An Roinn Cultúir,
Oidhreachta agus Gaeltachta
Department of Culture,
Heritage and the Gaeltacht

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Site Owner: Cork County Council

Address: County Hall,

Cork

Planning Authority: Cork County Council

Planning Reg. No.: Part 8

Excavation Type: Testing

[as per licence application]

Contractor/Developer: As Above

Address: As Above

Background to excavation:

Pre-development archaeological testing

Signed:		**Date:**	**22/01/2025**

Proposed Residential Development at Broomfield West Td., Midleton, Co. Cork

Archaeological Testing Report (Final) – Part 2

Author: Miriam Carroll, BA, MA, MIAI

Excavation Licence No. 24E1156 X

Planning Ref: Part 8

Client: Cork County Council

County Hall,

Cork

Date: 22/01/2025

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1. REPORT DETAILS

Excavation report	Final Report
Excavation Licence No.	**24E1156 X**
Licensee:	Miriam Carroll
Planning Ref:	Part 8
Townland:	Broomfield West
County:	Cork
ITM Coordinates (Centre point)	ITM E 587836 N 575024
Planning Status:	Pre-planning

2. INTRODUCTION

2.1 Scope of Work

Tobar Archaeological Services Ltd was engaged by Cork County Council to carry out an archaeological impact assessment including geophysical survey and pre-development archaeological testing of a proposed residential development at Broomfield West townland, Midleton, Co. Cork. The testing was carried out in November 2024 under excavation licence 24E1156 and involved the excavation of 11 test trenches within the proposed development site.

2.2 Development Description and Site Location

Cork County Council is proposing to apply for a Part 8 application for a residential development at Broomfield West, Midleton, Co. Cork. The site at Broomfield West is located on the northern outskirts of Midleton town and approximately 23km East of Cork City centre (Figure 2). The site is bound by a local road and Midleton Water Treatment Plant to the east, a new housing development to the northeast, agricultural land to the north and additional Council owned land zoned Residential to the west and south. The site slopes upwards from the southwest to the northeast boundary and commands extensive views over Midleton town. The total subject site measures 1.39ha. It is not located within the Zone of Notification (ZoN) for any recorded monuments.

Plate 1: Proposed development site prior to excavation of test trenches, looking SE.

2.3 Previous Work Carried Out on the Site

2.3.1 Geophysical Survey

A geophysical survey of the proposed development area was carried out by Ger Dowling under licence 24R0397. A summary of the results of the survey is as follows:

'The geophysical survey at Broomfield West did not reveal any anomalies of obvious archaeological potential. A number of 'pit-type' anomalies were mapped by the survey, though in the absence of supporting evidence, an archaeological interpretation for these is tentative. The principal anomalies identified by the survey reflect past agricultural activity. Alongside at two different episodes of former cultivation, the investigation also revealed the levelled remains of field boundaries recorded on early historical maps.'

Site name	Broomfield West		
ITM (centroid)	587850, 575025		
Area surveyed	c.0.8 ha		
Figure Numbers	6 & 7		
Anomaly Number	***Form/nature of anomaly***	***Possible sources(s) of anomaly***	***Interpretative discussion***
	Multiple 'pit-type' responses	Possible archaeology/ modern/ natural	Possible discrete pits/spreads, some may contain burnt/fired material in their fills. Interpretation as archaeology is speculative. Anomalies may equally reflect buried iron litter and/or be natural (i.e., soil response) in origin.
	Positive–negative–positive linears	Agricultural	Relict field boundaries. Marked on early historical maps.
	Positive trends	Possible archaeology/ agricultural/ natural	Possible ditches/drains.
	Multiple, closely spaced, parallel, positive–negative linears	Agricultural	Former cultivation, oriented N–S and E–W.
	Multiple 'ferrous-type' (dipolar) responses	Modern	Ferrous debris and other weakly magnetised material in (top)soils.
	Slender, closely-set, pair of curvilinear negative anomalies	Modern	Rutting from construction machinery.

Figure 1: Extract from the geophysical survey report (Dowling 2024) showing list of geophysical anomalies detected on the proposed development site.

2.3.2 Modern Groundworks

Recent ground disturbance took place within the north-east side of the proposed development site and along the eastern boundary adjacent to the public road. From a review of the available aerial maps and the results of the test trenching it would appear that topsoil was previously removed from the north-east portion of the proposed development site and this area was also infilled with modern material. A modern storm drain is also located in the north-east corner of the site and extends down further to the south outside of this proposed development site.

Figure 2: Site location map.

