Environmental Impact Assessment Report



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# Appendix 25.3 Archaeological Assessment at Bremore, County Dublin









## IAC Archaeology

ARCHAEOLOGICAL ASSESSMENT AT BREMORE, COUNTY DUBLIN

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## ABSTRACT

IAC Archaeology have carried out a programme of archaeological testing at Bremore, Co. Dublin, in order to inform the design of future development in the area. This assessment has been carried out to ascertain the nature, extent and significance of the potential archaeological resource within the proposed development area. It was undertaken by Jane Whitaker of IAC Archaeology (IAC) under licence 23E0149, as issued by the National Monuments Service of the Department of Housing, Local Government and Heritage (DoHLGH). Testing followed two programmes of geophysical survey carried out in 2020 and 2022 (Nicholls and Russell 2020, Licence No. 20R0032; Dowling 2022, Licence No. 22R0244).

There are no recorded archaeological features located within the proposed development area but due to the high archaeological potential of the landscape, based on its coastal location, geophysical survey has been carried out in order to identify archaeological constraints. Multiple potential archaeological features were identified across the five fields that form the development area and the placement of the test trenches was designed to assess the potential archaeological resource in a manner that was as least invasive as possible.

Test trenching confirmed that the majority of the potential archaeological anomalies recorded during the geophysical surveys were archaeological in nature (designated as AA1-11). Four trenches (T10, T11, T15 and T20) were devoid of archaeological material with the potential archaeological features confirmed to be agricultural field drains.

- AA1 Enclosure permanent, direct, profound negative
- AA2 Burnt mound activity permanent, direct, very significant negative
- AA3 Field system permanent, direct, significant negative
- AA4 Burnt mound activity permanent, direct, significant negative
- AA5 Enclosure permanent, direct, profound negative
- AA6 Burnt mound activity permanent, direct, significant negative
- AA7 Burnt mound activity permanent, direct, very significant negative
- AA8 Burnt mound activity permanent, direct, profound negative
- AA9 Burnt mound activity permanent, direct, significant negative
- AA10 Burnt mound activity permanent, direct, very significant negative
- AA11 Kiln permanent, direct, significant negative

Design for the proposed development is ongoing and an updated archaeological assessment, based on the results of geophysical survey and archaeological testing, will be submitted with the planning application, should development go ahead.

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## 1 INTRODUCTION

#### 1.1 GENERAL

The following report details the results of a programme of archaeological testing undertaken at Bremore, Co. Dublin, which has been carried out in order to inform the design of a future proposed development (Figure 1). This assessment has been carried out to ascertain the nature, extent and significance of the potential archaeological resource within the proposed development area. The assessment was undertaken by Jane Whitaker of IAC Archaeology (IAC), under licence 23E0149, as issued by the National Monuments Service of the Department of Housing, Local Government and Heritage (DoHLGH). The testing was carried out following two programmes of geophysical survey, undertaken in 2022 (Dowling 2022, Licence no. 22R0244) and 2022 (Nicholls and Russell 2020, Licence no. 20R0032).

Test trenching commenced at the site on 7th March 2023 and continued for three days. This was carried out using a 13 tonne 360 degree tracked excavator, with a flat, toothless bucket, under strict archaeological supervision. A total of 19 trenches were mechanically investigated across the test area which measured 505 linear metres in total. The test trenches were laid out in order to target geophysical anomalies noted during the 2020 and 2022 surveys, and ascertain the nature, extent and significance of the potential archaeological remains.

## 2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

#### 2.1 BACKGROUND

The proposed development area comprises five fields, currently under arable production, located in the townland of Bremore, Co. Dublin, north of the town of Balbriggan (Figure 1). There are no recorded monuments located within the footprint of the site, although four sites are recorded within 250m. These comprise an enclosure (DU002-018), c. 150m to the northwest; a quay (DU002-015), c. 110m to the north and a field system (DU002-014) and slate sundial (DU002-022) recorded during pre-development excavations, c. 190m to the southwest. Within the wider area, there are a group of megalithic tombs located c. 410m to the north of the overall development area (DU002-001001-5) and these sites are subject to Preservation Orders (as issued under the National Monuments Act, Ref. 27/1976).

#### 2.2.1 Prehistoric Period

#### Mesolithic Period (c. 7000–4000BC)

Recent discoveries may suggest the possibility of a human presence in the southwest of Ireland as early as the Upper Palaeolithic (Dowd and Carden 2016); however, the Mesolithic period is the earliest time for which there is clear evidence for prehistoric human colonisation of the island of Ireland. During this period people hunted, foraged and gathered food and appear to have led a primarily mobile lifestyle. The presence of Mesolithic communities is most commonly evidenced by scatters of worked flint material, a by-product of 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 and a number of shell middens and flint scatters are located along the coast from Sutton and Malahide to Balbriggan, notably at Barnageeragh. 5.5km to the southeast of the proposed development area (Baker 2010).

#### Neolithic Period (c. 4000–2500BC)

During this period communities became less mobile and their economy became based on the rearing of stock and cereal cultivation. The transition to the Neolithic was marked by major social change. Communities had expanded and moved further inland to more permanent settlements. This afforded the development of agriculture which demanded an altering of the physical landscape. Forests were rapidly cleared and field boundaries were constructed. Pottery was also being produced, possibly for the first time. The advent of the Neolithic period also provided the megalithic tomb. There are four types of tomb in Ireland, namely the Court Cairn, Portal, Passage and Wedge; of which the latter style straddles the Neolithic to Bronze Age transition. A passage tomb cemetery is located at Bremore (DU002-001001-5), c. 410m north of the proposed development area.

#### Bronze Age Period (c. 2500–800BC)

This period is marked by the use of metal for the first time. As with the transition from Mesolithic to Neolithic, the transition into the early Bronze Age was accompanied by changes in society. Megaliths were replaced in favour of individual, subterranean cist

or pit burials that were either in isolation or in small cemeteries. These burials contained inhumed or cremated remains and were often, but not always, accompanied by a pottery vessel. Burials were often made within cemeteries which were either unenclosed or else marked in the landscape with the construction of an earthen barrow. Barrows of this period often vary in form and can include the ring ditch, the embanked ring ditch, the ring barrow, the bowl barrow and the bowl barrow lacking an external bank. In general, ring ditches date to the Bronze Age, with the earlier examples being simpler in form and later examples incorporating entrances and a wider range of burials practices. Ring ditches appear to have continued to be built and earlier monuments re-used, during the Iron Age and early medieval period. Ring ditches are recorded in proximity to the proposed development in the townlands of Knocknagin (DU001-019) and Flemingtown (DU001-032), c. 900m and 1.4km to the northwest and southwest respectively.

Over 7,000 burnt mounds or *fulacht fia* sites have been recorded in the country and c. 1,500 examples excavated, making them the most common prehistoric monument in Ireland (Waddell 2022, 164). Although burnt mounds of shattered stone occur as a result of various activities that have been practiced from the Mesolithic to the present day, the Bronze Age has long been believed to have seen the peak of this activity. Dating evidence from a growing number of burnt mounds, suggests activities resulting in burnt mounds were being carried over a span of 3,500 years in Ireland (Hawkes 2018). They are typically located in areas where there is a readily available water source, often in proximity to a river or stream or in places with a high-water table. In the field burnt mounds may be identified as charcoal-rich mounds or spreads of heat shattered stones; however, in many cases, the sites have been disturbed by later agricultural activity and are no longer visible on the field surface. Nevertheless, even disturbed spreads of burnt mound material often preserve the underlying associated features, such as troughs, pits and gullies, intact.

One ring ditch has been identified within the proposed development area during the course of testing (AA9), along with numerous areas of burnt mound/ *fulachta fia* activity.

#### Iron Age Period (c. 800BC – AD400)

There is increasing evidence for Iron Age settlement and activity in recent years as a result of development-led excavations as well as projects such as Late Iron Age and Roman Ireland (Cahill Wilson 2014). Yet this period is distinguishable from the rather rich remains of the preceding Bronze Age and subsequent early medieval period, by a relative paucity within the current archaeological record. The Iron Age in Ireland is problematic for archaeologists as few artefacts dating exclusively to this period have been found and without extensive excavation it cannot be determined whether several monument types, such as ring-barrows or standing stones, date to the late Bronze Age or Iron Age. It is likely that there was significant continuity in the Iron Age, with earlier monuments re-used in many cases.

#### 2.2.3 Early Medieval Period (AD400–1100)

The early medieval period is depicted in the surviving sources as an almost entirely rural based society. Territorial divisions were based on the *túath*, or petty kingdom, with Byrne (1973) estimating that there may have been at least 150 kings in Ireland at any given time. This period, with a new religious culture and evolving technologies, saw significant woodland clearance and the expansion of grassland. A new type of plough and the horizontal mill were two innovations that improved agriculture and allowed for the population to increase. Consequently, from c. AD 500 onwards, the landscape became well settled, as evidenced by the profuse distribution of ringforts, a dispersed distribution of enclosed settlements, normally associated with various grades of well-to-do farming and aristocratic classes in early medieval Ireland (Stout and Stout 1997, 20).

The ringfort or rath is considered to be the most common indicator of settlement during the early medieval period (Stout 1997). One of the most recent studies of early medieval settlement enclosures has suggested that there is potential for at least 60,000 such sites to have existed on the island (O'Sullivan et al. 2014, 49). Ringforts were often constructed to protect rural farmsteads and are usually defined as a broadly circular enclosure delineated by a bank and ditch. Ringforts can be divided into three broad categories – univallate sites, with one bank or ditch; multivallate sites with as many as four levels of enclosing features and platform or raised ringforts, where the interior of the ringfort has been built up. These enclosed sites were intimately connected to the division of land and the status of the occupant.

The recorded enclosure (DU002-018), located c. 150m to the northwest of the proposed development area, may represent the ploughed out remains of an early medieval ringfort.

#### 2.2.3 Medieval Period (AD1100-1600)

During the 11th and 12th Centuries, prior to the Anglo-Norman Invasion, Fingal lay between the competing political and territorial zones of the kingdom of *Midhe* and the Hiberno-Norse kingdom of Dublin. The piecemeal conquest by the Anglo-Normans of Ireland, which commenced in 1169, had a fundamental impact on the Irish landscape. By 1185 the Anglo-Normans held the cities of Dublin, Waterford, and Cork along with their immediate hinterlands. The initial military successes of the Anglo-Normans are attributed to their fighting skill especially on horseback, their organisation, and their ability to build strongholds quickly in strategic positions. They also preferred established sites with existing infrastructure. Characteristic of Anglo-Norman initial settlement is the motte structure, an artificial raised earth platform that commonly held a timber tower or bretagh. Some motte structures had attached enclosures called baileys. These castles were built hastily to establish territorial claims and were later replaced by stone castles.

