grave. These were often accompanied by pottery. Burials were sometimes accompanied by barrows (mounds of earth set over the burial), or stone cairns. Often these types of burials are found on high ground and may have acted as a marker for ritual or burial space to the surrounding populations (Anderson, 2019).
- 4.9 The most common Bronze Age site within the archaeological record is the burnt mound or *fulacht fia*. Over 4,500 Fulachtaí Fia have been recorded in the country making them the most common prehistoric monument in Ireland (Waddell, 1998). Although burnt mounds of heat-affected stone occur as a result of various activities that have been practiced from the Mesolithic to the present day, those noted in close proximity to a trough are generally interpreted as Bronze Age sites. *Fulacht fia* generally consist of a low mound of burnt stone, commonly in horseshoe shape, and are found

in low lying marshy area or close streams or rivers. Often these sites have been ploughed out and survive as a spread of heat-shattered stones in charcoal rich soil with no surface expression and in close proximity to a trough. Much debate exists as to the function of these monuments and suggestions include cooking sites (O’Kelly, 1954), bathing sites (Eogan and Shee Twohig, 2012), or textile dyeing sites and brewing sites (Quinn and Moore, 2009; Anderson, 2019). These monuments make up the most common prehistoric monument in the Irish landscape with over 6,000 recorded in Ireland (O’Hara, 2015).

- 4.10 There are two Fulachtaí Fia recorded in a marshy area by a stream close to part of the south-eastern boundary of the site (10 and 17). In addition, there is one burnt mound (33) recorded on land 946 m east of the southeastern site boundary (NMS, 2025). These monuments indicate a general potential for settlement and land-use by a local Bronze Age population in the immediate vicinity of the site, in particular close to watercourses.

Iron Age (800 BC-AD 500)

- 4.11 The Iron Age was traditionally seen as a period for which there was little evidence in comparison to the preceding Bronze Age and the succeeding early medieval period. However, development-led excavation in recent decades and projects such as the Late Iron Age and Roman Project have added significantly to our knowledge of the Irish Iron Age. In Europe, there are two stages to the Iron Age, the earlier Hallstatt and followed by the La Tene phase. While in Ireland, evidence of a Hallstatt phase is rare, and the La Tene phase is reflected strongly in the style of metalwork of this period. It is clear there was significant contact and interaction between the Continental Europe, Britain, and Ireland at this time (Anderson, 2019).
- 4.12 Dating from the Bronze Age and Iron Ages, Fulachtaí Fia or ‘burnt mounds’ are one of the most numerous field monuments in Ireland. They are visible as low horseshoe shaped or crescentic grass-covered mounds which beneath the surface consist of a sunken wooden or stone trough surrounded by a mound of fire-heated and cracked stones. While it is agreed that their primary function was for heating water, their specific purpose remains uncertain. The most popular theory regarding their use is that they were ancient cooking places, other possibilities are that they were sites for bathing or for craft and industrial activities such as dyeing, metalworking, tanning, or soap and fat production (Greene, 2008).
- 4.13 There are two Fulachtaí Fia recorded in a marshy area by a stream close to part of the south-eastern boundary of the site (10, 17). In addition, there is one burnt mound (33) recorded on land 946 m east of the southeastern site boundary (NMS, 2025). These monuments indicate a general potential for settlement and land-use by a local Iron Age population in the immediate vicinity of the Site, in particular close to watercourses.

- 4.14 Current research indicates that the majority of Iron Age domestic structures were circular, with at least six known from enclosed settlements (generally post-built) and a further eight known from unenclosed sites (generally with foundation trenches) – in both cases the structures varied in size from c. 3.3 m up to 14.5 m in diameter (Becker, O'Neill and O'Flynn, 2008). None of these are recorded within the 1 km Study Area.
- 4.15 There is one hillfort (18/19/20) recorded on land in Rath townland 490 m west of the Site boundary (NMS, 2025). This monument occupies a commanding position in the local landscape. The monument has a circular diameter of c. 150 m and is defined by an earthen bank up to 1.8 m high externally. The arc of a possible second bank has been identified outside the inner bank, defined by field fences. At least four radial fields connect the outer and inner banks and a short length of a fifth radial line is visible to the south-east (NMS, 2025). This hillfort is likely to have been the main focal point of settlement in the locality during the Iron Age period.

Early Medieval Period (AD 500-1100)

- 4.16 Ireland was primarily rural in nature in the early medieval period, with c. 150 kings across the country each ruling over his own *tuath* (Bryne, 1973). A *tuath*, according to most recent estimates would have comprised 1,700 to 3,000 subjects (Stout, 2017), many of which would have lived within defended farmsteads known as ringforts. Ringforts, (also known as *rath*, *lios*, *caiseal*, *cathair*, and *dun*) are a type of defended homestead comprising of a central site enclosed by a number of circular banks and ditches. The number of ditches can vary from one (univallate) to two or three (bivallate or multi-vallate) and is thought to reflect the status and affluence of the inhabitants (Edwards, 1996). Another morphological variation consists of the platform or raised rath – the former resulting from the construction of the rath on a naturally raised area. Ringforts are most commonly located at sites with commanding viewing of the surrounding environs which provided an element of security. While raths, for the most part, avoid the extreme low and uplands, they also show a preference for the most productive soils (Stout, 1997; Anderson, 2019).
- 4.17 It is possible that the hillfort (18/19/20) at Rath townland was re-used as a ringfort and continued to be a focal point of settlement the area during the early medieval period. The other known ringforts recorded in the Study Area tend to be concentrated on high ground and along ridgelines in the eastern and south-eastern part of the Study Area (Figure 3). There is a notable cluster of likely settlement sites on the higher ground around the south-eastern part of the Site in Cornaveigh (22), Ballyglavin (21) and Castlemiles (32) townlands. The well-preserved souterrain present on land in Cornaveigh townland (23) is also likely to mark the location of another ringfort site. A second well-preserved ringfort located a ridgeline in the northern part of Ballyglavin townland (9) is associated with its own souterrain (15). The known distribution of ringforts and souterrains in the Study Area

indicates that the south-eastern part of the Study Area was relatively densely populated over a long period of time during the early medieval period. The absence of known similar monuments from higher ground on similar types of productive soils elsewhere in the Study Area is likely to reflect a loss of these types of monuments through centuries of agricultural activity and land clearance elsewhere in the Study Area rather than a genuine absence.

- 4.18 There is a holy well (16) recorded in the south-eastern part of the Study Area, close to the locations of Bronze Age Fulachtaí Fia (10, 16) and the locations of three ringforts/souterrains (22, 23 and 21). Taken together these monuments indicate that this location was likely a focal point of sustained settlement from the prehistoric period right through the early medieval period.
- 4.19 It is possible that the ruined remains of the Church graveyard in Ballyneague townland (7 and 8) had early medieval origins.

Medieval Period (AD 1100-1600)

- 4.20 Norman involvement in Ireland began in 1169, when Richard de Clare and his followers landed in Wexford to support Diarmait MacMurchadha, deposed King of Leinster, in his bid to regain the Kingdom of Leinster. By the end of the 12th century the Normans had succeeded in overthrowing the previous ruling elites in much of the country (Anderson, 2019).
- 4.21 Although occupation is likely to have continued at least some of the ringfort type sites recorded in the Study Area into the medieval period the focal points of high-status settlement in the locality changed to castle sites. The earliest Anglo-Norman defensive castles in the Study Area likely comprised the moated site (31) recorded on land 860 m east of the site boundary in Castlemiles townland and the 'mote' (30) identified on land 960 m east of the site boundary in Garryduff townland (NMS, 2025).
- 4.22 'The 'mote' (30) at Garryduff is marked on the 1840 and 1927 editions of the OS 6-Inch map of the area. It was described locally as an earthen mound approximately 20m wide and 4m high with a well immediately adjacent to the north-east. Both of these were removed c. 1970 (NMS, 2025). The NMS places the site of an unlocated early castle (29) at Garryduff, which may have corresponded to the 'mote' (30). This may have been an early Anglo-Norman motte and bailey type castle structure, which would likely have been associated with the 12th century Anglo-Norman invasion of the area.
- 4.23 The moated site (31) in Castlemiles townland comprises a rectangular grass-covered area defined by an eroded bank an outer fosse (NMS, 2025). There appears to have been a stone castle structure or stone castle building (34) built at this location as indicated by a wall identified on the inner face of the bank of the moated site (31). It seems likely that this site would have been one of the

residences of the ruling Anglo-Norman family in the area during the 13th and 14th centuries. It was described as 'Castle Miles' on the 1840 and 1927 editions of the Ordnance Survey 6-Inch map (NMS, 2025).

- 4.24 There are two other castles (24 and 25) recorded within the Study Area. Both of these are tower house type castle which are likely to have been built after the 13th century as the primary residences of the local ruling Anglo-Norman landowner in the area. The nearest of these to the Site is a castle tower house (24) recorded on land in Cornaveigh townland 148 m south of the southeastern site boundary (NMS, 2025). This tower house castle stand to 3 storeys and was built around a rock outcrop, approached by an earthen causeway. It appears to have been strategically sited to control a crossing point on the Tourig River. This is believed to have been a Geraldine castle later repaired and fortified by the Earl of Cork (NMS, 2025).
- 4.25 The tower house castle at Cornaveigh may have been replaced as the primary castle in the locality by the tower house castle at Kilnatoora (25), to the south-east of the Tourig River. This is a substantial five-storey tower house castle which is likely to originally have been surrounded by a bawn with at least one circular corner tower which were noted in the early 20th century but which are no longer visible. Kilnatoora castle was built by a branch of the Fitzgeralds of Imokilly. It was besieged by the Lord Castlehaven who bombarded it and breached its walls in 1645. The south site of the tower was later substantially damaged by quarrying for stone in the 19th century (NMS, 2025).
- 4.26 The focal point of religious worship in the parish is likely to have been centred on the Church and graveyard in Ballyneague townland (7 and 8). This was the site of the medieval parish church of Ardagh, which was reportedly in ruins by 1615. The door in the north wall of the ruins has a later medieval appearance and is thought to have been reset when the church was rebuilt in the post-medieval period. Its original position is believed to been in the south wall (NMS, 2025).

Post-medieval to Modern (AD 1600-Present)

- 4.27 The 18th century saw a dramatic rise in the establishment of large residential houses around the country. This was largely due to the fact that after the turbulence of the preceding centuries, the success of the Protestant cause and effective removal of any political opposition, the country was at peace. The large country house was only a small part of the overall estate of a large landowner and provided a base to manage often large area of land that could be dispersed nationally. During the latter part of the 18th century, the establishment of a parkland context (or demesnes) for large houses was the fashion. Although the creation of a parkland landscape involved working with nature, rather than against it, considerable constructional effort went into their creation. Earth was moved, field boundaries disappeared, streams were diverted to form lakes and quite often roads were completely diverted to avoid travelling anywhere near the main house or across the estate.

Major topographical features like rivers and mountains were desirable features for inclusion into, and as a setting, for the large house and parkland. This was achieved at all scales, from a modest Rectory Glebe to demesne landscapes that covered thousands of acres (Anderson, 2019).

- 4.28 The Site is located within Ardagh, a parish in the barony of Imokilly, County Cork. According to Lewis in 1837 the parish comprised 7,629 statute acres and contained 2,658 inhabitants. Lewis noted the general aspect of the area is mountainous, being largely reclaimed with large quantities of mountain turf (Lewis, 1837). Lewis further noted that the soil in the parish was for the most part poor and stony, and excepting the waste ground the land was wholly in tillage and only indifferently cultivated. Lewis described the parish church as an old plain building of small dimensions, with five acres of glebe land but no glebe house (Lewis, 1837). This is likely a reference to the Church and graveyard in Ballyneague townland (7 and 8). This was the site of the medieval parish church of Ardagh, which was reportedly in ruins by 1615. It was rebuilt as a Church of Ireland parish church shortly afterwards but by 1837 it was described as ‘so old that the date and cost of its erection are unascertainable’. It is thought that it fell out of use when the Church of Ireland parish of Ardagh united with Youghal parish in 1872 (NMS, 2025).
- 4.29 One of the main focal points of settlement in the Study Area during the post-medieval period is likely to have been the hamlet of Inch (Barnaviddane townland) to the west of the Site. This village is recorded as a settlement cluster by the NMS (5) and contains a former 19th century national school building (6) which dates to 1840 that is currently in use as a community centre. Lewis notes that in 1837 the Roman Catholic parish church of Ardagh was located at Inch, which he describes as a small, thatched building (Lewis, 1837). The modern Church at Inch (48) is a Protected Structure which was built around 1870 (NIAH, 2025).
- 4.30 A second 19th century settlement cluster was located in the north-western part of the Study Area in the townland of Meenoughter. Three residential houses remain, including one in ruins from the buildings which are depicted at this location on the 1842 OS 6-Inch map (NMS, 2025). A third settlement cluster name Barnaviddane shown on the OS 6 Inch map in the vicinity of a surviving vernacular house (13) in Barnaviddane townland no longer exists (NMS, 2025). Both of these settlement clusters are likely to reflect some of the main focal points of settlement in the locality in the post-medieval period.
- 4.31 Elsewhere in the Study Area the 19th and 20th century settlement pattern comprised of dispersed farmsteads and smaller thatched cottages (50-86). This settlement pattern is likely to have evolved since at least the 17th century in this area. Several of these types of residential structures are recorded by the National Monuments Service and/or the National Inventory of Architectural Heritage.

- 4.32 In the 19th century the more affluent residences in the Study Area included Park House, with its associated gate lodge (42). Located on the Ponsonby estate the Park was occupied by John Hudson junior in 1814 and by Robert Hudson in the early 1850s when the house was valued at £10. The Hudsons may have been agents to the Ponsonbys. The address of Charles W. Talbot Ponsonby is given as Park House, Youghal in the 1870s (Landedestates.ie 2025).
- 4.33 The remains of Garryduff House in the eastern part of the Study Area also represent the residence of one of the more affluent 19th century families in the locality. The owners of this residence may have been related to the estate of Cherrymount House in the neighbouring townland, which was described by Lewis in 1837 as the ‘occasional residence’ of Captain Parker. Cherrymount House was being leased by Thomas Carpenter from the Parker estate at the time of the Griffiths valuation. In 1852 it was offered for sale in the Encumbered Estates Court when it was described as ‘a suitable dwelling house and demesne’. It was purchased by Major-General Sir Joseph Thackwell and remained in the possession of that family until the 20th century. It is now a ruin (Landedestates.ie 2025).
- 4.34 The main farmhouse shown on 19th century maps in Cornaveigh townland was occupied by George Bowles in the mid 19th century. The original building is no longer extant (Landedestates.ie 2025).
- 4.35 Good examples of more modest vernacular 19th century cottages survive at Roisin House Barnaviddane (39/47); a second cottage dating to c. 1800 at Barnividdane and a third surviving roadside house of 4 bays (13). A vernacular thatched house is also recorded in Ballinteosig (1/35/49) and a detached five-bay single-storey vernacular house built c. 1820 in Ballyneague townland (12/41).
- 4.36 The sites of another post-medieval or 19th century vernacular building is recorded at Rath townland (14).
- 4.37 In addition to these buildings, the locations of other 19th century cottages and structures that are recorded on 19th century Ordnance Survey maps in the Study Area but which are not recorded by either the National Monuments Service or the National Inventory of Architectural Heritage are marked on Figures 4 and 5 (50-86).
- 4.38 The main roads on 19th century Ordnance Survey maps connecting these settlements generally followed the alignments of the modern R634 in the eastern part of the Study Area, the Park Hill/Youghal Park road through the central part of the Study Area, and the Inch Hill to Ballinteosig road in the western part of the Study Area. The River Tourig was crossed by main bridges located at Inch, at Aghancoustha Bridge (43/45) near Youghal Park, at Cornaveigh and Kilnatoora (28/45).

- 4.39 A lime-kiln (11), which was likely used to create fertiliser to improve the soil for tillage is recorded along the site boundary in the north-western part of the Study Area, close to a water pump which provided fresh water to the 19th century inhabitants of Ballydaniel and Ballyglavin townlands (NMS, 2025). A second lime kiln (2) is recorded in the western part of the Study Area, which likely served the inhabitants of Ballinteosig house (1).
- 4.40 The fast flowing Tourig River in the Study Area was well suited to milling and the substantial remains of a fulling mill survive on the Tourig River near the village of Barnaviddane (4). A second fulling mill (27) is recorded along the Tourig River near Kilnatoora Castle and the ruins of a corn mill and associated workers houses and offices (26) is recorded close to Cornaveigh Castle further upstream. The proximity of these later two mills to medieval tower house castles suggests that the 19th century mills may have developed on the sites of earlier medieval or post-medieval mill structures. These mills also suggest that corn was the main crop grown in the more fertile soils of the locality, whilst sheep farming was carried out to provide wool for the fulling mills in many farms in the area during the post-medieval period.

Summary of Previous Archaeological Fieldwork

- 4.41 A review of the Excavations Bulletin (1970-2023) has revealed no archaeological fieldwork investigations within the Study Area (excavations.ie, 2025).
- 4.42 Following consultation with the Cork County Council Archaeologist in March 2026 a geophysical survey by Donald Murphy, Robert Breen and Jeanne Rochford of Archaeological Consultancy Services Unit Ltd. (ACSU) under licence 26R0042 issued by the Department of Housing, Local Government and Heritage. A full detailed gradiometer survey was undertaken throughout the application area using a SENSYS MAGNETO MXV3 8-sensor fluxgate gradiometer cart system (Appendix I: Murphy, 2026).
- 4.43 The survey identified potential archaeological features consisting of faint curvilinear anomalies that may indicate the presence of a possible enclosure (**89/M1**) in Field 63, two curvilinear anomalies in Fields 66 (**88/M2**) and 58 (**90/M3**) that may indicate the presence of ring-ditches or similar cut features, and a second potential enclosure (**91/M4**) in Field 22 that is located on high rough ground (Murphy, 2026).
- 4.44 The geophysical survey identified various linear features that have been interpreted as land divisions or field boundaries that pre-date the 19th century (92). The survey also identified linear features that correlate with historic field boundaries shown on 19th century Ordnance Survey maps of the area (Murphy, 2026).

- 4.45 Scatters of other anomalies also represent potential archaeology, such as potential spread/pit remains that were recorded across the survey area. An archaeological interpretation of responses in these areas is highly tentative, and natural soil or geological origins, or recent land use, should be considered for these anomalies (Murphy, 2026).

Cartographic Analysis

Down Survey Map of Ireland, 1659

- 4.46 The map of Imokilly, Cork covers the Site showing the boundaries of the townland and parish.

John Rocque's Map of the County of Cork, 1790

- 4.47 The Site is not shown in detail within John Rocque's map of the County of Cork of 1790. The general area of the Site is shown but lack sufficient detail to provide specific information on the land-use of the Site during this time (Rocque, 1790).

Ordnance Survey Historical Mapping 1829-1995

- 4.48 The First Edition 6 Inch Ordnance Survey (OS) map of the Area (1829-1842) shows the Site in detail for the first time. The Site is generally depicted as enclosed agricultural fields with scattered agricultural buildings. The fields were broken up into smaller field parcels, which indicates that significant historic field boundary loss has taken place over the Site since the middle of the 19th century (Figure 4).
- 4.49 Several ringforts recorded in the Study Area outside of the site boundary are shown on this map but are not labelled (Figure 4).
- 4.50 The lime-kiln (11) is also likely depicted on this map as a circular feature by the roadside along the north-eastern site boundary (Figure 4). A feature by the roadside is also labelled as 'lime kiln' on the 1897-1913 OS Map (Figure 5).
- 4.51 There are four structures depicted within the site boundary in the fields to the north of the modern Greenhills Farm in Knocknagappagh townland (Figure 4). These four structures are not subsequently shown on the 1897-1913 OS map (Figure 5) and there is no visible traces of any of these structures today. The 19th century farmhouse at Greenhills (71-75) is shown on the First Edition map as having at least three farmyard buildings in a farmyard to the western side of the farmhouse. These earlier farm buildings appear to have been demolished by the early 19th century and this farmyard is completely built over by modern farm buildings today. The existing Greenhills farmhouse likely dates from the 20th century.
- 4.52 There are at least two separate farmyards or farm buildings depicted on the OS First Edition map within the site boundary on the boundary between Barnaviddane townland and Knocknagappagh

townland (Figure 4: 76 and 77). The easternmost of these also appears as a farmhouse and associated farmyard (76) on the 1897-1913 OS map (Figure 5) of the area. Today, a modern farmhouse has replaced the 19th century building but 19th century buildings still survive in the part of the farmyard to the south which lies outside of the site boundary (Photo 3). All historic 19th century structures within the part of the farmyard that is within the site boundary appear to have been demolished.

- 4.53 The westernmost structure (77) appears to have been a single structure or cottage located on the outskirts of the 19th century settlement cluster of Barnaviddane (which is otherwise located outside of the site boundary). This structure is not depicted on later OS mapping and no visible trace of any structure appears at this location today.
- 4.54 There are five structures depicted within the site boundary in the fields to north and north-west of a modern woodland plantation in Ballyneague townland. These structures appear in one cluster of three buildings (82-84) and a second cluster of three buildings (78-81) and may represent at least two different early 19th century farmsteads (Figure 4). Only one building in the eastern cluster (85) is depicted on the OS 1897-1913 map of the area (Figure 5). Apart from the remains of a gate post there are no visible remains of any structures at these locations today.
- 4.55 There are five separate buildings or clusters of buildings depicted within the site boundary in Ballydaniel townland on the First Edition OS map of the area. The northernmost of these (64) is shown as a single structure or cottage off a small lane leading from the modern R634 road. This structure does not appear on the later 2nd Edition map of the area and no visible trace a structure at this location survives today. To the south of this, farmhouse within a small farmyard (62 and 63) are shown on both the OS First and Second Edition maps of the area. It survives today as a small stone farmhouse and yard off the modern R634 road (Photo 2).
- 4.56 Further south in Ballydaniel townland, two structures (65 and 66) are shown within the site boundary at the junction of the modern Park Hill road and a modern farm track that crosses the site east to west to the south of Greenhills Farmhouse (Figure 4). These two structures appeared to have been demolished by the early 20th century (Figure 5) and no visible trace survives today.
- 4.57 To the south of these a farmhouse and associated farm buildings (58-61) are shown on both the First and 2nd Edition OS maps within the site boundary in the southern part of Ballydaniel townland (Figures 4 and 5). It comprises a farmhouse and outbuildings in a small rectangular farmyard to the west of the Park Hill road (Photo 1).

- 4.58 At the southern end of Ballydaniel townland a structure (57) appears within the site boundary on the First Edition OS map in the corner of the field opposite Park School. It is not shown on the 2nd Edition OS map and no visible trace of any structure survives today.
- 4.59 There are three clusters of buildings depicted either within or adjacent to the site boundary in Cornaveigh townland on the First Edition Ordnance Survey map of the area (Figure 4). The northernmost cluster of two buildings (55 and 56) likely represents a small farmyard or cottages immediately to the north of the site boundary. These two structures are not shown on the later 1897-1913 OS map and no visible trace of these structures survives today.
- 4.60 A farmhouse and at least one farm building range is shown on the OS First Edition map on land adjacent to the site boundary in the central part of Cornaveigh townland (52-54). These buildings are also shown on later OS maps of the area (Figure 5: 86). The existing farmhouse is modern but the farmyard contains two surviving ranges of 19th century buildings (Photo 4). A date stone in the interior of the building reads '4/5th July 1815'.
- 4.61 There are two structures shown within the site boundary on the OS First Edition map in the south-western part of the site in Cornaveigh townland (50 and 51). These two structures are not shown on early 20th century OS mapping (Figure 5) but the current landowner remains them as ruined stone cottages. No visible trace of these structures survive today.
- 4.62 The 6 Inch Ordnance Survey map of the Area (1897-1913) shows relatively little change to the overall field boundary arrangement and land use depicted on the earlier First Edition 6 Inch Ordnance Survey map. However, some of the field boundaries throughout the Site had been removed by this time. The majority of the 19th century structures shown on earlier 19th century Ordnance Survey maps are no longer shown on early 20th century mapping with only the more centralised farm complexes remaining.
- 4.63 The 19th century buildings and farmsteads shown on these maps are connected by footpaths and trackways which survive as modern farm trackways in the Site today.

Aerial Photographic Analysis

- 4.64 Inspection of aerial photographic coverage of the proposed development area held by the Ordnance Survey (1995, 2005-2012, 2013-2018), Google Earth (2005-2025) was carried out. Aerial photographs of the Site from 1995 show further consolidation of fields into larger parcels took over the course of the later 20th century (Google Earth, 2025).
- 4.65 Aerial and satellite images of the Site taken between 2005 and 2012 appear to show relatively little change to the field boundary arrangement or land-use within the Site boundary during this period (Google Earth, 2025).

Place-name and Folklore Analysis

- 4.66 Placenames, including townland names are rich source of information for the land use, history and folklore of an area and can provide information on families, topographical features, historical events and figures. In terms of the built environment many names reference churches, fords, castles, raths, graveyards, roads and passes. The names of townlands in the project area and their Irish translation are presented in Table 7.

Table 7: Analysis of townland names in the project area

Barony/Parish/Townland	Genitive	Translation
Imokilly	Ó Mic Coille	Uí Mhic Coille
Ardagh	Ardach	Ardach
Cornaveigh	Chora na bhFiach	Cora na bhFiach
Youghal Park	Pháirc an Fhiaigh	Páirc an Fhiaigh
Ballyneague	Bhaile an Fhiaigh	Baile an Fhiaigh
Ballydaniel	Bhaile Dhónaill	Baile Dhónaill
Barnaviddane	Bharr na bhFiodán	Barr na bhFeadán
Knocknagappagh	Chnoc na gCeapach	Cnoc na gCeapach

- 4.67 The Site is located within parish of Ardagh, barony of Imokilly, County of Cork. Imokilly is translated as Uí Mhic Coille, first recorded in 1177 as McCaillai. Ardagh was first recorded in 1288 as Ardach. The Ordnance Survey Namesbooks give one possible interpretation of this placename as the ‘high field’, which could reflect its use as an area noted for its upland pasture in the medieval period (logainm.ie, 2025 and townlands.ie, 2025).
- 4.68 The Site is spread over several townlands with Ardagh parish. The southeastern area of the Site is within Cornaveigh, first recorded in 1576 as Curry ne viagh. One possible translation of Cora na bhFiach could be the ford/weir of the raven. This could reflect medieval name of the crossing point of the River Tourig in this townland. The southern area of the Site is Youghal Park, which was first recorded in 1348 as Youghall Park. The central area of the Site is in Ballyneague, which was first recorded in 1613 as BallyenNiege. The Ordnance Survey Namebooks suggested that this place-name could have been interpreted as ‘town of the hunting’ and may have originally formed part of the same landholding at Youghal Park (logainm.ie, 2025 and townlands.ie, 2025).

4.69 The northern area of the Site is in the townlands of Ballydaniel and Knocknagappagh. Ballydaniel is translated as Baile Uí Dhónaill and was first recorded in 1301 as ‘Balydofthyll’. This placename seems to reflect the landholding of a Gaelic family name dating back prior to the 13th century. Knocknagappagh was first recorded in 1586 as ‘Knocknegappaghe’. One possible interpretation of this placename is ‘hill of the tillage plots’, which suggests this townland was known for arable production in the later medieval period. The western area of the Site is in Barnaviddane, which was first recorded in 1624 as ‘Barravidan’. This placename seems to reference this area being known as the source of a stream, or perhaps it references its location along the upper course of the Tourig River. The Tourig River itself is first documented as ‘Touragh’ in 1684. The origins of this name are unclear but it could simply have been derived from the word tóraigh, meaning a boundary (logainm.ie, 2025 and townlands.ie, 2025).

5 Results of Field Inspection

Field Inspection

- 5.1 A walkover survey and setting impact assessment was undertaken of the Site and the surrounding landscape on the 14th, 15th and 16th of May 2025 in overcast, sunny, dry weather. The site visit comprised a walkover of the Site and along publicly accessible areas in the surrounding landscape to assess setting impacts (Plates 1 – 21).
- 5.2 Two historic 19th century farmyards located inside the site boundary survive as upstanding ruins today. One of these is located in the northern part of Ballydaniel townland in the north-eastern part of the Site to the west of the modern R634 road. It comprises a small stone farmhouse and yard (62 and 63). The second is located in the southern part of Ballydaniel townland in the central part of the Site to the west of the Park Hill road. It comprises a farmhouse and outbuildings in a small rectangular farmyard (58-61).
- 5.3 No other previously unknown archaeological earthworks, artefacts or standing remains were observed within the site boundary during the walkover survey.
- 5.4 A fully digital photographic record was made of the Site visit. This forms part of the project archive.

6 Impact Assessment and Mitigation Strategy

- 6.1 Impacts or effects can be identified from detailed information about a project, the nature of the area affected and the range of archaeological resources potential affected. Archaeological sites can be affected adversely in a number of ways: disturbance by excavation, topsoil stripping; disturbance by vehicles working in unsuitable conditions; and burial of sites, limiting access for future archaeological investigation. Upstanding archaeology, earthworks and historic buildings or structures can be affected adversely by direct damage or destruction arising from development, from inadvertent damage arising from vibration, undermining, etc. and also by indirect effects to a building's visual setting, view, or curtilage.

Impact Assessment

Direct Effects

World Heritage Sites, National Monuments and Architectural Conservation Areas

- 6.2 There will be no direct physical effects from the Proposed Development on any World Heritage Site, National Monument or Architectural Conservation Area as none of these types of heritage assets are located within the site boundary or within a 1km radius of the site boundary. Therefore, the

construction, operational and decommissioning phase of the Proposed Development will have a No Change direct effect on these types of heritage assets. In relation to direct effects, the significance of effect on these types of heritage assets will be neutral.

Protected Structures

- 6.3 There are no Protected Structures recorded within the site boundary. The nearest Protected Structure to the Site is Roisin: a 19th century house (39/47), which is recorded on land within 5 m of the Site boundary (Figure 2). However, this building and its curtilage are clearly demarcated on the ground and are located outside of the site boundary. The remaining Protected Structures recorded within the 1km Study Area are all located away from the site boundary. Therefore, the construction, operational and decommissioning phase of the Proposed Development will have a No Change direct effect on these types of heritage assets. In relation to direct effects, the significance of effect on these types of heritage assets will be neutral.

Sites and Monuments Record

- 6.4 There are no monuments recorded by the Sites and Monuments Record within the site boundary (Figure 3).
- 6.5 There are six monuments recorded by the Sites and Monuments Record in close proximity to the site boundary (10, 11, 16, 17, 22, 23). These comprise two Fulachtaí Fias (10, 17), a ringfort (22), a souterrain (23), and a holy well (16) recorded in the fields around the south-eastern part of the Site. A lime kiln (11) is recorded on land outside the development footprint along the northern site boundary. This lime kiln was not visible at this location during the site visit and may have been demolished. There is a house (13) recorded on land 4 m east of parcel CK62854F (NMS, 2025). These monuments and their associated SMR buffer zones are all located either outside of the site boundary or within buffer zones outside of the development footprint. Therefore, the construction, operational and decommissioning phase of the Proposed Development will have a No Change direct effect on these types of heritage assets. In relation to direct effects, the significance of effect on these types of heritage assets will be neutral.

National Inventory of Architectural Heritage

- 6.6 There are ten buildings or structures recorded on the National Inventory of Architectural Heritage (NIAH) within a 1 km Study Area around the Site (NIAH, 2025). These are described in Appendix A and are shown on Figure 2. The nearest historic buildings recorded on the NIAH to the Site comprise an 18th century house (37) and a cast-iron water pump (40). These structures and their associated curtilages are all clearly demarcated on the ground and are located outside of the site boundary. Therefore, the construction, operational and decommissioning phase of the Proposed

Development will have a No Change direct effect on these types of heritage assets. In relation to direct effects, the significance of effect on these types of heritage assets will be neutral.

Buried Archaeology

- 6.7 The geophysical survey identified potential archaeological features consisting of faint curvilinear anomalies that may indicate the presence of a possible enclosure **(89/M1)** in Field 63, two curvilinear anomalies in Fields 66 **(88/M2)** and 58 **(90/M3)** that may indicate the presence of ring-ditches or similar cut features, and a second potential enclosure **(91/M4)** in Field 22 that is located on high rough ground.
- 6.8 The potential archaeological significance of these four anomalies is considered to be high. The proposed embedded design mitigation for the above ground gabion foundations of the solar panels will avoid ground impacts from the development over these areas. Therefore, the potential magnitude of change on these features is assessed as Low and the significance of effect is assessed as Slight (An effect which causes noticeable changes in the character of the historic environment without affecting its sensitivities) to Moderate (An effect that alters the character of the historic environment in a manner that is consistent with existing and emerging baseline trends).
- 6.9 The geophysical survey has identified a number of linear anomalies (interpreted as possible Early Field system?) and scatters of other small – medium anomalies also represent potential archaeological cut or spread features (?Archaeology) across the survey area. The linear features (92) most likely represent pre-19th century field boundaries and land divisions that are considered to be of medium archaeological significance. As these types of features will be preserved in situ under the solar arrays it is assessed that the magnitude of change will be Low and the direct effect of the Proposed Development on these types of features is assessed as Not Significant (An effect which causes noticeable changes in the character of the historic environment, on archaeological features or monuments or on architectural heritage but without significant consequences.).
- 6.10 For the parts of the Site where the geophysical survey has identified no anomalies which likely represent significant archaeology (areas where the survey recorded no anomalies/buried services/cultivation/land drains/natural underlying geology/magnetic disturbance/modern anomalies/ferrous), and due to the previous ground disturbance resulting from 20th agricultural activity over the Site, the potential direct effect of the Proposed Development on currently unknown buried archaeology without mitigation is assessed as Negligible to Low. The potential for currently unknown archaeology in these parts of the Site is considered to be low.
- 6.11 The significance of this effect on currently unknown buried archaeology on these parts of the Site could range from Imperceptible (An effect on an archaeological feature, monument or architectural

heritage site which is capable of measurement but without significant consequences) to Not Significant (An effect which causes noticeable changes in the character of the historic environment, on archaeological features or monuments or on architectural heritage but without significant consequences.).

Unregistered Historic Structures

- 6.12 Two historic 19th century farmyards located inside the site boundary survive as upstanding ruins today. One of these is located in the northern part of Ballydaniel townland in the north-eastern part of the Site to the west of the modern R634 road. It comprises a small stone farmhouse and yard (62 and 63). The second is located in the southern part of Ballydaniel townland in the central part of the Site to the west of the Park Hill road. It comprises a farmhouse and outbuildings (58-61) in a small rectangular farmyard (Figure 5). Although these structures and their associated curtilages are located inside the site boundary it is understood that they will be preserved in situ and will not be demolished. Therefore, the construction, operational and decommissioning phase of the Proposed Development will have a No Change direct effect on these types of heritage assets. In relation to direct effects, the significance of effect on these types of heritage assets will be neutral.

Historic Field Boundaries

- 6.13 Short sections of the Grid Connection Route divert off the existing public road through adjacent fields. This will potentially involve the removal of short sections of some field boundaries, which appear on 19th century historic maps. However, the site visit and historic mapping analysis indicates that many of the historic field boundaries shown on 19th century maps have been either removed or replaced by modern field boundaries of Negligible archaeological significance. As only short sections of existing field boundaries will need to be removed, this potential direct effect on currently unknown buried archaeology and existing historic field boundaries is likely to be Negligible to Low.
- 6.14 The significance of this effect on existing field boundaries will likely be at worst Not Significant (An effect which causes noticeable changes in the character of the historic environment, on archaeological features or monuments or on architectural heritage but without significant consequences).
- 6.15 The geophysical survey has identified a number of linear anomalies which have been interpreted as 'former boundaries' across the survey area. These linear features can be correlated with former 19th century field boundaries shown on historic maps and are considered to have a low archaeological significance. As these types of features will be preserved in situ under the solar arrays it is assessed that the magnitude of change will be Low and the direct effect of the Proposed

Development on these types of features is assessed as Imperceptible to Not Significant (An effect which causes noticeable changes in the character of the historic environment, on archaeological features or monuments or on architectural heritage but without significant consequences.).