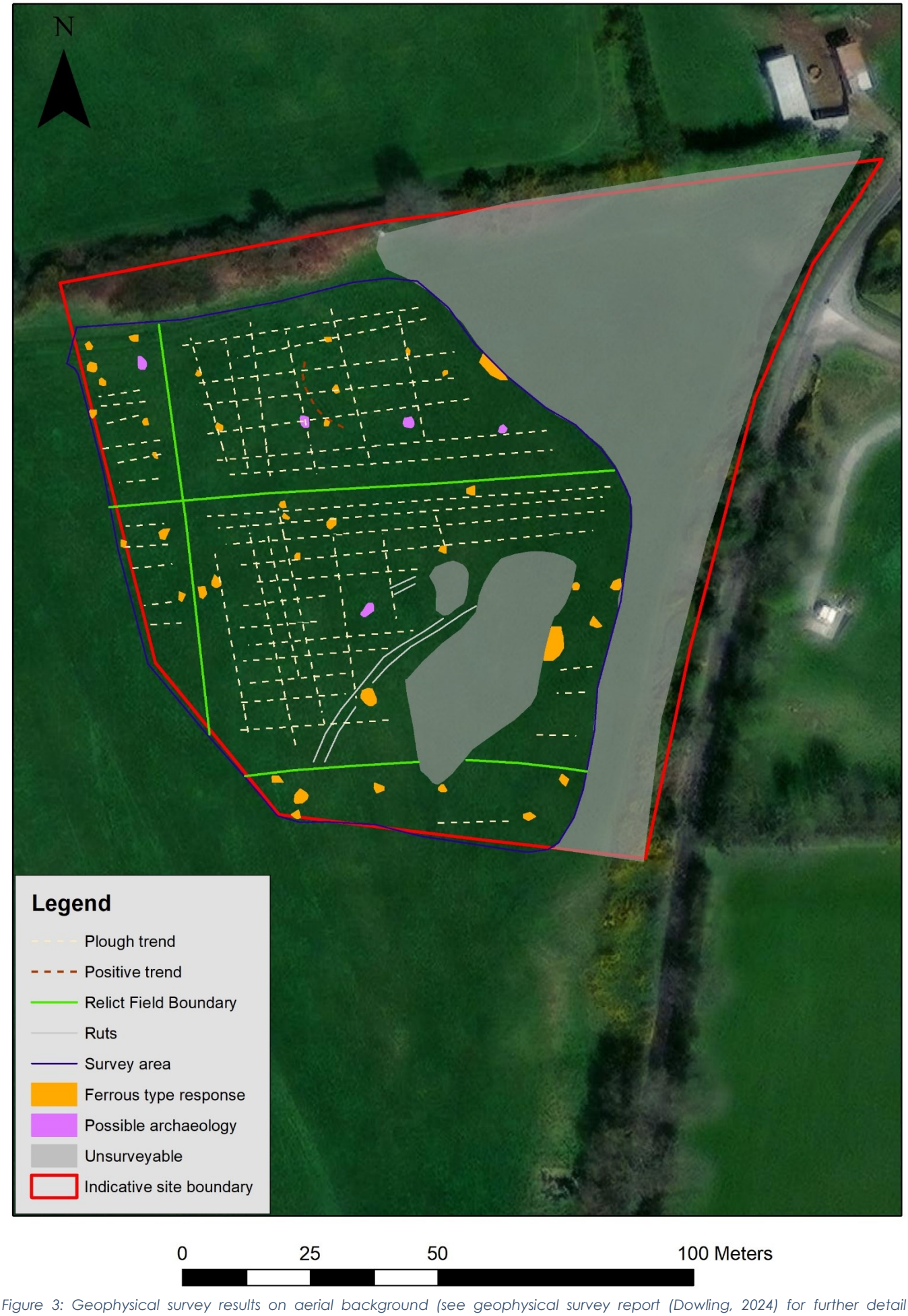

Figure 3: Geophysical survey results on aerial background (see geophysical survey report (Dowling, 2024) for further detail and interpretation).

2.4 Methodology

The testing methodology was agreed with the National Monuments Service (NMS) through the licensing system. A total of 11 trenches were excavated within the proposed development site in November 2024. They measured between c. 8m and 110m in length and were excavated using a tracked excavator equipped with a 1.8m wide grading (toothless) bucket. The trenches were set out using a a mm accurate GNSS Leica GPS and were excavated to the top of the underlying subsoil. A photographic and descriptive record was made of each trench.

3. STATUTORY CONTEXT

3.1 Current Legislation

Archaeological monuments are safeguarded through national and international policy, which is designed to secure the protection of the cultural heritage resource. This is undertaken in accordance with the provisions of the European Convention on the Protection of the Archaeological Heritage (Valletta Convention). This was ratified by Ireland in 1997.

Both the National Monuments Acts 1930 to 2004 and relevant provisions of the Cultural Institutions Act 1997 are the primary means of ensuring protection of archaeological monuments, the latter of which includes all man-made structures of whatever form or date. There are a number of provisions under the National Monuments Acts which ensure protection of the archaeological resource. These include the Register of Historic Monuments (1997 Act) which means that any interference to a monument is illegal under that Act. All registered monuments are included on the Record of Monuments and Places (RMP).