At Bremore, the earliest references to a possible castle or manor are found in the Gormanston Register, which names *Wylliam Rosselle as Lord of Dunbegh in County Derby and Bremore in Ireland* (O'Carroll 2009). The Gormanston Register is a collection of manuscripts dating from 1175 to 1397, which were collected by the

Viscounts Gormanston and are now held by the National Library. The Dunbegh title presumably refers to the knight's fee in County Derby that was held by Patrick de Rosel at the turn of the 13th century. William is also mentioned in association with Bremore in the Calendar of Documents Relating to Ireland in 1299-1300 (*ibid*.).

The Annals of Inisfallen refer to the church at Bremore (DU002-002002) in 1164, following which it fell under the control of the Augustinian priory of Tristernagh in Westmeath. The present structure would appear to have been a manorial chapel attached to the adjacent castle (DU002-002001).

#### 2.2.4 Post-medieval Period (AD1600-1900)

The Barnewalls of Bremore rose to prominence in the 16th and 17th centuries as officeholders, and controlled extensive lands in north County Dublin, eventually inheriting the Drimnagh holding. The family were closely linked with the Catholic cause during the confederate wars and suffered accordingly. The Civil Survey of 1654 gives us a contemporary description: 'There is upon Breemore one Burnt Castle with a great Barne & eight tenements one orchard & parke with some small young Ashtrees & on Newhaven ten small cottages both valued by the Jury at one hundred & ten poundes (they being both as one)'. Newhaven appears to have been a small fishing-village to the north of the townland of Bremore. The line of the Barnewalls of Bremore became extinct at the end of the 17th century; the castle of Bremore and its surrounding lands passed into the possession of the first earl of Shelburn, and no longer functioned as a manorial seat. It was also around this time that large residential houses became a popular alternative to the ruling classes.

#### 2.2 SUMMARY OF PREVIOUS ARCHAEOLOGICAL FIELDWORK

A review of the Excavations Bulletin (1970–2023) has revealed that no previous archaeological fieldwork has been carried out within the proposed development area, except for geophysical surveys in 2020 (for Fingal County Council) (Licence No. 20R0032) and 2022 (Licence No. 22R0244). The results of both surveys are summarised below:

Fields 2 and 3 of the proposed development area are in the ownership of Fingal County Council and were surveyed during a wider geophysical survey that was carried out in 2020. These fields were referred to as M1 and M4 respectively in the report (Nicholls and Russell 2020, Licence No. 20R0032). A single potential archaeological response was identified in Field 2 M1 (1), which was interpreted as a potential *fulacht fia* or the site of a former building. The interpretation was cautious as limestone outcropping and modern refuse was also noted within the general area.

Three potential anomalies were identified in Field 3 / M4 (11, 12, 13). These comprised a mixture of poorly defined and faint linear trends (weakly magnetic), with a probable soil morphological or geological origin expected.

During the 2022 survey (Dowling 2022, Licence 22R0244) Field 1 to the north of Fields 2 and 3; Field 4 to the west of the railway line and Field 5 to the west of the R132 were assessed.

Features of potential archaeological significance were revealed in Field 1 and included two possible ring-ditches/structures [1 and 4], as well as a large and varied array of small 'ditch' and 'pit-type' features [2-3; 7-9], many of which were thought to contain burnt/fired material and be associated with 'industrial-type' activity. The remains of a large potential disturbed burnt spread [5 and 6] was also recorded in this field. There was also evidence suggestive of medieval farming in the form of widely spaced plough tends suggestive of medieval farming.

Field 4 contains two enclosures [1 and 5]. Both enclosures seem to be defined by ditches that vary from 21m to 35m in diameter. Enclosure [1] appears to have a southeast-facing entrance and displays evidence for internal features. There are also hints in the dataset of potentially associated field systems [3, 4 and 6] in the broader hinterland of both enclosures. A large zone of magnetic variability [7] may also be of archaeological interest.

Near the northern limit of Field 5, the partial outline of a possible enclosure/field system [1] was identified, although interpretation was noted as cautious as the recorded anomalies were partially 'masked' or 'hidden' by background geological response. Nevertheless, the potential remains of what may be associated field system/s [2 and 3] were also mapped in the immediate vicinity of [1], while a range of other possible 'ditch' and 'pit-type' features [4-7] were recorded elsewhere throughout the survey area.

In 2021, a programme of archaeological testing was carried out to the immediate southwest of the southern section of the proposed development area (Bennett 2021:318, Licence no. 21E0583). The remains of a possible enclosure, of unknown date, was identified c. 75m southwest of the proposed development area.

#### 2.3 CARTOGRAPHIC ANALYSIS

#### Down Survey Map of the Barony of Balrudderry, c. 1655

The area of proposed development is shown in the townland of 'Bremore. The castle (DU002-002001) is illustrated at Bremore. As the purpose of these maps was to survey forfeited lands there is no detail depicted for the study area.

#### John Rocque, Map of the County of Dublin, 1760

This map shows the proposed development area within a rural and undeveloped coastal landscape. The site comprises an undeveloped pasture field bordered to the west by a tree-lined field boundary and to the east by the Irish Sea. There are no structures or features of archaeological potential indicated within this area. The village of Balbriggan is represented by a cluster of houses to the north and south of the river. A large salt house, harbour and quay have also been constructed to the south of the development area.

#### First Edition Ordnance Survey Map, 1843, scale 1:10,560 (Figure 2)

This is the first accurate historic mapping coverage of the area containing the proposed development area. The site is located within a number of open fields. There are no structures or features of archaeological potential shown within the footprint of the proposed development area. The surrounding landscape consists of enclosed agricultural fields; however, a dashed line of the then proposed railway line is included. The group of megalithic passage tombs (DU002-001001-5) is annotated to the north of the development site and illustrated by a 'mound'. The Martello Tower (DU002-004) is illustrated to the southeast, annotated as No. 43 in the Dublin Bay series. The village of Balbriggan and harbour appear well developed to the south.

#### Second Edition Ordnance Survey Map, 1871, scale 1:10,560

The major change in the landscape by the time of this map is the construction of the Dublin-Drogheda railway line intersecting the development site to the west.

#### Ordnance Survey Map, 1909, scale 1:2500 (Figure 3)

There are no major changes to note in the cartography of this map that relate to the proposed development area.

#### 2.4 AERIAL PHOTOGRAPHIC ANALYSIS

Inspection of the aerial photographic coverage of the proposed development area held by the Ordnance Survey (1995-2013), Google Earth (2005–2023) and Bing Maps failed to identify any previously unrecorded features of archaeological potential in or within the immediate vicinity of the proposed development area.

#### 2.5 TOPOGRAPHICAL FILES

Information on artefact finds from the study area in Louth has been recorded by the National Museum of Ireland since the late 18th century. Location information relating to these finds is important in establishing prehistoric and historic activity in the study area. No stray finds are recorded from within the National Museum of Ireland Topographical Files for the proposed development area or immediate environs.

## **3** ARCHAEOLOGICAL TESTING

#### 3.1 GENERAL

Test trenching took place on the 7th March 2023, using a 13 tonne 360 degree tracked excavator equipped with a flat, toothless bucket under strict archaeological supervision. Any investigated deposits were preserved by record.

A total of 19 trenches were excavated across the site measuring 505 linear metres (Figure 4, Plates 1-15). The trenches were located over areas identified as having archaeological potential following geophysical surveys. A single trench (T12) was not excavated as due to changes in the red line development boundary, the potential archaeological feature it was to assess is now excluded from the proposed development area.

The test trenches were excavated to determine, as far as reasonably possible, the location, extent, date, character, condition, significance, and quality of any surviving archaeological remains threatened by the proposed development. Test trenching was also carried out to clarify the nature and extent of existing disturbance and intrusions and to assess the degree of archaeological survival in order to formulate further mitigation strategies. These are designed to reduce or offset the impact of the proposed development scheme.

#### 3.2 **TESTING RESULTS**

A total of 11 Archaeological Areas were confirmed during the course of testing and the results and features contained within these areas are presented below. A synopsis of the results is outlined in Table 1 below with further details on each of the contexts provided in Appendix 1. All trenches targeted geophysical anomalies, as illustrated within Figures 5-8).

IADLL I						
TRENCH	FIELD	LENGTH (m)	WIDTH (m)	DEPTH (m)	ORIENTATION	DETAILS
1	5	20		0.30- 0.35	N-S	NNW-SSE oriented ditch 1.1 containing at least two fills (1.11 & 1.12, Plate 1). Geophysical linear anomalies were revealed to be agricultural field drains
2	5	20	_	0.30- 0.35	N-S	E-W oriented linear (2.1) with a second linear (2.2) oriented NE-SW immediately to the south.
3	5	20		0.35- 0.40	NNW-SSE	Four E-W oriented ditches; 3.1, 3.2, and 3.5 and a sub-oval pit 3.4 (Plates 2-3) <b>AA1</b>
4	5	20		0.38- 0.42	NE-SW	Two burnt spreads 4.1 and 4.2 (Plate 4) AA2
5	5	10	2	0.42	N-S	NE-SW linear/shallow ditch (5.1) with an E- W oriented ditch 3m to the south (5.2) cut by or cutting an irregular shaped spread (5.3) which also cut or is cut by another E-W oriented ditch (5.4) towards the southern

#### **TABLE 1:** Test Trench Results

		LENGTH	WIDTH	DEPTH		
TRENCH	FIELD	(m)	(m)	(m)	ORIENTATION	DETAILS
						extent of the trench (Plate 5) <b>AA3</b>
6	5	20	2	0.39	E-W	Two NNE-SSW shallow ditches (6.1 and 6.3, Plate 6).
7	5	20	2	0.38	WNW-ESE	Burnt spread or possible trough (7.1) extending beyond limit of trench (Plate 7) AA4
8	5	50	2	0.45- 0.50	ENE-WSW	NNW-SSE oriented linear / shallow ditch (8.1)
9	4	20	2	0.40	E-W	NNE-SSW oriented shallow ditch (9.1) with a second shallow linear 7m to the south (9.2). (Plate 8) <b>AA5</b>
10	4	10	2	0.45- 0.50	E-W	Nothing of archaeological potential.
11	4	10	2	0.35- 0.40	E-W	Nothing of archaeological potential.
12	4	n/a	n/a	n/a	n/a	Not excavated
13	4	10	2	0.28- 0.33	E-W	Ploughed out burnt spread (13.1) and narrow linear (13.2) (Plate 9) <b>AA6</b>
14	1	40	2	0.29	NE-SW	Large burnt spread (14.1) (Plate 10) AA7
15	1	20	2	0.30	N-S	Two stone drains and two red brick drains (Plate 11).
16	1	40	2	0.30	NNE-SSW	Two large burnt spreads (16.1 and 16.2) 5.50m apart (Plate 12) <b>AA8</b>
17	1	15	2	0.27	N-S	Two shallow burnt spreads (17.1 and 17.2). (Plate 13) <b>AA9</b>
18	2	60	2	0.30- 0.55	NW-SE	Fulacht fia consisting of a possible trough (18.2), burnt spread (18.3), burnt mound material (18.4) with a narrow curvilinear slot (18.1) to the north (Plate 14) <b>AA10</b>
19	3	60	2	0.35	N-S	Possible kiln (19.1, Plate 15) AA11
20	3	40	2	0.37	ENE-WSW	Nothing of archaeological potential

#### Archaeological Area 1 (AA1, Figure 5)

Geophysical survey in the northern portion of Field 5 identified an historic field system and a possible rectangular enclosure. Trench 3, which was placed across the possible rectangular enclosure, contained three closely placed east-west oriented ditches (3.1, 3.3 and 3.5), a narrow slot (3.2) immediately north of 3.1 and a subcircular pit (3.4). The remains, whilst shallow in form, suggest the presence of an enclosure of possible medieval date, although no datable material was recovered from Trench 3.