Indirect Setting Effects

World Heritage Sites, National Monuments and Architectural Conservation Areas

- 6.16 There will be no indirect effects from the Proposed Development on the setting of any World Heritage Site, National Monument or Architectural Conservation Area as none of these types of heritage assets are located within the site boundary or within a 1km radius of the site boundary. Therefore, the construction, operational and decommissioning phase of the Proposed Development will have a No Change direct effect on these types of heritage assets. In relation to direct effects, the significance of effect on these types of heritage assets will be neutral.

Protected Structures

- 6.17 There are five Protected Structures recorded on the County Cork Record of Protected Structures within 1 km of the proposed Site (Figure 2). Desk-based analysis and site visits indicate that there will be no views at all of the Proposed Development from four of these Protected Structures (45, 46, 48, 49) due to the distances between these structures and the Site and due to the presence of intervening landform and mature tree belts. Due to the distances between these buildings and the Site no other potentially harmful effects on setting are predicted. Therefore, the construction, operational and decommissioning phase of the Proposed Development will have a No Change direct effect on these types of heritage assets. In relation to direct effects, the significance of effect on these types of heritage assets will be neutral.
- 6.18 The nearest of Protected Structure to the Site is Roisin, a 19th century vernacular house (39/47) which is recorded on land within 5 m of the Site boundary. This building is described as a detached four-bay single-storey direct-entry thatched house, built c. 1830, with recent one-bay single-storey extension to south end. It had a hipped reed thatched roof with red brick chimneystack and painted rendered walls. The house has square-headed openings with two-over-two pane timber sliding sash windows and replacement timber half-door. The curtilage of the building comprised painted rendered boundary walls with square-profile piers and pedestrian gate (NIAH, 2025). At the time of the site visit for this assessment the building appeared had been gutted by a recent fire which had destroyed the thatch roof and the building appeared to be uninhabitable.
- 6.19 The setting of this building is confined to its immediate curtilage and its position fronting onto a narrow country lane. There are potential views of one field of the Site from the house looking immediately to the west and north-west. However, as the house was not habitable at the time of

the site visit is considered unlikely that the Proposed Development would affect any significant historic views or sightlines that contribute to the significance of the setting of this building. The visual change will also be reversed once the Proposed Development is decommissioned.

- 6.20 For these reasons it is assessed the Proposed Development may have a long term (during the operational phase) Low effect on the setting of this Protected Structure and its curtilage. It will likely have an adverse indirect effect on the significance this Protected Structure and its curtilage. However, the significance of this effect will be at worst slight adverse (an effect which causes noticeable changes in the character of the historic environment without affecting its sensitivities). This effect could be mitigated by the planting of native hedgerow vegetation around the part of the Site boundary which borders the curtilage of this Protected Structure.

National Inventory of Architectural Heritage

- 6.21 There are ten buildings or structures recorded on the National Inventory of Architectural Heritage (NIAH) within a 1km Study Area around the Site (NIAH, 2025). Four of these are also recorded as Protected Structures (38, 39, 35 and 43) and are therefore assessed primarily as Protected Structures in this report.
- 6.22 Out of the remaining six NIAH structure desk-based analysis and site visits indicate that there will be no views at all of the Proposed Development from NIAH structures (36) and (42) due to the presence of intervening landform and mature tree belts. There will potentially be some views of the parts of the Site from NIAH waterpump (40) and milestone (44). However, it is considered that the setting of these structures is limited to their location on the existing roadway and therefore the changes in these views will have at worst a Negligible effect on their setting. There will potentially be some highly restricted views of parts of the proposed development from the curtilages of vernacular houses (37) and (41). However, the curtilages around these cottages contains mature trees and hedgerows which effectively screen views of the site from these buildings. The boundaries around these houses also restrict views from how they are viewed by the general public from the public roads adjacent to these buildings. These views will not be changed by the Proposed Development.
- 6.23 The changes in views during the construction and operational phases of the Proposed Development are therefore considered to have a long term Negligible to Low effect on the settings of NIAH Structures (excluding Protected Structures) and their curtilages. It will likely have an adverse indirect effect on the significance these NIAH Structures. The significance of this effects will range from imperceptible (an effect capable of measurement but without significant consequences) to not significant (an effect which causes noticeable changes in the character of the historic environment, on archaeological features or monuments or on architectural heritage but without

significant consequences). These effects will also be reversed once the Proposed Development is decommissioned.

Further Surveys and Outline Mitigation Strategy

- 6.24 The mitigation measures outlined below have been developed having regard to the results of the desk-based assessment, site inspection, and geophysical survey, and are designed to ensure that any potential effects on archaeological, architectural and cultural heritage assets are avoided, minimised, or appropriately managed throughout the construction, operational and decommissioning phases of the Proposed Development.
- 6.25 The assessment has identified no recorded monuments on the register of historic monuments and places, National Monuments, Protected Structures, NIAH structures, or other designated archaeological assets within the footprint of the Proposed Development that would be subject to direct physical impact. The wider study area contains a relatively limited distribution of known archaeological sites, with these concentrated largely outside the development footprint. While the potential for previously unrecorded buried archaeological remains cannot be entirely discounted, the available evidence indicates that the archaeological potential of much of the Site is generally low, with isolated areas of elevated potential associated with anomalies identified during geophysical survey.
- 6.26 The following embedded and proposed mitigation measures form part of the cultural heritage strategy for the Proposed Development:
- 6.27 No groundworks, construction vehicle movements, storage of materials, or other construction-related activities shall take place within the exclusion zones established around recorded monuments and historic structures adjacent to the site boundary, as shown on Figure 6.
- 6.28 As an embedded mitigation measure, it is proposed to utilize above ground, non-intrusive gabion basket/ballasted foundation solar panel foundations over areas where four anomalies of archaeological potential were identified by the geophysical survey on the Site (Geophysical Survey Numbers M1, M2, M3, and M4; Figure 7 Map Numbers 89-91) and within a 5 m buffer around these anomalies. The gabion basket mounted foundations involve rolling out geogrid/textile on top of the grass, without any requirement for excavation. Gravel is then placed on the geogrid/textile. This design solution avoids excavation and significant ground disturbance within these areas and is intended to preserve any surviving archaeological remains in situ.
- 6.29 The anomalies of archaeological significance that were identified by geophysical survey should be targeted during a test trenching programme that could be conditioned within any grant of permission for the site in order to ascertain their significance and extent. Features exposed should

be sufficiently sectioned in order to assess their depth and nature. This must be carried out by a licence-eligible archaeologist prior to any groundworks taking place. Once test trenching is complete, further mitigation might include preservation in situ (avoidance), excavation (preservation by record), and/or monitoring. The Department of Housing, Local Government, and Heritage shall be consulted in this regard.

- 6.30 Existing historic farmsteads, historic field boundaries and other heritage features identified within the Site will be retained and protected where practicable throughout the construction and operational phases.
- 6.31 Existing hedgerows and boundary vegetation will be retained wherever possible. Additional native hedgerow planting may be undertaken along selected boundaries, including in the vicinity of Roisin House, to further reduce potential effects on heritage settings.
- 6.32 Given the absence of known archaeological monuments within the development footprint and the avoidance measures incorporated into the design, no significant residual effects on the archaeological resource are predicted.
- 6.33 Notwithstanding the above, the detailed scope of archaeological works required during the implementation of the project will be determined through the statutory planning process and in consultation with Cork County Council and the National Monuments Service, where required. Should additional archaeological investigation be requested by the relevant authorities, any such works would be undertaken by a suitably qualified and licence-eligible archaeologist and would focus on clarifying the nature and significance of identified anomalies and informing any further mitigation requirements.
- 6.34 All significant sub-surface groundworks associated with the Proposed Development, including the construction of the substation, compound areas, access tracks, and off-road cable trenches, should be subject to a programme of archaeological monitoring carried out under licence.
- 6.35 Where archaeological material is encountered during monitoring:
- Works in the affected area will cease pending archaeological assessment;
 - The National Monuments Service and Cork County Council will be consulted as appropriate;
 - Preservation in situ will be the preferred mitigation option where feasible;
 - Where preservation in situ cannot reasonably be achieved, an appropriate programme of archaeological excavation and preservation by record will be undertaken in accordance with statutory requirements and best practice guidance.

- 6.36 All archaeological works will be undertaken by suitably qualified personnel operating under the relevant legislative framework. Following completion of any archaeological investigations, a final report and archive will be prepared and submitted to the relevant authorities.
- 6.37 The adoption of these measures will ensure that the archaeological resource is protected through a precautionary but proportionate approach, with any surviving archaeological remains either preserved in situ or appropriately recorded in accordance with national policy and current professional practice.

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Appendix A: Protected Structures within 1 km of the Site boundary

RPS No.	Name	Structure Type	Townland	Location	Map Number
00411	Twomile Bridge	Bridge	Kilnatoora/Currag hboy	West of Youghal	45
00410	Aghanacousta Bridge	Bridge	Youghal Park	West of Youghal	46
01157	Thatch House	House	Barnaviddane	Mountuniacke	47
00365	Inch Catholic Church	Church	Barnaviddane	Ardagh	48
00713	Thatch House	House	Ballinteosig	Mountuniacke	49

Appendix B: NIAH within 1 km of the Site boundary

NIAH Reg. No.	Name	Structure Type	Map Number
20905524	Ballinteosig	House	35
20905526	Ballinteosig	Water-pump	36
20905527	Barnaviddane	House	37
20905528	Inch Roman Catholic Church	Church	38
20905602	Roisin	House	39
20905603	Ballydaniel	Water-pump	40
20905604	Ballyneague	House	41
20906701	Youghal Park	House	42
20906702	Aghancoustha Bridge	Bridge	43
22903719	Red Forge Crossroads	Milestone	44

Appendix C: SMR/RMP Sites Within 1 km of the Site Boundary

SMR Number	Class code	Description	Townland	County	Number
CO055-042001-	VEHO	House - vernacular house	BALLINTEOSIG	Cork	1
CO055-042002-	LIME	Kiln - lime	BALLINTEOSIG	Cork	2
CO055-043-- --	SEID	Settlement cluster	MEENOUGHTER	Cork	3
CO055-044-- --	FUMI	Mill - fulling	BALLINTEOSIG	Cork	4
CO055-045001-	SEID	Settlement cluster	BARNAVIDDANE	Cork	5
CO055-045002-	SCHO	School	BARNAVIDDANE	Cork	6
CO056-001001-	GRAV	Graveyard	BALLYNEAGUE	Cork	7
CO056-001002-	CHUR	Church	BALLYNEAGUE	Cork	8
CO056-002-- --	RATH	Ringfort - rath	BALLYGLAVIN	Cork	9
CO056-003-- --	FUFI	Fulacht fia	CORNAVEIGH (Imokilly By., Ardagh Par.)	Cork	10
CO056-004-- --	LIME	Kiln - lime	BALLYDANIEL (Imokilly By., Ardagh Par.)	Cork	11
CO056-005-- --	VEHO	House - vernacular house	BALLYNEAGUE	Cork	12
CO056-006-- --	VEHO	House - vernacular house	BARNAVIDDANE	Cork	13
CO056-007-- --	VEHO	House - vernacular house	RATH (Imokilly By.)	Cork	14
CO056-010-- --	SOUT	Souterrain	BALLYGLAVIN	Cork	15
CO056-011-- --	HOWE	Ritual site - holy well	CORNAVEIGH (Imokilly By., Ardagh Par.)	Cork	16
CO056-013-- --	FUFI	Fulacht fia	CORNAVEIGH (Imokilly By., Ardagh Par.)	Cork	17

CO067-001001-	HILL	Hillfort	RATH (Imokilly By.)	Cork	18
CO067-001002-	RATH	Ringfort - rath	RATH (Imokilly By.)	Cork	19
CO067-001003-	SOUT	Souterrain	RATH (Imokilly By.)	Cork	20
CO067-002-- --	RATH	Ringfort - rath	BALLYGLAVIN	Cork	21
CO067-003-- --	RATH	Ringfort - rath	CORNAVEIGH (Imokilly By., Ardagh Par.)	Cork	22
CO067-004-- --	SOUT	Souterrain	CORNAVEIGH (Imokilly By., Ardagh Par.)	Cork	23
CO067-005-- --	TOHO	Castle - tower house	CORNAVEIGH (Imokilly By., Clonpriest Par.)	Cork	24
CO067-006-- --	TOHO	Castle - tower house	KILNATOORA	Cork	25
CO067-034-- --	COMI	Mill - corn	CORNAVEIGH (Imokilly By., Ardagh Par.)	Cork	26
CO067-035-- --	FUMI	Mill - fulling	KILNATOORA	Cork	27
CO067-036-- --	BRID	Bridge	CURRAGHBOY,KILNATOORA	Cork	28
WA037-019002-	UNCA	Castle - unclassified	GARRYDUFF (Coshmore and Coshbride By.)	Waterford	29
WA037-019001-	MOND	Mound	GARRYDUFF (Coshmore and Coshbride By.)	Waterford	30
WA037-021001-	MOSI	Moated site	CASTLEMILES	Waterford	31
WA037-022- ---	RATH	Ringfort - rath	CASTLEMILES	Waterford	32
WA037-051- ---	BURM	Burnt mound	KILLEA (Coshmore and Coshbride By.)	Waterford	33
WA037-021002-	UNCA	Castle - unclassified	CASTLEMILES	Waterford	34

Appendix D: 19th Century and Extant Historical Structures

Figure 4	Figure 4	Figure 5	Figure 6
50	68	60	60
51	69	62	62
52	70	75	75
53	71	76	86
54	72	85	87
55	73	86	
56	74		
57	75		
58	76		
59	77		
60	78		
61	79		
62	80		
63	81		
64	82		
65	83		
66	84		
67			

Appendix E: Geophysical Survey Results

Anomaly	Description
88	? Archaeology (M2 in the Geophysical Report)
89	? Archaeology (M1 in the Geophysical Report)
90	? Archaeology (M3 in the Geophysical Report)
91	? Archaeology (M4 in the Geophysical Report)
92	? Early Field System

Appendix F: Legislation Protecting the Archaeological Resource

Protection of Cultural Heritage

The cultural heritage in Ireland is safeguarded through national and international policy designed to secure the protection of the cultural heritage resource to the fullest possible extent (Department of Arts, Heritage, Gaeltacht and the Islands 1999, 35). This is undertaken in accordance with the provisions of the *European Convention on the Protection of the Archaeological Heritage* (Valletta Convention), ratified by Ireland in 1997.

The Archaeological Resource

The Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 and relevant provisions of the *National Cultural Institutions Act 1997* are the primary means of ensuring the satisfactory protection of archaeological remains, which includes all man-made structures of whatever form or date except buildings habitually used for ecclesiastical purposes.

The Historic and Archaeological Heritage and Miscellaneous Provisions Act (the Act) was passed by both Houses of the Oireachtas and signed by the President on 13 October 2023.

When fully commenced, the Act will provide strengthened protection for historic and archaeological heritage, and artefacts of cultural interest and importance in Ireland. The Act will repeal and replace the existing National Monuments Acts 1930-2014, and will introduce the following measures:

- newly discovered archaeological sites will be afforded immediate legal protection, mirroring the existing system for archaeological objects and historic wrecks that are automatically protected without a need for formal designation or registration;
- a statutory reporting scheme for finds of monuments will come into effect;
- a new 'Register of Monuments' will be established, replacing several overlapping designation and registration systems currently in operation;
- subject to certain exceptions, archaeological objects with no known owner will automatically become the property of the State;
- a new integrated licensing system will be introduced; this will allow the applicant to submit one licence application to authorise a range of activities;
- a statutory appeals process will be established to review licensing decisions;
- a new civil enforcement procedure will be used as an alternative to, or to supplement, criminal proceedings.

While the Act is now law, a number of legal and administrative measures are required to make the legislation enforceable. The Act will therefore come into effect on a phased basis. Information on the sections of the Act that have been commenced to date, and are fully in operation, can be found here [Legislation - National Monuments Service](#)

The Planning and Development Act 2000

Under planning legislation, each local authority is obliged to draw up a Development Plan setting out their aims and policies with regard to the growth of the area over a five-year period. They cover a range of issues including archaeology and built heritage, setting out their policies and objectives with regard to the protection and enhancement of both. These policies can vary from county to county. The Planning and Development Act 2000 recognises that proper planning and sustainable development includes the protection of the archaeological heritage. Conditions relating to archaeology may be attached to individual planning permissions.

Cork County Development Plan 2022-2028

It is an objective of Cork County Council to:

Built Heritage

HE 16-1: County Heritage Plan – Continue to implement the current County Heritage Plan (2005) in partnership with relevant stakeholders and any successor of this document.

HE 16-4: Zones of Archaeological Potential in Historic Towns and Settlements – Proposed development works in Historic Towns and settlements, Zones of Archaeological Potential, Zones of Notification and the general historic environs in proximity to the zones, should take cognisance of the impact potential of the works, and all appropriate archaeological assessments employed to identify and mitigate the potential impacts.

HE 16-7: Battlefield, Ambush and Siege Sites and Defensive Archaeology - Protect and preserve the defensive archaeological record of County Cork including strategic battlefield, ambush and siege sites, and coastal fortifications and their associated landscape due to their historical and cultural value. Any development within or adjoining these areas shall undertake a historic assessment by a suitably qualified specialist to ensure development does not negatively impact on this historic landscape.

HE 16-14: Record of Protected Structures –

- a) The identification of structures for inclusion in the Record will be based on criteria set out in the Architectural Heritage Protection Guidelines for Planning Authorities (2011).

- b) Extend the Record of Protected Structures in order to provide a comprehensive schedule for the protection of structures of special importance in the County during the lifetime of the Plan as resources allow.
- c) Seek the protection of all structures within the County, which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. In accordance with this objective, a Record of Protected Structures has been established and is set out in Volume Two Heritage and Amenity, Chapter 1 Record of Protected Structures.
- d) Ensure the protection of all structures (or parts of structures) contained in the Record of Protected Structures.
- e) Protect the curtilage and attendant grounds of all structures included in the Record of Protected Structures.
- f) Ensure that development proposals are appropriate in terms of architectural treatment, character, scale and form to the existing protected structure and not detrimental to the special character and integrity of the protected structure and its setting.
- g) Ensure high quality architectural design of all new developments relating to or which may impact on structures (and their settings) included in the Record of Protected Structures.
- h) Promote and ensure best conservation practice through the use of specialist conservation professionals and craft persons.
- i) In the event of a planning application being granted for development within the curtilage of a protected structure, that the repair of a protected structure is prioritised in the first instance i.e., the proposed works to the protected structure should occur, where appropriate, in the first phase of the development to prevent endangerment, abandonment and dereliction of the structure.

HE 16-15: Protection of Structures on the NIAH - Protect where possible all structures which are included in the NIAH for County Cork, that are not currently included in the Record of Protected Structures, from adverse impacts as part of the development management functions of the County.

HE 16-16: Protection of Non- Structural Elements of Built Heritage - Protect non-structural elements of the built heritage. These can include designed gardens/garden features, masonry walls, railings, follies, gates, bridges, shopfronts and street furniture. The Council will promote awareness and best practice in relation to these elements.

HE 16-17: Areas of Special Planning Control - Establish areas of special planning control within Architectural Conservation Areas where appropriate. These areas will include a scheme setting out

objectives for the conservation and enhancement of the special character of the area and will be based on an Architectural Appraisal of each town.

HE 16-18: Architectural Conservation Areas - Conserve and enhance the special character of the Architectural Conservation Areas included in this Plan. The special character of an area includes its traditional building stock, material finishes, spaces, streetscape, shopfronts, landscape and setting. This will be achieved by;

- a) Protecting all buildings, structures, groups of structures, sites, landscapes and all other features considered to be intrinsic elements to the special character of the ACA from demolition and non-sympathetic alterations.
- b) Promoting appropriate and sensitive reuse and rehabilitation of buildings and sites within the ACA and securing appropriate infill development.
- c) Ensure new development within or adjacent to an ACA respect the established character of the area and contributes positively in terms of design, scale, setting and material finishes to the ACA.
- d) Protect structures from demolition and non-sympathetic alterations.
- e) Promoting high quality architectural design within ACAs.
- f) Seek the repair and re-use of traditional shopfronts and where appropriate, encourage new shopfronts of a high-quality architectural design.
- g) Ensure all new signage, lighting advertising and utilities to buildings within ACAs are designed, constructed and located in such a manner they do not detract from the character of the ACA.
- h) Protect and enhance the character and quality of the public realm within ACAs. All projects which involve works within the public realm of an ACA shall undertake a character assessment of the said area which will inform a sensitive and appropriate approach to any proposed project in terms of design and material specifications. All projects shall provide for the use of suitably qualified conservation architects/ designers.
- i) Protect and enhance the character of the ACA and the open spaces contained therein. This shall be achieved through the careful and considered strategic management of all signage, lighting, utilities, art works/pieces/paintings, facilities etc to protect the integrity and quality of the structures and spaces within each ACA.
- j) Ensure the protection and reuse of historic street finishes, furniture and features which contribute to the character of the ACA.

HE 16-19: Vernacular Heritage –

- a) Protect, maintain and enhance the established character, forms, features and setting of vernacular buildings, farmyards and settlements and the contribution they make to our architectural, archaeological, historical, social and cultural heritage and to local character and sense of place.
- b) Cork County Council encourages best conservation practice in the renovation and maintenance of vernacular buildings including thatched structures through the use of specialist conservation professionals and craft persons. Development proposals shall be accompanied by appropriate documentation compiled by experienced conservation consultant.
- c) There will generally be a presumption in favour of the retention of vernacular buildings and encouragement of the retention and re-use of vernacular buildings subject to normal planning considerations, while ensuring that the re-use is compatible with environmental and heritage protection.

HE 16-21: Design and landscaping of New Buildings–

- a) Encourage new buildings that respect the character, pattern and tradition of existing places, materials and built forms and that fit appropriately into the landscape.
- b) Promote sustainable approaches to housing development by encouraging new building projects to be energy efficient in their design and layout.
- c) Foster an innovative approach to design that acknowledges the diversity of suitable design solutions in most cases, safeguards the potential for exceptional innovative design in appropriate locations and promotes the added economic, amenity and environmental value of good design.
- d) Require the appropriate landscaping and screen planting of proposed developments by using predominantly indigenous/local species and groupings and protecting existing hedgerows and historic boundaries in rural areas. Protection of historical/commemorative trees will also be provided for.

HE 16-22: Village Design Statements – Facilitate the preparation and implementation of village design statements and other community led projects and plans to enhance village environments whilst ensuring that such initiatives are consistent with other Plan policies.

HE 16-24: Naming of New Developments - Promote and preserve local place names, local heritage and the Irish language by ensuring the use of local place names or geographical or cultural names

which reflect the history and landscape of their setting in the naming of new residential and other developments. Such an approach will be a requirement of planning permissions for new developments.

HE 16-26: The Arts –

- a) Provide for balanced development of arts infrastructure in County Cork that meets the cultural and artistic needs of communities, supports creative activity and enhances cultural, economic and social life in communities.
- b) Consider proposals for development of arts spaces and facilities including performance, exhibition, studio and other arts related facilities in appropriate locations, where proposals are in accordance the other policies and objectives of this Plan.
- c) Encourage the provision of arts, cultural and entertainment facilities, the commissioning of new works of art for the public realm in association HE proposals, where appropriate and having regard to Public Art: Per Cent for Art Scheme, General National Guidelines” (2004), as amended in 2019.
- d) Promote and facilitate sustainable development and the creation and display of art and heritage works in public areas while complying with the planning and environmental criteria and development management standards.
- e) Acknowledge and support the implementation of objectives set out in the Arts Plan and Culture and Creativity Strategy (and any plan / strategy hereafter), which will be supported through effective collaboration with the County Arts Office.
- f) Undertake an evidence based ‘needs’ approach during the lifetime of the Development Plan in collaboration with the Arts Office to identify the spatial distribution/concentration of arts and culture ‘assets’ across the county, and to inform future/area needs provision including the co-location of services and activities. This may inform the pursuit of specific arts and arts infrastructure projects in association with the County Arts Office, through the National URDF funding programme or, such other funding programmes during the lifetime of the Development Plan.

Archaeological Heritage

Policies relating to archaeological heritage include:

HE 16-2: Protection of Archaeological Sites and Monuments - Secure the preservation (i.e., preservation in situ or in exceptional cases preservation by record) of all archaeological monuments and their setting included in the Sites and Monuments Record (SMR) (see www.archaeology.ie)

and the Record of Monuments and Places (RMP) and of sites, features and objects of archaeological and historical interest generally.

In securing such preservation, the planning authority will have regard to the advice and recommendations of the Development Applications Unit of the Department of Housing, Local Government and Heritage (Department of Tourism, Culture, Arts, Gaeltacht, Sports and Media) as outlined in the Frameworks and Principles for the Protection of the Archaeological Heritage policy document or any changes to the policy within the lifetime of the Plan.

HE 16-3: Zones of Archaeological Potential – Protect the Zones of Archaeological Potential (ZAPs) located within historic towns, urban areas and around archaeological monuments generally. Any development within the ZAPs will need to take cognisance of the upstanding and potential for subsurface archaeology, through appropriate archaeological assessment.

HE 16-6: Industrial and Post Medieval Archaeology - Protect and preserve industrial and post-medieval archaeology and long-term management of heritage features such as mills, limekilns, forges, bridges, piers and harbours, water-related engineering works and buildings, penal chapels, dwellings, walls and boundaries, farm buildings, estate features, military and coastal installations. There is a general presumption for retention of these structures and features. Proposals for appropriate redevelopment including conversion should be subject to an appropriate assessment and record by a suitably qualified specialist/s.

HE 16-8: Burial Place – Protect all historical burial places and their setting in County Cork and encourage their maintenance and care in accordance with appropriate conservation principles.

HE 16-9: Archaeology and Infrastructure Schemes - All large-scale planning applications (i.e., development of lands on 0.5 ha or more in area or 1km or more in length) and Infrastructure schemes and proposed roadworks are subjected to an archaeological assessment as part of the planning application process which should comply with the Department of Arts, Heritage and the Gaeltacht's (Department of Tourism, Culture, Arts, Gaeltacht, Sports and Media) codes of practice. It is recommended that the assessment is carried out following pre planning consultation with the County Archaeologist, by an appropriately experienced archaeologist to guide the design and layout of the proposed scheme/development, safeguarding the archaeological heritage in line with Development Management Guidelines.

HE 16-10: Management of Monuments within Development Sites - Where archaeological sites are accommodated within a development it shall be appropriately conservation/ protection with provision for a suitable buffer zone and long-term management plan put in place all to be agreed in advance with the County Archaeologist.

HE 16-11: Archaeological Landscapes - To protect archaeological landscapes and their setting where the number and extent of archaeological monuments are significant and as a collective are considered an important archaeological landscape of heritage value.

HE 16-12: Raising Archaeological Awareness - As part of the Heritage Plan it is an objective to develop a management plan, if resources allow, for the archaeology of County Cork, which could include an evaluation of the Historic Character Assessment of Cork County helping to identify areas for tourism potential, and strategic research while also promoting best practice in archaeology and encouraging the interpretation, publication and dissemination of archaeological findings from the development application process.

HE 16-13: Undiscovered Archaeological Sites - To protect and preserve previously unrecorded archaeological sites within County Cork as part of any development proposals. The Council will require preservation in situ to protect archaeological monuments discovered. Preservation by record will only be considered in exceptional circumstances.

HE 16-20: Historic Landscapes –

- a) Recognise the contribution and importance of historic landscapes and their contribution to the appearance of the countryside, their significance as archaeological, architectural, historical and ecological resources.
- b) Protect the archaeological, architectural, historic and cultural element of the historic/heritage landscapes of the County of Cork.
- c) All new development within historic landscapes should be assessed in accordance with and giving due regard to Cork County Councils 'Guidance Notes for the Appraisal of Historic Gardens, Demesnes, Estates and their Settings' or any other relevant guidance notes or documents issued during the lifetime of the Plan.

HE 16-23: Cultural Heritage - Protect and promote the cultural heritage of County Cork as an important economic asset and for its intrinsic value to identity of place and the well-being of people within the County.

HE 16-25: Gaeltacht Areas - Protect the linguistic and cultural heritage of the Gaeltacht areas of Cork by:

- a) Encouraging development within the Gaeltacht and in the Gaeltacht Service Town of Macroom, which promotes, facilitates or complements the cultural heritage, including Irish language use.

- b) Encouraging development within the Gaeltacht and the Gaeltacht Service Town of Macroom, which provides employment or social facilities, especially, but not exclusively, where these are of relevance to local young people.
- c) Resisting development within the Gaeltacht, which would be likely to erode the cultural heritage (including the community use of Irish language), unless there are over-riding benefits for the long-term sustainability of the local community or for the proper planning and sustainable development of a wider area.
- d) Ensuring that where the County Council erects signs within the Gaeltacht, these have Irish as their primary language, unless there are positive and over-riding reasons for doing otherwise.
- e) Discouraging the exhibition of advertisements within the Gaeltacht which do not use Irish as their primary language.
- f) Consider the requirement for the use of demanding linguistic impact analyses with planning applications for particular major developments. These would be cases where the potential impact of the development on the use of Irish as the community language is not immediately apparent and pivotal in the determination of the application.
- g) Facilitate the preparation and implementation of local Gaeltacht Plans, Programmes and Initiatives, including Language Plans and Conservation Plans such as the Múscraí Heritage Plan, in the interests of the proper planning and sustainable development of Cork's Gaeltachts, provided that such plans are in keeping with Council policy.
- h) Encourage the use of the Irish language, not just in Gaeltacht areas but throughout the County, particularly with regard to service provision, planning and development and Council initiatives/activities.
- i) The use of the Irish language is promoted in the design of developments e.g., business advertising, recreational and community facilities are clearly identified and provided and shop-front signage should be in the Irish language.
- j) The Plan encourages collaboration between Gaeltacht stakeholders, Gaeltacht communities and State agencies in the future planning and development projects to ensure the protection and promotion of the Irish language as the community language.

Waterford County Development Plan 2022-2028

It is an objective of Waterford County Council to:

Heritage Policy Objectives

Heritage 01: Waterford Heritage Plan – To implement and review the Waterford Heritage Plan in partnership with all relevant stakeholders and subject to available resources.

Heritage 02: Heritage Ireland 2030 – To support the objectives of Heritage Ireland 2030 in relation to Communities and Heritage, Leadership and Heritage and Heritage Partnerships.

Built Heritage Policy Objectives

BH 01: Record of Protected Structures – We will promote the protection of the architectural heritage of the City and County through the identification of structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, by the inclusion of such structures on the Record of Protected Structures (RPS) and by taking such steps as are necessary to ensure the protection of those structures, their maintenance, conservation, enhancement, and appropriate active use.

To this end we will contribute towards the protection of architectural heritage by complying, as appropriate, with the legislative provisions of the Planning and Development Act 2000 (as amended) in relation to architectural heritage and the policy guidance contained in the Architectural Heritage Protection Guidelines 2011 (and any updated/superseding document).

BH 02: Supporting our Built Heritage Assets- It is the policy of the Council:

To promote the sustainable reuse of protected structures for any such purpose compatible with the character of the structure. The Planning Authority may, where considered appropriate, relax use zoning and other site development restrictions and may grant exemption from or reduce the amounts of development contributions payable in order to secure the protection and conservation of protected structures or historic structures within ACAs and by way of reduction of development levies for improvements to Protected Structures. These restrictions may be relaxed and development contributions reduced or exempted where the protected structure will be rehabilitated to a high standard, where the special interest, character and setting of the building is protected and where the proposed use and development is consistent with conservation policies and the proper planning and sustainable development of the area. In such cases the proposed development shall be open for consideration notwithstanding the current zoning objective for the site and therefore shall be considered as not materially contravening the Development Plan.

To administer incentives for the protection of the architectural heritage of the City and County through administration of the Built Heritage funding schemes or similar Department of Housing Local Government and Heritage funding schemes.

To advise with regard to best conservation practice as per Architectural Heritage Protection Guidelines for Planning Authorities 2011 available on [the Councils Website](#) and Department of Housing Local Government and Heritage Advice Series.

BH 03: Statutory Declarations: We will issue Section 57 Declarations on request to owners or occupiers of protected structures detailing the type of works that it is considered would or would not materially affect the character of the structure or of any element of the structure which contributes to its special interest.

BH 04: Demolition of Protected Structures: Proposals for the demolition of a Protected Structure may be considered in exceptional circumstances and the onus will be on the developer to provide the strongest justification for such an action as per the Heritage Protection Guidelines for Planning Authorities and other guidance.

Architectural Conservation Areas

It is the policy of the Council to:

- Achieve the preservation of the special character of places, areas, groups of structures setting out Architectural Conservation Areas (ACA).
- Protect the special heritage values, unique characteristics and distinctive features, such as shopfronts within the ACA from inappropriate development which would detract from the special character of the ACA.
- Prohibit the demolition of historic structures that positively contributes to the distinctive character of the ACA.
- Encourage the undergrounding of overhead services and the removal of redundant wiring/cables within an ACA and to assess all further cable installations against its likely impact on the character of the ACA as the cumulative impact of wiring can have a negative impact on the character of ACAs.
- Provide guidelines on appropriate development to retain its distinctive character; and protect elements of the streetscape such as rubble stone boundary walls, planting schemes and street furniture such as paving, post boxes, historic bollards, basement grills, street signage/plaques, etc. which make a positive contribution to the built heritage.

- Retain or sensitively reintegrate any surviving items of historic street furniture and finishes such as granite kerbing and paving that contribute to the character of an ACA.

BH 06: Architectural Heritage Impact Assessment

- It is the policy of the Council when considering development which may have a significant impact on a protected structures, its setting or curtilage or have an impact on an ACA, that the proposal be accompanied by an Architectural Heritage Impact assessment (AHIA) detailing the potential impact of the development on the architectural heritage. The report should be compiled in accordance with the details set out in Appendix B of the Architectural Heritage Protection Guidelines for Planning Authorities, Department of the Environment.

BH 07: Promoting our Architectural Heritage

It is the policy of the Council to identify and implement measures for promoting the character of the historic cores of the city, towns and villages, their unique identity and their architectural, archaeological, historical and cultural, social interest and diversity.

BH08: Reusing our Heritage Buildings

It is a policy of the Council to encourage sympathetic development or reuse of historic buildings to promote heritage led economic growth and regeneration whilst not adversely detracting from the building or its setting. Any proposals shall respect features of the special architectural and historic character by appropriate design, materials, scale, and setting.

BH09: Ecological Impact Assessment

It is the policy of the Council to request an ecological impact assessment where development may have an adverse impact on protected wildlife species such as bats or nesting birds and the *Apis mellifera mellifera*/ native Irish honeybee. The incorporation of biodiversity enhancement measures shall be a requirement in repair works to existing or design of new developments

BH10: Building Adaptation

It is the policy of the Council to facilitate appropriate, high-quality design solutions for adaptations of Protected Structures and historic buildings in an ACA that carefully consider the design, height, scale, massing, and finishes of adjacent buildings.

BH11: Maintaining and Enhancing Special Character

It is the policy of the Council to protect structures and curtilages included in the RPS or historic structures within ACA, from any works which would visually or physically detract from the special character of the main structure, any structures within the curtilage, or the streetscape or landscape setting of the ACA.