The Record of Monuments and Places (RMP) was established under Section 12 (1) of the National Monuments (Amendment) Act 1994 and consists of a list of known archaeological monuments and accompanying maps. The Record of Monuments and Places affords some protection to the monuments entered therein. Section 12 (3) of the 1994 Amendment Act states that any person proposing to carry out work at or in relation to a recorded monument must give notice in writing to the Minister (Environment, Heritage and Local Government) and shall not commence the work for a period of two months after having given the notice. All proposed works, therefore, within or around any archaeological monument are subject to statutory protection and legislation (National Monuments Acts 1930-2004).

Under the Heritage Act (1995) **architectural heritage** is defined to include '*all structures, buildings, traditional and designed, and groups of buildings including street-scapes and urban vistas, which are of historical, archaeological, artistic, engineering, scientific, social or technical interest, together with their setting, attendant grounds, fixtures, fittings and contents…*'. A heritage building is also defined to include '*any building, or part thereof, which is of significance because of its intrinsic architectural or artistic quality or its setting or because of its association with the commercial, cultural, economic, industrial, military, political, social or religious history of the place where it is situated or of the country or generally*'.

The Planning and Development Act 2000 (as amended), sets out the legal framework for the protection of buildings/structures which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. Such protection is afforded through the mechanism of the Record of Protected Structures (RPS). In relation to a protected structure or proposed protected structure, the term 'structure' includes the interior of the structure, the land lying within the curtilage of the structure, any other structures lying within that curtilage and their interior, and all fixtures and features which form part of the interior or exterior of that structure. The protection also extends to any features specified as being in the attendant grounds.

4. ARCHAEOLOGICAL PLANNING REQUIREMENTS

A request for an Archaeological Impact Assessment including pre-development testing was requested by Cork County Council Archaeologist as follows:

'An archaeological impact assessment including geophysical survey and testing has been requested by Cork County Council to comprise the following:

'1.*Cork County Council is required to engage the services of a suitably qualified archaeologist to carry out an archaeological impact assessment of the development site. This archaeological assessment should;*
-examine the known and predicted archaeological environment.
-carry out a geophysical survey.
-Carry out licensed archaeological testing across the development site to target any potential geophysical anomalies.
-Carry out Licensed archaeological testing at regular intervals covering between 10 and 12% of the site.
-evaluate the proposed development in terms of the impact (direct and indirect) of the proposed works on existing or predicted archaeology.
-propose a strategy to mitigate the adverse effects of the development on the archaeological heritage.
-Quote inclusive of all ancillary items to facilitate service including machinery hire.

2. The archaeologist should carry out any relevant documentary research and inspect the site.

3. A geophysical survey shall be carried out by a suitably qualified archaeological geophysicist across the site. The results of the Geophysical survey shall be submitted to the County Archaeologist to review. The testing strategy should be submitted to the County Archaeologist for written approval prior to submitting the excavation license application to the National Monuments Service. The archaeologist shall carry out the agreed program of archaeological testing (under license). If significant archaeology is identified by the geophysical survey or during the testing program the County Archaeologist shall be immediately contacted. The results of the testing shall be submitted to the County Archaeologist to agree mitigation measures. If significant archaeological remains are uncovered further mitigation measures required such as preservation in situ, archaeological monitoring, redesign, buffer zones may be required.

4.Having completed the work, the archaeologist shall submit an Archaeological Assessment report compiling the above information, with clearly labelled drawings (including scaled plans of any archaeological features identified (if any) overlaid with the proposed development with agreed buffer zones if applicable) and relevant photographs to the Planning Authority and to the National Monuments Service of the Department of Housing Local Government and Heritage for consideration.'

Proposed Residential Development at Broomfield West Td., Midleton, Co. Cork

Archaeology Testing Report Part 1 - Final

Author: Miriam Carroll, BA, MA, MIAI

Excavation Licence No. 24E1156

Date: 22/01/2025

5. ARCHAEOLOGICAL BACKGROUND

5.1 Recorded Monuments

The proposed development site does not contain any recorded monuments nor is it located within the ZoN for any monuments. The nearest recorded monument is located over 600m to the north and comprises a graveyard CO065-096---- (Figure 4).

It is described on the Historic Environment Viewer as follows:

CO065-096---- : Graveyard : BROOMFIELD WEST
Description: The Archaeological Survey of Ireland (ASI) is in the process of providing information on all monuments on The Historic Environment Viewer (HEV). Currently the information for this record has not been uploaded.

A description of the monument is not currently available, however, the graveyard is indicated on the second edition 25-inch OS map as a rectangular area which is named 'Union Burial Ground'.

Figure 4: Indicative development boundary in relation to nearest recorded monument CO065-096----.

5.2 Cartographic and Orthophotography Review

The available historical maps were consulted for any relevant information pertaining to the proposed development site at Broomfield West.

Taylor and Skinner's Road map (1777) names Midleton on the road from Dublin to Midleton and Cloyne and to Castlemartyr but provides little detail of the town (Figure 5).