#### Archaeological Area 2 (AA2, Figure 5)

Immediately southwest of AA1, two small burnt mounds (4.1 and 4.2) were recorded within Trench 4 where geophysics identified ferrous material alongside potential archaeological activity. The burnt mounds measured 2.10 by 2m and a minimum of 2.40m in size and were sited c. 5m apart. The remains are likely to be representative of Bronze Age burnt mound/ *fulacht fia* activity.

#### Archaeological Area 3 (AA3, Figure 5)

Identified as part of a possible field system during the geophysical survey Trench 5 confirmed the presence of a 0.75m wide northeast southwest oriented shallow ditch (5.1) with an 0.70-1.20m wide, east-west oriented ditch, 3m to the south (5.2) cut by, or cutting, an irregular shaped spread (5.3) which also cut or is cut by a further east-west oriented ditch (5.4). The activity may relate to agriculture, but is located in close proximity to AA1 and whilst an archaeological interpretative is tentative, it cannot be fully discounted.

#### Archaeological Area 4 (AA4, Figure 5)

Approximately 70m to the southwest of AA3, Trench 7 revealed a sub-rectangular possible trough containing burnt stone and charcoal that extended beyond the limits of the trench (Plate 7). As with AA2, this is likely to relate to Bronze Age burnt mound activity.

#### Archaeological Area 5 (AA5, Figure 6)

Trench 9 was placed across the western extent of a sub-circular enclosure identified during geophysical survey, which measures c. 35m by 38m in diameter with a possible inner ditch 7m to the interior. The outer ditch (9.1) was 1.20m in width and 0.34m in depth. The inner feature was confirmed to be an agricultural drain (9.2). Whilst the overall geophysical anomaly suggests an archaeological origin, it is clear from the shallow nature of the ditch that the feature has been subject to horizontal truncation likely caused by frequent ploughing. No datable material was recovered during testing, although the overall dimensions of the enclosure conform to size of an early medieval ringfort.

#### Archaeological Area 6 (AA6, Figure 6)

A small burnt spread (13.1) was identified within Trench 13. It had been damaged by ploughing and remained as a shallow ash, charcoal and burnt stone deposit measuring 1.70 x 0.78m, where it was exposed within the trench. The feature is likely to be Bronze Age in date and may relate to similar activity recorded in AA7 and AA8 to the east-northeast.

#### Archaeological Area 7 (AA7, Figure 7)

Trench 14 confirmed the presence of a large burnt spread (14.1) with a potential trough located at its northern extent. The extent of the AA includes the entire geophysical anomaly, which is likely to represent the extent of the burnt mound activity.

#### Archaeological Area 8 (AA8, Figure 7)

Trench 16 was placed through a large, 120 x 30m sized anomaly, identified during the geophysical survey as potential burnt/fired material. Burnt spread material was present within the trench for over 11m (16.1) as well as a possible trough (16.2). The activity is likely to date to the Bronze Age and be connected with AA6 and AA7. The extent of the AA includes the entire geophysical anomaly, which is likely to represent the extent of the burnt mound activity.

#### Archaeological Area 9 (AA9, Figure 7)

Trench 17 (Plate 14) contained the remains of burnt spread material with two discrete areas identified (17.1 and 17.2). This activity is likely associated with AA8.

#### Archaeological Area 10 (AA10, Figure 7)

Trench 18 was the sole trench in Field 2 and as suggested by the geophysical survey revealed a large *fulacht fia* (18.2, 18.3 and 18.4) and an associated narrow curvilinear feature (18.1) to the north of a possible trough (18.2), which may represent the slot for a screen. Again this activity is likely to be Bronze Age is date and may be connected to AA8.

#### Archaeological Area 11 (AA11, Figure 8)

Field 3, the southernmost of the coastal fields, contained three small geophysical trends. While a small possible kiln (19.1) was identified in the northern extent of Trench 19 the remainder of the trench and Trench 20 were void of archaeological features indicating the geophysical trends were most likely geological or agricultural in nature. The kiln is an isolated feature and may date to any period.

#### 3.3 CONCLUSIONS

There are no recorded archaeological features located within the proposed development area but due to the high archaeological potential of the landscape, based on its coastal location, geophysical survey has been carried out in order to identify archaeological constraints.

Multiple potential archaeological features were identified across the five fields that form the development area and the placement of the test trenches was designed to assess the potential archaeological resource in a manner that was as least invasive as possible.

Test trenching confirmed that the majority of the potential archaeological anomalies recorded during the geophysical surveys were archaeological in nature (AA1-11). Four trenches, T10, T11, T15 and T20, were devoid of archaeological material with the potential archaeological features confirmed to be agricultural field drains.

Fields 5 (AA1-4) and Field 1 (AA7-9) contained the densest amount of archaeological material. The archaeological features identified during testing in these fields consisted of burnt spreads (AA7-9) as well as a large *fulacht fia* (AA10) in Field 2 and a small burnt spread in Field 4 (AA6). This activity is likely to be Bronze Age in date and is common within the archaeological record across Ireland.

Field 5 contains the remains of a possible medieval enclosure (AA1), although the enclosing elements are shallow, possibly indicating truncation from ploughing. This area also contained several ditches and some burnt spreads (AA2-4). The ditches may relate to the enclosure site whilst the burnt mounds are likely to be Bronze Age in date.

Field 3 is likely to have the lowest potential for archaeology based on the geophysical survey and archaeological testing. A small possible kiln (19.1) was identified in one of the two trenches excavated (AA11).

Field 4 contains a possible circular enclosure, which may be early medieval in date, in the southwestern extent, which appears to be archaeological in nature (9.1) but the investigated ditch section was found to be shallow in character, suggesting it has been affected during ploughing (AA5).

Design for the proposed development is ongoing and an updated archaeological assessment, based on the results of geophysical survey and archaeological testing, will be submitted with the planning application, should development go ahead.

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#### CARTOGRAPHIC SOURCES

Down Survey Map of the Barony of Balrudderry, c. 1655 John Rocque, Map of the County of Dublin, 1760 Ordnance Survey Maps, 1843-1909

#### **ELECTRONIC SOURCES**

www.excavations.ie – Summary of archaeological excavation from 1970–2022. www.archaeology.ie – DoHLGH website listing all SMR/RMP sites.

- www.heritagemaps.ie The Heritage Council web-based spatial data viewer which focuses on the built, cultural and natural heritage.
- www.geohive.ie– Ordnance Survey Ireland National Townland and Historical Map Viewer (including Aerial imagery 1995, 2000, 2005)
- www.googleearth.com Satellite imagery (2005–2022). www.apple.com/maps/ - Satellite imagery (2018)

## APPENDICES

### APPENDIX 1 CONTEXTS

CONTEXT NO.	TRENCH NO.	DESCRIPTION
1.1	1	NNW/SSE oriented ditch, 15m in length, 1.14m wide and 0.39m deep.
1.11	1	Upper fill of ditch 1.1 consisting of a yellow plastic clay with moderate small stone inclusions 0.22m in depth overlying
1.12	1	Mid-grey sticky clay 0.18m in depth, basal fill of ditch 1.1
2.1	2	E/W oriented linear, 0.48m wide and 0.19m deep
2.11	2	Grey sticky clay with moderate stones and occasional charcoal flecks. Fill of 2.1
2.2	2	NE/SW oriented linear, 0.39m wide and 0.25m deep with a flattish base 0.15m in width
2.21	2	Dark grey and mottled orange sticky clay with moderate stones and moderately large pieces of charcoal inclusions. Fill of 2.2
3.1	3	E-W oriented linear, 0.75m wide and 0.22m deep, steep sides to wide uneven base 0.33m in width. Filled with 3.11
3.11	3	Loose, friable purple clay with frequent small charcoal flecks 0.10m deep overlying a mid-grey sticky clay with frequent small to medium sub angular stones concentrating at the base within slot investigated.
3.2	3	A shallow, steep sided slot 0.17m wide 0.15m deep that ran eastwards for 0.78m before turning sharply NW where it petered out after 0.94m. located Immediately north of 3.2. Filled with 3.21.
3.21	3	Purple-grey sticky clay with very occasional charcoal flecks. Fill of 3.2
3.3	3	E-W oriented ditch - 1.80m wide and 0.80m deep with steep sides to a slightly concave base. Filled with 3.31 and 3.32
3.31	3	Mid grey-brown sticky clay with occasional stone inclusions c0.40m deep. Upper fill of 3.3
3.32	3	Moderately compact grey brown clay with occasional charcoal flecks. Basal fill of 3.3
3.4	3	Sub-oval pit measuring 0.72 x 0.58m, located 2.20m north of ditch 3.3 and 1.40m south of 3.5. Filled with 3.41.
3.41	3	Dark grey silty clay with fire cracked and burnt stone inclusions. Fill of 3.4
3.5	3	E-W oriented ditch 1.18m wide 0.60m deep with sloping sides to a concave base. Filled with 3.51 and 3.52
3.51	3	Dark grey sticky compact clay with stone inclusions c0.40m dee. Upper fill of 3.5 mid grey gritty clay with large stones