BH12: Settings and Vistas

It is the policy of the Council to ensure the protection of the settings and vistas of Protected Structures, and historic buildings within and adjacent to ACAs from any works which would result in the loss or damage to their special character.

BH13: Vacant and Derelict Structures

It is the policy of the Council to encourage the sensitive redevelopment of vacant or derelict sites within the ACA and historic cores of the city, towns and villages whilst promoting a high standard design which respects urban plots, roof lines vistas and streetscape

BH14: Retaining Built Fabric

It is the policy of the Council to:

- Encourage the sensitive redevelopment and reuse of the ground floor shop units of Protected Structures or buildings in the historic cores for other uses including residential whilst retaining the shopfront façade, windows and doorways to upper floors.
- Promote the sustainable reuse and refurbishment of vacant upper floors of buildings in the historic core for residential use through incentives such as the Repair and Lease Scheme.

BH15: Retaining our Shopfronts

It is the policy of the Council to ensure that all original and traditional shopfronts which contribute positively to the appearance and character of a streetscape are retained and restored and new shopfronts are well designed, through the sympathetic use of scale, proportion and high quality materials.

BH16: Traditional Materials and Skills

It is the policy of the Council to:

- Promote and ensure the conservation and reuse of traditional materials and features. Original building fabric such as rubblestone and brick walls, lime mortar render, natural slate, thatch, chimneys, brick detailing, ironwork and joinery details such as timber sash windows, shopfronts, doorways and bargeboards shall be retained. Where traditional features such as timber sliding sash windows have been removed, their reinstatement shall be encouraged.
- Encourage the retention and development of the traditional skills base in County Waterford and maintain the Conservation Skills register.

BH17: Shopfront Guidelines

We will publish guidelines for best practice in the care of historic shopfronts during the lifetime of the Development Plan.

BH18: Protecting our Demesnes

It is a policy of Council to:

- Protect and promote the setting and visual amenity of historic gardens and designed landscapes.
- Protect all elements of historic gardens and designed landscapes including structures, tree planting schemes, manmade features such as waterways, boundary features within the attendant grounds of Protected Structures.
- Proposed development which have the potential to visually or physically impact on the character and/or the appearance of an historic designed landscape should be justified through a Design Landscape Assessment /Architectural Heritage Impact Assessment.

BH19: Demesnes Architectural Conservation Areas

We will assess the need to establish additional areas for designation as ACA for Demesnes and to extend the boundaries of the existing ACAs having regard to their special architectural, historic, archaeological, artistic, cultural, scientific, social or technical interest or value or contribution to the appreciation of protected structures and settings and vistas.

BH20: Conservation Plans for Significant Structures

It is a policy of the Council to protect and promote the sustainable reuse and development within large complexes such as workhouses, school, barracks, convents, abbeys, hospitals included in the RPS, and those proposals would be justified through an overall Conservation Plan.

BH21: Industrial Built Heritage

It is the Policy of the Council to:

- Identify, protect and encourage the sympathetic reuse of elements of the industrial heritage and to encourage sustainable reuse of underutilised/vacant industrial buildings for residential, commercial or tourism use.
- All development proposals for industrial buildings and sites of industrial archaeological importance must be accompanied by an archaeological assessment of the building(s) and their surrounding environment. In all cases the retention and/or incorporation of industrial buildings will be encouraged and only in exceptional circumstances will demolition be considered.

BH22: Industrial and Maritime Structure Surveys

During the life of the Development Plan we will:

- Update the Industrial Heritage of Waterford Survey (2008).
- Survey our maritime heritage which includes quays, harbours, river quays and walls, and navigation aids.

BH23: Built Heritage and Climate Change

It is the policy of the Council to:

- Support and implement the objectives of:
 - The Climate Change Sectoral Adaptation Plan (2019) for built and archaeological heritage,
 - The Waterford Climate Action Plan (2019) in building resilience for our historic sites and buildings from climate change.
 - Department of Environment, Heritage and Local Government's publication on 'Energy Efficiency in Traditional Buildings' (2010).
 - The Irish Standard IS EN 16883:2017 'Conservation of Cultural Heritage - Guidelines for Improving the Energy Performance of Historic Buildings' (2017).
 - Any future advisory documents in assessing proposed works on Protected Structures.
- Promote the just transition to a low carbon and climate resilient society in the interest of sustainability and to reduce landfill by acknowledging the embodied energy retention and reuse of our historic building stock.
- Promote the appropriate rehabilitation, revitalization and reuse of vernacular buildings, and town houses, wherever feasible, employing best conservation practice and using traditional building methods and materials such as timber windows in the interest of sustainability, good conservation practice and maintaining the long-term viability of such buildings and their associated features and improve their resilience to climate change
- Ensure that measures to upgrade the energy efficiency of historic buildings acknowledge their inherent characteristics, techniques and materials and do not have a detrimental physical or visual impact on the building or its character
- Support appropriate and well-informed energy efficiency upgrades to structures on the Record of Protected Structures and historic buildings through the dissemination of factual and relevant information to the general public.
- Identify the built and archaeological heritage in local authority ownership and areas at risk from climate change including, but not necessarily restricted to, the Record of Monuments and Places, Protected Structures and Architectural Conservation Areas designated in the Development Plan.

BH24: Maintaining and Enhancing our Vernacular Buildings

It is the policy of the Council to:

- Protect, maintain and enhance the historic character and setting of vernacular buildings, farmyards and settlements
- Encourage appropriate revitalisation and reuse of such structures (see rural diversification/tourism). There will be a presumption against the demolition of vernacular buildings where restoration or adaptation is a feasible option.
- Promote the protection and maintenance of thatched buildings (domestic or non-domestic), particularly those with historic layers and roof structures.

BH25: Thatched Structures Survey

During the life of the Development Plan we will:

- Update the Thatch House survey of County Waterford
- Promote available grant schemes and facilitate engagement with owners in the maintenance of these buildings.

BH26: Reuse of Vernacular Structures

It is a policy of the council to encourage and facilitate the sensitive reuse of vernacular houses or farm buildings for farm diversification, agri-tourism and rural development, including self-catering accommodation, arts or craft workshops and small-scale manufacturing. Guidance and information can be found in *Traditional Buildings for Irish Farms* (2005) published by the Heritage Council and Teagasc, and *Reusing Farm Buildings: A Kildare Perspective* (2006) published by Kildare County Council.

BH27: Retaining Vernacular Structures in Rural Areas

It is the policy of the Council where proposals for sensitive rehabilitation of disused vernacular buildings in the open countryside are being considered they will not be required to establish a rural housing need provided that their vernacular character is enhanced and that their fabric is repaired using appropriate techniques and materials. Where the subject structure is demolished and replaced a rural housing need will be required.

BH28: Demolition of Vernacular Structures

It is the policy of the Council to ensure that where permission is sought to demolish a structure which is considered of vernacular significance, on the grounds of structural defects or failure, or that it is not reasonably capable of being made structurally sound, the developer will be required to submit a report by a professional with appropriate conservation expertise and an understanding of vernacular buildings which demonstrate substantial reasons for the demolition. It must be satisfactorily demonstrated that every effort has been made to continue the present use or find a suitable new use for the structure(s).

BH29: Extensions and Alterations

It is the policy of the council to ensure that where it is proposed to extend an existing vernacular house/building, the design, scale, footprint and materials should be sympathetic to the existing building and its setting. Extensions should:

- generally, be located to the rear and not obscure the form or layout of the existing building.
- substantial removal of walling should be avoided.
- connecting the existing building and extension should minimise the number of new openings and ideally use existing openings; and,
- Where feasible outbuilding contiguous to a dwelling can sometimes be successfully incorporated.

BH30: Historic Features in the Public Realm

It is the policy of the Council to:

- Promote a high standard of civic amenity and design and to respect existing open spaces, urban spaces, settings, vistas street furniture and streetscape within historic cores. The Council shall consider the receiving environment when erecting signage, undertaking road markings, providing traffic control measures bike lanes, parking spaces, planting and road and footpath access works, and ensures that all such works are sensitive to the to the distinctive character of the area and streetscape.
- Preserve the retention of historic items of street furniture where these contribute to the character of the area, including items of a vernacular or local significance.
- Ensure street furniture and signage is kept to a minimum, is of high-quality design and material and that any redundant street furniture is removed.

BH31: Significant Structures in the Public Realm

We will protect and preserve the integrity and enhance elements of the built heritage such as limekilns, quays, bollards, bridges and their settings.

BH32: Best Practice

It is a policy of the Council to demonstrate best practice with regard to Protected Structures, Recorded Monuments and other elements of architectural and archaeological heritage in the ownership and care of the Council and to ensure appropriate materials and methodologies are used for the repair works.

BH33: Reusing our Building Stock

During the life of the Development Plan we will carry out an audit of all Protected Structures in our ownership with a view to securing uses that are compatible with the character of the individual Protected Structure.

BH34: Promoting Public Awareness

It is the policy of the Council to promote public awareness of the value of our historic built heritage and our archaeology and the positive contribution of Protected Structures, Historic Structures and Archaeology make to the built environment, the sense of place, distinctiveness and authenticity of an area and the tourism potential to Waterford and to develop specific measures to achieve such awareness.

BH35: Guides

We will continue the publication of architectural/archaeological guide series such Historic Waterford – The Coast, Architectural Waterford, and Heritage Tourism Guides online (or via app).

Archaeological Heritage Policy Objectives

AH01: National Monuments Act

It is the policy of the Council to protect, and enhance in an appropriate manner all elements of the archaeological heritage including the following categories:

- a. Sites and monuments included in the Sites and Monuments Record as maintained by the Department with responsibility for the protection of Ireland's archaeological heritage.
- b. Monuments and places included in the Record of Monuments and Places (RMP) as established under the National Monuments Acts.
- c. Historic monuments and archaeological areas included in the Register of Historic Monuments as established under the National Monuments Acts.

- d. National Monuments subject to Preservation Orders under the National Monuments Acts and National Monuments which are in the ownership or guardianship of the Minister with responsibility for archaeological heritage or the Local Authority.
- e. Archaeological objects within the meaning of the National Monuments Acts.
- f. Wrecks protected under the National Monuments Acts or otherwise included in the Shipwreck Inventory maintained by the National Monuments Service, underwater archaeology, riverine, coastal or lacustrine locations.
- g. Archaeological features not as yet identified but which may be impacted on by development.

And where feasible, appropriate and applicable to promote access (including disabled access) to and signposting and interpretive material of such sites and monuments and provide appropriate forms of virtual access where physical access is not possible.

AH02: Managing Development

We will contribute, as appropriate, towards the protection and sympathetic enhancement of archaeological heritage, in particular by implementing the relevant provisions of the Planning and Development Act 2000 (as amended) and the National Monuments Act, 1930 (as amended).

We will ensure that archaeological excavation is carried out according to best practice as outlined by the National Monuments Service, Department of Housing, Local Government and Heritage, the National Museum of Ireland and the Institute of Archaeologists of Ireland.

We will consult with the National Monuments Service as relevant in relation to proposed developments, including those adjoining archaeological sites.

AH03: Preservation of Archaeological Material

Waterford City & County Council shall, in an appropriate manner, secure either by preservation in-situ or preservation-by-record, the archaeological heritage. In this regard priority shall be given to the preservation in-situ of any archaeological monument/site/place as the first option considered. If preservation in-situ cannot be achieved, or can only be achieved in-part, then preservation-by-record of elements of the archaeological heritage will be required –this will require the full archaeological excavation and recording of the monument/site, according to best professional practice. Where excavation is required this shall also include the preparation of appropriate reports, post-excavation analyses and publications. The costs of assessing and mitigating archaeological impacts shall form part of development costs as borne by the developer.

AH04: Archaeological Impact Considerations

It is the policy of the Council to:

- Ensure that development in the vicinity of a site of archaeological interest shall be designed and sited sympathetically and shall not be detrimental to the character of the archaeological site or its setting by reason of its location, scale, bulk or detailing.
- When considering development in the vicinity of all archaeological sites including remnants of the city and town walls, the planning authority will require the preparation of an archaeological assessment detailing the potential impact of any development on upstanding structures, buried structures and deposits. The report will also include a visual impact assessment to ensure adequate consideration of any potential visual impact the proposed development may have on any upstanding remains.
- Proposed developments will be required to retain the existing street layout, including laneways, historic building lines and traditional plot widths where these derive from medieval or earlier origins.
- When considering development in the vicinity of upstanding archaeological/historical monuments, to aim to achieve a satisfactory buffer area between the development and the monument in order to ensure the preservation and enhancement of the amenity associated with the presence of upstanding monuments within the historic urban pattern.

- For all developments, which have potential to impact on riverine, intertidal and sub-tidal environments to require an archaeological assessment prior to works being carried out. In addition to planning permission, development works at National Monuments of which the Minister or local authority is owner of, guardian of or in respect of which a preservation order is in force, may also require Ministerial Consent under Section 14 of the National Monuments Act 1930 (as amended) and this will be determined by the relevant authority (Department of Housing, Local Government & Heritage) on application.

AH05: Waterford City Walls and Towers

We will protect the essential character and setting of the City Walls and Towers through the control of the design, location and layout of new development in their vicinity and through the control of changes of use of lands, by the protection of adjoining streetscapes and site features where appropriate and by protecting important views to and from the walls and towers from obstruction and/or inappropriate intrusion by new buildings structures, plant and equipment, signs and other devices; and where opportunities arise to create additional views of the walls and towers. We will continue to protect enhance and promote the City Walls by updating the City Walls Plan (2014) and implement an Interpretation Plan for Waterford Medieval City Walls and Towers.

AH06: Woodstown Viking Site

We will deliver the actions of the Woodstown Viking Site Conservation Management Plan 2020, in collaboration with the Woodstown Steering Committee and all relevant Stakeholders.

AH07: Utilising and Promoting our Archaeological Assets

It is a policy of the Council to

- Utilise Waterford's archaeology such as its City Walls and Towers as an educational and tourism resource and to facilitate the publication and dissemination of interpretative material to the general public, and to facilitate public access to the walls and towers and other sites of interest.
- Promote the incorporation of or reference to significant archaeological finds in a development, where appropriate, through layout, displays, signage, plaques, information panels or use of historic place names.

AH08: Historic Graveyards

We will apply best practice in the care and management of historic graveyards as detailed in "Care Conservation and Recording of Historic Graveyards in County Waterford" published by Waterford County Council in 2009 and "Places of Worship- Heritage Advice Series of Department of Housing, Local Government

AH09: Community Archaeology

Local communities take great pride in their local heritage and are well placed with support and partnerships to promote care, conservation and engagement with that heritage. Waterford has had the benefit of involvement with the Adopt a Monument Scheme at sites such as Gallows Hill, Dungarvan, Round Hill, Lismore and Knockboy Medieval Church.

AH10: Creadan Head

We will support delivery of actions in the Creadan Head Conservation Management Plan by the Creadan-Waterford Estuary Steering Group.

AH11: Underwater Archaeology

To preserve the integrity of existing and potential underwater archaeological sites and monuments in their setting and to ensure that development in the vicinity of a site of archaeological interest does not physically impact the character, there is a requirement to undertake Underwater Archaeological Impact Assessment (UAIA).

Appendix G: Impact Assessment and the Cultural Heritage Resource

Potential Impacts on Archaeological and Historical Remains

Impacts are defined as ‘the degree of change in an environment resulting from a development’ (Environmental Protection Agency, 2017). They are described as profound, significant or slight impacts on archaeological remains. They may be negative, positive or neutral, direct, indirect or cumulative, temporary or permanent.

Impacts can be identified from detailed information about a project, the nature of the area affected and the range of archaeological and historical resources potentially affected. Development can affect the archaeological and historical resource of a given landscape in a number of ways.

- Permanent and temporary land-take, associated structures, landscapes mounding, and their construction may result in damage to or loss of archaeological remains and deposits, or physical loss to the setting of historic monuments and to the physical coherence of the landscape.
- Archaeological sites can be affected adversely in a number of ways: disturbance by excavation, topsoil stripping and the passage of heavy machinery; disturbance by vehicles working in unsuitable conditions; or burial of sites, limiting accessibility for future archaeological investigation.
- Hydrological changes in groundwater or surface water levels can result from construction activities such as de-watering and spoil disposal, or longer-term changes in drainage patterns. These may desiccate archaeological remains and associated deposits.
- Visual impacts on the historic landscape sometimes arise from construction traffic and facilities, built earthworks and structures, landscape mounding and planting, noise, fences and associated works. These features can impinge directly on historic monuments and historic landscape elements as well as their visual amenity value.
- Landscape measures such as tree planting can damage sub-surface archaeological features, due to topsoil stripping and through the root action of trees and shrubs as they grow.
- Ground consolidation by construction activities or the weight of permanent embankments can cause damage to buried archaeological remains, especially in colluviums or peat deposits.
- Disruption due to construction also offers in general the potential for adversely affecting archaeological remains. This can include machinery, site offices, and service trenches.

Although not widely appreciated, positive impacts can accrue from developments. These can include positive resource management policies, improved maintenance and access to archaeological monuments, and the increased level of knowledge of a site or historic landscape as a result of archaeological assessment and fieldwork.

Predicted Impacts

The severity of a given level of land-take or visual intrusion varies with the type of monuments, site or landscape features and its existing environment. Severity of impact can be judged taking the following into account:

- The proportion of the feature affected and how far physical characteristics fundamental to the understanding of the feature would be lost;
- Consideration of the type, date, survival/condition, fragility/vulnerability, rarity, potential and amenity value of the feature affected;
- Assessment of the levels of noise, visual and hydrological impacts, either in general or site-specific terms, as may be provided by other specialists.

Appendix H: Mitigation Measures and the Cultural Heritage Resource

Potential Mitigation Strategies for Cultural Heritage Remains

Mitigation is defined as features of the design or other measures of the proposed development that can be adopted to avoid, prevent, reduce or offset negative effects.

The best opportunities for avoiding damage to archaeological remains or intrusion on their setting and amenity arise when the site options for the development are being considered. Damage to the archaeological resource immediately adjacent to developments may be prevented by the selection of appropriate construction methods. Reducing adverse effects can be achieved by good design, for example by screening historic buildings or upstanding archaeological monuments or by burying archaeological sites undisturbed rather than destroying them. Offsetting adverse effects is probably best illustrated by the full investigation and recording of archaeological sites that cannot be preserved *in situ*.

Definition of Mitigation Strategies

Archaeological Resource

The ideal mitigation for all archaeological sites is preservation *in situ*. This is not always a practical solution, however. Therefore, a series of recommendations are offered to provide ameliorative measures where avoidance and preservation *in situ* are not possible.

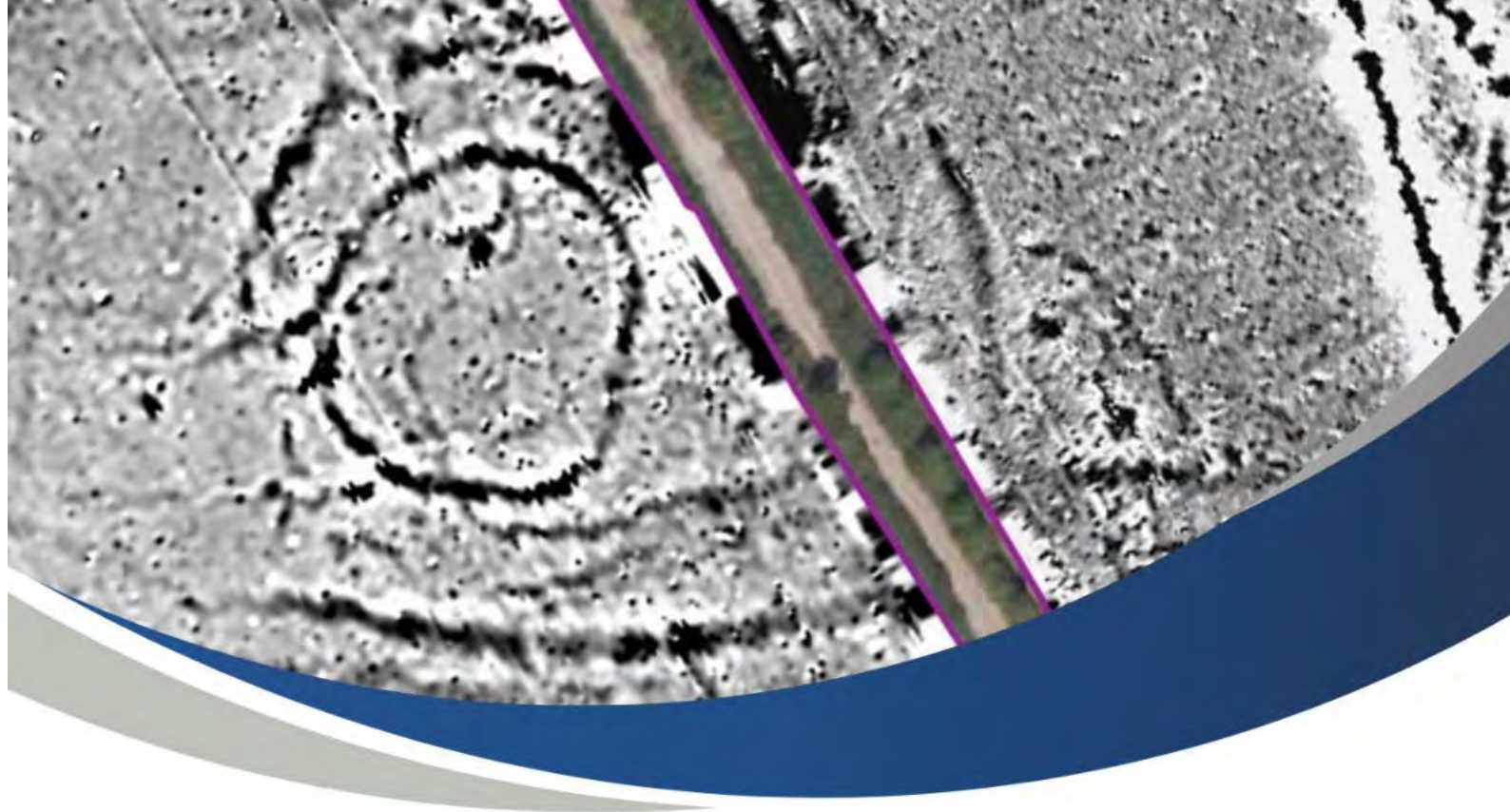
Archaeological Test Trenching can be defined as ‘a limited programme of intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate’ (CIfA, 2020).

Full Archaeological Excavation can be defined as ‘a programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological deposits, features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains with a specified area or site on land, inter-tidal zone or underwater. The records made and objects gathered during fieldwork are studied and the results of that study published in detail appropriate to the project design’ (CIfA, 2020).

Archaeological Monitoring can be defined as ‘a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that

archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive (CfA, 2020).

Appendix I: Geophysical Survey Report



Geophysical Survey Report

Greenhills Renewable Energy Project, Co. Cork

Detection Device Number: 26R0042

Donald Murphy
July 2026
Report Status: Final
ACSU Ref.: 25168



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	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 2 of 47

PROJECT DETAILS

Project	Greenhills Renewable Energy Project, Co. Cork
Report Type	Geophysical Survey Report
Licence No.	26R0042
Townland(s)	Ballydaniel, Ballyneague, Barnaviddane, Cornaveigh, Knocknagappagh and Youghalpark
RMP/SMR No.	Lime Kiln (CO056-004----
RPS Id./NIAH Reg. No.	N/A
ITM Ref.	603333, 582222
Consultant	Archaeological Consultancy Services Unit, 21 Boyne Business Park, Greenhills, Drogheda, County Louth
Archaeologist	Donald Murphy, Jeanne Rochford & Robert Breen
Report Authors	Donald Murphy, Jeanne Rochford & Kevin White
Report Status	Final
Report Date	July 2026
ACSU Ref.	25168

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 3 of 47

VERSION CONTROL

Revision	Date	Description	Status	Authors	Reviewed	Approved
1.0	30.06.2026	Geophysical survey report	Final	D.M., J.R., K.W.	L.C	D.M
1.1	06.08.2026	Geophysical survey report – minor editorial amendments	Final	D.M., J.R., K.W.	G.G	D.M

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 4 of 47

NON-TECHNICAL SUMMARY

This report details the results of a Geophysical Survey carried out for the proposed Greenhills Renewable Energy Project, Co. Cork (ITM 603333, 582222). The site covers multiple townlands, including Ballydaniel, Ballyneague, Ballydaheen, Cornaveigh, Knocknagappagh, and Youghalpark. The proposed development site measures c. 323 hectares and is to the northwest of Youghal, and just north and east of the River Tourig. It consists of four parcels of arable and pastureland. The land is accessible via the Youghal to Tallow Road (R634) and local roads just off it. The lands are primarily under pasture, with additional areas of crop cultivation, woodland, scrub, and marsh. Existing features within the site include farmyards, access roads, overhead electricity lines, streams, and nearby residential properties. Prior to the geophysical survey, several constraints were identified, including areas subject to intensive agricultural activity, recently planted crop fields, and locations considered topographically unsuitable.

The site contains one monument listed in the *Record of Monuments and Places* (RMP) and/or the *Sites and Monuments Record* (SMR). This monument is a lime kiln (CO056-004----), located in the townland of Ballydaniel, situated along a roadside on the northwest boundary of the site. The monument is no longer visible. There are several monuments in the immediate vicinity of the proposed solar farm's boundary. The site contains no buildings/features that are Protected Structures, as listed in the *Cork County Development Plan 2022-2028*, nor any sites listed in the NIAH. However, several such structures are located in the immediate vicinity of the site. Historic mapping and modern aerial imagery depict the site as agricultural land.

An Archaeological, Architectural and Cultural Heritage Baseline Impact Assessment was carried out by RSK ADAS Limited, which recommended standard pre-construction targeted geophysical surveys and/or archaeological test trenching (Bowen, 2025).

Following submission of the initial planning application, Cork County Council deemed it to be 'incomplete' under Section 34D of the Planning and Development Act 2000 (as amended), with a request for an assessment of sub-surface archaeology to be undertaken at pre-planning stage rather than pre-construction, in order to be deemed 'complete'. This geophysical survey has been conducted as a response to that request.

The geophysical survey was conducted by Donald Murphy, Robert Breen and Jeanne Rochford of Archaeological Consultancy Services Unit Ltd. (ACSU) under licence 26R0042 issued by the Department of Housing, Local Government and Heritage. A full detailed gradiometer survey was undertaken throughout the application area using a SENSYS MAGNETO MXV3 8-sensor fluxgate gradiometer cart system.

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 5 of 47

The survey identified potential archaeological features consisting of faint curvilinear anomalies that may indicate the presence of a possible enclosure **(M1)** in Field 63, two curvilinear anomalies in Fields 66 **(M2)** and 58 **(M3)** that may indicate the presence of ring-ditches or similar cut features, and a second potential enclosure **(M4)** in Field 22 that is located on high rough ground. Scatters of other anomalies also represent potential archaeology (?Archaeology), such as potential spread/pit remains that were recorded across the survey area. An archaeological interpretation of responses in these areas is highly tentative, and natural soil or geological origins, or recent land use, should be considered for these anomalies. A sample of these responses should be assessed through test trenching post-planning.

Broad positive responses were detected across the survey area that likely relate to either natural variation and/or changes in the underlying geology and may obscure or mask any potential archaeological features in these areas. The visibility in the results of removed field boundaries shown on former editions of the Ordnance Survey maps does, however, give a high level of confidence in the overall survey.

It is recommended that the identified anomalies be targeted during a test trenching programme that could be conditioned within any grant of permission for the site. Features exposed should be sufficiently sectioned in order to assess their depth and nature. This must be carried out by a licence-eligible archaeologist prior to any groundworks taking place. Once test trenching is complete, further mitigation might include preservation in situ (avoidance), excavation (preservation by record), and/or monitoring. The Department of Housing, Local Government, and Heritage shall be consulted in this regard.

An agreed buffer or mitigation zone is required in advance of any groundworks in order to protect the Recorded Monument CO056-004---- (Kiln - Lime) and its surrounding environment. A minimum buffer or mitigation zone of 10m is recommended around the monument and should be fenced off during construction works. The existing SMR Zone here comprises a 20m buffer zone, and this has been factored into the design for planning. This mitigation zone should be established prior to the construction phase to highlight the archaeologically sensitive area surrounding the recorded monument and ensure that no excavation or other temporary works take place at this location.

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 6 of 47

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 7 of 47

CONTENTS

1. INTRODUCTION	11
2. THE DEVELOPMENT	11
2.1 Proposal	11
2.2 Archaeological Condition/Requirement	13
3. METHODOLOGY	14
4. SURVEY OBJECTIVES	15
5. SOILS, GEOLOGY AND TOPOGRAPHY	15
6. ARCHAEOLOGICAL ASSESSMENT	15
6.1 Archaeological & Historical Background	16
6.2 Previous Archaeological Investigations	24
6.3 Recorded Monuments	25
6.4 Record of Protected Structures and National Inventory of Architectural Heritage	33
6.5 Finds listed within the Topographical Files of the National Museum of Ireland	35
6.6 Cartographic Evidence	35
6.7 Aerial Photography	36
7. METHOD OF DATA INTERPRETATION	36
8. SURVEY RESULTS	36
9. IMPACT ASSESSMENT	39
10. DECOMMISSIONING OF PROPOSED DEVELOPMENT	40
11. CONCLUSIONS & RECOMMENDATIONS	40
12. REFERENCES	42
13. APPENDIX 1 – Summary Technical Information & Glossary of Terms	46

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 8 of 47

List of Figures

Figure 1	Location of site
Figure 2	Location of site, previous archaeological investigations and nearby <i>Sites and Monuments Record</i> sites
Figure 3	Extract from 1st edition Ordnance Survey (OS) 6-inch map (surveyed 1840-41 - published 1845), showing location of site
Figure 4	Extract from 3rd edition Ordnance Survey (OS) 25-inch map (surveyed 1902 - published 1903), showing location of site
Figure 5	Aerial view of site
Figure 6	Aerial view of site, showing field numbers
Figure 7	Aerial view of site, showing field numbers
Figure 8	Aerial view of site, showing field numbers
Figure 9	Aerial view of site, showing field numbers
Figure 10	Aerial view of site showing geophysical survey results (greyscale images)
Figure 11	Aerial view of site showing geophysical survey results (greyscale images)
Figure 12	Aerial view of site showing geophysical survey results (greyscale images)
Figure 13	Aerial view of site showing geophysical survey results (greyscale images)
Figure 14	Aerial view of site showing geophysical survey results (greyscale images)
Figure 15	Aerial view of site showing geophysical survey results (greyscale images)
Figure 16	Aerial view of site showing geophysical survey results (greyscale images)
Figure 17	Aerial view of site showing geophysical survey results (greyscale images)
Figure 18	Aerial view of site showing geophysical survey results (greyscale images)
Figure 19	Aerial view of site showing geophysical survey results (greyscale images)
Figure 20	Aerial view of site showing geophysical survey results (greyscale images)
Figure 21	Aerial view of site showing geophysical survey results (greyscale images)
Figure 22	Aerial view of site showing geophysical survey results (greyscale images)
Figure 23	Aerial view of site showing geophysical survey results (greyscale images)

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 9 of 47

Figure 24	Aerial view of site showing geophysical survey results (greyscale images)
Figure 25	Aerial view of site showing geophysical survey results (greyscale images)
Figure 26	Aerial view of site showing geophysical survey results (greyscale images)
Figure 27	Aerial view of site showing geophysical survey results (greyscale images)
Figure 28	Aerial view of site showing geophysical survey results (greyscale images)
Figure 30	Aerial view of site
Figure 31	Aerial view of site showing geophysical survey interpretation
Figure 32	Aerial view of site showing geophysical survey interpretation
Figure 33	Aerial view of site showing geophysical survey interpretation
Figure 34	Aerial view of site showing geophysical survey interpretation
Figure 35	Aerial view of site showing geophysical survey interpretation
Figure 36	Aerial view of site showing geophysical survey interpretation
Figure 37	Aerial view of site showing geophysical survey interpretation
Figure 38	Aerial view of site showing geophysical survey interpretation
Figure 39	Aerial view of site showing geophysical survey interpretation
Figure 40	Aerial view of site showing geophysical survey interpretation
Figure 41	Aerial view of site showing geophysical survey interpretation
Figure 42	Aerial view of site showing geophysical survey interpretation
Figure 43	Aerial view of site showing geophysical survey interpretation
Figure 44	Aerial view of site showing geophysical survey interpretation
Figure 45	Aerial view of site showing geophysical survey interpretation
Figure 46	Aerial view of site showing geophysical survey interpretation
Figure 47	Aerial view of site showing geophysical survey interpretation
Figure 48	Aerial view of site showing geophysical survey interpretation
Figure 49	Aerial view of site showing geophysical survey interpretation

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 10 of 47

Figure 50 Aerial view of site showing geophysical survey interpretation

List of Tables

Table 1	Toponymy of townlands (Logainm.ie)
Table 2	Previous archaeological investigations within the environs of the site
Table 3	Recorded Monuments within the boundaries of the site
Table 4	Recorded Monuments within the immediate environs of the site
Table 5	List of RPS and NIAH sites within the environs of the site
Table 6	Geophysical survey results

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 11 of 47

1. INTRODUCTION

This report details the results of a Geophysical Survey carried out for Greenhills Solar Farm, Co. Cork (ITM 603333, 582222; Figures 1-2). The site covers multiple townlands that include Ballydaniel, Ballyneague, Barnaviddane, Ballydaheen, Cornaveigh, Knocknagappagh and Youghalpark. The site is located to the northwest of Youghal, and just north and east of the River Tourig. It consists of four parcels of arable and pastureland. The land is accessible via the Youghal to Tallow Road (R634) and local roads just off it.

The site contains one monument listed in the *Record of Monuments and Places* (RMP) and/or the *Sites and Monuments Record* (SMR). This monument is a lime kiln (CO056-004----), located in the townland of Ballydaniel, situated along a roadside on the northwest boundary of the site. The monument is no longer visible. There are several monuments located in the immediate environs of the boundaries of the proposed renewable energy project. The site contains no buildings/features that are Protected Structures, as listed in the *Cork County Development Plan 2022-2028*, as well as no sites listed in the NIAH. However, there are several such structures located within the immediate environs of the site. Historic mapping and modern aerial imagery depict the site as agricultural land.

An Archaeological, Architectural and Cultural Heritage Baseline Impact Assessment was carried out by RSK ADAS Limited, which recommended targeted geophysical surveys and/or archaeological test trenching (Bowen, 2025).

The geophysical survey was conducted by Donald Murphy, Robert Breen and Jeanne Rochford of Archaeological Consultancy Services Unit Ltd. (ACSU) under licence 26R0042 issued by the Department of Housing, Local Government and Heritage. A full detailed gradiometer survey was undertaken throughout the application area using a SENSYS MAGNETO MXV3 8-sensor fluxgate gradiometer cart system.

2. THE DEVELOPMENT

2.1 Proposal

Perigus Energy Ireland Midco Ltd. (formerly known as Orsted Onshore Ireland Midco Ltd) intend to apply for permission on lands at Ballydaniel, Ballyneague, Barnaviddane, Ballydaheen, Cornaveigh, Knocknagappagh and Youghalpark, Co. Cork. The development will consist of:

- A 323.28 ha solar farm with ca. 210 ha of solar panels fixed on ground-mounted frames.