Figure 5: Extract from Taylor and Skinners Road Map 126 - Road from Dublin to Midleton and Cloyne and to Castle Martyr (1777) showing Midleton.

The first edition (1829-41) 6-inch OS map depicts the proposed development site as a sub-rectangular field divided in two by an E/W orientated boundary. A north-south orientated track and associated boundaries extends close to the west side of the field (Figure 6). By the time of the second edition (1897-1913) 25-inch OS map the track at the west was not depicted and the field boundary dividing the field in two was no longer indicated. A field boundary is shown at the south end of the site (Figure 7) and was detected in both the geophysical survey and the test trenches.

The available orthophotography for the area including Google Earth and MapGenie imagery was consulted for any potential crop marks or other items of interest which might be shown within the proposed development site. No obvious crop marks or differential vegetation growth are apparent in the proposed development area. The aerial photography does illustrate, however, ground disturbance which took place at the east and north-east side of the site in the recent past (Figure 8). The ground disturbance was also visible in the trenches excavated at the north-east side of the site.

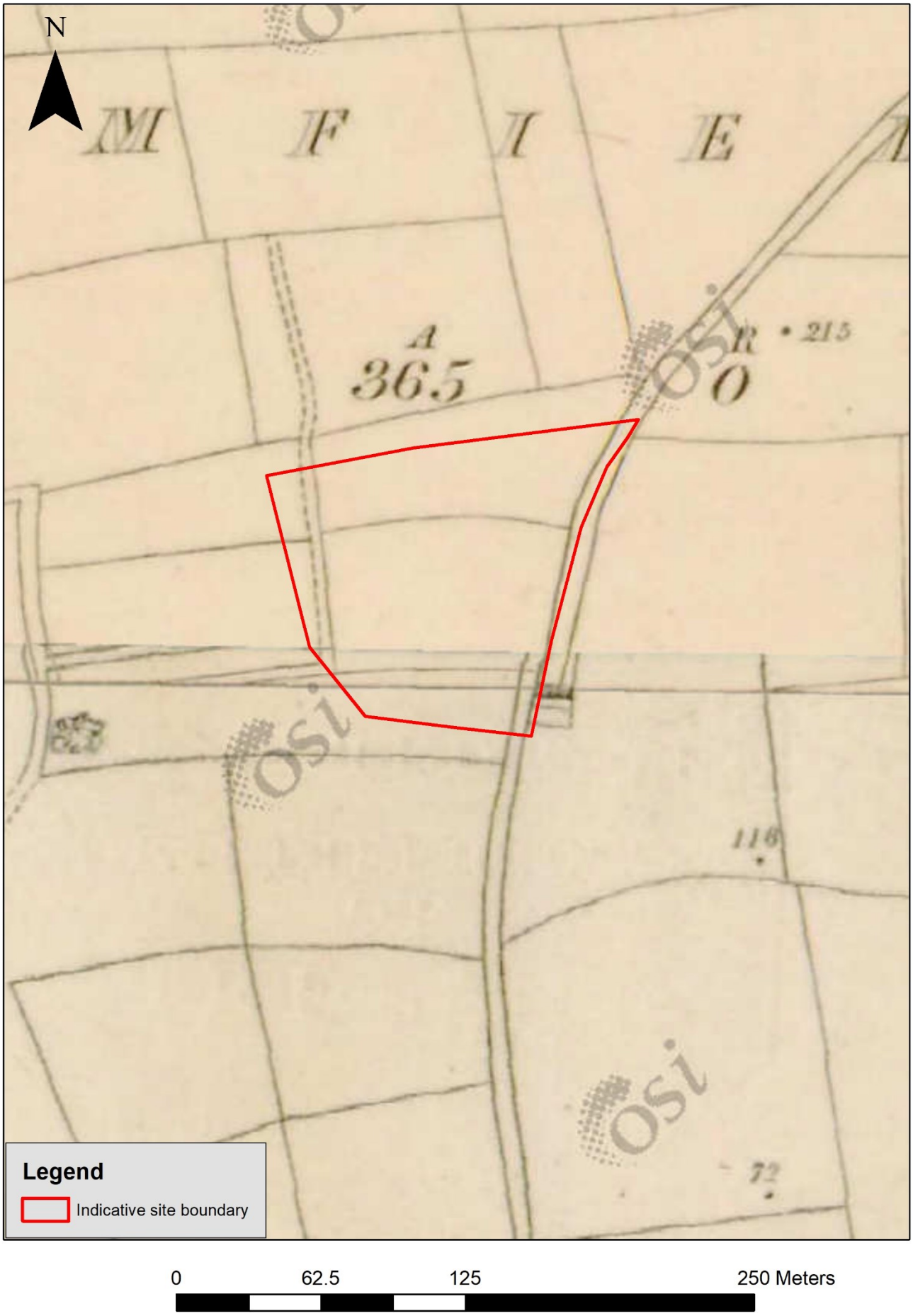

Figure 6: Proposed development site as depicted on the first edition (1829-41) OS map. Note overlay discrepancy.