2 5 2	2	
3.52	3	Mid grey gritty clay with large stone inclusions, 0.20m in depth. Basal fill of 3.5
4.1	4	Burnt mound material consisting of burnt and fire cracked stones within charcoal rich dark grey silty clay 2.10m NE-SW x 2m NW-SE but extending outside trench. c0.34m in depth at SW extent
4.2	4	Burnt mound material consisting of burnt and fire cracked stone within charcoal rich dark blackish grey silty clay 0.50m deep where investigated 2.40m NE-SW, extending beyond width of trench SE/NW -
5.1	5	NE-SW oriented shallow ditch 0.73m wide 0.22m deep with gently sloping sides to a shallow concave base filled with 5.11
5.11	5	Mid grey silty clay with very occasional small fragments of burnt stone and charcoal fill of 5.1
5.2	5	NW-SE oriented linear, 3m south of 5.1, 0.70-1.20m in width and 0.43m in depth with very steep sides to v-shaped base
5.21	5	Very dark grey, silty clay, with occasional small stone inclusions. Fill of 5.2
5.3	5	Irregular shaped blackish-grey spread, 2.10 x 0.47m in size. Appears to be cutting or cut by linear 5.2 to the north and linear 5.4 to the south
5.4	5	NE/SW oriented ditch/linear 0.62m wide and 0.52m deep with sloping sides to v shaped base
5.41	5	Yellow-grey sticky clay. Fill of 5.4
6.1	6	NNE-SSW shallow linear/ditch 1.02m, wide 0.12m deep with gently sloping sides to slightly concave base. Filled with 6.11
6.11	6	Pale yellow-grey sticky clay with occasional stone inclusions. Fill of 6.1
6.2	6	NNE-SSW oriented linear/ditch 0.98m wide 0.22m deep, sloping sides to uneven base. Filled with 6.21
6.21	6	Yellow-grey clay with moderate small stone inclusions. Fill of 6.2
7.1	7	Possible trough, measuring 1.40m east-west by 1.04m north- south, extending beyond limits of trench consisting of moderately compact black clay with frequent burnt and fire cracked stones
8.1	8	NNW-SSE oriented linear / shallow ditch 0.74m wide and 0.13m deep. Slightly concave in section, filled with 8.11
8.11	8	Pale brown sticky clay with moderate small stone inclusions. Fill of 8.1
9.1	9	NNE-SSW oriented shallow ditch 1.20m wide and 0.34m deep located 5.50m from NW end of trench. Filled with 9.11
9.11	9	Visible as a slight change in colour of natural to a paler mid brown containing very occasional flecks of charcoal
9.2	9	Agricultural field drain
11.1	11	Agricultural field drain

13.1	13	Burnt spread consisting of ashy grey clay with frequent charcoal and occasional burnt stone inclusions. It measured 1.70m northwest-southeast by 0.78m east-west, quite ploughed out
14.1	14	Large burnt spread 11m long midway along trench consisting of dark grey silty clay with occasional fire cracked stone. A concentration of darker material containing frequent burnt stone at its northern extent measuring 1.60m in width and c0,52m deep might indicate a trough
16.1	16	Burnt spread - 1.73 x 1m within limit of trench located 8m from the northern extent consisting of a dark grey sticky clay with moderate burnt stone inclusions c0.10m deep. 16,2 was located 5.50m to the south
16.2	16	Spread of burnt stone and sticky grey plastic clay measuring 5.50m in size and c. 0.04m deep. This feature was cut by two ENE-WSW oriented plough furrows at its southern extent. South of this to the end of the trench is a pale to dark grey sticky clay with very occasional burnt stones
17.1	17	Burnt spread material 0.54-0.70m wide c0.40m in maximum depth. Most likely dragged / spread by agricultural drainage
17.2	17	Burnt spread material - 0.34-0.50 in width - 0.02-0.03 deep - last remains of burnt spread alongside an agricultural field drain
18.1	18	Small curvilinear filled with burnt mound material, 0.20m in width and c0.07m deep
18.2	18	Possible trough 2.20m south of 18.1 measuring 1.20 x 1.20m where exposed within the trench
18.3	18	Burnt spread, 2.10m in width crossing width of trench consisting of blackish grey clay containing frequent burnt stones
18.4	18	Burnt mound material consisting of charcoal rich black clay with very frequent burnt stone inclusions, 4.10m in width within trench. 5.50m south of 18.3
19.1	19	Possible kiln measuring 1.50 x 0.65m

#### APPENDIX 2 RMP SITES WITHIN THE SURROUNDING AREA

SMR NO.:	DU002-018
RMP STATUS:	Yes
TOWNLAND:	Bremore
PARISH:	Balrothery
BARONY:	Balrothery East
I.T.M.:	718758, 765384
CLASSIFICATION:	Enclosure
DIST. TO SITE:	150m to the northwest
DESCRIPTION:	A rectangular enclosure visible as a crop mark on an aerial photograph (SMR file; pers. comm. T. Condit). At relatively high point in landscape with Bremore passage tombs to the north east. No visible remains.
REFERENCE:	www.archaeology.ie / SMR File

SMR NO.:	DU002-015
RMP STATUS:	Yes
TOWNLAND:	Bremore
PARISH:	Balrothery
BARONY:	Balrothery East
I.T.M.:	719753, 765709
CLASSIFICATION:	Quay
DIST. TO SITE:	110m to the north
DESCRIPTION:	Newhaven is a small harbour located on the southern side of Bremore headland below the 16th century settlement (DU002-005). The harbour is defined by a stone pier, which extends from the eastern facing shoreline in a NNE direction running almost parallel to the headland. The harbour is documented as Newhaven on the17th century Down Survey (1655-6) maps. The pier appears as a crude drawing on the barony map of Balrudery by Thom West Edward Wilson and William ? (T or J)arrand. Newhaven is also listed on Herman Molls 1714 map of Dublin several other eighteenth century maps. It is also on Duncan's 1821 map of Dublin and therefore may still haven been in use as a harbour at this time. Newhaven is not recorded on the 1st OS 6' map and therefore appears to have gone out of use by this time. The harbour site consists of a substantial dry stone constructed pier and an area of cleared foreshore for pulling up or landing boats. The pier starts at the high water mark approximately 20m from the cliff edge. It measures approximately 62m long and runs in a WSW-ENE orientation so as to incorporate a natural projection of rock outcrop towards its head. The pier may have originally extended as far as the cliff as there is an area of stone facing measuring approximately 1.40m by 1.90m in the cliff face which is in line with the pier. It is roughly faced, with no visible mortar. Between this stone facing and the pier is a large boulder measuring 2m x 2m x 70cm and

	this also may have formed part of the pier structure. The pier varies in width but averages 8-10m.
	There is a possible mooring stone, sub-triangular in shape measuring $1m x$ 70cm x 60cm located midway along the pier. It has a central hole measuring 8cm deep and 8.5cm in diameter. There may have been an iron ring attached to the boulder to which boats could be tied to but this has not survived.
REFERENCE:	www.archaeology.ie / SMR File

SMR NO.:	DU002-014
RMP STATUS:	Yes
TOWNLAND:	Bremore
PARISH:	Balrothery
BARONY:	Balrothery East
I.T.M.:	719564, 764700
CLASSIFICATION:	Field system
DIST. TO SITE:	190m to the southwest
DESCRIPTION:	Pre-development investigations in 2001 identified part of a field system adjacent to Bremore castle (DU002-002002-). Two parallel ditches extending E-W (L 150m) and 50m apart formed the borders. Cultivation seems to have taken place in the enclosed plot and the field system may have extended across the present N1 road, joining to a lane known locally as Hamlet Lane which runs along the same E-W axis as the southern ditch (O' Carroll, 2003, 79-80). Analysis of charred remains from the furrows yielded evidence for cereal grains, principally wheat, barley , oats and legumes. This suggests a pattern of intensive cultivation and crop rotation. Prior to the setting out of the field, the area was already used for cultivation. A shallow, flat-bottomed broad feature which produced Leinster Cooking Ware and 13th to 14th century local wares was interpreted as the remains of a manure heap. At a later stage in the 16th to early 17th century these fields may have been transformed into a parkland or orchard (O' Carroll, F.2009, 75-87).
REFERENCE:	www.archaeology.ie / SMR File O'Carroll, F. 2003a 324, Bremore, Balbriggan. In I. Bennett (ed.), Excavations 2001: summary accounts of archaeological excavations in Ireland, 79-80. Bray. Wordwell. O'Carroll, F. 2009, Bremore Co. Dublin, the field by the castle. In Baker, C. (ed.) Axes, Warriors & Windmills: Recent archaeological investigations in north Fingal.

SMR NO.:	DU002-022
RMP STATUS:	No
TOWNLAND:	Bremore
PARISH:	Balrothery
BARONY:	Balrothery East
I.T.M.:	719564, 764700

CLASSIFICATION:	Sundial
DIST. TO SITE:	190m to the southwest
DESCRIPTION:	Pre-development investigations in 2001 by Finola O'Carroll under licence No. 01E0370 identified part of a field system adjacent to Bremore castle (DU002-002002-) along with a slate sundial. The results of this excavation was summarised as follows; 'Excavation of an area adjacent to the site of Bremore Castle commenced in April 2001 in advance of a large-scale housing development to the north of a medieval complex. The site consists of a large open field covering approximately 4.5ha, the eastern quarter of which is to remain as parkland. The castle lies immediately to the south, surrounded by a number of modern farm buildings, and is currently being restored. The modern N1 road borders the field to the west, and a lane running from this road to the castle yard forms the field's southern boundary. The sea lies 300m to the east. Closer to the castle a pit was excavated, contemporary with the cobbling and containing a large amount of late medieval pottery. A second pit excavated adjacent to the southern ditch also contained a large quantity of medieval pottery and a handsome slate sundial, possibly unfinished, of late medieval date. The possible footprint of a small structure, of either medieval or early post-medieval date, was also exposed in the vicinity, between these two pits' (www.excavations.ie 2001:324).
REFERENCE:	www.archaeology.ie / SMR File

	DU002.001001
SMR NO.:	DU002-001001
RMP STATUS:	Yes
TOWNLAND:	Bremore
PARISH:	Balrothery
BARONY:	Balrothery East
I.T.M.:	719638, 766012
CLASSIFICATION:	Megalithic tomb - passage tomb
DIST. TO SITE:	410m to the north
DESCRIPTION:	Situated on the coast at the mouth of the river Delvin. This passage tomb is part of Bremore cemetery (Rynne 1960, 79, Mound I). It comprises a circular cairn which is heavily grassed over (max. diam.29m; H 3.5m). Possible kerbstones on W side. Disturbance at NW may indicate the remains of a collapsed passage and chamber (Herity 1974, 209, 255). Best preserved of the mounds (I-V), it appears the mound had been perfectly conical 'until the 1940s when the Board of Works took stone from it to paint Eire in white along the cliff edge of the headland-as part of the Emergency Defenses'. This is according to the current owners, whose father owned the land at the time, and told them this is how the interior of the mound was collapsed. However cartographic evidence indicates there may have been collapse/quarrying of the mound in the previous century. Geophysical survey (Licence no. 06R0050) of the mound did not return specific structural detail (Gimson 2006, 10). It did however show a drainage pipe had been inserted immediately to the east. The Bremore headland was also subject to a constraint study carried out by Margaret Gowen & Company Ltd. in advance of a proposed port. In addition

	fieldwalking and lithic analysis was undertaken for an MA study (Collins, 2007).
REFERENCE:	www.archaeology.ie / SMR File Collins, K. 2007 Prehistoric land use at Bremore, Co. Dublin: the evidence from fieldwalking and lithic analysis. Unpublished MA thesis. University College Dublin. Gimson H. 2006 Archaeological Geophysical Survey: Bremore Townland, Balbriggan, Fingal (Licence No. 06R050). Unpublished report.National Monuments Service, Department of Arts, Heritage and the Gaeltacht Rynne, E. 1960 Survey of a probable passage grave cemetery at Bremore, Co. Dublin. Journal of the Royal Society of Antiquaries of Ireland 90, 79-81. Herity, M. 1974 Irish Passage Graves. Dublin. Irish University Press.