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 12 of 47

- The provision of 54 no. Inverter/transformer stations placed on concrete pads on hardcore sized 120m2.
- Site access tracks formed from the provision of 5,135m of new site access tracks and the upgrade of 7,115m of existing access tracks/roads to facilitate access to all onsite infrastructure.
- The provision of 1 no. new permanent site entrance for construction and operational access, with the addition of a temporary overrun area from the R634 regional road in the townland of Ballydaniel (site entrance 1).
- The permanent realignment of 1 no. existing field access for construction and operational access from the L7806 local road in the townland of Knocknagappagh (site entrance 2).
- The provision of 1 no. new permanent site entrance for construction and operational access from the L3803 local road in the townland of Barnaviddane (site entrance 3).
- The permanent realignment of 1 no. existing entrance for construction and operational access from the L3808 local road in the townland of Youghalpark (site entrance 4).
- The permanent realignment of 1 no. existing entrance for construction and operational access from L38081 local road in the townland of Cornaveigh (site entrance 5).
- The permanent realignment of 2 no. existing field entrances for construction and operational access from the L7828 local road in the townland of Ballyneague (site entrance 6 and 7).
- The permanent realignment of 3 no. existing field access for construction and operational access from the L7829 local road in the townland of Ballydaniel (site entrance 8, 9 and 10).
- The permanent realignment of 1 no. existing entrance for construction and operational access from the L38032 local road in the townland of Knocknagappagh (site entrance 11).
- Underground electrical ducting and cabling, including 3 no. road crossings (local roads L7829, L3803 and L78281) and 3 no. culvert crossings on the L3808.
- The provision of 5 no. Temporary construction compounds of which there will be 1 main temporary construction compound (Compound No. 1 located in Ballyneague) ca. 5,200m2 with associated temporary offices, staff facilities parking and security fencing, and 4 no. additional temporary laydown

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 13 of 47

areas of ca. 2,000m² each located in the townlands of Ballydaniel, Barnaviddane, Cornaveigh and Youghalpark.

- Landscaping works encompassing the removal of 395m hedgerow, the planting of 1,400m of new and up to 31,000m of linear hedgerow and mosaic hedgerow as required, all included in a Landscape Mitigation Plan.
- The provision of Biodiversity Enhancement Areas.
- The provision of 1 no. temporary spoil storage area.
- The construction of a ca. 7,800m² Battery Energy Storage System (BESS) compound including 56 no. Battery Container Units, 7 no. Inverter Twin Skid Units, each consisting of 2 no. Inverters and 1 no. Transformer housed in Modular Enclosures, Communications Building housing switchgear and controls, House Transformer, Back-up Generator and Fuel Supply located in a Bunded Reinforced Concrete Plinth Area, Control Building, Internal Access Tracks, Security Fencing, CCTV, Lighting, Drainage any all other ancillary infrastructure.
- All ancillary development such as drainage infrastructure (clean water cut off drains), security fencing, CCTV, weather stations and storage containers for spare parts.

The application is requesting a 10-year planning permission for the development of a solar farm with an operational life of 40 years.

A separate planning application for the on-site 220kV AIS Substation and loop in Grid Connection (Pre-Application no. 25-322687) will be submitted to An Coimisiún Pleanála under S182A of The Planning Act 2000 (As Amended).

2.2 Archaeological Condition/Requirement

The geophysical survey was undertaken in response to the Planning Authority's comments dated 10/02/2026 (See below). The planning application was deemed incomplete, and the Authority requires additional archaeological assessment.

1. Archaeological and Cultural Heritage Assessment

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 14 of 47

The application is not considered complete because of the inadequacy of the archaeological assessment. In order to facilitate the Planning Authority's examination of the application, and to determine compliance with the County Development Plan, an assessment of sub-surface archaeology is required and at a minimum, a Geophysical Survey should be carried out as a first step to guide further assessments/investigations.

Also, all cultural heritage assets should have a CH number – at present, only protected structures and buildings on the NIAH have been assigned a CH number; 19th-century buildings and 'historic' buildings are mapped (PER Appendix R – ACHHIA FIGURES LIST), but they do not have CH numbers, and some are well within the red line boundary. These will require full consideration in the Archaeological and Cultural Heritage Assessment Report.

A meeting was held between the project team and representatives of Cork County Council (Annette Quinn – County Archaeologist, Thomas Watt – Senior Planner, Noel Sheridan – Senior Planner) to discuss the perceived need for this additional surveying on 19/03/2026. A provisional programme of geophysical surveying was agreed across a significant portion of the site, with some areas omitted where known physical constraints created unsuitable conditions for geophysical surveying. A number of fields were also subsequently excluded in the south-western portion of the site due to rough ground and in the south-eastern portion of the site due to the presence of crops of sufficient height so as to prevent the sensors from reaching an acceptable proximity to the ground.

3. METHODOLOGY

The detailed magnetic survey was carried out using a SENSYS MAGNETO® MXV3 modular carrier that is configured to host 8 Sensys FGM650/3 sensors spaced at 0.5m intervals with a total survey width of 4m. The non-magnetic cart system is towed behind a quad bike, and readings are recorded at 200Hz. Data is captured every 20mm with a position accuracy of ± 1 cm using a Trimble R10 RTK GNSS receiver mounted on the cart at a height of 1.5m. All data is recorded with SENSYS software MonMX v.5.01 on a Panasonic FZ-G1 TOUGH PAD tablet computer in .cfg format.

Data is collected along parallel survey transects using the digital display system in MonMX, which provides a live stream of visual data. This allows for an accurate, systematic survey without the need to establish pre-determined grids. Magnetic data is exported from the MonMX software in ASCII format and is imported to DW Consulting's TerraSurveyor64 v4.1.12.1 for processing. The data is initially de-striped (zero median traverse) and then clipped to a range of -1.5nT – +3nT. A TIF file is produced by TerraSurveyor software along with a

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 15 of 47

corresponding world file (.TFW), which allows for automatic georeferencing when using CAD software. Raster images are georeferenced in ProgeCAD 2018 before being interpreted in AutoCAD LT 2025. Graphical interpretations that indicate anomalies identified are numbered so that they can be referenced in the survey results section of the geophysical survey report.

All work was carried out in accordance with the *IAI Code of Professional Conduct* (Institute of Archaeologists of Ireland 2006) and in accordance with the *EAC Guidelines for the use of Geophysics in Archaeology* (Schmidt et al. 2016), as well as English Heritage's *Geophysical Survey In Archaeological Field Evaluation* (David et al. 2008).

4. SURVEY OBJECTIVES

The survey aimed to establish the presence of any potentially existing but previously unknown monuments and any other archaeological features within the site and to determine an appropriate mitigation strategy.

5. SOILS, GEOLOGY AND TOPOGRAPHY

The proposed development site measures c. 323.28 hectares and is to the northwest of Youghal, and just north and east of the River Tourig. It consists of four parcels of arable and pastureland. The land is accessible via the Youghal to Tallow Road (R634) and local roads just off it. The site has an elevation of between approximately 56m and 168m Ordnance Datum (OD). The lands are primarily under pasture, with additional areas of crop cultivation, woodland, scrub, and marsh. Existing features within the site include farmyards, access roads, overhead electricity lines, streams, and nearby residential properties. Prior to the geophysical survey, several constraints were identified, including areas subject to intensive agricultural activity, recently planted crop fields, and locations considered topographically unsuitable.

The underlying geology consists of purple mudstone and sandstone that is part of the Ballytrasna Formation (Geological Survey Ireland). This bedrock geology is overlaid by a fine loam soil (Teagasc Irish Soil Information System).

6. ARCHAEOLOGICAL ASSESSMENT

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 16 of 47

6.1 Archaeological & Historical Background

Toponymy

Townlands represent one of the smallest divisions of land across Ireland, and they have ancient origins, with the first written accounts found in pre-12th-century church records. They were subsequently mapped and defined by the English administration and used as the basis for plantation grants in the 16th and 17th centuries and for the leasing of land within large estates from the early 17th century. Townland names frequently referred to an easily identifiable feature of the landscape, such as Carraig or Carrick (meaning Rock), Tulach or Tully (meaning a hill), or a botanical feature such as Eanach or Annagh (meaning marsh), other times they include family names, usually reflecting those that lived there in pre-famine times, or early ecclesiastical and secular habitations, including Rath (meaning fortification), Dun (meaning fort) or Cill/Kill (meaning church) (Bryonie 2005). Townlands appear to average in size at 1.3km², large enough to contain a number of farms, the owners of which were likely to be family or kin. The boundaries of townlands are often marked by streams, deep ditches, banks of earth or hedgerows (Aalen 1997, 21). Some of the boundaries of the proposed solar farm are shared with townland boundaries, such as in Barnaviddane.

Below (Table 1) are listed all the townlands the site covers, along with their Irish translations and meanings.

Table 1: Toponymy of townlands (Loganim.ie)

Townland	Irish name	Translation	Details
Barnaviddane	<i>Barr na bhFeadáin</i>	"Source of the stream"	The first written reference to the townland is from the early 17 th century, where it is referred to as "Barravidan"
Knocknagappagh	<i>Cnoc na gCeapach</i>	"Hill of the plots"	The first written reference to the townland is from the late 16 th century, where it is referred to as "Knocknegappaghe"
Ballydaniel	<i>Baile Uí Dhónaill</i>	"Donnell's town"	The first written reference to the townland is from the late 16th

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 17 of 47

			century, where it is referred to as “Balidonell”
Ballyneague	<i>Baile an Fhiaigh</i>	“Town of the hunting”	The first written reference to the townland is from the early 17th century, where it is referred to as “Ballyenniege”
Youghalpark	<i>Páirc an Fhiaigh</i>	“Deer Park”	The first written reference to the townland is from the mid 14th century, where it is mentioned as a wood called “le Parke”
Cornaveigh	<i>Cora na bhFiach</i>	“Round hill/pit of the deer/ravens”	The first written reference to the townland is from the late 16th century, where it is referred to as “Curry ne viagh”
Ballydaheen	<i>Baile Dháithín</i>	‘Little David’s town’	-

General History and Archaeology

The area surrounding the site has a dense and varied range of monuments from multiple periods of Irish archaeology and history. This will be discussed below.

Lime kilns

The sole recorded monument located within the boundary of the site is a lime kiln (CO056-004----). Lime kilns are furnace-type structures used to produce lime by heating limestone at high temperatures of up to 1000 degrees. The process is known as quicklime or burnt lime, and the product was used in building, agriculture and related purposes. Farm lime kilns were used in the 18th/19th century, and these are most common in the countryside. Two types of lime kilns used for agricultural purposes can be distinguished: draw kilns and flare kilns. The former were more popular and burnt limestone in a continuous process, while the latter worked on the basis of a discontinuous batch process. The lime kilns can be between 2–4m high but can reach up to 9m in height. Improved draw lime kilns of 19th-century date had a total height of c. 8m. These were built of stone

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 18 of 47

against a bank of rising ground with an opening at the front and top. While largely 18th/19th-century monuments, the burning of limestone to apply to soil was common practice between the 12th and 17th centuries on a smaller scale (O'Sullivan and Downey 2005). The lime kiln at Ballydaniel was depicted on both the 1835 and 1910 maps as adjacent to and to the west of a road, in proximity to farm buildings. It appears that it was disused by the 1910 map, but more detail is given, with the road splaying to facilitate access to the kiln. The SMR file describes it as heavily overgrown, measuring 2.5m in height with a south-facing arched recess of 1.1m in height, 1.9m in width and 2m in depth, with sloping slabs to the rear and the funnel collapsed.

Vernacular Structures

The term 'vernacular structures' is used to describe structures built between 1650 and 1850; however, some early 20th-century structures may also be included. The structures represent mostly houses, usually built by occupants with the help of family and neighbours. They were known as an ernhaus (hearth house) and had a main cooking hearth, were rectangular in shape, usually single-storey, one room, with a loft; if more rooms were present, these would be entered from adjoining rooms. Door(s) and windows were placed along long walls with a fireplace set in the middle of the cross walls (O'Reilly 2011). Campbell (1937) identified two house types in Ireland, one with a central hearth and one with a gable hearth. The vernacular structures varied regionally and locally. Both of the houses (CO056-006----) and (CO056-005----, RPS 1157 and NIAH 20905527) are located within plots adjacent to the site. Only the last ones are thatched and shown on the 6-Inch Map.

Ringforts/enclosures

Ringforts, as the name suggests, were generally circular enclosures with a minimum of one ditch, with accompanying banks sometimes also surviving. They vary in size, ranging between 15.5m and 75m in diameter internally, but largely falling between 28 and 35 metres (Stout 1997, 15; O'Sullivan et al. 2013, 50). The example at Cornaveigh (CO067-003----) measured 30m in diameter and was depicted on the 6-Inch Map but levelled thereafter. The SMR records that there is no surface expression of the monument, however a faint cropmark can be seen at its location on examined aerial imagery. Early Irish laws stated that circularity was a feature of the model ringfort (Stout 1997, 15, 112–4). With an increase in development-led excavations, however, more non-circular enclosures have also come to light, and these are generally between 50 and 70 metres in diameter. For this discussion, therefore, all ringforts and enclosures will be discussed under the category 'ditched enclosures'.

The majority of early medieval ditched enclosures date to the 6th to 9th centuries AD, and we see a significant decline in their use in the 10th century (O'Sullivan and Nicholl 2010, 65). Though a site in Laytown, Co. Meath could have a 4th century date (McConway 2002), other sites such as Ballynacarriga, Co. Cork (Noonan et al.

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 19 of 47

2004) and Raystown, Co. Meath (Seaver 2005a; 2016), were probably occupied from the 5th century well into the 11th century.

Most ditched enclosures were univallate, with one bank and one fosse or ditch. In many cases, the banks do not survive. There are also bivallate enclosures, for example, Cloonaboy, Co. Mayo (Gillespie 2010), and multivallate enclosures, such as Garranes, Co. Cork (Ó Ríordáin 1942). Ditched enclosures tend to be situated on sloping or well-drained hilly ground with good views (Stout 1997), and they are usually found in clusters within a townland. Evidence from excavations shows that enclosing ditches were, in some cases, allowed to naturally silt up over time, while others were filled with dumped refuse (Monk 1995). Layers of metallurgical waste (iron slag), for example, were dumped into the ditch at Lisleagh, Co. Cork (ibid.).

Ditched enclosures are generally regarded as enclosed farmsteads, and at some sites at least the defences are thought to have been built to protect against cattle raids (Stout 1997, 32–4). Some sites have provided little evidence for internal structures, suggesting the enclosure was used for storing cattle, known as a '*bodun*', though the majority provide evidence to suggest they were inhabited settlements, with houses, farmyards, outbuildings and animals (O'Sullivan and Nicholl 2010, 65). Excavated items retrieved from ringforts are largely of a domestic, craft or agricultural nature. Some larger sites, such as Raystown, Co. Meath, fulfilled many functions, such as providing evidence for animal husbandry, cereal and grain processing, milling, burial and metalworking (Seaver 2016).

Settlement enclosures usually have a southeast-facing entrance or causeway to avoid the prevailing cold westerly and northerly winds that the enclosure would be exposed to (Stout 1997, 18–19). Sometimes the entranceways were also further elaborated with stone or wattle walls or banks. The entrance widths vary from site to site, with that at Rath II at Ballypalady, Co. Antrim, ranging from 0.76m at the outer end to 1.5m at the inner end, suggesting it was not intended for keeping large livestock (O'Sullivan and Nicholl 2010, 68). Many sites, like at Lissachiggel, Co. Louth, also had either cobbles or paving stones, providing a dry passage into the enclosure (ibid.). These entrances were known in early Irish literature and legal sources as the '*airdrochat*' and were to be kept clean and dry, with often observed ditches and gullies aiding such drainage (ibid., 70). It was also not unusual to see pathways within the interior of an enclosure, to steer movement in a particular direction and 'upon entering the site, a person was often persuaded by laid pathways to move directly and immediately to the house doorway' (ibid., 69–70).

Early medieval houses within ditched enclosures tended to be circular or round, and these would have been constructed of stone, sods or post-and-wattle walls. The roofs were likely thatched with reeds, turf or straw. According to the eighth-century law text *Críth Gablach*, a typical farmer's house was 6–8 metres in diameter.

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 20 of 47

Archaeological evidence shows that the majority were 4–5 metres in diameter, and some were significantly larger at 6–10 metres (O’Sullivan and Nicholl 2010, 72). As pointed out by McCormick et al. (2011), because of the basket-like construction, any recuts or changes to these early medieval houses are rarely seen in the archaeological record. It was likely that the lifespan of a medieval house would have lasted for just a short period (20 to 30 years); however, with good maintenance, a house could have stood for 50 to 60 years (O’Sullivan and Nicholl 2010, 73).

Also associated with enclosures, and often found in their environs, are other features such as fire pits, storage pits, refuse pits, cooking pits and cereal-drying kilns. O’Sullivan and Nicholls (2010, 85) wrote of pits that they are ‘one of the more enigmatic elements to be found within the enclosure, and their function can, at times, be difficult to discern. They would have been used for a variety of purposes; probably reused and cleaned out many times, and countless, no doubt, had multiple functions over their lifetime. According to McCormick et al. (2011), cereal-drying kilns are generally not associated with ditched enclosures as they are a fire hazard, but they are often found in close proximity, just outside the enclosure, as at Johnstown, Co. Meath, and Camlin, Co. Tipperary, or sometimes within their own small enclosure, as at Baronstown, Co. Meath (O’Sullivan et al. 2013, 203).

Field systems

Often associated with Early Medieval settlement enclosures are field systems. Some are represented by outer circular or D-shaped enclosures with bounded pathways, while others are a complex of non-concentric ditches representing a sequence of enclosures ranging from small paddocks and kitchen gardens to large fields (O’Sullivan et al. 2013, 183–94). Some of these field systems suggest long-term occupation and complexity, where the chronology of the external enclosures and ditches can be interpreted as possible evidence for kinship and partible inheritance, with the creation of new forms of enclosure to accommodate the redistribution of land (Bolger 2011). An early suggestion of a ditched settlement with associated field system was Cush, Co. Limerick (Ó Ríordáin 1940); however, the temporal relationships between the ringfort and the rectangular field ditches were not confirmed through scientific dating and remain speculative (O’Sullivan et al. 2013, 189). With an increase in development-led excavations and scientific dating in more recent years, however, more definite examples of complex field systems have emerged.

On the townland boundary between Glebe and Laughanstown, Co. Dublin, two small ditches radiating from the south side of a ditched enclosure likely represented part of an associated Early Medieval field system, which was radiocarbon dated to between the 7th and 9th centuries AD (Seaver 2005b; 2011). These curvilinear ditches probably had low banks topped by hawthorn or blackthorn, with both species represented in the

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 21 of 47

associated charcoal samples. The curving hedgerow of the townland boundary also complemented one of these field boundaries, suggesting a large, elongated field enclosure attached to the south side of the ringfort. Excavations at Boyerstown, Co. Meath, revealed an extensive series of rectilinear field systems radiocarbon-dated to the early medieval period and laid out adjacent to a likely contemporary ringfort (O’Sullivan et al. 2013, 187). Five circular enclosures and an array of sub-rectangular and curvilinear enclosures were excavated, with the site returning radiocarbon dates between AD 460 and AD 900 (Kinsella 2008; Clarke 2009). What appeared to be a ringfort, based on geophysical survey results, is located to the northwest of these field systems and is probably related to them. The earliest enclosure (Enclosure 1, 60m x 30m) contained three internal divisions, but no other internal features or finds, with the exception of small amounts of animal bone. One of the internal divisions cut an earlier ditch, which was dated to AD 460–650. Enclosure 2 (45m x 25m) was also sub-rectangular, cutting through the south-southeastern extent of Enclosure 1 and dated to AD 700–900. An annexe to the north was dated to AD 630–780. Two additional radiocarbon dates were recovered from ditch features. One of which was either connected to or was cut by Enclosure 1 and was dated to AD 580–680. The other, a small curvilinear ditch, was cut by Enclosure 2 and dated to AD 620–700; it was probably associated with Enclosure 1. While it is likely that these represent successive phases of enclosure, they also appeared to be broadly contemporary in use, mainly concentrated within a 200-year period between the 7th and 8th centuries AD. It was suggested by the excavators that all of the ditches functioned as animal enclosures because there was an almost total absence of finds, with only a small amount of animal bone recovered, as well as no evidence for cultivation, such as ridge or furrow or plough marks.

Outside of enclosures, people also appear to have lived in houses situated within fields, such as those excavated by Ó Ríordáin (1949) at Lough Gur, Co. Limerick. Here, two roundhouses and one rectangular house were situated within four small rectangular fields, only half an acre in size, overlooking the lake. The small size of these fields suggests they were probably used for tillage or as vegetable gardens. The field boundaries comprised double-stoned walls with rubble fills, ranging in width between 1m and 3m, except for one, which was made from earth. Another field bank was situated up the hillside and was probably part of a wider field system used for pasture.

At Ballyutoag, Co. Antrim, two large, conjoined enclosures, with a series of adjacent fields formed by low earthen banks, and a third smaller enclosure, were associated with a number of external hut sites, over an area of approximately 24 acres (Williams 1984). This was probably an upland transhumance settlement where cattle grazed for the summer months, and small levels of crop husbandry were undertaken, as evidenced by some cultivation ridges. Excavation of some of the hut sites produced a meagre collection of artefacts, which

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 22 of 47

tied in with the evidence from the historical sources stating that booleying was the work of the impoverished classes and mainly women and children (Patterson 1994). Radiocarbon dates for one of the enclosures indicated use in the seventh to 8th century AD, while the huts were largely dated to the 8th century.

Souterrains

Souterrains also date from the Early Medieval period, being mostly in use between the 9th and 12th centuries AD, although there are also some potentially earlier examples (O’Sullivan et al. 2013, 107). They are found in association with open settlements, enclosed settlements (especially ringforts and cashels), promontory forts and church sites. There are over 3,500 souterrains recorded in Ireland, with the highest concentrations in West Cork, Kerry, North Antrim, South Galway and North Louth (O’Sullivan and Downey 2004).

The term ‘souterrain’ derives from the French ‘*sous terrain*’, meaning underground. In archaeological terms, souterrains are artificial subterranean structures, either cut into bedrock or, more commonly, built into earth-cut trenches. Such trenches are often lined with dry-stone walling and capped with large stone lintels or roof slabs. Souterrains largely comprise one or more chambers linked by tunnels called creep ways, with access via the ground level, often concealed and provided by ramped or stepped entrances. They can be simple linear or curvilinear structures, or more complex, with multiple chambers and different levels. The primary function of souterrains seems to have been food storage, particularly for dairy products, as they maintain constant temperatures (c. 10°C), but they may also have been used as places for short-term refuge for people and objects if a site was under attack, or for a variety of roles that included a farrowing pen where sows could safely give birth (O’Sullivan et al. 2013, 109–111).

There is no indication of the souterrain (CO067-004---) on the examined mapping; however, SMR field notes state that it was discovered and investigated in 1985. It consists of a stone-built entrance chamber, a stone-built gallery, and a lintelled entrance, but it is inaccessible and earth-cut. A very faint cropmark is visible at the registered location of the monument.

Fulachta fiadh/Burnt mounds

Fulachta fiadh, also known as burnt mounds/spreads, are one of the most common field monuments found in the Irish landscape. The last published survey (Power et al. 1997), carried out over 20 years ago, recorded over 7,000 burnt mound sites and in excess of 1,000 sites have been excavated in recent years through development led archaeological investigations. In spite of this, the precise function of these sites is still not clear.

These sites are usually located where there is a readily available water source, often in proximity to a river, stream or in wetland fringes. They are usually identified as charcoal-rich mounds or spreads of heat-shattered

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 23 of 47

stones; however, in many cases, the sites have been disturbed by later agricultural activity and are no longer visible on the field surface. Disturbed spreads will nonetheless often preserve the underlying associated features, such as troughs, pits and gullies.

Whatever the ultimate purpose was, these sites involved the heating or boiling of water by placing fire-heated stones into troughs of water. Small, shallow, round-bottomed pits are often associated with burnt mound sites and are generally referred to as pot-boiler pits or roasting pits. The purpose of these pits remains unclear, however. Larger pits may have acted as wells or cisterns.

Burnt mound sites are most commonly dated to the Bronze Age and are most commonly dated to the middle/late Bronze Age (Brindley et al. 1989–90; Corlett 1997). The most accepted theory traditionally is that burnt mound sites were used as cooking places. O’Kelly (1954) demonstrated how meat could be cooked in troughs of boiling water, using hot stones to heat the water. A bathing or sauna function has been suggested as an alternative (Lucas 1965; Barfield and Hodder 1987). A more recent demonstration showed that troughs could also have been used for brewing. This theory has been criticised due to the absence of cereal remains from most burnt mound sites (McClatchie et al. 2007), though it is also rare to find animal bone remains on these sites to support the idea of cooking meat. Given their plentiful nature, it is perhaps best to see them simply as water heating sites, with as many possible uses for the hot water as we have today. Thus, a specific function for a given site may have to be established, where possible, based on the samples taken as well as any finds retrieved. Aside from the function of the specific sites, *fulachta fia*/burnt mounds are also a reflection of Bronze Age activity in general and suggest the presence in the nearby vicinity (perhaps in a drier location) of settlements.

There are two such sites recorded adjacent to the site (CO056-003---, CO056-013---), both are located adjacent and to the east of the site, near a stream, not indicated on the examined mapping. Both were identified and recorded as burnt material found, the former in the field, the latter in the garden during levelling of an old house.

Ecclesiastical sites

A holy well (CO056-011----) is located near the site in the townland of Cornaveigh. Holy wells are seen as a continuation of pagan practices, mingling with Christian worship. There are thought to be at least 3,000 holy wells in Ireland, with most of them being dedicated to a saint or named after the part of the body they offer a “cure” for (O’Súilleabháin et al 2018, 384).

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 24 of 47

A church and graveyard (CO056-001001-, CO056-001002-) are located in the townland of Ballyneague. The origins of the church are unclear, but the present church is a rebuild of a church that was in ruins in the early 17th century. The earliest identifiable gravestone in the surrounding graveyard dates to the late 18th century.

Castles

A number of castles are located in the area around the site, the nearest being an example at Cornaveigh (CO067-005----). This castle is a form known as a tower house. It is constructed on a mound and consists of a three storey, rectangular in plan tower. Tower houses are a later form of castle, mainly from the 15th and 16th Centuries. They consist of a tall, stone-built tower, normally four to five stories tall with an attached outer yard that is enclosed by a tall wall known as a “bawn”. They can be seen as “defended residences” rather than the defence heavy focused castles of earlier centuries. They were built both by Gaelic and English families in Ireland (Donnelly 1996, 11-12). There are approximately 1000 surviving tower houses in Ireland. The biggest concentration is in the southeast across to the west. The style of them varies across the island but they are largely rectangular in plan with single rooms making up each floor (O’Keeffe 2015, 280-291).

6.2 Previous Archaeological Investigations

The site was not subject to any previous archaeological investigations. A very limited number of archaeological investigations took place in the environs of the site. No features of archaeological significance were exposed during the monitoring of household and farmyard waste in the townland of Rath, in proximity to CO067-001001- (21E0620), nor during test trenching to the northwest of the site in Meenoughter townland within the environs of a settlement cluster (CO055–043; 07E0218).

Listed below are the nearest previous archaeological investigations undertaken in the environs of the site which further demonstrate the overall archaeological potential of the site and its surrounding townlands (Table 2). The following information was taken from the *Database of Irish Excavation Reports* (www.excavations.ie), and associated reports were accessed through the National Monuments Service’s (NMS) Virtual Reading Room.

Table 2: Previous archaeological investigations within the environs of the site

Excavation.ie reference	Licence No.	Site-Type	Investigation Type
2021:215 - RATH, Cork	21E0620	Hillfort. Multi-period (CO067-001001-). No Archaeology found	Monitoring

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 25 of 47

Excavation.ie reference	Licence No.	Site-Type	Investigation Type
2007:304 - MEENOUGHTER, Cork	07E0218	No archaeology found	Test trenching

6.3 Recorded Monuments

The *Record of Monuments and Places* (RMP) and *Sites and Monuments Record* (SMR) are compiled and updated by the National Monuments Service and the National Historic Properties Service. The RMP is comprised of manuals that list all known archaeological sites and monuments in a county with accompanying maps (based on Ordnance Survey (OS) six-inch maps) locating these sites. All sites included in the RMP are protected under the National Monuments Acts (1930–2004). The SMR consists of all records stored in the Archaeological Survey of Ireland national database and is presented in the Historic Environment Viewer. The last published RMP for County Cork is dated 1998, and as such, many of the sites listed in the SMR are scheduled for inclusion in the next revision of the RMP.

The site contains one monument listed in the *Record of Monuments and Places* (RMP) and/or the *Sites and Monuments Record* (SMR). This monument is a lime kiln (CO056-004----), located in the townland of Ballydaniel, situated along a roadside on the northwest boundary of the site. The monument is no longer visible. There are several monuments located in the immediate environs of the boundaries of the proposed solar farm. These include three vernacular houses (CO056-006----, CO056-007----, CO056-005----), a fulling mill (CO055-044----), a corn mill (CO067-034----), a settlement cluster (CO055-045001-), a school (CO055-045002-), a church and graveyard (CO056-001001-, CO056-001002-), *fulacht fia* (CO056-003----, CO056-013), a holy well (CO056-011----), a tower house (CO067-005----), three ringforts (CO056-002----, CO067-003----, CO067-002---) and two souterrains (CO056-010----, CO067-004----). There are also numerous monuments from multiple time periods located in the larger area surrounding the site.

Below (Table 3) is a list of the recorded monuments located within the boundaries of the site (Figure 2). Table 4 lists the recorded monuments within the immediate environs of the site boundaries. These descriptions are derived from the National Monuments Service Archaeological Survey Database (<https://heritagedata.maps.arcgis.com/apps/webappviewer/>).

Table 3: Recorded Monuments within the boundaries of the site

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 26 of 47

CO056-004---- (RMP)	Kiln - lime	BALLYDANIEL (Imokilly By., Ardagh Par.)
Roadside, heavily overgrown. Front (H 2.5m) S-facing; arched recess (H 1.1m; Wth 1.9m; D 2m) with sloping slabs to rear. Funnel collapsed. Six-Inch First edition: Six-Inch Latest edition: Indicated (1936) ITM Coordinates: 604258, 582313 Latitude and Longitude: 51.992840, -7.937999		

Table 4: Recorded Monuments within the immediate environs of the site

CO056-006---- (RMP)	House - vernacular house	BARNAVIDDANE
Roadside. Front of 4 bays; off-centre doorway to left concealed by porch. Hipped roof of thatch. Off-centre chimney to right. Occupied. Not shown on 1842 OS 6-inch map. Settlement cluster, named Barnaviddane, shown here on 1842 OS 6-inch map does not survive. Six-Inch First edition: Six-Inch Latest edition: Indicated (1936) ITM Coordinates: 602099, 582534 Latitude and Longitude: 51.994839, -7.969435		
CO056-007---- (RMP)	House - vernacular house	RATH (Imokilly By.)
Roadside. Front (W) of 3 bays; central doorway. Thatched roof hipped on N side; gabled on S side. Central brick chimney with 2nd chimney to right. Abandoned. Six-Inch First edition: Six-Inch Latest edition: Indicated (1936) ITM Coordinates: 602311, 582235		

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 27 of 47

Latitude and Longitude: 51.992150, -7.966350		
CO056-005---- (RMP)	House - vernacular house	BALLYNEAGUE
Roadside. Front of 4 bays; central chimney; off-centre doorway to left concealed by porch. Hipped roof covered with corrugated iron. Occupied. Six-Inch First edition: Six-Inch Latest edition: Indicated (1936) ITM Coordinates: 603333, 581271 Latitude and Longitude: 51.983480, -7.951478		
CO055-044---- (RMP)	Mill - fulling	BALLINTEOSIG
To W of Tourig river, short distance N of Inch settlement. W wall of tuck mill (4m N-S) survives with wheel-pit (Wth 2.4m) along external side. Rest of mill structure replaced by now overgrown remains of residential house which incorporates W wall of tuck mill. Named on 1842 OS 6-inch map. Six-Inch First edition: Six-Inch Latest edition: Tuck Mill (in Ruins) (1936) ITM Coordinates: 601415, 581784 Latitude and Longitude: 51.988099, -7.979398		
CO067-034---- (RMP)	Mill - corn	CORNAVEIGH (Imokilly By., Ardagh Par.)
Indicated as flour mill on 1842 OS 6-inch map on N bank of Tourig river. Heavily overgrown, partially collapsed structure; wheel-pit along N elevation with stone and brick-arched opening in N wall of mill. Mill-stone within. Remains of two conjoined mill races (dry) indicated on 1902 and 1935 OS 6-inch maps, approaching mill from E. Southern one appears to have fed waterwheel of flour mill. Northern mill race continues E on N side of wheel-pit it was carried across by series of piers which presumably supported a launder. Six-Inch First edition: Six-Inch Latest edition: Indicated (1935)		

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 28 of 47

ITM Coordinates: 605117, 580345

Latitude and Longitude: 51.975142, -7.925521

CO055-045001- (RMP)

Settlement cluster

BARNAVIDDANE

Shown on 1842 OS 6-inch map as village settlement named Inch, with R.C. chapel and national school (CO055-045002-). Two thatched structures remain, both 4-bay, 1-storey, hipped-roof with off-centre door to left and off-centre chimney to right. Several outhouses also remain. School now a community centre. Bridging point over small stream.

Six-Inch First edition:

Six-Inch Latest edition: Indicated (1936)

ITM Coordinates: 601467, 581559

Latitude and Longitude: 51.986076, -7.978642

CO055-045002- (RMP)

School

BARNAVIDDANE

Rectangular 2-storey structure (long axis N-S). Front (W) of 3 bays; gabled roof with end chimneys. Inscription 'Inch National Schools 1840' on plaque over ground floor door in N gable; 1st floor door in S gable approached by stone steps. Modern extension to rear. In use as community centre.

Six-Inch First edition:

Six-Inch Latest edition: School (1936)

ITM Coordinates: 601541, 581591

Latitude and Longitude: 51.986364, -7.977565

CO056-001001- (RMP)

Graveyard

BALLYNEAGUE

Bordered by road to S and W; trapezoidal graveyard (c. 50m E-W; c. 35m N-S); in S half ruins of C of I church (CO056-00102-) on or near site of ancient parish church of Ardagh. In occasional use; large collection of headstones, the earliest dating from 1788.

Six-Inch First edition: NULL

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 29 of 47

Six-Inch Latest edition: Graveyard (1936)

ITM Coordinates: 603521, 581255

Latitude and Longitude: 51.983335, -7.948742

CO056-001002- (RMP)

Church

BALLYNEAGUE

In S side of graveyard (CO056-00101-), ruins of rectangular gabled church (12.8m E-W; 7.2m N-S). Walls stand to full height except E which has lost gable top. Door and window ope in S wall; large window ope in E wall missing top; window in W wall with pointed brick arch. Blocked doorway in N wall; outer cut-stone door surround has pointed arch and chamfered edge, lower jambs gone; hood moulding directly above arch of door, with stepped terminals. Site of parish church of Ardagh, reported in ruins by 1615 (Brady 1867, vol. 2, 21); apparently rebuilt as C of I parish church shortly afterwards; 1837 report describes church as 'so old that the date and cost of its erection are unascertainable' (ibid., 25); probably abandoned when parish united to Youghal in 1872 (Cole 1903, 154). Door in N wall of late medieval appearance and probably reset when church rebuilt; its original position would be opposite in S wall.

Six-Inch First edition:

Six-Inch Latest edition: Indicated (1936)

ITM Coordinates: 603533, 581257

Latitude and Longitude: 51.983353, -7.948567

CO056-003---- (RMP)

Fulacht fia

**CORNAVEIGH (Imokilly By.,
Ardagh Par.)**

Spread of burnt material in level tillage.