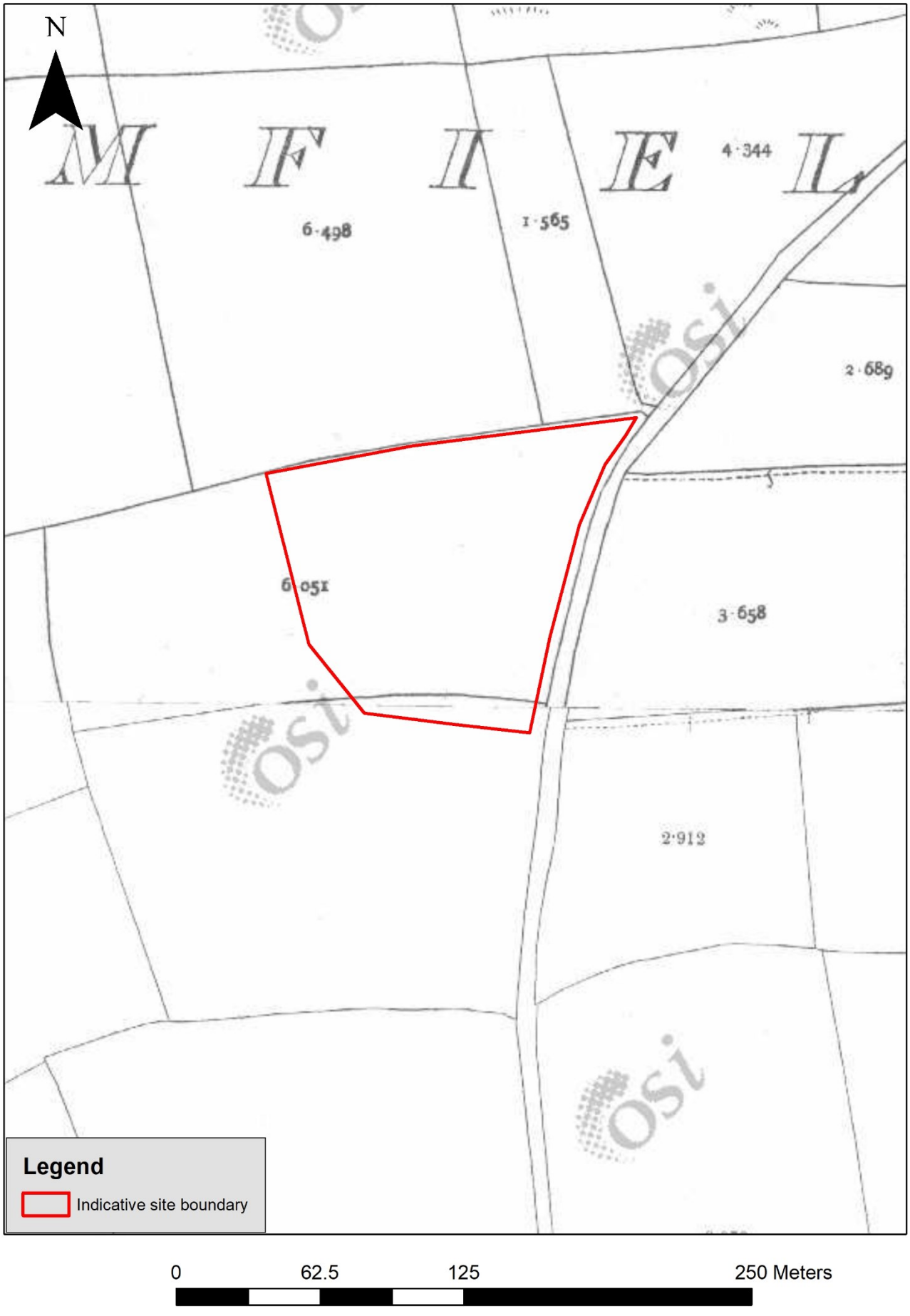

Figure 7: Proposed development site as depicted on the second edition (1897-1913) 25-inch OS map.