SMR NO.:	DU002-001002
RMP STATUS:	Yes
TOWNLAND:	Bremore
PARISH:	Balrothery
BARONY:	Balrothery East
I.T.M.:	719663, 766011
CLASSIFICATION:	Megalithic tomb - passage tomb
DIST. TO SITE:	410m to the north
DESCRIPTION:	Located near shoreline in a level field of tillage. This passage tomb is part of Bremore cemetery (Rynne 1960, 80, Mound II). The site comprises a small circular mound (max. diam. 12m; max. H 0.7m). Kerbstones were visible at N and S sides in the 1970s. Disturbed core material consists of water-rolled pebbles (Herity 1974, 209, 255). Geophysical survey (Licence no. 06R0050) of the mound did not return specific structural detail (Gimson 2006, 10). The area was also subject to a constraint study carried out by Margaret Gowen & Company Ltd. in advance of a proposed port. In addition fieldwalking and lithic analysis was undertaken for an MA study (Collins, 2007).
REFERENCE:	www.archaeology.ie / SMR File Rynne, E. 1960 Survey of a probable passage grave cemetery at Bremore, Co. Dublin. Journal of the Royal Society of Antiquaries of Ireland 90, 79-81. Herity, M. 1974 Irish Passage Graves. Dublin. Irish University Press. Gimson H. 2006 Archaeological Geophysical Survey: Bremore Townland, Balbriggan, Fingal (Licence No. 06R050). Unpublished report.National Monuments Service, Department of Arts, Heritage and the Gaeltacht Collins, K. 2007 Prehistoric land use at Bremore, Co. Dublin: the evidence from fieldwalking and lithic analysis. Unpublished MA thesis. University College Dublin

SMR NO.:	DU002-001003
RMP STATUS:	Yes
TOWNLAND:	Bremore
PARISH:	Balrothery
BARONY:	Balrothery East

I.T.M.:	719616, 766004
CLASSIFICATION:	Megalithic tomb - passage tomb
DIST. TO SITE:	410m to the north
DESCRIPTION:	Situated on the coast at the mouth of the river Delvin. This passage tomb is part of the Bremore cemetery (Rynne 1960, 80, MoundIII). Located near shoreline on coastal promontory. A low irregular mound (max. dims. 12m E-W; 9m N-S; H 0.5m). Possible kerbstones visible on its N edge. Disturbed core appears to be water-rolled beach material. Listed as a possible passage tomb (Herity 1974, 255-7). Geophysical survey (Licence no. 06R0050) of the mound did not return specific structural detail (Gimson 2006, 10). The area was also subject to a constraint study carried out by Margaret Gowen & Company Ltd. in advance of a proposed port. In addition fieldwalking and lithic analysis was undertaken for an MA study (Collins, 2007).
REFERENCE:	www.archaeology.ie / SMR File Collins, K. 2007 Prehistoric land use at Bremore, Co. Dublin: the evidence from fieldwalking and lithic analysis. Unpublished MA thesis. University College Dublin Gimson H. 2006 Archaeological Geophysical Survey: Bremore Townland, Balbriggan, Fingal (Licence No. 06R050). Unpublished report.National Monuments Service, Department of Arts, Heritage and the Gaeltacht Rynne, E. 1960 Survey of a probable passage grave cemetery at Bremore, Co. Dublin. Journal of the Royal Society of Antiquaries of Ireland 90, 79-81. Herity, M. 1974 Irish Passage Graves. Dublin. Irish University Press.

SMR NO.:	DU002-001004
RMP STATUS:	Yes
TOWNLAND:	Bremore
PARISH:	Balrothery
BARONY:	Balrothery East
I.T.M.:	719596, 765991
CLASSIFICATION:	Megalithic tomb - passage tomb
DIST. TO SITE:	410m to the north
DESCRIPTION:	Situated on the coast at the mouth of the river Delvin. This passage tomb is part of Bremore cemetery (Rynne 1960, 80, Mound IV). A pear-shaped mound (dims. 15m N-S; 8.5m E-W; H 1m). The site is truncated at the W side by a field boundary and has been damaged by ploughing. There is a core of water-rolled beach material exposed on the W side. Listed as possible passage tomb (Herity 1974, 209). Geophysical survey (Licence no. 06R0050) of the mound did not return specific structural detail (Gimson 2006, 10). The area was also subject to a constraint study carried out by Margaret Gowen & Company Ltd. in advance of a proposed port. In addition fieldwalking and lithic analysis was undertaken for an MA study (Collins, 2007).
REFERENCE:	www.archaeology.ie / SMR File Collins, K. 2007 Prehistoric land use at Bremore, Co. Dublin: the evidence from fieldwalking and lithic analysis. Unpublished MA thesis. University College Dublin

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Co. Dublin. Journal of the Royal Society of Antiquaries of Ireland 90, 79-81.
Herity, M. 1974 Irish Passage Graves. Dublin. Irish University Press.

SMR NO.:	DU002-001005
RMP STATUS:	Yes
TOWNLAND:	Bremore
PARISH:	Balrothery
BARONY:	Balrothery East
I.T.M.:	719687, 765994
CLASSIFICATION:	Megalithic tomb - passage tomb
DIST. TO SITE:	410m to the north
DESCRIPTION:	Situated on the coast at the mouth of the river Delvin. Part of the Bremore passage tomb cemetery (Rynne 1960, 81, Mound V). It comprises a low sub-circular mound (max. dims. 11.5m N-S; 8.5m E-W; H 0.75m) with two large stones visible on the N side. Listed as a passage tomb (Herity 1974, 209). Geophysical survey (Licence no. 06R0050) of the mound identified a cairn of stones covering a possible central burial or cremation. Seven isolated magnetic responses are arranged around the circumference of the mound. These may be interpreted as small pits or areas of burning (Gimson 2006, 10). The area was also subject to a constraint study carried out by Margaret Gowen & Company Ltd. in advance of a proposed port. In addition fieldwalking and lithic analysis was undertaken for an MA study (Collins, 2007).
REFERENCE:	www.archaeology.ie / SMR File Rynne, E. 1960 Survey of a probable passage grave cemetery at Bremore, Co. Dublin. Journal of the Royal Society of Antiquaries of Ireland 90, 79-81. Herity, M. 1974 Irish Passage Graves. Dublin. Irish University Press. Collins, K. 2007 Prehistoric land use at Bremore, Co. Dublin: the evidence from fieldwalking and lithic analysis. Unpublished MA thesis. University College Dublin Gimson H. 2006 Archaeological Geophysical Survey: Bremore Townland, Balbriggan, Fingal (Licence No. 06R050). Unpublished report.National Monuments Service, Department of Arts, Heritage and the Gaeltacht

## APPENDIX 3 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 National Monuments Act 1930 to 2014 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. A National Monument is described as 'a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto' (National Monuments Act 1930 Section 2). A number of mechanisms under the National Monuments Act are applied to secure the protection of archaeological monuments. These include the Register of Historic Monuments, the Record of Monuments and Places, and the placing of Preservation Orders and Temporary Preservation Orders on endangered sites.

#### OWNERSHIP AND GUARDIANSHIP OF NATIONAL MONUMENTS

The Minister 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 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.

#### **REGISTER OF HISTORIC MONUMENTS**

Section 5 of the 1987 Act requires the Minister to establish and maintain a Register of Historic Monuments. Historic monuments and archaeological areas present on the register are afforded statutory protection under the 1987 Act. Any interference with sites recorded on the register is illegal without the permission of the Minister. Two months notice in writing is required prior to any work being undertaken on or in the vicinity of a registered monument. The register also includes sites under Preservation Orders and Temporary Preservation Orders. All registered monuments are included in the Record of Monuments and Places.

#### PRESERVATION ORDERS AND TEMPORARY PRESERVATION ORDERS

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.

#### **RECORD OF MONUMENTS AND PLACES**

Section 12(1) of the 1994 Act requires the Minister for Arts, Heritage, Gaeltacht and the Islands (now the Minister for Housing, Local Government and Heritage) to establish and maintain a record of monuments and places where the Minister believes that such monuments exist. The record comprises a list of monuments and relevant places and a map/s showing each monument and relevant place in respect of each county in the state. All sites recorded on the Record of Monuments and Places receive statutory protection under the National Monuments Act 1994. All recorded monuments on the proposed development site are represented on the accompanying maps.

Section 12(3) of the 1994 Act provides that 'where the owner or occupier (other than the Minister for Housing, Local Government and Heritage) of a monument or place included in the Record, or any other person, proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such a monument or place, he or she shall give notice in writing to the Minister of Housing, Local Government and Heritage to carry out work and shall not, except in case of urgent necessity and with the consent of the Minister, commence the work until two months after giving of notice'.

Under the National Monuments (Amendment) Act 2004, anyone who demolishes or in any way interferes with a recorded site is liable to a fine not exceeding  $\leq$ 3,000 or imprisonment for up to 6 months. On summary conviction and on conviction of indictment, a fine not exceeding  $\leq$ 10,000 or imprisonment for up to 5 years is the penalty. In addition they are liable for costs for the repair of the damage caused.

In addition to this, under the *European Communities (Environmental Impact Assessment) Regulations 1989,* Environmental Impact Statements (EIS) are required for various classes and sizes of development project to assess the impact the proposed development will have on the existing environment, which includes the cultural, archaeological and built heritage resources. These document's recommendations are typically incorporated into the conditions under which the proposed development must proceed, and thus offer an additional layer of protection for monuments which have not been listed on the RMP.

#### 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.

#### FINGAL DEVELOPMENT PLAN 2017 - 2023

#### **Objective CH01**

Support the implementation of the Fingal Heritage Plan in relation to the promotion and protection of Fingal's Cultural Heritage.