Six-Inch First edition: NULL

Six-Inch Latest edition: Not indicated

ITM Coordinates: 605286, 581272

Latitude and Longitude: 51.983473, -7.923047

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 30 of 47

CO056-013---- (RMP)	Fulacht fia	CORNAVEIGH (Imokilly By., Ardagh Par.)
According to local information, burnt material was found in garden while levelling foundation of old house. Six-Inch First edition: NULL Six-Inch Latest edition: Not indicated ITM Coordinates: 605306, 581223 Latitude and Longitude: 51.983033, -7.922756		
CO056-011---- (RMP)	Ritual site - holy well	CORNAVEIGH (Imokilly By., Ardagh Par.)
S of avenue leading into farmyard. Oval, dry-stone walled structure (H 0.92m; max. diam. 1.1m); roofed with lintel. Interior white-washed; well dry. Collapsed stone-lined channel (L 1.1m; Wth 0.5m) leads into dry streambed; joins another stream channelled into pipe under avenue. Six-Inch First edition: Six-Inch Latest edition: Not indicated ITM Coordinates: 605325, 581213 Latitude and Longitude: 51.982943, -7.922480		
CO067-005---- (RMP)	Castle - tower house	CORNAVEIGH (Imokilly By., Clonpriest Par.)
On N-facing slope overlooking Tourig river; Kilnatoora Castle (CO067-006---) visible c. 800m to SE. Steep-sided earthen mound (H on N side c. 7m; H on S side c. 3m), with flat top (diam. c. 15m), built around rock outcrop, approached by earthen causeway (L c. 18m; Wth c. 4m) from S; atop mound fragmentary remains of rectangular tower (c. 13.5m N-S; c. 10m E-W). Tower much defaced but stands to 3 storeys. Entered at ground level by door at N end of W wall, now blocked by concrete wall. Ground floor chamber (8.6m N-S; 5m E-W) lit by windows in N, S and E walls, all heavily defaced. Ground level lowered c. 0.45m leaving plinth (Wth c. 0.3m) along base of surviving inside wall face. Straight mural stair in W wall rises from ground floor door to 2nd floor level at S end, also giving access to 1st floor via door cut through vault; corbels for wooden		

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 31 of 47

floor above ground floor level. First floor has almost completely defaced L-shaped mural chamber in NW corner, lit by lintelled window with ogee-headed light in N wall. Main 1st floor chamber lit by window in S wall; square-set embrasure with flat-headed light. First floor covered by rounded, wicker-centred vault (axis N-S); NW end collapsed. Access to 2nd floor not gained but central window ope in W wall visible; S wall does not survive at this level. Opening for garderobe chute near S end of external E wall, c. 3m above ground level. Apparently, a Geraldine castle later repaired and fortified by the Earl of Cork of which little else is known.

Six-Inch First edition:

Six-Inch Latest edition: Castle (in Ruins) (1935)

ITM Coordinates: 605277, 580421

Latitude and Longitude: 51.975824, -7.923191

CO056-002---- (RMP)

Ringfort - rath

BALLYGLAVIN

In pasture, on crest of hill above NW-facing slope. Good view in all directions. Circular area (37m N-S; 40.8m E-W) enclosed by eroded inner bank (H 0.45m); fosse (D 0.2m) E->N; eroded outer bank (H 0.6m) E->N. Gap in banks to S, with causeway; gap in inner bank to E. Banks overgrown with gorse; interior clear, sloping gently to W. According to landowner, "tunnel" (CO056-010---) in fort; no visible surface trace.

Six-Inch First edition: NULL

Six-Inch Latest edition: Hachured (1936)

ITM Coordinates: 604634, 582272

Latitude and Longitude: 51.992468, -7.932525

CO067-003---- (RMP)

Ringfort - rath

**CORNAVEIGH (Imokilly By.,
Ardagh Par.)**

On S-facing slope. Shown as circular enclosure (diam. c. 30m) on 1842 OS 6-inch map. Levelled; no visible surface trace. Ringfort (CO067-002---) c. 190m to SW.

Six-Inch First edition: NULL

Six-Inch Latest edition: Hachured (1842)

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 32 of 47

ITM Coordinates: 604988, 581130

Latitude and Longitude: 51.982200, -7.927387

CO067-002---- (RMP)

Ringfort - rath

BALLYGLAVIN

In pasture, below crest of hill on SW-facing slope. Circular area (43m NE-SW) enclosed by earthen bank (int. H 0.1m; ext. H 1.2m) N->SW; external fosse (D 0.4m) ESE->SW. Entrance to SW. Interior truncated on NW and SW side by field fence.

Six-Inch First edition: NULL

Six-Inch Latest edition: Hachured (1935)

ITM Coordinates: 604763, 581050

Latitude and Longitude: 51.981483, -7.930664

CO056-010---- (RMP)

Souterrain

BALLYGLAVIN

In ringfort (CO056-002---). Local tradition of tunnel; no visible surface trace.

Six-Inch First edition: NULL

Six-Inch Latest edition: Not indicated

ITM Coordinates: 604634, 582272

Latitude and Longitude: 51.992468, -7.932525

CO067-004---- (RMP)

Souterrain

**CORNAVEIGH (Imokilly By.,
Ardagh Par.)**

On S-facing slope overlooking Tourig river. Discovered and investigated in 1985 (Power and Doody 1985, 40-3; Power 1987, 17). Stone-built entrance chamber (L 1m; Wth 0.7m) orientated NE-SW with stone-built gallery (L 5m; Wth 0.8m; H 0.84m) at right angles. Lintelled entrance (H 0.66m) at SW end of gallery to collapsed chamber, now inaccessible and apparently earth-cut. Authors suggest that entrance chamber 'may be second gallery which extends further north-eastwards. Fragment of iron slag found on gallery floor.

Six-Inch First edition: NULL

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 33 of 47

Six-Inch Latest edition: Not indicated

ITM Coordinates: 605108, 580823

Latitude and Longitude: 51.979439, -7.925645

6.4 Record of Protected Structures and National Inventory of Architectural Heritage

The National Inventory of Architectural Heritage (NIAH) identifies, records, and evaluates the post-1700 architecture of Ireland in order to protect and conserve our built heritage. It is under the administration of the Department of Housing, Local Government and Heritage. It also forms the basis of a list for structures that should be included in the Record of Protected Structures (RPS) compiled by local authorities.

A Protected Structure is a structure that a planning authority think is of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social, or technical point of view. The structure is recognised as important and is protected from harm under legislation. Every local authority in Ireland must keep an RPS in their development plans.

The site contains no buildings/features that are Protected Structures, as listed in the *Cork County Development Plan 2022-2028*, as well as no sites listed in the NIAH (Table 3; Figure 2). However, there are several such structures located within the immediate environs of the site.

Table 5: List of RPS and NIAH sites within the environs of the site

RPS No.	NIAH No.	Name	NIAH Importance
2863	20905602	Roisin	Regional
Detached four-bay single-storey direct-entry thatched house, built c. 1830, with recent one-bay single-storey extension to south end. Hipped reed thatched roof with red brick chimneystack. Painted rendered walls. Square-headed openings with two-over-two pane timber sliding sash windows and replacement timber half-door. Painted rendered boundary walls with square-profile piers and pedestrian gate.			
-	20905528	Inch Roman Catholic Church	Regional
Freestanding cruciform-plan gable-fronted Roman Catholic church, built c. 1870, having two-bay nave elevations and sacristy to south of chancel. Pitched slate roofs with cast-iron rainwater goods and cross finial			

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 34 of 47

RPS No.	NIAH No.	Name	NIAH Importance
to entrance gable. Roughcast rendered walls with smooth render plinth. Pointed arch niches with carved limestone holy water fonts set into walls. Pointed arch openings with stained glass windows, those to chancel in groups of three. Ogee arch door openings with square-headed timber battened doors and overlights. Retains interior features including exposed scissors truss ceiling and hexagonal piers supporting pointed arcades. Freestanding concrete bell tower and graveyard to site.			
-	20905604	House	Regional
Detached five-bay single-storey vernacular house, built c. 1820, having flat-roofed two-bay single-storey extension to west of front (north) elevation. Hipped corrugated metal roof with rendered chimneystack. Rendered walls. Square-headed openings with two-over-two pane timber sliding sash windows and concrete sills. Square-headed opening with timber battened door. Outbuilding to rear with pitched roof, slated to west pitch, corrugated metal to east pitch, and rubble stone walls, with square-headed door opening. Concrete walls to site boundary.			
-	20905527	House	Regional
Detached four-bay single-storey thatched house, built c. 1800, having flat-roofed porch to front (south) elevation, and full-width flat-roofed extension to rear (north) elevation. Hipped reed thatched roof with rendered chimneystack. Smooth rendered walls with render quoins. Square-headed openings with Two-over-two pane timber sliding sash windows having decorative render surrounds. Square-headed opening with timber panelled half-glazed door. Outbuildings to east of site with pitched corrugated metal roofs, rendered walls, and square-headed openings having timber battened doors and half-doors. Sheet metal door to carriage opening. Rendered boundary walls with wrought-iron pedestrian gates to front.			
-	20905603	Water Pump	Regional
Freestanding cast-iron water pump, erected c. 1870, having fluted head and fluted cap with finial, banded shaft, and curved handle. Now disused.			
-	20906701	Gate Lodge	Regional
Detached double gable-fronted three-bay single-storey former gate lodge, built c. 1860, having pitched roof return to and two-bay extension to south and two-bay flat-roofed extension to west elevation of return.			

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 35 of 47

RPS No.	NIAH No.	Name	NIAH Importance
Single-bay pitched-roof extension to south of flat-roofed extension. Now in use as house. Pitched slate roof with terracotta ridge crestings. Pitched and hipped tiled roofs to extensions. Rendered chimneystacks. Rendered walls. Square-headed openings with chamfered rendered sills, bipartite one-over-one pane timber sliding sash windows to side and rear elevations and uPVC windows to west elevations of extensions. Square-headed opening to front elevation with timber battened door. Square-headed opening to east gable with replacement uPVC door. Rendered boundary wall with square-profile rendered piers and wrought-iron pedestrian gate. Vehicular site entrance to west with red brick sweep walls, red brick square-profile piers and wrought-iron double-leaf gates.			
2527	20906702	Aghancoustha Bridge	Regional
Triple-arch rubble stone bridge, built c. 1800, carrying road over Tourig River. Segmental arches with roughly dressed voussoirs and cut stone V-cutwaters to west elevation.			

6.5 Finds listed within the Topographical Files of the National Museum of Ireland

The Topographical Files of the National Museum of Ireland list all artefacts in the care of or known to the museum. Such a record can provide evidence for human settlement or activity in the absence of other physical remains or documentary references. No artefacts are listed for any of the townlands in which the site is located.

6.6 Cartographic Evidence

A review of available historic mapping for the area was carried out to include the Ordnance Survey (OS) of Ireland (now Tailte Éireann) 6-Inch (surveyed 1840/1841, published 1845) and 25-Inch (surveyed 1902, published 1903) maps (Figures 3-4). Potential archaeological or cultural heritage features are often marked on such maps, and they can provide a useful resource in identifying sites, particularly if they no longer have any above ground remains.

The site is illustrated as fields with houses, wells, a lime kiln, roads, paths, quarries and triangulation stations depicted. By the 25-Inch Map some changes to the field systems are apparent, with field boundaries removed,

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 36 of 47

realigned or added. Wet ditches and footpaths can be seen. Some of the houses are no longer depicted while others are shown as in ruins/abandoned. A lime kiln, depicted since 6-Inch Map is located within northeastern portion of the site, adjacent to an access road, it is labelled as Disused by the 25-Inch Map with access to it from the east.

6.7 Aerial Photography

Aerial photographs dating between 1995 and 2018 from Tailte Éireann were assessed, along with Google Earth imagery dating between 2010 and 2025. Unrecorded archaeological sites can often be identified in aerial photographs as cropmarks or differential growth in a field.

The site consists of green fields and arable lands. This has been the case since the first available aerial imagery from 1995 up until 2025. Very little, if any, changes occur within the site over the years (Figure 5).

7. METHOD OF DATA INTERPRETATION

As outlined above, a detailed gradiometer survey that allows the detection of potential archaeological responses was conducted. The SENSYS MAGNETO MXV3 8-sensor fluxgate is a specifically designed gradiometer for use in archaeological prospection. Extremely sensitive, these instruments can detect variations in soil magnetism between 0.25nT and 10,000nT, affording diverse applications throughout various archaeological, soil morphological and geological conditions. The survey was geo-referenced through the MonMX software with a Trimble R10 RTK GNSS receiver accurate to $\pm 1\text{cm}$. The results were interpreted by examining the raw data as greyscale images that were produced in DW Consulting's TerraSurveyor64 software. Greyscale images are exported as TIFF files along with a corresponding World file (.TFW), which are then imported to progeCAD 2018 for georeferencing and AutoCAD LT 2025 for interpretation. Processed raw data in the form of greyscale images are presented in Figures 10-29, and an interpretation is included in Figures 31-50.

8. SURVEY RESULTS

The geophysical survey was conducted in May 2026 by Donald Murphy, Robert Breen and Jeanne Rochford of ACSU under licence 26R0042 (Figures 10-50). The anomalies identified are listed in Table 6 below.

Table 6: Geophysical survey results

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 37 of 47

Anomaly No.	Form/Nature of Anomaly	Possible Source(s) of Anomaly	Description
M1	?Archaeology	Curvilinear anomalies – may represent the remains of an enclosure	Faint positive curvilinear anomalies were identified in Field 63, potentially representing the remains of an enclosure. The anomalies define a sub-circular feature measuring c. 46m east-west by 41m north-south (Figure 32).
M2	?Archaeology	Possible ring-ditch	Positive curvilinear anomaly identified along the northern boundary of Field 66, extending beyond the survey limit to the north, that may represent the remains of a ring-ditch, measuring c. 10m northwest-southeast (Figure 31).
M3	?Archaeology	Curvilinear	Faint positive curvilinear anomaly identified in Field 58, measuring c. 15m east-west by 12m north-south that may represent the remains of a ring-ditch or similar cut feature (Figure 33).
M4	?Archaeology	Possible Enclosure	Faint positive curvilinear anomalies were identified in Field 22, either side of a North-South infilled field boundary indicated on OS mapping, potentially representing the remains of an enclosure. The anomalies define the southern portion of a sub-circular feature measuring c.51m in diameter. The ground is quite rough at this location, and the natural underlying geology can't be ruled out (Figure 41).
-	?Archaeology	Small to medium anomalies; pits, posts, spreads, kilns, cut features	A series of positive anomalies that occur sporadically across the survey area. These might represent cut features such as pits, postholes, spreads, kilns, or other types of archaeological features. They may also be natural in origin.
-	Linear features	Former field boundaries	Positive linear anomalies that correspond with former field boundaries depicted on the first edition and third edition Ordnance Survey (OS) 6-inch and 25-inch maps, surveyed 1840-41 and 1902.
-	Linear features	Early field systems	Positive linear anomalies that may represent former

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 38 of 47

Anomaly No.	Form/Nature of Anomaly	Possible Source(s) of Anomaly	Description
			field divisions that are not depicted on OS mapping.
-	Linear trends	Cultivation furrows/land use	Positive linear trends occurring throughout the survey area that likely represent cultivation furrows.
-	Linear trends	Land drains	Several positive linear trends occur throughout the survey area that likely represent land drains associated with field improvement works.
-	Linear & curvilinear trends	Trends	Faint linear and curvilinear trends that occur sporadically throughout the survey area may represent agricultural activity such as land drains, ploughing patterns or cultivation furrows.
-	Linear and curvilinear features	Buried service	Bipolar linear and curvilinear anomalies detected in Fields A2, 1, 2, 4, 57, 58, 60, and 70 that likely correspond with the locations of modern buried services. High concentration of these in the fields surrounding the main farm.
-	Ferrous	Magnetic disturbance from modern debris	Bipolar anomalies sporadically occurring throughout the survey area that are associated with magnetic interference from modern ferrous material, either in the topsoil or the surface of the survey area.
-	Magnetic disturbance	Modern disturbance	Increased dipolar responses occurring along the field boundaries caused by magnetic disturbance associated with modern fencing, gates, and access points.
-	Natural/underlying geology	Natural/changes in the underlying geology or possible land improvement works	Broad positive responses were detected across the survey area that likely relate either to natural variation and/or changes in the underlying geology that may have obscured or masked any archaeological features present.

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 39 of 47

9. IMPACT ASSESSMENT

The purpose of this impact assessment was to establish whether or not the site contained any evidence for the presence of previously unrecorded areas or features of archaeological, historical or built heritage significance.

The proposed development is located within the townlands of Ballydaniel, Ballyneague, Barnaviddane, Ballydaheen, Cornaveigh, Knocknagappagh and Youghalpark, Co. Cork. The geophysical survey was carried out under licence 26R0042. The survey identified potential archaeological features consisting of faint curvilinear anomalies that may indicate the presence of a possible enclosure (**M1**) in Field 63, two curvilinear anomalies in Fields 66 (**M2**) and 58 (**M3**) that may indicate the presence of ring-ditches or similar cut features, and a second potential enclosure (**M4**) in Field 22 that is located on high rough ground. Scatters of other small – medium anomalies also represent potential archaeological cut or spread features (?Archaeology) across the survey area.

Features depicted on the Ordnance Survey 6-inch map, surveyed in 1838, and the 25-inch map, surveyed in 1906, such as former field boundaries, were also detected. Linear anomalies that are not recorded field boundaries were also detected, which likely represent early field systems, land drains, paths/access routes and cultivation furrows.

Broad positive responses were detected across the survey area that likely relate to either natural variation and/or changes in the underlying geology and may have obscured or masked any potential archaeological features present.

The proposed development of this site may impact the features of archaeological significance and/or potential identified at the following locations, if not adequately mitigated:

- Possible enclosure (**M1**) in Field 63.
- Possible remains of a ring-ditch (**M2**) that extends beyond the survey limit in the northern portion of Field 66.
- Curvilinear anomaly (**M3**) in Field 58 that may indicate the presence of a ring-ditch or similar sized cut feature.
- Possible enclosure (**M4**) in Field 22
- Recorded Monument CO056-004---- (Kiln - Lime) and its surrounding environment adjacent to Field 12.

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 40 of 47

10. DECOMMISSIONING OF PROPOSED DEVELOPMENT

The design life of the proposed development will be approximately 40 years, as determined by the grant of planning permission. At the end of the operational life of the solar farm, the proposed development will be decommissioned, and the site returned to agricultural use, should its life not be extended through a new planning application to Cork County Council.

All decommissioning works of all solar array components, shall be monitored by a suitably qualified archaeologist working under licence from the Department of Housing, Local Government and Heritage, and any buffer zones agreed upon and established will be maintained during construction, operation and decommissioning of the development.

11. CONCLUSIONS & RECOMMENDATIONS

The geophysical survey at Ballydaniel, Ballyneague, Barnaviddane, Cornaveigh, Knocknagappagh and Youghalpark, Co. Cork was carried out to assess the site's archaeological potential.

The survey identified potential archaeological features consisting of faint curvilinear anomalies that may indicate the presence of a possible enclosure (**M1**) in Field 63, two curvilinear anomalies in Fields 66 (**M2**) and 58 (**M3**) that may indicate the presence of ring-ditches or similar cut features, and a second potential enclosure (**M4**) in Field 22 that is located on high rough ground. Scatters of other small – medium anomalies also represent potential archaeological cut or spread features (?Archaeology) across the survey area.

It is recommended that:

- Anomalies identified are targeted during a post-planning test trenching programme, in particular the possible enclosure (**M1**) and any associated features within Field 63, the possible ring-ditch (**M2**) in Field 66, the curvilinear anomaly (**M3**) in Field 58, the possible enclosure (**M4**) in field 22 and any further curvilinear and linear features, field systems, possible pits, spreads and any features of archaeological significance and potential. Any identified features shall be sufficiently sectioned to assess their depth, nature and archaeological potential. Once test trenching is complete, further mitigation might include preservation in situ (avoidance), excavation (preservation by record), and/or monitoring. The National Monuments Service shall be consulted in this regard to agree on an appropriate mitigation strategy for further works.
- If preservation *in situ* is not an option in some areas and any archaeological features will be directly impacted by the proposed development, preservation by record (full excavation) is recommended.

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 41 of 47

- An agreed buffer or mitigation zone is required in advance of any groundworks in order to protect the Recorded Monument CO056-004---- (Kiln - Lime) and its surrounding environment. A minimum buffer or mitigation zone of 10m is recommended around the monument and should be fenced off during construction works. This mitigation zone should be established prior to the construction phase to highlight the archaeologically sensitive area surrounding the recorded monument and ensure that no excavation or other temporary works take place at this location. Prior to construction commencing, a temporary protective fence should be erected on site and remain in place for the duration of the proposed construction works. Provided no groundworks take place within the buffer, appropriate mitigation, including preservation in situ of the archaeology, can be achieved through a zero-dig methodology, i.e., the panels could be secured on kelly blocks or concrete shoes set above ground. The exclusion zones should not be used for storing construction materials or plant.

	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 42 of 47

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	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 43 of 47

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	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 44 of 47

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	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 45 of 47

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	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 46 of 47

13. APPENDIX 1 – SUMMARY TECHNICAL INFORMATION & GLOSSARY OF TERMS

Detailed magnetometer Surveys offer an effective and efficient way of surveying large areas for anomalies associated with past human activity by mapping and visualising spatial variations in the local magnetic field. Anomalies of archaeological interest can be identified as they emit contrasting magnetic properties to that of the surrounding soil. This allows for the identification of various archaeological features such as kilns, hearths and burnt mounds as they result in strong magnetic responses. Magnetometer surveys also help to identify ditches and pits that usually contain a multitude of deposits of varying magnetic properties that stand out in contrast to the consistency of the surrounding undisturbed soil. This allows for the identification of sites such as enclosures, ring-ditches and field systems that have been over time, ploughed out of the visible landscape.

Survey results take the form of processed greyscale images and interpretation figures that can be georeferenced over satellite imagery or development plans for a full assessment of the archaeological impact of any given project.

A constant high quality of data is assured by experienced field staff operating in accordance with EAC *Guidelines for the use of Geophysics in Archaeology* (Schmidt et al. 2015) and English Heritage's *Geophysical Survey In Archaeological Field Evaluation* (David et al. 2008).

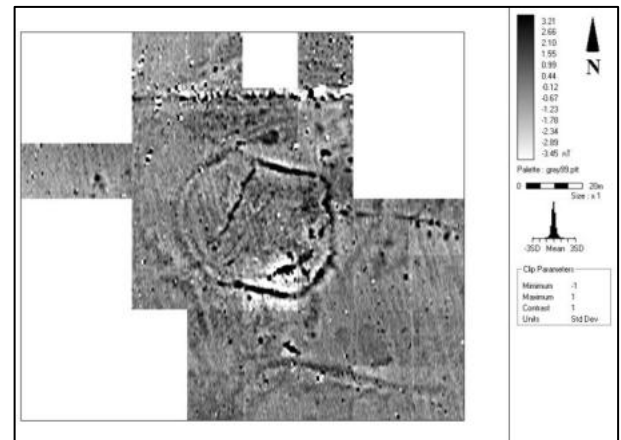


SENSYS MAGNETO® MXV3 modular carrier with 8 SENSYS FGM650/3 sensors spaced at 0.5m intervals

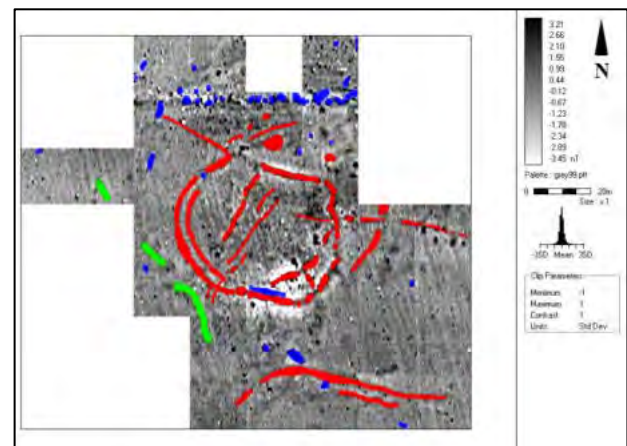
	No:	PM-SF-114	Version:	02	Effective Date:	04.03.25
	Title:	Geophysical Survey: Greenhills Renewable Energy Project, Co. Cork				Page 47 of 47

Data Display Formats

Greyscale: The greyscale format assigns a cell to each datum according to its location on the grid. The display of each data point is conducted at very fine increments, allowing the full range of values to be displayed within the given data set. This display method also enables the identification of discrete responses that may be at the limits of instruments detection.



Interpretation: The greyscale images are used to create interpretation drawings of the various anomalies that represent features of archaeological potential, early field systems, trends, cultivation, modern ferrous interferences and underlying geological changes.



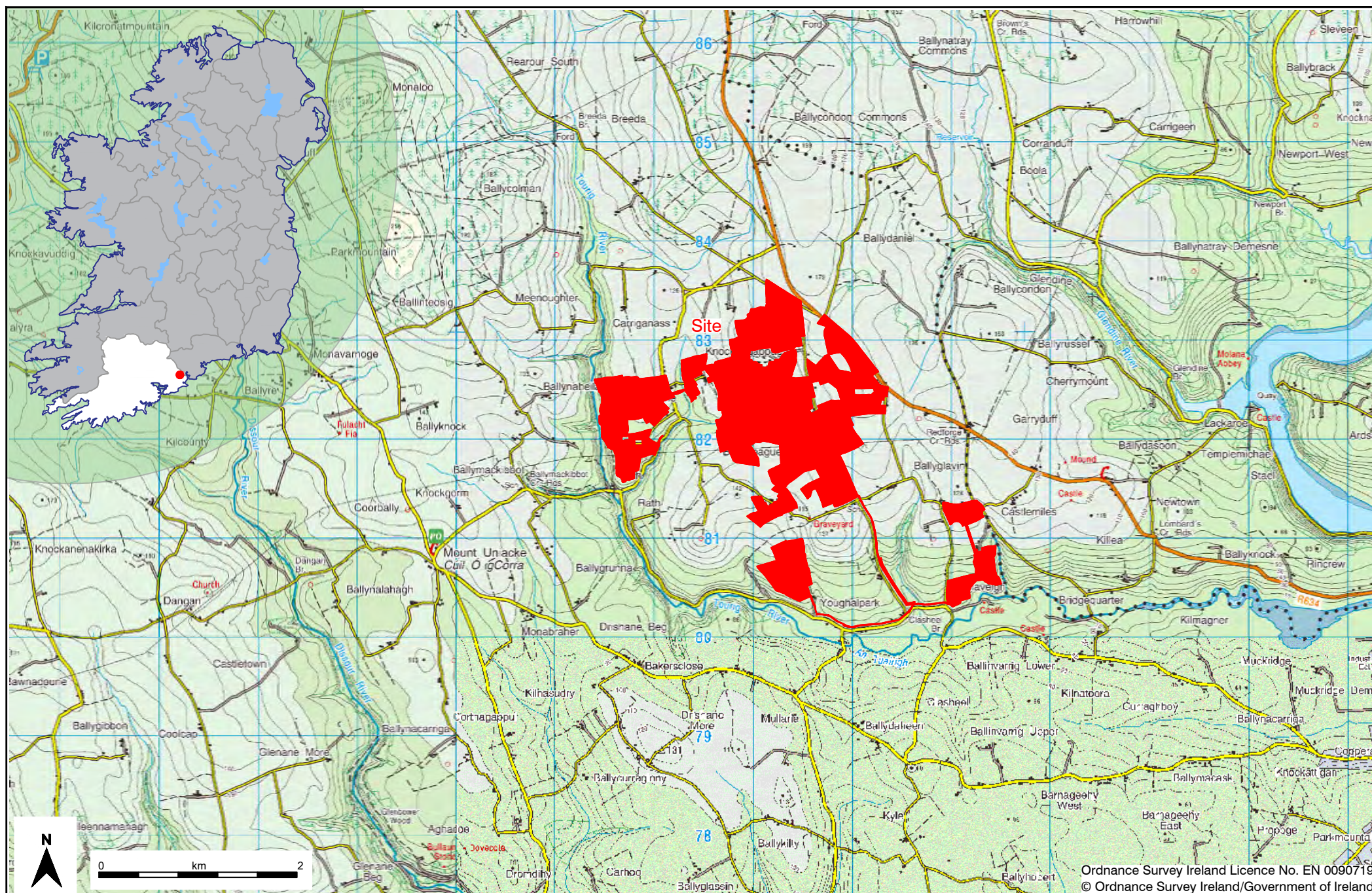


Figure 1: Location of site

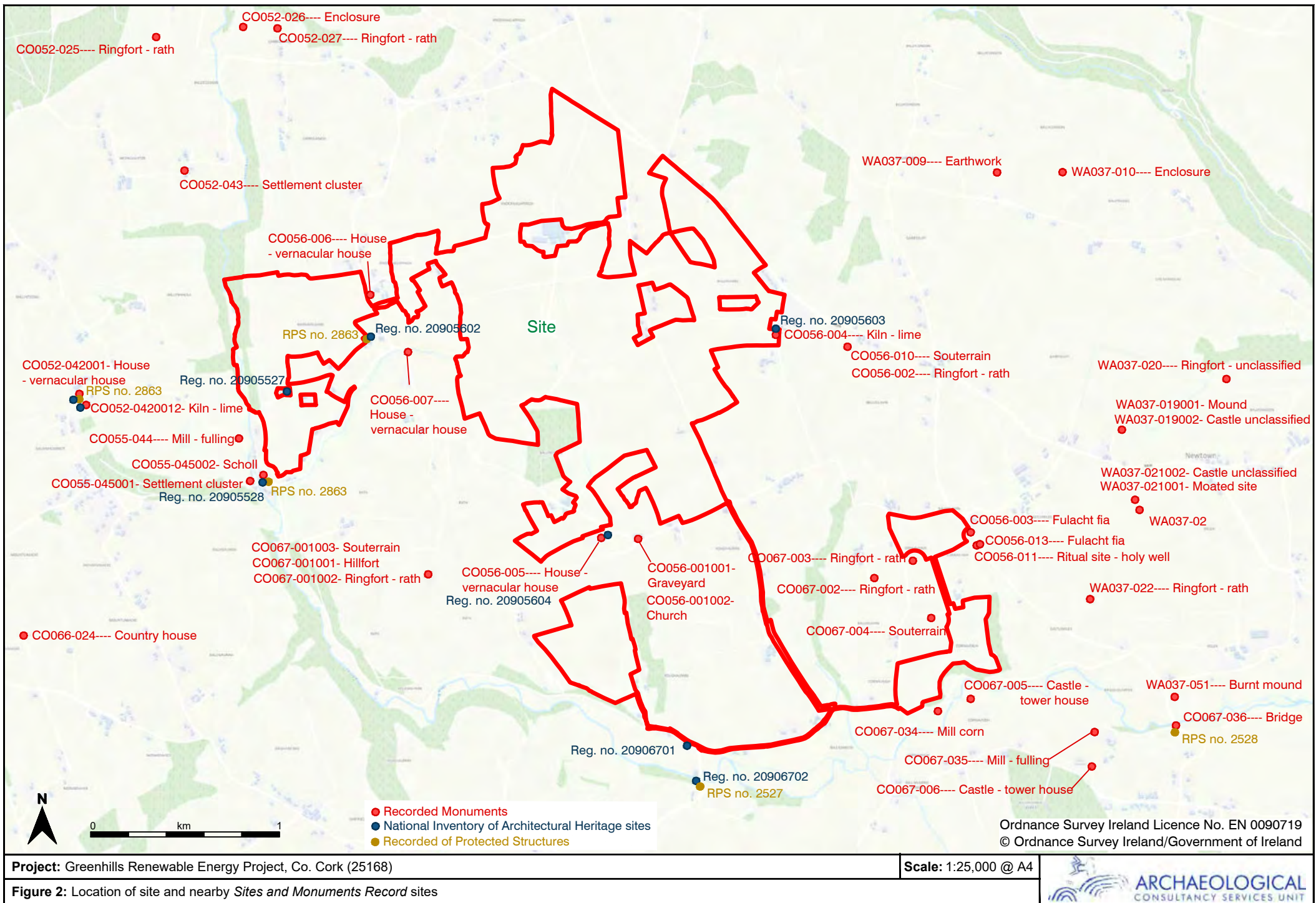
Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:50,000 @ A4

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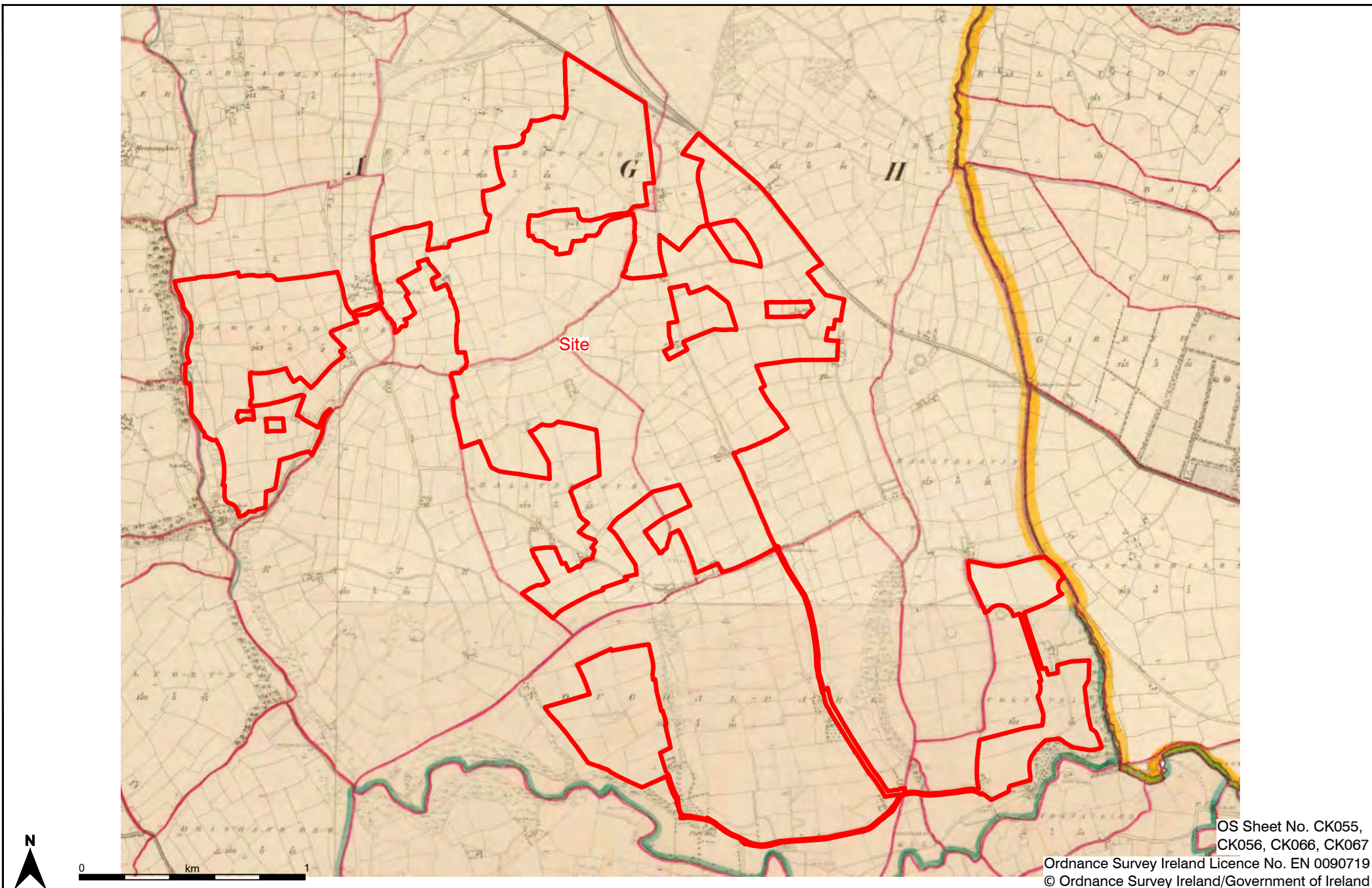