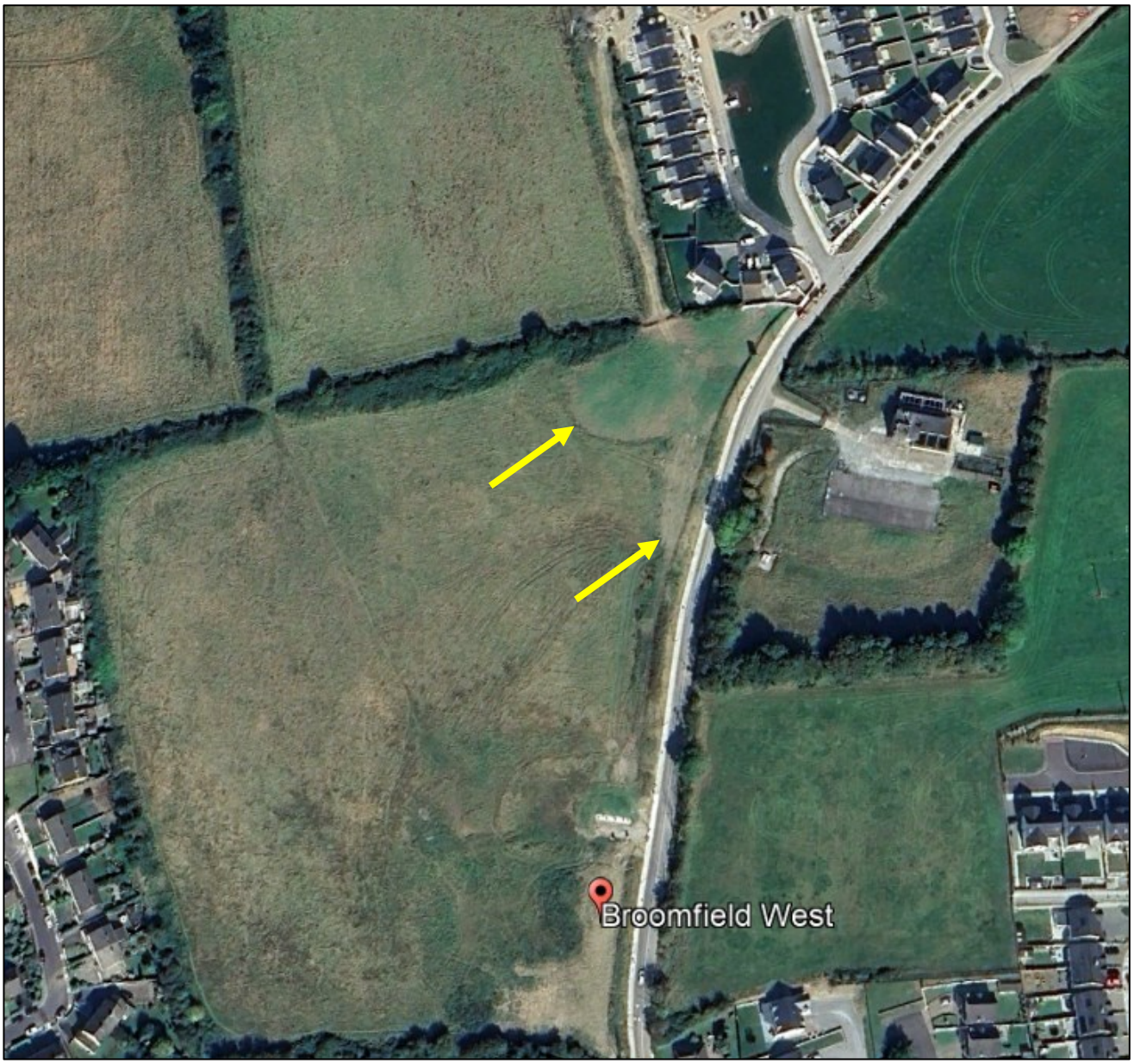

Figure 8: Extract from Google Earth 2024 imagery showing ground disturbance at north-east and east side of the proposed development site. .

6. RESULTS OF ARCHAEOLOGICAL TESTING

A total of 11 trenches were excavated across the proposed development site. The trenching was carried out in mixed weather conditions in November 2024. All trenches were set out using a mm accurate Leica GPS CS20 Field Controller and GS16 antenna. The stratigraphy was generally consistent throughout much of the site comprising c. 0.35m-0.4m of sod and topsoil over stoney orange-brown subsoil and plough furrows. Some of the plough furrows exhibited burning and traces of oxidization which is likely to be the result of agricultural practices such as the burning of crop stubs or vegetation cover such as gorse or furze. A relict field boundary indicated on the second edition 25-inch historic OS map was exposed towards the south end of the proposed development area in trenches 4, 7 and 8. A portion of a relict field boundary indicated on the first edition 6-inch OS map was also partially exposed in trench 1, however, the E/W orientated boundary also shown on the first edition map (located north of centre of the site) was not readily apparent in the trenches. No potential archaeological finds or features were uncovered in any of the excavated trenches.

The test trenches are described below and listed in Table 1.

Table 1: Test trench details

Test trench No.	Length	Width	Archaeology Present
1	65m N/S	1.8m	No, relict field boundary
2	8.5m E/W	1.8m	No
3	81m N/S	1.8m	No
4	102m N/S	1.8m	No, relict field boundary
5	8.7m E/W	1.8m	No
6	4m E/W	1.8m	No
7	105m N/S	1.8m	No, relict field boundary
8	113m N/S	1.8m	No, relict field boundary
9	106m N/S	1.8m	No, linear/plough feature
10	66m N/S	1.8m	No
11	21m N/S	1.8m	No

Figure 9: Trench layout in relation to results of geophysical survey.