#### **Objective CH02**

Favour the preservation in situ or at a minimum preservation by record, of archaeological sites, monuments, features or objects in their settings. In securing such preservation the Council will have regard to the advice and recommendations of the National Monuments ervice of the Department of the Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

#### **Objective CH03**

Protect all archaeological sites and monuments, underwater archaeology, and archaeological objects, which are listed in the Record of Monuments and Places and all sites and features of archaeological and historic interest discovered subsequent to the publication of the Record of Monuments and Places, and to seek their preservation in situ (or at a minimum, preservation by record) through the planning process

#### Objective CH04

Encourage and promote the appropriate management and maintenance of the County's archaeological heritage, including historical burial grounds, in accordance with conservation principles and best practice guidelines

#### **Objective CH05**

Ensure archaeological remains are identified and fully considered at the very earliest stages of the development process, that schemes are designed to avoid impacting on the archaeological heritage.

#### **Objective CH06**

Require that proposals for linear development over one kilometre in length; proposals for development involving ground clearance of more than half a hectare; or developments in proximity to areas with a density of known archaeological monuments and history of discovery; to include an Archaeological Impact Assessment and refer such applications to the relevant Prescribed Bodies.

#### **Objective CH07**

Ensure that development within the vicinity of a Recorded Monument or Zone of Archaeological Notification does not seriously detract from the setting of the feature, and is sited and designed appropriately.

#### **Objective CH08**

Develop a policy in relation to the treatment of archaeological monuments within open space of developments. A different designation from that of open space will be applied where subsurface archaeological remains are incorporated to differentiate the area.

#### **Objective CH09**

Recognise the importance of archaeology or historic landscapes and the connectivity between sites, where it exists, in order to safeguard them from developments that would unduly sever or disrupt the relationship and/or inter-visibility between sites.

#### Objective CH10

Co-operate with other agencies in the assessment of the potential for climate change to impact on coastal, riverine, inter-tidal and sub-tidal sites and their environments including shipwreck sites.

#### **Objective CH11**

Encourage reference to or incorporation of significant archaeological finds into development schemes, where appropriate and sensitively designed, through layout, displays, signage, plaques, information panels and by using historic place names and the Irish language where appropriate

#### **Objective CH12**

Promote best practice for archaeological excavation by ensuring that they are undertaken according to best practice as outlined by the National Monuments Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, The National Museum and the Institute of Archaeologists of Ireland.

#### **Objective CH13**

Actively support the dissemination of the findings of archaeological investigations and excavations through the publication of excavation reports thereby promoting public awareness and appreciation of the value of archaeological resources.

#### **Objective CH14**

Identify Zones of Archaeological Notification that contain clusters of Recorded Monuments or have a significant history of the discovery of archaeological sites, features and objects in order to allow for their designation, protection of their setting and environs.

#### Objective CH15

Raise public awareness of the cultural heritage and improve legibility by providing appropriate signage or interpretation in areas, sites, villages, and buildings of archaeological and historic significance.

#### **Objective CH16**

Develop and implement the findings of the Community Archaeology Strategy for Fingal.

#### **Objective CH17**

Support the growth of cultural tourism in the County, including the potential for niche heritage based tourism products by facilitating the development of heritage events, infrastructure such as heritage trails, walkways and cycleways etc. and activities such as community excavation.

#### **Objective CH18**

Manage the archaeological sites and monuments that Fingal County Council owns or is responsible for according to best practice and according to Conservation Plans where they exist

#### APPENDIX 4 IMPACT ASSESSMENT & 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 2003: 31). 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, landscape 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 monument, 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 5 MITIGATION MEASURES & 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**

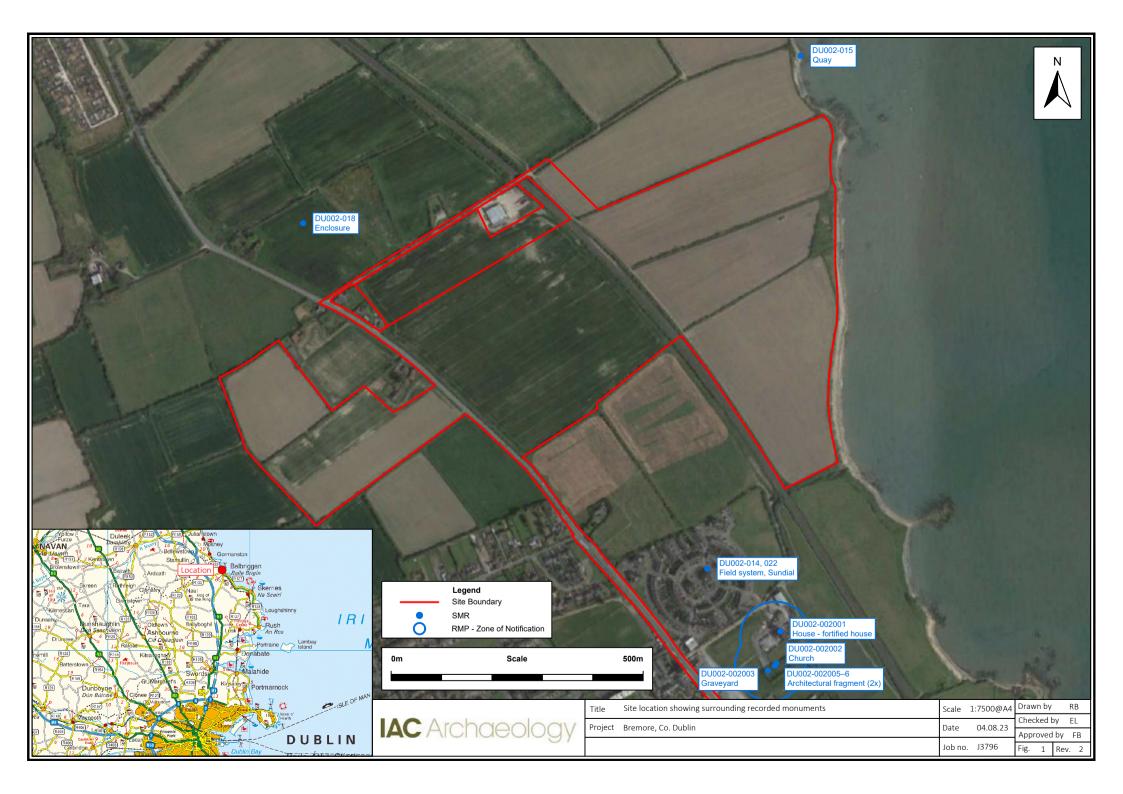
## ARCHAEOLOGICAL RESOURCE

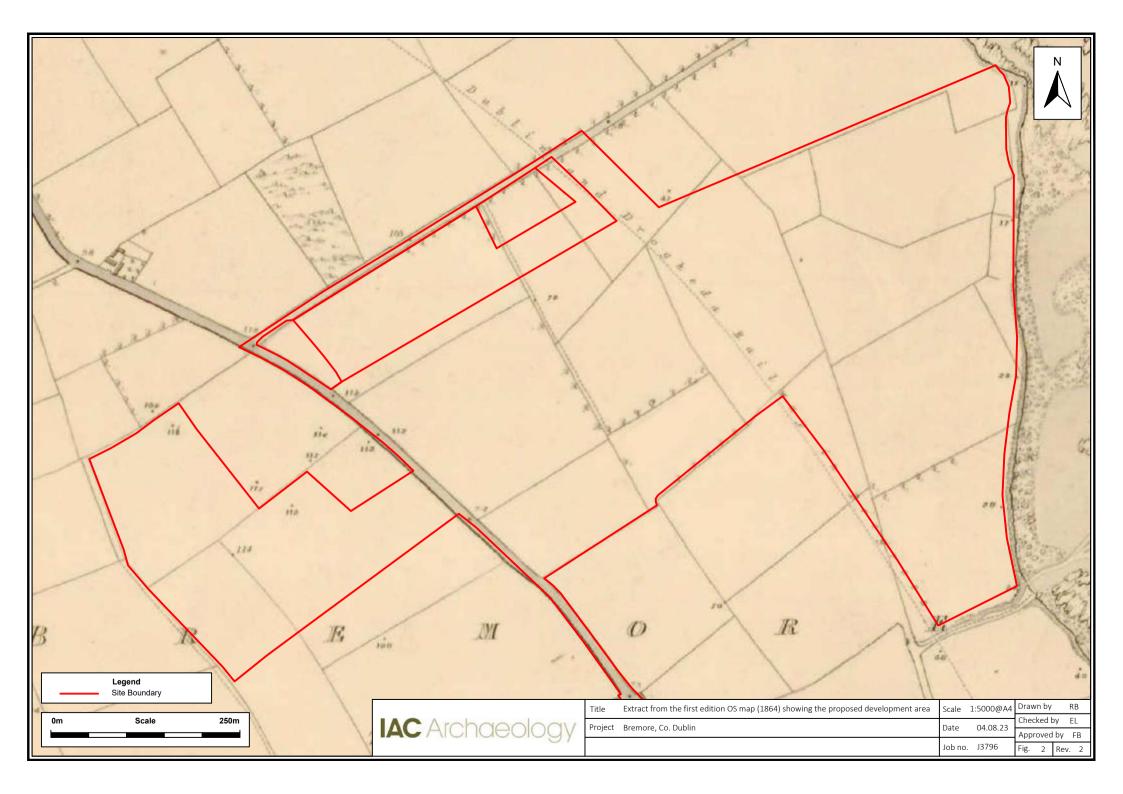
The ideal mitigation for all archaeological sites is preservation *in situ*. This is not always a practical solution, however. Therefore a series of recommendations are offered to provide ameliorative measures where avoidance and preservation *in situ* are not possible.