ARCHAEOLOGICAL
CONSULTANCY SERVICES UNIT



Project: Greenhills Renewable Energy Project, Co. Cork (25168)

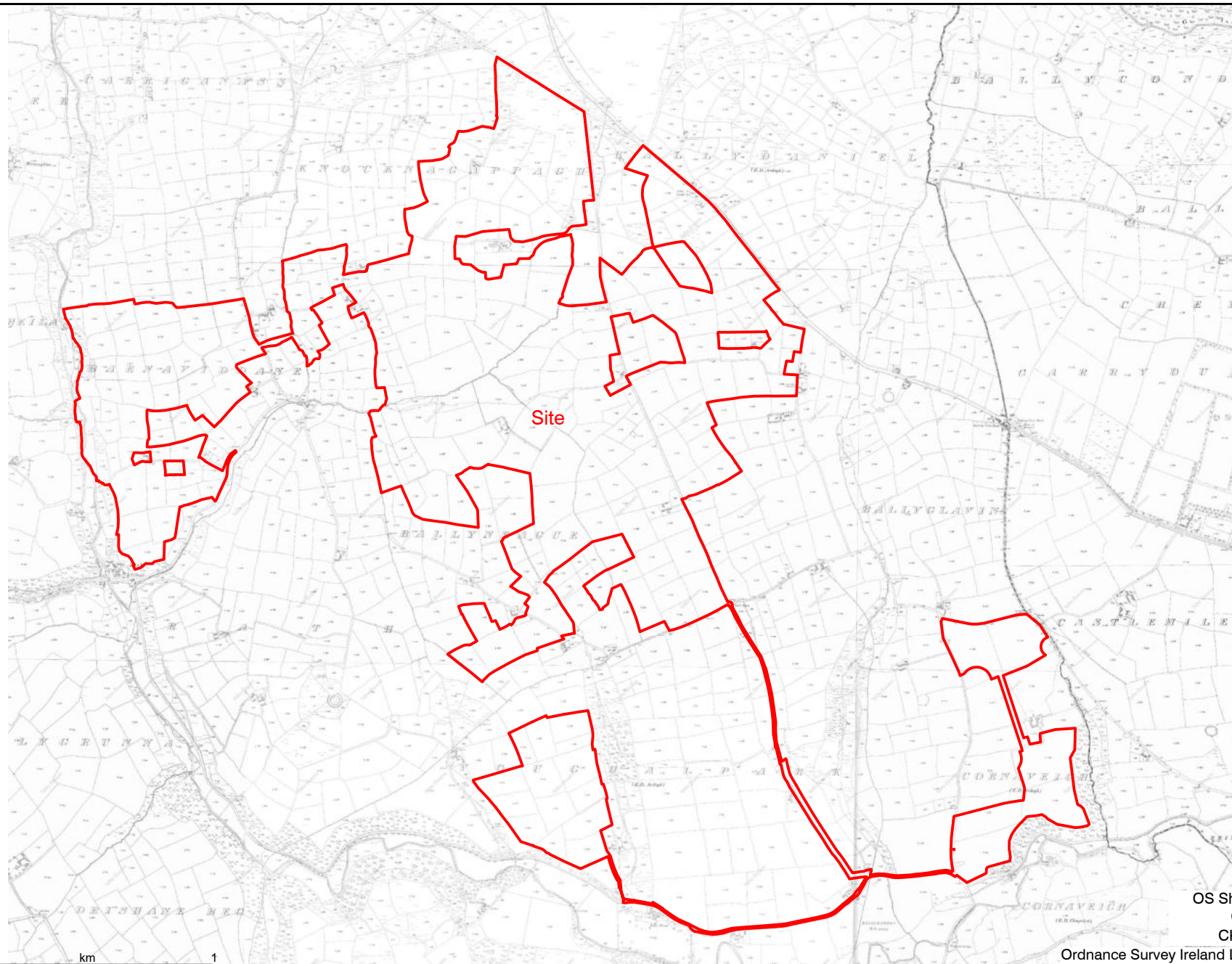
Figure 2: Location of site and nearby Sites and Monuments Record sites



Project: Greenhills Renewable Energy Project, Co. Cork (25168)

Scale: 1:22,000 @ A4

Figure 3: Extract from 1st edition Ordnance Survey (OS) 6-inch map (surveyed 1840-41 - published 1845), showing location of site



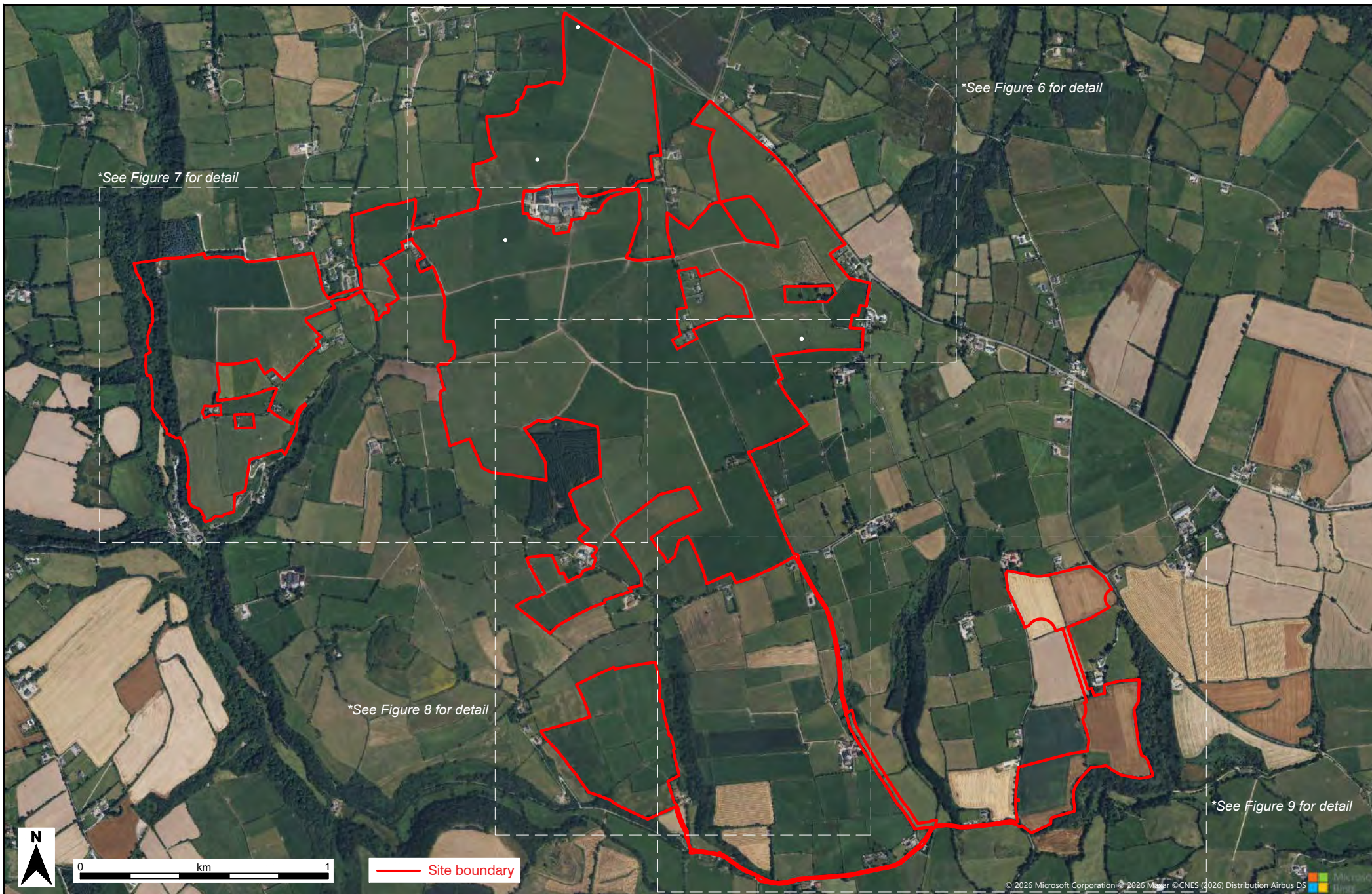
OS Sheet No. CK055-12, -16,
CK056-09, -10, -13, -14,
CK066-04, CK067-01, -02

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Scale: 1:22,000 @ A4

Figure 4: Extract from 3rd edition Ordnance Survey (OS) 25-inch map (surveyed 1902 - published 1903), showing location of site



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:20,000 @ A4

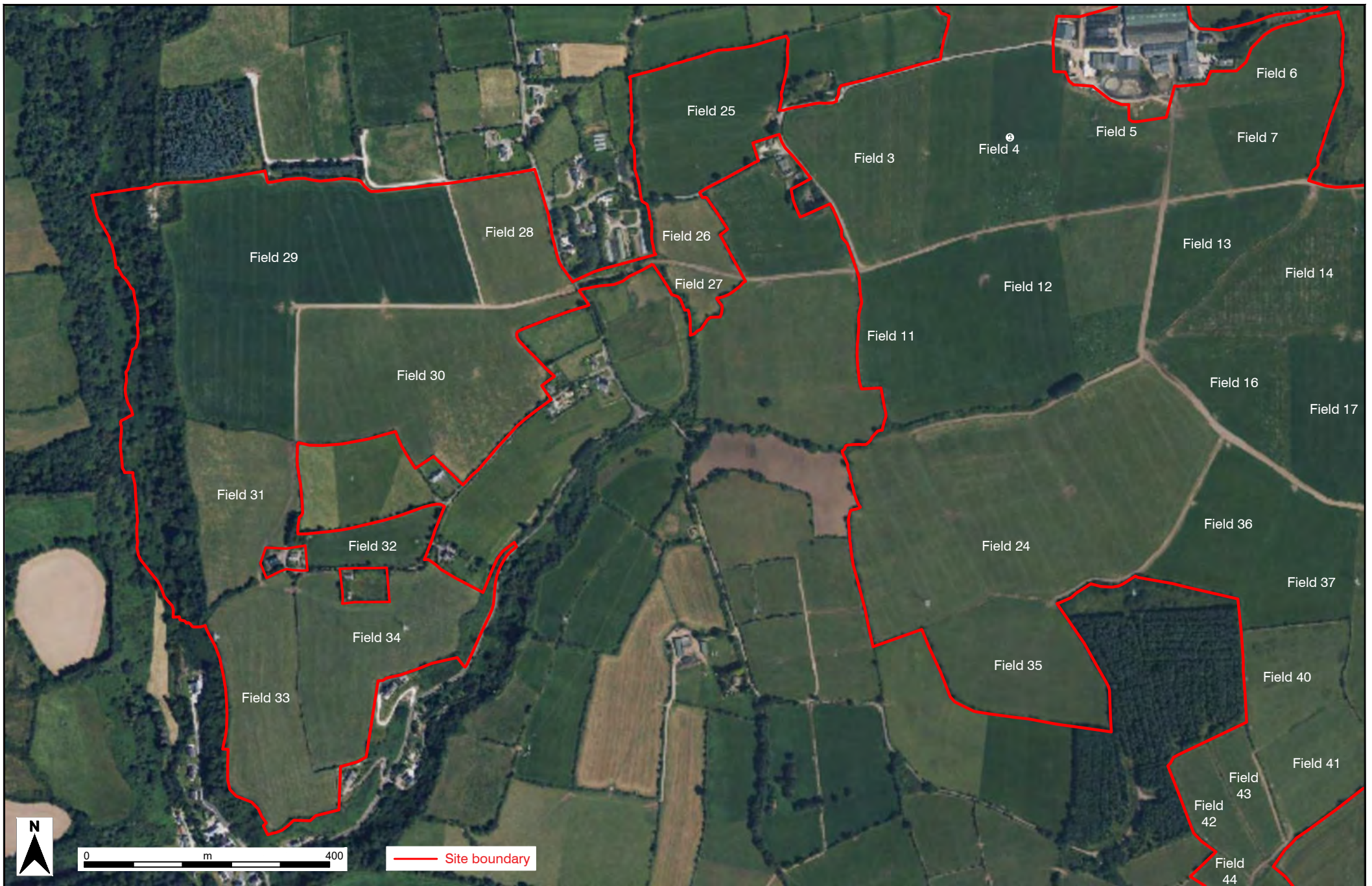
Figure 5: Aerial view of site



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:8,000 @ A4

Figure 6: Aerial view of site showing field numbers



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:8,000 @ A4

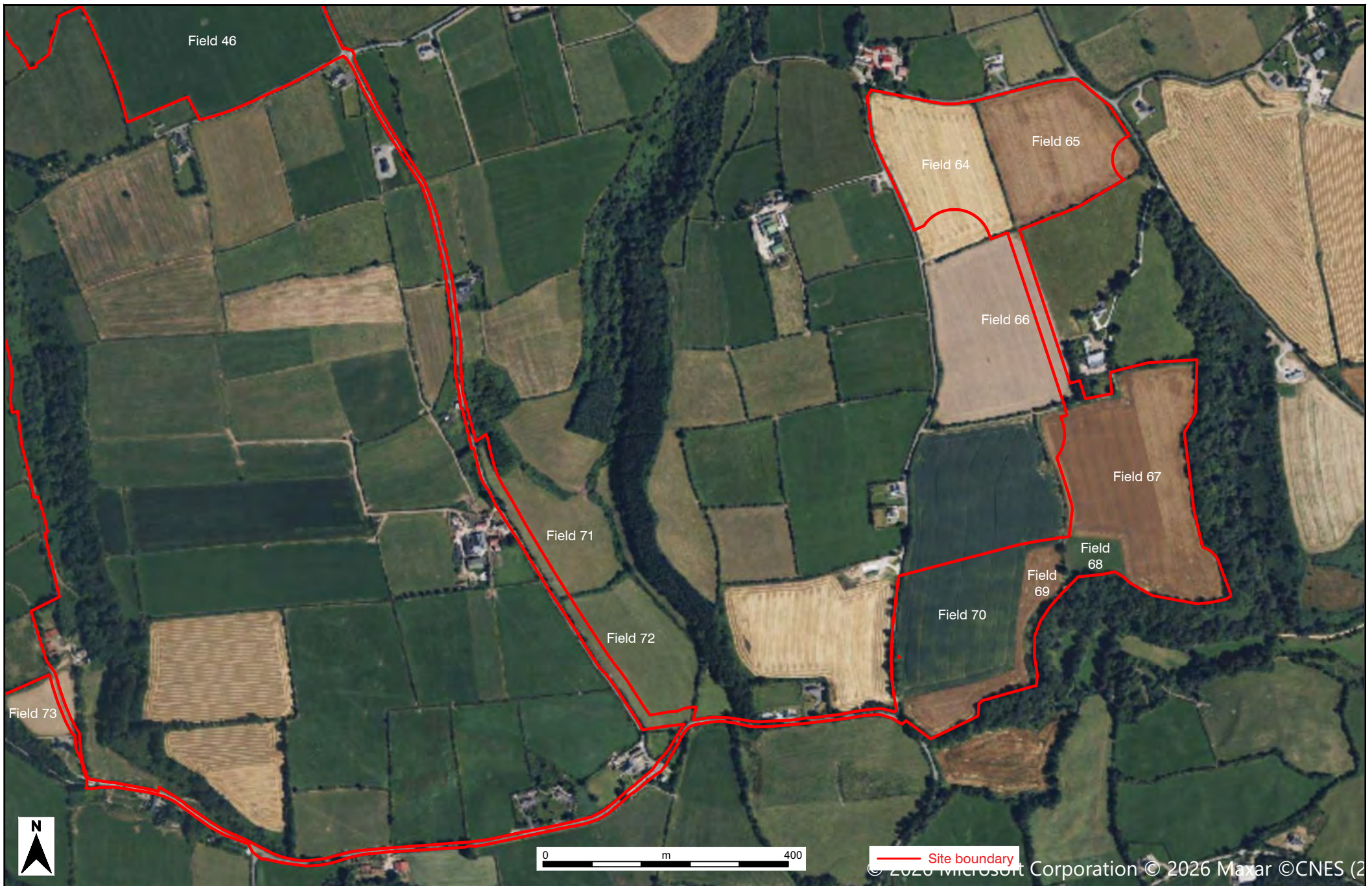
Figure 7: Aerial view of site showing field numbers



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:8,000 @ A4

Figure 8: Aerial view of site showing field numbers



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:8,000 @ A4

Figure 9: Aerial view of site showing field numbers



Project: Greenhills Renewable Energy Project, Co. Cork (25168)

Scale: 1:2,000 @ A4

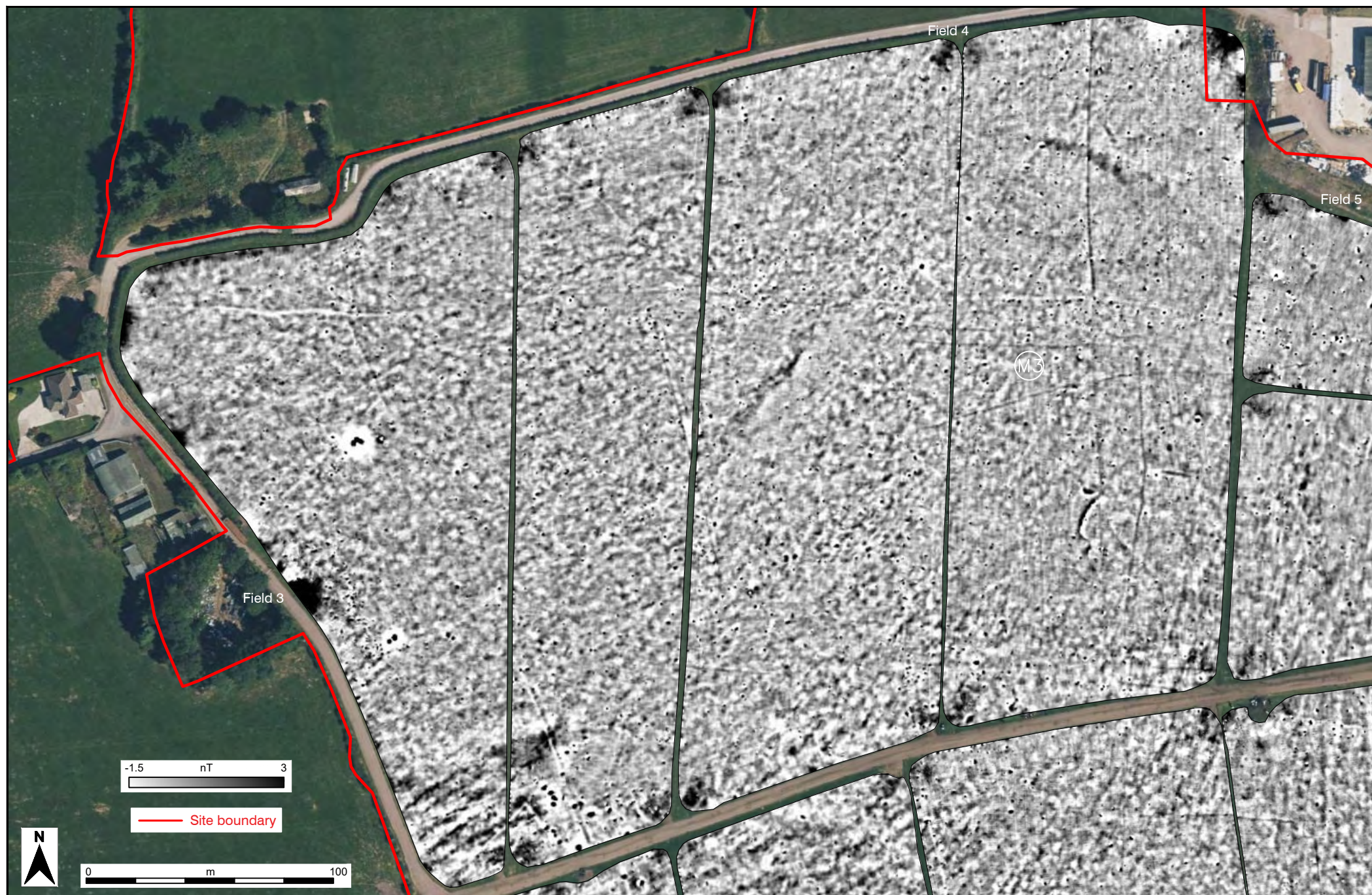
Figure 10: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 11: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 12: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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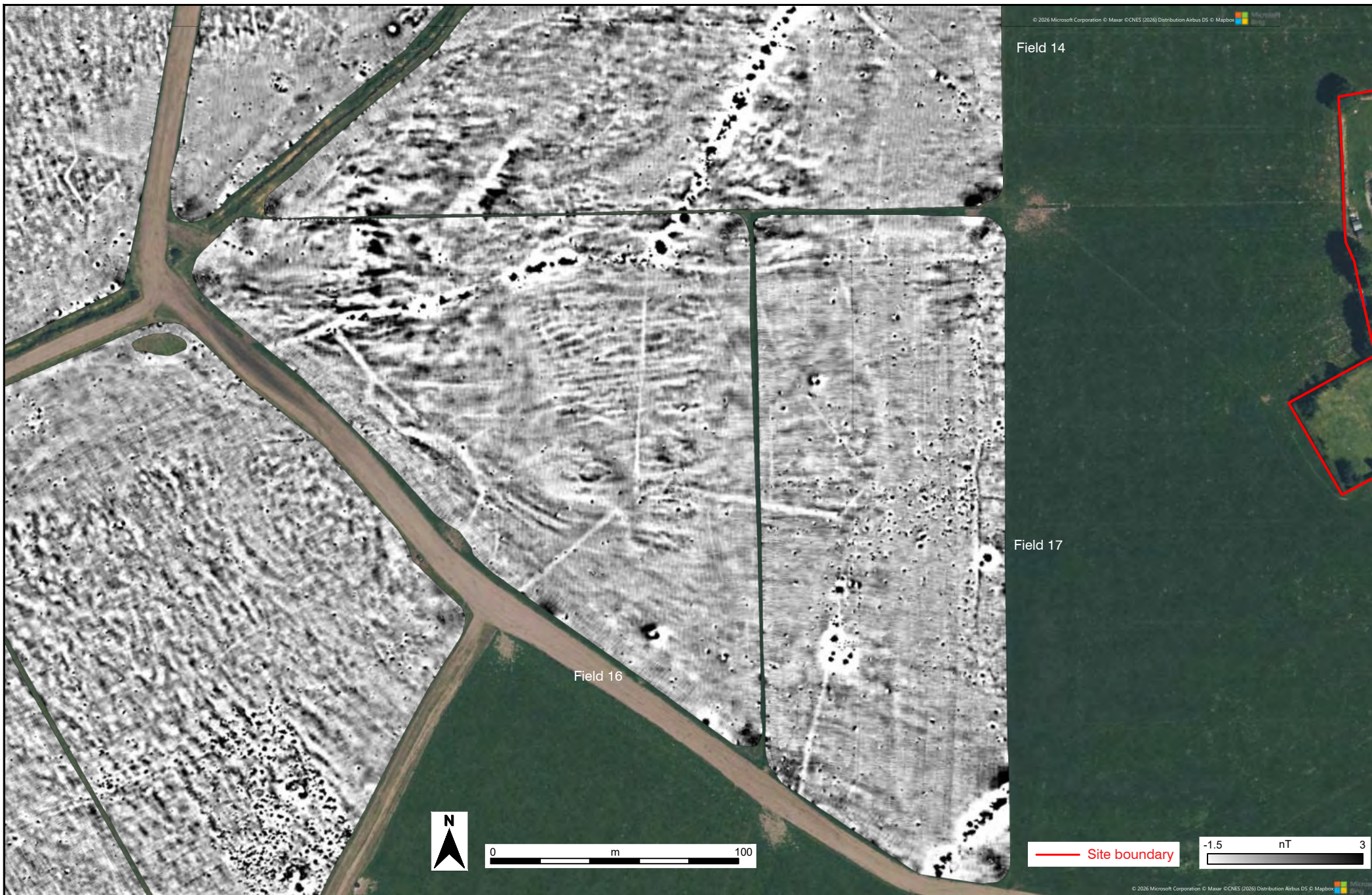
Figure 13: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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Figure 14: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 15: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 16: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 17: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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Figure 18: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 19: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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Figure 20: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 21: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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Figure 22: Aerial view of site showing geophysical survey results (greyscale images)



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Figure 23: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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Figure 24: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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Figure 25: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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Figure 26: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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Figure 27: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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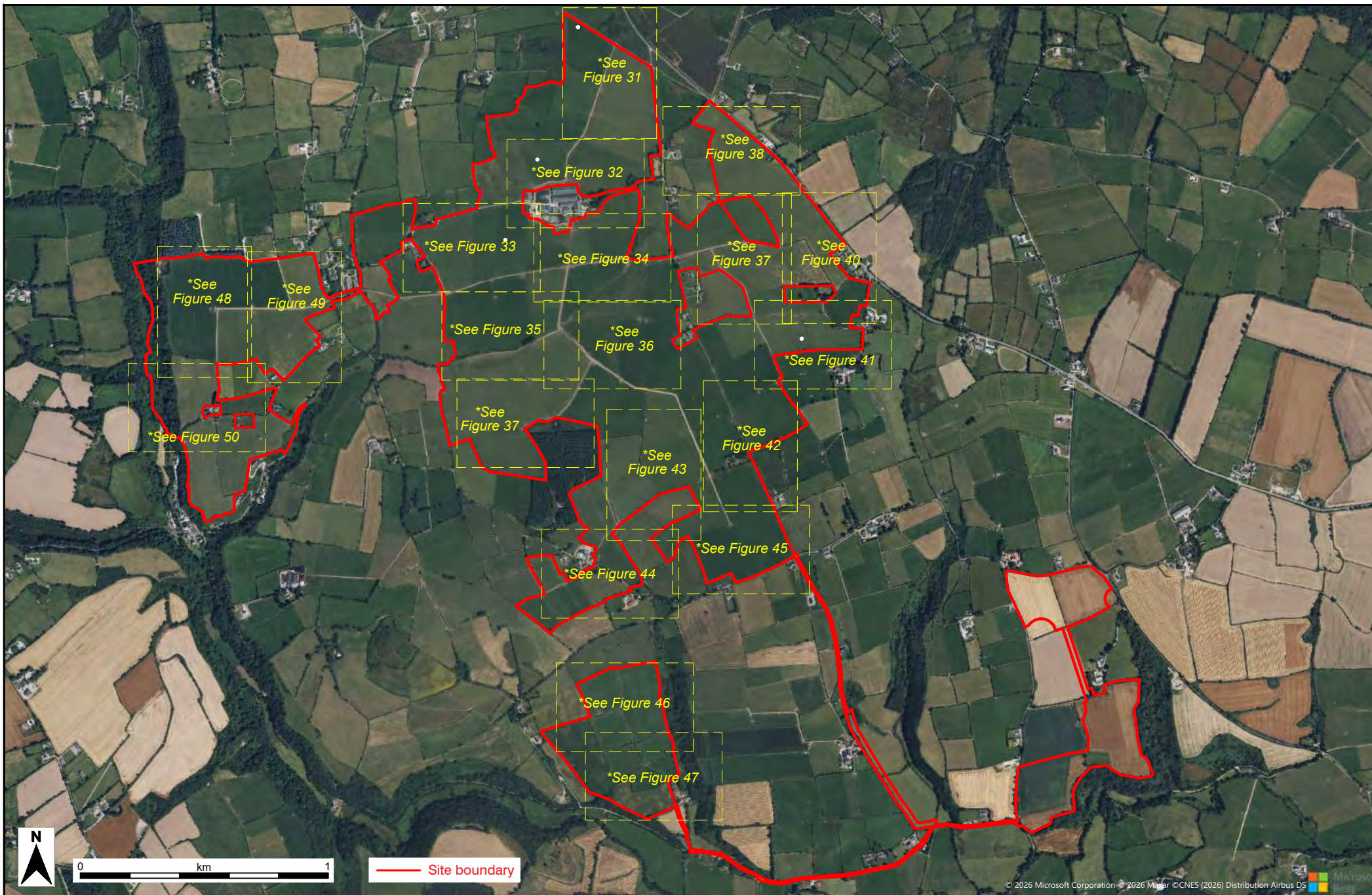
Figure 28: Aerial view of site showing geophysical survey results (greyscale images)



Project: Greenhills Renewable Energy Project, Co. Cork

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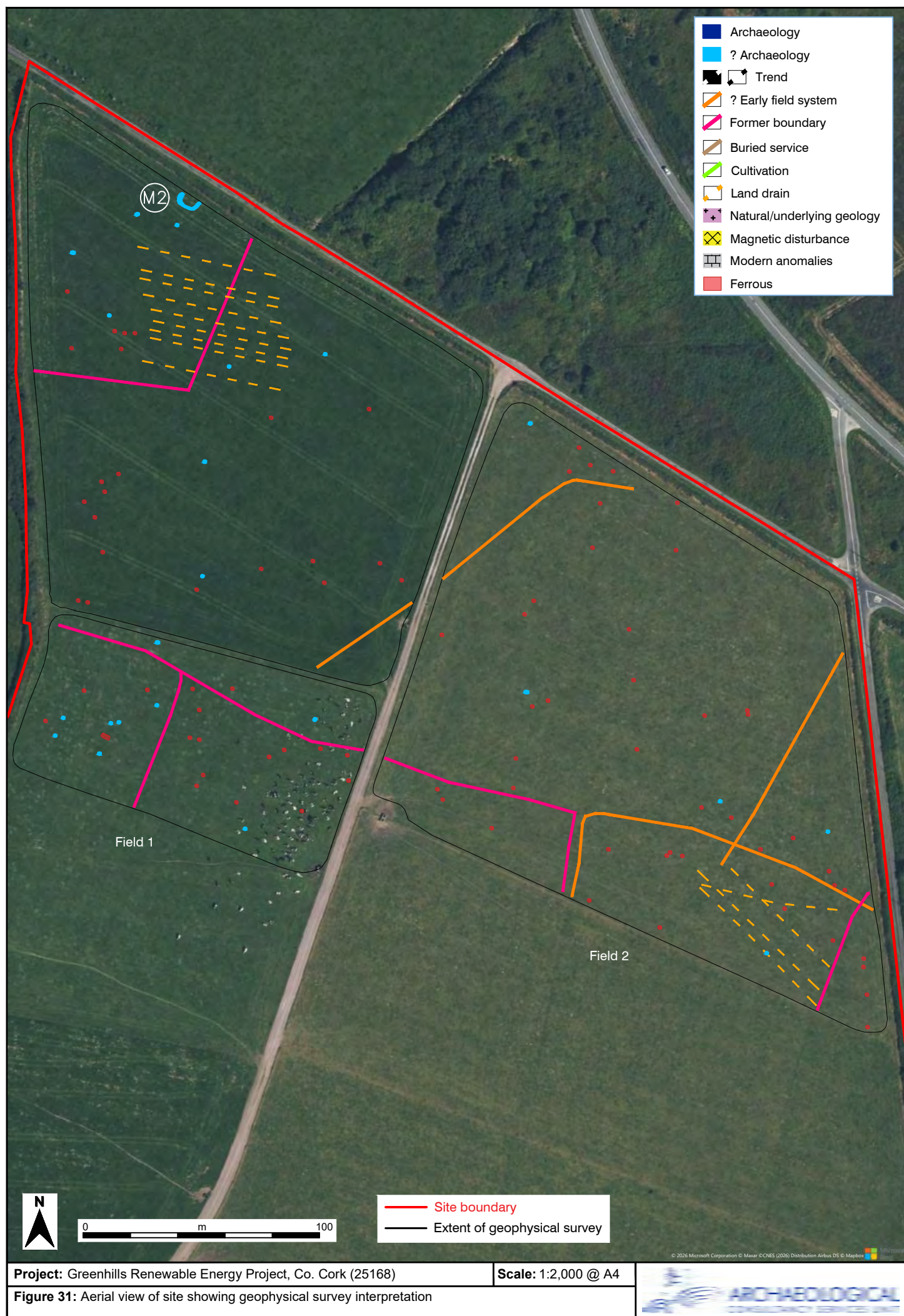
Figure 29: Aerial view of site showing geophysical survey results (greyscale images)