Figure 10: Trench layout and proposed development layout.

6.1 Trench 1

Trench 1 was excavated at the west of the site. The stratigraphy comprised 0.3m-0.35m of sod and loose topsoil over a loose stoney orange subsoil. A relict field boundary indicated on the first edition 6-inch OS map extends along the length of much of the trench. Boulders were apparent in the subsoil in places which coupled with loose stone made the trench base uneven. No archaeological finds or features were uncovered.

Plate 2: Trench 1, looking N.

Plate 3: Relict field boundary towards north end of Trench 1, looking N.

6.2 Trench 2

Trench 2 was a short trench excavated perpendicular to trench 1 over a geophysical anomaly interpreted in the geophysical survey report as possible archaeology (unnumbered). The stratigraphy comprised 0.35m of sod and loose topsoil over a varied orange-brown stoney subsoil. No potential feature was uncovered in the trench in the area of the geophysical anomaly.

Plate 4: Trench 2, looking E.

6.3 Trench 3

Trench 3 was excavated to the east of trench 1. The stratigraphy noted was similar to the previous trenches and consisted of c. 0.35m-0.4m of sod and topsoil over a stoney orange brown subsoil. Plough furrows cross the trench at regular intervals and bedrock or large boulders were present towards the south end of the trench. No archaeological finds or features were uncovered.

Plate 5: Trench 3, looking N.

Plate 6: Bedrock or boulders in the subsoil in Trench 2, looking N.

6.4 Trench 4

Trench 4 was a long trench excavated to the east of Trench 3. The stratigraphy here was similar to the previous trenches however the subsoil was slightly less stoney. Regular plough activity was apparent crossing the trench and a relict field boundary indicated on the second edition 25-inch OS map was exposed at the south end of the trench. It measured c. 4.9m in width N/S.

Plate 7: South end of Trench 4 with relict field boundary in middle ground.

Plate 8: Trench 4, looking S.

6.5 Trench 5

Trench 5 comprised a short trench excavated perpendicular to trench 4 towards the north end of same. The trench was located over an unnumbered geophysical anomaly interpreted as possible archaeology. The stratigraphy comprised 0.35m of sod and topsoil over a stoney orange brown subsoil with patches of smaller stones as well as larger boulders. Burnt root activity was present in the area of the geophysical anomaly. Charcoal was observed going under the subsoil and therefore is most likely the result of root activity/burning. Plough activity was also evident. No archaeological finds ore features were uncovered.

Plate 9: Trench 5, looking E.

6.6 Trench 6

Trench 6 was a short trench excavated perpendicular to trench 4 over another unnumbered geophysical anomaly interpreted as possible archaeology. The same stratigraphy as the previous trenches was apparent here over a very stoney subsoil with loose stone and boulders exposed. Burnt root activity was also apparent and is likely to correspond to the geophysical anomaly. No archaeological finds or features were uncovered.

Plate 10: Trench 6, looking E.

6.7 Trench 7

Trench 7 comprised a long trench located to the east of trench 4. An area of oxidized natural and burnt root activity was noted in the area of another geophysical anomaly towards the north end of the trench. Again the charcoal was observed going under the subsoil which is indicative of root activity. The stratigraphy in the trench comprised c. 0.35m of sod and topsoil over an orange brown subsoil, which became stoney towards the south. Plough furrows also crossed the trench at regular intervals. The E/W orientated relict field boundary exposed in Trench 4 was also exposed at the south end of this trench. It measured c. 4.2m in width N/S.

Plate 11: Relict field boundary at south end of Trench 7, looking NW.

Plate 12: North end of Trench 7, looking N.

6.8 Trench 8

Trench 8 was a long trench located to the east of trench 7. The same stratigraphy was noted here as the previous trenches. The ground at the north end of the trench was disturbed as a result of recent ground works carried out in this area, however the subsoil appeared to be intact and did not appear to have been reduced. The relict field boundary was again exposed at the south end of the trench and measured c. 4.1m in width N/S. A plough furrow with burning was located immediately to the north of the field boundary. It was manually investigated which showed it to be shallow measuring only c 0.07m deep. It was filled with a loose brown topsoil like material under which was a lens of charcoal and some oxidisation at the base. No archaeological finds or features were uncovered.

Plate 13: Trench 8, looking N. Relict field boundary in middle ground.

Plate 14: Plough furrow with charcoal and burning after investigation, looking N.

6.9 Trench 9

Trench 9 comprised a long trench located to the east of trench 8. Modern disturbance was apparent at the north end of the trench and appeared to be a large area infilled with 804 and stone. Further to the south the stratigraphy comprised 0.35m-0.4m of sod and topsoil over a stoney orange subsoil. A narrow stoney linear feature was exposed at the south end of the trench. A section was manually excavated across it showing it to be filled with a loose, mid-brown stoney material only 0.05m in thickness. The cut was very shallow and broad (c. 0.85m in width N/S) and therefore is likely to represent the remains of a plough furrow or similar feature of agricultural origin. The field boundary exposed in Trenches 4, 7 and 8 was not exposed in this trench. No archaeological finds or features were uncovered.