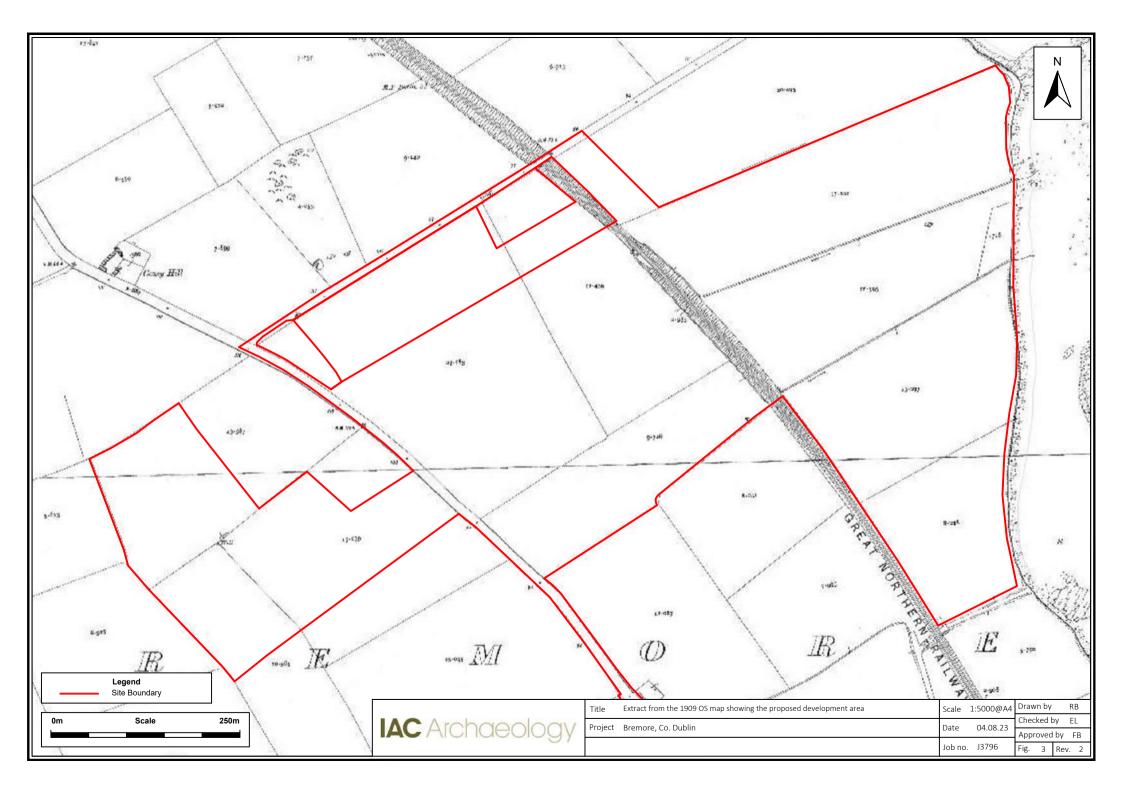
*Full Archaeological Excavation* involves the scientific removal and recording of all archaeological features, deposits and objects to the level of geological strata or the base level of any given development. Full archaeological excavation is recommended where initial investigation has uncovered evidence of archaeologically significant material or structures and where avoidance of the site is not possible. (CIFA 2020b)

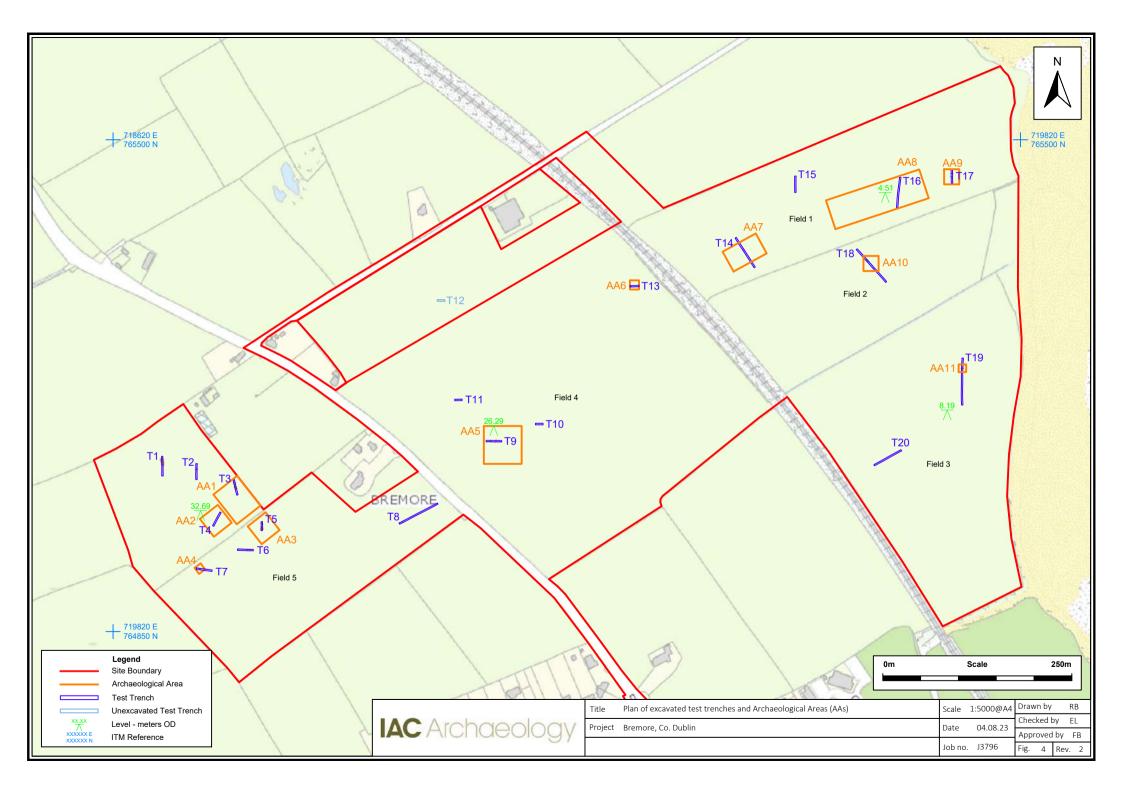
Archaeological Test Trenching can be defined as 'a limited programme... of intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land or underwater. If such archaeological remains are present test trenching defines their character and extent and relative quality.' (ClfA 2020a)

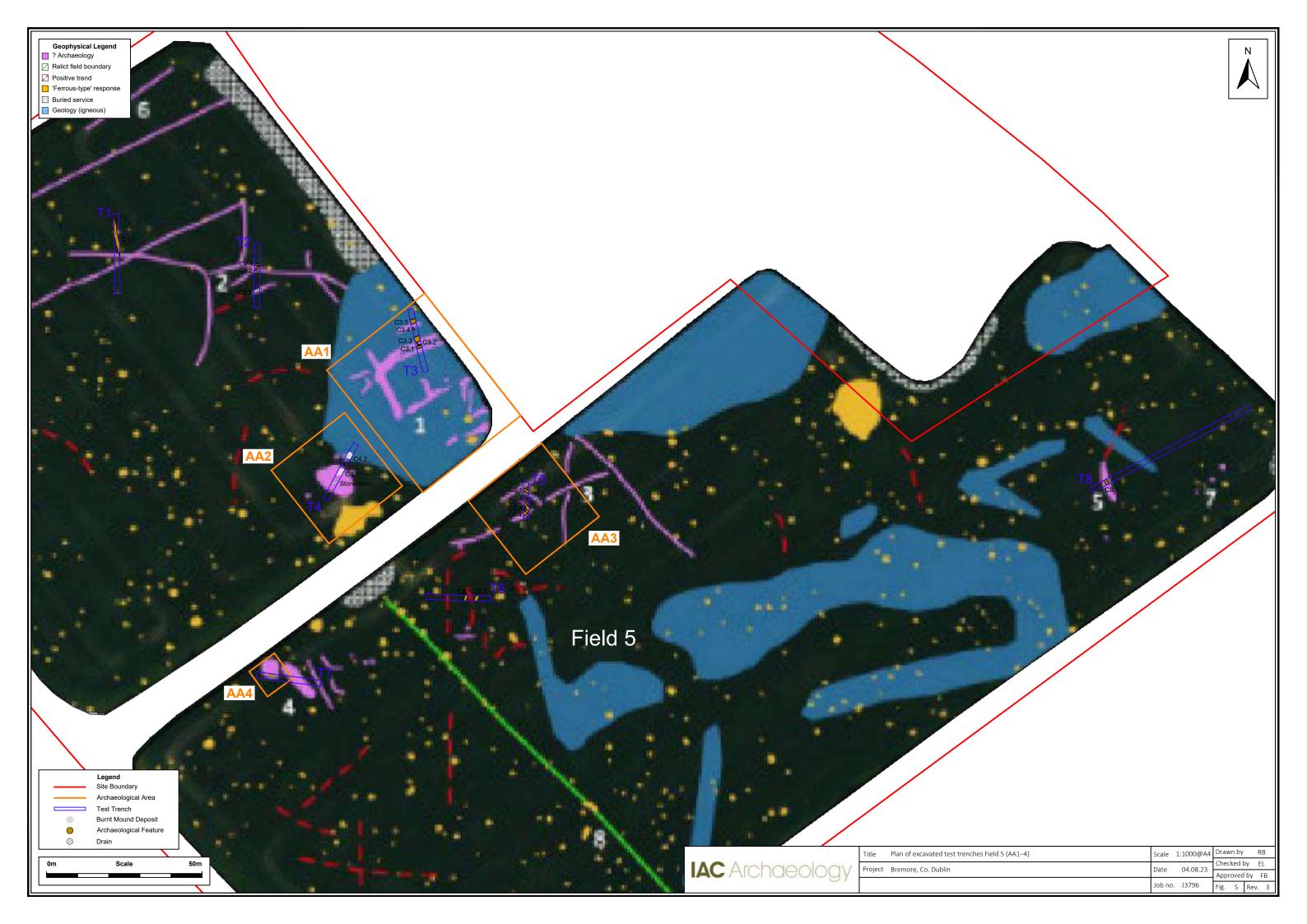
Archaeological Monitoring can be defined as a 'formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons within a specified area or site on land or underwater, where there is possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.' (CIFA 2020c)