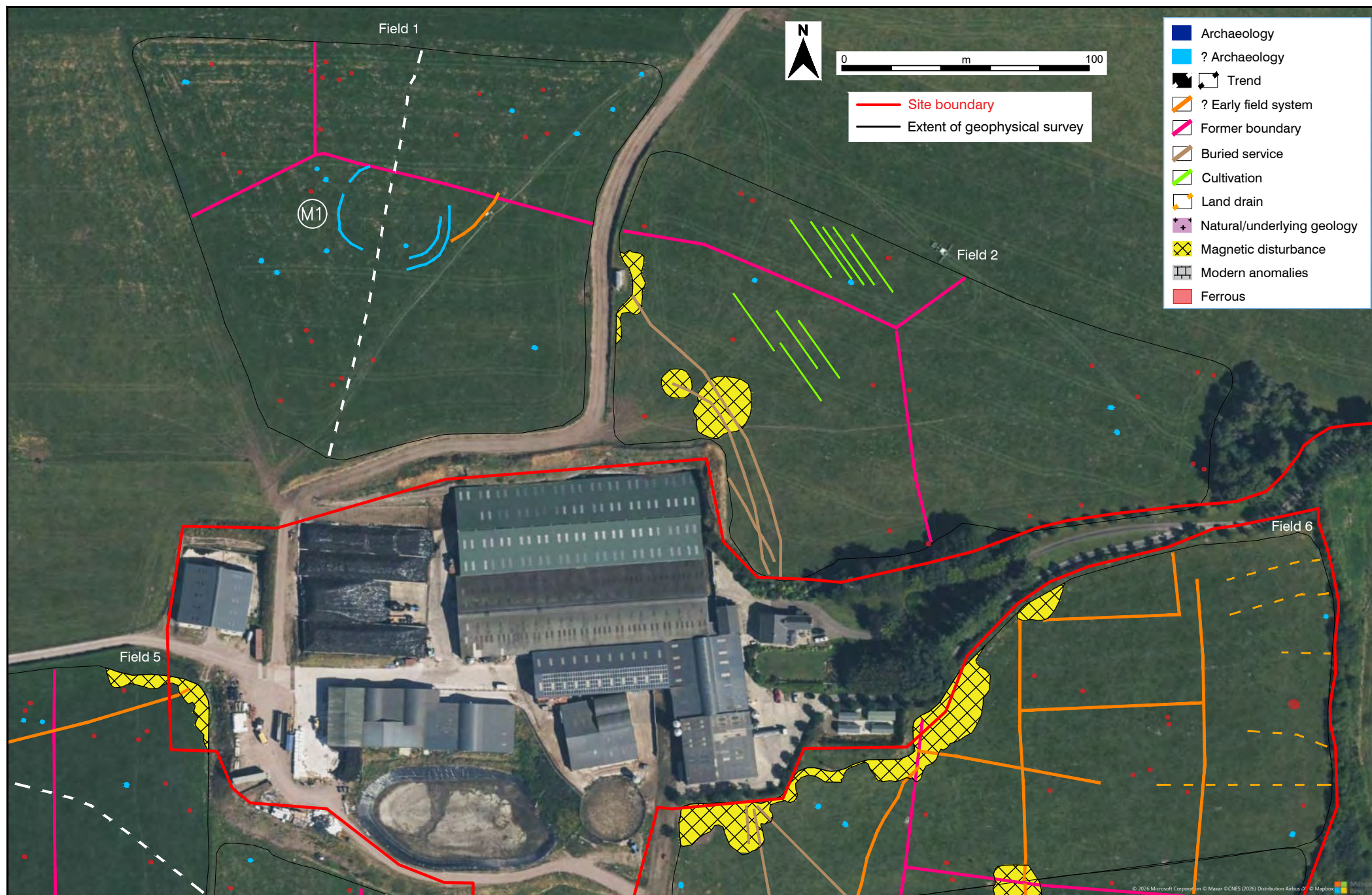


Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:20,000 @ A4

Figure 30: Aerial view of site

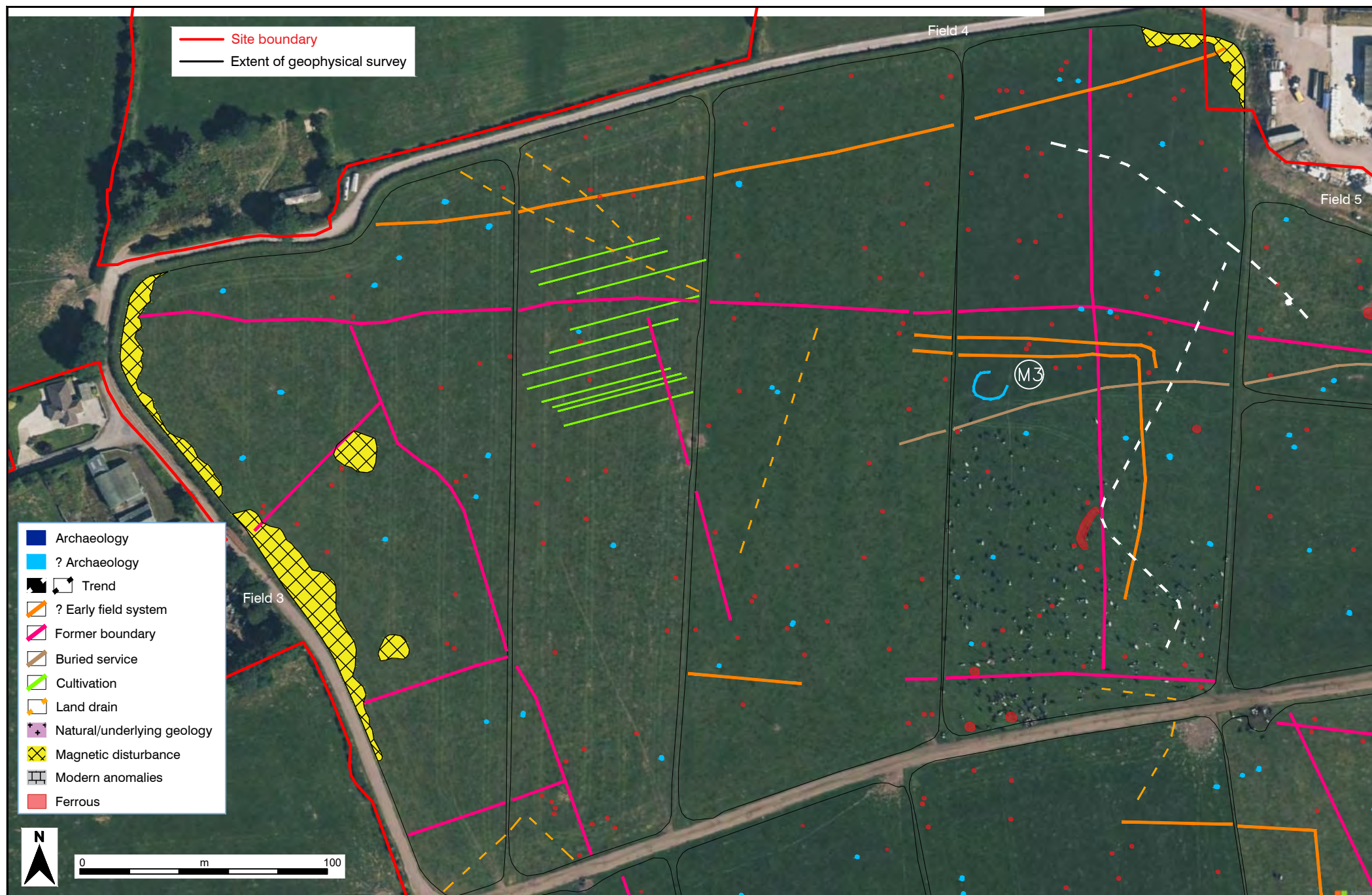




Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

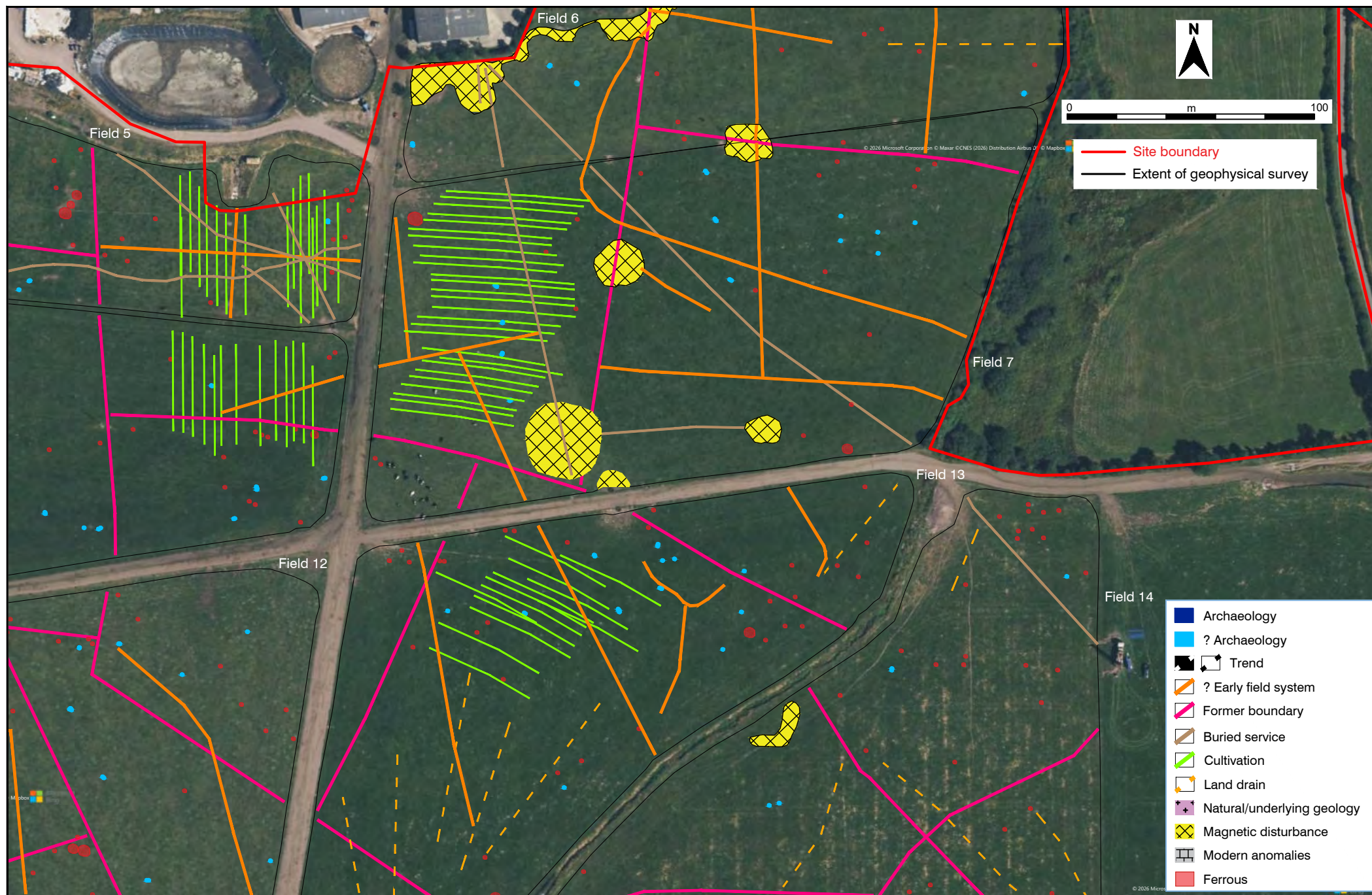
Figure 32: Aerial view of site showing geophysical survey interpretation



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

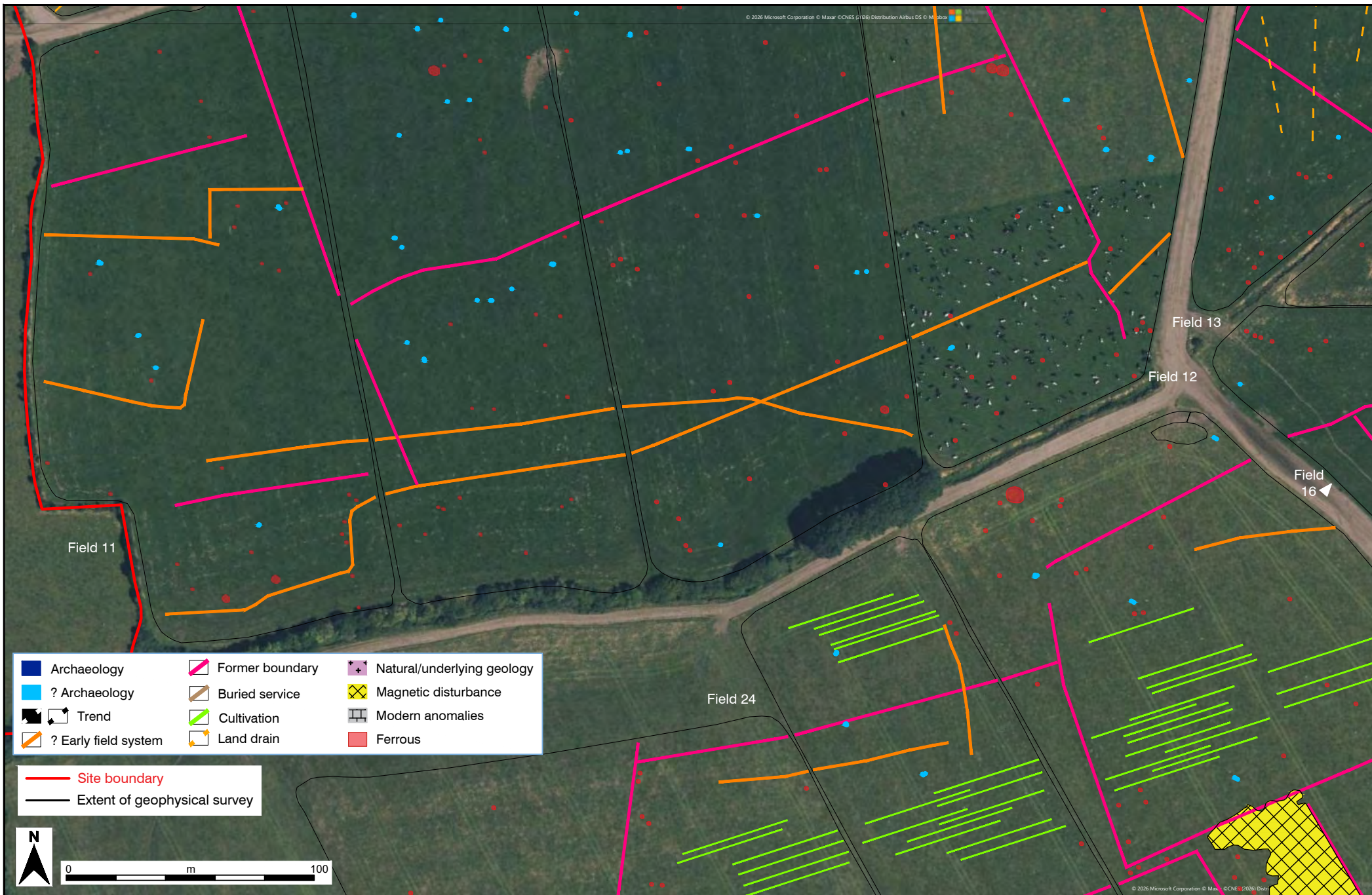
Figure 33: Aerial view of site showing geophysical survey interpretation



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

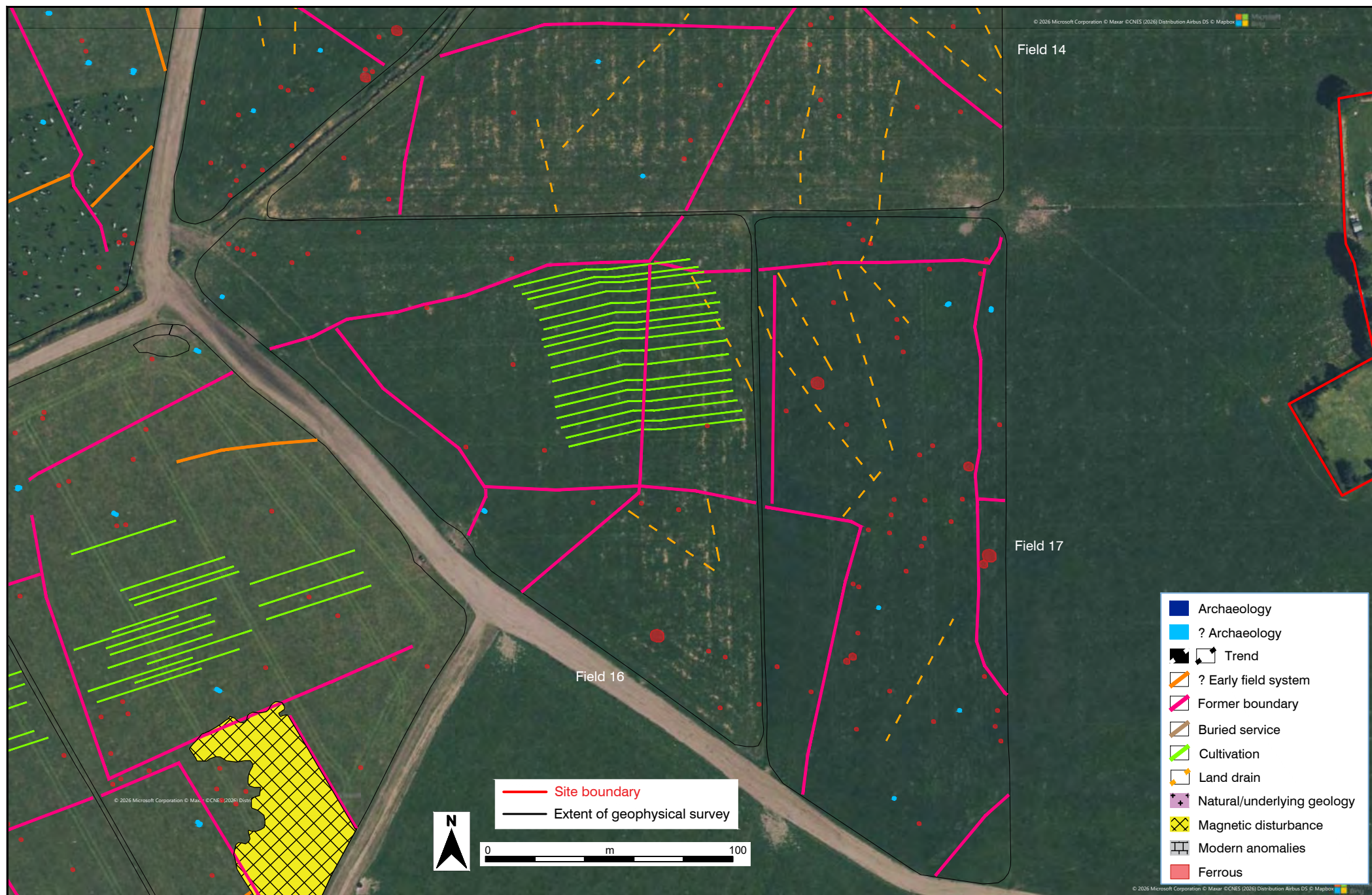
Figure 34: Aerial view of site showing geophysical survey interpretation



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

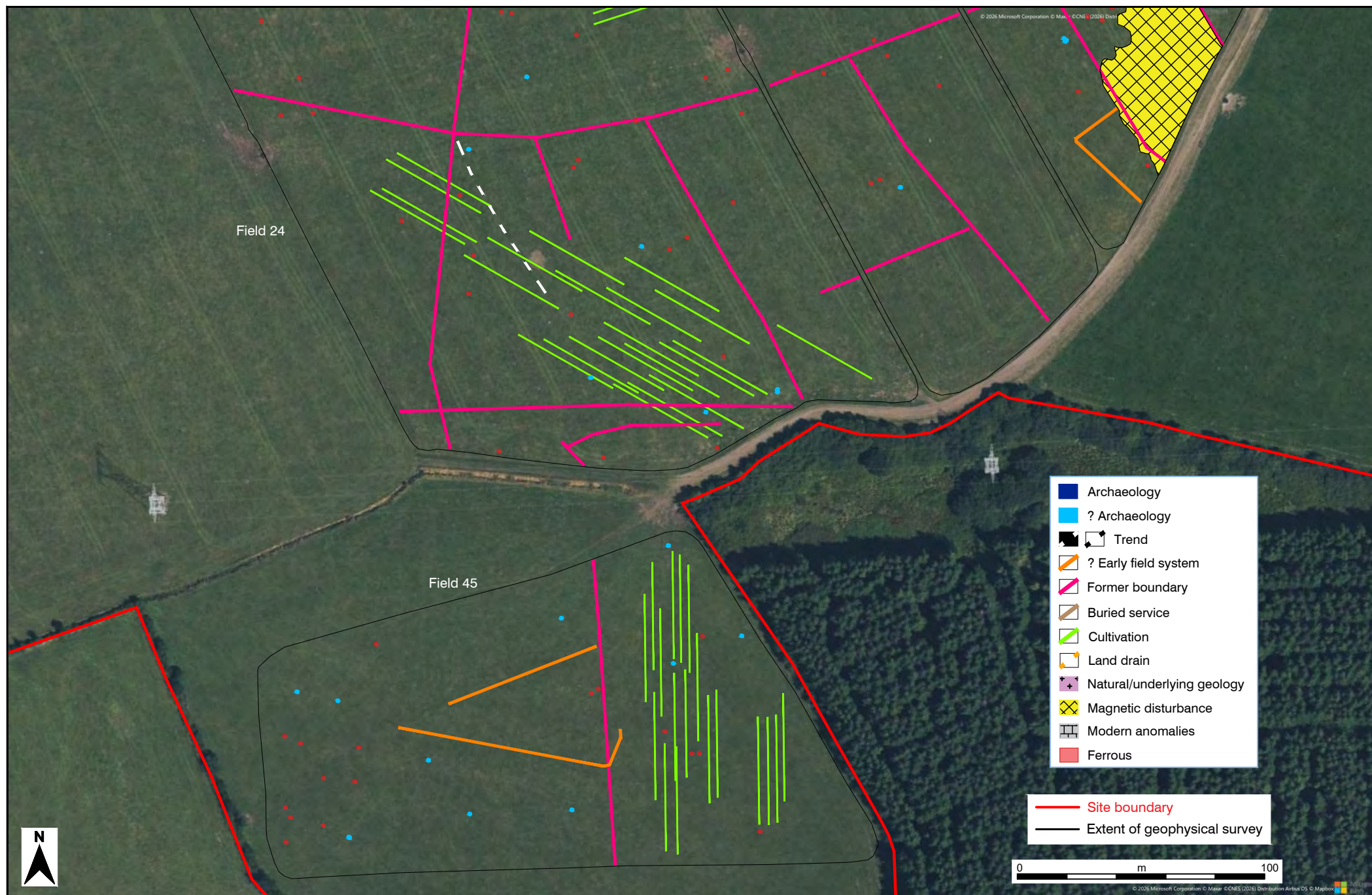
Figure 35: Aerial view of site showing geophysical survey interpretation



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 36: Aerial view of site showing geophysical survey interpretation



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 37: Aerial view of site showing geophysical survey interpretation

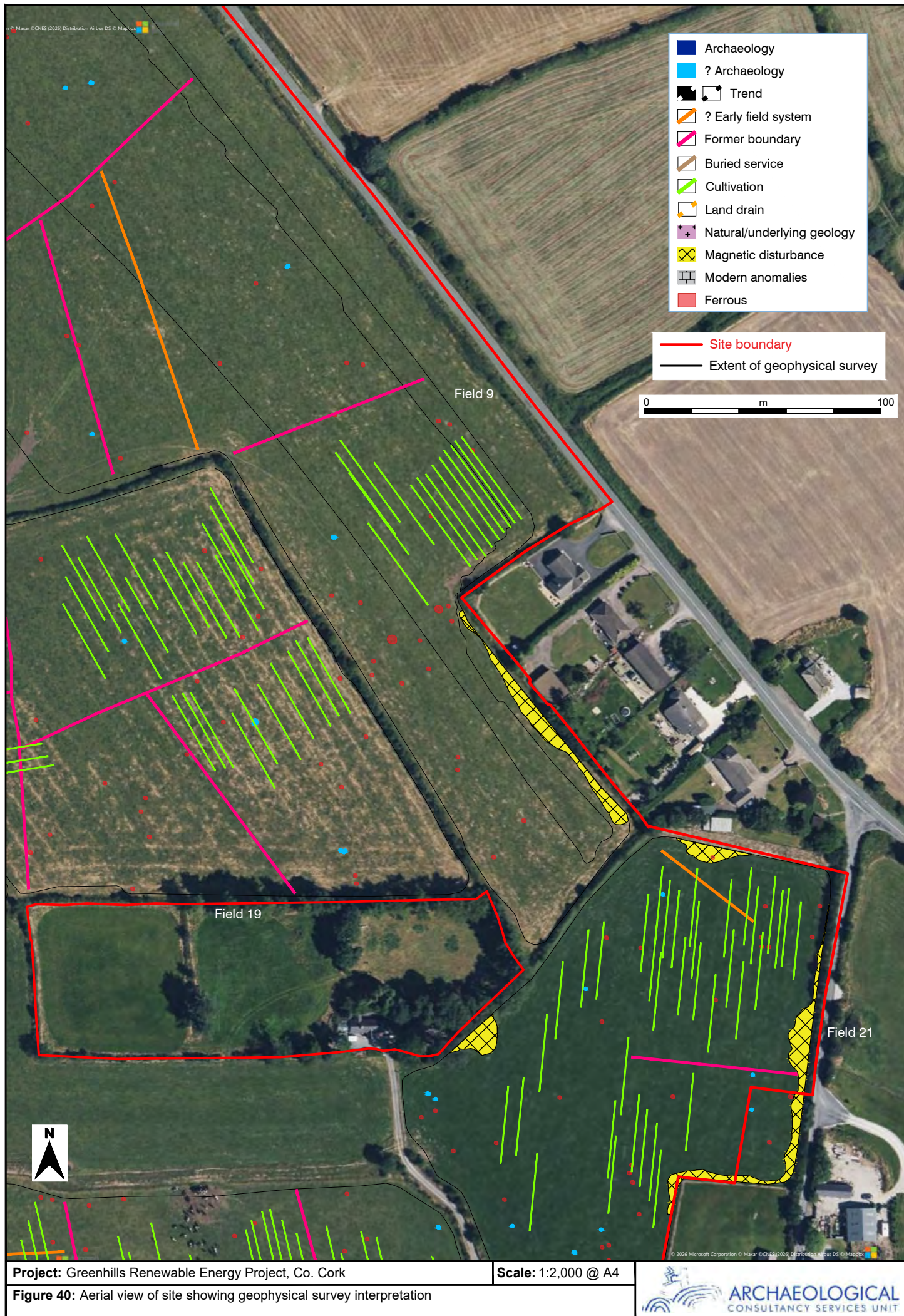


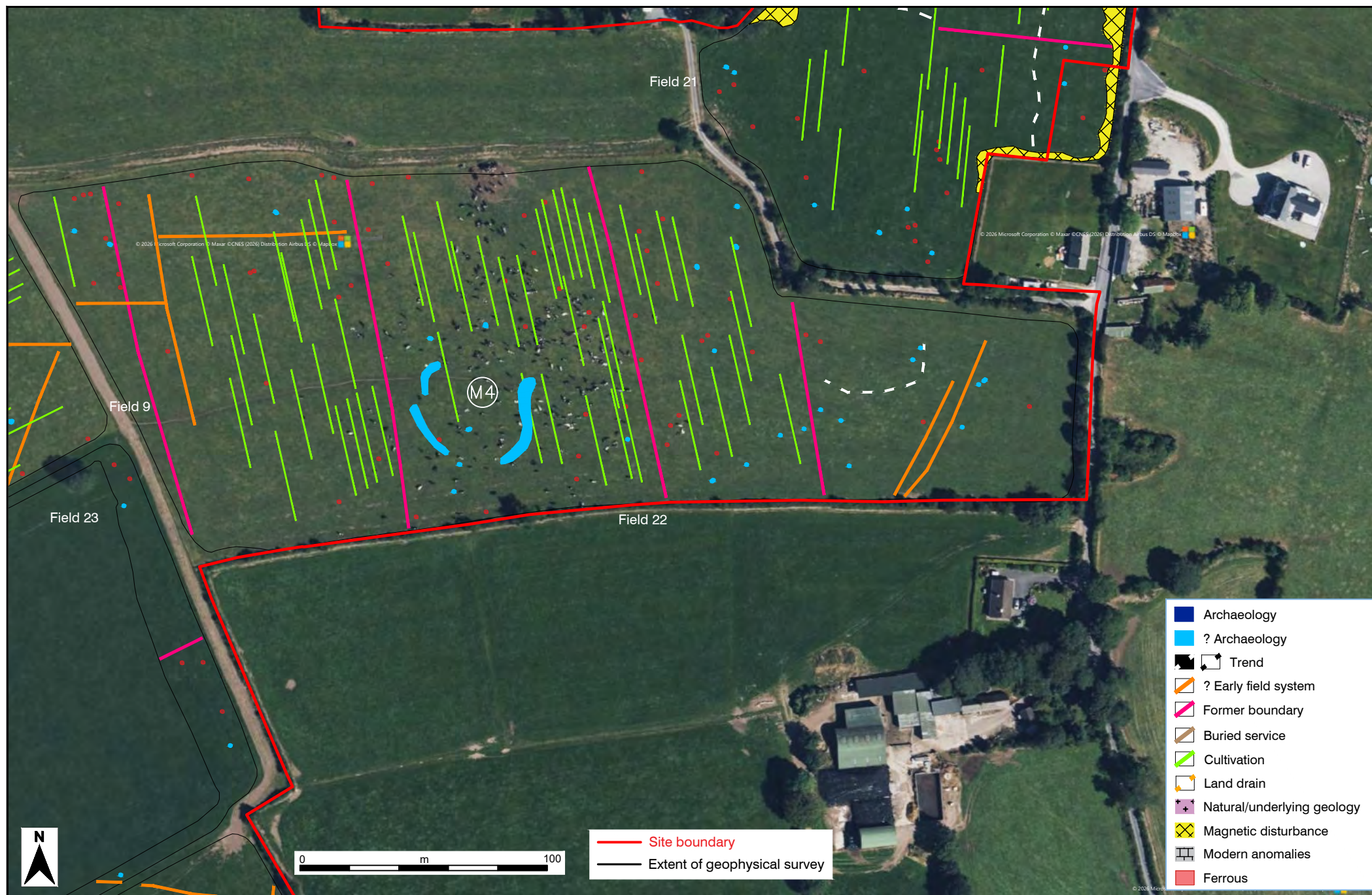
Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 38: Aerial view of site showing geophysical survey interpretation



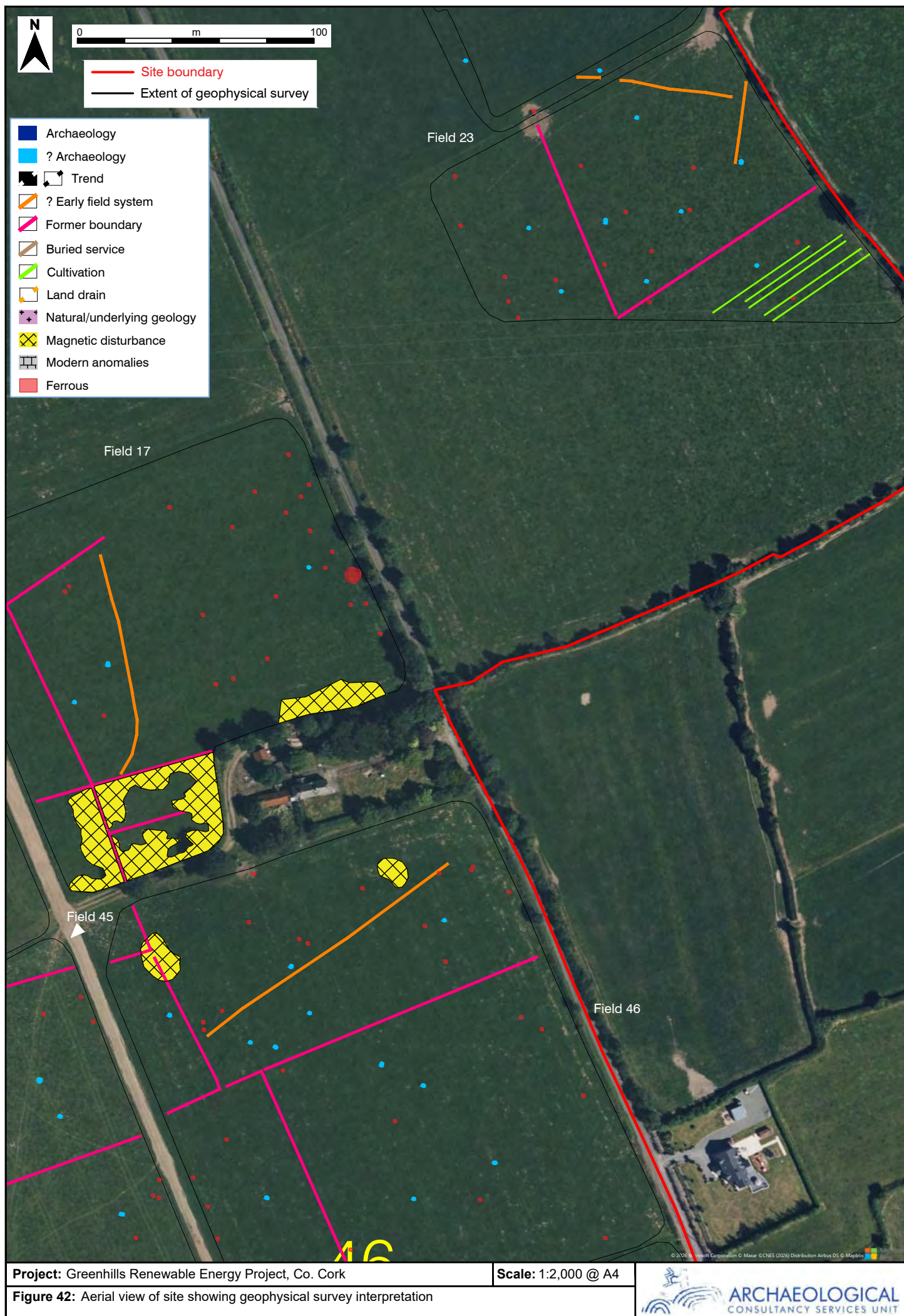


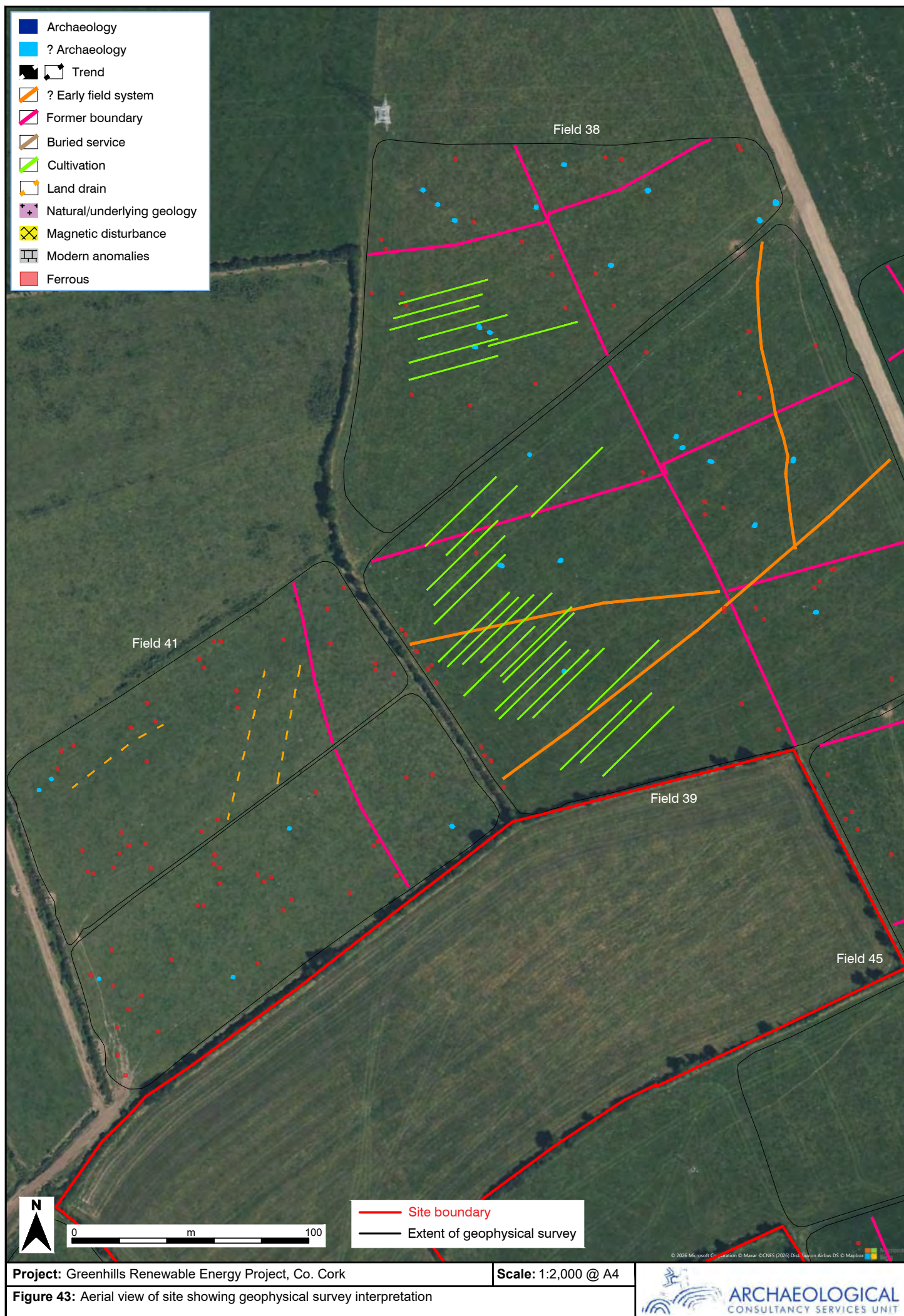


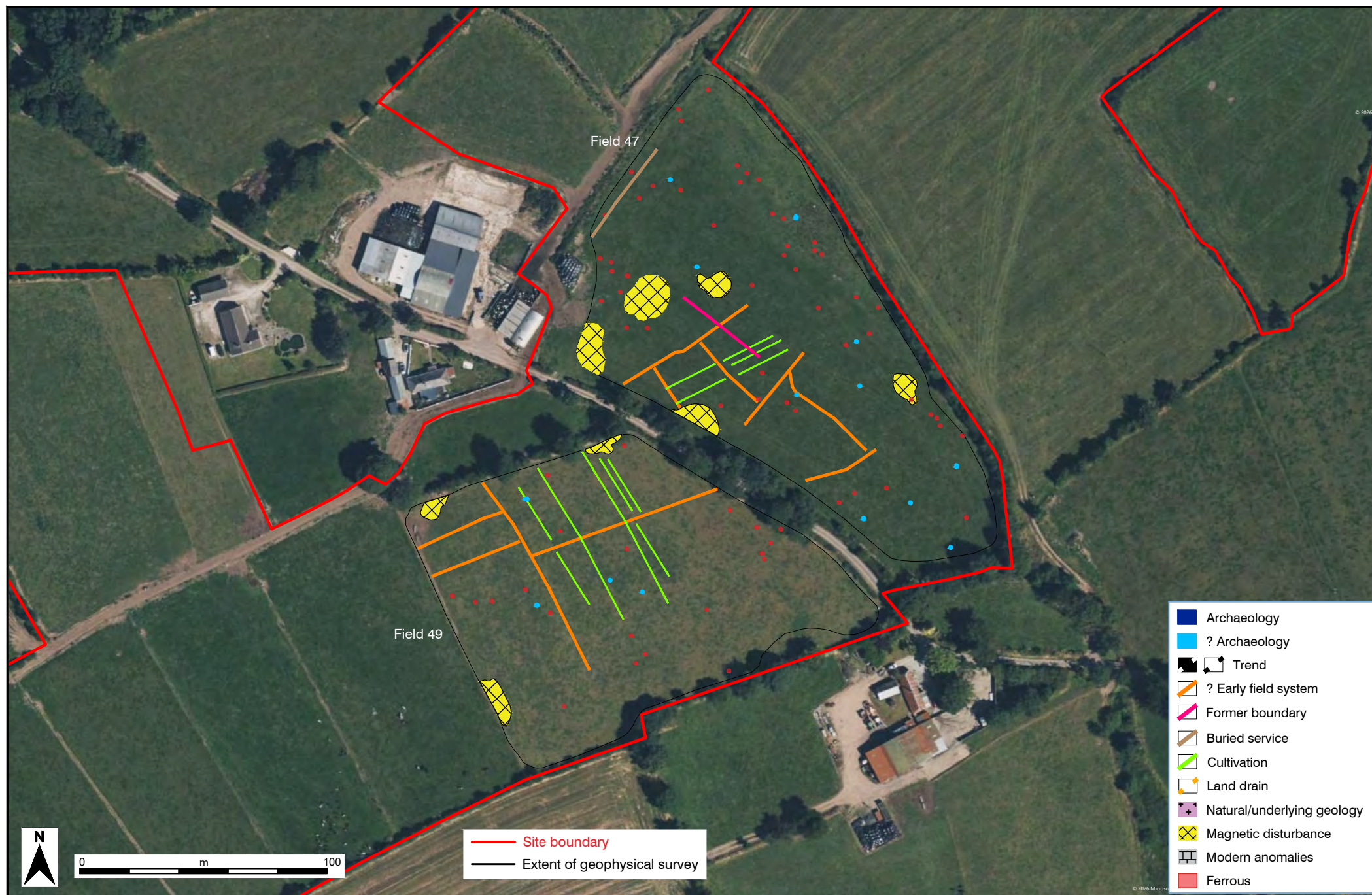
Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 41: Aerial view of site showing geophysical survey interpretation







Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 44: Aerial view of site showing geophysical survey interpretation



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

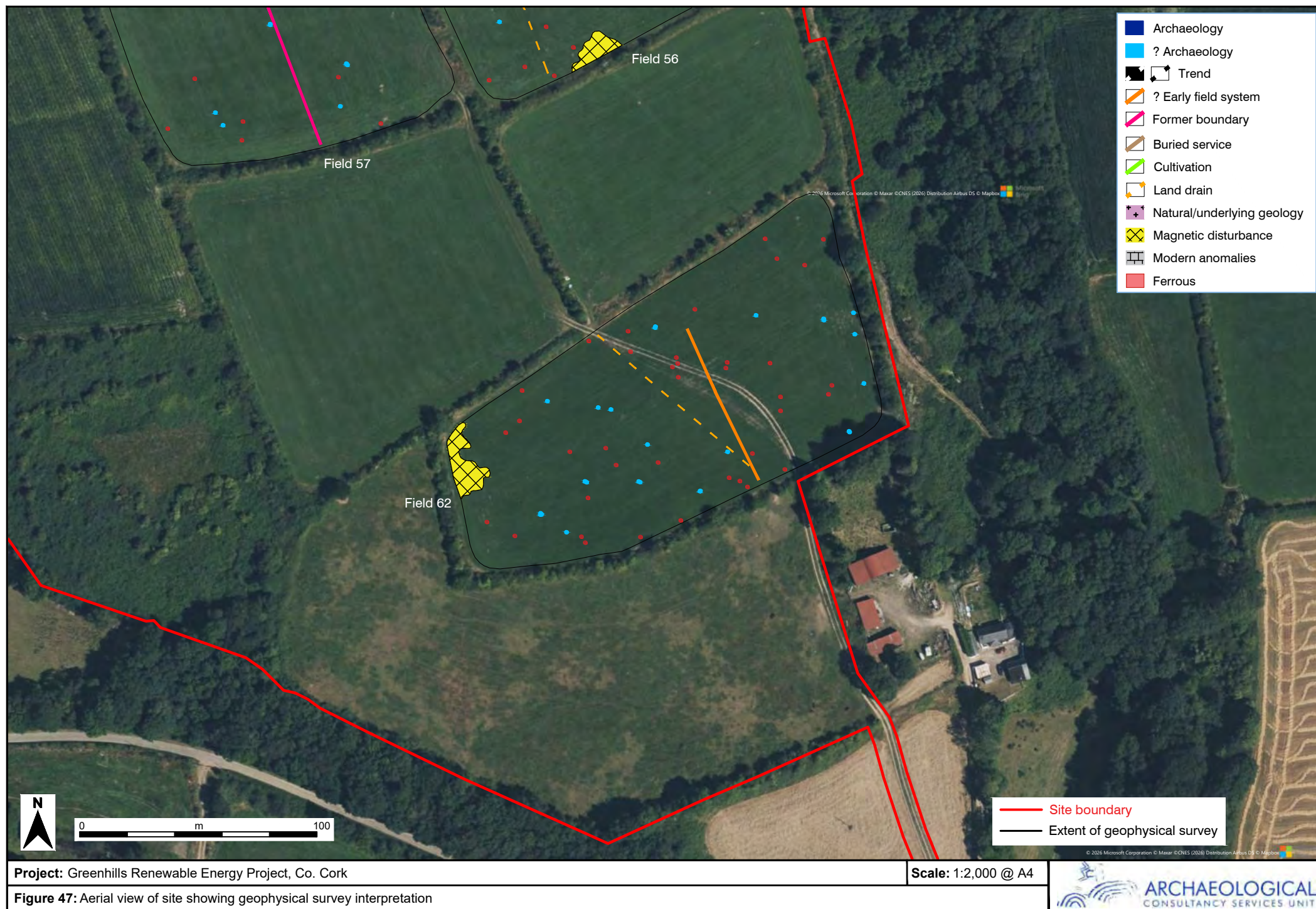
Figure 45: Aerial view of site showing geophysical survey interpretation



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 46: Aerial view of site showing geophysical survey interpretation

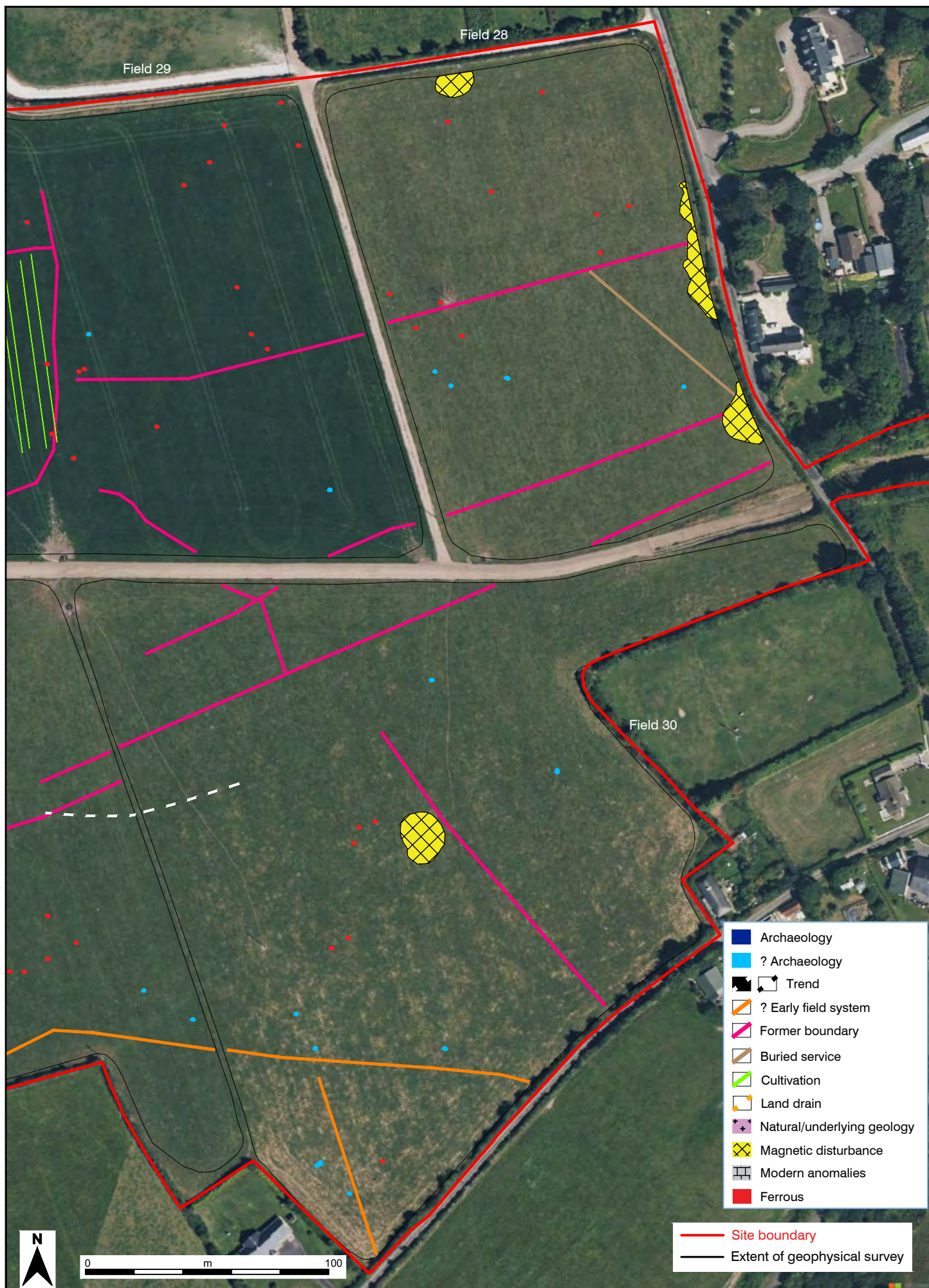




Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 48: Aerial view of site showing geophysical survey interpretation



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 49: Aerial view of site showing geophysical survey interpretation



Project: Greenhills Renewable Energy Project, Co. Cork

Scale: 1:2,000 @ A4

Figure 50: Aerial view of site showing geophysical survey interpretation

Appendix J: Photos



Photo 1: View of extant 19th century farm buildings (58-61) within the site boundary in the southern half of Ballydaniel townland, west of Park Hill Road, looking south-east.



Photo 2: View of extant 19th century farm buildings (62) within the site boundary in the northern half of Ballydaniel townland, west of the R634, looking north-west.



Photo 3 : View of extant 19th century farm buildings (76) immediately adjacent to the site boundary in the Knocknagappagh townland, looking north-west.



Photo 4 : View of extant 19th century farm buildings (86) on land adjacent to the site boundary in the Cornaveigh townland, looking south-west.



Photo 5: View of Roisin Protected Structure (47) and NIAH Building (39), looking north.



Photo 6: View of surviving vernacular house (13) and approximate location of Barnaviddane 19th century settlement cluster, looking north-east.



Photo 7: View of NIAH vernacular house (12), looking south-east along the Ballyneague road.



Photo 8 : View of NIAH vernacular house (37), looking north.



Photo 9 : View of recorded monument Ardagh church and cemetery (7 and 8), looking north-east.



Photo 10 : View of southerrain (23), looking north-west.



Photo 11 : View of locations of Fulachtaí Fias (10) and (17), looking south.



Photo 12 : View of approximate location of ringfort (22), looking east.



Photo 13 : View of nearest field with the site boundary to approximate location of lime kiln (11), looking south.



Photo 14 : View of NIAH pump (40), looking north.



Photo 15 : General view of the central part of the Site in Ballydaniel townland, looking north-west along the existing central farm trackway.



Photo 16 : Representative view of existing field boundary hedgerows restricting views of the Site westwards from the high ground along the R634.



Photo 17: View of landform and mature tree screening blocking all views of the Site from the vicinity of Ballinteosig thatched house (1/35/49).



Photo 18 : View of the hedgerows along the high ground to the north-west of the Site which block all views of the Site from Protected Structures on the high ground in Ballinteosig townland.



Photo 19: Representative view of the Site from Inch in the vicinity of (5, 6, 38 and 48), showing views blocked by trees and topography.



Photo 20 : Representative view from public road of Kilnatoora towerhouse (25) looking north-west towards the part of the Site in Cornaveigh townland.



Photo 21: Representative view from the highest part of the site in Youghal Park townland, looking north-west towards recorded hillfort (18/19/20).



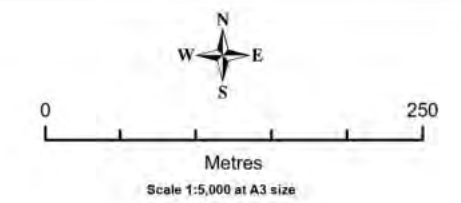
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**Figure 7: Additional Mitigation Areas
Around Geophysical Survey Anomalies**

- Site Boundary
- ? Archaeology
- ? Early Field System
- ▨ 1m - 5m Buffer Zone

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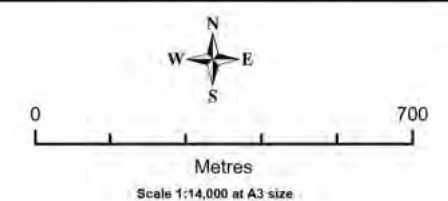
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Figure 6: Recommended Buffer Zones

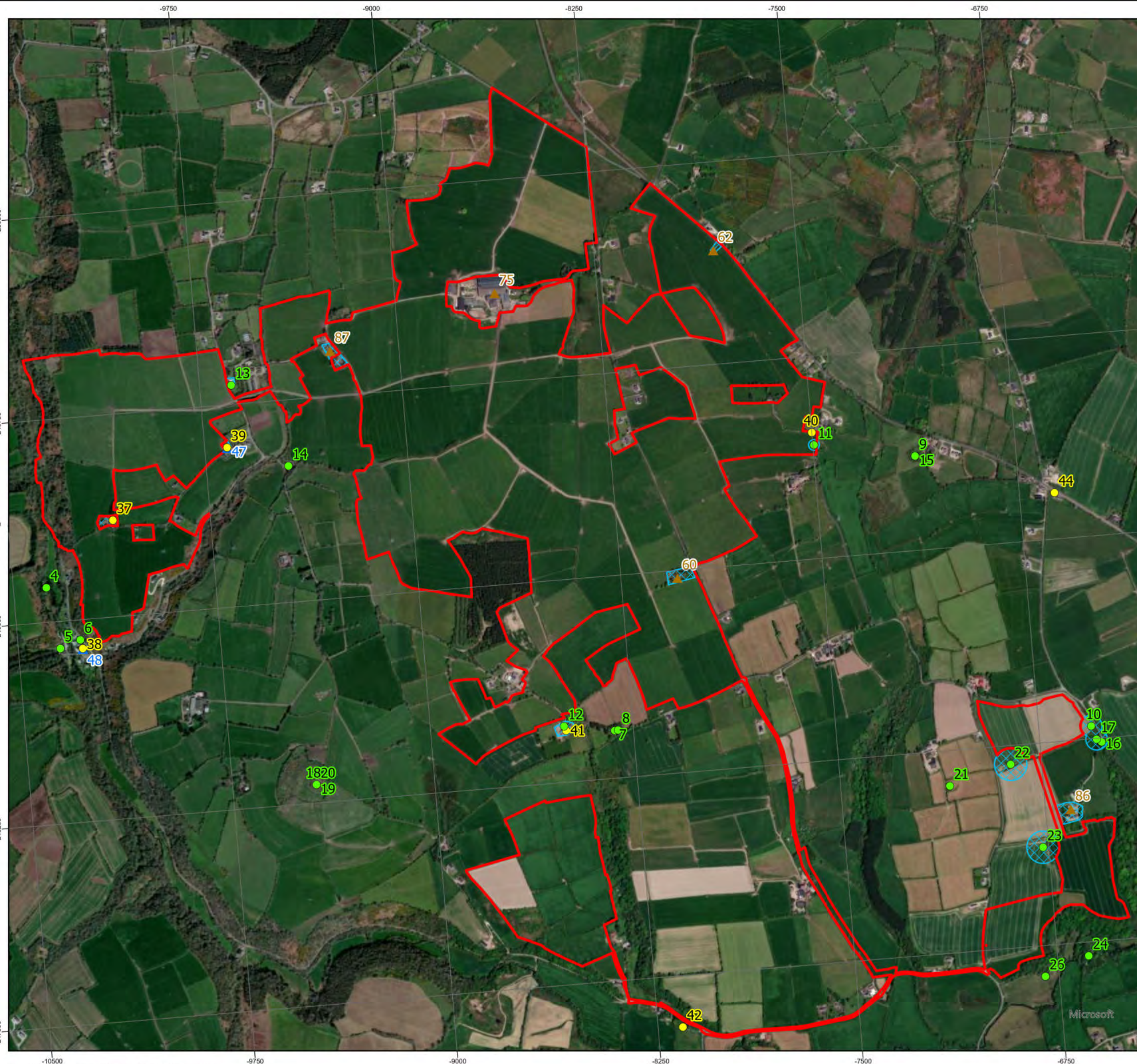
- Site Boundary
- SMR
- National Inventory of Architectural Heritage
- ▲ Record of Protected Structures
- ▲ Extant 19th Century Structures
- ▨ Buffer Zones

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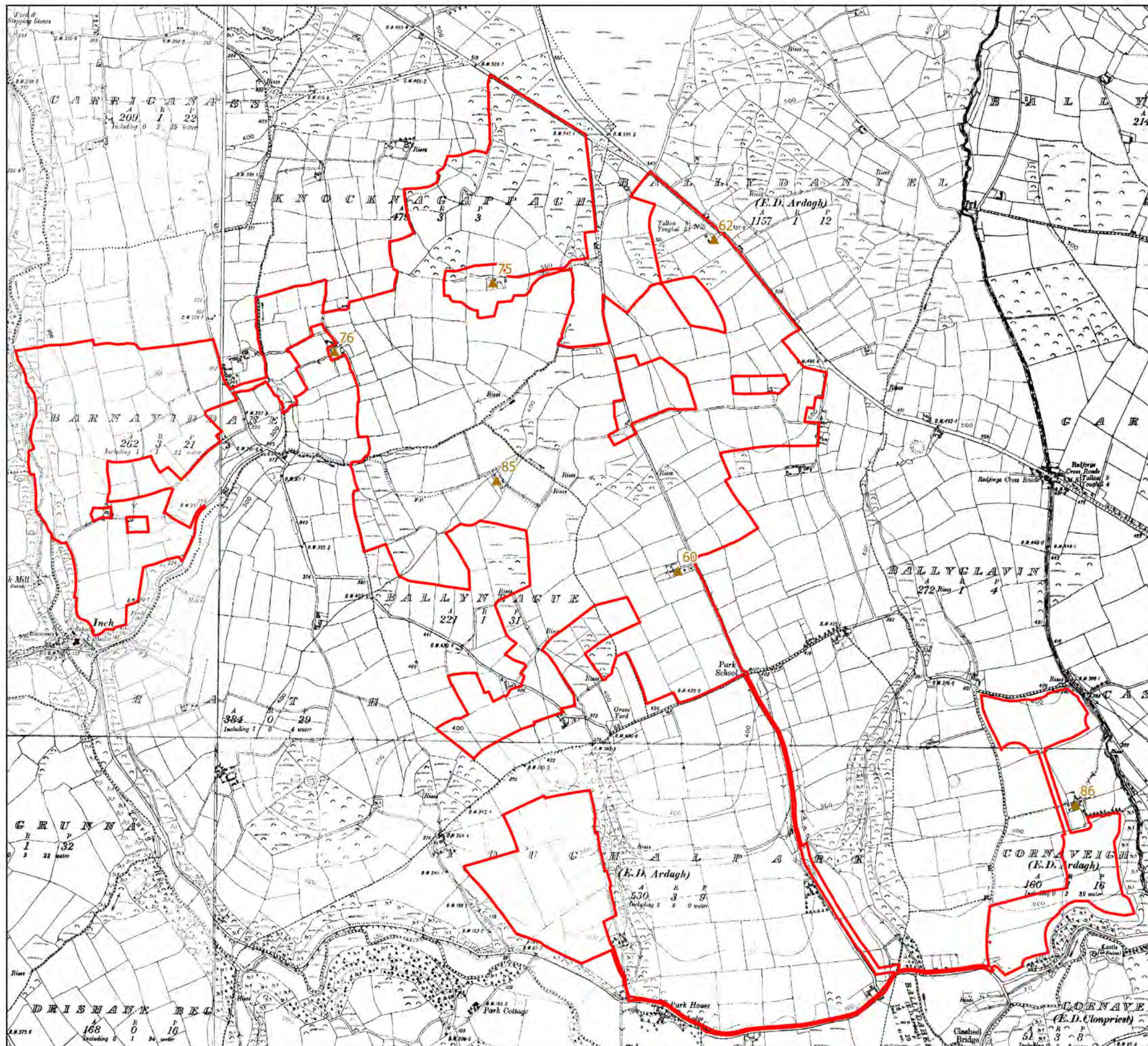


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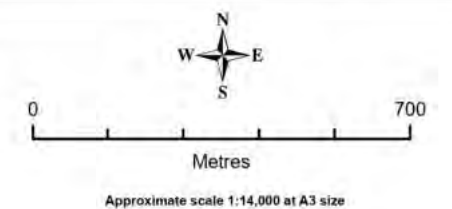
**Figure 5: 19th Century Structures on the
OSi 6 Inch Map 1897 within the
Site Boundary**

- Site Boundary
- ▲ Historic Structures



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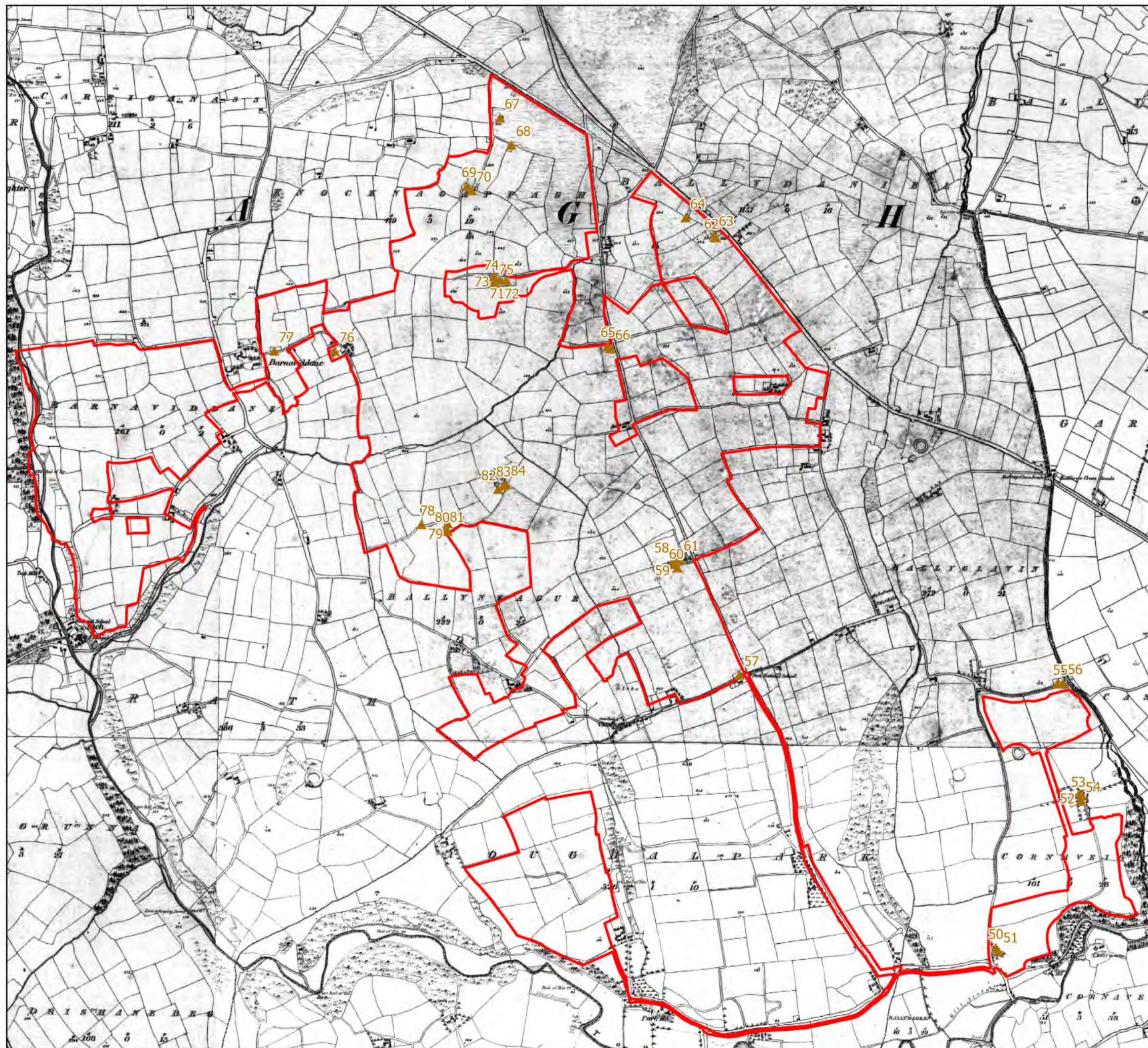


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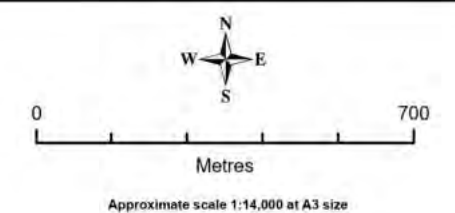
**Figure 4: 19th Century Structures on the
OSi 6 Inch Map 1842 within
the Site Boundary**

- Site Boundary
- ▲ 19th Century Structures



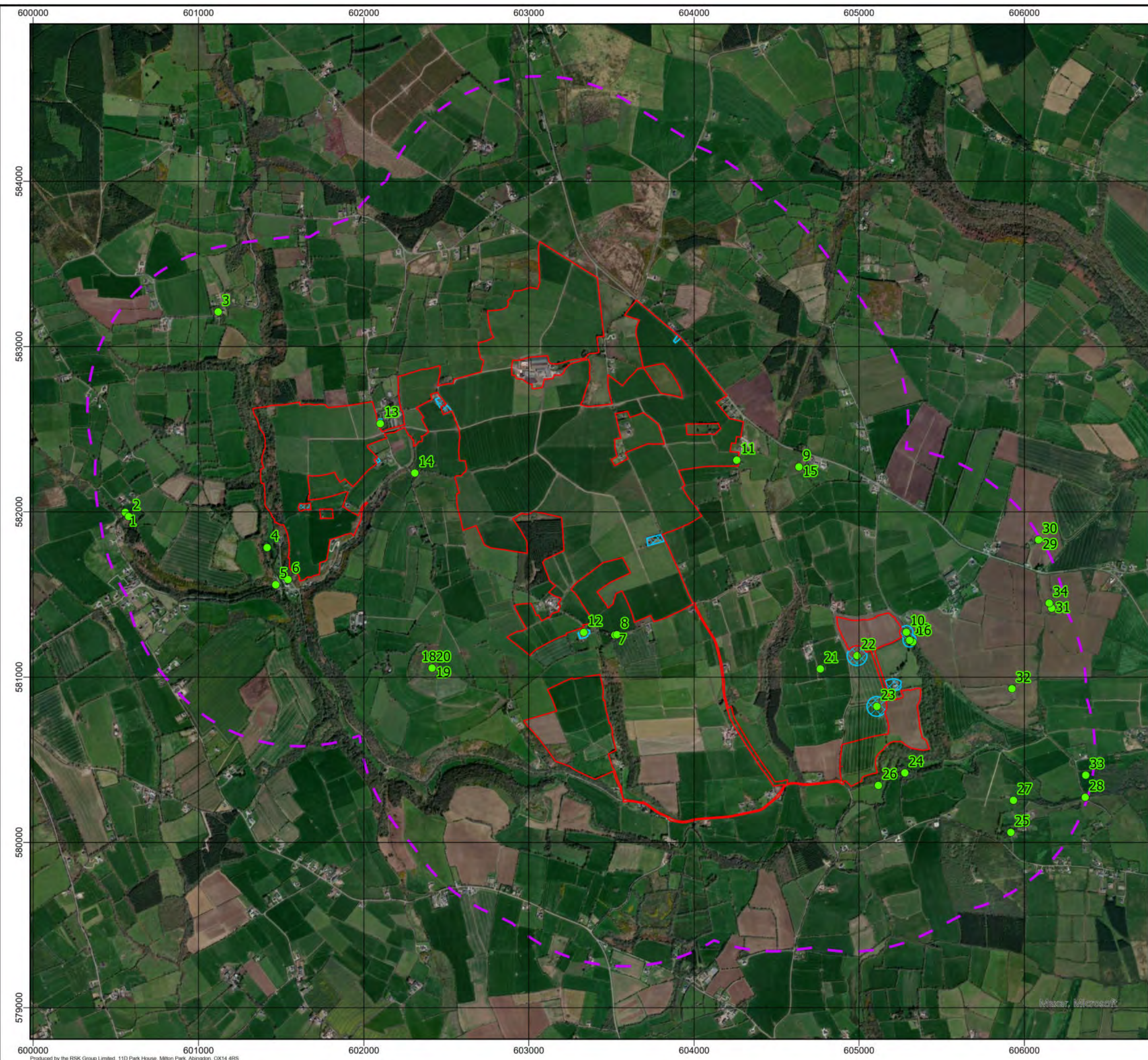
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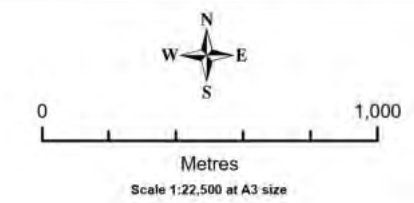
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Figure 3: Sites and Monuments Record Assets within the Study Area with proposed buffer zones

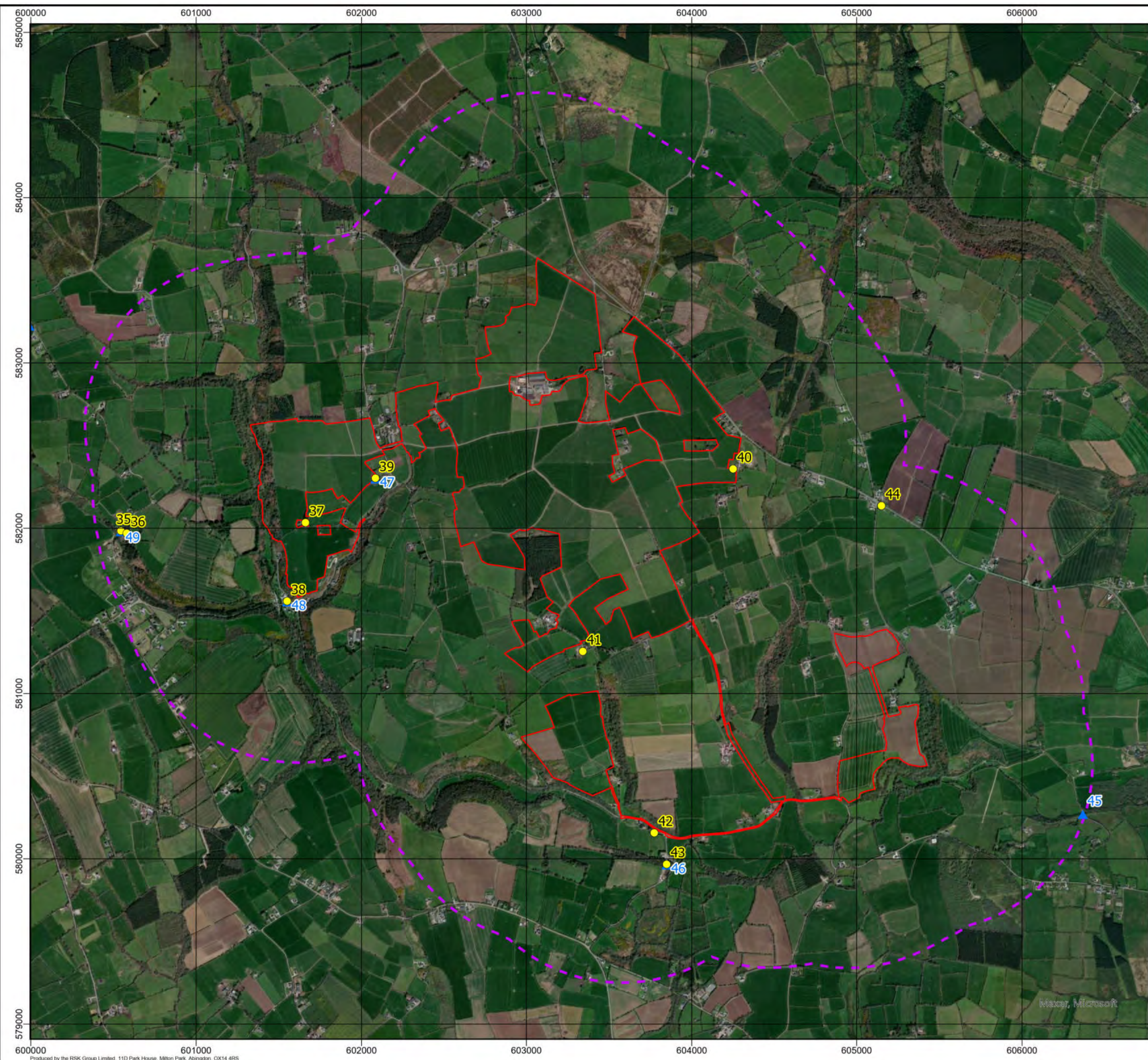
- Site Boundary
- - - Study Area
- SMR
- ▨ Buffer Zones

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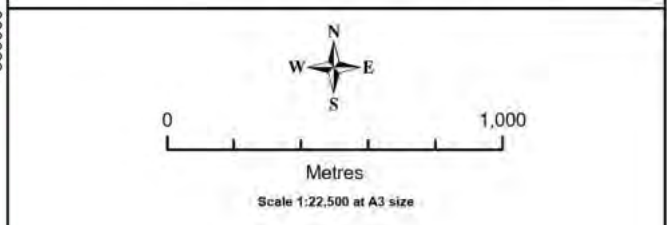
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**Figure 2: RPS and NIAH Structures
within the Study Area**

- Site Boundary
- - - Study Area
- National Inventory of Architectural Heritage
- ▲ Record of Protected Structures

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