Plate 15: Trench 9, looking N. Stoney linear feature in foreground.

Plate 16: Stoney linear feature in Trench 9 after manual investigation, looking SSE.

Plate 17: Modern disturbance at north end of Trench 9, looking SW.

6.10Trench 10

Trench 10 was excavated to the east of trench 9. Modern disturbance was apparent throughout the entire length of the trench to varying depths. At the north end of the trench there was a significant depth of infilled material overlying buried topsoil. Here the trench depth was c. 1.2-1.5m at its deepest and the stratigraphy comprised c. 0.8m of light coloured earth and stone infill over c. 0.4m of buried dark brown soil which in turn overlay the original buried topsoil. Orange subsoil was exposed at the base of trench which could not be entered due to depth and instability of the trench sides. Less infill was present as the trench progressed to the south but then increased again at the south end of the trench where modern infill c 0.85m in thickness overlay a disturbed topsoil. The topsoil then petered out and the infill directly overlay the orange subsoil with no in situ topsoil present. No archaeological finds or features were uncovered.

Plate 18: Significant depth of infilled material at the north end of Trench 10, looking SE.

Plate 19: Trench 10, looking N.

6.11Trench 11

Trench 11 was excavated to the east of Trench 10 at the north-east side of the proposed development site. Modern disturbance was again apparent here throughout the trench length. The stratigraphy at the north end of the trench comprised 0.75m of compacted modern stone infill with a thin sod layer on top. This overlay a thin, probably compressed, layer of in situ topsoil which overlay the orange subsoil. A trench for a modern storm drain crossed the trench in a NW/SE direction and an associated manhole is located to the west of the trench. To the south of the storm drain the in situ topsoil petered out and the modern infill (thickness 0.8m-0.9m) directly overlay the subsoil. No archaeological finds or features were uncovered.

Plate 20: North end of Trench 11 showing infilled material, looking SE.

Plate 21: Trench 11 looking S with trench for modern storm drain being uncovered by the machine.

Plate 22: Trench 11, looking N.

7. POTENTIAL IMPACTS

7.1 Direct Impacts to Potential Sub-surface Archaeology

A total of 11 test trenches were excavated across the proposed development site at Broomfield West, Midleton, Co. Cork. Pre-development archaeological testing of the proposed development site was carried out on foot of a request for an archaeological impact assessment including geophysical survey from the Heritage Unit of Cork County Council (See Section 4 above). The aim of the testing was to determine if archaeological features were present within the proposed development site and to establish the nature of the anomalies noted in the geophysical survey.

No potential archaeological features or deposits were uncovered in the trenches excavated. As per the results of the geophysical survey a significant amount of agricultural activity in the form of shallow plough furrows, some with burning, were noted in the test trenches. Manual investigation of a sample of these features showed them to be shallow and displaying form and dimensions typical of agricultural features of this type. In addition to the plough furrows two of the relict field boundaries identified in the geophysical survey (at the west and south sides of the site) were also uncovered in the test trenches. Both boundaries correspond to field divisions indicated on the historic mapping with that at the west indicated on the first edition OS map and that at the south shown on the second edition OS map. The relict field boundaries are likely to date to the 19th or early 20th century. No archaeological finds or features were uncovered and nothing corresponding to the geophysical anomalies interpreted as possible archaeology was noted in the test trenches.

As no positively identified archaeological features or deposits were uncovered in the trenches excavated across the proposed development site no potential direct impacts to such features are identified.

Modern disturbance was also evident within the proposed development area, in particular at the east and north-east where a significant depth of infilled material is present and a modern storm drain extends through the site.

The trenches excavated represent approximately 10% of the entire proposed development area, the north-east and east side of same having been previously disturbed. As no archaeological features were uncovered within any of the excavated trenches no further mitigation is considered necessary[1]

8. CONCLUSION

Tobar Archaeological Services Ltd was engaged by the applicant to carry out an archaeological impact assessment of a proposed residential development at Broomfield West townland, Midleton, Co. Cork. The assessment was carried out on foot of request for same which included geophysical survey and a subsequent programme of archaeological testing. A total of 11 test trenches were excavated within the proposed development site and targeted any relevant geophysical anomalies identified as well as generally testing the remainder of the proposed development area. Evidence of intensive agricultural activity in the form of plough furrows was noted in the majority of trenches throughout the site, some of which displayed evidence of burning. As per the results of the geophysical survey two relict field boundaries indicated on the historic mapping were apparent. No potential archaeological finds, features or deposits were uncovered within the confines of the trenches excavated and no further archaeological mitigation is proposed.

[1] *All recommendations are subject to the approval of the Planning Authority and the National Monuments Service (NMS).*

9. BIBLIOGRAPHY

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