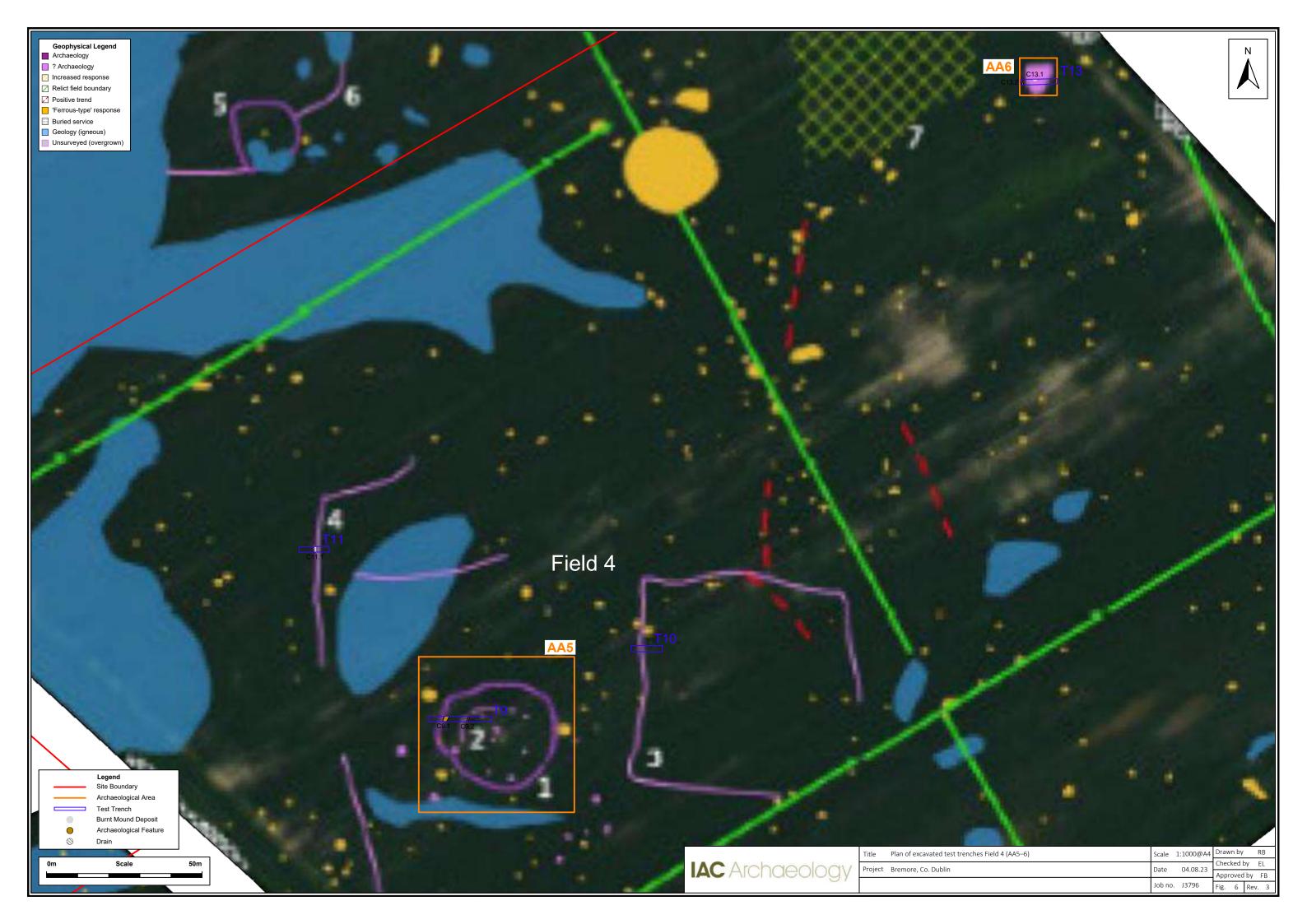


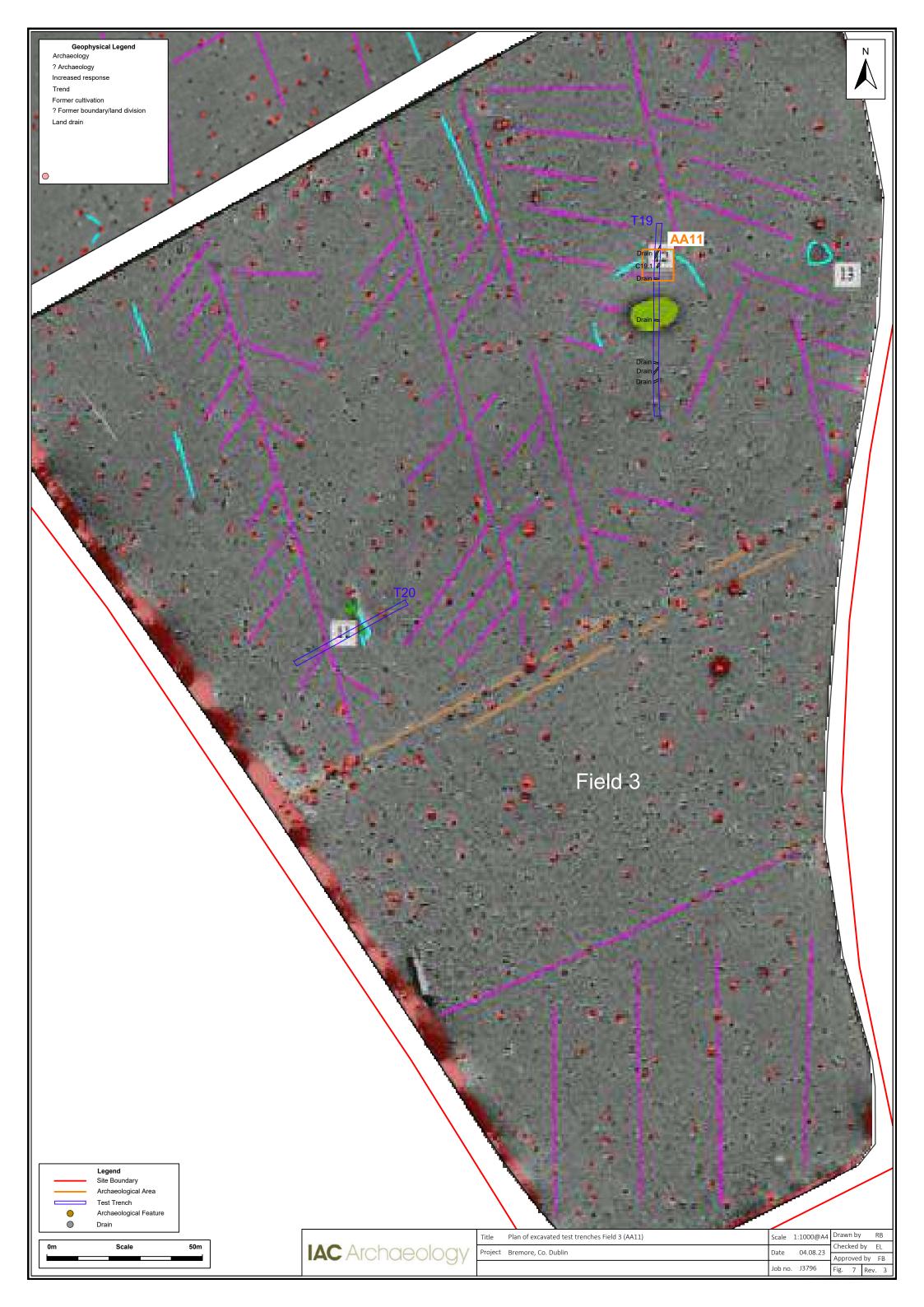












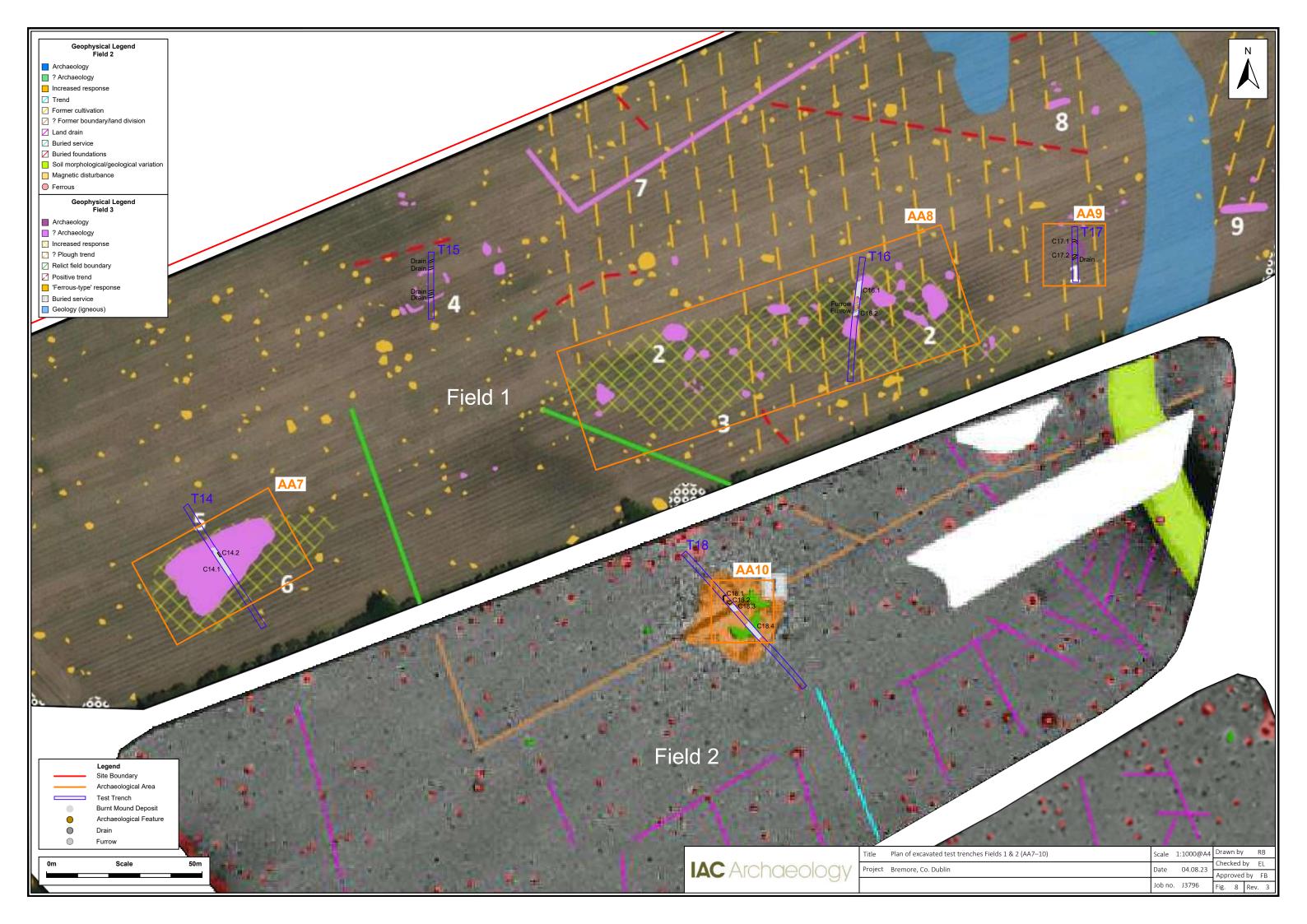




Plate 1 Trench 1, facing north, ditch 1.1



Plate 2 Trench 3, facing north



Plate 3 Trench 3, ditch 3.3, facing west



Plate 4 Trench 4, facing northeast, burnt spreads 4.1/4.2

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Plate 5 Trench 5, ditches 5.1, 5.2 & 5.4 and spread 5.3



Plate 6 Trench 6, facing west, ditches 6.1 and 6.2



Plate 7 Trench 7, possible trough 7.1



Plate 8 Trench 9, facing northwest, ditch 9.1



Plate 9 Trench 13, facing west, burnt spread 13.1



Plate 10 Trench 14, facing north-northwest



Plate 11 Trench 15, facing north



Plate 12 Trench 16, facing north, burnt spreads 16.1 and 16.2



Plate 13 Trench 17, facing north



Plate 14 Trench 18, facing south-southeast, *fulacht fia* 18.1-18.4



Plate 15 Trench 19, facing south, kiln 19.1